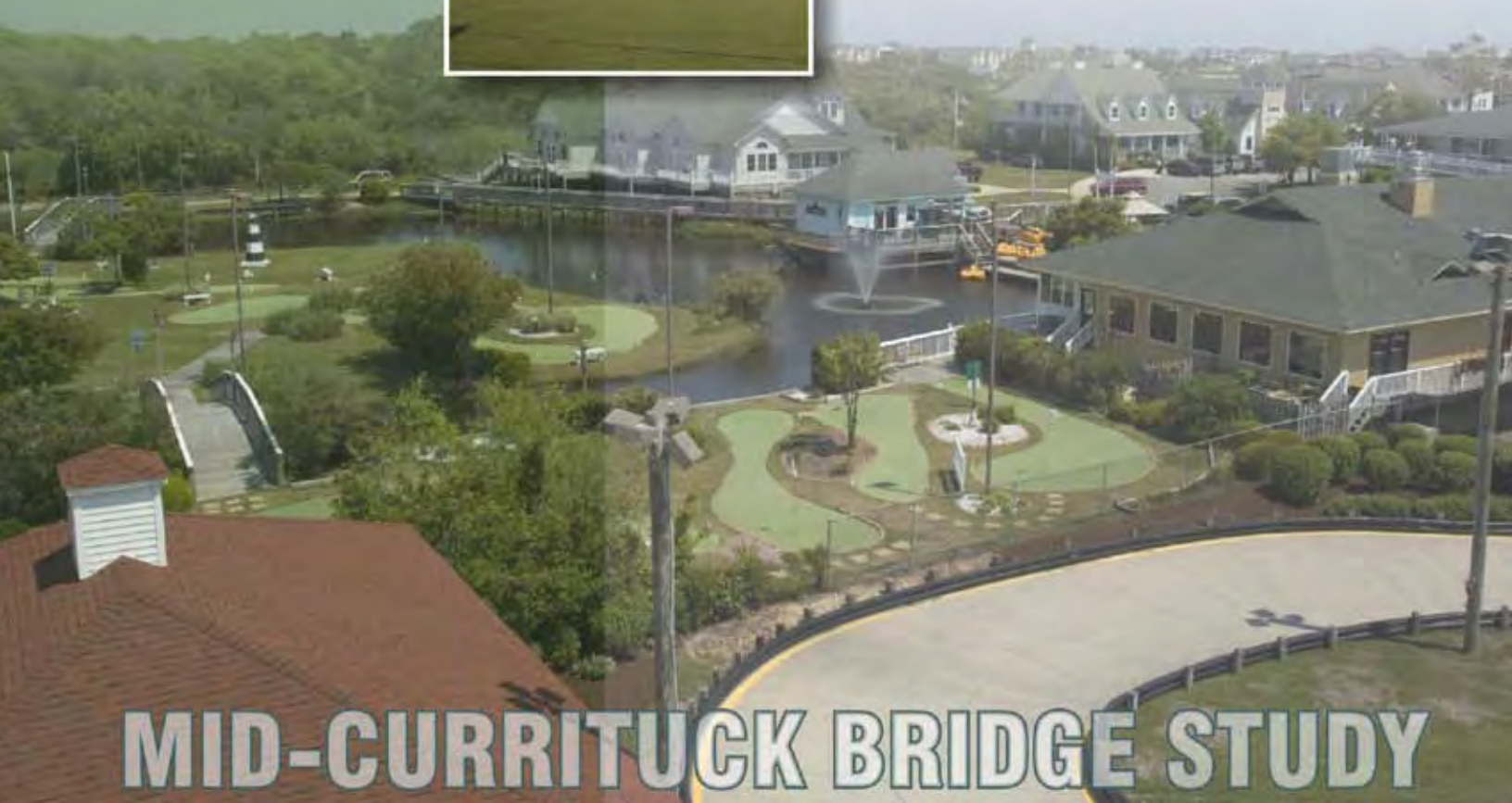




# MID-CURRITUCK BRIDGE STUDY CITIZENS SUMMARY

## Draft Environmental Impact Statement



# MID-CURRITUCK BRIDGE STUDY



March 2010



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Dear Citizen:

The North Carolina Turnpike Authority was created by the General Assembly in 2002 to implement alternative financing methods to pay for a select group of projects during this time of rapid growth, dwindling resources, and skyrocketing costs. In 2009, the North Carolina General Assembly moved the Turnpike Authority under the North Carolina Department of Transportation (NCDOT) as a division. Five candidate toll projects are currently being studied by the Turnpike Authority. One of these is the Mid-Currituck Bridge.

The Mid-Currituck Bridge Study calls for transportation improvements in the Currituck Sound area, with focus on consideration of a Mid-Currituck Bridge over Currituck Sound between US 158 on the Currituck County mainland and NC 12 on the Outer Banks. The proposed project would improve traffic flow, reduce travel time, and reduce hurricane evacuation clearance time on the project area's thoroughfares (NC 12 and US 158).

Because federal funding may be used to implement the project, a Draft Environmental Impact Statement (EIS) has been prepared pursuant to the National Environmental Policy Act. The Draft EIS evaluates and compares the five detailed study alternatives under consideration. The five detailed study alternatives under consideration (see the figure on pages 4 and 5) include options that involve improvements to the existing road network in the project area, both with and without a Mid-Currituck Bridge.

This Citizens Summary of the Mid-Currituck Bridge Study Draft EIS is a brief summary highlighting the major topics discussed in detail in the Draft EIS. The locations where you can review the Draft EIS are listed on the back cover. You can also download the Draft EIS from the project web site: <https://www.ncdot.gov/projects/mid-currituck-bridge/>

We encourage you to stay informed by adding your name to the project mailing list, attending open houses or the public hearings on the project, and visiting the project web site. If you have questions or comments about the project, or would like to be added to the project mailing list, contact the project team directly:

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Thank you for your interest in the Mid-Currituck Bridge project. The Turnpike Authority welcomes and values your input and involvement in this project. We look forward to hearing from you.

