

MID-CURRITUCK BRIDGE STUDY

COMMUNITY IMPACT ASSESSMENT TECHNICAL REPORT

WBS Element: 34470.1.TA1
STIP No. R-2576
Currituck County
Dare County

**Prepared by
Parsons Brinckerhoff
909 Aviation Parkway, Suite 1500
Morrisville, North Carolina 27560**

for



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1.0 Summary

The Mid-Currituck Bridge project would involve transportation improvements to the eastern Currituck County peninsula and the Currituck County and northern Dare County Outer Banks. Five detailed study alternatives are under consideration for implementation. They are named:

- ER2;
- MCB2/C1 (MCB2 using bridge corridor C1);
- MCB2/C2 (MCB2 using bridge corridor C2);
- MCB4/C1 (MCB4 using bridge corridor C1); and
- 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 roads. The “MCB” stands for Mid-Currituck Bridge. Alternatives MCB2 and MCB4 both include a Mid-Currituck Bridge and different amounts of improvements to existing roads. The bridge components of both MCB2 and MCB4 are evaluated with two bridge corridor alternatives (C1 and C2).

For all five alternatives, two hurricane evacuation options are under consideration, adding a third outbound lane to US 158 for evacuation use only and reversing the 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.

For the four MCB2 and MCB4 alternatives, two design options also are under consideration for the mainland approach to the bridge over Currituck Sound (between US 158 and Currituck Sound) – Option A and Option B. They vary by the location of the toll plaza, whether Maple Swamp is crossed by a bridge or fill, and whether drivers traveling between US 158 and the community of Aydlett would use existing Aydlett Road or the bridge approach road (without paying tolls). No access to and from the Mid-Currituck Bridge would be provided at Aydlett with either option.

The purpose of the proposed project is to reduce congestion on US 158 and NC 12, reduce travel times between the Currituck County mainland and the Outer Banks, and improve hurricane evacuation times. The State Transportation Improvement Program (STIP) lists the (Mid-Currituck) bridge improvement as 9.9 miles long (STIP No. R-2576).

The project area is in northeastern North Carolina and includes the Currituck County peninsula as far north as the NC 168/US 158 intersection just north of Barco, and the

Outer Banks between Corolla (Currituck County) on the north and Kitty Hawk (Dare County) on the south. The project area is substantially south of the Virginia Beach-Norfolk, Virginia, metropolitan area (Figure 1-1).

1.1 Key Community Characteristics

Currituck County is the most northeastern county in North Carolina. The mainland portion of the project area predominantly consists of a peninsula bounded on the west by the North River, on the south by Albemarle Sound, and on the east by Currituck Sound. Currituck County's northern beach strand, or Outer Banks, separates Currituck Sound from the Atlantic Ocean (see Figure 1-2). US 158 is the only means of north-south travel on the Currituck County peninsula. From its intersection with NC 168 near Barco, US 158 traverses the peninsula southward to the Wright-Memorial Bridge, which connects the mainland to the Outer Banks at Southern Shores/Kitty Hawk in Dare County.

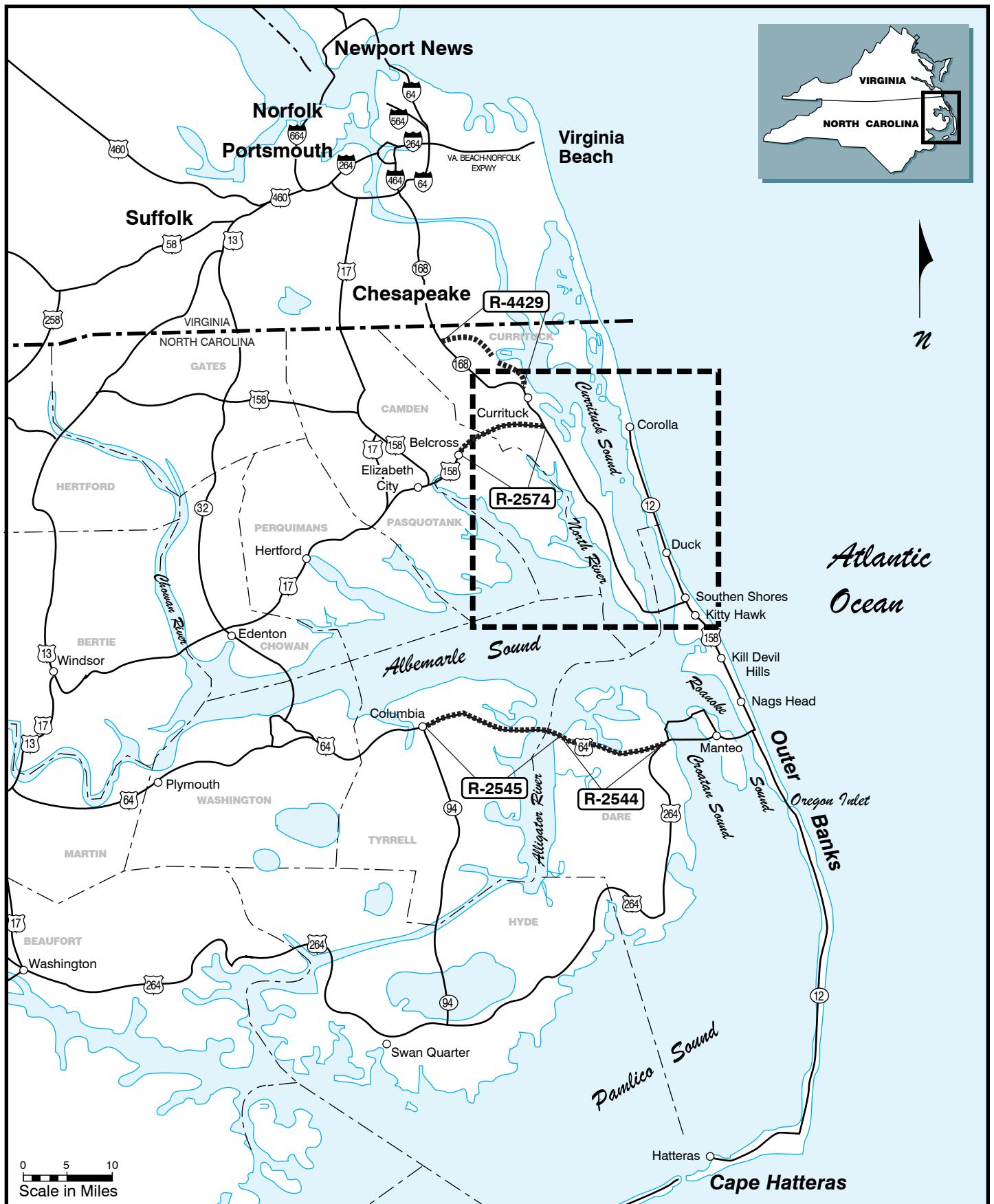
Along US 158 on the Currituck County mainland, land use is predominantly rural agrarian with scattered residences and service-oriented businesses. Although there are no municipalities in Currituck County, rural communities dot the Currituck County mainland in the project area. From north to south, they include: Barco, Coinjock, Poplar Branch, Grandy, Jarvisburg, Olds, Powells Point, Mamie, Spot, Harbinger, and Point Harbor.

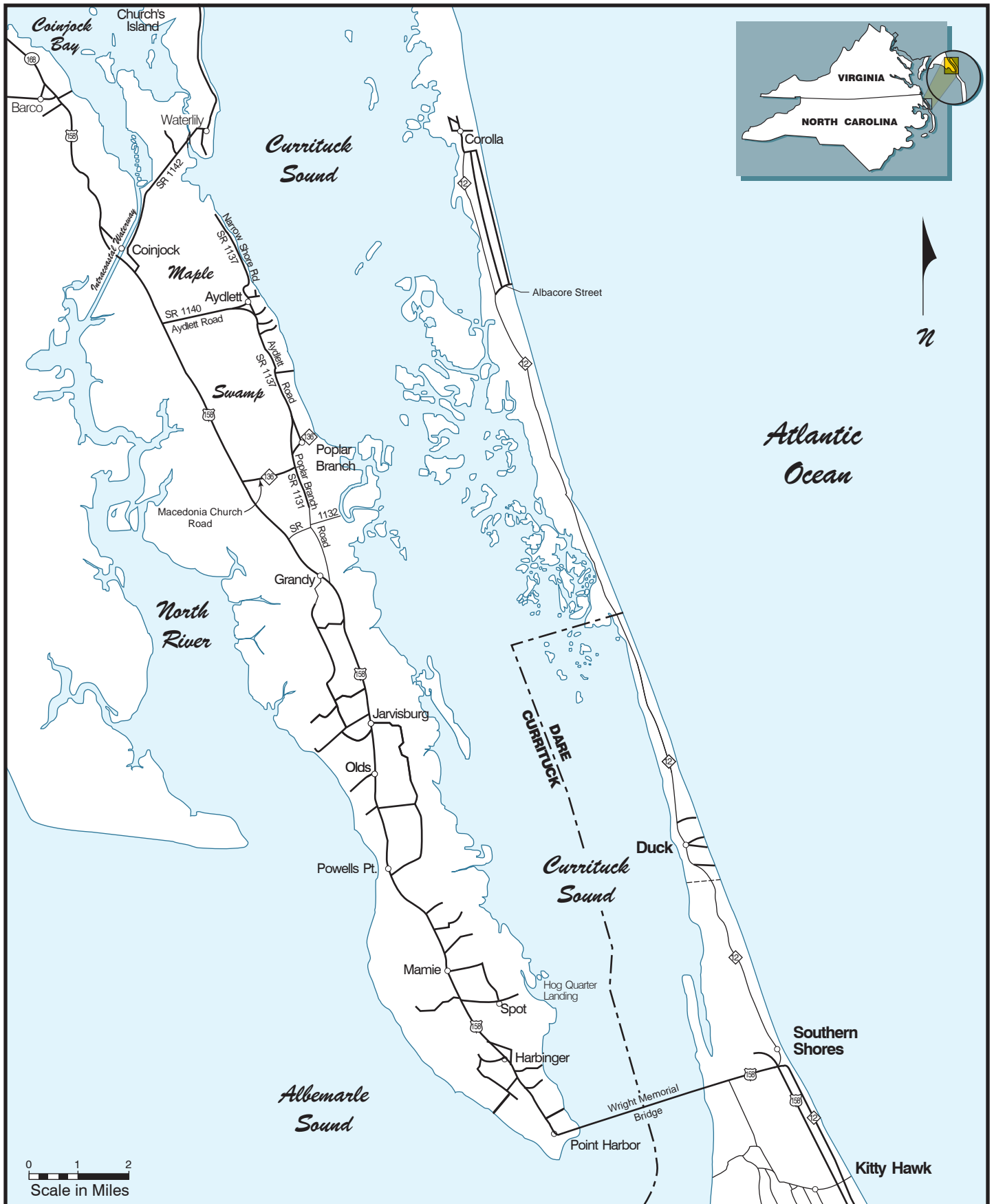
On the mainland, Dare County is south of Currituck County, separated by Albemarle Sound, and is outside the project area. However, on the Outer Banks, the most northerly portion of Dare County is within the project area, primarily the incorporated towns of Kitty Hawk, Southern Shores, and Duck. Commercial uses line US 158 within the towns of Kitty Hawk and Southern Shores (US 158 separates Kitty Hawk and Southern Shores) between the Wright Memorial Bridge and NC 12. Land uses along the Dare County Outer Banks both north and south of the US 158/NC 12 intersection include a mix of single-family homes, hotels, and condominiums. Much of this area developed before similar development occurred to the north, on the Currituck County Outer Banks.

NC 12 is the primary north-south route along the Outer Banks, characterized by residential resort developments of single-family homes, town homes, and condominiums; commercial development comprised of small stand-alone shops and medium-sized shopping centers; and beaches that attract millions of vacationers each year.

The following are additional key characteristics of the project area:

- Land uses on the mainland peninsula in Currituck County are rural and agricultural, while on the Outer Banks they are low-density residential with scattered commercial development.





LEGEND

--- County Boundaries

Project Area

Figure
1-2

- The population in the project area on the Outer Banks is characterized as seasonal, and housing is mostly renter-occupied.
- A local, unnamed bicycle/pedestrian trail generally either parallels or is a part of the NC 12 shoulder from Southern Shores to the NC 12 northern terminus.
- The main themes for Currituck County's economic and land use development goals are to expand the economic base of Currituck County and to improve employment opportunities, while preserving the character and natural beauty of the county.
- The major themes of the *Dare County Land Use Plan* include natural resource preservation, residential development as the preferred principal land use, commercial development that reflects the historic architectural patterns of Dare County, and the recognition of the importance of tourism to the county economy.
- Most policies in the Southern Shores land use plan acknowledge the predominantly residential nature of Southern Shores, and the preference and desire to continue this character into the future.
- The Town of Duck plans to preserve its present physical appearance and form in order to maintain its unique character among coastal villages.
- US Census data, field observations, and public involvement opportunities did not reveal that any of the communities in the DCIA held concentrations of minorities or low income households. In addition, there are no concentrations in the DCIA of persons not proficient with English.

1.2 Public Involvement and Issues Raised

Key public involvement opportunities associated with developing the Mid-Currituck Bridge Study Draft Environmental Impact Statement (DEIS) and this Community Impact Assessment Technical Report are listed in Table 1-1. Details of these meetings and their outcomes, as well as other public outreach tools used are presented in the *Stakeholder Involvement for Draft Environmental Impact Statement Technical Report* (Parsons Brinckerhoff, 2009). Their outcomes are summarized in the paragraphs that follow.

1.2.1 July 2004 Workshops

Three Citizens Informational Workshops were held on July 15, 21, and 22, 2004 to:

- Present and discuss study requirements, activities, and schedule; and
- Present and discuss a Statement of Purpose and Need.

Table 1-1. Citizens Workshops/Meetings and Request for Comments

Date	Topics of Discussion
Citizens Informational Workshops	
July 15, 21, and 22, 2004	Study requirements, activities, and schedule; and Statement of Purpose and Need.
February 26, 27, and 28, 2008	Mid-Currituck Bridge Study process and components and project concerns and issues.
Public Review of Statement of Purpose and Need and Alternatives Screening Report	
April 2008	Comments requested on a draft Statement of Purpose and Need report and a draft Alternatives Screening Report.
Small Group Meetings	
March 27, 2002	Meeting with the Duck Civic Association to discuss the status of the project.
July 18, 2002	Meeting with citizens from the Town of Southern Shores to discuss the status of the project.
March 31, 2004	Meeting with the Build the Bridge – Preserve Our Roads organization to discuss the status of the project.
October 12, 2009	Meeting with representatives of the Aydlett community to provide information about the Option B Mid-Currituck Bridge mainland approach road alternative.

At these meetings, 194 persons registered their presence. Comments were requested and received at all three workshops. Key issues raised by the citizens in their comments were:

- Traffic projections seemed to be based on simplistic assumptions;
- Concerns about property values, community cohesion, and quality of life within the Town of Southern Shores should NC 12 be widened;
- Support for the bridge for public safety reasons and as a hurricane evacuation route;
- Opposition to the widening of NC 12 through the Towns of Southern Shores and Duck and points northward;
- Opposition to the Mid-Currituck Bridge because of belief that it would accelerate growth and cause more traffic problems;
- Belief the bridge should be “decoupled” from the other highway improvements being considered and studied separately; and
- Concerns about the cost of the bridge.

