

ADDENDUM PREPARED BY

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SEPTEMBER, 1985

UNDERWATER ARCHAEOLOGICAL SITES

IN THE

WILMINGTON HISTORICAL DISTRICT

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TABLE OF CONTENTS

INTRODUCTION.....	1
DESCRIPTION OF PROJECT AREA	1
SITE DESCRIPTION.....	2
Category 1 – Paddle Wheel Steamboats	3
0001CFR - Eagles Island Steamer - Figure 2	4
0003CFR - <i>A.P. Hurt</i> - Figure 3	4
0027CFR - <i>H.G. Wright</i> - Figure 3.....	5
Category 2 - Tugboats	6
0010CFR - <i>Stone 5</i> - Figure 3	6
0011CFR - <i>Dolphin</i> - Figure 3.....	6
0012CFR - <i>Stone 6</i> - Figure 3	7
0013CFR - <i>Minnesota</i> - Figure 3.....	7
0014CFR - <i>Stone 3</i> - Figure 3.....	8
0015CFR - <i>Argonauta</i> - Figure 3.....	8
0028CFR - <i>Stone 4</i> - Figure 3	8
0006CFR - Bulkhead Tugboat - Figure 2	9
0041CFR - Intact Tug - Figure 2	9
Category 3 – Launches	10
0019CFR - Eagles Island Launch - Figure 2	10
0022CFR - Skinner's Dock Wreck - Figure 2.....	10
0033CFR - <i>Cherokee</i> - Figure 3.....	10
Category 4 - Skiffs.....	11
0017CFR - Eagles Island Skiff #1 - Figure 3	11
0034CFR - Eagles Island other Skiff - Figure 3	11
Category 5 - Ferries	11
0016CFR - <i>John Knox</i> - Figure 3	11
Category 6 – Miscellaneous Vessels	12
0018CFR - Last One Wreck - Figure 2	12
0029CFR - Iron Rudder Wreck - Figure 2.....	12
0030CFR - Splayed Wreck - Figure 2	13
0021CFR - Stone Dry Dock and Marine Railway - Figure 3	13
0002CFR - Orange Street Wreck - Figure 3.....	13
Category 7 – Barges.....	14
0004CFR - Barge #1 - Figure 2	14
0005CFR - Barge #2 - Figure 2	15
0007CFR - Barge #3 - Figure 2	15
0008CFR - Barge #4 - Figure 2	15
0009CFR - Steam Crane Barge #1 - Figure 2.....	15
0020CFR - Bulkhead Barge - Figure 2.....	16
0024CFR - Sanded Barge - Figure 2	16
0025CFR - Little Barge - Figure 2.....	16
0026CFR - Government Barge - Figure 2	17

0031CFR - <i>Argonauta</i> Barge - Figure 3	17
Map 1. Map of the Wilmington Historic District.....	19
GENERAL SIGNIFICANCE	20
SPECIFIC CRITERIA	20
BIBLIOGRAPHY	23
WILMINGTON SURVEY WRECK INVENTORY	24
Figure 1.	27
Figure 2.	27
Figure 3.	
Figure 4.	29
Figure 5.	30
Figure 6.	31
Figure 7.	32
Figure 8.	33
Figure 9.	34
Figure 10.	35
Figure 11.	36
Figure 12.	37
Figure 13.	38
Figure 14.	39
Figure 15.	40
Figure 16.	42
Figure 17.	42
Figure 18.	43
Figure 19.	44
Figure 20.	45
Figure 21.	46

INTRODUCTION

In June and July of 1983 the Underwater Archaeology Unit of the North Carolina Division of Archives and History spent two weeks documenting wrecked and abandoned vessels in the Cape Fear River adjacent to Wilmington, North Carolina. Although this section of the river is within the boundaries of the existing Wilmington National Register Historic District, no previous attempt had been made to inventory these vessel remains or other archaeological sites along the shoreline or beneath the water.

The methodology employed during the 1983 survey consisted primarily of a visual inspection of the nearshore portions of the river at low tide. In addition, three submerged sites, reported by local divers, were examined. For each wreck located an underwater archaeological site form was completed recording the site dimensions, condition, environmental setting and general description. In addition the sites were photographed and the position of the bow and stern were recorded using established transit stations and plotted on a project map.

DESCRIPTION OF PROJECT AREA

The Cape Fear River, as it flows through Wilmington has an average width of 700 feet and is subject to a daily tidal variation of 4.2 feet. The U.S. Army Corps of Engineers currently maintains a 32-foot-deep-by-400-foot-wide navigation channel in this part of the river. On the east, or Wilmington side of the river the shoreline has been almost entirely bulkheaded and the river bottom drops sharply away to the channel. From Market Street south the shoreline has changed little in the past fifty years and many of the numerous wharves that once served the Water Street warehouses and businesses are still present, some maintained and others in ruin. North of Market Street the shore has been extensively altered particularly by urban renewal efforts during the 1960s. Here, the former slips have been bulkheaded and filled, the wharves removed and the warehouses and industrial buildings torn down.

On the opposite side of the river from Wilmington, along Eagles Island, the

shoreline is heavily vegetated and the land is quite low. The bottom on this side of the river is composed of a thick mud and the drop is very gradual from the shore to the channel. As a result more of the river bottom is exposed at low tide.

During the nineteenth century Eagles Island was the scene of a great deal of industrial activity including turpentine distilleries naval stores warehouses, and shipyards. Today, with the exception of the USS *North Carolina* Battleship Memorial, there are no commercial enterprises or residences between the Cape Fear River Memorial Bridge and Point Peter. However, there is abundant physical evidence of the past activity. The remains of bulkheads and wharves can be seen along the water's edge and the shoreline is littered with rubble and debris. At the now inoperative R.F. Hamme and R.R. Stone Marine Railways some of the work shops and machinery houses still stand. Furthermore, this section of shoreline along Eagles Island is the resting place for dozens of derelict and abandoned vessels clearly visible at low tide. It was in an effort to document these vessels that the 1983 survey project was organized.

SITE DESCRIPTION

Of the 37 sites documented during the 1983 survey, 34 were found along the shoreline of Eagles Island. All of these sites are at least partially buried in the mud sediment and many can be seen only at low tide.

The other three vessels examined during the survey, sites 0002CFR, 0003CFR, and 0022CFR are located in 15-20 feet of water on the Wilmington side of the river. Both sites 0002CFR and 0003CFR are known to have sunk during storms while tied to their wharves. It is presumed that site 0022CFR was also lost accidentally.

The condition of the wrecks varies greatly. Some, though weathered, are virtually intact and other consists only of the bottom part of the hull. Many of the wrecks still contain ships equipment such as steam and diesel engines, pumps, boilers, fuel tanks, iron bitts, cleats and chocks. Much of this equipment was antiquated or inoperable at the time the vessels were abandoned accounting for its not being salvaged. However, there is also evidence that various iron objects and brass fittings have been removed over the years either for the scrap value or as souvenirs.

The main environmental factor affecting the wreck sites is the daily exposure to both air and water as the tide rises and falls. The wooden portions of the wrecks buried in the mud are well preserved. By contrast the wood exposed to the air decays at a relatively high rate of deterioration. Iron fastenings and objects are in a surprisingly good state of preservation. This is particularly true of the various pieces of machinery.

The sites located in 1983 are mostly vessels designed for river and harbor use. In order to facilitate comparison of the various sites the wrecks have been grouped into categories based on their type and function. The categories are: paddle wheel steamboats, tugboats, launches, skiffs, ferries, miscellaneous vessels, and barges. Each is preceded by a brief description of that type of vessel.

In some instances local informants provided identification for the vessels. It was then possible to collect further historical information on the sites from various editions of the "Annual List of Merchant Vessels of the United States" published by the Department of Commerce. In the following site descriptions when a wreck has been identified, with a reasonable degree of certainty, the site name is the same as the vessel name and appears in italic letters. The remaining site names are those that were applied in the field.

Category 1 – Paddle Wheel Steamboats

Three paddle wheel steamboats were located in the survey area. This type of vessel has a long and interesting history on the Cape Fear River. The first steamboat to come to Wilmington was the *Prometheus*, a stern-wheeler built by Otway Burns in Beaufort, North Carolina in 1818. The last documented paddle wheel steamboat used on the river was the *Thelma* which operated until 1939. In the period between these dates, particularly during the last half of the nineteenth century, the paddle wheel steamboat was the main means for transporting goods and passengers up and down the Cape Fear River and its major tributaries, the Black River and the Northeast Cape Fear River. Steamboat service also extended up some of the smaller tributaries such as Town Creek, Smith's Creek, Long Creek and Moores Creek. Because of the narrow and crooked nature of these rivers and creeks, stern-wheel boats were more prevalent

than side-wheelers as they had narrower beams. The typical Cape Fear River steamboat carried cargo in the hold and on the deck and had cabins and a galley for passengers above the main deck. Often the steamer would tow one or more barges located with cargo.

0001CFR - Eagles Island Steamer - Figure 2

This site is the remaining portions of a mid-nineteenth century side-wheel steamboat 128 feet in length with a 28-foot beam. Although the identity of the vessel has not been determined, a 1924 aerial photograph of the Cape Fear River shows the wreck in a high state of deterioration covered with a thick growth of vegetation indicating that it had already been abandoned for a long period at that time.

The vessel lies parallel to the river with the bow to the south. Only the bottom portion of the hull remains and this is almost entirely buried in the mud and visible only at low tide. In addition to the hull frames and planking the remains of a plug-stock rudder, the side wheels, and a horizontal iron fire tube boiler are still present at the site. The spokes of the paddle wheel and the exposed portion of the boiler have been cut off and removed from the site sometime after the 1924 photograph. Portions of the paddle wheel shaft support timbers and the inclined wooden engine beds are also present protruding out of the mud in the amidships area.