Sincerely,

Sincerely,

*Eugene A. Conti, Jr.*  
Eugene A. Conti, Jr., Secretary  
North Carolina Department  
of Transportation

*David W. Joyner*  
David W. Joyner, Executive Director  
North Carolina Turnpike Authority



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## ACRONYMS

- |                                       |  |
|---------------------------------------|--|
| CAMA – Coastal Area Management Act    | NCDOT – North Carolina Department of Transportation              |
| CD – Compact Disc                     | NEPA – National Environmental Policy Act                         |
| EIS – Environmental Impact Statement  | PPP – Public Private Partnership                                 |
| ER – Existing Roads                   | ROD – Record of Decision   |
| ETC – Electronic Toll Collection      | SAV – Submerged Aquatic Vegetation                               |
| FHWA – Federal Highway Administration | STIP – State Transportation Improvement Program                  |
| MCB – Mid-Currituck Bridge            | TEAC – Turnpike Environmental Agency Coordination                |
| MPH – Miles per Hour                  | TIFIA – Transportation Infrastructure Finance and Innovation Act |

# Project Description

## What is the Mid-Currituck Bridge Project?

The proposed Mid-Currituck Bridge project calls for transportation improvements in the Currituck Sound area, with focus on the consideration of a Mid-Currituck Bridge over Currituck Sound. The project area encompasses US 158 between its intersection with NC 168 and its intersection with NC 12, and NC 12 from its intersection with US 158 north to where it ends in the community of Corolla. The project area is shown below.

The proposed Mid-Currituck Bridge would be a 7.0- to 7.5-mile-long two-lane toll bridge across Currituck Sound, with approach roads, in Currituck County. The detailed study alternatives evaluated in the Draft EIS also include options that involve improvements to the existing road network (NC 12 and US 158), both with and without a Mid-Currituck Bridge.

The project is included in the North Carolina Department of Transportation's (NCDOT's) 2009 to 2015 State Transportation Improvement Program (STIP) as STIP Project Number R-2576. It is also included in the North Carolina Intrastate System, the North Carolina Strategic Highway Corridor Plan, and the Thoroughfare Plan for Currituck County. In those plans, the proposed action is defined as a bridge in Currituck County across Currituck Sound from the mainland to the Outer Banks.

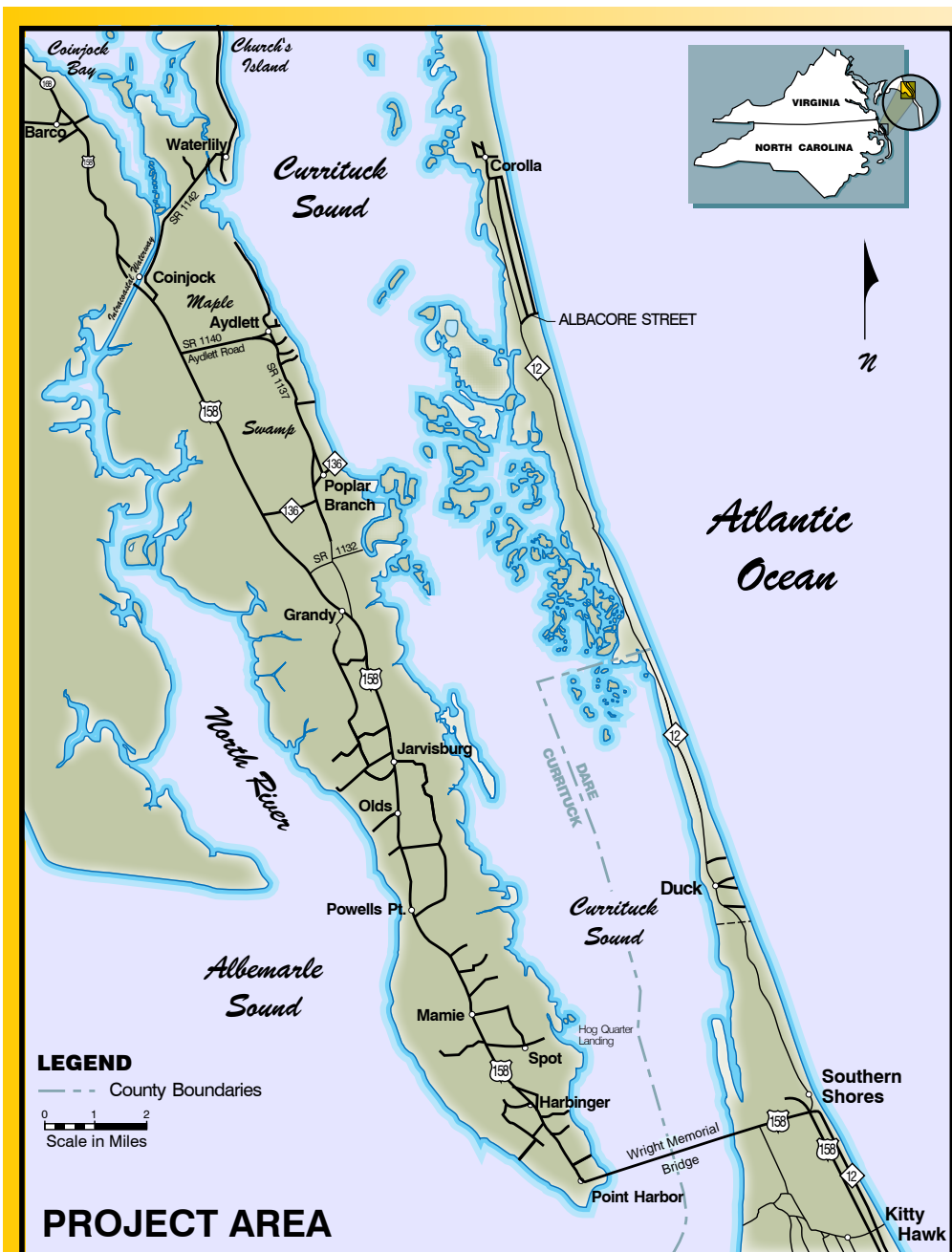
## Why do we need the proposed project?

