



**The Cape Fear Public Transportation
Authority**

**Bus Stop Enhancement Plan
(2015-2020)**

January 2015

Table of Contents

Table of Contents..... 2

SECTION 1: INTRODUCTION, PURPOSE AND BACKGROUND..... 3

 1.1 Introduction 3

 1.2 Purpose 3

 1.3 Background 3

SECTION 2: BUS STOP AMENITIES 4

 2.1 Current Inventory..... 4

 A. Shelters 4

 B. Benches..... 4

 C. Trash Receptacles 4

SECTION 3: TRANSIT AMENITY STANDARDS..... 6

SECTION 4: INSTALLATION SCHEDULE 8

 4.1 Replacement of Existing Amenities..... 8

 A. Shelters 8

 B. Benches..... 8

 4.2 Addition of New Amenities 8

 A. Shelters 8

 B. Benches..... 8

SECTION 5: FUNDING OPPORTUNITIES FOR BUS STOP AMENITIES 9

SECTION 6: SPONSORSHIP PROGRAMS..... 9

 6.1 Adopt-a-Stop Program 9

 6.2 Adopt-an-Amenity Program..... 9

SECTION 7: MAINTENANCE 10

 7.1 Preventive Maintenance of Amenities 10

 7.2 Maintenance of Amenities..... 10

APPENDIX A: CURRENT INVENTORY OF BUS STOP AMENITIES 12

APPENDIX B: HIGH PRIORITY BUS STOP LOCATIONS FOR AMENITIES 15

SECTION 1: INTRODUCTION, PURPOSE AND BACKGROUND

1.1 Introduction

The Cape Fear Public Transportation Authority, (d.b.a. Wave Transit) seeks to continually create a better public transportation system. This vision can be achieved through the enhancement of bus stops through the replacement and installation of amenities including: bus shelters, trash receptacle, benches, lighting and signage. The enhancement of bus stops will provide a cleaner, safer, more secure and pleasant experience for current customers and potentially attract choice riders, users who have access to alternative modes of transportation to get to their destination but prefer to use transit. Perceptions of safety and security, as well as actual conditions, enter into a customer's decision for mode choice. Clean and well-maintained transit stops improve security and have a positive impact on the general public's perception of Wave Transit. Illumination levels from the lighting in shelters and at bus stops can act as a deterrent from criminal activities, providing increased safety and security to customers as they wait for the bus.

Enhanced bus stops also reinforce to the public Wave Transit's desire to make transit a viable mode of transportation that is comfortable and of high quality. It is the objective of Wave Transit to provide the safest, most secure, cleanest and most convenient service possible. This objective can be achieved, in part, through the enhancement of bus stops as outlined in this plan. Although Wave Transit would like to provide amenities at each bus stop location within the system, financial implications regarding capital and on-going maintenance costs does not make this feasible. Amenities will only be provided within fiscal constraints.

1.2 Purpose

For the purpose of this document, an amenity is defined as "elements provided at a transit stop to enhance comfort, convenience, safety and security". Amenities include such items as: shelters, benches, trash receptacle, lighting and signage. The purpose of this document is to outline existing amenities and identify high priority bus stop locations for the installation of amenities within the Wave Transit service area, which includes New Hanover County, the City of Wilmington, Northern Brunswick County and Pleasure Island/Carolina Beach. Outlined in this plan is a timeline for the replacement and installation of existing and new amenities within the Wave Transit system. As the community demand for enhanced quality and quantity of bus stop amenities continues to increase, the need for a plan as how best to meet the demand is essential.

1.3 Background

In 2011, Wave Transit contracted Nelson Nygaard Consulting Associates and Hayes Planning to assist in developing a Short Range Transit Plan (SRTP). In July 2012, a final report of the SRTP was released. The SRTP provides a final recommended plan for future service over the next five years. Chapter 13 of the SRTP outlines strategies for strengthening transit and reveals "Waiting for a bus is a significant part or nearly every bus rider's transit experience, and if bus stops provide a comfortable waiting

environment, people travelling to and from that area will be more likely to use transit. Conversely, if bus stops do not provide a comfortable environment, people will be less likely to use transit” (p. 81). Wave Transit would like to provide customers with upgraded amenities to ensure their experience utilizing transit is satisfactory. An increase in the quality of amenities as well as the quantity of amenities within the Wave Transit system will help to attract more choice riders, as defined in Section 1.1 of this document, to the system and ensure current customers have a satisfactory experience utilizing public transportation. The upgrade and addition of amenities throughout the service area is identified as a strategy to strengthen ridership as it aids in the comfort and security of all customers. This plan aims to capture and implement the above noted strategies as identified in the SRTP.

