

# Caswell County

## Five-Year Community Transportation Service Plan (CTSP)



# FINAL REPORT

Prepared for the  
North Carolina Department of  
Transportation and  
Caswell County Division of Transportation  
June 21<sup>st</sup>, 2010



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### **DISCLAIMER**

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## EXECUTIVE SUMMARY

In the year 2000, the Caswell County Division of Transportation (CDOT) was established to consolidate transportation services from various local organization and County departments. CDOT provides a means of transportation both throughout the County and surrounding attractions in neighboring counties. On-demand service is provided weekdays (but not every day to every location). Along with the North Carolina Department of Transportation (NCDOT), CDOT has asked HNTB to prepare the County's new Five-Year Community Transportation Service Plan (CTSP). The overall vision for this study and process is to ensure that Caswell County has a community transportation plan to support and grow its public transit system in the near- and mid-term.

The CTSP will serve as a means for the following objectives:

- Provide dependable mobility options to the general public, elderly, low-income, and disabled citizens of Caswell County
- Promote transit options that provide connectivity of transportation services throughout the County and State
- Promote the full integration of CDOT's programs with other federal and state programs supporting public and human service transportation
- Improve the efficiency and effectiveness of the federal/state/local funded programs
- Support and promote coordination with other public transportation services within neighboring jurisdictions ultimately to provide a seamless network through the region
- Create defensible, results-based budget requests and submissions for NCDOT funding

The CTSP process has been guided by a Steering Committee, and has benefitted from CDOT and NCDOT's involvement. Service and operational alternatives explored ranged from foundational in nature (strengthening existing service with minor additions) to robust (suggesting new scheduled and deviated fixed route service). The Preferred Alternative (Alternative 4) is a combination of service alternatives and emphasizes increasing ridership gradually over time, improving brand recognition, and educating existing and future transit riders; all with performance based measures. It also takes some very critical first steps toward growing the operational efficiency of CDOT. Components of the preferred alternative include:

- Grow general public (RGP) ridership by 10% over 5 years
- Extend evening service to Danville and Reidsville
- Establish a shopping loop service in Yanceyville
- Develop County-Yanceyville in-bound service
- Procure and utilize TripMaker for scheduling trips
- Plan for and procure new administrative space
- Rebrand the service
- Implement public education campaign
- Enhance driver training program

Two public and three Steering Committee meetings were held as part of the process. Following the release of the Draft Final Report, comments were collected and the final report was prepared for review and approval by CDOT's Transit Advisory Board (TAB). Approval of the document occurred on June 11<sup>th</sup>, 2010

This Final Report compiles information from earlier technical memorandums and presents a preferred alternative for the 5-year plan. The preferred alternative offers a graduated approach to transit growth for Caswell County – building upon existing strengths to offer new service and grow ridership.

# 1. BACKGROUND

## STUDY AREA

Caswell County was established in 1777 and named in honor of Richard Caswell (1729-1789), a delegate to the first Continental Congress, first governor of North Carolina after the Declaration of Independence, and Major General in the Revolutionary Army. The original Caswell County boundaries included all of what is now Person County with the County seat at Leasburg. In 1792, Caswell County was essentially divided in half with the western half becoming Person County and with that division, a new County seat was needed – Yanceyville.

At the end of the Revolutionary War, a census was taken by the State of North Carolina which showed Caswell County as the second most populous county in the state with 9,839 people; second by only 489 people to Halifax County. Over the next century, Leasburg and Yanceyville would be responsible for much of the County's development.

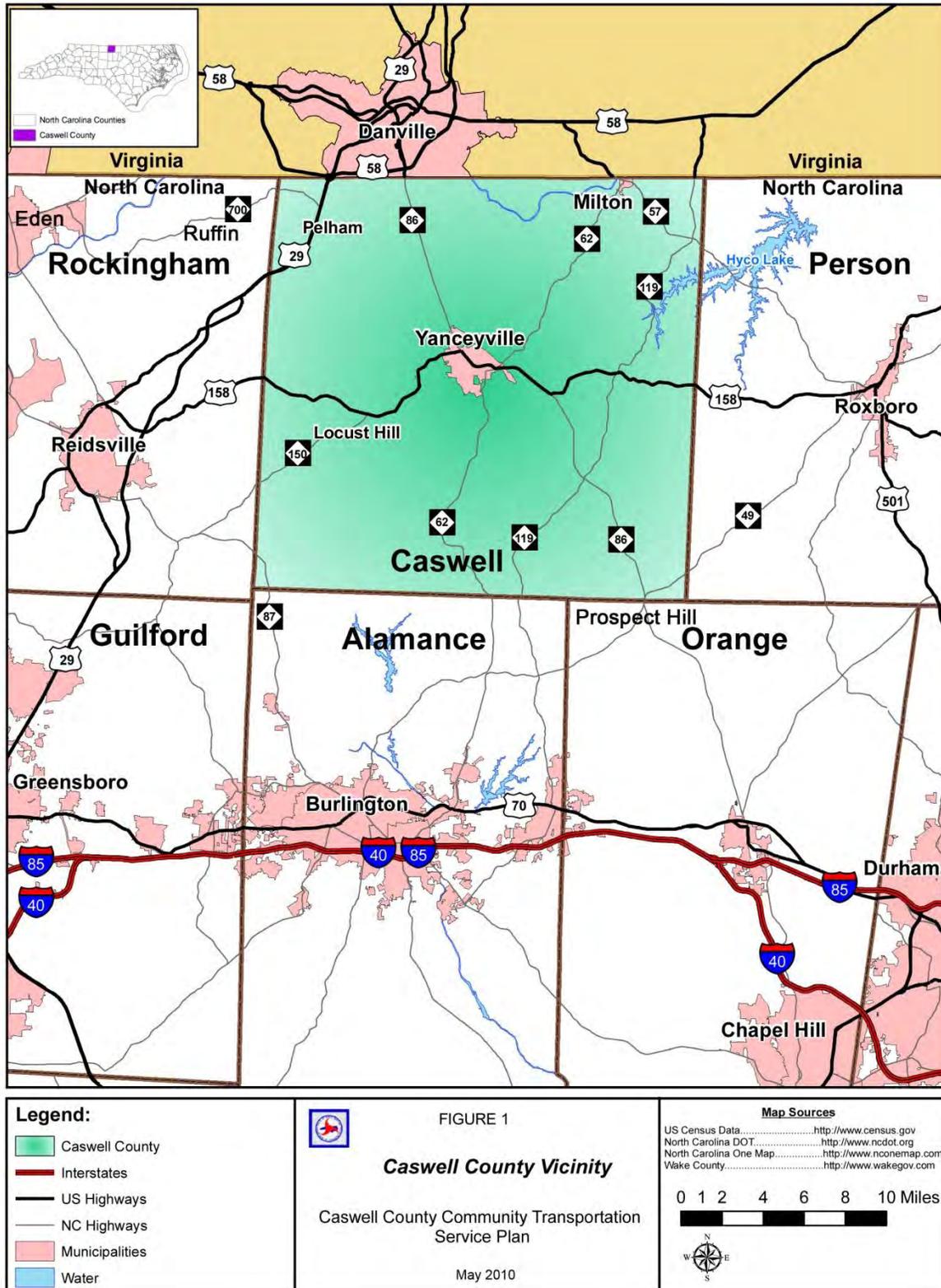
Caswell County is a Tier 1 economically distressed county,<sup>1</sup> is located in the north central section of North Carolina and is predominantly rural in nature. Tobacco was and still is the leading agricultural product of the County. It is approximately 425 square miles bordered by Person County to the east, Orange and Alamance Counties to the south, Rockingham County to the west, and Pittsylvania County, VA to the north (see **Figure 1**). The northern border of the county constitutes the North Carolina/Virginia Border. Caswell County is approximately 40 miles northwest of Durham, NC; 40 miles northeast of Greensboro, NC; 25 miles north of Burlington, and 20 miles east of Reidsville, NC. As stated previously the County seat is Yanceyville.

The Caswell County Division of Transportation (CDOT) provides means of transportation both throughout the County and to destinations in neighboring counties. CDOT was established in September 2000 to consolidate transportation services from various local organizations and County departments.

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<sup>1</sup> Tier 1 Counties are eligible for various state programs including the Article 3J Tax Credits (available for business activities that occur after January 1, 2007) that encourage economic activity in the less prosperous areas of the state.

**FIGURE 1 – VICINITY MAP**



## Demographics

The population of Caswell County was 23,314 in 2008<sup>2</sup>. Yanceyville (pop. 2,186), the County seat, serves as the main town for the County. Milton (pop. 124), located near the Virginia border, is the only other municipality in Caswell County. Unincorporated communities in the County include Blanch, Casville, Cherry Grove, Leasburg, Pelham, Prospect Hill, Purley, and Semora.

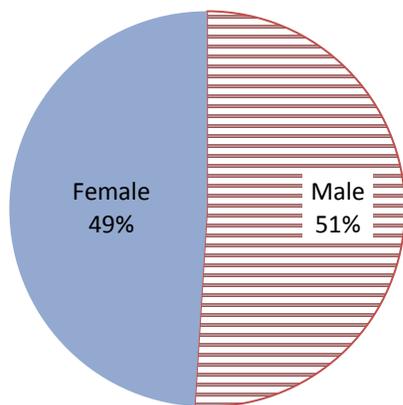
The main employers in the County are the Caswell County government system and the Piedmont Community College (PCC). Nearly 70 % of the County’s workforce work outside Caswell County.

The availability of medical centers is limited, with the nearest hospitals being located in Danville, VA (approximately 20 miles to the north) and the Durham/Chapel Hill area (approximately 40 miles to the east).

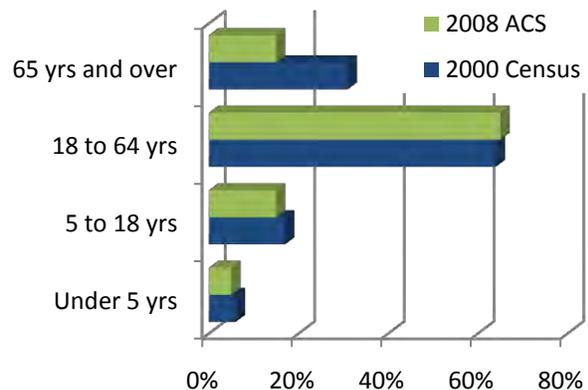
According to the 2000 Census, the population in Caswell County was 23,501, up 13% from 1990 Census numbers (20,662). Of those almost 24,000 County residents, approximately 51% were male, 49% female (**Figure 2**).

In 2000, just under 6% of the population was under the age of 5, 64% were between the ages of 18 and 64, and 13% were age 65 and over (see **Figure 3**). **Figure 4** below compares the total population of Caswell County in 1990, 2000, and 2008. **Table 1** compares 2000 and 2008 data for other select demographic metrics.

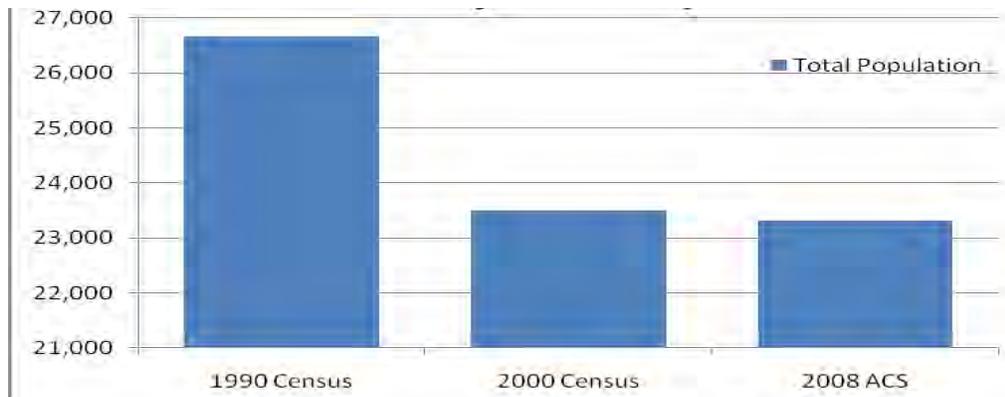
**FIGURE 2 – POPULATION BY GENDER**



**FIGURE 3 – POPULATION BY AGE**



**FIGURE 4 – TOTAL POPULATION**



Source: 1990 and 2000 Censuses, 2008 American Community Survey

Note: North Carolina Office of State Budget and Management Estimates for total population in 2000 are the same as the 2000 Census and the 2008 estimate is greater than the ACS by 108 persons.

<sup>2</sup> American Community Survey (ACS), US Census.

**TABLE 1 – CASWELL COUNTY POPULATION STATISTICS**

	2000 Census	2008 ACS Estimate
Total Population	23,501	23,314
Age		
Under 5 yrs	6%	5%
5 to 18 yrs	17%	15%
18 to 64 yrs	64%	65%
65 yrs and over	13%	15%
Hispanic or Latino	415 (1.8%)	2.6%
Language spoken at home, language other than English	831 (3.8%)	Not available

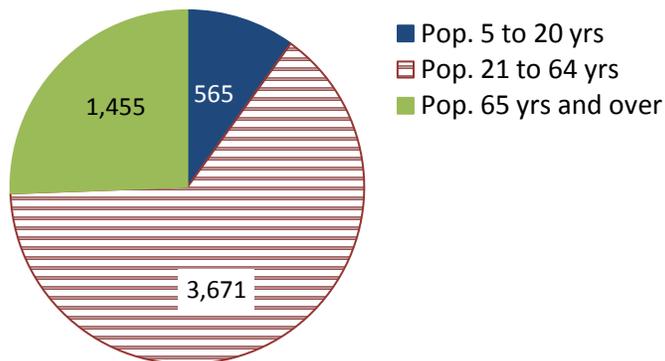
Source: 2000 Census, 2006-2008 American Community Survey (ACS)

While overall population is decreasing, the percentage of population falling into the elderly category (those 65 and older) is increasing in the County. The elderly and disabled populations are more likely to rely heavily on transit services, particularly demand-responsive service of the type that CDOT provides. According to Census data, the Hispanic population in Caswell County is also increasing. However, North Carolina Office of State Budget and Management Estimates show the Hispanic population decreasing (2008 estimates 151 persons in Caswell County of Hispanic heritage which calculates to less than one percent the total population).

In 2000, almost 5,700 County residents aged 5 yrs and over had a disability. Of those between the ages of 21 and 64, 54% were employed. The population of non-institutionalized disabled in Caswell County categorized by age is presented in **Figure 5**.

**FIGURE 5 – COUNTY’S POPULATION WITH DISABILITIES**

### Caswell County, Disability Status (non-institutionalized) Population



Source: 2000 Census

### Employment

According to the 2000 Census, 10,862 (or 58.5%) of the population 16 years and over were in the labor force. Of those in the labor force, virtually all are in the civilian labor force. 94% of the labor force is employed, only 6% are reported as unemployed. The vast majority of workers commuted to work driving alone. Several carpooled, and very few used public transportation. It should be noted that CDOT

services are available to all citizens but service is not available to all destinations every day minimizing the ability of workers to use CDOT service to/from work. Employment and commuting data from the 2000 Census and 2008 ACS are compared in **Table 2** below.

**TABLE 2 – EMPLOYMENT AND COMMUTING DATA (2000 CENSUS AND 2008 ACS)**

	2000 Census	2006 - 2008 ACS*	Percent Change
Pop 16yrs and over in Labor force	10,862	11,150	2.7%
Civilian	10,858	11,147	2.7%
Employed	10,156 (94%)	10,086 (90%)	-0.7%
Unemployed	702 (6%)	1,061 (10%)	51.2%
Commuting to work	9,917	9,575	-3.5%
Drove alone	7,578 (76%)	7,718 (80.6%)	1.85%
Carpool	1,890 (19%)	1,274 (13.3%)	-32.6%
Public transportation (including taxicab)	27 (0.03%)	0 with a (0.6 margin of error)	--
Walked	116 (0.01%)	250 (2.6%)	115%
Mean travel time to work (minutes)	30.6	29	-5.2%
Median household income	\$35,018	\$37,788	7.9%

Source: 2000 Census, 2006-2008 American Community Survey (ACS)

\*Note: ACS provides estimates based on a *sample* of households.

As shown in **Table 2**, the employment population has increased nominally but unemployment has increased between 2000 and 2008 in the County. At the same time, those that walked to work more than doubled while those that carpooled decreased by one-third. Further, the mean travel time to work has changed very little between 2000 and 2008. The median household income has increased by 8% over the same time period.

### ***Land Use and Activity Centers***

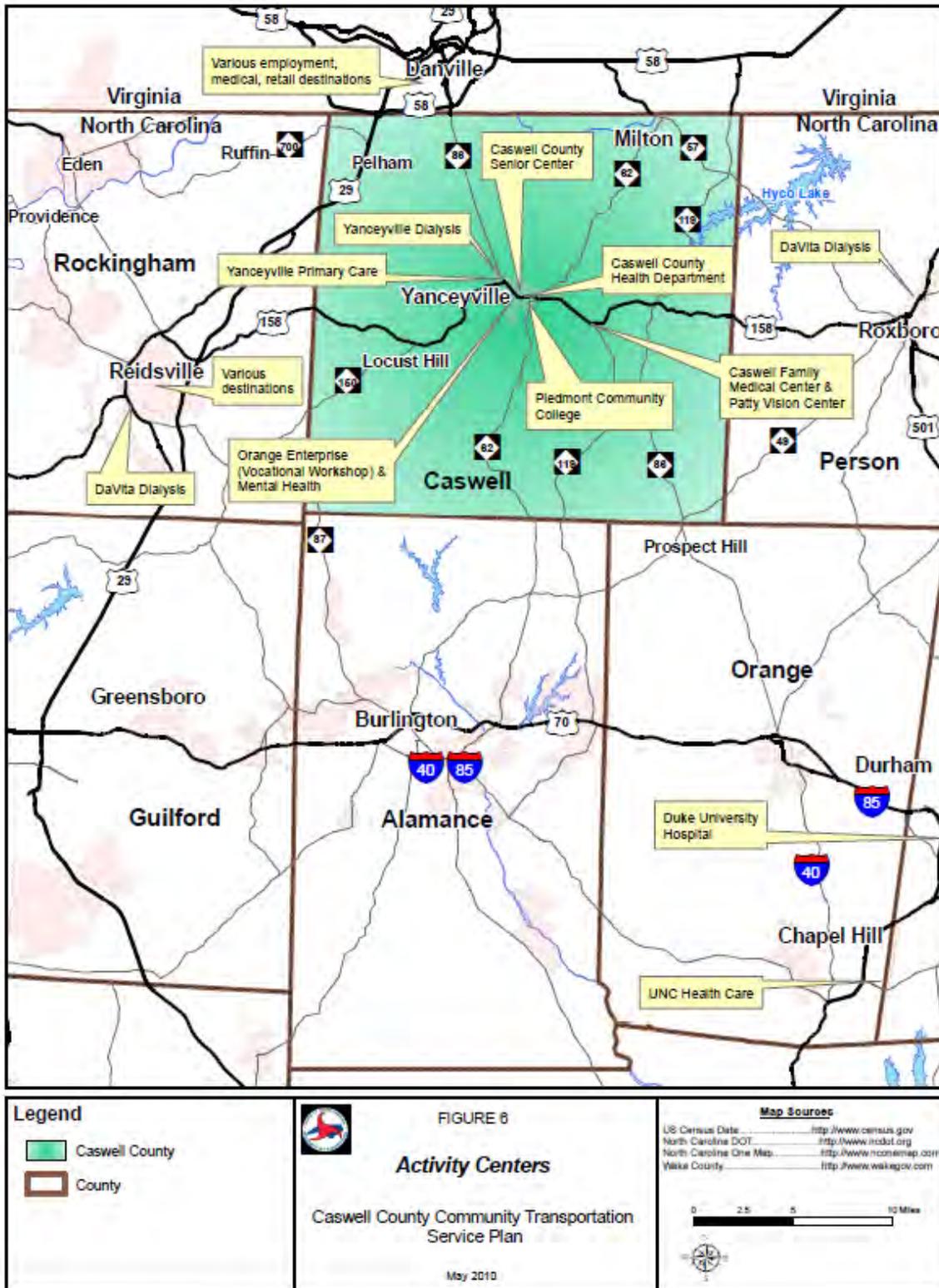
Caswell County is a predominately rural county. New development is governed by the Subdivision Ordinance, adopted in 1979, and amended most recently in December 2007. Caswell County has a Land Use Plan that is not actively in use and does not have a Zoning Ordinance.

The core activity center in Caswell County (based on the type and number of trips requested) is the county seat, Yanceyville. The distribution of trips by destination point for two weeks (one in October and one in November) can be seen in Figures 8 and 9, discussed later. Data from the two weeks illustrate that destinations within Yanceyville are consistently requested, but that several other destinations within and outside the county are also requested. Based on CDOT input, several of the frequent travel destinations within the county include:

- Yanceyville Dialysis (Yanceyville, NC)
- Caswell County Health Department (Yanceyville, NC)
- Caswell Family Medical Center (Yanceyville, NC)
- Yanceyville Primary Care (Yanceyville, NC)
- Piedmont Community College (Yanceyville, NC)
- Orange Enterprises (Yanceyville, NC)
- Caswell County Senior Center (Yanceyville, NC)
- Mental Health (Yanceyville, NC)
- Patty Vision Center (Yanceyville, NC)
- DaVita Dialysis (Roxboro, NC)
- DaVita Dialysis (Reidsville, NC)
- UNC Health Care (Chapel Hill, NC)
- Duke University Hospital (Durham, NC)
- Danville Regional Medical Center (Danville, VA)
- Alamance Regional Medical Center (Burlington, NC)

Several frequently requested activity center destinations identified by CDOT personnel are depicted in **Figure 6** below. It should be noted that while entire towns are not highlighted in the map; several destinations within Danville are requested and visited daily.

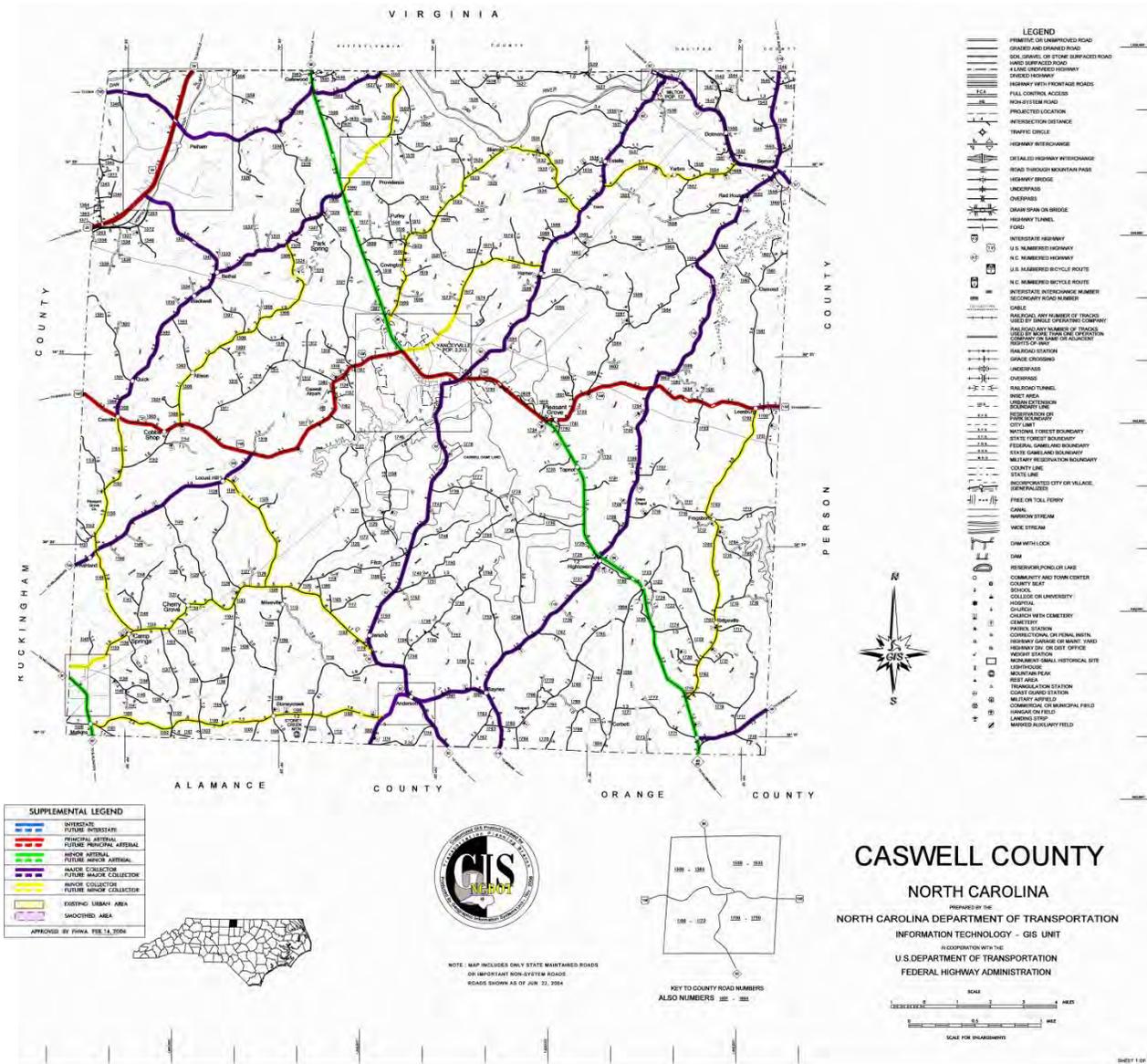
**FIGURE 6 – ACTIVITY/DESTINATION CENTERS**



# Roadways and Transportation Network

The Study Area is located in the north central section of North Carolina. **Figure 7** shows the Functional Classification Map for the County as defined by the North Carolina Department of Transportation. The following are the major roadways within the County boundaries.

**FIGURE 7 – FUNCTIONAL CLASSIFICATION MAP**



Source: North Carolina Department of Transportation

**US-158** (Leasburg Highway) is classified as a principal arterial is the main artery running east/west through the County. US-158 is predominantly a two-lane roadway traveling the length of the County connecting Roxboro to the east with Yanceyville, Reidsville, Warf, Strokesdale, and Winston-Salem to the west.

**US-29** is classified as a principal arterial running north/south from Virginia (Danville), for a short distance through Caswell County’s northeast quadrant and continuing south. Within the County, US-29 is a four-lane (two lanes in each direction) divided highway within the County connecting Danville, VA to Reidsville, Oakhaven Farms, Stacey, Monticello to Greensboro and beyond.

**NC-57** is classified as a major collector connecting Route 62 in Milton with Semora and points southwest including Olive Hill and Foxboro.

**NC-62** is classified as a major collector connecting Danville, VA through Milton, Yanceyville, Jericho, Anderson, and points south to the Haw River area.