NC 12 and US 158 are becoming increasingly congested, and will become even more congested in the future. Increasing congestion is causing travel time between the Currituck County mainland and the Currituck County Outer Banks to increase, especially during the summer. In addition, as a result of increasing development and congestion in the project area, hurricane evacuation clearance times for residents and visitors who use US 158 and NC 168 as a hurricane evacuation route far exceed the state-designated standard of 18 hours. Thus, the purposes of the proposed project are: 1) to substantially improve traffic flow on NC 12 and US 158; 2) to substantially reduce travel time for persons traveling between the Currituck County mainland and the

Currituck County Outer Banks; and 3) to substantially reduce hurricane clearance time for residents and visitors who use US 158 and NC 168 during a coastal evacuation.

## How were the project alternatives developed?

The National Environmental Policy Act (NEPA) requires an agency to study the adverse and beneficial impacts of a range of reasonable alternatives that meet the purpose and need for a project. For the Mid-Currituck Bridge Study, an alternatives screening study was conducted for the project. Based on study findings and comments received from the agencies and public, the five detailed study alternatives were selected.



## How do projects originate?

The development of a project from concept to construction takes many years, and starts at the local level. Local and state planners identify future roadway needs, which are then included in a county Thoroughfare Plan prepared with the assistance of NCDOT. Local officials set priorities for transportation projects and work with the NCDOT to include Thoroughfare Plan projects in the State Transportation Improvement Program.

Factors used to screen the potential alternatives included: 1) ability to meet purpose and need and the level of benefit offered in relation to those purposes; 2) ability to improve system efficiency; 3) economic feasibility (cost and funding capacity); and 4) potential impacts on communities and natural resources.

Public and agency input were an important part of the alternatives development and selection process, and numerous meetings with environmental resource and regulatory agencies, as well as citizens informational workshops and small group meetings, were held to provide opportunities for comments.

## What alternatives are being considered?

The five detailed study alternatives under consideration are shown on pages 4 and 5 of this Citizens Summary. They are named:

1. ER2;
2. MCB2/C1 (MCB2 using bridge corridor C1);
3. MCB2/C2 (MCB2 using bridge corridor C2);
4. MCB4/C1 (MCB4 using bridge corridor C1); and
5. MCB4/C2 (MCB4 using bridge corridor C2).

The "ER" in ER2 stands for "Existing Roads." A Mid-Currituck Bridge is not included in this alternative, but only widening existing NC 12 and US 158. The "MCB" stands for Mid-Currituck Bridge. MCB2 and MCB4 both include a Mid-Currituck Bridge and

different amounts of improvements to existing NC 12 and US 158. The characteristics of the detailed study alternatives are described in more detail below and in Section 2.1 of the Draft EIS.

## Two Outer Banks End Points

As shown on the figures, for MCB2 and MCB4, there are two variations of the proposed bridge corridor in terms of its ending on the Outer Banks. Bridge corridor C1 would connect with NC 12 at an intersection approximately 2 miles north of the Albacore Street retail area, whereas bridge corridor C2 would connect with NC 12 approximately 0.5 mile south of this area (see the figures on pages 4 and 5 and the photo simulations on page 6). An interchange would be constructed at the Mid-Currituck Bridge/US 158 intersection on the Currituck County mainland.

## Two Mainland Bridge Approach Design Options

For the four MCB2 and MCB4 alternatives, two design options are under consideration for the mainland approach to the bridge over Currituck Sound (between US 158 and Currituck Sound), Option A and Option B (see the photo simulations of the Aydtlett area on page 6). The design options differ in regards to the location of the toll plaza, whether Maple Swamp is crossed by a bridge or a road on fill (i.e., dirt or gravel used to raise the level of a road in low areas such as swamps), and whether drivers traveling between US 158 and the community of Aydtlett would use existing Aydtlett Road or the bridge approach road (without paying tolls). No access to and from the Mid-Currituck Bridge would be provided at Aydtlett with either option. Option A would place a toll plaza within the US 158 interchange. The mainland approach road to

the bridge over Currituck Sound would include a bridge over Maple Swamp. Drivers traveling between US 158 and Aydtlett would continue to use Aydtlett Road. With Option B, the US 158 interchange would not include the toll. The approach to the bridge over Currituck Sound would be a road placed on fill within Maple Swamp, and a connection would be provided between the bridge approach road and the local Aydtlett street system. The toll plaza would be placed in Aydtlett east of the local road connection so that Aydtlett traffic would not pass through the toll plaza when traveling between US 158 and Aydtlett. Wildlife passages would be incorporated into the fill within Maple Swamp. Also with Option B, Aydtlett Road would be removed and its right-of-way restored as a wetland.

## Two Hurricane Evacuation Options

For all five alternatives, two hurricane evacuation options are under consideration. The first option is to add a third outbound lane to US 158 for evacuation use only (see the US 158 hurricane evacuation lane photo simulation below). The second option is to reverse the existing center turn lane on US 158 to create a third outbound lane during an evacuation. When a third outbound lane is needed on the Wright Memorial Bridge or Knapp (Intracoastal Waterway) Bridge, one existing inbound lane would be reversed.

US 158 Hurricane Evacuation Lane Photo Simulation





**Detailed Study Alternatives**

- LEGEND**
- Orange line: Eight Lanes (Super-street)
  - Purple line: Six Lanes (Super-street)
  - Yellow line: Four Lanes
  - Blue line: Four Lanes (Only with C1)
  - Blue line: Three Lanes
  - Red line: Mid-Currituck Bridge
  - Green line: Third Outbound Lane (Contraflow of an existing lane is an option)
  - Yellow circle: Interchange
  - Red circle with C1: Bridge Corridor Alternatives
  - Red circle with C2: Bridge Corridor Alternatives

NOTE: Existing 3-lane segment of NC 12 in Duck is unchanged.