1.2.2 February 2008 Workshops

In association with project's concept and bridge corridor alternatives screenings, Citizens Informational Workshops were held at three locations on February 26, 27, and 28, 2008, respectively. These meetings provided the public an opportunity to learn more about the project and provide input on the project's purpose and need and range of alternatives. Comments focused on the alternatives.

1.2.2.1 Project Concept Screening

The project's concept screening focused primarily on two sets of alternatives: alternatives that improve existing roads without building a new bridge (ER1 and ER2) and alternatives that involve constructing a new Mid-Currituck Bridge in combination with improvements to existing roads (MCB1, MCB2, MCB3, and MCB4). The concept screening process also involved analysis of several other alternatives, including: shifting rental start times; transportation systems management (TSM); bus transit; and ferry service. These alternatives are described in the *Alternatives Screening Report* (Parsons Brinckerhoff, 2009).

Of the 292 comments received on project concepts during a comment period that ended March 28, 2008, 186 indicated they preferred the construction of a bridge, and 28 indicated they favored widening existing roads. Primary reasons for favoring a bridge were reduced future congestion, improved hurricane evacuation times, and potential positive economic impacts. Primary concerns related to a Mid-Currituck Bridge project were: natural resource impact, changes in views of Currituck Sound, increased day visitors, increased crime, community impacts (particularly in Aydlett), and that a bridge would not completely solve area traffic problems. Those who favored widening existing roads also felt that such an alternative would reduce congestion and facilitate hurricane evacuation. Primary concerns with widening existing roads included: changes in community character, the safety of pedestrians that cross NC 12, negative economic impacts from loss of business parking, and health risks associated with traffic and emissions being closer to residences. Eleven respondents indicated that they favored the No-Build Alternative, primarily because the traffic problem in the project area is currently confined to summer weekends. A majority of comments regarding tolling were favorable about this financing tool. Some comments noted that improved pedestrian and bicycle access should be provided regardless of the alternative pursued. Local officials, both at local officials meetings held on February 27 and 28, 2008 and in resolutions, indicated that they favored the bridge project over widening existing roads.

No comments were received related to the other alternatives considered and rejected except the ferry alternative. The 10 comments regarding ferry service were equally split between proponents and opponents. Several expressed concern that ferry service had been tried and was unsuccessful. Others noted that the sound is too shallow and could not sustain ferry service. Some respondents noted that tourists might enjoy the novelty of a ferry and be inclined to use it.

1.2.2.2 Bridge Corridor Screening

The project's bridge corridor screening focused on six corridors, C1 to C6. These alternatives and other bridge corridors considered but dropped early in the study process are described in the *Alternatives Screening Report* (Parsons Brinckerhoff, 2009).

Public comments on the bridge corridors generally focused on concerns related to direct impacts associated with the bridge termini, including noise impacts at nearby homes in Aydlett, changes in views (including those of historic structures), a family cemetery displacement in the US 158 interchange area with C1 and C2, and impacts to the Corolla Bay subdivision by C1, C3, and C5 (proximity to bridge, change in sound views, and right-turn only access to residential and commercial components). Many of the comments on these alternatives came from persons who would be personally affected by a particular corridor, as well as people concerned about potential impacts on their community in general.

Several persons suggested that the bridge end on the mainland at the intersection of US 158 and NC 168. It was felt that such a corridor would reduce community impact and help hurricane evacuation by providing a second bridge across the Intracoastal Waterway and a direct route to NC 168. This concept was considered but eliminated for reasons described in the *Alternatives Screening Report* (Parsons Brinckerhoff, 2009).

Those who expressed an opinion on the Outer Banks termini overwhelmingly indicated a preference for ending the bridge south of TimBuck II (a shopping and entertainment center on the west side of NC 12 at Albacore Street) because it would affect the community and traffic circulation the least. This option was associated with C2, C4, and C6). Many opposed the northern terminus (C1, C3, and C5) because of concerns that it would increase traffic through the Whalehead Beach community.

1.2.3 Public Review of Statement of Purpose and Need and Alternatives Screening Report

On April 7, 2008, NCTA released a draft Statement of Purpose and Need report and a draft Alternatives Screening Report for the Mid-Currituck Bridge Study. These documents were delivered to project area municipal offices in Currituck, Corolla, Kitty Hawk, Southern Shores, and Duck, and posted on the project web site. Stakeholders were notified of the release of these documents through a postcard mailing and via the project web site. Comments were requested.

A total of 65 comments were submitted to the NCTA via email, conventional mail, telephone, as well as formal comment sheets distributed through the project web site. The Towns of Nags Head and Southern Shores, Currituck County, and the Albemarle Commission submitted official resolutions, the Town of Duck submitted a letter, and recommendations were made by a special interest group and a property owner's association. Governmental resolutions and letters supported the Mid-Currituck Bridge.

1.2.3.1 Statement of Purpose and Need-Related Comments

Five citizens made comments that specifically referenced the draft Statement of Purpose and Need. Several of these comments included questions regarding the methodology used for numbers cited in the report. These comments included:

- Two comments that inquired about methodologies used for population statistics. These comments asked for clarification of who was included in population counts and how population was projected.
- Two comments that contested the stated traffic congestion problems. These comments argued that traffic congestion is infrequently experienced and does not constitute a need.

These commenters generally opposed construction of a Mid-Currituck Bridge. One comment was a general statement of approval for the draft Statement of Purpose and Need and the project. One comment disputed the right of communities outside of Currituck County to have input for this study and did not want a copy of the report to be available in those locations south of the county line.

1.2.3.2 Alternatives Screening Report-Related Comments

Eight citizens made comments that specifically referenced the findings of the draft Alternatives Screening Report. These comments generally opposed construction of a Mid-Currituck Bridge. Comments included:

- One comment was a general statement of approval for the draft Alternatives Screening Report and the project.
- One respondent that felt that noise, visual, and community cohesion impacts to the Town of Aydlett were neglected in the draft Alternatives Screening Report. It was suggested that the environmental impacts be minimized by utilizing a corridor through a former shooting club (now “The Currituck Club,” a developing subdivision). The reasons why this alternative was not pursued is in the *Alternatives Screening Report* (Parsons Brinckerhoff, 2009).
- One respondent noted that billboards that she owned adjacent to US 158 near the proposed interchange with the bridge were not included in the assessment of business impacts in the draft Alternatives Screening Report.
- One respondent, a mainland Currituck resident who resides on the land where the proposed bridge interchange with US 158 would occur, felt that a trumpet interchange design would have less impact than the “Y” interchange design because the “Y” interchange could interfere with drainage.

- One respondent felt that traffic patterns support inclusion of widening existing roads alternatives because drivers that use the proposed bridge would still contribute to traffic in Southern Shores and Duck as they use NC 12 to access shopping and restaurants.
- One respondent misinterpreted the draft Alternatives Screening Report and thought that the NCTA was recommending widening of NC 12 through Southern Shores and Duck. This respondent requested that the NCTA reconsider that recommendation.

1.2.3.3 *General Project Comments*

The majority of comments received (47) expressed a preference for and/or against various project alternatives. These comments included:

- Comments in favor of a bridge alternative noted that a bridge would improve accessibility and reduce traffic congestion, travel time, and fuel costs. Enhanced hurricane evacuation capacity also was a frequently cited benefit of a bridge.
- Several comments noted that the bridge would not actually completely solve the area's traffic congestion problems.
- Several respondents expressed opposition to the bridge because of direct displacement of property.
- Some comments stated concern that habitat and wildlife would be threatened by the construction of a bridge and the resulting increase in automobile traffic.
- Some respondents noted concern that a bridge would encourage over-development and commercialization of the Outer Banks. They frequently cited the need for growth management.
- There were concerns that the bridge would affect neighborhoods and communities. Some of these comments referred to the direct impacts of bridge landings, while others referred to the indirect impacts of increased automobile traffic.
- There was concern that the bridge would provide easy access to criminals that would take advantage of empty houses on the Outer Banks during the off-season.
- There was concern that the bridge would cause a reduction in the visual and aesthetic quality of the area.
- There was considerable concern that widening roads would damage the distinctive community character.

- Several respondents noted that they felt widening the existing roads would have negative impacts on the economy of the area, as it would deter tourists from visiting the area.
- Some comments stated preference for improvement of existing roads. Several comments noted opposition to alternatives that included improvement of existing roads.
- Several comments were in favor of the No-Build Alternative and explained that traffic congestion was primarily a problem during summer weekends, and that this limited problem is an acceptable inconvenience considering the proposed alternatives.
- One comment requested that bicycles be included in the planning of a Mid-Currituck Bridge. This respondent cited an NCDOT study that found that investment in bicycle facilities on the Outer Banks resulted in positive economic impact. The respondent suggested that inclusion of bicycle facilities on a bridge would lure greater numbers of tourists to the Outer Banks.

1.2.4 Small Group Meetings

The NCTA invites or is invited by community groups and other stakeholders to arrange small group meetings with the study team. This provides an opportunity for citizens to obtain additional information and provide comments on the project. Small group meetings have been conducted with several stakeholder groups, including the following: Duck Civic Association (March 27, 2002), citizens from the Town of Southern Shores (July 18, 2002), Build the Bridge – Preserve Our Roads, Inc. (March 31, 2004), and the Aydlett community (October 12, 2009). In the case of the first three meetings, the citizen representatives invited the study team to brief them on the status of the project, answer their questions, and discuss their concerns about congestion on NC 12 and a Mid-Currituck Bridge as a solution. The meeting with representatives of the Aydlett community was initiated by NCTA. Representatives of the nearby Church’s Island community and other persons interested in the project also chose to attend. The purpose of the meeting was to provide representatives of the Aydlett community with information about the Option B Mid-Currituck Bridge mainland approach road alternative and obtain comments on the alternative as it relates to its impact on the Aydlett community. Option A also was presented and discussed.

Most of the comments were directed to concerns about the impact of Option B on the Aydlett community, including potential impacts on their way-of-life and the potential for drivers to change their mind about using the bridge just before the toll plaza and use roads in the Aydlett community to return to US 158. Citizens also felt that Option B contradicted previous promises that there would be no access between the bridge project and Aydlett.

Church's Island representatives expressed their opposition to the prohibition of left turns at the US 158/Waterlily Road intersection that as of the date of the meeting was associated with Option A.

1.3 Key Potential Impacts

Potential direct impacts differ among the detailed study alternatives (ER2, MCB2, and MCB4) and the No-Build Alternative (see Section 2.3 for a description of these alternatives). In addition, adverse or beneficial impacts also depend on the alternative with which the impact is associated. The impacts are addressed fully in Section 6.0 and summarized in Table 6-1. Key potential impacts would include:

- Visual
 - ER2 – Interchange introduced into views in Kitty Hawk; changes in views along NC 12 from US 158 to Albacore Street.
 - MCB2/C1 – Mid-Currituck Bridge and the associated toll plaza and approach road introduced into views along US 158 and in Aydlett (including views of Currituck Sound); changes in views in Aydlett that differ between Option A and Option B with Option A introducing a two-lane approach road on fill and Option B introducing a toll plaza (generally at the existing land elevation) and changes in the local road system to bring it over the toll plaza; adverse effects to views of Currituck Sound from the Corolla Bay subdivision; interchange introduced into views in Kitty Hawk; changes in views along NC 12 from US 158 to bridge terminus.
 - MCB2/C2 – Mid-Currituck Bridge and the associated toll plaza and approach road introduced into views along US 158 and in Aydlett (including views of Currituck Sound); changes in views in Aydlett that differ between Option A and Option B with Option A introducing a two-lane approach road on fill and Option B introducing a toll plaza (generally at the existing land elevation) and changes in the local road system to bring it over the toll plaza; adverse effects to views from the outdoor recreation area at TimBuck II commercial area; interchange introduced into views in Kitty Hawk; changes in views along NC 12 from US 158 to bridge terminus.
 - MCB4/C1 – Mid-Currituck Bridge and the associated toll plaza and approach road introduced into views along US 158 and in Aydlett (including views of Currituck Sound); changes in views in Aydlett that differ between Option A and Option B with Option A introducing a two-lane approach road on fill and Option B introducing a toll plaza (generally at the existing land elevation) and changes in the local road system to bring it over the toll plaza; adverse effects to views of

Currituck Sound from the Corolla Bay subdivision; changes in views along NC 12 from Seashell Lane to bridge terminus.

- MCB4/C2 – Mid-Currituck Bridge and the associated toll plaza and approach road introduced into views along US 158 and in Aydlett (including views of Currituck Sound); changes in views in Aydlett that differ between Option A and Option B with Option A introducing a two-lane approach road on fill and Option B introducing a toll plaza (generally at the existing land elevation) and changes in the local road system to bring it over the toll plaza; adverse effects to views from the outdoor recreation area at TimBuck II commercial area; changes in views along NC 12 from Seashell Lane to bridge terminus.

- Relocations

	<u>ER2</u>	<u>MCB2</u>	<u>MCB4</u>
– Residential	6 (1 without third outbound lane for hurricane evacuation) plus 10 vacation rental units	6 to 8 plus 10 vacation rental units on the Outer Banks	5 to 7
– Business	5 (2 without third outbound lane for hurricane evacuation)	7 to 8 (5 to 6 without third outbound lane for hurricane evacuation)	5 to 6 (3 to 4 without third outbound lane for hurricane evacuation)
– Outdoor Advertising Sign	29 (none without third outbound lane for hurricane evacuation)	6 to 16 (3 to 13 without third outbound lane for hurricane evacuation)	6 to 16 (3 to 13 without third outbound lane for hurricane evacuation)
– Gravesite	66 (none without third outbound lane for hurricane evacuation)	35 to 36 (19 to 20 without third outbound lane for hurricane evacuation)	35 to 36 (19 to 20 without third outbound lane for hurricane evacuation)

- Land Use Plans – The No-Build Alternative and ER2 would be inconsistent with the *Currituck County Land Use Plan*, *Southern Shores Long Range Plan* and *Town of Duck Land Use Plan*, as all support construction of a Mid-Currituck Bridge.

- Access

- US 158/Mid-Currituck Bridge interchange area

MCB2, MCB4 – With Option A, pavement marking on the Mid-Currituck Bridge ramp to US 158 would be designed to have traffic on the ramp completely merged into US 158 approximately 600 feet south of Waterlily Road. However, the additional pavement for the ramp would continue to the Waterlily Road intersection to serve as the right-turn lane, so there would be the potential for merging traffic to wait until just before the intersection to merge into US 158. This would increase the challenge of turning left into or out of Waterlily Road during peak travel periods. This would not be the case with Option B. With Option B, direct access from US 158 would be lost for customers of a gas station in the US 158/Mid-Currituck Bridge interchange area.

MCB2, MCB4 – With both Option A and Option B, a frontage road on east side of US 158 and north of the interchange to serve properties fronting US 158;

MCB2, MCB4 – With Option B, a frontage road along the west side of US 158 adjacent to the interchange to provide access to properties in this area that currently have direct access to US 158; with Option A these properties would be purchased and no frontage road would be provided.

- Aydlett area

MCB2/A, MCB4/A – Aydlett Road and Narrow Shore Road are unchanged. The bridge would pass over Narrow Shore Road. No access to and from the Mid-Currituck Bridge would be provided at Aydlett.