0003CFR - A.P. Hurt - Figure 3

The *A.P. Hurt* was an iron hull stern-wheel steamboat built in Wilmington, Delaware in 1860 by the Pusey & Jones Company for the Cape Fear Steamboat Company. The vessel came to Wilmington, North Carolina in 1860 and operated on the Cape Fear, primarily between Wilmington and Fayetteville, until 1923. During the Civil War the *A.P. Hurt* was used by the Confederacy as a transport and was eventually captured by Union forces. In 1913 the vessel caught fire and was partially burned. After being rebuilt the name was changed to the *C.W. Lyon*. The steamer caught fire again in 1915 and after being refurbished and renamed the *A.P. Hurt* was put back into service on the river. On March 6, 1923 the *A.P. Hurt* loaded with fertilizer and general merchandise sank at City Market Wharf during a severe gale.

Several newspaper accounts from the 1930s and 1940s state that the *A.P. Hurt* was the first vessel to be built with steel plates in the United States.

The remains of the *A.P. Hurt* lie submerged in 20 feet of water between Dock and Orange Street with the bow pointing to the north. The superstructure reportedly broke away when the vessel sank and is no longer present at the site. The metal hull is virtually intact with the starboard or nearshore side completely buried and the port side exposed approximately four feet above the river bottom. The over hanging deck beams remain in place and decking is still intact near the bow and stern. Much of the interior of the hull has filled up with sediment and modern debris. A horizontal boiler is still in place near the bow and two horizontal, high pressure, slide valve, steam engines with an 11-inch bore and 42-inch stroke are still mounted on either side of the square stern. The piston rods, connecting rods, and paddle wheel shaft and rims are also present. The displaced smoke tack is lodged against the paddle wheel.

0027CFR - *H.G. Wright* - Figure 3

The *H.G. Wright* was built in Fayetteville, North Carolina in 1882 for use by the Corps of Engineers as a snag boat. The 102-foot-by-20-foot, wooden, sternwheel steamboat operated for a number of years clearing logs and snags from the Cape Fear River and its major navigable tributaries, the Black River and the Northeast Cape Fear River. In the 1930s the vessel was purchased by Mr. R.R. Stone and taken to his boat yard on Eagles Island. The *H.G. Wright* was used by Mr. Stone as a galley and dining area for the mid-day meal.

The abandoned remains of the *H.G. Wright* are still located at the Stone Marine Railway. Lying perpendicular to the river, the buried bow of the vessel is on dry land while the stern is in the water and submerged at high tide. The entire site is covered with a thick growth of marsh grass. Near amidships is a horizontal fire tube boiler and two horizontal, high pressure, slide valve, steam engines are still mounted on the stern. The engines have an 8-inch bore and a 3-foot-2-inch stroke. The engines are still attached by the piston rod, cross head and connecting rod to the 9-foot-9-inch-diameter stern paddle wheel. With the exception of the now missing wooden blades the paddle wheel is intact. The vessel's three parallel rudders are also present at the

site.

Category 2 - Tugboats

Tugboats served several functions on the river. They were used to assist sailing ships and large powered ships up and down the Cape Fear River from Wilmington to the ocean. They were also used to tow and push barges both up and down the river above Wilmington and to other ports along the coast.

Most of the tugboats documented during the survey are located in the vicinity of the Stone Marine Railway on Eagles Island. According to Messrs. Russel and Harris Stone, current owners of the Stone Towing Company, these boats were abandoned during the 1930s and 1940s due to the economic factors of the depression and a general trend toward larger diesel powered tugboats as size of ships coming up the river increased.

0010CFR - *Stone 5* - Figure 3

This boat, originally named the *Sadie E. Culver*, was built in Whitehaven, Maryland as a wooden hull, 35-ton schooner in 1896. Sometime prior to 1919 the vessel was converted to a diesel powered, screw propelled fishing boat and operated out of Beaufort, North Carolina. By 1930 the *Sadie E. Culver* had come to Wilmington and was used as a fishing boat by the J.W. Thompson Company of Southport, North Carolina. In the 1930s the boat was purchased by Mr. R.R. Stone, renamed *Stone 5*, and used as a tugboat on the Cape Fear River.

The abandoned remains of the *Stone 5* are located at the now inoperative Stone Marine Railway on Eagles Island. Although the wheelhouse of the *Stone 5* has collapsed the lower hull is relatively intact. A 4-cylinder Fairbanks-Morse diesel engine, fuel tanks, towing bits, rudder and various fittings remain in place and are visible at low tide. The vessel has a length of 80 feet and a beam of 22 feet.

0011CFR - *Dolphin* - Figure 3

The *Dolphin* was built in 1896 in Brooklyn, New York as a wooden hull, screw steamboat. It is not known when the vessel began operation on the Cape Fear

River.

The remains of the *Dolphin* are located at the Stone Boat yard on Eagles Island. The vessel is 70 feet long and has a beam of 18 feet. The wheelhouse has collapsed but the hull of the vessel is relatively intact. A vertical fire tube boiler remains in place although the stack has broken off and is lying on the deck. The well preserved 2-cylinder steple steam engine is still mounted in the vessel. Most of the site is visible at low tide

0012CFR - Stone 6 - Figure 3

Originally named the *Atlantic City* this vessel was built in Newark, New Jersey in 1890 as a screw steamboat and by 1904 was operating out of Charleston, South Carolina. Sometime prior to 1919 the *Atlantic City* came to Wilmington, North Carolina and by 1930 the steam engine had been replaced by a diesel engine and the boat renamed *Stone 6*. The 84-foot-by-20.5-foot vessel has a wooden hull.

The abandoned remains of the *Stone 6* are located at the Stone Marine Railway on Eagles Island. The hull is intact and although the wheelhouse has collapsed, portions of the superstructure including the galley and head are still standing. The engine has been removed from the vessel but the fuel tanks remain. Iron mast steps are located on the main deck near the bow and stern and the wreck is flooded up to the deck level at high tide.

0013CFR - Minnesota - Figure 3

The *Minnesota* has a wooden hull and was built in Trenton, New Jersey in 1910 as a diesel powered, screw propelled fishing boat. The vessel was purchased by the Southport (N.C.) Fish Scrap and Oil Co. prior to 1930 and was used for fishing and freight transport.

The abandoned remains of the *Minnesota* are located on Eagles Island just north of the Stone Marine Railway. The hull of the vessel is intact up to the deck level but no superstructure is left at the site. A 4-cylinder Fairbanks-Morse diesel engine remains in place. A bow mounted windlass, a water tank, and fishing net doors are also present at the site. The site lies perpendicular to the river buried in the mud and is

visible only at low tide.

0014CFR - *Stone 3* - Figure 3

The *Stone 3* boat was built in Southport, North Carolina as a wooden hull, diesel powered screw tugboat in 1905 and was originally named the *Isabelle*. The 50-foot-by-13.4-foot vessel was renamed *Stone 3* sometime prior to 1930.

The abandoned remains of the *Stone 3* lie buried in the mud, exposed at low tide just north of the Stone Boat Yard on Eagles Island. The hull is intact but the superstructure is no longer present. Wooden fender guards run the length of the vessel below the gunnel and a set of iron towing bitts are in place near the stern. A 4-cylinder Fairbanks-Morse diesel engine is still mounted in the boat.

0015CFR - *Argonauta* - Figure 3

The *Argonauta* is an iron hull, steam powered screw tugboat, built in Camden, New Jersey in 1876. The 80-foot-by-18.5-foot vessel was purchased by the U.S. Government in 1890 and used by the Corps of Engineers in Charleston Harbor, South Carolina. By 1930 the *Argonauta* had been purchased by R.R. Stone for use on the Cape Fear River.

The abandoned remains of the *Argonauta* are located just north of the Stone Boat Yard on Eagles Island lying perpendicular to the river. The deck and superstructure are no longer present and the bow section has broken loose from the rest of the hull. A horizontal fire tube boiler remains in place in good condition and the well preserved 2-cylinder, fore-and-aft, compound steam engine is still mounted in the hull. With the exception of the boiler dome and the bow section the entire site is under water at high tide.

0028CFR - *Stone 4* - Figure 3

This 40.4-foot-by-12.6-foot wooden hull vessel, originally named the *Eva*, was built in Southport, North Carolina in 1915 as a diesel powered, screw tugboat. By 1930 the boat had been renamed the *Stone 4* and was owned by Mr. R.R. Stone of Wilmington.

The abandoned remains of the *Stone 4* are located at the Stone Marine Railway

on Eagles Island. Although the superstructure is no longer present the hull is virtually intact. A 3-cylinder diesel engine, and towing bits are still mounted in the hull. The site is submerged at high tide and the wreck is covered by a heavy growth of marsh grass.

0006CFR - Bulkhead Tugboat - Figure 2

The remains of this approximately 50-foot-by-13-foot vessel are intact up to the gunnel and lie partially buried in the mud parallel to the river with the bow to the north. The site is located just south of the Hamme Marine Railway and the hull is entirely filled with brick and other rubble. The presence of wooden pilings along the starboard side, between the boat and the river, and the rubble filled hull indicate that the vessel was placed in this location intentionally to be used as a bulkhead.

Although it is not possible to examine the interior of the hull and determine the type of propulsion or possible vessel use, the heavy construction of the vessel is similar to that used for tugboats.

0041CFR - Intact Tug - Figure 2

This wood hull vessel had been identified by Mr. Donald Bordeaux, of Bordeaux Salvage and Marine Construction Company and Mr. William Murrel, of Wilmington Shipyard, as the diesel powered tugboat *Isco*. The vessel was abandoned sometime in the 1960s. It is not known when or where the *Isco* was built but it is reported to have come to Wilmington from Virginia. The site is located between the Hamme and Stone Marine Railways and the 55-foot-by-16-foot vessel lies perpendicular to the river alongside a dilapidated pier.

Although the wood hull of the *Isco* is severely weathered and partially covered with vegetation the vessel is relatively intact. The superstructure is still in place and includes the wheelhouse, galley and head. The diesel engine was removed before the vessel was abandoned, however, two fuel tanks are still located in the hull as are the rudder and towing bits.

Category 3 – Launches

The term launch is used here to mean a large, open motorboat. These boats could serve a variety of functions including fishing, carrying cargo or passengers, or towing barges.