**US 158 Improvements**

With ER2 and MCB2, the section of US 158 between the Wright Memorial Bridge and just west of the existing US 158/NC 12 intersection would be widened to a six- or eight-lane super-street. As illustrated in the US 158 six-lane super-street typical segment drawing shown on page 4, the unique characteristic of a super-street is the configuration of the intersections. Side-street traffic wishing to turn left or go straight must turn right onto the divided highway where it can make a U-turn through the median a short distance away from the intersection. After making the U-turn, drivers can then either go straight (having now accomplished the equivalent of an intended left turn) or make a right turn at their

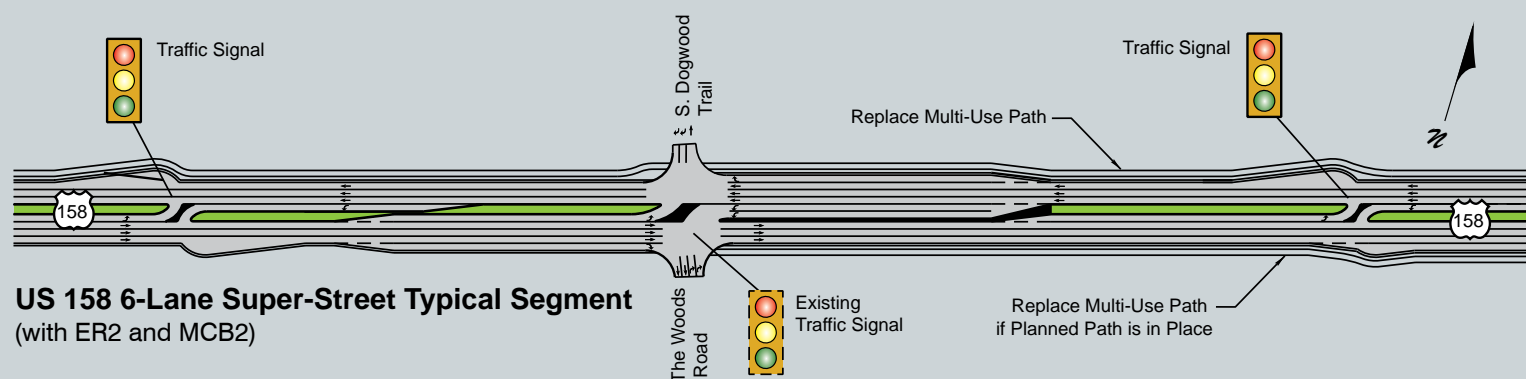
original intersection (having now accomplished the equivalent of an intention to drive straight through the intersection).

**NC 12/US 158 Interchange**

With ER2 and MCB2, an interchange would be constructed at the current intersection of US 158, NC 12, and the Aycokk Brown Welcome Center entrance (see the figures above).

**NC 12 Improvements**

The proposed NC 12 3-lane and 4-lane widening alternatives are shown on the photo simulations on page 7.



**US 158 6-Lane Super-Street Typical Segment (with ER2 and MCB2)**

**No-Build Alternative**

The No-Build Alternative also is under consideration. The No-Build Alternative assumes that the proposed project would not be implemented, but includes other reasonably foreseeable planned improvements contained in NCDOT's 2009 to 2015 STIP within or near the project area.

**What other alternatives were examined and then eliminated from further consideration?**

Other alternatives evaluated included three additional road and/or bridge alternatives, lower cost alternatives that attempted to make more efficient use of the available road capacity on NC 12 and US 158 (shifting vacation housing rental times, minor improvements to the road system, and bus transit), ferry alternatives, and multiple Mid-Currituck Bridge corridor alternatives. The alternatives and the reasons why they were not selected for detailed study are presented in Section 2.5 of the Draft EIS.

**Are any of the alternatives recommended over the others?**

Based on information available to date (including the Draft EIS), the Turnpike Authority and the Federal Highway Administration (FHWA) have identified MCB4 as the Recommended Alternative. This recommendation is made taking into account cost and design considerations; travel benefits; community, natural resource, and other impacts; and public involvement comments. At this time, the Turnpike Authority has no recommendation related to the two bridge corridor alternatives (C1 and C2), the mainland bridge approach design Options A and B, or a hurricane evacuation option.

The Recommended Alternative is only a recommendation; it is not a Preferred Alternative, and it is not a final decision. The Turnpike Authority and FHWA have identified a Recommended Alternative as a way of giving readers of the Draft EIS an indication of the agencies' current thinking. After the Draft EIS comment period ends on June 7, 2010, the Turnpike Authority and FHWA will identify a Preferred Alternative based on consultation with local transportation planning agencies, and state and federal environmental resource and regulatory agencies, as well as consideration of agency and public comments received on the Draft EIS and at the public hearings.

The Preferred Alternative may be developed further in the Final EIS. The NEPA process will conclude with a Record of Decision (ROD), which will document the Selected Alternative to be constructed if a build alternative is selected.

**Information Needed On Boating in Currituck Sound**

Another important component of project development for the proposed Mid-Currituck Bridge is a thorough analysis of boating activity in Currituck Sound. This information will be used to help the Turnpike Authority and the US Coast Guard determine the need for a bridge span with additional height to serve boaters that might pass under the bridge. If you are a boater or rent boats for use on Currituck Sound, please provide in your comments information regarding your vessel type; whether you use your vessel for a commercial or recreational use; its height, draft, and length; its mooring location; and where you travel in the sound. The US Coast Guard issued a Preliminary Public Notice on September 28, 2009, to notify mariners who use Currituck Sound, as well as adjacent property owners, about the proposed plans for the new bridge across Currituck Sound.

Option A - Aydlett Area Photo Simulation



Option B - Aydlett Area Photo Simulation



Bridge Corridor C1 Photo Simulation



Bridge Corridor C2 Photo Simulation



NC 12 4-Lane Widening Photo Simulation



NC 12 3-Lane Widening (90-Foot Right-of-Way) Photo Simulation

# Travel Benefits and Tolling Information

## How much time would I save and what are the other benefits of using the Mid-Currituck Bridge?

All of the detailed study alternatives would meet the project purpose and need to varying degrees, as shown in the “Travel Benefits of Detailed Study Alternatives” comparison table on page 8. Key differences are:

- Traffic Flow**  
 MCB2 would have the greatest traffic flow benefits and ER2 would have the least.
- Travel Time**  
 MCB2 also would have the greatest travel time benefits and ER2 would have the least.
- Hurricane Evacuation Clearance Time**  
 The construction of a third outbound lane on US 158 would offer the greatest reductions in hurricane evacuation clearance time with any alternative. Reversing the center turn lane would be practical only with MCB2 and MCB4.