MCB2/B, MCB4/B – Existing Aydlett Road would be removed through Maple Swamp. Travel between US 158 and Aydlett would be provided via the Mid-Currituck Bridge approach road. Aydlett travelers would exit or enter the approach road such that they would not pass through the toll plaza placed in Aydlett. No access to and from the Mid-Currituck Bridge would be provided at Aydlett. Access between the southern and northern parts of Aydlett would be via a relocated Narrow Shore Road, which would take drivers over the toll plaza. Because Aydlett Road would be removed through Maple Swamp, the potential would exist during unusual traffic situations, such as a crash on the approach road or the bridge, for emergency vehicles serving Aydlett to be slowed between US 158 and Aydlett.

- Street closures along NC 12:

ER2, MCB2 – Widgeon Drive, Canvas Back Drive, and Old Squaw Road would be closed to through traffic but not emergency vehicles. A second connection to NC 12 exists for the subdivisions served by these streets.

- MCB2, MCB4 – With bridge corridor C1, access road connecting NC 12 to north end of Harbor View would be closed. The intersection with NC 12 at the south end of Harbor View would be retained.
- US 158 super-street:

ER2, MCB2 –Unrestricted left-turns across highway would be eliminated. The number of four-way intersections would be reduced. Direct access across highway would be limited. Provisions would be made for U-turns for those wishing to turn left or cross US 158.
 - US 158/NC 12 interchange.

ER2, MCB2 – Some turning movements would be eliminated in the US 158/NC 12 interchange, including loss of direct access to US 158. Alternate access routes exist on local streets.
 - Mid-Currituck Bridge – Beneficial Impact. Access to commercial resources and services would be improved between the Outer Banks and mainland Currituck County.
 - Parking – Potential or known loss of parking, depending on the alternative.
 - ER2.

Outer Banks – US 158 super-street would reduce parking at the Home Depot about 10 percent, resulting in non-conforming (does not meet current requirements) ratio of parking/retail space.
 - MCB2.

US 158 super-street would reduce parking at the Home Depot about 10 percent, resulting in non-conforming (does not meet current requirements) ratio of parking/retail space.

With Mid-Currituck Bridge corridor C2, TimBuck II shopping center would lose some of its parking area.
 - MCB4.

With Mid-Currituck Bridge corridor C2, TimBuck II shopping center would lose some of its parking area.
 - Public Safety – Beneficial impact. Hurricane clearance time reduced to 22 hours, 4 hours over the North Carolina Standard of 18 hours (ER2, MCB2, MCB4) in 2035, compared to the anticipated 36 hours in 2035 for the No-Build Alternative.
 - Bicycle Safety – Beneficial impact. On the Outer Banks, local unnamed multi-use paths would be retained, replaced to NCDOT standards, or allowed for in project design. With ER2, MCB2, and MCB4, space would be provided for a multi-use path

for approximately 2 miles in Currituck County where such a path does not now exist.

- Bird Sanctuaries, Wildlife Refuges, and Kayaking Trails – There are no impacts to bird sanctuaries with the detailed study alternatives. MCB2 and MCB4 would require a permanent drainage easement along the edge of the Pine Island Audubon Sanctuary where it abuts the NC 12 right-of-way. The dock from where the kayaks are launched for the Corolla Marshes from TimBuck II trail would be removed with the C2 bridge alignment associated with MCB2 or MCB4. The remainder of the trail would be unaffected.

1.4 Findings and Recommendations

With any of the alternatives, there would be various impacts as well as benefits. Key potential impacts and benefits were listed in the previous section. Key impacts relate to:

- Visual change;
- Relocations;
- Inconsistency with land use plans in the case of the No-Build Alternative and ER2;
- Changes in access;
- Parking loss;
- Use of land from a bird sanctuary for a permanent drainage easement adjacent to the NC 12 right-of-way; and
- Removal of launch dock from Corolla Marshes from Tim Buck II kayak trail.

Key benefits are:

- Improved access between the mainland and the Outer Banks with MCB2 and MCB4;
- Reduced hurricane clearance times; and
- Provisions for future 2-mile multi-use path on NC 12 in Currituck County.

The detailed study alternatives would not have a disproportionately high and adverse impact on minority, low-income, or limited English proficiency populations.

With the No-Build Alternative, there would be no community impacts. However, congestion and travel time would not be reduced, and the 2035 hurricane clearance time is predicted to be 36 hours. The No-Build Alternative is inconsistent with numerous planning documents for the project area, including the *Currituck County Land Use Plan*,

Southern Shores Long Range Plan, Town of Duck Land Use Plan, Thoroughfare Plan for Currituck County, and the North Carolina Strategic Highway Corridor and Intrastate System maps.

Various measures would serve to mitigate key impacts of the detailed study alternatives or would be included as enhancement measures in the project design. Means to minimize impacts would be pursued during final design. They would include:

- Visual Change

Much of the visual change associated with the project cannot be substantially mitigated. As a part of final design for the alternative chosen for implementation, a landscaping plan would be developed. Sensitivity to their context will be considered in bridge- and interchange-related structure design if MCB2 or MCB4 is chosen.

- Relocations

It is the policy of the NCDOT and NCTA to ensure that comparable replacement housing or business location is available prior to the construction of state and federally-assisted projects. The *Relocation Moving Payments Program* provides for payment of actual relocation moving expenses.

- Inconsistency with Land Use Plans

Although the No-Build Alternative and ER2 do not include a Mid-Currituck Bridge and are inconsistent with local plans from that perspective, MCB2 and MCB4 do include a Mid-Currituck Bridge and could be selected for implementation.

- Changes in Access

Access would be retained to all properties. Provisions would be made to support U-turns at nearby intersections where left turns would be restricted. In interchange areas, opportunities to mitigate further access changes would be considered during final design. Provisions would be made for emergency vehicles.

With Option A, improvements would be made to the US 158/Waterlily Road intersection to minimize the additional challenge of turning left into or out of Waterlily Road during peak travel periods that would be created by the nearby ending of an interchange ramp.

With Option B, the potential during unusual traffic situations, such as a crash on the approach road or the bridge, for emergency vehicles serving Aydlett to be slowed between US 158 and Aydlett would be considered during the development of the bridge operator's emergency response plan.

With Option B, direct access from US 158 would be lost for customers of a gas station in the US 158/Mid-Currituck Bridge interchange area.

- Parking Loss

Opportunities to reduce further parking loss would be considered during final design.

- Use of Land from a Bird Sanctuary for a Permanent Drainage Easement Adjacent to the NC 12 Right-of-Way.

If ER2 or MCB2 are selected for implementation, additional drainage design studies would be conducted during final design. MCB4 would avoid this impact because no NC 12 improvements are proposed adjacent to the sanctuary.

- Loss of boat launch dock for kayak trail.

If MCB2 or MCB4 is selected for implementation with the C2 bridge design, opportunities for relocating the dock would be considered.

2.0 Project Description

The Mid-Currituck Bridge project (STIP No. R-2576) would involve transportation improvements to the eastern Currituck County peninsula and the Currituck County and northern Dare County Outer Banks. The detailed study alternatives are described in Section 2.3. Portions of the proposed project are included in the NCDOT 2009-2015 *State Transportation Improvement Program* (STIP), the North Carolina Intrastate System (NC General Statute 136-178), the *North Carolina Strategic Highway Corridors Vision Plan* (NCDOT, 2004), and the *Thoroughfare Plan for Currituck County* (NCDOT, 1999).

2.1 Communities within the Project Area

The project area is in northeastern North Carolina and includes the Currituck County peninsula on the mainland and its Outer Banks, as well as the Dare County Outer Banks north of Kitty Hawk (see Figure 1-2). The project area is south of the Virginia Beach-Norfolk, Virginia (Hampton Roads), metropolitan area. The project area encompasses two thoroughfares, US 158 from NC 168 to NC 12 (including the Wright Memorial Bridge) and NC 12 north of its intersection with US 158 to its terminus in Currituck County. US 158 is the primary north-south route on the mainland. NC 12 is the primary north-south route on the Outer Banks. The Wright Memorial Bridge connects the mainland with the Outer Banks. Together, US 158 and NC 12 form the project area's existing thoroughfare network.

The project is within the Albemarle Rural Planning Organization (RPO). Although there are no municipalities in Currituck County, rural communities dot the Currituck County mainland in the project area. From north to south they include: Coinjock, Aydlott, Grandy, Jarvisburg, Powells Point, Mamie, Harbinger, and Point Harbor (see Figure 1-2).

On the mainland, the communities are rural and sparsely populated, with some providing services to vehicular traffic along US 158. On the Outer Banks, the communities are more urbanized. They are beach-oriented, with commercial shopping and dining amenities, and they depend on tourism as their main economic base. Because vacation rental cottages make up most of the housing stock, the Outer Banks population varies over the course of the year, increasing on weekends, holidays and during the summer.

On the Dare County portion of the Outer Banks, the three municipalities within the project area are the northern portion of Kitty Hawk, Southern Shores, and Duck. There are no incorporated areas to the north within the Currituck County portion of the Outer Banks. Within this portion of the project area are subdivisions that include Pine Island, Currituck Club, Spindrift, Ocean Sands, Crown Point, Buck Island, Monterey Shores,

Corolla Shores, Corolla Bay, and the Villages of Ocean Hill. Further north, Corolla Light, the community of Corolla, and the Villages of Ocean Hill are outside of the Direct Community Impact Area (DCIA). (See Figure 5-2 and Figure 5-3 later in this report for the precise locations of these communities.)

2.2 Project Purpose and Need

The proposed action responds to three underlying needs in the project area, as stated in the adopted *Statement of Purpose and Need* (Parsons Brinckerhoff, October 2008). These needs are based on the following travel conditions:

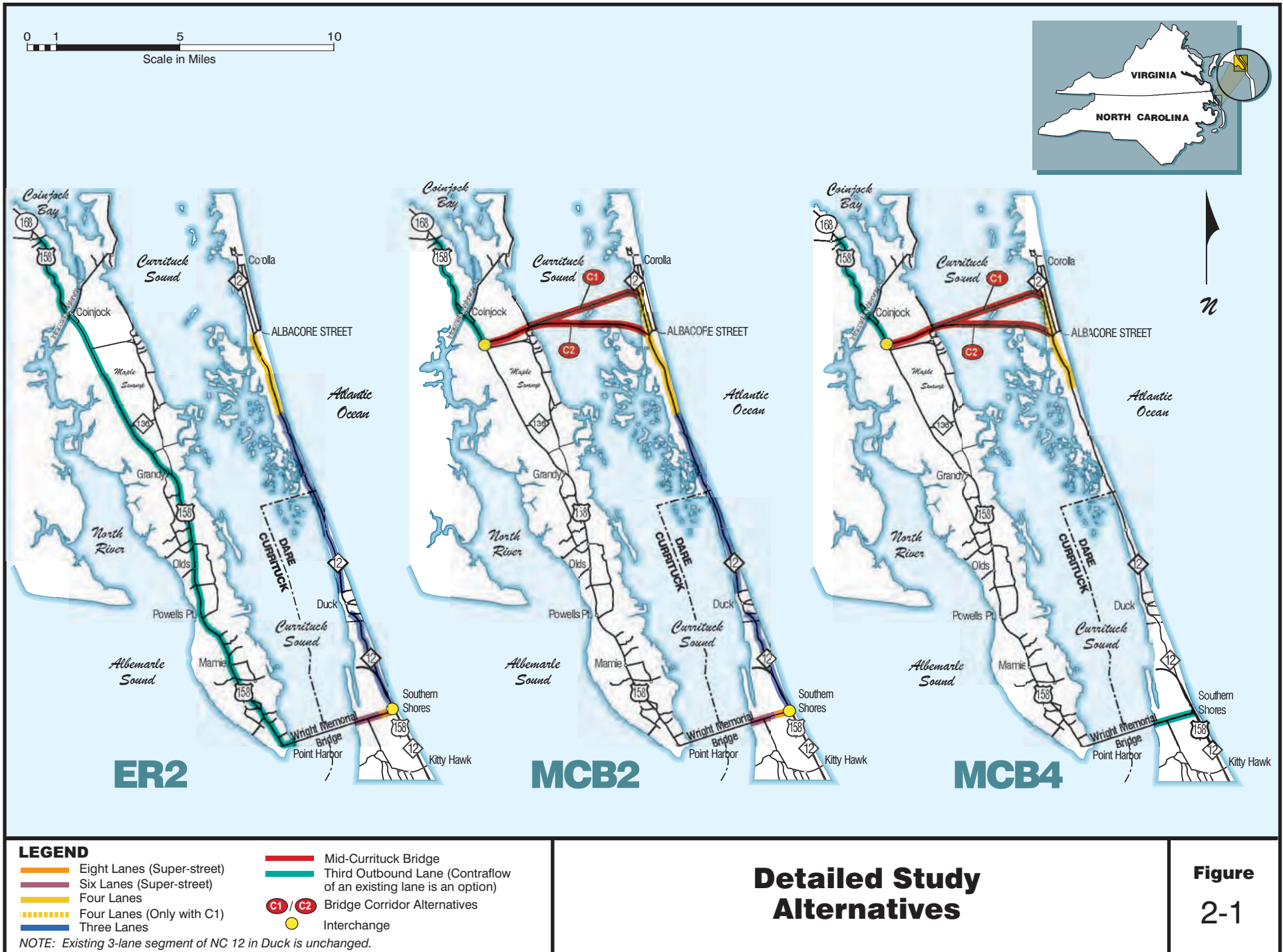
- The project area's main thoroughfares (US 158 and NC 12) are becoming increasingly congested, and congestion will become even more severe in the future.
- Increasing congestion is causing travel time between the Currituck County mainland and the Currituck County Outer Banks to increase, especially during the summer.
- Evacuation times for residents and visitors who use US 158 and NC 168 as an evacuation route far exceed the state-designated standard of 18 hours.

Based on the above, specific needs for the proposed project are to:

- Substantially improve traffic flow on the project area's thoroughfares (US 158 and NC 12).
- Substantially reduce travel time for persons traveling between the Currituck County mainland and the Currituck County Outer Banks.
- Substantially reduce evacuation times from the Outer Banks for residents and visitors who use US 158 and NC 168 as an evacuation route.

2.3 Detailed Study Alternatives

An alternatives screening study was conducted for the project. Its findings were discussed with federal and state environmental resource and regulatory agencies in a series of Turnpike Environmental Agency Coordination (TEAC) meetings in 2006, 2007, 2008, and 2009. A number of options were considered and included existing roads (ER) and the proposed Mid-Currituck Bridge (MCB) alternatives. Based on discussions at TEAC meetings, and written comments received from the agencies and public, the *Alternatives Screening Report* (Parsons Brinckerhoff, 2009) for the proposed project identified three alternatives to be carried forward for detailed study in the DEIS along with the No-Build Alternative. The detailed study alternatives identified are ER2, MCB2, and MCB4. The detailed study alternatives are shown on Figure 2-1 and described below:



- **ER2**

- Adding for evacuation use only (closed to traffic during non-evacuation times by pavement markings), a third outbound evacuation lane on US 158 between NC 168 and the Wright Memorial Bridge as a hurricane evacuation improvement or using the existing center turn lane as a third outbound evacuation lane; in either case one inbound lane on the Wright Memorial Bridge and on the Knapp (Intracoastal Waterway) Bridge would be used as a third outbound evacuation lane;
- Widening US 158 to a six-lane super-street between the Wright Memorial Bridge and Cypress Knee Trail that widens to eight lanes between Cypress Knee Trail and the Home Depot driveway;
- Constructing an interchange at the current intersection of US 158, NC 12, and the Aycock Brown Welcome Center entrance, including six through lanes on US 158 starting at the Home Depot driveway and returning to four lanes just south of Grissom Street; and
- Widening NC 12 to three lanes between US 158 and a point just north of Hunt Club Drive in Currituck County (except where NC 12 is already three lanes in Duck) and to four lanes with a median from just north of Hunt Club Drive to Albacore Street.