**NC-86** is classified as a minor arterial and is a two-lane north/south roadway connecting Danville, VA to Hillsborough through Yanceyville.

**NC-119** is classified as a major collector running north/south from the Virginia/North Carolina border through Semora, a connection to US-158 and continues south through Alamance County.

**NC-150** is classified as a major connector running southwest from US-158, through Ashland to the Rockingham County border.

**NC-700** is classified as a major collector connecting US-29 on the northeast part of the County to the towns of Hickory Grove, Mayfield, Happy Home, and Eden. To the east of US-29, the road is called Shady Grove Road connecting up with Gatewood and NC-86.

## **PREVIOUS AND RELEVANT STUDIES**

### ***Locally Coordinated Public Transit – Human Service Transportation Plan for the Piedmont Triad Rural Planning Organization (2009)***

The Locally Coordinated Public Transit – Human Service Transportation Plan (HSTP) was prepared for the Piedmont Triad Rural Planning Organization in May 2009 and included information for the counties of Caswell, Davidson, Montgomery, Randolph, and Rockingham. The Plan is required in order to qualify for certain types of funding from the Federal Transit Administration (FTA), including the Elderly Individuals and Individuals with Disabled Program (Section 5310), the Job Access and Reverse Commute Program (Section 5316) and the New Freedom Program (Section 5317) funds (see **Appendix A** for a summary of federal funding programs). The Plan includes a funding overview of programs available, an inventory of transportation services in the five county area, a transportation needs assessment for each county, and identified priorities for implementation.

Specific to Caswell County, the following is discussed in the Plan:

- Enhancing public transportation was identified as the most pressing transportation issue facing the County.
- Survey respondents indicated a desire for increased access to destinations in Danville, VA and the Raleigh-Durham Research Triangle Park (RTP) area.
- The highest priority was to identify and construct a new administration facility.
- The most cited issue with service is the need to explore subcontracting services for evening and out of County trips.

Other items identified as areas for improvement for Caswell County include:

- Continue to explore service for older and disabled populations.
- Increase public education efforts on available services, programs and eligibility, requirements, etc.
- Explore the possibility of providing fixed-route service.
- Increase bilingual services provided.

### ***Caswell County Transportation Development Plan (TDP) (1998)***

This report, published in September 1998, was prepared in association with requirements for certain programs administered by the North Carolina Department of Transportation (NCDOT). The TDP includes information on the existing transportation services, study area, demographics, and public transportation

needs. The plan offers several organizational and service alternatives, recommending one core organizational alternative, which was the creation of a Caswell County DOT under which to consolidate the existing service providers. This alternative was successfully completed with the creation of CDOT in 2000. The 1998 plan recommended that further action proceed on several service alternatives including: providing general public transportation on a seat available basis; providing non-agency transportation service to the elderly; increasing marketing efforts; and improving driver training programs.

### ***State Transportation Improvement Program (STIP) (2009-2015)***

The 2009-2015 State Transportation Improvement Program (STIP) contains projects, funding information, and schedules for state transportation improvements. A project must be included in the STIP to qualify for federal funds and is the basis of determining a financially constrained list of prioritized projects and funding to be completed in the next 6-year timeframe. Projects and programs are included for highways, aviation, enhancements, public transportation, rail, bicycle and pedestrians, and the Governor's Highway Safety Program. The most current STIP budget is based on the certified budget and projections developed by NCDOT and the Office of State Budget and Management and lists projects to be constructed between 2009 and 2015.

There are several highway and corridor projects included for Caswell County in the STIP including providing funds for the purchase of capital equipment, to improve public transportation in rural areas, and to improve regional and inter-city public transportation. Further, a multi-county air quality awareness program to be instituted by the Piedmont Authority for Regional Transportation (PART) would affect Caswell County.

A list of the prioritized projects from the Statewide Transportation Improvement Program (STIP) is available on NCDOT's web site and reproduced in **Table 3** below for those projects located in Caswell County. These projects, whether they are bridge, road, or policy programs, will improve the public transportation system.

**TABLE 3 – STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP) PROJECTS LOCATED IN CASWELL COUNTY**

<b>STIP-ID</b>	<b>In 5-year Work Plan</b>	<b>Route</b>	<b>State Fiscal Year</b>	<b>Project Description</b>
B-3629		SR-1565	-	Country Line Creek. Replace Bridge #11 prong of Country Line Creek. Replace Bridge #72
B-4057		SR-1503	-	Hogan's Creek – Replace Bridge #39
B-4725		SR-1554	-	Country Line Creek – Replace Bridge #12
B-4726	Yes	SR-1723	2013	Bridge 5 over Panther Branch Creek on SR-1723
B-5162		B-5162	-	North Fork Rattlesnake Creek – Replace Bridge #35
B-5189	Yes	Various	2010	Bridge expansion join repair on various structures in Caswell County
C-4936		Various	-	Piedmont Authority for Regional Transportation (PART). Implement a regional air quality awareness program
EE-4907		Various	-	Ecosystem enhancement program for Division 7 Project Mitigation
R-2543		NC49-62	-	US-70 in Haw River to US-158 in Yanceyville. Upgrade roadway and construct multi-lanes at selected locations
R-2560		NC-87	-	SR-1547 in Alamance County to US-29 in Reidsville. Widen to multi-lanes
R-2575		US-158	-	NC-86 west of Yanceyville to SR-1159 (three Hester Road) west of Roxboro. Widen to multi-lanes
R-2586		US-158	-	US-29 at NC-14 to NC-86 west of Yanceyville. Widen to multi-lanes
R-3105		NC-119	-	South of SR-1917 in Alamance County to NC-62 in Caswell County. Widen NC-119 to SR-1901 and construct a connector to NC-62 at new location

STIP-ID	In 5-year Work Plan	Route	State Fiscal Year	Project Description
R-3418		NC-86	-	US-158 to Virginia State Line. Widen to multi-lanes
R-4403		US-158 US-220	-	National Highway System guard-rail rehabilitation. Upgrade sub-standard guardrail, end treatments and bridge anchor units
R-4403		US-15/ US-501, US-29	-	National Highway System guard-rail rehabilitation. Upgrade sub-standard guardrail, end treatments and bridge anchor units
R-5176	Yes	NC-86	2010	Yanceyville to NC-119. Widen for 4-foot paved shoulders
R-5177	Yes	Various	2010	Resurfacing on various federal-aid routes in Caswell Co.
W-4821		US-29	-	US-29 business in Rockingham County north through Caswell County to the Virginia State Line. Install shoulder rumble strips.

Source: NCDOT website: (<https://apps.dot.state.nc.us/projects/search/Default.aspx>)

### ***Performance Plan and Analysis: Caswell County (2009)***

The Performance Plan and Analysis for Caswell County was completed in October 2009, and prepared by the Institute for Transportation Research and Education at North Carolina State University (ITRE). Information including surveys, interviews, vehicle utilization, and funding were collected and analyzed to determine existing business practices and establish performance goals and measures for the County including:

- Expand CDOT service to the residents of Caswell County
  - Increase average daily passengers by 5%
  - Increase passengers per service mile by 5%
  - Increase passengers per revenue mile by 3%
  - Increase passengers per service hour by 1%
  - Increase passengers per revenue hour by 1%
- Implement software that allows staff to become more efficient and effective in scheduling and data reporting processes.
- Decrease need for office staff to fill in for sick drivers.
- Explore coordinating services with neighboring counties.

### **COMMUNITY TRANSPORTATION SERVICE PLAN (CTSP) PROCESS**

The development of the Caswell County CTSP has benefitted from the involvement of a Steering Committee, local and state transportation agencies, and the public. The Steering Committee met twice, once after each technical memorandum to review preliminary findings and provide comments. Public meetings were also held twice, following each of the Steering Committee meetings.

Following release of the Draft Final Report, a third Steering Committee meeting was held to review the preferred alternative and final recommendations. Following a comment period, revisions were made and a Final Report was submitted to CDOT and NCDOT for review.

The final steps in the CTSP process included a presentation of the plan to the CDOT Transit Advisory Board (TAB) for their approval (June 4<sup>th</sup>, 2010 presentation with June 11<sup>th</sup>, 2010 approval) and a later presentation to the Caswell County Commissioners for their acceptance.

## 2. EXISTING SERVICE AND TRANSIT NEED

### SERVICE

CDOT provides demand-responsive public transportation service<sup>3</sup> within Caswell County and to select destinations outside of the County. Service generally operates between the hours of 5:30am and 6:00pm, Monday through Friday. Travel within Caswell County is provided five days a week, while destinations outside of the County are served only on certain days of the week, or days of the month.

Several County agencies and institutions contract with or use CDOT transportation services, as shown in **Table 4** below. Services are also available to the general public.

**TABLE 4 – AGENCIES AND ORGANIZATIONS USING CDOT SERVICES**

Existing contracts with CDOT	Use CDOT services (but not under contract)
Caswell County Senior Center (Golden Friends Congregate Meals, E&D, Medical)	Caswell County Parish
Caswell County Partnership for Children	Caswell County Women’s Shelter
Caswell County DSS (Medicaid, Work First, E&D, etc)	Health Department
Piedmont Community College	

Source: CDOT, 2010

CDOT service is door-to-door. A passenger is picked up from his/her point of origin and is dropped off at his/her specific destination. CDOT will pick up passengers from anywhere within Caswell County, and will provide service to most locations within the destination towns/cities. As such, there are a wide variety of both origin and destination points for CDOT service resulting in the potential for a change in the daily route lengths and times. Several destinations, however, are requested more frequently than others. **Figure 6**, shown previously, displays the most frequently requested destinations within the CDOT service area. **Figures 8 and 9**, shown later, depict the frequency of requested destinations for two weeks in October and December 2009.

Service to Chapel Hill and Durham is determined by the calendar day of the month. **Table 5** shows the dates of each month on which travel to Chapel Hill and Durham is available. The number of days per month on which a passenger can travel to Chapel Hill and Durham ranges from 8 days per month to 11 days per month.

**TABLE 5 – 2010 CDOT TRANSIT SCHEDULE, CHAPEL HILL AND DURHAM ROUTES**

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
4	1	1	5	3	1	2	2	1	1	2	1
6	3	3	7	5	3	6	4	3	5	4	3
8	5	5	9	7	4	8	6	7	7	8	7
12	8	9	13	11	8	12	10	9	11	10	9
14	10	11	15	13	10	14	12	13	13	12	13
19	12	12	19	17	14	16	16	15	15	16	15
21	16	16	21	19	16	20	18	17	19	18	17
22	18	19	23	21	18	22	20	21	21	22	21
	19	23	27	25	22	26	24	24	25	24	23
	23	26	29	27	24	28	26	28	27	29	29
	25				28	30	30	30	29		

Source: CDOT Schedule, 2010

<sup>3</sup> Demand-responsive transit service is comprised of vehicles operating in response to calls from passengers or their agents to the transit operator (Caswell County), who then dispatch a vehicle to pick-up the passenger and transport them to their destination. A vehicle can be dispatched to pick-up several passengers at different pick-up points before taking them to their respective destinations.

Service to Danville, Roxboro, Reidsville, Prospect Hill Clinic, Burlington, or Greensboro is determined by the day of the week. **Table 6** below shows this portion of the 2010 schedule. A designation of “X-Afternoon” denotes routes that can originate in the afternoon due to certain medical offices only being open in the afternoon. The number of days per week that a passenger can travel to any of these locations ranges from two to five times per week. This weekly schedule holds for every week of the calendar year.

**TABLE 6 – 2010 CASWELL COUNTY TRANSIT SCHEDULE, OUT OF COUNTY ROUTES**

	Mon	Tues	Wed	Thurs	Fri
Danville	X	X	X-Afternoon	X	X
Roxboro	X	X	X	X	X
Reidsville	X	X	X	X-Afternoon	X
Prospect Hill Clinic	X			X	
Burlington	X	X	X	X	X
Greensboro	X			X	

Source: CDOT Schedule, 2010

For the 2010 year, CDOT has expanded the service of its routes to out of County destinations, including Chapel Hill, Durham, Reidsville, Burlington, and others. This expansion of service is under review and may be modified as the year progresses to provide service to those routes on days where the most demand is seen.

### ***Reservations and Dispatching***

Service is provided by reservation. CDOT has a reservation window with a cut off time for taking reservations at 1:00pm the day before a trip is needed and takes reservations no earlier than 5 days in advance. All reservations are currently initiated by supporting agencies directly to CDOT, as listed in **Table 4** previously. If requests for service or referral forms from agencies, arrive after 1:00pm the day before, CDOT cannot guarantee service, but attempts to accommodate the need when they can. Once the 1:00pm reservations and referral forms are received, a staff person (scheduler) processes the requests and develops the specific routes and scheduling for the next day. Caswell County does not use real time dispatching (e.g., TripMaker, etc) software at the present time. Therefore, the routing and scheduling of the day-to-day service can be labor-intensive depending on the number of requests and how much lead time is given.

Agencies that use CDOT’s service are generally able to coordinate needs and schedules of their clients resulting in similar transit service needs being grouped. For example, agencies often coordinate to obtain adjacent morning/afternoon appointments for their clients needing to get to Danville, Durham, and/or Reidsville. CDOT driver employees exist in a number that exceeds the daily need; therefore routes can be driven by multiple individuals on an as-needed basis.

CDOT adopted a “no-show” policy in 2006 (amended 2008) to preserve resources. CDOT will enforce suspensions after three no-shows occur within a 45-day period. An individual exceeding this number of no-shows will be suspended from transportation for a period of 30 days. The no-show policy is regularly enforced by CDOT and its member agencies.

The Performance Planning Analysis prepared in October 2009 by ITRE rates the scheduling system as the area of performance most in need of improvement. The analysis recommends that the current “pen and paper” scheduling method and spreadsheet-based data collection system be replaced with scheduling assistance software, more suited to the numbers of trips and passengers that CDOT has begun serving. CDOT is currently working with ITRE to implement a more automated system.

## Passengers

CDOT's transportation service is available to all members of the public, but is most frequently used by clients of human, health, or medical services.

On average, CDOT serves 174 passengers per day, 7 of whom are wheelchair passengers, or 4% of the total users. (Fall 2008 data, ITRE Performance Planning Analysis) This is an increase of 40% from spring 2006 levels.

Additionally, Caswell County increased other performance measures from Spring 2006 to Fall 2008 including:

- passengers per service mile increased by 41%,
- passengers per service hour increased by 36%,
- passengers per revenue mile increased by 36%, and
- passengers per revenue hour increased by 33%.

The Performance Planning Analysis indicates that Caswell County's strongest area is their passenger per service and revenue hour, which are 33-35% higher than their peer group average.<sup>4</sup>

Annual passenger trips, however, show the opposite trend. Total passenger trips have decreased from 40,650 in 2006 to 37,067 in 2008. This is a decrease of 9%.

Delving deeper, **Table 7** shows a representative high and low month of passenger data in the year 2009 for the weeks inclusive within the month. The data illustrates the variability in the frequency with which certain destinations are requested. It also illustrates, graphically in **Figures 8 and 9**, that Yanceyville destination requests consistently out-number other requests.

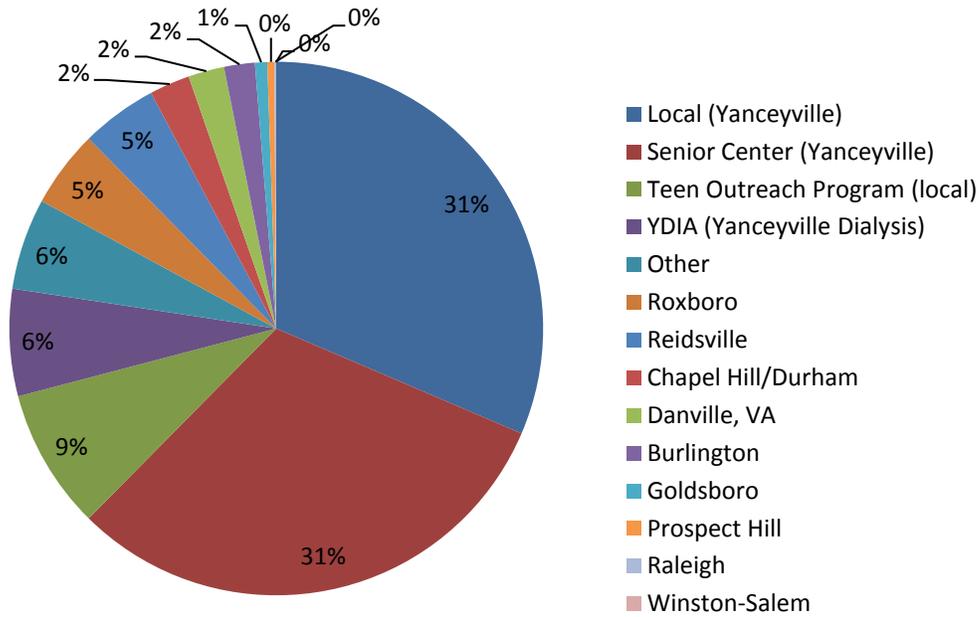
**TABLE 7 – HIGH & LOW MONTH – NUMBER OF PASSENGERS**

	October, 2009					December, 2009				
	5-9	12-16	19-23	26-30	Total	1-4	7-11	14-18	28-31	Total
YDIA (Local Dialysis)	26	38	26	32	<b>122</b>	20	22	30	14	<b>86</b>
Local (Yanceyville)	139	150	146	156	<b>591</b>	119	125	152	106	<b>502</b>
Senior Center	144	146	144	148	<b>582</b>	104	139	130	42	<b>415</b>
Teen Outreach Program (local)	40	40	40	40	<b>160</b>	40	36	36	0	<b>112</b>
Burlington	6	8	11	10	<b>35</b>	6	6	16	10	<b>38</b>
Danville, VA	13	12	6	10	<b>41</b>	54	38	30	5	<b>127</b>
Roxboro	40	17	14	17	<b>88</b>	8	51	18	9	<b>86</b>
Reidsville	21	22	20	24	<b>87</b>	10	14	24	20	<b>68</b>
Prospect Hill	0	6	2	0	<b>8</b>	0	0	0	0	<b>0</b>
Goldsboro	6	2	2	4	<b>14</b>	2	40	4	0	<b>46</b>
Chapel Hill/Durham	16	12	12	6	<b>46</b>	2	16	12	8	<b>38</b>
Winston-Salem	0	0	0	0	<b>0</b>	0	0	2	0	<b>2</b>
Raleigh	0	2	0	0	<b>2</b>	0	0	0	0	<b>0</b>
Other	0	104	0	0	<b>104</b>	0	0	0	0	<b>0</b>
Totals for Week	451	559	423	447	<b>1,880</b>	365	487	454	214	<b>1,520</b>

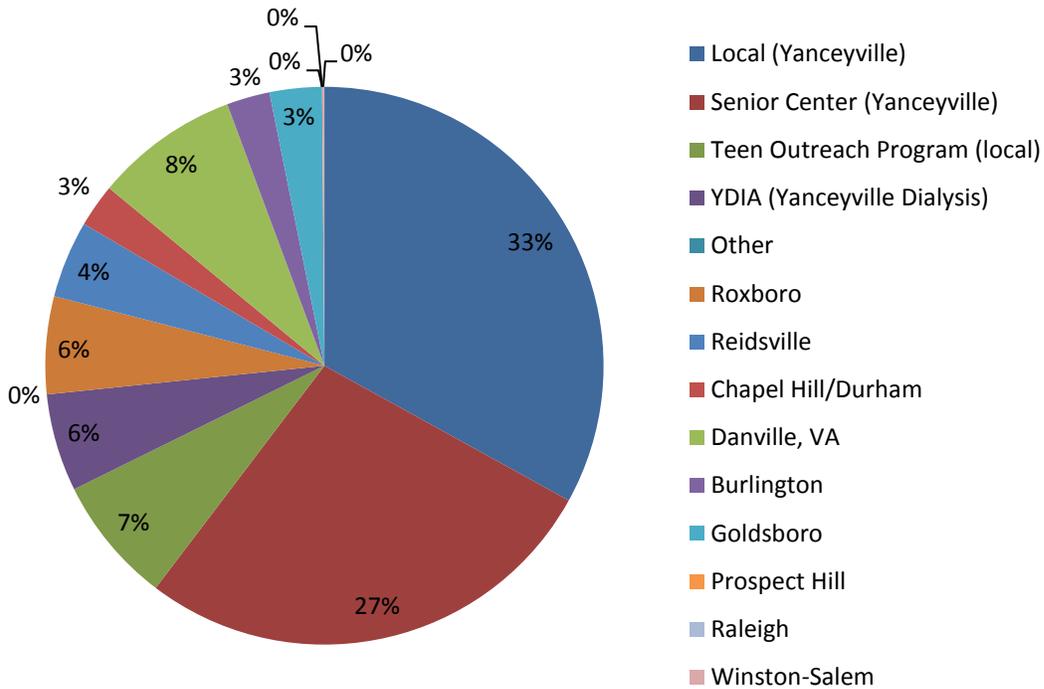
Source: CDOT, 2010

<sup>4</sup> The Report compares Caswell County to other counties in the same geographic region with similar service.

**FIGURE 8 – OCTOBER 2009 TRIPS**



**FIGURE 9 – DECEMBER 2009 TRIPS**



## **ORGANIZATIONAL STRUCTURE**

### ***General***

CDOT is a County agency reporting to the Board of County Commissioners. CDOT is advised by the County Manager and the Technical Advisory Board (TAB).

CDOT's main goal is to provide safe, clean and affordable transportation to the citizens of Caswell County. Its goals include obtaining a new facility, researching subcontractors, as well as continuing to improve its services<sup>5</sup>. CDOT currently has two full time employees, both of which work closely together and meet daily, as well as a number of drivers. **Appendix B** graphically depicts the current organizational structure and staffing of CDOT.

### ***Transportation Advisory Board (TAB)***

The Transportation Advisory Board (TAB) provides oversight and guidance on CDOT's current and future operations. The TAB serves as a liaison between County residents and CDOT on transportation issues and provides policy and program recommendations. The TAB also assists with the development of the County Transportation Plan.

According to the TAB bylaws (see **Appendix C**), TAB is composed of one representative from each human service agency maintaining annual contracts with CDOT (12 on the 2010 Board), one member of the Caswell County Board of Commissioners, and two at-large members appointed by the Board of Commissioners for a current total of 15 TAB members. At-large members serve two year terms with no more than two consecutive terms; Commissioners serve while they are in office; and agency representatives serve continuously without limit. Members are appointed by either the Board of Commissioners (for the county commissioner vacancy) or the contracting organization's director (for contractor representative vacancy). The 2010 TAB members are listed in **Appendix D**.

The TAB holds quarterly regular meetings; in 2010 the Board will meet January 22, April 23, June 4, and October 22. The Chairperson may also call special meetings. Within the Board's bylaws it specifies that any Board member who has more than three consecutive unapproved absences in a 12-month period will be removed from the Board and replaced.

## **OPERATIONS**

Caswell County's demand-responsive transportation service operates five days a week. In the latest year for which there is complete data, FY 2008-2009 (July 2008 through June 2009), CDOT served just over three passengers per operating hour. The cost of operations was calculated at \$10.85 per passenger trip. Costs calculated on a per hour basis, however were three times as high, at \$35.26/hr, while cost per mile was a fraction of the per trip costs, at \$1.24. These and other operational metrics can be seen in **Table 8** below.

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<sup>5</sup> Caswell County Performance Plan, ITRE (October, 2009)

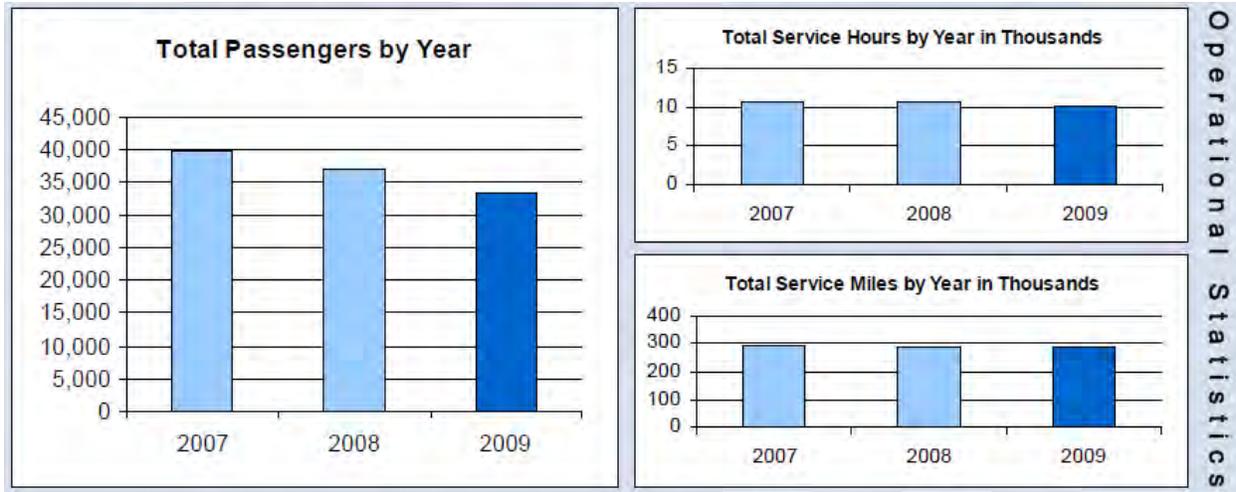
**TABLE 8 – OPERATIONS STATISTICS, FY 2005-2006 THROUGH 2008-2009**

	2005/06	2006/07	2007/08	2008/09
Total Service Miles	295,013	295,567	289,522	291,748
Total Service Hours	10,663	10,716	10,625	10,281
Total Passenger Trips	40,650	39,700	37,037	33,423
Passenger Trips per Hour (M-F)	3.81	3.70	3.48	3.25
Passenger Trips per Mile (M-F)	0.14	0.13	0.13	0.11
Total Passenger Trips per Hour	3.81	3.70	3.49	3.25
Total Passenger Trips per Mile	0.14	0.13	0.13	.11
Cost per Passenger Trip	\$8.01	\$8.50	\$10.30	\$10.85
Cost per Hour	\$30.55	\$31.50	\$35.95	\$35.26
Cost per Mile	\$1.10	\$1.14	\$1.32	\$1.24
Service Miles per Peak Vehicle	26,765	29,557	28,952	29,175
Trips per Driver FTE	6,678	6,661	6,107	5,842

Source: Caswell OPSTATS forms, 2006 through 2009

As can be seen, while total passenger trips and service miles have trended down, costs have trended up. **Figure 10** below compares FY2006/07 total passengers, service hours, and miles to FY2007/08 and FY2008/09 data.