## Project History

A potential terminus for a Mid-Currituck Bridge on the Currituck Outer Banks just north of TimBuck II at Albacore Street was identified in 1991 and is protected under the provisions of the Transportation Corridor Official Map Act. Under the Act, the North Carolina Board of Transportation can protect future roadway corridors identified in the STIP as part of the proposed state highway system from development. Temporary restrictions are placed on private property, including prohibiting for up to three years the issuance of a building permit or the approval of a subdivision. A parcel on this site measuring 1.7 acres was purchased by NCDOT in 1995 to prevent its development.

FHWA, in cooperation with NCDOT, issued a Draft EIS for the Mid-Currituck Bridge in January 1998. The project area for the 1998 Draft EIS focused on an area near Aydlett on the mainland and near the Whalehead Beach subdivision on the Currituck Outer Banks. Public hearings were conducted for the project on May 26 and 27, 1998. The majority of the speakers, as well as the written comments received, expressed opposition to a Mid-Currituck Bridge because of natural resource impacts, the belief that the project would not solve hurricane evacuation needs, and the expectation that the project would facilitate development on the Outer Banks. Improving public services on the Outer Banks and widening NC 12 were suggested as alternatives to a Mid-Currituck Bridge. Those who favored the bridge felt emergency evacuation and traffic congestion would be improved with a bridge and the absence of a bridge would not stop development. Following the public hearings, the NEPA study process was paused to provide an opportunity for NCDOT and FHWA to re-assess the project scope and purpose in light of comments on the 1998 Draft EIS.

The project was reactivated in October 2000. In 2001, FHWA and NCDOT expanded the study to include conceptual alternatives that would involve improvements to existing NC 12 and US 158, in addition to bridge alternatives, thereby allowing for consideration of a wider range of alternatives. This broad-scale assessment of transportation needs was referred to as the “Currituck Sound Area Transportation Study.”

In 2006, the project was officially adopted by the Turnpike Authority as a candidate toll project. The Mid-Currituck Bridge Study Draft EIS documents the Turnpike Authority’s evaluation of proposed transportation improvements in the Currituck Sound area, including consideration of a Mid-Currituck Bridge.

**TRAVEL BENEFITS OF DETAILED STUDY ALTERNATIVES**

	No-Build	ER2	MCB2	MCB4
<b>2035 Traffic Flow Benefits</b>				
Total Annual Congested Vehicle-Miles Traveled (millions)	66.1	51.4	31.4	40.2
Miles of Road Operating with Traffic Demand at or Above Road Capacity (Summer Average)	22.9	15.4	1.4	7.4
Miles of Road with Traffic Demand 30 Percent or Above Road Capacity (Summer Average)	6.3	4.3	0.0	1.1
<b>2035 Travel Time Benefit Aydlett Road to Albacore Street (in minutes)</b>				
Travel Time via Wright Memorial Bridge (Summer Average)	154	125	86	107
Travel Time via Mid-Currituck Bridge (Summer Average)	N/A	N/A	11	11
<b>2035 Hurricane Evacuation Benefit (in hours)</b>				
Clearance Time with US 158 Reversing Center Turn Lane	36	27	27	27
Clearance Time with US 158 Third Outbound Lane		22	22	22

**Who can use the toll bridge?**

Anybody willing to pay the toll would be able to use the proposed toll bridge, including passenger cars, buses, light-duty trucks, and heavy-duty trucks.

**How will tolls be collected?**

Toll plazas would be located at the western end of the proposed bridge with all of the MCB2 and MCB4 alternatives. This means that eastbound traffic from the mainland to the Outer Banks using the bridge would pay a toll before crossing the bridge, whereas westbound traffic using the bridge would pay a toll after already crossing the bridge.

It is anticipated that tolls would be paid through a combination of electronic toll

collection (ETC) and manual cash lanes in both directions. The ETC lanes would be used to allow higher-speed, no stop processing of vehicles with the correct toll tag technology. The primary means of ETC would involve setting up an account with the Turnpike Authority and using a transponder/receiver. The transponder is a small device mounted on the windshield. The receiver is mounted over the roadway, and it electronically collects tolls from a driver's account as the vehicle travels under it. The preliminary design calls for a 35 to 45 mile per hour (mph) ETC lane with barrier separation from the more traditional manual cash lanes similar to that used on the Chesapeake Expressway, the primary route in Virginia leading to the Outer Banks. The Turnpike Authority would work with other toll authorities to ensure other states' transponders work on the Mid-Currituck Bridge.

**How much would the tolls cost?**

The Turnpike Authority has not made any decisions about toll rates. A 2007 Preliminary Traffic and Revenue Study indicated a one-way toll of approximately \$6 to \$12. The initial price of the toll would be based upon an Investment Grade Traffic and Revenue Study, to be completed prior to project construction if an alternative including the Mid-Currituck Bridge is selected. The price of the toll could change over time, based upon variables such as demand, financing of the project's construction, and operations and maintenance costs. The toll rate likely would be more for trucks than for cars.



# Project Impacts

**What are the impacts from the project?**

The Draft EIS provides detailed discussions of the project's anticipated impacts to the environment, as well as ways to mitigate impacts. Key impacts are noted below and in the excerpt from the Draft EIS's comprehensive impact summary table included on page 10. The column for the Recommended Alternative (MCB4) is shown in green.