SECTION 2: BUS STOP AMENITIES

2.1 Current Inventory

A current inventory of amenities in the Wave Transit network is outlined below:

A. Shelters

- There are currently 437 independent bus stop locations within the Wave Transit system.
- Wave Transit has a total of 21 shelters in the existing service network. Shelters contain a trash receptacle, bench and solar lighting.
- The total percentage of shelters within the Wave Transit system is 4.8%.

B. Benches

- Wave Transit has a total of 24 independent benches, or benches not associated with a shelter, in the existing service network.
- The percentage of shelters in the existing service network is 5.5%.

C. Trash Receptacles

- Wave Transit has a total of 45 trash receptacles in the existing service network.
- With 437 bus stop locations in the entire system, the percentage of trash receptacles in the transportation network is 10.3%.

A breakdown of the amenities found on each route is outlined in the table below: Please note: the table is organized by ridership per route with the highest ridership route indicated first.

Table 2.1: Current Inventory of Bus Stop Amenities

Route Number	Total Ridership (with transfers) FY2014	Total Number of Shelters on Route	Percentage of Shelters on Route	Total Number of Independent Benches on Route	Percentage of Independent Benches on Route	Total Percentage of Amenities on Route
101	201,795	4	8.7%	4	8.7%	17.4%
201	111,033	2	5.0%	5	12.5%	17.5%
205	94,740	3	6.1%	4	10.3%	16.4%
209	91,173	3	7.7%	4	10.3%	18.0%
105	85,466	2	4.5%	6	13.6%	18.1%
202	84,133	4	9.0%	1	2.3%	11.3%
103	76,303	1	2.0%	0	0.0%	2.0%
106	74,531	4	11.1%	5	12.8%	23.9%
108	68,108	2	6.1%	7	21.2%	27.3%
104	64,825	1	2.4%	0	0.0%	2.4%
203	58,652	1	11.0%	0	0.0%	11.0%
207	44,009	1	4.7%	0	0.0%	4.7%
204	26,626	0	0.0%	1	3.8%	3.8%
107	24,158	0	0.0%	0	0.0%	0.0%
301	10,796	0	0.0%	0	0.0%	0.0%

****Please note: Table does not reflect amenities located at major transfer stations. Independent benches are benches not associated with a shelter.***

A comprehensive list of current Wave Transit amenities is outlined in Appendix A of this document. The appropriate revisions to this list will be made as amenities are added or removed from the system network. All shelter amenities and trash receptacles have reached the end of their useful life cycle and are slated for replacement. When funding permits, amenities will be replaced as they are damaged beyond repair or reach the end of their useful life.

SECTION 3: TRANSIT AMENITY STANDARDS

As indicated in Section 1.3 of this plan, it is the objective of Wave Transit to provide customers with a safe and comfortable waiting experience at all stops within the system. Additionally, enhancements at bus stops will be taken into consideration by choice riders when deciding which mode of transportation to utilize. It is not practical or economical to provide amenities at all bus stops within the system. Low density and low ridership do not warrant amenities to be placed at every bus stop location within the service network. Due to physical limitations at the bus stop site, certain bus stop locations can only accommodate a certain amenity type or not at all. Due to financial implications associated with capital and ongoing maintenance costs, it is not feasible for an amenity to be installed at every bus stop location within the system. Additionally, maintenance standards set forth by the Federal Transit Administration (FTA) could not be adhered to if the system was overinflated with amenities.