0019CFR - Eagles Island Launch - Figure 2

Only the forward 13.5 feet of this boat are exposed above the mud bottom at low tide. The beam at this point is 6 feet indicating an overall length of approximately 25 feet. The presence of iron strapping on the bow and the relatively heavy framing and planking indicate the vessel was built as a work boat probably powered with a gasoline or diesel engine. The site is located just south of the Hamme Marine Railway on Eagles Island.

0022CFR - Skinner's Dock Wreck - Figure 2

This relatively small, 27-foot-by-6-foot vessel lies completely submerged in 20 feet of water, with the bow pointed up river, adjacent to the now dilapidated wharf of the former Skinner Marine Railway and Boat Yard on the Wilmington side of the river. The bottom portion of the hull, although buried in as much as 4 feet of mud sediment is intact. The port side of the hull has broken loose at the turn of the bilge but the starboard side is still attached. The hull planking is fastened to the frames with copper nails. The 6-foot-long engine timbers are present amidships but the engine and propeller shaft have been removed. The vessel was most likely powered by a diesel or gasoline engine. The boat was probably used as a launch or small towing boat.

0033CFR - Cherokee - Figure 3

This 34-foot-by-7.5-foot vessel is located at the Stone Marine Railway on Eagles Island. The wooden hull vessel was identified by Mr. Russel Stone as a gasoline powered, screw launch named the *Cherokee*. The vessel probably dates from the first quarter of the twentieth century.

The remains of the *Cherokee* are mostly buried in the mud and are exposed at low tide. No superstructure remains at the site but the hull and decking are intact. The

engine has been removed from the boat, however the rudder and wooden bitts are still present.

Category 4 - Skiffs

Two small boats, less than 20 feet in length, were located during the survey. These flat bottomed boats were probably powered by oars and were most likely locally made during the early twentieth century.

0017CFR - Eagles Island Skiff #1 - Figure 3

This 16-foot-by-3.5-foot wooden skiff lied buried in the mud, exposed at low tide on Eagles Island opposite Market Street. The boat has a sharp bow, flat bottom and square transom.

0034CFR - Eagles Island other Skiff - Figure 3

Located on Eagles Island opposite Market Street this 17-foot-by-4.5 foot wooden skiff is buried in the mud bottom and exposed at low tide. The boat has a sharp bow, a square transom and flat bottom.

Category 5 - Ferries

Ferries have been in operation across the Cape Fear River from the foot of Market Street to Eagles Island since the early eighteenth century. Until the twentieth century the ferry was a barge type vessel propelled by oars. In the early 1900s a gasoline motor launch was used to pull the barge across the river. Finally in 1919 a diesel powered ferryboat, the *John Knox*, was put in service.

0016CFR - *John Knox* - Figure 3

The *John Knox* was a diesel powered ferryboat built in Morehead City, North Carolina in 1919 for use on the Cape Fear River. A February 15, 1935 advertisement in the *Wilmington News* described the *John Knox* as follows:

"One double end ferryboat 80 feet long, 37 foot beam, 7 1/2 foot draft. Equipped with 100 horse power Fairbank-Morse semi-Diesel engine,

electric lighting plant and necessary life preservers. Two driveways, cabin on each side. Will accommodate eight or ten automobiles and 200 passengers or more. In good condition and fully equipped and ready for immediate service."

The completion of a highway bridge across the river in the 1930s put the *John Knox* out of business. In June of 1937, while inactive and moored on the Eagles Island side of the river, the *John Knox* caught on a piling and sank.

The remains of the *John Knox* lie parallel to the river resting on its side in 15 feet of water. The superstructure and decking are no longer present but the hull is relatively intact. The upper portions of frames protruded above the water at low tide.

Category 6 – Miscellaneous Vessels

These sites include wrecks that were either too deteriorated or too deeply buried in the mud to identify the vessel type or use. Also included in this category are a floating dry dock and marine railway, and a relatively modern steel hull vessel tentatively identified as the *Blanchard*.

0018CFR - Last One Wreck - Figure 2

This 86-foot-by-20-foot wreck is barely exposed at low tide. The site is located between the Government Boat Yard and the Hamme Marine Railway on Eagles Island and lies parallel to the shoreline. The bow is pointed to the north and the intact hull is buried with only the tops of frames protruding above the mud. The wreck appears in a 1924 aerial photograph of the river and was badly deteriorated at that time. The buried portion of this wreck should be in an excellent state of preservation. Based on the limited amount of the site that is exposed it is not possible to determine the vessel's means of propulsion or use.

0029CFR - Iron Rudder Wreck - Figure 2

The Iron Rudder Wreck measures 60 feet by 19 feet and lies buried in the mud perpendicular to the river south of the Hamme Marine Railway. Only the bottom portion of the hull to the turn of the bilge is left at the site. In the stern section a

wooden engine bed, a propellor shaft guide timber, and an iron rudder are still present. Just forward of the engine bed a mortise has been cut in the keelson resembling a mast step.

0030CFR - Splayed Wreck - Figure 2

This 47-foot-by-9-foot wreck is buried in the mud and just barely exposed at low tide. The site is located just south of the Hamme Marine Railway on Eagles Island. The sides of the vessel have broken away from the bottom of the hull and lie flat on the bottom. Without further investigation it is not possible to determine the vessel's means of propulsion or use. The highly deteriorated condition of the wreck indicates that it was abandoned in the late-nineteenth century or early-twentieth century.

0021CFR - Stone Dry Dock and Marine Railway - Figure 3

Located at the Stone Marine Railway are the remains of a wooden floating dry dock and a marine railway and cradle. The hull and decking of the dry dock are intact and measure approximately 75 feet by 20 feet. Designed to be flooded, placed under a vessel, and pumped clear of water to raise the vessel, the dry dock is now completely submerged at high tide.

The tracks of the marine railway still lead into the water in the railway slip and the cradle is still intact at the waters edge. Along the shoreline of the railway slip are the discarded remains of a variety of marine related equipment such as steam and diesel engines, anchors, propellers, and boilers.

0002CFR - Orange Street Wreck - Figure 3

This site was reported by local divers as the remains of the *A.P. Hurt* (see site 0003CFR). Although the location of this wreck, at the foot of Orange Street, corresponded with the generally reported location for the *A.P. Hurt*, an examination of the site revealed that this was not the remains of the mid-nineteenth century stern-wheel steamboat. Eventually the *A.P. Hurt* was discovered 100 feet north of the Orange Street Wreck. According to Mr. Donald Bordeaux or Bordeaux Salvage and

Construction Company this wreck is a steel hull vessel named the *Blanchard*. Mr. Bordeaux stated that the *Blanchard* was built on the Great Lakes in the 1930s and came to Wilmington in the 1950s and sank while tied to its wharf. The vessel reportedly had two gasoline engines and twin screw propellers and was used as a yacht. No official documents have yet been located on the *Blanchard*.

The 115-foot-by-18-foot steel hull vessel is lying on its port side in 15 to 20 feet of water. The superstructure is no longer present at the site and the engines, propeller shafts and propellers have been removed. The after half of the vessel is still decked. A number of port holes and small brass fittings have reportedly been removed from the wreck by local divers.

Category 7 – Barges

A total of 14 wooden barges were located during the survey. These sites exhibit a remarkable variety of designs and construction techniques. Several of the barges were built to perform specific functions such as the hopper barges and those containing steam crane machinery. It must be assumed that most of the rest were used to carry various types of cargo.

Although barges have always been prevalent and performed a vital role in the harbor and on the river it is extremely difficult to document the history of an individual barge. However, based on the condition of the barge sites relative to the condition of other identified vessels in the survey area, it is likely that most of these barges were constructed during the period 1875 to 1925.

0004CFR - Barge #1 - Figure 2

This 72-foot-by-15-foot, wooden, rectangular barge lies partially buried in the mud and is exposed at low tide. The hull planking is edge fastened with iron drift pins and both ends are raked. A longitudinal bulkhead runs down the center of the barge and numerous stanchions are located in the after part of the hull indicating that at least this end of the barge was originally decked. No decking is left at the site and the sides and bulkhead have fallen over. The wreck is located just south of Hamme Marine Railway on Eagles Island resting perpendicular to the river.

0005CFR - Barge #2 - Figure 2

Located on Eagles Island south of the Hamme Marine Railway the remains of this barge can be seen already abandoned in a 1924 aerial photograph. The 84.5-foot-by-24.5-foot rectangular wood barge is divided into four compartments. The bottom of these compartments are designed to open for use as a hopper barge. This type of barge is used in dredging operations in which the hull is filled with dredge spoil. The barge is then towed to the disposal area where the bottom opens to discharge the spoil. The ends of the barge are raked and the hull is heavily constructed.

0007CFR - Barge #3 - Figure 2

This large 133.5-foot-by-32.5-foot hopper barge is located at the Hamme Marine Railway on Eagles Island. The barge has been placed along the railway berth to form a bulkhead with pilings driven in along the side to keep it in place. The barge is shown in its present location in a 1924 aerial photograph indicating that it was used as a hopper barge during the late-nineteenth century.

The barge has raked ends, five 15-foot-by-28-foot hopper compartments and is heavily constructed.

0008CFR - Barge #4 - Figure 2

This site, located between the Stone and Hamme Marine Railways on Eagles Island, is a rectangular, frame and plank constructed, wooden barge. Athwartship deck beams are still present but no decking remains on the barge. The barge lies perpendicular to the river and is exposed at low tide. The west end of the barge is raked and the east end is plumb.

0009CFR - Steam Crane Barge #1 - Figure 2

This 60-foot-by-20-foot rectangular barge is located just south of the Stone Marine Railway on Eagles Island. The relatively intact barge contains a vertical fire tube boiler and a geared, cable windlass assembly, powered by two small horizontal

steam engines. According to Mr. Donald Bordeaux of Bordeaux Salvage and Construction Company, this barge was used in the 1920s and 1930s as a pile driver. The crane boom is now missing from the site.