**FIGURE 10 – CASWELL COUNTY FY 2006/07 TO 2008/09 COMPARISON DATA**



Source: FY2008/09 Individual Community Transportation System Operating and Financial Statistics Report

According to the 2009 Performance Planning Analysis Report, CDOT has very few cancelled trip requests. However, it is noted that cancellations are only recorded if the cancellation occurs while a driver is en route to the requested pickup location.

Lastly, Caswell's operations are safe, with zero accidents involving drivers (while utilizing CDOT vehicles) or passengers reported for 2009 data<sup>6</sup>.

<sup>6</sup> Individual Community Transportation System Operating and Financial Statistics Report – NCDOT Public Transportation Division, FY 2009 data.

## **VEHICLES AND FACILITIES**

CDOT currently has a total of 10 vehicles in its fleet inventory, all of which are revenue vehicles. Three of the ten vehicles are equipped with lifts for Americans with Disabilities Act (ADA) clients. Vehicle types include: three wheelchair/lift vans, three center aisle vans, two minivans, one conversion van, and one 24 passenger bus. While the number of passengers accommodated in the vans differs, the maximum is 13 passengers. Seven to eight of these vehicles are generally in use at any one time, while there are times that all 10 or only a few are needed.

CDOT collects vehicle utilization data twice a year, once in the Fall (generally August) and once in the Spring (April). The vehicle utilization data for the CDOT fleet provided below in **Table 9** is from Fall 2008.

**TABLE 9 – CURRENT VEHICLE UTILIZATION DATA, FALL 2008**

<b>Average Weekday Statistics</b>	<b>Hours/Day</b>	<b>Miles/Day</b>	<b>Passengers/Day/Hour</b>	<b>Passengers/Day/Mile</b>
Service	49	1,395	3.56	0.125
Revenue	38	998	4.59	0.175
Deadhead	11	397	n/a	n/a

Source: Performance Planning Analysis, October 2009

As **Table 9** shows, on an average weekday, the County's transit system travels 1,395 service miles. Of this, 72% (998mi) are revenue miles and 28% (397mi) are deadhead miles (miles when no passengers are aboard). The high deadhead mileage may be due to maintenance and fueling trips being included in service and revenue miles.

On that same average weekday, CDOT serves:

- just over three and a half passengers per service hour,
- just over four and a half passengers per revenue hour,
- 0.125 passengers per service mile, and
- 0.175 passengers per revenue mile.<sup>7</sup>

A summary of historical data comparing performance since 2006 can be found in **Table 10**. As is shown, passenger totals have increased across all metrics.

**TABLE 10 – HISTORICAL VEHICLE UTILIZATION DATA, SPRING 2006 TO FALL 2008**

	2006		2007		2008		% Difference (Spring 2006-Fall 2008)
	Spring	Fall	Spring	Fall	Spring	Fall	
Average Daily Passengers	102	84	159	120	181	174	40%
Passengers per Service Hour	2.26	1.88	3.33	2.78	3.47	3.56	36%
Passengers per Revenue Hour	3.10	2.66	4.37	3.75	4.77	4.59	33%
Passengers per Service Mile	0.073	0.066	0.136	0.107	0.120	0.125	41%
Passengers per Revenue Mile	0.112	0.107	0.193	0.152	0.176	0.175	36%

Source: Performance Planning Analysis, October 2009

<sup>7</sup> Service miles and hours are those in which a vehicle is in use on its way to or from serving passengers. Revenue miles and hours occur only while passengers are on board.

CDOT's headquarters are located in a building shared with the Caswell County Emergency Medical Services. All administrative and dispatching efforts originate from the headquarter building. CDOT vehicles are kept in a fenced lot behind the headquarters. There are no maintenance facilities on site. Maintenance for the vehicle fleet is handled at the Caswell County maintenance center. CDOT does not have maintenance tracking software.

## **NEIGHBORING JURISDICTION PROVIDERS**

Several of the Piedmont Triad Area jurisdictions provide transportation services to some degree.

The Piedmont Authority for Regional Transportation (PART) provides regional express bus service to an area south and west of Caswell County. PART Express connects several major cities, including Greensboro, Chapel Hill, High Point, and Winston-Salem. Fourteen fixed routes are offered during weekdays with two routes provided on the weekend. PART vehicles drive 60,000 revenue miles per year, providing 544,061 passenger trips with an average length of 26 miles (FY 2008/09). There are 23 Park & Ride lots scattered across the Piedmont Triad area.

Danville provides both fixed route and demand-responsive ("Reserve a Ride", door-to-door, or door-to-bus stop) service. Danville also provides Handivan service for disabled passengers unable to use the other services. Service is provided Monday through Saturday from 4am until 12:45am. The Danville transit system has 11 fixed bus routes and operates all of its services only within the city limits. Danville also offers "Vintage Theme Trolley" service upon request for groups of ten or more.

Greensboro Transit Authority (GTA) provides fixed route service in Greensboro, and also offers demand-responsive, para-transit services on Specialized Community Area Transportation (SCAT). Fixed route bus service is provided on 15 routes Monday through Friday, 5:15am to 11:30pm and Saturday 6am to 10pm. Not all routes operate into the evening, and select routes offer Sunday service, 6am to 6pm. The sole destination served outside of the Greensboro City Limits is Guilford Technical Community College's Jamestown campus. GTA also operates five connector routes, the Career Express serving the airport area (by reservation only), and seven Higher Education Area Transit (HEAT) routes. HEAT is a partnership between GTA and institutions of higher learning. GTA and HEAT, combined, provide approximately 2.7 million passenger trips per year and their vehicles travel 2,170,000 revenue miles per year.

Winston-Salem Transit Authority (WSTA) offers fixed route bus and demand-responsive paratransit services to the Winston-Salem area. WSTA provides fixed route service on 27 routes Monday through Saturday from 5:30am to 12 midnight and Saturday from 6:30am to 6:30pm. WSTA also offers two connector routes, a park and shuttle route for downtown commuters and a downtown-only trolley. Trans-AID, WSTA's demand-responsive service, provides curb-to-curb service to eligible residents of Winston-Salem and Forsyth County. WSTA makes over 2 million passenger trips annually.

High Point Transit System, or "Hi Tran," provides fixed route bus and demand-responsive service to the City of High Point. Fixed route service is provided on 12 routes, Monday through Friday from 5:45am to 6:30pm and Saturday from 8:45am to 5:15pm. Hi Tran also offers demand-responsive paratransit service, Dial-A-Lift. Dial-A-Lift provides both curb-to-curb and door-to-door service.

Orange County Public Transit (Orange Bus) provides a variety of public transportation services to the citizens of rural Orange County (excluding Chapel Hill/Corrboro city limits) from 6am to 6pm Monday-Friday. Transit includes fixed bus and demand-responsive service to the County. The fixed route is provided in partnership with Triangle Transit Authority (TTA route 420) between Chapel Hill and Hillsborough, serving downtown Hillsborough, Triangle SportsPlex, Chapel Hill North Shopping Center, downtown Chapel Hill, and UNC Hospital. Non-emergency door-to-door transportation to area medical facilities in Orange and Durham counties can be arranged for the elderly/disabled with one working day notice. This service is also available to the general public on a seat available basis.

Person County Transportation System (PATS) provides service Monday through Friday from 8:30am to 5pm to clients of human service agencies within Person County including the Department of Social Service, Health Department, DaVita, Person Industries, Person County Council on Aging, Inc, and Vocational Rehabilitation Services. Public ridership fees vary depending on the distance traveled. Non-emergency door-to-door transportation to neighboring medical services can be arranged on a seat available basis. In town same day service is available.

Alamance County Transportation Authority (ACTA) provides transportation for the elderly, disabled, and general public Monday to Friday 6am to 6pm. ACTA serves all of Alamance County with residential services provided to Duke, Chapel Hill, and Greensboro. Rates vary depending on distance and type of ride necessary. Same day, non-emergency service is available for the general public.

## **ANALYSIS OF EXISTING MANAGEMENT AND FUNDING**

CDOT is currently well-managed and is sufficiently funded. CDOT actively pursues its mission to provide safe and efficient transportation to the citizens of Caswell County.

CDOT has indicated a desire to grow the service they offer and meet the needs of a greater number of Caswell County residents (specifically the general public). To support this growth, additional funding and certain changes to management procedures may be needed.

### ***Performance Measurement Methods***

Performance is currently measured by traditional means, tracking operational statistics (passenger units per mile, service hour, etc.) and maintaining a balanced budget. Improved measures and milestones will aid CDOT in tracking progress and also provide statistics to obtain and report on existing and future funding.

The Institute for Transportation Research and Education (ITRE) at North Carolina State University completed a Performance Plan and Analysis for Caswell County in October 2009. The study collected information and analysis to establish performance goals and measures for the County. Those include:

- Expand CDOT service to the residents of Caswell County
  - Increase average daily passengers by 5%
  - Increase passengers per service mile by 5%
  - Increase passengers per revenue mile by 3%
  - Increase passengers per service hour by 1%
  - Increase passengers per revenue hour by 1%
- Implement software that allows staff to become more efficient and effective in scheduling and data reporting processes.
- Decrease need for office staff to fill in for sick drivers.

The alternatives considered in this study would help achieve all of the measures listed above from the Performance Plan and Analysis for Caswell County (October 2009).

The Transit Cooperative Research Program (TCRP) published a report on measuring rural demand-responsive transportation, "Report #136, Guidebook for Rural Demand-Response Transportation (DRT): Measuring, Assessing, and Improving Performance" (2009). In the report, TCRP identifies six key performance measures for rural DRT systems. These metrics are identified in **Table 11** below; the table also shows CDOT's FY 2008-2009 value for the metrics.

**TABLE 11 – KEY DEMAND-RESPONSE TRANSPORTATION PERFORMANCE MEASURES**

DRT Performance Measure		FY 2008-2009 CDOT Data
1	Passenger Trips per Vehicle-Hour	3.25
2	Operating Cost per Vehicle-Hour	\$35.26
3	Operating Cost per Vehicle-Mile	\$1.24
4	Operating Cost per Passenger Trip	\$10.85
5	Safety Incidents per 100,000 Vehicle-Miles	0 <sup>1</sup>
6	On-Time Performance <sup>2</sup>	Not available

Source: TCRP #136: Guidebook for Rural Demand-Response Transportation Measuring, Assessing, and Improving Performance (2009); data from Caswell County OpStats Report Form, FY 2008-2009

**Notes:**

<sup>1</sup> TCRP uses NTD definitions for safety incidents.

<sup>2</sup> TCRP defines an on-time trip as, “trips where the DRT vehicle arrives at the scheduled pick-up location within the DRT system’s definition of on-time.”

CDOT maintains operational and statistical data and reports it annually to the state department of transportation (NCDOT). The only measure for which CDOT does not currently maintain data is on-time performance. This study recommends that CDOT begin tracking this measure for future reporting. Driver manifests/schedules contain estimated departure and arrival times for each trip; any arrival delays (in excess of 10 to 15 minutes) encountered could easily be noted next to an individual trip. This data can then be tracked and used as a performance measure, expressed in relation to the percentage of on-time trips.

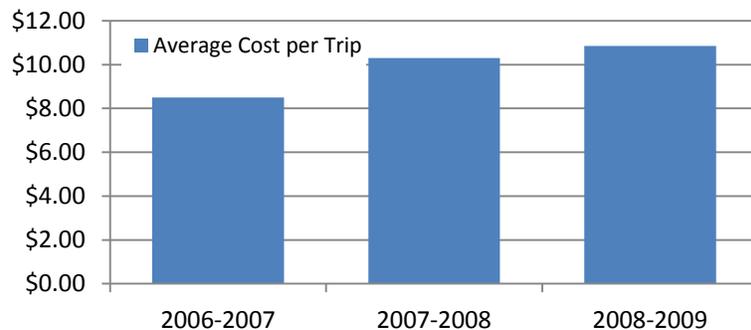
The *Implementation Plan* of this report provides a series of recommended performance measures specific to this CTSP’s preferred alternative. It is recommended that the transit agency, Caswell’s Transit Advisory Board (TAB), and NCDOT work together to both track the general Demand Responsive Transportation (DRT) metrics described in **Table 11** above and the alternative specific performance measures described in the *Implementation Plan* (See Section 4 of this report).

## Costs

### Historical Costs

The average cost per passenger trip has risen over the past three years. As shown in **Table 8** above showing the operations statistics, 2006 through 2009, the average cost per trip has increased from \$8.50 in 2006-2007 to \$10.85 in 2008-2009. Based on National Transit Database information, CDOT fares (as shown above) are consistent with similar systems throughout the United States. **Figure 11** below shows that the average cost per trip increased by approx. 25% between 2006-2007 and 2008-2009.

**FIGURE 11 – AVERAGE CDOT PASSENGER COST PER TRIP (2007-2009)**



Source: FY2008/09 Individual Community Transportation System Operating and Financial Statistics Report

Caswell County’s annual budget tracks administrative, operating, and capital expenses. **Table 12** displays this data for fiscal years 2006-2007 through 2008-2009.

**TABLE 12 –EXPENSES BY TYPE AND FISCAL YEAR, 2005/06 THROUGH 2008/09**

Expense Type	2005/06	2006/07	2007/08	2008/09
<b>Administrative</b>				
Personnel Salaries and Fringes	\$59,108	\$63,401	\$61,993	\$64,676
Advertising and Promotion	\$980	\$2,089	\$2,340	\$2,234
Employee Development	\$1,470	\$767	\$1,022	\$996
Vehicle Insurance Premiums	\$3,113	\$3,122	\$3,884	\$4,027
Indirect Services Expenses <sup>1</sup>	\$27,962	\$23,963	\$30,852	\$32,097
Other Expenses <sup>2</sup>	\$300	\$10,424	\$12,226	\$15,484
	\$10,579	\$0	\$0	\$0
<i>Administrative Subtotal</i>	<i>\$103,512</i>	<i>\$103,765</i>	<i>\$112,317</i>	<i>\$119,514</i>
<b>Operating</b>				
Driver Salaries and Fringes	\$150,617	\$161,078	\$181,951	\$160,258
Fuel/Oil	\$47,084	\$48,655	\$55,514	\$43,673
Vehicle Maintenance	\$12,796	\$12,008	\$7,764	\$11,968
Payment of Insurance Deductible	\$2,000	\$0	\$1,000	\$0
Disposal of Vehicle	\$0	\$0	\$0	\$309
Other <sup>3</sup>	\$9,748	\$12,027	\$23,378	\$26,828
<i>Operating Subtotal</i>	<i>\$222,246</i>	<i>\$233,768</i>	<i>\$269,608</i>	<i>\$243,036</i>
<b>Administrative and Operating Subtotal</b>	<b>\$325,758</b>	<b>\$337,533</b>	<b>\$337,533</b>	<b>\$362,550</b>
<b>Capital</b>				
Capital Purchases	\$23,377	\$103,759	\$88,398	\$698
Body Work on Wrecked Vehicle	\$952	\$0	\$0	\$0
Advanced Technology Purchases	0	\$0	0	0
<b>Capital Subtotal</b>	<b>\$24,329</b>	<b>\$103,759</b>	<b>\$88,398</b>	<b>\$698</b>
<b>TOTAL ALL EXPENSES</b>	<b>\$350,087</b>	<b>\$441,292</b>	<b>\$425,931</b>	<b>\$363,248</b>

Source: Individual Community Transportation System Operating and Financial Statistics Reports, FY2005/06 through FY2008/09  
Notes:

<sup>1</sup>Includes utilities, communications, printing, office expenses.

<sup>2</sup>Line item used only in FY2005/06 and includes travel, telephone, natural gas, water & sewer, M&R office equipment, postage, electricity, office supplies, drug testing, janitorial supplies, maintenance.

<sup>3</sup>Includes Uniforms, CDL, property/liability insurance and drug testing.

This data is consistent with economic trends including increasing gas prices, suggesting that the expenses of doing business may continue to increase.

### Current Costs

Existing costs for FY 2008/09 are presented in **Table 13** below. Total administrative/capital costs were \$362,550, approximately one-third of those being fixed costs (not in direct relation to the amount of service provided). The remaining costs are variable, or ones that would be expected to increase as the passenger trips, service hours, and miles increase. Using these variable costs, a limited cost per service hour and mile can be determined, \$15.59 per service hour, \$0.28 per service mile. These metrics, however, account only for the actual duration of the trip – they do not take into account the costs of ensuring that administrative staff is available to arrange for the trip, or has access to phone service in order to coordinate with the passenger in advance of the trip. A third cost metric, provides a more complete view of costs of doing business. Fully allocated cost per hour compares the total of all costs to the number of hours the transit agency has provided service. For CDOT, the fully allocated cost of providing CDOT service, per hour, is \$35.26.

**TABLE 13 – COST MODEL, FY 2008/09**

Line Item	Expense	Cost Allocation			
		Fixed Costs <sup>1</sup>	Vehicle Service		Revenue Vehicle
			Hours	Miles	
Employee Salaries and Fringes					
Administrative	\$64,676	\$64,676			
Operating/driver	\$160,258		\$160,258		
Office Expenses	\$47,581	\$47,581			
Advertising	\$2,234	\$2,234			
Insurance	\$4,027				\$4,027
Professional Development	\$996	\$996			
Vehicle and Equipment Operating	\$55,950			\$55,950	
Operating Expenses, other	\$26,828			\$26,828	
<b>TOTAL</b>	<b>\$362,550</b>	<b>\$115,487</b>	<b>\$160,258</b>	<b>\$82,778</b>	<b>\$4,027</b>
	Unit Quantities		10,281	289,522	10
	Cost Per Unit		\$15.59	\$0.28	\$402.70
	<b>Fully Allocated Cost per Hour</b>	<b>\$35.26</b>			

Source: Caswell County OpStats Report Form, FY 2008-2009

**Notes:**

<sup>1</sup> Fixed costs do not directly/only correlate with hours or miles. It should be noted, however that the fixed costs are not necessarily constant; if there were extreme growth (or reduction) of services, then this cost might increase or decrease.

***Revenues and Funding***

CDOT benefits from a variety of sources of revenue including: federal, state, and local funding; service contract revenue; farebox and donation revenue; and interest earned on endowment funds.

Revenue, or farebox revenue, is collected from users. Some of these agencies, or funding sources, maintain contracts with CDOT while others request services on an as-needed basis. As shown in **Table 4** previously, the agencies that utilize CDOT transportation services include:

- Caswell County Senior Center (Golden Friends Congregate Meals, E&D, Medical)
- Caswell County Partnership for Children
- Caswell County DSS (Medicaid, Work First, E&D, etc)
- Piedmont Community College
- Caswell County Parish
- Caswell County Women’s Shelter
- Health Department

CDOT billing rates and methods vary between funding source (provider requesting trips for clients). According to the 2009 Performance Planning Analysis, Medicaid trips are charged \$23.32 per unit; rural general public (RGP) trips are billed according to destination -- \$5/round trip for in County, \$7/round trip for near out of County (Roxboro, Reidsville, etc) and \$10/round trip for far out of County (Chapel Hill and Greensboro). All other sources are billed \$1.04 per revenue mile for either in or out of County boundaries. Caswell County currently uses the CTP Cost Allocation and Rate Setting Model (version 3.1). The 2009 Performance Planning Analysis prepared by ITRE recommends that CDOT update this model. Comparing these fares with similar systems throughout the United States as listed in the National Transit Database, the fares charged by CDOT are on-par with similar systems. For the remainder of the document, it is assumed the fare structure will remain consistent with existing fares.

For fiscal years 2005-2006 through 2008-2009, CDOT has brought in more money than it has spent. This is atypical for transit agencies, and supports the statement that CDOT is well-managed financially. **Table 14**

below displays revenues for FY2005/06 through FY 2008/09. **Appendix A** provides additional information on the different funding programs listed below.

**TABLE 14 – REVENUE BY TYPE AND FISCAL YEAR, 2005/06 THROUGH 2008/09**

Revenue Type	FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09
<b>Administrative and Operating Funding</b>				
Federal Assistance - Section 5311 - CTP Funds - Administrative <sup>1</sup>	\$65,126	\$68,978	\$72,234	\$78,125
State Assistance - CTP Funds - Administrative	\$4,070	\$4,311	\$4,515	\$4,883
State Assistance – ROAP Funds Sub-allocated to the Transit System	\$36,992	\$36,313	\$40,452	\$45,257
Local Assistance - Administrative Funds	\$12,211	\$12,933	\$13,544	\$14,648
Contract Revenue	\$268,544	\$228,649	\$245,555	\$260,958
Fares/Donations from passengers <sup>2</sup>	\$7,738	\$6,101	\$6,840	\$6,363
Proceeds from Sale of Vehicle(s) <sup>3</sup>	\$0	\$0	\$11,602	\$5,868
Interest Income	\$12,392	\$15,025	\$14,277	\$10,546
Subtotal Revenue	\$407,073	\$372,311	\$409,018	\$426,648
Debit to Revenue - Unspent ROAP Funds	\$0	\$0	\$7,000	\$13,853
<b>TOTAL ADMIN/OPERATING REVENUE</b>	<b>\$407,073</b>	<b>\$372,311</b>	<b>\$402,018</b>	<b>\$412,796</b>
<b>Capital Funding</b>				
Federal/State Assistance- Capital - Vehicles & Others	\$20,514	\$93,383	\$62,980	\$628
Local Assistance- Capital Funding	\$2,279	\$10,376	\$6,998	\$70
Insurance Proceeds from Accident	\$952	\$0	\$14,363	\$0
Other	\$0	\$0	\$57	\$0
<b>TOTAL CAPITAL REVENUE</b>	<b>\$23,745</b>	<b>\$103,759</b>	<b>\$84,398</b>	<b>\$698</b>
<b>TOTAL ALL REVENUE</b>	<b>\$430,818</b>	<b>\$476,070</b>	<b>\$486,416</b>	<b>\$413,494</b>
<i>TOTAL ALL EXPENSES</i>	<i>\$350,087</i>	<i>\$441,292</i>	<i>\$425,931</i>	<i>\$363,248</i>
<b>NET DIFFERENCE/CREDITS TO RESERVE FUNDS</b>	<b>\$80,731</b>	<b>\$34,778</b>	<b>\$60,485</b>	<b>\$50,246</b>

Source: Individual Community Transportation System Operating and Financial Statistics Reports, FY2005/06 through FY2008/09

Notes:

<sup>1</sup> Caswell County receives no 5311-CTP/Operating funds, nor any New Freedom or JARC program funding.

<sup>2</sup> While the line item is fares/donations, all revenue is from fares.

<sup>3</sup> Funds may be used only for administrative or operating costs.

Between FY 2005-2006 and FY 2008-2009, overall revenue has trended up, FY 2006-2007 being the one exception. Fares/donations from passengers show an overall decrease over time, diminishing from \$7,738 to \$6,363 over the same period. These shifts may reflect economic changes and a growing reliance on funding sources to aid in funding public transportation systems throughout the U.S.

Revenues shown above in **Table 14** exceed expenses for those same fiscal years, as detailed in **Table 12**. The net difference between these revenues and actual expenses has yielded credits to the transit service. As shown in the last row of **Table 14**, over the last four fiscal years, Caswell County has seen a net gain of \$226,240. These credits represent a portion of the approximately \$400,000 in reserve funds currently held by CDOT.

It may also be noted that CDOT did not spend all allocated ROAP funds in FY 2007-2008 or FY 2008-2009. In fact, almost twice as many ROAP funds were returned in FY 2008-2009 than in FY 2007-2008. Rural general public (RGP) ridership is projected to increase, thereby utilizing more of the ROAP funds allotted in the next few years.

**Table 15** below depicts funding levels by source type for administration and capital expenses. While the individual dollar amounts change across the studied years, the percentages of federal, state, and local contributions remain relatively constant.<sup>8</sup>

<sup>8</sup> The FY 2009-2010 budget (dated 7/1/2009) has only administration funding, no capital funding.

**TABLE 15 –FUNDING PERCENTAGES BY SOURCE TYPE**

	<b>TOTAL</b>	<b>FEDERAL</b>	<b>STATE</b>	<b>LOCAL</b>
Administration	100%	80%	5%	15%
Capital	100%	80%	10%	10%

Source: Caswell County Community Transportation Program FY 2007-2008, FY 2008-2009, FY 2009-2010

Existing revenue data effectively tracks the allocations of funding sources and contract revenue for the public transportation system. Rural General Public (RGP) farebox revenue is tracked less closely in Caswell County. As described in the alternatives, improving the RGP trip tracking and distinguishing RGP revenue from donations, will allow more accurate reporting and performance tracking. This reporting will become increasingly critical as CDOT implements initiatives from its CTSP and fulfills its federal and state reporting requirements.

As CDOT examines opportunities for additional revenue, the federal Job Access and Reverse Commute Program (JARC – Section 5316) should be considered as a possible funding source. JARC provides capital planning and operating expenses to states for projects that transport low income individuals and welfare recipients to and from jobs and activities related to employment. CDOT would be eligible as a sub-recipient; states and public bodies are eligible designated recipients. JARC is a formula-based program (target population) that can be used for capital, operating, administration, or planning projects.<sup>9</sup> Funds are awarded by competitive selection and in accordance with local plans.

### ***Marketing and Public Involvement***

CDOT’s services are valued highly by existing riders, and by word of mouth, CDOT maintains a solid and relatively consistent rider-base. CDOT also aggressively markets its services through several local outlets – advertising in newspapers, event programs, and similar. Several human service agency providers in the area directly contract with CDOT for services, and this also serves as a form of de facto marketing for CDOT. To achieve the goals of changing transit needs and better educating the general public, CDOT will have to develop a more direct or targeted marketing and education program for the residents of Caswell County.

All three preliminary alternatives, as well as the preferred alternative, presented below include strategies for public education, awareness, and promotional programs. These strategies will become increasingly more important as changes to service, branding, and even facilities change.

## **UNDERSTANDING TRANSIT NEEDS**

### ***Surveyed Users***

A CDOT service survey was conducted as part of this study. A total of 37 responses were received: 4 human service agency directors, 23 human service agency passengers, and 10 general public. Respondents were asked to describe how frequently (if at all) they used the service, how they used the service, and how they arranged for their travel. Questions also addressed satisfaction with the service and areas for improvement. The complete survey instrument and a more detailed summary of all the responses are available in **Appendix E**.

The results of this survey’s study correspond with survey results compiled for the Locally Coordinated Plan survey completed in 2009. Alternatives and strategies presented in this report respond to both sets of results.

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<sup>9</sup> Capital and planning projects require an 80/20 federal to local match; operating projects require a 50/50 federal to local match; administration projects, up to 10% of recipient’s total, is funded at 100%.

### Human Service Agency Directors

Three of the four respondents in this group maintain contracts with CDOT, using the service anywhere from twice a month to every day. The reservation process was described as manageable and all agencies arrange for transportation for their clients. All respondents reported being satisfied with the service; all also cited extended weekday hours (late afternoon, evening) and weekend service as being suggested areas for improvements.