Bus stops located along major thoroughfares or in dense areas, traditionally have the highest ridership and warrant the need for amenities above and beyond a bench and trash receptacle. Other bus stop locations in less dense areas with lower volume ridership only warrant basic amenities such as a trash receptacle and/or bench. This plan takes a systematic approach by developing a hierarchy of stops based upon ridership. All fixed route bus stop locations within the Wave Transit system will be classified into three different categories. Each category will be defined to include the type of amenity it can accommodate. The hierarchical structure is outlined in Figure 3.1 below:

Figure 3.1: Bus Stop Hierarchy and Amenities

Classification	Average Weekday Boarding's	Criteria									
		Wave Bus Stop Sign	Lighting (where feasible)	Sign with Route Map	Paved Waiting Area	Seating/Bench	Trash Receptacle	Shelter	Bike Rack (where feasible)	Additional Seating	Real-time schedule information
Tier 1 (Basic Stops)	At least 50	X	X	X	X	X	X		X		
Tier 2 (Major Stops)	>50	X	X	X	X	X	X	X	X	?	
Tier 3 (Regional Stations)	Major Transfer	X	X	X	X	X	X	X	X	X	X

The above mentioned table will serve as a guide for staff when identifying bus stop locations for installation of amenities. In addition to the criteria in the hierarchal structure indicated above, area demographics and ridership demographics, along with area geography, will be taken into consideration when selecting bus stop locations for amenity installs. If a bus stop is classified as a Tier 1 (Basic Stop), but serves a high percentage of elderly individuals or individuals with disabilities, the stop may be eligible for the amenities indicated in the Tier 2 (Major Stops) category. Staff will collect the appropriate quantitative and qualitative data when identifying bus stop locations for amenity installs. Bus stop locations identified for installs and amenity installs will be compliant with ADA regulations. Sidewalks, curb cuts, and landscaping could be included at bus stop locations and amenities where applicable and if/when funding for capital and ongoing maintenance permits.

SECTION 4: INSTALLATION SCHEDULE

4.1 Replacement of Existing Amenities

A. Shelters

As indicated in Section 2.1 (A) of this document, the current Wave Transit system contains a total of 21 shelters. Each shelter will receive a rating based on its current condition. As funding permits, shelters in the poorest condition and located along major thoroughfares will be slated for replacement within a one year time period. The remaining shelters in the system will be replaced over a two year time period in accordance to the condition rating assigned by staff. The accompanying trash receptacle(s) will be replaced with each shelter replacement.

B. Benches

As indicated in Section 2.1 of this document, the Wave Transit system currently contains 24 independent benches. Each bench will be assessed by staff and receive a rating based on its current condition. As funding permits, benches in the poorest condition will be slated for replacement within a one year time period. The remaining benches in the system will be replaced over a two year time period in accordance to the condition rating assigned by staff. The accompanying trash receptacle will be replaced with each bench replacement.

4.2 Addition of New Amenities

A. Shelters

Wave Transit will work toward increasing the number of shelters within the system by five (5) per year over the next five (5) years for a total of 25 shelters over the indicated time frame. If the number of bus stops remains constant over the five year time frame, the total number of shelters within the Wave Transit system would increase to 10.5% by the year 2020.

It is understood that funding constraints could impact the feasibility of this timeline. This timeline will be followed so long as funding for capital and on-going maintenance is available. A list and map of high priority bus stop locations for shelter installations can be found in Appendix B of this document. Shelter amenities will be added in accordance to the criteria as identified in Section 3 of this document.

B. Benches

Wave Transit will work toward increasing the number of independent benches within the system by five (5) per year over the next five (5) years for a total of 25 new independent benches over the indicated time frame. If the number of bus stops remains constant over the five year time frame, the total number of independent benches within the Wave Transit system would increase to 11% by the year 2020. It is understood that funding constraints could impact the

feasibility of this timeline. This timeline will be adhered to so long as funding is available. Independent bench amenities will be added in accordance to Section 3 of this document.

SECTION 5: FUNDING OPPORTUNITIES FOR BUS STOP AMENITIES

Wave Transit staff will actively pursue local, state and federal grant opportunities to fund the replacement and addition of amenities in accordance to the established timeline outlined in the previous section. Grant opportunities include, but are not limited to, the following: § 5307, § 5310, STP-DA, TAP-DA and § 5339. High priority bus stop locations will be identified, when applicable, in the applications for above mentioned grants. Amenities will be installed according to the **Bus Stop Hierarchy and Amenities** identified in Section 3 of this document.

