

KFH GROUP, INC.

YVEDDI Community Transportation Services Plan

Final Report

July, 2012

Prepared for the:

**Yadkin Valley Economic Development District, Inc.
and the
North Carolina Department of Transportation**

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Chapter 1

Introduction

YVEDDI BACKGROUND

YVEDDI is a private, non-profit, multi-county agency that is designated as the local Community Action Agency for the Yadkin Valley Counties of Davie, Stokes, Surry, and Yadkin. Community transportation is one of many services provided by YVEDDI. These other services include education, health and nutrition, support for victims and prevention of domestic abuse, and weatherization.

YVEDDI's community transportation program is operated on a demand-response basis, providing services to the general public as well as a number of human service agencies and programs. There are currently 63 vehicles in the community transportation fleet and three dispatch centers are operated. YVEDDI provides about 210,000 passenger trips each year in the Yadkin Valley with an annual operating budget of about \$2.9 million. The program is supported by a number of local agencies, as well as by federal and state funds administered by the North Carolina Department of Transportation (NCDOT), Public Transportation Division (PTD).

BACKGROUND AND PROCESS

The PTD helps provide planning assistance for the transit programs that it supports through federal and State grants. One of the planning tools utilized by the NCDOT-PTD for its local grantees is the Community Transportation Service Plan (CTSP). NCDOT-PTD guidance indicates that a CTSP is:

“A dynamic planning tool to be utilized by the transit system as a guideline in order to effectively accomplish the following:

- Identify the current performance and organizational direction of the system.

- Recommend strategies and propose performance measures of operating or managing that increase mobility options for passengers.
- Improve the efficiency and effectiveness of the organization and transportation services.
- Support and encourage defensible, results-based budgets.
- Promote the coordination of public transportation services across geographies.”¹

This final report documents the CTSP process that has been undertaken for YVEDDI’s Community Transportation Program. The CTSP was directed by a Steering Committee comprised of community stakeholders, with input from YVEDDI staff and NCDOT-PTD. Appendix A provides a list of the Steering Committee members. The study tasks were undertaken by KFH Group, Inc., in close consultation with the Steering Committee, YVEDDI staff, and NCDOT-PTD.

This CTSP has been developed with a thorough community outreach effort, including public surveys, rider surveys, stakeholder interviews, and a series of public meetings. These outreach efforts have resulted in a plan that highlights transit service improvements that are desired by the community.

The primary task work for the CTSP began in June 2011 and was completed in March 2012. The following interim work products were completed and presented to the Steering Committee, YVEDDI staff, and NCDOT-PTD during the study time frame:

- Technical Memorandum #1: Existing Services and Transit Needs Analysis (October, 2011)
- Technical Memorandum #2: Service, Financial, and Organizational Alternatives (December, 2011)
- Summary of Public Meetings (February, 2012)
- Updates to the Service, Financial, and Organizational Alternatives (February, 2012)
- Draft Final Report (March 2012)

¹ NCDOT-PTD, 2009 Community Transportation Conference, Community Transportation Service Plan presentation, November 2009.

Public Involvement

Public meetings were held in January, 2012. The public meetings were structured as informal, open-house events, held as follows:

- Davie County:** **Wednesday, January 18th, 2012, 9:30 a.m. to 12:00 p.m.**
Davie County Senior Services, 278 Meroney Street, Mocksville
- Stokes County:** **Wednesday, January 18th, 2012, 2:30 p.m. to 5:00 p.m.**
King Public Library, 101 Pilot View Drive, King
- Thursday, January 19th, 2012, 9:30 a.m. to 12:00 p.m.**
Walnut Cove Public Library, 106 West Fifth Street, Walnut Cove
- Surry County:** **Thursday, January 26th, 2012, 9:30 a.m. to 12:00 p.m.**
Surry County Government Center, 118 Hamby Road, Dobson
- Thursday, January 26th, 2012, 3:00 p.m. to 6:00 p.m.**
Surry County Human Services Center, 1218 State Street, Mount Airy
- Yadkin County:** **Wednesday, January 25th, 2012, 2:30 p.m. to 5:00 p.m.**
YVEDDI, 533 N. Carolina Avenue, Highway 601 N, Boonville

SPECIFIC ISSUES CONSIDERED DURING THE CTSP

It had been 12 years since YVEDDI's previous five-year plan. In addition, the long-serving director recently retired. As such, there were several areas that YVEDDI staff wished to explore during the 2011-12 CTSP planning process. These focus areas are discussed below.

- **Contract Rates.** After many years of charging the same shared-mileage rate, YVEDDI was not bringing in sufficient revenue. In 2011 YVEDDI raised its rates significantly. An important task for this CTSP was to fully examine YVEDDI's costs, validate the new rates, or propose different rates if warranted by the cost allocation analysis. This process found that the rates were accurate, but that the fuel surcharge was high. This work is documented in Chapter 2.
- **Centralization.** YVEDDI is a consolidated four-county public transportation system; however, it operates using a decentralized model, with three independent dispatch centers. Trips for each county are dispatched

separately, using a manual system based on an Excel spreadsheet. The CTSP includes an implementation plan for centralizing the dispatch center.

- **Computer-Assisted Scheduling and Routing.** YVEDDI is probably the largest paratransit provider in the State that does not currently use any type of specialized scheduling and routing software. YVEDDI can function without it as a decentralized operation, but will not be able to function manually when the dispatch center is centralized. YVEDDI is purchasing software for implementation by the end of FY 2012. The CTSP includes provisions for YVEDDI to take the next step after the software implementation, which will be to implement Automatic Vehicle Location (AVL) and Mobile Data Computers (MDCs).
- **Opportunities for Deviated Fixed-Route Services.** While the four-county service area is very rural, there are some communities with population concentrations and trip generators that could potentially support deviated fixed routes services. These circulators are included in the plan.
- **Opportunities for Connector Routes.** In addition, the CTSP explored the potential to run a deviated fixed-route between Mt. Airy and Dobson. Mt. Airy is a relatively large population center for the region and there are major trip generators in Dobson, including Surry Community College and the area's vocational rehabilitation program. This connector route is also included in the plan, as are a few others that were added in response to public comments.
- **Coordination with the Wilkes Transportation Authority (WTA) for Eastern Wilkes/Elkin Trips.** For people who live in Eastern Wilkes County adjacent to Elkin, the primary center of commerce is Elkin. In the WTA CTSP it was discussed that coordination with YVEDDI may be advantageous for these trips, as the WTA base of service is quite a distance away. WTA and YVEDDI did meet during the CTSP process and will continue to discuss ways in which the two systems can work together.

At the first Steering Committee meeting, held in June, 2011, the following themes emerged concerning transit needs in the four counties:

- There is a need for additional, affordable transit services in the four counties, specifically for non-programmatic trips.
- There is a need to connect the local communities to PART's park and ride locations throughout the region.
- There is a need to connect to the area's community colleges.

- Deviated fixed-route services may be appropriate in some of the region's communities.
- Additional transit options are needed for employment trips.
- Evening and weekend options are needed.
- A less confusing fare structure is needed.

These issues and themes were addressed to the extent possible and are reflected in the five-year plan.

FINAL REPORT

This final report documents the study process and is organized in the following manner:

- Chapter 1: Introduction
- Chapter 2: Existing Services and Transit Needs Analysis
- Chapter 3: Service, Financial, and Organizational Alternatives
- Chapter 4: Five Year Plan

The final report was presented to YVEDDI staff, NCDOT-PTD, and the YVEDDI Governing Board. The Steering Committee, familiar with all of the proposed projects, commented on the draft plan electronically. Members of all of these groups were afforded time to comment on the draft plan, with KFH Group making any necessary changes and producing a Final CTSP for YVEDDI. The CTSP was adopted by YVEDDI's Governing Board in May, 2012. A companion financial tool was also developed based on the final financial plan.

Chapter 2

Existing Services and Transit Needs Analysis

INTRODUCTION

The first section of this chapter provides a full description and analysis of YVEDDI transportation and provides a brief inventory of the other transportation providers in the region, with a particular focus on the Piedmont Authority for Regional Transportation (PART), which shares the same service area. The second section provides a transit needs analysis, including the compilation and analysis of demographic data, survey data, and stakeholder opinion. The information contained in this section was used as the base data for the development of the Community Transportation Service Plan (CTSP) alternatives and recommendations.

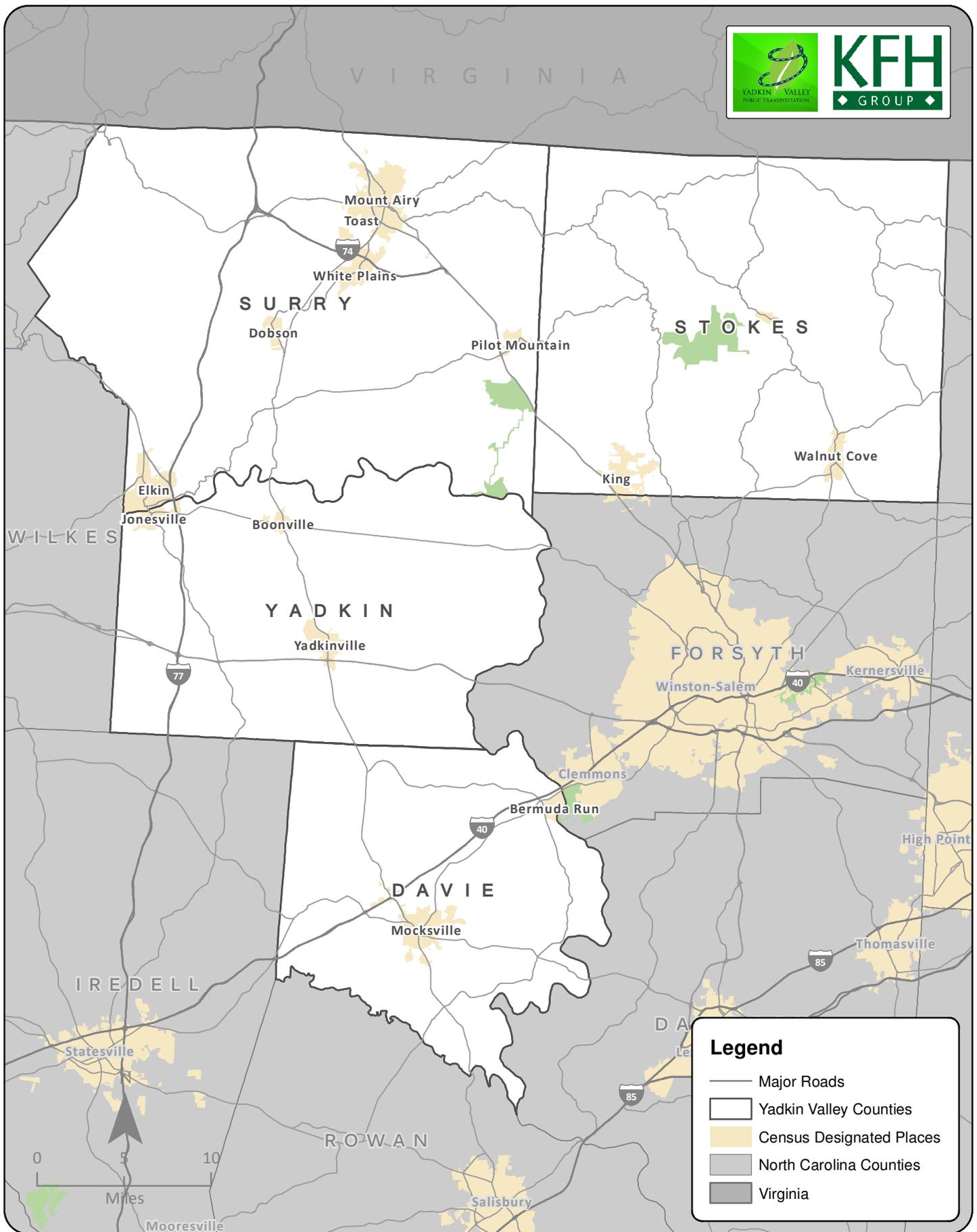
YVEDDI provides community transportation services in the four Northern Piedmont Counties of Davie, Stokes, Surry, and Yadkin. Figure 2-1 provides a map of the service area.

ADVISORY AND GOVERNANCE STRUCTURE

Yadkin Valley Economic Development District, Inc.

Community transportation is one of many services operated by YVEDDI, which is a private non-profit corporation designated as the local Community Action Agency for the four counties. In addition to transportation, YVEDDI also provides services in the areas of education, health and nutrition, support for victims and prevention of domestic abuse, and weatherization.

Figure 2-1: Yadkin Valley Service Area



YVEDDI's purposes are as follows:

1. "To administer human services programs of federal, state, local governments and other appropriate funding sources in the counties of Davie, Stokes, Surry, and Yadkin.
2. To work with the three significant groups in the community - that is the low income, the public sector, and the private sector- to seek out, identify, and eliminate the causes and conditions of poverty, and to strengthen development within this community.
3. To make the entire community more responsive to the needs and interests of the low income and the community by mobilizing available resources and bringing about a greater institutional sensitivity.
4. To plan and develop a system of priorities among projects, activities, and areas as needed for the most effective and efficient use of resources."¹

The YVEDDI Board of Directors is the legal governing body for the agency and its programs, including transportation. The current Board includes 37 members, with representation from all four counties. YVEDDI's By-Laws require that there be representatives from low income communities and special interest groups. Terms of Board Members are staggered so that one-third expire at each annual meeting and the terms are established so that only one-third of each particular constituency group's members expire each year. The Board meets every other month, with an annual meeting held in April. Meetings are open to the public.

Transportation Advisory Board (TAB)

YVEDDI has a TAB, which serves to provide guidance for the community transportation program. The TAB is comprised of representatives from public/human service agencies, local government, one of the local chambers of commerce, a private transportation operator, and users. All four of the counties are represented and the TAB meets at least quarterly.

¹ YVEDDI Corporation By-laws, November 2009.

ORGANIZATIONAL FOCUS

Mission

The following is the mission statement for YVEDDI:

“YVEDDI is a non-profit organization of employees and volunteers dedicated to enriching the lives of individuals and families in Davie, Stokes, Surry, and Yadkin Counties. We provide services through these quality programs: education, health and nutrition, support for victims and prevention of domestic abuse, transportation, and weatherization.”

YVEDDI’s mission is “To Serve the Mobility Needs of a Four County Region Using All Means of Mobility Available.”

YVEDDI services are focused on serving the broader agency mission of improving quality of life as well as the more specific mobility mission.

Organizational Structure and Staffing

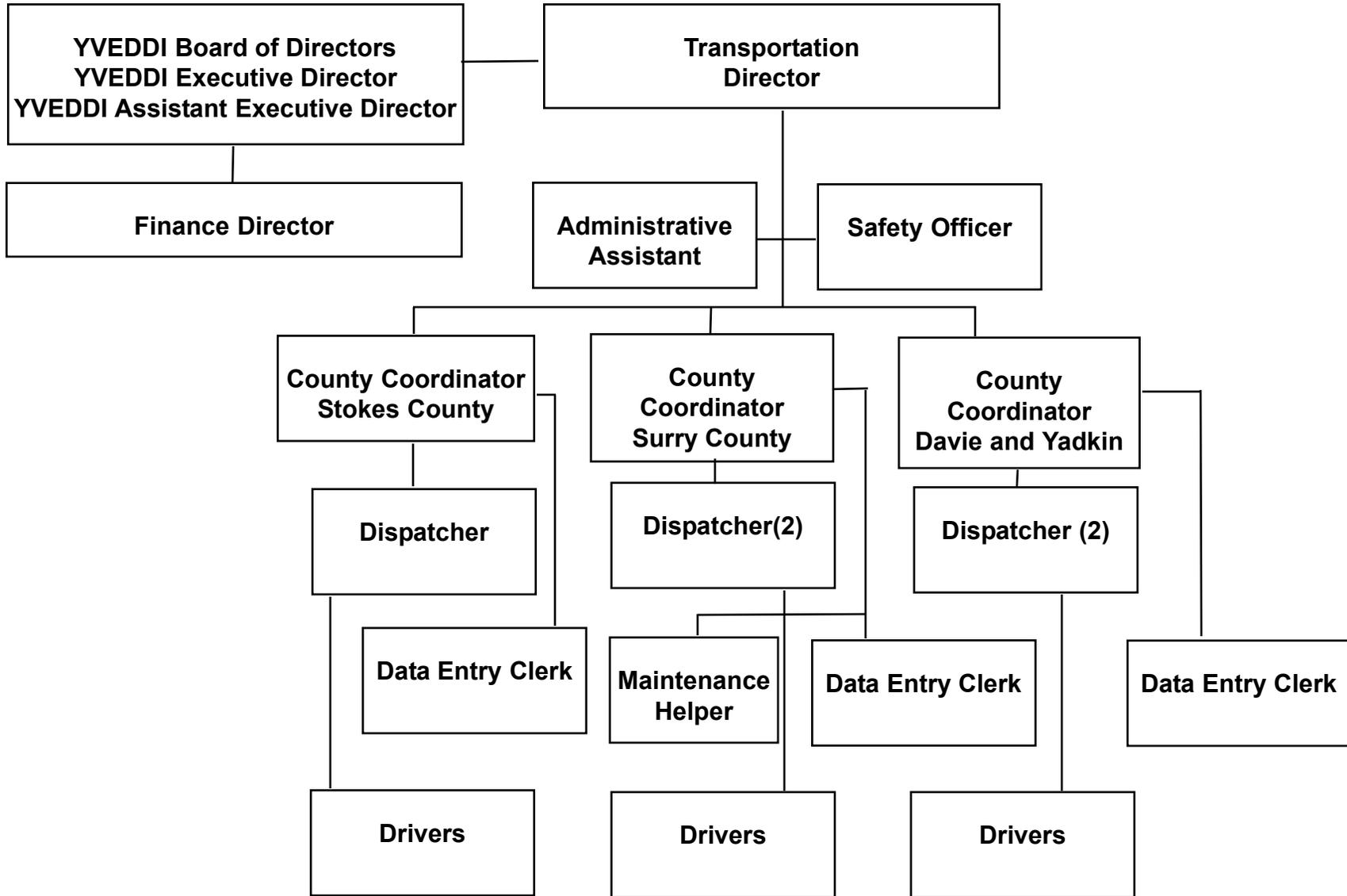
YVEDDI is managed by an Executive Director, who reports to the Board of Directors. There is also an Assistant Executive Director and each of the major programs is managed by a director, including transportation. The Transportation Director oversees all aspects of community transportation services, which are directly operated by YVEDDI employees.

As depicted in Figure 2-2, the Transportation Director oversees the following employees:

- County Transportation Coordinators
- Dispatchers
- Trainer (currently vacant)
- Transportation Administrative Assistant
- Drivers
- Monitors/ Attendants
- Substitute Drivers

While YVEDDI transportation is administratively consolidated, the actual operations are not, with three different dispatch centers currently in operation. The centers are as follows:

1. Yadkinville -- serving Yadkin and Davie Counties



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Figure 2-2: MJ988-HfUbgdcfHjcb Organizational Chart

2. Mt. Airy -- serving Surry County
3. Danbury -- serving Stokes County

These centers provide dispatching, scheduling, and supervision for YVEDDI transportation services within their respective service areas. Each of the centers has a supervisor and either two or three dispatch staff.

Table 2-1 provides an overview of the staffing characteristics for each of the centers. As the table indicates, the overall driver to dispatch ratio is relatively low at seven drivers to one dispatcher. The recommendations for the CTSP include proposals to increase this ratio by moving staff into other specialized positions as YVEDDI upgrades its scheduling software and moves toward a more centralized approach.

Table 2-1: Current Dispatch Center Staffing and Service Levels

Center	Vehicles in Service Peak	Dispatch Staff FTE	Management/ Supervisors	Driver/ Dispatch
Davie	14	2	0.5	7:01
Stokes	14	1.5	1	9.3:01
Surry	25	3	1	8.3:01
Yadkin	14	3	0.5	4.7:01
Total	67	9.5	3	7:01

Current Dispatch Procedures

KFH Group staff spent time at each of the three dispatch centers in late August, 2011. The purposes of this visit were to document current dispatch procedures and develop alternatives for improvement. The current dispatch procedures are documented below, and suggested improvements are included in this plan.

Though all of the centers use the same software program, each of the centers uses different procedures and approaches to the reservation, scheduling, and dispatch functions. The following observations were made during the site visits:

- When ride requests come in, in most cases, the request is written down on a piece of paper. There are occasions when the request is entered directly into the software program, but this is not typical. Currently the dispatchers report that it takes too long for the computer to navigate to the input screen for direct input, so they find it to be faster to write the request down, and then enter it as soon as they get a chance.

- Trip information is recorded multiple times on different forms.
- Several different forms were used for the reservations, scheduling, and dispatch functions, resulting in a voluminous amount of paper.
- The schedules for the next day are generally completed by noon. The drivers can then get them as they come in from their runs.
- Drivers are given a piece of paper for each trip, rather than a single driver manifest.
- There is a separate telephone number for each dispatch center.
- Each County's fleet is managed independently of one another.
- Coordinated trips involving more than one dispatch center are generally not arranged.

Opportunities for improvement outlined in Chapter 4 focus on improving technologies (software and hardware) and centralizing the dispatch, reservation, and scheduling functions.

SERVICE CHARACTERISTICS

YVEDDI provides transportation on a demand-response basis, providing services to the general public as well as a number of human service agencies and programs. Door to door service is generally offered. Services are provided Monday through Friday from 6:30 a.m. to 6:30 p.m., with some variation as required by particular trip requests (such as dialysis). General public and agency riders are coordinated on the same vehicles to the extent possible, with YVEDDI reserving a space on each agency subscription route should there be a general public request.

General Service Policies

Transportation appointments are scheduled by calling the appropriate dispatch center, based on the rider's county of residence. YVEDDI requires that riders call 24 hours in advance to schedule trips and recommends that riders call 3-5 days in advance if possible. Riders are asked not to schedule transportation appointments more than 30 days ahead of time.

YVEDDI requests that medical appointments are scheduled no later than 2:00 p.m. to ensure that the return trip will fall within YVEDDI's regular operating hours. Passengers who are requesting "stand-alone" trips (i.e., not a subscription route) are asked to call their appropriate County Service Center the working day prior to the trip after 3:00 p.m. to confirm their pick-up time. Child restraint seats are provided by YVEDDI.

The pick-up window is 30 minutes (15 minutes before and 15 minutes after the scheduled pick-up time.) The pick-up is considered to be on-time if it falls within this window. Drivers will wait five minutes at the designated pick-up location. If the passenger does not show up within five minutes, the trip is designated as a no-show. Riders are charged for no-shows, though the Department of Social Services (DSS) contracts will not pay for no-shows. Cancellations can be made up to one hour before the scheduled pick-up time.

Drivers will assist passengers with mobility devices if it safe to do so, but are not to lift passengers or any item or device weighing more than 30 pounds. Wheelchair users are required to have safe and adequate ramps at their residences. Personal care attendants (PCAs) are encouraged for riders who need a higher level of assistance and fares are not charged for PCAs. No more than three bags per person are allowed on the vehicle.

Operating Statistics

The overall operating statistics for YVEDDI services for FY 2007 through FY 2011 are provided in Table 2-2. As these data show, YVEDDI added a significant number of hours between 2007 and 2008, which drove expenses higher and productivity lower. These hours were likely a result of additional general public demand response services, growing as the State's Rural General Public (RGP) program grew. These trips are often not as productive as contractual subscription trips that have a common destination. The higher level of service continued into FY 2009 and FY 2010, though expenses had to be reduced, as the impact of the recession affected the ability of local human service agencies to buy transportation for their clients. This combination resulted in lower ridership, significantly lower contract revenue, and lower productivity, a result of fewer agency trips. Early in FY 2011, YVEDDI management realized that the combination was affecting the financial health of the program, at which time the contract rates were raised. YVEDDI had not raised its rates in several years. The rates are analyzed in the Financial Management section of this chapter

**Table 2-2: FY 2007- FY 2011 System Operating Statistics
YVEDDI Transportation**

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total Boardings	255,902	238,171	258,296	209,544	209,282
Total Vehicle Service Hours	81,780	92,942	95,190	97,716	97,018
Total Vehicle Service Miles	1,654,117	1,745,950	1,709,307	1,855,416	1,806,857
Average Trips/Hour	3.13	2.56	2.71	2.14	2.16
Average Trips/Mile	0.15	0.14	0.15	0.11	0.12
Average Miles per Hour	20.23	18.79	17.96	18.99	18.62
Total Administrative and Operating Expenses	\$ 2,882,424	\$ 3,289,782	\$ 2,701,506	\$ 2,884,062	\$3,161,214
Total Cost/Hour	\$ 35.25	\$ 35.40	\$ 28.38	\$ 29.51	\$32.58
Total Cost/Mile	\$ 1.74	\$ 1.88	\$ 1.58	\$ 1.55	\$ 1.75
Total Cost/Trip	\$ 11.26	\$ 13.81	\$ 10.46	\$ 13.76	\$ 15.11

Source: NCDOT Opstats.

Peer Comparison

In order to provide a context for YVEDDI's operating data, KFH Group gathered data concerning other rural, multi-county demand-response transportation providers. While each system is unique, with particular factors that drive their statistics, it is helpful to see how YVEDDI's services compare with other similar programs. Table 2-3 provides an overview of the peer transit systems.

As these data show, YVEDDI is the largest of the rural multi-county agencies in the state, in terms of services provided (hours and miles), operating costs, and passenger trips. Trip productivity is below the mean, but within the range of values. YVEDDI's cost per hour is lower than the mean, while the cost per trip is higher.

KFH Group also gathered data from neighboring, single county programs, as these programs operate in an environment that is similar to YVEDDI, with regard to wages and topography. These data are shown in Table 2-4. As these data show, YVEDDI's cost per hour is lower than the single county neighboring systems, while its productivity is slightly lower (note that two of the neighboring systems do operate some deviated fixed routes, which are typically higher in productivity than demand-response services).

Table 2-3: Selected Peer Comparison- Multi-County Rural Systems

System	Number of Counties Served	Annual Passenger Trips	Total Operating Expenses	Vehicle Revenue Hours	Vehicle Revenue Miles
YVEDDI	4	209,544	\$ 2,884,062	97,716	1,855,416
Albemarle Regional Health Services	5	95,937	\$ 1,648,034	45,606	909,017
Choanoke Public Transportation Authority	4	203,700	\$ 1,948,505	56,280	1,331,472
Craven Area Rural Transit System (1)	3	104,448	\$ 1,071,701	38,664	804,708
Kerr Area Transportation Authority (1)	4	149,232	\$ 2,007,145	84,168	1,559,292
Randolph County Senior Adults	2	74,952	\$ 1,187,033	27,456	590,916
Mean	4	139,636	\$ 1,791,080	58,315	1,175,137

System	Trips Per Hour	Trips Per Mile	Cost Per Trip	Cost Per Hour	Cost Per Mile	Miles Per Hour
YVEDDI	2.14	0.11	\$ 13.76	\$ 29.51	\$ 1.55	19.0
Albemarle Regional Health Services	2.10	0.11	\$ 17.18	\$ 36.14	\$ 1.81	19.9
Choanoke Public Transportation Authority	3.62	0.15	\$ 9.57	\$ 34.62	\$ 1.46	23.7
Craven Area Rural Transit System (1)	2.70	0.13	\$ 10.26	\$ 27.72	\$ 1.33	20.8
Kerr Area Transportation Authority (1)	1.77	0.10	\$ 13.45	\$ 23.85	\$ 1.29	18.5
Randolph County Senior Adults	2.73	0.13	\$ 15.84	\$ 43.23	\$ 2.01	21.5
Mean	2.39	0.12	\$ 12.83	\$ 30.71	\$ 1.52	20.2

Source: ITRE, Community Transportation Operating and Statistics Report, FY2010

Notes:

(1) Includes deviated fixed-route data. 13% of Craven's hours are DFR and 9.6% of Kerr's hours are DFR.

Table 2-4: Selected Peer Comparison- Neighboring Systems

System	Number of Counties Served	Annual Passenger Trips	Total Operating Expenses	Vehicle Revenue Hours	Vehicle Revenue Miles
YVEDDI	4	209,544	\$ 2,884,062	97,716	1,855,416
Davidson County	1	77,976	\$ 1,030,142	33,384	401,748
Iredell County (1)	1	122,328	\$ 1,524,899	44,844	818,436
Wilkes County (1)	1	58,068	\$ 964,107	26,796	605,796
Mean		116,979	1,600,803	50,685	920,349

System	Trips Per Hour	Trips Per Mile	Cost Per Trip	Cost Per Hour	Cost Per Mile	Miles Per Hour
YVEDDI	2.14	0.11	\$ 13.76	\$ 29.51	\$ 1.55	19.0
Davidson County	2.34	0.19	\$ 13.21	\$ 30.86	\$ 2.56	12.0
Iredell County (1)	2.73	0.15	\$ 12.47	\$ 34.00	\$ 1.86	18.3
Wilkes County (1)	2.17	0.10	\$ 16.60	\$ 35.98	\$ 1.59	22.6
Mean	2.31	0.13	\$ 13.68	\$ 31.58	\$ 1.74	18.2

(1) Includes some deviated fixed-route services

Source: ITRE, Community Transportation Operating and Statistics Report, FY 2010.

Rider Base

YVEDDI has a broad rider base, with about 200 or so different programs using YVEDDI. Major contract services include Head Start, a number of DSS programs (including Medicaid), senior centers and nutrition programs, Lifespan (adult day program), and several area nursing facilities. General public ridership comprised about 19% of the total ridership in FY 2011.

Trip Origins and Trip Distances

In order to better understand ridership patterns, a three-month sample of YVEDDI's trip records were analyzed. Data from March, April, and May, 2011, were used for this analysis. The trip origins were mapped and coded according to trip distance. This analysis was done in order to see if: 1) there are significant clusters of origins that could potentially be grouped together on a deviated fixed-route; and 2) there are sufficient short trips for a deviated fixed-route to meet some of this demand. Figure 2-3 provides a map portraying these origins and trip distances for the entire region, along with the major destinations in the services area.

In Davie County, the most significant cluster of origins is in the Mocksville area, followed by a cluster southwest of Cooleemee. The Mocksville cluster primarily is comprised of trip lengths of between 6 and 20 miles. Figure 2-4 shows a closer view of the map for Davie County.

The Stokes County map shows a fairly dispersed pattern of origins, as would be expected. There are relatively small clusters of riders in King and Walnut Cove, with varying trip distances represented. These patterns are shown in Figure 2-5.

In Surry County, there is significant clustering of origins in Mount Airy and Elkin, with varying trip distances represented. Surry County is displayed in Figure 2-6.

Yadkinville shows the most significant origin clustering pattern in Yadkin County, followed by Jonesville. The trip distances for these origins are varied, as shown in Figure 2-7.

FUNDING AND FINANCIAL MANAGEMENT

The funding sources for YVEDDI are varied and include federal, state, local, and contractual revenues.

Figure 2-3: Demand Response Travel for the Yadkin Valley from March to May 2011

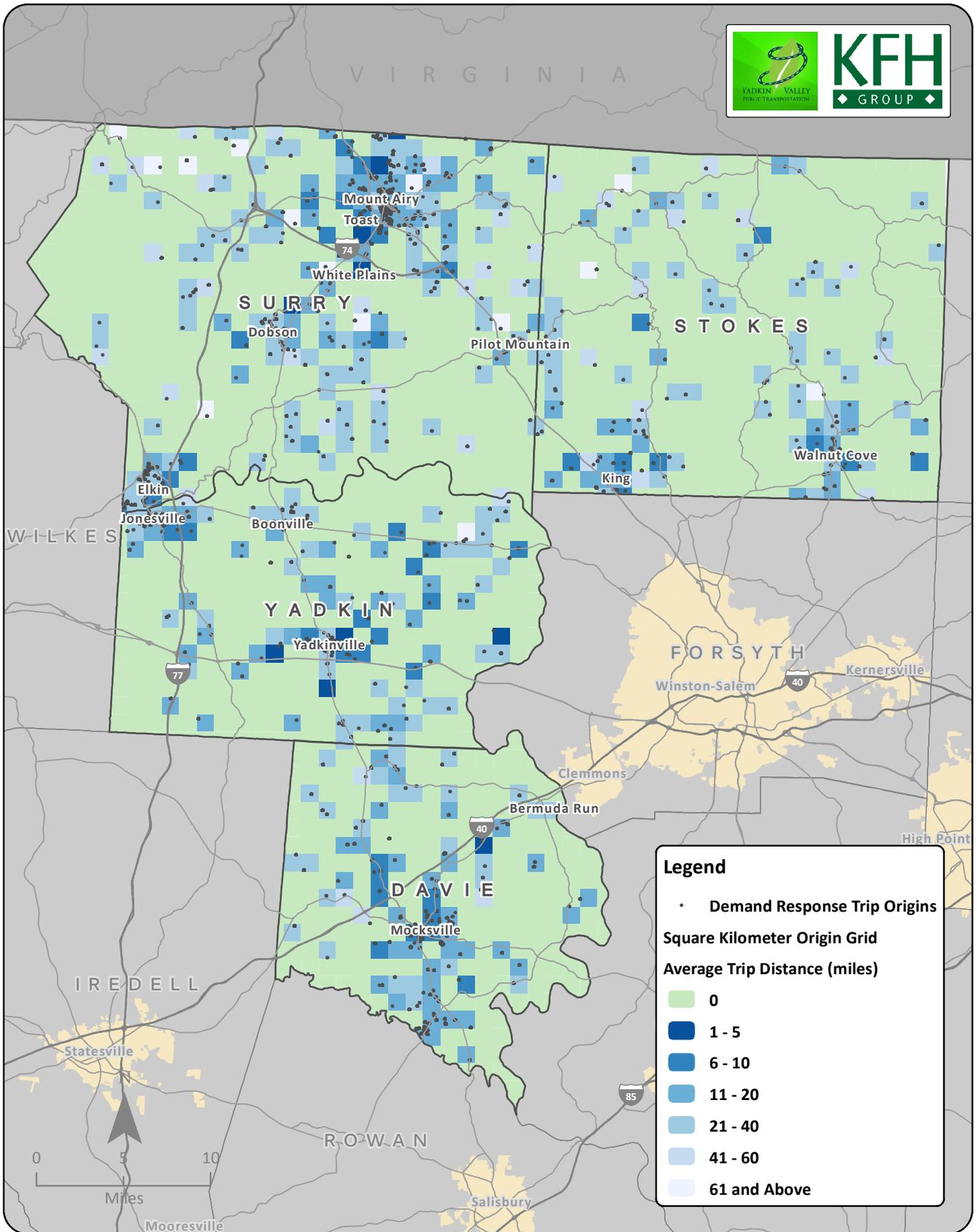


Figure 2-4: Demand Response Travel from March to May 2011, Davie County

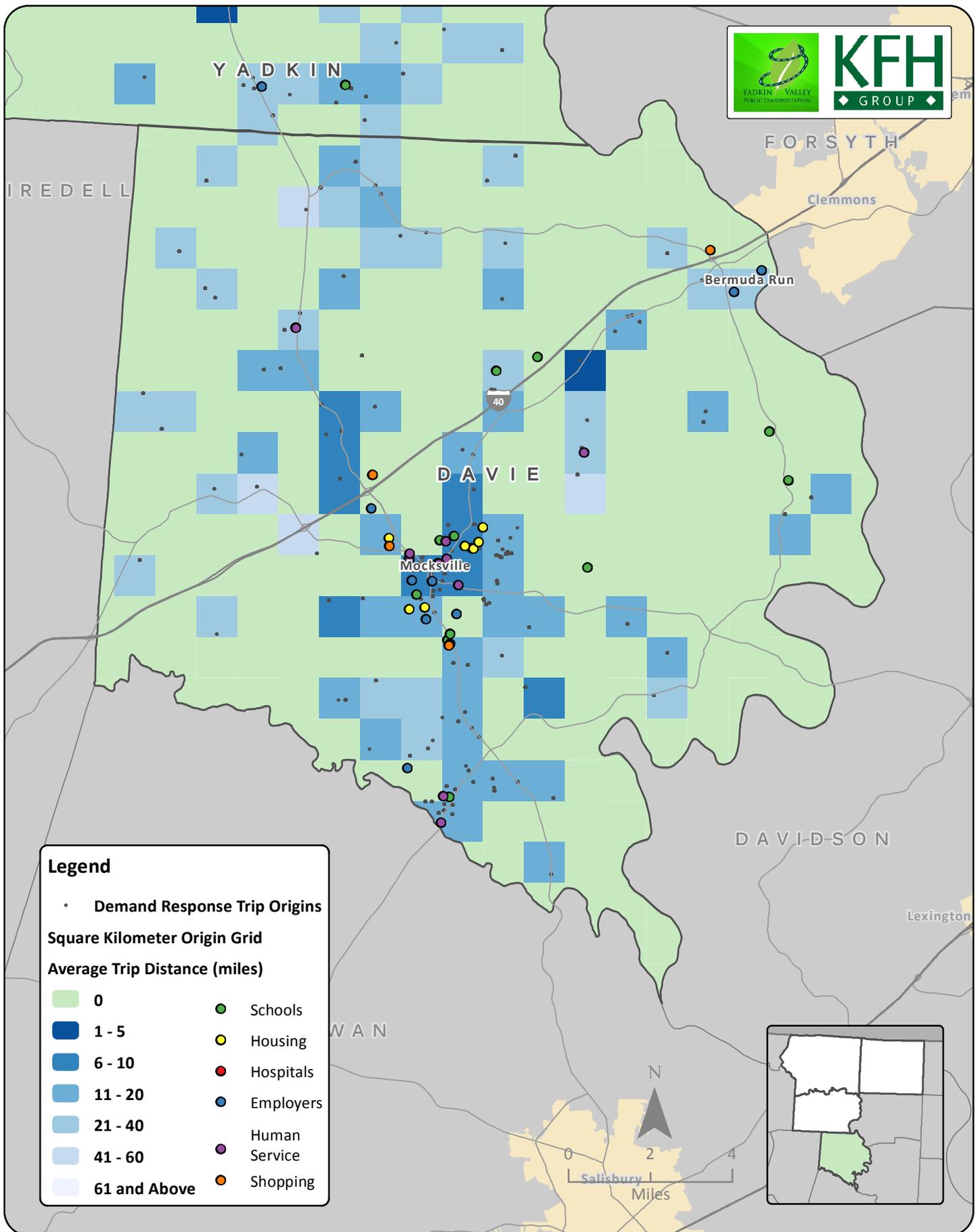


Figure 2-5: Demand Response Travel from March to May 2011, Stokes County

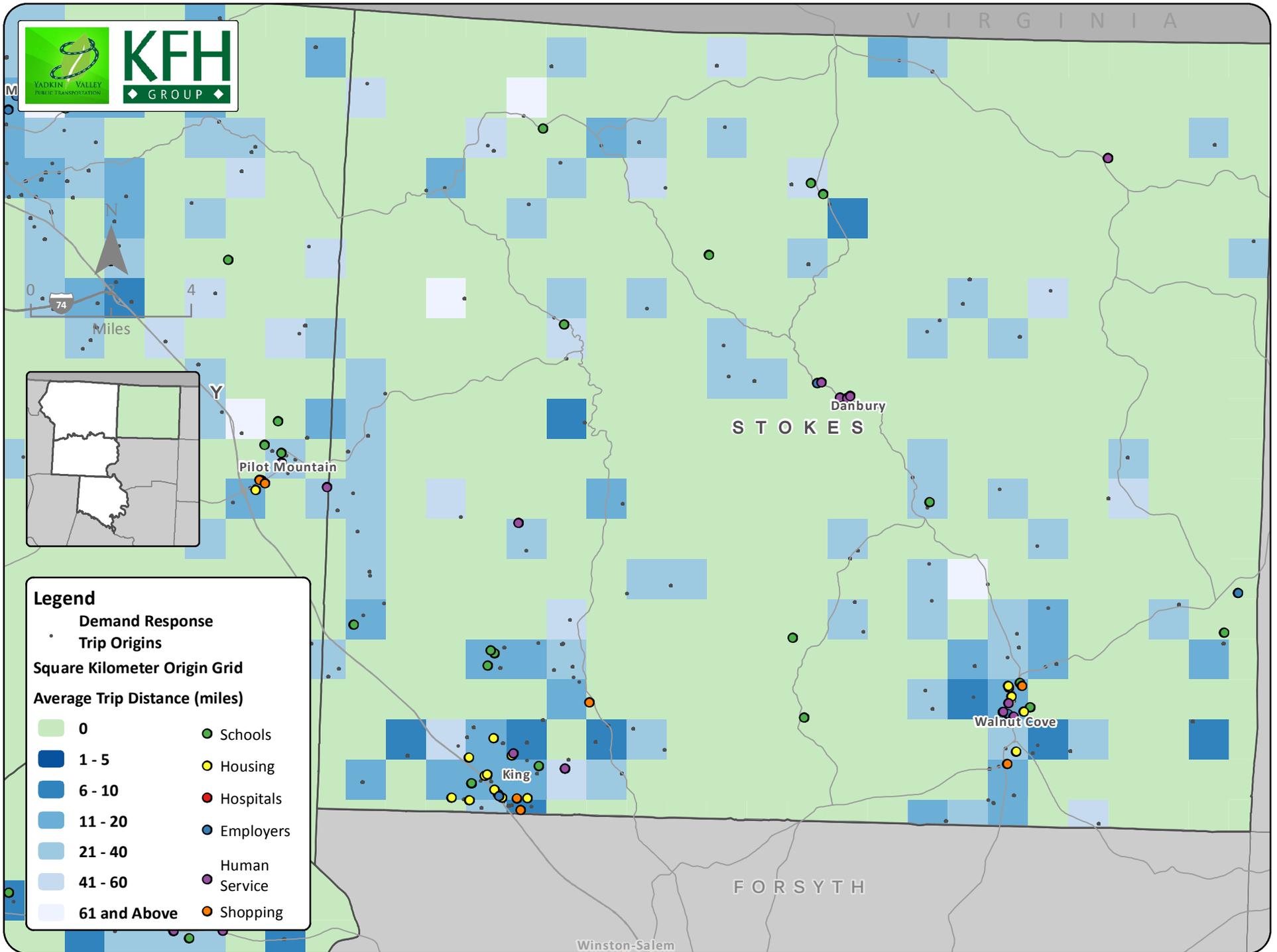


Figure 2-6: Demand Response Travel from March to May 2011, Surry County

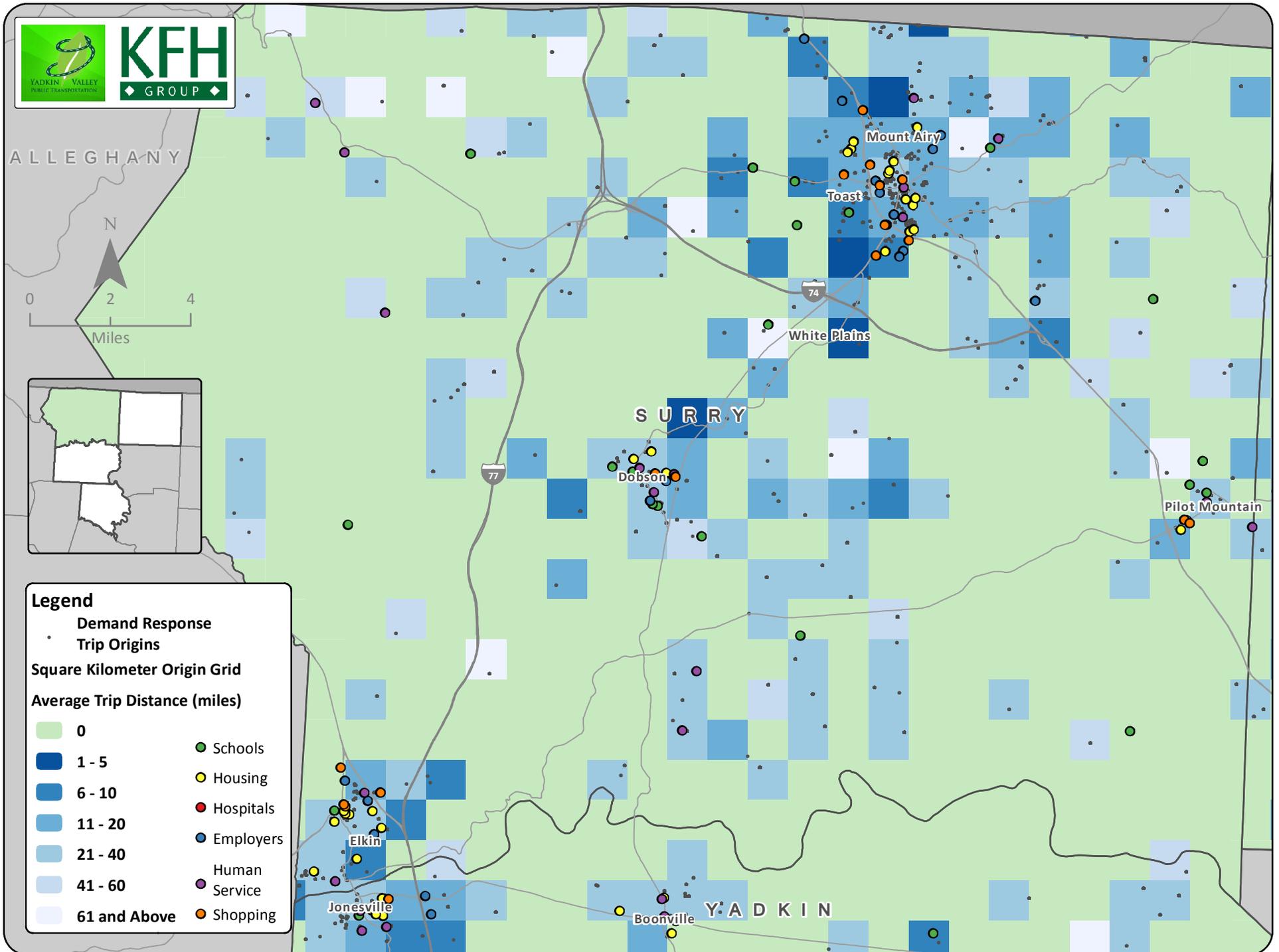
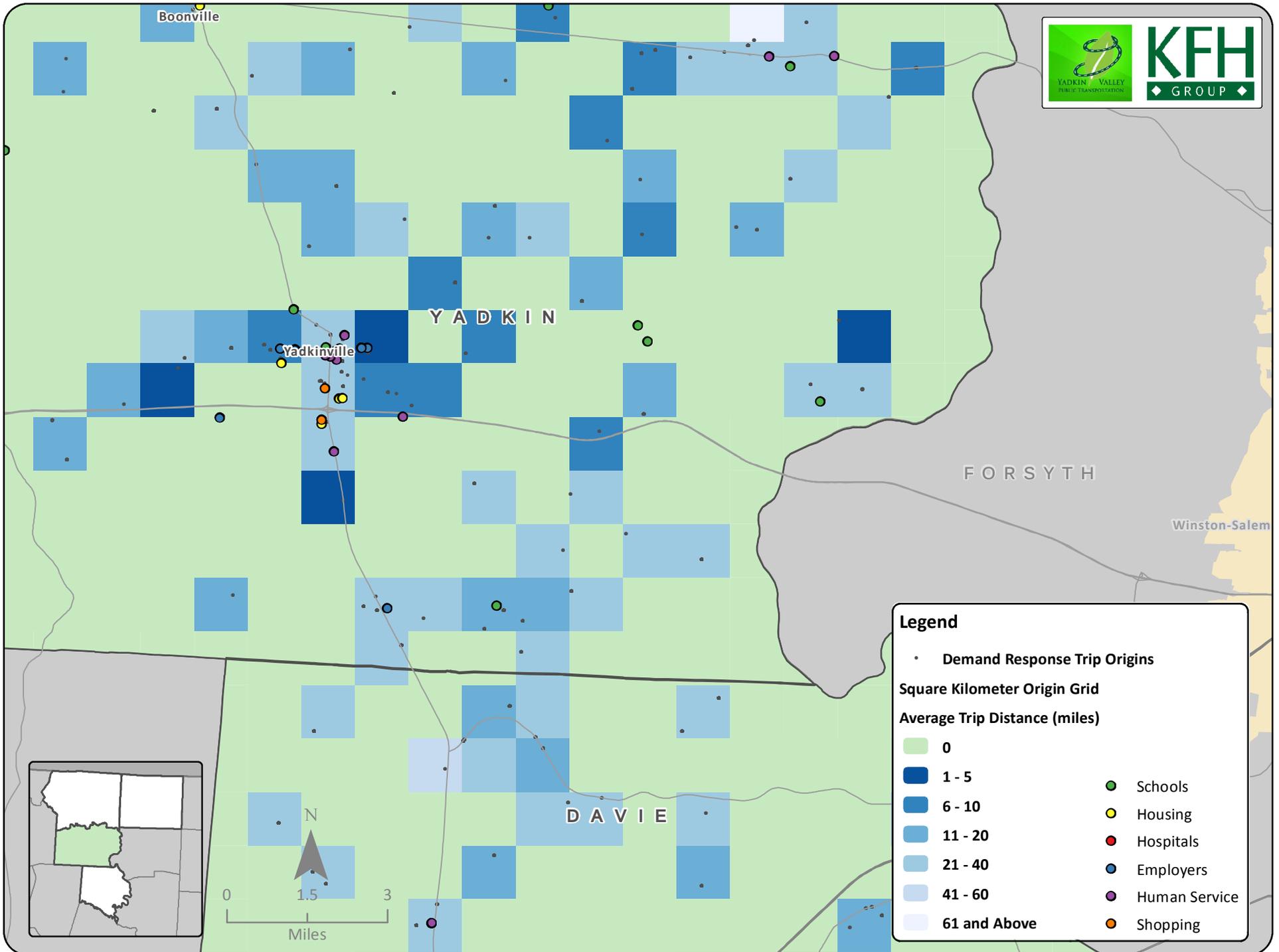


Figure 2-7: Demand Response Travel from March to May 2011, Yadkin County



Legend

- Demand Response Trip Origins
- Square Kilometer Origin Grid**
- Average Trip Distance (miles)**
- 0
- 1 - 5
- 6 - 10
- 11 - 20
- 21 - 40
- 41 - 60
- 61 and Above
- Schools
- Housing
- Hospitals
- Employers
- Human Service
- Shopping

2-17

FY 2011 Funding Sources

Federal Programs

Federal Section 5311 -- This program is used to support public transportation services in rural areas with a population less than 50,000. These funds can be used for either capital purchases or operating expenses. The match ratio for Section 5311 funds is up to 80% federal for capital expenses, and up to 50% federal for operating expenses. Local funding and contractual revenue can be used for the remaining required match. These funds are managed by the State. In North Carolina, these funds are used primarily to support the administrative and capital expenses incurred by local transit programs. In FY 2011, YVEDDI received \$343,442 from the federal Section 5311 program to support administrative expenses and \$229,058 to support capital expenses. In FY 2012, YVEDDI is approved to receive \$340,634 from the program for administrative expenses and \$436,913 in capital assistance.

State Programs

Community Transportation Program (CTP). These funds are used to support the administrative expenses incurred by local transit agencies in North Carolina. YVEDDI received \$21,465 from this program in FY 2011. The FY 2012 CTP is \$21,289.