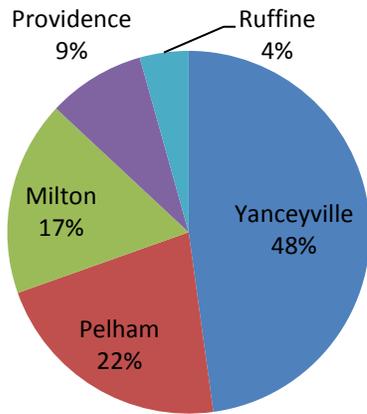
### Human Service Agency Passengers

Between February 18 and 26, 2010, 23 passengers responded to questions regarding CDOT service. For all of the respondents, their point of origin was their home. Almost half (43%) of the passengers were traveling to the Senior Center in Yanceyville; the remainder were traveling to various locations for medical appointments. All of the respondents had used CDOT services before the surveyed trip, using the service anywhere from once every six months to twice a week. All respondents indicated that arranging for their travel was easy.

Convenience was cited most frequently as something surveyed passengers like most about the service. Other characteristics that respondents like most about the service include: timeliness; kindness, politeness, and quality of drivers; safety; and ability to reach desired destinations. The vast majority of respondents cited only aspects of the service that they liked, rather than disliked. Some responses indicated wanting more evening weekday service, being able to eat in the vehicle during long trips, and not having to wait so long for a return trip.

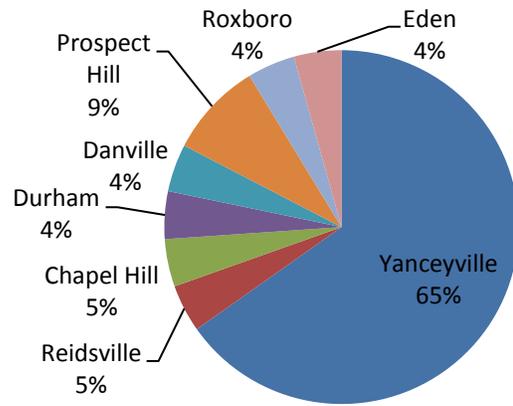
Figures 12, 13, and 14 below, show passenger responses with respect to trip origination points, destination points, and departure time. It should be noted that the figures below represent survey responses only.

**FIGURE 12 – SURVEYED HUMAN SERVICE AGENCY PASSENGER ORIGATION POINTS**



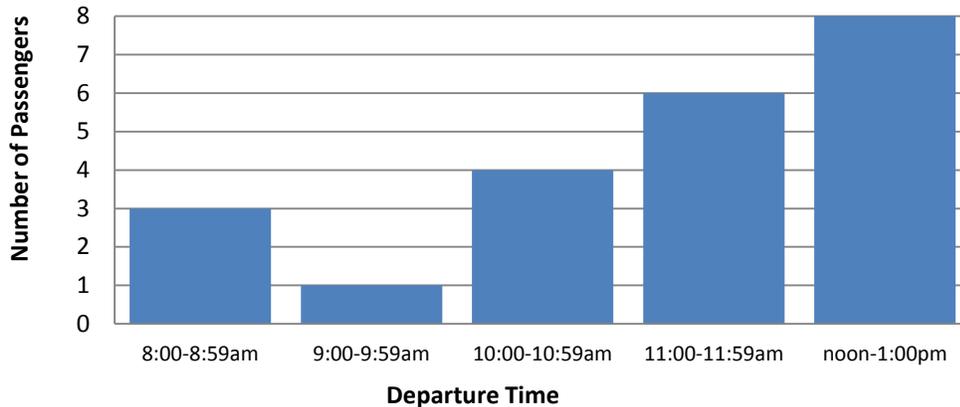
Source: CDOT user survey, 2009

**FIGURE 13 – SURVEYED HUMAN SERVICE AGENCY PASSENGER DESTINATION POINTS**



Source: CDOT user survey, 2009

**FIGURE 14 – SURVEYED HUMAN SERVICE AGENCY PASSENGER DEPARTURE TIMES**



Note: one trip did not have a departure time

Source: CDOT user survey, 2009

**General Public**

Of the 10 general public respondents, 9 regularly use CDOT services. The majority of respondents stated the reasons for using the service included travel to doctor appointments and work.

***Locally Coordinated Public Transit – Human Service Transportation Plan Survey***

A similar survey was conducted by the Piedmont Triad Rural Planning Organization in association with the Locally Coordinated Public Transit – Human Service Transportation Plan, May 2009. From this survey, the following items were identified:

- 70% of respondents supported the goal of increasing public transportation options.
- Enhancing public transportation was identified as the most pressing transportation issue facing the County.
- Survey respondents indicated a desire for increased access to destinations in Danville, VA and the Raleigh-Durham Research Triangle Park (RTP) area.
- The highest priority was to identify and construct a new administration facility.
- The most cited issue with service is the need to explore subcontracting services for evening and out of county trips.

Other items that have been identified in sources from Caswell County include:

- Provide more information regarding the system on-line.
- Research potential for new funding sources not currently being utilized.
- Integrate the reservation and scheduling system.
- Continue to explore service for older and disabled populations.
- Increase public education efforts on available services, programs and eligibility, requirements, etc.
- Explore the possibility of providing fixed-route service.
- Increase bilingual services provided.

***Overlapping Service***

CDOT is the sole provider of public transportation in Caswell County. Services between CDOT and neighboring jurisdictions do not overlap significantly. Currently, there is not coordinated service between CDOT and neighboring jurisdictions. Although there are certain locations serviced by CDOT outside the County limits that

could also be served by neighboring jurisdictions, it has been the practice of CDOT to deliver their clients to their destination rather than meet up with neighboring jurisdiction service and necessitating a transfer to one's final destination.

Because CDOT's service currently provides door-to-door service and has few limitations on specific destinations that can be requested (outside of being limited to cities/towns specified), connecting existing service with neighboring county systems is not seen as a high priority or need. However, Caswell County is currently exploring the potential of utilizing subcontractors to provide trips requested outside their operating hours.

### ***Coordination with Neighboring Providers***

As stated previously, there is some level of overlapping service for those areas CDOT serves outside of the County. Some of this duplication of effort could be removed with coordination with neighboring providers but a transfer by clients would be required. As an example, CDOT will provide door-to-door service to many locations in Danville, several of which are likely to be on Danville's fixed route bus service. However, as described earlier, staff feels that at this time, CDOT's services are specialized enough that passenger needs exceed the need to not overlap. It is possible that as demand for services grows, CDOT may want to investigate ways to increase efficiency and preserve resources by coordinating with neighboring providers.

## **3. VISION, GOALS, AND OBJECTIVES**

Caswell County's transit mission is to provide safe and efficient transportation to the citizens of Caswell County. CDOT currently pursues this mission through demand-responsive van and bus service for Caswell residents. The vast majority of the transit users, as previously discussed, are human service agency clients which are only a portion of County residents. The vision of this CTSP is to continue existing, strong service but also to expand and serve more of the County's residents.

### **GOALS AND OBJECTIVES**

Several goals, objectives, and strategies have been developed to support CDOT's core mission and to guide the development and performance measurement of this CTSP. Goals for the CTSP are in line with the North Carolina Department of Transportation's goals (as presented in the 2004 Statewide Transportation Plan), and will allow CDOT's efforts to be directly tied back to statewide efforts and programs.

The goals for the Caswell CTSP are aspirational statements, describing desired outcomes in broad terms. Five far-reaching goals are identified:

1. Provide reliable, safe, and efficient transit, para-transit service, and multi-modal options to Caswell County residents including the general public, low income individuals, elderly persons, and/or persons with disabilities.
2. Ensure that public transportation and transit decisions support community growth and development as well as Caswell County's larger economic, social, and educational goals.
3. Maintain, preserve, and grow public transportation as a viable multi-modal option for all Caswell residents.
4. Manage Caswell County's public transportation system to both grow and remain fiscally sustainable including integration of all federal, state, local, and private programs supporting public and human service transportation.
5. Develop a cost-constrained implementation plan that is based on performance measures to gauge effectiveness.

These goals will support Caswell County's Transit System (CDOT) in providing better service to all residents, building capability to expand, and to be a viable option when making transportation decisions in the County.

Objectives describe how to accomplish goals. Objectives are concrete statements for which individual strategies or actions (as included in the alternatives) are identified and accomplished. Caswell objectives include:

- Increase ridership, targeting both the general public and human service agency passengers
- Educate existing and future riders regarding transit options available to them
- Improve the brand recognition for Caswell County’s transit services
- Support staff development and grow administrative capacity
- Continue to grow financial resources, making the best use of both available funding and existing and new revenue sources
- Coordinate with other Caswell agencies, and neighboring jurisdiction providers

## 4. IMPLEMENTATION PLAN

### ALTERNATIVES

Three preliminary alternatives for service and operations were developed for this study. Alternatives draw from recommendations in earlier studies (e.g., Locally Coordinated Plan, ITRE’s Performance Plan, etc.), goals, objectives, and survey results. Management and financial analysis (discussed in the preceding section) also contributed to alternative development. A fourth alternative was developed as a combination of the three preliminary alternatives during the second Steering Committee meeting and has been identified as the preferred alternative for this plan. Alternative 4, the preferred alternative is discussed in the next section.

Each alternative contains both service and operational strategies/recommendations. The two types are paired to underscore the need to grow both service and operations in tandem, as well as denote the reliance of certain services on specific operational changes.

Alternative 1 offers a core set of recommendations intended to aid CDOT in achieving its primary goals. Alternative 2 includes all recommendations from Alternative 1, but includes additional strategies and actions that would result in a more robust public transportation system. Alternative 3 builds upon all preceding recommendations and is the most aggressive of the preliminary alternatives presented. The preferred alternative, Alternative 4 includes several elements from Alternatives 1 through 3, and proposes a more gradual growth of public ridership and increases service in increments.

**Table 16** below summarizes the characteristics of each alternative. Following the summary table, the elements of each alternative are described. A cost estimate for each alternative is also provided.

**TABLE 16 – SUMMARY OF ALTERNATIVES**

Service		Administrative/Operational
Alt 1: Demand Responsive – Improved Times	<ul style="list-style-type: none"> <li>• Grow RGP service by 10% annually</li> <li>• Extend evening service until 7pm Mondays and Thursdays</li> <li>• Continue evaluation and implementation of service to additional destinations</li> </ul>	<ul style="list-style-type: none"> <li>• Rebrand the service</li> <li>• Procure and utilize TripMaker for scheduling</li> <li>• Begin service awareness/public education campaign</li> <li>• Improve tracking of mileage (deadhead versus operation)</li> <li>• Plan for and procure new administrative space</li> <li>• Track RGP passenger trips</li> </ul>
Alt 2: Demand Responsive – Improved Times and Routes	<ul style="list-style-type: none"> <li>• Grow RGP ridership by 20% annually</li> <li>• Extend evening service until 7pm Mondays and Thursdays</li> <li>• Add weekend service two Saturdays a month</li> <li>• Continue evaluation and implementation of service to additional destinations</li> <li>• Establish scheduled Senior Center routes</li> </ul>	<p>All of the above, and:</p> <ul style="list-style-type: none"> <li>• Enhance driver training program</li> <li>• Implement extensive awareness and promotion program</li> <li>• Identify and target new funds</li> </ul>
Alt 3: Demand Responsive – Improved Times, Routes, and Implement Deviated Fixed Route Service	<ul style="list-style-type: none"> <li>• Grow RGP ridership by 30% annually</li> <li>• Extend evening service until 7pm Mondays and Thursdays</li> <li>• Add weekend service two Saturdays a month</li> <li>• Continue evaluation and implementation of service to additional destinations</li> <li>• Establish scheduled Senior Center routes</li> <li>• Develop a monthly pass for RGP riders</li> <li>• Provide transit rider amenities</li> <li>• Develop a deviated fixed route for Yanceyville</li> </ul>	<p>All of the above and:</p> <ul style="list-style-type: none"> <li>• Assess feasibility of upgrading TripMaker scheduling software to next level of scheduling software(i.e., RouteMatch<sup>10</sup> or similar)</li> <li>• Hire part-time (1/2 FTE) administrative assistance</li> </ul>
Alt 4, Preferred: Improved Times, Routes, Graduated Growth	<ul style="list-style-type: none"> <li>• Grow RGP by 10% over 5 years</li> <li>• Extend evening service to Danville and Reidsville</li> <li>• Establish shopping loop service in Yanceyville</li> <li>• Develop County-Yanceyville in-bound service</li> </ul>	<ul style="list-style-type: none"> <li>• Procure and utilize TripMaker for scheduling</li> <li>• Plan for and procure new administrative space</li> <li>• Rebrand the service</li> <li>• Implement public education campaign</li> <li>• Enhance driver training program</li> </ul>

<sup>10</sup> RouteMatch requires a minimum of 300 passenger trips/day

## ***Alternative 1: Demand Responsive – Improved Times***

This alternative supports all of the goals. It emphasizes increasing ridership, improving brand recognition, and educating existing and future transit riders. It also takes some very critical first steps toward growing the operational efficiency of CDOT.

### **Service Elements**

**Grow general public ridership by 10%.** Central to achieving stated transit goals is increasing ridership. Alternative 1 includes a focus on the rural general public (or RGP) and recommends focusing growth efforts exclusively on this group. Human service agency passengers are currently well-served by CDOT service and will continue to be, but other groups are less so. As there is currently no accurate baseline from which to measure RGP ridership in Caswell County, a critical first step is accounting for these passengers (see operation elements below). Fares collected are tracked, but are grouped with donations in the budget. If the entire budget line item for fares and donations is attributed to RGP passengers (assuming an average one-way fare of \$3), growth of 10% above FY 2008-2009 levels might be approximately 2,300 annual trips, or close to 45 trips per week.<sup>11</sup> This service growth would require additional driver hours and vehicle operational costs, but is anticipated to not require additional capital expenditures.

**Extend evening weekday service to 7pm.** Alternative 1 service includes extended late afternoon/evening service – until 7pm is recommended – on Mondays and Thursdays. These two days of the week were selected because each has four or more out-of-county destinations served on these days, according to the 2010 schedule (see **Appendix F**). The addition of evening service is a direct response to passenger survey responses, both from this study’s survey and the one conducted for the Locally Consolidated Plan (2009). For human service agency passengers, this provides the ability to schedule and attend afternoon medical appointments. The additional service hours may also be attractive to RGP potential passengers allowing them to utilize the service to/from work/school. If there is sufficient demand, evening service could be provided additional weekdays.

**Continue evaluation and implementation of service to additional destinations.** In 2010, CDOT added service to several out-of-county destinations, including Chapel Hill, Durham, Reidsville, Burlington, and others. CDOT offered additional weekday service and has begun the process of adjusting additional offerings according to demand for those routes/days. This process of adding, evaluating, and readjusting service is critical to ensuring that offered service matches residents’ needs. Alternative 1 includes the recommendation that CDOT’s current practice related to scheduling service to accommodate the most individuals continue.

### **Operational Elements**

**Re-brand the service.** This strategy includes the selection and popularization of a new name for CDOT’s service. The re-branding will help prevent misunderstandings regarding the nature of the service which has often been misunderstood to be the department of transportation and not a transit service. Re-branding will also position the service for growth – creating a clear, simple transit brand identity, the service is more likely to attract potential riders. One option for a new name is Caswell Cross-County Transit (triple C-T), but the process of creating and selecting a new name would be undertaken by the local Transit Advisory Board (TAB). The re-branding campaign would require funds to reproduce brochures, building, and other signage. If a new logo is required, design of the logo may require funds or a local publicity campaign can be mounted to acquire a new logo (also helping in the re-branding and name recognition of the transit system).

**Procure and utilize TripMaker for trip scheduling.** Currently daily scheduling of trips is completed by hand and can be a time-consuming effort for staff. In order to better manage existing trip scheduling, aid in

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<sup>11</sup> Budget line is \$6,363, using \$3 per trip as an average fare, equates to approximately 2,100 trips annually.

tracking trips, and position CDOT for ridership increases, Alternative 1 includes instituting TripMaker as CDOT's trip making software. The software is free and created by ITRE, but staff training would be required. Ridership and service will not be able to grow sufficiently and effectively without technology/software advancement with regards to trip scheduling.

**Begin service awareness and public education campaign.** As a means to grow general public ridership<sup>12</sup>, publicize available transit services, and unveil CDOT's new brand, Alternative 1 includes a public education campaign. Components of this campaign would include updating of brochures, placing of materials in libraries and other public spaces, and holding information meetings/open houses at public events, in schools, libraries, and senior centers.

**Improve tracking of mileage.** Alternative 1 includes improving staff and driver accounting of miles driven with passengers on board, en route to passengers, and all other (deadhead) miles. A better understanding of the number of miles driven without passengers (for example, to put gas in the vehicles, or take the vehicles to a repair facility) is critical to being able to better benchmark the system's performance. Improved performance tracking will support growth and is required to obtain certain types of federal funding. Instituting TripMaker is a first step in tracking this type of mileage but additional steps may be necessary to fully understand the price per operating mile versus the price per overall mile.

**Plan for and procure new administrative space.** CDOT requires additional and upgraded administrative space to continue to be successful with its mission. This element recommends that a separate, stand-alone building or a new, larger, shared facility be obtained to house CDOT headquarters. Improved administrative space would offer better interaction between staff, provide training facilities for drivers and staff, and promote a cohesive and effective transportation option for the residents of Caswell County. New facilities will support service growth and also help strengthen the service's brand identity and recognition. Alternative 1 includes the planning process for this facility. If CDOT opts to rehabilitate an existing County-owned building for its use, state funds are available to assist with renovation.

**Track RGP passenger trips.** Alternative 1 includes tracking general public passengers (or RGP) as a key operational element. Accounting of non-human service agency passengers will allow growth to be measured in this aspect and additional success of other operational and service initiatives to be tracked. The tracking system could be as simple as a spreadsheet that tallies weekly public passengers, or may be able to be linked in to the trip scheduling software.

## Costs and Revenues

Estimated costs of Alternative 1's strategies are presented in **Table 17** below. Estimates are based on FY 2008-2009 data including \$35.26 per service hour and \$1.24 per service mile. Driver hours are estimated at \$15.59 per hour (2009 driver salaries & fringes divided by service hours). Cost per trip used is \$10.85. The costs shown in the table below are best estimates based on past performance of the service and experience. The estimates are designed to express orders of magnitude and to allow long-range planning. It should be expected that actual costs of the strategies at time of implementation may vary.

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<sup>12</sup> aka RGP-Rural General Public riders

**TABLE 17 – COST ESTIMATE FOR ALTERNATIVE 1 ELEMENTS**

Element		Cost (estimate)
<b>SERVICE</b>		
	<b>Assumptions</b>	
<b>Grow general public ridership by 10%</b>	Fare/donations were 2% of total earned (farebox+contract) revenue in FY 2008-2009. 2% of passenger trips is approx. 670 trips. Assumes a 10% increase in these trips, so approx. 67 additional trips. <sup>1</sup>	\$727
<b>Extend evening service until 7pm Mondays and Thursdays</b>	2 additional hours of service per week x 52 = 104 additional service hours per year	\$3,667
<b>Continue evaluation and implementation of service to additional destinations</b>	Accounted for in current estimates, assumes no additional destinations	\$0
	<i>Subtotal</i>	<i>\$4,394</i>
<b>OPERATIONAL</b>		
<b>Re-brand the service</b>		
• Administrative staff time	Assumes would fit within existing staff availability	\$0
• Logo development	Staff time and graphic design consultant	\$2,000
<b>Procure and utilize TripMaker for trip scheduling</b>		
• Staff training	2 days of ITRE staff time at \$100/hr and travel to Caswell, administrative staff time	\$2,000
• Technical support and maintenance	8 hours a month of technical staff time	\$800
<b>Begin service awareness and public education campaign</b>		
• Staff time	Assumes would fit within existing staff availability	\$0
• Brochures and print collateral	Design and printing of two different tri-fold brochures, up to 100 copies each	\$3,500
• Publicity campaign	Staff time and consultation with a public engagement and/or marketing firm	\$3,000
<b>Improve tracking of mileage</b>		
• Driver training	4 hours of training per driver, assuming 10 drivers	\$624
• Administrative staff time	Assumes would fit within existing staff availability	\$0
<b>Plan for and procure new administrative space</b>		
• Site selection and planning	Assumes using existing county-owned building; \$30,000 for site selection and planning	\$30,000
• Architectural and construction work, permitting	Assumes using existing county-owned building and updates/permits necessary to occupy space	\$60,000
• Moving	Movers costs, one day. Administrative costs absorbed elsewhere.	\$5,000
• Administrative expenses	Procurement of boxes, printing of new business cards, letterhead, etc.	\$5,000
<b>Track RGP passenger trips</b>		
• Driver training	Assumes that TripMaker will provide interface for tracking RGP trips 4 hours of training per driver, assuming 10 drivers	\$624
	<i>Subtotal</i>	<i>\$112,548</i>
	<b>TOTAL</b>	<b>\$116,942</b>

Notes:

<sup>1</sup> According to 2009 ROAP data from NCDOT, approximately 4,000 RGP trips were provided. The number represented here is conservative and taken directly from fares earned as well as the average fare value. If the ROAP data is used, a 10% increase from these levels would be 400 trips – this would increase costs by over \$3,500. Revenue earned by these additional trips would also increase.

Revenues can be expected to accrue from both an increase in contracted trips and from an increase in RGP revenue. There is also the potential for additional state funding and donation of services for this alternative.

**Table 18** below details estimated costs and revenues associated with Alternative 1 by fiscal year.

**TABLE 18 – COST AND REVENUE SUMMARY BY FISCAL YEAR: ALTERNATIVE 1**

		Fiscal Year				
		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<b>Costs<sup>1</sup></b>						
Administrative <sup>2</sup>	Base	139,739	153,713	169,085	185,993	204,592
	Alt.1	4,800	0	0	0	0
	Subtotal	144,539	153,713	169,085	185,993	204,592
Operational <sup>3</sup>	Base	298,946	328,841	361,725	397,897	437,687
	Alt. 1	5,642	16,500	0	0	0
	Subtotal	304,588	345,341	361,725	397,897	437,687
Capital <sup>4</sup>	Base	50,000	50,000	50,000	50,000	50,000
	Alt. 1	30,000	60,000	0	0	0
	Subtotal	80,000	110,000	50,000	50,000	50,000
<b>TOTAL COSTS</b>		<b>\$529,128</b>	<b>\$609,054</b>	<b>\$580,810</b>	<b>\$633,890</b>	<b>\$692,279</b>
<b>Base Revenues<sup>5</sup></b>						
Federal funding		103,320	118,818	136,641	157,137	180,708
State funding		40,000	40,000	40,000	40,000	40,000
Local funding		19,237	22,278	25,619	29,462	33,882
Contract Revenue <sup>6</sup>		298,771	319,685	342,063	366,007	391,627
Farebox Revenue <sup>6</sup>		7,699	8,469	9,316	10,248	11,272
Other revenue <sup>7</sup>		30,000	30,000	30,000	30,000	30,000
	Subtotal	\$499,162	\$539,250	\$583,639	\$632,854	\$687,490
<b>Potential/Alternative 1 Revenue</b>						
Farebox		770	847	931	1,025	1,127
State: Building planning and renovations		15,000	40,000	0	0	0
Donated services (design, public ed.)		0	4,000	0	0	0
<b>TOTAL REVENUE</b>		<b>\$514,932</b>	<b>\$584,097</b>	<b>\$584,571</b>	<b>\$633,879</b>	<b>\$688,617</b>
<b>Difference</b>		<b>(14,195)</b>	<b>(24,957)</b>	<b>3,762</b>	<b>(11)</b>	<b>(3,663)</b>

Notes:

<sup>1</sup> Costs are based on FY 2008-2009 total. FY 2008-2009 Admin costs are \$115,487, operations were \$247,063. A flat increase of 10% was applied to the base for each fiscal year, then incremental costs of each alternative are added. Assumes fares remain consistent with 2009-2010 fares.

<sup>2</sup> Includes admin staff salaries and fringes, office expenses, advertising, professional development

<sup>3</sup> Includes operating/driver salaries and fringes, vehicle, equipment, other operational, vehicle insurance

<sup>4</sup> Assumes replacement of one transit vehicle per year as a base expense.

<sup>5</sup> Funding and earned totals based on FY 2008-2009. Based on FY 2007-2008 to FY 2008-2009 data, federal and local funding is projected to increase 15% annually. Due to fluctuations in state funding and unspent funds over the same period, state is estimated to remain constant at \$40,000 annually.

<sup>6</sup> Based on changes between FY 2006-2007 and FY 2008-2009 on earned revenue, contract is calculated to increase at 7% annually and ridership farebox to increase 10% annually from base levels, with no changes to service. RGP trips are currently billed at \$5/round trip for in County, \$7/round trip for near out of County (Roxboro, Reidsville, etc) and \$10/round trip for far out of County (Chapel Hill and Greensboro).

<sup>7</sup> Other revenue includes interest earned, sale of vehicles, advertising. Assumed to remain relatively constant, at \$30,000 throughout the period. Assumes some of the endowment funds will be used, so interest earned will decrease, other revenue may increase slightly.

## ***Alternative 2: Demand Responsive – Improved Times and Routes***

This alternative supports all stated goals and several of the objectives. It focuses on increasing ridership, educating existing and future transit riders, building CDOT staff capacity, and growing financial resources. Alternative 2 includes all of the elements described above for Alternative 1, but adds on several service and operational elements.

### **Service Elements**

**Grow general public ridership by 20%.** This alternative includes a more aggressive goal for growing public ridership. The addition of weekday evening and weekend service as well as operational elements (described below) will support this growth. This element requires both additional drivers and vehicle hours (operational) and may also require capital investments (vehicle purchase).

**Extend evening weekday service to 7pm.** Alternative 2 includes extended evening service until 7pm on Mondays and Thursdays (as proposed in Alternative 1 above). These two days of the week were selected because each has four or more out-of-county destinations served on these days, according to the 2010 schedule (see **Appendix F**). The addition of evening service is a direct response to passenger survey responses, both from this study's survey and the one conducted for the Locally Consolidated Plan (2009). For human service agency passengers, this provides the ability to schedule and attend afternoon medical appointments. The additional service hours may also be attractive to RGP potential passengers allowing them to utilize the service to/from work/school. If there is sufficient demand, evening service could be provided additional weekdays.

**Add weekend service.** Alternative 2 includes the addition of weekend service two Saturdays a month, from 10am until 5pm is recommended. This element is a direct response to passenger survey responses, both from this survey and the one conducted for the Locally Consolidated Plan (2009). For human service passengers, this provides the ability to schedule and attend weekend appointments. The additional service also provides greater flexibility to general public users and human service users and allows non-business day errand (e.g., shopping, etc.) trips. This addition would require additional drivers and/or vehicle hours, but is not anticipated to require additional vehicles. It should be noted that the additional wear and tear on the vehicles will necessitate replacement vehicles sooner. The need for vehicle turnover based on improving service hours and days has been taken into account in the financial plan presented later in this report.