SECTION 6: SPONSORSHIP PROGRAMS

6.1 Adopt-a-Stop Program

Wave Transit's Adopt-A-Stop program relies upon community partnerships to help maintain bus stops throughout the Wave Transit system. Through the Adopt-a-Stop program, Wave Transit helps ensure that our community remains a beautiful place to live and visit. Anyone is eligible to adopt a bus stop, including civic groups, businesses, and individual home owners. Individuals or groups can select a Wave Transit bus stop in their neighborhood to adopt for a commitment of one year. The adopter pledges to keep their adopted bus stop clean by performing the following duties:

- Regularly maintain (at least once per week) the adopted bus stop by keeping it litter free
- Ensure connecting sidewalk is free of debris
- Report any vandalism, disturbances and safety issues directly to Wave Transit

Wave Transit will be responsible for addressing any issue brought forth by an adopter and for providing safety vests for adopters to wear while maintaining the bus stop.

The adopter will receive recognition by Wave Transit for their excellent community service through the following means:

- Recognition signage will be placed at adopted bus stop
- Included as a sponsor on the Wave Transit website
- Included in all marketing material for the Adopt-a-Stop program

More information, including the adoption application, can be found on the Wave Transit website.

6.2 Adopt-an-Amenity Program

In an effort to improve the local community, Wave Transit implemented an Adopt-an-Amenity program designed to enhance the experience while utilizing public transportation, actively involve community groups and organizations who support the importance of public transportation, and to create partnerships that work together for the

betterment of the community. Individuals or community groups interested in sponsoring an amenity or amenities at a bus stop location are encouraged to participate in the Authority's Adopt-an-Amenity Program. All sponsorships shall be coordinated through the Director of Planning and Development. The following amenity sponsorship options are available under the Adopt-an-Amenity program:

1. A bench and trash receptacle on a concrete pad (engineered site design is required for this option)
2. A bench, shelter (with lighting) and trash receptacle on a concrete pad (engineered site design is required for this option)

The type of amenity to be installed will depend upon the bus stop location. Wave Transit staff will provide guidance as to which bus stop locations can accommodate certain amenities and which bus stop locations are available for sponsorship.

To ensure installations meet appropriate standards, Wave Transit will oversee the purchase of benches, shelters and trash receptacles, seek required permitting and supervise installation. Sponsors must adhere to the specifications for bench and shelter sponsorship as outlined in the Adopt-an-Amenity program. Once installed, Wave Transit is responsible for performing the required maintenance as it does for amenities it has placed at other bus stop locations along fixed bus routes. Wave Transit will retain title to sponsored amenities. Sponsors will be recognized as follows:

1. Plaque or appropriate marker on the sponsored bench or shelter
2. Included as a sponsor on the Wave Transit website
3. Included in marketing material for the Adopt-an-Amenity Program

More information, including the sponsorship application, can be found on the Wave Transit website.

SECTION 7: MAINTENANCE

7.1 Preventive Maintenance of Amenities

The preventive maintenance schedule for bus stop amenities is outlined in the Authority's Facility and Equipment Maintenance Plan. Amenities will be entered into Assetworks, the Authority's maintenance scheduling software to ensure the asset is maintained to the FTA state of good repair requirements. Preventive maintenance will be scheduled and tracked through the Assetworks software system. The responsibility of preventive maintenance for bus stop amenities falls under the Facilities Maintenance Department.

7.2 Maintenance of Amenities

It is the responsibility of the Facilities Maintenance Manager and/or his/her designee to perform maintenance on all amenities. If damage to a shelter, bench, or trash receptacle is reported or observed, it is the responsibility of the Facilities Maintenance Manager and/or his/her designee to make the necessary repairs. Maintenance will be performed and tracked by the Facilities Maintenance Manager through the Assetworks software system. If a shelter or bench is damaged beyond repair, the incident will be

investigated. If it is determined that replacement amenities can be installed at the bus stop location, it will be replaced with existing inventory. If there are no available amenities for replacement, the bus stop location will be added to a list for amenity install when new amenities arrive. Amenities that are beyond repair but components are still in good working order, will be retained and used for replacement parts.

