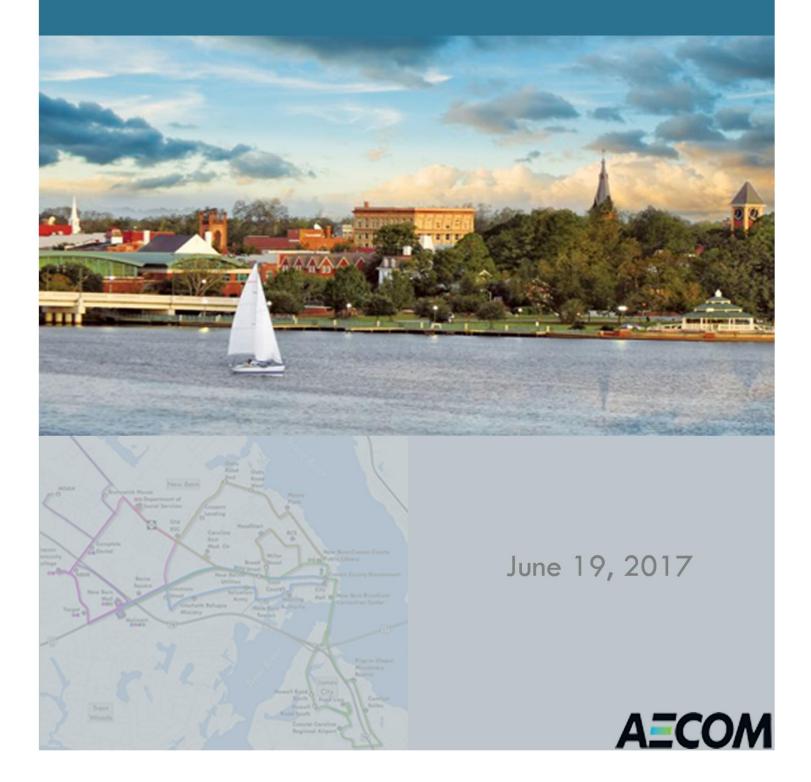
# Craven Area Rural Transit System (CARTS) Transit Development Plan





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## **Executive Summary**

AECOM Technical Services of North Carolina entered into an agreement with Craven County to perform a Transit Development Plan (TDP) for the public transit service provided by the Craven Area Rural Transit System (CARTS). The scope of services for this study was to analyze existing operations and administrative data, review physical assets, staff resources, service coordination and analyze financial capacities to support recommended changes for the fixed route CARTS transit operation over the next five years. Major components of this study included the evaluation of the current Loop fixed route service to determine the management structure and oversight capacity, infrastructure support for potential improvements and the unmet needs of the community that would reflect an implementation plan for a new fixed route system for the community in the CARTS urbanized area.

AECOM staff provided an extensive public involvement analysis to this project. Stakeholder surveys were conducted with local agency representatives and elected officials. On-board passenger surveys were conducted to garner feedback from the current riders of the system and a direct mail survey was sent out to over 1,800 residents in the urbanized area to obtain feedback and identify unmet needs. Also, two public meetings were held in the community to present preliminary findings of the surveys and data collected. Each element of outreach is documented in this report and provided value in crafting a plan that is both comprehensive and ambitious, but is readily implementable.

This TDP document identifies specific strategies that should be considered, to improve the fixed route CARTS service. We have considered the necessary improvements that are operationally implementable within a 5-year window to improve the fixed route CARTS service. Upon review of the current governance structure, it is not recommended to change the management and reporting characteristics for the administration of the service. It is recommended that Craven County continue, as the direct recipient of the FTA federal funds, to provide the oversight of the rural and urban transit program. Close coordination needs to be achieved with the City of New Bern and the New Bern Area Metropolitan Planning Organization (NBAMPO) to address future transit planning for the urbanized area and regional connectivity. NBAMPO administers the Transportation Improvement Program (TIP) which outlines the regional agreed upon listing of priority transportation projects. This listing includes all projects that intend to use federal funds and non-federal funds to support projects that are significant in the region. The North Carolina Department of Transportation – Public Transportation Division (NCDOT-PTD) has encouraged consolidation of public transit oversight, and having Craven County provide the regional rural demand response service (in Craven Jones and Pamlico Counties) and the urban fixed route and paratransit service in the New Bern urbanized area, is a good model that can work very efficiently.

A primary recommendation to begin the improved CARTS service should be to begin a rebranding process that includes changing the name of the service from Craven Area Rural Transit Service to Craven Area Regional Transit Service. The CARTS acronym will remain the same, but the word regional connotes a more comprehensive approach to the transit services that are now provided. CARTS still provides regional rural transportation, but the nature of a fixed route urban public transit system is relatively new, and as the direct recipient of the FTA 5307 urban transit funds, there needs to be a concerted effort to promote the fixed route urban transit service.

Additional initiatives for this 5-year service model include meeting some of the unmet needs that was gathered and analyzed during the public outreach portion of this project and a review of the administration and operational aspects of the CARTS service. These needs include the following:



- Implementing an updated cash handing policy for fare collections
- Instituting a fare pass system to sell advance bus fares
- Increase advertising to include interior bus ads
- Hire a Mobility Manager to coordinate marketing efforts, provide street supervision for the fixed route service, and lead the effort to develop a regional ridesharing initiative
- Coordinate with NBAMPO on transit elements of the Metropolitan Transportation Plan
- Rebrand CARTS to the "Craven Area Regional Transit System"
- Update the Rider Guide and produce fixed-route schedules
- Rebrand the fixed-route service with an updated logo for the fixed route service and new bus stop signage to identify stop locations for the riders
- Enhance the existing CARTS webpage as part of the new county-wide website update
- Install security cameras on vehicles
- Become a partner in the National Safe Place Network
- Conduct a feasibility study for a future transit administration and operations facility
- Institute a regional rideshare program
- Implement a new fixed route transit service (to include the James City community) that will provide 5 routes that will operate on a 30-minute headway system
- Develop a transit bus stop amenities policy
- Add transit stop amenities for the fixed routes
- Provide bike racks on fixed route vehicles
- Coordinate bicycle and pedestrian improvements with NBAMPO
- Install electronic signage with "Talking Bus" features on the buses
- Replace CARTS vehicles with updated buses when the respective vehicle life of the existing vehicles is reached

The following document articulates the process that was undertaken to determine the above noted recommendations. Many data sources were used to reach the conclusions and a proposed funding model is included to address the financial obligations for implementation. The projected budgets and revenue opportunities that can be employed to support the 5-year plan are part of this report.

Year	TDP Alte	rnative 1	TDP Alternative 2		
rear	Revenues	Expenses	Revenues	native 2 Expenses \$1,757,000 \$2,644,000 \$2,431,000 \$2,395,000 \$2,592,000	
TDP Year 1	\$1,704,000	\$1,754,000	\$1,705,000	\$1,757,000	
TDP Year 2	\$2,119,000	\$2,511,000	\$2,186,000	\$2,644,000	
TDP Year 3	\$1,910,000	\$2,189,000	\$2,031,000	\$2,431,000	
TDP Year 4	\$1,919,000	\$2,182,000	\$2,026,000	\$2,395,000	
TDP Year 5	\$1,949,000	\$2,218,000	\$2,137,000	\$2,592,000	

Revenues to support future services can be obtained through strategic partnerships with entities who are stakeholders in the community. Local government, medical service providers, education and community agencies, local authorities and retail establishments are just some examples of stakeholder groups who have a vested interest in the success of a viable public transit program. The future of this successful service will be a total community effort. CARTS has a great opportunity to bring public transportation to a high level that will embrace future economic growth and mobility needs in the urbanized area and the region.



## 1.0 Analysis of Existing Conditions

This chapter provides an overview of the CARTS organization, describing the current transit services, summarizing its physical assets, and analyzing the organization's financial metrics from the past three fiscal years.

#### 1.1 CARTS Organization

CARTS began transit operations as the "Craven County Department of Transportation" in July 1980. A current staff of 37, CARTS now provides residents of Craven, Jones, and Pamlico counties with general public transportation, human service agency transportation, fixed routes, and ADA complementary paratransit services. CARTS coordinates directly with the New Bern Area Metropolitan Planning Organization (NBAMPO). NBAMPO was formed in 2013 due to the 2010 Census designation of the New Bern Urbanized Area. NBAMPO is the transportation-policy making organization for the urbanized area with representation from local governments and agencies, including CARTS. Craven County is the direct recipient of the Federal Transit Administration's (FTA) formula funds to support urban transit service and the CARTS Transportation Director participates in NBAMPO's Technical Coordinating Committee and Transportation Advisory Committee meetings.

#### Past Planning Efforts

Over the past several years CARTS has undertaken several planning efforts to assess and improve its transit services. Most recently, Craven County contracted to have a Transit Development Plan (TDP) Action Plan to guide the transition of CARTS services from only a rural system to both a rural and urbanized system. The plan addressed the implications of this transition on both policy adherence and funding. It was approved by the Craven County Board of Commissioners on August 3, 2015. Previously, through coordination with the North Carolina Department of Transportation, Public Transportation Division (NCDOT-PTD) a Community Transportation Services Plan was completed in 2007.

#### Transportation Advisory Board

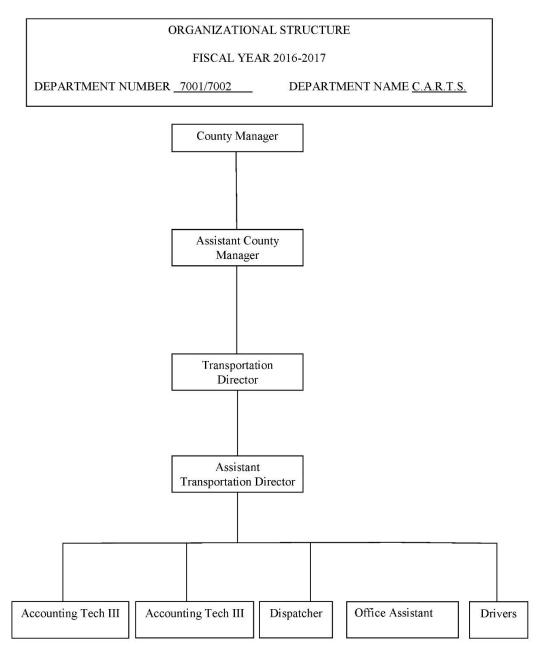
A Transportation Advisory Board (TAB) is an advisory group to CARTS and is comprised of stakeholders from the CARTS service area. The TAB is concerned with unmet transit needs, transit operations, billing rates, customer service, and compliance with federal regulations. The TAB meets quarterly on the third Wednesday of the month. The Craven County Board of Commissioners approved the current TAB composition for voting purposes. TAB meetings are open to the public. In accordance with NCDOT-PTD guidelines, the TAB includes representatives from each of the following groups:

- Public Human Service Agencies
- Transportation Providers
- Public and Business Stakeholders
- Government and Governmental Affiliates
- Transit Users



#### Organizational Structure

CARTS is led by a Transportation Director who reports to the Assistant County Manager. An Assistant Transportation Director supports the Transportation Director. There are currently 37 positions within the CARTS organization: one director, one assistant director, two accounting technicians, one dispatcher, one office assistant, two full-time drivers, and 29 part-time drivers. The organizational chart is shown in Figure 1-1.





CARTS, 2017.



Responsibilities for each CARTS position are summarized below:

#### **Transportation Director**

- Coordinates provision of transportation services as requested for clients of Craven County and private human services agencies while ensuring safe operation of vehicles and adherence to applicable federal, state and local laws, ordinances and regulations.
- Directs the development and conduct of staff training and safety programs.
- Provides technical assistance and advice to subordinate personnel on difficult or unusual problems.
- Screens and trains new program drivers; determines and establishes transportation routes in accordance with requests from contracting agencies; assigns drivers; reviews driver work load and progress; schedules and ensures proper training and refresher courses for drivers; supervises activities of dispatcher.
- Drives a van or bus to and from vehicle maintenance facilities and to evaluate and coordinate routes.
- Identifies funding sources to supplement the transportation services. Gathers information as required for planning purposes. Researches and gathers information required to prepare grant applications. Monitors budget expenditures and recommends appropriate actions to assure that established budgets are not exceeded. Assures that all local, state and federal policies, rules and regulations are complied with and properly implemented.
- Performs budget development and maintains financial and personnel records.
- Participates in all meetings concerning the transportation programs on a regular basis and provides all necessary staff reports regarding the operations and activities of the management entity.

#### Assistant Transportation Director

- Assists in the coordination of transportation services for Craven County and private human services agencies. Oversees the daily operation of vehicles to ensure the safe operation and adherence to all applicable laws, ordinances and regulations.
- Assists the Director in the preparation of all grant applications and all annual operating plans and budgets. Assists the Director in timely completion of all required reports. Monitors program and budget expenditures and makes recommendations.
- Resolves client, agency, and general public complaints. Ensures that all service complaints are investigated and complainant receives documentation of follow up action within five working days.
- Responsible for agency Safety and Security Program Plan development, implementation, compliance and evaluation.
- Assist Director in assuring that all local, state and federal policies, rules and regulations are complied with and properly implemented. Assists Transportation Director with program audits.

#### Accounting Technician III

- Creates and balances daily reports related to transportation services provided.
- Verifies client eligibility and matches client with available funding sources for services.



- Monitors levels of available funding and discusses with Craven County staff alternate funding sources.
- Prepares invoices for "subscription" transportation services and accounts for payments received for those services.
- Verifies departmental bills and codes them for payment.
- Accounts for cash received from drivers and prepares the daily deposit of funds.
- Monitors departmental time sheets and ensures hourly workers do not exceeded allotted hours.
- Responsible for filing and monitoring reimbursements for HCCBG.
- Responsible for the reconciliation of monthly trips and revenues.
- Generates statements and posts payments for services provided.
- Evaluates applicants for ADA complementary paratransit services.

#### Dispatcher

- Dispatches vehicle drivers, coordinates traffic, routes, passenger pick-ups and deliveries.
- Prepares schedules, maintains mileage, usage and repair reports, and determines fuel use and costs.
- Assesses client needs and handles scheduling, confirmation, and cancellation of trips from daily requests as well as pre-booked standing orders. Groups service requests into the most efficient tours in order to prevent redundancies and make the best use of all vehicles. Assures that all drivers have an accurate listing of scheduled trips.
- Prepares and maintains client intake forms and files, trip records, complaint/suggestion files, and vehicle maintenance records.
- Prepares invoices, purchase orders, accounts payable/receivable, documents and grant progress reports as directed.

#### **Office Assistant**

- Answers telephone; directs calls or visitors and gives information based on the type of request.
- Inputs and maintains data and information into computer database or system.
- Receives and delivers mail.
- Assists in the preparation of mass mailings.
- Places materials and records in alphabetical or numerical order for proper filing into the appropriate record keeping system; maintains files and purges as necessary.

#### Driver

- Drives an assigned route to transport elderly citizens to and from the doctor's office, meal sites, grocery store, drug store, and other desired locations.
- Assists passengers in getting in and out of van and other courtesies.
- Assumes responsibility for care and maintenance of vehicle, washes vehicle and cleans interior, takes vehicle to garage for maintenance and repair.



#### 1.2 Current Transit Service

CARTS is a regional community public transportation system serving the residents of Craven, Jones, and Pamlico Counties with subscription, demand response, fixed route, and ADA complementary paratransit services. Figure 1-3 shows the CARTS service area. The system also provides out-of-county medical transportation to locations such as Greenville, Morehead City, Kinston, and the Raleigh-Durham area on a set schedule. CARTS coordinates closely with human service agencies such as the Department of Social Services. There is a need to improve on the trip coordination efforts for out-of-county medical trips, and meetings are being conducted with other county transit services to address this issue.

The system offices are open Monday to Friday from 7:00 am to 5:15 pm and the routes operate Monday to Friday from 5:00 am to 6:00 pm. CARTS does not operate on Craven County holidays, except dialysis routes.

#### Fixed Route Service

The fixed route service, the Loop, operates within the City of New Bern Monday through Friday from 7:00 am to 5:00 pm. The fare is \$1.00 per trip. In September 2015, the Craven County Board of Commissioners approved the Half Price Fare Policy, which reduces the regular fare to \$0.50 for eligible riders. Eligibility is determined based on age and disability.

The current Loop service provides a fixed route alternative to residential neighborhoods, commercial areas, and key destinations such as Craven Community College (CCC), Human Services, and the Housing Authority. The Loop is comprised of the Red Route and Yellow Route, as both serve the same destinations but operate in opposite directions. Both routes start and end at Human Services. The Loop route is shown on Figure 1-4 and destinations are listed on Figure 1-5. In FY 2016, CARTS provided 17,728 passenger trips on the Loop.

#### ADA Complementary Paratransit Service

On September 6, 1991, the United States Department of Transportation issued final regulations under the Americans with Disabilities Act (ADA). These regulations are quite specific in defining who is eligible for this specialized service. A person must have an actual physical, visual, or mental functional limitation which causes him or her to be unable to use accessible fixed-route transportation. The diagnosis of a potentially limiting illness or condition is not sufficient for paratransit eligibility. The ADA law says the following factors must be considered in determining ADA paratransit eligibility:

- A person's disability and functional abilities;
- Accessibility of the fixed-route system;
- Architectural barriers;
- Environmental conditions;

\*A person's age, the distance to bus stops, weather and environmental barriers do not, alone, establish eligibility.

It is the policy of CARTS to comply fully with the transportation and related provisions of Titles II and III of the ADA. Section 223 of the ADA requires paratransit as a complement to fixed route service. CARTS currently operates a fixed route service in the New Bern urbanized area. Title 49, Part 37, Subpart F addresses "Paratransit as a Complement to Fixed Route Service" and is used as the basis for the CARTS ADA



Complementary Paratransit Policy. ADA Complimentary Paratransit service may be available to eligible persons traveling within a <sup>3</sup>/<sub>4</sub> mile area of the fixed routes.

#### Demand Response Service

CARTS provides transportation, requiring advance reservations, to human service agency clients and the general public through demand response and subscription routes. The majority of these trips bring riders from the three-county service area into New Bern, which is the largest municipality in the region and is in this urbanized area where many of the social services are located. The human service agencies include the Department of Social Services in each of the three counties, Vocational Rehabilitation, Coastal Community Action, and Monarch/CCE (ARC). Many of these trips are regularly scheduled, based on the needs of the human service agencies.

Demand response service is available to the general public on a limited basis with emphasis on the elderly and/or persons with disabilities. CARTS uses a zonal-based approach for fares, which range between \$1.00 and \$6.75. Demand response trips must be made no later than 12:00 pm, two business days prior to the trip. In FY 2016, CARTS provided 56,618 demand response trips.

In addition to these services, CARTS provides out-of-county medical transportation to Greenville, Morehead City, Kinston, Durham, Chapel Hill and other locations. Reservations are required for this service, and must be made by 12:00 pm, **two** business days prior to the medical appointment. Cancellations must be made by 12:00 pm, one day before the appointment. The schedule for out-of-county medical transportation is shown in Table 1-1.

#### Ridership

Total ridership for the CARTS system is shown in Figure 1-2 for the past three fiscal years (FY 2014 to 2016) based on OpStats reports submitted annually to the NCDOT-PTD. In FY 2016, CARTS provided a total of 74,346 passenger trips. Ridership has declined by approximately 22 percent between 2014 and 2016 due to a decrease in funding.

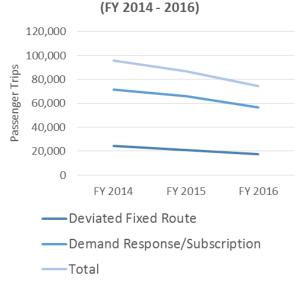
#### Table 1-1: Out-of-County Medical Transportation

Location	Day			
Durham/Chapel Hill	1 <sup>st</sup> & 3 <sup>rd</sup> Wednesday of each month			
Morehead City	1 <sup>st</sup> & 3 <sup>rd</sup> Thursday of each month			
Kinston	2 <sup>nd</sup> & 4 <sup>th</sup> Thursday of each month			
Greenville	Every Tuesday & Thursday			
Pollocksville	Tuesday mornings and Wednesday afternoons			
Vanceboro Medical	Every Wednesday			
Other Locations	As requested and dependent upon driver/vehicle availability			

CARTS, 2017.

#### Figure 1-2: CARTS Ridership

CARTS Passenger Trips



NCDOT-PTD OpStats Reports, 2014 - 2016.



Figure 1-3: CARTS Service Area

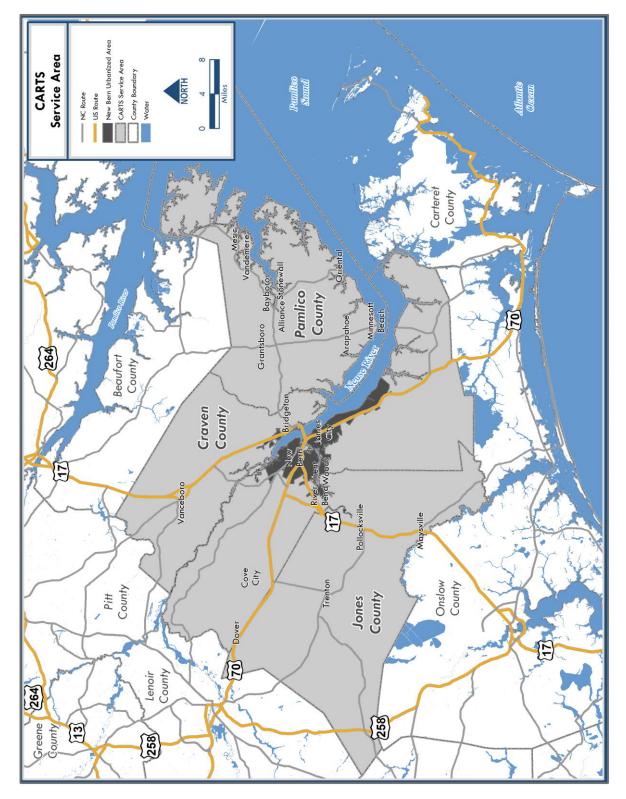
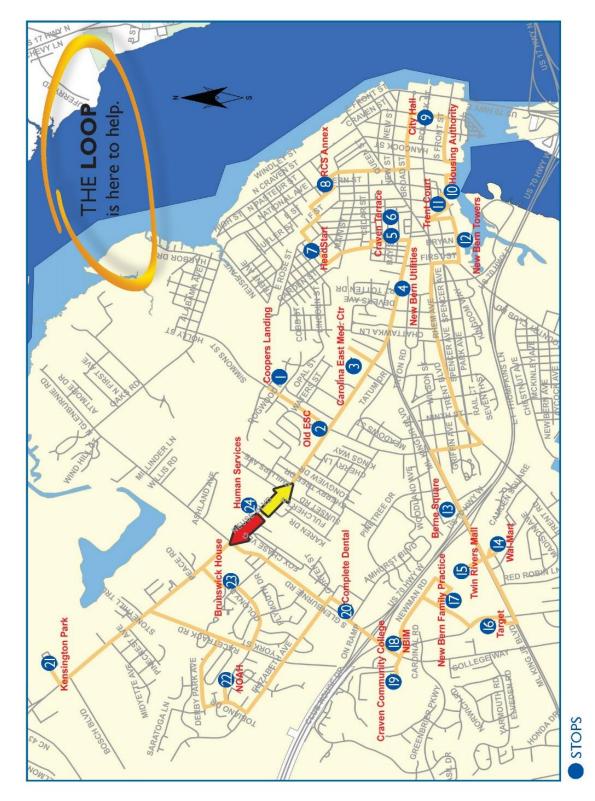




Figure 1-4: Map of the Loop



CARTS, 2017.



CARTS Transit Development Plan



#### **RED ROUTE** See map for numbered locations. PLACE PLACE DEPARTS DEPARTS 24 Human Services, Neuse Blvd. 8:00 21 Kensington Park, Office 23 Brunswick House, Colony Dr. 8:04 22 Noah, Lofland Way 8:09 20 Complete Dental 8:17 S. Glenburnie Rd. 19 Craven Community College 7:55 8:22 18 New Bern Internal Medicine 8:26 Newman Rd. 17 New Bern Family Practice 8:29 Medical Park Way 8:34 16 Target 15 New Bern Mall 8:37 Front Entrance 14 Walmart, Shopping Center 8:41 13 Berne Square, Big Clock 8:45 12 New Bern Towers 8:53 Walt Bellamy Dr. || Trent Court, TCDC 7:45 8:56 10 Housing Authority, Fleet St. 7:42 8:59 9 City Hall, Pollock/Craven 9:03 8 RCS Annex, Guion St. 7:35 9:08 7 Headstart, Biddle St. 7:30 9:12 5 Craven Terrace, Roundtree St. 7:20 9:17 6 Craven Terrace, Miller St. 7:25 9:20 4 New Bern Utilities, Broad St. 9:27 3 CarolinaEast Medical Center 9:30 Neuse Blvd. I Coopers Landing 7:10 9:35 Simmons St. 2 Old ESC Office 9:38 1305 Simmons St.

## YELLOW ROUTE

See map for numbered locations. Monday-Friday: 8am-4:46pm

DEPARTS					PLACE DEPARTS		
		8:00	9:43	11:18	12:52	2:42	24 Human Services, Neuse Blvd. 8:00 9:35 11:15 1:00 2:40 4:15
			9:48	11:23	12:57	2:47	Coopers Landing, Simmons St. 9:40 11:20 1:05
		8:04 8:09		11:30 11:38		2:52 2:57	2 Old ESC Office 11:23 2:45 1305 Simmons St.
		8:17	9:58	11:41		3:03	3 CarolinaEast Medical Center 9:46 11:28 1:11 2:50 Neuse Blvd.
	7:55	0.12	10:03	11:46	1,23	3:08	4 New Bern Utilities, <i>Broad St.</i> 9:49 2:53
	7.55		10:07			3:12	5 Craven Terrace, Roundtree St. 8:05 9:53 11:33 1:16 2:57 4:20
		8.20	10.07	11.50	1.27	3.12	6 Craven Terrace, Miller St. 8:08 9:56 11:36 1:19 3:00 4:23
		8:29			1:30	3:15	7 Headstart, Biddle St. 8:12 9:59 11:39 1:22 3:03 4:26
							8 RCS Annex, Guion St. 8:15 10:02 11:42 1:25 3:06 4:29
			10:11		1:35	3:20	9 City Hall, Pollock/Craven 8:23 11:50
		8:37	10:14	11:53	1:39	3:23	10 Housing Authority, Fleet St. 8:27 10:07 11:54 1:30 3:11 4:34
		8:41	10:18	11:57	1:43	3:28	I Trent Court, TCDC         8:30         10:10         11:57         1:33         3:14         4:37
		8:45	10:22	12:01	1:46	3:31	I2 New Bern Towers         8:33         10:13         12:00         1:36         3:17         4:40           Walt Bellamy Dr.
		8:53	10:30	12:09	1:54		13 Berne Square, Big Clock         8:38         12:05         3:22
	7:45	8:56	10:34	12:13	1:58		14 Walmart, Shopping Center 8:43 10:22 12:11 1:45 3:28
	7:42	8:59	10:37	12:16	2:01		15 New Bern Mall, Front Entrance 10:27 1:50
		9:03	10:41	12:20	2:05		l6 Target 8:48 10:33 12:16 1:53 3:33
	7:35	9:08	10:46	12:25	2:10		17 New Bern Family Practice 8:51 10:36 1:56 Medical Park Way
	7:30	9:12	10:50	12:27	2:14		8 New Bern Internal Medicine 8:54 10:39 12:20 1:59 3:37
	7:20	9:17	10:55	12:34	2:19		Newman Rd.
	7:25	9:20	10:58	12:37	2:22		<b>19</b> Craven Community College 8:58 10:43 12:24 2:03 3:41
		9:27	11:01	12:40	2:25		<b>20</b> Complete Dental 9:03 10:47 12:28 2:07 3:45
		9:30	11:04	12:43	2:29	3:37	S. Glenburnie Rd.
							21         Kensington Park, Office         9:12         10:56         12:37         2:16         3:54           22         Nucle 1, direct Way         0.20         11:04         12:45         2:24         4:02
	7:10	9:35	11:09	12:48	2:32		22 Noah, Lofland Way         9:20         11:04         12:45         2:24         4:02           22 Reconstrict Harmonic         9:24         11:08         12:40         2:28         4:02
		9:38			2:37		23 Brunswick House 9:24 11:08 12:49 2:28 4:06 Colony Dr.
							24 Human Services         9:30         11:13         12:57         2:36         4:14         4:46
	7:00	9:43	11:15	12:52	2:42	3:44	

CARTS, 2017.

24 Human Services



#### 1.3 Physical Assets and Support

This section describes the physical assets of both current transit facilities and vehicles in the CARTS inventory.

#### 1.3.1 Transit Facilities

CARTS administrative offices are located at 2822 Neuse Blvd., New Bern, NC 28562. This location is situated between the Craven County Department of Social Services (DSS) and the Division of Employment Security. Transit vehicles are parked in the parking area in front of the DSS. This is also where the Loop fixed route begins and ends service. Vehicle maintenance is performed by the Craven County Central Maintenance Garage located at 300 Howell Rd., New Bern, NC 28562.

#### 1.3.2 Vehicle Maintenance

CARTS abides by the Craven County Motor Vehicle Maintenance Plan and uses AssetWorks software to document, track, and report maintenance compliance and vehicle repairs. The purpose of the Craven County plan is to: "set forth the guidelines under which both corrective and preventative maintenance will be performed on all county owned motor vehicles. Application of this plan is expected to maximize useful vehicle life and minimize out-of-service time for corrective maintenance." The plan establishes daily pre-trip vehicle inspection procedures, preventative and corrective maintenance items, and eligible deferred maintenance items. All preventative maintenance on federally funded/county-owned vehicles is performed at the Craven County Central Maintenance Garage. CARTS, as a department of Craven County government, is charged for services including the cost of parts, lubricants, and labor.

In addition to the Craven County plan, CARTS has established preventative maintenance standards, which are summarized below:

- CARTS retains all records pertaining to maintenance, service, warranty, and other documents as required for vehicles and wheelchair lifts. The records are maintained for at least the life of the vehicle plus three years after the vehicle's disposal.
- Maintenance records include: documents showing vehicle identity, documents showing vehicle and wheelchair lift completed maintenance and inspection dates, documents showing mileage, vehicle accident reports, and documents reporting and evaluating maintenance systems.
- In addition to maintenance records, CARTS maintains files that include:
  - A copy of the document notifying NCDOT of a fatal accident by the close of business or end of the working day
  - A copy of the document notifying NCDOT within 24 hours of a fatality that occurs within 30 days as a result of an accident
  - o Documents that report to NCDOT within 48 hours all accidents/incidents
  - o Documents showing completion of the driver's daily Pre/Post-Trip Inspection checklist
- Each vehicle contains the following safety equipment:
  - o Seat belts that comply with FMVSS 209 and FMVSS 2010 regulations
  - Fire extinguisher
  - Red reflector
  - o Web cutter
  - o Bloodborne pathogen kit and first aid kit



- CARTS drivers must complete the Driver Vehicle Inspection Report before beginning service each day. Each driver must complete an inspection when parking the vehicle at the end of the service day. Drivers must notify the CARTS office immediately of any concerns involving the safe operation of the vehicle.
- Regular maintenance is performed every 5,000 miles and major service every 35,000 miles. In addition, CARTS adheres to all the standard requirements set forth by the vehicle manufacturer.

#### 1.3.3 Transit Vehicles

CARTS has a current inventory of 33 vehicles, 32 of which are revenue vehicles and one is for administrative use only. The vehicle fleet include sedans, vans, and light transit vehicles. The majority of the vehicles were purchased from the NCDOT-PTD statewide procurement program and most CARTS vehicles are manufactured by Ford. Three vehicles are provided locally by Craven County. All vehicles are gasoline-powered. CARTS has a fleet with an average vehicle age of five years. Vehicle mileage varies greatly depending upon years in service. The average mileage per vehicle is 107,000 miles. The current fleet's make, model year, vehicle type, mileage, and entered service date are summarized in Table 1-2.