Rural Operating Assistance Program. This program combines the RGP, Elderly and Disabled Transportation Assistance Program (EDTAP), and the Employment Program into one grant. These programs flow through each County through to YVEDDI. For FY 2011, YVEDDI received \$704,574 from these programs. ROAP funds were cut significantly for FY 2012, which will impact YVEDDI's ability to provide general public trips. In FY 2012, YVEDDI will receive \$591,869 from the program, a 16% reduction.²

Local Programs

Local Matching Funds. These funds are used to match federal and State grant funds. In FY 2011, local shares were comprised of program revenue from a number of different contractual agencies. These contractual revenues make up the largest portion of YVEDDI's annual operating funds, with just over \$2 million earned in FY 2011.

Passenger Fares. Passenger fares contribute a small portion to reducing the net deficit of the program and contributing the required 10% match for the RGP funds. In FY 2011, YVEDDI reported just over \$90,000 in passenger fares.

² NCDOT website, 2011-12 ROAP Allocations.

Rates and Fares

Shared Mileage Rate

As previously discussed, YVEDDI raised its contract rates mid-way through FY 2011. The rate increase was relatively significant, as YVEDDI had not raised rates as expenses increased and contractual revenue declined. Base rates were raised from \$1.10 per shared mile (all counties) to the following:

Davie County: \$1.55 per shared mile
Stokes County: \$1.34 per shared mile
Surry County: \$1.66 per shared mile
Yadkin County: \$1.66 per shared mile

There is also a fuel surcharge in effect, which is as follows: for every nickel that the cost of fuel rises above \$1.95 per gallon, the shared mileage rate increases by one penny. The current rates, including the fuel charge are as follows:

Davie County: \$1.67 per shared mile
Stokes County: \$1.53 per shared mile
Surry County: \$1.91 per shared mile
Yadkin County: \$1.91 per shared mile

YVEDDI did meet with some resistance during the rate negotiations, which is why the program has different rates for each county. These rates were designed to reflect the actual cost of service in each county, which does vary with different facility, maintenance, and fuel arrangements. The issue of four different rates is addressed in Chapter 4, as this arrangement is not typical for a regional system.

One of the tasks for the CTSP was to validate these new rates to ensure that YVEDDI is now adequately covering its costs and re-building reserves without over-charging the contracting agencies. To accomplish this rate validation, KFHV Group used the FY 2012 budget and FY 2011 mileage as a base, and included program and capital reserves. The results of this cost allocation exercise are provided in Table 2-5. As this table shows, the base rate, without the fuel surcharge, would not be enough to cover expenses and build reserves; however, with the fuel surcharge, YVEDDI is slightly over-charging for service. The fuel charge calculation is addressed in Chapter 4. Preliminary research suggests that a ratio of 10 to 1 (i.e., adding 1 penny to the rate for every ten cent increase in fuel) may be more accurate. As shown in Table 2-6, this assumes that the vehicles get ten miles to the gallon.

Table 2-5: YVEDDI Transportation Cost Allocation, FY 2012 Budget

Administrative Expenses

Cost Category	FY12 Budget
Salaries and Wages- full time	\$158,850
Social Security Contribution	\$12,152
Retirement	\$7,943
Hospitalization	\$24,295
Unemployment Compensation	\$1,000
Legal	\$1,000
Drug and Alcohol	\$4,500
Office Supplies and Materials	\$3,500
Computer Supplies	\$1,000
Travel	\$2,000
Travel Subsistence	\$500
Telephone Service	\$14,000
Internet	\$300
Postage	\$2,000
Electricity	\$7,000
Water	\$300
Trash Collection	\$2,000
Printing and Reproduction	\$3,000
Repair and Maintenance- office/computer equip.	\$500
Marketing- paid advertisements	\$7,213
Promotional items	\$1,803
Computer Programming Services	\$1,500
Computer Support Services	\$13,200
Legal Advertising	\$3,500
Training- Employee Education Expense	\$4,000

Table 2-5: YVEDDI Transportation Cost Allocation, FY 2012 Budget

Cost Category	FY12 Budget
<i>Administrative Budget, Continued</i>	
Rent of Offices	\$12,000
Lease of Reproduction Equipment	\$11,881
Insurance- Vehicles	\$75,699
Insurance- Professional Liabilities	\$25,000
Central Services- Indirect Cost	\$22,857
Dues and Subscriptions	\$1,300
Subtotal, Administration	\$425,793

Operating Expenses	Davie	Stokes	Surry	Yadkin	Fixed Charges and Other Expenses	Total Program
Salaries and Wages- Drivers	\$251,700	\$157,500	\$341,226	\$217,538		\$967,964
Salaries and Wages- Coordinators/Disp	\$31,000	\$35,000	\$50,000	\$35,000		\$151,000
Salaries and Wages- Temp	\$46,000	\$6,500	\$35,000	\$6,000		\$93,500
FICA	\$31,000	\$19,000	\$39,000	\$24,000		\$113,000
Retirement	\$16,000	\$10,000	\$20,000	\$13,000		\$59,000
Health Insurance	\$25,000	\$32,000	\$45,000	\$46,000		\$148,000
Workers Compensation	\$26,000	\$15,000	\$32,000	\$21,000		\$94,000
Other Contracted Services	\$3,000	\$3,000	\$3,000	\$3,000		\$12,000
Janitorial Supplies						\$0
Water		\$400	\$700	\$400		\$1,500

Table 2-5: YVEDDI Transportation Cost Allocation, FY 2012 Budget

Operating Expenses	Davie	Stokes	Surry	Yadkin	Fixed Charges and Other Expenses	Total Program
<i>Operating Budget, Continued</i>						
Garbage				\$1,000		\$1,000
Uniforms	\$7,500	\$5,000	\$9,000	\$7,000		\$28,500
Fuels and Lubricants	\$95,000	\$77,000	\$190,000	\$85,000		\$447,000
Tires	\$1,500	\$5,500	\$6,500	\$3,500		\$17,000
Vehicle Parts	\$15,750	\$15,000	\$20,000	\$17,000		\$67,750
Vehicle Cleaning Supplies	\$500	\$500	\$500	\$500		\$2,000
Travel	\$1,000	\$1,000	\$8,000	\$500		\$10,500
Per Diem						\$0
Printing and Binding	\$500	\$500	\$500	\$500		\$2,000
Repair and Maintenance- Office Equip.	\$3,000	\$3,000	\$3,000	\$3,000		\$12,000
Repair and Maintenance- Facilities			\$20,000	\$3,000		\$23,000
Repair and Maintenance- Vehicles	\$13,000	\$12,000	\$27,000	\$13,000		\$65,000
CDL Licensing/physicals	\$1,000	\$1,000	\$1,000	\$1,000		\$4,000
Advertising/promotion						\$0
Lunch/meeting	\$500	\$500	\$500	\$500	\$595	\$2,595
Employee Drug Testing						\$0
Vehicle Insurance	\$5,000	\$5,000	\$12,000	\$5,000		\$27,000
Contingency						\$0
Projects						\$0
Indirect Costs	\$35,871	\$25,275	\$53,995	\$31,653	\$75	\$146,869
Totals	\$609,821	\$429,675	\$917,921	\$538,091	\$670	\$2,496,178

Table 2-5: YVEDDI Transportation Cost Allocation, FY 2012 Budget

<i>Cost Allocation:</i>	Davie	Stokes	Surry	Yadkin	Fixed Charges and Other Expenses	Total Program
Percent of total Operating Budget	24%	17%	37%	22%		
Share of Administrative Costs	\$104,022	\$73,293	\$156,577	\$91,786		\$425,793
Total Costs	\$713,843	\$502,968	\$1,074,498	\$629,877		\$2,921,971
Revenue Miles	446,108	358,547	641,947	348,925	-	1,795,527
Fully allocated cost per mile, no credits, no reserve	\$ 1.60	\$ 1.40	\$ 1.67	\$ 1.81		\$ 1.63
Credit for Administrative Reimbursement from NCDOT	\$88,419	\$62,299	\$133,091	\$78,019		\$361,924
Credit for Gas Tax Refund			\$13,800	\$6,200		\$20,000
Other Credits						
Expenses after credits	\$625,424	\$440,669	\$927,608	\$545,659		\$2,540,047
Per mile estimated expenses, with credits applied	\$1.40	\$1.23	\$1.44	\$1.56		\$1.41
Program Reserve- 10% of total	\$71,384	\$50,297	\$107,450	\$62,988		\$292,197
Capital Reserve- 5% of total	\$35,692	\$25,148	\$53,725	\$31,494		\$146,099
Per mile estimated expenses, with credits and reserves	\$1.64	\$1.44	\$1.70	\$1.83		\$1.66
<i>Current rates, with fuel surcharge</i>	<i>\$1.67</i>	<i>\$1.53</i>	<i>\$1.91</i>	<i>\$1.91</i>		
<i>Current rates, no fuel surcharge</i>	<i>\$1.44</i>	<i>\$1.34</i>	<i>\$1.66</i>	<i>\$1.66</i>		

Table 2-6: Fuel Surcharge Calculation

Premise: Vehicle mileage is 10 miles to the gallon

If the vehicles gets 10 miles to the gallon then the cost of fuel is as follows:

Price per Gallon	Mileage (MPG)	Fuel Cost Per Mile
\$2.50	10	\$0.25
\$2.55	10	\$0.26
\$2.60	10	\$0.26
\$2.65	10	\$0.27
\$2.70	10	\$0.27
\$2.75	10	\$0.28
\$2.80	10	\$0.28
\$2.85	10	\$0.29
\$2.90	10	\$0.29
\$2.95	10	\$0.30
\$3.00	10	\$0.30
\$3.05	10	\$0.31
\$3.10	10	\$0.31
\$3.15	10	\$0.32
\$3.20	10	\$0.32
\$3.25	10	\$0.33
\$3.30	10	\$0.33
\$3.35	10	\$0.34
\$3.40	10	\$0.34
\$3.45	10	\$0.35
\$3.50	10	\$0.35
\$3.55	10	\$0.36
\$3.60	10	\$0.36
\$3.65	10	\$0.37
\$3.70	10	\$0.37
\$3.75	10	\$0.38
\$3.80	10	\$0.38
\$3.85	10	\$0.39
\$3.90	10	\$0.39
\$3.95	10	\$0.39
\$4.00	10	\$0.40
\$4.05	10	\$0.40
\$4.10	10	\$0.41
\$4.15	10	\$0.41
\$4.20	10	\$0.42
\$4.25	10	\$0.42

Table 2-6 (continued)

Price per Gallon	Mileage (MPG)	Fuel Cost Per Mile
\$4.30	10	\$0.43
\$4.35	10	\$0.43
\$4.40	10	\$0.44
\$4.45	10	\$0.44
\$4.50	10	\$0.45

This indicates that for every 50 cent increment in the price per gallon, there is a \$0.05 increase in the fuel cost per mile.

With the current fuel charge, there is a \$0.10 increase in the per mile rate for every 50 cent increment in the price per gallon.

Shared Mileage vs. Other Methods

Another financial topic under study is the notion of a shared mileage rate for agency billing. This method is used by a number of transit programs in the State of North Carolina, primarily to ensure fiscal health by making sure the cost of the trip is covered. This method, while fiscally sound, is difficult to explain to agency partners and can be confusing. KFH Group researched other multi-county agencies in the State to find out how they bill their agency partners. Of the three contacted, two use the shared mileage method and one uses a trip rate. The agency using the trip rate calculates the average cost per trip for the previous fiscal year, and uses that information to set the trip rate for the upcoming year.

KFH Group did a series of calculations based on trip distances to try to figure out what “fair” fares would look like in order for YVEDDI to recoup a similar amount of revenue as is the case under the shared-mileage scenario. Three months worth of raw data on over 50,000 trips were analyzed. Unfortunately, these results seemed to overstate mileage when compared to what YVEDDI actually billed. The problem stemmed from the raw data versus the data used for billing. YVEDDI routinely makes a number of adjustments to the raw data prior to billing the agencies each month. In order to make a more accurate assessment, this analysis will need to be repeated using actual billing data, rather than raw data. This will be much more time consuming, as the raw data could be sorted electronically in a number of different ways for analysis whereas the billing data is not in a spreadsheet format.

RGP Rates

YVEDDI currently charges riders an RGP fare of \$0.60 per shared mile. As with the agency rate, the issue of the shared mileage rate is under discussion for general public riders. Of the three other multi-county agencies contacted thus far, none use a shared-mileage rate to set the RGP fare. The level of fiscal risk to the agencies is much lower when considering the RGP fare, as the only significant requirement is that the transit program collects at least 10% of the amount of its RGP grants (assuming no other local cash match is offered). Because of the lower risk to the programs, and the potential for confusion, most other agencies use a set fare for their RGP trips. The following data were collected from three other multi-county agencies in North Carolina:

Albemarle Health Services (Inter-County Public Transportation): the RGP fare is set at \$3.00 per trip with no added charge for long trips. The agency calculated this by taking 10% of its average trip cost. The service area is such that they do not provide many out-of-county RGP trips, so a distance charge is not used.

Kerr Area Transportation Authority: the RGP fare is set at \$4.00 per trip up to 10 miles; \$5.00 per trip for trips between 10 and 20 miles; and \$6.00 per trip for trips of more than 20 miles.

Choanoke Public Transportation Authority: the RGP fare is set at \$4.00 per trip for local trips (this is just under half of their agency rate). The out of county rate is \$16.49 per trip.

Fare Data Analysis

KFH Group also used raw data for RGP trips from March to May, 2011 to calculate what the current average fares are for various trip distances. As with the previous agency data, these data also seems to overstate billing miles, so this analysis was repeated using actual billing data and is included in Chapter 3.

FY 2012 Budget

The approved YVEDDI transportation budget for FY 2012 was provided as Table 2-5 as part of the cost allocation discussion. This budget includes just under \$ 2,496,178 for operating expenses and \$ 425,793 for administrative expenses.

Capital Projects

YVEDDI's approved Community Transportation Program capital budget for FY 2012 is provided in Table 2-7. As the table shows, YVEDDI will be replacing a number of vehicles during this fiscal year.

Table 2-7: YVEDDI Transportation FY 2012 Capital Budget

Item	Amount
Office Equipment	\$ 891
Network Server	\$ 8,000
Van Conversion Replacements	\$ 198,500
25 foot LTV- Replacement	\$ 68,500
Lift-Equipped Van Replacements	\$ 129,000
Mini-Van Replacements	\$ 86,250
20 foot LTV Replacement	\$ 48,500
Vehicle Lettering and Logos	\$ 6,500
Total Capital	\$ 546,141

YVEDDI has also been awarded a Section 5310 grant to upgrade its dispatching and scheduling software. This grant award is in the amount of \$180,614.

CAPACITY ANALYSIS

This section of the inventory provides a description and analysis of the facilities, fleet, and technologies currently in use by or planned for YVEDDI.

Facilities

YVEDDI uses several facilities in the region for the transportation program. The transportation administration function is housed at YVEDDI's main location in Boonville. YVEDDI owns this facility. In Davie County, the vehicles are based at a County building in Mocksville. In Stokes County, the dispatch center and the vehicles are based at the Senior Center in Danbury. In Surry County, the vehicles and the dispatch function are located in an old school in Mount Airy that also houses a number of other human service programs. In Yadkin County, YVEDDI owns a building in Yadkinville that serves as the dispatch center for Yadkin and Davie Counties. This facility will likely serve as the centralized office and call center in the future.

Fleet

YVEDDI operates a fleet of 82 vehicles. Of these vehicles, 63 are used for the Community Transportation Program, with the remaining 19 used for Head Start. The fleet is aging, with an average fleet mileage of 100,754. YVEDDI has taken steps to reduce the age of the fleet, as reflected in the FY 2012 capital budget that includes 13 replacement vehicles. The fleet is dispersed throughout the service area. Table 2-8 provides a vehicle inventory.

Technologies

YVEDDI uses a custom-designed reservations, scheduling, and dispatch computer program. The program performs the basic functions needed for each stand-alone dispatch center and generates the information needed for billing, but it has become outdated and slow, having been created in a Lotus environment in 1999. YVEDDI will be replacing this program using funds awarded through a Section 5310 grant. YVEDDI does not currently have automatic vehicle location (AVL), mobile data computers (MDCs), or video surveillance cameras on the vehicles.

Table 2-8: YVEDDI Transportation Vehicle Inventory

Agency Fleet Number	Stationed	Year	Make	Type	Seating/WC	Mileage, June 2011	Tag
102	Mocksville, Davie County	2002	Dodge	Center	14/0	163,506	45285S
103	Mocksville, Davie County	2003	Dodge	Center Aisle	14/0	135,017	55749S
105	Mocksville, Davie County	2003	Dodge	Rear Lift	9/2	152,920	PL8117
106	Mocksville, Davie County	2002	Dodge	Rear Lift	9/2	191,448	44930S
108	Mocksville, Davie County	2003	Dodge	Center Aisle	14/0	121,176	55748S
109	Mocksville, Davie County	2008	Ford	Back lift	14/0	64,454	98285S
111	Mocksville, Davie County	2007	Ford	Center	14/0	70,280	88046S
113	Mocksville, Davie County	2010	Ford Lift	Lift Van		19,251	30372T
114	Mocksville, Davie County	2010	Ford Lift	Lift Van		30,398	30370T
115	Mocksville, Davie County	2008	Ford	Back lift	9/2	71,427	98284S
119	Mocksville, Davie County	2007	Ford	Center	14/0	63,979	88044S
122	Mocksville, Davie County	2003	Dodge	Center	14/0	173,470	55744S
124	Danbury, Stokes County	2002	Dodge	Center	14/0	175,655	45286S
125	Mocksville, Davie County	2003	Dodge	Center	14/0	128,165	55746S
130	Mocksville, Davie County	2005	Dodge	Mini-Van	7/0	117,562	64301S
194	Mocksville, Davie County	2010	Ford Lift	Lift	9/2	26,113	28016T
197	Mocksville, Davie County	2010	Ford Lift	Lift	9/2	39,036	28013T
198	Mocksville, Davie County	2009	Ford	Lift	9/2	57,303	21064T
201	Danbury, Stokes County	2007	Ford	Lift	9/2	150,593	88808S
204	Danbury, Stokes County	2006	Ford	Center Aisle	14/0	109,748	82024S
205	Danbury, Stokes County	2008	Ford	Back lift	14/0	90,021	98281S
206	Danbury, Stokes County	2003	Dodge	Center	14/0	123,144	55747S
211	Danbury, Stokes County	2006	Ford	Lift	9/2	172,533	73467S
213	Danbury, Stokes County	2003	Dodge	Center	14/0	161,238	55745S
214	Danbury, Stokes County	2008	Ford	Back lift	9/2	121,030	98286S
216	Danbury, Stokes County	2008	Ford	Back lift	14/0	102,825	98283S
240	Danbury, Stokes County	2009	Ford	Lift	9/2	69,314	21058T
241	Danbury, Stokes County	2009	Ford	Lift	9/2	70,186	21059T

Table 2-8: YVEDDI Transportation Vehicle Inventory

Agency Fleet Number	Stationed	Year	Make	Type	Seating/WC	Mileage, June 2011	Tag
301	Mt. Airy, Surry County	2003	Dodge	Rear Lift	9/2	227,394	28722T
303	Mt. Airy, Surry County	2003	Dodge	Center Aisle	14/0	177,595	PL4371
305	Danbury, Stokes County	2006	Ford	Center Aisle	9/2	133,134	70938S
307	Mt. Airy, Surry County	2007	Ford	lift	9/2	191,034	88045S
309	Mt. Airy, Surry County	2006	FORD	Center Aisle	14/0	157,222	70937S
310	Mt. Airy, Surry County	2010	Ford Lift	Lift Van	9/2	22,450	30366T
311	Mt. Airy, Surry County	2007	Ford	Center	14/0	121,853	88043S
312	Mt. Airy, Surry County	2010	Ford Lift	Lift Van	9/2	17,451	30373T
314	Mt. Airy, Surry County	2008	Chevrolet	Uplander	7/0	80,190	11018T
315	Mt. Airy, Surry County	2010	Ford Lift	Lift Van	9/2	22,237	30367T
330	Mt. Airy, Surry County	2005	Dodge	Mini-Van	7/0	215,521	64299S
344	Mt. Airy, Surry County	2009	Ford	Lift	9/2	53,837	21061T
352	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	39,830	28021T
354	Mt. Airy, Surry County	2009	Ford	Lift	9/2	68,788	21045T
355	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	41,903	28019T
389	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	40,120	28017T
392	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	57,785	28018T
393	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	38,146	28015T
401	Danbury, Stokes County	2003	Ford	Mini-Van	7/0	136,798	62434S
403	Yadkin County	2006	Ford	Center Aisle	14/0	129,596	82022S
404	Yadkin County	2006	Ford	Center Aisle	14/0	110,768	82023S
405	Yadkin County	2006	Ford	Ford Lift	9/2	132,701	71266S
408	Yadkin County	2006	Chevrolet	Mini-Van	14/0	145,066	80495S
409	Yadkin County	2008	Ford	Back Lift	9/2	67,256	98282S
410	Yadkin County	2002	Dodge	Center	14/0	146,039	45283S
411	Yadkin County	2001	Dodge	Lift	9/2	97,335	25997T
412	Yadkin County	2001	Dodge	Lift	9/2	103,133	25998T
413	Yadkin County	2010	Ford Lift	Lift Van	9/2	17,548	30369T
417	Yadkin County	2007	Chevrolet	Uplander	7/0	119,653	91881S

Table 2-8: YVEDDI Transportation Vehicle Inventory

Agency Fleet Number	Stationed	Year	Make	Type	Seating/WC	Mileage, June 2011	Tag
419	Yadkin County	2007	Chevrolet	Uplander	7/0	139,519	91880S
430	Yadkin County	2005	Dodge	Caravan	7/0	193,516	64300S
455	Yadkin County	2009	Ford	Lift	9/2	41,104	21062T
493	Yadkin County	2010	Ford Lift	Lift	9/2	19,919	28020T
496	Yadkin County	2010	Ford Lift	Lift	9/2	22,542	28014T
600	Mocksville, Davie County	2001	Ford	Taurus	5	107,116	26662S
603	Yadkin County	2002	Ford	Taurus	5	188,569	35909S
5101	Mocksville, Davie County	2005	GMC-Chev	Bus-Head Start	24/0	62,586	70260S
5102	Mocksville, Davie County	2007	Chevrolet	Bus-Head Start	24/0	69,919	72005S
5103	Mocksville, Davie County	2007	Chevrolet	Bus-Head Start	24/0	71,064	72007S
5104	Mocksville, Davie County	1999	GMC	Bus-Head Start	24/0	101,603	11945T
5105	Mocksville, Davie County	1999	GMC	Bus-Head Start	24/0	107,317	11947T
5206	Danbury, Stokes County	2010	Minotour DRW School	Bus-Head Start		19,108	23108T
5207	Danbury, Stokes County	2010	Minotour DRW School	Bus-Head Start		27,468	23107T
5301	Mt. Airy, Surry County	2005	GMC-Chev	Bus-Head Start	24/0	136,808	70259S
5302	Mt. Airy, Surry County	2005	GMC-Chev	Bus-Head Start	24/0	54,840	70262S
5303	Mt. Airy, Surry County	2007	Chevrolet	Bus-Head Start	24/0	71,010	72006S
5304	Mt. Airy, Surry County	2007	Chevrolet	Bus-Head Start	24/0	120,431	72004S
5305	Mt. Airy, Surry County	2007	Chevrolet	Bus-Head Start	24/0	72,333	72003S
5400	Yadkin County	2006	Ford	Bus-Head Start	16/1	43,903	80494S
5401	Yadkin County	2005	GMC-Chev	Bus-Head Start	24/0	102,857	70261S
5402	Yadkin County	2007	Chevrolet	Bus-Head Start	24/0	88,972	72002S
5403	Mt. Airy, Surry County	1993	GMC- Chev	Bus-Head Start	24/0	201,747	82021S
5404	Mt. Airy, Surry County	1994	International	Bus-Head Start	24/0	261,692	92331S
5500	Mt. Airy, Surry County	2006	Ford	7	16/1	51,758	82025S
8/16/2011							

OTHER TRANSPORTATION PROVIDERS

Piedmont Authority for Regional Transportation (PART)

PART is a 10-county public transportation authority that provides a number of transportation services for the region, serving to connect cities and counties in the Piedmont area of North Carolina and encourage the use of alternative transportation. Member counties include Alamance, Davidson, Davie, Forsyth, Guilford, Randolph, Rockingham, Stokes, Surry, and Yadkin. PART provides the following services:

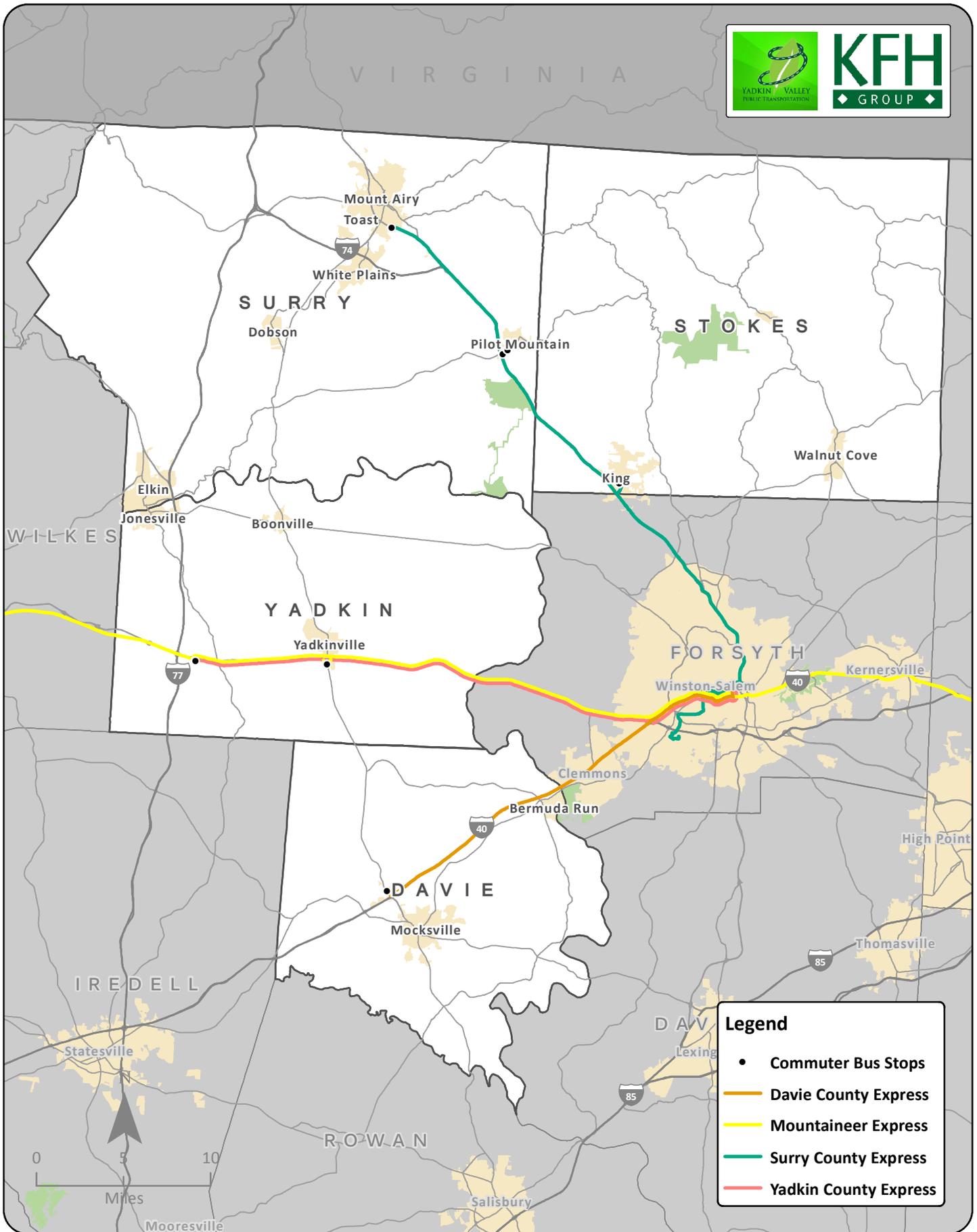
- PART Express, providing regional commuter bus services connecting outlying counties to the urbanized areas of the Piedmont Triad.
- Transportation demand management (TDM), including vanpool and carpool programs and a guaranteed ride home program.
- TDM-related programs including the Triad Commute Challenge and Triad Air Awareness, both geared to reducing single-occupant vehicle commuting.
- Regional transportation planning.
- Safety awareness programs.

PART Express current offers three routes that travel through the YVEDDI service area, including the Davie County Express, the Surry County Express, and the Yadkin County Express. These routes are shown in Figure 2-8, along with the Mountaineer Express, which is operated by Coach America. These routes generally operate from Park and Ride lots that PART has constructed.

The schedules for the three PART routes have been reduced in recent months, as PART has faced a budget deficit. A significant amount of PART's revenue is derived from a rental car tax, and this revenue source has declined with the recession. None of the four local county governments have chosen to provide financial assistance for the services; as such the schedules have been reduced. The schedules are provided as Exhibit 2-1.

This CTSP includes a provision for YVEDDI to provide local feeder service for PART routes in the region.

Figure 2-8: Fixed-Route Service in the Yadkin Valley



Route 6 - Surry County Express

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Mt. Airy P&R	Pilot Mtn P&R #1	Pilot Mtn P&R #2	King P&R	Rural Hall ▲	WS Trans Ctr. D-1	Baptist MRI Bldg	Five Points	Stratford Exe Park	Forsyth Med Ctr	Hanes Mall	Trulliant	Novant Frontis Blvd.	Kimel Park (VA)
5:40am	5:52	-----	-----	-----	6:25	6:33	-----	-----	6:40	-----	-----	6:42	-----
6:00am	6:12	-----	6:27	-----	6:55	7:03	7:08	7:13	7:17	-----	7:21	7:25	7:28
-----	-----	-----	6:50	-----	7:15	7:25	7:30	7:38	7:48	-----	7:53	7:59	8:04
6:30am	6:42	-----	-----	-----	7:15	7:23	7:28	7:33	7:37	-----	7:41	7:44	7:47
6:40am	-----	6:53	-----	-----	7:26	7:34	7:39	7:44	7:48	-----	7:52	7:56	7:59
7:00am	-----	7:13	-----	-----	7:46	7:54	7:59	8:04	8:08	-----	8:12	8:16	8:19
7:40am	-----	7:53	-----	-----	8:26	8:34	8:39	8:44	8:48	8:52	8:54	8:58	9:01
12:40pm	12:52	12:55	-----	-----	1:28	1:36	-----	-----	1:43	1:47	-----	-----	-----
4:23pm	4:35	4:38	-----	-----	5:11	5:19	-----	-----	5:26	5:30	-----	-----	-----

* *

Southbound

14	13	12	11	10	9	8	7	6	5	4	3	2	1
Kimel Park (VA)	Novant Frontis Blvd.	Trulliant	Hanes Mall	Forsyth Med Ctr	Stratford Exe Park	Five Points Meads Bldg	Baptist WS Trans Ctr. D-1	Rural Hall ▲	King P&R	Pilot Mtn P&R #1	Pilot Mtn P&R #2	Pilot Mtn P&R #1	Mt. Airy P&R
-----	-----	-----	11:20am	11:24	-----	-----	11:32	11:40	-----	-----	12:14pm	12:17	12:30
-----	-----	-----	3:10pm	3:14	-----	-----	3:22	3:30	-----	-----	4:04	4:07	4:20
3:20pm	3:23	3:29	3:32	3:36	3:46	3:54	3:59(MRI)	4:09	-----	4:35	4:55	4:58	5:10
4:02pm	4:05	4:10	-----	4:15	-----	-----	4:25	4:35	-----	-----	5:09	5:12	5:24
4:22pm	4:25	4:34	4:38	4:42	4:48	4:56	5:01(MRI)	5:08	-----	5:34	5:54	5:57	6:09
-----	-----	-----	-----	-----	4:40	4:55	5:03(MRI)	5:10	-----	-----	5:44	5:47	6:00
5:05pm	5:08	5:12	-----	5:17	5:20	-----	-----	-----	-----	5:40	6:00	6:03	6:16
-----	-----	5:32pm	5:30	5:36	5:40	5:45	5:50(MRI)	6:00	-----	-----	6:34	6:37	6:50
-----	-----	-----	7:10pm	7:15	-----	-----	7:23	7:30	-----	-----	8:04	8:07	8:20

* * *
Northbound

FARES: \$3.00 One-Way , \$1.50 for Seniors (60+), Disabled & Students (w/ ID)
PASSES: 31 Day Pass \$90.00 (\$45.00 Half Price) & 10 Ride Pass \$30.00 (\$15.00 Half Price)
 Prepaid Passes sold at the PART Hub and other locations around the Piedmont Triad
 All Fares & Passes are Half Price for Seniors (60+), Disabled & Students (w/ ID)
TRANSFERS: Free from one PART bus to another PART Bus or Shuttle (Excluding Rt. 4)
INFORMATION: (336) 883-PART(7278) or visit www.PARTInc.org



* Serves King
 ▲ Future stop upon P&R Lot development

Effective 10-31-11

Route 13 - Yadkin County Express

1	Asbury Church Rd. Park & Ride (Asbury Church Rd. & Flat Rock Church Rd.)	2	Yadkinville Park & Ride (US 601 at Pine St.)	3	Novant (On Frontis Plaza Blvd.)	4	Kimel Park (Veterans Administration)	5	Hanes Mall (On Hanes Mall Blvd. by Tripps)	6	Forsyth Med. Center (Main Entrance)	7	Five Points (1-Strafford Place at Newbridge Bank) (2-Miller St. Suntrust Bldg.)	8	WFU Baptist Medical Ctr. (MRI Bldg.)	9	W-S Trans. Center (Bay L-1 Liberty St.)
6:10am	6:21	6:43	6:46	6:50	6:55	7:05	7:06	7:06	7:06	7:09	7:11	7:11	7:11	7:11	7:11	7:21	7:21
6:55am	7:06	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
9	W-S Trans. Center (Bay L-1 Liberty St.)	8	WFU Baptist Medical Ctr. (Meads Bldg.)	7	Five Points (1-Miller St. Market Ent.) (2-150 S. Stratford Rd. at Brick BB&T Bldg.)	6	Forsyth Med. Center (Main Entrance)	5	Hanes Mall (On Hanes Mall Blvd. by Tripps)	4	Kimel Park (Veterans Administration)	3	Novant (On Frontis Plaza Blvd.)	2	Yadkinville Park & Ride (US 601 at Pine St.)	1	Asbury Church Road Park & Ride (Asbury Church Rd. & Flat Rock Church Rd.)
3:30pm	3:40	3:46	3:56	4:00	4:05	4:05	4:05	4:05	4:05	4:05	4:05	4:08	4:08	4:30	4:30	4:41	4:41
5:05pm	5:15	5:21	5:31	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	5:54	5:54	6:05	6:05

Eastbound

Westbound

Route 14 - Davie County Express

1	Mocksville Park & Ride (Hwy 601 & Boyce Dr. Near Walmart)	2	Clemmons Park & Ride (Kmart Shopping Ctr.)	3	Forsyth Med. Center (Main Entrance)	4	Five Points (1-Strafford Place at Newbridge Bank) (2-Miller St. Suntrust Bldg.)	5	WFU Baptist Medical Ctr. (Meads Bldg.)	6	W-S Trans. Center (Bay L-1 Liberty St.)
6:05am	6:25	6:35	6:35	-----	-----	6:45	6:45	6:45	6:55	6:55	6:55
7:00am	7:20	7:30	7:30	7:40	7:40	7:45	7:45	7:45	7:55	7:55	7:55
6	W-S Trans. Center (Bay L-1 Liberty St.)	5	WFU Baptist Medical Ctr. (Meads Bldg.)	4	Five Points (1-Miller St. Market Ent.) (2-150 S. Stratford Rd. at Brick BB&T Bldg.)	3	Forsyth Med. Center (Main Entrance)	2	Clemmons Park & Ride (Kmart Shopping Ctr.)	1	Mocksville Park & Ride (Hwy 601 & Boyce Dr. Near Walmart)
4:05pm	4:15	4:21	4:21	4:31	4:31	4:41	4:41	4:41	5:01	5:01	5:01
5:05pm	5:15	5:21	5:21	5:31	5:31	5:41	5:41	5:41	6:01	6:01	6:01

53-2

Eastbound

Westbound

FARES: \$3.00 One-Way , \$1.50 for Seniors (60+), Disabled & Students (w/ ID)
PASSES: 31 Day Pass \$90.00 (\$45.00 Half Price) & 10 Ride Pass \$30.00 (\$15.00 Half Price)
 Prepaid Passes sold at the PART Hub and other locations around the Piedmont Triad
 All Fares & Passes are Half Price for Seniors (60+), Disabled & Students (w/ ID)
TRANSFERS: Free from one PART bus to another PART Bus or Shuttle (Excluding Rt. 4)
INFORMATION: (336) 883-PART(7278) or visit www.PARTnc.org



Effective 10-31-11

Taxi Services, Private Non-Profit, and Private Transportation Providers

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

Taxis

- Cut Rate Cabs
- Granite City Cabs
- Mayberry Cab Company
- Mount Pilot Cab
- Pepper's Taxi
- Surry Cab Company
- Surry-Elkin Cab

Private, Non-Profit Transportation Providers

- New River - Mount Airy
- New River- Yadkinville
- Lifespan
- Easter Seals
- Disabled American Veterans
- Yadkin County DSS
- Piney Grove Church

Other Private Transportation Providers

- A Way-to- Go Transport
- Cape Fear Regional Transport

Intercity Bus Services

The Mountaineer Express, operated by Coach America, is considered to be intercity bus service. The route traverses through Yadkin County along its route from Greensboro to Boone, with a stop Hamptonville. This route connects with the larger intercity bus network in Winston-Salem and in Greensboro. The schedule for this route is provided as Exhibit 2-2.



Mountaineer East/West

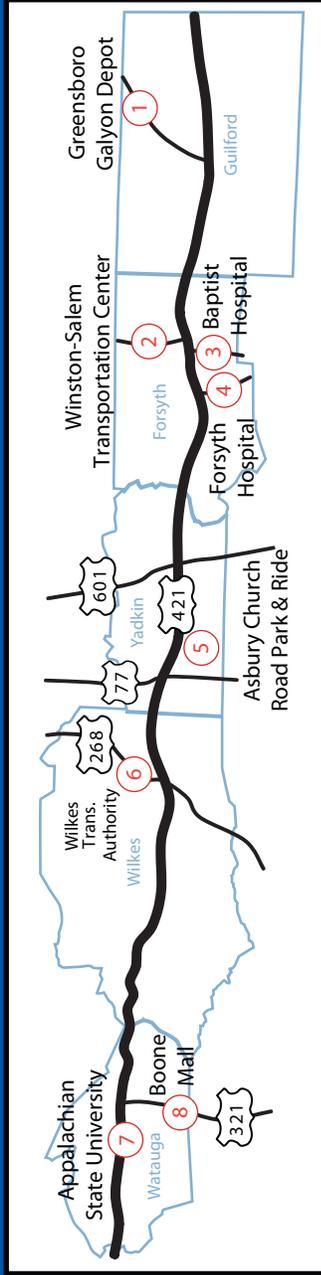
Map and Schedule

Serving
Boone,
Wilkesboro,
Hamptonville,
Winston-Salem,
Greensboro



www.CoachAmericaNC.com
(336) 767-1547

Mountaineer East/West Map



Links to:

Appalachian
STATE UNIVERSITY

1-828-262-2000
www.appstate.edu



Appalachian
(828) 264-2278
www.appalcart.com



THE TRANSPORTATION SOLUTION
Piedmont Authority for
Regional Transportation
(336) 883-7278
www.PARTnc.org



GREYHOUND
1-800-231-2222
www.greyhound.com



Wilkes Transportation Authority
Public Transportation
Wilkes Transportation
Authority
(336) 838-2381
www.wta1.org



AMTRAK
1-800-USA-RAIL
www.amtrak.com



Winston-Salem Transit Authority
(336) 727-2000
www.wstransit.com



Greensboro Transit Authority
(336) 335-6499
www.ridegta.com

For Information

Phone: (336) 767-1547

Email: IndividualTravel@CoachAmerica.com

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As the largest operator in North Carolina, Coach America and its affiliated companies across the US are dedicated to answering all your transportation needs. Coach America is excited to partner with NCDOT to offer Intercity Travel for individuals in North Carolina. Whether you need basic charters, shuttle service, complete destination tour packaging or individual travel, Coach America is the safe, reliable and professional answer. Go Green...Go Together...Go Coach America.

Mountaineer East/West Schedule

	Greensboro Galyon Depot	Winston-Salem Trans. Center	Baptist Hospital	Heading West		Wilkes Trans. Authority	Appalachian State University	Boone Mall
M-F	5:30	6:10	6:20	Forsyth Hospital	Asbury Church Park & Ride	7:30	8:20	8:30
AM	3:00	3:40	4:00	6:27	7:05	5:10	6:05	6:15
PM				4:07	4:45			
Sat-Sun								
AM	8:00	8:40	8:50	8:57	9:35	10:00	10:50	11:00
PM	3:00	3:40	4:00	4:07	4:45	5:10	6:05	6:15

	Boone Mall	Appalachian State University	Wilkes Trans. Authority	Heading East		Forsyth Hospital	Winston-Salem Trans. Center	Greensboro Galyon Depot
M-F	8:45	8:55	9:45	Asbury Church Park & Ride	10:05	10:40	11:00	11:35
AM	6:30	6:40	7:35	7:55	8:30	8:40	8:50	9:30
PM								
Sat-Sun								
AM	11:30	11:40	12:30	12:50	1:25	1:35	1:45	2:20
PM	7:00	7:10	8:05	8:25	9:00	9:10	9:20	10:00

Appalachian State University *
230 Hardin St.
(Westbound: Hoey Hall Awning Eastbound: Red Onion)
Tickets sold at Phil's CITGO, 168 Hardin St.
1-828-268-0555

Asbury Church Park & Ride
Intersection of Asbury Church & Flat Rock Church Rd.
Hamptonville, NC

*** Tickets sold at these locations**

Boone Mall
Beside Belk at the corner of Winkler's Creek Rd. & Wilson Rd.

Forsyth Hospital
3333 Silas Creek Pkwy.
Winston-Salem, NC
Main Entrance

Winston-Salem Trans. Ctr. *
100 West 5th St.
Winston-Salem, NC
(Bay D-1)
1-336-725-0661

Wilkes Transportation Authority (WTA)
1010 Spring St
Wilkesboro, NC
(336)838-2381

Baptist Hospital
Medical Center Blvd.
Winston-Salem, NC
Eastbound: Meads Bldg.
Westbound: MRI Bldg.

Greensboro Galyon Depot *
234 East Washington St.
Greensboro, NC
(Slip 16)
1-336-272-8950



Operates 7 days a week, 365 days a year

Fares & Tickets

	App State	Wilkes	Hamp-tonville	Winston-Salem	Greens-boro
Boone Mall	\$2	\$4	\$8	\$11	\$14
App State		\$4	\$8	\$11	\$14
Wilkes			\$5	\$7	\$10
Hamp-tonville				\$4	\$6
Winston-Salem				\$3	\$3

Purchasing a ticket is extremely encouraged. If paying directly to the driver, exact change is required.

Discount Fares

	App State	Wilkes	Hamp-tonville	Winston-Salem	Greens-boro
Boone Mall	\$2	\$3	\$6	\$8	\$10
App State		\$3	\$6	\$8	\$10
Wilkes			\$4	\$6	\$7
Hamp-tonville				\$3	\$4
Winston-Salem				\$3	\$3

Children 2-11 Senior (62+), Student (With Valid ID), Disabled

Children under the age of 2 can ride for free. Children under 15 must be accompanied by an adult.

Purchase a Ticket:
Purchasing a ticket is encouraged. Prepaid tickets will receive priority seating. Tickets can be purchased at specified locations or online at www.greyhound.com.

Effective Date: 8-1-11 through 6-30-12

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AMTRAK

There are no Amtrak services provided in the four counties. The closest Amtrak stations are in Lexington and High Point. Area residents can use the PART Express service to Winston-Salem and then transfer to PART's Amtrak Express service to access the station in High Point.

TRANSIT NEEDS ANALYSIS

The transit needs assessment includes an overview of socioeconomic characteristics and population trends, a review of those demographic characteristics specific to a Title VI analysis, a synopsis of various land uses and significant trip generators, and a review of the commuting patterns of residents. A review of recent relevant studies and plans is also included in this section, as are the results of a rider survey and a community survey.

Demographic Analysis

General Population

Over the past two decades, the four counties served by YVEDDI have experienced a steady growth in their residential population. In fact, the rate of growth in Davie County from 1990 to 2009 (48.68%) has been greater than the growth rate for the State of North Carolina (41.52%). However, the growth rate of the remaining four counties served by YVEDDI has been a bit slower over the same time period. This trend in growth rate over the past two decades is akin to the most recent decade, where Davie County (18.90%) also grew at a quicker rate than the State of North Carolina (16.54%), while the other counties experienced a positive population change that was less than North Carolina's percent change. The majority of incorporated places within the four-county study area also experienced a positive population change with Jonesville (52.66%), Mount Airy (25.31%), King (17.34%), and Mocksville (11.03%) all having double-digit percent changes. Only four of the 14 incorporated places in the YVEDDI service area had a decline in population over this time span, including East Bend (-.30%), Dobson (-0.34%), Pilot Mountain (-1.56%), and Boonville (-3.51 %). An overview of these general population characteristics and others is presented in Table 2-9.

An examination into the age divisions amongst this study area reveals that the residents in each of the four counties are older than North Carolina's general population. Table 2-10 displays three age divisions for both the historical and present populations of the four counties, which may be generalized into youth (0-19 years of age), adult (20-64 years of age), and senior adult (65 and over years of age) age brackets.

Table 2-9: General Population Characteristics for YVEDDI Counties

Place	1990 Population	2000 Population	2009 Population	1990-2000 Percent Change	2000-2009 Percent Change	1990-2009 Percent Change
State of North Carolina	6,628,637	8,049,313	9,380,884	21.43%	16.54%	41.52%
Davie County	27,859	34,835	41,420	25.04%	18.90%	48.68%
Bermuda Run	n/a	1,431	1,571	n/a	9.78%	n/a
Cooleemee	971	905	981	-6.80%	8.40%	1.03%
Mocksville	3,399	4,178	4,639	22.92%	11.03%	36.48%
Stokes County	37,223	44,711	46,150	20.12%	3.22%	23.98%
Danbury	119	108	115	-9.24%	6.48%	-3.36%
King	4,059	5,952	6,984	46.64%	17.34%	72.06%
Walnut Cove	1,088	1,465	1,590	34.65%	8.53%	46.14%
Surry County	61,704	71,219	72,496	15.42%	1.79%	17.49%
Dobson	1,195	1,457	1,452	21.92%	-0.34%	21.51%
Elkin	3,790	4,109	4,121	8.42%	0.29%	8.73%
Mount Airy	7,156	8,484	10,631	18.56%	25.31%	48.56%
Pilot Mountain	1,181	1,281	1,261	8.47%	-1.56%	6.77%
Yadkin County	30,488	36,348	37,713	19.22%	3.76%	23.70%
Boonville	1,009	1,138	1,098	12.78%	-3.51%	8.82%
East Bend	619	659	657	6.46%	-0.30%	6.14%
Jonesville	1,549	1,464	2,235	-5.49%	52.66%	44.29%
Yadkinville	2,525	2,818	2,825	11.60%	0.25%	11.88%
YVEDDI Counties	157,274	187,113	197,779	18.97%	5.70%	25.75%

Source: United States Census Bureau, American FactFinder.

Table 2-10: Historical Populations of Age Divisions and Forecasts for YVEDDI Counties

Place	1990 Population	1990 Percentage	2000 Population	2000 Percentage	2010 Population	2010 Percentage	2020 Forecast	2030 Forecast
State of North Carolina	6,628,637	-	8,049,313	-	9,535,483	-	11,039,342	12,463,244
0-19 years of age	1,615,701	24.37%	1,964,047	24.40%	2,558,680	26.83%	-	-
20-64 years of age	4,212,460	63.55%	5,116,218	63.56%	5,742,724	60.22%	-	-
65+ years of age	800,476	12.08%	969,048	12.04%	1,234,079	12.94%	-	-
Davie County	27,859	-	34,835	-	41,240	-	46,893	52,411
0-19 years of age	6,651	23.87%	8,455	24.27%	10,697	25.94%	-	-
20-64 years of age	17,412	62.50%	21,573	61.93%	23,714	57.50%	-	-
65+ years of age	3,796	13.63%	4,807	13.80%	6,829	16.56%	-	-
Stokes County	37,223	-	44,711	-	47,401	-	49,802	51,033
0-19 years of age	9,120	24.50%	10,950	24.49%	11,647	24.57%	-	-
20-64 years of age	23,847	64.07%	28,483	63.70%	28,179	59.45%	-	-
65+ years of age	4,256	11.43%	5,278	11.80%	7,575	15.98%	-	-
Surry County	61,704	-	71,219	-	73,673	-	78,346	82,901
0-19 years of age	14,197	23.01%	16,780	23.56%	19,027	25.83%	-	-
20-64 years of age	38,388	62.21%	43,466	61.03%	42,396	57.55%	-	-
65+ years of age	9,119	14.78%	10,973	15.41%	12,250	16.63%	-	-
Yadkin County	30,488	-	36,348	-	38,406	-	39,866	40,707
0-19 years of age	6,863	22.51%	8,708	23.96%	9,861	25.68%	-	-
20-64 years of age	19,099	62.64%	22,496	61.89%	22,304	58.07%	-	-
65+ years of age	4,526	14.85%	5,144	14.15%	6,241	16.25%	-	-
YVEDDI Counties	157,274	-	187,113	-	200,720	-	214,907	227,052

Source: US Census Bureau, American FactFinder for present statistics and North Carolina Office of State and Management for forecasts.

Surry County (16.63%) is the oldest of the four counties with a senior adult share of the population that is almost 4% greater than North Carolina's (12.94%) senior adult share of the population. Population forecasts for each of the four counties indicate that Davie County and Surry County are expected to receive the largest gains in population within the study area, with 5,473 and 4,555 more residents anticipated over the next decade, respectively.