**Establish scheduled Senior Center routes.** Based on the responses to surveys of both human service agency users and general public, almost ½ of the trips surveyed were to/from the Senior Center. Alternative 2 provides for the potential of specific routes to/from the Senior Center on certain days (anticipated 2 days a week with two routes each day). This service would be provided on a demand-responsive platform but passengers could rely on the service on certain days and coordination with the Senior Center would increase the use of this service and potentially change the behavior of riders. This could also be seen as formalizing and publicizing the service that is already provided to capitalize on existing funding and promote the service to others.

### **Operational Elements**

All operational elements as listed under Alternative 1 are included in Alternative 2 including:

- Re-branding the service,
- Procure and utilize TripMaker for trip scheduling,
- Begin service awareness and public education campaign,
- Improve tracking of mileage,
- Plan for and procure a new headquarters building, and
- Track RGP passenger trips.

In addition to the Operational Elements as outlined in Alternative 1 above, the following elements are proposed:

**Enhance driver program.** Alternative 2 builds the capacity of CDOT's staff to support the growth in services as described above. CDOT currently has a fairly extensive training program that is administered consistently. There are several elements of the training, including defensive driving, ADA, and emergency procedures. The program includes training for new hires as well as continuing/refreshers for existing drivers. To build on the program's current strengths, it is suggested that customer service elements be added. The elements may include core/basic customer service training as a refresher and may include sensitivity training, as drivers will frequently interact with special populations. Enhancing the current program will help ensure that a sufficient number of drivers are available, trained, and retained. If a new building or administrative space is acquired, the training would likely be held on-site, if the administrative staff remains at its current location, training would have to be completed off-site. Administrative staff time will be required to implement this action and funds will be necessary for certain driver training.

**Implement extensive awareness and promotion campaign.** Alternative 2 is similar to the public education program of Alternative 1, but requires a larger level of effort and greater investment on the public transportation agency's part. Alternative 2's campaign creates brochures, signs, and other collateral materials containing information on available services. It also schedules informational sessions at local employers and institutions (e.g., Piedmont Community College).

**Identify and target new funding sources.** CDOT currently is financially sustainable, maintaining reserves across all years studied (FY2005/06 to 2008/09). Proposed increases in ridership and associated capital and operating costs will require additional funding. CDOT receives funding from several federal sources, but does not currently receive Job Access and Reverse Commute (JARC - 5310) federal funds. Alternative 2 recommends identifying additional available funding sources (including but not limited to JARC) not yet mined and pursuing them. (See **Appendix A**)

## **Costs and Revenues**

Estimated costs of Alternative 2's strategies are presented in **Table 19** below. Estimates are based on FY 2008-2009 data, \$35.26 per service hour and \$1.24 per service mile. Driver hours are estimated at \$15.59 per hour (FY 2008-2009 driver salaries & fringes divided by service hours). Cost per trip used is \$10.85. The costs shown in the table below are best estimates based on past performance of the service and experience. The estimates are designed to express orders of magnitude and to allow long-range planning. It should be expected that actual costs of the strategies at time of implementation may vary.

**TABLE 19 – COST ESTIMATE FOR ALTERNATIVE 2 ELEMENTS**

Element		Cost (estimate)
<b>SERVICE</b>		
<b>Grow general public ridership by 20%</b>	Fare/donations were 2% of total earned (farebox+contract) revenue in FY 2008-2009. 2% of passenger trips is approx. 670 trips. Assumes a 20% increase in these trips, so 134 additional trips. <sup>1</sup>	\$1,454
<b>Extend evening service until 7pm Mondays and Thursdays</b>	2 additional hours of service per week x 52 = 104 additional service hours per year	\$3,667
<b>Add weekend service</b>	7 additional hours of service per week twice a month = 168 additional service hours per year	\$5,924
<b>Establish scheduled Senior Center Routes</b>	Assumes 4 service hours per route; 2 routes 2 days a week; 52 weeks a year  Requires one additional vehicle (a small body-on-chassis vehicle) to be purchased, estimated at \$50,000 per vehicle Vehicles of this type are fully capable of loading and transporting passengers who use wheelchairs	\$29,336 (operating) + \$50,000 (capital)
<i>Subtotal</i>		\$90,381
<b>OPERATIONAL</b>		
TOTAL FROM ALT 1	See operational items listed in <b>Table 17</b>	\$112,548
<b>Enhance driver program</b>		
• Selection of new training elements	Assumes would fit within existing staff availability	\$0
• Continuing training for drivers	4 hours per quarter per driver, assumes 10 drivers Assumes training is on-site in new administrative space	\$2,494
<b>Implement extensive awareness and promotion campaign</b>		
• Staff time	Assumes would fit within existing staff availability	\$0
• Brochures and print collateral	Design and printing of two different tri-fold brochures, up to 100 copies each and 20 posters	\$4,500
• Publicity campaign	Staff time and consultation with a public engagement and/or marketing firm	\$8,000
<b>Identify and target new funding sources</b>		
• Administrative staff time	Assumes would fit within existing staff availability	\$0
<i>Subtotal</i>		\$127,880
<b>TOTAL</b>		<b>\$217,923</b>

Notes:

<sup>1</sup> According to 2009 ROAP data from NCDOT, approximately 4,000 RGP trips were provided. The number represented here is conservative and taken directly from fares earned as well as the average fare value. If the ROAP data is used, a 20% increase from these levels would be 800 trips – this would increase costs by over \$7,000. Revenue earned by these additional trips would also increase.

Revenues can be expected to accrue from both an increase in contracted trips and from an increase in RGP revenue. There is also the potential for additional state and federal funding and donation of services for this alternative.

**Table 20** below details estimated costs and revenues associated with Alternative 2 by fiscal year.

**TABLE 20 – COST AND REVENUE SUMMARY BY FISCAL YEAR: ALTERNATIVE 2**

		Fiscal Year				
		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<b>Costs<sup>1</sup></b>						
Administrative <sup>2</sup>	Base	139,739	153,713	169,085	185,993	204,592
	Alt. 2	4,800	12,500	0	0	0
	Subtotal	144,539	166,213	169,085	185,993	204,592
Operational <sup>3</sup>	Base	298,946	328,841	361,725	397,897	437,687
	Alt. 2	8,863	22,424	41,836	0	0
	Subtotal	307,809	351,265	403,561	397,897	437,687
Capital <sup>4</sup>	Base	50,000	50,000	50,000	50,000	50,000
	Alt. 2	30,000	60,000	50,000	0	0
	Subtotal	80,000	110,000	100,000	50,000	50,000
<b>TOTAL COSTS</b>		<b>\$532,349</b>	<b>\$627,478</b>	<b>\$672,646</b>	<b>\$633,890</b>	<b>\$692,279</b>
<b>Base Revenues<sup>5</sup></b>						
Federal funding		103,320	118,818	136,641	157,137	180,708
State funding		40,000	40,000	40,000	40,000	40,000
Local funding		19,237	22,278	25,619	29,462	33,882
Contract Revenue <sup>6</sup>		298,771	319,685	342,063	366,007	391,627
Farebox Revenue <sup>6</sup>		7,699	8,469	9,316	10,248	11,272
Other revenue <sup>7</sup>		30,000	30,000	30,000	30,000	30,000
	Subtotal	\$499,162	\$539,250	\$583,639	\$632,854	\$687,490
<b>Potential/Alternative 2 Revenue</b>						
Farebox		1,540	1,694	1,863	2,050	2,255
State: Building planning and renovations		15,000	40,000	0	0	0
Donated services (design, public ed.)		0	4,000	4,000	0	0
State ROAP-EDTAP Senior Center Service		0	0	29,910	0	0
Fed/State (5310-Elderly) - Senior Center bus		0	0	40,000	0	0
<b>TOTAL REVENUE</b>		<b>\$515,702</b>	<b>\$584,944</b>	<b>\$659,413</b>	<b>\$634,904</b>	<b>\$689,744</b>
<b>Difference</b>		<b>(16,646)</b>	<b>(42,534)</b>	<b>(13,233)</b>	<b>1,014</b>	<b>(2,535)</b>

NOTES:

<sup>1</sup>Costs are based on FY 2008-2009 total. FY 2008-2009 Admin costs are \$115,487, operations were \$247,063. A flat increase of 10% was applied to the base for each fiscal year, then incremental costs of each alternative are added. Assumes fares remain consistent with 2009-2010 fares.

<sup>2</sup>Includes admin staff salaries and fringes, office expenses, advertising, professional development

<sup>3</sup>Includes operating/driver salaries and fringes, vehicle, equipment, other operational, vehicle insurance

<sup>4</sup>Assumes replacement of one transit vehicle per year as a base expense.

<sup>5</sup>Funding and earned totals based on FY 2008-2009. Based on FY 2007-2008 to FY 2008-2009 data, federal and local funding is projected to increase 15% annually. Due to fluctuations in state funding and unspent funds over the same period, state is estimated to remain constant at \$40,000 annually.

<sup>6</sup>Based on changes between FY 2006-2007 and FY 2008-2009 on earned revenue, contract is calculated to increase at 7% annually and ridership farebox to increase 10% annually from base levels. These estimates were derived by calculating past trends and projecting that same average rate forward; these base estimates do not reflect any potential changes to service or pricing. RGP trips are currently billed at \$5/round trip for in County, \$7/round trip for near out of County (Roxboro, Reidsville, etc) and \$10/round trip for far out of County (Chapel Hill and Greensboro).

<sup>7</sup>Other revenue includes interest earned, sale of vehicles, advertising. Assumed to remain relatively constant, at \$30,000 throughout the period. Assumes some of the endowment funds will be used, so interest earned will decrease, other revenue may increase slightly.

## ***Alternative 3: Demand Responsive – Improved Times and Route and Implement Hub Service***

This alternative is the most extensive and goes the furthest in supporting stated goals and objectives. It maintains earlier alternatives' focus on increasing ridership, educating existing and future transit riders, building CDOT staff capacity, and growing financial resources. Alternative 3 also adds on elements designed to accommodate greater numbers of general public riders and further extending services.

### **Service Elements**

**Grow general public ridership by 30%.** Alternative 3 includes the most aggressive goal for growing public ridership. The addition of weekday evening and weekend service as well as other service and operational elements (described below) will support this growth. This will require both additional driver/vehicle hours (operational) and capital investment (vehicles).

**Extend evening weekday service to 7pm.** Alternative 3 includes extended evening service until 7pm on Mondays and Thursdays (as proposed in Alternative 1 and 2 above). These two days of the week were selected because each has four or more out-of-county destinations served on these days, according to the 2010 schedule (see **Appendix F**). The addition of evening service is a direct response to passenger survey responses, both from this study's survey and the one conducted for the Locally Consolidated Plan (2009). For human service agency passengers, this provides the ability to schedule and attend afternoon medical appointments. The additional service hours may also be attractive to RGP potential passengers allowing them to utilize the service to/from work/school. If there is sufficient demand, evening service could be provided additional weekdays.

**Add weekend service.** Alternative 3 includes the addition of weekend service two Saturdays a month, from 10am until 5pm is recommended (as proposed in Alternative 2). This element is a direct response to passenger survey responses, both from this survey and the one conducted for the Locally Consolidated Plan (2009). For human service passengers, this provides the ability to schedule and attend weekend appointments. The additional service also provides greater flexibility to general public users and human service users and allows non-business day errand (e.g., shopping, etc.) trips. This addition would require additional drivers and/or vehicle hours, but is not anticipated to require additional vehicles. It should be noted that the additional wear and tear on the vehicles will necessitate replacement vehicles sooner. The need for vehicle turnover based on improving service hours and days has been taken into account in the financial plan presented later in this report.

**Establish scheduled Senior Center routes.** Based on the responses to surveys of both human service agency users and general public, almost ½ of the trips surveyed were to/from the Senior Center. Alternative 3 provides for the potential of specific routes to/from the Senior Center on certain days (anticipated 2 days a week with two routes each day as identified in Alternative 2). This service would be provided on a demand-responsive platform but passengers could rely on the service on certain days and coordination with the Senior Center would increase the use of this service and potentially change the behavior of riders. This could also be seen as formalizing and publicizing the service that is already provided to capitalize on existing funding and promote the service to others.

**Develop a monthly pass for RGP riders.** This element includes the creation of a monthly pass for general public riders that frequently use the service. The pass could be purchased from CDOT (at headquarters) and would be valid for unlimited trips for one month on all services or on specifically designated routes. Price may vary by route, so there might be a 'Group A' pass or a 'Group B' pass – each with different prices and covering different routes or use during different times. This action would require the development and printing, and tracking of monthly passes, and additional training of staff and drivers on how the passes are used.

**Provide transit rider amenities.** Alternative 3 includes the element to provide amenities at certain highly-traveled stops or hubs, such as bus shelters and benches. Amenities could be placed/selected as fixed routes or deviated fixed routes develop.

**Develop deviated fixed route service for Yanceyville.** As ridership increases, there will be a need for potential deviated fixed route service through Yanceyville. The recommended route is approximately 5-miles long (round trip) and connects the Senior Center, Piedmont Community College, and Orange Enterprise, as shown in **Figure 15**. As a deviated route, the transit vehicle could pick up passengers at locations within ½ mile of the established route. The route could be run as frequently as every hour, but the initial recommendation is to operate the route twice in the morning, once mid-day/in the afternoon, and twice in the evening. The service would allow members of the general public to use the route to/from work, to/from school, and to run errands on Main Street. The route would also allow human service agency passengers to reach frequented destinations. The creation of a deviated fixed route and would require additional drivers and vehicle hours (operational) as well as potential capital investments and advertising.

**FIGURE 15 – ALTERNATIVE 3’S DEVIATED FIXED ROUTE SERVICE IN YANCEYVILLE**



## Operational Elements

All operational elements as listed under Alternative 1 and 2 are included in Alternative 3 including:

- Re-branding the service,
- Procure and utilize TripMaker for trip scheduling,
- Begin service awareness and public education campaign,
- Improve tracking of mileage,
- Plan for and procure a new headquarters building,
- Track RGP passenger trips,
- Enhance driver program,
- Implement extensive awareness and promotion campaign, and
- Identify and target new funding sources.

In addition to the Operational Elements as outlined in Alternatives 1 and 2 above, the following elements are proposed:

**Assess feasibility of upgrading trip scheduling software.** Alternative 3 includes operational elements from prior alternatives, but also recommends assessing the feasibility of upgrading trip scheduling software. As service grows, ridership will grow and the demands of scheduling may also increase. Second tier trip scheduling software (i.e., RouteMatch) would provide additional functionality and capabilities, but require a minimum of 300 passenger trips per day. While 2009/2010 passengers served per day is between 45 and 56, that number is expected to increase but may or may not increase to 150 passengers (300 trips) by this study's horizon year, 2016. This element places the assessment of trip scheduling needs as part of the alternative so that growth is monitored and software upgrades can be requested in advance of the need developing.

**Increase administrative capacity by hiring part-time (1/2 FTE) assistance.** Alternative 3 includes hiring administrative staff to help implement and sustain growing service. The additional administrative capacity will not only support service elements described in this alternative, but better position the transit service for continued growth.

## Costs and Revenues

Estimated costs of Alternative 3's strategies are presented in **Table 21** below. Estimates are based on FY 2008-2009 data, \$35.26 per service hour and \$1.24 per service mile. Driver hours are estimated at \$15.59 per hour (FY 2008-2009 driver salaries & fringes divided by service hours). Cost per trip used is \$10.85. The costs shown in the table below are best estimates based on past performance of the service and experience. The estimates are designed to express orders of magnitude and to allow long-range planning. It should be expected that actual costs of the strategies at time of implementation may vary.

**TABLE 21 – COST ESTIMATE FOR ALTERNATIVE 3 ELEMENTS**

<b>Element</b>	<b>Assumptions</b>	<b>Cost (estimate)</b>
<b>SERVICE</b>		
<b>Grow general public ridership by 30%</b>	Fare/donations were 2% of total earned (farebox+contract) revenue in FY 2008-2009. 2% of passenger trips is approx. 670 trips. Assumes a 30% increase in these trips, so approx. 200 additional trips. <sup>1</sup>	\$2,170
<b>Extend evening service until 7pm Mondays and Thursdays</b>	2 additional hours of service per week x 52 = 104 additional service hours per year	\$3,667
<b>Add weekend service</b>	7 additional hours of service per week twice a month = 168 additional service hours per year	\$5,924
<b>Establish scheduled Senior Center Routes</b>	Assumes 4 service hours per route; 2 routes 2 days a week; 52 weeks a year Requires one additional vehicle (a small body-on-chassis vehicle) to be purchased, estimated at \$50,000 per vehicle Vehicles of this type are fully capable of loading and transporting passengers who use wheelchairs	\$29,336 (operating) + \$50,000 (capital)
<b>Develop a monthly pass for RGP riders</b>		
• Determine how to administer passes	Assumes would fit within existing staff availability	\$0
• Design and print passes	Staff time to design passes and printing of 100 pass booklets	\$2,000
• Staff and driver training	4 hours per driver, assumes 10 drivers Assumes training site is on-site at new headquarters	\$624
<b>Provide transit rider amenities</b>	4 shelters and 4 benches, assumes a per shelter cost of \$600 and a per bench cost of \$250	\$3,400
<b>Develop a deviated fixed route</b>		
• Staff training	4 hours per driver, assumes 10 drivers	\$624
• Service and additional vehicles	1 hour per route, runs 5 times per day Monday through Friday 52 weeks a year Requires two additional vehicles (small body-on-chassis) at 50,000 per vehicle	\$45,838 (operating) + \$100,000 (capital)
• Signage for routes, stops	10 bus stop signs, assumes a per stop cost of \$100	\$1,000
<i>Subtotal</i>		\$244,582
<b>OPERATIONAL</b>		
TOTAL FROM ALT 2	See operational items listed in <b>Table 19</b>	\$127,542
<b>Assess feasibility of upgrading trip scheduling software</b>	Assumes would fit within existing staff availability	\$0
<b>Hire part-time administrative assistance</b>	Assumes a 1/2 full time equivalent hire, includes salary and fringes/benefits	\$16,169
<i>Subtotal</i>		\$143,711
<b>TOTAL</b>		<b>\$388,293</b>

Notes:

<sup>1</sup> According to 2009 ROAP data from NCDOT, approximately 4,000 RGP trips were provided. The number represented here is conservative and taken directly from fares earned as well as the average fare value. If the ROAP data is used, a 30% increase from these levels would be 1,200 trips – this would increase costs by close to \$11,000. Revenue earned by these additional trips would also increase.

Revenues can be expected to accrue from both an increase in contracted trips and from an increase in RGP revenue. There is also the potential for additional state and federal funding and donation of services for this alternative.

**Table 22** below details estimated costs and revenues associated with Alternative 3 by fiscal year.

**TABLE 22 – COST AND REVENUE SUMMARY BY FISCAL YEAR: ALTERNATIVE 3**

		Fiscal Year				
		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<b>Costs<sup>1</sup></b>						
Administrative <sup>2</sup>	Base	139,739	153,713	169,085	185,993	204,592
	Alt. 3	4,800	12,500	0	16,169	16,169
	Subtotal	144,539	166,213	169,085	202,162	220,761
Operational <sup>3</sup>	Base	298,946	328,841	361,725	397,897	437,687
	Alt. 3	9,579	22,424	45,236	2,624	47,462
	Subtotal	308,525	351,265	406,961	400,521	485,149
Capital <sup>4</sup>	Base	50,000	50,000	50,000	50,000	50,000
	Alt. 3	30,000	60,000	50,000	0	100,000
	Subtotal	80,000	110,000	100,000	50,000	150,000
<b>TOTAL COSTS</b>		<b>\$533,065</b>	<b>\$627,478</b>	<b>\$676,046</b>	<b>\$652,683</b>	<b>\$855,910</b>
<b>Base Revenues<sup>5</sup></b>						
Federal funding		103,320	118,818	136,641	157,137	180,708
State funding		40,000	40,000	40,000	40,000	40,000
Local funding		19,237	22,278	25,619	29,462	33,882
Contract Revenue <sup>6</sup>		298,771	319,685	342,063	366,007	391,627
Farebox Revenue <sup>6</sup>		7,699	8,469	9,316	10,248	11,272
Other revenue <sup>7</sup>		30,000	30,000	30,000	30,000	30,000
	Subtotal	\$499,162	\$539,250	\$583,639	\$632,854	\$687,490
<b>Potential/Alternative 3 Revenue</b>						
Farebox		2,731	3,004	3,304	3,635	3,999
State: Building Planning and renovations		15,000	40,000	0	0	0
Donated services (design, public ed.)		0	4,000	4,000	0	0
State ROAP-EDTAP Senior Center Service		0	0	29,910	0	0
Fed/State (5310-Elderly) - Senior Center bus		0	0	40,000	0	0
JARC		0	0	0	0	30,000
State - CTP, Rural Capital Program -buses		0	0	0	0	80,000
Funding from Piedmont Comm. College		0	0	0	0	30,000
Funding from Orange Enterprises		0	0	0	0	30,000
<b>TOTAL REVENUE</b>		<b>\$516,472</b>	<b>\$585,791</b>	<b>\$660,344</b>	<b>\$635,929</b>	<b>\$860,871</b>
<b>Difference</b>		<b>(16,592)</b>	<b>(41,687)</b>	<b>(15,701)</b>	<b>(16,755)</b>	<b>4,961</b>

NOTES:

<sup>1</sup> Costs are based on FY 2008-2009 total. FY 2008-2009 Admin costs are \$115,487, operations were \$247,063. A flat increase of 10% was applied to the base for each fiscal year, then incremental costs of each alternative are added. Assumes fares remain consistent with 2009-2010 fares.

<sup>2</sup> Includes admin staff salaries and fringes, office expenses, advertising, professional development

<sup>3</sup> Includes operating/driver salaries and fringes, vehicle, equipment, other operational, vehicle insurance

<sup>4</sup> Assumes replacement of one transit vehicle per year as a base expense.

<sup>5</sup> Funding and earned totals based on FY 2008-2009. Based on FY 2007-2008 to FY 2008-2009 data, federal and local funding is projected to increase 15% annually. Due to fluctuations in state funding and unspent funds over the same period, state is estimated to remain constant at \$40,000 annually.

<sup>6</sup> Based on changes between FY 2006-2007 and FY 2008-2009 on earned revenue, contract is calculated to increase at 7% annually and ridership farebox to increase 10% annually from base levels, with no changes to service. RGP trips are currently billed at \$5/round trip for in County, \$7/round trip for near out of County (Roxboro, Reidsville, etc) and \$10/round trip for far out of County (Chapel Hill and Greensboro).

<sup>7</sup> Other revenue includes interest earned, sale of vehicles, advertising. Assumed to remain relatively constant, at \$30,000 throughout the period. Assumes some of the endowment funds will be used, so interest earned will decrease, other revenue may increase slightly.

## Summary of Preliminary Alternatives

Alternative 1, as presented, offers the most achievable milestones of the alternatives. It provides updates to operational systems that have been identified as critical by CDOT and its users, e.g., instituting TripMaker for scheduling. A disadvantage, however, is that it does not stretch the service, and does not set CDOT up for attracting the type of increased ridership that has been cited as a goal, nor does it create the scale of ridership needed to gain new federal or state funding.

Alternative 2 builds on the immediate and short-term improvements described for Alternative 1 and adds service changes intended to target general public riders and grow transit service. Increased ridership and service elements will position CDOT to qualify for new, yet untapped funding sources. Changes will also allow a greater proportion of Caswell’s population to use county transit services. A shortcoming of Alternative 2 is that it stops just short of adding fixed route service.

Alternative 3 stands out as the most robust set of elements for transit service. It adds a deviated fixed route and rider amenities intended to better serve general public and human service agency passengers alike. Alternative 3 also has the advantage of being able to qualify for additional funding. While it may be the most robust and have the highest projected capital costs, it also may qualify for the greatest amount of additional funding.

**Table 23** shows a summary of the advantages/disadvantages for each of the preliminary alternatives as presented above.

**TABLE 23 –ADVANTAGES/DISADVANTAGES OF PRELIMINARY ALTERNATIVES 1, 2, AND 3**

	Advantages	Disadvantages
Alternative 1: Demand Responsive – Improved Times	<ul style="list-style-type: none"> <li>• Provides a sustainable routing mechanism for customers through use of TripMaker</li> <li>• Expands operating times.</li> <li>• Improves brand recognition of Caswell County Transit elements</li> </ul>	<ul style="list-style-type: none"> <li>• Lowest ridership growth</li> <li>• Does not expand routes available</li> <li>• Available funding mechanisms remain constant</li> <li>• Does not expand administrative staff</li> </ul>
Alternative 2: Demand Responsive – Improved Times and Routes	<ul style="list-style-type: none"> <li>• Provides a sustainable routing mechanism for customers through use of TripMaker</li> <li>• Expands operating times</li> <li>• Introduces a new route</li> <li>• New funding mechanisms are available.</li> <li>• Improves brand recognition of Caswell County Transit elements</li> <li>• Enhances coordination between Caswell Agencies and neighboring jurisdictions</li> </ul>	<ul style="list-style-type: none"> <li>• Service remains predominantly demand-responsive only</li> <li>• Increased operating and administrative funding (over Alternative 1) required</li> <li>• Does not expand administrative staff</li> </ul>
Alternative 3: Demand Responsive – Improved Times and Route and Implement Hub Service	<ul style="list-style-type: none"> <li>• Long-term emphasis for growth</li> <li>• Highest ridership growth</li> <li>• Provides a sustainable routing mechanism for customers through use of TripMaker</li> <li>• Expands operating times.</li> <li>• Improves brand recognition of Caswell County Transit elements</li> <li>• Expands administrative personnel</li> <li>• Increases coordination between Caswell Agencies and neighboring jurisdictions</li> </ul>	<ul style="list-style-type: none"> <li>• Higher operating and administrative funding required</li> <li>• Without additional funding sources, aspects of this alternative cannot be implemented with current funds.</li> </ul>

Alternative 4, the Preferred Alternative is a more gradual approach to growing Caswell’s transit service and is a combination of the three preliminary alternatives presented above. That alternative is presented in the next section and offers a different set of advantages and disadvantages than those shown in **Table 23**.

## ***Alternative 4, Preferred: Demand Responsive – Graduated Growth***

This alternative supports all of the goals. It emphasizes increasing ridership gradually over time, improving brand recognition, and educating existing and future transit riders. It also takes some very critical first steps toward growing the operational efficiency of CDOT. Alternative 4 is a combination of elements from each of the previously described preliminary alternatives.

### **Service Elements**

**Grow general public ridership by 10% over 5 years.** Central to achieving stated transit goals is increasing ridership. The preferred alternative includes a focus on the rural general public (or RGP) and recommends targeting this group for graduated growth over the 5-year life of the CTSP plan. Human service agency passengers are currently well-served by CDOT service and will continue to be, but other groups are less so. Alternative 4 suggests growing service to 10% over 2009 levels by FY 2014-2015, or the horizon year of the CTSP plan. This service growth would require additional driver hours and vehicle operational costs, but is anticipated to not require additional capital expenditures.