Veh.		Model	Veh.	Seating Lift		FY 2017	Entered
No.	Make	Year	Туре	(Seats + W/C)	Equipped	Mileage	Service
137	Ford Car	2002	Sedan	N/A	No	169,526	1/7/2009
212	Ford Car	2002	Sedan	N/A	No	98,099	1/7/2009
334	Ford E450	2003	22' LTV	14 or 12 + 2	Yes	192,661	5/21/2008
346	Dodge	2000	Sedan	N/A	No	142,687	10/9/2015
360	Ford E450	2007	22' LTV	14 or 12 + 2	Yes	140,573	6/4/2009
361	Ford E450	2009	22' LTV	14 or 12 + 2	Yes	158,487	6/4/2009
378	Ford E350	2010	Van	12	No	158,174	6/22/2010
380	Ford E350	2010	Van	13	No	169,230	6/28/2010
381	Ford E350	2010	Van	13	No	165,016	6/28/2010
384	Ford E350	2011	20' LTV	10 or 8 + 2	Yes	167,064	9/20/2010
385	Ford E350	2011	20' LTV	10 or 8 + 2	Yes	185,367	9/20/2010
398	Ford E350	2011	Van	8 or 3 + 2	Yes	145,032	8/1/2011
400	Ford E350	2011	Van	8 or 3 + 2	Yes	148,899	8/11/2011
401	Ford E350	2011	Van	8 or 3 + 2	Yes	142,373	8/4/2011
411	Ford E350	2011	Van	8 or 3 + 2	Yes	127,421	12/22/2011
412	Ford E350	2011	Van	12	No	113,361	1/17/2012
443	Ford E350	2012	20' LTV	8 + 2	Yes	115,716	1/2/2013
444	Ford E350	2012	20' LTV	8 + 2	Yes	122,808	12/18/2012
447	Ford E350	2013	22' LTV	14 or 12 + 2	Yes	88,047	1/31/2013
467	Ford E350	2013	Van	8 or 3 + 2	Yes	81,692	1/2/2014
468	Ford E350	2013	Van	8 or 3 + 2	Yes	70,212	1/16/2014
469	Ford E350	2013	Van	8 or 3 + 2	Yes	77,739	1/16/2014
476	Ford E350	2014	20' LTV	8 or 3 + 2	Yes	88,064	5/30/2014
481	Ford E350	2014	Van	8 or 3 + 2	Yes	74,773	7/22/2014
482	Ford E350	2014	Van	8 or 3 + 2	Yes	74,914	7/22/2014
483	Ford E350	2014	20' LTV	13	No	33,715	11/24/2014
500	Ford E350	2015	20' LTV	8 + 2	Yes	39,517	10/15/2015
501	Ford E350	2016	22' LTV	14 or 12 + 2	Yes	27,384	Unknown
502	Ford E350	2016	20' LTV	13	No	17,870	Unknown
506	Ford E350	2016	20' LTV	8 + 2	Yes	23,570	3/18/2016
507	Ford E350	2016	20' LTV	8 + 2	Yes	24,389	3/18/2016
508	Ford E350	2016	20' LTV	8 + 2	Yes	32,974	3/18/2016



#### 1.4 Financial

This section summarizes CARTS' administration, operations, and capital revenue and expenses for the past three fiscal years. During this time period, administration and operations revenue and expenses have declined due to staffing, available funding and service changes. On July 1, 2015, CARTS transitioned from a rural community transportation program to a rural/small urban system. As a result of this transition, Craven County is now a direct recipient of FTA formula funds to support urban transit services. The specific changes to funding are discussed in the following section.

#### 1.4.1 Administration and Operations Revenue

CARTS is funded through a variety of sources including federal, state, fare revenue, contract revenue and local funds as shown in Table 1-3. CARTS began receiving FTA Urbanized Area Formula Funding Program (Section 5307) funding in FY 2016 due to CARTS transitioning from solely a rural community transportation program to a rural system and FTA direct recipient as an urban system on July 1, 2015. Prior to that, CARTS received federal funding from Section 5310 Transportation for Elderly Persons and Persons with Disabilities and Section 5311 Formula Grants for Rural Areas. This funding was distributed to CARTS through NCDOT-PTD. Based on the NCDOT policy, Section 5311 operating funds may only be used for rural fixed or deviated routes. Since CARTS' only fixed route, the Loop, is now an urban fixed route it is no longer eligible to receive Section 5311 operating funds. Although CARTS no longer receives Section 5311 operating funds, it continues to receive Section 5311 administrative funding. NCDOT-PTD is assisting in the breakdown formula for developing a fully-allocated cost model, which will assist CARTS in their future transit planning and local financial investments needed to support both rural and urban services.

#### Federal Funding

In FY 2016, CARTS received the majority of its administration and operations revenue from federal sources, specifically, Section 5307. Section 5307 provides resources to incorporated areas with populations of 50,000 or more for transit capital and operating assistance. Eligible activities include: planning, engineering, design and evaluation of transit projects, capital investments, construction and maintenance of passenger facilities. Given that the New Bern Urbanized Area has a population less than 200,000, operating assistance is an eligible expense under Section 5307. Funds are allocated based on formulas involving population and population density. The program requires matching funds from state or local sources. Total federal funding for CARTS decreased between FY 2014 and FY 2016.

#### State Funding

CARTS receives state funding through NCDOT-PTD in the form of Community Transportation Program (CTP) administrative funds and Rural Operating Assistance Program (ROAP) funds. In FY 2016, ROAP funds were the largest source of state funding for CARTS. ROAP consists of the following programs:

- Elderly & Disabled Transportation Assistance Program (EDTAP) Program provides operating assistance for the public transportation of elderly and disabled citizens.
- Employment Transportation Assistance Program (EMPL) provides operating assistance for the public transportation of persons with employment related transportation needs.
- Rural General Public (RGP) Program provides operating assistance for the public transportation of persons living in non-urban areas of the county.



ROAP funds and any additional funds supplementing the ROAP programs are allocated to each county on a formula basis. As a general rule, each county is eligible to receive an allocation from each program; however, counties that do not provide transportation services to the general public are not provided a RGP allocation. CARTS does provide transportation services to the general public in Craven, Jones, and Pamlico counties so those counties served by CARTS are eligible to receive a RGP allocation. ROAP funds are to be used exclusively for the operating cost of trips, but not for administrative or capital costs. All eligible ROAP recipients must submit an annual application to receive ROAP funds.

#### Local Funding

In FY 2016, local funds were the second largest source for CARTS. Local funds include contract revenue from the human service agencies CARTS serves, rider fares, advertising fees, and a small portion from other local sources.

	Revenue	FY 2014	FY 2015	FY 2016
	Section 5307- Urban	\$0	\$0	\$214,967
	Section 5310 - Elderly and Disabled	\$12,270	\$0	\$0
σ	Section 5311 - CTP Funds - Administrative	\$269,104	\$251,088	\$140,735
Federal	Section 5311 - CTP Funds - Operating	\$38,390	\$42,452	\$0
Ъ	Tribal Federal Assistance - Section 5311	\$0	\$0	\$0
	Other Federal Revenues (describe to the right)	\$0	\$0	\$0
	Federal Total	\$319,764	\$293,540	\$355,702
	CTP Funds - Administrative	\$16,818	\$15,692	\$27,748
ę	ROAP Funds - Suballocated to the Transit System	\$451,621	\$396,799	\$248,674
State	Other (describe to the right)	\$0	\$0	\$0
	State Total	\$468,439	\$412,491	\$276,422
	Administrative Funds	\$0	\$0	\$0
	Operating Funds	\$0	\$0	\$0
	Contract Revenue	\$313,904	\$242,859	\$275,142
	Fares/Donations from passengers	\$57,898	\$53,370	\$47,917
Local	Proceeds from Vehicle Sales- (used for Admin or Operating only)	\$0	\$0	\$0
	Interest Income	\$44	\$4	\$0
	Advertising Revenue	\$20,938	\$41,269	\$38,300
	Other Revenue (describe to the right)	\$0	\$114,993	\$2,000
	Local Total	\$392,784	\$452,495	\$363,358
	Subtotal Revenue	\$1,180,987	\$1,158,526	\$995,483
	Unspent ROAP Funds (suballocated to Transit System)	\$0	\$0	\$0
	Total Revenue	\$1,180,987	\$1,158,526	\$995,483

CARTS OpStats Reports FY 2014 – 2016. Note: There were changes in how the OPSTATS were reported between each fiscal year represented based on information provided by the Institute for Transportation Research and Education (ITRE) at the time of FY 2015 and FY 2016 reporting.



#### 1.4.2 Administration and Operations Expenses

Operations were the largest expense for CARTS in FY 2016, which equated to approximately 77 percent of the total budget. The largest operating expense was driver salaries and benefits followed by fuel and vehicle maintenance. Administration was approximately 23 percent of total expenses in FY 2016. Personnel salaries and benefits were the largest administrative expense followed by indirect services and vehicle insurance premiums. The administration and operations expenses are shown in Table 1-4.

	Revenue	FY 2014	FY 2015	FY 2016
	Personnel Salaries & Fringes - CTP Object Codes G121-189	\$217,287	\$192,870	\$120,563
	Advertising and Promotion - CTP Object Codes G371-373	\$8,825	\$6,030	\$10,611
ţž	Employee Development - CTP Object Code G395	\$2,145	\$1,496	\$3,319
tra	Vehicle Insurance Premiums - CTP Object Code G452	\$46,468	\$48,283	\$47,125
inis	Indirect Services - CTP Object Code G481	\$22,756	\$81,653	\$0
Administrative	CTP Codes G190-359; 380-394; 396-451; 454-480; 482-491	\$6,186	\$99,682	\$52,765
< <tr>         ◄</tr>	Other Admin Expense (describe to the right)	\$65,693	\$667	\$0
	Total Administrative Expenses	\$369,360	\$430,682	\$234,382
	Driver Salaries & Fringes	\$419,050	\$392,930	\$465,364
	Other Operating Staff Salaries & Fringes	\$74,983	\$76,864	\$81,105
	Mechanics Salaries & Fringes	\$0	\$0	\$0
	Indirect Services	\$0	\$0	\$0
_	Fuel	\$233,614	\$153,835	\$118,071
Operating	Vehicle Maintenance	\$118,292	\$102,771	\$96,561
arat	Payment of Insurance Deductible(s)	\$0	\$0	\$0
Dpe	Disposal of Vehicle(s)	\$1,519	\$1,444	\$0
	Management/Operation Services	\$0	\$0	\$0
	Volunteer Reimbursement	\$0	\$0	\$0
	Other Transit Provider Services	\$0	\$0	\$0
	Other (describe to the right)	\$0	\$0	\$0
	Total Operating Expenses	\$847,458	\$727,844	\$761,101
	Subtotal Expenses	\$1,216,818	\$1,158,526	\$995,483
	Credits to Expense - i.e. gas tax refunds, sales tax refunds	\$0	\$0	\$0
	Total Expenses	\$1,216,818	\$1,158,526	\$995,483

#### Table 1-4: Administration and Operations Expenses

CARTS OpStats Reports FY 2014 – 2016. Note: There were changes in how the OPSTATS were reported between each fiscal year represented based on information provided by the ITRE at the time of FY 2015 and FY 2016 reporting.



#### 1.4.3 Capital Revenue and Expenses

CARTS receives the majority of its capital revenue from federal sources as shown in Table 1-5. Other revenue sources include state facility funds and proceeds from the sale of vehicles. Capital revenue has increased since FY 2014 due to the purchase of new vehicles in FY 2015 and FY 2016. As shown in Table 1-6, the majority of CARTS' capital expenses for the past three fiscal years was due to capital purchases. However, in FY 2014, approximately \$3,000 was spent on advanced technology.

		0.01100		
	Revenue	FY 2014	FY 2015	FY 2016
	ARRA	\$0	\$0	\$0
ā	Vehicles & Other Capital Revenues (Non-ARRA)	\$112,556	\$115,814	\$231,169
Federal	Facility (Non-ARRA)	\$0	\$0	\$0
Ъе	Advanced Technology (Non-ARRA)	\$2,246	\$0	\$0
	Federal Total	\$114,802	\$115,814	\$231,169
	Vehicles & Other Capital Revenues	\$14,069	\$14,477	\$0
e	Facility	\$0	\$0	\$28,895
State	Advanced Technology	\$280	\$0	\$0
	State Total	\$14,349	\$14,477	\$28,895
	Capital Funding	\$0	\$0	\$0
	Insurance Proceeds from Accident	\$8,358	\$0	\$0
ō	Proceeds from Sale of Vehicle (used for capital only)	\$4,794	\$18,081	\$31,851
Local	Other (describe to the right)	\$0	\$0	\$0
	Local Total	\$13,152	\$18,081	\$31,851
	Total Capital Revenue	\$142,303	\$148,372	\$291,915

#### Table 1-5: Capital Revenue

CARTS OpStats Reports FY 2014 - 2016.

#### Table 1-6: Capital Expenses

Revenue	FY 2014	FY 2015	FY 2016
Capital Purchases	\$139,495	\$148,372	\$291,915
Body Work on Wrecked Vehicle	\$0	\$0	\$0
Facility Renovation or Construction	\$0	\$0	\$0
Advanced Technology Purchases	\$2,808	\$0	\$0
Other (describe to the right)	\$0	\$0	\$0
Capital Expense Total	\$142,303	\$148,372	\$291,915

CARTS OpStats Reports FY 2014 - 2016.

#### 1.4.4 Fare Structure and Billing Rates

CARTS has an established fare structure for its Loop fixed-route service and general public demand response services. Additionally, billing rates for the human service agencies have been closely monitored and reviewed.

The Loop fare is \$1.00 per trip. In September 2015, the Craven County Board of Commissioners approved the Half Price Fare Policy, which reduces the regular fare to \$0.50 for eligible riders. The local policy is that eligible riders are those who are at least 65 years or older, or have a Medicare card, or disability. Persons with disabilities are defined as "those individuals who, by reason of illness, injury, age, congenital malfunction, or other permanent or temporary incapacity or disability, including those who are non-ambulatory wheel-chair bound and those with semi-ambulatory capabilities are unable without special facilities or special training or design to utilize mass transportation facilities and services as effectively as persons who are not so affected." Temporary disabilities must have duration of at least 90 days to be eligible for the half fare. The current fares for rural general public trips are based on zones and range from \$1.00 to \$6.75. The billing rates for agency trips are summarized in Table 1-7.



Table 1-7: Agency Billing Rates



		Flat Fee	ee						Zone Rate	e				
Agency/Entity	Rate Type	Per Trip	Per Mile	Show	≤ 10 miles		10.1 to 15 miles	15.1 to 20 miles		20.1 to 30 miles		30.1 to 40 miles	40 + miles	niles
Agencies														
Coastal Community Action (CCA)	Zone			\$5.00	\$5.00		\$6.50	\$8.00	0	\$12.50	\$1	\$14.00	\$17.00	00
Croatan Village Assisted Living	Flat Fee	\$4.25		\$5.00										
Monarch/CCE ARC	Zone			\$5.00	\$5.00		\$6.50	\$8.00	0	\$12.50	\$1	\$14.00	\$17.00	00
New Bern House	Zone			\$5.00	\$5.00		\$6.50	\$8.00	0	\$12.50	\$1	\$14.00	\$17.00	00
Promise Place	Zone			\$5.00	\$5.00		\$6.50	\$8.00	0	\$12.50	\$1	\$14.00	\$17.00	00
VR	Zone			\$5.00	\$5.00		\$6.50	\$8.00	0	\$12.50	\$1	\$14.00	\$17.00	00
ECU-ID Clinic	Shared Revenue		\$1.60	\$5.00										
HCCBG Grant			-	•		-		-	-		-			
HCCBG - Craven County	Flat Fee	\$7.25												
HCCBG – Jones County	Flat Fee	\$17.60												
Core Agencies														
Craven County DSS	Shared Revenue		\$1.60	\$5.00										
Jones County DSS	Shared Revenue		\$1.60	\$5.00										
Pamlico County DSS	Shared Revenue		\$1.60	\$5.00										
ROAP Grant			-			-		-	-		-			
Pamlico County Senior	Shared Revenue		\$1.60	\$5.00										
Services						_			_					
PCC	Shared Revenue		\$1.60	\$5.00										
Pamlico EDTAP	Shared Revenue		\$1.60	\$5.00										
Jones EDTAP	Shared Revenue		\$1.60	\$2.00										
Pamlico RGP - Public	Shared Revenue		\$1.60	\$2.00										
Jones RGP – Public	Shared Revenue		\$1.60	\$2.00										
Pamlico EMP	Shared Revenue		\$1.60	\$2.00										
Jones EMP	Shared Revenue		\$1.60	\$2.00										
Craven EDTAP	Shared Revenue		\$1.60	\$5.00										
					<u>&lt;</u> 7.5		9.5- 11	Zone Zone 11.5-		niles) 17.5-	19.5-	23-	25-	31-
						9.5 1			17.5	19.5	21	25	27	33
Craven County EMP and RGP	βP								1. 19					
Craven EMP	Zone			Same as Zone	\$3.25	\$3.50 \$3	\$3.75 \$4.	\$4.00 \$4.25	\$4.50	\$4.75	\$5.00	\$5.50	\$5.75	\$6.50
Craven RGP	Zone			Same as Zone	\$3.25	\$3.50 \$3	\$3.75 \$4.	\$4.00 \$4.25	\$4.50	\$4.75	\$5.00	\$5.50	\$5.75	\$6.50
				2124 00			_							



## 2.0 Public Involvement

#### Public Involvement Goals

To fully address the needs of current riders and prospective riders in the urban service area, CARTS requested that this TDP initiate a comprehensive, broad-reaching Public Involvement strategy as to guide the framework for outreach and communication methods that would reach a diverse population of both users, non-users and local stakeholders.

Public Involvement Goals follow the integrity of the Craven County vision and its spirit of providing services:

- **Collaboration**–Enhance trust between the consultants and CARTS staff, County and City officials, residents, agencies, and other stakeholders.
- **Education**–Enhance awareness and understanding of the project to enable meaningful and timely participation.
- Inclusion–Engage stakeholders representing a full range of interests, missions, and opinions.
- **Transparency**–Provide information in a clear, open, and comprehensible manner.
- Accountability–Be accessible to the public and other project stakeholders.
- **Responsiveness**–Respond to public inquiries in a timely manner.

#### Public Involvement Requirements

The minimum requirements for Public Involvement for the CARTS TDP are outlined in both the FTA and local Craven County guidelines.

**Federal Guidance:** In accordance with 23 CFR 450.212 and 49 CFR Part 613 regulations, this document will be used during the project development process to provide a strategy for communicating the decision-making process between the general public, resource agencies, and local, state, and federal government officials. These regulations stipulate that public participation processes must provide the following:

- Early and continuous opportunities for participation
- Public workshops and meetings at convenient and accessible locations and times
- Timely information on transportation issues, processes, and procedures
- Reasonable access to technical and policy information
- Electronically accessible and available public information via the Internet
- Adequate notice for participation opportunities at key decision points
- Methods for considering and responding to public input
- A course of action for seeking out and considering the needs of traditionally underserved groups
- Periodic review and evaluation of the participation process

The ADA states that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity." Sites for participation activities, as well as the information presented, must be accessible to persons with disabilities.



ADA requires specific participation such as:

- Accessible formats and facilities
- Website accessibility
- The development of contacts, mailing lists and other means of outreach notification
- Consultation with disabled individuals
- The opportunity for public comment
- Summaries of significant issues raised during the public comment period
- Ongoing efforts to involve persons with disabilities in planning

Public involvement was an inclusive process. The intent was to reach the broadest population possible, thus complying with Title VI of the *Civil Rights Act of 1964*, Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, 1994, and Executive Order 13166 pertaining to persons with limited English proficiency (LEP). These inclusive methods were paper surveys without reliance on web-based technology, materials available in English and Spanish, and no fee or barriers to participate in the public involvement activities.

#### Public Involvement Approach

The public involvement approach for this TDP attempted to understand the public knowledge, perception, and barriers to using public transit, and to identify most desired service changes (times, locations, days of service, amenities). To obtain a broader understanding of both met and unmet needs, the project team conducted:

- Interviews of public officials and stakeholders
- On-board surveys of riders of the demand response service as well as the fixed route service
- A general survey of public knowledge, perception, and use of public transit mailed to 10% of residential addresses from the urban area, randomly selected
- Two public meetings on a weekday, one during the day and one during the evening, that were advertised on buses, in community agencies and in the local daily newspaper

The following individuals or groups were contacted for input during the course of this study:

- Passengers:
  - o General public riders
  - o TAB member
- General Public
  - o Direct Mail to 1,800 residences
- Participating Agency Staff:
  - o NC Division of Vocational Rehabilitation
  - Craven County Department of Social Services
  - o Interfaith Refugee Ministries
  - o Craven Community College

- Limited English Proficiency (LEP), Minority and Low-Income Populations:
  - New Bern Housing Authority
  - Community Workforce
- Governmental:
  - Craven County Elected Officials & Staff
  - o RPO Director
  - MPO Administrator and MPO Planner
  - City of New Bern Elected Officials & Staff
  - o Town of Bridgeton



- Governmental (continued):
  - o Town of River Bend
  - o NCDOT Board of Director
  - o New Bern Regional Airport Director

#### 2.1 Stakeholder Interviews

- Businesses
  - o CarolinaEast Medical Center
  - o Supernatural Transportation, Inc.
  - o Safeway Taxi Company

Stakeholders representing various agencies and constituencies were interviewed. These interviews targeted representatives from community groups, elected officials from local municipalities, the NBAMPO, workforce development, and the Craven Community College to name a few. The intent of the interviews was to better understand their respective experiences and impressions of CARTS and gain their future vision of specific transportation needs. The results of these interviews are summarized by stakeholder group in the subsequent sections. Responses are shown graphically in Figure 2-1 on page 2-5.

#### 2.1.1 Stakeholders Interviews: Government Officials

A sign of the government officials' interest and support to the planning process was their resounding response to the consulting team's requests to be interviewed. All county commissioners (including the current chair); all but one City of New Bern alderman; the City of New Bern mayor; both the Craven County and the City of New Bern managers; and representatives from two municipalities shared their ideas and perspectives on the current transportation needs of their constituents. They each expressed great insight into CARTS' current services, since several of them serve on either the CARTS Transit Advisory Board (TAB) or the NBAMPO's Transportation Advisory Committee (TAC). While many of the government officials were not aware of the varied services provided by CARTS, they all commended the system for the services provided specifically to the aging and low-income populations of the community. They also recognize that the organization may be strained by the ever-increasing needs for more service, since there have been continuous population increases, particularly by seniors, to the area. The officials also see a direct correlation between employment and transportation. Having a workforce that can access job sites (such as the Industrial Park), educational institutions (Craven Community College), and the new Training Center is critical to the county and City of New Bern's future economic development.

The majority of the New Bern officials acknowledge that the city has been somewhat remiss in past years by not investing in CARTS and learning more about the public transportation system. However, the emphasis placed on mobility alternatives conveyed by the NBAMPO, coupled with this study, has been the impetus for the city leaders to take a revised approach at how it can support CARTS in achieving its objectives to serve the urbanized area residents. City officials realize that CARTS is now at a point of 'playing catch-up' to meet the growing passenger demands and local community mobility needs.

County commissioners are of the opinion that the level of service provided to existing passengers and contracting agencies should not decrease from current level, but will not increase at the expense of taxpayers, i.e. no additional funds designated to CARTS by the county. All the commissioners agree that additional funding for any new service(s) should be paid for by creating partnerships with local stakeholder groups and the incorporated municipalities. One commissioner is open to more discussion regarding a vehicle registration tax but only as a last alternative if after exhausting other funding source availability.



#### 2.1.2 Stakeholders Interviews: Workforce Development/Job Readiness/Employment

CARTS and Craven Community College (CCC) continue to develop its transportation partnership, making great progress in the past couple of years to accommodate students and faculty. One visible example of CCC's commitment to public transit and recognition of the needs of its customer base is the installation of a bus stop sign at the main entrance in front of Barker Hall (CCC - New Bern campus). More students than faculty currently ride CARTS, and their ridership is primarily between 8:00 am and 12:00 pm. It is critical that the CARTS buses operate on schedule to ensure that students arrive to campus on time, avoiding student tardiness into the classroom. CARTS' red route loop begins service at 7:00 am, allowing students adequate time to be in their classes.

The CCC Administrator is unsure what service enhancements are needed by the student population. A survey is the best means of obtaining this information. Like the New Bern Economic Development representative that was interviewed, the administration thinks that CARTS will soon (as early as January 2018, when the first of two buildings located on First Street in New Bern is to be operational) play a pivotal transportation role by offering public transportation to the new Workforce Development Training Center. This is where key academic programs and occupational education courses will be offered. There may be a need, although unquantified at this time, for CARTS to extend its operating hours to accommodate persons taking afternoon and evening courses. This initiative should be further examined for future consideration.

Another potential location is where only demand response service is currently offered is the Industrial Park, located on the northeast side of the County. After residents complete training courses at either CCC or the Workforce Development Training Center, it is the vision for graduates of the programs to obtain employment at one of the many businesses locating to the industrial complex. An additional job opportunity is the food services incubator location at the Workforce Development Center complex. Targeted completion date for this building is scheduled for June 2018.

CCC also has a campus in Havelock. It is not an unrealistic expectation that county residents need to attend classes at the Havelock campus to expand their skillsets in the course work offered at the satellite campus.

Several representatives from agencies whose clients are reliant on CARTS for transports were interviewed. The agencies included Interfaith Refugee Ministries, Vocational Rehabilitation, and Community Workforce. The representatives recognize the challenges of individuals who are either attending courses or completing workforce training to enhance their work skills, with the end result of having skilled workforces to support the employers relocating or considering relocation to the area. The current challenge for these agencies is two-fold: first is the limitation of service hours of CARTS (operating from 5:00 am to 6:00 pm); and, secondly, the availability of service due to CARTS sometimes not having enough drivers to fulfill its existing service demands. Representatives know that companies will operate varying production schedules and that reliable transportation is the only means for their employees to retain employment.

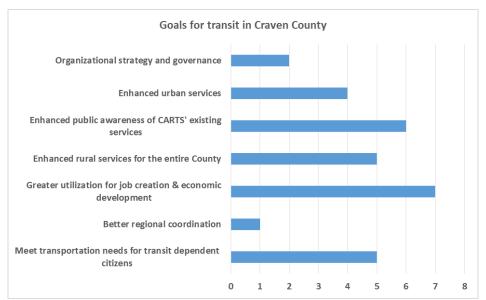
#### 2.1.3 Stakeholders Interviews: Participating Agencies

There is a clear need for transit service throughout Craven County. CARTS currently provides approximately 290 trips per day and the demand for public transportation is continually increasing with population growth and the aging, long-term residents. Continued growth in transit demand can be expected. Based on projections from North Carolina Office of State Budget and Management (NCOSBM), New Bern (urbanized area) is in the top 17% of cities where population growth is expected in coming years and predominately by the elderly (a target market for CARTS). Thus, CARTS must take steps now to prepare for the future.

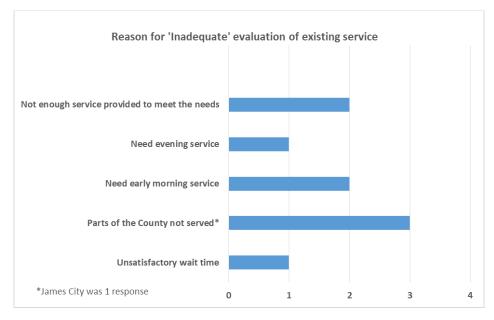


Representatives commented on the cost of CARTS' services. One agency said that it is the most affordable, much more than private providers; however, the current hours of operation and the availability for seats on the schedule are sometimes limitations, and private providers are the only alternatives. DSS tries to assign its clients to the Loop service whenever possible; however, it is not always feasible for the elderly and disabled populations. This is a good example of the cost benefit of a reliable fixed route service.

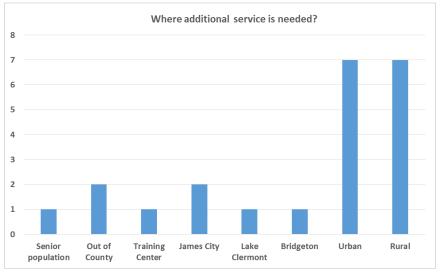
Craven County's DSS contracts with five private providers to support its Medicaid Transportation and Work First programs. The carriers are used for after-work hour and weekend trips when either CARTS is not operating or transports are needed for out-of-county, more distant medical trips to places such as Greenville, Chapel Hill and Durham. DSS not only utilizes taxi providers but also two carriers with lift equipment. The aforementioned are more expensive per ride than CARTS.

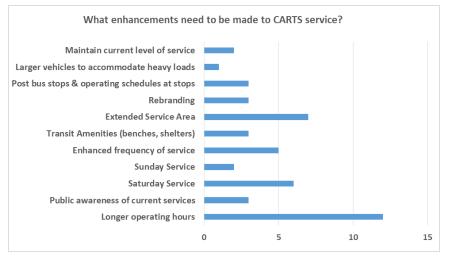


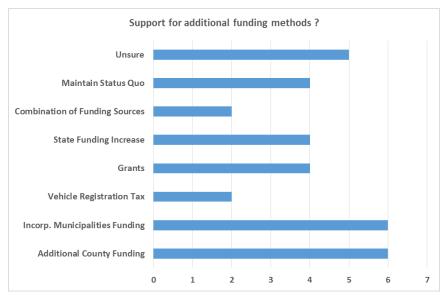




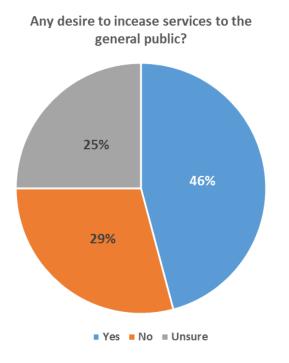


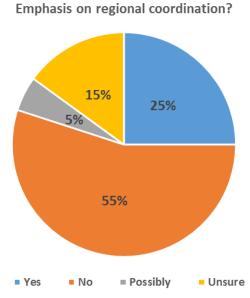






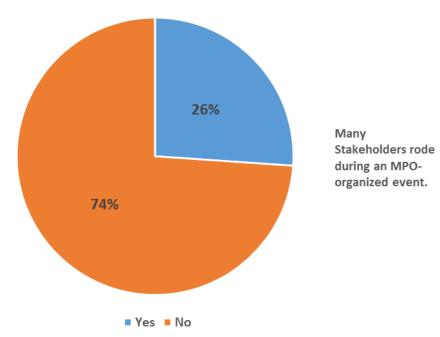






Majority of affirmative responses for continued coordination with Jones & Pamlico Counties.

#### Have you ever ridden CARTS?



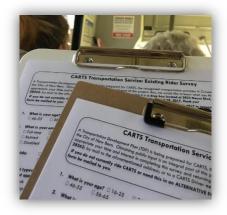


#### 2.2 Rider Surveys

An on-board survey was given to CARTS riders to determine rider characteristics, destination trends, rider satisfaction, and potential service improvements. In total, 48 surveys were distributed and returned with responses.

#### 2.2.1 Overview

On April 3-4, 2017, consultants rode two fixed routes for a total of 20 hours and accompanied five demand-response trips offering each rider a paper survey with 12 questions. Dispatchers and bus drivers were notified of the on-board surveys in advance. Riders had the option of completing the survey by themselves or hearing the questions read to them and verbally responding to each question. In addition, riders were not required to answer every question, only questions they wished. Forty-eight responses in total were collected. Responses were tabulated and summarized below.



#### 2.2.2 Survey Questions

On-board survey questions started with six questions about the demographic background of the riders—age, work status, frequency of CARTS ridership, destination, other modes of travel, and vehicle ownership. The remaining six questions asked about satisfaction with the CARTS service and suggestions for change in schedule, days of service, and stop locations. In addition, this survey was made available in Spanish, but there were no Spanish speaking riders who completed this survey. A copy of the survey instrument is shown below in Figure 2-2.



#### Figure 2-2: On-Board Survey

#### **CARTS Transportation Service: Existing Rider Survey**

A Transportation Development Plan (TDP) is being prepared for CARTS, the recognized transportation provider in Craven County and the City of New Bern. Obtaining public input is an integral part of this project; thus, we would like to know what you think. We appreciate your time and interest in completing this survey and returning it in a drop box located at 2822 Neuse Blvd, New Bern, NC 28562; by mail to the aforementioned address; or to a CARTS Driver no later than <u>April 28, 2017</u>. Thank you! If you do not currently ride CARTS or need this in an ALTERNATIVE FORM, please call (252) 636-4917 to request an alternate form be mailed to you.