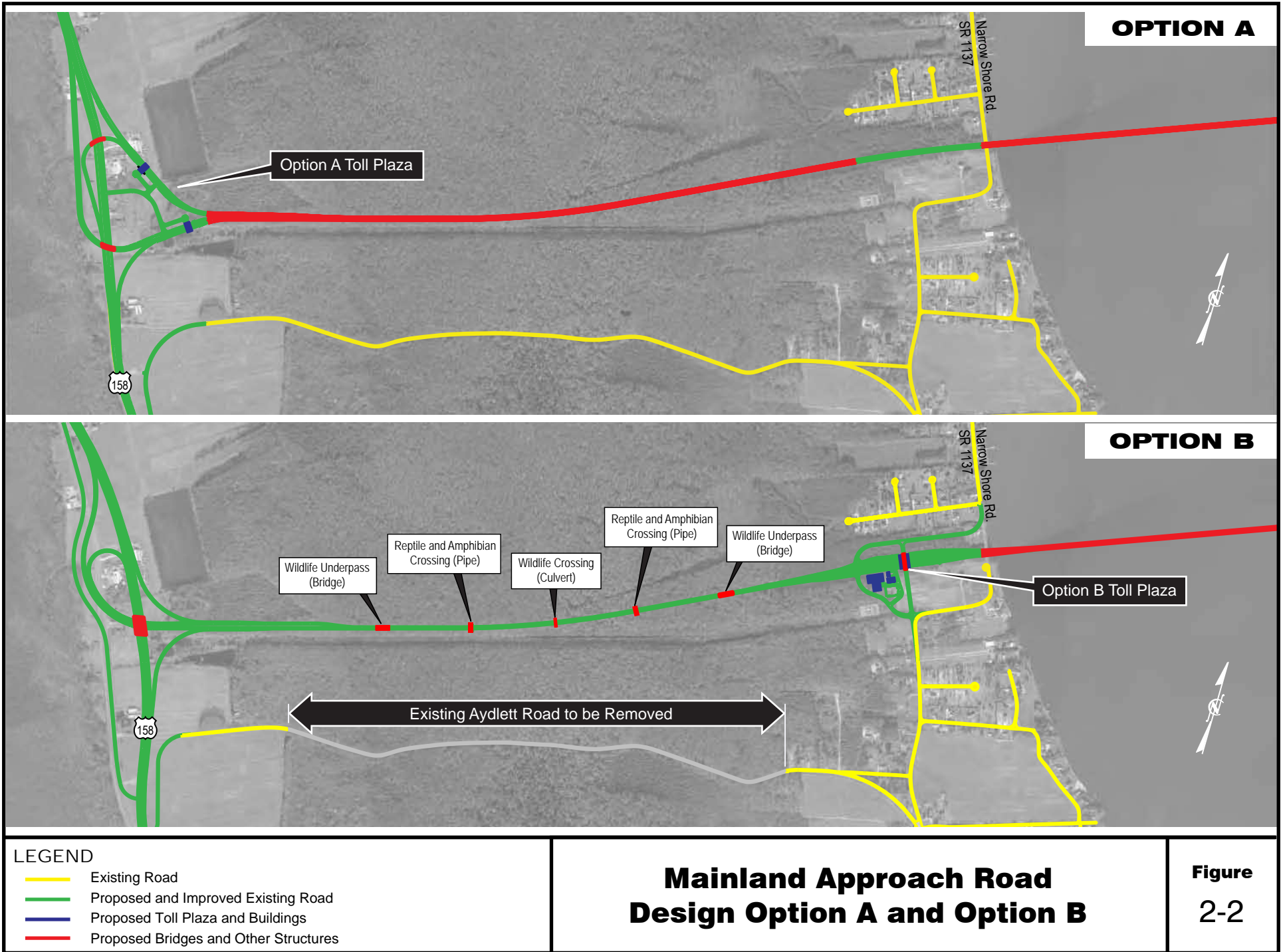
- **MCB2**

- Constructing a two-lane toll bridge across Currituck Sound, as well as approach roads and/or bridges and an interchange at US 158;
- Adding for evacuation use only (closed to traffic during non-evacuation times by pavement markings), a third outbound evacuation lane on US 158 between NC 168 and the Mid-Currituck Bridge as a hurricane evacuation improvement or using the existing center turn lane as a third outbound evacuation lane; in either case one inbound lane on the Knapp (Intracoastal Waterway) Bridge would be used as a third outbound evacuation lane;
- Widening US 158 to a six-lane super-street between the Wright Memorial Bridge and Cypress Knee Trail and an eight-lane super-street between Cypress Knee Trail and the Home Depot driveway;
- Constructing an interchange at the intersection of US 158, NC 12, and the Aycock Brown Welcome Center entrance, including six through lanes on US 158 starting at the Home Depot driveway and returning to four lanes just south of Grissom Street; and

- Widening NC 12 to three lanes between US 158 and a point just north of Hunt Club Drive in Currituck County (except where NC 12 is already three lanes in Duck) and to four lanes with a median from just north of Hunt Club Drive to NC 12's intersection with the Mid-Currituck Bridge.
- **MCB4**
 - Constructing a two-lane toll bridge across Currituck Sound, as well as approach roads and/or bridges and an interchange at US 158;
 - Adding for evacuation use only (closed to traffic during non-evacuation times by pavement markings), a third outbound evacuation lane on US 158 between NC 168 and the Mid-Currituck Bridge as a hurricane evacuation improvement or using the existing center turn lane as a third outbound evacuation lane; in either case one inbound lane on the Knapp (Intracoastal Waterway) Bridge would be used as a third outbound evacuation lane;
 - Adding for evacuation use only, a third outbound evacuation lane on US 158 between the Wright Memorial Bridge and NC 12 as a hurricane evacuation improvement or using the existing center turn lane as a third outbound evacuation lane; in either case one inbound lane on the Wright Memorial Bridge would be used as a third outbound evacuation lane; and
 - Widening NC 12 in Currituck County to four lanes with a median from Seashell Lane to NC 12's intersection with the Mid-Currituck Bridge.

The unique characteristic of a super-street, included along US 158 east of the Wright Memorial Bridge with ER2 and MCB2, 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).

For MCB2 and MCB4, two design options are evaluated for the approach to the bridge over Currituck Sound, between US 158 and Currituck Sound. (See Figure 2-2.) 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. With Option B, the approach to the bridge over Currituck Sound would be a road placed on fill within Maple Swamp. Aydlett Road would be removed and the roadbed restored as a wetland. Traffic traveling between US 158 and Aydlett would use the new bridge approach road. A local connection would be provided between the bridge approach road and the local Aydlett street system. The toll plaza would be placed in Aydlett east of that local connection so that Aydlett traffic would not pass through the toll plaza



when traveling between US 158 and Aydlett. No access to and from the Mid-Currituck Bridge would be provided at Aydlett.

Also for MCB2 and MCB4, there are two variations of the proposed bridge corridor (see Figure 2-1) in terms of its terminus on the Outer Banks. Bridge corridor C1 would connect with NC 12 at an intersection approximately two miles north of the Albacore Street retail area (near the Corolla Bay development), whereas bridge corridor C2 would connect with NC 12 approximately one-half mile south of Albacore Street. The length of the proposed Mid-Currituck Bridge would be approximately 7.0 miles with bridge corridor C1, whereas it would be approximately 7.5 miles with bridge corridor C2.

When impacts differ for the three alternatives (ER2, MCB2, and MCB4) between the mainland approach road design options (Option A and Option B) and/or the two bridge corridors (C1 and C2), the names of the alternatives are augmented with suffixes for the mainland approach road design option and/or the bridge corridor. For example, MCB2 with mainland design Option B and the C1 corridor is referred to as MCB2/B/C1. In situations where impacts differ between the bridge corridors but the design option on the mainland is not relevant to the comparison, only the corridor suffix is used (e.g., MCB2/C1). When differences are confined to the mainland design options, only the design option suffix is used (e.g., MCB2/A). If no suffix is provided (e.g., MCB2), then the reader can assume that impacts would be identical irrespective of the mainland design option or corridor terminus alternative used.

2.4 No-Build Alternative

The No-Build Alternative assumes that the proposed project would not be implemented. Reasonably foreseeable improvements contained in the North Carolina Department of Transportation (NCDOT) *2009 to 2015 State Transportation Improvement Program (STIP)* are expected to occur independent of the alternatives being assessed for the proposed project.

The planned improvements listed in the STIP for development within or near the project area that are included in the No-Build Alternative are:

- **Project No. R-2544**—Widen US 64 to multi-lanes east of the Alligator River to US 264;
- **Project No. R-2545**—Widen US 64 to multi-lanes east of Columbia to east of the Alligator River;
- **Project No. R-2574**—Widen US 158 to multi-lanes from NC 168 to east of NC 34 at Belcross in Camden County; and

- **Project No. R-4429**—Upgrade NC 168 to north of SR 1232 and from SR 1213 to SR 1216.

The locations of these projects are shown on Figure 1-1.

2.5 Project Schedule

If ER2 were selected as the Preferred Alternative, the project would be referred to NCDOT for implementation. If this occurred, it is not known when the project would be implemented, as there is no state funding for STIP-listed road improvements in the project area. The only component of ER2 listed in the STIP is the interchange at US 158/NC 12, and funds related to the interchange are provided only for planning.

If MCB2 were selected, final design and construction on elements of the project that could be funded by available toll revenue sources would be expected to begin immediately following the Record of Decision (ROD), the report that ends the environmental planning process. As with ER2, the timing for other aspects of MCB2 is not known.

If MCB4 were selected as the Preferred Alternative, final design and construction would be expected to begin immediately after issuance of the ROD.

2.6 Functional Classifications

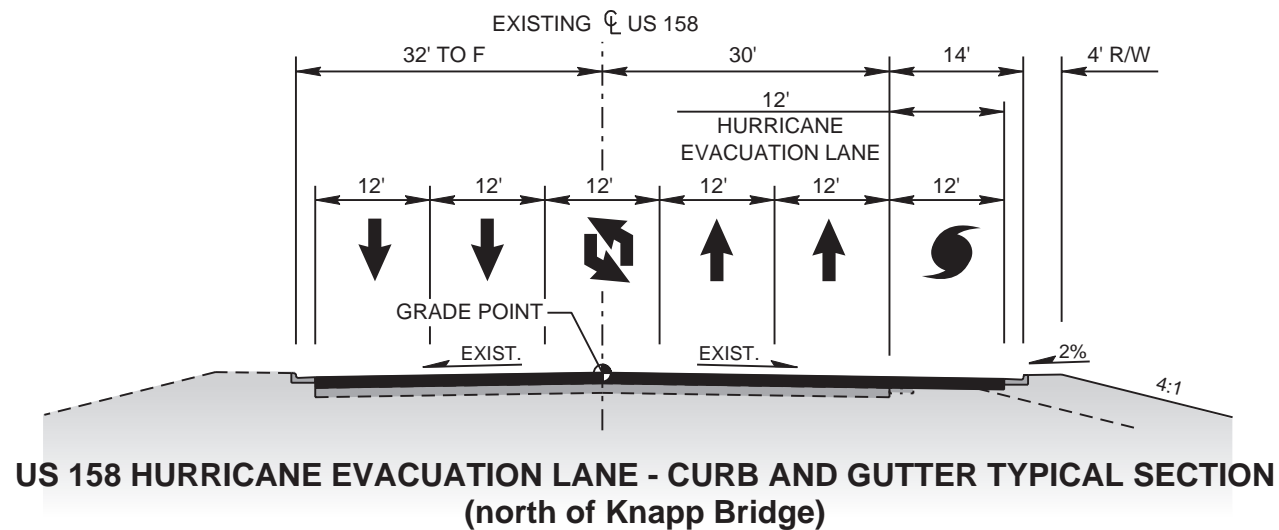
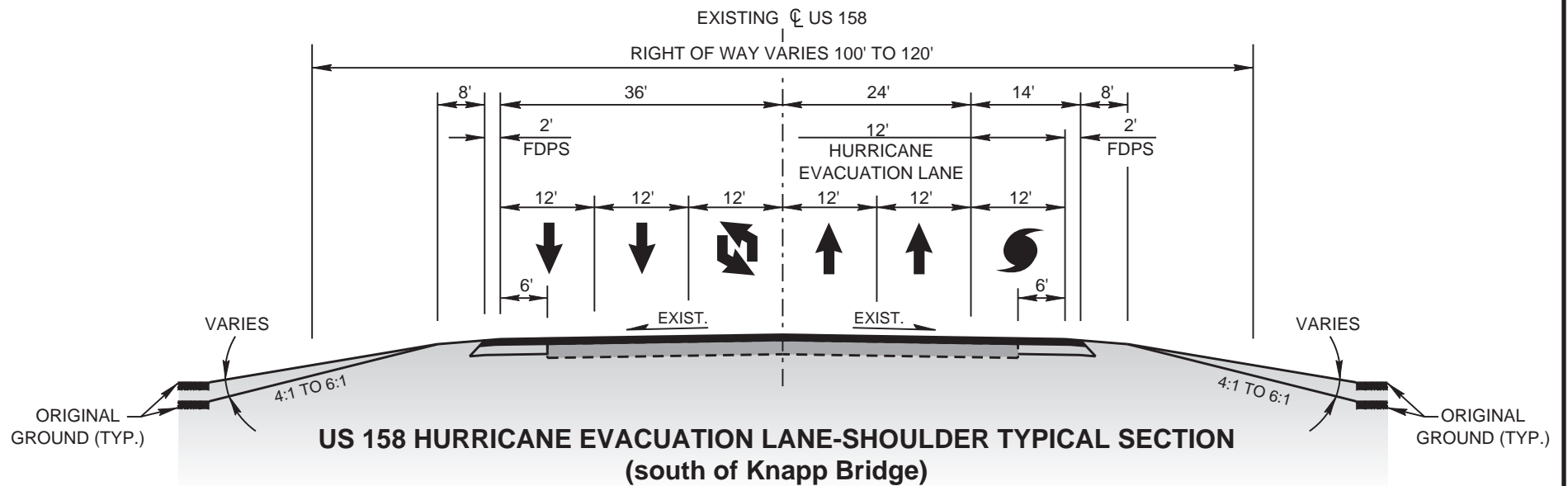
Based on the functional classification maps for Currituck County and Dare County roads, the functional classifications listed below apply to roadways in the project area that would be affected by the project alternatives.