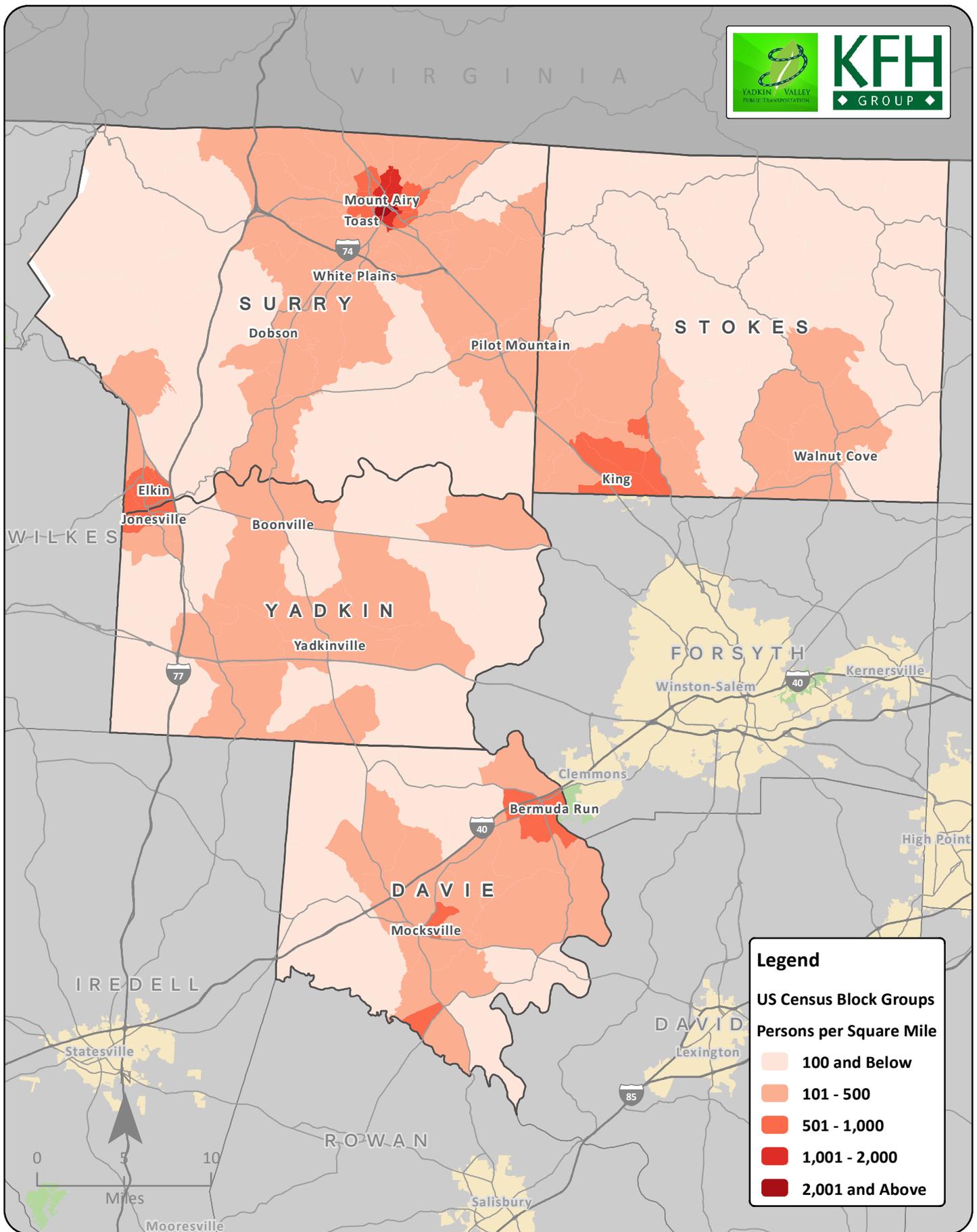
Population Density

Population density often serves as an effective indicator into the types of public transit services that are most feasible within a study area. For instance, while exceptions will always exist, an area with a density of 2,000 persons per square mile will generally be able to sustain a frequent, daily fixed-bus service. Conversely, an area with a population density below this stated threshold, but above 1,000 persons per square mile may be able to support targeted fixed-route services. Deviated fixed routes or demand-response services are more appropriate for areas that fall below these densities.

The population density of the 143 Census block groups in the study area was calculated and is displayed graphically in Figure 2-9. As this map shows, there are only five block groups with population densities of over 1,000 people per square mile in the service area, including:

- The Surry County block group in Mount Airy that is bounded by Pine Street to the north, Lovills Creek to the west, Ararat River to the east, and Worth Street to the south.
- The Surry County block group in Mount Airy that is bounded by Lebanon Street to the north, Lovills Creek to the west, Ararat River to the east, and Pine Street to the south.
- The Surry County block group in Mount Airy that is bounded by Worth Street and Hamburg Street to the north, Lovills Creek to the west, Ararat River to the east and south.
- The Surry County block group in Mount Airy that is bounded by Jackson Road to the north, Main Street and Springs Road to the west, Riverside Road and Ararat River to the east, and Ararat River to the south.
- The Surry County block group in Mount Airy that is bounded by Jones School Road and Country Club Road to the north, Fairway Lane and Lovills Creek to the west, Main Street and Springs Road to the east, and Lebanon Street to the south.

Figure 2-9: 2010 Population Density for the Yadkin Valley



Legend

US Census Block Groups

Persons per Square Mile

- 100 and Below
- 101 - 500
- 501 - 1,000
- 1,001 - 2,000
- 2,001 and Above

Each of these block groups are located within the municipality of Mount Airy, but only the block group detailed in the first bulleted point has a population density greater than the 2,000 persons per square mile threshold able to support fixed-route service.

Transit Dependence Index

Public transportation needs are defined in part by identifying the relative size and location of those segments within the general population most likely to be dependent upon some form of public transit services. Once the location of these transit dependent populations is determined and analyzed, it becomes possible to evaluate the extent to which current services meet the needs of community residents. To identify the areas of highest transportation need, the Transit Dependence Index (TDI) was calculated for each of the block groups in the four-county study area.

The TDI is an aggregate measure that utilizes recent data from the American Community Survey (ACS) five-year estimates and the United State Decennial Census to display relative concentrations of transit dependent populations within a study area. The TDI is determined at the block group level for the YVEDDI service area. The TDI includes the following considerations:

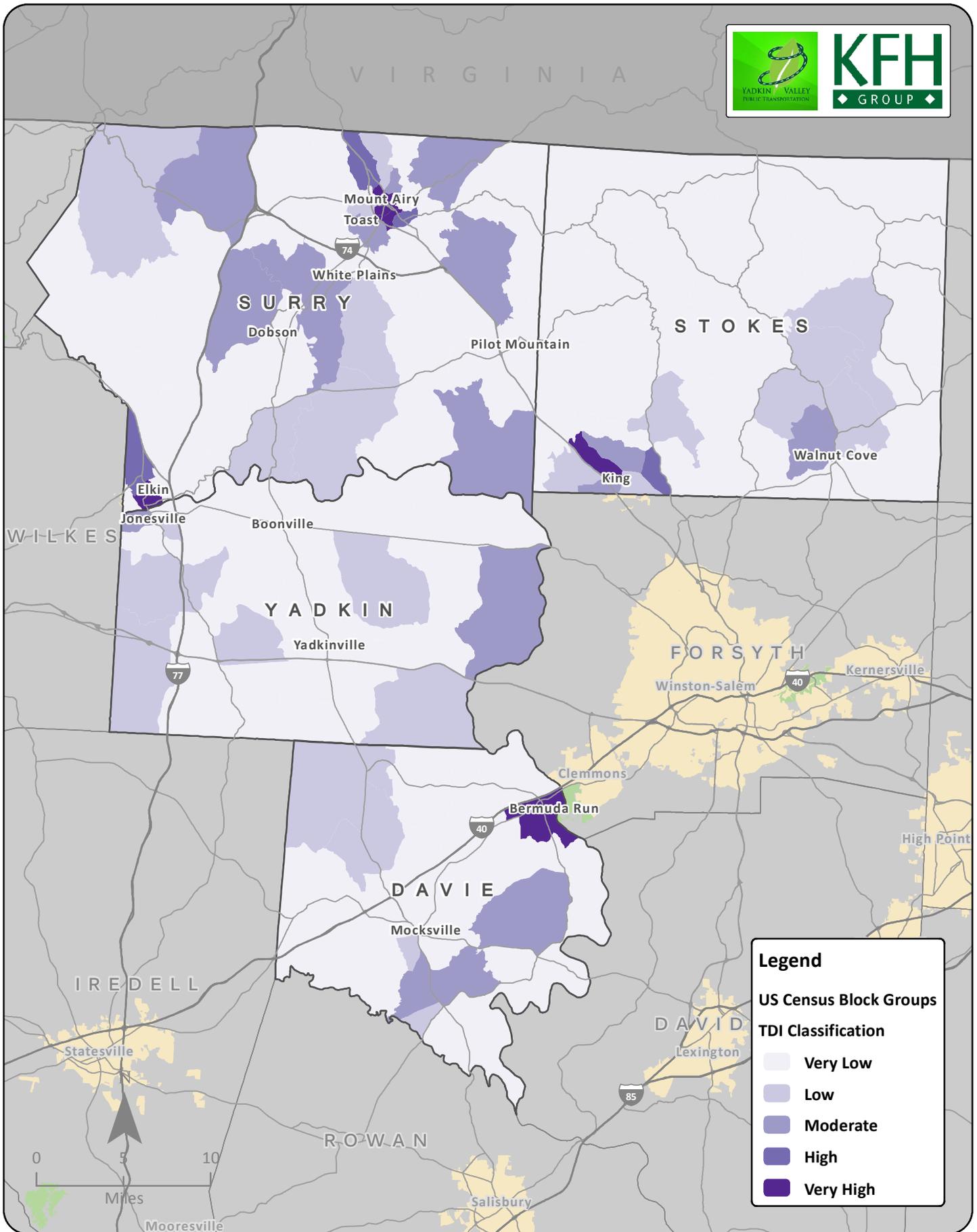
- Population density,
- Zero-vehicle households,
- Older adult population,
- Youth population,
- Population of people with disabilities, and
- People living below the poverty level.

The specific formulas for calculating the TDI is provided in Appendix B.

The following is a detailed description of the location of the seven blocks groups in the four-county YVEDDI service area that have a TDI classification of very high. A visual depiction of the overall TDI rankings for the study area may be found in Figure 2-10.

- The Surry County block group in Mount Airy that is bounded by Lebanon Street to the north, Lovills Creek to the west, Ararat River to the east, and Pine Street to the south.
- The Surry County block group in Mount Airy that is bounded by Pine Street to the north, Lovills Creek to the west, Ararat River to the east, and Worth Street to the south.

Figure 2-10: Transit Dependence Index for the Yadkin Valley



- The Surry County block group in Mount Airy that is bounded by Worth Street and Hamburg Street to the north, Lovills Creek to the west, Ararat River to the east and south.
- The Davie County block group in Bermuda Run that is bounded by Interstate 40 to the north, North Carolina State Route 801 to the west, Forsyth County to the east, and Carter Creek to the south. This area has a high relative population of seniors, but it is not otherwise a high need area.
- The Stokes County block group in King that is bounded by Little Yadkin River to the north, United States Highway 52 to the west, Dalton Road to the east, and Meadowbrook Drive to the south.
- The Surry County block group in Elkin that is bounded by Oakland Drive and Claremont Drive to the north, Elkin Creek to the west, a Yadkin River tributary to the east, and Yadkin River to the south. This area has a high relative population of seniors, but it is not otherwise a high need area.
- The Davie County block group west of Bermuda Run that is bounded by Interstate 40 to the north, Redland Road and Baltimore Road to the west, North Carolina State Route to the east, and Bailey Creek to the south. This area has a high population of seniors, but it is not otherwise a high need area.

Beyond these block groups with a TDI classification of very high, there are five block groups that a TDI classification of high. There are no block groups with a TDI classification of high located in Yadkin County. The following five block groups are those areas with a high TDI classification.

- The Surry County block group in Mount Airy that is bounded by Fancy Gap Road to the north, Franklin Road to the west, United States Highway 52 to the east, and Fowler Road to the south.
- The Surry County block group in Elkin that is bounded by United States Highway 21 to the north and east, Wilkes County and Elkin Creek to the west, and Oakland Drive and Claremont Drive to the south.
- The Surry County block group in Mount Airy that is bounded by Virginia to the north, United States Highway 52 to the west, Lovills Creek to the east and south.
- The Stokes County block group in King that is bounded by Mountain View Road to the north, Old 52 Road to the west, North Carolina State Route 66 to the east, and Forsyth County to the south.

-
- The Surry County block group in Mount Airy that is bounded by Faulkner Creek to the north, Ararat River to the west, Lovers Lane to the east, and an Ararat River tributary to the south.

Transit Dependence Index Percent

The Transit Dependence Index Percent (TDIP) provides a complementary analysis to the TDI measure and its reliance upon the population density factor. The TDIP measure is nearly identical to the TDI measure in every aspect with the lone exception being its exclusion of the persons per square mile (PD) factor. The specific formula for the TDIP is provided in Appendix B.

The following bulleted points represent a description of those block groups in the YVEDDI service area that have a TDIP classification of high, since there were no block groups in the service area that have a classification of very high.

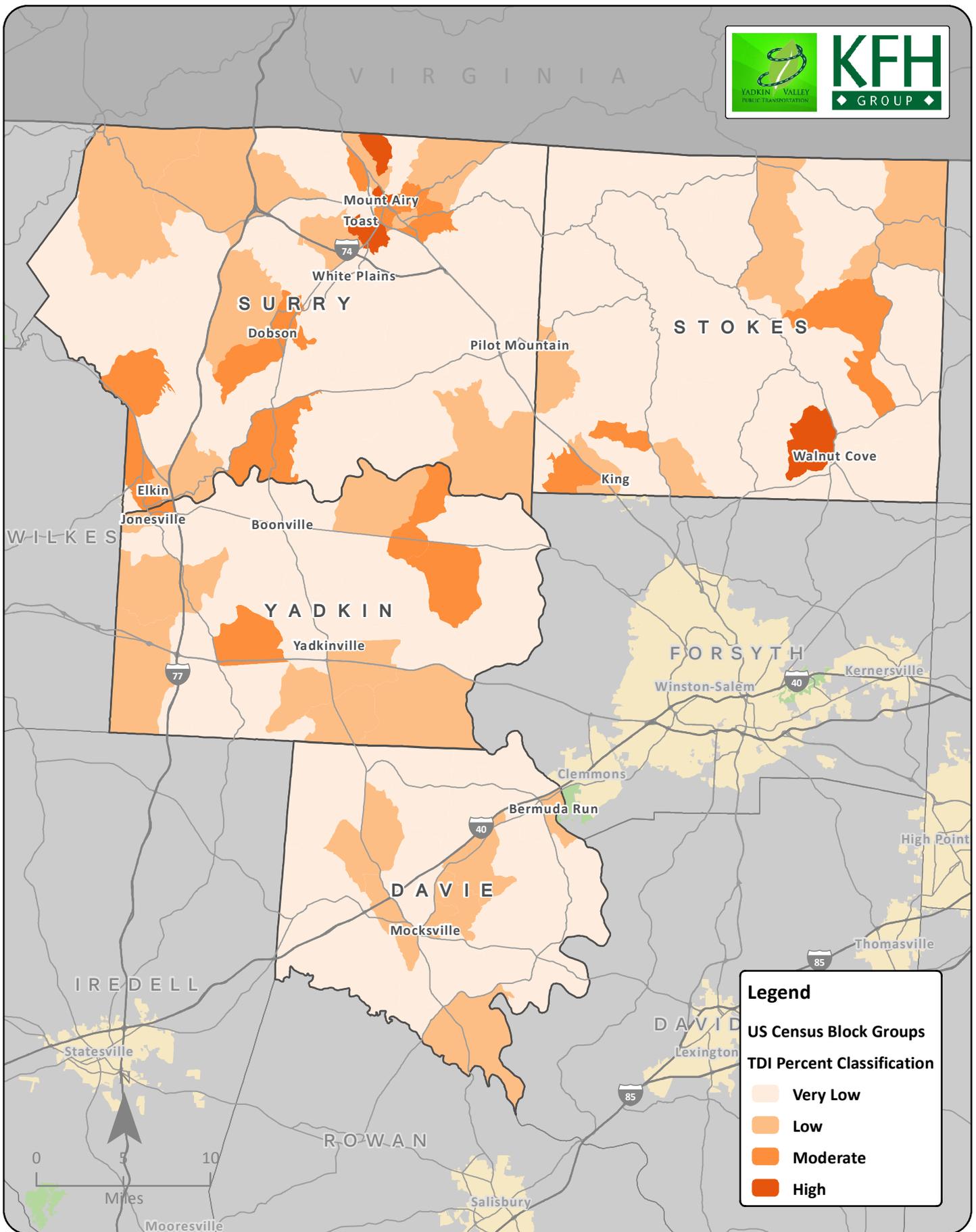
- The Surry County block group in Mount Airy that is bounded by Snowhill Drive to the north, Stewarts Creek to the west and south, and Lovills Creek and Ararat River to the east.
- The Stokes County block group in Walnut Cove that is bounded by East Road to the north, Voss Creek to the west, Main Street to the east, and Neatman Creek to the south.
- The Surry County block group in Mount Airy that is bounded by Virginia to the north, Lovills Creek to the west, Wards Gap Road to the east, and Fairway Lane to the south.
- The Surry County block group in Mount Airy that is bounded by Lebanon Street to the north, Lovills Creek to the west, Ararat River to the east, and Pine Street to the south.

These results are shown in Figure 2-11. It is important to note that both the TDI and TDIP represent need *relative* to the entire study area, so that if the entire area has a high number of transit dependent people, only those areas above the study area average will be portrayed as having high relative needs.

No Vehicle Households

Households without at least one personal automobile to their possession are more likely to depend on the mobility offered by public transportation than those households with access to an automobile. Although such no vehicle households are

Figure 2-11: Transit Dependence Index Percent for the Yadkin Valley



reflected in both the TDI and TDIP measures as a vulnerable population that should be accounted for in a needs assessment, there is added importance in displaying this segment of the population separately in an area with the rural character found throughout the four-county study area, where many land uses are separated by distances too far for non-motorized travel. Figure 2-12 is a map displaying the density of zero-car households in the region. This map shows that there are concentrations of zero-car households in Mount Airy, Elkin, and Bermuda Run.

Senior Adult Population

An integral role under YVEDDI's operation is its promotion of personal independence for senior adults that are achieved through the transportation services the agency offers; thus fulfilling its obligation under the Older Americans Act of 1965. Also, as was previously mentioned, there is a larger share of senior adults in each of the four counties in comparison to the senior adult share found throughout the State of North Carolina. As such, there is an added importance in determining the location of senior adults in Davie, Stokes, Surry, and Yadkin County, so that senior adults may be most effectively accommodated by present and future public transportation services within in the study area. For purposes of this needs assessment, a senior adult is qualified as any individual aged 65 years old or above. Figure 2-13 provides a detailed overview of senior adult residents in the four-county study area. Those areas of the study area where a very high number of senior adults reside include the following block groups.

- The Stokes County block group in King that is bounded by the Little Yadkin River to the north, United States Highway 52 to the west, Dalton Road to the east, and Meadowbrook Drive to the south.
- The Surry County block group in Elkin that is bounded by Interstate 77 and CC Camp Road to the north, a Yadkin River tributary to the west, Mitchell River to the east, and Yadkin River to the south.
- The Yadkin County block group in Yadkinville that is bounded by Hinshaw Road to the north, Casstevens Road and Center Road to the west, United States Highway 601 to the east, and Main Street to the south.
- The Stokes County block group in Walnut Cove that is bounded by East Road to the north, Voss Creek to the west, Main Street to the east, and Neatman Creek to the south.
- The Davie County block group in Bermuda Run that is bounded by Interstate 40 to the north, North Carolina State Route 801 to the west, Forsyth County to the east, and Carter Creek to the south.

Figure 2-12: Density of No Vehicle Households in Yadkin Valley

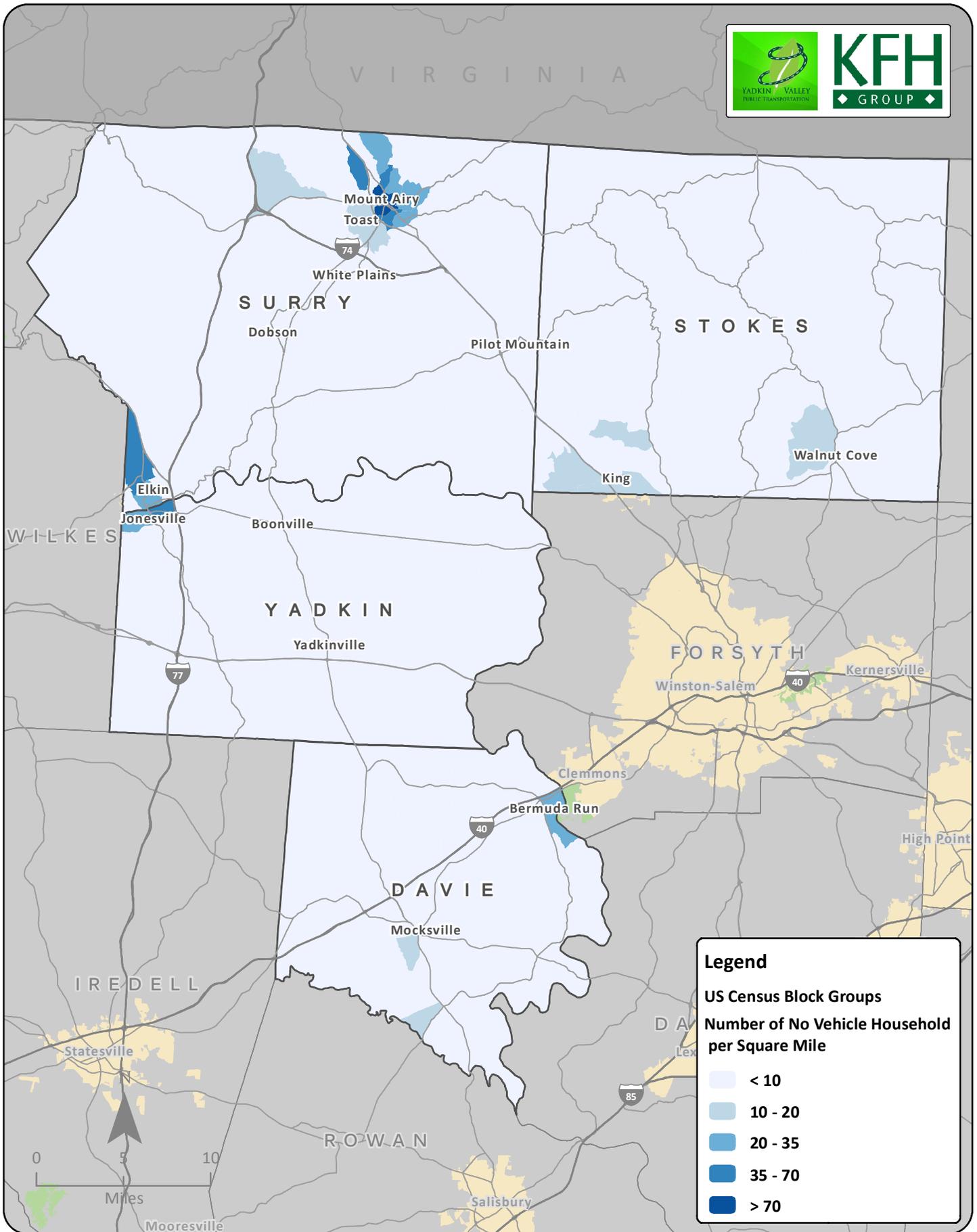
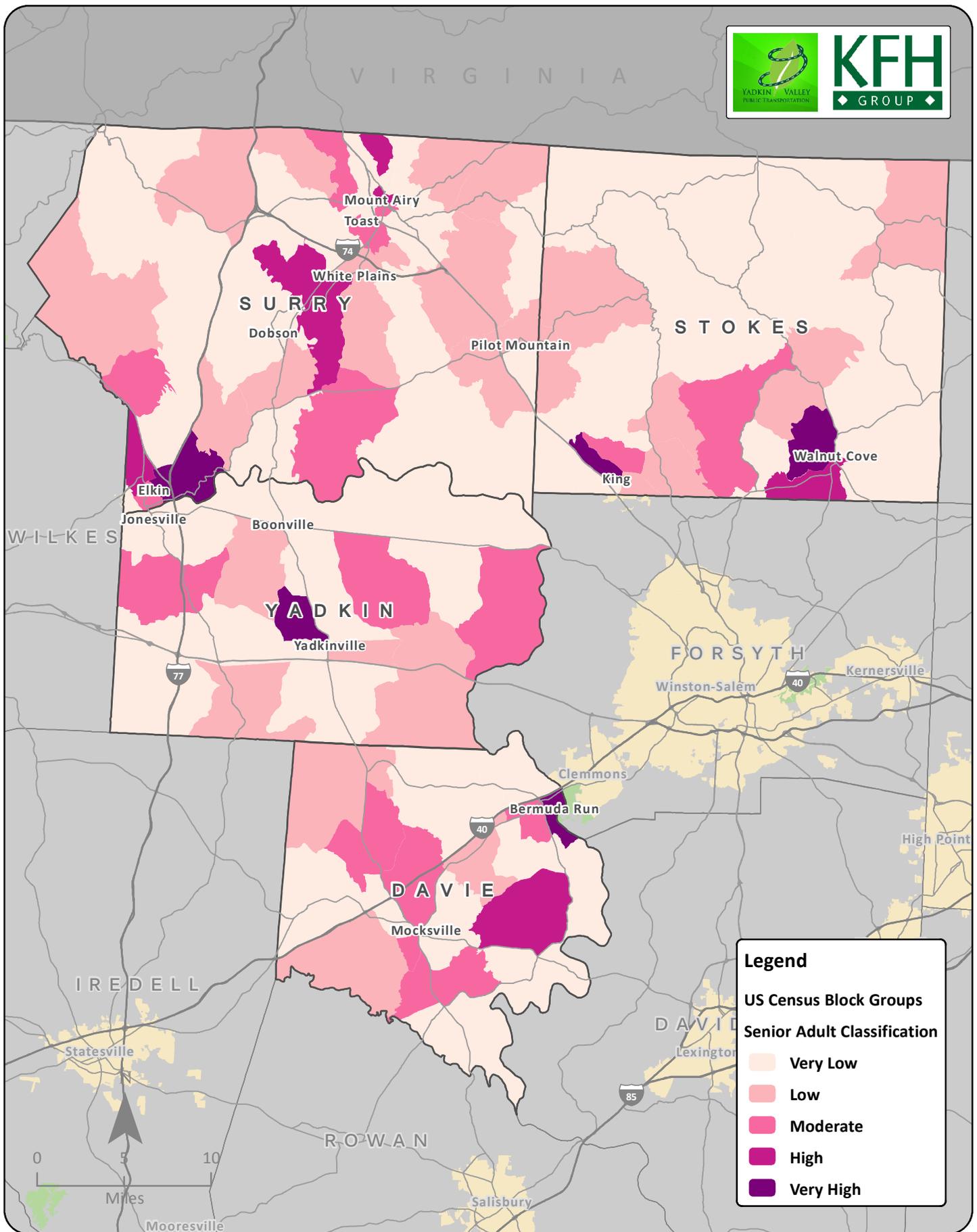


Figure 2-13: Number of Senior Adults in Yadkin Valley



High Density Housing

To best serve the residents of the four counties with an efficient public transportation network, it is important to determine where the largest concentrations of individuals reside within the YVEDDI service area. Doing so will assist in determining an efficient approach toward providing the most direct service available to these important origins. Within the four counties, the study team identified 16 high density housing complexes, which are detailed in Table 2-11. The vast majority of these multi-unit establishments are located in the more densely populated places, including complexes in Mount Airy, King, Mocksville, and Elkin. Figure 2-14 provides a map of the locations of these complexes throughout the YVEDDI study area.

Title VI Analysis

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities that receive financial assistance from the federal government. As such, agencies providing federally-funded public transportation services have a responsibility toward sustaining and enhancing the social and economic quality of life for the residents of the communities to which they serve. The following section examines the environmental justice population of the YVEDDI service area, which constitutes both racial and/or ethnic minorities and low-income residents, in addition to a synopsis of the magnitude of residents that possess limited proficiency in their English-speaking ability.

Minority Population

In accordance to Title VI of the Civil Rights Act of 1964, there is an importance to ensure that areas within the YVEDDI service area with a relative concentration of racial and/or ethnic minorities are not undesirably impacted by any proposed alterations to the existing public transportation services. To determine whether an alteration would have an adverse impact upon the minority population of the four-county study area, it is necessary to first understand where these relative concentrations of individuals reside. Figure 2-15 provides a map of the areas in the four counties based upon the percentage of minority persons per block group.

Low-Income Population

People with low incomes face financial hardships that make ownership and maintenance of a personal vehicle difficult and oftentimes unachievable. As such, these individuals are more likely to be dependent upon public transportation for both

Table 2-11: High Density Housing Complexes in YVEDDI Counties

High Density Housing Complex Name	Street Address	Place	County	Complex Type
ARC of North Carolina Group Homes	253 Milling Road	Mocksville	Davie	Affordable
Cambridge Creek Apartments	268 Milling Road	Mocksville	Davie	Standard
Cedar Ridge Apartments	1000 Hardison Street	Mocksville	Davie	Standard
Duke Street Apartments	207 Duke Street	Mocksville	Davie	Standard
Mock Place Apartments	401 North Main Street	Mocksville	Davie	Affordable
Northwood Apartments	800 Northridge Court	Mocksville	Davie	Standard
Rowan Pointe Apartments	127 Wilhaven Drive	Mocksville	Davie	Standard
Sunset Terrace Apartments	126 Sunset Drive	Mocksville	Davie	Standard
The Glen Apartments	300 Milling Road	Mocksville	Davie	Affordable
ARC of North Carolina Group Homes	121 Lakeside Drive	Walnut Cove	Stokes	Affordable
ARC of North Carolina Group Homes #2	100 McGee Court	King	Stokes	Affordable
ARC of North Carolina Group Homes #3	209 Pilot View Drive	King	Stokes	Affordable
Carolina Christian Village Homes	604 Ingram Drive	King	Stokes	Affordable
Carolina Apartments	540 Ingram Drive	King	Stokes	Standard
Christian Village Homes	115 Stoneway Court	King	Stokes	Standard
Heritage Apartments	124 Heritage Drive	Walnut Cove	Stokes	Standard
Kelleystone Apartments	102 Kelleystone Drive	King	Stokes	Standard
Kings Way Apartments	116 Ohara Circle	King	Stokes	Standard
Kingswood Apartments	200 Plantation Drive	King	Stokes	Standard
Pilot View Apartments	600 Newsome Road	King	Stokes	Standard
Pine Ridge Apartments	209 Pine Ridge Circle	Walnut Cove	Stokes	Standard
Red Sage Apartments	105 Pineview Drive	King	Stokes	Standard
Regency Apartments	909 Regency Apartments Lane	Walnut Cove	Stokes	Standard
Stokesburg Meadows Apartments	124 Stokesburg Meadows Court	Walnut Cove	Stokes	Standard
Villa Trace Apartments	649 West Dalton Street	King	Stokes	Standard
ARC of North Carolina Group Homes	910 Spring Street	Mount Airy	Surry	Affordable
ARC of North Carolina Group Homes #2	534 Elk Spur Street	Elkin	Surry	Affordable
Camden Apartments	504 Merritt Street	Mount Airy	Surry	Affordable
Camden Apartments	1248 Newsome Street	Mount Airy	Surry	Standard
Chatham Woods Senior Apartments	232 Hawthorne Road	Elkin	Surry	Standard
Collinswood Apartments	250 Lyles Street	Elkin	Surry	Standard
Community Advisory Committee of Surry County	213 Broad Street	Mount Airy	Surry	Affordable
Dobson Village Apartments	101 Village Circle	Dobson	Surry	Standard
Elk Court Apartments	150 Elk Court	Elkin	Surry	Standard

Table 2-11: High Density Housing Complexes in YVEDDI Counties

High Density Housing Complex Name	Street Address	Place	County	Complex Type
Garden Terrace Apartments	100 Garden Terrace	Mount Airy	Surry	Standard
Globe Tobacco Apartments	838 South Main Street	Mount Airy	Surry	Standard
Maple Court Apartments	338 Phippen Street	Mount Airy	Surry	Affordable
Maple Ridge Apartments	900 Johnson Ridge Road	Elkin	Surry	Standard
Mountain Place	500 Mountain Place Lane	Mount Airy	Surry	Affordable
Northwood Apartments	112 Northwood Drive	Mount Airy	Surry	Standard
Parkwood Place	601 Johnson Ridge Road	Elkin	Surry	Standard
Pine Terrace Apartments	407 Pine Terrace Drive	Mount Airy	Surry	Standard
Pinnacle Hill Apartments	106 South Key Street	Pilot Mountain	Surry	Standard
Shamrock Terrace Apartments	100 Shamrock Terrace Lane	Dobson	Surry	Standard
South Village Apartments	1348 Carolina Court	Mount Airy	Surry	Affordable
Spring Valley Apartments	100 South Kirkland Avenue	Elkin	Surry	Standard
Surry Manor Apartments	100 Surry Manor Lane	Dobson	Surry	Affordable
Village Green Apartments	830 Willow Street	Mount Airy	Surry	Affordable
Willow Hill Apartments	830 Willow Hill Circle	Mount Airy	Surry	Standard
Woodrun Apartments	200 Lyles Street	Elkin	Surry	Standard
ARC of North Carolina Group Homes	130 Williams Street	Boonville	Yadkin	Affordable
Arlington Hill	140 North Park Drive	Jonesville	Yadkin	Affordable
Bell Brooks Apartments	US 21	Hamptonville	Yadkin	Standard
Briarwood Apartments	220 Briarwood Lane	Jonesville	Yadkin	Standard
Hollows Apartments	459 West Main Street	Boonville	Yadkin	Standard
Hunter Ridge Apartments			Yadkin	Standard
Jonesville Apartments	100 Loop Avenue	Jonesville	Yadkin	Affordable
Little Creek Apartments	203 South Jonesville Boulevard	Jonesville	Yadkin	Standard
Meadows Apartments	200 Harold Court	Yadkinville	Yadkin	Affordable
Oaks at Pine Valley	121 Pine Valley Drive	Yadkinville	Yadkin	Standard
Oakwood I Apartments	347 Twin Oaks Drive	Yadkinville	Yadkin	Standard
Oakwood II Apartments	348 Twin Oaks Drive	Yadkinville	Yadkin	Standard
Timber Woods Apartments	224 Triplett Street	Jonesville	Yadkin	Standard
West Yadkin Apartments	US 21 and US 421	Hamptonville	Yadkin	Standard
Yadkin Apartments II	360 Oakland Boulevard	Jonesville	Yadkin	Affordable
Yadkin Apartments III	101 Johnson Street	Boonville	Yadkin	Affordable
Yadkin Plaza	101 Oakwood Lane	Yadkinville	Yadkin	Standard

Figure 2-14: High Density Housing in the Yadkin Valley

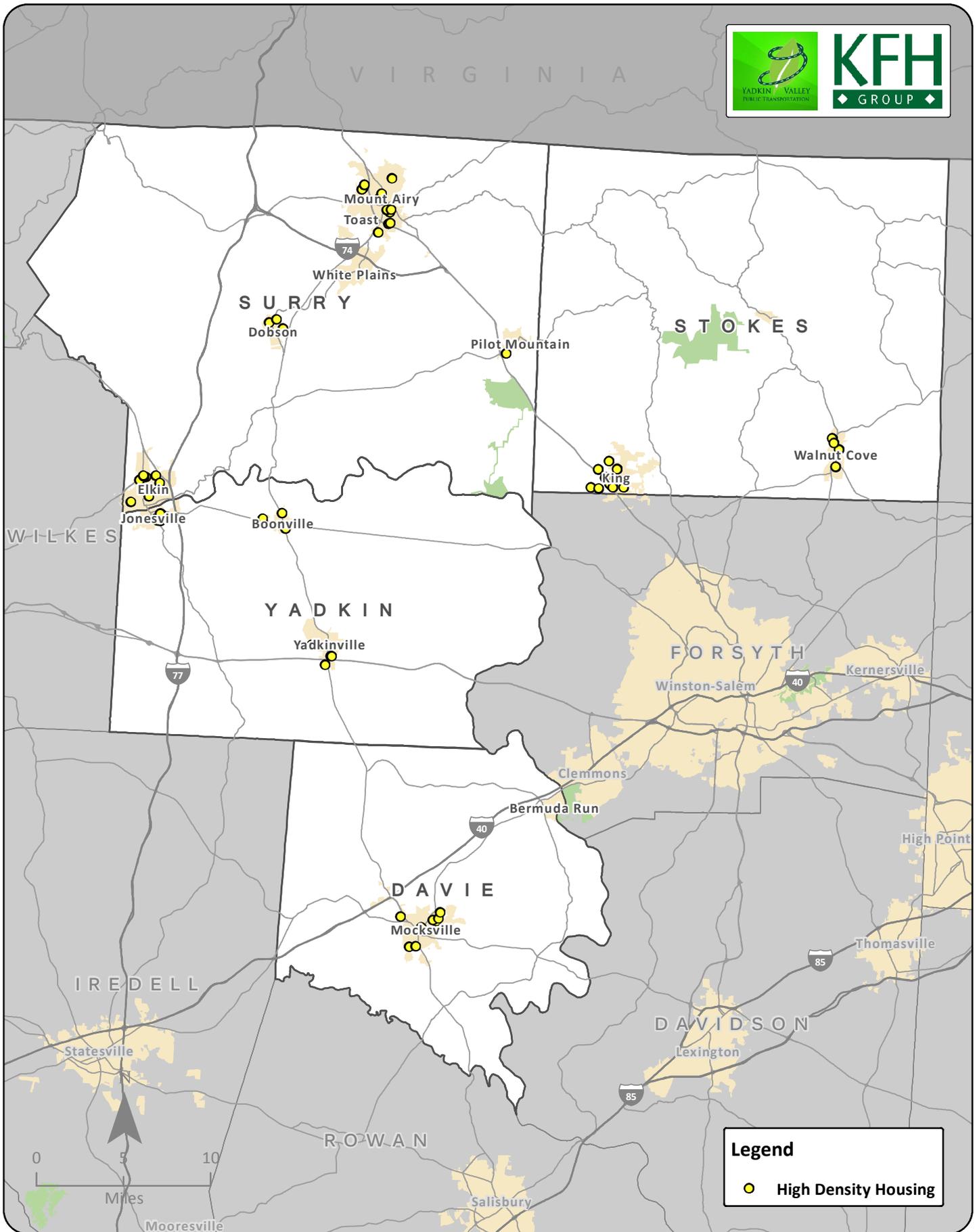
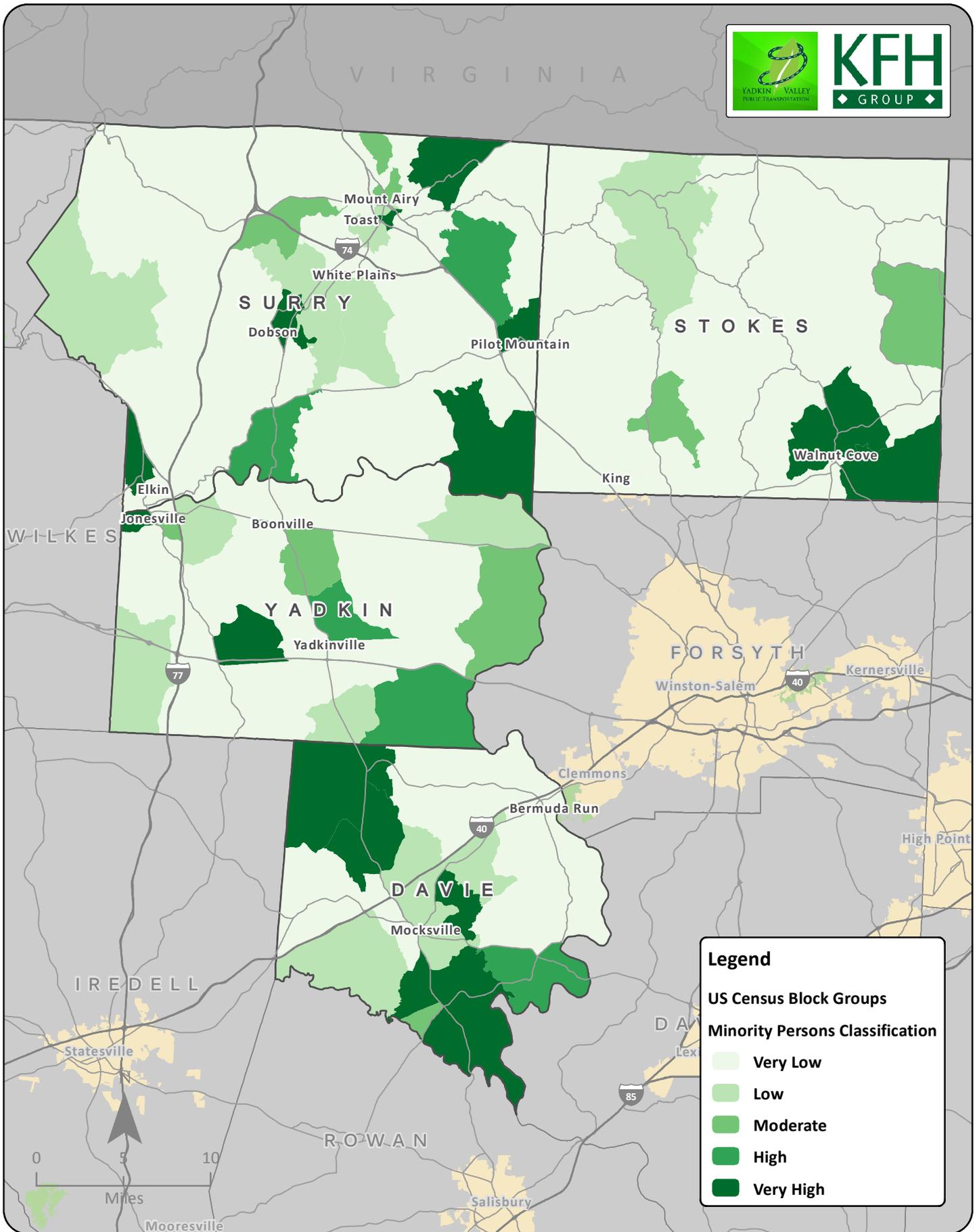


Figure 2-15: Minority Persons Index for the Yadkin Valley



mandatory and discretionary trips. Figure 2-16 is a map depicting the percent of low-income individuals per block group throughout the four counties.

Limited-English Proficiency

In addition to equitably providing public transportation to individuals of diverse socioeconomic backgrounds, it is also important to realize the variety in languages spoken by residents of Davie, Stokes, Surry, and Yadkin Counties. Consequently, YVEDDI must determine the appropriate level to which the agency disseminates information to individuals and households with limited proficiency in English-speaking ability throughout the four-county region. According to the ACS's five-year estimates for 2005-2009, the English language is predominately spoken amongst the residents of Stokes (97.52%), Davie (93.19%), Yadkin (92.19%), and Surry Counties (90.84%). Amongst the other languages spoken by residents of the YVEDDI service area, only Spanish has a percent-share greater than one percent in any of the three counties. Surry County (7.99%), Yadkin County (7.18%), and Davie County (5.77%) all have more than five percent of their residential populations who speak Spanish at home. However, none of the four counties have more than one percent of the residential population that speaks a language other than English or Spanish in their respective households. Of those households where a non-English language is spoken, the split between those households with an ability to speak English "very well" and those with ability that is less than the threshold is about equal. Among all of the residents in the YVEDDI service area that speak a language other than English at home (6.84%), 48.15% of the non-English speaking residents are unable to speak English "very well." Therefore, the overwhelming majority of residents in the four-county study area are either native English speakers or at ease with speaking the language.

Examining the linguistic isolation among households in the four counties denotes a similar finding, which is detailed in Table 2-12. For three of the four counties in the service area, less than two percent of the households are deemed linguistically isolated by the ACS's findings. The lone exception is Surry County, where 2.13% of households are categorized as being linguistically isolated. Moreover, more than 92% of the households in each of the counties speak English while in the home. Only Surry County has any single language, other than English, representing more than a two percent share, with Spanish being spoken in 2.00% of all households in the most populous county.

Land Use Analysis

The land use analysis section provides information regarding the types and the locations of major trip destinations within the study area. The following major trip destinations have been identified and mapped: educational institutions, human service agencies, major employment sites, medical centers, and shopping centers.

Figure 2-16: Persons Living Below the Federal Poverty Level Index for the Yadkin Valley

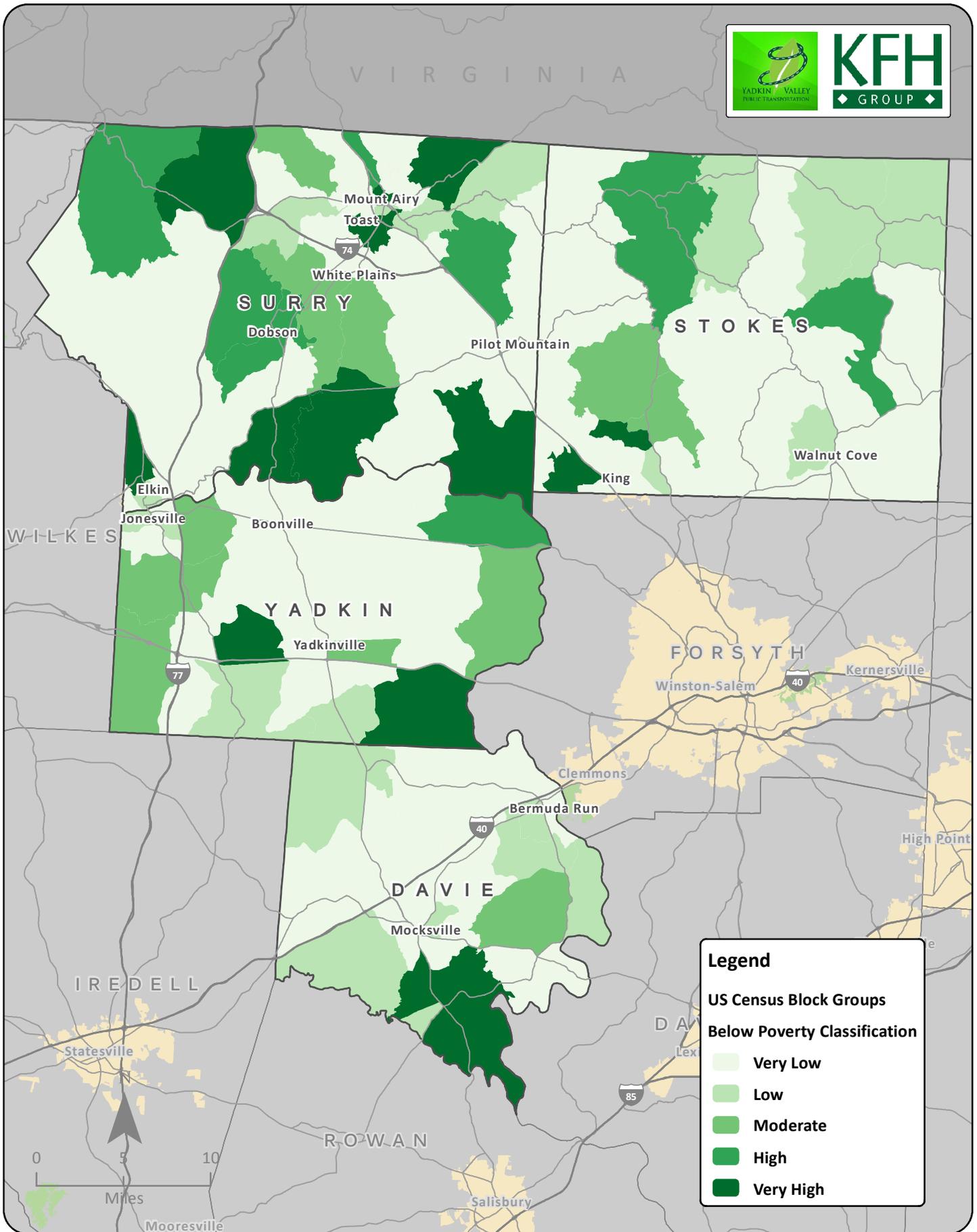


Table 2-12: Limited-English Proficiency and Linguistic Isolation in YVEDDI Counties

County of Residence:	Davie County		Stokes County		Surry County		Yadkin County	
Population Five Years and Older:	37,911		43,383		67,538		35,261	
Language Spoken at Home--	Number	Percent	Number	Percent	Number	Percent	Number	Percent
a) English (only):	35,329	93.19%	42,308	97.52%	61,351	90.84%	32,507	92.19%
b) Spanish:	2,187	5.77%	833	1.92%	5,394	7.99%	2,532	7.18%
c) French:	138	0.36%	38	0.09%	62	0.09%	32	0.09%
d) German:	11	0.03%	25	0.06%	48	0.07%	187	0.53%
e) Hmong:	0	0.00%	0	0.00%	129	0.19%	0	0.00%
f) Arabic:	19	0.05%	35	0.08%	53	0.08%	0	0.00%
g) Other:	227	0.60%	144	0.33%	501	0.74%	3	0.01%
Speak non-English at Home:	2,582	6.81%	1,075	2.48%	6,187	9.16%	2,754	7.81%
Ability to Speak English--								
a) "Very Well":	1,283	49.69%	548	50.98%	2,818	45.55%	1,417	51.45%
b) Less than "Very Well":	1,299	50.31%	527	49.02%	3,369	54.45%	1,337	48.55%
Population in Households:	15,304		18,100		28,681		14,822	
Language Spoken in Household--	Number	Percent	Number	Percent	Number	Percent	Number	Percent
a) English (only):	14,324	93.60%	17,581	97.13%	26,644	92.90%	13,775	92.94%
b) Spanish:	753	4.92%	409	2.26%	1,708	5.96%	939	6.34%
c) Other Indo-European:	150	0.98%	79	0.44%	224	0.78%	108	0.73%
d) Asian and Pacific:	58	0.38%	0	0.00%	82	0.29%	0	0.00%
e) Other Languages:	19	0.12%	31	0.17%	23	0.08%	0	0.00%
Linguistically Isolated:	168	1.10%	184	1.02%	610	2.13%	252	1.70%
Language Spoken in Household--								
a) Spanish:	146	0.95%	174	0.96%	573	2.00%	236	1.59%
b) Other Indo-European:	22	0.14%	0	0.00%	13	0.05%	16	0.11%
c) Asian and Pacific:	0	0.00%	0	0.00%	24	0.08%	0	0.00%
d) Other Languages:	0	0.00%	10	0.06%	0	0.00%	0	0.00%

Source: American Community Survey, Five-Year Estimates (2005-2009), Table B16001 and Table B16002.

Educational Institutions

Given that one of the five socioeconomic characteristics within the TDI measure was the youth population and that many of these individuals are unable to legally operate their own personal vehicle, it may be assumed that this segment of the population is one reliant upon public transportation as a mobility service. Furthermore, the vast majority of these individuals between the ages of 10 and 17 are full-time students and therefore enrolled in educational facilities. Many adults above the age of 18 are also associated with educational institutions as a site for continued learning or gainful employment. Table 2-13 provides a detailed list of the 65 educational institutions located in the four counties, which includes Surry Community College in Dobson. The geographic locations of these primary schools and colleges are displayed in Figure 2-17. The location of these educational institutions is expectedly decentralized throughout the study area with a greater concentration of sites existing in the more populous communities.

Human Service Agencies

Human service agencies provide assistance and resources to residents seeking support in a spectrum of issues including, but not limited to, senior health care, childhood development, social support, recreation, entertainment, and nutrition. The range of services offered by these agencies, which includes YVEDDI, makes them a critical component to any supported community and, thus, are locations where public transportation will undoubtedly serve as a vital travel option. Table 2-14 provides a listing of some of the more prominent human service agencies in the four counties, which are shown in Figure 2-18. Concentrations of these agencies are located within various communities, including Yadkinville, Dobson, and Mocksville.

Major Employment Sites

Employment sites serve as a popular travel destination for many of the residents of Davie, Stokes, Surry, and Yadkin Counties. For the purposes of this needs assessment, a major employment site is recognized as a single employment location within one of the four counties that employs at least 100 workers, as reported by the North Carolina Security Commission's Labor Market Information quarterly report for the first quarter of 2010. This list comprises 43 unique employment sites in the four-county study area, with Surry County containing 19 employment locations that meet the predetermined threshold. A complete breakdown of each major employer and its county is denoted in Table 2-15 and visually depicted in Figure 2-19. Although many of these employers are located in the larger communities in the study area, there exist a number of sites that are positioned in more remote communities (e.g., Kobewieland Copper Products, LLC in Pine Hall).