- What is your age?
   □ 16-25
   □ 26-35
   □ 36-45

   □ 46-55
   □ 56-65
   □ Over 65
- 2. What is your employment status (check all that apply)? □ Full-time
  □ Part-time
  □ Work at home
  □ Retired
  □ Student
  □ Unemployed
  □ Disabled
  □ Other
- I ride: □ daily □ weekly
   □ monthly □ a few times a year
- What types of trips do you take on the van / bus? (check all that apply)
  - Work 
     Medical 
     Recreation
  - □ Shopping (grocery) □ Other (mall, etc.)
- 5. Assign a rating from 1 (lowest) to 5 (highest):

The van / bus arrives on time.	
I get to my destination on time.	
I feel safe when riding the van / bus.	
The vehicle is clean.	
The driver is courteous.	
The drivers do assist passengers, when needed.	
Office staff members are courteous when making my reservations.	

- 6. Do you feel like you spend too much time traveling on the bus / van? □ Yes □ No
- 7. Does CARTS meet your transportation needs?
- 8. If you pay a fare for service, is CARTS affordable for you?

If you answered 'NO' to Questions #6 and #7, please provide **specific** details / comments to explain your response.

- 9A. What would you change (if anything) about transit services in Craven County? (Please check all that apply and provide additional details in the space provided.)

   Available stops / locations:
  - C Route timing:
  - □ Longer hours of operation: \_
  - Begin Saturday service: \_\_\_\_\_
  - Begin Sunday service:
  - Other:
- 9B. Which ONE of the improvements listed above is MOST IMPORTANT to you? (Circle the improvement above in Question 9A.)
- 10. Is other transportation available to you? 

  Always

  Most of the time

  Sometimes

  Seldom
- 11. Does your household own at least one automobile?
   Yes I No
- 12. On a scale of 0 (Not at all likely) to 10 (Very Likely), how likely would you be to recommend CARTS to a family &/or friend? \_\_\_\_\_\_

Additional Comments regarding the van / bus service and/or your riding experiences.

Thank you for your time.

3C, Inc.\_Existing Rider\_032717

Pase la página para español



#### 2.2.3 Observations during On-Board Surveys

Riders who use the CARTS service have both diverse backgrounds and diverse transit needs. This system has two fixed routes, the yellow route and the red route. Most riders on these routes used these transit services to accommodate their medical, retail shopping or work trips. The riders on the yellow route had transit needs related to medical appointments and retail shopping. The yellow route began picking riders up from residential areas and transporting them to retail and medical facilities. The red route began in the opposite direction of the yellow route primarily for work and medical trips but does include many trips for shopping.

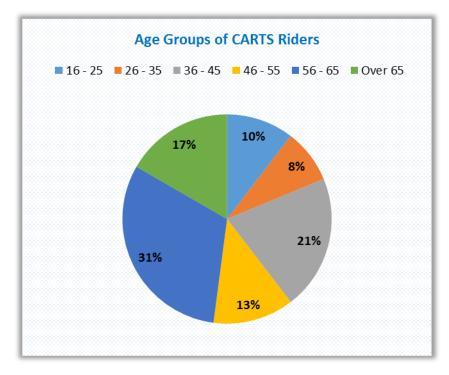
The peak times for picking and dropping off riders was 9:00 am to 3:00 pm. Consultant observations, as well as survey responses, confirmed that the visual state of the vehicles were clean, comfortable and inviting.

A few observations that need to be addressed include:

- Collection of fares in a cash collection bag instead of a locked fare box presents safety and security risks for the driver and program.
- Use of cash only fares without the option of weekly or monthly passes is an outdated practice.
- CARTS signs signifying a bus stop were missing from more than half of the fixed route bus stop locations.

The following series of figures, tables and descriptions below describes the on-board survey questions that were answered and submitted by all 48 on-board survey participants. The on-board bus survey is shown in Figure 2-2. For each question, the following are provided: *Purpose* (a brief explanation of why the question was asked, *Results* (a brief summary of the main results) and *Significance* (brief assessment of what the results mean for the CARTS transit service).

#### Figure 2-3: Age Groups of CARTS Riders



#### **Purpose:**

To understand the common age - group of CARTS riders.

#### **Result:**

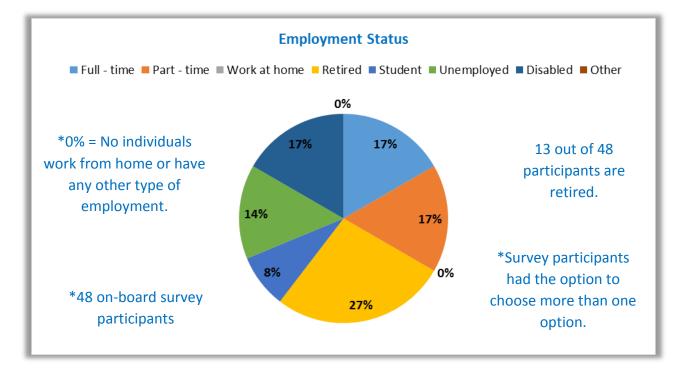
The majority of CARTS riders vary from 36 years to 65 years of age. The largest age group of CARTS riders is within 56 years to 65 years of age.

#### Significance:

Generally, the riders of the CARTS transit system are elderly. Understanding the main age - group of this service helps to comprehend who chooses to use CARTS services.



Figure 2-4: Current Employment Status of CARTS Riders



#### **Purpose:**

To analyze riders' existing employment status and to capture the significance of why riders will use CARTS transit service.

#### **Result:**

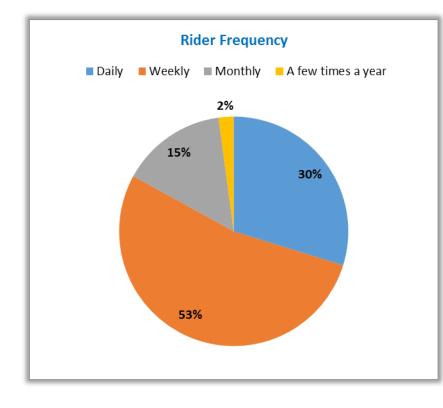
A few riders of this transit system use the yellow and red fixed routes as a resource to get to and from places of employment. However, most riders completing the survey were retired and generally use CARTS as their main source of transportation.

#### Significance:

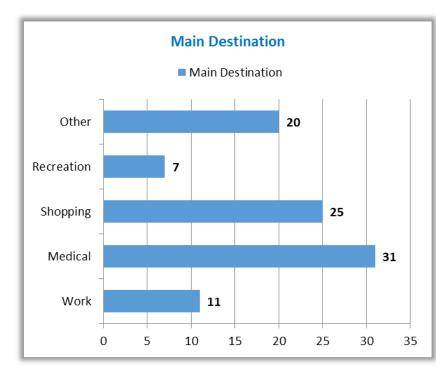
Evaluating the existing employment status of CARTS riders helps clarify transit demand and trending destination locations to be considered for future services.







#### Figure 2-6: Destination Trends of CARTS Riders



#### **Purpose:**

To understand how often riders use CARTS transportation services.

#### **Result:**

The results indicate that 53% of riders typically use CARTS on a weekly basis.

#### Significance:

The results state that 83% of CARTS riders use this service daily or weekly. Individuals who are transit-dependent would not be able to get medical and social services were it not for CARTS transit service. Moreover, CARTS has a strong ridership base that depends on its service.

#### **Purpose:**

To find the rider's destination preference using CARTS services.

#### **Result:**

Individuals who use the CARTS services have various destinations with medical appointments and shopping as two main purposes.

#### Significance:

People are using CARTS to accommodate their medical and shopping needs, which means that these destinations should continue to be a focus of new or modified services.



NOTE: Survey participants had the option to choose more than one answer. There were 48 on-board survey participants and 31 out of 48 participants say medical related trips are their main destination point.

#### Table 2-1: Rider Satisfaction with CARTS Services

Statement	Rating*
	¥
The van/bus arrives on time.	22 out of 43 responses rated at 5
I get to my destination on time.	27 out of 43 responses rated at 5
l feel safe when riding the van/bus.	36 out of 41 responses rated at 5
The vehicle is clean.	34 out of 45 responses rated at 5
The driver is courteous.	38 out of 44 responses rated at 5
The drivers do assist passengers, when needed.	39 out of 45 responses rated at 5
Office staff members are courteous, when making reservations.	26 out of 36 responses rated at 5

#### Purpose:

To understand the riders' overall impression of the current CARTS transportation service system.

#### **Result:**

Overall, as shown in Table 2-1, more than half of CARTS riders thought vehicles were clean and safe, and that, drivers were courteous and helpful. Less than half of CARTS riders thought that service arrival and destination arrival was not an issue.

#### Significance:

The data suggest that the riders generally rate CARTS transportation service as high quality. However, there are some characteristics of service that need improvement such as timeliness and connectivity.

\*From a scale of 1 (lowest) to 5 (highest)

#### Table 2-2: Assessing Attitudes of CARTS Riders

Survey Question	Yes	No
Do you feel like you spend too much time traveling on CARTS?	38	7
Does CARTS meet your transportation needs?	40	6
ls CARTS affordable?	45	3
Do you own more than one vehicle at home?	9	36

#### **Purpose:**

To assess current rider attitudes toward CARTS transit services.

#### **Result:**

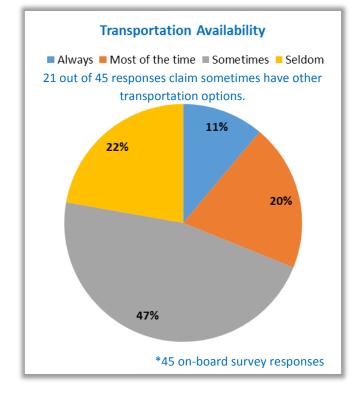
The survey results indicated that riders of CARTS are highly dependent on public transit but feel that their trips take too long. Riders reported that the current fare was affordable.

#### Significance:

Based on these results, shortening the time riders spend on CARTS fixed routes would be a higher priority for future service modifications.



#### Figure 2-7: Transportation Availability of CARTS Riders



#### Table 2-3: Suggested Improvements for CARTS Services

Survey Question	What would you change about CARTS services?	From the options, which one is the most important?
Available stops/locations	16	8
Route timing	10	2
Longer hours of operation	20	13
	28 would want	16 replied as this
**Saturday services	Saturday services.	being the most important item.
Sunday services	22	10
Other	3	3

Note: These questions received fewer responses from the CARTS riders than other survey questions. Question 9A gives participants the option to choose more than one answer. Question 9B gives participants the option to elaborate on the options they chose from the previous part of this question. Most participants did not answer 9B after answering 9A. (48 on-board survey participants).

### **Purpose:**

To understand the transit dependency of CARTS riders and the value CARTS provides to the community in providing mobility options.

### **Result:**

Many on-board survey respondents did not have a vehicle at home and CARTS was their only source of transportation. Figure 2-7 describes whether or not these riders have another option of transportation.

# Significance:

Affordable transit services such as CARTS provide vital transit service for riders who may not have other transportation options individually available to them.

# **Purpose:**

To understand what service improvements would be most appreciated by current CARTS riders.

# **Result:**

When asked about additional transit services, on-board survey participants favored weekend service as well as additional stops and locations. When asked what was most important, Saturday service was the most popular choice.

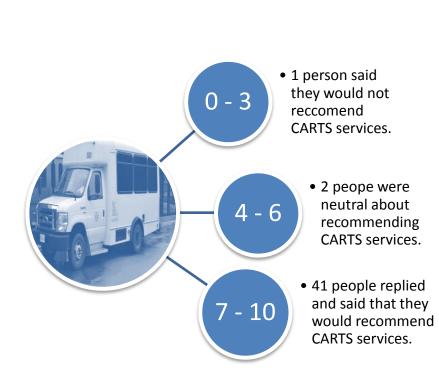
# Significance:

The survey results suggest Saturday transit service would result in increased ridership. While the riders were generally satisfied with current cost of CARTS services, they also expressed desire for weekend services in general, longer operations, and more stops within the yellow route and red route.



### Figure 2-8: Recommending CARTS to Friends and Family

### **Purpose:**



To gauge rider satisfaction of CARTS services by asking whether riders would recommend this service to their own family, friends, and acquaintances.

### **Result:**

Participants of the on-board surveys would most likely recommend CARTS transportation to family and friends. Image (1) shows how out of a scale from 0 - 10, 41 out of 48 people gave CARTS the highest rating in the range of 7 - 10.

# Significance:

Word-of-mouth recommendation is a sign of satisfaction and can be an effective method of future advertisement.



#### 2.3 Direct Mail Surveys

In addition to rider surveys, general public surveys were mailed to approximately 1,800 addresses within the CARTS urbanized service area. A total of 129 surveys were completed, including one Spanish version of the survey. It should be noted that respondents did not complete every question on the survey; therefore the total responses differ for each question. Once citizens completed the forms, they were instructed to use the self-addressed, pre-paid envelope to return the survey by mail, delivered to the CARTS Office, and/or submitted to a CARTS Bus Operator. The following are some highlights of the findings and trends that have been part of the analysis of this report. The survey instrument is shown in Figure 2-9. Responses are shown graphically in Figure 2-10 on page 2-19.

#### Figure 2-9: General Public Survey

рі 8:	City of New Bern. Obtaining public input is an integral part of preciate your time and interest in completing this survey and ret 562; by mail to the aforementioned address; or to a CARTS Dri- ou need this survey in an ALTERNATIVE FORM, please call (	urning it i ver <u>no la</u>	n a drop box loca ter than <b>April 28</b> , 3	ted at 2822 Neus <b>2017.</b> Thank you!	
	What is your age? 🗆 16-25 🛛 26-35 🗌 36-45	10.	Which days of th	e week would yo	ou typically use public
	□ 46-55 □ 56-65 □ Over 65			heck all that apply)	
			🗆 Monday	🗆 Tuesday	Wednesday
•	What is your employment status (check all that apply)?		□ Thursday	🗆 Friday	Saturday
	Full-time Part-time Work at home     Retired Student Unemployed		🗆 Sunday	I would not us	se public transportation
	Disabled Other	11.	What time of day (check all that app		public transportation
	Which of the following types of transportation do you		Before 6AM	GAM to 10AM	∧ □ 10AM to 2PM
	typically use (check all that apply)?		2PM to 6PM	□ After 6PM	
	□ Drive alone □ Ride with someone □ School bus		I would not use	public transportat	tion
	□ Bicycle □ Walk □ Other	10	0	Max at all PL -1 -5 -	to 10 (Very Likely),
	Do you have access to a vehicle (car, truck and/or	12.			nmend CARTS to a
•	motorcycle) for your own personal use?		family &/or frien		
	□ Yes, I own it □ Yes, I borrow it □ No				
		13.	Where do you li		
i.	Were you aware that CARTS is a public transit service, and not just for riders with medical or social service needs?		City/Town Zip Code		
	Yes No	14.	Where do you w	ork?	
			City/Town		
	Have you ever used public transportation (bus, van and/or train)?				ns, comments and
	□ Yes, I have used CARTS □ Yes, I have used elsewhere □ No, never	13.	suggestions:	aamonai quesnor	ns, comments and
	Do you think there is a need for public transportation service in this area ( <i>check all that apply</i> )?	-			
	□ Yes, locally within the County □ Not at all				
	Yes, outside of Craven County				
	□ Yes, within the region □ I don't know	-			
3.	What would encourage you to use public transportation (check all that apply)? Public transportation is more affordable than driving.	-			
	Public transportation is easy to use.				
	$\square$ Public transportation is faster than driving.	-			
	□ Public transportation picks me up &/or drops me off	-		6	
	near my home / work. □ None of the above	Inc	ink you for your t	ime.	
	Other				
	How often would you use public transportation (check one)?				
	Every day A few times a week				
	Once or twice a month	1			
	I would not use public transportation	1			

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# 2.3.1 Demographics of Respondents

In keeping with industry-wide standards for direct mailing surveys (as reported by national surveyors), the majority of respondents (83%) are Craven County senior citizens: 25% whose age is between 56 and 65 years and the remaining 58% who are older than 65 years. Not surprising is the fact that 80 of the aforementioned respondents are retired, equating to 57% of the total responses. The second highest employment category is full time workers, a total of 32 respondents (23%).

One hundred four (104) or 81% of the surveys were completed by City of New Bern residents. Smaller towns were represented with River Bend residents amounting to another 7% of the total. For those persons that are currently employed, 82% are employed at New Bern-based job sites and the remainder (in descending order) noted their respective work location in Havelock, Vanceboro, James City, and Jacksonville.

# 2.3.2 Transportation Alternatives

Vehicle ownership by Craven County citizens totaled 93% and, accordingly, the majority of the survey respondents noted that they drive alone to intended destinations. Twenty-two (22%) percent said that they also often ride with someone else. Only eight of the respondents do not have access to a vehicle for personal use. Other alternatives for transportation (in descending order) include walking, bicycling, and CARTS.

Although CARTS has attempted to convey its mission as a "public transportation service" for all Craven County citizens, survey responses indicate that 54% of the citizens are still unaware of this fact. This is comparable to the information acquired during stakeholder interviews where approximately half of the interviewees thought the service was only for agency sponsored trips for seniors, disabled riders, and disadvantaged populations.

Due to the lack of a public transit brand, many citizens do not consider CARTS as transportation for the general public. Sixty-three (63%) percent of the respondents say that they have used public transit elsewhere, so one possibility may be the fact that CARTS has historically been demand response service and is not operating the 'traditional' type of vehicle, i.e. larger transit buses or is not operating in a city where there are significant disincentives to using a personal vehicle such as limited parking. Additionally, 39 (30% of total responses) of the respondents stated that they have never used any form of public transportation.

# 2.3.3 Current and Future Transportation Services

Even though respondents may rely on their own vehicles and may not have ridden CARTS, 43% of them think that there is a need for public transportation in the county, coupled with an additional 31% who consider there to be a need in the region. Less than 15 (7%) are unsure about a need, and this may relate to their lack of knowledge of CARTS' existing services. Current non-users of the CARTS system would be more likely to ride if pick-ups and drop-offs were located near their homes and/or work locations. They would be most likely to ride between 10:00 am and 6:00 pm. One specific comment was made that the lack of sidewalks around New Bern and the county inhibits transit ridership. Assuming implementation of the improvements listed in the survey, 35% of the respondents stated that they would make a few trips each week on a CARTS vehicle if the convenience of the service could meet their mobility needs.

While 34% of the respondents said that they would never ride public transportation, more than half of the responses (74 of 107) reflected a high rating, i.e. eight to ten out of a scale of zero to ten for referrals of CARTS to family and friends. Less than 8% of the ratings were below the mean.

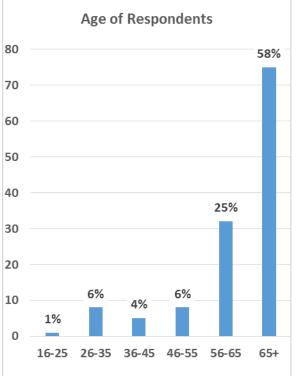


Table 2-4 lists the individual responses to Question #15 on the survey, which asked for additional comments and suggestions. Responses have been categorized for a systematic approach to understanding and addressing the concerns, questions, and unmet needs.

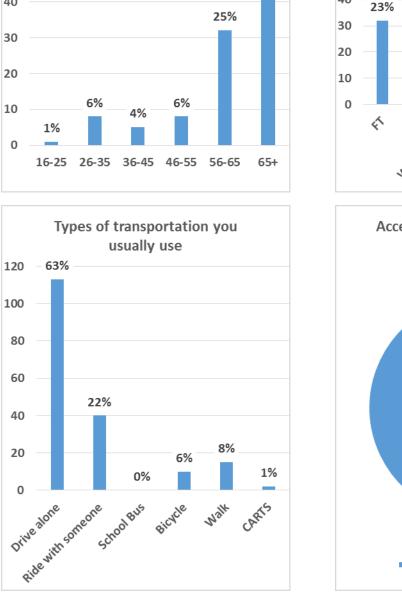
CATEGORY	RESPONSES	# of RESPONSES
	Allows for independent living of Seniors	5
	Provides service for shut-ins & transit dependents	3
	More bus stops	2
CARTS Service Standards	On time performance needs improvement, particularly after dialysis appointments	2
	Longer service hours	1
	Operators are pleasant and helpful	1
	Time spent on vehicle is excessive	1
	Concerns regarding age of CARTS Bus Operators	1
	City Bus Service in New Bern is needed	5
	Need service to airport	3
	Need service to Havelock Senior Center	2
	Need system better than CARTS	1
	Needs to be available for special events	1
Route System	Need operations in James City	1
	Need service to Veteran's Service Office	1
	Need service to Convention Center	1
	Need service to local hotels	1
	Park & Ride locations for employer vanpools	1
	Don't know bus stop locations, routes, and fares	5
Marketing and Public	Need accessible equipment	1
Awareness /Education of Services	Enhanced website for obtaining information on proposed changes to services	1
	Lack of Knowledge of existing CARTS services	1
	Need sidewalks to access bus service	1
Transit Amenities	Bike racks are needed on buses	1
	Use technology to identify stops and vehicles	1
	Cost of service enhancements?	1
	Service should not be subsidized, and users should pay for it	1
Financial Matters	Institute bus pass program	1
	Saves money on personal automobile costs	1
	Taxis and Uber are expensive	1

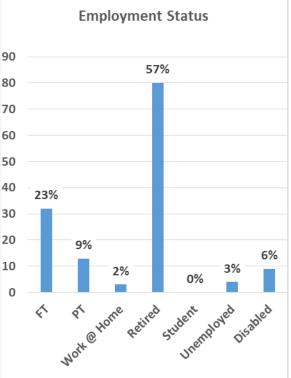
#### Table 2-4: General Public Feedback

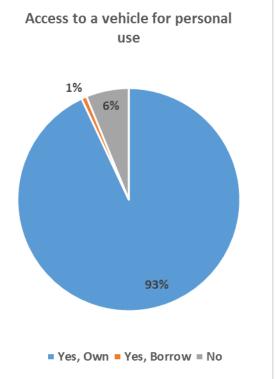






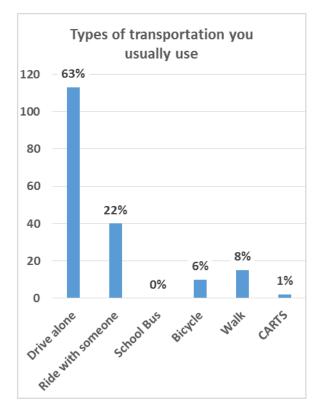


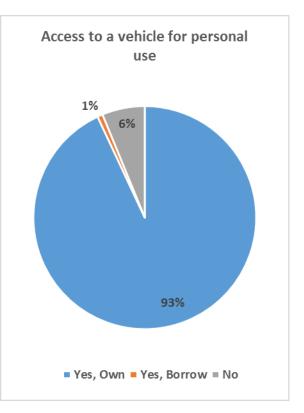


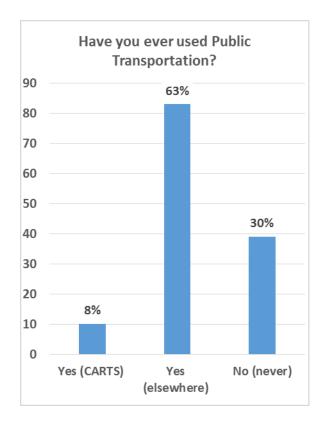


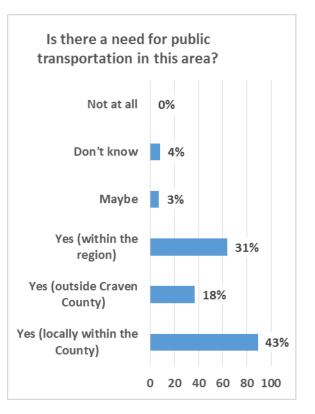
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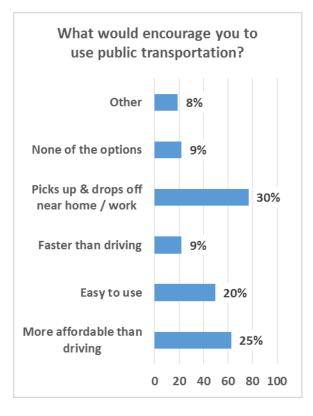


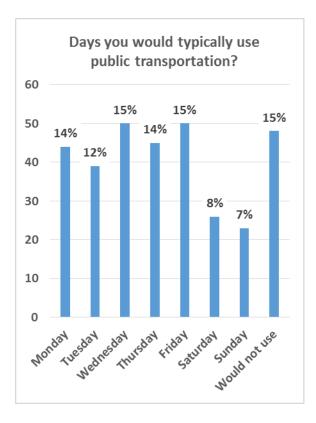


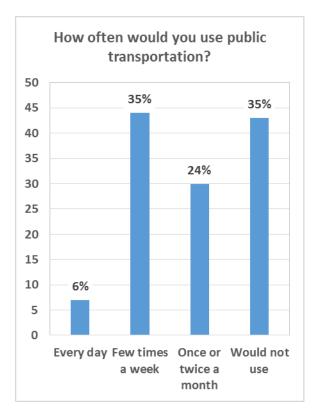


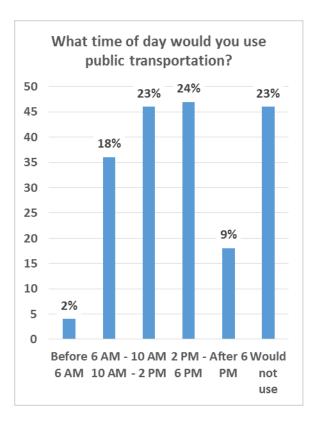




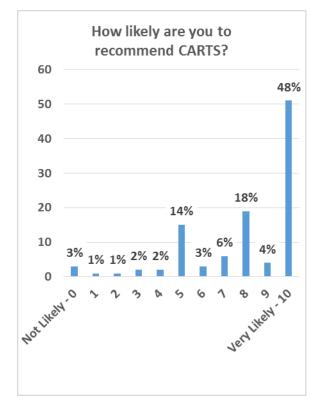


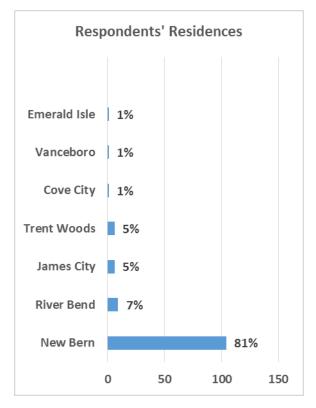


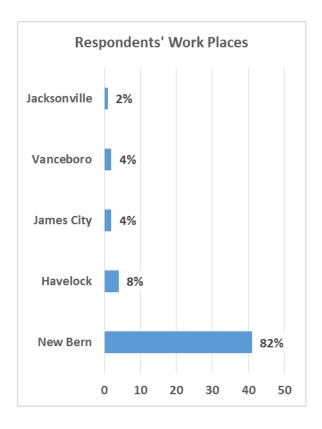


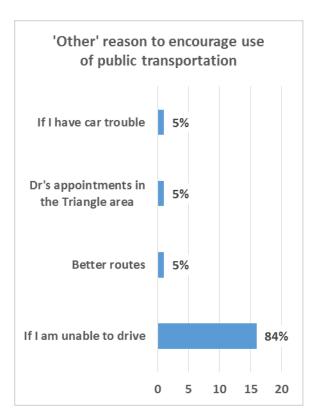














# 2.4 Public Meetings

On May 3, 2017, CARTS staff and the AECOM consultant team presented the progress made on the TDP and solicited public input through display boards and a PowerPoint presentation, at two public meetings in New Bern, NC. The morning meeting was held at the Naumann Community Room at the Craven Community College from 11:00 am to 1:00 pm. The second meeting was held at the auditorium conference room at the New Bern-Craven County Public Library, from 5:30 pm to 7:30 pm.

The intent of the public meetings was to provide a forum for the general public to comment and give constructive feedback on the concept plans for an expanded fixed route urbanized transit service over the next five years. The TDP planning concepts were presented following a review of data and previous surveys with local community stakeholders and current system riders. Additionally, a mail-out survey was sent to approximately 1,800 urbanized area residents to obtain their feedback on the service and to invite them to attend the public comment meetings.

During the public meetings, a series of nine display boards were set up throughout each meeting room, and representatives from Craven County government, CARTS, NBAMPO, and the AECOM consultant team were available to engage residents, answer questions, and receive valuable input. Each meeting began promptly at the scheduled time and ended after the two hour scheduled time.

The major talking points of the power point presentation included:





- An overview of the existing transit system.
- The main objectives of the purpose for the TDP.
- The current status of TDP process (public input and feedback).
- An overview of what the consultant did before current status of the TDP process (Demographic analysis, on-board surveys and mail-out rider surveys).
- A listing of Conceptual Changes.
- An overview of the proposed 5-year strategy of the TDP.
- An overview of the next steps of the TDP process.



A total of 17 attendees participated in the public meetings, and each meeting provided a diverse community of interested patrons. Areas of noted concern from the attendees included: the attractiveness of bus stops, bus signage, fare pass opportunities, funding, a desired new branding of the service, and bus ADA amenities. Attendees also recommended the implementation of bike racks on the buses and the need to include the public library as a potential stop location. There was a common concern for improved access for seniors and agency-sponsored riders, including the need to have the system promote increased awareness of the existing services and future services to the general public.





# 3.0 Transit Need and Demand

This chapter addresses transit needs and demands through a quantitative analysis of reviewing demographics and employment, peer analysis, review of origins and destinations, and assessment of unmet needs.

# 3.1 Local and Regional Demographics and Employment

This section assesses demographics, major employers, and employment and commuting patterns.

### 3.1.1 Demographics

The demographics for the New Bern Urbanized Area, Craven County, Jones County, and Pamlico County were analyzed to better understand the transit needs of residents. Specifically, population density, individuals below the poverty level, zero-vehicle households, age, and persons with disabilities were included in the analysis due to the fact that these population segments are more historically likely to use public transportation. Relevant commuting statistics were included to understand the current modes and commute times in the area. This demographic data used to determine the recommendations came from the American Community Survey (ACS) 2011-2015 five-year estimates produced by the US Census Bureau.

The results of the demographic analysis are presented in Table 3-1. Craven County has the largest population by far at 104,450 people compared to the Jones County and Pamlico County populations of 10,166 and 12,982, respectively. The population density varies greatly with 21 persons per square mile in Jones County and 1,167 in the urbanized area. Jones County has the greatest percentage of individuals living below the poverty level. The New Bern Urbanized Area has the greatest percentage of zero-vehicle households, which is a particularly relevant indicator to support improved fixed route transit services. Craven County has the greatest percentage of the population 17 years and under and 65 years and over. The greatest percentage of persons with disabilities is in Jones County. Commuters utilizing a public transportation alternative to work is very low and similar among all four geographies. Jones County has the longest mean commute time while the urbanized area has the shortest. Similarly, Jones County has the greatest percentage of residents working outside of the county and the urbanized area has the least.

Demographic	New Bern Urbanized Area	Craven County	Jones County	Pamlico County
Population				
Population	51,384	104,450	10,166	12,982
Population Density (persons/sq. mi.)	1,167	144	21	38
Poverty				
Individuals Below Poverty Level	15%	16%	21%	14%
Zero-Vehicle Households	11%	8%	7%	5%
Age				
Population 17 Years and Under	16%	16%	15%	13%
Population 65 Years and Over	20%	17%	21%	25%
Disability				
Persons with Disabilities	16%	17%	25%	21%
Commuting				
Commutes by Public Transportation	0.1%	0.3%	0.3%	0%
Commutes by Bicycling or Walking	2%	2%	5%	2%
Commutes by Carpooling	10%	12%	10%	15%
Commutes by Driving Alone	83%	81%	77%	75%
Mean Commute Time (minutes)	19.0	20.8	25.5	26.3
Works outside county of residence	12%	17%	69%	46%

T	able	3-1:	Demographics
		· · ·	



# **Population Density**

As noted, within the CARTS service area, population density varies greatly from 21 persons per square mile in Jones County to 1,167 in the New Bern Urbanized Area as shown in Figure 3-1. Areas of greatest population density within the three-county area are located in the municipalities of New Bern, River Bend, and Trent Woods. The New Bern Urbanized Area has a substantially higher population density than the three-county average. This distribution supports the current routing of the Loop fixed-route service as higher population densities tend to support greater transit ridership. It also suggests that expanded fixed-route transit service would likely be best suited for the urbanized area. In regions with lower population density, other transit services such as demand response or ridesharing would be most appropriate.