- Currituck County Rural Map
 - US 158 – Minor Arterial
 - NC 12 – Major Collector
- Dare County Map 2/2, Urban Cluster Map 1
 - Wright Memorial Bridge – Minor Arterial
 - US 158 on the Outer Banks – Principal Arterial
 - NC 12 south of Duck – Minor Arterial
 - NC 12 through Duck – Major Collector

- *North Carolina Strategic Highway Corridors Vision Plan* (NCDOT, 2004) provides the following additional designations for the future:
 - US 158 – Boulevard
 - NC 12 – Thoroughfare

2.7 Typical Sections

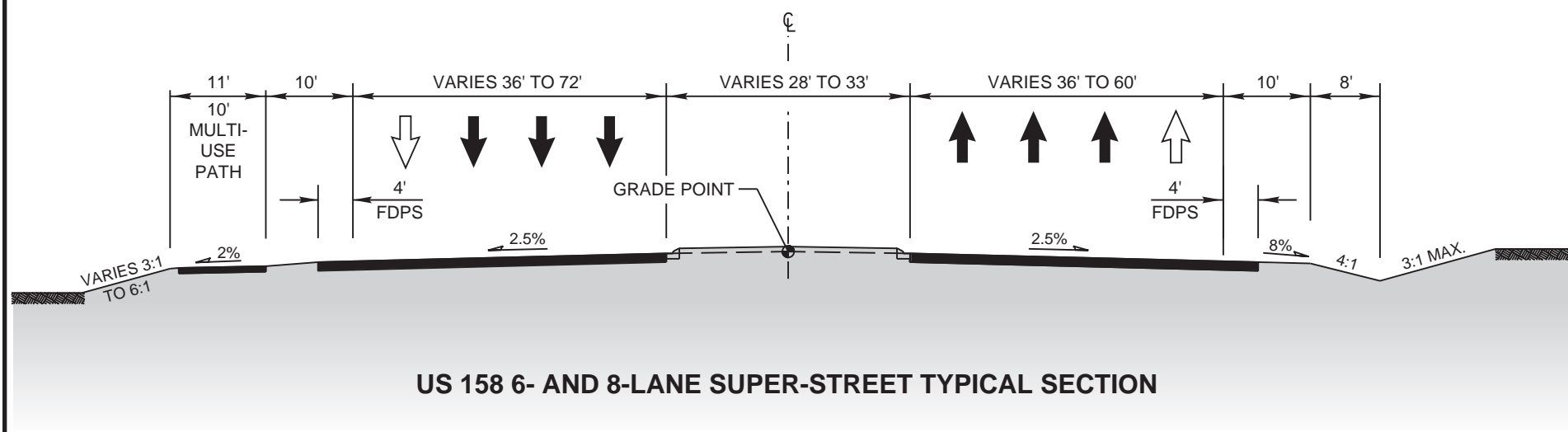
Typical sections for the various roadway configurations are shown on Figure 2-3 through Figure 2-7. The application of each section would vary by alternative. Figure 2-3 shows sections for the US 158 hurricane evacuation lane which would occur with ER2, MCB2, and MCB4. Figure 2-4 shows sections for the US 158 super-street, applicable with ER2 and MCB2. Figure 2-5 shows the three-lane sections for NC 12 with ER2 and MCB2. Figure 2-6 shows the NC 12 four-lane sections with ER2, MCB2, and MCB4. Figure 2-7 shows sections for the Mid-Currituck Bridge with MCB2 and MCB4.



**US 158 Hurricane
Evacuation Lane
Typical Sections**

**Figure
2-3**

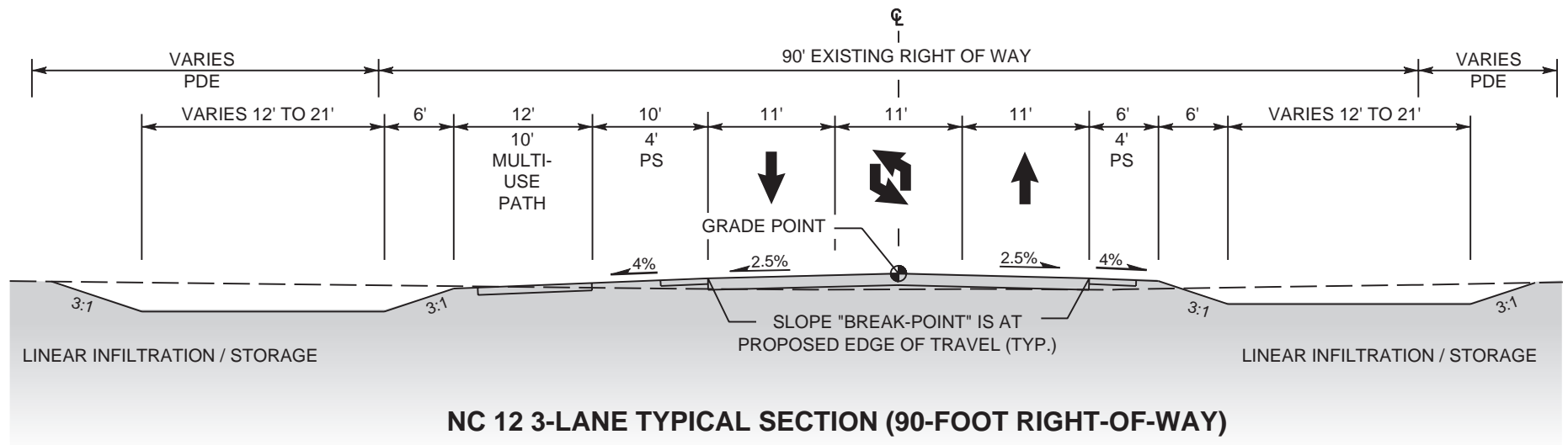
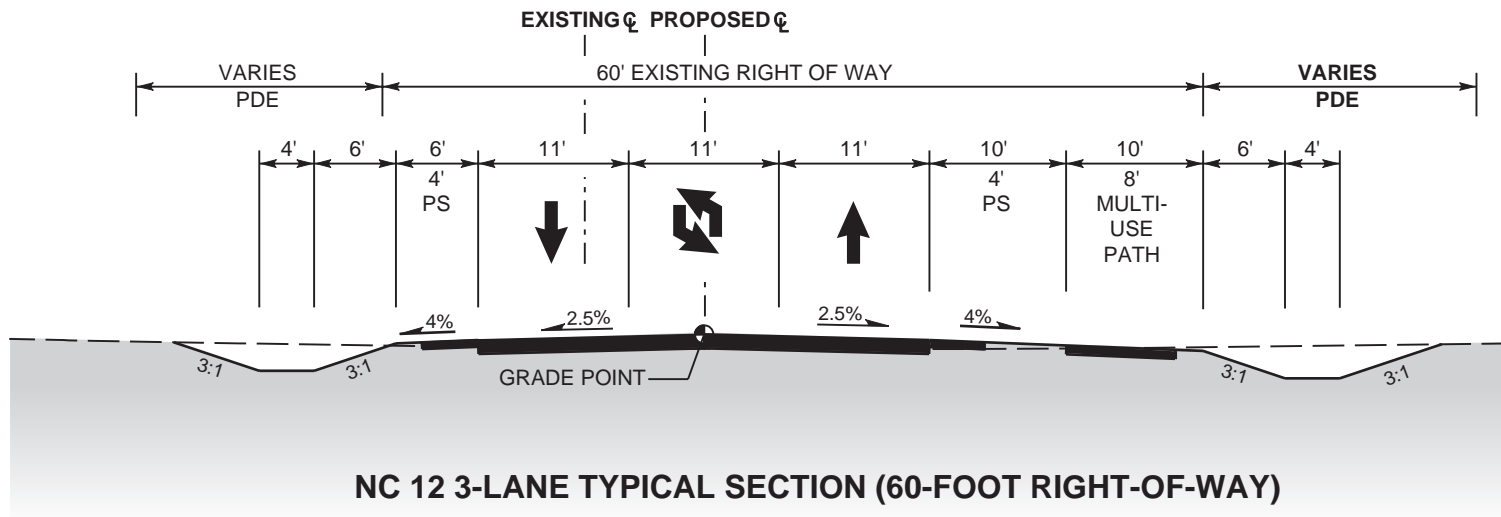
Wright Memorial Bridge to NC 12



US 158 6- AND 8-LANE SUPER-STREET TYPICAL SECTION

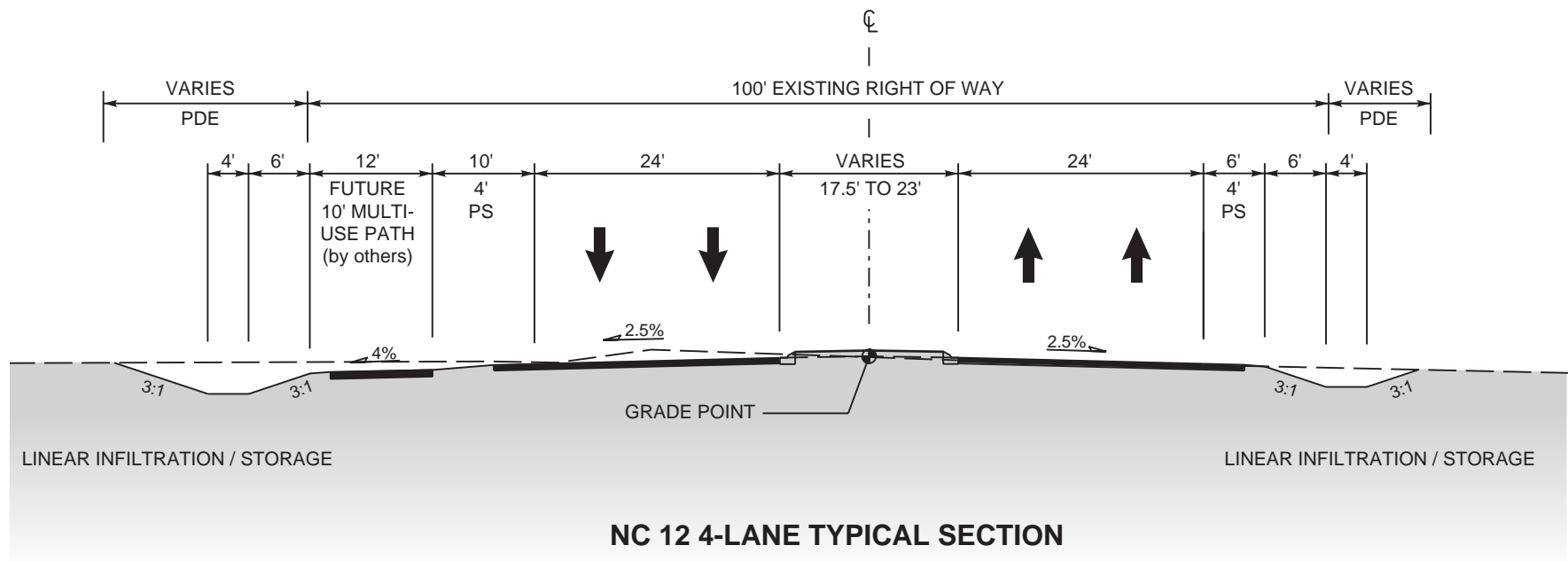
US 158 6- and 8-Lane
Super-Street
Typical Section

Figure
2-4



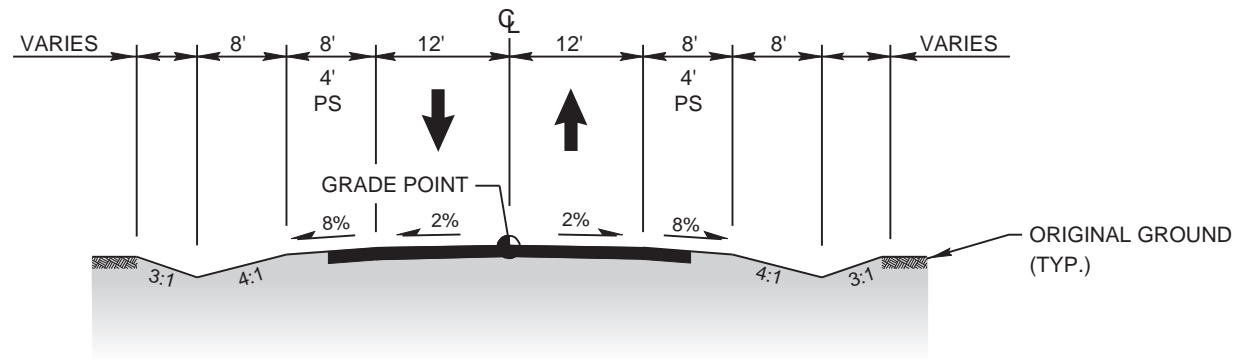
**NC 12 Typical
3-Lane Roadway
Sections**

**Figure
2-5**

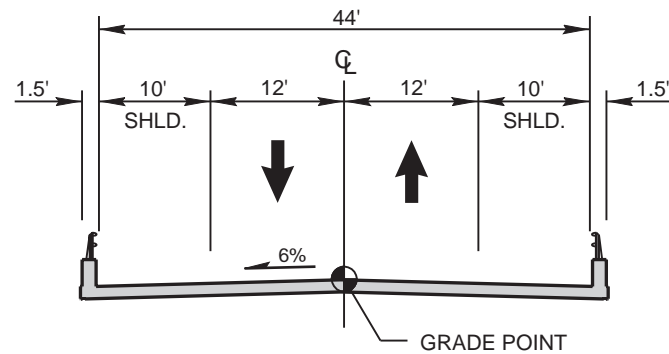


**NC 12 Typical
4-Lane Roadway
Section**

**Figure
2-6**



BRIDGE APPROACH (ROAD) TYPICAL SECTION



BRIDGE APPROACH (BRIDGE) TYPICAL SECTION

3.0 Methodology

This Community Impact Assessment (CIA) was prepared to describe the effect of the Mid-Currituck Bridge project to persons living in the project vicinity. Information was collected to determine the affected environment and to assess direct community impacts as a result of the proposed project. Information was acquired from numerous sources, including Currituck County, Dare County, the towns of Duck, Southern Shores, and Kitty Hawk, and state agencies, such as the North Carolina Department of Transportation (NCDOT), North Carolina Employment Security Commission, and the North Carolina Department of Revenue.

These sources were reviewed for pertinent information. Demographic information was collected mainly from the US Census. Field visits were conducted to inventory the existing environment. Interviews were conducted with community representatives during the field visits, and through telephone and email. The 1998 DEIS for the Mid-Currituck Sound Bridge was also reviewed for information applicable to this CIA.

The following techniques were used to understand the project area and the characteristics of its communities:

- Data gathering from secondary sources
 - US Census
 - Geographic Information System (GIS) files from Currituck and Dare counties
 - North Carolina Department of Revenue
 - North Carolina Employment Security Commission
 - US Department of Agriculture, Natural Resource Conservation Service
 - US Department of Transportation, Federal Highway Administration (FHWA)
 - US Fish and Wildlife Service (USFWS)
- Field trips to Currituck and Dare counties
 - April 2008
 - May 2008
 - August 2008
 - January 2009

- Interviews with local officials
 - Donna Creef, Senior Planner, Dare County, NC
 - Andy Garman, Director of Community Development, Duck, NC
 - Joe Heard, Director of Planning and Inspections, Kitty Hawk, NC
 - Ben Woody, Planning Director, Currituck County, NC
 - Merrie Smith, Assistant to the Town Manager, Southern Shores, NC

The impact assessment was based on preliminary designs for the detailed study alternatives that were current at the time of the completion of this report.