The sides of the barge are constructed of frames with inner and outer hull planking and three longitudinal truss-type bulkheads run the length of the hull. The north end of the barge is raked and the south end is plumb. At high tide the entire barge except for the boiler and windlass assembly are under water.

0020CFR - Bulkhead Barge - Figure 2

This heavily constructed, wooden, rectangular barge has been placed on the shoreline, parallel to the river, to serve as a bulkhead. The barge has been filled with rubble and the north end filled with concrete and merged with a concrete bulkhead. The presence of the rubble, concrete, and a heavy growth of vegetation makes it difficult to determine the extremities of the wreck, but it is approximately 45 feet by 15 feet. The longitudinal 3-inch-by-8-inch side hull planking is edge fastened with iron drift pins. A layer of vertical 2-inch-by-10-inch planking has been attached to the outside of the side hull planking. Three athwartship bulkheads are present in the interior of the barge and deck beams are still in place. No decking is left at the site. The southern end of the barge is raked.

0024CFR - Sanded Barge - Figure 2

Located just north of the Cape Fear River Memorial Bridge this lightly constructed 35-foot-by-17-foot barge is mostly buried in the sand bottom and exposed only at low tide. The wooden barge is rectangular and both ends are raked. Two athwartship bulkheads are located in the hull.

0025CFR - Little Barge - Figure 2

This small, but heavily constructed barge is located just north of the Cape Fear River Memorial Bridge. The bottom of the 21-foot-by-7-foot barge is buried in the sand but the sides protrude above the bottom and are exposed at low tide. The barge is rectangular, constructed of wood, and contains two athwartship bulkheads.

0026CFR - Government Barge - Figure 2

This site is located just north of the Cape Fear River Memorial Bridge in an area that was once part of the Government Boat Yard on Eagles Island. The barge can be seen already abandoned in a 1924 aerial photograph of the Cape Fear River. The rectangular barge measures 75 feet by 32 feet, is constructed with heavy timbers, and is divided into five compartments by four athwartship bulkheads. The outer hull planking is composed of an inner layer of longitudinal planking covered by a second layer of vertical planking. Numerous pieces of chain and cable, and iron tiedowns are located inside the barge indicating it may at one time have carried heavy machinery.

0031CFR - *Argonauta* Barge - Figure 3

This 55-foot-by-17-foot wood barge is located just north of Stone Marine Railway on Eagles Island. The barge lies perpendicular to the river and is adjacent to the steam tugboat *Argonauta*. The bottom of the barge is buried in the mud and the partially intact sides are visible only at low tide. Deck support stanchions are located in the interior of the barge but the deck is now missing. The side hull planking is edge fastened with iron drift pins and both ends of the barge are raked.

0032CFR - Wright Barge - Figure 3

Located adjacent to the stern-wheel steamboat *H.G. Wright* at the Stone Marine Railway, this wooden barge measures 54 feet by 19 feet. Both ends of this rectangular barge are raked and three longitudinal deck beams, supported by stanchions are still in place. Although most of the barge is exposed at low tide much of the site is covered with vegetation.

0039CFR - South Battleship Barge

This site is located 200 yards north of the USS *North Carolina* Battleship Memorial on Eagles Island. Lying perpendicular to the river the site is exposed at low tide and the western half is filled with mud and covered by a heavy growth of marsh grass. The 20-foot-by-68-foot barge is divided by four athwartship bulkheads and the

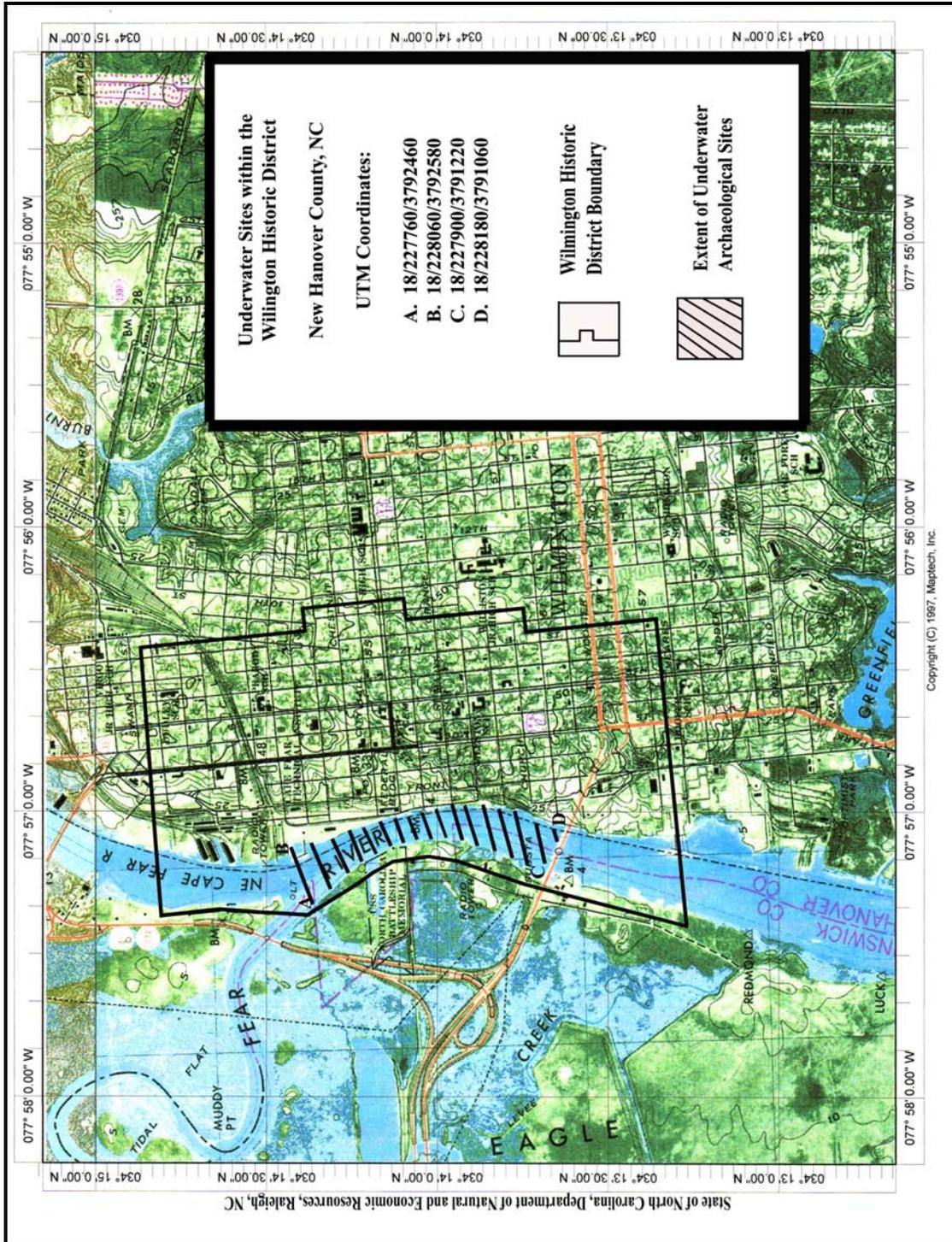
side hull is formed with frames and planks. The eastern end of the barge is raked.

0040CFR - North Battleship Barge

This 24-foot-by-75-foot wooden barge is located adjacent to the South Battleship Barge on Eagles Island. This barge is rectangular with raked ends and the side hull planking is edge fastened. The site is visible at low tide and most of the western half covered with a dense growth of marsh grass.

0042CFR - Steam Crane Barge #2 - Figure 2

Located between the Hamme and Stone Marine Railway and next to site 0009CFR, Steam Crane Barge #1, this 60-foot-by-20-foot rectangular barge contains two dislodged cable windlass assemblies. Each windlass assembly is powered by two small horizontal steam engines. A vertical fire tube boiler, now lying on its side, and a rectangular hot well are also located inside the barge. The west end of the barge is raked and the east end is plumb. The side hull is constructed with frames and planks and three longitudinal bulkheads run the length of the barge. The site is exposed at low tide and much of the hull is filled with mud and covered with vegetation.



Map 1. Map of the Wilmington Historic District

GENERAL SIGNIFICANCE

The extensive collection of lost and abandoned vessels located along the Wilmington waterfront is unique in North Carolina. No other port or body of water in the State contains such a concentrated number of relatively intact shipwreck sites. Since Wilmington has long been North Carolina's major sea and river port it is not surprising that a large number of wrecks are located in the harbor. However, it is extremely fortunate that these vessels were abandoned along a portion of shoreline where maritime activity was on the decline. This has meant that the sites have remained virtually undisturbed by subsequent harbor and river development and subject only to natural deterioration. Additionally, the research value of these sites is enhanced by the simple fact that they can be visually examined and photographed during periods of low tide. This is a tremendous asset in an area where underwater visibility averages one-foot.

SPECIFIC CRITERIA

The shipwreck sites located during the 1983 Wilmington Waterfront Survey meet criterion C (embody the distinctive characteristics of a period and method of construction) and criteria D (have yielded, or are likely to yield, information important to history).

These 37 shipwreck sites represent a cross section of vessel types used on the Cape Fear River from the mid-nineteenth to the early twentieth century. As a class of workboats these riverboats, tugboats, ferries, and barges, made significant contributions to the development and expansion of Wilmington. Unfortunately, plans and records documenting the construction of these vernacular craft are extremely difficult to locate and for the most part are non-existent. Likewise, contemporary literature on naval and marine architecture generally ignores the small utilitarian craft of the harbors and rivers in favor of large ocean going military and merchant ships. As a result the collection of shipwrecks found in the Wilmington harbor represents a unique repository of information detailing various aspects of marine architecture and

ship's construction. In addition, these vessels contain a remarkable collection of well-preserved machinery including: 12 steam engines, 8 boilers, 4 early diesel engines, as well as an assortment of pipes, valves, and fittings.

The following are examples of general and specific research areas that if pursued could provide considerable insight into these and other underwater archaeological sites.