Table 2-13: Educational Institutions in YVEDDI Counties

School Name	Street Address	Place	County	School Type
Central Davie Academy	160 Campbell Road	Mocksville	Davie	Alternative
Cooleemee Elementary School	136 Marginal Street	Cooleemee	Davie	Elementary
Cornatzer Elementary School	552 Cornatzer Road	Mocksville	Davie	Elementary
Davie County Early College High School	1209 Salisbury Road	Mocksville	Davie	High
Davie County High School	1200 Salisbury Road	Mocksville	Davie	High
Mocksville Elementary School	295 Cementary Street	Mocksville	Davie	Elementary
North Davie Middle School	497 Farmington Road	Mocksville	Davie	Middle
Pinebrook Elementary School	477 Pinebrook School Road	Mocksville	Davie	Elementary
Shady Grove Elementary School	3179 Cornatzer Road	Advance	Davie	Elementary
South Davie Middle School	700 Hardison Street	Mocksville	Davie	Middle
William Davie Elementary School	3437 US Highway 601 North	Mocksville	Davie	Elementary
William Ellis Middle School	144 William Ellis Drive	Advance	Davie	Middle
Chestnut Grove Middle School	2185 Chestnut Grove Road	King	Stokes	Middle
Francisco Elementary School	7165 NC 89 Highway West	Westfield	Stokes	Elementary
Germantown Elementary School	6085 NC 8 Highway South	Germantown	Stokes	Elementary
King Elementary School	152 East School Street	King	Stokes	Elementary
Lawsonville Elementary School	4611 NC 8 Highway North	Lawsonville	Stokes	Elementary
London Elementary School	609 School Street	London	Stokes	Elementary
Meadowbrook Academy	817 Meadowbrook Drive	King	Stokes	High
Mount Olive Elementary School	2145 Chestnut Grove Road	King	Stokes	Elementary
Nancy Reynolds Elementary School	1585 NC 66 Highway North	Westfield	Stokes	Elementary
North Stokes High School	1350 North Stokes School Road	Danbury	Stokes	High
Pine Hall Elementary School	1400 Pine Hall Road	Pine Hall	Stokes	Elementary
Piney Grove Middle School	3415 Piney Grove Church Road	Lawsonville	Stokes	Middle
Pinnacle Elementary School	1095 Surry Line Road	Pinnacle	Stokes	Elementary
Sandy Ridge Elementary School	1070 Amostown Road	Sandy Ridge	Stokes	Elementary
South Stokes High School	1100 South Stokes High Drive	Walnut Cove	Stokes	High
Southeastern Stokes Middle School	1044 North Main Street	Walnut Cove	Stokes	Middle
Stokes Early College	1165 Dodgetown Road	Walnut Cove	Stokes	High
Walnut Grove Elementary School	1211 Walnut Cove School Road	Walnut Cove	Stokes	Elementary
West Stokes High School	1400 Priddy Road	King	Stokes	High
Cedar Ridge Elementary School	734 Flippin Road	Lowgap	Surry	Elementary
Central Middle School	883 Zephyr Road	Dobson	Surry	Middle

Table 2-13: Educational Institutions in YVEDDI Counties

School Name	Street Address	Place	County	School Type
Copeland Elementary School	948 Copeland School Road	Dobson	Surry	Elementary
Dobson Elementary School	400 West Atkins Street	Dobson	Surry	Elementary
East Surry High School	801 West Main Street	Pilot Mountain	Surry	High
Flat Rock Elementary School	1539 East Pine Street	Mount Airy	Surry	Elementary
Franklin Elementary School	519 South Franklin Road	Mount Airy	Surry	Elementary
Gentry Middle School	1915 West Pine Street	Mount Airy	Surry	Middle
Meadowview Middle School	1282 McKinney Road	Mount Airy	Surry	Middle
Mountain Park Elementary School	505 Mountain Park Road	State Road	Surry	Elementary
North Surry High School	2440 West Pine Street	Mount Airy	Surry	High
Pilot Mountain Elementary School	218 Friends Street	Pilot Mountain	Surry	Elementary
Pilot Mountain Middle School	543 Old Westfield Road	Pilot Mountain	Surry	Middle
Rockford Elementary School	719 Rockford Road	Dobson	Surry	Elementary
Shoals Elementary School	1800 Shoals Road	Pinnacle	Surry	Elementary
Surry Central High School	716 South Main Street	Dobson	Surry	High
Surry Community College	630 South Main Street	Dobson	Surry	Community College
Surry Early College High School of Design	630 South Main Street	Dobson	Surry	High
Westfield Elementary School	273 Jessup Grove Church Road	Pilot Mountain	Surry	Elementary
White Plains Elementary School	710 Cadre Ford Road	Mount Airy	Surry	Elementary
Boonville Elementary School	232 East Main Street	Boonville	Yadkin	Elementary
Courtney Elementary School	2529 Courtney-Huntsville Road	Yadkinville	Yadkin	Elementary
East Bend Elementary School	205 School Street	East Bend	Yadkin	Elementary
Fall Creek Elementary School	2720 Smithtown Road	East Bend	Yadkin	Elementary
Forbush Elementary School	1400 Bloomtown Road	East Bend	Yadkin	Elementary
Forbush High School	1525 Falcon Road	East Bend	Yadkin	High
Forbush Middle School	1431 Falcon Road	East Bend	Yadkin	Middle
Jonesville Elementary School	101 Cedarbrook Road	Jonesville	Yadkin	Elementary
Starmount High School	2516 Longtown Road	Boonville	Yadkin	High
Starmount Middle School	2626 Longtown Road	Boonville	Yadkin	Middle
West Yadkin Elementary School	4432 Old US 421 Highway	Hamptonville	Yadkin	Elementary
Yadkin Early College	4649 Highway 601	Yadkinville	Yadkin	High
Yadkin Success Academy	733 East Main Street	Yadkinville	Yadkin	High
Yadkinville Elementary School	305 North State Street	Yadkinville	Yadkin	Elementary

Figure 2-17: Educational Institutions in the Yadkin Valley

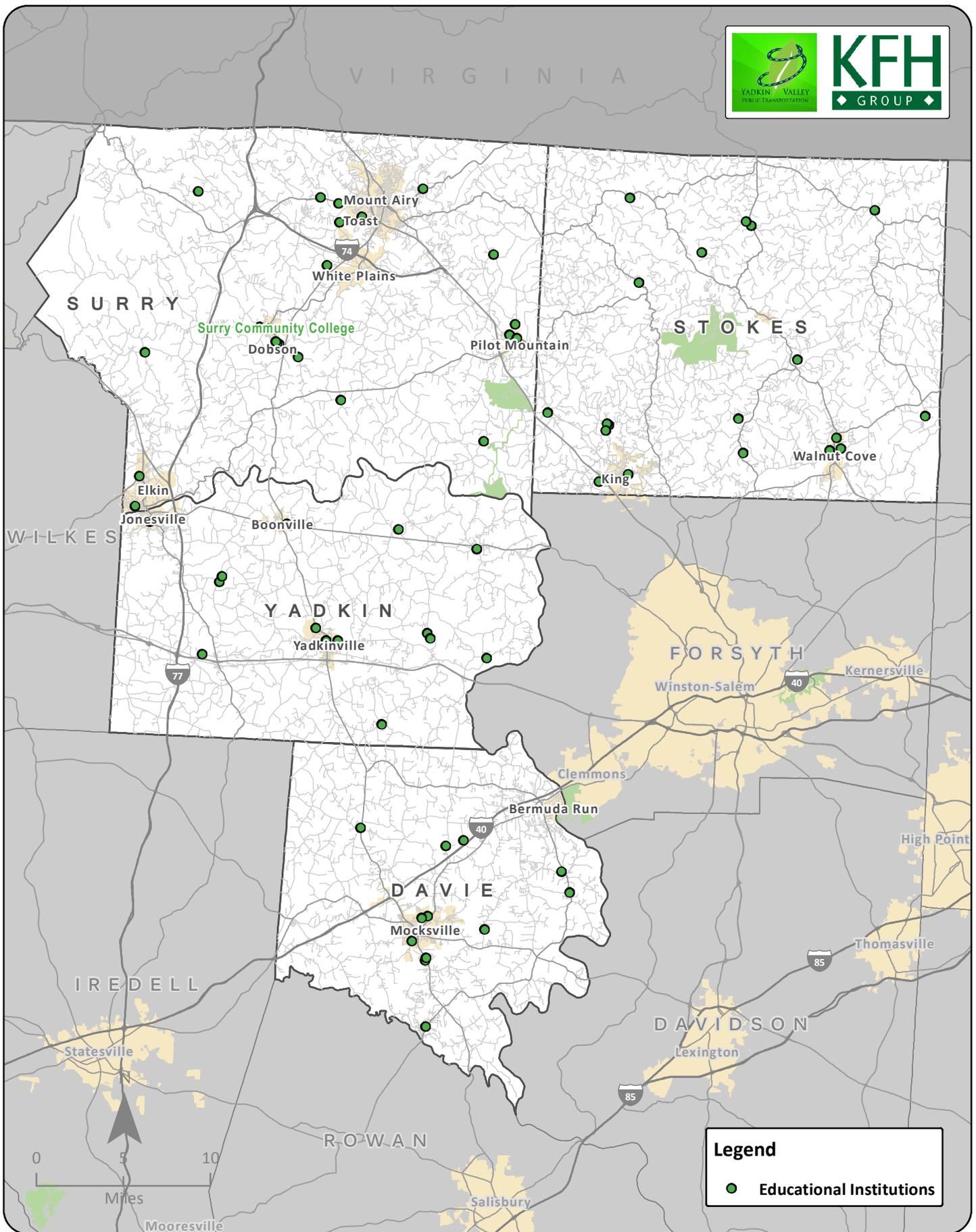


Table 2-14: Human Service Agencies in YVEDDI Counties

Human Service Agency Name	Street Address	Place	County	Agency Type
Brock Center	622 North Main Street	Mocksville	Davie	Performing Arts Center
Cooleemee Head Start	197 Marginal Street	Cooleemee	Davie	Head Start Center
Davie County Health Department	210 Hospital Street	Mocksville	Davie	Health Department
Davie County Senior Services	278 Meroney Street	Mocksville	Davie	Senior Center
Davie Family YMCA	215 Cementary Street	Mocksville	Davie	Recreation Center
Mocksville Head Start	835 Dulin Road	Mocksville	Davie	Head Start Center
William R Davie Head Start	3437 US Highway 601 North	Mocksville	Davie	Head Start Center
Camp Hanes YMCA	1225 Camp Hanes Road	King	Stokes	Recreation Center
Danbury Head Start	1070 Hospice Drive	Danbury	Stokes	Head Start Center
Danbury Public Library	1007 Main Street	Danbury	Stokes	Library
King Public Library	101 Pilot View Drive	King	Stokes	Library
London Head Start	609 School Street	Walnut Cove	Stokes	Head Start Center
Sandy Ridge Head Start	1078 Amostown Road	Sandy Ridge	Stokes	Head Start Center
Stokes Family Health Center	1009 Main Street	Danbury	Stokes	Health Department
Stokes Family Violence	1012 Main Street	Danbury	Stokes	Domestic Violence Center
Stokes Family YMCA	105 Moore Street	King	Stokes	Recreation Center
Walnut Cove Public Library	106 West 5th Street	Walnut Cove	Stokes	Library
Walnut Cove Senior Center	308 Brook Street	Walnut Cove	Stokes	Senior Center
Charles H Stone Memorial Library	319 West Main Street	Pilot Mountain	Surry	Library
Dobson Community Library	305 South Main Street	Dobson	Surry	Library
Dobson Nutrition Site	724 Bear Creek Church Road	Dobson	Surry	Elderly Nutrition Site
Elkin Public Library	111 North Front Street	Elkin	Surry	Library
Low Gap Nutrition Site	121 Canyon Lane	Low Gap	Surry	Elderly Nutrition Site
Low Gap Public Library	5210 West Pine Street	Low Gap	Surry	Library
Mount Airy Nutrition Site	922 Banner Street	Mount Airy	Surry	Elderly Nutrition Site
Mount Airy Public Library	145 Rockford Street	Mount Airy	Surry	Library
Oak Frove Head Start	453 Oak Grove Road	Elkin	Surry	Head Start Center
Paynetown Head Start	205 Marshall Farm Road	Mount Airy	Surry	Head Start Center
Pilot Mountain Senior Center	873 Old US 53 Bypass West	Pilot Mountain	Surry	Senior Center
Red Hill Creek Head Start	101 McMickles School Road	Dobson	Surry	Head Start Center
Surry County Domestic Violence	114 West Atkins Street	Dobson	Surry	Domestic Violence Center
Surry County Health Department	118 Hamby Road	Dobson	Surry	Health Department
Surry County Senior Center	215 Jones School Road	Mount Airy	Surry	Senior Center
Surry Head Start	389 Jenkinstown Road	Dobson	Surry	Head Start Center

Table 2-14: Human Service Agencies in YVEDDI Counties

Human Service Agency Name	Street Address	Place	County	Agency Type
Boonville Community Public Library	110 Carolina Avenue	Boonville	Yadkin	Library
Cooleemee Branch Library	7796 NC Highway 801 South	Cooleemee	Yadkin	Library
Davie County Public Library	371 North Main Street	Mocksville	Yadkin	Library
East Bend Public Library	332 West Main Street	East Bend	Yadkin	Library
East Bend Senior Center	473 East Main Street	East Bend	Yadkin	Senior Center
Jonesville Head Start	205 Center Street	Jonesville	Yadkin	Head Start Center
Jonesville-Arlington Public Library	150 West Main Street	Jonesville	Yadkin	Library
JR Hutchens I & II Head Start	1012 Hoots Road	Yadkinville	Yadkin	Head Start Center
Yadkin County Family Domestic Violence	106 Elm Street	Yadkinville	Yadkin	Domestic Violence Center
Yadkin County Health Department	217 East Willow Street	Yadkinville	Yadkin	Health Department
Yadkin County Public Library	233 East Main Street	Yadkinville	Yadkin	Library
Yadkin County Senior Center	207 East Hemlock Street	Yadkinville	Yadkin	Senior Center
Yadkin Family YMCA	6540 Service Road	Yadkinville	Yadkin	Recreation Center
Yadkin Valley Economic Development District Inc	533 North Carolina Avenue	Bonnville	Yadkin	YVEDDI
Yadkin Valley Head Start	116 Baptist Church Road	Yadkinville	Yadkin	Head Start Center
Yadkin Valley Senior Center	121 Delos Martin Drive	Jonesville	Yadkin	Senior Center
Yadkinville Head Start	307 Harrison Avenue	Yadkinville	Yadkin	Head Start Center

Figure 2-18: Human Service Agencies in the Yadkin Valley

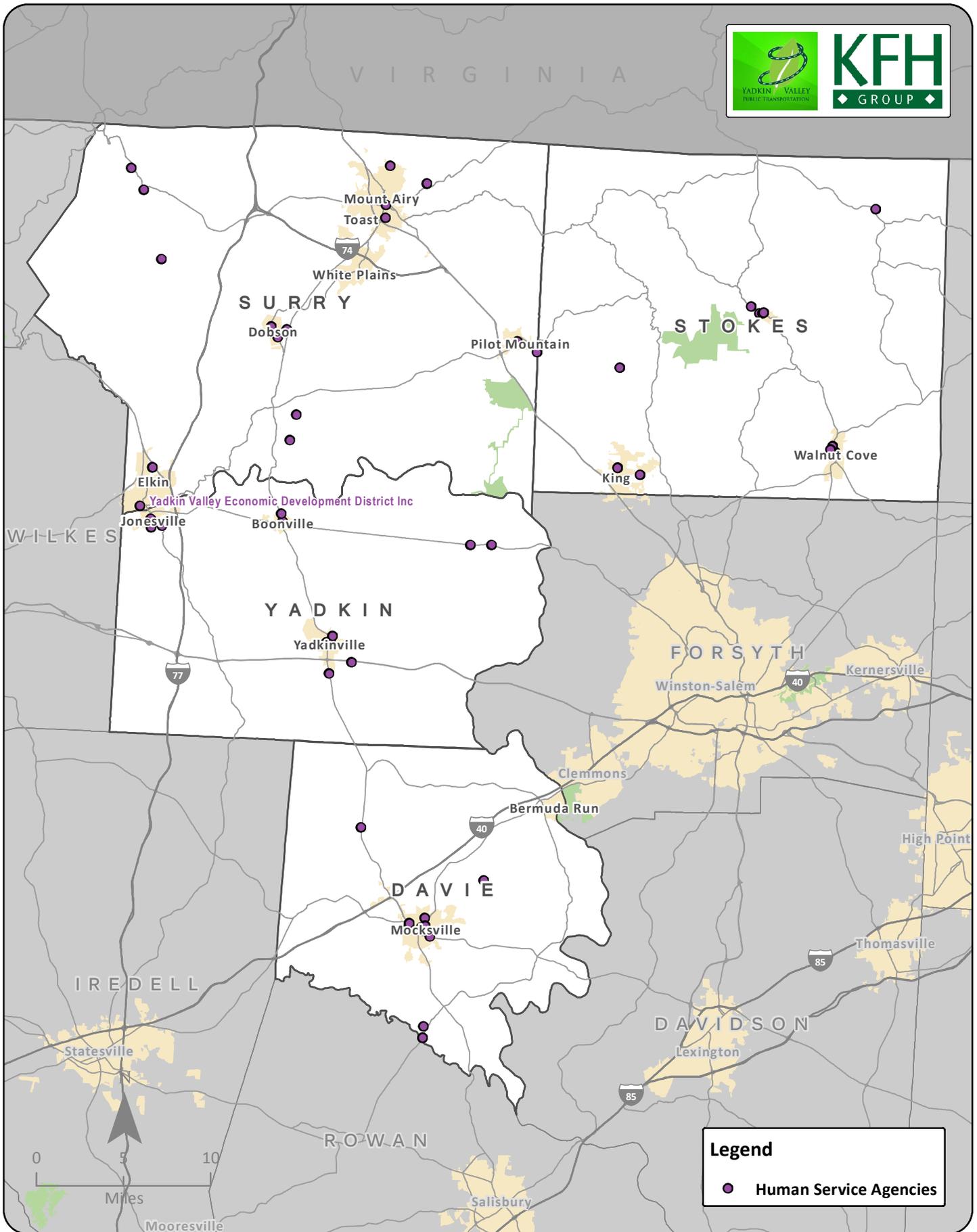


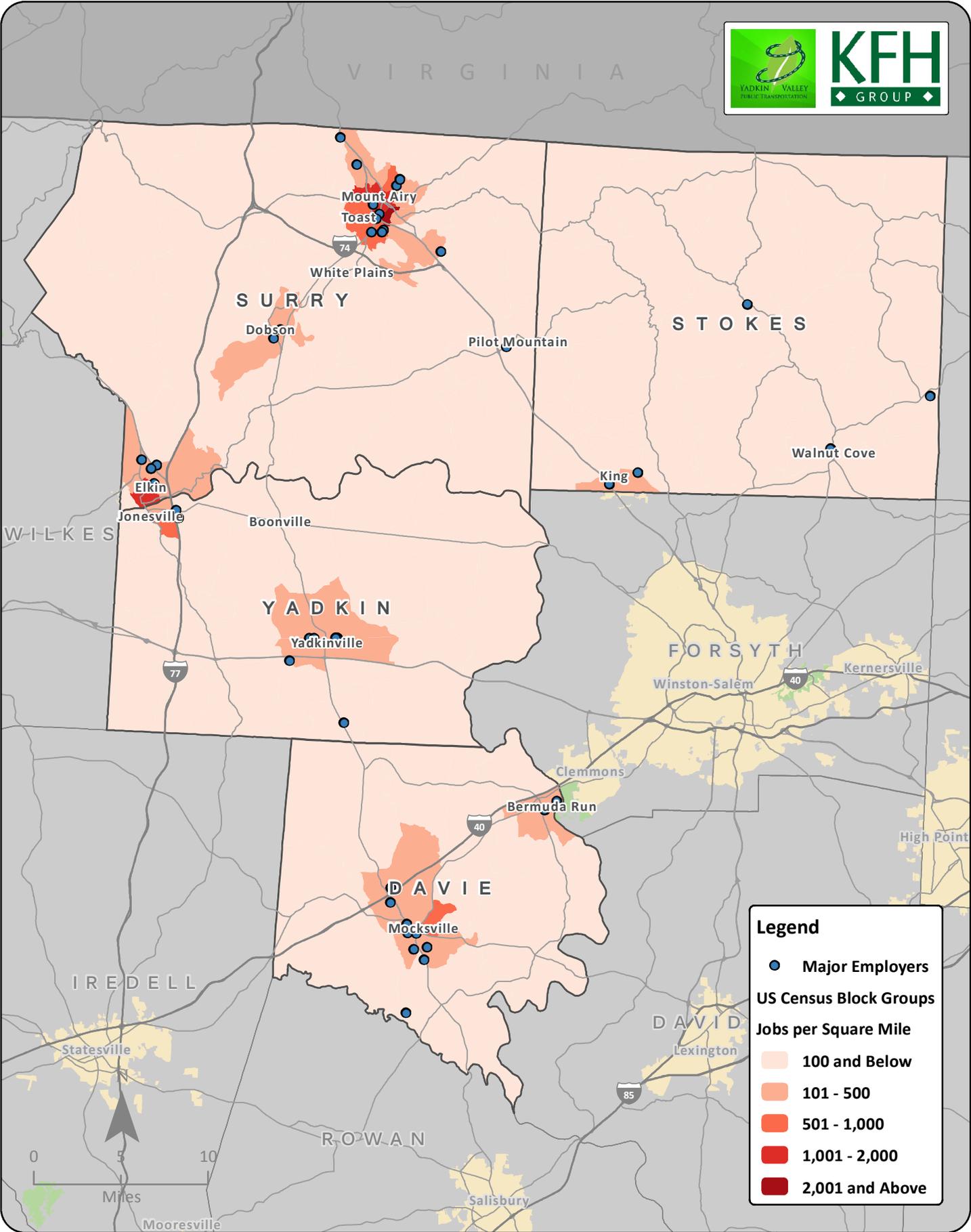
Table 2-15: Major Employers in YVEDDI Counties

Employer Name	Street Address	Place	County	Number of Employees
VF Jeanswear Limited Partnership	1401 US Highway 601 South	Mocksville	Davie	250-499
Crestwood Farms LLC	251 Eaton Road	Mocksville	Davie	250-499
Wal-Mart Associates Inc	261 Cooper Creek Drive	Mocksville	Davie	250-499
Affiniti Golf Partners LLC	324 Bermuda Run Drive	Bermuda Run	Davie	100-249
Ingersoll Rand Industrial Company	501 Sanford Avenue	Mocksville	Davie	100-249
Bermuda Village	Bermuda Village Drive	Bermuda Run	Davie	100-249
Davie County Hospital	223 Hospital Street	Mocksville	Davie	100-249
Jockey International Inc	264 Nolley Road	Mocksville	Davie	100-249
Lowe's Home Centers Inc	1427 Yadkinville Road	Mocksville	Davie	100-249
Avgol America Inc	178 Agol Drive	Mocksville	Davie	100-249
Temporary Resources Inc	300 S Main Street	Mocksville	Davie	100-249
Kobewieland Copper Products LLC	3990 US Highway 311 North	Pine Hall	Stokes	500-999
Stokes-Reynolds Memorial Hospital	1570 NC Highway 89 North	Danbury	Stokes	250-499
Autumn Corporation	440 Ingram Drive	King	Stokes	100-249
YMCA of Northwest North Carolina	105 Moore Road	King	Stokes	100-249
Walnut Cove Healthcare LLC	511 Windmill Street	Walnut Cove	Stokes	100-249
Pike Electric Corporation	100 Pike Way	Mount Airy	Surry	1000+
Wayne Farms LLC	802 East Atkins Street	Dobson	Surry	500-999
Hugh Chatham Memorial Hospital	180 Parkwood Drive	Elkin	Surry	500-999
Northern Hospital of Surry County	830 Rockford Street	Mount Airy	Surry	500-999
Wal-Mart Associates Inc	2241 Rockford Street	Mount Airy	Surry	500-999
Wal-Mart Associates Inc	548 CC Camp Road	Elkin	Surry	500-999
Workforce Carolina Inc	1810 North Bridge Street	Elkin	Surry	500-999
Workforce Carolina Inc	711 West Independence Boulevard	Mount Airy	Surry	500-999
Surry Community College	630 South Main Street	Dobson	Surry	500-999
Hanesbrands Inc	645 West Pine Street	Mount Airy	Surry	250-499
Renfro Corporation	661 Linville Road	Mount Airy	Surry	250-499
Lowe's Home Centers Inc	492 CC Camp Road	Elkin	Surry	250-499
Lowe's Home Centers Inc	692 South Andy Griffith Parkway	Mount Airy	Surry	250-499
Mountain Valley Hospice & Palliative	401 Technology Lane	Mount Airy	Surry	100-249
Nester Hosiery Inc	1400 Carter Street	Mount Airy	Surry	100-249
NCFI Polyurethanes (Barnhardt Manufacturing)	1515 Carter Street	Mount Airy	Surry	100-249
WLA Inc	133 White Pines Country Club Road	Mount Airy	Surry	100-249
Senior Quality Care Inc	633 South Key Street	Pilot Mountain	Surry	100-249

Table 2-15: Major Employers in YVEDDI Counties

Employer Name	Street Address	Place	County	Number of Employees
LS Starrett Corporation	1372 Boggs Drive	Mount Airy	Surry	100-249
Unifi Manufacturing Inc	601 East Main Street	Yadkinville	Yadkin	500-999
Phillips-Van Heusen Corporation	1000 PvH Quality Way	Jonesville	Yadkin	250-499
Lydall Thermal & Acoustical	601 East Main Street	Yadkinville	Yadkin	250-499
Yadkin Valley Telephone Membership Corporation	1421 Courtney-Huntsville Road	Yadkinville	Yadkin	100-249
Yadkin Nursing Care Center Inc	903 West Main Street	Yadkinville	Yadkin	100-249
Hoots Memorial Hospital Inc	624 West Main Street	Yadkinville	Yadkin	100-249
Austin Company	2100 Hoots Road	Yadkinville	Yadkin	100-249
Cracker Barrel Old Country Store	1717 NC Highway 67	Jonesville	Yadkin	100-249

Figure 2-19: 2009 Job Intensity and Major Employment Destinations in the Yadkin Valley



Serving as a balance to the depiction of major employment sites, the map also captures overall employment within the four counties through the presentation of job intensity per block group. These employment data are provided by the United States Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) 2009 dataset, which accumulates federal and state administrative data on employers and employees from censuses, surveys, and administrative records. One caveat of this rich dataset is its failure in accounting for federal civilian employees, uniformed military personnel, self-employed workers, and informally employed workers. As such the jobs per square mile statistics displayed in the figure may be slightly lower than the true job intensity for any particular block group. The following five areas represent those block groups in the YVEDDI service area with at least 1,000 jobs per square mile.

- The Surry County block group in Mount Airy that is bounded by Worth Street and Hamburg Street to the north, Lovills Creek to the west, Ararat River to the east and south.
- The Surry County block group in Mount Airy that is bounded by Lebanon Street to the north, Lovills Creek to the west, Ararat River to the east, and Pine Street to the south.
- The Surry County block group in Elkin that is bounded by Oakland Drive and Claremont Drive to the north, Elkin Creek to the west, a Yadkin River tributary to the east, and Yadkin River to the south.
- The Surry County block group in Toast that is bounded by Fowler Road to the north, a tributary of Stewarts Creek to the west, Lovills Creek to the east, and Toast Road to the south.
- The Surry County block group in Mount Airy that is bounded by Pine Street to the north, Lovills Creek to the west, Ararat River to the east, and Worth Street to the south.

Medical Centers

Medical centers represent a significant destination for the senior adult population served by YVEDDI who are seeking medical attention, as well as the general population of the four-county study area that travel to these destinations for medical or employment purposes. In the YVEDDI service area, the study team selected five medical centers of note. Each of the four counties has one medical center, while Surry County has both the Hugh Chatham Memorial Hospital in Elkin and the Northern Hospital of Surry County in Mount Airy. These two sites and the other three medical

centers are detailed in Table 2-16, while their spatial distribution is portrayed in Figure 2-20.

Table 2-16: Medical Centers in YVEDDI Counties

Medical Center Name	Street Address	Place	County
Davie County Hospital	223 Hospital Street	Mocksville	Davie
Stokes Reynolds Memorial Hospital	1570 State Highway 89	Danbury	Stokes
Hugh Chatham Memorial Hospital	180 Parkwood Drive	Elkin	Surry
Northern Hospital of Surry County	830 Rockford Street	Mount Airy	Surry
Hoots Memorial Hospital	624 West Main Street	Yadkinville	Yadkin

Shopping Centers

Shopping centers are trip destinations in which residents may purchase essential items, such as groceries and clothing, in addition to more general retail. These centers also serve as employment centers. Within the four counties, there are 28 shopping centers of note, which range from the Mayberry Mall in Mount Airy to the Ingles Markets in Elkin and Walnut Cove. These three shopping centers and the other identified locations are detailed in Table 2-17 and shown in Figure 2-21. Most of these shopping sites are physically located within the larger communities of the YVEDDI service area, including the previously mentioned towns in addition to King, Mocksville, and Yadkinville.

Travel Patterns

In addition to documenting the locations of major trip generators, the study team also gathered journey to work data from the 2005-2009 ACS to help determine the commute travel patterns of area residents.

Journey-to-Work

The travel patterns associated with the 2009 journey-to-work data for the four-county YVEDDI service area reveal a region predominately characterized by out-of-county travel, mid-range commute times, and reliance upon single-occupancy vehicle

Figure 2-20: Medical Centers in the Yadkin Valley

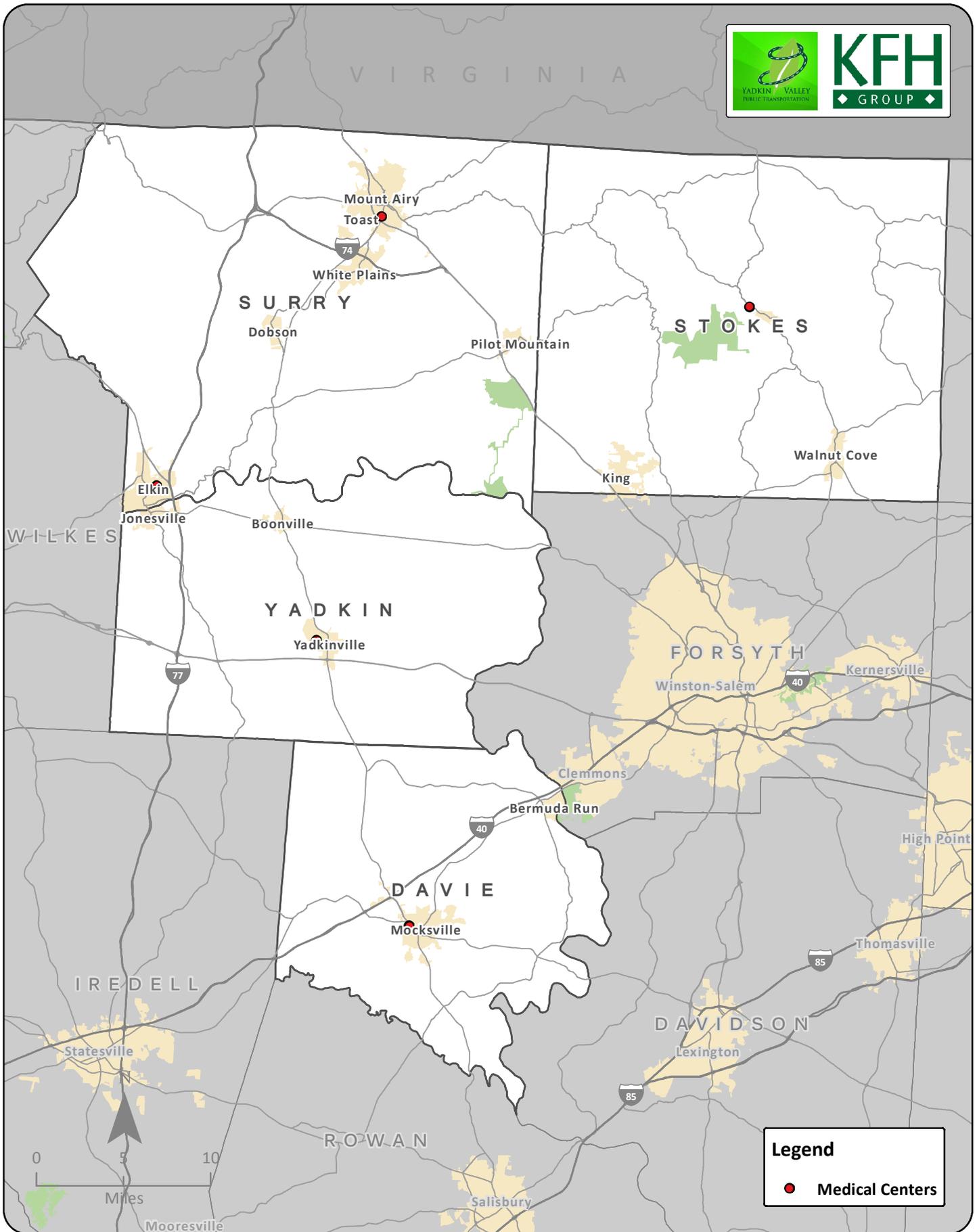


Figure 2-21: Shopping Centers in the Yadkin Valley

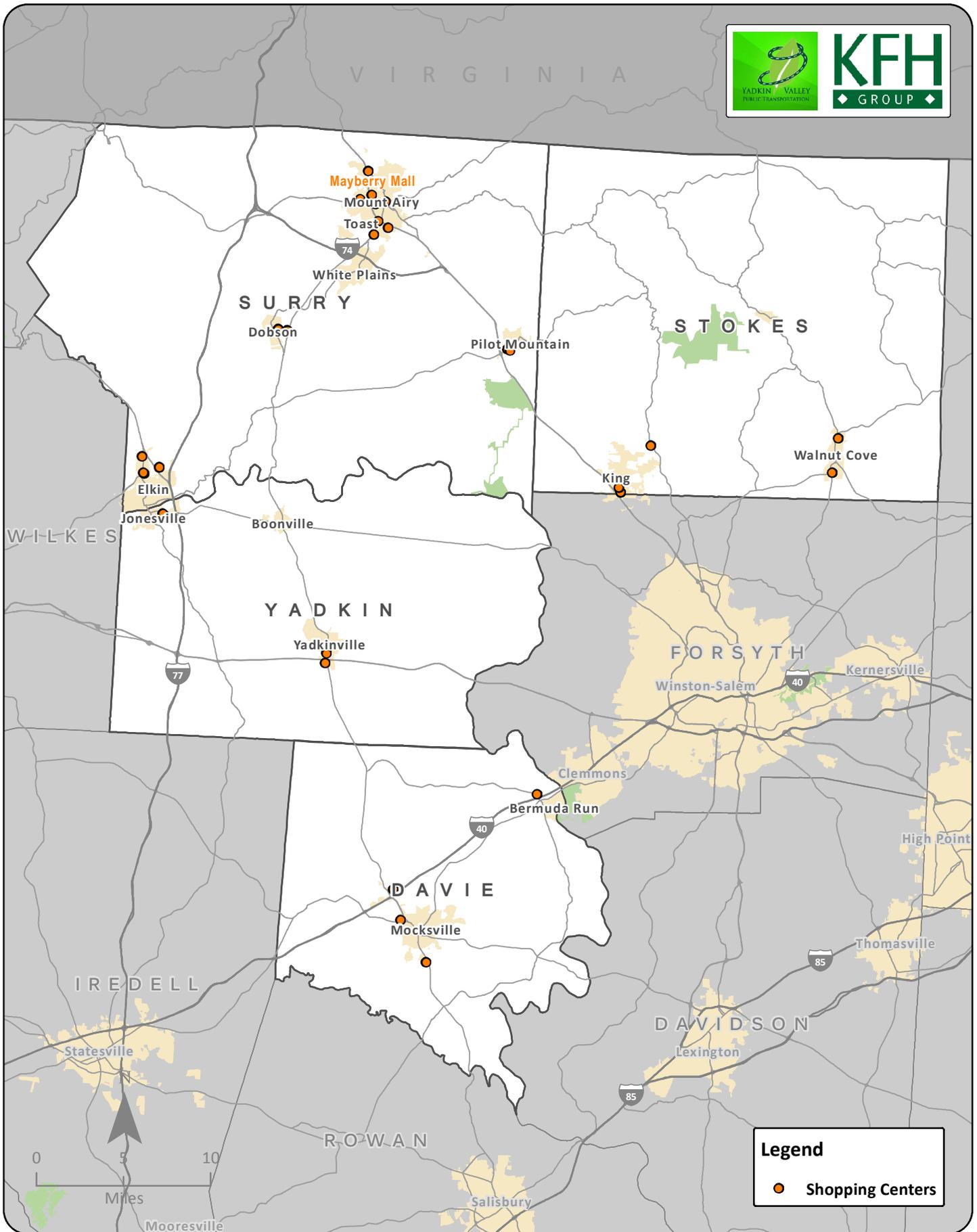


Table 2-17: Shopping Centers in YVEDDI Counties

Shopping Center Name	Street Address	Place	County
Food Lion	1388 Highway 601 South	Mocksville	Davie
Food Lion	796 Valley Road	Mocksville	Davie
Lowe's Foods	Highway 801 North	Advance	Davie
Wal-Mart	261 Cooper Creek Drive	Mocksville	Davie
Food Lion	705 South Main Street	King	Stokes
Food Lion	6370 NC Highway 66	King	Stokes
Food Lion	1072 North Main Street	Walnut Cove	Stokes
Ingles Market	802 South Main Street	Walnut Cove	Stokes
Lowe's Foods	614 South Main Street	King	Stokes
Big Lots	1328 Carter Street	Mount Airy	Surry
Big Lots	1504 North Bridge Street	Elkin	Surry
Food Lion	904 North Bridge Street	Elkin	Surry
Food Lion	600 East Atkins Street	Dobson	Surry
Food Lion	1215 West Lebonal Street	Mount Airy	Surry
Food Lion	1136 West Pine Street	Toast	Surry
Food Lion	629 South Andy Griffith Parkway	Mount Airy	Surry
Food Lion	647 South Key Street	Pilot Mountain	Surry
Ingles Market	2095 North Bridge Street	Elkin	Surry
Lowe's Foods	911 E Atkins Street	Dobson	Surry
Lowe's Foods	715 West Independence Boulevard	Mount Airy	Surry
Lowe's Foods	632 South Key Street	Pilot Mountain	Surry
Main Oak Emporium	245 City Hall Street	Mount Airy	Surry
Mayberry Mall	388 Frederick Street	Mount Airy	Surry
Walmart	548 CC Camp Road	Elkin	Surry
Walmart	2241 Rockford Street	Mount Airy	Surry
Food Lion	616 South State Street	Yadkinville	Yadkin
Food Lion	US Highway 67 & US Highway 13	Jonesville	Yadkin
Lowe's Foods	948 South State Street	Yadkinville	Yadkin

travel. Table 2-18 provides the data to support this characterization as well as a detailed account of the more subtle trends in work commuting for residents of the four counties. One inconsistency with this portrayal is found in Surry County, where the vast majority of North Carolina-based workers (70.70%) also reside within the county. Moreover, Surry County has the second-highest percent of residents who work from

Table 2-18: Travel Patterns associated with Journey-to-Work Data for YVEDDI Counties

County of Residence:	Davie County		Stokes County		Surry County		Yadkin County	
Workers 16 Years and Over	17,963		19,928		31,514		16,574	
Location of Workplace--	Number	Percent	Number	Percent	Number	Percent	Number	Percent
In State of Residence	17,788	99.03%	19,722	98.97%	30,826	97.82%	16,312	98.42%
a) In County of Residence	8,596	48.32%	6,416	32.53%	22,102	71.70%	7,310	44.81%
b) Outside County of Residence	9,192	51.68%	13,306	67.47%	8,724	28.30%	9,002	55.19%
Outside State of Residence	175	0.97%	206	1.03%	688	2.18%	262	1.58%
Means of Transportation to Work--	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Car, Truck, or Van:	16,586	92.33%	19,026	95.47%	29,645	94.07%	15,759	95.08%
a) Single Occupant:	14,917	89.94%	17,100	89.88%	26,087	88.00%	13,648	86.60%
b) Carpool:	1,669	10.06%	1,926	10.12%	3,558	12.00%	2,111	13.40%
Public Transportation:	0	0.00%	34	0.17%	129	0.41%	31	0.19%
Bicycle:	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Walk:	418	2.33%	187	0.94%	388	1.23%	201	1.21%
Other Means:	111	0.62%	185	0.93%	259	0.82%	286	1.73%
Worked at Home:	848	4.72%	496	2.49%	1,093	3.47%	297	1.79%
Travel Time to Workplace--	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-14 Minutes	5,788	32.22%	4,598	23.07%	10,724	34.03%	4,933	29.76%
15-29 Minutes	7,049	39.24%	6,444	32.34%	11,002	34.91%	5,429	32.76%
30-59 Minutes	4,388	24.43%	7,187	36.06%	7,676	24.36%	5,281	31.86%
Over 1 Hour	738	4.11%	1,699	8.53%	2,112	6.70%	931	5.62%

Source: American Community Survey, Five-Year Estimates (2005-2009), Table B08130, Table B08301, and Table B08303.

home (3.47%); only trailing Davie County (4.72%). Surry County (34.03%) and Davie County (32.22%) also have the highest percentage of commuters who travel less than 15 minutes to their workplace of the four counties. Stokes County (44.59%) has the highest percentage of residents commuting over one-half hour to the workplace, followed by Yadkin County (37.48%). As for travel mode, the latter two counties were also the most auto-centric of the four-county study area with 95.47% of Stokes County residents and 95.08% of Yadkin County residents utilizing a car, truck, or van as their primary means of transportation to work. None of the four counties in the YVEDDI service area had greater than a one-percent mode split for public transportation use. Furthermore, the only mode for any of the four counties that had a mode share greater than two percent was walking in Davie County, which had a 2.33% mode share.

Review of the Recent Public Transportation Plans

Piedmont Triad Seamless Mobility Plan (PTSMP), 2008

The PTSMP represented the first time that staff from the nine transit agencies serving the Piedmont region convened to discuss the relationship among their diverse set of public transportation services. The primary purpose of the PTSMP was to provide a systematic review of the services offered by these nine agencies and identify possible opportunities for them to consolidate, coordinate, and communicate. Furthermore, the PTSMP provided a long range transit concept plan in addition to an evaluation of potential regional funding scenarios that would assist in future expansion of the systems. Within the long range transit concept plan, there were four elements deemed necessary toward a successful implementation of the nine-county vision, including: new regional funding, consolidation of functions, increased transit services, and regional branding.

The systematic review of each agency's transportation services and functions concluded with the three categorical recommendations. Within the recommendation to consolidate functions and services, the plan offered a number of specific strategies such as developing a regional call center that would consolidate the functions related to paratransit support and customer information, the consolidation of the Drug and Alcohol Testing program that would enable testing to be regionalized in order to achieve cost reduction, and an overall strategy to share the use of facilities in the future. The second categorical recommendation was to promote coordination amongst the nine Piedmont region transit agencies. Initiatives to aid the accomplishment of this regional aspiration included the recommended development of a regional pass program to ease passenger use throughout the regional transportation system, the long term establishment of a regional fare structure that would enhance the ability for passengers to make regional trips, the development of locally based programs to streamline the process for implementing new regional transportation services containing a regional training program based on the current YVEDDI program. Finally, a recommendation

for increased communications through the continuation of the Technical Advisory Committee that convened as part of the PTSMP planning process was offered. Specifically, the urban systems should make a conscientious effort to coordinate the software and technology that these systems use to support customer service, scheduling, and information collection aspects with their non-urban counterparts.

Regional Transit Development Plan's (RTDP) Strategic Corridor Analysis, 2010

A RTDP was developed by PART in 2010 as an approach toward envisioning a sustainable, effective, and efficient regional transportation system. The RDTP provided four plan elements, one of which is the strategic corridor analysis, that sought to identify ways to manage the benefits and challenges of future growth; recognize its impact on the ten-county region's transportation system; and address forthcoming challenges in a sustainable manner that is cognizant of the region's residents, resources, and environment. The strategic corridor analysis provided an overview of housing conditions, employment and development patterns, work commuting patterns, public outreach efforts in developing the plan, financial plans to support the transportation systems, and performance measurements to hold as standards for success.

While the strategic corridor examined the urban counties of Forsyth and Guilford, the aspects of the RTDP that pertains to this review of the YVEDDI service area are the overview sections prepared for Davie, Stokes, Surry, and Yadkin Counties. Arguably, the most important part of RTCP, as it relates to this review, are the mobility options for these four non-urban county sections that were envisioned by community stakeholders through a public outreach campaign undertaken by PART. The following mobility options were gleaned from this process.

- ***Davie County's Mobility Options.*** The primary public transportation need for Davie County was identified by community stakeholders as being medical and shopping trips from the non-urban county to the urban core of Forsyth and Guilford Counties. This increased accessibility to the distant urban cores may be achieved through the establishment of two new park and ride facilities and a commuter route extension. One of the proposed park and ride facilities was identified for Bermuda Run, near the interchange of Interstate 40 and North Carolina State Route 801, whereas a second potential facility was identified for the intersection of North Carolina State Route 801 and United States Highway 601 in Cooleemee. The latter park and ride facility would provide an access point for residents of Cooleemee that would be contingent upon an extension of Route 14 along United States Highway 601, which was a service change proposed by community stakeholders.
- ***Stokes County's Mobility Options.*** According to the stakeholder feedback for Stokes County, public transportation was not seen as a major factor in

addressing mobility needs for residents of Stokes County. However, the stakeholders did put forward a couple of proposals for potentially improving mobility options in the non-urban county, which included the introduction of new park and ride facilities, a local circulator route, and a new commuter service. The recommended location for one park and ride facility would be near the intersection of US52 and Perch Road in Pinnacle, which would be served by a deviation of the existing Route 6 service between Winston-Salem and Mount Airy. The proposed Stokes County circulator route would connect the community of Walnut Cove to the county seat of Danbury its social services. The connection to Walnut Cove would be via a new park and ride facility at the intersection of US311 and North Carolina State Route 65 that would also be hypothetically served by a new commuter service between Mayodan-Madison and Winston Salem.

- ***Surry County's Mobility Options.*** A common theme among many of the non-urban counties, including Surry County, was the importance of public education in promoting new public transportation services. Surry County stakeholders suggested a need for both an improvement in intra-county service and a desire to expand commuter bus services to Winston-Salem and other regional locations. Specifically, the public outreach participants proposed a local route connecting Mount Airy to the county seat of Dobson in addition to a local service that would continue from Dobson on to Elkin. The first circulator route would connect the residential population of Mount Airy to Surry Community College and other county services located in Dobson, while the second proposed route would link Dobson to a potential extension of the Yadkin County Express that would serve a proposed park and ride facility in Elkin. The Yadkin County Express extension to Elkin would connect the community to a commuter bus route with service to Winston-Salem.
- ***Yadkin County's Mobility Options.*** Community stakeholders interviewed for the RTDP alluded to the prominent role that public transportation could play in connecting Yadkin County residents to employment in both Winston-Salem and Greensboro. As such, there were plenty of mobility proposals placed forth by the stakeholders, including an expansion of commuter services within Yadkin County, an increase in frequency of regional services, the proposed creation of several park and ride facilities, and improved funding for countywide demand-response services. The expansion of commuter services was noted as a distinct concern that would be addressed by the creation of a commuter bus route serving Elkin, Jonesville, Booneville, and East Bend along North Carolina State Route 67. Moreover, this proposed service would benefit from the creation of park and ride facilities in Elkin, Booneville, and East Bend. According to the RTDP's findings, the

implementation of this service would require two additional buses and about 23 daily service hours. The final recommendation was a mobility option that sought to improve existing levels of demand responsive services, provided by YVEDDI, by about \$30,000 in local revenues. An increase in funding for YVEDDI's demand-response services was suggested for each of the four counties highlighted by this review.

Coordinated Public Transit-Human Service Transportation Plan for Surry and Yadkin Counties

The Coordinated Public Transit-Human Service Transportation Plan for Surry and Yadkin Counties was prepared to fulfill the requirements for accessing funding assistance under the Federal Sections 5310, 5316, and 5317 funding assistance programs. These programs target particular populations, including older adults, people with disabilities, and low income individuals. As is required by the coordinated planning process, the Plan included the identification of transportation gaps and barriers to coordination, along with potential coordination strategies and actions that could be taken to address the gaps and barriers. These three sections of the Plan are summarized below, as they further document unmet transportation need in the region.

Transportation Gaps/Barriers. The following transportation gaps/barriers to coordination were cited in the Plan:

- Non-medical transportation is needed for developmentally disabled persons living at home with a caregiver who does not drive or works during the day.
- Some children need medical transportation and don't have adult supervision available.
- There is a need to coordinate parents' transportation to work and childrens' transportation to day care.
- Families and children need transportation to judicially-required appointments.
- Persons who have lost their drivers' licenses need transportation in the evenings to attend required substance abuse meetings.
- Teens that have been expelled or dropped out of school need transportation to jobs.

- Transportation is needed to jobs out-of-county or coordination with regional bus system.
- Transportation is needed to part-time jobs.
- Transportation is needed to Park and Ride Lots to meet other carpooling participants or regional bus system.
- Faith-based organizations are unsure of the extent of the liabilities involved in providing transportation to the public or assisting human service agencies with transportation needs.
 - Weekend services to jobs and shopping are needed.
 - Non-medical transportation of elderly persons to shopping and food pantry is needed.
 - There is a need to increase the transportation services to nutrition sites.
 - Public transit system does not provide non-emergency stretcher transportation.
 - Transportation is needed to locations of public services (i.e. telephone, gas, electricity, water) to pay bills.
 - Elderly and disabled have difficulty getting out of their homes due to structural barriers. More wheelchair ramps are needed so that people with disabilities can get from their homes to the transportation vehicles.
 - Transit service is cost prohibitive to many clients.

Coordination Strategies

The primary strategies identified in the Plan include:

- Extended hours and days of service.
- Feeder routes that connect with local and regional service.
- Vanpools to urban areas -- PART.
- Cost of service based on ability to pay.
- Dispatching and scheduling software to improve coordination of transportation services.
- Mobility management.

Actions

- Provide aides to ride with children or the disabled to medical appointments.
- Research insurance requirements or liabilities and recruit faith-based organizations to provide transportation from remote areas of the region to connection points with public transportation routes to key locations.
- Offer a voucher program to expand evening and weekend transportation options.
 - Develop a mobility management program that could organize a volunteer driver program or mileage reimbursement program, broker trips with private providers, or organize vanpools/carpools.
 - Purchase dispatching and scheduling software and other advanced technology to improve the utilization of vehicles and expand service availability.
 - Provide gas cards as an alternative to mileage reimbursement.
 - Acquire lift-equipped vehicles for human service agencies with excessive demand for transportation of people with disabilities to relieve the burden on public transit or to extend service to weekends and evenings for people with disabilities.
 - Market existing transportation opportunities.
 - Work with area churches and community centers to use facilities for possible park and ride locations.
 - Create feeder routes that connection with regional out-of-county services.