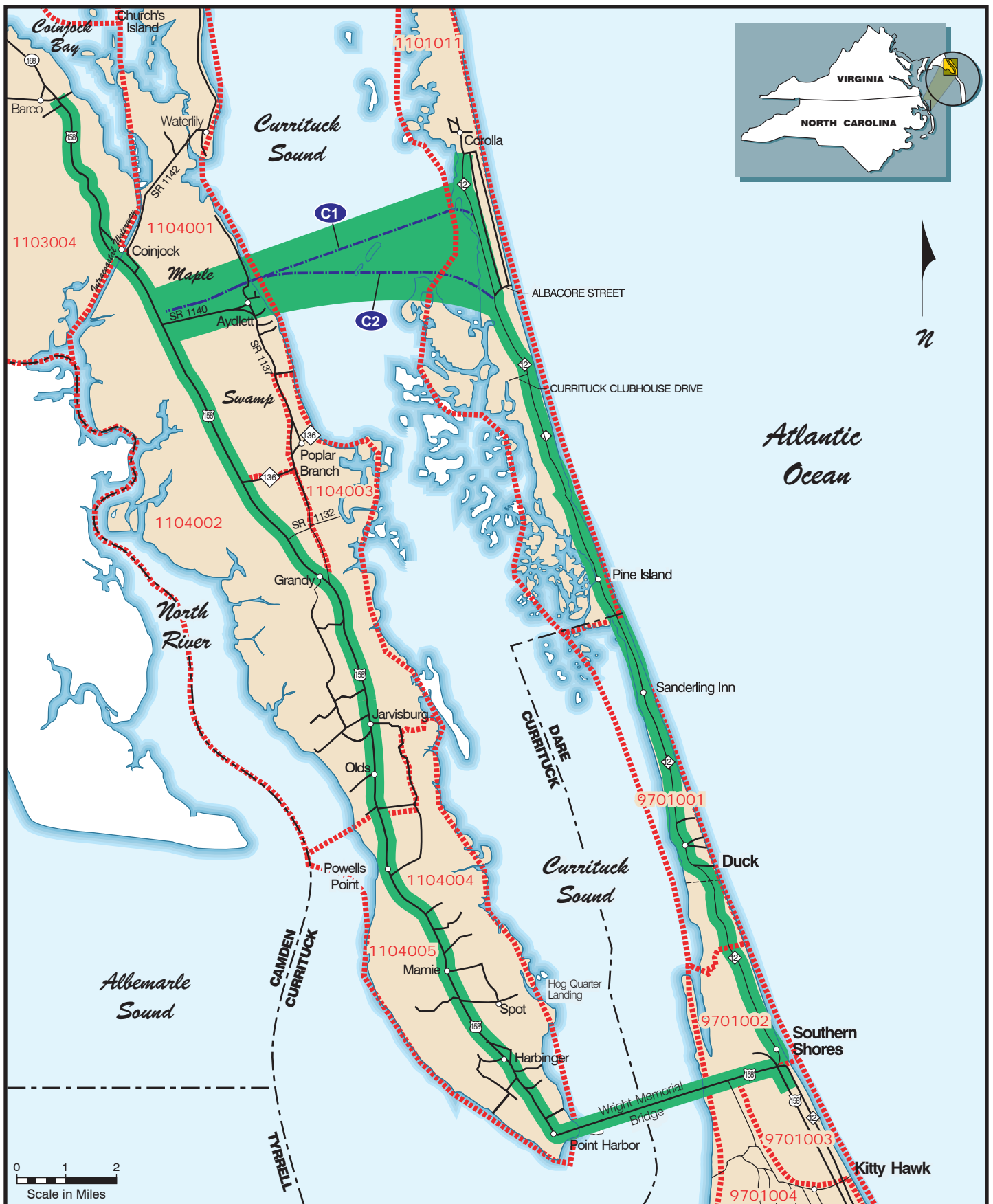
4.0 Study Area Descriptions

For the purposes of this Community Impact Assessment (CIA) and in accordance with North Carolina Department of Transportation (NCDOT) Guidelines, the project area is comprised of two distinct geographic areas with two different criteria to identify them. The Direct Community Impact Area (DCIA) encompasses the communities or neighborhoods that would be affected by the proposed project. The Demographic Area consists of the census block groups that encompass the DCIA, thereby illustrating the demographic trends of the DCIA.

4.1 Direct Community Impact Area

The DCIA includes the communities and neighborhoods that would be directly affected by the proposed project and its detailed study alternatives. In determining the boundaries of the DCIA, factors such as distance from the project, topography, and access were considered. For this project, the DCIA is comprised of areas along the thoroughfares of US 158 and NC 12 on the Currituck County mainland and Outer Banks, and the Dare County Outer Banks north from Kitty Hawk (Figure 4-1). It also encompasses the adjoining community of Aydlett associated with the Mid-Currituck Bridge corridor. The DCIA is described as follows:

1. Along US 158, the DCIA encompasses the area within 1,000 feet of the center line from NC 168 near Barco, south to the Wright Memorial Bridge. This area would include hurricane evacuation improvements associated with the detailed study alternatives, the US 158 interchange associated with MCB2 and MCB4, and see reductions in traffic volumes south of a Mid-Currituck Bridge.
2. The DCIA continues along US 158 east of the Wright Memorial Bridge through to the US 158/NC 12 intersection, encompassing the area within 1,000 feet of the center line of US 158. This area would include road improvements with all three detailed study alternatives, the introduction of an interchange at the US 158/NC 12 intersection (ER2 and MCB2), and reductions in traffic if a Mid-Currituck Bridge were implemented (MCB2 and MCB4).
3. On the Dare County Outer Banks, the towns of Southern Shores and Duck and the most northerly portion of Kitty Hawk are included in the DCIA, encompassing the area within 1,000 feet of the center line of NC 12. NC 12 in this area would be widened to three lanes with ER2 and MCB2 and see reductions in traffic if a Mid-Currituck Bridge were implemented with MCB2 and MCB4.
4. The DCIA continues northward through the Dare County Outer Banks and the Currituck County Outer Banks to Corolla, encompassing the area within 1,000 feet of



the center line of NC 12. This area would see NC 12 widened to three to four lanes in various locations depending on the alternative and termination of the two Mid-Currituck Bridge corridor alternatives (C1 and C2). Areas with four lanes would see the introduction of a median to NC 12, which would affect turning opportunities in some locations. Traffic volumes would increase in this area with the introduction of a Mid-Currituck Bridge with MCB2 or MCB4.

5. Also included in the DCIA is the area that encompasses:
 - a. The two bridge corridor alternatives from US 158 to NC 12 and the area between the two corridors;
 - b. The associated US 158 interchange area;
 - c. Aydlett Road (which closely parallels the bridge corridor on the mainland);
 - d. The community of Aydlett and its road network within 2,500 feet of the bridge corridor;
 - e. The area within 2,500 feet of the two bridge corridor intersection alternatives on the Outer Banks, including the developing Corolla Bay subdivision and currently undeveloped land immediately south of the Tim Buck II commercial area (see Figure 4-1).

These boundaries for the DCIA were chosen to include communities that could be directly affected by noise, visual change, access change, traffic change, and direct use of lands.

4.2 Demographic Area

For the purposes of formulating the Demographic Area, US Census block groups were used. The Census blocks are within Currituck and Dare counties. The Demographic Area is comprised of a total of 11 Census block groups on the Currituck County mainland and the Currituck and Dare County Outer Banks, as shown on Figure 4-1. These Census block groups are: 1103004, 1104001, 1104002, 1104003, 1104004, 1104005 in Currituck County (mainland) and 1101011, 9701001, 9701002, 9701003, and 9701004 on the Currituck County and Dare County Outer Banks.

The Demographic Area encompasses the entire DCIA as described above.

5.0 Community Characteristics

5.1 Community Characteristics Overview

The Direct Community Impact Area (DCIA) covers portions of mainland Currituck County, the northerly portion of the Dare County Outer Banks, and the Currituck County Outer Banks. There are several communities on the Currituck County peninsula, including Coinjock, Aydlett, Grandy, Jarvisburg, Powells Point, Mamie, Harbinger, and Point Harbor (see Figure 4-1).

On the Dare County Outer Banks, the DCIA includes the incorporated towns of Southern Shores, Duck, and the northern portion of Kitty Hawk. On the Currituck County Outer Banks, the neighborhoods/subdivisions include Pine Island, Currituck Club, Spindrift, Ocean Sands, Crown Point, Buck Island, Monteray Shores, Corolla Shores, and Corolla Bay. Further north, Corolla Light, Whalehead Beach, and the community of Corolla are outside of the DCIA. (See Figure 5-2 and Figure 5-3 later in this report for the locations of these communities.)

5.1.1 Currituck County-Mainland

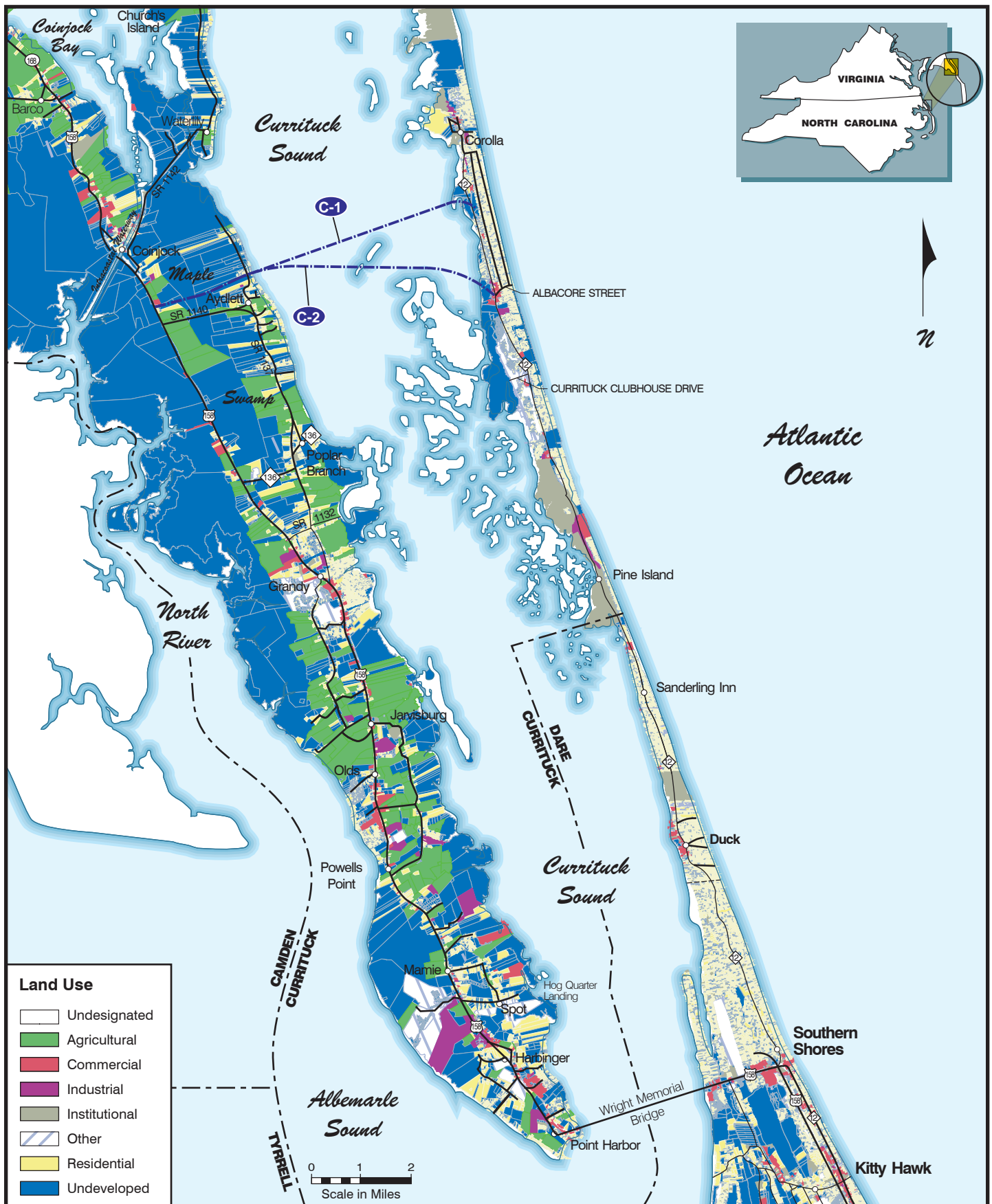
The DCIA on the mainland is a part of a peninsula bounded on the west by the North River, on the south by Albemarle Sound, and on the east by Currituck Sound.

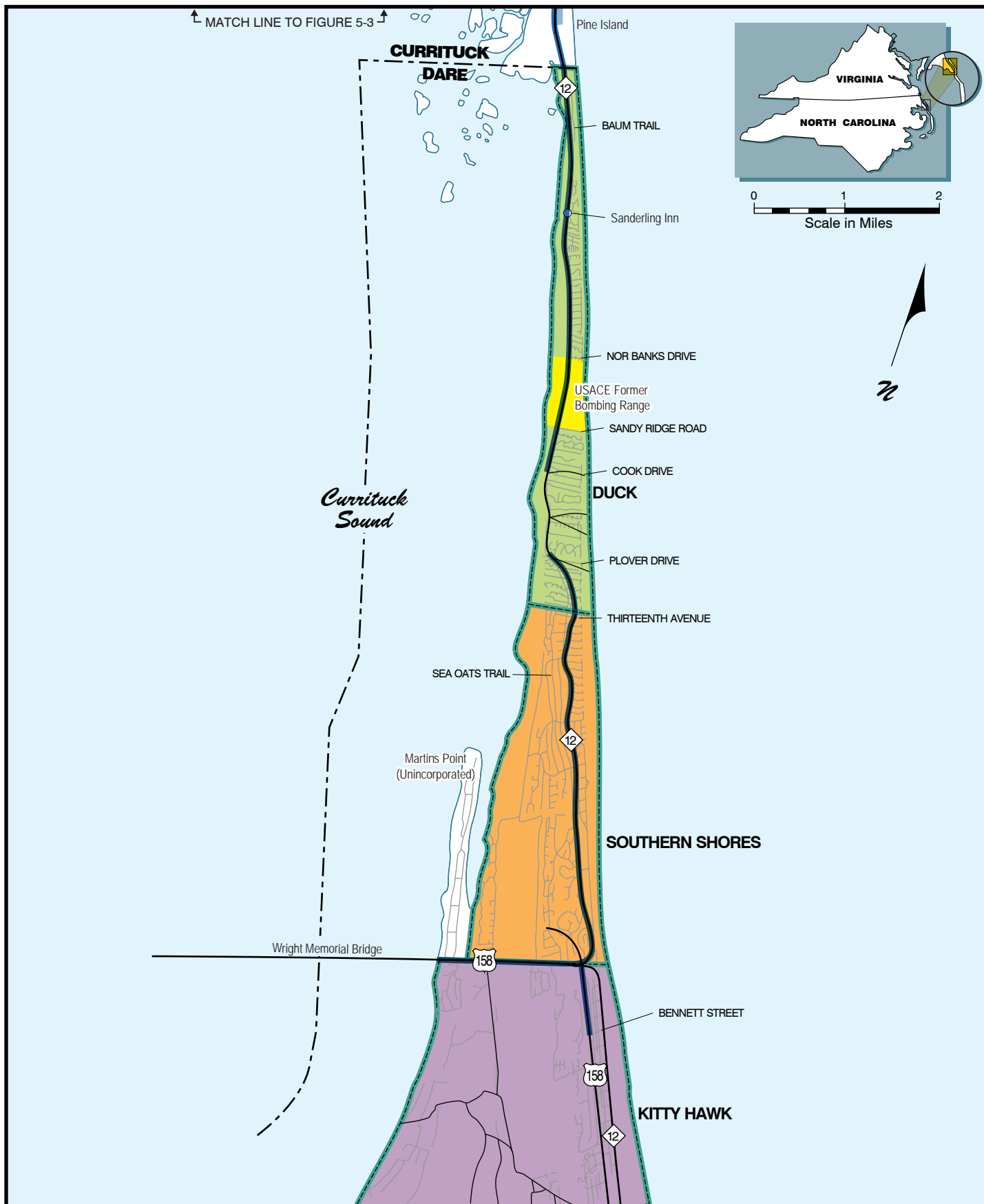
Land use on the mainland is predominantly rural agrarian, with scattered residences and service-oriented businesses (see Figure 5-1). The communities of Coinjock, Aydlett, Grandy, Jarvisburg, and Point Harbor are within the DCIA. There are no incorporated communities in Currituck County.