1. Although the 1983 survey included a comprehensive inspection of the river's shoreline there are doubtless many sites, either submerged or buried in the bottom, that were not detected. Therefore, one of the most immediate research needs is for further surveys, particularly ones using electronic remote sensing equipment, to locate and document additional shipwreck sites.
2. The shipwreck sites offer a unique opportunity to observe vessels of similar type in varying degrees of deterioration. By continuing to observe and monitor this deterioration process important information can be gained on post-depositional processes affecting these vessels and shipwreck sites in general.
3. A detailed study of the various barges could eventually lead to the formulation of classes or categories of wooden barges based on size, shape, construction techniques and function. Such a classification system would be extremely useful in providing typological identification of similar barge remains found in rivers throughout the state.
4. An examination of site distribution can provide a better understanding of where undetected wrecks might exist. For instance: is vessel abandonment more prevalent around shipyards and marine railways? or, are certain areas of a harbor more likely to contain abandoned vessels? By determining trends or patterns in vessel abandonment it may be possible to predict site distribution in other harbors.
5. Since many of the sites have been identified it would be possible to conduct a comparative study of building techniques (i.e., types of woods used, hull design, and types of fastenings) between those vessels constructed in North Carolina and those

built in the northeastern United States.

6. The systematic collection of selected pieces of machinery from the sites, such as steam and diesel engines, paddle wheels, and boilers, has tremendous potential for the development of interpretive displays on steam and diesel engineering. Several museums, have already expressed an interest in obtaining various pieces of this machinery for their collection.

There is an inextricable link between the vessels that sailed the Cape Fear River and the growth and development of the city of Wilmington. Wilmington was, and remains, a port city. The residences and commercial buildings within the existing historic district were for the most part, built by people involved in maritime trade and commerce. It is extremely appropriate therefore that these vessels be included as an integral and meaningful part of this district.

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WILMINGTON SURVEY WRECK INVENTORY

0001CFR	Eagles Island Sidewheel Steamer
0002CFR	Orange Street Wreck
0003CFR	<i>A.P. Hurt</i>
0004CFR	Barge #1
0005CFR	Barge #2
0006CFR	Bulkhead Tugboat
0007CFR	Barge #3
0008CFR	Barge #4
0009CFR	Steam Crane Barge #1
0010CFR	<i>Stone 5</i>
0011CFR	<i>Dolphin</i>
0012CFR	<i>Stone 6</i>
0013CFR	<i>Minnesota</i>
0014CFR	<i>Stone 3</i>
0015CFR	<i>Argonauta</i>
0016CFR	<i>John Knox</i>
0017CFR	Eagles Island Skiff #1
0018CFR	Last One Wreck
0019CFR	Eagles Island Launch
0020CFR	Bulkhead Barge
0021CFR	Stone Dry Dock and Marine Railway
0022CFR	Skidders Dock Wreck
0024CFR	Sanded Barge
0025CFR	Little Barge
0026CFR	Government Barge
0027CFR	<i>H.G. Wright</i>
0028CFR	<i>Stone 4</i>
0029CFR	Iron Rudder Wreck
0030CFR	Splayed Wreck
0031CFR	<i>Argonauta</i> Barge
0032CFR	<i>Wright</i> Barge
0033CFR	<i>Cherokee</i>
0034CFR	Eagles Island Other Skiff
0039CFR	South Battleship Barge
0040CFR	North Battleship Barge