### Poverty

Individuals living below the poverty level ranges from 14 percent in Pamlico County to 21 percent in Jones County as shown in Figure 3-2. However, when looking at the *density* of poverty, block groups with the highest concentrations are in downtown New Bern, the US 17 Business and US 70 interchange, the NC 43 and NC 55 intersection, and south of James City east of US 70. Individuals living below the poverty level are more likely to use transit as access to personal vehicles may be limited. The current Loop fixed-route service serves these areas except for the NC 43 and NC 55 intersection and area south of James City. However, demand response service is available.

### Zero-Vehicle Households

Households without vehicles range from 5 percent in Pamlico County to 11 percent in the New Bern Urbanized Area as shown in Figure 3-3. The highest concentrations of zero-vehicle households correlate with the areas of individuals living below the poverty level. Specifically these areas are: downtown New Bern, the US 17 Business and US 70 interchange, and the NC 43 and NC 55 intersection. Zero-vehicle households are a particularly reliable indicator of transit need as the absence of a vehicle is directly related to mobility. These areas are served by the current Loop fixed-route service except for the NC 43 and NC 55 intersection where demand response service is provided.

# Age

The total percentage of individuals under 18 and 65 or over ranges from 33 percent in Craven County to 38 percent in Pamlico County as shown in Figure 3-4. The age segment under 18 years is concentrated in New Bern and Havelock. The age segment 65 or over is concentrated in James City, New Bern, River Bend, Trent Woods, and a portion of Craven County across the Neuse River from James City. These age segments are more likely to use transit due to mobility challenges and less access to drivers' licenses. In relation to these areas with higher concentrations, only New Bern is served by the current Loop fixed-route service. All other areas have only demand responsive service available to the general public.

# Persons with Disabilities

Persons with disabilities range from 16 percent in the New Bern Urbanized Area to 25 percent in Jones County as shown in Figure 3-5. Although the New Bern Urbanized Area has the smallest percentage of persons with disabilities, it has the highest concentration of persons with disabilities per square mile. Areas with the highest concentrations are located in downtown and central New Bern. Many of these areas are currently served by the Loop fixed-route service.



Figure 3-1: Population Density

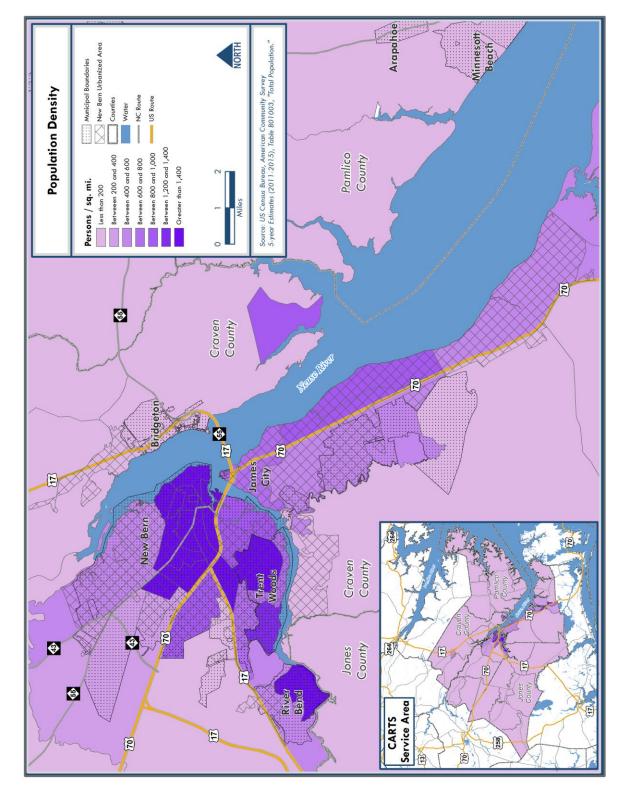




Figure 3-2: Poverty

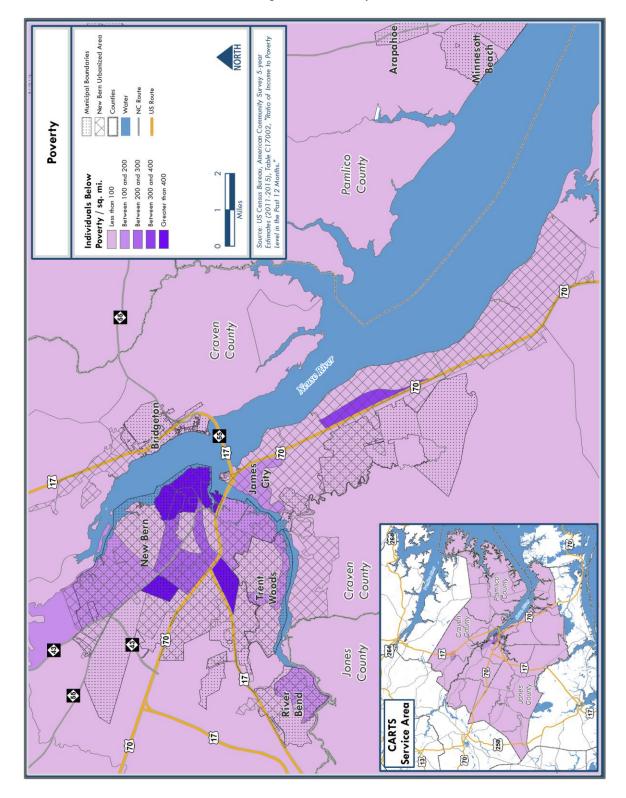




Figure 3-3: Zero-Vehicle Households

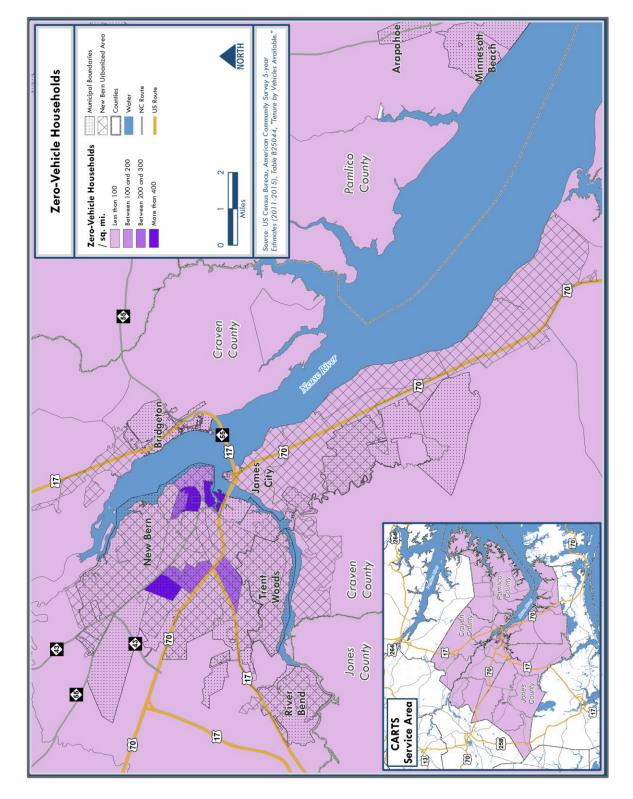




Figure 3-4: Age

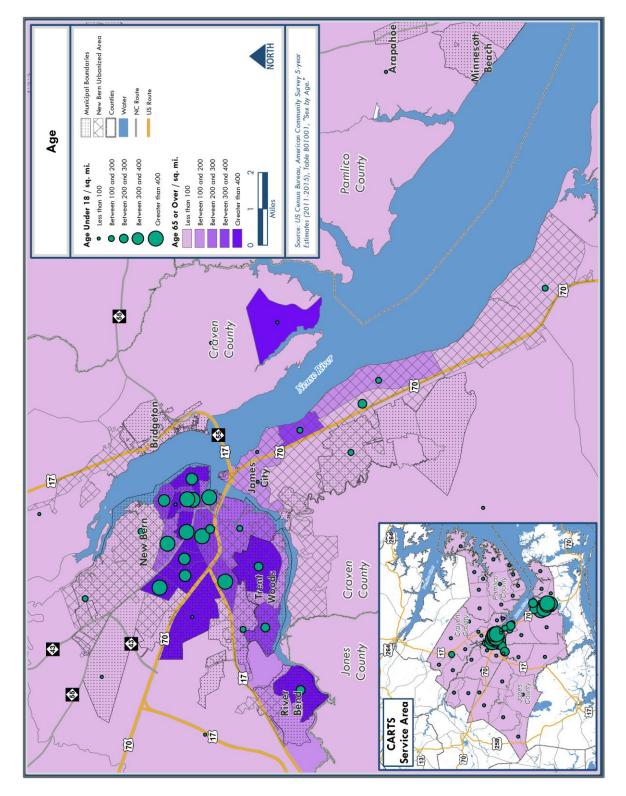
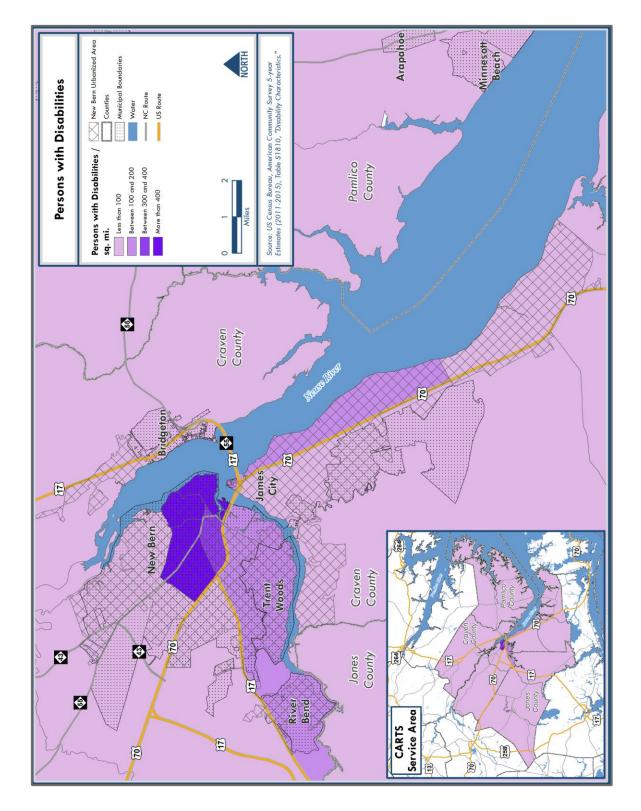




Figure 3-5: Persons with Disabilities





# 3.1.2 Major Employers

The North Carolina Department of Commerce, Labor and Economic Analysis Division provides a listing of major employers by county. Table 3-2 lists the top ten employers in the three-county area. The largest employer is the Department of Defense in Craven County, which includes the Marine Corps Air Station Cherry Point. Nine of the top ten employers are located in Craven County. The ninth largest employer, YMCA, is located in Pamlico County. The major employers are mapped in Figure 3-6 with their rank serving as the map ID.

Rank	Employer	Sector	Employee Range	County
1	Department Of Defense	Public Administration	1000+	Craven
2	CarolinaEast Medical Center	Education & Health Services	1000+	Craven
3	Craven County Schools	Education & Health Services	1000+	Craven
4	BSH Home Appliances Corporation	Manufacturing	1000+	Craven
5	Moen Incorporated	Manufacturing	500-999	Craven
6	Walmart	Trade, Transportation, & Utilities	500-999	Craven
7	Craven County Government	Public Administration	500-999	Craven
8	Marine Corps Community Services	Trade, Transportation, & Utilities	500-999	Craven
9	YMCA	Leisure & Hospitality	500-999	Pamlico
10	Holden Temporaries, Inc.	Professional & Business Services	500-999	Craven

#### Table 3-2: Major Employers in the Three-County Area

North Carolina Department of Commerce, Labor and Economic Analysis Division, 2016.



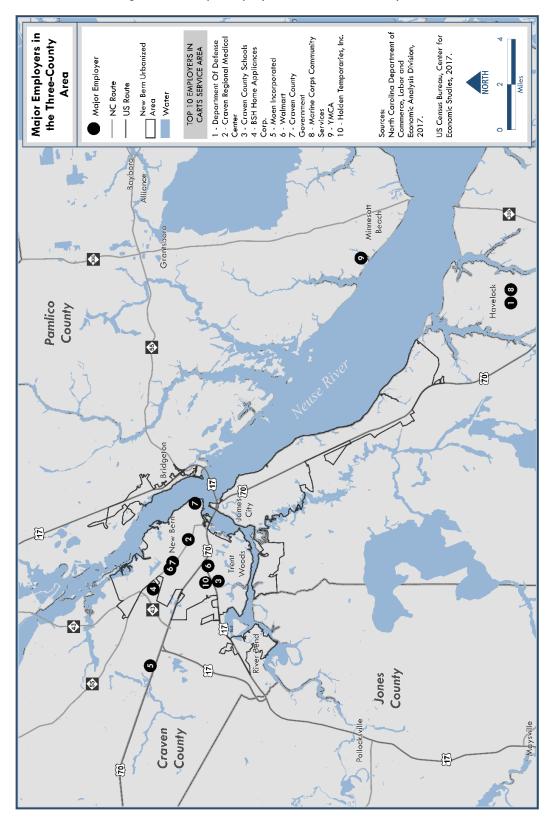


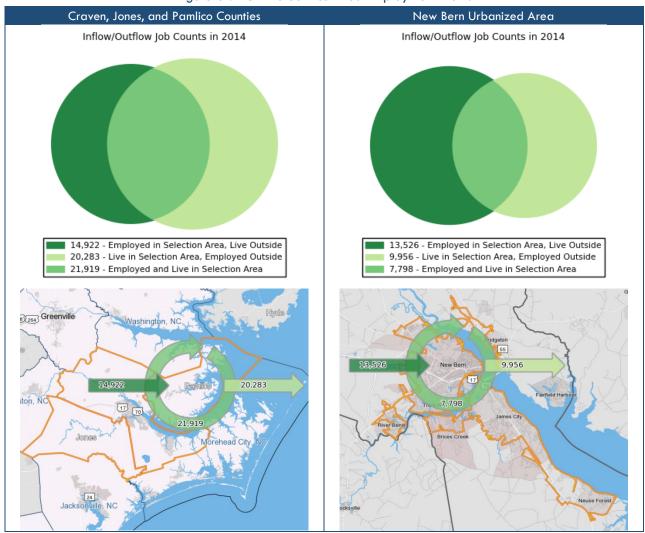
Figure 3-6: Major Employers in the Three-County Area



# 3.1.3 Employment and Commuting Profile

The employment and commuting profiles of workers living and working in the three-county area and New Bern Urbanized Area were analyzed using 2014 data from the Longitudinal Employer-Housing Dynamics (LEHD) data from the US Census Bureau. This analysis provided insight into where transit service may be warranted, starting with a high-level look at job flows and then a closer analysis of employment origins, destinations, and densities.

As shown in Figure 3-7, the majority of workers in Craven, Jones, and Pamlico Counties also reside in these three counties (60 percent). A significant portion of workers live outside of the three-county area (40 percent). The trend is the opposite for the New Bern Urbanized Area where the majority of workers live elsewhere (63 percent) and 37 percent live and work in the urbanized area. These commuting statistics can be summarized by net job flow. Job *inflow* is when there are more workers commuting into the area than there are residents commuting out of the area. Job *outflow* is the opposite. The three-county area has a net job outflow of 5,361 jobs while the New Bern Urbanized Area has a net job inflow of 3,570 jobs.



# Figure 3-7: CARTS Service Area Employment Flows

US Census Bureau, Center for Economic Studies, 2017.



The next level of analysis identifies the top ten places where workers are commuting to and from. Transit services such as a regional ridesharing initiative may be considered for the most popular places. As shown in Table 3-3 and Table 3-4, the City of New Bern has the most commuter activity for residents and workers in the three-county area and in the urbanized area. This data further supports the need for transit services within New Bern such as CARTS' existing Loop service. James City and Havelock were also identified as places with higher commuter activity. Marine Corps Air Station Cherry Point is one of the largest employers in the area and is located in Havelock. Future mobility service options may be explored to serve these two locations.

		-				
Commuting Profile of Workers						
Who <u>Live</u> in Craven, J	Who Live in Craven, Jones, and Pamlico Counties					
Commute to:	Workers	Percentage				
New Bern	11,823	28.0%				
Havelock	1,997	4.7%				
Raleigh	1,797	4.3%				
Greenville	1,728	4.1%				
James City	1,701	4.0%				
Jacksonville	1,344	3.2%				
Morehead City	1,145	2.7%				
Kinston	1,017	2.4%				
Wilmington	550	1.3%				
Bayboro	459	1.1%				
Other	18,641	44.2%				
Total	42,202	100.0%				

#### Table 3-3: Commuting Profile for Craven, Jones, and Pamlico Counties

Commuting Profile of Workers Who <u>Work</u> in Craven, Jones, and Pamlico Counties				
Commute from:	Workers	Percentage		
New Bern	6,337	17.2%		
Havelock	1,668	4.5%		
James City	1,331	3.6%		
Trent Woods	1,190	3.2%		
Brices Creek	679	1.8%		
Jacksonville	599	1.6%		
River Bend	598	1.5%		
Charlotte	567	1.5%		
Greenville	517	1.4%		
Fairfield Harbour	411	1.1%		
Other	22,944	62.3%		
Total	36,841	100.0%		

US Census Bureau, Center for Economic Studies, 2017.

#### Table 3-4: Commuting Profile for the New Bern Urbanized Area

Commuting Profile of Workers Who <u>Live</u> in the New Bern Urbanized Area			Commuting Who <u>Work</u> in the	Profile of Wor New Bern Urbc	
Commute to:	Workers	Percentage	Commute from:	Workers	Percentage
New Bern	6,959	39.2%	New Bern	4,574	21.5%
James City	946	5.3%	James City	986	4.6%
Greenville	684	3.9%	Trent Woods	934	4.4%
Havelock	668	3.8%	Havelock	734	3.4%
Raleigh	582	3.3%	Brices Creek	505	2.4%
Jacksonville	491	2.8%	River Bend	455	2.1%
Morehead City	373	2.1%	Jacksonville	329	1.5%
Kinston	256	1.4%	Greenville	312	1.5%
Wilmington	232	1.3%	Fairfield Harbour	250	1.2%
Trent Woods	228	1.3%	Morehead City	203	1.0%
Other	6,335	35.7%	Other	12,042	56.5%
Total	17,754	100.0%	Total	21,324	100.0%

US Census Bureau, Center for Economic Studies, 2017.

Density is an important consideration for transit planning as higher densities tend to support higher transit ridership. Figure 3-8 on the next page shows the job densities of workers who live in the three-county area. Note the higher job densities in New Bern and Havelock as indicated by the darker green shades on the figure. This furthermore demonstrates the need for the existing transit service in New Bern and suggests that future connective transit service to and from Havelock may be viable. In order to fully assess the viability of transit service to Havelock, more information would need to be obtained such as surveys of workers and employers to assess specific commuting patterns and potential transit services to meet the commuting needs.



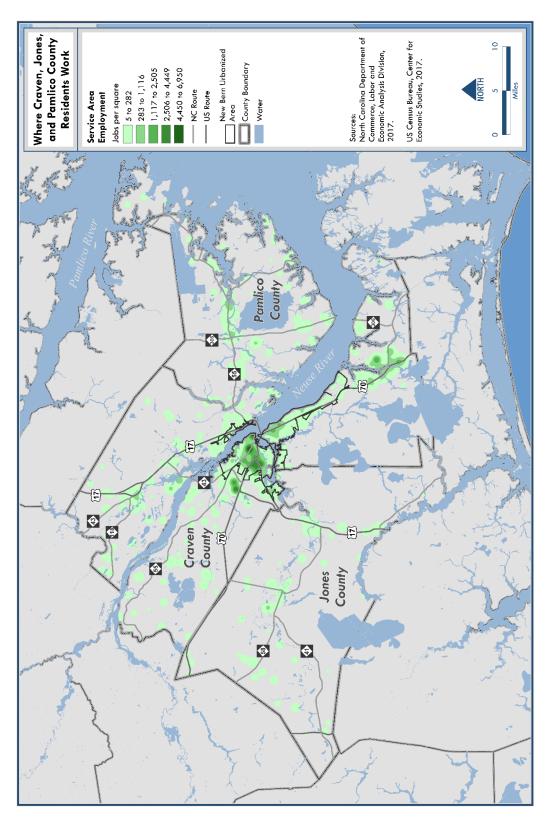


Figure 3-8: Where Craven, Jones, and Pamlico County Residents Work



# 3.2 Origins and Destinations

Fixed route origins and destinations were analyzed by examining the boardings and alightings at current Loop stops, using the past two complete fiscal years of CARTS ridership data. This analysis ranked the performance of Loop stops in order to identify trip patterns of current riders. Based on this exercise, the top five origins and destinations are: Walmart, Craven Community College, Craven Terrace, Brunswick House, and the Human Service Complex. The five least popular origins and destinations are: New Bern Utilities, Complete Dental, New Bern Family Practice, Cooper Landing, and Employment Security. (However direct observations and rider interviews noted that the New Bern Utilities has recently become a popular stop due to riders who board and alight at the stop to access areas behind the New Bern Utilities popular stops that could serve as potential connecting locations for multiple transit routes.

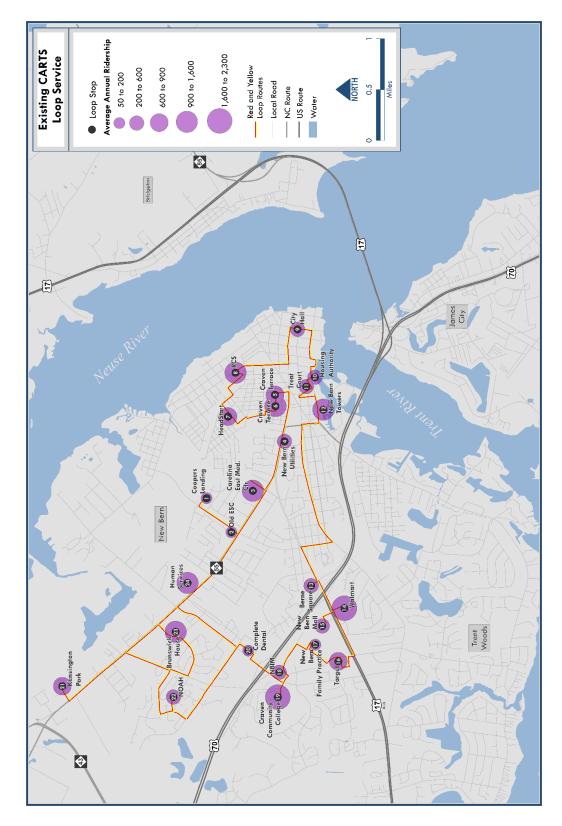
Table 3-5 provides a complete ranking of all Loop origins and destinations and Figure 3-9 on the next page displays this information graphically.

Rank	Stop Name	Stop ID	Average Annual Ridership
1	Walmart	14	2,285
2	Craven Community College	19	1,622
3	Craven Terrace / Miller St	6	1,536
4	Brunswick House	23	1,447
5	Human Service Complex	24	1,249
6	CarolinaEast Medical Center	3	1,207
7	RCS	8	1,122
8	New Bern Towers	12	902
9	Craven Terrace / Roundtree	5	829
10	Target / Goodwill	16	765
11	HeadStart / Biddle St	7	683
12	Kensington Park Apt	21	637
13	Housing Authority	10	569
14	Weatherston/Noah	22	490
15	Trent Court / TCDC	11	415
16	NBIM	18	408
17	City Hall / Craven St	9	388
18	Berne Square	13	341
19	Twin River Mall	15	293
20	New Bern Utilities	4	202
21	Complete Dental	20	196
22	New Bern Family Practice	17	158
23	Cooper Landing	1	100
24	Employment Security	2	52

#### Table 3-5: Loop Origin and Destination Analysis









# 3.3 Peer Analysis

A peer analysis was conducted between the Tar River Transit (TRT) system and CARTS to provide some analytical guidance into how CARTS compares to their current administration and transit operations, and give insight as to future expansion of fixed route services. TRT is a public transportation service that provides affordable fixed-route bus services throughout the City of Rocky Mount, North Carolina and for rural county services in both Nash and Edgecombe counties.

# 3.3.1 TRT Transit Services

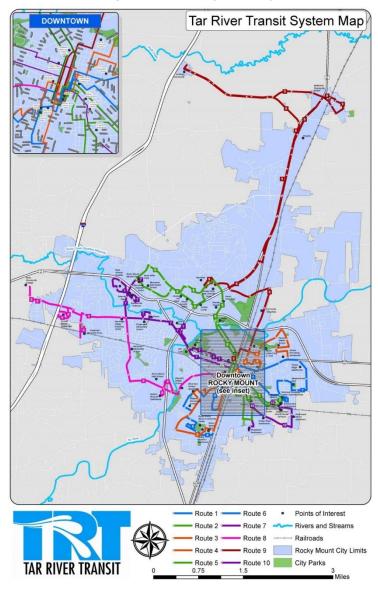
TRT provides a variety of transit services including the operation of ten fixed-routes, rural general public fixed routes, and demand response service.

### **Urban Fixed Routes**

Generally, fixed route services operate Monday through Friday from 6:45 am to 6:45 pm and Saturday from 9:15 am to 5:45 pm. TRT does not service the public during general holidays. Figure 3-10 shows the current service route map that is used by the general public and TRT administration. The base fare for fixed routes is \$1.25.

Other fare options are available as well:

- Base Fare: \$1.25
- Half-Fare Discount: \$0.60
- Tokens (1): \$1.15
- 10-Ride Tickets: \$11.25
- 20-Ride Tickets: \$22.00
- 40-Ride Tickets: \$45.00
- Ten-Ride Half-Fare Tickets:
   \$6.00 (For Eligible Half-Fare Passengers Only)
- Children under 42": Free (Only 3 children per paying passenger)
- Transfers: FREE. Passenger must request transfer immediately upon boarding bus. All transfers must be used within 1 hour of receipt.



#### Figure 3-10: TRT System Map



### Demand Response (Rural General Public Program)

TRT has available a Demand Response Rural General Public (RGP) transit service for the citizens of Rocky Mount, Nash and Edgecombe counties. RGP operates for the public Monday through Friday from 6:30 am to 6:30 pm at \$12.00 per round trip ticket. TRT riders are to schedule their ride request a day in advance by 5:00 pm to schedule a trip.

### Rural General Public Shuttle (RGP)

This shuttle provides a fixed route service to the rural areas of Nash and Edgecombe counties Monday through Friday during fixed route service hours, four times a day. The fare cost of this shuttle service is set at \$4.00 per ride. Riders are encouraged to only pay with cash when riding this shuttle service and each vehicle provides wheelchair accessibility.

#### Dial-A-Ride Transportation Services (DARTS)

DARTS is a small demand response service offered by TRT. This program provides transportation services to individuals with disabilities which prevent them from riding the regular fixed-route service offered by TRT.

#### Special Needs Awareness Program (SNAP)

SNAP is a reduced fare program for individuals who have disabilities that make it difficult, but not impossible, to ride the regular fixed-route system.

#### Senior Tar Heel

Senior Tar Heel is a fare discount program for individuals age 60 and over. This program allows the individuals to ride the regular fixed-route system for half the regular fare.

#### Half-Fare

In keeping with ADA compliance, the half-fare is a fare discount program for individuals who receive Medicare benefits. The program allows the individuals to ride the regular fixed-route system for half the regular fare cost (which is \$0.60).

#### **Travel Smart**

Travel Smart serves as travel training particularly for individuals with disabilities as well as senior citizens. The program will teach you how to safely and independently utilize the bus system. The one-on-one instruction is individualized to meet specific transit needs, taught by members within the local community. This training to ride the service is at no charge. This program provides access for the following:

- Planning the trip
- Understanding the bus schedules, routes and transfers
- Getting to and from the desired bus stops
- Getting on and off the bus safely
- Safely crossing streets
- Problem-solve emergency situations
- Learning how to be a transit advocate



# 3.3.2 Funding

TRT receives funding from several of the same funding sources that CARTS receives such as Rural Transportation Assistance Program (RTAP) (Section 5311), the Urbanized Area Formula Funding program (Section 5307), Enhanced Mobility for Seniors and Individuals with Disabilities (Section 5310), and Rural Operating Assistance Programs (ROAP) through NCDOT-PTD. Two notable differences between the two systems is that the City of Rocky Mount provides funding to TRT whereas the City of New Bern does not currently fund CARTS. Secondly, TRT is managed by a third party management company, which escalates the cost of the contracted services. Also, CARTS does not currently receive Section 5310 funding.

# 3.3.3 Comparison of CARTS and TRT

CARTS and TRT services share some service characteristics. Both services receive state and federal funding from grant programs that accommodate each transit system's service area. Staffing structures are similar in regard to transportation directors, assistants, and drivers. Rider populations for both of these systems are similar as well; each system provides services for individuals who need transportation for medical-related and quality of life-related destinations in a multi-county service area.

There are some key distinctions between the systems as well. TRT has additional programs that serve the general public such as SNAP, Senior Tar Heel, and Travel Smart. Additionally, TRT operates evening and Saturday service whereas CARTS currently does not. Lastly, TRT receives local monetary support whereas, CARTS does not. However, CARTS does receive in-kind services from Craven County such as administrative support. Table 3-6 summarizes the similarities and differences between CARTS and TRT. This comparison may suggest new service strategies that CARTS could implement.

ltem	CARTS	TRT
Staff Structure	<ul> <li>Total employees: 37</li> <li>Three-tier structure: administrative and operation positions report to an assistant director that reports to a director</li> </ul>	<ul> <li>Total employees: 45</li> <li>Four-tier structure: administrative and operation positions report to a general manager who reports to an assistant director that reports to a director</li> </ul>
Transit Programs	Half Price Fare program	<ul> <li>Multiple transit programs such as RGP Shuttle, SNAP, Senior Tar Heel, Half-Fare, and Travel Smart</li> <li>Several fare pass options (10-ride, 20-ride, and 40-ride booklets)</li> </ul>
Operations	<ul> <li>Demand response and fixed route service (2 routes)</li> <li>Monday through Friday fixed-route service</li> <li>Operates conversion vans, 20 and 22 ft. light transit vehicles</li> </ul>	<ul> <li>Demand response, rural fixed route, and urban fixed route (10 routes) services</li> <li>Monday through Friday fixed-route service</li> <li>Evening and Saturday service</li> <li>Operates conversion vans, 25 and 30 ft. transit buses</li> </ul>
Funding	<ul> <li>Receives state and federal funding such as ROAP, RTAP, Section 5307, and Section 5311</li> <li>Receives local in-kind support from Craven County</li> </ul>	<ul> <li>Receives state and federal funding such as ROAP, RTAP, Section 5307, Section 5310, and Section 5311</li> <li>Receives local monetary funding support from the City of Rocky Mount</li> </ul>

# Table 3-6: Comparison of CARTS and TRT



# 3.4 Unmet Transit Needs

Interviews with representatives from health and human service agencies were emphatic to the challenges placed on CARTS to meet the service demands for contracted demand response services. Representatives understand that the county is constrained in providing additional money and resources to supplement state and federal grant monies. Manpower shortages from not being able to attract (low hourly wage rates and no fringe benefits) and retain (employee turnover) the bus operators sometimes results in not having enough operating support to provide additional needed services. Agencies then have no other option than to assign their clients' transports to private providers with whom they have contracts, but the trips are at a higher cost than those provided by CARTS. The private providers acknowledge that they "fill the gap" – and are glad to do so for early morning, late afternoon, weekend, and out of town medical trips.

Medical providers understand the shared ride concept used by CARTS but would prefer additional consideration for their clients wait times, especially after receiving treatments. Some riders who are transported from the most rural parts of the County arrive two hours before their appointments; bring lunches to consume in the lobby of the facilities; and then wait up to two hours after completion of the appointments for the CARTS vehicle(s) to return them to their residences. Often times, transit dependent patients have limited additional mobility alternatives.

The majority of the stakeholders have ridden public transportation in other US cities and abroad but had never ridden CARTS until a ride was organized as part of a recent NBAMPO meeting. This event heightened some local stakeholders' awareness of the transit system; however, it left them questioning whether or not two loop routes are meeting the citizens' needs in the urbanized area. Due to the long travel times, limited number of stops, lack of bus stops and shelters, and very few other passengers that boarded with them, stakeholders wondered if offering a more robust service would meet unmet needs and the costs required to enhance CARTS' Loop service.