The community of Aydlett is a shoreline development along the Currituck Sound; a portion of the community is within the proposed right-of-way of the western approach to the Mid-Currituck Bridge. The area is changing from rural to rural residential, with older homes that front the sound and newer ones being built along roads that are perpendicular to the Sound. Community facilities include a post office, community clubhouse and several cemeteries. Other community services are outside the project area, including schools, fire and police protection, emergency management services, a library and churches.

5.1.2 Dare County Outer Banks

Within Dare County, the DCIA is in three municipalities: Kitty Hawk, Southern Shores, and Duck, and an unincorporated peninsula of land west of Southern Shores (Figure 5-2).





LEGEND

- US 158/NC 12 Potential Project
- Municipality Boundaries
- USACE Former Bombing Range

- Duck
- Southern Shores
- Kitty Hawk

Dare County Outer Banks Characteristics

Figure
5-2

Commercial uses are concentrated along US 158, including a shopping center that includes a Wal-Mart and a Home Depot. Commercial uses also are concentrated around the US 158/NC 12 intersection, including a hotel. A tourist-oriented commercial concentration also is found in Duck on NC 12. Vacation homes or subdivisions containing vacation homes line NC 12 through Southern Shores and Duck. Often, homes and businesses front NC 12 with direct driveway access.

5.1.3 Currituck County-Outer Banks

Land uses on the Outer Banks of Currituck County are characterized by residential resort developments consisting of single-family homes, town homes, condominiums, a hotel, and commercial development comprised of small stand-alone shops and shopping centers that include grocery stores and small stores and restaurants to serve tourists. The residential development is generally oriented away from NC 12; some streets intersect NC 12 and serve entire subdivisions (Figure 5-3).

5.2 Population Characteristics

The Demographic Area assessed for this CIA is comprised of eleven Census block groups for the mainland and the Outer Banks as shown on Figure 4-1.

Table 5-1 shows the 1990 and 2000 US Census population by race and Hispanic origin for the Demographic Area, Dare and Currituck counties, and the State of North Carolina. Table 5-2 shows the percent of total population by race and Hispanic origin in 1990 and 2000 for the same locations. Table 5-2 shows the change in population from 1990 to 2000 for these groups, plus the percent change from 1990 to 2000 for total population, whites, total minority, and total Hispanic.

The total minority population percent of the Demographic Area in 2000 (7.8 percent) was within 3 percent of Currituck (10.5 percent) and Dare (6.5 percent) counties, but was less than the 29.8 percent minority population for the state. The total minority population of the Demographic Area decreased by less than one percent between 1990 and 2000, while the minority population of the state increased by almost five percent.

At the same time (1990 to 2000), the total Hispanic population nearly doubled, from 0.6 percent to 1.4 percent of total population. The 2000 minority (7.8 percent) and total Hispanic (1.4 percent) population percentages for the Demographic Area were similar to their respective percentages for Currituck County and Dare County, but less than the state percentages for these groups (21.6 percent for blacks and 4.7 percent for total Hispanics).

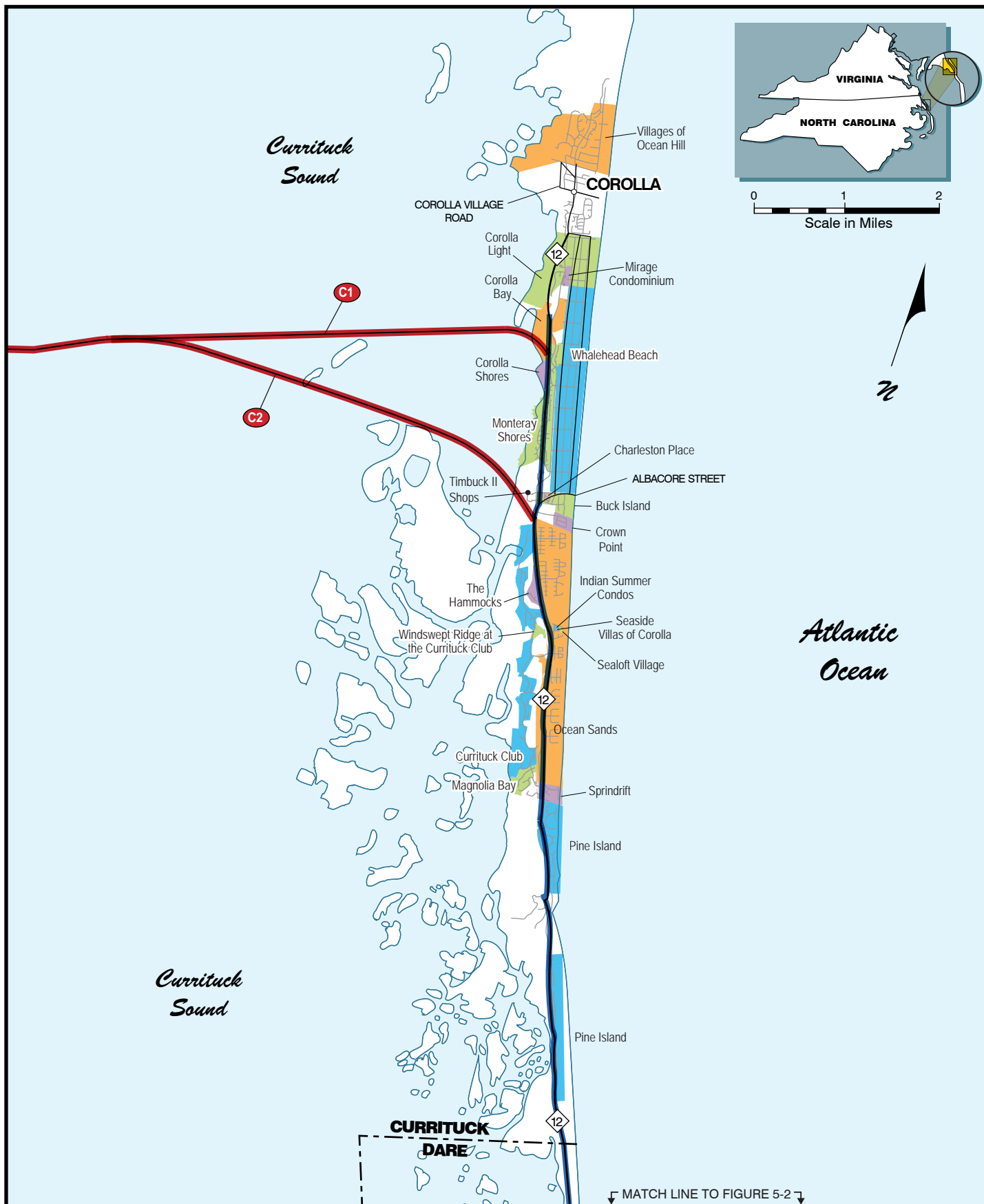


Table 5-1. 1990 and 2000 Population by Race and Hispanic Origin

	Demographic Area ¹		Currituck County		Dare County		North Carolina	
	1990	2000	1990	2000	1990	2000	1990	2000
Total	10,247	13,370	13,736	18,190	22,746	29,967	6,628,637	8,049,313
White	9,417	12,399	12,051	16,445	21,766	28,393	5,008,491	5,804,656
Black	713	679	1,545	1,318	811	797	1,456,323	1,737,545
American Indian	44	66	66	83	37	83	80,155	99,551
Asian/Pacific Islander	62	46	51	77	79	124	52,166	117,672
Other	11	153	23	267	53	570	31,502	289,889
Total Minority	885	1,044	1,771	1,903	1,120	1,939	1,657,510	2,402,158
Hispanic ² White	55	100	86	158	140	365	37,364	157,501
Hispanic Black	0	1	3	4	4	4	7,181	14,244
Hispanic American Indian	0	10	1	9	0	7	1,225	4,218
Hispanic Asian/Pacific Islander	0	2	0	3	3	3	1,573	2,091
Hispanic Other	11	70	20	87	52	287	29,383	200,909
Total Hispanic	66	183	110	261	199	666	76,726	378,963

Source: US Bureau of the Census, 1990 and 2000.

¹ Demographic Area is defined as the combination of the 11 2000 US Census block groups for the mainland and the Outer Banks. That same area was used for 1990 and consisted of 14 US Census block groups.

² US Census definition of persons of Spanish origin refers primarily to those from Latin America and may be of any racial grouping. Thus the percent Hispanic should not be added to percentages for racial categories.

Table 5-2. 1990 and 2000 Percent of Total Population by Race and Hispanic Origin

	Demographic Area ¹		Currituck County		Dare County		North Carolina	
	1990	2000	1990	2000	1990	2000	1990	2000
Total White	91.9%	92.7%	87.7%	90.4%	95.7%	94.8%	75.6%	72.1%
Black	7.0%	5.1%	11.3%	7.3%	3.6%	2.7%	22.0%	21.6%
American Indian	0.4%	0.5%	0.5%	0.5%	0.2%	0.3%	1.2%	1.2%
Asian/Pacific Islander	0.6%	0.3%	0.4%	0.4%	0.4%	0.4%	0.8%	1.5%
Other	0.1%	1.1%	0.2%	1.5%	0.2%	1.9%	0.5%	3.6%
Total Minority	8.6%	7.8%	12.9%	10.5%	4.9%	6.5%	25.0%	29.8%
Hispanic ² White	0.54%	0.75%	0.63%	0.87%	0.62%	1.22%	0.56%	1.96%
Hispanic Black	0.00%	0.01%	0.02%	0.02%	0.02%	0.01%	0.11%	0.18%
Hispanic American Indian	0.00%	0.08%	0.01%	0.05%	0.00%	0.02%	0.02%	0.05%
Hispanic Asian/Pacific Islander	0.00%	0.02%	0.00%	0.02%	0.01%	0.01%	0.02%	0.03%
Hispanic Other	0.11%	0.52%	0.15%	0.48%	0.23%	0.96%	0.44%	2.50%
Total Hispanic	0.64%	1.37%	0.80%	1.44%	0.88%	2.22%	1.16%	4.71%

Source: US Bureau of the Census, 1990 and 2000.

¹ Demographic Area is defined as the combination of the 11 2000 US Census block groups for the mainland and the Outer Banks. That same area was used for 1990 and consisted of 14 US Census block groups.

² US Census definition of persons of Spanish origin refers primarily to those from Latin America and may be of any racial grouping. Thus the percent Hispanic should not be added to percentages for racial categories.

Table 5-3 shows the 1990 and 2000 population by age group for the Demographic Area, for Dare and Currituck counties, and the State of North Carolina. In 2000, the Demographic Area had a higher percentage of elderly residents (17.3 percent) than Currituck County (12.0 percent), Dare County (13.8 percent), or the state (12.0 percent).

Table 5-4 shows that the percent of elderly population in the Demographic Area increased slightly between 1990 and 2000. There was little change in the population age distributions for Currituck County and the state between 1990 and 2000, but Dare County experienced a slight increase in the percentage of elderly population.

Table 5-3. 1990 and 2000 Population by Age

	Demographic Area ¹		Currituck County		Dare County		North Carolina	
	1990	2000	1990	2000	1990	2000	1990	2000
Total Population	10,247	13,370	13,736	18,190	22,746	29,967	6,628,637	8,049,313
0 to 18	2,411	3,122	3,691	4,826	5,306	6,712	1,710,196	2,073,849
19 to 64	6,226	8,586	8,336	11,178	14,599	19,131	4,114,100	5,006,416
65 or Above	1,610	2,310	1,709	2,186	2,841	4,124	804,341	969,048

Source: US Bureau of the Census, 1990 and 2000.

¹Demographic Area is defined as the combination of the 11 2000 US Census block groups for the mainland and the Outer Banks. That same area was used for 1990 and consisted of 14 US Census block groups.

Table 5-4. Growth in Population by Age

	Demographic Area ¹		Currituck County		Dare County		North Carolina	
	2000	% Change 1990 to 2000	2000	% Change 1990 to 2000	2000	% Change 1990 to 2000	2000	% Change 1990 to 2000
Total Population	13,370	30.5%	18,190	32.4%	29,967	31.7%	8,049,313	21.4%
0 to 18	3,122	29.5%	4,826	30.8%	6,712	26.5%	2,073,849	21.3%
19 to 64	8,586	37.9%	11,178	34.1%	19,131	31.0%	5,006,416	21.7%
65 or Above	2,310	43.5%	2,186	27.9%	4,124	45.2%	969,048	20.5%

Source: US Bureau of the Census, 1990 and 2000.

¹Demographic Area is defined as the combination of the 11 US Census block groups for the mainland and the Outer Banks.

Census data are not available for educational attainment by block group in 2000. Therefore, Census tracts were used to determine educational attainment for the Demographic Area. The mainland Currituck County Census tracts used are 1103 and 1104. The Outer Banks Census tracts used are 1101.1 and 9701.

Table 5-5 shows the 1990 and 2000 median household income, poverty data, and unemployment for the Demographic Area, Dare and Currituck counties, and the State of North Carolina. As shown, in 2000, the Demographic Area had a higher median household income than Currituck County, Dare County, or the state. However, based on the same Census information, the Outer Banks portion of the study area (consisting

Table 5-5. 1990 and 2000 Income Measures and Persons Living Below Poverty Level

	Demographic Area ¹		Currituck County		Dare County		North Carolina	
	1990	2000	1990	2000	1990	2000	1990	2000
Median Household Income	\$30,647	\$45,201	\$27,905	\$40,822	\$29,322	\$42,411	\$26,647	\$39,184
Persons below Poverty Level	843	1,248	1,353	1,922	1,861	2,381	829,858	958,667
Persons below Poverty Level as a Percent of Total Population	8.2%	9.3%	9.9%	10.6%	8.2%	7.9%	12.5%	11.9%

Source: US Bureau of the Census, 2000.

¹Demographic Area is defined as the combination of the US Census block groups for the mainland and the Outer Banks.

of five block groups shown on Figure 4-1) had a substantially higher median household income (more than \$56,000) than any of the other areas analyzed, while the mainland portion of the Demographic Area had the lowest median household income (less than \$36,000). The Demographic Area also had a lower percentage of persons living below the poverty level (8.9 percent) in 2000 than Currituck County (10.7 percent) or the state (12.3 percent). The number of persons living below the poverty level was lowest in Dare County (8.0 percent). In 2000, the unemployment rate in the Demographic Area was lower than Currituck County, Dare County, or the state.

As shown in Table 5-5, the median household income in the Demographic Area in 2000 was higher than, but similar to, that of the county or the state. The same was true in 1990. Table 5-5 indicates that, in 2000, the percentage of persons living below the poverty level was less in the Demographic Area than in Currituck County and the state. Between 1990 and 2000, the percent of total population below the poverty level rose slightly. Slight changes up and down were seen in the two counties and the state.

The 2000 US Census indicates that 120 individuals in Currituck County and 145 individuals in Dare County said that they spoke English “less than very well.” This is 0.7 percent of the year 2000 population of Currituck County (187,190) and 0.5 percent of the year 2000 population of Dare County (29,967). This finding combined with queries to local planning staff indicates that there are no concentrations of persons with limited English proficiency in the DCIA.