**Community Impacts**

Relocations with the detailed study alternatives are shown in the table. Other key community-related impacts are as follows:

- **At US 158/Mid-Currituck Bridge Interchange with MCB2 and MCB4**  
Interchange features would be introduced into views along US 158. Homes, businesses, and graves would be displaced. The presence of the interchange could likely result in business development. This development, however, is desired by Currituck County. With Option B, direct access from US 158 would be lost for customers of a gas station near the end of a frontage road.
- **At Aydlett with MCB2 and MCB4**  
The presence of the bridge would create a visual barrier to cohesion in Aydlett. The bridge would be introduced to Currituck Sound views. With Option B, Aydlett traf-



**Different Kinds of Effects Analyzed in a Draft EIS**

- ▶ **Direct Effects:** Effects caused by the action and occurring at the same time.
- ▶ **Indirect Effects:** Effects caused by the action and are later in time or farther removed in distance, but still readily predicted.
- ▶ **Cumulative Effects:** Effects to the environment that occur when project effects are added to the effects of other actions and projects that have already occurred or are reasonably foreseeable.

fic would use the Mid-Currituck Bridge approach road to travel to and from Aydlett, and Narrow Shore Road would be relocated to pass over a toll plaza in Aydlett. With Option A, the project would pass through Aydlett but the toll plaza would be at the US 158 interchange and no change would be made in the local road system.

- **In the Vicinity of the Outer Banks Bridge Terminus with MCB2 and MCB4, including Widening NC 12 South of the Terminus**  
With bridge corridor C1, the Corolla Bay subdivision on the Outer Banks would be physically divided by the bridge. Views of Currituck Sound from the subdivision would also be adversely affected. The NC 12 widening associated with bridge corridor C1 would result in substantial changes in business access in the Albacore Street area on the Currituck County Outer Banks. With bridge corridor C2, the platform owned by a water sports business and the associated business would be displaced. Driveway and street access in the TimBuck II area also would change.
- **Widening Along NC 12 in Southern Currituck County and Dare County with ER2 and MCB2**  
Pedestrians crossing NC 12 in Southern Shores and at the Sanderling Inn (two locations with notable pedestrian travel) would have to cross three lanes of pavement instead of two. Four street intersections along NC 12 would be closed to through traffic but not emergency vehicles. Alternate access



exists. There would be increased noise levels (up to 10 dBA, or the equivalent of a doubling of noise) on NC 12 from US 158 to the Mid-Currituck Bridge terminus with pavement closer to homes, particularly in four lane sections where more motor vehicles could travel the speed limit. There would be changes in views along NC 12. Permanent drainage easements would be purchased along much of NC 12.

- US 158 Improvements on the Outer Banks with ER2 and MCB2**  
 For ER2 and MCB2, the super-street would reduce the number of four-way intersections and limit direct access across US 158 in Dare County. In addition, the US 158/NC 12 interchange would be introduced into views in Kitty Hawk. For ER2, there would be substantial changes in business access at the US 158/NC 12 interchange, as well as notable parking loss at Home

### Relocation and Natural Resource Impact Summary

	ER2	MCB2/C1		MCB2/C2		MCB4/C1		MCB4/C2	
<b>RELOCATIONS - with construction of a third outbound lane for hurricane evacuation (without third outbound lane, if different)</b>									
		<b>Option A</b>	<b>Option B</b>	<b>Option A</b>	<b>Option B</b>	<b>Option A</b>	<b>Option B</b>	<b>Option A</b>	<b>Option B</b>
<b>Homes</b>	6 plus 10 vacation rental units (1 plus 10 vacation rental units)	6 plus 10 vacation rental units	8 plus 10 vacation rental units	6 plus 10 vacation rental units	8 plus 10 vacation rental units	5 (5)	7 (7)	5 (5)	7 (7)
<b>Businesses</b>	5 (2)	7 (5)		8 (6)		5 (3)		6 (4)	
<b>Outdoor Advertising Signs</b>	29 (0)	6 (3)	16 (13)	6 (3)	16 (13)	6 (3)	16 (13)	6 (3)	16 (13)
<b>Gravesites</b>	66 (0)	36 (20)	35 (19)	36 (20)	35 (19)	36 (20)	35 (19)	36 (20)	35 (19)
<b>NATURAL RESOURCE IMPACTS</b>									
<b>Wetland Impacts - with construction of a third outbound lane for hurricane evacuation (without third outbound lane, if different)</b>									
		<b>Option A</b>	<b>Option B</b>	<b>Option A</b>	<b>Option B</b>	<b>Option A</b>	<b>Option B</b>	<b>Option A</b>	<b>Option B</b>
<b>Fill</b>	5.1 (4.6) acres	12.8 (12.4) acres	42.9 (42.4) acres	10.2 (9.8) acres	40.3 (39.9) acres	8.5 (8.1) acres	38.6 (38.2) acres	5.9 (5.5) acres	36.0 (35.6) acres
<b>Pilings</b>	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre
<b>Clearing</b>	0.0 acre	25.7 acres	0.3 acres	30.6 acres	5.1 acres	25.8 acres	0.3 acres	30.6 acres	5.1 acres
<b>Total Permanent Impacts</b>	5.1 (4.6) acres	38.6 (38.2) acres	43.2 (42.8) acres	40.7 (40.3) acres	45.3 (44.9) acres	34.4 (34.0) acres	38.9 (38.5) acres	36.5 (36.1) acres	41.0 (40.6) acres
<b>Temporary Wetland Impacts</b>	2.1 acres	1.7 (0.0) acres	1.7 (0.0) acres	1.7 (0.0) acres	1.7 (0.0) acres	2.1 (0.0) acres	2.1 (0.0) acres	2.1 (0.0) acres	2.1 (0.0) acres
<b>Total Wetland Impacts</b>	7.2 (4.6) acres	40.3 (38.2) acres	44.9 (42.8) acres	42.4 (40.3) acres	47.0 (44.9) acres	36.6 (34.0) acres	41.1 (38.5) acres	38.7 (36.1) acres	43.2 (40.6) acres
<b>Total Coastal Area Management Act (CAMA) Wetland Impacts</b>	0.7 acre	0.7 acre		2.2 acres		0.0 acre		0.0 acre	
<b>Threatened and Endangered Species Habitat Affected</b>	May affect but is not likely to adversely affect two species. Habitat does not occur in the project area for other species in the counties.	May affect but is not likely to adversely affect nine species. Habitat does not occur in the project area for other species in the counties.							
<b>Floodplains</b>	No impact	No impact except with the use of mainland approach road Option B, which would result in a significant encroachment on the floodplain (as a significant alteration to a water course) by the fill placed in Maple Swamp. If selected, additional studies would be needed to determine how to avoid or minimize the associated maximum 0.2-foot increase in the 100-year storm's water surface elevation just north of the fill.							