Stakeholders concurred that an infusion of funds to enhance CARTS' services within the city limits of New Bern would result in added benefits to not only New Bern residents but also citizens in the rural parts of the county, i.e. a reallocation of resources used for demand response clients living closer to New Bern could be reassigned to rural areas. Stakeholders' provided feedback that indicated there was little to no known knowledge of the Loop routes, and most did not know that it was for the general public's use. Marketing the service and a public awareness campaign is something that all interviewees agree needs to occur. After conveying an overview of the existing service and routes, New Bern governmental stakeholders, in particular, would like to see additional routes that service more destinations frequently visited by not only human service agency clients but also new residents to the area and visitors. They understand that the city has been remiss in not financially investing and supporting CARTS and that to provide additional service within New Bern that they must be willing to assist. This same premise holds true for other municipalities in the county, if towns like Bridgeton, River Bend and Trent Woods desire service.

The survey afforded citizens the opportunity to ask additional questions, make comments, and provide suggestions regarding the county's public transportation system. From these, unmet needs became apparent, especially in providing service to specific destinations throughout the County. Citizens also expressed the enhancements and/or modifications that they would like to see occur with existing services, such as improvement in on-time performance, shorter wait times at pick-ups and travel times to destinations, and operators' performance. These same performance metrics were also raised by Stakeholders during their interviews, particularly by agency representatives.



# 4.0 Recommendations

This chapter summarizes the recommendations for CARTS as a result of the TDP planning process that relied on the feedback and insights from CARTS staff, stakeholders, and meetings with the community. The AECOM consultant team provided a technical analysis of transit need and demand, demographics and the employment and commuting profile of the service area.

# 4.1 Overview of Recommendations

Recommendations are organized by the following categories: administration, marketing and education, safety and security, transit operations, transit amenities, technology, and vehicles. These are intended to result in the following outcomes over the next five years:

- Expanded service to address unmet needs
- Increased fixed-route service coverage
- Reduced trip durations
- Enhanced safety and security
- Reliable and modern vehicle fleet
- New amenities for rider safety and comfort
- Increased CARTS efficiency and effectiveness



Recommendations are programmed for each of the five TDP years. In some cases, a single recommendation may occur over several TPD years such as coordination with NBAMPO which would occur during all five years. The TDP years relate to CARTS' fiscal years as follows:

- TDP Year 1: FY 2018
- TDP Year 2: FY 2019
- TDP Year 3: FY 2020
- TDP Year 4: FY 2021
- TDP Year 5: FY 2022

Costs are estimated for each of the recommendations based on interviews with other transit agencies around the state and input from CARTS. Potential funding sources are identified for each recommendation based on the current and anticipated sources that CARTS is eligible for. The costs presented in this section are in FY 2017 dollars. Inflation is accounted for in the budget projections contained in Chapter 5.0.



# 4.1.1 Administration Recommendations

Several recommendations are proposed to improve the efficiency and capacity of the CARTS' administration.

	<b>Recommendation:</b>	Implement an updated cash handing policy for fare collections
Administrative Requirements		Development and adoption of a cash handling policy
ID:	Operating Requirements:	Installation of cash boxes or fareboxes on entire CARTS transit vehicle fleet
A1	Estimated Cost:	\$29,000
	Potential Funding Source:	Section 5307, NCDOT, and Local Match
	Implementation Phase:	TDP Years 1 and 2

CARTS drivers currently collect cash fares from riders and deposit them in cash purses. Drivers are not allowed to make change for a rider. This system may be improved by implementing a cash handling policy that requires fares to be deposited in a fare collection box or cash box secured with a lock. Such a system would increase safety and decrease the potential for fares to be mishandled. The policy should also establish a procedures for counting the fares and depositing them. The cash handling policy is recommended to be adopted in TDP Year 1.

In order for this recommendation to be effective, fare collection or cash boxes should be installed on the CARTS transit vehicle fleet starting in TDP Year 2. Priority should be given to the fixed-route vehicles given the larger volume of transactions taking place on these vehicles. Ideally, all transit vehicles should have fare collection or cash boxes installed.

	<b>Recommendation:</b>	Institute a fare pass system to sell advance bus fares
	Administrative Requirements:	Driver training and accounting of fare pass revenue
ID:	Operating Requirements:	Design and printing of fare passes
A2	Estimated Cost:	\$5,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 1

In addition to using a cash-based fare system, CARTS could initiate an advanced sale of fixed-route bus fares at agencies, nonprofits, and businesses in the community. A fare pass system would offer convenience and another option for purchasing fares. Riders would have an incentive to ride if discounts are offered when purchasing several fares in advance. For example, a 10-ride pass could be sold for the price of 9 rides. This is also a benefit to the CARTS service, as for cash-flow purposes, monies generated from the sales in collected in advance of the provided trips.

The fare pass system would further promote the CARTS brand and services in the community by increasing visibility at the locations where passes are sold. It would also decrease the dwell time of CARTS vehicles at transit stops as paying with a fare card would be faster than paying with cash. Popular locations on the fixed-route service such as Walmart should be prioritized for selling fare passes. Passes could also be bought at the CARTS office, Convention Center, Craven Community College, Department of Social Services, and local retail and grocery stores.



	<b>Recommendation:</b>	Increase advertising to include interior bus ads
	Administrative Requirements:	Coordination with potential advertisers
ID:	Operating Requirements:	None
A3	Estimated Cost:	+10,000 (annual income)
	Potential Funding Source:	Local Revenue
	Implementation Phase:	TDP Years 2 - 5

CARTS currently generates revenue by placing advertisements on the exterior of its transit vehicles. It may increase revenues by placing ads in the interiors of its transit vehicles. This additional ad space would be attractive to area businesses and organizations as the increased ridership anticipated with the introduction of Xpress routes would provide further exposure to the ads.

	Recommendation:	Hire a Mobility Manager to coordinate marketing efforts, provide street supervision for the fixed route service, and lead the effort to develop a regional ridesharing initiative
	Administrative Requirements:	Additional staff position
ID:	Operating Requirements:	None
A4	Estimated Cost:	\$57,000 (annual starting salary and benefits)
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 2

This additional position would provide CARTS with the capacity to conduct street supervision of its fixed routes and manage a regional rideshare program. Both of these functions are necessary for providing safe and efficient mobility options for Craven, Jones, and Pamlico county residents. The Mobility Manager would also be responsible for marketing and public outreach and resource management. A sample job description for the Mobility Manager position is provided in Appendix A.

	Recommendation:	Coordinate with NBAMPO on transit elements of the Metropolitan Transportation Plan
	Administrative Requirements:	Coordination with NBAMPO
ID:	Operating Requirements:	None
A5	Estimated Cost:	Staff time
	Potential Funding Source:	N/A
	Implementation Phase:	TDP Years 1 - 5

CARTS should continue coordinating with the NBAMPO, particularly on the transit portion of the Metropolitan Transportation Plan (MTP). As required by 49 USC 5303(i), NBAMPO must prepare an MTP to address how the area will manage and operate a multi-modal transportation system. The MTP must be updated every four to five years. The Fixing America's Surface Transportation (FAST) Act requires that MTPs identify public transportation facilities and intercity bus facilities. Furthermore the FAST Act encourages MPOs to coordinate with other agencies responsible for planning in the area, which would include CARTS.



# 4.1.2 Marketing and Education Recommendations

The recommendations below are intended to market the CARTS system and educate the community as to the functionality and the benefits of the service.

	<b>Recommendation:</b>	Rebrand CARTS to the "Craven Area Regional Transit System"
	Administrative Requirements:	Updated printed materials and website with new name
ID:	Operating Requirements:	None
B1	Estimated Cost:	\$5,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 1

In order to more accurately reflect the transit service that CARTS now provides as a direct recipient of FTA Section 5307 Urbanized Area Formula Grants, it is recommended that CARTS rebrand from the "Craven Area <u>Rural</u> Transit System" to the "Craven Area <u>Regional</u> Transit System." This new name would better describe the rural and urban services that CARTS provides. Costs include updating online and print materials.

	<b>Recommendation:</b>	Update the Rider Guide and produce fixed-route schedules
	Administrative Requirements:	Staff time to develop and review the Rider Guide and schedules as well as printing costs
ID:	Operating Requirements:	None
B2	Estimated Cost:	\$20,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 2

A rider guide and fixed-route schedules should be developed to accompany the changes implemented to the fixed-route system. The guide and schedules should include:

- Maps of the fixed-routes with stops clearly labeled
- Schedule showing the time the CARTS vehicle would arrive at designated stops
- Current fares
- Summary of policies for riding CARTS vehicles

The rider guide and fixed-route schedules could be produced in-house or by a contractor. Printed copies should be made available to the general public at the CARTS office, on transit vehicles, and at locations where fare passes are sold. Additionally, schedules should be posted at major transfer points such as DSS and Walmart. Digital copies should be made available on the CARTS webpage.

	Recommendation:	Rebrand the fixed-route service with an updated logo for the fixed route service and new bus stop signage to identify stop locations for the riders
	Administrative Requirements:	Development and approval of new logo for buses and transit stop signs
ID:	Operating Requirements:	Repainting of fixed-route buses: 5 buses in Alt. 1 or 8 buses in Alt. 2 and decaling for demand response vehicles
<b>B</b> 3	Estimated Cost:	Alt. 1: \$49,5000 or Alt. 2: \$59,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 2

It is recommended that CARTS rebrand its fixed-route transit services to distinguish the fixed route services from the demand response service. This would also provide a way to visually communicate to riders and potential riders that there is indeed a new, upgraded general public transit system that has been redesigned to improve customer service and efficiency. One potential rebranding concept would be to name the new fixed routes (discussed in Section 4.1.4) as the "Twin River Xpress." With New Bern and Craven County located at



the confluence of the Neuse and Trent rivers, the Twin River part of the name would provide a strategic way to identify the local service. The intent of the "Xpress" portion of the name would convey the improved frequency and speed of the route. Potential design concepts for the transit vehicles and bus stop signs are shown in Figure 4-1.

This recommendation would be implemented prior to the introduction of the Xpress routes. It would require repainting of CARTS vehicles used on the route and a redesign and reprinting of the fixed route brochure and schedule to include the new design. The redesign of the route brochure and schedules are included in recommendation B2.

### Figure 4-1: CARTS Rebranding Concept





Transit vehicle painting concept

Bus stop sign design concept

	Recommendation:	Enhance the existing CARTS webpage as part of the new county- wide website update
	Administrative Requirements:	Development of content for webpage or website
ID:	Operating Requirements:	Hosting the webpage or website. Trip planning tools would require creation of a GTFS
B4	Estimated Cost:	\$5,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 1

The CARTS webpage within the Craven County website communicates the CARTS mission, days and hours of operation, transit services, and policies. At a minimum, the new transit services and branding implemented as a result of this TDP should be updated on the existing webpage. The rider guide, route schedules, and maps should be viewable on the webpage and made available for download. CARTS may further enhance the webpage by adding trip planning tools such as Google Transit. These tools allow riders to enter their trip origin and destination in order to receive step-by-step directions for using the CARTS service. This tool would be most appropriate for the fixed routes. It would require a General Transit Feed Specification (GTFS) of the CARTS fixed-route system. The GTFS is an electronic file and an industry standard format used by trip planning tools and mobile applications for planning transit trips. It contains the transit system's routes



and stop information. Enhancements to the existing webpage may be timed to coincide with Craven County's website update.

CARTS may consider developing a website separate from the county website, as a linked feature. This would allow CARTS to brand it with its colors and logo. A website would give CARTS more flexibility and allow for easier navigation than the current single page provides. The webpage or website should be compliant with Section 508, which establishes electronic and information technology standards for accessibility for people with disabilities. For more information, refer to: <u>https://www.section508.gov/</u>.

# 4.1.3 Safety and Security Recommendations

	<b>Recommendation:</b>	Install security cameras on vehicles
	Administrative Requirements:	Procurement of security cameras
ID:	Operating Requirements:	Installation of cameras on transit vehicles
C1	Estimated Cost:	\$80,000
	Potential Funding Source:	Section 5307, Section 5311 (NCDOT) and Local Match
	Implementation Phase:	TDP Year 1

Safety and security measures are recommended for the CARTS system as described below.

Security cameras installed on transit vehicles have the opportunity to deter unwanted behavior and in the event of an incident, provide important documentation of what actually occurred. It is therefore a best practice for transit agencies to install security cameras onboard vehicles and recommended that CARTS do the same. As a recipient of FTA Section 5307 funds, CARTS is required to spend at least one percent of such funds annually on transit security projects or demonstrate that such expenditures are unnecessary.<sup>1</sup> The costs associated with installing security cameras on vehicles would count towards the one percent requirement. CARTS is scheduled to procure and install security cameras on its vehicles later this year.

	<b>Recommendation</b> :	Become a partner in the National Safe Place Network
	Administrative Requirements:	Training of CARTS staff and bus operators on the Safe Place program and procedures
ID:	Operating Requirements:	Display of Safe Place decal on CARTS buses and administrative office
C2	Estimated Cost:	\$1,000
	Potential Funding Source:	Local
	Implementation Phase:	TDP Year 3



Safe Place is a national youth outreach and prevention program for young people in need of immediate help and safety. Locations such as libraries, fire stations, and public buses can be designated as Safe Places. When a young person or someone in need asks for help at a Safe Place, an employee contacts the licensed Safe Place agency. A qualified Safe Place volunteer or agency staff then arrives to support the youth and provide transportation if necessary to the agency.

CARTS can join the National Safe Place Network (NSPN) in order to improve safety for youth and persons in need within the CARTS service area. NSPN provides training, technical support and resources to ensure the quality and consistent operation of Safe Place. Additional information can be found at the NSPN website: <a href="http://www.nationalsafeplace.org">www.nationalsafeplace.org</a>.

<sup>&</sup>lt;sup>1</sup> FTA Comprehensive Review Guide Fiscal Year 2017, page 269.



# 4.1.4 Transit Operations Recommendations

In order to improve efficiency and increase transit ridership, several recommendations related to transit operations are proposed.

	Recommendation:	Conduct a feasibility study for a future transit administration and operations facility
	Administrative Requirements:	Contracting with consultant and oversight of the feasibility study
ID:	Operating Requirements:	None
D1	Estimated Cost:	\$90,000
	Potential Funding Source:	FTA Section 5307 and Local Match
	Implementation Phase:	TDP Year 2

CARTS may seek to conduct a transit feasibility study for a future administration and operations facility. The purpose of the feasibility study would be to review the current CARTS office and assess the space needs necessary in order to provide quality transit in the future. Typically feasibility studies consider the transit agency's space needs for staff, storage, and maintenance over the next several years. Once space needs are estimated, potential sites for developing a facility are identified and ranked based on operational, economic, demographic, and environmental factors. The study may consider performing vehicle maintenance on site, a function that is currently performed at the Craven County Central Maintenance Garage. A sample scope of services for a feasibility study is included in Appendix B.

	<b>Recommendation:</b>	Institute a regional ridesharing program
	Administrative Requirements:	Mobility Manager position, coordination with major employers
ID:	Operating Requirements:	Passenger vans
D2	Estimated Cost:	\$50,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 5

CARTS has an opportunity to provide a regional ridesharing service that would enhance its fixed-route and demand response services and keep with the tenor of providing regional transportation. Commuters, through their respective employers, would enter into agreements with CARTS to utilize a passenger van to commute to and from their place of employment. This would be a responsive, fluid service that would target employee populations throughout the three-county region and connect with the major employment centers, which are concentrated in and around New Bern.

As the employment and commuting analysis demonstrated in Section 3.1.3, the New Bern Urbanized Area has a net job inflow of 3,570 jobs suggesting that a rideshare program could be successful. Workers in the urbanized area commute from the top five places: New Bern, James City, Trent Woods, Havelock, and Brices Creek. Rideshares may potentially be based in these areas. In addition, 69 percent of Jones County workers and 46 percent of Pamlico County workers commute to places of employment outside of the county. Ridesharing may be particularly attractive for workers with commutes of over 15 miles per one way trip.

The CARTS Ridesharing Program would strive to promote energy conservation, reduce congestion, improve air quality, reduce vehicle miles, decrease highway accidents, save money for program participants and conserve natural resources. Accommodating travel demand through a comprehensive ridesharing initiative, rather than single-occupant vehicles, can result in direct benefits for employees and employers as well as indirect sustainability benefits to the community.

The program would be designed to increase the use of alternative transportation in this region by providing individuals and employers with the resources they need to start and maintain a ridesharing program. CARTS



would provide a Mobility Manager to manage communication and maintain a working relationship with businesses and organizations. Local employers would benefit through improved worker productivity; expanded employee labor market; reduced employee turnover, which saves on training costs; reduced need for new/expanded parking facilities; and enhanced community and employee relations. More detailed information on the Ridesharing Program and sample forms are included in Appendix C and Appendix D.

## **Xpress Routes**

Several Xpress routes are proposed to replace the current Loop fixed-route service with more efficient and frequent service. Whereas the current Loop operates on approximately a 1 hour 40 minute frequency, the Xpress routes would operate on 30 minute frequencies (Xpress Route 4 would operate on a one-hour frequency in TDP Years 3 and 4, and then a 30 minute frequency in TDP Year 5). These routes would also expand fixed-route coverage to areas currently not served by the Loop such as James City and the Coastal Carolina Regional Airport.

Xpress routes would pulse (transfer) primarily at the Department of Social Services or Walmart. These two locations were selected due to their geographical location and popularity according to historical ridership. Other stops including Craven Community College, Craven County Government, and New Bern Utilities would be served by more than one route allowing for multiple options to reach these destinations. Each Xpress route is explained in more detail below. Figure 4-2 through Figure 4-6 illustrate the proposed Xpress routes and the arrows indicate the direction of travel. The proposed system map in shown in Figure 4-7.

	<b>Recommendation:</b>	Implement Xpress Route 1
	Administrative Requirements:	Driver assigned to the Xpress route
ID:	Operating Requirements:	One vehicle branded as an Xpress route vehicle
D3	Estimated Cost:	\$107,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 2

Xpress Route 1 would primarily serve downtown New Bern, Craven County Government, the Housing Authority, Interfaith Ministry, New Bern Towers, Salvation Army, and Trent Court. Residential neighborhoods along Simmons Street and Trent Blvd. would be served by Xpress Route 1. It would begin operations in TDP Year 2 and operate on a 30 minute frequency. Connections to other Xpress routes would be made at Craven County Government, New Bern Utilities, and Walmart. A map of the proposed Xpress Route 1 is shown on Figure 4-2.

	<b>Recommendation:</b>	Implement Xpress Route 2
	Administrative Requirements:	Driver assigned to the Xpress route
ID:Operating Requirements:One vehicle branded as aD4Estimated Cost:\$105,000		One vehicle branded as an Xpress route vehicle
		\$105,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 2

Xpress Route 2 would primarily serve Berne Square, Craven Community College, Department of Social Services, New Bern Mall, and Walmart. It would begin operations in TDP Year 2 and operate on a 30 minute frequency. The route would primarily connect with other Xpress routes at the Department of Social Services and Walmart. Other connections could be made at Complete Dental, Craven Community College, and Target. A map of the proposed Xpress Route 2 is shown on Figure 4-3.



	<b>Recommendation:</b>	Implement Xpress Route 3
	Administrative Requirements:	Driver assigned to the Xpress route
ID:Operating Requirements:One vehicle branded as an Xpress route vehicleD5Estimated Cost:\$108,000		One vehicle branded as an Xpress route vehicle
		\$108,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 2

Xpress Route 3 would serve areas in western New Bern including Brunswick House, BSH Home Appliances, Kensington Park, and NOAH. It would connect with other Xpress routes at the Craven Community College and Walmart. Due to the length and timing of this route, most stops would be served every 30 minutes while BSH Home Appliances, Kensington Park, and NOAH would be served once every hour because of the longer distances to these locations. For example, the 8:00 am Xpress Route 3 may stop at BSH Home Appliances and Kensington Park instead of NOAH while the 8:30 am would serve NOAH and not BSH Home Appliances or Kensington Park. This route would begin in TDP Year 2. A map of the proposed Xpress Route 3 is shown on Figure 4-4. The dashed line represents the portions of the route that would be served each hour while the solid line represents those portions served every 30 minutes.

Xpress Routes 2 and 3 are designed to provide efficient service between Craven Community College and the shopping areas at New Bern Mall, Walmart, and Target by operating in opposite directions. Xpress Route 3 would provide a direct trip from Craven Community College to these shopping areas while Xpress Route 2 would provide a direct return trip to the college. The arrows on the map indicate the direction of travel.

ID: <b>D6</b>	<b>Recommendation:</b>	Implement Xpress Route 4
	Administrative Requirements:	Driver assigned to the Xpress route
	Operating Requirements:	One vehicle branded as an Xpress route vehicle
	Estimated Cost:	\$109,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 2

Xpress Route 4 would serve central and northern New Bern including CarolinaEast Medical Center, Coopers Landing, Department of Social Services, HeadStart, the Maola Plant, Miller Street, New Bern Utilities, and RCS. As a result of feedback received through the public involvement process, this route would also serve the New Bern-Craven County Public Library. Xpress Route 4 would expand CARTS' fixed-route service to the residential neighborhood on Oaks Road. This route would begin in TDP Year 2 and operate on a 30 minute frequency. Connections to other Xpress routes would be made at the Department of Social Services, New Bern-Craven County Public Library, and New Bern Utilities. A map of the proposed Xpress Route 4 is shown on Figure 4-5.

	<b>Recommendation</b> :	Implement Xpress Route 5
	Administrative Requirements:	One driver assigned to the Xpress route in TDP Years 3 and 4, two drivers starting in TDP Year 5
ID:	Operating Requirements:	One vehicle branded as an Xpress route vehicle in TDP Years 3 and 4. Two vehicles required starting in TDP Year 5
D7	Estimated Cost:	\$108,000 for one hour frequency, \$216,000 for 30 minute frequency
D7a	Potential Funding Source: Section 5307 and Local Match	
	Implementation Phase:	TDP Year 3 and TDP Year 5

Xpress Route 5 would greatly expand the fixed-route coverage of CARTS by introducing service to the James City community. This route would serve the Coastal Carolina Regional Airport, James City Food Lion, New Bern Riverfront Convention Center, New Bern Mall, and Walmart. As a result of feedback received through the public involvement process, this route would also serve the New Bern-Craven County Public Library.



Xpress Route 5 would accomplish two primary goals: 1) provide fixed-route services to James City residents and workers and 2) enhance mobility options for visitors traveling between the airport, convention center, hotels, and shopping areas. The route would initially operate on a one-hour frequency beginning in TDP Year 3 with one transit vehicle. In TDP Year 5, a second transit vehicle would be added to the route increasing the frequency to 30 minutes. A map of the proposed Xpress Route 5 is shown on Figure 4-6.

## Xpress Route Service Characteristics and Estimated Costs

The estimated numbers of service hours and miles for each of the Xpress routes are presented in Table 4-1.

Vierene Deute	TDP Year 1		TDP	TDP Year 2		TDP Year 3		TDP Year 4		TDP Year 5	
Xpress Route	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	Hours	Miles	
Route 1			3,120	42,619	3,120	42,619	3,120	42,619	3,120	42,619	
Route 2			3,120	38,064	3,120	38,064	3,120	38,064	3,120	38,064	
Route 3			3,120	44,710	3,120	44,710	3,120	44,710	3,120	44,710	
Route 4			3,120	46,550	3,120	46,550	3,120	46,550	3,120	46,550	
Route 5					3,120	42,962	3,120	42,962	6,240	85,925	
Total			9,360	125,393	12,480	168,355	15,600	214,906	18,720	257,868	

These service characteristics were provided by RLS Associates, Inc. and AECOM to estimate costs for each proposed Xpress route based on the NCDOT Urban/Rural Cost Allocation Model, which was developed as part of a separate project. The model estimated costs based on the hours, miles, and fixed expenses associated with providing transit services. The cost savings attributed to discontinuing the current Loop service were accounted for in the overall total cost of implementing the Xpress routes as shown in Table 4-2.

The cost of operating the Loop service was estimated based on 3,849 revenue hours, 43,712 revenue miles of fixed service, 10,773 passenger trips, and two vehicles. An annual inflation factor of 1.89% was applied to the Loop and Xpress route costs, which is the average annual US inflation rate between 2006 and 2016.

Route	TDP Year 1	TDP Year 2	TDP Year 3	TDP Year 4	TDP Year 5
Xpress Route 1		\$101,534	\$103,453	\$105,408	\$107,400
Xpress Route 2		\$99,410	\$101,289	\$103,204	\$105,154
Xpress Route 3		\$102,508	\$104,446	\$106,420	\$108,431
Xpress Route 4		\$103,366	\$105,320	\$107,310	\$109,339
Xpress Route 5			\$103,616	\$105,574	\$215,139
Subtotal		\$406,818	\$518,123	\$527,916	\$645,463
Discontinued Loop Service		-\$136,841	-\$139,427	-\$142,063	-\$144,748
Total		\$269,977	\$378,696	\$385,853	\$500,715

#### Table 4-2: Xpress Route Estimated Costs

RLS Associates, Inc. and AECOM



## **Xpress Route Demographics**

The populations served by the proposed the Xpress Routes are shown in Table 4-3. These demographics are based on populations with <sup>3</sup>/<sub>4</sub> mile of an Xpress route.

			•			
Demographic	Route 1	Route 2	Route 3	Route 4	Route 5	System*
Total Population	12,620	10,830	13,210	13,140	14,800	21,650
Individuals Below Poverty Level	3,690	1,320	1,770	3,970	3,920	4,990
Zero-Vehicle Households	1,130	620	910	1,150	1,200	1,620
Age Under 18	3,260	2,070	2,370	3,280	3,620	4,940
Age Over 65	2,450	2,520	2,990	2,270	2,890	4,350
Individuals with Disability(s)	1,950	1,430	1,500	2,070	2,160	3,080

Table 4-3: Xpress	Route	Demographics
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Populations with <sup>3</sup>/<sub>4</sub> mile of route. US Census Bureau, American Community Survey 5-year Estimates (2011-2015), 2016. \*Demographics of the system are not the sum of all routes as the routes overlap.

## Title VI Compliance

In compliance with Title VI of the Civil Rights Act of 1964, the FTA requires fixed-route transit providers to evaluate service and fare changes in order to determine whether the planned changes will have a disparate impact on the basis of race, color, or national origin. However, this requirement only applies to transit providers that operate 50 or more fixed route vehicles in peak service and are located in an urbanized area with a population of 200,000 or more.<sup>2</sup>

CARTS does not meet these thresholds and would therefore not required to complete a Title VI analysis for the Xpress Route service changes. Although CARTS would not be required to undergo this analysis, CARTS would still be responsible for complying with USDOT Title VI regulations which prohibit disparate impact discrimination. CARTS currently has a Title VI policy in place which would satisfy this obligation.

<sup>&</sup>lt;sup>2</sup> FTA Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients, 2012.



Figure 4-2: Xpress Route 1

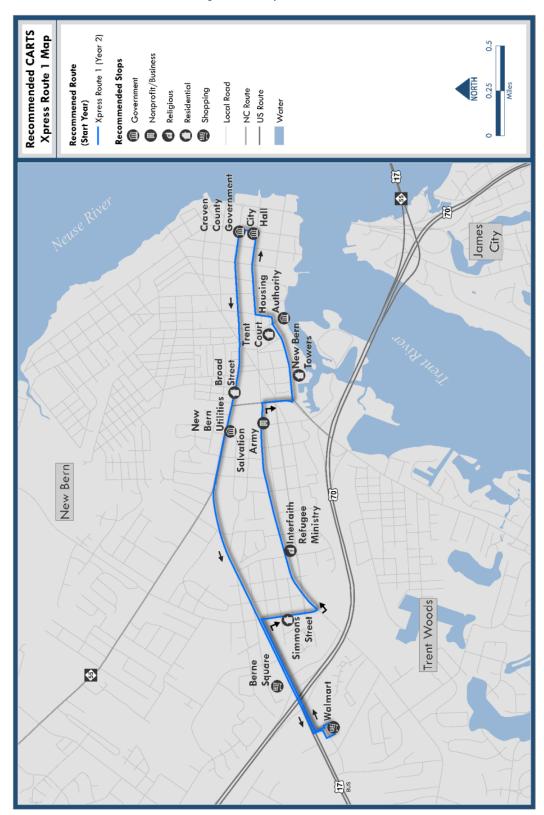




Figure 4-3: Xpress Route 2

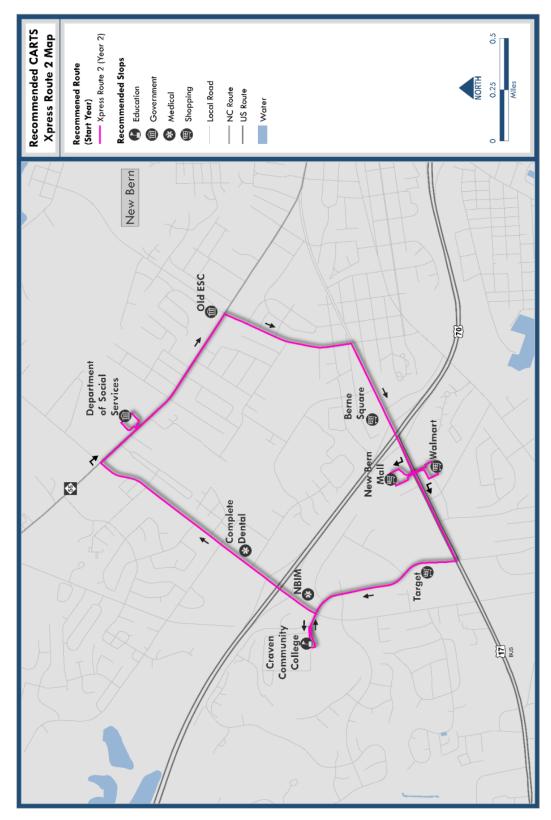




Figure 4-4: Xpress Route 3

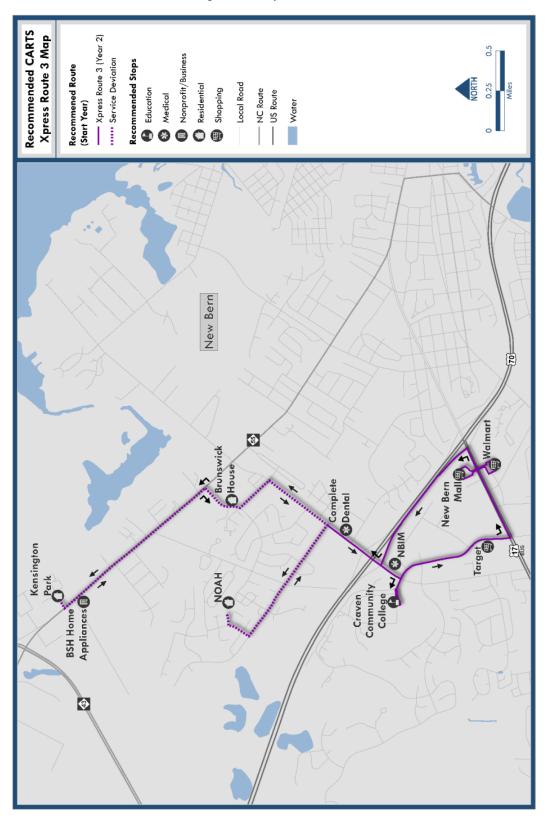




Figure 4-5: Xpress Route 4

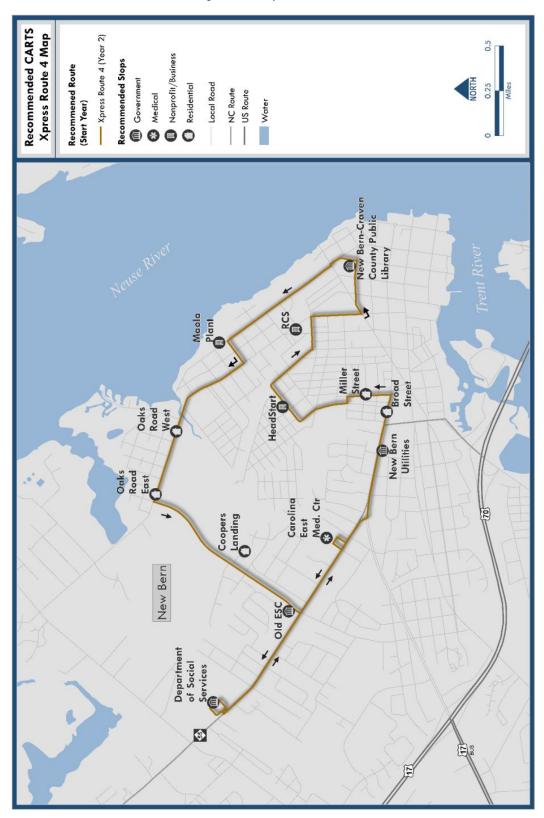




Figure 4-6: Xpress Route 5

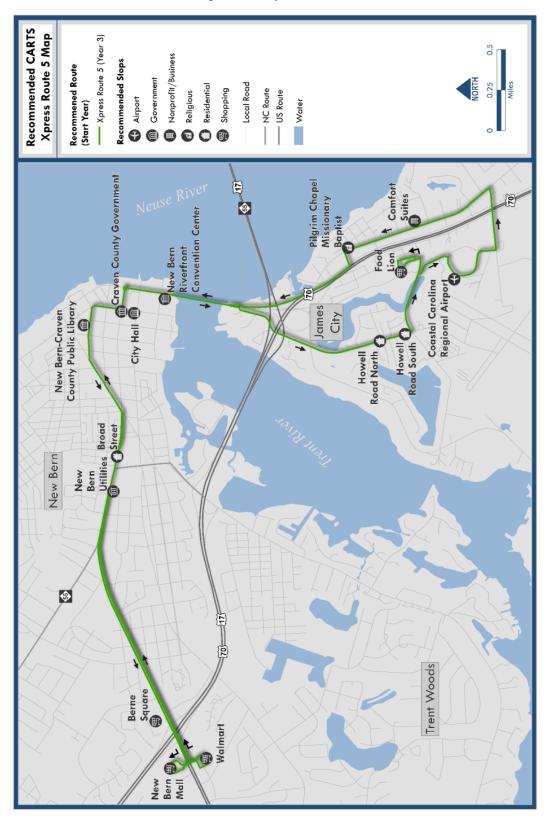
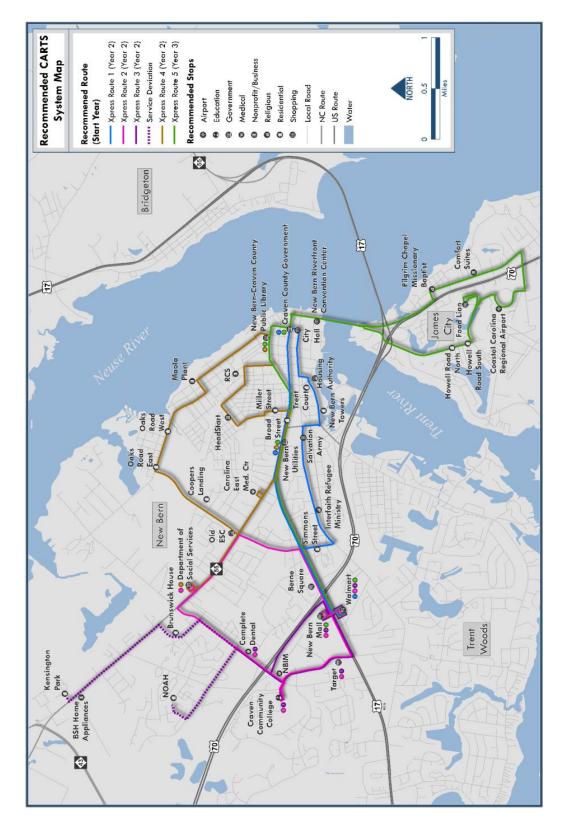




Figure 4-7: Proposed System Map





## 4.1.5 Transit Amenities Recommendations

Transit amenities are important for providing a high quality transit service to the riding community, which in turn provides a better transit experience for the public. Amenities such as benches, shelters, lighting, bus stop signage, etc. would provide comfort, safety, and increased visibility of CARTS public transit services throughout the community. Recommendations for amenities are included below.