0041CFR
0042CFR

Intact Tug
Steam Crane Barge #2

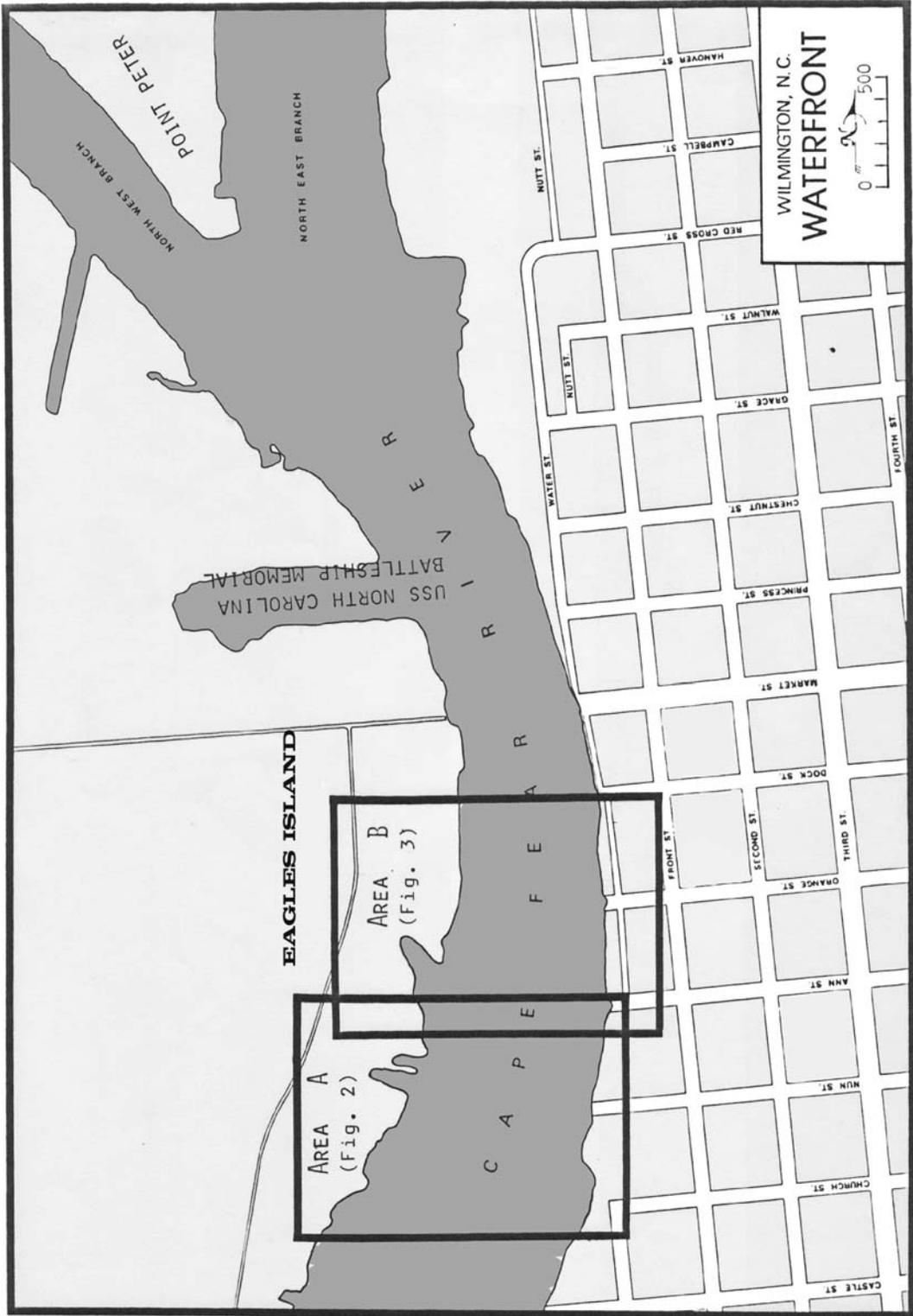


Figure 1. Map of Downtown Wilmington and Eagles Island

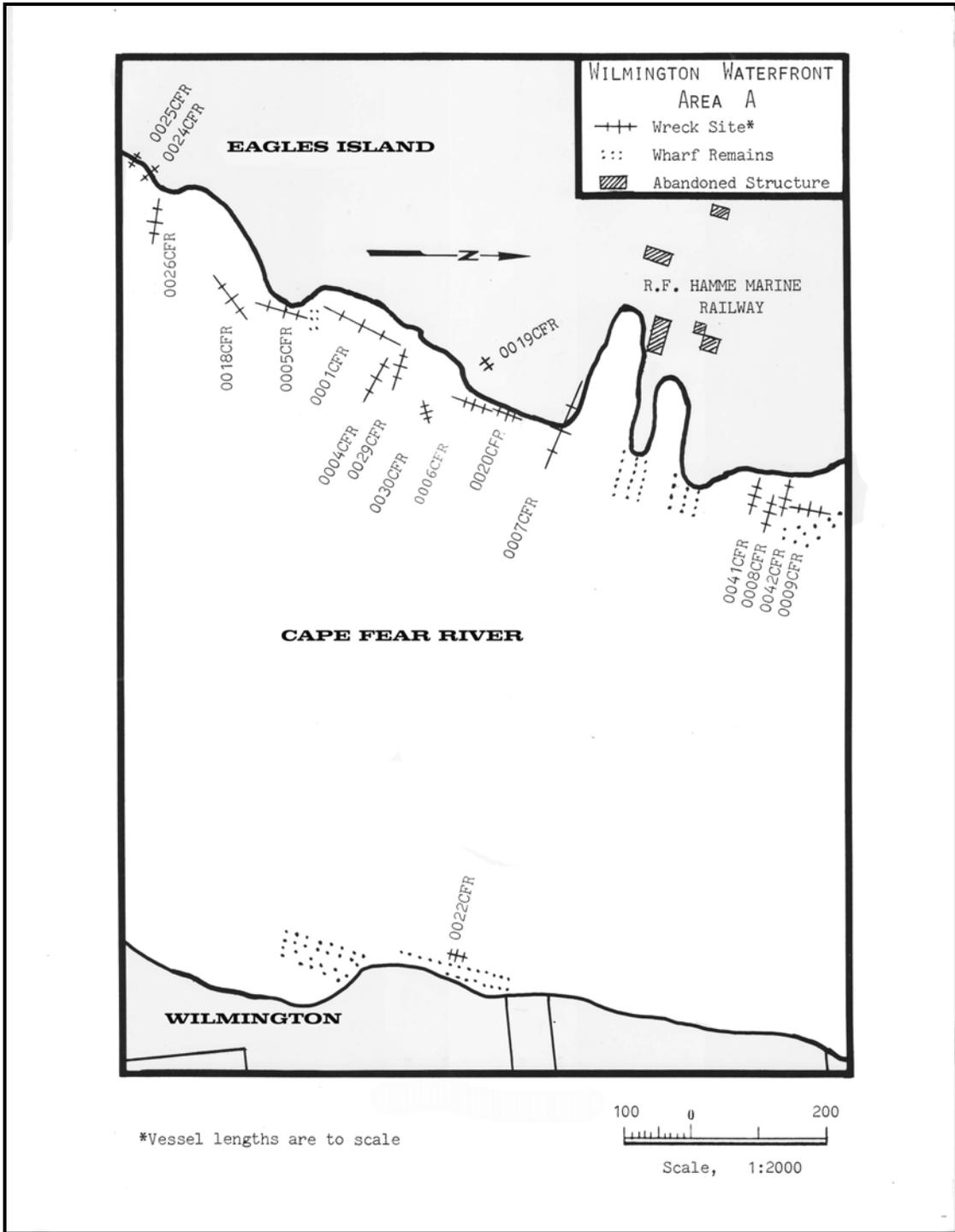


Figure 2. Area A Site Map

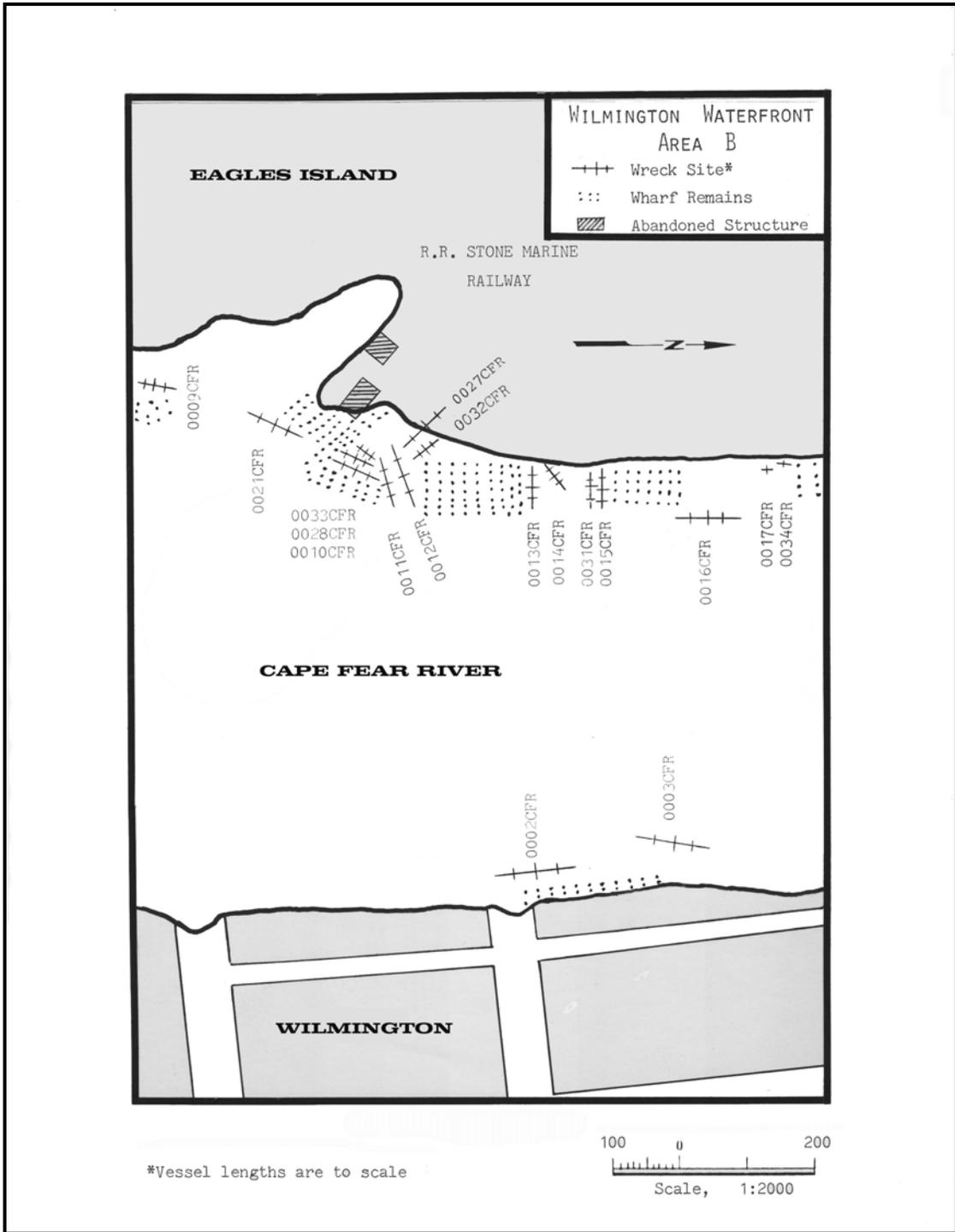
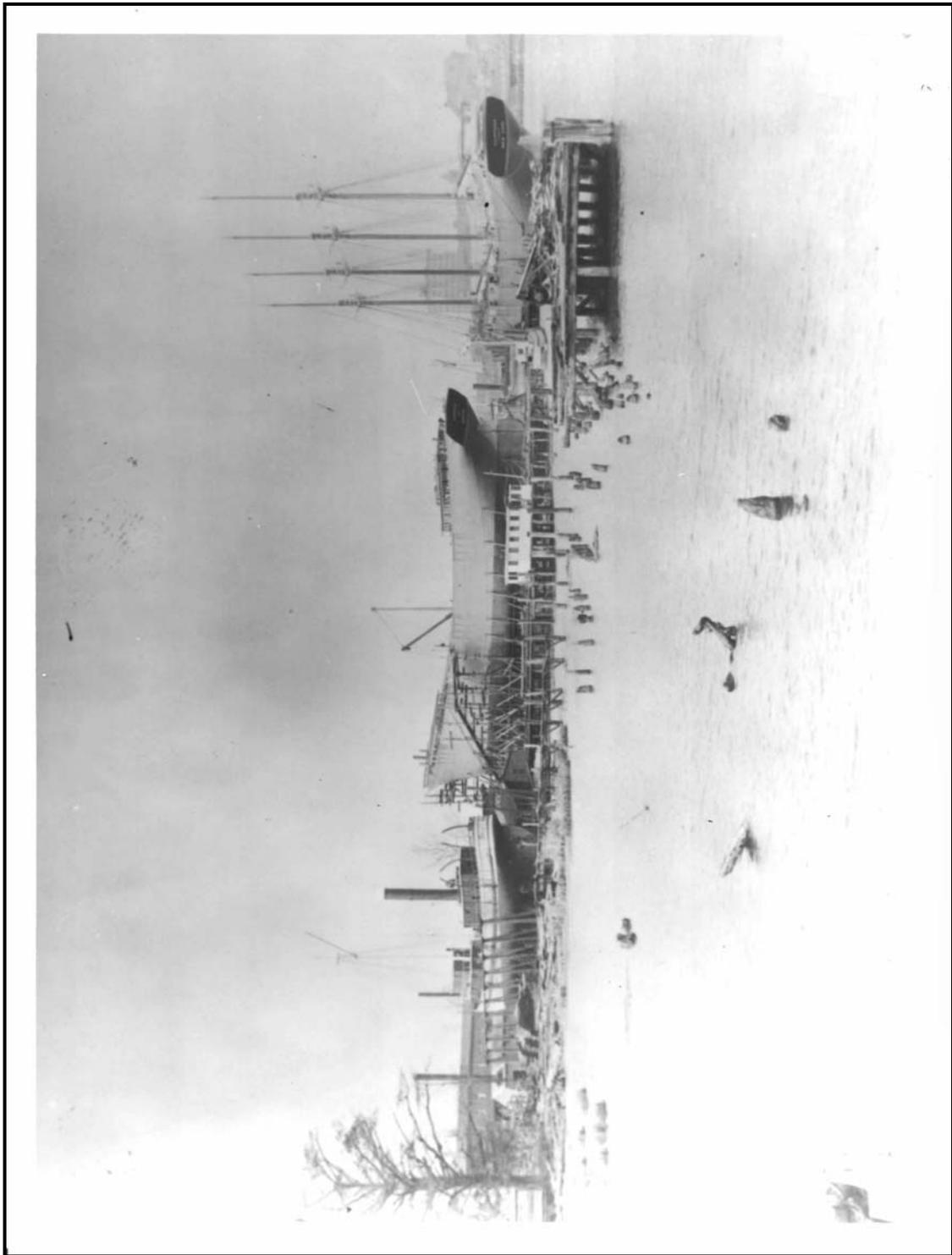


Figure 3. Area B Site Map



**Figure 4. The schooners *Commack* and *Hoppange* under construction at
Wilmington Iron Works Shipyard and tugboat hauled out at
Stone Marine Railway**