Depot (40 spaces/10 percent). MCB2 also would have substantial changes in business access at the US 158/NC 12 interchange, but less than ER2.

- US 158 Hurricane Evacuation Lane Improvements on the Mainland with All Alternatives**  
 For ER2, MCB2, and MCB4, some homes, businesses, outdoor advertising signs, and gravesites would be relocated if a third outbound lane is added for hurricane evacuation along US 158. If a third outbound lane is added, ER2 would have the most impacts because of the greater length of US 158 that would be widened, while MCB2 and MCB4 would have the same level of impacts.



#### Natural Resource Impacts

Impacts to wetlands are shown in the table. No threatened and endangered species would be adversely affected. Each of the detailed study alternatives would result in the removal of existing vegetative habitats and the displacement of wildlife within the project construction limits. Fill (dirt or rock used to raise the level of the road) and pile (bridge foundation) placement, shading, and clearing (removing plants) would result directly in the permanent loss or alteration of aquatic habitat and the wildlife that live there. Construction operations could result in temporary impacts. The greatest impact to Coastal Area Management Act (CAMA) resources, essential fish habitat, and submerged aquatic vegetation (SAV) or potential SAV habitat (water depths less than 6 feet) would be associated with shading by a Mid-Currituck Bridge. However, no permits or mitigation is required for shading.

#### Floodplain Impacts

There would be no flow or water level impacts to floodplains in the project area and no significant encroachment on those floodplains with ER2, MCB2/A, and MCB4/A. Such impacts would occur with MCB2/B and MCB4/B. Should MCB2/B or MCB4/B be selected for construction, additional studies would be conducted during final design so adverse floodplain impacts on properties north of the Maple Swamp fill could be avoided or minimized, as well as effects on the groundwater hydrology, hydrologic characteristics of Maple Swamp, and supported ecological functions.

#### How do I find out if the project affects my property or my neighborhood?

Section 3.1 of the Draft EIS discusses project area community characteristics and impacts, and Figure 3-2 shows the communities and subdivisions in the project area. The CD that accompanies the Draft EIS includes the combined Corridor/Design Public Hearing maps for each detailed study

alternative. These maps show the design alignments and features of each detailed study alternative. The exact right-of-way required for the Preferred Alternative will be determined during final design, after the NEPA process is completed.

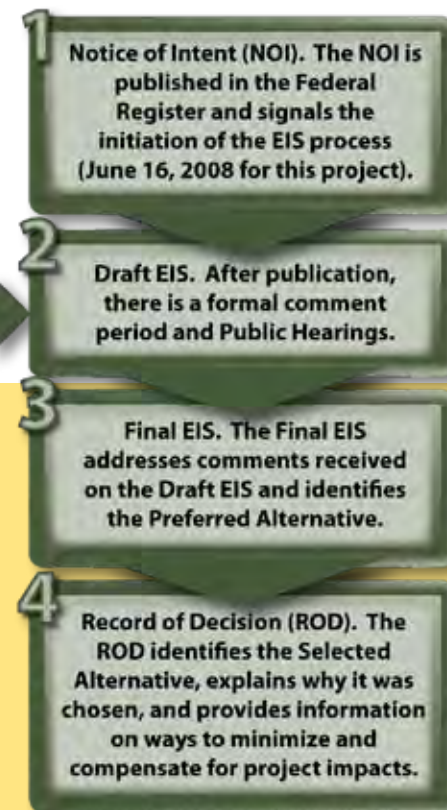
**This Project is Here** →

### Environmental Impact Statements (EISs)

NEPA requires federal agencies to prepare an EIS for major federal actions that are expected to have a significant impact on the environment. (For more information go to <http://environment.fhwa.dot.gov/index.asp>.)

An EIS is a detailed report that defines the transportation problem, discusses the range of alternative solutions considered, discloses the impacts the alternatives would have on the human and natural environments, summarizes involvement with the public and other stakeholders, and aids in making decisions about the project.

The EIS process includes the following four milestones:



# Process, Schedule, and Cost

## Who makes the final decision on which alternative to build, and when?

FHWA, in coordination with the Turnpike Authority, will select the Preferred Alternative, which may or may not be the current Recommended Alternative. The Preferred Alternative will be selected based on information in the Draft EIS, as well as input received during the Draft EIS review period from the public and local, state, and federal agencies and at the public hearings. The current project schedule, as of April 2010, is shown in the project timeline at the right.

## Does my opinion matter?

Yes, your opinion and input matters in the decisions about the project. All comments are considered, whether they are mailed or e-mailed to the project team throughout the process, or delivered or spoken in person at one of the open houses and public hearings. All comments received by June 7, 2010, will be considered and part of the project record.

## Timeline for Mid-Currituck Bridge Implementation

If a Mid-Currituck Bridge is selected for construction, its schedule for completion as of April 2010 is:



## How long do project development studies and EISs take?

The National Environmental Policy Act (NEPA) requires an agency to study a range of reasonable alternatives to meet a project's purpose and need. This process entails numerous engineering and environmental studies. NEPA also requires the public and agencies be given opportunities to participate and provide input throughout the process. For large projects, the necessary work requires several years to complete. The Turnpike Authority strives to maintain a reasonable schedule, while ensuring full compliance with NEPA.