	<b>Recommendation:</b>	Develop a transit stop amenities policy
	Administrative Requirements:	Development and adoption of a transit stop amenities policy
ID:	Operating Requirements:	None
E1 Estimated Cost: Staff time		Staff time
	Potential Funding Source:	N/A
	Implementation Phase:	TDP Year 1

Transit agencies and departments across the country have adopted transit stop amenity policies with criteria for determining what amenities are most appropriate and at which stops. These policies are important for prioritizing stops when transit budgets are limited and for establishing an objective process. Transit agencies and departments often receive requests for stop amenities. While this feedback is valued, it is important to have an objective policy that evaluates the feasibility and need of such requests. Effective policies include criteria pertaining to: ridership, safety, feasibility, and rider feedback.

CARTS does not currently have a transit stop amenities policy, but may adopt one based on the criteria listed in this section. These criteria were compiled based on a survey of other transit agencies and from the Transit Cooperative Research Program (TCRP) Report 19: Guidelines for the Location and Design of Bus Stops. They were adapted for CARTS based on the unique characteristics of the CARTS system, including ridership.

#### Benches and Shelters

It is recommended that CARTS install benches when daily boardings and alightings are three or more and shelters for five or more daily boardings and alightings. Shelters should be installed at transfer locations, regardless of boardings and alightings. The amenities policy should be flexible enough to allow for benches and shelters when boardings and alighting thresholds are not met, but other factors warrant them. These factors may include:

- Number of transfers at a stop
- Right-of-way to construct shelters, waiting areas, or benches
- Number of elderly or physically challenged individuals in the area
- Proximity to major activity centers
- Frequency of service
- Adjacent land use compatibility
- Harsh environmental conditions (e.g. sunlight, wind) that would necessitate a shelter

Based on these daily boardings and alighting thresholds, benches would be recommended at the current Loop stops because they meet the threshold of at least three daily boardings and alightings:

- CarolinaEast Medical Center (4.7 daily boardings and alightings)\*
- Craven Terrace / Roundtree (3.2 daily boardings and alightings)
- Human Service Complex (4.8 daily boardings and alightings)\*\*



- New Bern Towers (3.5 daily boardings and alightings)
- RCS (4.3 daily boardings and alightings)
- \* Although CarolinaEast Medical Center does not meet the threshold of at least five daily boardings and alightings to warrant a shelter, a shelter may still be considered at this location given the mobility needs of passengers waiting at this location.
- \*\* Although the Human Services Complex does not meet the threshold of at least five daily boardings and alightings to warrant a shelter, the placement of two bus shelters along the right perimeter of the parking lot access drive would provide a quality boarding area given that this location would be a primary transfer stop.

Based on these daily boardings and alighting thresholds, shelters would be recommended at the current Loop stops because they meet the threshold of at least five daily boardings and alightings:

- Brunswick House (5.6 daily boardings and alightings)
- Craven Community College (6.3 daily boardings and alightings)
- Craven Terrace / Miller St (5.9 daily boardings and alightings)
- Walmart (8.8 daily boardings and alightings)

## **Route Information**

At transfer locations and major stops, route information should be posted that includes the route schedule and map. This information should be posted in enclosed plastic schedule holders to protect them from moisture. The following recommendations should be considered based on TCRP Report 19:

- Provide updated information when changes are made to routes and schedules.
- Consider the quality and appearance of information displays. A visually poor route map conveys a negative impression of the system.
- Make information displays permanent. Temporary methods for displaying information (such as tapemounting) create a cluttered, unsophisticated appearance at the bus stop.
- Follow ADA clearance, mobility, and visual guidelines for access of information by individuals with impairments.

## Receptacles

Trash or recycling receptacles may be provided at transit stops, especially those that have higher ridership or at transfer locations where riders may spend more time waiting for the bus. Receptacles give riders an appropriate place to discard trash instead of littering the area around the stop. However, receptacles are only functional if they are maintained on a regular basis. Before installation, CARTS staff should determine who would be responsible for emptying the receptacles and if there is the financial and operational capacity to do so. The following recommendations should be considered based on TCRP Report 19:

- Anchor the receptacle securely to the ground to reduce unauthorized movement.
- Locate the receptacle away from wheelchair landing pad areas and allow for at least a 3-foot separation from other street furniture.
- Locate the receptacle at least 2 feet from the back of the curb.
- Ensure that the receptacle, when adjacent to the roadway, does not visually obstruct nearby driveways or land uses.



- Avoid installing receptacles that have ledges or other design features that permit liquids to pool or remain near the receptacle—this may attract insects.
- Avoid locating the receptacle in direct sunlight. The heat may encourage foul odors to develop.

## Lighting and Security

Lighting is important component for promoting safety and discouraging unintended activity at transit stops. Lighting should be installed at transit stops especially if the transit service is operated early in the morning or into the evening when it is dark. Priority should be given to installing lighting at stops where ridership is higher or in locations with a past history of safety or vandalism issues. In order to conserve resources and budgets, stops should be placed near existing street lights when possible to avoid the need for additional lighting.

Security at transit stops starts with design and placement. The design and placement of shelters should maximize visibility of the stop to riders, drivers, and people passing by to deter criminal activity. Shelters should be constructed with transparent panels so that visibility is not compromised. Landscaping around shelters and benches should be maintained regularly and kept at a low height so as not to obscure visibility. The following recommendations should be considered based on TCRP Report 19:

- Bus stop shelters should be constructed of materials that allow clear, unobstructed visibility of and to patrons waiting inside.
- Bus stops should be at highly visible sites that permit approaching bus drivers and passing vehicular traffic to see the bus stop clearly.
- Landscaping elements that grow to heights that would reduce visibility into and out of the bus stop should be avoided. Low-growing shrubbery and ground cover and deciduous shade trees are preferred at bus stops. Evergreen trees provide a visual barrier and should be avoided.
- Bus stops, whenever possible, should be coordinated with existing street lighting to improve visibility.
- Bus stops should be next to existing land uses, such as stores and businesses, to enhance surveillance of the site.

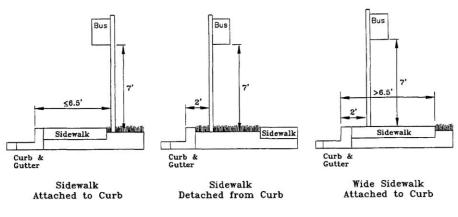
## Transit Stop Signs

Transit stop signs should be placed at all designated fixed-route stops. The sign should include the stop ID, route number and direction (inbound or outbound), fixed-route logo, CARTS name, and phone number. Each stop should have a unique ID in order for the rider to easily identify their location when communicating with CARTS staff or in the case of an emergency, with police and fire departments. According to TCRP Report 19, the following criteria (Figure 4-8) should be followed when designing and locating signs:

- Sign should be placed at the location where riders board the bus
- Bottom of sign should be at least seven feet off the ground
- Sign should not be closer than two feet from the curb face



#### Figure 4-8: Sign Placement



#### TCRP Report 19.

#### Transit Stop Pavement Markings

In addition to sign placement, it is also important to consider pavement markings at transit stops. The curb should be painted (typically yellow) and marked as a no parking zone to avoid conflicts between parked vehicles and transit vehicles.

	<b>Recommendation:</b>	Add transit stop amenities for the fixed routes			
	Administrative Requirements:	Procurement of amenities			
ID:	Operating Requirements:	Installation of amenities at transit stops			
E2	Estimated Cost:	Alt. 1: \$75,000 or Alt. 2: \$100,000			
	Potential Funding Source:	Section 5307 and Local Match			
	Implementation Phase:	Concurrent with implementation of Xpress routes (TDP Years 2 and 3)			

Amenities are recommended for specific locations along the redesigned fixed routes proposed as part of this TDP. These recommendations are based on the criteria and guidance summarized above. In some cases, a transit stop may meet the proposed threshold of five daily boardings and alightings for a shelter but one is not recommended due to other factors. For example, the transit stop at Miller Street is located near Broad Street where a shelter is already proposed. The amenities should be implemented concurrently with the introduction of these routes. Transit stop signs should be installed at all stops. Table 4-4 lists amenity recommendations in addition to signs by transit stop. Each circle in the table denotes a quantity of one.

#### Table 4-4: Transit Stop Amenity Recommendations

Transit Stop	Routes Served	Daily Boardings and Alightings	Bench	Shelter	Route Information	Receptacle
Broad Street	1, 4, 5	Not available		•	•	•
Brunswick House	3	5.6		•	•	•
CarolinaEast Medical Center	4	4.7		•	•	•
Coastal Carolina Regional Airport	5	Not available			•	
Craven Community College	2, 3	6.3			•	
Department of Social Services	2, 4	4.8		••	•	•
Miller Street (Craven Terrace)	4	5.9	٠			
New Bern-Craven County Public Library	4, 5	Not available	٠		•	•
New Bern Mall	2, 3, 5	1.1			•	
New Bern Riverfront Convention Center	5	Not available			•	
RCS	4	4.3	٠			
Walmart	1, 2, 3, 5	8.8		•	•	•



	<b>Recommendation:</b>	Provide bike racks on fixed-route vehicles
	Administrative Requirements:	Procurement of bike racks
ID:	Operating Requirements:	Installation of bike racks on fixed-route vehicles: 5 buses in Alt. 1 or 8 buses in Alt. 2
E3	Estimated Cost:	Alt. 1: \$5,000 or Alt. 2: \$8,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Years 1

In order to encourage multi-modal transportation and expand mobility options, it is recommend that CARTS install bike racks on its fixed-route vehicles. Bike racks would enable riders to start and complete their trips by bike, which would especially be helpful to those with longer journeys between the transit stop and origin or destination. These types of racks most often accommodate up to two bikes. The community suggested this recommendation during the meetings held as part of the public involvement effort.

	<b>Recommendation:</b>	Coordinate bicycle and pedestrian improvements with NBAMPO
	Administrative Requirements:	Coordination with NBAMPO
ID:	Operating Requirements:	None
E4	Estimated Cost:	Staff time
	Potential Funding Source:	N/A
	Implementation Phase:	TDP Years 1 - 5

The majority of transit riders begin and end their trips by walking and biking. It is therefore important to provide adequate bicycle and pedestrian infrastructure at transit stops to improve safety and increase the attractiveness of riding transit. Sidewalks connecting transit stops to adjacent land uses should be provided as well as crosswalks and pedestrian signals at intersections. Bicycle lanes and parking may be provided too, based on funding availability. According to TCRP Report 19 the following standards should be adhered to:

- Sidewalks should be constructed of impervious, non-slip material and should be well drained
- Crosswalks and pedestrian signals should be provided at intersections
- Access to transit stops should be as direct as possible
- Wheelchair ramps should be provided at all intersections

CARTS should coordinate bicycle and pedestrian improvements at fixed-route transit stops with NBAMPO's bicycle and pedestrian efforts in order to promote regional bicycle and pedestrian connectivity. Coordination with NBAMPO would likely be necessary for larger bicycle and pedestrian projects. Smaller improvements like sections of sidewalk or completing small sidewalk gaps may be coordinated with the municipal public works departments.

## 4.1.6 Technology Recommendations

Technology recommendations for improved customer service and efficiency are proposed below.

	<b>Recommendation:</b>	Install electronic signboards with "Talking Bus" features
	Administrative Requirements:	Procurement of electronic signboards with talking bus features
ID:	Operating Requirements:	Installation of electronic signboards and talking bus features on 4 Xpress vehicles (Alt. 1) or 7 Xpress vehicles (Alt. 2)
F1	Estimated Cost:	Alt. 1: \$40,000 or Alt. 2: \$70,000
	Potential Funding Source:	Section 5307 and Local Match
	Implementation Phase:	TDP Year 3

Electronic signboards would assist riders in identifying the correct transit vehicle to board. Based on direct observations and conversations with drivers, riders sometimes have difficulty distinguishing the routes that



CARTS vehicles serve. Riders confuse the Loop transit vehicles with the demand response ones. This issue is further compounded by the fact that all CARTS transit vehicles are painted the same, regardless of the service they operate. The transit vehicles serving the red and yellow Loop routes are distinguished by metal diamonds affixed to the rear side panels. However this signage is not as prominent as electronic signboards mounted on the front of a vehicle.

Existing CARTS fixed-route vehicles may be retrofitted with electronic signboards mounted above the front windshield. The signs would clearly indicate which route the vehicle is operating. Electronic signboards may also be installed inside the front of bus. These signs would announce upcoming stops and the time. According to FTA Circular 4710.1, Section 37.167(b) of the ADA "requires a transit agency to make on-board stop announcements on fixed route bus and rail (including commuter service) in a way that allows people with visual impairments and other disabilities to be oriented to their location."<sup>3</sup> In order to comply with this regulation, drivers must verbally announce upcoming stops. The electronic signboards combined with an automated announcement system, or "talking bus" feature, would be a more dependable means of announcing stops and complying with ADA. Electronic signboards and talking bus features should be included in the specifications for procurement of new fixed-route vehicles. It should be noted that CARTS is currently in the process of procuring three transit vehicles with electronic signboards for its fixed-route service.

## 4.1.7 Vehicle Recommendations

Maintaining a vibrant vehicle fleet decreases maintenance costs and improves customer service. The recommendation below proposes to replace vehicles once they meet FTA useful life requirements.

	Recommendation:	Replace CARTS vehicles with updated buses when the respective vehicle life of the existing vehicles is reached
	Administrative Requirements:	Procurement of transit vehicles
ID:	Operating Requirements:	Scheduling of transit vehicle procurement and delivery so as to not disrupt transit services
Gl	Estimated Cost:	\$1.3 million
	Potential Funding Source:	Section 5307, Section 5339, and Local Match
	Implementation Phase:	TDP Years 1 - 5

#### Useful Life

The existing CARTS vehicle fleet was assessed for useful life, which the FTA defines as: "The useful life of rolling stock and ferries begins on the date the vehicle is placed in revenue service and continues until it is removed from revenue service. The minimum useful life in years refers to total time in transit revenue service, not time spent stockpiled or otherwise unavailable for regular transit use. The minimum useful life in miles refers to total miles in transit revenue service. Non-revenue miles and periods of extended removal from service do not count towards useful life."<sup>4</sup>

Useful life is quantified depending on the vehicle type. According to the most recent guidance (FTA Circular 5010.1E), the current CARTS vehicle fleet falls into two categories: light duty vehicles and medium-size, light-duty transit buses. The light duty vehicles are conversion vans primarily used for the demand response service. These vehicles have a useful life of four years or 100,000 miles. The second category is the 20 and 22 foot light transit vehicles (LTVs) mostly used for the operation of fixed-route service. These vehicles have a longer useful life: five years or 150,000 miles. Applying this criteria to the CARTS fleet, 16 conversion vans

<sup>&</sup>lt;sup>3</sup> FTA Circular 4710.1 Americans with Disabilities Act (ADA): Guidance, 2015.

<sup>&</sup>lt;sup>4</sup> FTA Circular 5010.1E Grant Management Requirements, page IV-25, 2017.



and LTVs have already met their minimum useful life. However, CARTS is currently in the process of procuring six transit vehicles and planning to procure an additional four vehicles next year. These new vehicles will replace ten that have met their useful lives.

As part of this 5-year TDP, a replacement schedule is proposed for the CARTS fleet in order to bring the fleet in line with the FTA recommended useful life and maintain high quality of service for CARTS customers. This schedule is consistent with CARTS' current procurement for FY 2017 and planned procurement for FY 2018.

The replacement schedule was drafted by first estimating the total mileage of the transit vehicles for the next five fiscal years. Total mileage was forecasted using average annual mileage, which was calculated by dividing the most recent fiscal year mileage (FY 2017) by the number of years in service for each vehicle. Vehicles were then programmed for replacement when they met the FTA's useful life guidelines. In some cases, vehicle replacement was delayed in order to balance the replacement costs with funding available in a given year. The estimated replacement schedule for the fleet is shown in Table 4-5. Modifications to this schedule may be necessary due to limited funding availability.

## Fleet Needs and Spare Ratios

In addition to considering useful life, this replacement schedule reflects the vehicle needs by transit mode, demand response and fixed-route, based on the recommendations made in this TDP. As shown in Table 4-5, the number of vehicles appropriate for providing fixed-route service is increased between FY 2018 and FY 2022 in order to satisfy the requirements of implementing the five Xpress routes. Furthermore, the replacement schedule accounts for the spare ratio, which is defined as the number of spare vehicles divided by the vehicles required for annual maximum service. Typically the spare ratio should not exceed 20 percent.

## Specifications

Specifications for new transit vehicle procurements should include electronic signboards, automated announcement systems, fareboxes, and seatbelts adequate to comply with state and federal law pertaining to riders of all ages. Including these items in the procurement specifications will provide a cost savings to CARTS as retrofitting vehicles may be more expensive.

The estimated total cost associated with vehicle replacement is \$1.3 million with a \$130,000 maximum local match between FY 2018 and FY 2022. The local match is assumed to be 10 percent for vehicles procured off state contract (primarily for demand response) and 15 percent for vehicles procured using Section 5307 funds (fixed-route vehicles). However the local match may be less if CARTS is able to leverage other funding sources such as the NCDOT Consolidated Capital Program. These costs were estimated based on recent bid prices received by CARTS and from the NCDOT-PTD procurement price sheet.





Table 4-5:	Transit	Vehicle	Replacement	Plan
			Repracomon	

Veh.	Vehicle Decider	£۲, ۲7	T to the second	Cond (EV 117)	Replacement		Proj	Projected Mileage	ge	
No.		Mileage	керіасепіент і уре		Year	FY '18	6l, Y3	FY '20	FY '21	FY '22
334	2008 - Ford E450 - 22' LTV	192,661	22' LTV (Xpress)	\$63,459	FY 2017					
360	2009 - Ford E450 - 22' LTV	140,573	22' LTV (Xpress)	\$74,000	FY 2019	158,145	175,716			
361	2009 - Ford E450 - 22' LTV	158,487	22' LTV (Xpress)	\$63,459	FY 2017					
378	2010 - Ford E350 - Van	158,174	20' LTV (DR)	\$54,985	FY 2017					
380	2010 - Ford E350 - Van	169,230	20' LTV (DR)	\$54,985	FY 2017					
381	2010 - Ford E350 - Van	165,016	20' LTV (DR)	\$54,985	FY 2017					
384	2011 - Ford E350 - 20' LTV	167,064	20' LTV (G546) (Xpress)	\$60,000	FY 2018	190,930				
385	2011 - Ford E350 - 20' LTV	185,367	22' LTV (Xpress)	\$63,459	FY 2017					
398	2011 - Ford E350 - Van	145,032	20' LTV (G546) (Xpress)	\$60,000	FY 2018	169,204				
400	2011 - Ford E350 - Van	148,899	20' LTV (G546) (Xpress)	\$60,000	FY 2018	173,716				
401	2011 - Ford E350 - Van	142,373	20' LTV (G546) (Xpress)	\$60,000	FY 2018	166,102				
411	2011 - Ford E350 - Van	127,421	20' LTV (DR)	\$60,000	FY 2019	148,658	169,895			
412	2011 - Ford E350 - Van	113,361	20' LTV (DR)	\$60,000	FY 2019	136,033	158,705			
443	2012 - Ford E350 - 20' LTV	115,716	20' LTV (DR)	\$60,000	FY 2019	144,645	173,574			
444	2012 - Ford E350 - 20' LTV	122,808	20' LTV (DR)	\$60,000	FY 2019	147,370	171,931			
447	2013 - Ford E350 - 22' LTV	88,047	20' LTV (DR)	\$60,000	FY 2020	110,059	132,071	154,082		
467	2013 - Ford E350 - Van	81,692	20' LTV (DR)	\$60,000	FY 2020	108,923	136,153	163,384		
468	2013 - Ford E350 - Van	70,212	20' LTV (DR)	\$60,000	FY 2020	93,616	117,020	140,424		
469	2013 - Ford E350 - Van	77,739	20' LTV (DR)	\$60,000	FY 2020	103,652	129,565	155,478		
476	2014 - Ford E350 - 20' LTV	88,064	20' LTV (DR)	\$60,000	FY 2020	117,419	146,773	176,128		
481	2014 - Ford E350 - Van	74,773	20' LTV (DR)	\$60,000	FY 2019	66,697	124,622			
482	2014 - Ford E350 - Van	74,914	20' LTV (DR)	\$60,000	FY 2019	99,885	124,857			
483	2014 - Ford E350 - 20' LTV	33,715	20' LTV (DR)	\$60,000	After FY'22	44,953	56,192	67,430	78,668	89,907
500	2015 - Ford E350 - 20' LTV	39,517	20' LTV (DR)	\$60,000	After FY'22	59,276	79,034	98,793	118,551	138,310
501	2016 - Ford E350 - 22' LTV	27,384	20' LTV (DR)	\$60,000	FY 2022	54,768	82,152	109,536	136,920	164,304
502	2016 - Ford E350 - 20' LTV	17,870	20' LTV (DR)	\$60,000	After FY'22	35,740	53,610	71,480	89,350	107,220
506	2016 - Ford E350 - 20' LTV	23,570	20' LTV (DR)	\$60,000	FY 2022	47,140	70,710	94,280	117,850	141,420
507	2016 - Ford E350 - 20' LTV	24,389	20' LTV (DR)	\$60,000	FY 2021	48,778	73,167	97,556	121,945	
508	2016 - Ford E350 - 20' LTV	32,974	20' LTV (DR)	\$60,000	FY 2021	65,948	98,922	131,896	164,870	
Total	Total Vehicles Replaced:					4	7	ŝ	2	2
Total	Total Cost with inflation:					\$245,000	\$451,000	\$317,000	\$129,000	\$132,000
Maxir	Maximum Local Match with inflation:					\$24,000	\$49,000	\$32,000	\$13,000	\$13,000



## 4.2 Alternatives Analysis

The recommendations discussed in the previous section are organized into two alternatives based on funding scenarios. Both alternatives would improve transit operations, increase access to fixed routes, and enhance mobility options for residents of the CARTS service area. The alternatives are distinguished by the transit operations recommendations that they each include. Alternative 1 would implement Xpress Routes 1, 2, and 3 while Alternative 2 would implement Xpress Routes 1, 2, 3, 4, and 5 and institute a regional ridesharing program. Table 4-7 on the next page identifies the recommendations included in each alternative.

## 4.3 Strengths, Weaknesses, and Opportunity Assessment

This section compares the strengths, weaknesses, and opportunities of Alternative 1 and Alternative 2. Alternative 1 would be less expensive to implement but would not offer as much transit service or reach as many residents. Conversely, Alternative 2 would provide more transit service and reach more residents but require more resources. Although Alternative 2 would be more expensive, the additional expense would be covered in part by federal sources and potentially, by local partners. Additional strengths, weaknesses, and opportunities are listed in Table 4-6.

	Alternative 1	Alternative 2
Strengths	<ul> <li>Lower cost to implement</li> <li>Includes a comprehensive group of recommendations including fare handling and amenity policies to improve the CARTS service</li> <li>Enhances the fixed-route service through rebranding, streamlined routes, and more frequent service</li> <li>Includes a vehicle replacement schedule to maintain a vibrant vehicle fleet</li> </ul>	<ul> <li>Provides a vibrant, efficient fixed route transit service that meets needs throughout the urbanized area.</li> <li>Expands fixed-route service to the James City community and Oaks Road neighborhood</li> <li>Serves CarolinaEast Medical Center with fixed-route service</li> <li>Develops a regional brand that includes a service to employment centers that currently have limited mobility availability for their employees.</li> <li>Greater potential for new partnerships between CARTS and organizations, businesses, and other entities within the service area</li> </ul>
Weaknesses	<ul> <li>Would require additional local financial commitment</li> <li>Involves a change in the system name and logo, which will have to be coordinated with NCDOT-PTD and FTA for contracting purposes.</li> <li>Does not allow the service to expand in key areas that need improvements: i.e. James City, CarolinaEast Medical Center, etc.</li> <li>Does not provide for a comprehensive coverage of local service area needs</li> </ul>	<ul> <li>Would require additional local financial commitment</li> <li>Higher cost to implement</li> <li>Involves a change in the system name and logo, which will have to be coordinated with NCDOT-PTD and FTA for contracting purposes.</li> <li>Requires increased coordination and effort to secure additional funding required</li> </ul>
Opportunities	<ul> <li>General public outreach and feedback should be encouraged to continue to gain enhanced operational objectives</li> <li>Coordination should continue with NBAMPO and local governments to support public transit initiatives</li> </ul>	<ul> <li>General public outreach and feedback should be encouraged to continue to gain enhanced operational objectives</li> <li>Coordination should continue with NBAMPO and local governments to support public transit initiatives</li> <li>Great opportunity to partner with local stakeholders to develop a shared vision for public transportation services</li> </ul>

#### Table 4-6: Strengths, Weaknesses, and Opportunity Assessment



## Table 4-7: TDP Alternatives

ID	Recommendation	Estimated Cost	Funding Source	Alternative	Implementation Phase
A1	Implement an updated cash handing policy for fare collections	\$29,000	Section 5307, NCDOT, and LM	1 and 2	TDP Years 1 and 2
A2	Institute a fare pass system to sell advance bus fares	\$5,000	Section 5307 + LM	1 and 2	TDP Year 1
A3	Increase advertising to include interior bus ads	+\$10,000	Local Revenue	1 and 2	TDP Years 2 - 5
A4	Hire a Mobility Manager to coordinate marketing efforts, provide street supervision for the fixed route service, and lead the effort to develop a regional ridesharing initiative	\$57,000 (annual starting salary and benefits)	Section 5307 + LM	1 and 2	TDP Year 2
A5	Coordinate with NBAMPO on transit elements of the Metropolitan Transportation Plan	Staff time	N/A	1 and 2	TDP Years 1 - 5
B1	Rebrand CARTS to the "Craven Area Regional Transit System"	\$5,000	Section 5307 + LM	1 and 2	TDP Year 1
B2	Update the Rider Guide and produce fixed-route schedules	\$20,000	Section 5307 + LM	1 and 2	TDP Year 2
B3	Rebrand the fixed-route service with an updated logo for the fixed route service and new bus stop signage to identify stop locations for the riders	Alt. 1: \$49,500 Alt. 2: \$59,000	Section 5307 + LM	1 and 2	TDP Year 2
B4	Enhance the existing CARTS webpage as part of the new county-wide website update	\$5,000	Section 5307 + LM	1 and 2	TDP Year 1
C1	Install security cameras on vehicles	\$80,000	Section 5307, Section 5311 (NCDOT), LM	1 and 2	TDP Year 1
C2	Become a partner in the National Safe Place Network	\$1,000	Local	1 and 2	TDP Year 3
D1	Conduct a feasibility study for a future transit administration and operations facility	\$90,000	Section 5307 + LM	1 and 2	TDP Year 2
D2	Institute a regional ridesharing program	\$50,000	Section 5307 + LM	2	TDP Year 5
D3	Implement Xpress Route 1	\$107,000	Section 5307 + LM	1 and 2	TDP Year 2
D4	Implement Xpress Route 2	\$105,000	Section 5307 + LM	1 and 2	TDP Year 2
D5	Implement Xpress Route 3	\$108,000	Section 5307 + LM	1 and 2	TDP Year 2
D6	Implement Xpress Route 4	\$109,000	Section 5307 + LM	2	TDP Year 2
D7	Implement Xpress Route 5	\$108,000	Section 5307 + LM	2	TDP Year 3
D7a	Increase Xpress Route 5 frequency to 30 minutes	\$108,000	Section 5307 + LM	2	TDP Year 5
E1	Develop a transit stop amenities policy	Staff time	N/A	1 and 2	TDP Year 1
E2	Add transit stop amenities for the fixed routes	Alt. 1: \$75,000 Alt. 2: \$100,000	Section 5307 + LM	1 and 2	TDP Years 2 and 3
E3	Provide bike racks on fixed-route vehicles	Alt. 1: \$5,000 Alt. 2: \$8,000	Section 5307 + LM	1 and 2	TDP Year 1
E4	Coordinate bicycle and pedestrian improvements with NBAMPO	Staff time	N/A	1 and 2	TDP Years 1 - 5
F1	Install electronic signage with "Talking Bus" features	Alt. 1: \$40,000 Alt. 2: \$70,000	Section 5307 + LM	1 and 2	TDP Year 3
G1	Replace CARTS vehicles with updated buses when the respective vehicle life of the existing vehicles is reached	\$1.3 million	Section 5307, Section 5339, and LM	1 and 2	TDP Years 1 - 5

LM = Local Match



# 5.0 Five-Year Plan

This chapter provides a five-year plan for the implementation of Alternative 1 or Alternative 2 by including projected budgets, an implementation strategy, and guidance for the upcoming FTA Triennial Review.