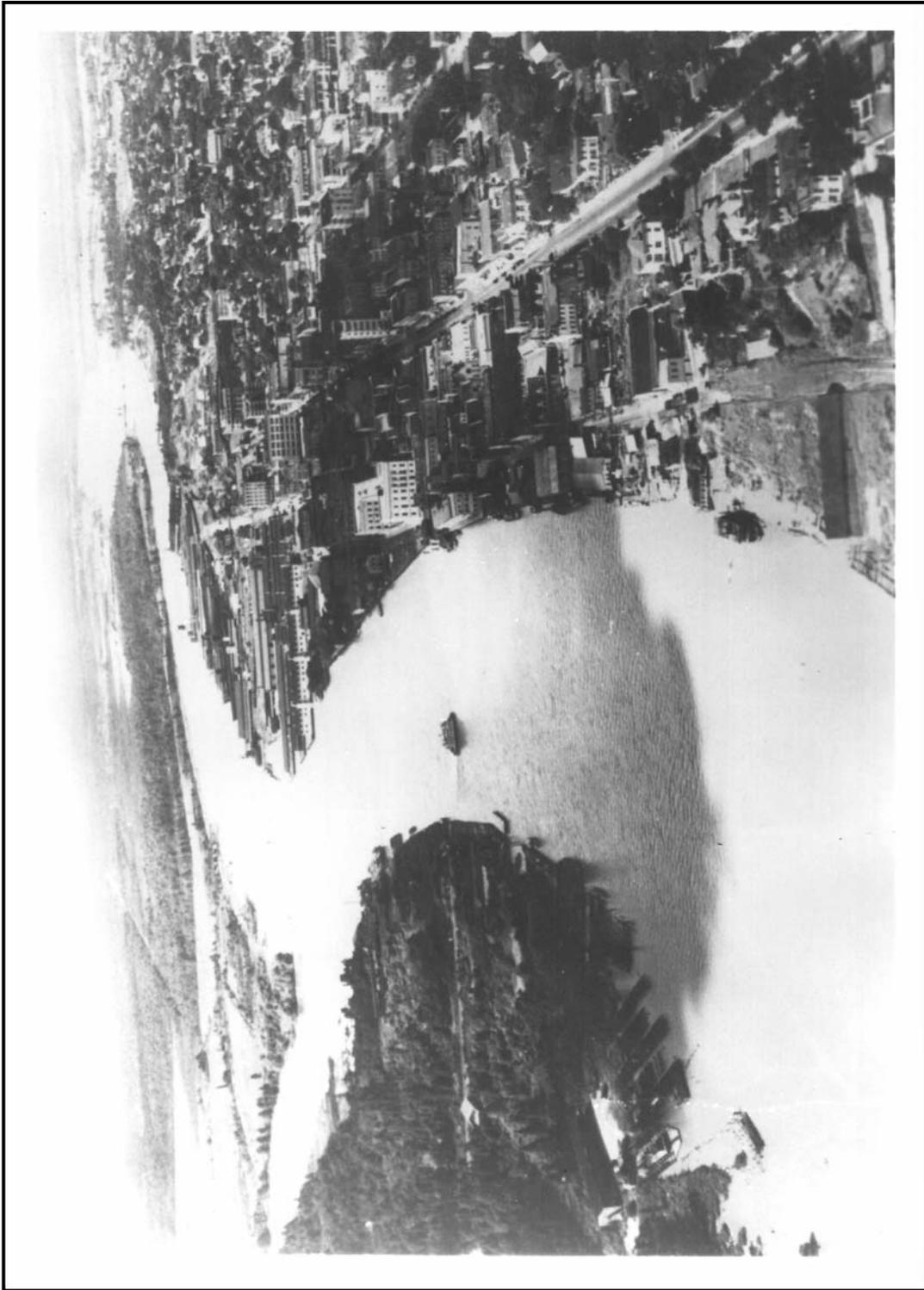


Figure 5. Aerial view showing Wilmington and Eagles Island waterfronts. Ferry boat in operation is *John Knox*, site 0016CFR.



Figure 6. Aerial photograph showing sites: 0008CFR, 0009CFR, 0010 CFR, 0011CFR, 0012CFR, 0021CFR, 0027CFR, 0028CFR, 0032CFR, 0041CFR, 0042CFR.



Figure 7. Remains of Eagle Island sidewheel steamer (0001CFR) exposed at low tide looking north, showing bow, machinery timbers, and remains of sidewheels and boiler.

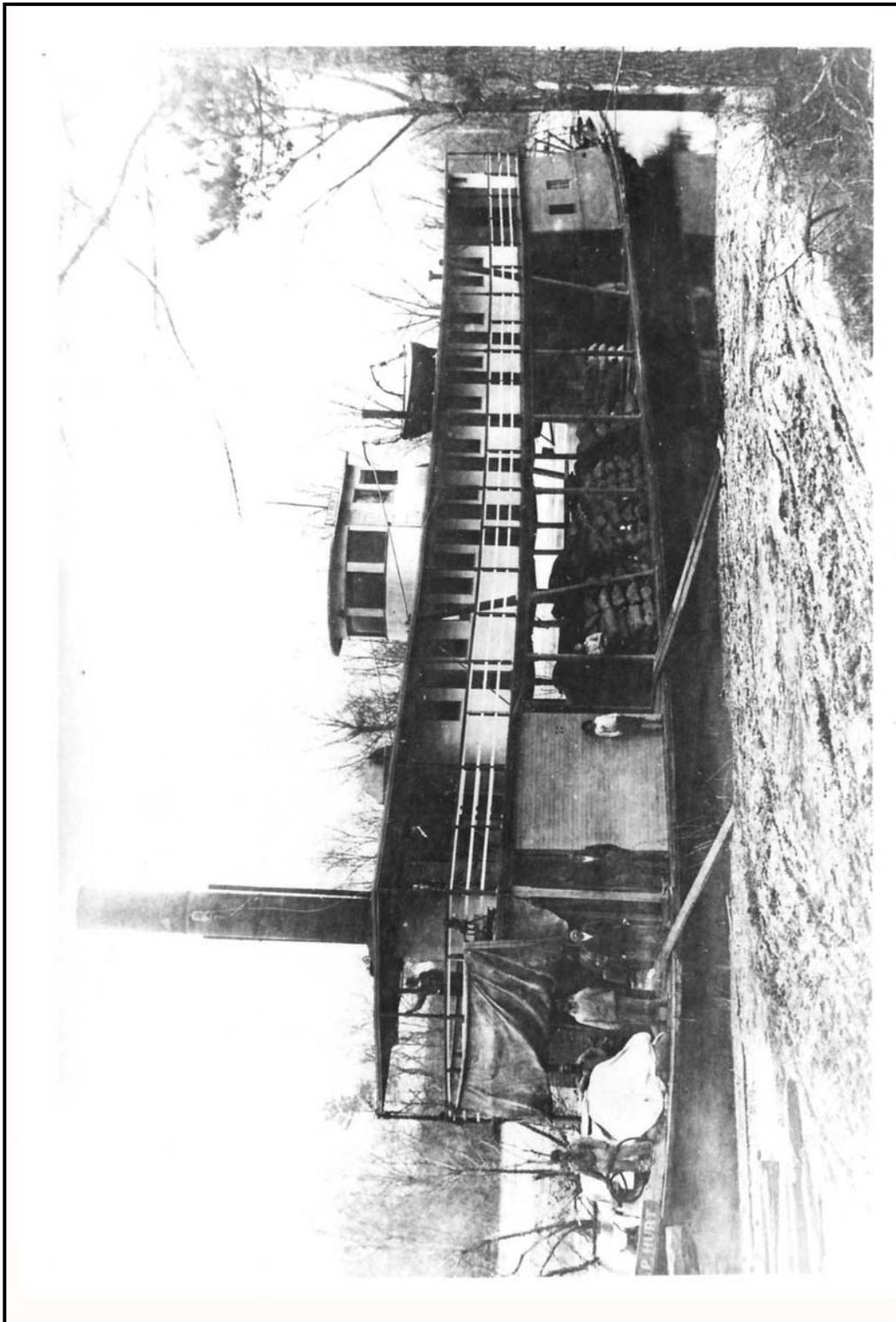


Figure 8. Sternwheel steamboat *A. P. Hurt* while still in service.



**Figure 9. Wilmington shoreline between Dock and Orange Streets looking north.
The *A. P. Hurt* lies submerged immediately downstream
of the tugboats.**



Figure 10. Stern section of *H. G. Wright* showing stern paddle wheel and one of two horizontal steam engines.



Figure 11. *Stone 5* looking south, showing rudder post, towing bitts, 4-cylinder diesel engine, fuel tanks and collapsed wheel house.



Figure 12. Remains of *Stone 3* at low tide, looking east, with bow in foreground, showing 4-cylinder diesel engine and towing bitts.

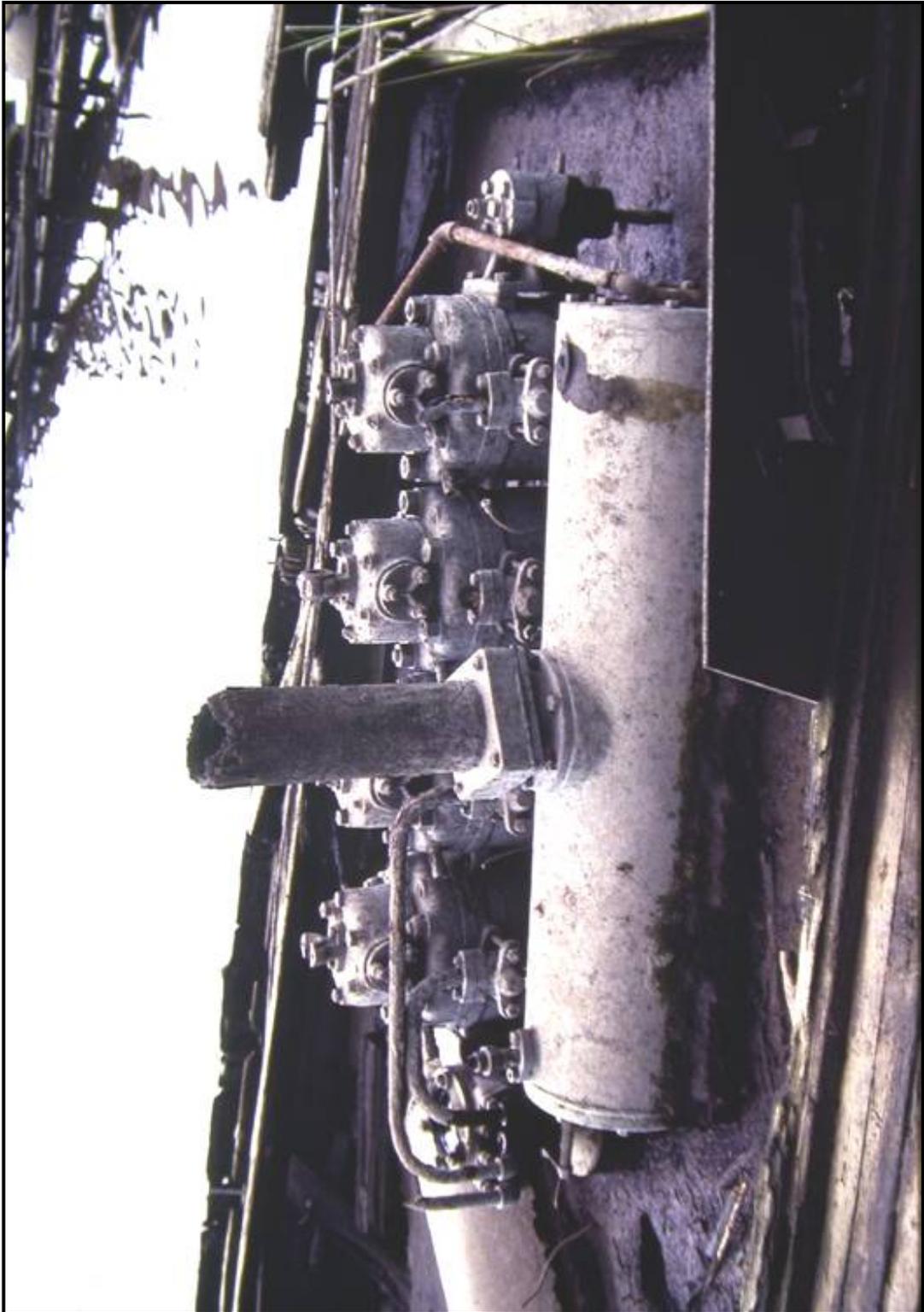


Figure 13. Example of early 4-cylinder Fairbanks-Morse diesel engine aboard the *Stone 3*.