## How would the project be paid for?

It is anticipated that the initial cost of the proposed Mid-Currituck Bridge would be paid for through North Carolina's first venture into the world of Public Private Partnerships (PPP) for major transportation infrastructure. PPPs are formal collaborations between public agencies and private concessionaires that capture the advantages of private sector participation while maintaining public accountability to develop new infrastructure. These partnerships can be an effective way to deliver much needed infrastructure while minimizing costs and risks to the public. For funds, bond financing would be used by the PPP. Transportation Infrastructure Finance and Innovation Act (TIFIA) financing (federal government loans) could be used in addition to bonds. This financing would be repaid primarily through toll revenues. Also in 2008, the North Carolina General Assembly appropriated \$15 million per year for repayment of bonds or payment of debt service not covered by toll revenues, which also could contribute to covering any shortfalls that might be associated with toll bridge financing costs.

## When would project construction start?

If MCB4 were selected as the Preferred Alternative, the current schedule anticipates project construction starting in early 2011, with the project opening to traffic in late 2014. The portion of MCB2 that is the same as MCB4 also would be built on this schedule.

If ER2 were selected as the Preferred Alternative, the project would have to be implemented with traditional transportation funding sources since the improvements could not be funded with toll revenue. There is currently no state funding for non-tolled road improvements in the project area. This also would be the case for the bulk of the NC 12 and US 158 widening included in MCB2.

## How much would the project cost?

The project would cost between \$416.1 million and \$1,065.1 million (see the table below), depending on the alternative chosen and the cost of materials and land at the time of construction. The estimated costs include construction, environmental mitigation, pedestrian and bicycle features on the Mid-Currituck Bridge, right-of-way, and utility relocation.

Detailed Study Alternatives	Potential Range of Total Cost (millions)
ER2	\$416.1 to \$523.4
MCB2/A/C1	\$884.2 to \$1,062.4
MCB2/B/C1	\$800.1 to \$970.2
MCB2/A/C2	\$888.1 to \$1,065.1
MCB2/B/C2	\$802.4 to \$973.5
MCB4/A/C1	\$685.3 to \$816.2
MCB4/B/C1	\$600.7 to \$724.1
MCB4/A/C2	\$680.3 to \$808.6
MCB4/B/C2	\$595.5 to \$716.4





The Mid-Currituck Bridge Study Draft EIS, Corridor/Design Public Hearing maps, and associated technical reports are available for review at the locations listed below.

**Currituck County Courthouse**  
 153 Courthouse Road  
 Currituck, NC 27929  
 (252) 232-3055

**Currituck County Public Library\***  
 4261 Caratoke Highway  
 Barco, NC 27917  
 (252) 453-8345

**Corolla Public Library\***  
 1123 Ocean Trail  
 Corolla, NC 27927  
 (252) 453-0496

**Dare County Public Library\***  
 400 Mustian Street  
 Kill Devil Hills, NC 27948  
 (252) 441-4331

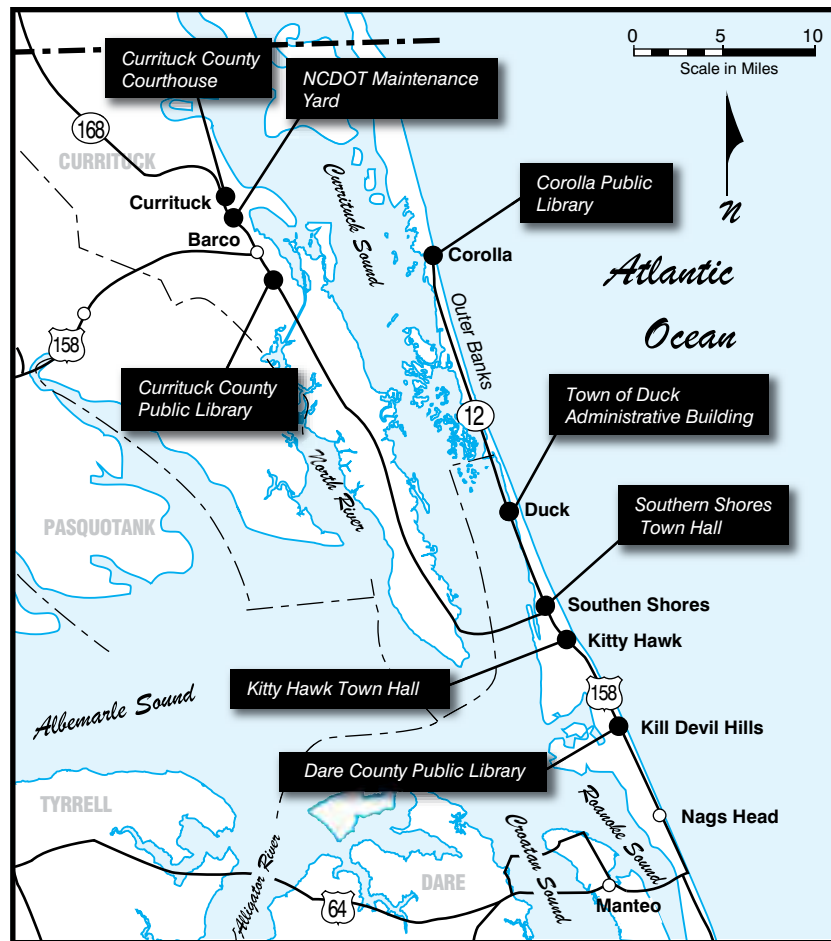
**Town of Duck Administrative Building**  
 1240 Duck Road, Suite 106  
 Duck, NC 27949  
 (252) 255-1234

**Kitty Hawk Town Hall**  
 101 Veterans Memorial Drive  
 Kitty Hawk, NC 27949  
 (252) 261-3552

**NCDOT Maintenance Yard Office**  
 397 Maple Road  
 Maple, NC 27956  
 (252) 453-2721

**Southern Shores Town Hall**  
 5375 N. Virginia Dare Trail  
 Southern Shores, NC 27949  
 (252) 261-2394

The Draft EIS in its entirety (and the Corridor/Design Public Hearing maps and technical reports) is also available for download at the Turnpike Authority web site: <https://www.ncdot.gov/projects/mid-currituck-bridge/>. In addition, locations marked with an \* have CDs containing interactive versions of the Draft EIS and associated technical reports, as well as the Corridor/Design Public Hearing maps.



**Project Partners:**



U.S. Department of Transportation  
**Federal Highway Administration**