**Extend evening weekday service to Danville and Reidsville.** Alternative 4 includes extended late afternoon/evening service to Danville and Reidsville twice a week, operating until 7pm. Additional service could be provided on any two days of the week, as long as service is consistent and reflected on the schedule so that passengers may plan trips accordingly. The addition of evening service is a direct response to passenger survey responses, both from this study's survey and the one conducted for the Locally Consolidated Plan (2009). For human service agency passengers, this provides the ability to schedule and attend afternoon medical appointments. The additional service hours may also be attractive to RGP potential passengers allowing them to utilize the service to/from work/school. If there is sufficient demand, evening service could be provided additional weekdays or to additional destinations in the future.

**Establish Shopping Loop service in Yanceyville.** To support ridership growth and to better serve identified travel needs, this alternative recommends implementing loop service within Yanceyville twice a week, providing scheduled service to frequented shopping spots. The suggested routing for the service is the same as the Yanceyville service proposed in Alternative 3. However, this Shopping Loop service is offered only twice per day, two days per week. As ridership grows, the option to expand the service by extending hours or days of operation should be explored. This additional service would require additional driver hours, operational costs, and one additional vehicle.

**Develop County-Yanceyville in-bound service.** The overwhelming majority of Caswell County services and retail stores are located in Yanceyville. Alternative 4 includes scheduled, demand-responsive, morning and afternoon in-bound service to Yanceyville twice a month. It is recommended that the service be provided based on zones. The County would be divided into three zones, perhaps mirroring the EMS zones, and service would be operated from each zone in to Yanceyville a maximum of two days per month depending on population and demand. On each zone service day, both an AM and PM loop would operate. Riders would schedule pick-ups as they currently do, providing origin and destination points, and specifying either the AM or PM loop. Transit vehicles would pick up riders, take them to their destinations (shopping, or other in-town errands). A set time later (this alternative suggests 2 hours from drop-off), the vehicle returns to collect riders and complete the roundtrip. If desired, the users of this service could also utilize the "Shopping Loop" service in Yanceyville as described above and/or morning in-bound users (if desired) can return with the evening return service to expand users abilities to complete necessary errands in Yanceyville. It is recommended that this service be provided to no more than one zone per day. This additional service would require additional driver hours, operational costs, and one additional vehicle.

### **Operational Elements**

**Re-brand the service.** This strategy includes the selection and popularization of a new name for CDOT's service. The re-branding will help prevent misunderstandings regarding the nature of the service which has often been misunderstood to be the department of transportation and not a transit service. Re-branding will also position

the service for growth – creating a clear, simple transit brand identity, the service is more likely to attract potential riders. The process of creating and selecting a new name would be undertaken by the local Transit Advisory Board (TAB). The re-branding campaign would require funds to reproduce brochures, building, and other signage. If a new logo is required, design of the logo may require funds or a local publicity campaign can be mounted to acquire a new logo (also helping in the re-branding and name recognition of the transit system).

**Procure and utilize TripMaker for trip scheduling.** Currently daily scheduling of trips is completed by hand and can be a time-consuming effort for staff. In order to better manage existing trip scheduling, aid in tracking trips, and position CDOT for ridership increases, Alternative 4 includes instituting TripMaker as CDOT’s trip making software. The software is free and created by ITRE, but staff training would be required. Ridership and service will not be able to grow sufficiently and effectively without technology/software advancement with regards to trip scheduling.

**Implement service awareness and public education campaign.** As a means to grow general public ridership<sup>13</sup>, publicize available transit services, and unveil CDOT’s new brand, Alternative 4 includes a public education campaign. Components of this campaign would include updating of brochures, placing of materials in libraries and other public spaces, and holding information meetings/open houses at public events, in schools, libraries, and senior centers. Informational sessions would also be held with local employers and institutions (e.g., Piedmont Community College, Orange Enterprise, etc.).

**Improve tracking of mileage.** Alternative 4 includes improving staff and driver accounting of miles driven with passengers on board, en route to passengers, and all other (deadhead) miles. A better understanding of the number of miles driven without passengers (for example, to put gas in the vehicles, or take the vehicles to a repair facility) is critical to being able to better benchmark the system’s performance. Improved performance tracking will support growth and is required to obtain certain types of federal funding. Instituting TripMaker is a first step in tracking this type of mileage but additional steps may be necessary to fully understand the price per operating mile versus the price per overall mile.

**Plan for and procure new administrative space.** CDOT requires additional and upgraded administrative space to continue to be successful with its mission. This element recommends that a new, larger, shared facility or a separate, stand-alone building be obtained to house CDOT headquarters. Improved administrative space would offer better interaction between staff, provide training facilities for drivers and staff, and promote a cohesive and effective transportation option for the residents of Caswell County. New facilities will support service growth and also help strengthen the service’s brand identity and recognition. If CDOT opts to rehabilitate an existing County-owned building for its use, state funds are available to assist with renovation.

**Enhance driver program.** This strategy builds the capacity of CDOT’s staff to support the growth in services as described above. CDOT currently has a fairly extensive training program that is administered consistently. There are several elements of the training, including defensive driving, ADA, and emergency procedures. The program includes new hire, as well as continuing/refresher driver training. To build on the program’s current strengths, it is suggested that customer service elements be added. The elements may include core/basic customer service training as a refresher and may also include sensitivity training, as drivers will frequently interact with special populations. Enhancing the current program will help ensure that a sufficient number of drivers are available, trained, and retained. If a larger space or a new building is acquired, the training would likely be held on-site, if the administrative staff remains at its current location, training would have to be completed off-site. Administrative staff time will be required to implement this action and funds will be necessary for certain driver training.

## **Costs and Revenues**

Estimated costs of the Preferred Alternative’s strategies are presented in **Table 24** below. Estimates are based on FY 2008-2009 data, \$35.26 per service hour and \$1.24 per service mile. Driver hours are estimated at \$15.59 per hour (2009 driver salaries & fringes divided by service hours). Cost per trip used is \$10.85. Additional information on potential funding sources (including purpose and match ratios) is provided in **Appendix A**.

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<sup>13</sup> aka RGP-Rural General Public riders

**TABLE 24 – COST ESTIMATE FOR ALTERNATIVE 4/PREFERRED ELEMENTS**

Element	Assumptions	Cost (est.)	Potential Funding
<b>SERVICE</b>			
<b>Grow general public ridership by 10% over 5 years</b>	Base year RGP trips used is 4,000 <sup>14</sup> . 10% growth over 5-yr's totals 400 additional RGP trips (80 per year).	\$4,340	ROAP RGP funds
<b>Extend evening weekday service to Danville and Reidsville</b>	2 additional hours of service per week x 52 = 104 additional service hours per year	\$3,667	ROAP RGP funds
<b>Implement Shopping Loop service in Yanceyville</b>			
• Staff training	4 hours per driver, assumes 10 drivers	\$624	CTP, 5311
• Service and additional vehicles	1 hour per loop route, runs 2 times per day twice per week 52 weeks a year Requires one additional vehicle (small body-on-chassis) at \$50,000 per vehicle	\$7,334 (operating) + \$50,000 (capital)	Federal 5317 (operating), Federal 5310 (capital)
• Signage for routes, stops	10 bus stop signs, per stop cost of \$100	\$1,000	CTP, 5311
<b>Develop County-Yanceyville inbound service</b>			
• Staff training	4 hours per driver, assumes 10 drivers	\$624	ROAP
• Service and additional vehicles	6 hours per route, 2 routes per day (AM and PM), twice per month for 12 months/yr Requires one additional vehicle (small body-on-chassis) at 50,000 per vehicle	\$30,465 (operating) + \$50,000 (capital)	ROAP (operating), CTP, 5311 (capital)
<i>Subtotal</i>		<b>\$148,053</b>	
<b>OPERATIONAL</b>			
<b>Re-brand the service</b>			
• Administrative staff time	Assumes fits within existing staff availability	\$0	N/A
• Logo development	Staff time and graphic design consultant	\$2,000	Contract revenue
<b>Procure and utilize TripMaker for trip scheduling</b>			
• Staff training	2 days of ITRE staff time at \$100/hr and travel to Caswell, administrative staff time	\$2,000	CTP
• Technical support and maintenance	8 hours technical staff time to configure system	\$800	CTP
<b>Implement service awareness and public education campaign</b>			
• Staff time	Assumes fits within existing staff availability	\$0	N/A
• Brochures and print collateral	Design and printing of two different tri-fold brochures, up to 100 copies each	\$3,500	Contract revenue, reserves
• Publicity campaign	Staff time and consultation with a public engagement and/or marketing firm	\$3,000	Contract revenue, reserves
<b>Improve tracking of mileage</b>			
• Driver training	4 hours of training per driver, 10 drivers	\$624	CTP
• Administrative staff time	Assumes fits within existing staff availability	\$0	N/A
<b>Plan for and procure new administrative space</b>			
• Site selection and planning	Assumes using existing/county building	\$30,000	CTP, reserves
• Architectural and construction work, permits	Assumes using existing county-owned building and updates/permits necessary to occupy space	\$60,000	CTP, reserves
• Moving	Movers costs, one day.	\$5,000	CTP, reserves
• Administrative expenses	Procurement of boxes, printing of new business cards, letterhead, etc.	\$5,000	CTP, reserves
<b>Enhance driver program</b>			
• Selecting new training	Assumes fits within existing staff availability	\$0	N/A
• Providing training for drivers	4 hours per quarter per driver, 10 drivers Assumes training on-site in admin. space	\$2,494	CTP, 5311
<i>Subtotal</i>		<b>\$144,418</b>	
<b>TOTAL</b>		<b>\$262,472</b>	

<sup>14</sup> RGP ridership trips based on ROAP submittal to NCDOT (2009). ROAP RGP numbers were used in the Preferred Alternative as a result of consultation with NCDOT MDS. Previous ridership numbers shown in Alternatives 1, 2, and 3 were based on fares collected. Previous alternatives were for comparison only.

Revenues can be expected to accrue from both an increase in contracted trips and from an increase in RGP revenue. There is also the potential for additional state funding and donation of services for this alternative. Detailed estimated costs and revenues associated with Alternative 4 are included in **Table 32** of the *Financial Plan* section of this report below. As with earlier cost and revenue summaries, it is expected that funds from CDOT's reserve account might be used to cover some costs and that additional funding sources will be sought.

## **IMPLEMENTATION**

The Alternative 4, developed during the second Steering Committee meeting, has been identified as the preferred alternative for the Caswell County CTSP. To plan for and implement these recommendations over a 5-year time frame requires continued close collaboration between local and state partners. Successful implementation also requires an implementation schedule with specific steps that build on those before and help the agency prepare for those steps ahead.

### ***Schedule***

The Implementation Schedule presented below (**Table 25**) is offered as a preliminary approach to successfully achieving and meeting the goals set out in the Preferred Alternative. It is anticipated that some elements in the schedule may shift, but the core sequencing of steps should remain consistent with those listed below. When paired with the financial plan presented in the following section, this Implementation Schedule will support CDOT's growth and achieve Caswell's transit goals and objectives.

**TABLE 25 – IMPLEMENTATION SCHEDULE AND ACTION STEPS TIMELINE**

	<b>Costs</b>	<b>Partners</b>	<b>Contributing Actions</b>
<b>YEAR 1 (FY 2010-2011)</b>			
Extend evening weekday service to Danville and Reidsville	\$3,667	CDOT, neighboring jurisdiction providers	Publicize availability of service Monitor demand Adjust schedule and destinations as needed
Grow general public ridership on a graduated scale by 10% over 5 years – first year 2% over 2010 levels	\$868	CDOT, NCDOT, Local partners	Increase by approx. 80 passenger trips
Procure and utilize TripMaker for trip scheduling	\$2,800	CDOT, ITRE	Install and configure Train staff on use
Improve tracking of mileage	\$624	CDOT	Provide driver training Provide administrative staff training
Plan for and procure new administrative space	\$30,000	CDOT, NCDOT	Select site and complete planning
Enhance driver program	\$2,494	CDOT	Select new training elements, if any Provide continuing training to drivers
<b>YEAR 2 (FY 2011-2012)</b>			
Maintain extended evening service to Danville and Reidsville	\$3,667	CDOT, neighboring jurisdiction providers	Publicize availability of service Monitor demand Adjust schedule and destinations as needed
Continue to grow general public ridership on a graduated scale by 10% over 5 years – second year 4% over 2010 levels	\$868	CDOT, NCDOT, Local partners	Increase by approx. 80 passenger trips
Re-brand the service	\$2,000	CDOT, community partners	Develop new brand and name Develop a logo and branding scheme
Continue procuring new administrative space	\$70,000	CDOT, NCDOT, local agencies	Obtain necessary permits Complete renovation and construction work Relocate
<b>YEAR 3 (FY 2012-2013)</b>			
Maintain extended evening service to Danville and Reidsville	\$3,667	CDOT, neighboring jurisdiction providers	Publicize availability of service Monitor demand Adjust schedule and destinations as needed
Continue to grow general public ridership on a graduated scale by 10% over 5 years – third year 6% over 2010 levels	\$868	CDOT, NCDOT, local partners	Increase by approx. 80 passenger trips
Implement Shopping Loop service in Yanceyville	\$58,958	CDOT, NCDOT	Develop loop Provide driver training Select and install 10 bus stop signs along route
Implement service awareness and public education campaign	\$6,500	CDOT, local partners	Design campaign elements Produce brochures, print collateral Hold public information sessions, similar
<b>YEAR 4 (FY 2013-2014)</b>			
Maintain extended evening service to Danville and Reidsville	\$3,667	CDOT, neighboring jurisdiction providers	Publicize availability of service Monitor demand Adjust schedule and destinations as needed
Continue to grow general public ridership on a graduated scale by 10% over 5 years – fourth year – 8% over 2010 levels	\$868	CDOT, NCDOT, Local partners	Increase by approx. 80 passenger trips
Continue to provide Shopping Loop service	\$7,334	CDOT	Monitor demand Adjust schedule, frequency as needed
<b>YEAR 5 (FY 2014-2015)</b>			
Maintain extended evening service to Danville and Reidsville	\$3,667	CDOT, neighboring jurisdiction providers	Publicize availability of service Monitor demand Adjust schedule and destinations as needed
Continue to grow general public ridership on a graduated scale by 10% over 5 years	\$868	CDOT, NCDOT, Local partners	Increase by approx. 80 passenger trips
Continue to provide Shopping Loop service	\$7,334	CDOT	Monitor demand Adjust schedule, frequency as needed
Develop and implement County-Yanceyville inbound service	\$81,089	CDOT, NCDOT, Local partners	Monitor demand Adjust schedule, frequency as needed

## 5. FINANCIAL PLAN

Caswell County's existing transit agency receives revenue more than sufficient to support the services provided. For the last four years, revenue has exceeded cost. As service grows and the recommendations of this plan are implemented, Caswell County can expect to have increased costs. These increased costs will be met by using all of the funds allocated from state sources, increasing general public ridership, maintaining existing contracts with human service agencies, and using a portion of reserve funds.

Although this plan anticipates using a portion of reserve funds within the next 5 years, reserves are also anticipated to be available in sufficient number to maintain at least a 6-month operating contingency. The reserve funds will allow Caswell County to push initiatives into implementation quicker due to available funds than other transit agencies may be able to. Sometime between the first and third year of new initiatives, it is anticipated that the initiative will be operating in the black. And, with the additional reserves, further initiatives can be implemented.

Existing and projected costs and revenues have been covered in detail in prior sections, but are summarized and included again in this *Financial Plan*. Significant trends are also noted.

### **EXISTING REVENUES**

As discussed in the section, *Revenues and Funding*, CDOT currently benefits from a variety of revenue sources. Through FY 2008/09, CDOT received federal assistance (5311/CTP), state assistance (CTP, ROAP), and local funding. CDOT also collects contract revenue from human service agencies utilizing its services, farebox revenue from general public riders, and interest income on reserve funds. As of the end of calendar year 2009, CDOT had approximately \$400,000 in reserve funds, equivalent to almost 20 months of operating budget. In FY 2006/07, total revenue decreased by about 10% over the previous year, but has been increasing by approximately 10% each fiscal year since, topping out at over \$412,000 in FY 2008/9, as shown in **Table 26** below.

**TABLE 26 – REVENUE BY TYPE AND FISCAL YEAR, 2005/06 THROUGH 2008/09 (PREVIOUSLY PRESENTED AS TABLE 14)**

Revenue Type	FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09
<b>Administrative and Operating Funding</b>				
Federal Assistance - Section 5311 - CTP Funds - Administrative <sup>1</sup>	\$65,126	\$68,978	\$72,234	\$78,125
State Assistance - CTP Funds - Administrative	\$4,070	\$4,311	\$4,515	\$4,883
State Assistance – ROAP Funds Sub-allocated to the Transit System	\$36,992	\$36,313	\$40,452	\$45,257
Local Assistance - Administrative Funds	\$12,211	\$12,933	\$13,544	\$14,648
Contract Revenue	\$268,544	\$228,649	\$245,555	\$260,958
Fares/Donations from passengers <sup>2</sup>	\$7,738	\$6,101	\$6,840	\$6,363
Proceeds from Sale of Vehicle(s) <sup>3</sup>	\$0	\$0	\$11,602	\$5,868
Interest Income	\$12,392	\$15,025	\$14,277	\$10,546
Subtotal Revenue	\$407,073	\$372,311	\$409,018	\$426,648
Debit to Revenue - Unspent ROAP Funds	\$0	\$0	\$7,000	\$13,853
<b>TOTAL ADMIN/OPERATING REVENUE</b>	<b>\$407,073</b>	<b>\$372,311</b>	<b>\$402,018</b>	<b>\$412,796</b>
<b>Capital Funding</b>				
Federal/State Assistance- Capital - Vehicles & Others	\$20,514	\$93,383	\$62,980	\$628
Local Assistance- Capital Funding	\$2,279	\$10,376	\$6,998	\$70
Insurance Proceeds from Accident	\$952	\$0	\$14,363	\$0
Other	\$0	\$0	\$57	\$0
<b>TOTAL CAPITAL REVENUE</b>	<b>\$23,745</b>	<b>\$103,759</b>	<b>\$84,398</b>	<b>\$698</b>
<b>TOTAL ALL REVENUE</b>	<b>\$430,818</b>	<b>\$476,070</b>	<b>\$486,416</b>	<b>\$413,494</b>

Source: Individual Community Transportation System Operating and Financial Statistics Reports, FY2005/06 through FY2008/09

Notes:

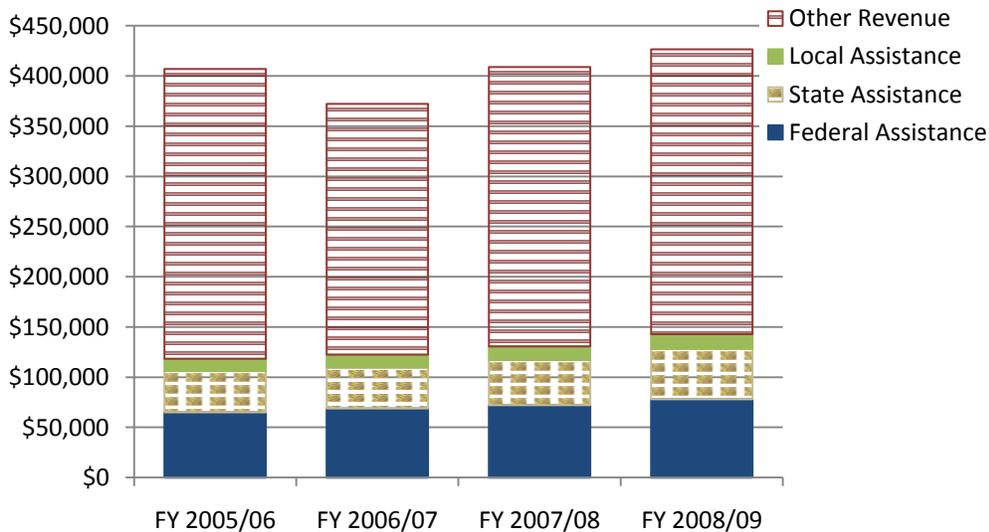
<sup>1</sup> Caswell County receives no 5311-CTP/Operating funds, nor any New Freedom or JARC program funding.

<sup>2</sup> While the line item is fares/donations, all revenue is from fares.

<sup>3</sup> Funds may be used only for administrative or operating costs.

Also above in **Table 26**, amounts of revenue received from federal, state, and local funding sources have generally trended upward in the last four fiscal years. Contract revenue and fares received from passengers, declined significantly in FY 2006/07, but have slowly trended upward since. Yet, as shown in **Figure 16** below, contract and fare revenue (“Other revenue”) consistently remain the main source of revenue. The vast majority of this other revenue is from contracts with human service agencies.

**FIGURE 16 – ADMINISTRATIVE AND OPERATING REVENUE, FY 2005/06 THROUGH FY 2008/09**



Source: Individual Community Transportation System Operating and Financial Statistics Reports, FY2005/06 through FY2008/09

In the last four fiscal years, CDOT’s total revenues have exceeded total costs. In addition, in FY2007/08 and FY 2008/09, CDOT returned ROAP funds as they were unable to be spent. In FY2007/08, \$7,000 in funds was returned, and in the following year almost double that<sup>15</sup> (see **Table 26** above). As reflected in preliminary and preferred alternatives developed for this CTSP, growth of general public ridership is a core focus. Not only is this group currently underserved by existing service, but valuable funding resources in the past two years have been allocated to serve this group, but ultimately not spent. Expanding service to this group will make better use of allocated funding.

## **EXISTING EXPENSES**

Caswell County’s transit expenses have varied over the past fiscal years, as shown in **Table 27** below.

**TABLE 27 –EXPENSES BY TYPE AND FISCAL YEAR, 2005/06 THROUGH 2008/09 (PREVIOUSLY PRESENTED AS TABLE 12)**

<b>Expense Type</b>	<b>FY 2005/06</b>	<b>FY 2006/07</b>	<b>FY 2007/08</b>	<b>FY 2008/09</b>
<b>Administrative</b>				
Personnel Salaries and Fringes	\$59,108	\$63,401	\$61,993	\$64,676
Advertising and Promotion	\$980	\$2,089	\$2,340	\$2,234
Employee Development	\$1,470	\$767	\$1,022	\$996
Vehicle Insurance Premiums	\$3,113	\$3,122	\$3,884	\$4,027
Indirect Services	\$27,962	\$23,963	\$30,852	\$32,097
Expenses <sup>1</sup>	\$300	\$10,424	\$12,226	\$15,484
Other Expenses <sup>2</sup>	\$10,579	\$0	\$0	\$0
<i>Administrative Subtotal</i>	<i>\$103,512</i>	<i>\$103,765</i>	<i>\$112,317</i>	<i>\$119,514</i>
<b>Operating</b>				
Driver Salaries and Fringes	\$150,617	\$161,078	\$181,951	\$160,258
Fuel/Oil	\$47,084	\$48,655	\$55,514	\$43,673
Vehicle Maintenance	\$12,796	\$12,008	\$7,764	\$11,968
Payment of Insurance Deductible	\$2,000	\$0	\$1,000	\$0
Disposal of Vehicle	\$0	\$0	\$0	\$309
Other <sup>3</sup>	\$9,748	\$12,027	\$23,378	\$26,828
<i>Operating Subtotal</i>	<i>\$222,246</i>	<i>\$233,768</i>	<i>\$269,608</i>	<i>\$243,036</i>
<b>Administrative and Operating Subtotal</b>	<b>\$325,758</b>	<b>\$337,533</b>	<b>\$337,533</b>	<b>\$362,550</b>
<b>Capital</b>				
Capital Purchases	\$23,377	\$103,759	\$88,398	\$698
Body Work on Wrecked Vehicle	\$952	\$0	\$0	\$0
Advanced Technology Purchases	0	\$0	0	0
<b>Capital Subtotal</b>	<b>\$24,329</b>	<b>\$103,759</b>	<b>\$88,398</b>	<b>\$698</b>
<b>TOTAL ALL EXPENSES</b>	<b>\$350,087</b>	<b>\$441,292</b>	<b>\$425,931</b>	<b>\$363,248</b>

Source: Individual Community Transportation System Operating and Financial Statistics Reports, FY2005/06 through FY2008/09

Notes:

<sup>1</sup> Includes utilities, communications, printing, office expenses.

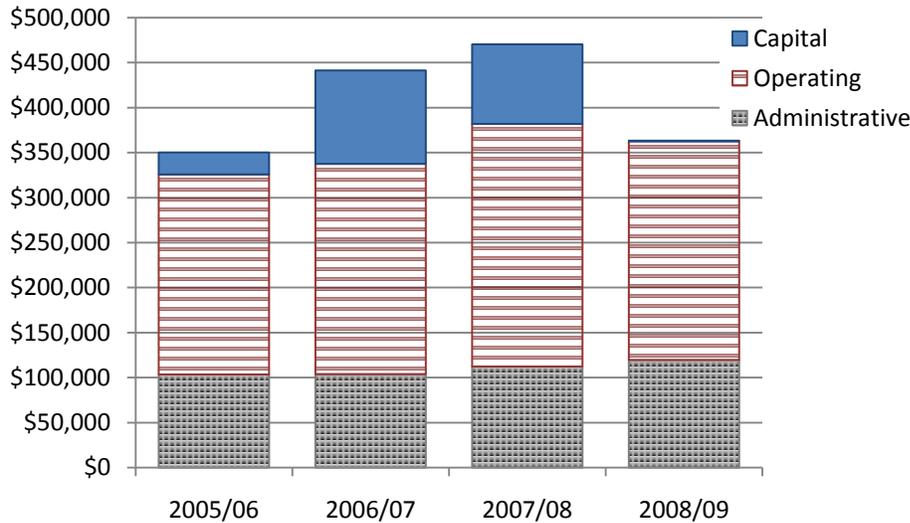
<sup>2</sup> Line item used only in FY2005/06 and includes travel, telephone, natural gas, water & sewer, M&R office equipment, postage, electricity, office supplies, drug testing, janitorial supplies, maintenance.

<sup>3</sup> Includes Uniforms, CDL, property/liability ins. and drug testing.

**Figure 17** below, depicts annual expenses in graph form. Expenses peaked in FY 2007/08 and decreased by roughly 6% in FY 2008/09. Over this same period, the average cost of a passenger trip has increased from just over \$8 to almost \$11.

<sup>15</sup> Note: CDOT received more ROAP funding than originally requested.