Stakeholder Opinion

There have been three primary mechanisms used thus far to solicit stakeholder opinion for the CTSP. The first mechanism is the ongoing involvement of the study committee, the second mechanism was a series of stakeholder interviews, and the third was a stakeholder survey. The opinions gleaned from area community transportation stakeholders are provided below.

CTSP Committee

The first meeting of the CTSP study committee was held on June 22, 2011. The needs articulated by Committee members are highlighted below.

Davie County Needs

- Additional, affordable transit services are needed for general purpose trips. The DSS has a general transportation program that is funded through Social
-

Service Block Grant funds, but the funds for the program are capped, which results in most users having only twice a month access to general purpose trips.

- There is a need to look to other ways of providing service, such as tapping into the faith-based community. There have been some meetings held among stakeholders and the faith-based community to try to develop coordination opportunities.
- Davie County Senior Services uses YVEDDI to transport seniors to nutrition sites and for day trips. The agency schedules some activities in the evenings and would like transportation to be available so seniors can access the evening programs. Many seniors, even those who do drive, are hesitant to drive at night.
- General purpose, non-programmatic trips are needed by Davie County seniors.
- There is a need to figure out an affordable way to provide service for seniors who live in the more isolated areas where YVEDDI routes are not financially feasible.

Stokes County Needs

- There is a need for YVEDDI to specifically break down its cost structure so that the Board of Commissioners will have a good understanding as to the reasoning behind the need to raise rates for service.

Surry County Needs

- The need for additional, affordable transit services in the community has been identified specifically in Surry County. It has been recognized that federal, state, and local governmental funds are limited and Surry County stakeholders are looking for other ways to provide services. A meeting of key community stakeholders and consumers was held in April to discuss how the community can help meet this need. At this meeting a number of issues and ideas were discussed, including:
 - How can churches and volunteers help- what are the liability issues and how can they be overcome?
 - What are people in other communities doing?
 - Would some kind of fixed route transit services work in Surry County?

- The tourism and economic development communities would like to see some kind of fixed route services.
- Medicaid transportation needs have been growing. There are now 1,000 active Medicaid customers in Surry County, about half of whom receive gas vouchers.
- It can be difficult to schedule Medicaid trips at times, given that YVEDDI has three programs that require much of its fleet between 7:00 am and 9:00 a.m. and again between 2:00 p.m. and 4:00 p.m. Because of these peaks, YVEDDI has asked people to schedule medical trips between 10 a.m. and 2 p.m., if at all possible.
- Medicaid customers can generally get to their medical appointments, but often are unable to get to other life activities such as shopping, recreation, educational opportunities and employment opportunities.
- There are many people in Surry County, specifically in the Elkin area, who do not have access to a vehicle and need transportation for every day trips, such as shopping, employment, and medical. There are some clusters of origins and destinations in the Elkin area so some kind of deviated fixed route may be viable.
- There is a need for transportation between Elkin, Dobson, and Mount Airy, for employment and education. Surry Community College is located in Dobson.
- There is a need to access Forsythe Technical College in Winston-Salem.

Yadkin County Needs

- There is a need for additional employment transportation, both locally and in the region.
- There is a need for service to connect to area community colleges.
- There is a need to connect the local communities to PART's park and ride locations throughout the region.

Users' Perspective

- Some riders feel that Medicaid trips receive priority in scheduling.

- The requested 10 a.m. to 12:00 p.m. scheduling window is an issue for some riders.
- There is a need to educate the public concerning public transportation users and people with disabilities.
- There is a need for local transit services to access PART's regional services.
- Transit access for county commission meetings is needed. These meetings are typically held in the evening, after YVEDDI has stopped running.
- 48-hour notice for scheduling trips is too long.
- YVEDDI is a major help for senior citizens to get to out-of-county medical appointments.
- Riders are appreciative that YVEDDI is available.
- Transit improvements could potentially be funded by tapping into money generated through tourism in the community.

Stakeholder Interviews

In order to reach out to regional stakeholders that are not on the CTSP Steering Committee, a series of in-person and telephone interviews were conducted with a sampling of area stakeholders. Representatives from the following were successfully contacted:

- Stokes County DSS
- Davie County (County Manager)
- Town of Yadkinville
- Surry County (County Manager and DSS Director)
- Town of Danbury
- Town of Elkin

Additional stakeholders were contacted, but replies were not received.

Stakeholders were asked a number of questions concerning community transportation in the region, including familiarity with YVEDDI, unmet needs, additional services desired, and the potential for revenue generation via a vehicle registration fee or a ¼ cent sales tax. The results of these stakeholder interviews are summarized below.

Familiarity with YVEDDI

Area stakeholders were aware of YVEDDI and knew generally what services were available. When asked if residents in the region knew of YVEDDI and the services available, it was most commonly reported that most residents do not know of what is available or feel that the services are only for older adults or people participating in DSS programs. Additional community education concerning YVEDDI services was generally recommended by area stakeholders.

Unmet Needs and Suggested Improvements for YVEDDI and PART

- More availability of current demand response services in the more remote areas of the region, particularly for people with disabilities.
- Regularly scheduled connections between Elkin and Yadkinville and Elkin and Mount Airy- extension of commuter service to Elkin
- Circulator services in the more populous towns of the region.
- Transportation from the Davie branch of Davidson Community College to the main branch.
- Transportation options for additional trip purposes, other than medical.
- Transportation options in the evenings.
- Community education to get past the notion that public transportation is only for people that have no other choice. It was suggested that highlighting the environmental benefits of using public transportation may be effective in this region.
- Increased coordination between YVEDDI and PART.
- Improved reservation, scheduling and dispatch technology.
- Less confusing fare structure.
- More frequent service to the urbanized area.

Potential for Revenue Generation

None of the stakeholders interviewed thought that a vehicle registration fee or a ¼ cent sales tax would be able to be implemented in the near term. Longer term efforts may be possible, but would need to include a united effort between YVEDDI and PART, as well as an educational campaign to articulate the public benefit of such a fee.

Other funding options (i.e., from town/county general funds) in the region may be possible, particularly if the services provided help to foster job creation. There are also some particular DSS programs, such as foster care, that could potentially help fund transportation to parenting classes in the evening.

Electronic Stakeholder Surveys

The third method of gathering stakeholder input was through an electronic survey. Representatives from the following eight organizations completed the survey:

- Davie County DSS
- Tyco
- Medical Associates of Surry County
- Surry County Schools
- Lydens Associates
- YVEDDI
- Surry County Senior Services
- Piedmont Triad Regional Council- Area Agency on Aging

The following unmet needs were articulated by these stakeholders:

- The primary need is transportation with predictable cost associated- the current cost is undetermined as many variables determine the cost of a trip- and the same trip could have an extreme range of cost depending on the variables. It makes both agencies and clients unable to predict ability to pay.
- There is no PART bus service from Stokes to Winston-Salem before 6:20 a.m. and no PART bus service from Winston-Salem to Stokes after 5:10 p.m. Long AM wait times for connection to the PART Hub make the trip inconvenient.
- Our participants need transportation within town to go to the grocery store and to do other shopping. More flexible transportation for going to doctor and mental health appointments is also needed (outside of 10:00 a.m.-12:00 noon).

- Elderly who do not drive or may not have family in the area to transport them need additional services.
- My friend, who is unemployed and has numerous medical and mental health problems needs transportation from her HUD apartment in Dobson to her doctor in Mount Airy.
- Local transportation to job sites at a decent cost.
- Transport for Veterans to doctors at the VA in Winston Salem and Salisbury, NC.
- It is difficult for clients to arrange transportation during certain times. Unplanned medical appointments make it difficult for them to use YVEDDI.

When asked what YVEDDI or PART could do to improve transportation services in the region, the following suggestions were offered:

- Change the rate methodology so that the cost is more predictable.
- Develop deviated fixed routes connecting typical trip needs (ex. Wednesdays from the center of Cooleemee to Walmart) so that clients can ride together and plan for lowest cost and provider can offer most efficient transportation options.
- Make commuting more convenient by adjusting schedules for the different PART lines to allow customers to connect at the WSTC between all lines with minimum wait as it is already done at the PART Hub.
- Flexible, more frequent transportation to go places in town, other than doctor's appointments.
- Increase community awareness of what is available and how to access it.
- Improve the number of folks on the vans, which could lower the cost for the individual.
- Offer more routes so that clients have less time to wait for pick up after their appointments.

On-Board Rider and Community Surveys

An important task within the CTSP process was the acquisition of more information about the service through both an on-board rider and a general public community survey. The on-board rider survey provides insight on current rider characteristics, rider satisfaction, and potential service improvements. The surveys were administered in August and September, 2011. Copies of the questionnaires are provided in Appendix C. The results of the surveys are described in detail below, with Table 2-19 and Table 2-20 offering an overview of these findings.

Rider Characteristics and Trip Patterns

The on-board rider survey was completed by 123 passengers. Most respondents stated that they reside in the communities of Mount Airy, Dobson, and Mocksville. The results illustrate a ridership base with limited mobility options and need for life-sustaining trips. The majority of respondents (61.5%) were using the service as transportation for medical purposes. A number of those surveyed were also traveling to or from school (10.7%), a senior meal site (10.7%), a senior center (9.0%), or shopping (9.0%). The majority of individuals (66.4%) described themselves as not having a license. Similarly, most were from zero vehicle (58.2%) or one-vehicle (28.7%) households. Only 12.1% stated that a vehicle was available to them for their current trip. Riders primarily lived alone (38.8%) or with one other household member (31.1%). These results suggest that most surveyed riders were not choice riders.

As for frequency of transit service use, many surveyed riders (71.3%) stated that they use YVEDDI services at least once a week, with the most popular response being four times per week or more (30.3%). Over half of respondents had been using YVEDDI for more than two years, though 22.3% reported using for six months or less. Riders had primarily found out about the service through “other” sources (26.5%) or other riders (23.9%), but many were unsure given their span of use (20.5%). Zero respondents had found out about YVEDDI through the service’s website, likely reflecting that less than a third reported having access to the internet. Only about half indicated if they used other transportation services in region. Of those only 7.5% affirmed that they do.

Rider Satisfaction and Service Improvements

The overall rating of satisfaction with YVEDDI services described by survey respondents was satisfactory or above, with minimal respondents expressing any deep dissatisfaction. Driver courtesy (77.9%), safety and security of the service (73.7%), and vehicle cleanliness (71.7%) received the highest percentages of “very satisfied” respondents. Likewise, over 97% stated that they were either very satisfied or satisfied with YVEDDI’s on-time performance, days and hours of service, cost of

Table 2-19: YVEDDI On-Board Rider Survey

Q1: In what city, town, or community do you live?

#1:	Mount Airy (40)
#2:	Dobson (13)
#3:	Mocksville (10)

Q2: What is the purpose of your ride today?

Work:	4.9%	Gov't Service Agency:	2.5%
Shopping:	9.0%	Errands/Personal Business:	4.1%
School:	10.7%	Attend Senior Center:	9.0%
Social/Recreation:	6.6%	Attend Senior Meal Site:	10.7%
Medical:	61.5%	Other:	5.7%

Q3: Do you use any other transportation services that operate in the region? If so, please list.

Yes:	7.5%	No:	92.5%	#1 Yes:	PART
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Q4: How often do you use the van service?

Four times per week or more:	30.3%	Two to three times per month:	21.3%
Two to three times per week:	27.9%	Once a month:	4.1%
Once a week:	13.1%	Less than once a month:	3.3%

Q5: How did you find out about the van Service?

Not sure, have ridden for a long time:	20.5%	Brochure:	0.0%
Asked someone who uses the service:	23.9%	Asked Driver:	2.6%
YVPT/YVEDDI Website:	0.0%	Telephoned:	10.3%
Senior Center Staff:	7.7%	Other:	26.5%
Other Agency Staff:	8.5%	#1 Other: Social Services	

Q6: How long have you been using YVPT/YVEDDI?

Six months or less:	22.3%	One to two years:	10.7%
Six months to one year:	10.7%	More than 2 years:	24.8%
About one year:	5.8%	More than 5 years:	25.6%

Q7: Including yourself, how many people live in your home?

One:	38.8%	Four:	8.7%
Two:	31.1%	Five or more:	6.8%
Three:	14.6%		

Q8: How many vehicles (cars, trucks, motorcycles) are available in the household where you live?

Zero:	58.2%	Three:	2.5%
One:	28.7%	Four or more:	0.8%
Two:	9.8%		

Q9: Was a car available today for this trip?

Yes:	12.1%	No:	87.9%
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Q10: Do you have a driver's license?

Yes:	33.6%	No:	66.4%
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Q11: Do you have internet access?

Yes:	28.3%	No:	71.7%
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Table 2-19: YVEDDI On-Board Rider Survey

Q12: Please rate your satisfaction with YVPT/YVEDDI services in the following areas:

	VS	S	U	VU
The trip scheduling process:	63.8%	29.3%	6.0%	0.9%
Telephone customer service:	55.5%	37.3%	5.5%	1.8%
On-time performance:	61.7%	35.7%	1.7%	0.9%
Days of service:	61.9%	36.3%	1.8%	0.0%
Hours of service:	62.3%	36.0%	1.8%	0.0%
Cost of the fare:	57.3%	39.8%	1.9%	1.0%
Cleanliness of the vehicles:	71.7%	27.4%	0.0%	0.9%
Driver courtesy:	77.9%	21.2%	0.0%	0.9%
Availability of information:	61.1%	36.3%	0.9%	1.8%
Safety and security:	73.7%	23.7%	0.9%	1.8%
Usefulness of website:	52.3%	44.6%	1.5%	1.5%

Q13: Are there places in the region where you would like to go on a regular basis but you cannot get to because there is not a public transportation service available for the trip?

Yes:	<u>26.1%</u>	No:	<u>73.9%</u>
#1:	drug store/shopping		

Q14: If YVPT/YVEDDI were to make service improvements, please indicate which ones would be the most important to you (up to 3):

Saturday Services	42.7%
Service available later in the afternoon:	34.8%
More flexibility in scheduling trips:	34.8%
Regularly scheduled service to Mount Airy:	24.7%
Sunday Services	22.5%
Service available earlier in the morning:	21.3%
Regularly scheduled service between Dobson and Mount Airy:	16.9%
Connector services to PART:	14.6%
Regularly scheduled fixed-route service in Elkin:	7.9%
Regularly scheduled service to Mocksville:	2.2%

Q15: What do you like best about YVPT/YVEDDI:

#1:	Having the service as an available means of transportation (33)
#2:	Drivers (24)
#3:	Nice people/employees (12)

Q16: What do you like least about YVPT/YVEDDI:

#1:	Waits for pick-ups (12)
#2 (tie):	Telephone service (3) and days/hours of service (3)

*Percentages based on those responding to each question
(varies from 123-65 respondents)

Table 2-20: YVEDDI Community Transportation Survey

Q1: How do you usually get where you need to go within the community for work, shopping, errands, or medical appointments?

I drive:	62.3%	Ride bike:	1.1%
Friend/family member drives:	26.5%	Walk:	4.1%
Public transportation:	9.1%	Other:	1.4%
Taxi:	0.7%		

Q2: Are you aware of the community transportation services that are provided by YVPT/YVEDDI?

Yes:	73.2%	No:	26.8%
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Q3: Are you aware of the regional transportation services that are provided by the Piedmont Authority for Regional Transportation (PART)?

Yes:	64.1%	No:	35.9%
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Q4: Do you currently use any of the following forms of public transportation on a regular basis?

- #1: I do not currently use public transportation (292)
- #2: YVEDDI (89)
- #3: Other (22)

Q5: If you do not use any form of public transportation, please indicate why not.

No service is available near my home/work/school:	17.7%
I prefer to drive:	55.2%
Don't know if service is available and/or location of stops:	19.2%
I have limited mobility and it is hard for me to use the van/bus:	1.7%
Vans/buses are unreliable/late:	2.0%
Need my car for work/school:	13.8%
Need my car before/after work/school:	11.5%
Need my car for emergencies/overtime:	10.7%
The van/bus is uncomfortable:	0.8%
It might not be safe/I don't feel safe:	1.1%
The van/bus is expensive:	3.4%
Trip via transit takes too much time:	2.8%
The hours of operation are too limited:	4.8%
Have to wait too long for the van/bus:	4.8%
Other:	2.3%

Q6: Do you think there is a need for additional or improved public transportation in the region?

Yes:	67.8%	No:	32.2%
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Q7, Part 1: If you checked "Yes" for question #5 above, please indicate where within the region there is a need for additional or improved public transit service. Please check all that apply.

Davie County:	8.7%	Surry County:	61.9%
Mocksville:	6.3%	Mount Airy:	45.8%
Stokes County:	21.0%	Elkin:	34.6%
King:	14.0%	Dobson:	34.3%
Walnut Cove:	7.7%	Yadkin County:	26.2%
Danbury:	9.1%	Yadkinville:	18.9%
		Jonesville:	21.7%

Table 2-20: YVEDDI Community Transportation Survey

Q7, Part 2: Please also indicate if you think the following public transportation linkages are needed. Check all that apply.

Service along US 601, connecting Mocksville, Yadkinville, Boonville, Dobson, and Mt Airy:	66.4%
Service between Elkin/Jonesville, Dobson, and Mount Airy:	66.8%
Service connecting Elkin/Jonesville to Pilot Mountain:	35.7%
Other:	14.8%
Other #1 <u>Winston-Salem</u>	

Q8: Would you use public transportation services in the region if there was a service that met your travel needs?

Yes:	72.7%	No:	27.3%
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Q9: How much would you pay to ride public transportation for short trips within the community?

Less than \$1.00:	3.9%	Don't know/other:	8.1%
Between \$1.00 and \$2.00:	32.5%	Whatever the price is:	1.9%
Between \$2.01 and \$5.00:	18.3%	N/A, I would not ride:	33.3%
Between \$5.01 and \$10.00:	1.9%		

Q10: How much would you pay to ride public transportation for longer trips, outside of your community?

Less than \$1.00:	1.7%	Don't know/other:	9.2%
Between \$1.00 and \$2.00:	12.9%	Whatever the price is:	2.2%
Between \$2.01 and \$5.00:	22.1%	N/A, I would not ride:	36.1%
Between \$5.01 and \$10.00:	12.6%		
More than \$10.01:	3.1%		

Q11: If you were to use public transportation, which method of scheduling a ride would you prefer?

Call a day or two ahead to request a ride from house:	31.2%
Call the same day to request a ride from house:	15.7%
Fixed schedule with bus stop in walking distance:	34.9%
Not applicable, I would not ride:	20.2%

Q12: Would you need access to a bike rack on the van/bus?

Yes:	5.8%	No:	72.9%	N/A, I would not ride:	21.3%
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Q13: How many times per week would you use public transportation if it were available to you?

Less than one time per week:	11.1%	Four or more times per week:	22.9%
One to three times per week:	35.0%	N/A:	22.2%

Q14: What times of day would you be most likely to use public transportation?

6:00am to 9:00am	29.6%	9:00pm-midnight	6.5%
9:00am-3:00pm	47.5%	Midnight-6:00am	4.0%
3:00pm-6:00pm	23.9%	N/A	29.4%
6:00pm-9:00pm	13.8%		

Q15: In what city, town, or community do you live?

#1:	Mount Airy (131)
#2:	Dobson (35)
#3:	Elkin (33)

Q14: Do you have internet access?

Yes:	60.1%	No:	39.9%
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Q15: Do you have a disability that prevents you from driving?

Yes:	15.5%	No:	84.5%
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Table 2-20: YVEDDI Community Transportation Survey

Q16: Including yourself, how many people live in your home?

One:	22.7%	Four:	15.4%
Two:	27.5%	Five or more:	14.9%
Three:	19.4%		

Q17: Do you have a valid driver's license?

Yes:	68.5%	No:	31.5%
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Q18: How many working cars/trucks/SUVs/motorcycles are there in your households?

Zero:	15.5%	Three:	12.9%
One:	33.4%	Four or more:	7.5%
Two:	30.6%		

***Percentages based on those responding to each question
(varies from 440-286 respondents)**

fare, and availability of information. The trip scheduling process and telephone customer service lacked in comparison; though the vast majority of riders responded favorably, about 7% were either unsatisfied or very unsatisfied with these two measures. In terms of coverage, almost three-quarters (73.9%) of survey participants disagreed that there were places in the region where they would like to go but could not due to lack of service. About a quarter of respondents did document areas or destinations that they would like YVEDDI to additionally serve. The most popular response was shopping, including drug stores and grocery stores. Next frequently mentioned were restaurants and doctors' appointments. In addition, 42.7% of riders cited having Saturday service as the most important potential service improvement. Later afternoon service and increased scheduling flexibility ranked as the next most important changes.

Open-ended questions and comment space within the survey sought to determine how riders felt about YVEDDI in general. The qualitative responses overwhelmingly highlighted the importance of the service for current riders. Many expressed their appreciation for having a means of transportation to needed destinations. Positive feedback concerning driver courtesy and helpfulness emerged as another primary theme. Conversely, riders were most critical of waiting times for pick-ups. Many cited frustration with having to wait for long periods after finishing their errands or appointments. Though less numerous, other respondents described the need for improved telephone customer service. Comments received from the on-board surveys are provided in Appendix D.

Community Survey

Whereas the onboard rider survey results highlight the characteristics and outlook of current users of the transportation system, information from the general public survey may allow YVEDDI to attract new users. The YVEDDI community survey was completed by 440 individuals. The surveys were available through a number of community venues during the months of August and September, including County DSS offices. Though the majority of the survey respondents (62.3%) drive themselves for transportation, others rely on rides from friends and family (26.5%). Almost three-quarters of the community respondents stated that they were aware of the transportation services provided by YVEDDI, and 64.1% stated that they were aware of the regional transportation services provided by PART. However, the majority do not use public transportation on a regular basis. Of those non-users, 55.2% prefer to drive, 19.2% do not know if or where service is available, and 17.7% state that service is not available near their origins and destinations. Increased service coverage or linkages could encourage increased YVEDDI ridership, as 72.7% of the community survey respondents indicated that they would use public transportation services if there was a service that met their specific travel needs. Almost as many (67.8%) believed that there is a need for additional or improved public transportation in the region.

The survey results highlighted a desire to see additional or improved services in Surry County (61.9%), Mount Airy (45.8%), Elkin (34.6%), and Dobson (34.3%), likely a result of the most popular residences of survey respondents. The respondents prioritized new links along US 601 and between Elkin, Jonesville, Dobson, and Mount Airy. When asked how much they would pay to ride public transportation, most community survey respondents stated \$1-\$2 (32.5%) for shorter trips and \$2.01-\$5 (22.1%) for longer trips. About a third would prefer to call a day or two in advance to schedule a ride, while another third would prefer a fixed schedule that did not necessitate calls. Only 5.8% would need access to a bike rack on the vehicles. Respondents would most likely use public transportation between 9:00 a.m. and 3:00 p.m. (47.5%), riding primarily one to three times per week (35.0%) or four or more times per week (22.9%).

Unsurprisingly, compared to on-board riders, the community respondents were more likely to have a valid driver's license (68.5%) and to have two or more vehicles in their household (51.0%). Fewer community respondents lived alone (22.7%) or with one other household member (27.5%) than on-board riders, indicating that they may more frequently find rides with others rather than relying on public transportation. Despite not using the services themselves, several respondents commented that public transportation was much needed within the community, especially in light of rising gas prices. Open-ended comments provided by survey respondents are provided in Appendix E.

SUMMARY

An extensive amount of data and information from a variety of sources have been analyzed and incorporated into this chapter prepared for the YVEDDI CTSP. In reading through all of this information, the following themes emerged concerning the *existing* services in the region:

- Basic life-sustaining transportation is available in much of the service area.
- Limited employment transportation is provided, including express bus service into Winston-Salem.
- Improved coordination between PART and YVEDDI is desired by community stakeholders.
- A less confusing rate structure for YVEDDI is desired.

- YVEDDI's basic agency billing rate appears to be accurate; however, YVEDDI's fuel surcharge appears to overstate the effects of fuel price increases.
- YVEDDI is in need of improved technologies.

The themes concerning unmet transportation needs in the region are as follows:

- Unmet public transportation needs include general purpose transportation; additional employment transportation for links not currently provided and for people not able to access the area's park and ride lots; evening services; and weekend services.
- The highest need areas, demographically speaking, include Mount Airy, Elkin and King.
- Given the land use characteristics, the demographic analysis, and the community input, there appear to be opportunities for circulator services in the following communities:
 - Elkin- Jonesville
 - Mount Airy
 - Possibly Mocksville and King
- Commuter-oriented connections are needed for Elkin.
- Internal regional connections are needed.
- Affordability was mentioned as an issue by stakeholders and survey respondents.

Chapter 3

Service, Financial, and Organizational Alternatives

INTRODUCTION

This third chapter prepared for the YVEDDI CTSP documents the range of service, financial, and organizational alternatives that were considered for the five-year planning horizon. These alternatives were developed based on the data compiled and analyzed in Chapter 2, additional research conducted since the November Steering Committee meeting, and stakeholder input.

Several of these alternatives are expansionary, reflecting input received via the Steering Committee and the surveys. It should be noted that these alternatives served as a starting point and were modified during the alternative analysis phase of the CTSP. For each alternative there is a description of the concept, a discussion of the advantages and disadvantages, ridership estimates (where applicable), and a cost estimate. Service alternatives are presented first, followed by the organizational alternatives.

SERVICE ALTERNATIVES

The previous chapter provided an analysis of current transit services in the region, as well as an analysis of transit needs based on quantitative data and on input from YVEDDI customers, the public, and other key stakeholders. Through the service review, needs assessment, and outreach, there were specific service improvements that were considered for implementation. These alternatives focused on:

- Providing specific connections between local transit services and PART;
- Developing deviated fixed-route circulator services for the larger communities in the service area;

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- Developing deviated fixed-route corridor services between key locations in the region;
 - Offering limited Saturday services;
 - Connecting population centers to education and job opportunities;
 - Developing hub opportunities where appropriate; and
 - Creating a mobility management and volunteer program to more efficiently serve the more remote parts of the region.

Each service alternative is detailed in this section, and includes (where applicable):

- A summary of the service alternative,
- Potential advantages and disadvantages,
- Ridership estimates,
- An estimate of the operating and capital costs, and
- Potential funding sources or issues.

It should be noted that these alternatives served as a starting point and were modified based on the needs of YVEDDI and stakeholder input. In addition, the cost information is expressed as the fully allocated costs, which means we considered all of the program's costs on a per unit basis when contemplating expansions. This does overstate the incremental cost of minor service expansion, 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 FY11 operating statistics. These alternatives are not presented in any particular order.

Service Alternative #1: Deviated Fixed-Route Circulator Services in Mount Airy

The City of Mount Airy is the largest municipality located in the service area, with a population of 10,388 (2010 Census). It serves as a regional destination for shopping, employment, and medical needs, and is also a tourist destination. There are concentrations of high need housing, as well as medical and shopping clusters that would allow a deviated fixed-route transit service to potentially meet the need for transit in Mount Airy more efficiently than pure demand-response, while also appealing to new riders.

This alternative proposed to initiate a deviated fixed-route service that would connect significant origins and destinations in Mount Airy, including making a

connection to the PART park and ride lot. While the specific routing will be determined by YVEDDI if this alternative is chosen, KFH Group drafted a route proposal that is highlighted in Figure 3-1. This proposal included two routes, one serving primarily west of US 601 and the other serving primarily east of US 601. The routes would originate at PART's park and ride lot at Newsome and U.S.52, and would both serve Walmart and the Hospital. It was proposed that the Mount Airy East Circulator, at six miles in length, could operate twice per hour and the Mount Airy West Circulator, at ten miles in length, could operate hourly. This scenario should leave time for some deviations, particularly for the Mount Airy West route.

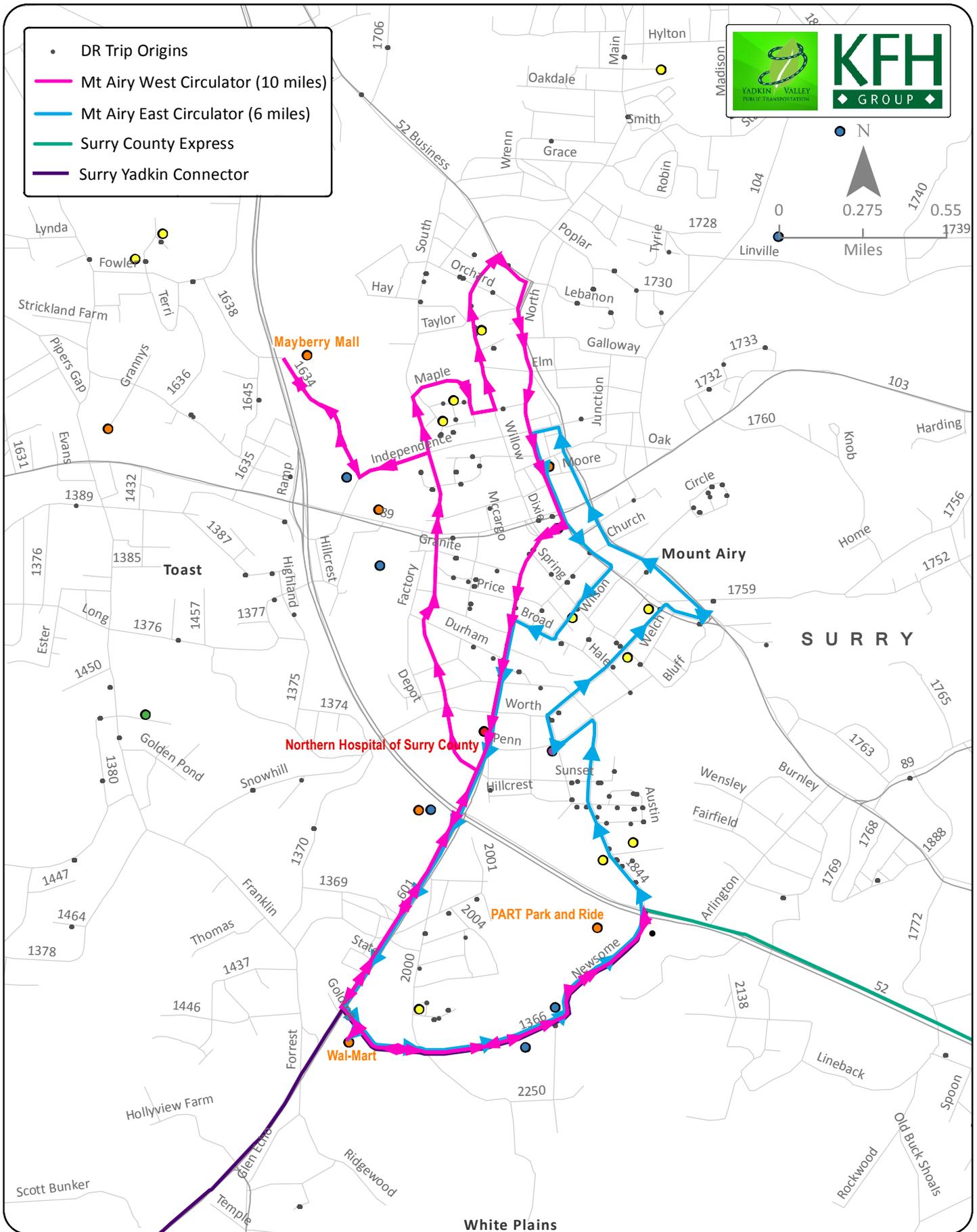
In order to effectively provide connections to PART's Surry County Express, these routes would need to begin operating about 6:00 a.m., which would allow the local route to potentially connect to four of the six morning departures. In the afternoon, the service would need to run until about 7:00 p.m., which would potentially allow connections with several of the afternoon/evening Surry County Express arrivals.

If two vehicles are used for this service, Monday through Friday, from 6:00 a.m. to 7:00 p.m., the total annual revenue service hours will be 6,630. Another option was to streamline the route so that only one vehicle is used, which would result in 3,315 total annual revenue service hours.

Advantages

- Provides a connection between YVEDDI and PART, which is a service goal for this CTSP. This connection would open up employment opportunities for Mount Airy residents, as well as offering a lower cost option for YVEDDI customers to access Winston-Salem and beyond.
- Introduces a new service design for Mount Airy, which will likely result in significant improvements in productivity and ridership.
- Connects several major origins and destinations in Mount Airy.
- Responds to a need expressed via the passenger surveys.
- YVEDDI may be able to reduce the number of vehicles used for demand-response service in the Mount Airy region by offering this service. If a vehicle a day could be spared, it would significantly defray the expenses of implementing this service.

Figure 3-1: Proposed Mt. Airy Circulator



Disadvantages

- This is a new service design for area riders and there will be an adjustment period.
- Offering this service introduces some financial risk, as it is not associated with one specific contract, though there is no reason why contractual riders from various programs could not be referred to this service if it were to meet their trip needs.

Expenses and Funding Sources

- If YVEDDI implemented a two-vehicle operation, using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs would be \$216,000. If one vehicle were to be used, the total annual operating costs would be \$108,000.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion would be \$194,400 (for a two vehicle operation) and \$97,200 for a one-vehicle operation.
- A 19-passenger, lift-equipped body-on-chassis vehicle would be appropriate for this type of service. These vehicles are about \$68,500 each.
- There were a couple of funding options for this circulator -- the first option would be to apply for Federal Section 5311 funds for 50% of the net deficit of the route. NCDOT-PTD allows regional systems to fund deviated fixed routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be funded through a mix of RGP and local funds (such as contractual trips and the City of Mount Airy).
- A second option could be to emphasize the work opportunities provided by this route and apply for JARC funds -- this route would likely qualify as it serves several neighborhoods where there are low-income residents and connects them to job locations, as well as to the regional commuter bus. JARC is also funded at 50% federal and 50% local. The only issue with JARC funding is that it is not an ongoing source of revenue.

Fares

- A fare of \$1 per trip would likely generate the 10% farebox recovery requirement for the RGP program and would create an incentive for riders to use this service rather than the traditional demand-response service.

Ridership

- Targeting specific areas and offering deviated fixed-route service, rather than demand-response, would likely result in service that is more productive than the current services. The one-vehicle operation would likely result in productivity of at least four passenger trips per revenue hour. This could result in 13,260 annual passenger trips. The higher level of service will dilute the demand somewhat, with 3.25 passenger trips per revenue hour predicted for a two-vehicle operation, which could result in about 21,550 annual passenger trips. These estimates are conservative.

Service Alternative #2: Elkin and Jonesville Connector

Elkin and Jonesville together represent a population base of over 6,200 people. Elkin serves as a regional destination for shopping, employment, and particularly medical services. There are concentrations of high need housing, as well as medical and shopping clusters that would allow a deviated fixed-route transit service to potentially meet the need for transit in Elkin and Jonesville more efficiently than pure demand-response, while also appealing to new riders.

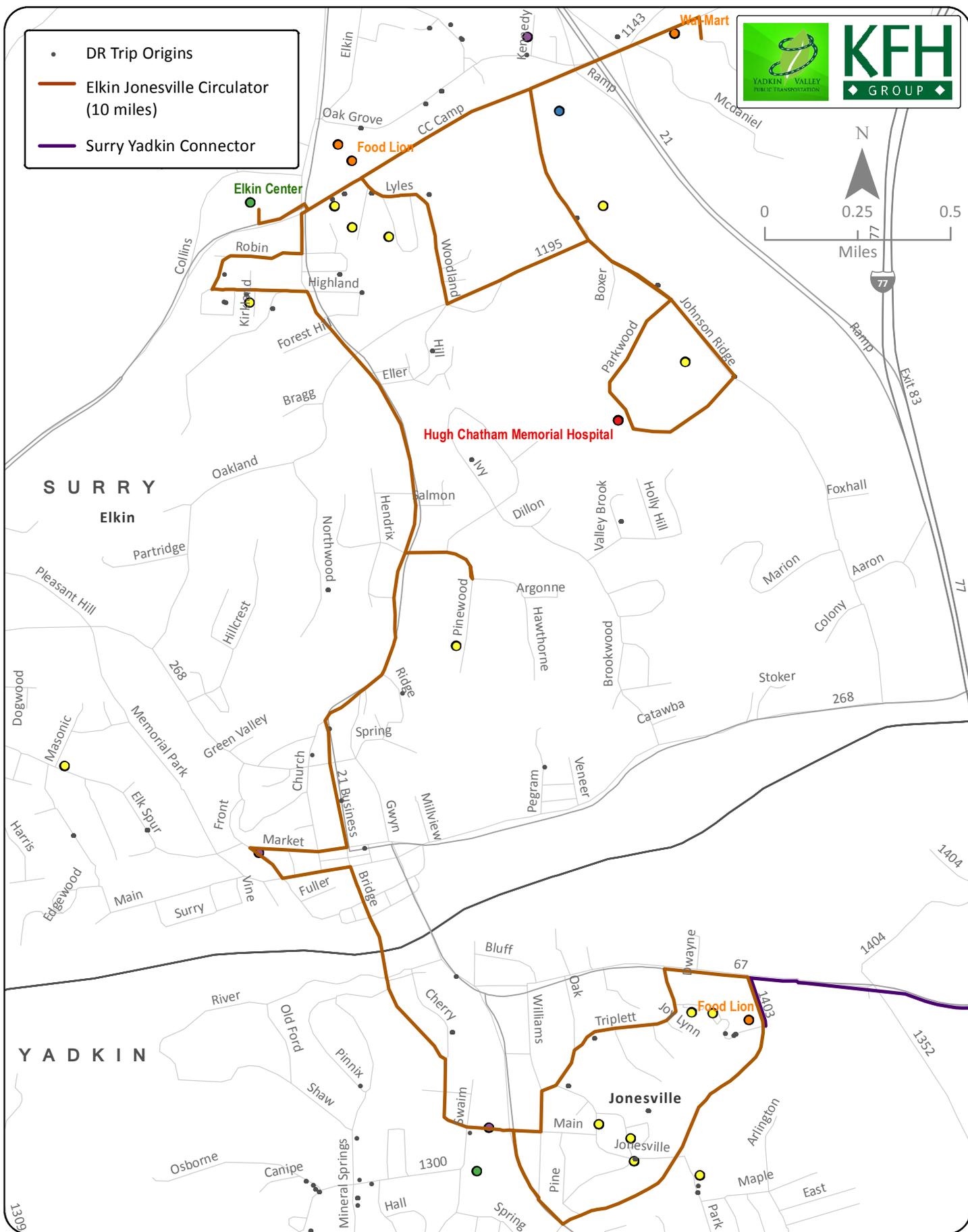
This alternative proposed to initiate a deviated fixed-route service that would connect significant origins and destinations in the Elkin and Jonesville area. It is also proposed that this route serve a “hub” location, to connect with Wilkes Transportation Authority (WTA) vehicles and a proposed new route to Dobson and Mount Airy, via Boonville. KFH Group drafted a route proposal that is highlighted in Figure 3-2. The proposed route would originate in Jonesville, at the Food Lion parking lot on NC67 (which could serve as a “hub”), serve the multi-family housing areas of Jonesville, the Library, and then travel north along US 21 business to Elkin, serving the downtown, then the senior apartments, some other multi-family apartments, the Hugh Chatham Hospital and associated medical offices, and the Walmart. The return trip would include the Elkin Center (Surry Community College).

This route is ten miles as proposed, which would be feasible for hourly headways including some deviations. If this route were to operate Monday-Friday from 7:00 a.m. to 6:00 p.m., the total annual revenue service hours would be 2,805. One 19-passenger, lift-equipped body-on-chassis vehicle would be required for this service.

Advantages

- Introduces a new service design for Elkin and Jonesville, which will likely result in significant improvements in productivity and ridership.

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- Connects several major origins and destinations in Elkin and Jonesville, providing a mobility option for area residents to access jobs, shopping, education, and medical destinations.
 - Responds to a need expressed via the Steering Committee and the passenger surveys.
 - Potentially provides a connection to WTA and to the region. YVEDDI may be able to reduce the number of vehicles used for demand-response service in the Elkin and Jonesville region by offering this service. If a vehicle a day could be spared it would significantly defray the expenses of implementing this service.

Disadvantages

- This is a new service design for area riders and there will be an adjustment period.
- Offering this service introduces some financial risk, as it is not associated with one specific contract, though there is no reason why contractual riders from various programs could not be referred to this service if it were to meet their trip needs.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs would be about \$ 91,400.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion would be \$82,300.
- A 19-passenger, lift-equipped body-on-chassis vehicle would be appropriate for this type of service. These vehicles are about \$68,500.
- There are a couple of funding options for this circulator- the first option would be to apply for Federal Section 5311 funds for 50% of the net deficit of the route. NCDOT-PTD allows regional systems to fund deviated fixed routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be funded through a mix of RGP and local funds (such as contractual trips and the Towns of Elkin and Jonesville).
- A second option would be to emphasize the work opportunities provided by this route and apply for JARC funds -- this route would likely qualify as it serves several neighborhoods where there are low-income residents and connects them to job locations. JARC is also funded at 50% federal and 50% local. The only issue with JARC funding is that it is not an ongoing source of revenue.

Fares

- A fare of \$1 per trip would likely generate the 10% farebox recovery requirement for the RGP program and would create an incentive for riders to use this service rather than the traditional demand-response service.

Ridership

- Targeting specific areas and offering deviated fixed-route service, rather than demand-response, will likely result in service that is more productive than the current services. If this service can generate 3.5 passenger trips per revenue hour, then the annual ridership would be about 9,800 annual passenger trips.

Service Alternative #3: Mocksville Connector

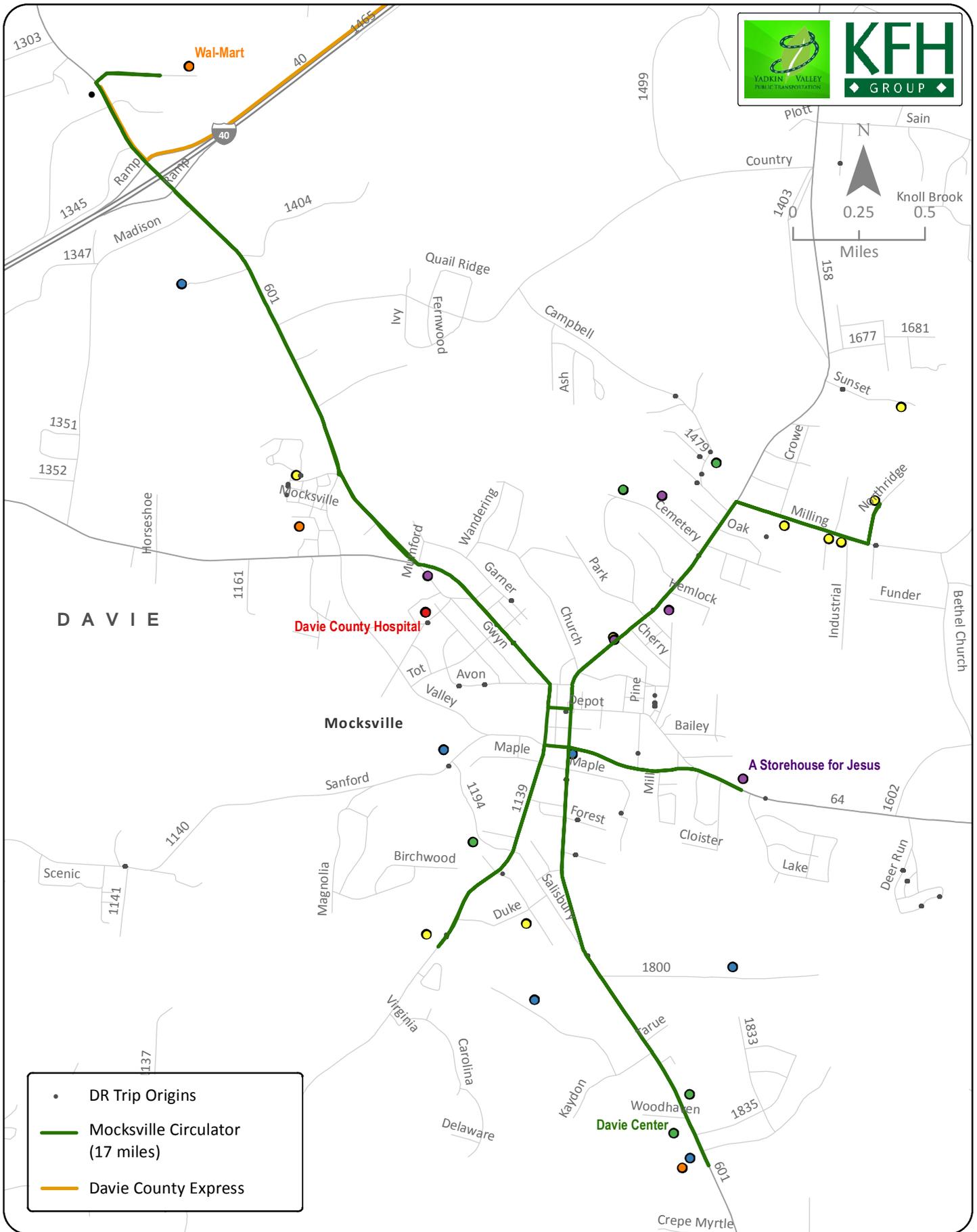
Mocksville, with its proximity to I-40 and the Winston-Salem area, is a growing community, serving as the County seat of Davie County, as well as a destination for shopping, employment, medical, and educational services. There are concentrations of high need housing, as well as medical, employment, and shopping clusters that would allow a deviated fixed-route transit service to potentially meet the need for transit in Mocksville more efficiently than pure demand-response, while also appealing to new riders.

This alternative proposed to initiate a deviated fixed-route service that would connect significant origins and destinations in the Mocksville area, including serving PART's park and ride location. KFH Group has drafted a route proposal that is highlighted in Figure 3-3. The route as drafted has five legs, each serving a travel corridor with either significant origins or destinations, including multi-family housing, a Storehouse for Jesus, the VF Jeans factory, the Davie Campus of Davidson Community College, downtown, the Davie County Hospital, and Walmart.

The origins and destinations in Mocksville are more dispersed than those in Mount Airy or Elkin and Jonesville, which would make a deviated route a bit more challenging to operate on an hourly headway.

This route is 17 miles as proposed, which would necessitate 90-minute headways, with deviations. If this route were to operate Monday-Friday, from 6:30 a.m. (to serve the 7:00 a.m. PART departure) to 6:30 p.m. (to meet the 6:01 PART arrival), the annual revenue service hours would be 3,060. One 19-passenger, lift-equipped body-on-chassis vehicle would be required for this service.

Figure 3-3: Proposed Mocksville Circulator



Advantages

- Introduces a new service design for Mocksville, which would likely result in significant improvements in productivity and ridership.
- Provides a connection to the PART commuter bus service.
- Connects several major origins and destinations in Mocksville, providing a mobility option for area residents to access jobs, shopping, education, and medical destinations.
- Responds to a need expressed via the Steering Committee and the passenger surveys.
- YVEDDI may be able to reduce the number of vehicles used for demand-response service in the Mocksville region by offering this service. If a vehicle a day could be spared it would significantly defray the expenses of implementing this service.

Disadvantages

- This is a new service design for area riders and there would be an adjustment period.
- Offering this service introduced some financial risk, as it is not associated with one specific contract, though there is no reason why contractual riders from various programs could not be referred to this service if it were to meet their trip needs.
- The dispersed land uses in the Mocksville area necessitated a route that is long for a circulator, which may discourage ridership. A second vehicle could be used, but the ridership is not likely to support that level of investment, at least not initially.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs would be about \$ 99,700.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion would be \$89,730.
- A 19-passenger, lift-equipped body-on-chassis vehicle would be appropriate for this type of service. These vehicles are about \$68,500.
- There are a couple of funding options for this circulator -- the first option would be to apply for Federal Section 5311 funds for 50% of the net deficit of the route. NCDOT-PTD allows regional systems to fund deviated fixed routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be

funded through a mix of RGP and local funds (such as contractual trips and the Town of Mocksville).

- A second option would be to emphasize the work opportunities provided by this route and apply for JARC funds -- this route would likely qualify as it serves several neighborhoods where there are low-income residents and connects them to job locations. JARC is also funded at 50% federal and 50% local. The only issue with JARC funding is that it is not an ongoing source of revenue.

Fares

- A fare of \$1 per trip would likely generate the 10% farebox recovery requirement for the RGP program and would create an incentive for riders to use this service rather than the traditional demand-response service.

Ridership

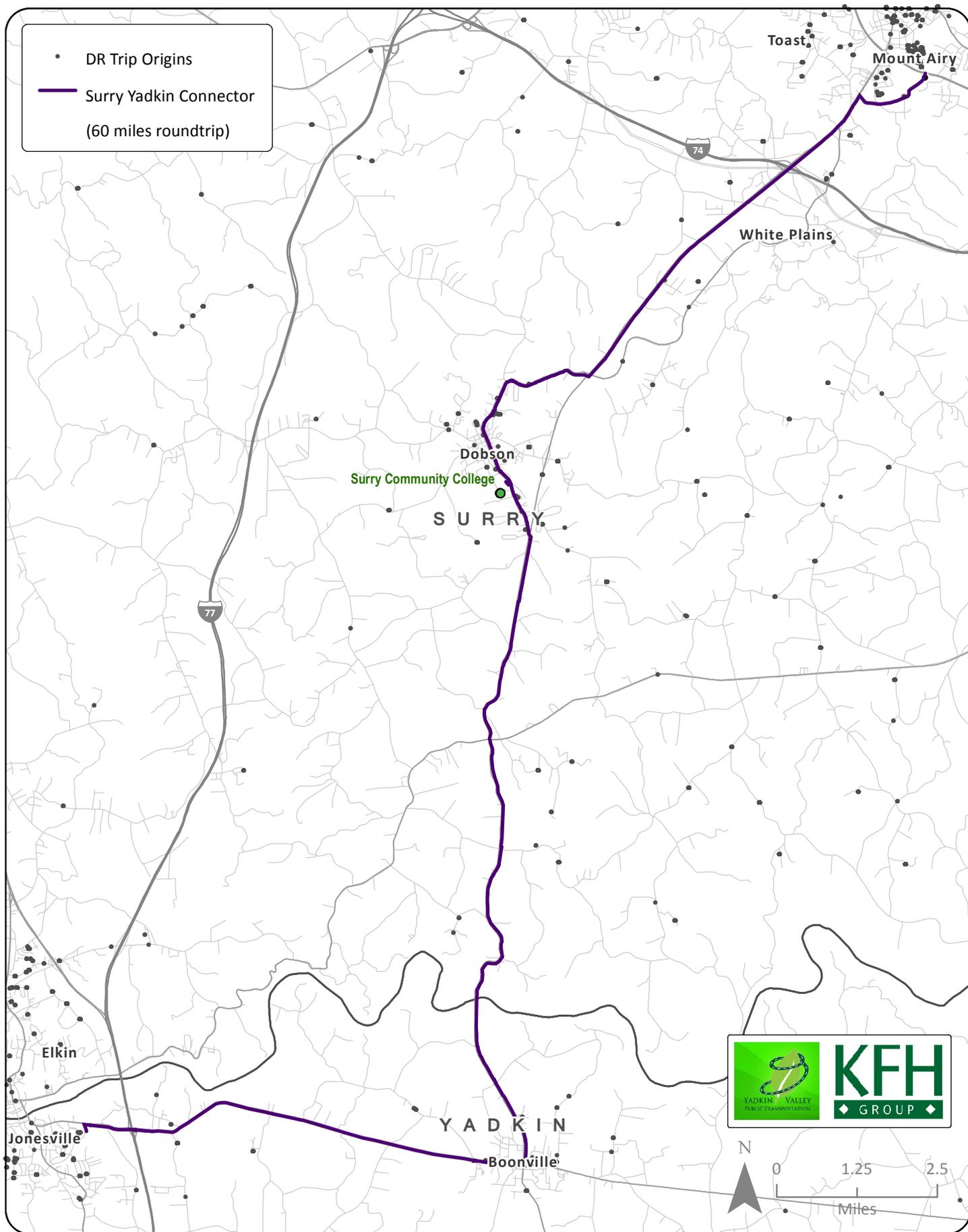
- Targeting specific areas and offering deviated fixed-route service, rather than demand-response, will likely result in service that is more productive than the current services. If this service can generate 3.0 passenger trips per revenue hour, then the annual ridership will be about 9,180 annual passenger trips.