APPENDIX A: CURRENT INVENTORY OF BUS STOP AMENITIES

Figure 1: Inventory of Bus Shelters

Bus Stop Location	Route(s)	Quantity
Downtown Transfer Station	108 and all 200 series routes	3
Independence Mall Transfer Station	105/106/209	2
Market St. (EB) and Kerr Ave. (Food Lion Shopping Center)	101/106/108	1
Front St. (NB) and Castle St. (Solomon Towers)	201/205	1
Sigmon Rd. (EB) at WalMart Shopping Center	101	1
4 th St. (SB) at MedNorth Health Center	101	1
17 th St. (NB) at New Hanover County Health Department	205/209	1
5 th St. (SB) and Castle St. (Hall's Drug Store)	202	1
Wrightsville Ave. (WB) at Cape Fear Memorial Hospital	103	1
Carolina Beach Rd. (SB) and Shipyard Blvd. (Roses Shopping Center)	106/201	1
Dawson St. (EB) and 9 th St. (Jervay Housing Complex)	202/209	1
Rankin St. (EB) and 11 th St.	101	1
Market St. (EB) and Covil Ave. (CVS Store)	104/108	1
Market St. (EB) at YMCA	108	1
Independence Blvd. (NB) and Park Ave. (Hanover Shopping Center)	105/106/202	1
Front St. (NB) and Harnett St. (PPD)	203/207	1
Greenfield St. (EB) and 13 th St.	205	1
S. College Rd. (SB) and Shipyard Blvd. (Senior Center)	202	1
Total Number of Shelters		21

Figure 2: Inventory of Benches

Bus Stop Location	Route(s)	Quantity
Sigmon Rd. (EB) at WalMart Shopping Center	101	1
Market St. (WB) at Red Roof Inn	101/105/106/108	1
Market St. (WB) at Budgetel Inn	101/105/108	1
Market St. (WB) at Church's Chicken	105/106/108	1
16 th St. (SB) and Parmele Dr.	105/205/209	1
16 th St. (SB) at New Hanover Medical Group	105/205/209	1
17 th St. (SB) at New Hanover Regional Medical Center (Women's and Children's Center)	105	1
Covil Ave. (SB) and Broad St.	106	1
Darlington Ave. (NB) at Main Housing Complex	106	1
Market St. (EB) and Cinema Dr. (Sonic)	101/106/108	1
Market St. (WB) at YMCA	108	1
Market St. (EB) at Port City Java	108	1
Carolina Beach Rd. (SB) and Central Ave.	201	1
Carolina Beach Rd. (SB) and Shipyard Blvd. (Hardee's)	201	1
Carolina Beach Rd. (SB) and Horn Rd. (Monkey Junction Pit Stop)	201	1
Carolina Beach Rd. (NB) at Legion Stadium	201	1
Carolina Beach Rd. (NB) and Tennessee Ave. (Bank of America)	201	1
16 th St. (SB) at Hospital Plaza Dr.	205/209	1
Castle St. (WB) and 11 th St.	202	1
Old Regent Way (NB) at Harris Teeter	204	1

Racine Dr. (SB) at Racine Commons	712	1
Medical Center Dr. (WB) and Centerwood Dr.	205	1
5 th St. (NB) and Meares St.	209	1
Market St. (EB) and 9 th St. (Cape Fear Museum)	108	1
Total Number of Benches		24