## 5.1 Projected Budgets

As part of this TDP, CARTS budgets were projected over the next five fiscal years using historical budget trends and taking into account inflation. Note that the costs presented in this chapter are estimates and subject to change. The costs of the recommendations are included in these projections. Through this process, the difference between projected revenues and expenses is identified. This difference is due to the costs of the recommendations. CARTS may seek to work with local governments and entities to cover this difference. The funding gap for the five fiscal years is identified in Table 5-1:

#### Table 5-1: Projected Difference between Revenues and Expenses with Recommendations

Alternative	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Alternative 1	(\$50,000)	(\$391,000)	(\$279,000)	(\$264,000)	(\$269,000)
Alternative 2	(\$51,000)	(\$458,000)	(\$400,000)	(\$370,000)	(\$456,000)

	a Administration	and Operations	Revenue and Ex	penses for Altern	native i
Revenue	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Total Federal Revenue	\$608,000	\$826,000	\$716,000	\$708,000	\$720,000
Total State Revenue	\$467,000	\$476,000	\$485,000	\$494,000	\$503,000
Total Local Revenue	\$153,000	\$156,000	\$159,000	\$162,000	\$165,000
Total Revenue	\$1,228,000	\$1,457,000	\$1,359,000	\$1,363,000	\$1,388,000
Total Administrative Expenses	\$447,000	\$455,000	\$464,000	\$473,000	\$482,000

## Table 5-2: Projected Administration and Operations Revenue and Expenses for Alternative 1

#### Table 5-3: Projected Capital Revenue and Expenses for Alternative 1

\$1,110,000

\$1,575,000

\$1,131,000

\$1,603,000

\$1,152,000

\$1,634,000

\$1,277,000

\$1,733,000

\$730,000

\$1,177,000

\$476,000	\$662,000	\$551,000	\$556,000	\$561,000
\$19,000	\$19,000	\$19,000	\$20,000	\$20,000
\$38,000	\$52,000	\$46,000	\$47,000	\$47,000
\$419,000	\$591,000	\$485,000	\$490,000	\$494,000
FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	\$419,000 \$38,000 \$19,000	\$419,000         \$591,000           \$38,000         \$52,000           \$19,000         \$19,000	\$419,000\$591,000\$485,000\$38,000\$52,000\$46,000\$19,000\$19,000\$19,000	\$419,000\$591,000\$485,000\$490,000\$38,000\$52,000\$46,000\$47,000\$19,000\$19,000\$19,000\$20,000

#### Table 5-4: Projected Administration and Operations Revenue and Expenses for Alternative 2

				1	
Revenue	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Total Federal Revenue	\$610,000	\$892,000	\$837,000	\$814,000	\$908,000
Total State Revenue	\$467,000	\$476,000	\$485,000	\$494,000	\$503,000
Total Local Revenue	\$153,000	\$156,000	\$159,000	\$162,000	\$165,000
Total Revenue	\$1,229,000	\$1,524,000	\$1,480,000	\$1,470,000	\$1,576,000
Total Administrative Expenses	\$447,000	\$455,000	\$464,000	\$473,000	\$482,000
Total Operating Expenses	\$730,000	\$1,390,000	\$1,319,000	\$1,343,000	\$1,526,000
Total Expenses	\$1,177,000	\$1,845,000	\$1,783,000	\$1,816,000	\$2,008,000

**Total Operating Expenses** 

**Total Expenses** 



\$476,000	\$662,000	\$551,000	\$556,000	\$561,000
\$19,000	\$19,000	\$19,000	\$20,000	\$20,000
\$38,000	\$52,000	\$46,000	\$47,000	\$47,000
\$419,000	\$591,000	\$485,000	\$490,000	\$494,000
FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	\$419,000 \$38,000 \$19,000	\$419,000 \$591,000 \$38,000 \$52,000	\$419,000\$591,000\$485,000\$38,000\$52,000\$46,000	\$419,000\$591,000\$485,000\$490,000\$38,000\$52,000\$46,000\$47,000

#### Table 5-5: Projected Capital Revenue and Expenses for Alternative 2

## 5.2 Implementation Strategy

An implementation strategy has been developed to assist CARTS with the successful implementation of this TDP. Table 5-6 identifies the key steps, responsible stakeholders, applicable alternatives and recommendations, and a suggested timeline. The timeline for achieving each step is a meant as a general guide and can be modified as necessary.

#### Recommendation Alternative **Stakeholders** Timeline Step June 2017 Adopt the CARTS TDP Craven County Board of Commissioners Present CARTS TDP to NBAMPO July 2017 NBAMPO General 1 and 2 June 2017 -Prepare for the FTA Triennial Review in FY CARTS Triennial Review 2019 by reviewing the Triennial Review Workbook and attending workshops FY'19 CARTS August 2017 Draft a cash handing policy for fare collections CARTS TAB Approve a cash handling policy for fare September 2017 1 and 2 A1 collections CARTS June 2018 - July Procure and install fareboxes or cash boxes on CARTS vehicle fleet 2018 Determine a fare pass structure (e.g. 10 CARTS January 2018 rides sold for the price of 9 rides) CARTS March 2018 Design fare pass media A2 1 and 2 April 2018 Identify participating locations CARTS Print fare media and distribute CARTS May 2018 Develop a policy and pricing structure for CARTS May 2018 1 and 2 A3 interior bus ads Sell and place ads on buses CARTS August 2018 June 2018 Finalize the Mobility Manager job CARTS description and salary range June 2018 CARTS Request Mobility Manager position in Α4 1 and 2 CARTS budget for FY'19 CARTS July 2018 Advertise, interview, and hire for the **Mobility Manager Position** Coordinate with NBAMPO on transit CARTS, NBAMPO Ongoing elements of the Metropolitan Transportation Α5 1 and 2 Plan. Specifically identify TDP recommendations that can be included in the MTP Present name change and revised logo CARTS, TAB, Craven September 2017 concept to the TAB and Craven County County Board of B 1 1 and 2 Board of Commissioners Commissioners October 2017 Update website and print materials with CARTS new name and revised logo. CARTS March 2018 Begin updating the Rider Guide and fixed-B2 1 and 2 route schedules in anticipation of Xpress Route implementation

#### Table 5-6: Implementation Plan





Recommendation	Alternative	Step	Stakeholders	Timeline
		Print revised Rider Guide and fixed-route schedules prior to the start of service	CARTS	June 2018
		Develop a new brand for the fixed-route	CARTS	January 2018
		service		50
		Present the revised brand concept to the	CARTS, TAB, Craven	March 2018
		TAB and Craven County Board of	County Board of	
		Commissioners for approval	Commissioners	
_		Repaint a minimum of four fixed-route	CARTS	July 2018, July
B3	1 and 2	vehicles in order to satisfy the operating		2019, July 2021
		requirements of the Xpress routes scheduled		
		to be implemented in TDP Year 2 Manufacture transit stop signage with the	CARTS	July 2018,
		new logo	CARIS	July 2019
		Install new transit stop signs to coincide with	CARTS	July 2018,
		the start of the Xpress routes		July 2019
		Develop a digital communications strategy	CARTS, Craven County	October 2017
		in cooperation with Craven County. The		
		strategy should identify whether CARTS will		
		continue using the current webpage or		
B4	1 and 2	develop a separate, but linked, website	0.000	
		Develop and publish content for the	CARTS	April 2018
		webpage or website. The updated Rider		
		Guide, fixed-route schedules, and maps should be included.		
C1	1 and 2	Install security cameras on vehicles	CARTS	September 2017
C2	1 and 2	Join the National Safe Place Network	CARTS	September 2019
-		Prepare an RFP for a transit facility	CARTS	August 2018
		feasibility study		
	1 and 2	Advertise and award bid to a consultant	CARTS	October 2018
D1		Conduct transit facility feasibility study	Consultant	May 2019
		Approve transit facility feasibility study.	CARTS, Craven County	June 2019
		(This study could be included in the	Board of Commissioners	
		upcoming County Master Plan process)		
		Survey area employers to better	CARTS	August 2021
		understand mobility needs	CADIC	October 2021
D2	2	Plan rideshares based on results of surveys	CARTS	
		Procure necessary equipment and support for rideshares	CARTS	January 2022
		Initiate rideshares	CARTS	March 2022
		Confirm route and schedule	CARTS	June 2018
D3	1 and 2	Assign a Driver and equipment to the route	CARTS	July 2018
		Initiate Xpress Route 1 service	CARTS	August 2018
		Confirm route and schedule	CARTS	June 2018
D4	1 and 2	Assign a Driver and equipment to the route	CARTS	July 2018
		Initiate Xpress Route 2 service	CARTS	August 2018
		Confirm route and schedule	CARTS	June 2018
D5	1 and 2		CARTS	July 2018
		Assign a Driver and equipment to the route		
		Initiate Xpress Route 3 service	CARTS	August 2018
D6	_	Confirm route and schedule	CARTS	June 2018
	2	Assign a Driver and equipment to the route	CARTS	July 2018
		Initiate Xpress Route 4 service	CARTS	July 2018
		Confirm route and schedule	CARTS	June 2019
D7	2	Assign a Driver and equipment to the route	CARTS	July 2019
		Initiate Xpress Route 5 service	CARTS	August 2019
		Assign a Driver and equipment to the route	CARTS	July 2021
D7a	2	Initiate increased frequency on Xpress	CARTS	August 2021
		Route 5		



Recommendation	Alternative	Step	Stakeholders	Timeline
El	1 and 2	Draft a transit amenities policy	CARTS	October 2017
		Approve a transit amenities policy	CARTS TAB	December 2017
E2	1 and 2	Procure transit amenities such as benches, shelters, trash receptacles, and route information holders	CARTS	July 2018, July 2019
		Install transit amenities to coincide with the implementation of Xpress routes	CARTS	September 2018, September 2019
		Procure bike racks for fixed-route vehicles	CARTS	March 2018
E3	E3 1 and 2	Install bike racks to coincide with the implementation of Xpress routes	CARTS	June 2018, June 2019, June 2021
E4	1 and 2	Coordinate with NBAMPO on bicycle and pedestrian improvements. Identify priority transit stop locations in need of bicycle and pedestrian infrastructure	CARTS, NBAMPO	Ongoing
		Procure electronic signboards with talking bus features for the fixed-route vehicles	CARTS	March 2020
F1 1 and 2	Install electronic signboards with talking bus features on fixed-route vehicles operating the Xpress routes	CARTS	June 2020	
G1	1 and 2	Develop vehicle specifications based on the TDP recommendations such as including electronic signboards in procurements as discussed in Section 4.1.7	CARTS	October 2018
		Procure transit vehicles following the guidance in the Transit Vehicle Replacement Plan	CARTS	Ongoing



## 5.3 FTA Triennial Review

Every three years the FTA conducts a Triennial Review (TR) of transit agencies receiving FTA Section 5307 funds as required by the United States Code, Chapter 53 of Title 49. The TR is intended to review and evaluate completely the performance of a grantee in carrying out its program, specifically referring to compliance with statutory and administrative requirements. It is a comprehensive review, consisting of 17 areas. CARTS is anticipated to undergo a TR in FY 2019, which will be its first TR.

It is recommended that CARTS prepare for this review in advance by reviewing the materials, including the Triennial Review Workbook, available from the FTA's website: https://www.transit.dot.gov/funding/grantee-resources/triennial-reviews/triennial-reviews. It is also recommended that the CARTS Director and/or staff attend FTA workshops in person before the review. The general steps of the review are summarized below for reference:

- 1. Pre-Review (between FTA and the contractor who is performing the TR). FTA and the contractor will review historical information about the grantee and review their overall current status as a grantee. They will contact the grantee regarding site visit dates and then prepare and send the Grantee Information Request (GIR) package to the grantee.
- 2. The GIR package must be returned to the reviewers (FTA and the contractor) within a set period of time. The GIR lists questions in all 17 areas of the TR and gives a listing of required documents that need to be sent to FTA and the contractor before the site visit and also lays out the preliminary site visit schedule.
- 3. A scoping meeting is held between FTA and the contractor to discuss the GIR information received from the grantee.
- 4. The on-site visit typically lasts between a few days and a week. The duration depends on the size and complexity of the grantee. In preparation an agenda packet will be sent to the grantee. The TR will start off with an entrance conference in which all 17 areas are reviewed. The FTA may decide to perform an Enhanced Review Module (ERM) if warranted based on prior red flags of the grantee or previous findings from past TRs. If an ERM is to be held in conjunction with the TR, then that ERM will require additional informational worksheets to be completed and that will be reviewed during the TR site visit. The TR will likely have a few site visits of any transit facilities built with FTA funds awarded to that grantee. Also equipment records are typically sampled along with a site visit to their maintenance facilities. The site visit closes with an exit conference.
- 5. During the exit conference, the preliminary listing of findings and any corrective actions are discussed along with a timeline for completing them.
- 6. The draft report of the TR is issued within a set timeframe from the exit conference and the grantee is asked to check it for accuracy and comment within a set amount of time. If applicable, any ERM findings are also included in the draft report.
- 7. The final report is then issued within a set amount of time from the grantee's response and that report includes the final determination of the findings, corrective actions and any closed findings.
- 8. Finally the resolution of the corrective actions is the last step. Those corrective actions have to be submitted by the prescribed due date, or earlier. Any open findings or late corrective actions can lead to potential ERM(s) in a follow-up review.

# Appendix A: Mobility Manager Job Description

Job title:	Transportation (Mobility) Service Manage	
Reports to:	Transportation Director	
Supervises others:	Yes	
Salary Range:	\$XX,000 - \$XX,000 Annually	

## Job functions:

- Oversees the fixed route bus service with street supervision, working with the Vehicle Operators, Scheduling and Dispatch personnel; daily operations, following established policies and procedures, resolve customer service issues and complaints;
- Oversees the regional ridesharing/vanpool program; working with local employers to provide transportation coordination
- Administers the fare pass program, coordinating with local entities to sell fixed route ride passes;
- Administers the marketing program, to include public outreach efforts, surveys and bus exterior and interior advertising;
- Oversees the fixed route bus signage and amenities needs, and coordinates the maintenance of the bus stop needs, and adherence to ADA established guidelines;
- Establish and maintain courteous exchange of information on the phone and within the CARTS office (effective working relationships) with CARTS staff, peers, and offices, outside agencies, vendors and passengers/public;
- Performs route analysis and assists in the planning of daily fixed route services and route modification (re-routes);
- Resource management of vehicles, passengers, and personnel (daily manifest responsibilities);
- Assist with collection of counting of bus fares;
- Interacts and attends meetings with local, state and federal agencies;
- Assists with the daily, monthly, quarterly and annual reports;
- Other duties as assigned

#### Required knowledge, skills and ability

- Proficient in the use of computers, Microsoft Office applications such as Word, Excel, Outlook; and Transportation applications or other routing software;
- Skilled in coordinating public outreach and working with employers and community agencies;
- Skilled in analyzing, recommending, and implementing solutions to complex operational problems and issues;
- Ability to make sound decisions and work effectively within budgets, deadlines and skilled in project management;
- Strong commitment to providing excellent employee relations and customer service;
- Excellent interpersonal skills with well-developed written and verbal communication skills;
- General organizational skills with strong attention to detail;
- Ability to work in a consistently fast-paced environment;
- Well-developed multi-tasking, time management, and logistical skills;
- Availability Monday through Friday during hours of operation and some travel
- Ability to bend, sit, stand, twist, and lift 20 pounds;

## Minimum Qualifications:

- Bachelor's Degree in Transportation, Business, Logistical Management, or related field, or equivalent years of experience
- Minimum Class C NC Driver's license
- Must be able to obtain passenger endorsement within 90 days of hire
- Experience in transit or mobility management or the equivalent combination of education and experience to perform the essential functions of the job.

# Appendix B: Sample Scope of Services for Facility Feasibility Study

# **GENERAL SCOPE OF WORK**

# Transit Facility Feasibility Study

# [DATE]

Firm's Internal Project/Task Order Information:

NCDOT Project Title/Name: NCDOT Project Funding: NCDOT LSC Contract #: NCDOT Division's Internal Fiscal/Project #:

## **Introduction**

The **[Transit Agency]** scope of work is based on a scoping meeting held on **[Date]**; this document will serve as the foundation and record of the key objectives discussed as the proposed scope of work for the **[Transit Agency]** Facility Feasibility Study. This scope of work presents a recommended set of work tasks to be provided to the NCDOT Public Transportation Division (PTD) for the Facility Needs Assessment, Site Location, Site Selection, Site Layout and NEPA (Environmental) Documentation. The **[CONSULTANT Name]** ("the CONSULTANT") will provide this assistance in accordance with the terms of the Limited Services Agreement between the consultant and the NCDOT Public Transportation Division.

There is no guarantee of Federal or State funding for construction of a facility upon completion and approval of feasibility study or the NEPA document by FTA.

# [Transit Agency] Facility Feasibility Study

## **Background and Purpose**

[Transit Agency], in partnership with PTD, is initiating a facility feasibility study (including purpose and need assessment, space needs program, site selection, and environmental documentation) for a transit administration and operations center in [County]. The project will take approximately six to nine months from kick off to completion. The [Transit Agency] currently provides demandresponsive service to [Service Area] out of a facility located at: [Address].

The tasks to be performed within this assignment include:

- Task 1 Purpose and Need Analysis
- Task 2 Space Needs Analysis
- Task 3 General Site Layout
- Task 4 Site Inventory Analysis
- Task 5 Site Screening Analysis
- Task 6 Alternatives Equity Analysis and Site Selection

- Task 7 Draft NEPA (Categorical Exclusion) for the Proposed Facility
- Task 8 Final Report

# Milestone I

# Task 1 – Purpose and Need Analysis

# Task 1.1 – Data Collection and Review

Agency and PTD will assemble and provide all relevant data, GIS files, plans, and documents to the consultant at the inception of the study. The CONSULTANT will coordinate with [Transit Agency] and PTD to obtain drawings, plans, or "as-builts" related to the existing facility. Readily available documents and data related to the administration, operations, and maintenance of transit services and related projects will be provided by [Transit Agency] or PTD, including relevant studies produced by other organizations. The CONSULTANT will review the data and files prior to the existing facilities tour (Task 1.2).

# Task 1.2 – Existing Facilities Tour

A tour of the current transit operations facility and local service area will be facilitated during a oneday field review. Up to two members of the CONSULTANT'S team and the PTD project manager will participate in the tour. The intent will be to gather information about [Transit Agency], verify mapping, and discuss future expansion of services. The tour also will assess the current use and functionality of the existing facility from an administration, operations, and maintenance perspective. Parking, site circulation, security, and site access also will be assessed. The date of the tour will be determined based on mutual agreement among the CONSULTANT team, [Transit Agency], and PTD.

# Task 1.3 – Purpose and Need Analysis

Our team will develop a purpose and need analysis (plan for 40 years useful life) that estimates system growth, discusses constraints associated with the existing facility, and identifies the need for the facility. The purpose and need analysis include, but is not limited, documenting the following:

- Quantify estimates for system growth (e.g. trips, service hours, staff, vehicles)
  - Limits on projected growth rate
  - All projected growth will be based on existing development guidelines and standard commercial use needs. (UDO, zoning, Dept. Insurance, etc.)
- Quantifiably measure the use and condition of [Transit Agency]'s existing facility/parking/lighting/security/
  - Define specific use/need of facility
  - 0 Training requirements safety mtgs., equipment, best practices, etc.
  - Are there transfers? How many? How often?
  - Identify capacity or other issues with the existing facility. Why is existing facility not adequate? Our team will provide specific and measurable reasons to justify need
- Maintenance facility must be approved by PTD to be included in purpose and need analysis

- Any effort used toward the assessment of an unapproved maintenance facility may be separate from this study and funded separately by the agency.
- Results of an assessment study for an unapproved maintenance facility will not be included in this study.
- Assess fleet and parking need
  - Quantifiably justify any expansion vehicle request per STI.
  - When will they outgrow the lot? Specify the existing condition for parking. How is it affecting operations? Where is the employee's parking- inside or outside? Navigating buses? Passengers on transfers?
- Suitability assessment of [Transit Agency]'s existing facility, including constraints.
- A cost-benefit assessment that compares the current facility with cost of a new facility.
- Anticipated local agency support (e.g. funding, resolution, MOU).

# Milestone I Deliverables:

**Purpose and Needs Analysis** –Milestone I will be submitted to NCDOT-PTD and Agency staff in .pdf and Word format. NCDOT-PTD and Agency will review draft and submit comments to our team within ten (10) working days. Following receipt of final comments, our team will be responsible for incorporating comments and the timely distribution of copies of Milestone I to the NCDOT-PTD and Agency.

# Milestone II

# Task 2 – Space Needs Analysis

# Task 2.1 – Space Needs Analysis

The CONSULTANT will conduct a Space Needs Analysis using information collected in Task 1. The following information will be collected:

- Staff by type and number historic, current, and projected ;
- Current space allocations and unmet space needs;
- Training needs;
- Safety and security needs;
- Equipment with significant impact on space needs;
- Degree of automation and communication;
- Data/record storage practices and requirements;
- On-site vehicle and equipment storage and security needs;
- Parking needs (employee and visitor) and traffic generation characteristics;
- Future expansion plans; and
- Space needs for site circulation and runoff.

Our team will create a customized spreadsheet to assign space requirements for [Transit Agency] based on the existing system and projected growth. The facility components included on the spreadsheet, will be finalized once they are approved by PTD; and would at a minimum include the following:

- Administrative office space based on projected staff levels
- Operations workstations (e.g. dispatch, scheduling)
- Maintenance office space
- Support areas (e.g. reception area, conference rooms, storage, rest rooms, break room, driver amenity areas)
- Maintenance bays and safety zones
- Mechanical storage
- Wash bays
- Fueling
- Vehicle parking (employee and visitor)
- Fleet parking
- Circulation
- Passenger transfer shelter

The spreadsheet will provide average square foot assumptions for each component of the proposed facility to yield a total square footage requirement for the proposed facility. The required square footage will be combined with exterior features such as parking, vehicle storage, maintenance areas, stormwater, site access, and circulation to determine the total land area required to accommodate the proposed facility and operation.

All final space needs assumptions must be approved by PTD prior to adoption by the agency.

Our team will make projections for future space specifications based on current space needs, and projected system growth.

In order to determine system growth, our team will review [Transit Agency] service plans recently adopted as well as census data projections in terms of low income population, demographic changes and gather data from human services agencies that work with low income, senior and disabled populations.

# Task 3 – General Site Layout

# Task 3.1 – General Site Layout

The CONSULTANT will create an engineering scaled conceptual site layout (schematic) of the proposed facility based on the Space Needs Analysis to determine the land area needed for the new facility. Site layout will be to scale and show the administration and operations facility, maintenance areas, parking, access, site access, and potential stormwater retention and control system. The site layout will include local (County) development standards (regulations) applicable to space needs and site layout.

- Potential sites must address these requirements but are not limited to the following:
- Traffic and street access includes:
- Peak times, traffic congestion, inclement weather detours, etc.
- Left and right turns, egress and ingress
- Main thoroughfare access
- Other high trip generators in service areas
- Utility coverages such as water, sewer, and electricity
- Invert detail if available
- Proximity
- Distance from current facility and/or other transportation modes
- Grading or site preparation cost
- Any grading or site prep cost will be calculated accurately and not estimated.

## Task 3.2 – Oversight Committee Meeting #1

[Transit Agency] will identify, invite, and confirm the membership for an Oversight Committee tasked with attending three meetings, one webinar, and assisting with other elements of the planning process. At the first Oversight Committee Meeting, The CONSULTANT will review the preliminary findings of the Purpose and Needs Analysis and Space Needs Analysis. The meeting date, time, and location will be determined based on mutual agreement among The CONSULTANT, [Transit Agency], and PTD. The CONSULTANT will prepare meeting materials (as deemed appropriate by the CONSULTANT) to facilitate discussion at the workshop-style meeting. [Transit Agency] will be responsible for securing a venue and sending and following up on meeting invitations.

## Milestone II

*Space Needs Analysis and General Site Layout* – Milestone II will be submitted to NCDOT-PTD and Agency staff in .doc Word format. NCDOT-PTD and Agency will review draft and submit comments to our team within ten (10) working days. Following receipt of final comments, our team will be responsible for incorporating comments and the timely distribution of copies of Milestone II to the NCDOT-PTD and Agency.

# **Milestone III**

# Task 4 – Site Inventory Analysis

## Task 4.1 – Identification of Potential Sites

**[Transit Agency]** will be responsible for identifying a local real estate agent/broker to participate in the facility feasibility study. With assistance from the agent/broker, **[Transit Agency]**, The CONSULTANT, and PTD will develop a list of potential sites. A minimum of X sites and no more than X will be selected. A minimum of X sites are required to be local or county-owned properties with a preference for properties with existing structures. A minimum size of potential sites will be

based on the Space Needs Analysis. Once the sites have been identified, our team will create a Site Location map that shows the location of all the sites in the service area.

All identified sites must be approved by PTD before agency and committee are allowed to review.

Before moving forward with any final site selections, our team will make sure site selection is transparent and **includes both county/publicly owned** properties with existing facilities capable of renovation. The local realtor will provide MLS information on site selections before selecting 8 final sites. The facility needs assessment and selection criteria should drive the site selection and not the county officials wanting to use county owned properties as in-kind local match. Project will not be accepted if site selection is skewed by county officials and not by the needs assessment and selection criteria.

## Task 4.2 – Inventory and Environmental Screening of Potential Sites

A Site Inventory exhibit will be created for each site to describe its characteristics. The exhibit will be GIS-based and include, but not limited to, the following (subject to data availability):

- Location and adjacent land uses;
- Total acreage and approximate amount of useable space;
- Hydrology (e.g. bodies of water, wetlands, floodplains)
- Environmental features (e.g. contours, hazardous waste sites, natural heritage areas, threatened and endangered species)
  - Contours must be clear and denote slope and potential for excessive site prep/grading
- Historic sites and districts
- Traffic and site access;
  - Egress and ingress opportunities and/or constraints
- Availability of utilities (e.g. water, sewer, electric, gas, propane, fiber optic);
  - Provide graphic display of actual utility location (if available)
- Compatibility with surrounding land uses (e.g. zoning, use);
- Allowance for future expansion;
- Ownership and anticipated ease of land acquisition;
  - All selected privately owned parcels must be on MLS
- Anticipated cost, including land procurement and site preparation
- Special requirements or constraints impacting development and/or facility operations;
- Physical and geographical advantages /disadvantages.
- A description of the "pros and cons" for each of the sites will be documented in the Site Inventory Analysis.
- This task does not include coordination with Native-American tribes.

## Task 4.3 – Tour of Potential Sites

A tour with [Transit Agency], PTD, the real estate agent/broker, and our team will be conducted to evaluate the potential sites. The tour will include a "windshield" assessment of visible ground-level environmental issues. One or more of the potential sites may be eliminated prior to the tour due to fatal flaws such as size constraints, unreasonable cost, wetlands, and hazardous materials identified during the Site Inventory and Environmental Screening. The date of the tour will be determined based on mutual agreement among The CONSULTANT, [Transit Agency], and PTD. The Site Inventory and Environmental Screening will be updated, if necessary, based on information collected or observed during the tour.

# Task 4.4 – Oversight Committee Meeting #2

At the second Oversight Committee Meeting, our team will review the preliminary findings of the Site Inventory and Environmental Screening. The committee also will be tasked with selecting and weighing criteria for the site screening matrix. The meeting date, time, and location will be determined based on mutual agreement among the CONSULTANT, [Transit Agency], and PTD. The CONSULTANT will prepare meeting materials (as deemed appropriate by the CONSULTANT) to facilitate discussion at the workshop-style meeting. [Transit Agency] will be responsible for securing a venue and sending and following up on meeting invitations.

## Milestone III Deliverables:

*Site Inventory Analysis* – Milestone III will be submitted to NCDOT-PTD and Agency staff in .doc Word format. NCDOT-PTD and Agency will review draft and submit comments to our team within ten (10) working days. Following receipt of final comments, the consultant project team will be responsible for incorporating comments and the timely distribution of copies of Milestone III to the NCDOT-PTD and Agency.

# Milestone IV

# Task 5 – Site Screening Analysis

## Task 5.1 – Site Screening Matrix

Based on information collected in Task 4, a site screening matrix will be developed using the criteria selected and ranked by the Oversight Committee. The criteria will include quantifiable/measurable characteristics of the sites that will allow the committee to make informed decisions when selecting the preferred sites for inclusion in the Alternatives Equity Analysis and more detailed site planning and configuration. The matrix may include, but not be limited to, the following:

- Site characteristics such as configuration constraints, expandability, and utility availability
- Environmental and social characteristics based in part on NEPA requirements
- Transportation considerations such as accessibility to major highways/service routes, traffic impacts and off-site roadway improvements, and suitability as a transfer point for [Transit Agency] services, maintenance

- Real estate issues such as availability, land cost, site preparation costs, zoning, adjacent land uses, and relocation of existing businesses or homes
- Availability of existing structure and feasibility of renovation to meet agency facility needs.

The weighting of each criterion must be approved by the PTD Project Manager before applied to site screening matrix.

## Task 5.2 – Oversight Committee Meeting #3

At the third Oversight Committee Meeting, The CONSULTANT will review the preliminary findings of the Site Screening Matrix. The committee will be tasked with completing a site screening score sheet for each of the potential sites. Final scoring sheets completed by the committee members will be attached to final plan. CONSULTANT is not authorized to score sites.

These score sheets will be used to determine the top three (3) preferred sites. The meeting date, time, and location will be determined based on mutual agreement among The CONSULTANT, [Transit Agency], and PTD. Our team will prepare meeting materials to facilitate discussion at the workshop-style meeting. [Transit Agency] will be responsible for securing a venue and sending and following up on meeting invitations.

## Milestone IV Deliverables:

*Site Screening Analysis* – Milestone IV will be submitted to NCDOT-PTD and Agency staff in .doc Word format. NCDOT-PTD and Agency will review draft and submit comments to our team within ten (10) working days. Following receipt of final comments, our project team will be responsible for incorporating comments and the timely distribution of copies of Milestone II to the NCDOT-PTD and Agency.

# Milestone V

# Task 6 – Alternatives Equity Analysis and Site Selection

## Task 6.1 – Site Layouts for Preferred Sites

The CONSULTANT will test fit the space plan with the three preferred sites selected in Task 5. The site plans will be to scale and will illustrate the following:

- Administration and operations building placement, including training areas
- Designated staff and visitor parking (separate from fleet parking)
- Maintenance areas, including maintenance bays, wash areas, fueling and safety zones (if approved by PTD)
- Fleet parking
- Passenger transfer shelter (if applicable)
- Site access configured according to standard highway safety design
- Site circulation
- Security features

- Site preparation (e.g. anticipated grading, retaining walls, etc.)
- Stormwater retention and control system
- Utilities (existing and necessary extensions)
- Setbacks (zoning, land use)
- LEED certification design alternatives

## Task 6.2 – Alternatives Equity Analysis and Cumulative Impacts

The CONSULTANT will conduct an Alternatives Equity Analysis in response to federal requirements. The analysis will ensure that the location of the new [Transit Agency] facility is selected without regard to race, color, or national origin. Per guidance from the PTD, this analysis must compare impacts of various siting alternatives and determine if cumulative adverse impacts may result due to the presence of other facilities with similar impacts in the area. This analysis will be coordinated with outreach to persons potentially impacted by the siting of the facility and will occur prior to the selection of the final site. Our team will use available data as part of the equity analysis with an emphasis on poverty, minority, and limited English proficiency for the preferred sites. Census data will be disaggregated from the tract and block group levels where possible. The GIS-based analysis will be supplemented with narrative where necessary and presented to the public at the community outreach public meeting and included in the final report.

## Task 6.3 - Community Outreach Public Meeting

The CONSULTANT will facilitate a Community Outreach Public Meeting to receive public comment on the selected sites. The meeting date, time, and location will be determined based on mutual agreement among the CONSULTANT, [Transit Agency], and PTD. To the extent possible, the meeting will be located in proximity to and accessible by persons potentially impacted by the potential location of the [Transit Agency] facility to adhere to FTA requirements. [Transit Agency] will be responsible for reserving a location for the meeting and assisting with marketing the event. Our team will be responsible for preparing meeting materials and facilitating the event. The CONSULTANT will include a record of any public involvement action or meeting that is taken in the Public Involvement Section of the Draft Plan. NCDOT Public Involvement Unit will provide support in facilitating and advertising public meeting.