Service Alternative #4: Surry-Yadkin Connector

A major need that was articulated by stakeholders is the need to connect the Elkin and Jonesville area to Dobson and Mount Airy, as well as to connect Elkin to the commuter bus network. This alternative proposed to start a route in the Elkin and Jonesville area (the exact location will depend upon whether or not a circulator is implemented in Elkin and Jonesville), use NC67 to travel east to Boonville, then travel north on US601 to Surry Community College in Dobson, as well as to key governmental buildings in Dobson, and then travel to the park and ride in Mount Airy. As with the originating end of the route, the exact routing in Mount Airy would depend upon whether or not a Mount Airy circulator is implemented. This route has two primary purposes: to connect Elkin area residents to the County seat, Surry Community College, and the commuter bus network, and to connect Mount Airy to the County seat and the College. Figure 3-4 provides a map for this proposed route.

This route is long at 60 miles, round trip, which would necessitate three hour headways if one vehicle is used. Ninety-minute headways would be possible if two vehicles were devoted to the service.

Figure 3-4: Proposed Surry-Yadkin Connector



If this route is operated Monday through Friday, from 6:00 a.m. to 6:00 p.m., using one vehicle, the total annual revenue service hours would be 3,060. If two vehicles were to be used, the total annual revenue service hours would be 6,120.

Advantages

- Meets one of the primary needs identified by stakeholders.
- Connects the major population centers in Surry County.
- Offers access to Surry Community College and County services from Mount Airy as well as from Elkin and Jonesville.
- YVEDDI may be able to reduce the number of vehicles used for demand-response service in the region by offering this service. If a vehicle a day could be spared it would significantly defray the expenses of implementing this service.

Disadvantages

- This is a new service design for area riders and there would be an adjustment period.
- Offering this service introduced some financial risk, as it is not associated with one specific contract, though there is no reason why contractual riders from various programs could not be referred to this service if it were to meet their trip needs.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs would be about \$99,700 (one vehicle) or \$199,400 (two vehicles).
- Assuming an average farebox recovery of 10%, the net deficit for this expansion would be \$89,730 (one vehicle) or \$179,460 (two vehicles).
- A 19-passenger, lift-equipped body-on-chassis vehicle would be appropriate for this type of service. These vehicles are about \$68,500 each.
- The best fit for this regional, multi-purpose route would likely be to apply for Federal Section 5311 funds for 50% of the net deficit. NCDOT-PTD allows regional systems to fund deviated fixed routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be funded through a mix of RGP (from Surry and Yadkin Counties) and local funds (such as contractual trips, the Towns/City served, Surry County, Surry Community College).

Fares

- A fare of \$3 per trip is consistent with YVEDDI's current rate to bring people from Mount Airy to Surry Community College. This fare level is likely to meet the RGP requirement for 10% farebox recovery.

Ridership

- If this service could generate 3.0 passenger trips per revenue hour, then the annual ridership would be about 9,180 annual passenger trips (one vehicle). Using two vehicles, ridership is likely to be slightly less than double that, or about 18,000 annual passenger trips.

Service Alternative #5: Route 601 Connector

U.S. Route 601 connects several population centers in the four counties, and also includes three of the four community college locations (Davie Center, Yadkin Center, and Surry Community College). Providing service in this corridor would provide additional mobility options for residents of Mocksville, Yadkinville, Boonville, Dobson, and Mount Airy, as well as for other residents in the corridor. Over 66% of the community survey participants indicated that this type of service is needed. Depending upon the hours of service, this route could also connect the corridor to PART's park and ride locations. The route is about 48 miles in length, one-way, which means that the cycle time would be long. One round-trip would likely take about 3.5 hours. If one vehicle is devoted to the route and three round trips are provided each day (Monday through Friday), then the total annual revenue service hours would be about 2,700.

Advantages

- Connects several communities in the region, including three community college locations.
- Addresses a need expressed by survey participants.
- Potentially provides connector service to three PART park and ride lots (Mocksville, Yadkinville, and Mount Airy).

Disadvantages

- The route is very long, which may affect its reliability.
- This is a new service design for area riders and there will be an adjustment period.
- Offering this service introduces some financial risk, as it is not associated with one specific contract, though there is no reason why contractual riders

from various programs could not be referred to this service if it were to meet their trip needs.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs would be about \$ 96,000 per year.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion would be about \$85,500.
- A 19-passenger, lift-equipped body-on-chassis vehicle would be appropriate for this type of service. These vehicles are about \$68,500 each.
- The best fit for this regional, multi-purpose route would likely be to apply for federal Section 5311 funds for 50% of the net deficit. NCDOT-PTD allows regional systems to fund deviated fixed routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be funded through a mix of RGP (from David, Surry, and Yadkin Counties) and local funds (such as contractual trips, the Towns/City served, and the community colleges).

Fares

- A fare of \$3 per trip is consistent with YVEDDI's current rate to bring people from Mount Airy to Surry Community College. This fare level is likely to meet the RGP requirement for 10% farebox recovery.

Ridership

- If this service can generate 3.0 passenger trips per revenue hour, then the annual ridership will be about 8,100 annual passenger trips.

Service Alternative #6: Meet the PART - Yadkin Valley PARTner Ride

While several of the previous alternatives included PART park and ride locations as stops, providing potential opportunities for connections, this alternative focused exclusively on providing direct, timed connections from key community locations to PART's park and ride pick-up stops. This alternative could be implemented independently of the others so that connector service could be offered even if the circulators were not implemented.

The concept would be to provide a limited deviated fixed-route from a few key community locations to the park and ride lots in Mount Airy, Yadkinville, Mocksville, and King. The routes would have set pick-up/drop-off locations and would allow some time for deviations, within limited parameters. The hours would be as follows:

King: 6:00 a.m. to 7:00 a.m., meeting both of the morning buses; and 5:30 p.m. to 6:30 p.m., meeting the 5:34 p.m. and 5:40 p.m. buses. (2.5 revenue service hours per weekday, 640 hours annually).

Mocksville: 5:30 a.m. to 7:00 a.m., meeting both of the morning buses; and 5:00 p.m. to 6:30 p.m., meeting both of the evening buses. (3 revenue service hours per weekday, 765 hours annually).

Mount Airy: 5:30 a.m. to 7:40 a.m., meeting four of the morning buses; and 5:20 p.m. to 7:20 p.m., meeting three or four of the evening buses. (4.25 revenue service hours per weekday, 1, 150 hours annually).

Yadkinville: 5:45 a.m. to 7:15 a.m., meeting both of the morning buses; and 4:30 p.m. to 6:30 p.m., meeting both of the evening buses. (3.5 revenue service hours per weekday, 890 hours annually).

Given these hours, outside of the current peak demand, it is likely that YVEDDI could use existing vehicles for these services.

Advantages

- Provides direct connections between YVEDDI and PART.
- Does not likely require additional capital.
- Is a relatively low-cost way to enhance regional mobility.
- Provides access to job opportunities in the Winston-Salem area.
- May allow YVEDDI to shift some of its long-distance trips to PART, if the riders are not too frail.

Disadvantages

- This is a new service design for area riders and there will be an adjustment period.
- Offering this service introduces some financial risk, as it is not associated with one specific contract, though there is no reason why contractual riders from various programs could not be referred to this service if it were to meet their trip needs.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs would be as follows for each service:

King:	\$20,800
Mocksville:	\$25,000
Mount Airy:	\$37,400
Yadkinville:	\$29,000

- Assuming an average farebox recovery of 10%, the net deficit for this expansion would be

King:	\$18,720
Mocksville:	\$22,500
Mount Airy:	\$33,660
Yadkinville:	\$26,100

- This service is a good candidate for the JARC program, as it would provide access to jobs for people who live in several Yadkin Valley communities. The JARC program is 50% federal and 50% local. RGP could be used as the local match.

Fares

- A fare of \$1 per trip, similar to the circulator concepts, is proposed.

Ridership

- If these connectors can serve 3.5 passengers per revenue hour, the total ridership would be about 12,000 annually.

Service Alternative #7: Limited Saturday Service

The results of the rider surveys showed that the most requested service improvement was for Saturday services. The focus of this improvement was to test the Saturday market by offering service the first Saturday of the month. This model would allow YVEDDI to try Saturday services without having to hire additional staff. The initial schedule would assign two vehicles to each County, with adjustments as needed based on demand. If service is provided between 8:00 a.m. and 4:00 p.m., using eight vehicles, then 64 additional revenue hours would be added each month, for an annual total of 768 annual revenue service hours. No additional capital would be required.

Advantages

- Meets a need expressed by riders.
- Provides limited mobility on Saturdays.

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- Tests the market for Saturday services without a major investment.

Disadvantages

- It may be difficult to manage demand.
- Adds a service without a contractual partner.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs would be about \$25,000 per year.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion would be about \$22,500 annually.
- As a multi-purpose service, Saturday service would be a good candidate for Section 5311 funds, to be matched with RGP or other local funds.

Fares

- The standard RGP fare would be appropriate for service on Saturdays.

Ridership

- If this service can generate 2.1 passenger trips per revenue hour, then the annual ridership will be about 1,600 annual passenger trips.

Service Alternative #8: Volunteer Driver Program/Mobility Management Program

One of the mobility issues that had been discussed during the development of the CTSP was the lack of affordable options for transporting people, particularly those with disabilities, who live in the more remote areas of the Yadkin Valley, as well as for people who need to travel long distances for appointments (such as veterans to Salisbury). This concept proposed the development of a volunteer driver program, using YVEDDI's existing Retired Senior Volunteer Program as a base. The concept would involve recruiting volunteers who could drive YVEDDI mini-vans to transport people whose trips would otherwise be extraordinarily expensive or impossible to fit into the regular service schedule. Volunteer and vehicle availability would be communicated to the dispatch and scheduling staff once the volunteers were trained.

The volunteer driver program could operate under the guidance of the RSVP program, with driver training provided by existing YVEDDI staff members; or it could operate under a new Mobility Management program, which could also handle information and referral regarding PART, other agency providers in the region, and private operators.

Ramp-equipped mini-vans could be purchased for the program. YVEDDI could check with its insurer, but this type of program would likely be covered as another service offered through RSVP. This program would be a natural fit to be funded under the New Freedom program, as it would provide transportation for people with disabilities. There is a lot of information currently available concerning volunteer driver programs, as they have been implemented in many communities, particularly through the New Freedom program.

Advantages

- Provides additional mobility options for trips that are currently difficult to provide.
- Provides volunteer opportunities.
- Makes use of existing YVEDDI resources.
- If Mobility Management is included, would also offer regional transportation information and referral.

Disadvantages

- It may be difficult to recruit volunteers who are willing to drive.
- There may be additional insurance expenses -- these will be researched during the alternatives analysis.

Expenses and Funding Sources

- The operating expenses would include some staff time to recruit and train volunteers, the mileage-related expenses associated with operating the vans, and some advertising and marketing expenses. If a mobility management program is also added, this would require an additional staff person. The annual operating expenses are estimated as follows:

Mileage-Related Expenses:	\$20,000 (40,000 miles, \$0.50 per mile)
Training Expenses:	\$15,000 (10 volunteers, \$1,500 each)
Insurance:	To be determined
Marketing:	\$2,500
Mobility Manager:	\$25,000 plus fringe (\$8,500) = \$33,500

- The capital expenses include two vehicles to start. Accessible mini-vans are about \$41,000 each.

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- For the New Freedom program, operating expenses are covered at 50% federal and 50% local. Capital expenses are covered at 80% federal, 20% local. Mobility management programs are funded at 80% federal and 20% local.

These service alternatives are summarized in Table 3-1.

FINANCIAL ALTERNATIVES

There were a few alternatives under consideration for this CTSP that involved the way that community transportation is financed, specifically the rate structure. These alternatives are discussed in this section. Some of these alternatives are inter-related and would affect one another.

Financial Alternative #1: Change RGP Fare from Shared-Mileage to Flat Fee/Zone

Currently YVEDDI uses a shared-mileage rate to calculate rates and fares for both general public riders and agency riders. General public riders are charged \$0.60 per shared mile. This alternative proposes to change the RGP fare from a shared-mileage rate to a set fare. The fare could vary depending upon the trip length, with some zones established.

An analysis of current RGP fares is provided in Table 3-2. This table was created using billing data from March through May, 2011. The purpose of this analysis was to determine what the current typical RGP fares are and propose a set of standard fares that would replace the shared-mileage fare, but still recover the same level of revenue.

The proposed set of fares introduced five zones that corresponded to trip distances. As shown in the table, the proposed fares range from \$2.00 for a trip of five miles or less to \$30.00 for a trip that is 31 miles or more. There could be an additional charge for very long trips. These proposed fares and zones were developed as a starting point for consideration

Advantages

- Offers a set fare so that riders will know how much the trip will cost regardless of how many other riders are on the vehicle.
- Eliminates confusion regarding the cost of service.

Table 3-1: YVEDDI CTSP - Summary of Service Alternatives

Project Description	Purpose	Annual Revenue Service Hours	Annual Operating Expenses (1)	Capital Expenses	Proposed Funding Sources	Estimated Ridership
Service Alternative #1: Deviated Fixed Routes Circulator in Mount Airy - One Vehicle Option	Provides additional mobility for Mount Airy residents, including a connection to PART.	3,315	\$ 108,003	\$ 68,500	S.5311/JARC, RGP, and local	13,260
Service Alternative #1: Deviated Fixed Routes Circulator in Mount Airy - Two Vehicle Option	Provides additional mobility for Mount Airy residents, including a connection to PART.	6,630	\$ 216,005	\$ 137,000	S.5311/JARC, RGP, and local	21,550
Service Alternative #2: Elkin/Jonesville Connector	Provides additional mobility for Elkin/Jonesville area residents.	2,805	\$ 91,387	\$ 68,500	S. 5311/JARC, RGP, and local	9,800
Service Alternative #3: Mocksville Connector	Provides additional mobility for Mocksville area residents, including a connection to PART.	3,060	\$ 99,695	\$ 68,500	S.5311/JARC, RGP, and local	9,180
Service Alternative #4: Surry-Yadkin Connector - One Vehicle Option	Connect Elkin and Jonesville to Boonville, Dobson, and Mount Airy.	3,060	\$ 99,695	\$ 68,500	S.5311, RGP, local	9,180
Service Alternative #4: Surry-Yadkin Connector- Two Vehicle Option	Connect Elkin and Jonesville to Boonville, Dobson, and Mount Airy.	6,120	\$ 199,390	\$ 137,000	S. 5311, RGP, local	18,000
Service Alternative #5: Route 601 Connector	Connect several communities in the region, along with three community colleges and PART park and ride lots.	2,700	\$ 96,066	\$ 68,500	S. 5311, RGP, local	8,100
Service Alternative #6: Meet the PART - Yadkin Valley PARTner Ride	Provide direct, timed connections from key community locations to PART stops.	3,379	\$ 110,080	\$ -	JARC, local	12,000
Service Alternative #7: Limited Saturday Service	Provide limited mobility on Saturdays.	768	\$ 25,021	\$ -	S.5311, local	1,600
Service Alternative #8: Volunteer Driver Program/Mobility Management Program	Provide additional mobility options for trips that are difficult to provide.	-	\$ 71,000	\$ 82,000	New Freedom, local	-
TOTALS (1)		19,087	\$ 700,946	\$ 424,500		63,120

(1) Totals include the one-vehicle options for Service Alternatives #1 and #4 above.

Table 3-2: YVEDDI RGP Fare Analysis

RGP Trips and Fares March-May, 2001 (1)	<i>Trip Lengths</i>					Totals/ Averages
	1-5 miles	6-10 miles	11-20 miles	21-30 miles	31 miles +	
Davie County						
Average Fare	\$ 2.10	\$ 4.46	\$ 9.20	\$ 15.03	\$ 25.42	\$ 11.24
Number of Trips	86	84	90	68	65	393
RGP Fare Revenue	\$ 181	\$ 375	\$ 828	\$ 1,022	\$ 1,652	\$ 4,058
Stokes County						
Average Fare	\$ 1.35	\$ 4.85	\$ 9.74	\$ 15.29	\$ 26.47	\$ 11.54
Number of Trips	242	72	98	129	196	737
RGP Fare Revenue	\$ 327	\$ 349	\$ 955	\$ 1,972	\$ 5,188	\$ 8,791
Surry County						
Average Fare	\$ 2.42	\$ 4.64	\$ 8.51	\$ 15.41	\$ 34.07	\$ 13.01
Number of Trips	2,230	167	218	97	220	2,932
RGP Fare Revenue	\$ 5,397	\$ 775	\$ 1,855	\$ 1,495	\$ 7,495	\$ 17,017
Yadkin County						
Average Fare	\$ 1.88	\$ 4.58	\$ 8.92	\$ 14.92	\$ 31.42	\$ 12.34
Number of Trips	616	445	292	171	222	1,746
RGP Fare Revenue	\$ 1,158	\$ 2,038	\$ 2,605	\$ 2,551	\$ 6,975	\$ 15,327
Systemwide Average	\$ 1.94	\$ 4.63	\$ 9.09	\$ 15.16	\$ 29.35	\$ 12.03
Total # of RGP Trips	3,174	768	698	465	703	5,808
RGP Fare Revenue	\$ 7,062	\$ 3,537	\$ 6,242	\$ 7,041	\$ 21,311	\$ 45,193

(1) Based on \$0.60 per shared mile

Proposed RGP Fares	\$ 2.00	\$ 4.00	\$ 9.00	\$ 15.00	\$ 32.00	\$ 12.40
Estimated Revenue	\$ 6,348	\$ 3,072	\$ 6,282	\$ 6,975	\$ 22,496	\$ 45,173
Est. Annual Revenue	\$ 25,392	\$ 12,288	\$ 25,128	\$ 27,900	\$ 89,984	\$ 180,692

Disadvantages

- Does not guarantee that the YVEDDI will recover the entire trip cost in the same manner as the shared-mileage rate does.

Financial Alternative #2: Reduce Fuel Surcharge

YYPT, along with most community transportation programs, has implemented a fuel surcharge to manage escalating and unpredictable fuel expenses. As part of the billing rate analysis, KFH Group also examined the fuel surcharge. The calculations regarding the fuel surcharge are provided in Table 3-3. As the table indicates, for every ten cent per gallon increase in the price of fuel, there is a corresponding one cent per mile cost increase for YVEDDI vehicles (assuming 10 miles to the gallon). The current YVEDDI fuel surcharge is such that for every five cent per gallon increase in the price of fuel, there is a corresponding one cent per mile increase in the shared-mileage rate.

This alternative proposes to lower YVEDDI's fuel surcharge by changing the escalation rate from a five to one relationship to a ten to one relationship. This rate more accurately reflects the impact of rising fuel costs on YVEDDI's mileage-related expenses.

Advantages

- More accurately reflects the relationship between the cost of fuel and YVEDDI's mileage-related expenses.
- Provides a reduction in the shared-mileage rate for YVEDDI's agency partners.

Disadvantages

- Provides lower revenue for YVEDDI services.

Financial Alternative #3: Explore Changing Agency Rate from Shared Mileage to Flat Fee/Zone

For many community transportation agencies in North Carolina, the shared-mileage method of agency billing is a proven and effective way to ensure that the costs to provide service are covered. The shared mileage method is one in which a trip's total vehicle miles are divided among the number of riders to determine the number of miles each rider is responsible for. These "bill miles" are then multiplied by the agency's agreed-upon shared mileage rate to generate a bill. For example, if there is a ten mile vehicle trip with five riders, the agencies sponsoring the riders would each be billed for

Table 3-3: Fuel Surcharge Calculation

Premise: Vehicle mileage is 10 miles to the gallon.

If the vehicles get 10 miles to the gallon then the cost of fuel is as follows:

Price per Gallon	Mileage (MPG)	Fuel Cost Per Mile
\$2.50	10	\$0.25
\$2.55	10	\$0.26
\$2.60	10	\$0.26
\$2.65	10	\$0.27
\$2.70	10	\$0.27
\$2.75	10	\$0.28
\$2.80	10	\$0.28
\$2.85	10	\$0.29
\$2.90	10	\$0.29
\$2.95	10	\$0.30
\$3.00	10	\$0.30
\$3.05	10	\$0.31
\$3.10	10	\$0.31
\$3.15	10	\$0.32
\$3.20	10	\$0.32
\$3.25	10	\$0.33
\$3.30	10	\$0.33
\$3.35	10	\$0.34
\$3.40	10	\$0.34
\$3.45	10	\$0.35
\$3.50	10	\$0.35
\$3.55	10	\$0.36
\$3.60	10	\$0.36
\$3.65	10	\$0.37
\$3.70	10	\$0.37
\$3.75	10	\$0.38
\$3.80	10	\$0.38
\$3.85	10	\$0.39
\$3.90	10	\$0.39
\$3.95	10	\$0.39
\$4.00	10	\$0.40
\$4.05	10	\$0.40
\$4.10	10	\$0.41
\$4.15	10	\$0.41
\$4.20	10	\$0.42
\$4.25	10	\$0.42
\$4.30	10	\$0.43
\$4.35	10	\$0.43
\$4.40	10	\$0.44
\$4.45	10	\$0.44
\$4.50	10	\$0.45

This indicates that for every 50 cent increment in the price per gallon, \$0.05 increase in the fuel cost per mile.

With the current fuel charge, there is a \$0.10 increase in the per mile rate for every 50 cent increment in the price per gallon.

two miles. If there was only one rider, that rider's sponsoring agency would be billed the full ten miles.

While this method protects YVEDDI, it is confusing for agency managers who see the trip costs for their customer vary significantly from month to month. This alternative focused on beginning the process of changing from a shared-mileage rate to set rates based on zones, rather than on how many riders are on the vehicle.

YVEDDI will be procuring more advanced scheduling and billing software in the coming year. Once this software is implemented, it will be easier for staff to extract the data needed to determine how to set the rates. Drawing out the data using the current software system is difficult and time-consuming. Because the contractual services are such a large portion of YVEDDI's budget, care must be taken to ensure that any changes to the billing method will still allow YVEDDI to cover its expenses. KFH Group was able to use the existing data to develop proposed RGP rates based on a three-month sample of data, but a more extensive data set should be used when contemplating the agency rate.

If YVEDDI first changes the RGP trips from shared-mileage to set fares (Financial Alternative #1), this will provide a good base of data to see if the fares devised do indeed cover the costs. Using RGP as a test is not as much of a financial risk, as only 10% of the total cost of the trip needs to be recovered (though a higher farebox recovery would stretch the program farther).

Advantages

- Simplifies the billing process.
- Is less confusing for agency partners and easier for YVEDDI to explain.
- Provides consistency for agency partners.

Disadvantages

- Introduces an element of financial risk, as set fares will not guarantee that the cost of the vehicle trip will be covered.

Financial Alternative #4: Transition Back to One Agency Rate

Prior to last year's rate increase, YVEDDI operated with one agency billing rate for all four counties. During the process of increasing the shared-mileage rate, local partners asked YVEDDI to break down operating expenses by County. There are some cost differences among the four counties, primarily associated with the way in which fuel is purchased, and the partners wanted to pay the lowest rate possible. YVEDDI

did allocate its costs among the four counties and developed different shared mileage rates to reflect the cost differences among the four counties.

One of the organizational alternatives associated with this CTSP involved further centralizing YVEDDI operations. While vehicles will still be posted in each county to save on vehicle mileage, a central dispatch center is planned. As YVEDDI centralizes more functions and takes better advantage of its regional status, it is likely that more vehicles will travel from one county to another, becoming interchangeable and blurring the cost differences among the counties. It may make more sense at that time to return to one rate, rather than try to continue allocate costs that are increasingly shared.

Advantages

- Less time consuming for YVEDDI to manage.
- Better accommodates regional trips.
- Reflects a more consolidated operation.

Disadvantages

- Does not reflect the cost differences found among the four counties.

ORGANIZATIONAL ALTERNATIVES

Organizational alternatives included proposals for potential changes that affect the way that transit is guided, administered, and/or managed in the region. While the basic structure for administering community transportation in the region is well established, there were five alternatives that were relevant for consideration during the five-year planning horizon, several of which were not products of the CTSP, but were under development prior to the process. These are discussed below.

Organizational Alternative #1: Improved Scheduling and Routing Infrastructure

YVEDDI is currently in the process of procuring routing, scheduling and dispatch software. YVEDDI's current software program is outdated and will not be able to handle a centralized approach, which is what YVEDDI is moving toward. YVEDDI has funding in place to purchase the routing and scheduling software. The new software will have much greater capabilities and will allow YVEDDI to centralize the dispatch center.

The focus of this alternative was to take the next step with the scheduling and routing technology and add Automatic Vehicle Location (AVL) and Mobile Data Computers (MDC). AVL technology allows the dispatcher to see in real time where each vehicle is located so that it is easier to assign will-calls and other last minute trips. MDCs are on-board computers that transmit the driver's manifest electronically, rather than using paper. The driver records all of the pertinent information using the MDC, which eliminates the need for the dispatch staff to enter this information from the driver's sheets into the computer system upon the driver's return.

Advantages

- Allows real-time vehicle information, which is useful for many reasons including the following:
 - Safety -- the dispatcher knows where the vehicles are should there be an emergency.
 - Efficiency -- the dispatcher can quickly answer "where is my ride" calls without having to use the radio. The dispatcher can also make more effective vehicle assignment choices for will-calls.
- Reduces paper consumption- the MDCs replace paper driver sheets/manifests.
- Reduces staff time spent entering data.
- Potentially improves data accuracy -- the data are entered fewer times, leaving fewer opportunities for errors. The data will still need to be reviewed by the dispatch staff, but not re-entered unless there is an issue.

Disadvantages

- There will be a learning curve associated with implementing these technologies.
- These technologies are expensive to implement, though will likely result in some operating efficiencies.

Expenses and Potential Funding

- AVL/MDC systems are about \$5,500 per vehicle to install, including the MDC transponder, the GPS antenna, cabling, and power source. Annual operating costs are about \$1,000 per vehicle.¹
- This amounts to a capital expenditure of \$346,500 and additional annual operating costs of \$63,000, assuming all 63 community transportation vehicles are equipped.

¹ITRE, Triangle ITS Deployment, 2010 update, Appendix C: Cost Estimates.

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- The capital expenses could be funded through the Section 5311 program, through the Section 5310 program (the source for YVEDDI's new software), or through the State's Technology Program. The ongoing operating expenses would need to be folded into the annual budget.

Organizational Alternative #2: Consolidate Dispatch and Schedule Operations and Implement New Scheduling Software

YVEDDI is planning to consolidate the dispatch center so that all trips are dispatched from one dispatch center, rather than three. It is not really an alternative, as the decision has already been made to consolidate the center and implement new scheduling software. We have included it within this alternatives chapter so that the Steering Committee is aware that this change will be taking place and to ensure that it is carried forward to the Recommended Plan. The Implementation Plan section of the CTSP includes recommendations as to how the consolidation can be accomplished.

Organizational Alternative #3: Increased Coordination with PART

YVEDDI and PART share the same service area and there is some ongoing dialogue between the two agencies. For example, PART is participating in this CTSP as a member of the Steering Committee. This alternative focuses on formalizing this relationship so the two agencies meet more regularly to discuss transit needs, issues, and opportunities in the region. The idea is that PART and YVEDDI work as a team to maximize mobility in the region, each focusing on their particular area of expertise (i.e., PART leading the park and ride and commuter efforts and YVEDDI leading the local community mobility efforts). This CTSP has included several service alternatives that include PART and YVEDDI connections, so more regularly scheduled meetings will likely be needed.

Advantages

- Provides a forum to maximize mobility in the region.
- Builds one constituency for transit in the region, rather than two.
- Developing a formal relationship could be helpful in future local funding requests. The study team heard from local stakeholders that local elected officials would like to see YVEDDI and PART work together.

Disadvantages

- The only disadvantage is the staff time associated with regularly scheduled meetings.

Organizational Alternative #4: Increased Coordination with Wilkes Transportation Authority (WTA)

WTA operates community transportation in Wilkes County, offering countywide demand-response service and deviated fixed-route service in Wilkesboro and North Wilkesboro. WTA travels to Elkin regularly to bring people to Hugh Chatham Hospital from several places in Wilkes County, as well as to bring residents of Eastern Wilkes County to Elkin for medical and general purpose trips. The focus of this alternative is to further coordinate services with WTA to improve overall efficiency in the region. The following are examples of how WTA and YVEDDI could work together in Elkin:

- If WTA brings a person to Elkin from Wilkes County and there is a long wait for the return trip, that driver and vehicle could be dispatched by YVEDDI to provide some local trips while in the Elkin area, rather than sitting idle.
- If WTA brings a person to Elkin from Eastern Wilkes County and there is a long wait, the WTA vehicle could leave and the YVEDDI could bring the person home.
- If WTA has only one trip into Elkin from Eastern Wilkes, they could ask YVEDDI to handle the trip, rather than incurring the long deadhead from the Wilkesboro region.
- Joint hub location -- if may be cost effective for both providers to post vehicles in Elkin and this location could be shared.

Billing for these trips would need to be negotiated -- either YVEDDI and WTA could bill each other, or they could directly bill the agency paying for the trip. The rates and fares in the Elkin area charged by each provider would also need to be the same.

Advantages

- Takes full advantage of the transit capacity in the region.
- Reduces down time for WTA.
- Potentially reduces deadhead mileage.

Disadvantages

- This arrangement may be confusing for passengers, but this could likely be overcome.

Organizational Alternative #5: Move the Surry Office to the Shopping Center with the PART Park and Ride

Currently YVEDDI operates out of the old school building on Jones School Road in Mount Airy. While the rent is low and YVEDDI is co-located with social service providers, the location is not good, as the school is not centrally located. YVEDDI incurs significant extra vehicle mileage by having its Surry base of operations located on Jones School Road, rather than closer to the center of Mount Airy. YVEDDI has investigated a lease arrangement to re-locate to the shopping center where the PART park and ride is located -- Newsome Road and U.S. 52.

Advantages

- Provides an opportunity to be co-located with PART.
- Provides a greater presence in the community.
- Significantly reduces deadhead mileage.

Disadvantages

- Would increase the monthly lease costs by about \$1,300 per month, though some of this increase would be re-captured by the reduced deadhead.

Expenses

- The annual lease expenses would increase by about \$15,600 annually. These expenses would be rolled into the CTP grant, but it is not likely that the CTP grant would be increased, so this increase may have to come from local funds. This amount could potentially be recovered through lower fuel costs. Additional research regarding this concept will be conducted during the alternatives analysis.

SUMMARY

This chapter provided a number of service, financial, and organizational alternatives that were considered with regard to public transit services over the next five years. Together these ideas met a number of the needs that were identified during the CTSP process. The entire menu of alternatives offered a relatively aggressive expansion, adding 19,000 annual revenue hours to the existing system and \$700,000 in additional operating expenses. It may not be possible to implement all of these proposals, depending upon funding availability, but they were offered for consideration and prioritization.

These alternatives were presented to the Steering Committee in December 2011 and to the public at a series of public meetings held in January, 2012. A number of comments and suggestions were offered by the Committee and members of the public. These suggestions were incorporated for the five year plan, which is detailed in Chapter 4.

Chapter 4

Five-Year Plan

INTRODUCTION

This five-year plan is the product of the YVEDDI CTSP, which was developed over the course of a nine-month planning process. The recommended projects were derived through detailed analysis of existing community transportation services, a review of scheduling and dispatch operations, a transit needs analysis, alternatives analysis, public discussion, and Committee discussion.

The five-year plan includes a series of service improvements and expansions, though it should be noted that these projects are dependent upon available federal, state, and local funding. Future funding levels are somewhat unknown, with the federal transit funding legislation expired and yet to be re-authorized, though federal transit funding has historically risen over the years.

The plan is organized in the following eight sections:

- **Service Plan** - Describes the service projects that are included in the plan.
- **Organizational Plan** - Describes the organizational projects that are included in the plan.
- **Implementation Schedule** - Outlines the activities that are planned for implementation in each of the five years of the planning period.
- **Capital Plan** - Describes the capital that will be required to implement the five-year plan.
- **Financial Plan** - Provides a five year budget for implementing the projects included in the plan, including projected expenses and anticipated revenues.

- **Performance Measurement Plan** – Sets performance goals for YVEDDI.
- **Public Involvement Description** – Documents the public input received during the development of the plan.
- **Summary of Recommendations** – Ties the recommended projects to NCDOT’s mobility goals.

An interactive financial tool was provided to YVEDDI, based on the final recommendations.

SERVICE PLAN

The service plan includes all of the public transit service projects planned for inclusion over the five-year planning horizon. Project descriptions and estimated costs are included in this section. The plan focuses on the following initiatives:

- Providing specific connections between local transit services and PART;
- Developing deviated fixed-route circulator services for the larger communities in the service area;
- Developing deviated fixed-route corridor services between key locations in the region;
- Offering limited Saturday services;
- Connecting population centers to education and job opportunities;
- Developing hub opportunities where appropriate; and
- Creating a mobility management and volunteer program to more efficiently serve the more remote parts of the region.

Circulators

Three deviated fixed-route circulator services are included in the CTSP. The purpose of these routes is to provide regularly scheduled services for the more densely populated communities (Mount Airy, Elkin-Jonesville, and Mocksville) in the four counties. This service mode typically results in higher productivity than demand-

response services, when implemented in areas where it is feasible, and may save money over time as YVEDDI riders in these areas take advantage of the circulator services rather than the less productive demand-response services. It will be important for YVEDDI to encourage riders who can make the switch from demand-response to these routes to do so, as the circulator vehicles are operating continuously, whether or not there are riders. Two of the three circulators are recommended in the near-term, while the Mocksville Circulator is proposed for a later year. These routes are detailed below.

Deviated Fixed-Route Circulator Services in Mount Airy

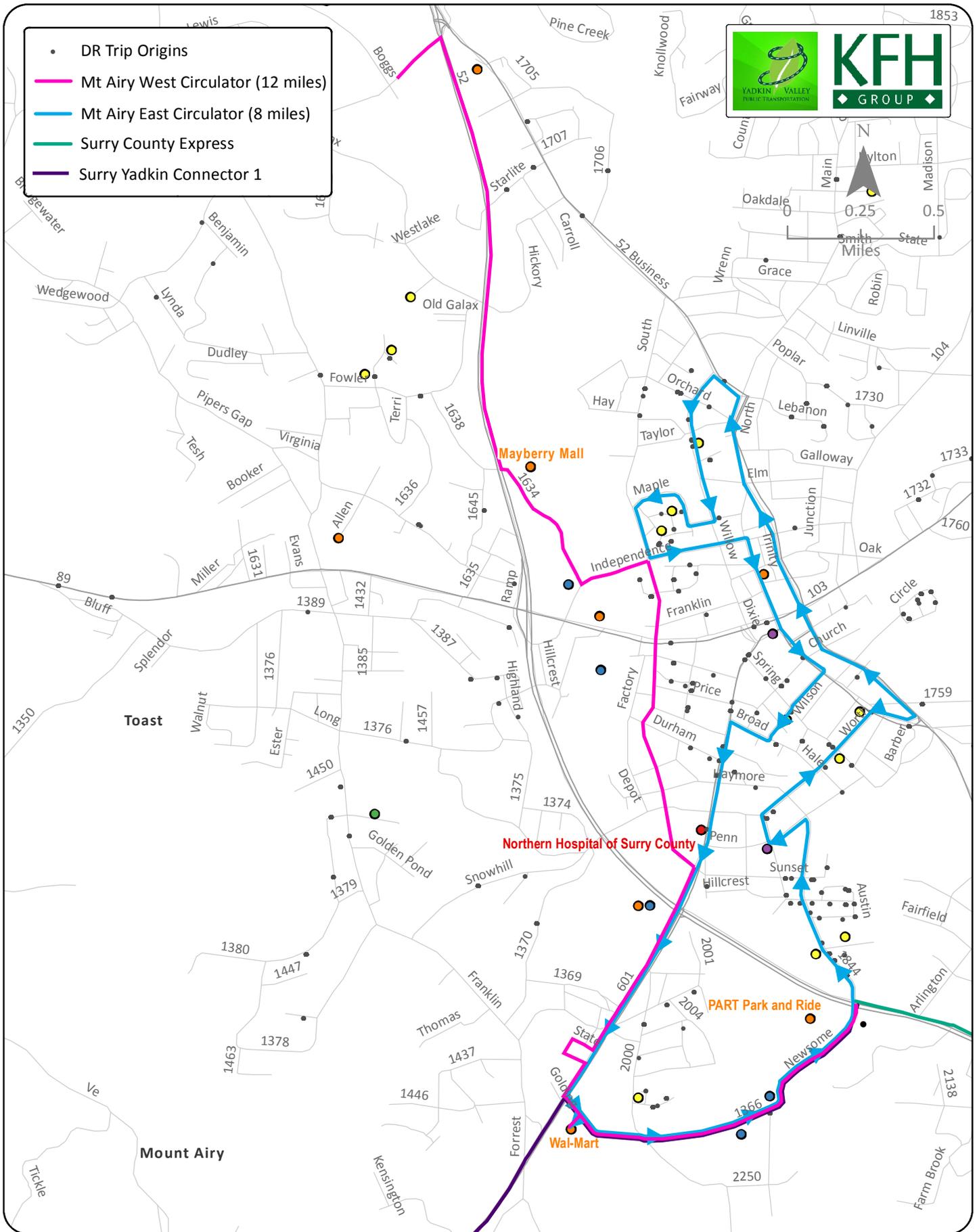
Among the series of alternatives developed for the CTSP, the concept of a deviated fixed-route circulator in the Mount Airy region was ranked the highest by the CTSP Steering Committee. The proposed circulator service would connect significant origins and destinations in Mount Airy, including making a connection to the PART park and ride lot. While the specific routing will be determined by YVEDDI upon implementation, KFH Group has drafted a route proposal that is highlighted in Figure 4-1. This proposal includes two major route segments, one serving primarily west of US 601 and the other serving primarily east of US 601. Both segments would originate at PART's park and ride lot at Newsome and U.S.52.

In order to effectively provide connections to PART's Surry County Express, the circulator will need to begin operating about 6:00 a.m., which will allow the local route to potentially connect to four of the six morning PART departures. In the afternoon, the service will need to run until about 7:00 p.m., which will potentially allow connections with several of the afternoon/evening Surry County Express arrivals.

Expenses and Funding Sources

- If YVEDDI implements a one-vehicle operation using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs will be about \$108,000.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion will be about \$97,200.
- A 19-passenger, lift-equipped body-on-chassis vehicle is appropriate for this type of service. These vehicles are about \$68,500 each.
- YVEDDI has applied for Section 5311 operating funds to fund 50% of the net deficit for this service and Section 5311 capital funds to fund 80% of the cost of a vehicle. The local match will be derived from contractual revenue, RGP, and EDTAP.

Figure 4-1: Proposed Mt. Airy Circulator



Fares

- A fare of \$1 per trip will likely generate the 10% farebox recovery requirement for the RGP program and would create an incentive for riders to use this service rather than the traditional demand-response service.

Ridership

- Targeting specific areas and offering deviated fixed-route service, rather than demand-response, will likely result in service that is more productive than the current services. The one-vehicle operation will likely result in productivity of at least four passenger trips per revenue hour. This would result in 13,260 annual passenger trips. This is a conservative estimate.

Elkin-Jonesville Circulator

The purpose of this project is to initiate a deviated fixed-route service to connect significant origins and destinations in the Elkin-Jonesville area. It is also proposed that this route serve a “hub” location, to connect with Wilkes Transportation Authority (WTA) vehicles and a proposed new route to Dobson and Mount Airy, via Boonville. While the specific routing will be determined by YVEDDI upon implementation, KFH Group has drafted a route proposal that is highlighted in Figure 4-2. The proposed route originates in Jonesville, at the Food Lion parking lot on NC67 (which could serve as a “hub”), serves the multi-family housing areas of Jonesville, the Library, the High School, and Elk Spur Road, and then travels north along US 21 business to Elkin, serving the downtown, then the senior apartments, some other multi-family apartments, the Hugh Chatham Hospital and associated medical offices, and the Walmart. The return trip includes the Elkin Center (Surry Community College).

This route is ten miles as proposed, which would be feasible for hourly headways including some deviations. If this route were to operate Monday-Friday from 7:00 a.m. to 6:00 p.m., the total annual revenue service hours would be 2,805. One 19-passenger, lift-equipped body-on-chassis vehicle will be required for this service.

The CTSP Study Committee ranked this project #5 among the ten alternatives.

Expenses and Funding Sources

- Using YVEDDI’s fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs will be about \$ 91,400.

- Assuming an average farebox recovery of 10%, the net deficit for this expansion will be about \$82,300.
- A 19-passenger, lift-equipped body-on-chassis vehicle is appropriate for this type of service. These vehicles are about \$68,500.
- YVEDDI has applied for Section 5311 operating funds to fund 50% of the net deficit for this service and Section 5311 capital funds to fund 80% of the cost of a vehicle. The local match will be derived from contractual revenue, RGP, and EDTAP.

Fares

- A fare of \$1 per trip will likely generate the 10% farebox recovery requirement for the RGP program and would create an incentive for riders to use this service rather than the traditional demand-response service.

Ridership

- Targeting specific areas and offering deviated fixed-route service, rather than demand-response, will likely result in service that is more productive than the current services. If this service can generate 3.5 passenger trips per revenue hour, then the annual ridership will be about 9,800 annual passenger trips.

Mocksville Circulator

The concept of developing a circulator in the Mocksville area is included in this CTSP, though it received the lowest ranking from the CTSP Study Committee. The primary reason for the low ranking of this circulator is the dispersed land use pattern in Mocksville, which will make the circulator a long route that may not be as attractive to riders. Should additional centrally-located development occur in the Mocksville area, the circulator concept could be implemented. We have kept it in the plan for implementation in FY 2016, should there be a need.

The preliminary route proposal connects multi-family housing and typical transit destinations, as well as serving PART's park and ride location. While the specific routing will be determined by YVEDDI if and when this route is implemented, KFH Group has drafted a route proposal that is highlighted in Figure 4-3. The route as drafted has five legs, each serving a travel corridor with either significant origins or destinations, including multi-family housing, a Storehouse for Jesus, the VF Jeans

factory, the Davie Campus of Davidson Community College, downtown, the Davie County Hospital, and Walmart.

This route is 17 miles as proposed, which will necessitate 90-minute headways, with deviations. If this route were to operate Monday-Friday, from 6:30 a.m. (to serve the 7:00 a.m. PART departure) to 6:30 p.m. (to meet the 6:01 PART arrival), the annual revenue service hours would be 3,060. One 19-passenger, lift-equipped body-on-chassis vehicle would be required for this service.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs would be about \$ 99,700.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion would be \$89,730.
- A 19-passenger, lift-equipped body-on-chassis vehicle would be appropriate for this type of service. These vehicles are about \$68,500.
- There are a couple of funding options for this circulator - the first option would be to apply for Federal Section 5311 funds for 50% of the net deficit of the route. NCDOT-PTD allows regional systems to fund deviated fixed-routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be funded through a mix of RGP and local funds (such as contractual trips and the Town of Mocksville).
- A second option would be to emphasize the work opportunities provided by this route and apply for JARC funds -- this route would likely qualify as it serves several neighborhoods where there are low-income residents and connects them to job locations. JARC is also funded at 50% federal and 50% local. The only issue with JARC funding is that it is not an ongoing source of revenue.

Fares

- A fare of \$1 per trip would likely generate the 10% farebox recovery requirement for the RGP program and would create an incentive for riders to use this service rather than the traditional demand-response service.

Ridership

- Targeting specific areas and offering deviated fixed-route service, rather than demand-response, will likely result in service that is more productive than the current services. If this service can generate 3.0 passenger trips per revenue hour, then the annual ridership will be about 9,180 annual passenger trips.

Connector Routes

Another featured service for the five-year plan is the introduction of connector routes. These routes are also deviated fixed-route services, but serve to connect one community to another. The purpose of these routes is to manage demand and group trips from one community to the next. As with the circulator routes, these routes should also save money over time, as YVEDDI encourages riders who can use these routes to do so, rather than using the less productive demand-response services.

Surry-Yadkin Connector #1

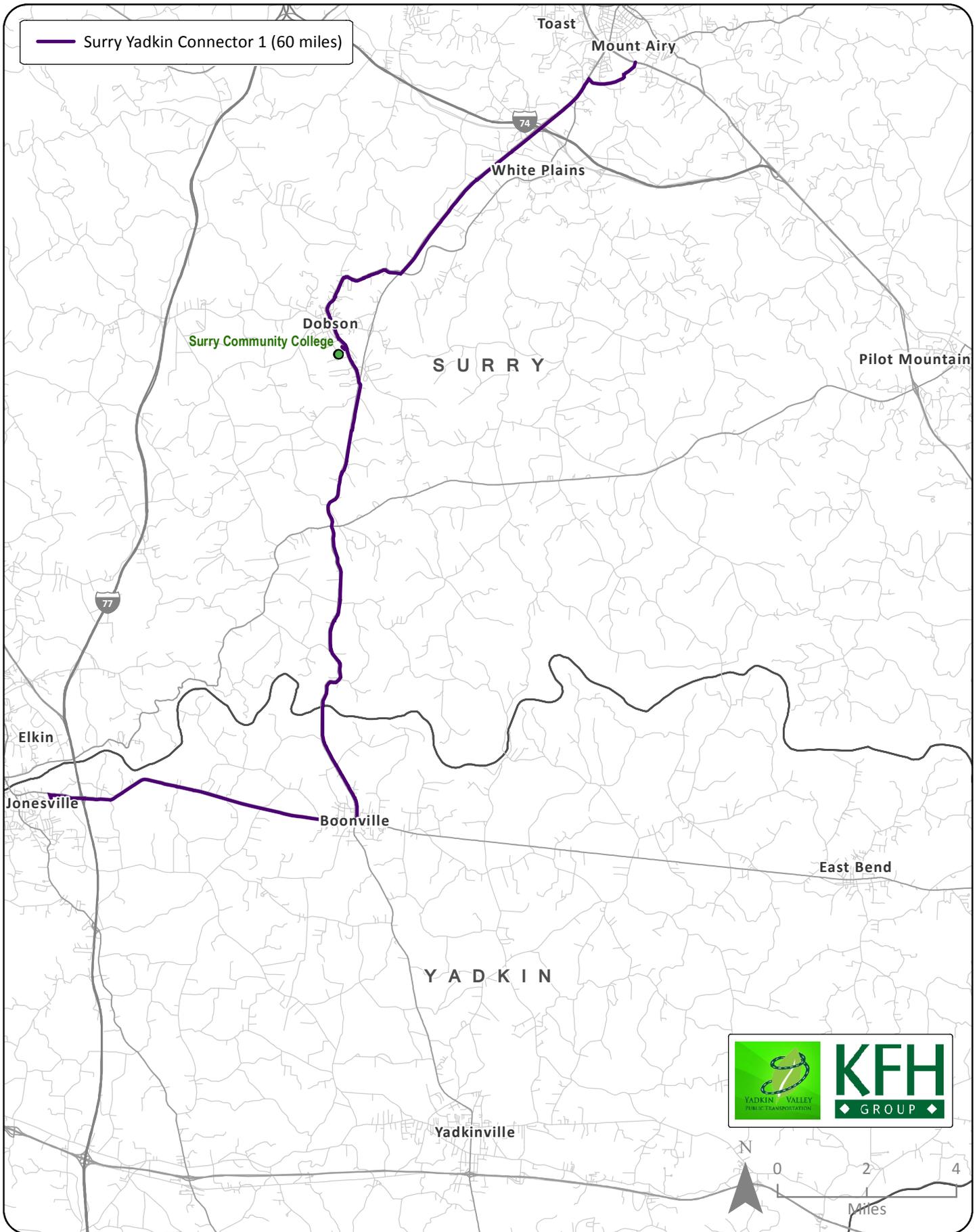
A major need that has been articulated by stakeholders is the need to connect the Elkin/Jonesville area to Dobson and Mount Airy, as well as to connect Elkin to the commuter bus network. This project was ranked second out of ten alternatives by the CTSP Study Committee.

The proposed route originates in the Elkin-Jonesville area (the exact location will depend upon the implementation of the Elkin-Jonesville Circulator), use NC67 to travel east to Boonville, then travel north on US601 to Surry Community College in Dobson, as well as to key governmental buildings in Dobson, and then travel to the park and ride in Mount Airy. As with the originating end of the route, the exact routing in Mount Airy will depend upon implementation of the Mount Airy Circulator. This route has two primary purposes: to connect Elkin area residents to the County seat, Surry Community College, and the commuter bus network, and to connect Mount Airy to the County seat and the College. Figure 4-4 provides a map for this proposed route.

This route is long at 60 miles, round trip, which will necessitate three hour headways if one vehicle is used. A second vehicle would allow shorter headways, as funding permits.

If this route is operated Monday through Friday, from 6:00 a.m. to 6:00 p.m., using one vehicle, the total annual revenue service hours would be 3,060.

Figure 4-4: Proposed Surry-Yadkin Connector #1



Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs will be about \$ 99,700 (one vehicle).
- Assuming an average farebox recovery of 10%, the net deficit for this expansion will be about \$89,730 (one vehicle).
- A 19-passenger, lift-equipped body-on-chassis is appropriate for this type of service. These vehicles are about \$68,500 each.
- YVEDDI has applied for Section 5311 operating funds to fund 50% of the net deficit for this service and Section 5311 capital funds to fund 80% of the cost of a vehicle. The local match will be derived from contractual revenue, RGP, and EDTAP.

Fares

- A fare of \$3 per trip is consistent with YVEDDI's current rate to bring people from Mount Airy to Surry Community College. This fare level is likely to meet the RGP requirement for 10% farebox recovery.