APPENDIX B: HIGH PRIORITY BUS STOP LOCATIONS FOR AMENITIES

Figure 1: NCDOT Right of Way

	Bus Stop Location	Route(s)	Comments
1.	South College Rd (SB) at Harris Teeter	103/107/UNCW Green	Existing sidewalk network at current location.
2.	South College Rd. (SB) and Randall Pkwy. (Halloween and More Store)	103/104/107	Existing sidewalk network at current location
3.	Oleander Dr. Fordham Rd. (Whole Foods)	103/202	Transfer point between two routes. Existing sidewalk network at current location.
4.	South College Rd. (NB) at Kmart	103/107	Bus stop can be moved to connect with existing sidewalk network
5.	New Center Dr. (EB) at Applebee's Restaurant	103/104/UNCW Blue	Existing sidewalk network at current location. Bus stop may have to be moved further East on New Center Dr.
6.	Gordon Rd. (WB) and Military Cutoff Rd. (Food Lion)	104	Existing sidewalk network at current location
7.	16 th St. (SB) at Kidder St.	105/209	Existing sidewalk network at current location
8.	16th St. (SB) at New Hanover Medical Group	105/205/209	Bench and existing sidewalk network at current location
9.	17 th St. (SB) at Food Lion Shopping Center	105/209	Existing sidewalk network at current location
10.	Independence Blvd. (NB) and Converse Dr.	105/106/209	Existing sidewalk network at current location
11.	Shipyards Blvd. and Commons Dr.	105/106/209	Existing sidewalk network at current location
12.	Carolina Beach Rd. (NB) at Legion Stadium	201	Bench and existing sidewalk network at current

			location
13.	17 th St. (SB) at Hospital Plaza	202	Bench and existing sidewalk network at current location
14.	Military Cutoff Rd. (NB) at Drysdale Rd. (Public Library)	104	Existing sidewalk network at current location
15.	Market St. (EB) at Lullwater Dr. (Miller Motte College)	101/104/106/108	Existing sidewalk network at current location
16.	Dawson St. (EB) at 5 th St. (Urgent Care Family Practice)	202	Existing sidewalk network at current location
17.	Independence Blvd. (NB) and Canterbury Dr. (Alderman Elementary School)	105/106/209	Existing sidewalk network at current location
18.	Eastwood Rd. (EB) and Cardinal Rd.	104	Connects to Cross City Trail
19.	Shipyards Blvd. (EB) at Family Dollar	106	Existing sidewalk network at current location
20.	Princess Place Dr. (EB) at Rachel B. Freeman Elementary School	101	Existing sidewalk network at current location
21.	Princess Place Dr. (WB) at Montgomery Dr.	101	Bus stop must be moved further west in order for site location to accommodate a shelter
22.	Wilshire Blvd. (EB) and Brooks Crossing	105	Existing sidewalk network at current location

Figure 2: Non-NCDOT Right of Way

	Bus Stop Location	Route(s)	Comments
1.	Monkey Junction	107/201/301	No sidewalk network at bus stop location
2.	Dawson St. (EB) at 5 th St. (Urgent Care Family Practice)	202	Existing sidewalk network at current location
3.	South 17 th St. (WB) and John D. Barry Dr.	201	Shelter was removed due to unrepairable damage
4.	Randall Pkwy (WB) at Brailsford Dr.	104	Concrete pad installed at this location with the widening of Randall Pkwy project. High concentration of individuals with disabilities
5.	41 st St. (NB) at Brightmore Retirement Community	202	High concentration of elderly individuals and individuals with disabilities. Existing sidewalk network at current location
6.	Danny Pence Dr. at Laney High School	207	High concentration of students with disabilities
7.	Medical Center Dr. (WB) and Carolina Beach Rd.	205	Existing sidewalk network at current location
8.	Nixon St. (WB) and 5 th St.	101	High concentration of elderly individuals and individuals with disabilities. Existing sidewalk network at current location
9.	Rutledge Dr. (WB) and Vance St. (Brigade Boys and Girls Club)	106	Existing sidewalk network at current location
10.	Veteran’s Park Visitor’s Center (Ashley High School)	301	Location serviced by Route 301 in both directions (inbound and outbound)
11.	41 st . St. at Hoggard High School	202	Encroachment agreement and Right of Way permit

			secured for this location
12.	10 th St. (NB) and Meares St.	205	Existing sidewalk network at current location
13.	Nixon St. (WB) and 8 th St. (DC Virgo Middle School)	101	Existing sidewalk network at current location
14.	Wellington Ave. (EB) and 17 th St. (Hamm Hearing Aid)	205	Bus Stop would need to be moved in the eastbound direction to connect with existing sidewalk network
15.	Greenfield St. (WB) and 13 th St.	205	Existing sidewalk at current location