## Task 6.4 – Oversight Committee Webinar

Our team will conduct a webinar to disclose the results of the Alternatives Equity Analysis and Cumulative Impacts and lead to the selection of the final site. The Oversight Committee will select the final site that will be presented to the [Transit Agency] board for adoption.

## Task 6.5 – Site Selection and Board Approval

The Oversight Committee's selection of the final site will be submitted to the governing board(s) of [Transit Agency]. The Board will receive information relative to the Oversight Committee's ranking and prioritization, comments received from the public, and the results of the equity analysis. The presentation to the governing will be conducted by agency. The CONSULTANT will provide materials such as a PowerPoint presentation or display boards.

### Milestone V Deliverables:

**Draft Alternatives Equity Analysis and Cumulative Impacts Report** – Milestone IV will be submitted to NCDOT-PTD and Agency staff in .doc Word format. NCDOT-PTD and Agency will review draft and submit comments to our team within ten (10) working days. Following receipt of final comments, our project team will be responsible for incorporating comments and the timely distribution of copies of Milestone IV to the NCDOT-PTD and Agency.

# Milestone VI

## Task 7 – Draft NEPA (Categorical Exclusion) for the Proposed Facility

### Task 7.1 - NEPA Documentation

Once the final site has been approved by the governing board(s) of [Transit Agency], the CONSULTANT will prepare a NEPA (Categorical Exclusion) document for the selected site. The Categorical Exclusion (CE) will be a checklist of environmental, social, and regulatory information relative to the final site. It is assumed that the required information for the CE will be based on readily available data and resource information. If additional analysis or field survey data or information is required, this will be considered additional services. *Note: The review process associated with the NEPA documentation may require up to two months to facilitate.* 

### Milestone VI Deliverables:

**Draft NEPA (Categorical Exclusion) Document** – A NEPA (Categorical Exclusion) document of approximately 5 pages must be submitted directly to PTD for internal review and process. PTD will be responsible for coordination with FTA review. The document will be submitted to PTD in PDF and Word formats. NCDOT-PTD and Agency will review draft and submit comments to our team within ten (10) working days. Following receipt of final comments, the consultant project team will be responsible for incorporating comments and the timely distribution of copies of Milestone VI to the NCDOT-PTD and Agency. Note: Any questions should be directed to PTD and not to FTA.

# Milestone VII

## Task 8 - Final Report

### Task 8.1 – Final Report

Once the decision on the facility site has been made, The CONSULTANT's team will compile previous memos, the equity analysis report, and NEPA documentation in a single report. The report will be supplemented with an implementation plan that includes:

- Set up time, phased program (initial acquisition of site through final construction);
- Timeframe and schedule;
- Required actions by local and state agencies (roles and responsibilities);

- Financing plan that includes planning level cost estimates for the land acquisition (if necessary), design and engineering, and capital and development cost
- Funding sources

The CONSULTANT will send an electronic copy (PDF and Word) of a draft report to [Transit Agency] and PTD for review. The CONSULTANT will revise the report one time based on a single set of consolidated comments provided by PTD.

### Milestone VII Deliverables:

**Final Report** – A Final Report will be created based on a single set of consolidated comments from the Draft Report. The CONSULTANT will provide 5 bound color copies, one digital (PDF) format, and associated data.

### Project Personnel

The key personnel assigned to this project/task will include: [List key personnel]

## NCDOT Contact

The Senior Procurement Officer and/or Procurement Specialist will provide project oversight. Both will be copied on all correspondence and/or communication with other offices not a part of the Public Transportation Division and be updated on a regular basis on the status of all activities. All deliverables will be copied to **NCDOT-PTD Staff Person** for review and approval.

## Monthly Reports and/or Daily Logs

A detailed monthly progress report will be submitted to the Project Manager on a monthly basis for his/her review. The progress report will include tasks completed during invoice period, next steps, and any outstanding and/or unresolved issues involving the project. The Project Manager may request a bi-weekly and/or monthly log documenting conversations/discussions with outside agencies or units and state any outcomes of those discussions. The log will be incorporated into the monthly progress report.

## Milestone Timeline/Schedule

Project to begin upon written notice to proceed from the NCDOT-PTD. Deliverables to be completed in conjunction with requirements of NCDOT and subject transit agencies based on the following timeline (all months shown are in [Year]):

Milestone	Timeline/Schedule
Milestone I	Month 1
Task 1 – Purpose and Need Analysis:	
Milestone II	Month 2
Task 2 – Space Needs Analysis	
Task 3 - General Site Layout:	
Milestone III	Month 3
Task 4 – Site Inventory:	
Milestone IV	Month 4

Task 5 – Site Screening:	
Milestone V	Month 5
Task 6 – Alternatives Equity Analysis and Site Selection:	
Milestone VII	Month $6 - 8^*$
Task 7 – Draft NEPA (Categorical Exclusion) for the Proposed Facility	
Milestone VII	Month 9
Task 8 – Final Report and Presentation:	

\*This Milestone assumes two months for the review process

## <u>Hours</u>

PEF proposes to undertake this work as a lump sum for the agreed upon amount. A separate Cost Proposal will be attached showing names, position classifications, rates of pay, and anticipated hours required to complete the various tasks as listed and described above.

## Budget/Invoicing

All Non-salary direct costs will be billed in accordance with current NCDOT approved rates. It will be necessary to include a detailed monthly activity report and a DBE-IS form when submitting invoices for the project. Compensation will be based on the percentage of the total work completed shown on the invoice. The DBE-IS form can be downloaded as at http://www.ncdot.org/doh/forms/files/DBE-IS.xls (instructions on how to complete the form are included on the second tab of the spreadsheet).

All invoices are to be submitted to [ADDRESS]. All invoices will need to clearly show project name, WBS #, Division Internal Fiscal/Project #, and NCDOT PO# and DBE contributions. A copy of all invoices and progress reports will also be sent via email to PTD contact email address and to agency contact.

## **Deliverables**

The deliverable will be a Final Report that includes the information provided in interim deliverables for each task. The following final deliverable(s) will be provided.

- Final Report (5 bound color copies to PTD)
- Final Report (Digital PDF format to PTD)
- Data Files (USB drive or FTP)

# Appendix C: Detailed Ridesharing Information

#### **Emergency Ride Home Program**

From time to time a participant of the rideshare may be required to leave work early due to an emergency or illness. The participant should call the CARTS staff and state the nature of the emergency or illness. Under an Emergency Ride Home (ERH) Program, one of the CARTS staff members would provide transportation by:

- 1. Authorizing a CARTS staff member to provide transportation
- 2. Contacting a taxi company to provide transportation

#### Restrictions

The driver shall operate the van in accordance with all applicable State of North Carolina laws, in a reasonable and safe manner, and in such places as to not expose it or its passengers to unsafe conditions. The van shall only be driven on hard public streets and highways and other normal access roads and driveways. The driver shall not pull trailers; attach carrying racks or trailer hitches. The driver shall not transport or operate the van after consuming alcohol, illegal drugs / substances, or medications which recommend refraining from driving after ingesting. Furthermore, the driver shall not take the van to any establishment whose business could negatively impact the image of the CARTS (i.e. nightclubs, ABC stores, bars, sweepstakes facilities, etc.). While operating the van, the driver shall not use a cell phone, blue tooth device, text messaging device or equipment that may distract the attention of the Driver. Smoking would be prohibited by all van occupants. CARTS would retain the right to immediately terminate any rideshare in violation of these restrictions.

#### Termination of the Rideshare

The driver may terminate the lease agreement at any time by giving a 30-day written notice. CARTS may terminate the lease agreement without cause, or for cause, including a failure to comply with any provision, at its discretion.

#### **Rideshare Referral Payment**

CARTS would want to reward drivers, backup drivers and rideshare passengers that refer potential drivers for newly created rideshares to the rideshare program. Once a referred CARTS driver has leased a van for six months, a referral payment will be sent to the person who referred the new rideshare to CARTS.

#### Driver Responsibilities/Incentives

#### Driver Qualifications

The driver of the rideshare must be at least 25 years old and have an excellent driving history. In order to qualify, drivers must have a valid Class C driver's license, no more than 3 points on their license, and no previous "D.W.I." (Driving While Impaired) convictions on their license. All drivers must submit a motor vehicle report (MVR) form and be approved by the CARTS staff.

#### Lease Agreement

The lease agreement between the van driver, backup driver and CARTS operates on a month-to-month basis. The driver and backup driver must sign the lease. In certain situations, some businesses lease the van directly through their company. In these cases, the employer representatives and the qualified drivers sign the lease agreement.

#### Monthly Reports

One of the driver's responsibilities is to complete a monthly revenue and expense report. These reports would be turned in on the 1st of each month for the prior month.

#### Daily Operations

The driver is expected to operate the van in a safe manner, arrange for a backup driver as needed, collect monthly fares and keep the van clean. Each time the van is fueled, the water, oil and transmission fluid should be checked by the driver.

#### Driver Training

All rideshare drivers must attend a driver orientation and training session. This consists of a comprehensive overview of all materials that would be provided by the CARTS staff. Upon completion of the training, each driver must successfully complete a CARTS rideshare driving test before being allowed to operate the vehicle.

#### Backup Driver

Each rideshare should have at least one backup driver in order to lease a van. This assures passengers continuous, reliable transportation in the case of personal sickness, emergency or vacation of the primary driver.

The rideshare backup driver must meet the same requirements and qualifications as the primary driver. The backup driver assumes the responsibility of operating the rideshare, including the monthly reports, in the absence of the rideshare driver.

#### Personal Use of the Van

CARTS would reward its drivers with special privileges and incentives for the service rideshare drivers provide. CARTS would allow up to 150 personal miles free of charge. This mileage can be used entirely by the driver or he/she may split the personal miles with the backup driver. The van can be used for a maximum of 300 personal miles at the amount specified in the lease agreement.

#### Driver/Rider Agreement

In order to avoid probable conflicts, CARTS will develop a driver/rider agreement, which should be read and signed by the passengers before joining the rideshare. This agreement assures that all participants are aware of the rideshare rules, regulations and operating procedures.

CARTS will encourage all rideshares to establish their own rideshare guidelines and set individual policies and procedures to help prevent disputes. Since the rideshare driver is primarily responsible for the rideshare, all disputes should initially be directed to the driver. If the dispute is not resolved, the CARTS staff can/will provide recommendations for all involved parties.

#### Risk Management/Insurance

#### Accidents

In the event you are involved in an accident before 8:00 a.m. or after 5:00 p.m., Monday through Friday or on the weekend, the CARTS staff would need to be contacted, as well as the police department or highway patrol. Should the accident occur during the workday between regular operating hours, the driver or backup driver should immediately call the CARTS office and the police department or highway patrol. If necessary, CARTS staff will come to the scene of the accident to conduct a preliminary accident investigation. The driver is responsible for reporting any accident, no matter how minor. Failure to report an accident could result in termination of the lease agreement with CARTS.

CARTS will provide liability coverage for bodily injury or property damage resulting from an accident. CARTS would not provide liability coverage for any non-accidental criminal act performed while using the van. The driver or backup driver will be responsible for the first \$100.00 deductible for any damages from accidents involving CARTS vans. This fee is due within 30 days of the date the accident occurred.

#### Procedures to Follow in the Event of an Accident

Collisions and accidents range from minor fender benders (without vehicle damage) to major and multiple vehicle collisions and possible injuries. It is important that drivers know how to handle emergencies to protect lives and to ensure that questions of liability are handled properly. If an accident occurs, it is important for drivers to do the following:

- If you or any of your passengers are injured, dial 911 for medical assistance
- Protect the accident scene
  - Turn on hazard flashers
  - Move the van out or traffic if directed by a police officer
  - 0 Make sure passengers are in a safe location
- Notify the local, county or state police
  - If police are on the scene, obtain the officer's name and badge number
  - Call your CARTS representative at the provided emergency numbers
- Make no statement to anyone except:
  - A police officer on the scene
  - CARTS representative
- You are insured through CARTS. The name of the CARTS Ridesharing Program insurance carrier would be provided to you on an insurance card, which should always be kept in your glove compartment.
- Fill out the CARTS Accident Report Form and give it to the CARTS representative who comes to the scene.

#### Revenues

#### **Rideshare Fares**

Rideshare fares are based on fixed, operational and depreciation expenses associated with the van's total monthly mileage. These expenses include fixed costs (insurance, contingency), operational costs (maintenance repair, gasoline, oil, tires and parts), and depreciation costs (monthly vehicle depreciation).

The monthly fares are payable to CARTS on or before the 1st of each month. Payments are made one month in advance and are good until the last day of the month.

One of the driver's responsibilities is to keep a monthly revenue and expense report. These reports are turned in on the 1st of each month for the prior month. It is recommended to send in the report with the monthly lease payment.

#### Rideshare Deposit Requirements

All van drivers or employer sponsors are required to submit a van security deposit to CARTS before a van can be leased. The deposit should be for the amount specified in the lease agreement and in the form of a certified check or a money order.

Upon the termination of the rideshare lease agreement, the driver can submit a request for a security deposit refund. The van will be inspected to determine if there is any unreported damage to the van. Upon the

completion of the inspection and a check for any other outstanding expenses, the security deposit will be refunded to the van driver. It is the driver's responsibility to reimburse employer sponsors and/or rideshare riders as appropriate.

#### Prorations: New Rideshares, Vacations, Holidays, Breakdowns, Company Closings

New rideshares put into operation during the middle of a payment period are eligible to have their fares prorated for the first month of operation. The fare will be based on the actual number of days the van will be in operation for that month.

For employer vacations, the driver should notify the CARTS staff as soon as possible with the dates the van will not be in operation. This is necessary so that the CARTS staff can determine if the van qualifies for a prorated fee and the amount of the prorate.

Holidays are not prorated for rideshares. The van lease is based on a twenty-one day month in which holidays are averaged into the monthly fare. However, if a rideshare will not be in operation for more than three consecutive weekdays due to the employer observing holidays, the lease amount for that month will be prorated to the actual number of days operated.

If the rideshare does not operate due to a mechanical breakdown of the van, a proration may be considered under certain circumstances. If the number of days exceeds two consecutive days and no other CARTS transportation is made available for the passengers, then the fares will be prorated for that month to the actual number of days operated.

Extended company closings are also valid reasons for fare pro-rations. However, to qualify for this proration, the company must be closed for a minimum of three consecutive working days. This situation also requires the approval of the CARTS staff.

#### Vans Commuting More Than Five Days a Week

Fare calculations are based on an average 21-day month and a five-day workweek. Although most of the vans are leased for a five-day workweek, there are times and unusual circumstances in which the employees must report to work more than five days per week. When this situation occurs, the monthly fares will be adjusted according to the total mile traveled for that month. The CARTS staff will adjust the fare and inform the driver of the total amount due.

#### Emergency/Special Seat Subsidy

Seat subsidies are at the discretion of the CARTS Management.

#### Commuter Benefits

Federal law allows employers three ways to reduce the cost of commuting via public transportation (bus, train, ferry or registered rideshare) or qualified parking for employees. Companies can offer employees:

- a tax-free employer-paid subsidy
- a pre-tax employee-paid payroll deduction, or
- a combination of the above (shared employee- employer-paid)

#### Outside Fuel Purchases

In order to minimize costs, CARTS encourages all rideshare drivers to fuel at the approved CARTS fueling locations.

Please remember the following when using a fuel card:

1. Use only regular unleaded fuel (87 Octane)

- 2. Use only self-service gas pumps (No full service will be accepted)
- 3. Do not share or write down driver pin.
- 4. Fuel cards are to be used only for CARTS rideshare services.

#### Maintenance

#### Exchanging Vehicles for Maintenance

When service work is needed for the vans, drivers should contact the CARTS staff to schedule the repair. Once a backup van is assigned, the driver can drop the van off at the designated maintenance facility. CARTS staff will make arrangements to switch the van.

#### Outside Maintenance Repair

In some cases temporary repairs may be necessary before the van can be taken to CARTS's designated maintenance facility. Upon the approval by CARTS staff, a pre-approved "Emergency Service Station" can make minor repairs. Some of these repairs may include jump-starting the van, replacing a light bulb, or fuse, etc. CARTS staff will call these emergency service stations to make arrangements for these quick, minor repairs. These service stations will bill CARTS for all repairs.

# Appendix D: Sample Ridesharing Forms

#### Rideshare Driver / Rider Agreement

The following rules are designed to promote the cooperation essential to successful rideshare operation. The driver and rider agree to honor these rules in good faith.

- 1. Pick up is limited to the agreed times and locations. The rideshare will wait a maximum of two minutes beyond the agreed time before departing from each stop. The rider is expected to be prompt so that others are not inconvenienced.
- 2. A reasonable effort will be made by the rideshare operator to provide a 30-day notice of a rate increase or termination.
- 3. The rider agrees to make full payments each month. During vacation or other periods of absence, rider may sublet his/her seat to a party who must adhere to the conditions of this agreement.
- 4. The rider agrees to pay the driver promptly, and in advance, understanding that fares are not refunded for any reason.
- 5. The rider is required to behave in a manner which promotes positive interaction with other rideshare participants.
- 6. The rider shall help maintain the cleanliness and appearance of the rideshare vehicle. Personal articles may be kept in the area of the rider's seat at the discretion of the rideshare operator.
- 7. The use of food and beverage aboard the rideshare vehicle is at the discretion of the rideshare operator.
- 8. The driver and rider agree to understand that the use or possession or transportation of any alcoholic beverage or any narcotic drug, chemical or other substance in violation of the law is prohibited in the van.
- 9. The driver agrees to immediately notify the rider and CARTS if the van breaks down.
- 10. The driver and rider agree the use, possession or transportation of any fire arms or weapons is prohibited.
- 11. No smoking is allowed in any CARTS vehicle at any time.

I understand and accept the conditions and rules of this agreement. The driver or rider may terminate this agreement by giving thirty (30) days written notice.

Name	Pick up time
Address	Pick up place
City	Drop off time
State & Zip Code	Drop off place
Work Phone	Home Phone
Employer	
Rider Signature	Date
Driver Signature	Date
CARTS #	

Vehicle Identification Number

#### **CARTS Initial & Annual Motor Vehicle Report**

#### **Review Authorization and Rideshare Application**

By your signature below, you hereby authorize the CARTS to obtain a Motor Vehicle Report to consider you to drive a CARTS vehicle. Have you ever been convicted for Driving While Impaired (DUI)? Applicant's Name: \_\_\_\_\_ Male: \_\_\_\_ Female: \_\_\_\_ Applicant's Address: City: \_\_\_\_\_ State: \_\_\_\_ Zip Code: \_\_\_\_\_ Telephone, Home #: \_\_\_\_\_ Cell #: \_\_\_\_\_ Work #: \_\_\_\_ Date of Birth: \_\_\_\_\_ Driver's License Number: \_\_\_\_\_ State Issued: \_\_\_\_\_ Employer's Name: Employer's Address / Location: Applicant's Signature: **CARTS Office Only Below:** Motor Vehicle Report – States to be checked:

Date Requested: \_\_\_\_\_

#### Listed below are the requirements for starting a rideshare:

- (1) Drivers and backup drivers must be at least 25 years old and have a valid Class C driver's license. The drivers must have no more than three points on their driving record and no D.W.I. (Driving While Impaired) convictions.
- (2) The driver is required to make a one-time security deposit for the van.
- (3) The van driver and backup driver must sign a rideshare lease agreement with CARTS Ridesharing Program.
- (4) Rideshare drivers should collect the first month's payment from rideshare participants. This payment enables the participants to ride in the van for the calendar month.
- (5) Design the route and pickup points to determine the daily round trip mileage.

Rideshare routes are usually designed to go from the meeting/pickup point and to the worksite. In some cases, more than one pickup point may be necessary. Pickup points are usually located at shopping centers, churches, businesses or park and ride lots.

Designing the most direct route to your worksite is important since rideshare fares are based on the total miles the van travels. CARTS does not recommend picking up participants at their homes due to the extra mileage and time involved with door-to-door service. If a participant cannot drive or does not have any transportation at all, then a fellow rideshare member is encouraged to carpool with this participant to and from the pickup point.

Each van would have a maximum seating capacity for 7 or 15 people. Vans are filled on a first-come, firstserve basis. If there are more people interested in ridesharing than there are seats available, their names are either placed on a waiting list or a new rideshare will be formed. In the event of a passenger decline, CARTS could provide assistance in recruiting new passengers by utilizing the waiting list and/or a free rideshare matching database. However, the rideshare will still be responsible for the total lease amount to keep the van in operation.

Combining rideshares is discussed when rideshares experience a severe decline in passengers. CARTS would do everything possible to maintain the same low cost for the passengers, and if necessary, develop the most convenient route.

#### Lease Agreement

WHEREAS, the Craven Area Rural Transit System, for Regional Transportation (hereinafter "CARTS") and (**Driver's Name**) (hereinafter "Driver") desire to enter into this Agreement by which CARTS will make available to Driver a van for use in carrying out this Agreement in accordance with the terms and conditions hereinafter specified; and

WHEREAS, CARTS is undertaking a "Third Party Rideshare Program" pursuant to a funding grant, from the North Carolina Department of Transportation, and WHEREAS, the CARTS is responsible for the vans which are available for lease to acceptable drivers for the carrying out of the said CARTS Ridesharing Program; and,

NOW, THEREFORE, the parties hereto do hereby contract and agree as follows:

- 1. This Agreement shall become effective on the date of its execution by CARTS, said date being set out on the signature page adjacent to the signature of the CARTS representative executing this document.
- 2. The term of this lease shall be on a month-to-month basis unless terminated upon a 30-day notice or according to the other terms specified herein.
- 3. The Driver agrees to pay to CARTS by the first (1st) day of each month, a total of § (Fare). (hereinafter "Fare") In addition, Driver will pay to CARTS a sum equal to \$0.55 per mile for each mile in excess of 150 (personal miles) that the said van is driven by Driver for reasons other than the transportation of Driver and passengers to and from employment, said mileage being referred to herein as personal mileage. If the Driver exceeds the 300 miles maximum, a per-mile charge of \$0.80 will be assessed. Further, Driver will pay to CARTS a sum of \$25.00 as a late fee for any payments due CARTS that are not made by the tenth (10th) day of each month, and a \$25.00 sum for any check given by Driver to CARTS and which is returned for insufficient funds or other reason. Still further, Driver will deposit with CARTS the sum of \$300.00 as a security deposit for the faithful performance by the Driver of this Agreement, said sum to be returned to Driver upon the termination of this Agreement if Driver is current with all payments to CARTS as of that date. It is also agreed that CARTS will review the Fare twice a year during January and July. In the sole discretion of CARTS, adjustments up or down may be made to reflect the cost of operating the van and supporting the rideshare program. If adjustments are made, an addendum may be signed by the Driver and attached to the original contract in lieu of signing a new contract. Adjustments will be effective on February 1 or August 1.
- 4. CARTS agrees to reimburse Driver for out-of-pocket costs in connection with the use of said van, said out-of-pocket costs to include gas and oil purchased by the Driver for use in said van, said expenses to be substantiated by receipt, and said payments to be an offset against amounts due to CARTS by the first (1st) of each month pursuant to this Agreement.
- 5. CARTS shall issue the driver a fuel card or other means to fuel the van. The fueling method provided by CARTS shall only be used to fuel the van and only for purposes authorized by this Agreement. CARTS shall be reimbursed by the Driver for any expenses related to the use of said fueling method for any purpose other than those authorized by this Agreement. If the fuel card is lost the Driver must inform CARTS staff immediately.

- 6. CARTS agrees to assist Driver in forming and maintaining a rideshare and to render other administrative assistance in connection with the program, but the extent of such assistance shall be determined by CARTS.
- 7. Driver agrees to authorize CARTS to obtain a certified copy of his/her driving record from an agency selected by CARTS, and must certify to CARTS that he/she does not have more than three points on his/her driving record, no Driving While Impaired (D.W.I.) convictions, has not been convicted of more than one (1) moving violation under the motor vehicle laws of any state and has not been convicted of any criminal offense arising out of the operation of a motor vehicle in violation of the criminal laws of any state within the immediate past three (3) years and none in the last year.
- 8. Driver must have a valid Class C driver's license to drive the van. Driver shall complete a rideshare driver application and an in-house training session before being eligible to operate the van. Driver shall immediately notify CARTS staff upon receipt of any moving violation or criminal charge.
- 9. The Driver must agree to operate the van for the purpose of transporting persons from their designated pickup point to their place of employment, and from their place of employment to their pick up point, and must operate in accordance with route and other regulations prescribed by the CARTS staff and must operate on a punctual schedule approved by said CARTS staff.
- 10. The Driver shall be permitted to use the van for personal use (that is, other than transporting riders to and from employment), but such personal use shall be limited to a maximum of 300 miles per month, and the cost to the Driver for such personal use shall be as herein provided. The driver shall not take the van to any establishment whose business could negatively impact the image of CARTS (i.e. nightclubs, abc stores, bars, sweepstakes facilities, etc).
- 11. Driver must notify the CARTS staff of any criminal charges or convictions arising out of the operation of the van or any other motor vehicle.
- 12. The driver must obtain, and maintain throughout the existence of the Agreement, a reasonable number of paying passengers, determined for purposes of this Agreement to be 75% of the maximum capacity of the van. If the van falls below maximum capacity, the cost of the empty seats is then divided amongst the remaining paying passengers. Should the number of participants fall below 75% of maximum capacity, the CARTS staff must be immediately notified and this Agreement shall be subject to cancellation.
- 13. The Driver shall operate the van in accordance with reasonable and safe practices. The Driver shall present the van to CARTS for maintenance inspection upon each 6,000 miles of travel, and must clear with CARTS any repair or corrective work with respect to the said van. Further, the Driver shall keep the van in a reasonably clean condition, inside and outside and shall see to it that all fluid levels and tire pressures are checked weekly.
- 14. The Driver shall provide secure off-street parking for the van when it is not in use.
- 15. The Driver shall maintain and furnish to CARTS such records as CARTS shall prescribe. All such records shall be maintained in the manner, and presented at the time, prescribed by the CARTS staff.
- 16. The Driver is authorized to employ a Substitute Driver who shall be required to become a party to this Agreement, shall meet the same qualifications as those prescribed for a Driver, shall be responsible for carrying out the requirements of this Agreement on behalf of the Driver at such times as the Driver is not available, and in general shall stand in the place of the Driver when performing for the Driver pursuant to this Agreement. Any personal miles driven by a Substitute

Driver shall be counted as a part of the 300 miles maximum provided for the Driver. All payments to and from the Driver and to and from CARTS, shall be made as if all miles during any given month were driven by the Driver, with the understanding that the Driver will collect from, and reimburse to, the Substitute Driver on the same basis as if the payments were being made to and from the Driver.

- 17. Only the Driver or Substitute Driver is permitted to operate the van, except under emergency conditions or with the express approval of CARTS staff.
- 18. The Driver is prohibited from transporting any organized groups or anyone for hire except the rideshare passengers.
- 19. In the case of a breakdown, CARTS will make an effort to provide an alternate van. If CARTS is not able to provide an alternate van pending repair or replacement, commuters will be responsible for arranging their own transportation to and from work. Pro-ration of fares for day(s) a van fails to operate due to maintenance break downs and other cases outlined in the Operations Manual must be calculated by and have prior approval of CARTS staff.
- 20. The Driver shall prohibit the use or possession or transportation of any weapon, firearm, alcoholic beverage or any drug or other substance in violation of law within the rideshare vehicle. No smoking is allowed in any CARTS vehicle.
- 21. The Driver will not permit the use of the vehicle to pull trailers, and no trailer hitches, temporary or permanent, are to be attached to the van.
- 22. The vehicle is to be driven only on hard-surfaced public streets and highways, and other normal access roads and driveways, and is not to be driven and such places or in such manner as to expose the vehicle to unsafe conditions.
- 23. The vehicle is not to be driven over bridges or roads posted for a maximum weight of 3 tons or less.
- 24. The Driver is responsible for promptly reporting any accident involving a bodily injury or property damage, the reporting to be in accordance with the procedures outlined in the Operations Manual to be kept in the van at all times. The Driver or Substitute Driver shall be responsible for any damage to the extent that said damage is not recoverable from insurance, up to a maximum of \$100.00, and shall be fully responsible for any criminal acts arising out of the use of the van.
- 25. CARTS may terminate this Agreement without cause, or for cause, including a failure to comply with any provision, at its discretion. Any failure of CARTS to require compliance with any provision of this Agreement shall not be interpreted as a waiver thereof, and shall not prevent CARTS from enforcing or requiring compliance with such provision or requirement at any future date.
- 26. The Driver shall comply with the provisions of the Americans with Disabilities Act (ADA). The Driver hereby agrees to indemnify CARTS from and against all claims, suits, damages, costs, losses and expenses in any manner arising out of or connected with the failure of Driver, its subcontractors, agents, successors, assigns, officers or employees to comply with provisions of the ADA.
- 27. The Driver does hereby agree to indemnify and save harmless CARTS, its officers, agents and employees against all claims, actions, lawsuits and demands, including reasonable attorney fees, made by anyone for any damages, loss or injury of any kind, resulting from the negligent acts or omissions of the Driver.

- 28. All references herein to Driver shall be deemed to include Substitute Driver, but with the further understanding that the financial arrangement shall be between CARTS and the Driver with the financial arrangements between the Driver and the Substitute driver being a matter for settlement between those two parties.
- 29. While operating the van, the driver shall not use a cell phone, blue tooth device, text messaging device or equipment that may distract the attention of the Driver.
- 30. Failure to abide by any of the conditions stated above shall be grounds for termination of the lease agreement by CARTS.

IN WITNESS THEREOF, the parties hereto acknowledge the due execution of this Agreement by their signatures and on the dates indicated below.

DRIVER	DATE
SUBSTITUTE DRIVER	DATE
Craven Area Rural Transit System (CARTS)	
REPRESENTATIVE	DATE

## Rideshare Expense / Mileage Report

Rideshare #	Month / Year:
Rideshare Driver Name:	
Typical Departure Time from Park & Ride:	(ex. 7:20A)
Typical Shift Time:	(ex. 8A-5P)
Primary Van Beginning Mileage:	_ Primary Van Ending Mileage:
# of Days in the month that the van drove to work:	
Did you exceed 150 free personal miles?	
Did you have a back-up van during the month?	
If yes, please answer the questions below:	
If so, what was the Back-up van #	
Dates Back-up van utilized	
Back-up van beginning mileage:	and ending mileage:

### Passenger Manifest:

Name	Yo	es how		Amount Paid
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	I			
Drivers		\$		
Please return rideshare expense/mileage report with check made payable to CARTS no later than the 10 <sup>th</sup> of the month as outlined by your lease		\$		
agreement.				\$
CARTS				
2022 N BL 1				

2822 Neuse Blvd New Bern, NC 28562

\$

	Accident / Incident Report	
Date:		
Time:		
Vehicle #:		
Location:		
Driver Name:		
Names of Passengers		
Explain situation fully. Please be	specific and concise.	
1 7	1	
Driver Signature		

#### **Rideshare Referral Form**

Thank you for spreading the word about the CARTS Ridesharing Program! As a token of our appreciation, we want to give you a referral payment. To ensure eligibility of the referral payment, please complete and forward this Rideshare Referral Form to CARTS within 10 days of the new rideshare's start date. The form can be emailed to **EMAIL ADDRESS** or mailed to 2822 Neuse Blvd, New Bern, NC 28562. The standard referral payment amount is \$100 payable after the new rideshare is in operation for six months. At CARTS's discretion, the amount of the payment and the timeframe for payment is subject to change. Please refer to the Regional Rideshare Coordinator for the most current rideshare referral payment information.

Today's Date:
Your Name:
Your Van # / Driver Name:
Your Employer:
Your Mailing Address:
Your Phone Number:
Your Email Address:
Name of Driver / Group Referred:
Date New Rideshare Started:

Can we contact you to participate in surveys, radio or TV ads for continued promotion of CARTS's rideshare program?

We certify that to our knowledge the above information is accurate and that CARTS should issue a Rideshare Referral Payment to the individual listed below as **Payee** after the new rideshare group remains in operation for the qualifying timeframe. We also acknowledge that it is the **Payee's** responsibility to notify CARTS should their mailing address change.

Name of **Payee** (Signature)

Name of **Payee** (Print)

Name of Person Referred (Signature)

Name of Person Referred (Print)