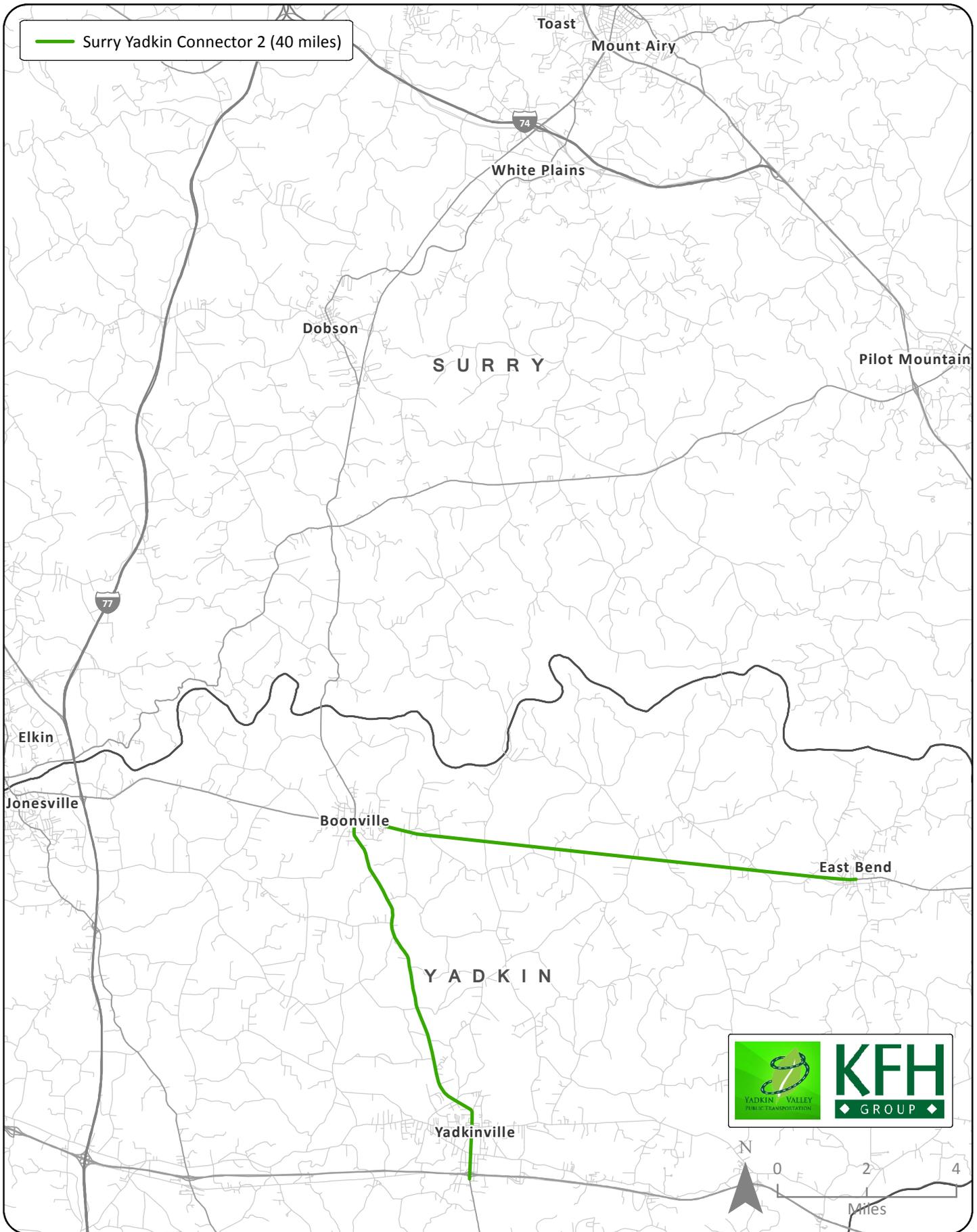
Ridership

- If this service can generate 3.0 passenger trips per revenue hour, then the annual ridership will be about 9,180 annual passenger trips (one vehicle).

Surry-Yadkin Connector #2

During the alternatives analysis phase of the project, the concept of adding additional segments to the Surry-Yadkin connector was mentioned by participants at the public meetings. The Surry-Yadkin Connector #2 is designed to add connections from Boonville to Yadkinville and from Boonville to East Bend. Connections to the Surry-Yadkin Connector #1 would be made in Boonville. These two segments provide additional connectivity in Yadkin County, including the County seat, but will likely have lower ridership potential than Connector #1, as there are fewer people and major destinations along these two segments. Figure 4-5 provides a map of this route. The CTSP Study Committee ranked this project sixth out of the ten service alternatives.

Figure 4-5: Proposed Surry-Yadkin Connector #2



Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs for this connector will be about \$ 99,700 (one vehicle, operating 3,060 annual revenue hours).
- Assuming an average farebox recovery of 10%, the net deficit for this connector will be about \$89,730 (one vehicle).
- A 19-passenger, lift-equipped body-on-chassis is appropriate for this type of service. These vehicles are about \$68,500 each.
- The best fit for this connection to a regional, multi-purpose route would likely be to apply for Federal Section 5311 funds for 50% of the net deficit. NCDOT-PTD allows regional systems to fund deviated fixed routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be funded through a mix of RGP (Yadkin County) and local funds, such as contractual trips and general revenue funds from Yadkin County or from one or more of the municipalities served.

Fares

- A fare of \$3 per trip is consistent with YVEDDI's current rates. This fare level is likely to meet the RGP requirement for 10% farebox recovery.

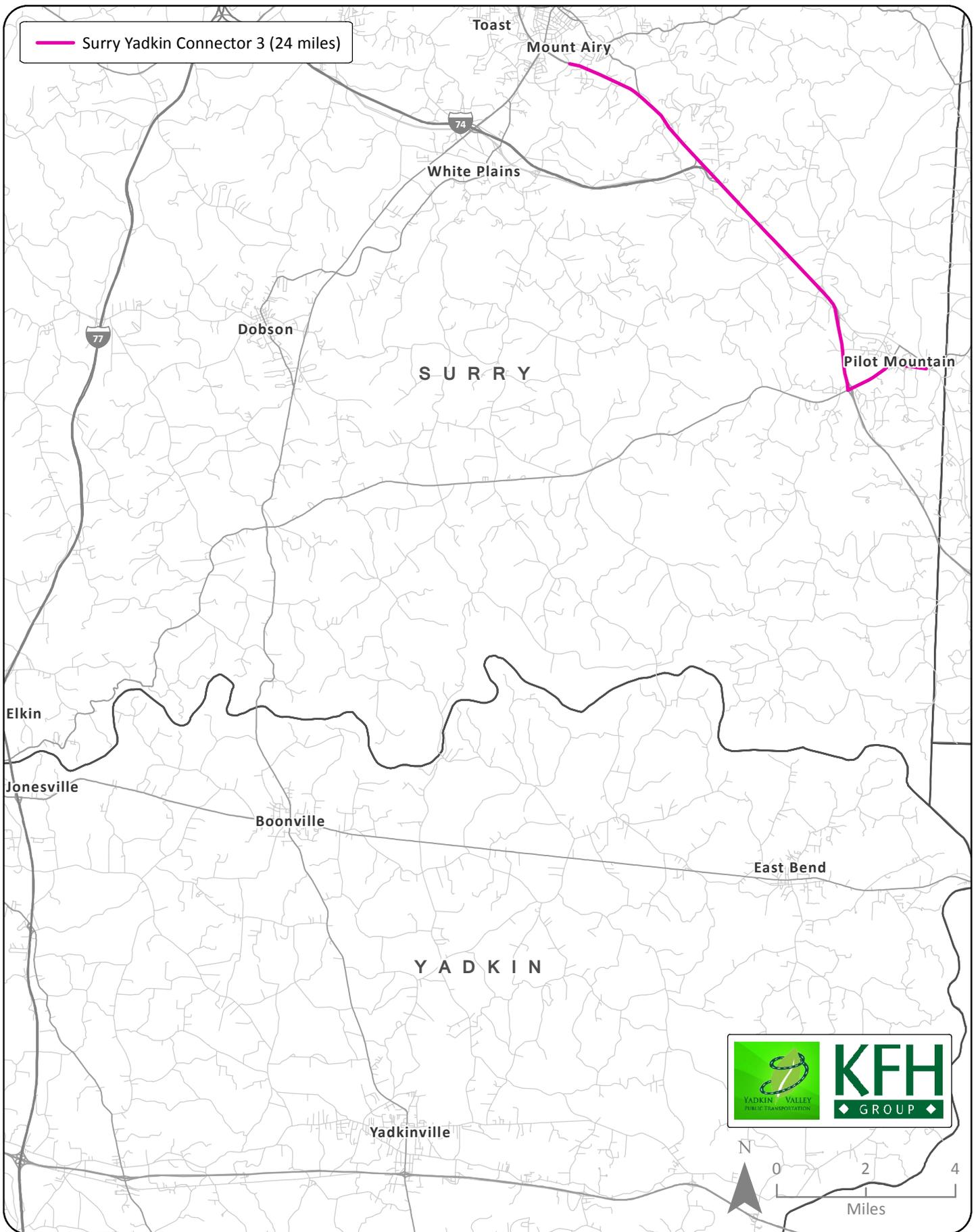
Ridership

- If this service can generate 2.5 passenger trips per revenue hour, then the annual ridership will be about 7,650 annual passenger trips (one vehicle).

Surry-Yadkin Connector #3

Another link that was added during the alternatives analysis phase is a link between Mount Airy and Pilot Mountain. The Surry-Yadkin Connector #3 is designed to add a connection between these two communities, in a manner that is complementary rather than duplicative of PART services. Connections to the Surry-Yadkin Connector #1 would be made in Mount Airy. This linkage would serve the Pilot Mountain branch of Surry Community College. Figure 4-6 provides a map of this route. The CTSP Study Committee ranked this project eighth out of the ten service alternatives.

Figure 4-6: Proposed Surry-Yadkin Connector #3



Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs for this connector will be about \$ 99,700 (one vehicle, operating 3,060 annual revenue hours).
- Assuming an average farebox recovery of 10%, the net deficit for this connector will be about \$89,730 (one vehicle).
- A 19-passenger, lift-equipped body-on-chassis is appropriate for this type of service. These vehicles are about \$68,500 each.
- The best fit for this connection to a regional, multi-purpose route would likely be to apply for Federal Section 5311 funds for 50% of the net deficit. NCDOT-PTD allows regional systems to fund deviated fixed routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be funded through a mix of RGP (Surry County) and local funds, such as contractual trips and general revenue funds from Surry County or from Mount Airy or Pilot Mountain.

Fares

- A fare of \$3 per trip is consistent with YVEDDI's current rates. This fare level is likely to meet the RGP requirement for 10% farebox recovery.

Route 601 Connector

U.S. Route 601 connects several population centers in the four counties, and also includes three of the four community college locations (Davie Center, Yadkin Center, and Surry Community College). Providing service in this corridor would provide additional mobility options for residents of Mocksville, Yadkinville, Boonville, Dobson, and Mount Airy, as well as for other residents in the corridor. Over 66% of the community survey participants indicated that this type of service is needed. Depending upon the hours of service, this route could also connect the corridor to PART's park and ride locations. The route is about 48 miles in length, one-way, which means that the cycle time would be long. One round-trip will likely take about 3.5 hours. If one vehicle is devoted to the route and three round trips are provided each day (Monday through Friday), then the total annual revenue service hours will be about 2,700.

This project was ranked fourth (out of ten alternatives) by the CTSP Committee.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs will be about \$ 96,000 per year.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion will be about \$85,500.
- A 19-passenger, lift-equipped body-on-chassis vehicle would be appropriate for this type of service. These vehicles are about \$68,500 each.
- The best fit for this regional, multi-purpose route would likely be to apply for Federal Section 5311 funds for 50% of the net deficit. NCDOT-PTD allows regional systems to fund deviated fixed routes with Section 5311 operating funds (single county systems can only access these funds for administrative expenses). The remaining 50% could be funded through a mix of RGP (from Davie, Surry, and Yadkin Counties) and local funds (such as contractual trips, the Towns/City served, and the community colleges).

Fares

- A fare of \$3 per trip is consistent with YVEDDI's current rate to bring people from Mount Airy to Surry Community College. This fare level is likely to meet the RGP requirement for 10% farebox recovery.

Ridership

- If this service can generate 3.0 passenger trips per revenue hour, then the annual ridership will be about 8,100 annual passenger trips.

Additional Demand-Response Transportation Services

There are three projects that focus on enhancing YVEDDI's existing demand-response transportation services. These are highlighted below.

Meet the PART- Yadkin Valley PARTner Ride

While the circulator and connector routes include PART park and ride locations as stops, providing potential opportunities for connections, this project focuses exclusively on providing direct, timed connections from key community locations to PART's park and ride pick-up stops. This project could be implemented independently

of the others so that connector services could be offered even if the circulators were not implemented.

The concept is to provide limited demand-response service from a few key community locations to the park and ride lots in Mount Airy, Pilot Mountain, Yadkinville, Mocksville, and King. Pilot Mountain was added to the service proposal after receiving community input on the alternatives.

Expenses and Funding Sources

- YVEDDI has applied for grant funding through the Job Access and Reverse Commute Program (JARC) to implement this service in FY 2013. The proposal submitted was for a two-year grant of \$50,000, which will allow for about 760 annual service hours. This is a lower level of service than was proposed in the alternatives, but is likely a more financially feasible way to initiate the program. This grant will require a local match of \$50,000 for the two years, with RGP funds proposed for the match.

Ridership

- With the level of service provided, the ridership is likely to be about 2,200 annually.

Fares

- The proposed fare for this service is \$1.00. While it is a demand-response trip, it is recognized that the riders will be paying a second fare to ride PART.

Additional Medical Transportation for Older People and People with Disabilities

One of the needs identified in YVEDDI's Coordinated Public Transit-Human Service Transportation Plan was for additional demand-response transportation to basic services for people who are low income, but just above the Medicaid income threshold. YVEDDI's transportation and Older Americans Act programs have partnered to apply for a Section 5310 grant to provide additional transportation services for this population group, many of whom live in remote areas of the region.

YVEDDI requested a two year grant from NCDOT in the amount of \$200,000, which is equivalent to \$25,000 per county per year. Contractual revenue will be used for the required local share of \$12,500 per county per year. The grant period of performance is July 1, 2012 through June 30, 2014.

Limited Saturday Service

The results of the rider surveys showed that the most requested service improvement was for Saturday services. The focus of this improvement is to test the Saturday market by offering service the first Saturday of the month. This model would allow YVEDDI to try Saturday services without having to hire additional staff. The initial schedule would assign two vehicles to each County, with adjustments as needed based on demand. If service is provided between 8:00 a.m. and 4:00 p.m., using eight vehicles, then 64 additional revenue hours will be added each month, for an annual total of 768 annual revenue service hours. No additional capital is required. Of the ten service alternatives, this proposal was ranked 9th by the CTSP Study Committee.

Expenses and Funding Sources

- Using YVEDDI's fully allocated cost per hour of \$32.58 (FY11), the total annual operating costs will be about \$25,000 per year.
- Assuming an average farebox recovery of 10%, the net deficit for this expansion will be about \$22,500 annually.
- As a multi-purpose service, Saturday service will be a good candidate for Section 5311 funds, to be matched with RGP or other local funds.

Fares

- The standard RGP fare is recommended for service on Saturdays.

Ridership

- If this service can generate 2.1 passenger trips per revenue hour, then the annual ridership will be about 1,600 annual passenger trips.

Volunteer Driver Program/Mobility Management Program - "Good Samaritan Van"

One of the mobility issues that has been discussed during the development of the CTSP is the lack of affordable options for transporting people, particularly those with disabilities, who live in the more remote areas of the Yadkin Valley, as well as for people who need to travel long distances for appointments (such as veterans to Salisbury). This concept proposes the development of a volunteer driver program, using YVEDDI's existing Retired Senior Volunteer Program as a base. The concept involves recruiting volunteers who could drive YVEDDI mini-vans to transport people whose trips would otherwise be extraordinarily expensive or impossible to fit into the

regular service schedule. Volunteer and vehicle availability would be communicated to the dispatch and scheduling staff once the volunteers are trained.

The volunteer driver program will operate under a new Mobility Management program, with guidance provided by the RSVP program. The Mobility Management program, will also handle information and referral regarding PART, other agency providers in the region, and private operators. Ramp-equipped mini-vans will be purchased for the program. YVEDDI has checked with its insurer, and found that this type of program will be covered as another service offered through RSVP.

YVEDDI has applied for grant funding for this program under the Section 5317 program. The following two-year grant funds were requested:

• Mobility Manager Position (80% federal share)	\$ 70,000
• Two mini-vans with ramps (80% federal share)	\$ 82,000
• Operating Expenses (fuel, maintenance, marketing, training, insurance) (50% federal share)	\$ 65,000
Total two-year grant assistance requested:	\$217,000

YVEDDI will match these grant funds with contractual revenue, RGP funds, and EDTAP funds. The period of performance for this grant is July 1, 2012 through June 30, 2014.

Ways to Work Program

During the course of the alternatives analysis one of the area stakeholders advocated for developing a “Ways to Work” program. The Ways to Work program is national in scope, with local affiliates, and *“provides financial education and small, short-term, low-interest loans to working families with challenging credit histories. Most clients use their loan to purchase a reliable pre-owned vehicle to enhance their ability to remain engaged in the workforce and better manage their lives. The program provides an alternative to predatory lending for people with a demonstrated commitment to achieving increased self-sufficiency and who are intent on pursuing a higher degree of success in mainstream financial markets.”*¹

Ways to Work has local affiliates that administer the program in their respective communities. The local affiliates are private non-profits, including groups such as the Salvation Army, Catholic Charities, Goodwill, etc. There is a Ways to Work program in Forsyth County and it is operated by Family Services, Inc. The annual operating

¹ Ways to Work website.

expenses for the program in Forsyth County are \$120,000, which includes two full-time staff members.

YVEDDI is considering the concept of a Ways to Work program, though a decision has not yet been made whether or not to pursue the program. Should YVEDDI choose to pursue this program, it is recommended that they meet with Family Services, Inc. from Forsyth County, as that program has considered expansion into Davie County. It would be beneficial to work collaboratively with Family Services during the development of this program in the YVEDDI service area. Pending more discussion with the YVEDDI Board and area stakeholders, the concept is included in this draft plan so that it can be further considered during the five-year planning period.

Table 4-1 provides a summary of the service projects that are planned for implementation over the five-year planning period.

ORGANIZATIONAL PLAN

The organizational plan includes recommended changes that affect the way that transit is guided, administered, and/or managed in the region. While the basic structure for administering community transportation in the region is well established, there are several recommendations for organizational changes for the five-year period. Recommendations concerning rates and fares are also included in this section.

Implement New Routing and Scheduling Software

YVEDDI is currently in the process of procuring routing, scheduling, and dispatch software. YVEDDI's current software program is outdated and will not be able to handle a centralized approach, which is what the agency is moving toward. The new software will have much greater capabilities and will allow YVEDDI to centralize the dispatch center. The software is being purchased through a Section 5310 grant. YVEDDI has chosen to purchase Trapeze.

It is recommended that YVEDDI implement Trapeze in one of the dispatch centers first, prior to full system implementation. The implementation process should include a full documentation of the processes required to book trips, reconcile the day's work, and transmit the information for billing and recordkeeping, so that a uniform approach can be developed in preparation for the consolidation of the dispatch function.

Table 4-1: Summary of Service Projects

Project Description	Purpose	Annual Revenue Service Hours	Annual Operating Expenses	Capital Expenses	Proposed Funding Sources	Estimated Ridership
Deviated Fixed-Route Circulator in Mount Airy	Provide additional mobility for Mount Airy residents, including a connection to PART.	3,315	\$ 108,003	\$ 68,500	S.5311, RGP, local	13,260
Deviated Fixed-Route Circulator in Elkin-Jonesville Connector	Provide additional mobility for Elkin-Jonesville area residents.	2,805	\$ 91,387	\$ 68,500	S.5311, RGP, local	9,800
Deviated Fixed-Route Circulator in Mocksville	Provide additional mobility for Mocksville area residents, including a connection to PART.	3,060	\$ 99,695	\$ 68,500	S.5311, RGP, local	9,180
Surry-Yadkin Connector #1	Connect Elkin and Jonesville to Boonville, Dobson, and Mount Airy.	3,060	\$ 99,695	\$ 68,500	S.5311, RGP, local	9,180
Surry-Yadkin Connector #2	Connect Boonville to Yadkinville and East Bend.	3,060	\$ 99,695	\$ 68,500	S.5311, RGP, local	7,650
Surry-Yadkin Connector #3	Connect Mount Airy to Pilot Mountain	3,060	\$ 99,695	\$ 68,500	S.5311, RGP, local	9,180
Route 601 Connector	Connect several communities in the region, along with three community colleges and PART park and ride lots.	2,700	\$ 96,066	\$ 68,500	S. 5311, RGP, local	8,100
Meet the PART- Yadkin Valley PARTner Ride. King, Mocksville, Mount Airy, Yadkinville, Pilot Mountain	Provide direct, timed connections from key community locations to PART stops.	767	\$ 25,000	\$ -	JARC, local	2,225
Additional Medical Transportation for Older People and People with Disabilities	Provide demand-response transportation for people who are elderly and/or disabled and are low income, but above the Medicaid threshold.	3,000	\$ 100,000		S. 5310, local	6,300

Table 4-1: Summary of Service Projects

Project Description	Purpose	Annual Revenue Service Hours	Annual Operating Expenses	Capital Expenses	Proposed Funding Sources	Estimated Ridership
Limited Saturday Service	Provide limited mobility on Saturdays.	768	\$ 25,021	\$ -	S.5311, RGP, local	1,600
Volunteer Driver Program/ Mobility Management Program	Provide additional mobility options for trips that are difficult to provide.	-	\$ 67,500	\$ 82,000	New Freedom, local	-
Ways to Work Program	Provide car loans for low income people so that they purchase vehicles.	-	\$ 100,000	\$ -	JARC, local	-
TOTALS		25,595	1,011,756	561,500	-	76,475

YVEDDI will need to decide whether it will work better to fully implement Trapeze with the three dispatch centers and then consolidate them, or if it will be better to get the system down in just one center, then consolidate the centers. The hardware requirements for Trapeze may influence this decision, though it is probably better to implement only one major change at a time.

Continue to Improve Scheduling and Routing Infrastructure

The focus of this additional project is to take the next step with the scheduling and routing technology and add Automatic Vehicle Location (AVL) and Mobile Data Computers (MDC). AVL technology allows the dispatcher to see in real time where each vehicle is located so that it is easier to assign will-calls and other last minute trips. MDCs are on-board computers that transmit the driver's manifest electronically, rather than using paper. The driver records all of the pertinent information using the MDC, which eliminates the need for the dispatch staff to enter this information from the driver's sheets into the computer system upon the driver's return.

Expenses and Potential Funding

- AVL/MDC systems are about \$5,500 per vehicle to install, including the MDC transponder, the GPS antenna, cabling, and power source. Annual operating costs are about \$1,000 per vehicle.²
- This amounts to a capital expenditure of \$346,500 and additional annual operating costs of \$63,000, assuming all 63 non-Head Start vehicles are equipped.
- The capital expenses could be funded through the Section 5311 program, through the Section 5310 program, or through the State's Technology Program. The ongoing operating expenses would need to be folded into the annual budget.

Consolidate Dispatch and Schedule Operations and Implement New Scheduling Software

YVEDDI is planning to consolidate the dispatch center so that all trips are dispatched from one dispatch center, rather than three. The Yadkinville site, which is owned by YVEDDI and potentially has the ability to also function as a maintenance facility, will be the location of the central dispatch. To minimize deadhead mileage and

² ITRE, Triangle ITS Deployment, 2010 update, Appendix C: Cost Estimates.

continue to provide a local presence, there will still be satellite centers in Surry, Davie, and Stokes Counties. The functions of these centers will be reduced to driver check-in and vehicle storage, with reservation, dispatch, scheduling, and validation staff moving to the central dispatch center.

This consolidation will reduce duplicative efforts and introduce a uniform approach to the reservations, scheduling, and dispatch functions. The vision for a consolidated dispatch operation includes the following features:

- Standardized customer service approach.
- One telephone number for all customers.
- A new, more sophisticated reservation, scheduling, and record-keeping software program.
- A greater ability to achieve efficiencies by providing access to the entire YVEDDI fleet and driving staff, rather than a single county fleet and staff.
- Dedicated dispatchers whose only function at any given time will be to work with the drivers.
- A dispatch center that is quiet, roomy, and isolated from the drivers (except when access is granted by a dispatcher).

As part of this consolidation there will be a need to transition staff members from their roles as dispatch center supervisors to other supervisory roles. The following staff positions are recommended:

- **Consolidated Maintenance Manager.** The role of this position is to oversee, coordinate, and track all fleet maintenance. This function is currently being done independently at each of the three dispatch centers. YVEDDI currently contracts for its maintenance, but is considering looking at bringing some functions in-house. YVEDDI has already identified a staff member for this role.
- **Safety and Training Supervisor.** For most of the past year there has not been a Safety and Training Supervisor, with each dispatch center handling driver training independently. YVEDDI did have the position as part of its organizational structure, but the previous Safety and Training Supervisor was promoted to Transportation Manager, leaving that position vacant at a time

when the agency was experiencing financial stress, prior to the shared mileage rate increase. With improved finances, YVEDDI recently hired a Safety and Training Supervisor.

- **Road Supervisor.** Given the number of vehicles that YVEDDI has in service, it is recommended that there be a road supervisor. This staff person would be assigned to observe/monitor drivers, assist the Safety and Training Supervisor with training, investigate accidents and incidents (in collaboration with the Safety and Training Supervisor), and address operational and accessibility issues.
- **Dispatch Center Manager.** This position will oversee the dispatch function and play a critical role in improving system performance through the dispatch center. The manager in this role will need to become the in-house expert concerning the new software and future additional technological improvements such as AVL and MDTs.

Recommended Dispatch Center Staffing

In a system the size of YVEDDI, it is feasible to define specific daily roles for the dispatch staff. Once all technology is in place and functioning properly, there is likely a need for six dispatch staff working daily (two dispatchers, one dispatcher/scheduler, plus a scheduler/backup dispatcher, a telephone support/data entry staff person who could also be trained to dispatch, and the dispatch manager.) These six staff, using advanced technology, should be able to manage the reservations, scheduling, and dispatch center. The three dispatchers and the support staff should work a staggered schedule such as:

Dispatcher 1:	5:30 a.m. to 2:30 p.m.
Dispatcher 2:	7:00 a.m. to 4:00 p.m.
Dispatcher 3/Scheduler:	9:30 a.m. to 6:30 p.m.
Scheduler:	8:00 a.m. to 5:00 p.m.
Telephone Support:	8:00 a.m. to 5:00 p.m.

In addition, a road supervisor will be in constant communication with dispatch staff. This type of arrangement will ensure that the maximum number of staff are available during the peak hours.

There are four main functions that should be delineated in the dispatch center, though all reservations, scheduling, and dispatch staff should be cross-trained and change roles on a regular basis.

- **Telephone Support:** This person will take all telephone calls such as reservations, inquiries, and “where is my ride” calls. Most of these will be managed directly without asking the dispatcher. This person will schedule trips while the customer is on the telephone and will forward calls or issues to the dispatcher’s attention. YVEDDI may need to have two telephone support people, particularly during the transition period.
- **Dispatcher:** The dispatcher’s primary role is to focus on the drivers and the day’s schedule, looking ahead and making last-minute adjustments throughout the service day. The dispatcher is a supervisor of drivers while the drivers are on the road. The dispatcher should take as few phone calls as possible, so as to focus on the drivers.
- **Scheduler:** The scheduler’s role is to put the next day’s trips on the manifests. This person will also go through the daily schedules to ensure that they are the most productive and customer friendly as possible. The person serving in this role will continually improve the standing order (subscription) trips and adjust the demand-response trips until the day of service, after which the dispatcher manages the schedules.
- **Data Entry:** Until YVEDDI implements mobile data computers, data entry will be a time consuming effort. This function can be accomplished by a data entry clerk or other dispatch staff as time permits. This job will be made easier by using a driver manifest, with all the necessary information on one page.

Facility

The dispatch center should be designed to facilitate communications while keeping noise levels to a minimum. The telephone staff and the dispatcher should be in close proximity, with the person working the telephones in a low noise location. The scheduler often works best in a separate room as they do not need real-time communication with the dispatcher. All staff should be able to separate themselves from the drivers.

Expenses and Potential Funding

There are no new staffing expenses associated with consolidating the dispatch operation, as the concept is for existing staff to assume new roles within a consolidated dispatch center. There will likely be expenses for telephone upgrades. For budgeting purposes we have estimated \$25,000 for a phone system upgrade. This expense could be included as a capital expense within the CTP grant and funded at 80% federal, 10%

state, and 10% local. The computer hardware and software expenses have already been funded through an FY11 Section 5310 grant.

Maintenance

During the course of the CTSP the concept of bringing maintenance in-house was not discussed in-depth, largely because YVEDDI's maintenance costs are relatively low and there were no maintenance findings during YVEDDI's 2011 compliance review. However, YVEDDI does own a facility in Yadkinville that has vehicle maintenance bays and could serve as a maintenance facility. Given that YVEDDI already owns this facility, the capital expenses involved with bringing maintenance in-house would only be those associated with renovating the facility and equipping the shop. Operating expenses associated with maintenance would shift from paying vendors for labor and parts to paying staff and purchasing parts.

It is recommended that YVEDDI explore this option during the CTSP planning period, but after the consolidation and adjustment to new software and hardware. KFH Group can prepare cost estimates for YVEDDI as part of this CTSP, but leave the decision making to the future. It is likely that in-house maintenance will cost about the same or slightly less, but will provide a higher level of control over the function for YVEDDI.

Move the Surry Office to the Shopping Center with the PART Park and Ride

Currently YVEDDI operates out of the old school building on Jones School Road in Mount Airy. While the rent is low and YVEDDI is co-located with social service providers, the location is not good for YVEDDI, as the school is not centrally located. YVEDDI incurs significant extra vehicle mileage by having its Surry base of operations located on Jones School Road, rather than closer to the center of Mount Airy. YVEDDI has investigated a lease arrangement to re-locate to the shopping center where the PART park and ride is located -- Newsome Road and U.S. 52.

Expenses and Funding Sources

- The annual lease expenses would increase by about \$15,600 annually. These expenses would be rolled into the CTP grant, but it is not likely that the CTP grant would be increased, so this increase may have to come from local funds. This amount could potentially be recovered through lower fuel costs.

Increased Coordination with Wilkes Transportation Authority

WTA operates community transportation in Wilkes County, offering countywide demand-response service and deviated fixed-route service in Wilkesboro and North Wilkesboro. WTA travels to Elkin regularly to bring people to Hugh Chatham Hospital from several places in Wilkes County, as well as to bring residents of Eastern Wilkes County to Elkin for medical and general purpose trips. The focus of this alternative is to further coordinate services with WTA to improve overall efficiency in the region. The following are examples of how WTA and YVEDDI could work together in Elkin:

- If WTA brings a person to Elkin from Wilkes County and there is a long wait for the return trip, that driver and vehicle could be dispatched by YVEDDI to provide some local trips while in the Elkin area, rather than sitting idle.
- If WTA brings a person to Elkin from Eastern Wilkes County and there is a long wait, the WTA vehicle could leave and the YVEDDI could bring the person home.
- If WTA has only one trip into Elkin from Eastern Wilkes, they could ask YVEDDI to handle the trip, rather than incurring the long deadhead from the Wilkesboro region.
- Joint hub location -- it may be cost effective for both providers to post vehicles in Elkin and this location could be shared.

Billing for these trips would need to be negotiated -- either YVEDDI and WTA could bill each other, or they could directly bill the agency paying for the trip. The rates and fares in the Elkin area charged by each provider would also need to be the same.

Increased Coordination with PART

YVEDDI and PART share the same service area and there is some ongoing dialogue between the two agencies. For example, PART is participating in this CTSP as a member of the Steering Committee. This recommendation focuses on formalizing this relationship so the two agencies meet more regularly to discuss transit needs, issues, and opportunities in the region. The idea is for PART and YVEDDI to work as a team to maximize mobility in the region, each focusing on their particular area of expertise (i.e., PART leading the park and ride and commuter efforts and YVEDDI leading the local community mobility efforts). This CTSP has included several service options that include PART and YVEDDI connections, so more regularly scheduled meetings will likely be needed. A stronger relationship between the two organizations will help build one constituency for transit in the region.

Fare/Rate Recommendations

Change RGP Fare from Shared - Mileage to Flat Fee/Zone

Currently YVEDDI uses a shared-mileage rate to calculate rates and fares for both general public riders and agency riders. General public riders are charged \$0.60 per shared mile. This proposal advocates changing the RGP fare from a shared-mileage rate to a set fare. The fare could vary depending upon the trip length, with some zones established.

The focus of the proposal is to move from the \$0.60 per shared mile rate for RGP services to a flat fare. Several calculations were done to estimate what the appropriate fare should be to generate about the same amount of revenue, but through a distance-based flat per trip fare. The calculations were based on actual RGP trips and trip distances taken from March to May, 2011. The results of these calculations were presented in Chapter 3 and the proposed fares were presented at the public meetings.

Overwhelmingly, meeting participants thought that the proposals for the longer distance fares were too expensive and would not be affordable for most riders. Upon further analysis, the study team realized that the calculations were based on the premise that current riders actually paid the \$0.60 per shared mile, which it turns out is not the case. The study team then requested the actual RGP fare revenue and realized that YVEDDI did not need to collect as much in RGP fares as previously understood.

In FY 2011, YVEDDI collected \$90,409 in RGP fare revenue. Table 4-2 offers a revised fare schedule based on the comments received at the public meetings and the actual fare information.

Table 4-2: RGP Flat Fare Proposal

	<i>Trip Lengths</i>						<i>Totals/ Averages</i>
	1-5 miles	6-10 miles	11-20 miles	21-30 miles	31 miles +		
	<i>"In-Town"</i>	<i>"In-County"</i>	<i>Out of County</i>				
<i>Revised Proposal:</i>							
Proposed RGP Fares	\$ 2.00	\$ 3.00	\$ 5.00	\$ 10.00	\$ 15.00	\$ 7.00	
Estimated Revenue	\$ 6,348	\$ 2,304	\$ 3,490	\$ 4,650	\$ 10,545	\$ 27,337	
Est. Annual Revenue	\$ 25,392	\$ 9,216	\$ 13,960	\$ 18,600	\$ 42,180	\$ 109,348	

Explore Changing Agency Rate from Shared Mileage to Flat Fee/Zone

For many community transportation agencies in North Carolina, the shared-mileage method of agency billing is a proven and effective way to ensure that the costs to provide service are covered. The shared mileage method is one in which a trip's total vehicle miles are divided among the number of riders to determine the number of miles each rider is responsible for. These "bill miles" are then multiplied by the agency's agreed-upon shared mileage rate to generate a bill. For example, if there is a ten mile vehicle trip with five riders, the agencies sponsoring the riders would each be billed for two miles. If there was only one rider, that rider's sponsoring agency would be billed the full ten miles.

While this method protects YVEDDI, it is confusing for agency managers who see the trip costs for their customer vary significantly from month to month. This recommendation focuses on beginning the process of changing from a shared-mileage rate to set rates based on zones, rather than on how many riders are on the vehicle.

YVEDDI will be procuring more advanced scheduling and billing software in the coming year. Once this software is implemented, it will be easier for staff to extract the data needed to determine how to set the rates. Drawing out the data using the current software system is difficult and time-consuming. Because the contractual services are such a large portion of YVEDDI's budget, care must be taken to ensure that any changes to the billing method will still allow YVEDDI to cover its expenses. KFH Group was able to use the existing data to develop proposed RGP rates based on a three-month sample of data, but a more extensive data set should be used when contemplating the agency rate.

If YVEDDI first changes the RGP trips from shared-mileage to set fares, this will provide a good base of data to see if the fares devised do indeed cover the costs. Using RGP as a test is not as much of a financial risk, as only 10% of the total cost of the trip needs to be recovered (though a higher farebox recovery would stretch the program farther).

Transition Back to One Agency Rate

Prior to the rate increase in 2011, YVEDDI operated with one agency billing rate for all four counties. During the process of increasing the shared-mileage rate, local partners asked YVEDDI to break down operating expenses by County. There are some cost differences among the four counties, primarily associated with the way in which fuel is purchased, and the partners wanted to pay the lowest rate possible. YVEDDI did allocate its costs among the four counties and developed different shared-mileage rates to reflect the cost differences among the four counties.

As YVEDDI centralizes the dispatch function and takes better advantage of its regional status, it is likely that more vehicles will travel from one county to another, becoming interchangeable and blurring the cost differences among the counties. It may make more sense at that time to return to one rate, rather than try to continue allocating costs that are increasingly shared.

IMPLEMENTATION SCHEDULE

This section of the plan provides an implementation schedule for the activities that have been described in this draft plan. It should be noted the implementation of some of the initiatives listed on this schedule and described in the plan are dependent upon available funding, which may necessitate future revisions to this schedule. The implementation schedule generally follows the priorities of the CTSP Committee, though some projects that are relatively inexpensive to implement are recommended sooner than their priority ranking would suggest. This schedule does not include the vehicle replacement and expansion activities, as these are presented with the Capital Plan section (page 35).

Current Fiscal Year - 2012

- Begin implementation of Trapeze.
- Begin to make decisions concerning staffing for the consolidated dispatch center.
- Prepare to implement Targeted Transportation Program grants, if awarded.
 - Prepare job description for Mobility Manager.
 - Research mobility management and volunteer driver programs.
 - Meet with RSVP to develop volunteer driver policies.
 - Meet with the Town of Elkin, the City of Mount Airy, and Surry Community College to discuss planned new deviated fixed routes.
- Touch base with WTA and PART concerning any changes they may be implementing in FY 2013 that could allow for partnership opportunities.

Year 1: Fiscal Year 2013

- If Targeted Transportation Program grants are awarded:
 - The Section 5310 grant can be implemented as soon as a grant agreement is in place, as this program does not involve additional capital or a different mode than is currently in place.
 - The Section 5316 “Meet the Part” project can be implemented as soon as the grant agreement is in place, as these services do not involve additional

capital or a different mode than is currently in place. This project will need to be marketed within the communities where there will be service.

- For the Circulator and Connector Projects:
 - Test and refine routes
 - Order vehicles
 - Order and install bus stop signs
 - Shelters should also be contemplated for key locations, once the routes are more established
 - Develop and print schedules
 - Educate existing riders about the new opportunities and encourage them to use these deviated fixed routes if possible, rather than demand response
 - Hire drivers
 - Implement when ready, most likely dependent upon delivery of vehicles
- The Mobility Management and Good Samaritan project:
 - Order mini-vans
 - Hire Mobility Manager
 - Develop policies and procedures for the volunteer driver program
 - Recruit and train volunteers
 - Develop mobility management program- build database of available community transportation resources; begin outreach
 - Implement when ready, most likely dependent upon delivery of vehicles
- Continue with the implementation of Trapeze.
- Continue communications with WTA and PART.
- Adjust RGP fare structure from shared mileage to flat rates.
- Evaluate agency rates to ensure cost recovery.
- Continue to work on consolidation of dispatch center.
- Move Surry Dispatch Center from the Jones School Road to the shopping center/park and ride location.
- Further evaluate contract maintenance versus in-house maintenance. Apply for needed capital and renovations, if deemed cost-effective and feasible.
- Apply for additional Section 5311 funds to support connector expansions.

Year 2: Fiscal Year 2014

- Further research Ways to Work program.
- Monitor the performance of the services implemented in FY 2013.
- Begin limited Saturday services, if funding allows.
- Implement Route 601 Connector, if funding allows.

- Apply for funding for AVL and MDC.
- Evaluate wait shelter locations for deviated routes and apply for funding to implement these amenities.
- Complete consolidation of dispatch center.
- Implement in-house maintenance, if deemed feasible in FY 2013.
- Evaluate RGP fare revenue, given the shift from shared mileage to flat fee/zone.
- Evaluate shared-mileage fare versus flat fee/zone fare using FY 2013 data extracted from Trapeze.
- Evaluate agency rates and explore transitioning from four different rates to one agency rate.
- Continue communications with WTA and PART.
- Apply for Targeted Transportation Assistance funds for second two-years for services implemented in FY 2013.
- Apply for additional Section 5311 funds so support connector expansions.

Year 3: Fiscal Year 2015

- Implement Ways to Work program, if desired based on FY 2014 research.
- Implement Surry-Yadkin Connectors #2 and #3, if funded.
- Implement AVL and MDC, if funded.
- Continue with Targeted Transportation Assistance Program (TTAP) services, if re-approved for funding.
- Evaluate feasibility of Mocksville Circulator. Apply for funding, if deemed feasible.
- Change agency billing, if research done in FY 2014 supports a change.
- Monitor the performance of services implemented in FY 2014.
- Install passenger wait shelters at key deviated fixed-route locations.
- Evaluate staffing structure of dispatch center, adjust if needed.
- Continue communications with WTA and PART.

Year 4: Fiscal Year 2016

- Evaluate agency billing rate.
- Monitor performance of services implemented in FY 2015.
- Implement Mocksville Circulator.
- Re-apply for TTAP funds, if services deemed successful.
- Continue communications with WTA and PART

Year 5: Fiscal Year 2017

- Prepare for CTSP update.
- Evaluate performance of services implemented in FY 2016
- Evaluate agency billing rate.
- Continue communications with WTA and PART.

CAPITAL PLAN

There are a number of important capital projects planned for YVEDDI during the five-year planning horizon. While each of these projects has been referenced in other portions of the plan, they are highlighted together below.

Facilities

YVEDDI is planning a number of facility changes during the CTSP period. These are:

- Consolidation of dispatch center. This change will not eliminate the need for the satellite centers, but the indoor space requirements at the satellite centers will likely be reduced. YVEDDI already owns the proposed consolidated dispatch facility.
- Moving the Surry satellite center from the Jones Road School site to the shopping center adjacent to the existing PART park and ride. This will result in an increase in annual rent of about \$15,600 annually, but will likely result in significant savings with regard to deadhead mileage and will give YVEDDI a stronger presence in the community.
- Possibly bringing some maintenance functions in-house. This decision has not yet been finalized, but the Yadkinville facility would support this function.

Passenger Amenities

Historically YVEDDI has not provided passenger amenities, as the service mode was exclusively demand-response. With the implementation of deviated fixed route services, bus stop signs will be needed. After the routes have become established, passenger waiting shelters are also recommended for key passenger stops.

Vehicles

This capital plan includes a vehicle replacement and expansion plan that corresponds with the implementation plan presented above. Table 4-3 presents the vehicle expansion and replacement plan and Table 4-4 provides the vehicle inventory updated with the known and recommended replacement years. The vehicle replacement plan calls for a relatively high number of vehicles in the early years of the plan, reflecting the high mileage fleet. Finances may dictate that those purchases be spread out over more years.

FINANCIAL PLAN

The CTSP financial plan is comprised of three primary components: the financial plan for operations, the financial plan for vehicle replacement and expansion, and the financial plan for facilities, equipment, and other capital.

For each of the three components, approved budget numbers were used for the base year (FY 2012). For the five subsequent years, estimates have been made using currently available data and assumptions concerning service expansion and inflation. The inflation factor used was 4%, as per NCDOT's TIP Development Unit.

An interactive financial tool, based in a spreadsheet format, has also been provided to NCDOT and YVEDDI.

It should be noted that at this writing it is not possible to predict the levels of federal, state, and local funds that will be available to implement the projects proposed in this plan. This financial plan makes a number of assumptions that may need to be changed in the future. The interactive financial tool that was developed as a companion to this plan will allow YVEDDI to change the assumptions of this financial plan to reflect future funding scenarios.

Financial Plan for Operations

The Financial Plan for Operations was constructed by taking the current service hours (FY 2012), and then adding the services as they are scheduled for implementation. The fully-allocated hourly costs (\$32.58/hour) were then applied to arrive at the total annual operating expenses for each year. An inflation factor of 4% per year, as estimated by NCDOT's TIP development unit, has been used for the subsequent years after FY 2012. As Table 4-5 indicates, the total annual operating expenses are planned to rise from about \$2.9 million currently to about \$4.6 million.

**Table 4-3
YVEDDI Transit Vehicle Replacement and Expansion Program**

Vehicle Type	Useful Life	Number in Current Fleet	# Vehicle Procurements										Number in FY 2017 Fleet	
			FY 2013		FY 2014		FY 2015		FY 2016		FY 2017			
			Repl. Exp.	Repl. Exp.	Repl. Exp.	Repl. Exp.	Repl. Exp.	Repl. Exp.	Repl. Exp.	Repl. Exp.				
Minivans	5 yrs./100k	5	2	2										7
Crossover Vehicles	5 yrs./100k	3	2			1								3
Sedans	5 yrs./100k	2	1		1									2
Lift, Center Aisle, and Conversion Vans	5 yrs./100k	53	13		15		11		4		1			53
Light Transit Vehicles	7 yrs./130k	0		3		1		2		1				7
Number Vehicles Procured			18	5	16	1	12	2	4	1	1	0		60
Fleet Size		63												72

Note: Does not include Head Start fleet.

Table 4-4: YVEDDI Vehicle Inventory and Replacement Plan

Agency Fleet Number	Stationed	Year	Make	Type	Seating/WC	Mileage, June 2011	Tag	Recommended Replacement Year
102	Mocksville, Davie County	2002	Dodge	Center	14/0	163,506	45285S	replacement arrived
103	Mocksville, Davie County	2003	Dodge	Center Aisle	14/0	135,017	55749S	2012
105	Mocksville, Davie County	2003	Dodge	Rear Lift	9/2	152,920	PL8117	replacement arrived
106	Mocksville, Davie County	2002	Dodge	Rear Lift	9/2	191,448	44930S	2013
108	Mocksville, Davie County	2003	Dodge	Center Aisle	14/0	121,176	55748S	2013
109	Mocksville, Davie County	2008	Ford	Back lift	14/0	64,454	98285S	2014
111	Mocksville, Davie County	2007	Ford	Center	14/0	70,280	88046S	2013
113	Mocksville, Davie County	2010	Ford Lift	Lift Van		19,251	30372T	2016
114	Mocksville, Davie County	2010	Ford Lift	Lift Van		30,398	30370T	2015
115	Mocksville, Davie County	2008	Ford	Back lift	9/2	71,427	98284S	2013
119	Mocksville, Davie County	2007	Ford	Center	14/0	63,979	88044S	2014
122	Mocksville, Davie County	2003	Dodge	Center	14/0	173,470	55744S	replacement arrived
124	Danbury, Stokes County	2002	Dodge	Center	14/0	175,655	45286S	2013
125	Mocksville, Davie County	2003	Dodge	Center	14/0	128,165	55746S	2013
130	Mocksville, Davie County	2005	Dodge	Mini-Van	7/0	117,562	64301S	2013
194	Mocksville, Davie County	2010	Ford Lift	Lift	9/2	26,113	28016T	2015
197	Mocksville, Davie County	2010	Ford Lift	Lift	9/2	39,036	28013T	2014
198	Mocksville, Davie County	2009	Ford	Lift	9/2	57,303	21064T	2014
201	Danbury, Stokes County	2007	Ford	Lift	9/2	150,593	88808S	replacement arrived
204	Danbury, Stokes County	2006	Ford	Center Aisle	14/0	109,748	82024S	2013
205	Danbury, Stokes County	2008	Ford	Back lift	14/0	90,021	98281S	2013
206	Danbury, Stokes County	2003	Dodge	Center	14/0	123,144	55747S	2013
211	Danbury, Stokes County	2006	Ford	Lift	9/2	172,533	73467S	replacement arrived
213	Danbury, Stokes County	2003	Dodge	Center	14/0	161,238	55745S	replacement arrived
214	Danbury, Stokes County	2008	Ford	Back lift	9/2	121,030	98286S	2013
216	Danbury, Stokes County	2008	Ford	Back lift	14/0	102,825	98283S	2013
240	Danbury, Stokes County	2009	Ford	Lift	9/2	69,314	21058T	2013
241	Danbury, Stokes County	2009	Ford	Lift	9/2	70,186	21059T	2014
301	Mt. Airy, Surry County	2003	Dodge	Rear Lift	9/2	227,394	28722T	2013
303	Mt. Airy, Surry County	2003	Dodge	Center Aisle	14/0	177,595	PL4371	2013

Table 4-4: YVEDDI Vehicle Inventory and Replacement Plan

Agency Fleet Number	Stationed	Year	Make	Type	Seating/ WC	Mileage, June 2011	Tag	Recommended Replacement Year
305	Danbury, Stokes County	2006	Ford	Center Aisle	9/2	133,134	70938S	2013
307	Mt. Airy, Surry County	2007	Ford	lift	9/2	191,034	88045S	2012
309	Mt. Airy, Surry County	2006	FORD	Center Aisle	14/0	157,222	70937S	2013
310	Mt. Airy, Surry County	2010	Ford Lift	Lift Van	9/2	22,450	30366T	2015
311	Mt. Airy, Surry County	2007	Ford	Center	14/0	121,853	88043S	2013
312	Mt. Airy, Surry County	2010	Ford Lift	Lift Van	9/2	17,451	30373T	2017
314	Mt. Airy, Surry County	2008	Chevrolet	Uplander	7/0	80,190	11018T	2013
315	Mt. Airy, Surry County	2010	Ford Lift	Lift Van	9/2	22,237	30367T	2015
330	Mt. Airy, Surry County	2005	Dodge	Mini-Van	7/0	215,521	64299S	2012
344	Mt. Airy, Surry County	2009	Ford	Lift	9/2	53,837	21061T	2014
352	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	39,830	28021T	2015
354	Mt. Airy, Surry County	2009	Ford	Lift	9/2	68,788	21045T	2014
355	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	41,903	28019T	2015
389	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	40,120	28017T	2015
392	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	57,785	28018T	2015
393	Mt. Airy, Surry County	2010	Ford Lift	Lift	9/2	38,146	28015T	2015
401	Danbury, Stokes County	2003	Ford	Mini-Van	7/0	136,798	62434S	2012
403	Yadkin County	2006	Ford	Center Aisle	14/0	129,596	82022S	2013
404	Yadkin County	2006	Ford	Center Aisle	14/0	110,768	82023S	2013
405	Yadkin County	2006	Ford	Ford Lift	9/2	132,701	71266S	replacement arrived
408	Yadkin County	2006	Chevrolet	Mini-Van	14/0	145,066	80495S	2013
409	Yadkin County	2008	Ford	Back Lift	9/2	67,256	98282S	2014
410	Yadkin County	2002	Dodge	Center	14/0	146,039	45283S	replacement arrived
411	Yadkin County	2001	Dodge	Lift	9/2	97,335	25997T	2013
412	Yadkin County	2001	Dodge	Lift	9/2	103,133	25998T	2013
413	Yadkin County	2010	Ford Lift	Lift Van	9/2	17,548	30369T	2016
417	Yadkin County	2007	Chevrolet	Uplander	7/0	119,653	91881S	2013
419	Yadkin County	2007	Chevrolet	Uplander	7/0	139,519	91880S	2013
430	Yadkin County	2005	Dodge	Caravan	7/0	193,516	64300S	2012
455	Yadkin County	2009	Ford	Lift	9/2	41,104	21062T	2015
493	Yadkin County	2010	Ford Lift	Lift	9/2	19,919	28020T	2016

Table 4-4: YVEDDI Vehicle Inventory and Replacement Plan

Agency Fleet Number	Stationed	Year	Make	Type	Seating/WC	Mileage, June 2011	Tag	Recommended Replacement Year
496	Yadkin County	2010	Ford Lift	Lift	9/2	22,542	28014T	2016
600	Mocksville, Davie County	2001	Ford	Taurus	5	107,116	26662S	2013
603	Yadkin County	2002	Ford	Taurus	5	188,569	35909S	2013
5101	Mocksville, Davie County	2005	GMC-Chev	Bus	24/0	62,586	70260S	Head Start
5102	Mocksville, Davie County	2007	Chevrolet	Bus	24/0	69,919	72005S	Head Start
5103	Mocksville, Davie County	2007	Chevrolet	Bus	24/0	71,064	72007S	Head Start
5104	Mocksville, Davie County	1999	GMC	Bus	24/0	101,603	11945T	Head Start
5105	Mocksville, Davie County	1999	GMC	Bus	24/0	107,317	11947T	Head Start
5206	Danbury, Stokes County	2010	Minotour DRW School	Bus		19,108	23108T	Head Start
5207	Danbury, Stokes County	2010	Minotour DRW School	Bus		27,468	23107T	Head Start
5301	Mt. Airy, Surry County	2005	GMC-Chev	Bus	24/0	136,808	70259S	Head Start
5302	Mt. Airy, Surry County	2005	GMC-Chev	Bus	24/0	54,840	70262S	Head Start
5303	Mt. Airy, Surry County	2007	Chevrolet	Bus	24/0	71,010	72006S	Head Start
5304	Mt. Airy, Surry County	2007	Chevrolet	Bus	24/0	120,431	72004S	Head Start
5305	Mt. Airy, Surry County	2007	Chevrolet	Bus	24/0	72,333	72003S	Head Start
5400	Yadkin County	2006	Ford	Bus	16/1	43,903	80494S	Head Start
5401	Yadkin County	2005	GMC-Chev	Bus	24/0	102,857	70261S	Head Start
5402	Yadkin County	2007	Chevrolet	Bus	24/0	88,972	72002S	Head Start
5403	Mt. Airy, Surry County	1993	GMC- Chev	Bus	24/0	201,747	82021S	Head Start
5404	Mt. Airy, Surry County	1994	International	Bus	24/0	261,692	92331S	Head Start
5500	Mt. Airy, Surry County	2006	Ford	7	16/1	51,758	82025S	Head Start

Highlighted vehicles are either on order or the replacement has recently arrived.