**FIGURE 17 – ANNUAL EXPENSES, FY 2006/07 THROUGH 2008/09**



Source: Individual Community Transportation System Operating and Financial Statistics Reports, FY2005/06 through FY2008/09

This CTSP does not recommend an increase in fares, but does recommend continued tracking of passenger trip costs and revenues (funding and earned). Caswell County has sufficient reserves to allow it focus on goals of better serving residents, and it is not anticipated that the service will need to consider raising fares within the next few years.

Estimated costs and revenues associated with the Preferred Alternative are shown in detail in **Table 32**, provided later in this section. As currently calculated, a fund deficit is anticipated for each fiscal year shown. Actual costs will vary, as will actual future state and federal funding. With increased service, certain types of revenue (both funding and farebox) can be expected to increase, as well). However, the displayed deficits underscore the need to continue to track performance measures – including ridership, revenue miles, service hours – to be able to competitively pursue additional funding from current or new sources, as described above. The potential, new revenue sources most overtly suited to the Preferred Alternative are included in the funding allocation in the financial plans (e.g., donated services). The potential revenue sources less suited to this 5-year plan’s Preferred Alternative recommendations (e.g., JARC) are not included. By not providing anticipated funding for selected, less-likely, new funding programs, a worst-case scenario for the 5-year plan is provided where reserves are necessary for each year. If ridership grows more quickly than anticipated, or if riders begin to use the service differently than anticipated (e.g., for commute-to-work trips), these less-likely funding sources could be applied for (sooner than anticipated) and sought, increasing anticipated revenues.

CDOT currently benefits from interest-earning reserve funds that provide a budgetary cushion; the prospect of a deficit does not mean the end of service. With this reserve, it affords CDOT the luxury of growing the service and potentially utilizing some of their “reserves” while also growing the user base and subsidizing the system as the right mix of strategies and service are found. Implementation of the Preferred Alternative (Alternative 4) assumes that some of the reserve funds will be utilized for planning and procuring new administrative space and perhaps for portions of the re-branding efforts. It is anticipated, however, that reserve funds will not be used for the continuation of existing services and as reserve funds may be used in one year to increase service or improve a portion of the service, that by the subsequent year, ridership will be at such levels to off-set operation costs. It is anticipated that although reserve funds may be used in the next five years, that as service continues to grow, sufficient reserve funds will be maintained and potential improvements to the system, and subsequent ridership associated with improvements will off-set used reserves. NCDOT recommends that transit agencies maintain a minimum of 3 months of operating budget in reserves, which for CDOT’s operating budget is approximately \$61,000. Currently, CDOT reserves total in excess of \$400,000 or 20 months of operating funds. It is anticipated that even with projected use of a portion of existing reserves, CDOT will

comfortably maintain that 3 month reserve amount. **Table 28** below shows the net credits added to CDOT’s reserve funds over the past four fiscal years. The net total of funds added over four years is \$226,240.

**TABLE 28 – TOTAL EXPENSES/REVENUES AND NET DIFFERENCE BY FISCAL YEAR, 2005/06 THROUGH 2008/09**

	FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09
Total Expenses <sup>1</sup>	\$350,087	\$441,292	\$425,931	\$363,248
Total Revenue	\$430,818	\$476,070	\$486,416	\$413,494
Net Difference (credits or debits to reserve funds)	\$80,731	\$34,778	\$60,485	\$50,246
<b>Total funds added to reserves</b>				<b>\$226,240</b>

Source: Individual Community Transportation System Operating and Financial Statistics Reports, FY2005/06 through FY2008/09

Note:

<sup>1</sup> Includes administrative, operating, and capital revenue and expenses

## **FUTURE REVENUE AND EXPENSES**

All revenue and expense estimates are based on data from the past four fiscal years with additional attention provided to those totals in FY 2008/09. Based on the increase of state, federal, and local funding over the past four fiscal years, future state and local funding might be expected to continue to grow at rate in the future similar to past growth.–There are several factors, however, that suggest that funding levels may be more variable. In addition to general shifts in the economy and resulting change in availability of funds, the State of North Carolina is modifying allocation methods. Furthermore, reduction in County or State funding may also occur as financial belts tighten and Caswell is asked to use a portion of their reserve funds for day to day administration, operations, and/or maintenance of the system.

For all three preliminary alternatives, federal and local funding was projected to increase 15% annually based on FY 2007/08 to FY 2008/09 data. For estimation purposes, state funding is considered to remain constant at \$40,000 annually; this is due to fluctuations over the past four years in state funding and unspent funds over the same period.

While a steady 15% increase in funding levels was used in the development of preliminary alternatives, Alternative 4, the Preferred Alternative uses a more nuanced approach to projected funding. As shown in **Table 32** later in this section, both general and alternative specific funding reflects a more variable pattern of funding. Projections are based on a study of past funding levels, but are adjusted on a year by year basis.

A similar set of assumptions guides the farebox and contract revenue in the Alternative cost details. Farebox and contract revenue are projected to grow at the same rate as in past fiscal years, contract at 7% annually; farebox at 10% annually. For all four alternatives presented, a base level of farebox and contract revenue increase is included. This base level reflects growth at a rate similar to that seen over the past four fiscal years. Additional farebox and/or contract revenue due specifically to changes in transit services is added on top of those base levels. Fares are assumed to remain constant through the horizon year. In 2010, general public trips are currently billed at \$5/round trip for in County, \$7/round trip for near out of County (Roxboro, Reidsville, etc) and \$10/round trip for far out of County (Chapel Hill and Greensboro). One of Caswell County’s primary goals is to serve residents of the county. To that extent, current rates are on-par with national averages for similar types of service and are not anticipated to increase over the 5-year period. However, if funding and operations changes suggest deficits in excess of the minimal amounts estimated in the preferred alternative, the fare structure could be revised in the future.

Other forms of revenue are projected to remain relatively constant throughout the horizon year. For the purposes of estimating future revenue \$30,000 is projected as the base level of other revenue (non contract or farebox, non-funding). This amount assumes some of the endowment funds will be used, so interest earned will decrease, while other revenue may increase slightly.

Capital/vehicular expenses over the last four fiscal years have varied greatly, as shown above in **Table 28** previously. Due to the way in which vehicle replacement is requested/applied for, vehicles going out of commission will not be replaced for up to a full year beyond the request. For the purposes of projecting expenses, base capital expenses assume replacement of one transit vehicle per year. This base level of capital expenses applies to all alternatives and reflects what is required if no service changes are made. Additional vehicles needed to support new service recommended in the alternatives are added on top of the base expense.

Planning for replacement (and replacement requests) each of the plan fiscal years does add to future costs, but is a more conservative approach consistent with other cost and revenue projections used in the preliminary alternatives. For the purposes of estimating average costs, a body on chassis vehicle is used. It should be noted that Caswell currently has a variety of vehicle types in its 10 vehicle fleet – replacement of each will have different costs. Actual costs and recurrence of replacement will vary by vehicle type, age, and average life span.

### ***Cost and Revenue Estimates for Alternatives 1, 2, 3***

Cost estimates for all three preliminary alternatives are provided below in **Tables 29, 30, and 31**. The descriptions of services associated with these tables are presented earlier in this report in the *Preliminary Alternatives* section. A more detailed cost estimate for Alternative 4, the Preferred Alternative as well as a narrative discussion of costs and revenues is provided in the next section.

As discussed above, certain funding and expense assumptions were made to project costs in to the future. Components of administrative, operational, and capital costs are consistent with those presented in **Table 27**; components of revenue are consistent with those presented in **Table 26**. Costs are based on FY 2008-2009 financial data and the fare structure is assumed to remain consistent with FY 2009-2010 fares.

**TABLE 29 – COST AND REVENUE SUMMARY BY FISCAL YEAR: ALTERNATIVE 1 (PREVIOUSLY PRESENTED AS TABLE 18)**

		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<b>Costs</b>						
Administrative	Base	139,739	153,713	169,085	185,993	204,592
	Alt.1	4,800	0	0	0	0
	Subtotal	144,539	153,713	169,085	185,993	204,592
Operational	Base	298,946	328,841	361,725	397,897	437,687
	Alt. 1	5,642	16,500	0	0	0
	Subtotal	304,588	345,341	361,725	397,897	437,687
Capital	Base	50,000	50,000	50,000	50,000	50,000
	Alt. 1	30,000	60,000	0	0	0
	Subtotal	80,000	110,000	50,000	50,000	50,000
<b>TOTAL COSTS</b>		<b>\$529,128</b>	<b>\$609,054</b>	<b>\$580,810</b>	<b>\$633,890</b>	<b>\$692,279</b>
<b>Base Revenues</b>						
Federal funding		103,320	118,818	136,641	157,137	180,708
State funding		40,000	40,000	40,000	40,000	40,000
Local funding		19,237	22,278	25,619	29,462	33,882
Contract Revenue		298,771	319,685	342,063	366,007	391,627
Farebox Revenue		7,699	8,469	9,316	10,248	11,272
Other revenue		30,000	30,000	30,000	30,000	30,000
Subtotal		\$499,162	\$539,250	\$583,639	\$632,854	\$687,490
<b>Potential/Alternative 1 Revenue</b>						
Farebox		770	847	931	1,025	1,127
State: Building planning and renovations		15,000	40,000	0	0	0
Donated services (design, public ed.)		0	4,000	0	0	0
<b>TOTAL REVENUE</b>		<b>\$514,932</b>	<b>\$584,097</b>	<b>\$584,571</b>	<b>\$633,879</b>	<b>\$688,617</b>
<b>Difference</b>		<b>(14,195)</b>	<b>(24,957)</b>	<b>3,762</b>	<b>(11)</b>	<b>(3,663)</b>

**TABLE 30 – COST AND REVENUE SUMMARY BY FISCAL YEAR: ALTERNATIVE 2 (PREVIOUSLY PRESENTED AS TABLE 20)**

		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<b>Costs</b>						
Administrative	Base	139,739	153,713	169,085	185,993	204,592
	Alt. 2	4,800	12,500	0	0	0
	Subtotal	144,539	166,213	169,085	185,993	204,592
Operational	Base	298,946	328,841	361,725	397,897	437,687
	Alt. 2	8,863	22,424	41,836	0	0
	Subtotal	307,809	351,265	403,561	397,897	437,687
Capital	Base	50,000	50,000	50,000	50,000	50,000
	Alt. 2	30,000	60,000	50,000	0	0
	Subtotal	80,000	110,000	100,000	50,000	50,000
<b>TOTAL COSTS</b>		<b>\$532,349</b>	<b>\$627,478</b>	<b>\$672,646</b>	<b>\$633,890</b>	<b>\$692,279</b>
<b>Base Revenues</b>						
Federal funding		103,320	118,818	136,641	157,137	180,708
State funding		40,000	40,000	40,000	40,000	40,000
Local funding		19,237	22,278	25,619	29,462	33,882
Contract Revenue		298,771	319,685	342,063	366,007	391,627
Farebox Revenue		7,699	8,469	9,316	10,248	11,272
Other revenue		30,000	30,000	30,000	30,000	30,000
Subtotal		\$499,162	\$539,250	\$583,639	\$632,854	\$687,490
<b>Potential/Alternative 2 Revenue</b>						
Farebox		1,540	1,694	1,863	2,050	2,255
State: Building planning and renovations		15,000	40,000	0	0	0
Donated services (design, public ed.)		0	4,000	4,000	0	0
State ROAP-EDTAP Senior Center Service		0	0	29,910	0	0
Fed/State (5310-Elderly) - Senior Center bus		0	0	40,000	0	0
<b>TOTAL REVENUE</b>		<b>\$515,702</b>	<b>\$584,944</b>	<b>\$659,413</b>	<b>\$634,904</b>	<b>\$689,744</b>
<b>Difference</b>		<b>(16,646)</b>	<b>(42,534)</b>	<b>(13,233)</b>	<b>1,014</b>	<b>(2,535)</b>

**TABLE 31 – COST AND REVENUE SUMMARY BY FISCAL YEAR: ALTERNATIVE 3 (PREVIOUSLY PRESENTED AS TABLE 22)**

		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<b>Costs</b>						
Administrative	Base	139,739	153,713	169,085	185,993	204,592
	Alt. 3	4,800	12,500	0	16,169	16,169
	Subtotal	144,539	166,213	169,085	202,162	220,761
Operational	Base	298,946	328,841	361,725	397,897	437,687
	Alt. 3	9,579	22,424	45,236	2,624	47,462
	Subtotal	308,525	351,265	406,961	400,521	485,149
Capital	Base	50,000	50,000	50,000	50,000	50,000
	Alt. 3	30,000	60,000	50,000	0	100,000
	Subtotal	80,000	110,000	100,000	50,000	150,000
<b>TOTAL COSTS</b>		<b>\$533,065</b>	<b>\$627,478</b>	<b>\$676,046</b>	<b>\$652,683</b>	<b>\$855,910</b>
<b>Base Revenues</b>						
Federal funding		103,320	118,818	136,641	157,137	180,708
State funding		40,000	40,000	40,000	40,000	40,000
Local funding		19,237	22,278	25,619	29,462	33,882
Contract Revenue		298,771	319,685	342,063	366,007	391,627
Farebox Revenue		7,699	8,469	9,316	10,248	11,272
Other revenue		30,000	30,000	30,000	30,000	30,000
	Subtotal	\$499,162	\$539,250	\$583,639	\$632,854	\$687,490
<b>Potential/Alternative 3 Revenue</b>						
Farebox		2,731	3,004	3,304	3,635	3,999
State: Building Planning and renovations		15,000	40,000	0	0	0
Donated services (design, public ed.)		0	4,000	4,000	0	0
State ROAP-EDTAP Senior Center Service		0	0	29,910	0	0
Fed/State (5310-Elderly) - Senior Center bus		0	0	40,000	0	0
JARC		0	0	0	0	30,000
State - CTP, Rural Capital Program -buses		0	0	0	0	80,000
Funding from Piedmont Comm. College		0	0	0	0	30,000
Funding from Orange Enterprises		0	0	0	0	30,000
<b>TOTAL REVENUE</b>		<b>\$516,472</b>	<b>\$585,791</b>	<b>\$660,344</b>	<b>\$635,929</b>	<b>\$860,871</b>
<b>Difference</b>		<b>(16,592)</b>	<b>(41,687)</b>	<b>(15,701)</b>	<b>(16,755)</b>	<b>4,961</b>

### ***New Funding Opportunities***

Several potential new sources of revenue are discussed in relation to the Alternatives, including federal JARC (5316) funding, 5310 and 5317 funds, donated services, and contributions from local institutions. The most robust of the alternatives, Alternative 3, proposes scheduled deviated fixed-route service that could serve commute-to-work trips, bringing the service closer to qualifying for federal JARC funding. All the alternatives recommend public education and service awareness programs – all of which could benefit from donated services, including logo development, public relations assistance, and donated promotional advertising space. All alternatives recommend increasing ridership among the underserved general public, this would increase farebox revenue, albeit by varied increments. The new, untapped sources of revenue available to Caswell County will depend on the extent of service provided and the targeted audiences of the increased services (See also **Appendix A** for listing of funding sources).

It is recommended that Caswell County apply for Section 5310 funding to support implementation of the preferred alternative, Alternative 4. Two service improvements (shopping loop and Yanceyville-inbound service)

require service-specific capital expenditures. Section 5310 funding offers capital assistance to groups providing service to elderly and persons with disabilities. Providing increased and weekend access to retail and grocery stores, pharmacies, and similar will benefit both elderly and disabled riders who might not otherwise be able to make the trip independently. 5310 funding provides 80% of the cost of capital purchases, requiring a 20% match. CDOT's contract revenue, farebox revenue, or even reserve funds could be used for the matching amount. It is further recommended that as new service grows, if persons with disabilities form a large portion of riders using the new service, CDOT consider applying for New Freedom funds (5317).

Additional state and federal funding sources, such as the Congestion Relief and Intermodal Transportation 21<sup>st</sup> Century Fund (NC HB 148) or the Job Access and Reverse Commute Program (Section 5316), are less appropriate to the initial scale and focus of transit service changes proposed in the Preferred Alternative (Alternative 4) of this FY2010/11-2014/15 CTSP. Should Caswell decide to target the provision of mobility options to disabled populations beyond that required by ADA, for example, then the agency may be able to competitively apply for New Freedom funding. Similarly, if scheduled loop service were to grow to daily service with several morning and evening loops, riders may begin to use the service to get to work and Job Access and Reverse Commute Program funds may be possible. Future CTSPs should reassess appropriate new funding sources based on service expansion made through FY2014/15 and the type and scale of service proposed for future years. As discussed, programs that may become more appropriate as service grows and additional rider populations are targeted include:

- Congestion Relief and Intermodal Transportation 21<sup>st</sup> Century Fund (state)
- New Freedom Program (federal)
- Job Access and Reverse Commute Program (federal)
- Transportation for Elderly Persons and Persons with Disabilities (federal)

## **PREFERRED ALTERNATIVE**

Implementation of the preferred alternative will require additional funding, as described above and in the service description for Alternative 4, Preferred. Each fiscal year of this CTSP will feature new areas of service, or steps toward implementation of new service – and each of these actions will have related financial considerations.

## ***Estimated Costs and Revenues***

**Table 32** below presents a detailed view of anticipated, estimated costs and revenues associated with implementing the Preferred Alternative.

**TABLE 32 – COST AND REVENUE SUMMARY BY FISCAL YEAR: ALTERNATIVE 4, PREFERRED**

	2010/11	2011/12	2012/13	2013/14	2014/15
<b>COSTS</b>					
<b>Administrative</b>					
Personnel Salaries and Fringes	\$65,000	\$68,250	\$71,663	\$75,246	\$79,008
Advertising and Promotion	\$2,300	\$4,300	\$2,300	\$8,800	\$2,300
Employee Development	\$5,494	\$3,594	\$3,738	\$3,887	\$4,042
Vehicle Insurance Premiums	\$4,188	\$4,356	\$4,530	\$4,711	\$4,899
Indirect Services	\$27,603	\$35,332	\$36,746	\$42,258	\$54,090
Other Admin Expenses	\$18,916	\$34,024	\$28,108	\$32,886	\$33,873
Administrative Subtotal	\$123,502	\$149,855	\$147,084	\$167,788	\$178,212
<b>Operating</b>					
Driver Salaries and Fringes	\$173,616	\$185,769	\$205,193	\$219,557	\$255,549
Fuel/Oil	\$46,564	\$53,083	\$55,020	\$62,723	\$69,604
Vehicle Maintenance	\$12,190	\$11,702	\$19,562	\$20,344	\$24,588
Payment of Insurance Deductible	\$1,000	\$0	\$2,000	\$0	\$3,000
Disposal of Vehicle	\$350	\$0	\$500	\$0	\$0
Other Operating Expenses	\$32,998	\$37,618	\$47,270	\$52,748	\$60,133
Operating Subtotal	\$266,719	\$288,173	\$329,545	\$355,371	\$412,875
<b>Administrative and Operating Subtotal</b>	<b>\$390,220</b>	<b>\$438,028</b>	<b>\$476,628</b>	<b>\$523,159</b>	<b>\$591,088</b>
<b>Capital</b>					
Capital Purchases	\$80,000	\$110,000	\$100,000	\$50,000	\$100,000
Body Work on Wrecked Vehicle	\$952	\$0	\$1,000	\$0	\$1,083
Advanced Technology Purchases	\$0	\$100	\$0	\$200	\$0
Capital Subtotal	\$80,952	\$110,100	\$101,000	\$50,200	\$101,083
<b>TOTAL COSTS</b>	<b>\$471,172</b>	<b>\$548,128</b>	<b>\$577,628</b>	<b>\$573,359</b>	<b>\$692,171</b>
<b>REVENUES</b>					
<b>Administrative and Operating</b>					
Federal Section 5311 CTP Funds - Admin	\$103,320	\$118,818	\$136,641	\$157,137	\$180,708
State - CTP Funds - Administrative	\$5,274	\$4,696	\$4,571	\$4,737	\$4,816
State – ROAP Funds <sup>1</sup>	\$30,000	\$32,000	\$37,000	\$38,000	\$47,000
Local - Administrative Funds	\$19,372	\$20,147	\$21,759	\$22,847	\$25,131
Contract Revenue	\$298,771	\$319,685	\$322,063	\$346,007	\$351,628
Fares/Donations from passengers	\$7,853	\$8,623	\$9,470	\$10,402	\$11,426
Proceeds from Sale of Vehicle(s)	\$0	\$5,000	\$0	\$5,000	\$0
Interest Income	\$10,000	\$7,000	\$7,000	\$8,000	\$8,275
Advertising Revenue <sup>2</sup>	\$0	\$0	\$0	\$0	\$0
Other <sup>3</sup>	\$0	\$0	\$4,000	\$0	\$0
Administrative and Operating Subtotal	\$474,590	\$515,969	\$542,504	\$592,129	\$628,984
<b>Capital</b>					
Federal/State Assistance- Capital <sup>4</sup>	\$55,000	\$60,000	\$80,000	\$40,000	\$80,000
Local Assistance- Capital Funding	\$0	\$3,000	\$0	\$0	0
Other <sup>5</sup>	\$0	\$0	\$0	\$0	0
Capital Subtotal	\$55,000	\$63,000	\$80,000	\$40,000	\$80,000
<b>TOTAL REVENUES</b>	<b>\$529,590</b>	<b>\$578,969</b>	<b>\$622,504</b>	<b>\$632,129</b>	<b>\$708,984</b>
<b>DIFFERENCE (REVENUES LESS COSTS)</b>	<b>\$451</b>	<b>-\$30,120</b>	<b>-\$28,299</b>	<b>-\$13,630</b>	<b>-\$76,254</b>

Notes:

<sup>1</sup> Funds are sub-allocated to the transit system.

<sup>2</sup> Not assumed as a revenue stream in these projections, but opportunities to earn this type of revenue may arise as public awareness and branding efforts are implemented.

<sup>3</sup> Includes donated services, advertising revenue.

<sup>4</sup> Includes vehicle and other capital expense funding.

<sup>5</sup> While not assumed here, other sources of capital revenue could be pursued in the future, if necessary.

As with the preliminary alternatives, a net deficit is projected for several of the plan years. This deficit is due in large part to assumptions of very conservative funding growth and expectations that contract revenue may begin to level off in time. In addition, the Caswell County fare structure (for both general public and human service agency/contract riders) is held constant in these projections. Revisiting the fare structure in FY 2012/13 is suggested as one means of recalibrating and reassessing the transit service's financial status before FY 2014/15 recommended service additions.

The *Future Revenue and Expenses* section above details several of the assumptions underlying these estimates. While these estimates are made in accordance with current best practices and based on Caswell County's past financial data, variation in actual costs should be anticipated.

As discussed in *Existing Expenses*, CDOT currently has reserve funds of approximately \$400,000. These interest earning reserve funds provide a budgetary cushion and afford CDOT the luxury of growing the service, using a portion of the reserve funds while also growing the user base. In effect, CDOT is able to subsidize the system as the right mix of strategies and service is found. Implementation of the Preferred Alternative (Alternative 4) assumes that some of the reserve funds will be used for planning and procuring new administrative space and perhaps for portions of the re-branding efforts.

### **Sensitivity to Financial Change**

Caswell County's transit agency is currently in a very strong financial position. The County has benefitted from funding growth, contract revenue growth, and steady farebox revenue. Costs have grown, but have not yet outgrown revenues. This CTSP's recommendations are made at a time when state and local funding are anticipated to begin trending down. The graduated approach to growth presented in this CTSP and the County's reserve funds suggest that in the face of uncertain funding futures, in varying scenarios, Caswell County would still be able to not only operate, but pursue new service as well as maintain the NCDOT recommended 3 months worth of operating reserves (approximately \$180,000 for Caswell).

Should funding and earned revenue approximate estimates provided in **Table 32** above and no additional sources of funding or fare structure changes be pursued, a total net deficit of \$147,851 could result by FY 2014/15. Current reserve funds could cover this deficit and maintain a balance of just over \$250,000. Should state funding levels grow at rate slower than estimated, reserve funds could also support the service until funding or earned revenue grow. For example, if estimated state administrative/operating assistance (both CTP and ROAP) ceased altogether, over the life of this CTSP, an additional \$208,093 deficit would accrue. In this scenario, the net potential financial loss would greatly decimate reserve funds. Yet, even in this extreme scenario, close to \$45,000 would still remain.

A more plausible scenario might be that state funds for assisting with new administrative space are not available, placing the estimated \$100,000 cost entirely on the transit agency. If reserve funds needed to be used to cover that entire cost, \$300,000 would remain. This would allow up to \$120,000 additional deficits to be weathered – far in excess of any potential operational deficits – and a 3 month operating reserve to be retained.

It should also be noted that revenue estimates have held the fare structure constant with current rates. As discussed earlier, reassessing and adjusting fares would be an option for changing revenue streams in future years, if funding outlooks drastically change.

### ***Financial Narrative***

The section below recasts the financial data presented above in **Table 32** in narrative form. Information provided below also mirrors the Implementation Schedule and Action Steps Timeline, shown in **Table 25** previously.

As shown earlier, conservative cost estimates show a net deficit for each of the years of the 5-year CTSP. Additional costs of increasing services and growing ridership are covered in part by new funding applications to programs from which CDOT already receives funds. State funding for capital expenses (new buses, administrative space procurement) and service-provision expenses (routes targeting general public riders) is anticipated to increase in the projected improvement years. Donated services are projected to support marketing and public relations efforts.

Aside from recommendation-specific planned revenue increases, it is anticipated that portions of the transit agency's reserve funds will be utilized to cover any service deficits. As discussed earlier, Caswell County is extremely fortunate to have reserve funds available. The funds allow Caswell County to strategically grow their service in an order that best serves riders, accepting limited deficits in years when it is advantageous to do so. The end goal of producing financially-sustainable service that meets a greater number of Caswell County residents can be pursued with a slight safety net.

### ***Year 1, FY2010/2011***

Year 1 of CTSP implementation begins the provision of new service, extending evening weekday service to Danville and Reidsville. While no additional capital costs are needed for this service, additional miles and driver hour expenses will accrue. Early steps toward growing general public ridership by 10% over 5 years will place similar financial demands and rewards on the system. ROAP RGP funds are a potential funding source for both these service improvements. Procuring and implementing TripMaker for trip scheduling and enhancing the existing driver training program will require additional on staff time, as will improving tracking of mileage. A portion of these tracking and scheduling costs could be covered by CTP funds.

The recommendation with the greatest financial implications for Year 1 is the beginning of the planning/procurement process for new administrative space. This will require administrative staff time as well as capital expenditures.

It is anticipated that additional fare revenue (both general public and human service agency) will be earned from new and extended transit service. Contract revenue is expected to grow at levels consistent with past growth. Costs related to planning and procuring new administrative space may qualify for partial state funding (if an existing structure is selected). Additional costs are expected to be debited to reserve funds at this stage. Regularly scheduled vehicle replacement costs (capital), both in this fiscal year and all future years, may qualify for federal 5309 funds (Bus and Bus Facilities Program). These periodic and recurring capital costs could also be covered by CTP funds.