Figure 14. Iron hull tugboat *Argonauta* at low tide, looking east, and showing horizontal fire tube boiler and steam engine.



Figure 15. Well preserved 2-cylinder steam engine aboard the *Argonauta*.



Figure 16. Vessel remains (0029CFR), at low tide, looking east, showing keelson, engine bed timbers and iron rudder.



Figure 17. Wilmington shoreline at Orange Street looking east. White buoys mark the end of the Orange Street Wreck, (0002CFR).



Figure 18. Barge at low tide (0005CFR), looking north, showing hopper compartments.

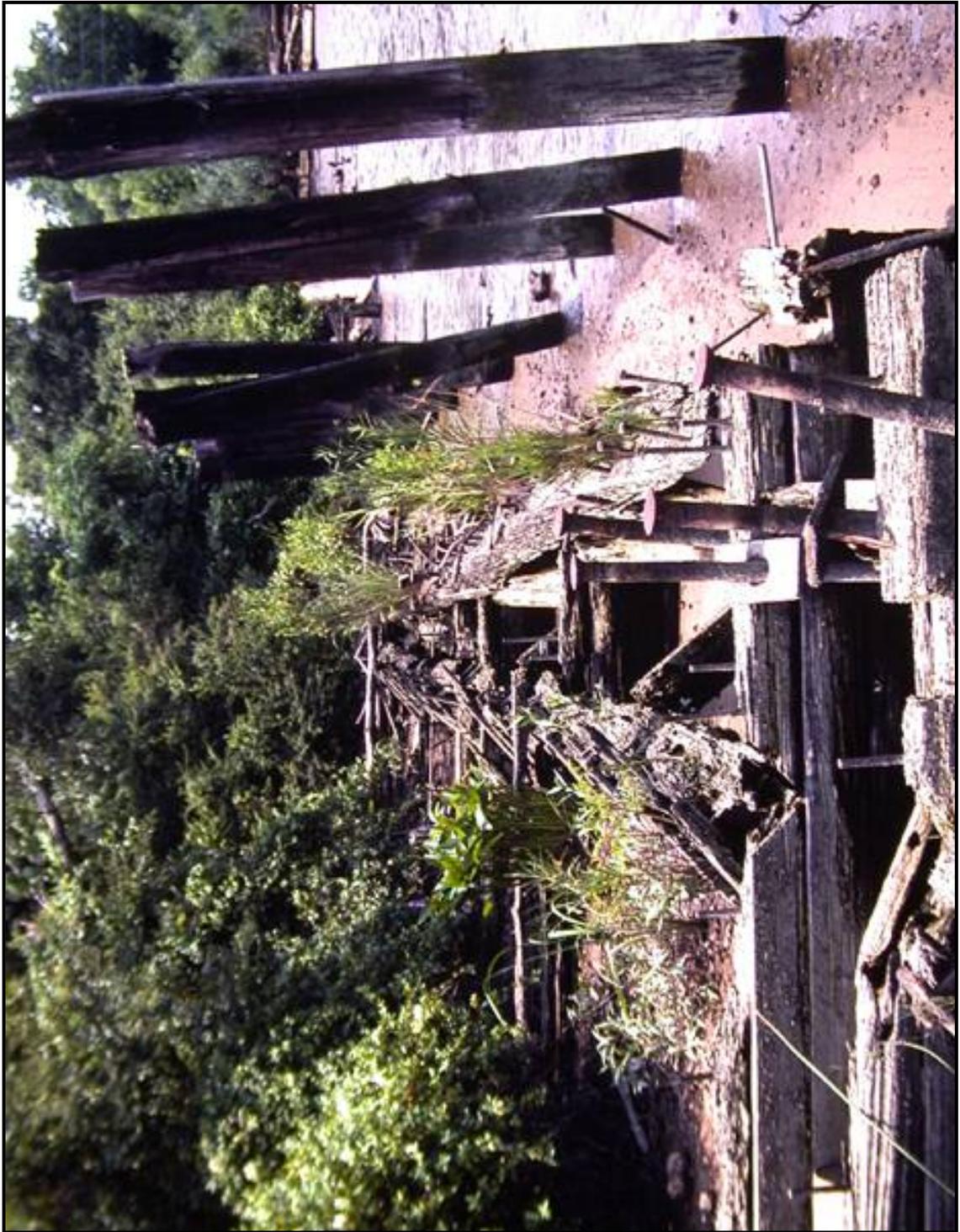


Figure 19. Hopper barge (0007CFR) put in place to serve as bulkhead at Hamme Marine Railway.



Figure 20. View of Steam Crane Barge #1 (0009CFR), looking west, showing vertical fire tube boiler, horizontal steam engine and windlass assembly.

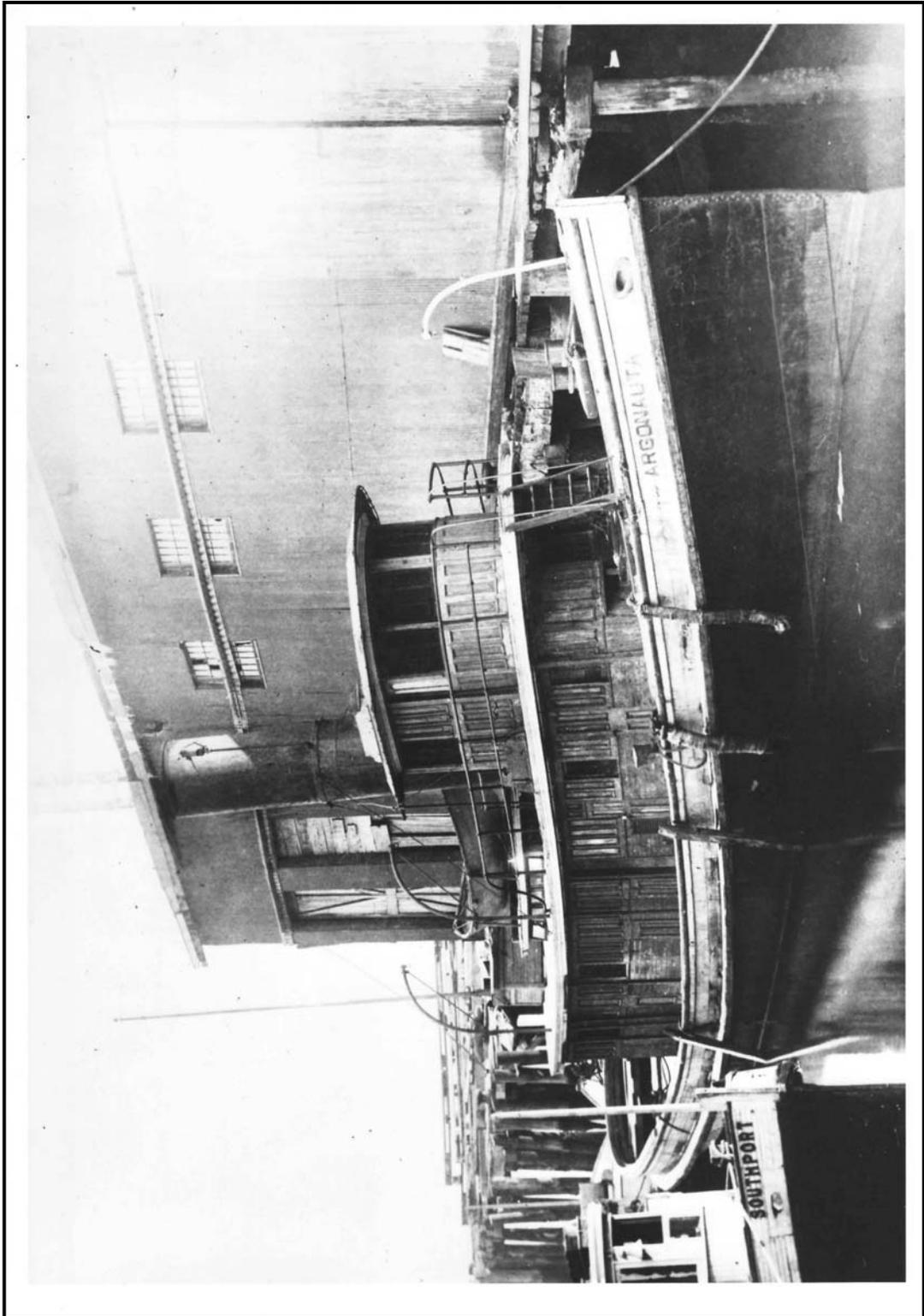


Figure 21. Underwater site #0015CFR, *Argonauta*, early 1900s.