Table 4-5: YVEDDI Financial Plan for Operations

Projects	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
<i>Annual Service Hours</i>						
YVEDDI Services - FY2011 Level of Service	97,018	94,518	93,018	91,018	89,518	88,018
<i>CTSP Proposals:</i>						
Mount Airy Circulator		3,315	3,315	3,315	3,315	3,315
Elkin-Jonesville Circulator		2,805	2,805	2,805	2,805	2,805
Mocksville Circulator		-	-	-	3,060	3,060
Surry-Yadkin Connector #1		3,060	3,060	3,060	3,060	3,060
Surry-Yadkin Connector #2		-	-	3,060	3,060	3,060
Surry-Yadkin Connector #3		-	-	3,060	3,060	3,060
Route 601 Connector			2,700	2,700	2,700	2,700
Meet the PART		750	750	750	750	750
Additional Medical Transportation for Older People and People with Disabilities		3,000	3,000	3,000	3,000	3,000
Limited Saturday Service		-	768	768	768	768
Proposed Additional Hours of Service	-	12,930	16,398	22,518	25,578	25,578
TOTAL CURRENT HOURS AND NEW PROPOSED SERVICES	97,018	107,448	109,416	113,536	115,096	113,596
Percent Increase in Community Transit Service Hours from Previous Year	-	14%	2%	4%	1%	-1%
Total Increase in Service Hours	17%					

Table 4-5: YVEDDI Financial Plan for Operations- Projected Operating Expenses (continued)

Projects	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
<i>Projected Operating Expenses</i>						
YVEDDI FY2012 operating budget for existing services, with inflationary increases	\$ 2,921,971	\$ 3,079,396	\$ 3,151,747	\$ 3,207,340	\$ 3,280,662	\$ 3,354,717
CTSP Proposals:						
Mount Airy Circulator	\$ -	\$ 112,323	\$ 116,816	\$ 121,489	\$ 126,348	\$ 131,402
Elkin-Jonesville Circulator	\$ -	\$ 95,042	\$ 98,844	\$ 102,797	\$ 106,909	\$ 111,186
Mocksville Circulator	\$ -				\$ 116,633	\$ 121,298
Surry-Yadkin Connector #1	\$ -	\$ 103,683	\$ 107,830	\$ 112,144	\$ 116,629	\$ 121,294
Surry-Yadkin Connector #2	\$ -			\$ 112,147	\$ 116,633	\$ 121,298
Surry-Yadkin Connector #3	\$ -			\$ 112,147	\$ 116,633	\$ 121,298
Route 601 Connector	\$ -		\$ 95,144	\$ 98,950	\$ 102,908	\$ 107,024
Limited Saturday Service	\$ -		\$ 27,063	\$ 28,146	\$ 29,271	\$ 30,442
Meet the PART	\$ -	\$ 25,000	\$ 25,000	\$ 28,123	\$ 29,248	\$ 30,418
Additional Medical Transportation for Older People and People with Disabilities	\$ -	\$ 100,000	\$ 100,000	\$ 112,490	\$ 116,990	\$ 121,670
Total New Operating Expenses	\$ -	\$ 436,048	\$ 570,697	\$ 828,432	\$ 978,202	\$ 1,017,331
Subtotal Proposed Transit Operating Expenses	\$ 2,921,971	\$ 3,515,444	\$ 3,722,444	\$ 4,035,772	\$ 4,258,864	\$ 4,372,048
Other						
Moving Surry Dispatch		\$ 15,600	\$ 16,224	\$ 16,873	\$ 17,548	\$ 18,250
AVL/MDT Annual Fees		\$ -	\$ -	\$ 70,869	\$ 73,704	\$ 76,652
Volunteer Driver Program/Mobility Management Program	\$ -	\$ 32,500	\$ 32,500	\$ 36,559	\$ 42,771	\$ 52,039
Volunteer Driver Program/Operations		\$ 36,400	\$ 37,856	\$ 39,372	\$ 40,947	\$ 42,585
Ways to Work Program	\$ -			\$ 112,490	\$ 116,990	\$ 121,669
TOTAL OPERATING EXPENSES	\$ 2,921,971	\$ 3,563,544	\$ 3,771,168	\$ 4,272,563	\$ 4,509,877	\$ 4,640,658
Percent Increase in Expenses from Previous Year		22%	6%	13%	6%	3%
Total Increase in Expenses		59%				

Table 4-5: YVEDDI Financial Plan for Operations - Projected Operating Revenues (continued)

Anticipated Funding Sources for Operating	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY2017
<i>Federal</i>						
FTA S.5311 Administrative	\$ 340,634	\$ 354,259	\$ 368,430	\$ 383,167	\$ 398,494	\$ 414,433
FTA S. 5311 Operating (50% of the net deficit of the 5311 services)		\$ 135,000	\$ 192,850	\$ 297,611	\$ 359,979	\$ 374,378
FTA S. 5310 Elderly and Disabled		\$ 50,000	\$ 50,000	\$ 52,000	\$ 54,080	\$ 56,243
FTA S. 5316 JARC (meet the PART and Ways to Work)		\$ 12,500	\$ 12,500	\$ 63,000	\$ 65,520	\$ 68,141
FTA S. 5317 New Freedom (Mobility Manager/Volunteer Driver)		\$ 44,250	\$ 44,250	\$ 46,020	\$ 47,861	\$ 49,775
<i>Subtotal, Federal</i>	\$ 340,634	\$ 596,009	\$ 668,029	\$ 841,797	\$ 925,934	\$ 962,971
<i>State</i>						
State Funds in Support of Administrative Expenses	\$ 21,289	\$ 22,141	\$ 23,026	\$ 23,947	\$ 24,905	\$ 25,901
Rural Operating Assistance Program	\$ 591,869	\$ 591,869	\$ 591,869	\$ 591,869	\$ 591,869	\$ 591,869
<i>Subtotal, State</i>	\$ 613,158	\$ 614,010	\$ 614,895	\$ 615,816	\$ 616,774	\$ 617,770
<i>Local</i>						
Local Cash Match (Administrative Match)	\$ 63,869	\$ 66,424	\$ 69,081	\$ 71,844	\$ 74,718	\$ 77,706
Contract Revenue and Other Local Revenues	\$ 2,050,000	\$ 2,373,554	\$ 2,526,450	\$ 2,746,422	\$ 2,916,979	\$ 3,037,447
Passenger Fares	\$ 90,409	\$ 136,694	\$ 151,893	\$ 177,809	\$ 193,262	\$ 197,127
<i>Subtotal, Local</i>	\$ 2,204,278	\$ 2,576,672	\$ 2,747,424	\$ 2,996,075	\$ 3,184,958	\$ 3,312,280
Total Projected/Proposed Operating Revenues	\$ 3,158,070	\$ 3,786,691	\$ 4,030,348	\$ 4,453,688	\$ 4,727,666	\$ 4,893,022
<i>Surplus to be put toward reserve/capital match</i>	\$ 236,099	\$ 223,146	\$ 259,180	\$ 181,125	\$ 217,789	\$ 252,364

For the revenue side of the financial plan, only inflationary increases in federal and state administrative funds have been assumed, other than specific grants highlighted for inclusion. It should be noted that it is plausible that federal funding will increase upon the reauthorization of SAFETEA-LU, as transit funding has historically increased with each reauthorization. ROAP funds are level through the five-year period. Given the expansions included in this plan, contractual and local revenue will need to increase during the planning period to match federal grants. The plan also assumes that the existing demand-response hours will be reduced as the circulators and connections are implemented.

Financial Plan for Vehicle Replacement and Expansion

Table 4-6 provides the Financial Plan for Vehicle Replacement and Expansion. This plan is based on the current year's approved vehicle purchases, with future replacements and expansions based on vehicle age, estimated mileage, and new services. The following useful life criteria were used:

- Minivans, vans, conversion vans, capacity of 15 passengers or fewer: minimum of 100,000
- Light transit vehicles (20-25'): minimum of 130,000 miles

As discussed previously, there may be a need to spread the vehicle replacement out over additional years.

Financial Plan for Facilities, Equipment, and Other Capital

Table 4-7 provides the Financial Plan for Facilities, Equipment, and other Capital. This spreadsheet provides the financial estimates for the non-vehicle capital that is anticipated to be needed over the five-year period. During the plan review phase, the study team will need to further discuss the concept and associated costs involved with bringing maintenance in-house.

PERFORMANCE MEASUREMENT PLAN

Table 4-8 provides the FY 2011 performance measures for YVEDDI in a number of key areas. These performance measures will be used as a baseline for future performance. YVEDDI staff should review the indicators for these measures on a regular basis to ensure that the system is maintaining safe, efficient, and high quality transit services.

Table 4-6: CTSP Financial Plan for Vehicle Replacement and Expansion

Number of Vehicles	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017	
Replacement	18		16		12		4		1	
Expansion	5		1		2		1		0	
Total Vehicles	23		17		14		5		1	
<i>Vehicle Types:</i>										
Light Transit Vehicle	3	\$ 213,720	1	\$ 74,090	2	\$ 154,106	1	\$ 80,135	\$ -	
Lift-Equipped Van	13	\$ 556,348	15	\$ 667,618	11	\$ 509,170	4	\$ 192,559	1	\$ 50,065
Mini-Van	2	\$ 57,200		\$ -		\$ -		\$ -		\$ -
Ramp Equipped Minivan	2	\$ 87,360		\$ -		\$ -		\$ -		\$ -
Crossover	2	\$ 57,200		\$ -	1	\$ 30,934		\$ -		\$ -
Sedan	1	\$ 20,800	1	\$ 21,632		\$ -		\$ -		\$ -
<i>Vehicle Costs</i>										
Replacement	18	\$ 691,548	16	\$ 689,250	12	\$ 540,103		\$ 192,559		\$ 50,065
Expansion	5	\$ 301,080	1	\$ 74,090	2	\$ 154,106		\$ 80,135		\$ -
Total Projected Vehicle Costs		\$ 992,628		\$ 763,339		\$ 694,210		\$ 272,694		\$ 50,065
<i>Anticipated Funding Sources</i>										
Federal S.5317		\$ 69,888		\$ -		\$ -		\$ -		\$ -
Federal S. 5311		\$ 724,214		\$ 610,671		\$ 555,368		\$ 218,155		\$ 40,052
State		\$ 99,263		\$ 76,334		\$ 69,421		\$ 27,269		\$ 5,007
Local		\$ 99,263		\$ 76,334		\$ 69,421		\$ 27,269		\$ 5,007
Total Vehicle Revenues		\$ 992,628		\$ 763,339		\$ 694,210		\$ 272,694		\$ 50,065

Table 4-7: YVEDDI CTSP Financial Plan for Facilities, Equipment, and Other Capital

Projects	FY 2013	FY 2014	FY 2015	FY 2016	FY2017
<i>Facilities and Maintenance</i>					
Renovations for In-House Maintenance (TBD)					
Maintenance Shop Equipment and Tools (TBD)					
Office Furniture	\$ 2,080	\$ 2,163	\$ 2,250	\$ 2,340	\$ 2,433
Office Equipment	\$ 520	\$ 541	\$ 562	\$ 585	\$ 608
<i>Technology</i>					
Phone Upgrades for Dispatch Center	\$ 26,000	\$ -	\$ -	\$ -	\$ -
AVL/MDT	\$ -	\$ -	\$ 389,778	\$ -	\$ -
Routine Computer Upgrades	\$ 5,200	\$ 5,408	\$ 5,624	\$ 5,849	\$ 6,083
<i>Passenger Amenities</i>					
Bus Stop Signs	\$ 5,200	\$ 3,120	\$ 5,624	\$ 3,510	\$ 1,217
Passenger Wait Shelters	\$ -	\$ 11,249	\$ 11,699	\$ 12,167	\$ 12,653
Total Projected Non-Vehicle Capital Expenses	\$ 39,000	\$ 22,481	\$ 415,537	\$ 24,450	\$ 22,995
<i>Anticipated Funding Sources</i>					
NCDOT Technology Grant	\$ 31,200	\$ 5,408	\$ 395,402	\$ 5,850	\$ 6,084
Federal S. 5311	\$ 6,240	\$ 13,758	\$ 16,109	\$ 14,881	\$ 13,530
State	\$ 780	\$ 1,720	\$ 2,014	\$ 1,860	\$ 1,691
Local	\$ 780	\$ 1,720	\$ 2,014	\$ 1,860	\$ 1,691
Total Projected Non-Vehicle Capital Revenue	\$ 39,000	\$ 22,606	\$ 415,539	\$ 24,451	\$ 22,996

Table 4-8: YVEDDI Performance Indicators

Indicator	Target
Total Customer Complaints per Passenger Trip	YVEDDI will begin to track this measure, no target set yet.
Reportable Accidents per 100,000 Vehicle Service Miles	< than 1
Cost per Vehicle Revenue Hour	\$32.58
Cost per Passenger Trip- Overall System	\$15.11
Passengers per Revenue Hour	2.2
On-time Performance	90%

PUBLIC INVOLVEMENT DESCRIPTION

Several of the services planned for implementation over the five-year planning horizon for this CTSP came from suggestions made by riders, stakeholders, and the public. The following mechanisms were used to solicit public input for the development of the plan:

- The planning process was guided by a Steering Committee, which is comprised of community stakeholders from a number of key transit constituency groups.
- A public opinion survey was conducted with 440 surveys completed for the effort.
- Rider surveys were conducted, with 123 surveys completed on board the vehicles.
- Public meetings were held in six locations during the alternatives analysis phase of the CTSP. The comments provided at these meetings are included in Appendix F.

SUMMARY OF RECOMMENDATIONS

Table 4-9 is comprised of two columns. The left column lists the PTD objectives for CTSPs and the right column indicates the corresponding recommendations in this plan that support the various objectives.

Table 4-9: Summary of Recommendations

NCDOT-PTD CTSP Objectives	Supporting Recommendations
<p>PLAN OBJECTIVE #1 - Promote the development and availability of transportation services throughout the state, in partnership with local officials, public and private non-profit agencies, and operators of transportation services, and members of the public</p>	<ul style="list-style-type: none"> • Volunteer Driver/Mobility Management Program • Meet the PART • Additional demand response medical trips • Ways to Work Program • Circulator and Connector Routes
<p>PLAN OBJECTIVE # 2 - Improve the efficiency and effectiveness of federal/state funded transportation programs</p>	<ul style="list-style-type: none"> • Consolidation of the dispatch center • Implement paratransit software • Implement AVL/MDC • Implement circulator routes • Implement connector routes
<p>PLAN OBJECTIVE # 3 - Support and promote the coordination of public transportation services across geographies, jurisdictions, and program areas.</p>	<ul style="list-style-type: none"> • Meet the PART • Coordination with WTA and PART • Consolidation of the dispatch center • Volunteer Driver/Mobility Management Program
<p>PLAN OBJECTIVE # 4 - Provide dependable transportation to the general public, low income individuals, elderly persons, and/or persons with disabilities within the guidelines and funding levels provided by NCDOT and FTA</p>	<ul style="list-style-type: none"> • Volunteer Driver/Mobility Management Program • Additional demand response medical trips • Circulator and Connector Routes
<p>PLAN OBJECTIVE # 5 - Enhance the coordination of existing services for the development of a seamless transportation network</p>	<ul style="list-style-type: none"> • Meet the PART • Coordination with WTA and PART • Consolidation of the dispatch center
<p>PLAN OBJECTIVE # 6 - Build upon the coordination efforts that exist within North Carolina’s public transportation system</p>	<ul style="list-style-type: none"> • Volunteer Driver/Mobility Management Program • Meet the PART • Coordination with WTA and PART
<p>PLAN OBJECTIVE # 7 - Serve as a basis for funding requests from NCDOT</p>	<p>The entire CTSP documents the need for the projects that have been recommended for implementation. The financial plan provides estimates of expenses and potential revenue sources and will serve as basis for funding requests from NCDOT.</p>

Appendix A

YVEDDI Steering Committee

Appendix A: Yadkin Valley Public Transportation Steering Committee

County	Name	Title	Agency/Organization	Address	City	State	Zip Code	Phone	Email
All	Brent McKinney	Executive Director	Piedmont Authority for Regional Transportation	7800 Airport Center Drive, Suite 102	Greensboro	NC	27409	(336) 662-0002	brentm@partnc.org
All	Kathy Payne	Director	YVEDDI Head Start	PO Box 309 400 W.	Boonville	NC	27011	(336)367-4993 (336) 761-2111, ext.	kpayne@yvheadstart.com
All	Dottie Lyvers	Director	Area Agency on Aging NWPCOG NWPCOG Rural Planning Organization	Fourth St. Suite 400 400 W. Fourth St. Suite 400	Winston Salem	NC	27101	4130	dlyvers@nwpcog.org
All	Marc Allred	GIS Analyst		Fourth St. Suite 400	Winston Salem	NC	27101	(336) 761-2111	mallred@nwpcog.org
Davie	Becky Finney	Director	Davie DSS	228 Hospital Street	Mocksville	NC	27028	(336)751-8800	becky.finney@co.davie.nc.us
Davie	Kim Shuskey	Director	Davie County Senior Services	278 Meroney Street	Mocksville	NC	27028	(336)753-6230	kim.shuskey@co.davie.nc.us
Davie	Jim Stockert	Deputy County Mgr.	Davie County	123 South Main Street	Mocksville	NC	27028	(336).753.6001	jim.stockert@co.davie.nc.us
Davie	Suzanne Wright	Director	Davie County Health Department	210 Hospital Street	Mocksville	NC	27028	(336)753-6750	suzanne.wright@co.davie.nc.us
Davie	Todd Naylor	Transportation Director	Davie County Schools	220 Cherry St.	Mocksville	NC	27028	336-751-2627	naylortodd@davie.k12.nc.us
Stokes	Danny Stovall	Support Services Supervisor	Stokes County	PO Box 20	Danbury	NC	27016	336-593-2452	dstovall@co.stokes.nc.us

Appendix A: Yadkin Valley Public Transportation Steering Committee

Stokes	Larry Hunsucker	Veterans Service Officer	Stokes County	PO Box 20 118 Hamby Road	Danbury	NC	27016	(336) 593- 2468	lhunsucker@co.stokes.nc.us
Surry	Wayne Black	Director	Surry DSS	215 Jones School Road	Dobson	NC	27017	336-401-8700	blackw@co.surry.nc.us
Surry	Annalisa Davis	Director	Surry Senior Center	Mt Airy	Mt Airy	NC	27030	336-786-6155 Ext. 225	adscsc@yahoo.com
Surry	Kate Appler	Director	United Fund of Mt Airy	PO Box 409 623 Rockford Road	Mt Airy	NC	27030		kate@unitedfundofsurry.org
Surry	Bonita Stanley	Director	LifeSpan	109a W Atkins Street	Dobson	NC	27017- 8459	336.374.4466	'bstanley@lifespanservices.org'
Surry	Jane Motsinger	President of the Board	SHAAHC	122 Hamby Road, Suite 147	Dobson	NC	27017	336-366-3922	jmotsinger@surry.net
Surry	Kim Bates	Director	Surry County Planning	838 S. Main Street	Dobson	NC	27017	336-401-8350	batesk@co.surry.nc.us
Surry	Janice McBride	Rider	Surry Resident		Mount Airy	NC	27030	(336) 755- 0182	slipper42@yahoo.com
Yadkin	Ray Robbins	Owner	H&R Tours		Boonville	NC	27011	336-367-3966	hhrtoursinc@triad.rr.com
Yadkin	Gary Miller	Director	Cape Fear Transportation	3528 Brentwood Drive	Gastonia	NC	28056		garymiller@capefeartrans.com
Yadkin	Charlie Fortune	Rider	Yadkin Resident/User	3753 Prides Road	East Bend	NC	27018	336-699-8190	none

Appendix A: Yadkin Valley Public Transportation Steering Committee

Yadkin	Brenda Holbrook	OAA Program Director	YVEDDI Yadkin County Chamber of Commerce	PO Box 309	Boonville	NC	27011	336-367-3522	bholbrook@yveddi.com
Yadkin	Bobby Todd	Director	Yadkin County Chamber of Commerce	P.O. Box 1840 648 Carolina Avenue	Yadkinville	NC			btodd@yadkinchamber.org
Yadkin	Marty Driver	Outreach Coordinator	New Horizons	5148 Baker Road	Yadkinville	NC	27055	336-677-3843	nursemanager1@newhorizonshomecare.com
Yadkin	Marion Miller	Rider Executive Director	Yadkin County Resident	5148 Baker Road	East Bend	NC	27018	336-699-3343	none
Yadkin	Beth Rummage		Yadkin Senior Services, Inc.	PO Box 789	Yadkinville	NC	27055	336-679-2740	brummage@yadkinseniorservices.org

Appendix B
Transit Dependence Index

Appendix B: Transit Dependence Index

Public transportation needs are defined in part by identifying the relative size and location of those segments within the general population most likely to be dependent upon some form of public transit services. Once the location of these transit dependent populations is determined and analyzed, it becomes possible to evaluate the extent to which current services meet the needs of community residents. To identify the areas of highest transportation need, the Transit Dependence Index (TDI) was calculated for each of the Census block groups in the YVEDDI study area.

The TDI is an aggregate measure that utilizes recent data from the American Community Survey (ACS) five-year estimates and the United State Decennial Census to display relative concentrations of transit dependent populations within a study area. The following section describes the formula used to compute the TDI for each of these block groups, as well as a brief description of the six factors used in its calculation.

$$\text{TDI} = \text{PD} * (\text{AVNV} + \text{AVE} + \text{AVY} + \text{AVD} + \text{AVBP})$$

- PD: population per square mile
- AVNV: amount of vulnerability based on presence of no vehicle households
- AVE: amount of vulnerability based on presence of elderly adult population
- AVY: amount of vulnerability based on presence of youth population
- AVD: amount of vulnerability based on presence of disabled population
- AVBP: amount of vulnerability based on presence of below-poverty population

The input values for the population density (PD) factor follow the previously mentioned classification scheme of the stand-alone population density analysis. A block group with a population density greater than 2,000 persons per square mile is presented a value of four, while a block group with a population density greater than 1,000 persons per square mile and less than or equal to 2,000 is given a PD factor of three. Continuing in intervals of 500, a block group with a population density greater than 500 and less than or equal to 1,000 persons per square mile is presented a PD factor of two, while a block group with less than or equal to 500 persons per square mile and at least one resident is given a value on one. In the event of a block group having zero residents, that particular block group is presented a value of zero.

The following five independent variables represent specific socioeconomic characteristics of the residents in the study area, which are described in the previous bullets. These five factors are given a value that represents their prevalence in the analyzed block group. For each of the factors, an individual block group comprised of a

number of vulnerable persons or households that is below the average number for all block groups in the study area is presented with a value of one. A value of two is given to a block group where its vulnerable population is greater or equal to the study area average (SAA), but less than one and one-third times the SAA. A block group with a vulnerable population greater or equal to one and one-third the SAA, but less than one and two-thirds the SAA is presented with a value of three. This scoring scheme continues for a block group with a vulnerable population greater than one and two-thirds the SAA, but less than twice the SAA for a block group, which is presented a value of four. Finally, any block group that has a vulnerable population or household population that is more than twice the SAA for a block group is given the highest value of five. Once this process is completed for each of the five socioeconomic characteristics, the factors are plugged into the TDI equation in order to determine the transit dependence for each block group within the study area. Each individual block group is then given a TDI classification (very low, low, moderate, high, or very high) that is assigned in a manner similar to the independent variables in the TDI. The difference being that the TDI or dependent variable value in the formula replaces the previously described socioeconomic characteristics or independent variables. Thus, a block group with a TDI below the average TDI score for a block group in the study area is given a value of one or categorization of very low, and so on.

Transit Dependence Index Percent

The Transit Dependence Index Percent (TDIP) provides a complementary analysis to the TDI measure and its reliance upon the population density factor. The TDIP measure is nearly identical to the TDI measure in every aspect with the lone exception being its exclusion of the persons per square mile (PD) factor. As a result, the TDIP for each block group in the YVEDDI study area is calculated with the following formula and its five independent variables.

$$\text{TDIP} = \text{DVNV} + \text{DVE} + \text{DVY} + \text{DVD} + \text{DVBP}$$

- DVNV: degree of vulnerability based on presence of no vehicle households
- DVE: degree of vulnerability based on presence of elderly adult population
- DVY: degree of vulnerability based on presence of youth population
- DVD: degree of vulnerability based on presence of disabled population
- DVBP: degree of vulnerability based on presence of below-poverty population

Accordingly, the exclusion of the PD factor from the TDIP formula results in the maximum score a single block group may attain being lowered from 100, as is found in the previously described TDI measure, to a score of 25. By removing the PD factor, the

TDIP measures the degree of vulnerability, or percent of individuals exemplifying a particular socioeconomic characteristic out of the overall general population of a block group, rather than the amount of vulnerability, or strictly aggregate number of individuals exemplifying a particular socioeconomic characteristic within a particular block group, that is measured by the TDI. This sole difference between the two indices enables the TDIP to represent a needs assessment that highlights the overall predominance of a specific population throughout a block group's general residence instead of a highlighting of those block groups that have a higher density of persons and consequently an increased chance of having a higher concentration of vulnerable populations simply due to an increase in the block group's overall population.

The five-tiered categorization found in the TDI measure is also utilized for the TDIP measure and is determined by use of the same criteria.

Appendix C
On-Board Rider Surveys

Yadkin Valley Public Transportation/YVEDDI Community Transportation Survey

Yadkin Valley Public Transportation (YVPT), a service of the Yadkin Valley Economic Development District, Inc. (YVEDDI), is conducting a Community Transportation Survey. Please help us by providing your opinions regarding public transportation in the region.

1. How do you *usually* get where you need to go within the community for work, shopping, errands, or medical appointments? Please check only one.

<input type="checkbox"/> I drive	<input type="checkbox"/> I take a taxi	<input type="checkbox"/> I walk
<input type="checkbox"/> A friend or family member drives me	<input type="checkbox"/> I ride a bicycle	
<input type="checkbox"/> I use public transportation	<input type="checkbox"/> Other: _____	

2. Are you aware of the community transportation services that are provided by YVPT/YVEDDI?

Yes No

3. Are you aware of the regional transportation services that are provided by the Piedmont Authority for Regional Transportation (PART)?

Yes No

4. Do you currently use any of the following forms of public transportation on a regular basis? Please check all that apply and indicate how often you typically ride:

<input type="checkbox"/> Yadkin Valley Public Transportation (YVEDDI)	How frequently? _____
<input type="checkbox"/> PART	How frequently? _____
<input type="checkbox"/> Taxis	How frequently? _____
<input type="checkbox"/> Vanpools or carpools	How frequently? _____
<input type="checkbox"/> Other: _____	How frequently? _____
<input type="checkbox"/> I do not currently use public transportation.	

5. If you do not use any form of public transportation, please indicate why not (check all that apply):

<input type="checkbox"/> No service is available near my home/work/school.	<input type="checkbox"/> The van/bus is uncomfortable.
<input type="checkbox"/> I prefer to drive.	<input type="checkbox"/> It might not be safe/ I don't feel safe.
<input type="checkbox"/> Don't know if service is available and/or location of stops.	<input type="checkbox"/> The van/bus is expensive.
<input type="checkbox"/> I have limited mobility and it is hard for me to use the van/bus.	
<input type="checkbox"/> Vans/buses are unreliable/late.	<input type="checkbox"/> Trip via transit takes too much time.
<input type="checkbox"/> Need my car for work/school.	<input type="checkbox"/> The hours of operation are too limited.
<input type="checkbox"/> Need my car before/after work/school.	<input type="checkbox"/> Have to wait too long for the van/ bus.
<input type="checkbox"/> Need my car for emergencies/overtime.	<input type="checkbox"/> Other: _____

6. Do you think there is a need for additional or improved public transportation in the region?

Yes No *If you checked "No," please skip to Question #8.*

7. If you checked "Yes" for Question #6 above, please indicate **where within the 4-county region (Davie, Stokes, Surry, and Yadkin)** there is a need for additional or improved public transit services? Please check all that apply.

<input type="checkbox"/> Davie County	<input type="checkbox"/> Stokes County	<input type="checkbox"/> Surry County	<input type="checkbox"/> Yadkin County
<input type="checkbox"/> Mocksville	<input type="checkbox"/> King	<input type="checkbox"/> Mount Airy	<input type="checkbox"/> Yadkinville
	<input type="checkbox"/> Walnut Cove	<input type="checkbox"/> Elkin	<input type="checkbox"/> Jonesville
	<input type="checkbox"/> Danbury	<input type="checkbox"/> Dobson	

Over, please



7. **Continued**- Please also indicate if you think the following public transportation linkages are needed. Check all that apply.
- Service along US 601, connecting Mocksville, Yadkinville, Boonville, Dobson, and Mount Airy
 - Service between Elkin/Jonesville, Dobson, and Mount Airy
 - Service connecting Elkin/Jonesville to Pilot Mountain
 - Other: _____
8. Would you use public transportation services in the four-county region if there was a service that met your travel needs? Yes No
9. How much would you pay to ride public transportation for short trips within the community?
- I would pay _____ per trip. Not applicable, I would not ride
10. How much would you pay to ride public transportation for longer trips, outside of your community?
- I would pay _____ per trip. Not applicable, I would not ride
11. If you were to use public transportation, which method of scheduling a ride would you prefer (please choose only one):
- I would like to call **a day or two ahead** to request a ride and have the vehicle pick me up near my house.
 - I would like to call **the same day** to request a ride and have the vehicle pick me up near my house.
 - I would like the public transportation vehicle to have a set schedule where I could walk to a stop to be picked up. **I would not have to call ahead to arrange a ride.**
 - Not applicable, I would not ride.
12. Would you need access to a bike rack on the van/bus? Yes No N. A., I would not ride
13. How many times per week would you use public transportation if it were available to you?
- Less than 1 time per week 1 to 3 times per week 4 or more times per week N.A.
14. What times of day would you be most likely to use public transportation? Check all that apply.
- 6:00 a.m. – 9:00 a.m. 3:00 p.m. – 6:00 p.m. 9:00 p.m. – midnight N.A.
- 9:00 a.m. - 3:00 p.m. 6:00 p.m. – 9:00 p.m. Midnight - 6:00 a.m.
15. In what city, town, or community do you live? _____
16. Do you have Internet access? Yes No
17. Do you have a disability that prevents you from driving? Yes No
18. Including yourself, how many people live in your home? _____
19. Do you have a valid driver's license? Yes No
20. How many working cars/trucks/suvs/motorcycles are there in your household?
- 0 1 2 3 4 or more
21. Please provide your comments regarding the need for improved public transportation in the 4-county region.

Thank you!

Appendix D
On-Board Rider Comments

Appendix D: On-Board Rider Comments

all good
don't have any around here to go around town or out of town if you don't have transportation
every one is so nice. Thank you for your service
everyone is awesome and very nice and cool
good job
has been a god send, love YVPT/YVEDDI
Have been riding YVEDDI for more than 5yrs. I really appreciate the helpfulness of everyone and being able to get to my medical appointments.
I am very concerned that there is no monitor on the bus/van my grandson rides to school. An emergency would be too much for any driver alone.
I appreciate the service, I don't know what I would do without it. Thank you so much!
I enjoy riding
I enjoy the independence YVEDDI gives me but you need to advertise more
I really enjoy the friendship and day trips
I wish there would be more pickups from Surry Community College and set times so I don't leave class early then sit and wait for over an hr. It's very frustrating waiting and calling and no one answers to tell me what time YVEDDI will be there.
I'd like to comment on 2 specific drivers, #1 is James, the morning driver. Is very nice/respectful, I feel safe riding w/ him and he does not scare me like one of the old drivers. #2 is the Tues afternoon driver Jimmy- all the same qualities
It has been very helpful to me cause I can't ride in a car because I can't put any weight on foot. I could not make my doctors appt without YVEDDI
It takes 1h - 1/2hr to get home after dialysis... I'm gone from 10:15-4:15. I can't believe you can't have a few drivers for only dialysis... B/c we have to wait for the school routes to get done first...But you do have a lot of good drivers.
Just glad to have transportation
Keep up the good work. Could you mail me any written info about services, costs, times, etc?
Like to get back earlier sometimes I wait longer when I have app waiting to go back home
Lots of nice people and on time always
Love one and all for the all are so nice
Many people who do not have a way to go places this service is great. I also enjoy my van driver Russell he has been very helpful to me
My driver was great, her name was Kaminco
Need a city regular bus route around to malls and stores
No public transportation
Overall my drivers for our family have been super fantastic. Yes, you need GPS for drivers
Please be more available to King residents
Thanks for all you do
The van that I ride to school is crowded
Where I live they want me to go to Lowgap instead of the Mt Airy for the game for elders. I live off 89 at Round Peak Church Rd. Richards Rd
Without YVPT/YVEDDI I would not have any way to go to the doctor. Appreciate the service very much
Would like to see people who have medicare and medicaid could qualify for grocery and shopping trips at a small costs. I'm on a fixed income disability

Appendix E
Comments on On-Board Surveys

Appendix E: Community Survey Comments

A bus would be the best
A lot of people don't have a vehicle so it would help a lot of folks out, considering gas prices
Anything would help
Because a lot of people do not have a valid driver's license. Also will be cheaper
Because gas is too high
Because gas is too high
Buses and vans please
Cheap public transportation is a must considering the economy at this time
Concerns of cost of taxi \$18 to and from Dobson, taxi to grocery store \$10, YVEDDI to Dobson \$24
Desperate need for public transportation in Dobson/Fairview Community. It is 20 miles to get to the nearest PART location. Please help us.
Even though I don't need transportation a lot of people do esp. those unemployed and elderly. Sometimes they need immediate way to go to MD so better access would help them
For my mother
Gas is high, and if transportation was available I would not have to stay home as much. The rate probably would be a lot cheaper than gas, and we would also have fellowship with others who want to get out
Have not used public transportation, don't know that much about it
Home to designation pickup
Medical appts and grocery buying urgent needs. I would hope our county/state/fed govts would be amenable to contributing to this cause.
bus stop
I am happy with the service- very!
I appreciate YVEDDI. It has been a God send to me. Tony is very nice, he is always on time.
I do know it is needed
I don't use it but know people who do and think that more is needed in some areas
I don't use it so I'm not
I have a neighbor who is wheelchair bound that could really benefit from transportation service. He is dependent on the whims of friends/neighbors to get to the doctor, grocery store, etc
I have eye problems-so I would use transportation when I can no longer drive
I have lost many jobs because I couldn't afford gas for my car and b/c there was no public transportation to/from my job. Also lost jobs b/c I could not afford the gas to the job interview, had to turn down temp work b/c I couldn't afford gas...
I have to go to school 20hrs/wk from Mtn Park to Elkin. Due to where I hurt my back...I'm drawing 2/3 of my pay now. It is very hard to get gas money to go to school...Public transportation would be very helpful for me.
I love YVEDDI, they have helped me so much, but they need more drivers. If it wasn't for them, I would never be able to get out at all and the drivers are so nice and great. Thanks to you and the drivers. I can get out now!
I see more and more people walking and I tend to stay home more due to cost of gas rising
I support it for people who need it
I think it is real nice to have a company like YVPT to help people like myself
I think it is useful for people who cannot drive or for people who do not have the use of vehicular transport
I think it's a great idea for people who don't have cars or people that live close to them for them to ride with. It would help the community a lot
I think public transportation is needed more for people so they can get places they need to go
I think that it is a great idea to have more transportation in this region b/c it would help out me and a lot of other people to get where they are going
I think that public transportation should take you to an out of state dr if that's what Medicaid allows you to have, and you should be able to call on that day in case of sick child appts. Times of day should be flexible to keep kids from missing school

I think the gas price is one of the fact for why people can't drive to school and people don't have valid driver licenses either. Sometimes we can't afford gas prices or don't have a car. Some of those people need public transportation
I think this is good for people that don't have a ride
I think transportation of YVEDDI does a good job, I wouldn't ride with anyone else
I think you should give people gas money to have to come here
I work with families who really struggle just going to the store to get food, as well as making it to needed medical appts
I would like to see more people come here to school and get their GED
I would like to see the PART vanpool have more flexible hrs for people who work different hours, ie 7am-430pm
I would use public transportation for long trips or commutes. Also to help when issues arise w/ my vehicle
If my ability to get around changed I would use public transportation
if something happened and I had no way to go I would ride. It seems like a very good idea
I'm glad we have YVEDDI. It keeps my daughter from having to get off work to take me to the doctor
I'm sure that it is a vital part in those who are less fortunate and have no transportation. It should be advertised more of how/where it's available. I haven't seen any. I'm truly blessed w/ transportation, and if I didn't I would use the bus
Greensboro
It helps people get to work in Winston other County
It is a must have situation, particularly for low-income/unemployed persons...YVEDDI expects too many people to adjust their appts/work hrs so they can do Head Start transports. If you work 2nd, 3rd shifts or weekends, YVEDDI won't help you
It is good idea for people who need it, its cheaper than gas in your own car
It is very needed and convenient to have access to Medicaid transportation and I will call for a ride as needed (varies).
It would be a big help for me to get places in my area
It would be a great benefit to the public
It would be nice to have a bus to take you to different places like Walmart and shopping centers- with gas prices like they are I would consider sometimes riding a bus to save money
It's ok long pickup doctor appt
just faster pickup times where people won't have to wait to be picked up
Might consider transit like in Winston-Salem
more routes, longer hours
more sidewalks in Mt Airy
more vans available to disabled adults
More vans to transport more people
Mt Airy needs more access to PART
my clients report extremely long wait times after being dropped off for dr appts or grocery store shopping
Need a way to connect to the PART locations. It is 20 miles to the nearest location.
One of our family members uses the PART bus from Mt Airy to Winston-Salem. She loves it. But she must get a ride from Dobson to Mt Airy
People need assistance when they can't get to their doctors and they need dependable transportation
People should be able to ride and feel safe and comfortable. Also elderly people should get discounts and extra help on and off the buses/van. All counties should have public transit b/c people don't have cars or license to get where they need to go
Posted routes and fees would be nice
Public transportation is extremely needed and would serve vital for many who can not afford a car or gas. I am amazed Mt Airy doesn't already have it for people
regular scheduled public transportation works elsewhere in the world ie Europe. Hourly transportation is not only doable, it's cost effective
There has always been a need for public transportation if you cannot afford a car you have to walk or ask for a ride from friends or neighbors. It is a much needed service.
there is no public transportation in East Bend- years ago we had the greyhound bus
Think it would be very helpful

those who use have commented favorably
To be able to get back and forth to town for shopping and doctors visits
To lower gas and save the air around us
To many of the current vehicles I see brokedown on the roadside, upgrade them
Tony and Daphne is mostly the ones drive me, and I appreciate their kindness, gentleness, helpful and everything
Tony is a nice person he always treats me right and he is a good driver
Tony is a very good driver and very nice to me
We need it
We need it
We need more like Cape Fear. They are great.
We need more so it can help with people who can't drive
When I go back to SCC, I would ride YVEDDI
Would help me work
Would like to have transportation to doctor appts
Would love to see more public transportation opportunities in the area
Would use a public bus system
no other transportation. Leaving from Dobson may cause my child to stand outside for a long time alone...after many calls to find driver.
YVEDDI provides the necessary transportation for me as I am disabled and wheelchair bound

Appendix F

Summary of Public Meeting Comments

Appendix F

Yadkin Valley Economic Development District (YVEDDI) Community Transportation Service Plan (CTSP)

Summary of Public Meeting Comments

General Comments:

- There needs to be more awareness of what is available within the community – what resources and subsidy programs.
- More information about YVEDDI services is needed in the community.
- People would like to be able to schedule trips the day before.
- Would like access to Hanes Mall.
- Would like service to Salisbury.
- People have unmet transportation needs in the Sandy Ridge area.
- Would like limited Sunday service to attend church.
- Great!
- Look at Sunday service
- Very good- developing in the right direction
- Good that you are addressing the most serious issue that affects this area besides jobs.
- People in Low Gap are isolated- no services (i.e., doctor, pharmacy, grocery, etc). a.m., noon, and p.m. trips would help them.
- Priority overall I think should be circulator routes within towns (for jobs, shopping, local medical), then connectors.
- Would like regional partners to investigate the “Ways to Work” program. This program helps low-income people obtain car loans to purchase vehicles.
- Suggestion: Since Mount Airy is a Micropolitan town that serves a large region, including residents at the NC-VA border, could YVEDDI include a centralized pick-up point at Cana, VA (at the NC border) to help transport those VA citizens with limited or no personal transportation who travel to Mount Airy for medical, employment, shopping, social security, college, etc.? Just an idea.

Mount Airy Circulator

- Looks great, hits all the major stops in Mount Airy.
- Excellent idea.
- This may be more efficient than the demand response service.
- This will give lots of freedom to those who are shut-in.
- Yes! Yes! This is a good one. This town needs it.
- We need it so badly, hope it will work out, soon!
- Awesome! Any potential for EV trolley?
- Thank you, this will be great.
- Please make this happen.
- This will remove a barrier to employment for many people in this town.
- Could be extended up on 52 to include ProHealth, Surry Medical Associates, the DMV, Red Cross, and the Social Security Office.
- Good if used with the proposed Elkin Circulator and the proposed Surry-Yadkin Connector.
- This route seems to be good for people to get to local destinations -- does it connect to the proposed Surry-Yadkin Connector? [yes]
- When you switch from a circulator to a connector, will there be a separate charge for the connector? [transfer policy yet to be determined]
- Consider picking up all the way at the Human Services Building, rather than staying out on the main road.
- I think all of the circulators would be great for citizens in each town.
- I feel this would help people in so many ways.
- This is much-needed access.
- Concur with connections to PART.
- Only addresses "city" citizens. Does not address rural residents, which are the bulk of the population in all of the counties. Citizens of Toast (suburb of Mount Airy); Low Gap (western Surry); White Plains (south of Mount Airy); Flat Rock (north of Mount Airy). Both Toast and Low Gap are distinct towns -- separate zip codes, phone exchanges.

Elkin Circulator

- What about connecting to Phillips Van Heusen? Large working population, regular hours. Maybe PVH would partner.
- I spoke with an Elkin Elementary School teacher who asked me to pass along that a bus service is needed in Elkin for families with only 1 car. Frequently parents cannot come to school to pick up kids, attend meetings, volunteer, or take their kids to the doctor or dentist, because the other parent has the car at work.

- Should stop at the Police Department, Habitat for Humanity, Farmer's Market, and possibly Elkin Municipal Park.
- Our Diabetes Program at SCHNC would like to connect Elkin to Diabetes Services. Need to connect to Grace Free Medical Clinic on Claremont Drive (connects Johnson Ridge to Bridge Street). Our group classes are on Thursdays.
- This circulator would be good with the Surry-Yadkin Connector and the Mount Airy Circulator.
- Great idea -- helps keep those without transportation employed. All local jobs require "reliable transportation," as Workforce Carolina's application puts it.
- Change the look and name on the bus. People don't always like "YVEDDI."
- Yes!
- Best of all.
- Keep this one.
- I do like the Elkin-Jonesville Circulator plan; however, I would like to see more residential areas hit on the route (i.e., Elk Spur Street, Oakland Drive), and other areas that would allow residents to board without first being in one of the areas that have commercial establishments.
- I like this plan. I am sure the need is there -- medical care, shopping, etc.

Mocksville Circulator

- Service should extend to Cana Road -- near Davie Elementary School in the William R. Davie Community.
- Elderly people need demand response rather than a circulator. Could use more service currently.
- Circulator would be helpful for last minute trips -- more access to Walmart and Food Lion.
- This would be good because the currently operated trip to Walmart from the Senior Center only allows one hour or less at Walmart.
- May be in YVEDDI service area, not of interest to me as a resident of Surry County. I would rather see our citizens covered before other counties.
- Any public transport is great.
- Yes!

Surry-Yadkin Connector

- Would like to discuss the need in Pilot Mountain to connect Pilot Center to Surry Community College and other centers as well as other agencies.
- Great idea if used with the proposed circulators.
- Very much needed -- even if only once every 2 hours.
- I have had a lot of concern about the needs of Elkin residents to get to the Government Center -- this could meet a great need.

- This, along with the Mount Airy Circulator, would reach a broad base of customers and fill a great need. This option is good in providing services for residents in need of reaching government centers, social services, and community colleges.
- Please include Yadkinville and East Bend on this route. Yadkinville is the County seat.

Route 601 Connector

- This route would be good to connect Mt. Airy and Dobson.
- Like this connector -- it hits 5 cities.
- Good idea
- Not sure that this connector will benefit to connect to Yadkinville, Boonville, Mocksville unless you find people who work in these areas that live in Mt. Airy, Dobson, etc. Maybe talk to big companies in these areas.
- This connector is good as long as PART stays and we can pick up non-duplicated hours for Pilot Mountain.
- Great
- This is a huge connector. Not sure it would be cost effective.

Meet the PART

- The plan should address putting more people on PART -- maybe PART should add a mid-day bus.
- What about Pilot Mountain? At least to a central area like the Surry Center or the PART bus stop.
- Pilot Mountain also! Ditto!
- Pilot is equally in need.
- This would be great.
- Need this most.
- Regional systems are shown by existing research and data to be the most cost-effective method of providing transportation services.
- I encourage the connections with the PART service -- expands the transportation options for the citizens who rely on YVEDDI; releases drivers from a five-hour single trip -- the citizen would take YVEDDI to PART pick-up; then PART for the actual trip needed; then PART back to YVEDDI. Perhaps these YVEDDI drivers are the volunteer drivers also (reduces expenses, shortest trips).
- This is a great idea.

Limited Saturday Services

- Saturday service should be demand response, not a shuttle. This way, if there is low demand fuel will not be wasted.
- We would like transportation on Saturdays. It is very necessary.
- Access to Hanes Mall on Saturdays.
- Like the Saturday service idea.
- This is a good idea -- it is important for people to be able to get out.
- Saturday service a good idea -- maybe more than once a month if successful.
- Will need to heavily market -- get the word out- so people will know they can use it, for it to be a success.
- Needed for many jobs, e.g., hospital workers, restaurant and hospitality workers. Great idea. May need longer hours.
- People will not remember to plan for one Saturday a month -- your test needs to be every Saturday for 2-3 months with advertisement to get a true reading of feasibility.
- Do not think this will pay off. Chances of hospital workers using it are slim.
- Pilot this every Saturday for a few months and then adjust according to use.
- Weekends would be more I think- lots of agencies/organizations not open.
- Great for extra stuff as far as shopping trips, etc. Don't think it is feasible for workers but for general public, elderly to get out and more around on a Saturday.
- Weekend Saturday travel to Hanes Mall via PART.
- Combine this with the volunteer service, use volunteers to drive the vans on Saturdays.
- Why the first Saturday? Many people do not have their checks yet.
- Would like to see a Saturday service.
- Possibly cut down on ambulance trips to emergency department- could transport to MD offices instead.
- Saturday option is a grand option for shopping, library, and hospital trips; even the occasional Saturday class with Surry CC.
- Great idea. Think it would be a hit...will need more than 2 vehicles per county.

Mobility Management/Volunteer Driver Program

- Volunteers are okay as long as they are sanctioned by YVEDDI.
- This is a terrific service to not only the riders but for folks who want volunteer opportunities -- and the funding it would save!
- We need RSVP information to all seniors/volunteer/daily trips.
- We want trips to laundry/beauty shop/grocery
- This is a great idea. I hope to see it take place. People need to help. Thank you. Keep up the great work.

- May have trouble getting volunteers who are capable.
- Suggest combine with the Saturday service on the circulator routes in Mount Airy and Elkin to ensure that service is provided every Saturday.
- Volunteers are always a good idea when able to use them.
- Great idea and I agree with using in connection with the Saturday service.
- This is a great idea! Hopefully other “volunteer” opportunities can be developed as well.
- Benchmark off of the Meals on Wheels Program.
- Great Plan!
- I would like to hear more.
- I think the volunteer driver concept is a “win-win.”
- Might be the means of providing additional routes connecting “extreme” rural to populated service center- e.g., client resides more than 20 miles from established pick-up point in town; does not have transportation from home to pick-up point. Volunteer driver picks-up at home and brings to population center, to then access transportation from that point to the destination.
- Best wishes with the possible New Freedom grant process.
- Great idea if volunteer commitment was sincere and plan was in place for back-up drivers.

Flat Fares

- The proposed fares are too high
- The proposed fares are a little high – maybe charge a set fee for the trip for two people traveling
- The proposed fares are too expensive for the longer trips, like to the VA Hospital in Salisbury. The VA gives mileage reimbursement. I would pay no more than \$25 round trip to go to Salisbury from Stokes County.
- The proposed fares are too high- the trips are too long from Stokes County.
- From Stokes County a \$10 round trip fare to Winston would be reasonable.
- \$2 base fare and \$3 in-county fare is reasonable.
- For those on a fixed income the proposed fares might be just a little expensive.
- Fares as proposed are too much \$. Hard for people to afford a 62-mile round trip for \$64.
- The proposed fares are fair up to 10 miles, after that, too expensive!
- Homeless shelters have a need but we can’t pay the proposed fares for clients, most have no income.
- For health center, medical appointments for seniors and Hispanics -- the proposed fares would be too high. Is there a way to reduce fares for medical appointments?

- Would love for YVEDDI to be able to connect persons to parks and walking trails but in order for this to be possible and well-used, fare would have to be free or minimal. Can apply jointly for grant funding with Rec Centers?
- The more you charge on longer trips, the less it will be used.
- The proposed fares are too expensive for longer trips.
- Costs are a barrier for those on a fixed income. Most have difficulty paying a \$3 co-pay for prescriptions.
- The proposed fares are too expensive for longer routes. I wouldn't or couldn't pay \$64 to go the 31-mile round trip.
- With the proposed fares, won't be able to afford past 10 miles.
- Proposed fares seem costly for the average person who could need or use this service.
- Proposed fares for the longer trips- would be hard to pay.
- The proposed fares are too expensive. Would limit use greatly.
- Someone using route for work or school -- the proposed fares would be too expensive.
- Provide consumers with the option of purchasing a monthly bus pass if they ride regularly -- could help with affordability.
- Flat fee reduces confusion of "shared-mile".
- Possible majority of trips are in the 20+ mile range, = high fares for that rider. This is the nature of rural counties (Yadkin). I live in Surry: 20 miles one-way to Mount Airy, WS, Elkin, etc.)
- I like the concept of flat fee for "in-town," "in-county," that was mentioned as a possible revision to the current fare proposals.
- How often would the fare be considered for rate changes?
- Would the rate or could the rate be lower for low income and elderly on a fixed income?
- Good concept overall. Rates would need to be reviewed. Senior community could not afford the proposed fares.