### ***Year 2, FY 2011/2012***

Year 2 of the CTSP implementation features continued extended evening hours to Danville and Reidsville and growth toward the 10% increase in ridership. Familiarity with the transit service will grow, in part due to increased visibility of services, but also due to a recommendation to re-brand the service during this fiscal year. ROAP RGP funds will be used to continue to provide extended service; re-branding efforts are anticipated to be funded by contract revenue or reserve funds.

As with Year 1, the capital costs for Year 2 will be sizeable and focused on continued vehicle replacement and to procuring new administrative space. Additional staff time to manage the process will also be required. CTP and reserve funds will continue to support procurement of new administrative space as well as regularly scheduled vehicle replacement.

Farebox revenue is anticipated to remain relatively stable during this year; contract revenue will grow at levels consistent with past growth. Recommendations in Year 2 are anticipated to benefit from donated services. Re-branding the service may be able to take advantage of resources available in the County, reaching out to community college students for assistance in developing a logo or in crafting

advertisements or key messages for the re-branding campaign. It is also anticipated that state funding assistance may also be available to complete procurement of new administrative space. Any residual expenses related to recommendations will be debited to reserve funds. In addition, as discussed in Year 1, federal 5309 funds may be able to assist with regularly scheduled capital (bus) replacements.

### ***Year 3, FY 2012/2013***

By Year 3, the transit agency is operating out of new administrative space and has established a new brand for itself – to include a new logo, name, and/or similar. The re-branding will necessitate reprinting of materials, painting of vehicles, new signage, etc. This fiscal year features continued growth toward the 10% increase of general ridership benchmark and maintenance of evening hours to Danville and Reidsville. Lastly, the transit service launches an awareness and public education campaign to support ridership growth goals and build on Year 2’s re-branding efforts.

The recommendation with the greatest financial impact in Year 3 is the provision of new shopping loop service in Yanceyville. Implementation will require administrative staff time, driver hours, and one new transit vehicle.

Farebox revenue is expected to remain relatively constant during Year 3, contract revenue will grow but perhaps not at as high a level as in the past, assuming that demand from human service agencies is relatively finite. , CTP/Rural Capital Program or 5310 funding should be sought to help defray the cost of a new transit vehicle for loop service; ROAP funding will help support shopping loop service, as it targets the needs of general public riders, following a consistent schedule and route. Funding sources sought for Years 1 and 2 for increased ridership and regularly scheduled capital costs should also be sought in Year 3.

### ***Year 4, FY 2013/2014***

Year 4 focuses on maintaining recently implemented service and building on awareness and public education gains. Evening service to Danville and Reidsville as well as the shopping loop service contribute to continued general public ridership growth. There are no sizeable capital expenses specific to the recommendations anticipated for this fiscal year.

Revenues from the farebox and contracts will remain constant and consistent with past trends; funding sources sought for prior years for increased ridership and regularly scheduled capital costs should again be sought in Year 4.

### ***Year 5, FY 2014/2015***

The final fiscal year in this CTSP, Year 5, builds on gains in ridership and service provision from the last four years. All prior additions are maintained and inbound service to Yanceyville to provided, producing the most robust transit service of the 5-year plan. It is expected that one new transit vehicle will be required for the inbound service, as well as administrative and driver hours.

Year 5’s most financially-significant recommendation is the inbound Yanceyville service. This service requires a new vehicle, driver training, and several additional hours of service and miles.

Revenues from the farebox and contracts are anticipated to remain constant and consistent with past trends; ROAP funding to support shopping loop service is also anticipated in levels consistent with Years 3 and 4. CTP/Rural Capital Program, 5311, or 5310 funds should be sought to cover costs of a new transit vehicle for the inbound Yanceyville service and ROAP funds should be sought to help support the costs of the providing the service.

## 6. PERFORMANCE MEASUREMENT PLAN

### PERFORMANCE METRICS

The Preferred Alternative (Alternative 4) puts forth a set of service improvements and changes intended to be implemented as described in the Implementation Schedule, **Table 25** previously and relevant sections above. Achievement of stated goals and objectives will be tracked and measured using metrics implicit in the scheduling (e.g., when milestones are reached) and those described below. The list below is intended to provide a starting point for progress tracking. Proposed metrics may be added or altered as this plan is implemented and better ways of measuring progress are identified.

The metrics listed below are inextricably linked to the implementation schedule, if changes are made to the schedule the metrics in **Table 33** below should be revised as well.

**TABLE 33– PERFORMANCE METRICS**

Metric	Success Indicator	Related Preferred Alternative Element	Objectives Supported
Increased RGP trips	Increase of approx. 80 trips per year, for a total 400 trip increase over the 5 year life of the plan	Grow general public ridership by 10% over 5 years Implement service awareness and public education campaign	Increased ridership Brand recognition Financial resources
Extended weekday service to two out-of-County destinations two nights a week	Meets – Provided 15 to 25 weeks out of the year Exceeds – Provided 25 to 40 weeks out of the year	Extend evening weekday service to Danville and Reidsville	Increased ridership Brand recognition Coordination
Loop service twice per day, two days per week	Meets – Provided 15 to 25 weeks out of the year Exceeds – Provided 25 to 40 weeks out of the year	Implement Shopping Loop service in Yanceyville	Increased ridership Brand recognition Coordination
Inbound Yanceyville service twice per day, two days per month	Meets – Provided 6 to 9 months out of the year Exceeds – Provided 9 to 12 months out of the year	Develop County-Yanceyville inbound service	Increased ridership Brand recognition
New name for Caswell service	Replacement of ‘CDOT’ with new service name/acronym on collateral materials by FY2012/13	Re-brand the service Implement service awareness and public education campaign	Education Financial resources Brand Recognition
Public information sessions	Meets – General information sessions held for the public Exceeds – Targeted sessions held with customized content, e.g. for Community College students, for youth	Implement service awareness and public education campaign Re-brand the service	Education Increased ridership
New administrative space	Occupation of new/ expanded administrative space in FY2011/12	Plan for and procure new administrative space	Staff development Brand recognition
TripMaker implementation	Completed installation, staff training, and continued use by FY2011/12	Procure and utilize TripMaker for trip scheduling Improve tracking of mileage	Staff development Financial resources
Driver refresher training	Assessment of existing training, creation of any additional refresher training, and staff training	Enhance driver program	Staff development

## **7. SUMMARY**

The items presented above constitute a 5-year Community Transportation Service Plan (CTSP) for Caswell County. With the implementation of the Preferred Alternative (Alternative 4), the existing service will increase in rural general public usage as well as human service agency usage. CDOT (or the newly branded transportation system) will meet an increased number of the needs of the County as a whole and will become a viable transportation option for the citizens of Caswell County.

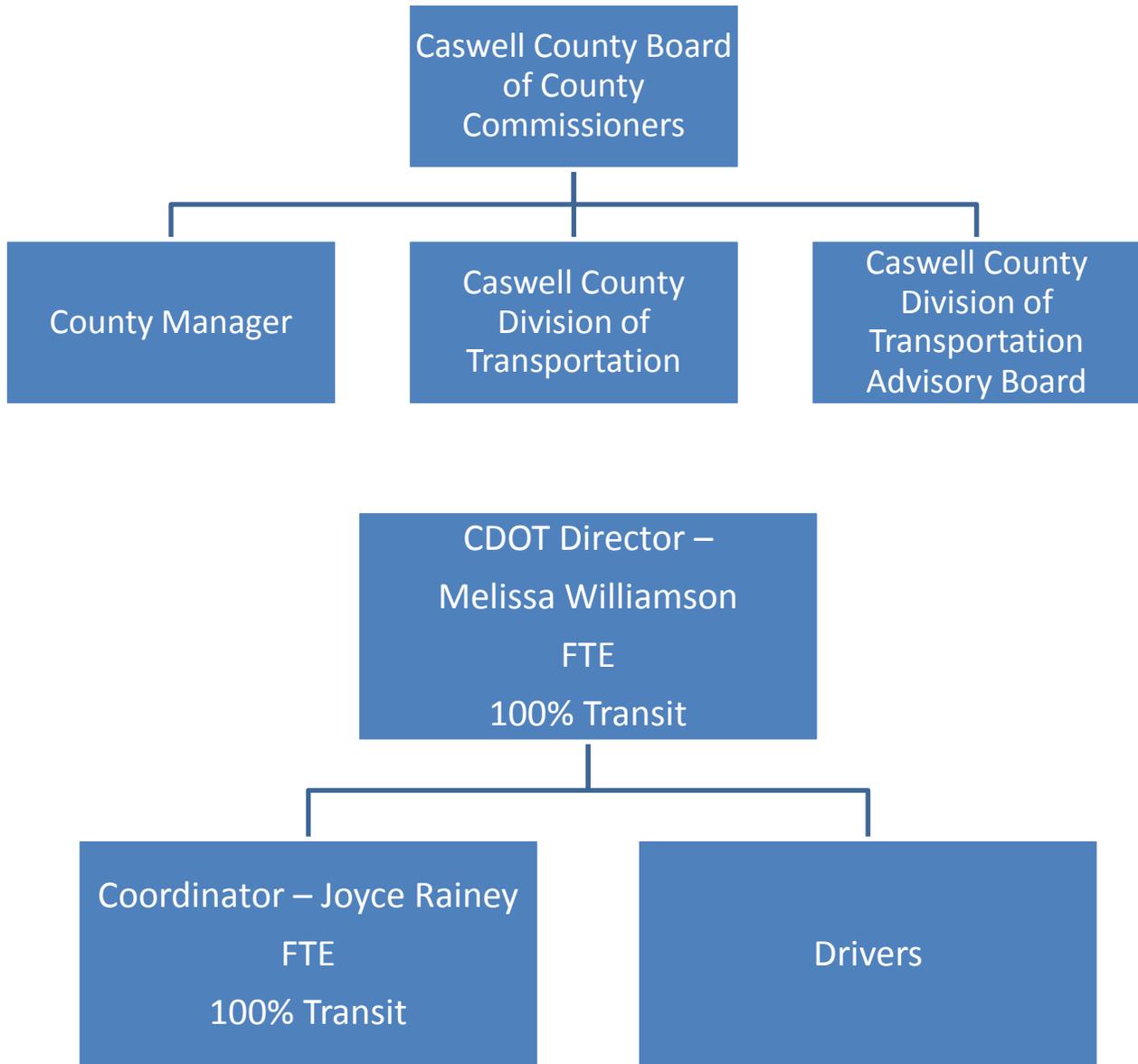
## APPENDIX A – SUMMARY OF MAIN FEDERAL AND STATE FUNDING SOURCES

Program	Source/funder	Purpose	Recipients	Uses	Match Ratios (federal/state/local)	Notes
Bus and Bus Facilities Program, Section 5309	Federal (FTA)	Provides capital assistance for new and replacement buses, related equipment, and facilities	Public bodies and transit agencies Majority of funds are earmarked by Congress for specific projects, remaining funds distributed competitively by FTA	Capital	80/10/10	May be used for new vehicles, park-and-ride stations, bus maintenance and administrative facilities, passenger amenities, and misc equipment
Transportation for Elderly Persons and Persons with Disabilities, Section 5310	Federal (FTA)	Assist private nonprofit groups in meeting the transportation needs of the elderly and persons with disabilities	Formula funding allocated to states	Capital	Capital: 80/0/20	Apportioned based on each state's share of elderly and disabled person populations. Funds obligated based on state's annual program of projects.
Rural and Small Urban Areas, Section 5311	Federal (FTA) Administered through Community Transportation Program (NCDOT)	Support public transportation serving areas with a population of less than 50,000	Allocated to states by formula, then sub-allocated by states (also by formula) to counties	Operating or capital	Administrative: 80/5/15 Capital: 80/10/10 Operating: 50/0/50	All-purpose, flexible funding source. States are generally required to use 15% for intercity bus service.
Job Access and Reverse Commute (JARC) Program, Section 5316	Federal (FTA)	Transport low income individuals to and from jobs and activities related to employment, and for reverse commute projects	Competitive program, allocated to states and public bodies, then sub-allocated to transit agencies, non-profits	Capital planning and operating	Capital: 80/0/20 Operating: 50/0/50	Projects must be in an adopted local coordinated plan to qualify.
New Freedom Program, Section 5317	Federal (FTA)	Reduce barriers to transportation services and expand mobility options available to people with disabilities beyond requirements of the Americans with Disabilities Act (ADA)	Formula grant program allocated to states and public bodies	Capital and operating (for new services beyond those required by ADA Act)	Capital: 80/0/20 Operating: 50/0/50	Projects must be in an adopted local coordinated plan to qualify.

## Appendix A – Summary of main federal and state funding sources

Program	Source/funder	Purpose	Recipients	Uses	Match Ratios (federal/state/local)	Notes
Rural Capital Program, Community Transportation Program (CTP)	State	Provide for capital costs of rural transit	Allocated by states to rural transit agencies	Capital	90 (combination federal and state)/10	
Human Services Transportation Management Program, CTP	State	Assist with administrative costs of human service transportation	Allocated by states to rural transit agencies	Administrative	0/85/15	
Rural Operating Assistance Program (ROAP)  Includes: Elderly and Disabled Transportation Assistance Program (EDTAP); Rural General Public Program (RGP); Employment Transportation Assistance Program (ETAP or EMPL)	State  Includes three programs, administered under one application	EDTAP provides operating assistance for the transportation of elderly and disabled citizens.  RGP funds community transportation systems that serve the general public in rural areas.  ETAP/EMPL funds transportation service to employment for low-income individuals.	Allocated to counties by formula	Operating	EDTAP: 0/100/0 RGP: 0/90/10 ETAP/EMPL: 0/100/0	Funds can be used as local match for federal funding (operating).  ETAP/EMPL funds can be transferred to either EDTAP or RGP, if not needed.

## APPENDIX B – ORGANIZATIONAL STRUCTURE OF CDOT



# APPENDIX C – TECHNICAL ADVISORY BOARD (TAB) BYLAWS

## • ARTICLE I: Name

The name of this board shall be the Caswell County Transportation Advisory Board,

## • ARTICLE II: Powers and Responsibilities

The transportation advisory board shall perform the following duties or be responsible for the following functions:

- 1) Serve as a liaison between the residents of Caswell County and the county government concerning transportation issues,
- 2) Serve as the advisory body to Caswell Division of Transportation (CDOT) in the operation of the Caswell County Transportation System,
- 3) Recommend policy and make recommendations to CDOT and the Caswell County Board of Commissioners on the transportation needs of Caswell County citizens, particularly with respect to a coordinated and cost-effective approach to the delivery of transportation services to area human service agencies and *the* general public,
- 4) Work to stimulate and promote needed transportation services and programs for Caswell County residents,
- 5) Assist public, private non-profit, private, and voluntary agencies in providing transportation services to their clients,
- 6) Assist in the development and update of the Caswell County Transportation Development Plan (TDP),
- 7) Perform other functions and responsibilities as may be requested or prescribed by the Caswell County Board of Commissioners,

## • ARTICLE III: Composition

### 1) NUMBER AND QUALIFICATIONS

The Caswell County Transportation Advisory Board is composed of one representative from each human service agency, who contracts for transportation service annually; one member of the Caswell County Board of Commissioners; and two at-large members, appointed by the Caswell County Board of Commissioners,

### 2) TERMS AND REPLACEMENTS

At-large members of the Caswell County Transportation Advisory Board shall serve two-calendar year terms, with no more than two consecutive two-year terms. When the county commissioner member of the board ceases to be a county commissioner for any reason, his or her appointment as a member of the board shall also cease and the board of county commissioners, during its next meeting shall appoint another commissioner to the transportation advisory board. Agency representatives will serve continuously or until succeeded for whatever reason (resignation, termination, etc.).

### 3) VACANCIES

The Caswell County Board of Commissioners shall fill at-large and county commissioner vacancies on the Caswell County Transportation Advisory Board. The person appointed shall serve for the unexpired portion of the term. The contracting organization's director may fill vacancies of contractor representatives.

### 4) ATTENDANCE

Any member of the Board who accumulates more than three consecutive unapproved absences in a 12-month period shall lose his/her status as a member of the board and shall be replaced by the Caswell County Board of Commissioners. Absences due to illness or death of an immediate family member shall be considered approved absences and shall not affect the member's status. Following the second consecutive absence, the member will be notified in writing of the attendance policy.

### 5) AGENCY APPOINTMENTS AND ALTERNATES

The director of contracting organizations may appoint a delegate and an alternate to represent the organization on the board. In the absence of the delegate, the alternate shall represent the contracting organization and shall have full voting privileges.

## • ARTICLE IV: Regular Meetings

### 1) DATES AND LOCATIONS

- a. Regular meetings of the Caswell County Transportation Advisory Board will be held quarterly. The meetings will usually last for duration of one hour. The board will establish date, location, and time of meetings.
- b. The Chairperson may call special meetings of the Caswell County Transportation Board as deemed necessary to carry out the duties of the board.
- c. Board agenda package will be provided to board members a minimum of three working days in advance of the meeting date.
- d. Meeting dates will be established annually for the calendar year.
- e. Public notice of all meetings will be provided in compliance with NC G.S. 143-318.12.

### 2) QUORUM

A majority of the board then in office shall constitute a quorum for the transaction of business for any meeting of the board.

- **ARTICLE V: Officers**

- 1) **NUMBER AND TITLE**

- The principle officers of the Caswell County Transportation Advisory Board shall be a chairperson, vice-chairperson, and secretary.

- 2) **ELECTION**

- The transportation advisory board shall elect the chairperson, vice chairperson, and secretary, for a term of one year at its first meeting in the Caswell County fiscal year. Consecutive terms may be served.

- 3) **VACANCIES**

- The board of commissioners may hold office for portion of the term may fill any vacancy in any office elected by the board.

- 4) **CHAIRPERSON**

- The chairperson shall preside at all meetings of the board and shall represent the board in approved activities on its behalf. The chairperson will also be responsible for scheduling and submitting notices of all meetings to the membership of the board.

- 5) **VICE CHAIRPERSON**

- The vice chairperson shall perform the duties of the chairperson in his/her absence.

- 6) **SECRETARY**

- The secretary shall record and keep a file of the minutes of all board meetings.

- **ARTICLE VI: Committees**

- The Caswell County Transportation Advisory Board may designate committees, as it shall determine. Minutes must be taken at each committee meeting and will be filed with the official board minutes. Copies of the approved minutes will be given to the Board of Commissioners. Reports from each committee shall be given to the full membership of the board.

- **ARTICLE VII: Rules Of Order**

- At all meetings of the hoard and of such committees as may be established by it parliamentary procedure shall be governed by the latest edition of Robert's Rules of Order and as modified by rules of the hoard.

- **ARTICLE VIII: Board of Commissioners**

- The Caswell County Board of Commissioners may direct the transportation advisory board regarding matters relating to it and may over-rule or re-direct actions of the transportation advisory board.

- **ARTICLE IX: Amendments**

- These by-laws may he adopted, altered, or appealed by the affirmative votes of a majority of the Board of Commissioners in office at any regular or special meetings of the board, but only if the notice of such meeting contained a copy or an accurate summary and explanation of the proposed by-laws amendment, alteration, or repeal as the case may be.

- Approved by the Caswell County Transportation Advisory Board.

- Adopted by the Caswell County Board of Commissioners.

## APPENDIX D – 2010 TECHNICAL ADVISORY BOARD (TAB) MEMBERS

Name	Category Represented	Community Role or Position	Needs Represented
Dianne Moorefield	Human Service	HS-DSS	General Public, Disabled, Low Income, Elderly
Brenda Day	Business	PB Public Citizen	Disabled
Tonya Breedlove	Human Service	HS-DSS (Work First)	Low Income
Kimberly Dail	Human Service	HS- Senior Service	Elderly
Dr. Fred Moore	Human Service	PB Medical	General Public
Kevin Howard	Govt or Govt Affiliate	GGA - Elected Official	General Public
William Carter	Govt or Govt Affiliate	GGA - Elected Official	General Public
Brian Totten	General Public	PB Public Citizen	General Public
Mindy Scott	Business	GGA - Community College	General Public
Lisa Anderson	Human Service	HSS-DSS (E&D & Medicaid)	Elderly & Disabled, Low Income
Sandra Hudspeth	Human Service	HS- Other (Partnership for Children)	General Public
Deborah Jones	Business	TP-Faith Based	General Public
Ashley Williams	Human Service	Park & Rec	General Public
Donna Graves	Business	TP-Private	General Public
Melissa Williamson	Transportation Provider	HS - Other	General Public

# APPENDIX E – SURVEY INSTRUMENT AND RESPONSE SUMMARY

## SURVEY INSTRUMENT

HNTB, in association with CDOT and NCDOT is preparing the 5-year Community Transportation Service Plan (CTSP) for the County. Information collected below will be used in determining the existing and future service and needs of CDOT. Your input is appreciated.

Below you will find questions related to three categories as defined below. **Please complete sections pertaining to all categories you represent.**

Human Service Agency Directors	1. What agency do you represent? _____
	2. How frequently do you use the CDOT services? Every day: _____ Couple of times a week: _____ Couple of times a month: _____ Never: _____
	3. Do you maintain a contract with CDOT or do you request services on an as needed basis? Yes, we maintain a contract: _____ No, we use CDOT services on an as-needed basis: _____
	4. Does your agency reserve trips for clients or do you ask clients to reserve their own trips? We reserve: _____ Clients reserve: _____
	5. Please describe the reservation process. What steps are involved (generally)? Do you find it Easy/difficult? _____ _____
	6. How satisfied are your with the service? What would you like to see improved regarding the system? _____ _____
Human Service Agency Passengers	7. Today's Date: _____ Approximate Time: _____
	8. Why are you taking your trip today? _____
	9. Where did you start your trip (home, work, etc as well as approximate address, i.e., Yanceyville)? _____ _____
	10. What is your destination (both name and address if known if not major streets or city) _____ _____
	11. Is this your first trip using this service? Yes: _____ No: _____ If yes, how were your introduced to the service (print, friend, doctor, etc): _____ If not, how often do you use this service? Every day: _____ A few times a week: _____ Once a week: _____
	12. How easy or difficult was it to arrange for this ride today? I didn't arrange it: _____ Easy: _____ Moderately Easy: _____ Difficult: _____
	13. What do you like most about the service/least about the service? I like _____ I like to see changed _____
General Public	14. How familiar are you with the CDOT service I regularly use it: _____ A family member/friend uses the service: _____ I know of the service but don't use it: _____ I'm not familiar with CDOT: _____
	15. Whether or not you use the service, can you think of a reason(s) that you might need to use or consider using the service? _____ _____

Comments/suggestions on how to improve public transportation specific to you and the overall area (hours, technology, reservation process, routing, etc.):  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for your time. If there are any questions, please contact ■ Melissa Williamson ■ Caswell County Division of Transportation (CDOT)  
■ PO Box 99 ■ Yanceyville, NC 27379 ■ 336-694-1424

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## **RESPONSES TO CDOT SERVICE SURVEY**

### **Human Service Agency Directors – Responses**

#### ***4 surveyed***

How frequently do you use the CDOT services?

- From twice a month to every day

Do you maintain a contract with CDOT or do you request services on an as needed basis?

- 3 maintain a contract, 1 uses as-needed

Does your agency reserve trips for clients or do you ask clients to reserve their own trips?

- All reserve for clients

Please describe the reservation process. What steps are involved (generally)? Do you find it Easy/difficult?

- All feel process works and find it relatively easy/manageable. Individual processes are very similar – agency rep communicates needs to CDOT rep using a referral/request. Some contact CDOT rep directly by phone.
- Some trips are standing or recurring, others are scheduled as needed.

How satisfied are you with the service? What would you like to see improved regarding the system?

- All are satisfied. One is very satisfied. One respondent cited improvements and was appreciative.
- Suggested improvements include extended week day hours (late afternoon, evening) and additional weekend service.
- One respondent shared comments from clients regarding some driver remarks that were perceived as insensitive, re: not being responsible for getting clients to appointments on time.

### **Human Service Agency Passengers – Responses**

#### ***23 surveyed***

Date/Time

- All Feb 23 through Feb 26, one Feb 18
- Earliest is 8:34a, latest is 12:30p; one no time is provided

Why are you taking your trip today?

- 10 were headed to the Senior Center
- Remaining are for medical

Where did you start your trip (home, work, etc as well as approximate address, i.e., Yanceyville)?

- All origins are “home”
- Half (10) are Yanceyville, several are Pelham, Milton. Others include Ruffine, Providence.

What is your destination (both name and address if known if not major streets or city)

- Majority of destinations are in Yanceyville (Senior Center, others).
- Others include Reidsville, Chapel Hill, Danville (Va), Prospect Hill, Roxboro, Eden, Durham

Is this your first trip using this service? How often do you use this service?

- Not a first trip for any of the users
- Frequency ranges from once every 6 months to twice a week; most common is twice a month

How easy or difficult was it to arrange for this ride today?

- All respondents say easy

What do you like most about the service/least about the service?

- Like most includes: convenience (most cited); timeliness; kindness, politeness, and quality of drivers; safety; ability to get out, to get to destinations
- Dislike most: vast majority of responses have no dislikes; others are regarding wanting more pm service, being able to eat on long trips, and not having to wait so long for a return trip

### **General Public – Responses**

#### ***10 surveyed***

How familiar are you with the CDOT service

- 9 regularly use it, 1 knows of it but doesn't use it

Whether or not you use the service, can you think of a reason(s) that you might need to use or consider using the service?

- 9 cite that yes, they could think of a reason to use it, rides to work and doctor appointments are cited.
- 1 respondent could not think of a reason to use it
- Other reasons were good service and that you can depend on CDOT

# APPENDIX F – CASWELL COUNTY 2010 SCHEDULE OF SERVICES

## CDOT 2010 TRANSPORTATION SCHEDULE & CHAPEL HILL & DURHAM SCHEDULE



<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APRIL</u>	<u>MAY</u>	<u>JUNE</u>
4	1	1	5	3	1
6	3	3	7	5	3
8	5	5	9	7	4
12	8	9	13	11	8
14	10	11	15	13	10
19	12	12	19	17	14
21	16	16	21	19	16
22	18	19	23	21	18
	19	23	27	25	22
	23	26	29	27	24
	25				28
<u>JULY</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
2	2	1	1	2	1
6	4	3	5	4	3
8	6	7	7	8	7
12	10	9	11	10	9
14	12	13	13	12	13
16	16	15	15	16	15
20	18	17	19	18	17
22	20	21	21	22	21
26	24	24	25	24	23
28	26	28	27	29	29
30	30	30	29		

### CASWELL COUNTY TRANSPORTATION SCHEDULE

	MON	TUES	WED	THURS	FRI
DANVILLE	X		X Afternoon	X	
ROXBORO	X		X		X
REIDSVILLE	X Afternoon		X		X
PROSPECT HILL CLINIC	X			X	
BURLINGTON	X	X		X	
GREENSBORO	X			X	

Updated March 2010