5.3 Housing Characteristics

The permanent population numbers do not provide an accurate reflection of the building trends or seasonal populations on the Outer Banks. These are more accurately

reflected in US Census data by the number of housing units. Table 5-6 shows the number of housing units for both Dare and Currituck counties in 1990 and 2000 and the increase in the number of units. In addition, Table 5-6 shows the number and increase in the number of housing units that were designated for seasonal, recreational, or occasional use for the same two years. In the two counties combined, the number of vacant units for rent decreased substantially from 1990 to 2000, while the number of seasonal units increased.

Table 5-6. 1990 and 2000 Housing Units

County	Total Housing Units			Vacant Units for Rent			Units for Seasonal, Recreational, or Occasional Use		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
Dare	21,567	26,671	24%	3,726	277	-93%	6,415	13,355	108% ¹
Currituck	7,367	10,687	45%	849	96	-89%	1,096	3,297	201%
Total	28,934	37,358	29%	4,575	373	-92%	7,511	16,652	122%

Source: US Bureau of the Census, 1990 and 2000.

¹The increase in the number of seasonal units in Dare County is greater than the increase in total housing units because of the conversion of existing units used by permanent residents to seasonal units.

Table 5-7 shows the 2000 US Census housing data for the Demographic Area, Dare and Currituck counties, and the State of North Carolina. In 2000, the median home value of \$157,240 in the Outer Banks portion of the Demographic Area was substantially higher than the other areas analyzed, with the Demographic Area being almost \$50,000 more than the state median home value of \$108,300. The median home value for Dare County also was well above the state average, while the value for Currituck County was only slightly above the state average. As would be expected, the areas with higher median home values were also the areas with higher median household incomes, as shown in Table 5-5, with the Demographic Area being the highest in both categories.

Table 5-7 also indicates that, at 69.4 percent, the 2000 home ownership rate for the state was lower than the other areas analyzed. Home ownership for the Demographic Area was 80.1 percent (with the Outer Banks portion at 83.9 percent and the mainland portion at 76.3 percent). Home ownership for Currituck County was 81.6 percent. Conversely, Table 5-7 shows that the 2000 rental rates for the areas analyzed were lower than the state rate of 30.6 percent; the areas with the highest home ownership rates had the lowest rental rates.

Table 5-7 also shows that the occupancy rates for the Demographic Area and Dare County were significantly lower than for Currituck County and the state. The occupancy rate for the Demographic Area in 2000 was 42.8 percent (although the Outer

Table 5-7. 2000 Housing Characteristics

	Demographic Area ¹		Currituck County		Dare County		North Carolina	
	No.	%	No.	%	No.	%	No.	%
Median Home Value	\$157,240	---	\$115,500	---	\$137,200	---	\$108,300	---
Home Ownership Rate ²	4,619	80.1	5,630	81.6	9,460	74.5	2,172,355	69.4
Rental Rate ³	1,147	19.9	1,272	18.4	3,230	25.5	959,658	30.6
Median Year Built	1984	---	1984	---	1986	---	1978	---
Occupancy Rate	5,766	42.8	6,902	64.6	12,690	47.6	3,132,013	88.9

Source: US Bureau of the Census, 2000.

¹Demographic Area is defined as the combination of the US Census block groups for the mainland and the Outer Banks.

²Based only on occupied housing units (i.e., vacant homes are not included) to reflect the percentage of the permanent population that owns.

³Based only on occupied housing units (i.e., vacant homes are not included) to reflect the percentage of the permanent population that rents.

Banks portion of the Demographic Area was 29.4 percent). The Dare County occupancy rate was 47.6 percent. These lower occupancy rates in the Demographic Area and Dare County are because the Outer Banks is a major tourist destination and, therefore, has a high seasonal and rental home development market.

The home ownership and rental rates shown in Table 5-7 are based only on occupied housing units (i.e., vacant homes are not included) because these rates are intended to reflect the portion of the permanent population who own their homes versus the portion who rent. However, because of the residential resort development nature of the Outer Banks, there are actually many more vacation rental homes in that area that are considered vacant by the US Census. In 2000, there were 13,552 housing units in the Demographic Area. Of those, 7,736 were vacant, while 5,766 were occupied (both owner and renter occupied). If the vacation rental homes were included in the total number of housing units, the occupied housing units would actually be less than 50 percent of all the homes in the Demographic Area.

Table 5-8 shows the number of households in 1990 and 2000. The number of households grew nearly 60 percent in the Demographic Area from 1990 to 2000. This is a greater percentage increase than both Currituck and Dare counties and the state.

Table 5-8. Households and Household Growth

	Demographic Area ¹	Currituck County	Dare County	North Carolina
1990 Households	3,608	5,038	9,349	2,517,026
2000 Households	5,766	6,902	12,690	3,132,013
Change (%)	2,158 (59.8%)	1,864 (37.0%)	3,341 (35.7%)	614,987 (24.4%)

Source: US Bureau of the Census, 1990 and 2000.

¹Demographic Area is defined as the combination of the US Census block groups for the mainland and the Outer Banks.

5.4 Employment Characteristics

As shown in Table 5-9, employment characteristics in the Demographic Area are similar to the two counties and the state. Approximately one-half of the population is employed, and unemployment rates are generally in the 4- to 5-percent range.

In general, the composition of employment within Currituck and Dare counties, shown in Table 5-10, is different from the state. In particular, both counties have had only nominal employment in manufacturing and a high proportion of trade sector employment (retail and wholesale trade). The proportions of different employment categories in Currituck and Dare counties reflect the recreational/resort emphasis of the Outer Banks.

Table 5-9. 1990 and 2000 Employment

	Demographic Area ¹		Currituck County		Dare County		North Carolina	
	1990	2000	1990	2000	1990	2000	1990	2000
Total Population	10,247	13,370	13,736	18,190	22,746	29,967	6,628,637	8,049,313
Number in Labor Force:	5,067	7,098	6,862	9,065	12,879	16,601	3,519,927	4,130,579
• In Armed Forces	22	19	161	208	107	97	118,432	90,847
• Civilian:	5,045	7,079	6,701	8,857	12,772	16,504	3,401,495	4,039,732
o Number Employed	4,786	6,781	6,357	8,528	12,199	15,696	3,238,414	3,824,741
o Number Unemployed	259	298	344	329	573	808	163,081	214,991
Percent Unemployment	5.1%	4.2%	5.1%	3.7%	4.5%	4.9%	4.8%	5.3%

Source: US Bureau of the Census, 1990 and 2000.

¹Demographic Area is defined as the combination of the 11 2000 US Census block groups for the mainland and the Outer Banks. That same area was used for 1990 and consisted of 14 US Census block groups.

Table 5-10. Employment by Sector 1993 and 2004

Industry	Currituck County		Dare County		North Carolina	
	1993	2004	1993	2004	1993	2004
Total ¹	2,503 100%	3,496 100%	12,269 100%	15,916 100%	3,207,179 100%	3,695,015 100%
Agriculture Forestry Fishing & Hunting	NA	65 1.9%	NA	9 0.1%	25,514 0.8%	25,922 0.7%
Mining	NA	NA	NA	NA	3,775 0.1%	3,485 0.1%
Utilities	NA	NA	100 0.8%	92 0.6%	26,425 0.8%	13,725 0.4%
Construction	217 8.7%	543 15.5%	683 5.6%	1,450 9.1%	156,885 4.9%	208,129 5.6%
Manufacturing	72 2.9%	102 2.9%	253 2.1%	656 4.1%	807,369 25.2%	577,612 15.6%
Wholesale Trade	111 4.4%	94 2.7%	275 2.2%	365 2.3%	140,051 4.4%	165,203 4.5%
Retail Trade	483 19.3%	923 26.4%	2,547 20.8%	2,919 18.3%	367,889 11.5%	424,750 11.5%
Transportation and Warehousing	10 0.4%	79 2.3%	113 0.9%	142 0.9%	94,170 2.9%	107,523 2.9%
Information	NA	25 0.7%	229 1.9%	257 1.6%	58,152 1.8%	73,214 2.0%
Finance and Insurance	33 1.3%	62 1.8%	229 1.9%	480 3.0%	105,265 3.3%	138,654 3.8%
Real Estate and Rental and Leasing	39 1.6%	517 14.8%	877 7.1%	1,370 8.6%	33,714 1.1%	45,752 1.2%
Professional and Technical Services	30 1.2%	94 2.7%	235 1.9%	572 3.6%	101,622 3.2%	152,305 4.1%
Management of Companies and Enterprises	NA	NA	NA	NA	37,926 1.2%	63,839 1.7%
Administrative and Waste Services	82 3.3%	109 3.1%	560 4.6%	552 3.5%	136,690 4.3%	203,141 5.5%
Educational Services	NA	NA	13 0.1%	17 0.1%	30,360 0.9%	48,306 1.3%
Health Care and Social Assistance	141 5.6%	196 5.6%	365 3.0%	697 4.4%	237,605 7.4%	369,486 10.0%
Arts Entertainment and Recreation	80 3.2%	185 5.3%	361 2.9%	354 2.2%	29,759 0.9%	39,783 1.1%
Accommodation and Food Services	249 9.9%	335 9.6%	3,108 25.3%	2,886 18.1%	223,095 7.0%	286,769 7.8%
Other Services	39 1.6%	125 3.6%	283 2.3%	381 2.4%	80,904 2.5%	94,811 2.6%
Unclassified	NA	30 0.9%	NA	67 0.4%	NA	11,550 0.3%
Government	841 33.6%	1,110 31.8%	2,030 16.5%	2,634 16.5%	509,399 15.9%	641,056 17.3%

Source: North Carolina Employment Security Commission, 2004.

¹Percentages represent share of total employment.

As shown in Table 5-10, Currituck County's retail and wholesale trade sector employment grew substantially from 1993 to 2004. In 2004, the percentage of Currituck County employment in the trade sector was 13 percent higher than trade sector employment for the state. Currituck County employment in construction grew between 1993 and 2004, to 15.5 percent of all employment, compared to 8.7 percent in 1993. Employment in real estate and rental and leasing grew between 1993 and 2004 to 14.8 percent of total employment, compared to 1.6 percent in 1993. Overall, total employment in Currituck County increased 40 percent between 1993 and 2004, from 2,503 to 3,496.

As in Currituck County, the Dare County trade sector employment percentage is higher than the state, although between 1993 and 2004, employment in retail and wholesale trade declined from 23.0 percent to 20.6 percent. The service sector also makes up a large part of Dare County employment, particularly real estate and rental and leasing (8.6 percent), and accommodation and food services (18.1 percent). As a percent of total employment, construction increased substantially, to 9.1 percent in 2004. In Dare County, employment increased 30 percent between 1993 and 2004, from 12,269 to 15,916.

Table 5-11 lists employers in Currituck and Dare counties with more than 100 employees as of the end of the third quarter of 2006. As shown, the largest employers are the schools in both counties and county government in Dare County.

5.5 Community Resources – Facilities

5.5.1 Educational Facilities

Four schools are within or adjacent to the DCIA in Currituck County (see Figure 5-4). Currituck County Middle and High Schools are on US 158 in Barco. Jarvisburg Elementary School, which opened in 2008, is east of US 158 on Jarvisburg Road. W.T. Griggs Elementary School is in Poplar Branch on Poplar Branch Road, just outside of the DCIA. No schools are in the Outer Banks portion of Currituck County.

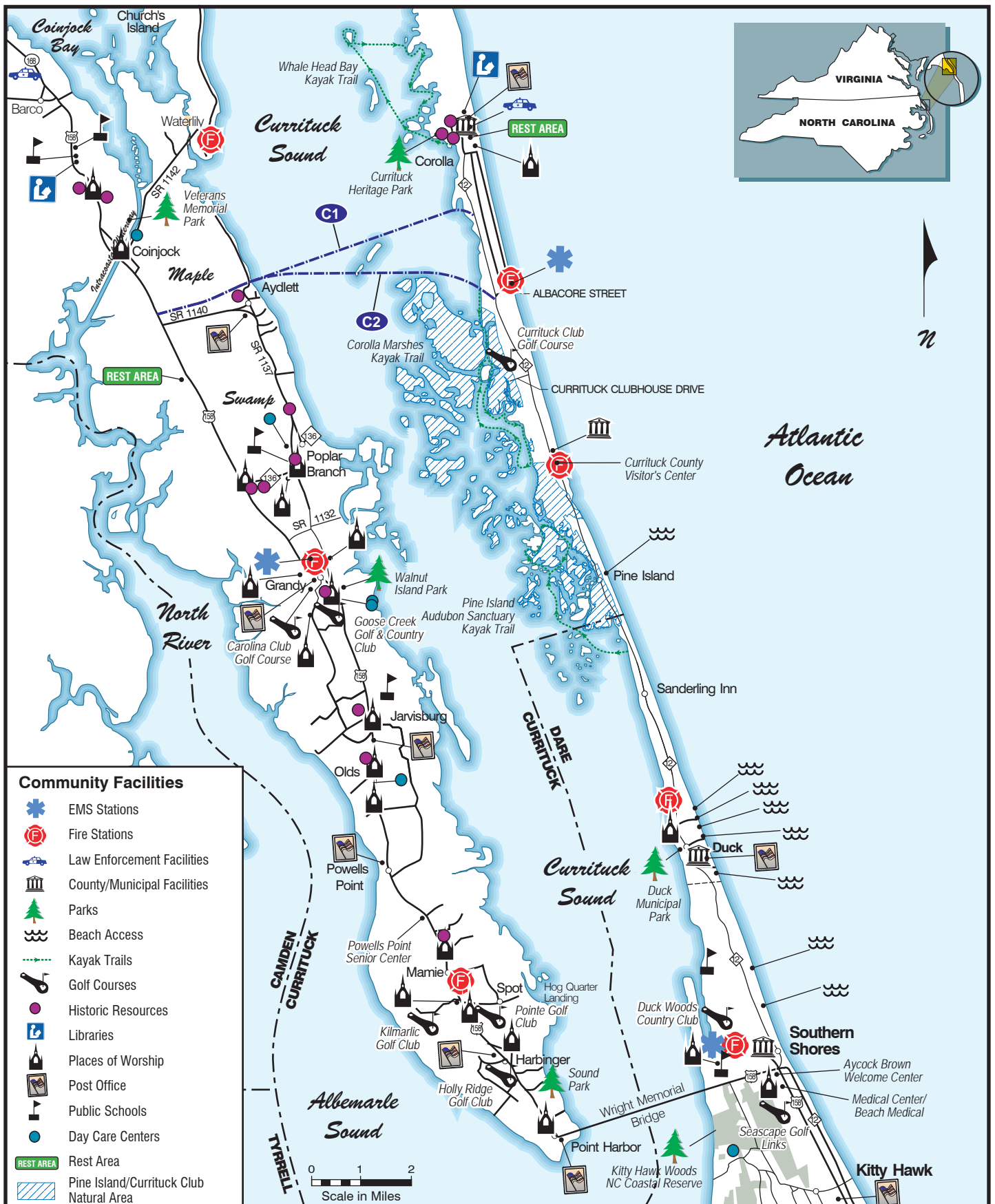
Within Dare County, one school, Kitty Hawk Elementary School, is within the DCIA. Kitty Hawk Elementary School is on US 158, east of Wright Memorial Bridge.

Six day care facilities are within or adjacent to the DCIA – five in Currituck County and one in Dare County. The five Currituck County day care facilities are on the mainland, either on US 158 or approximately 0.5 mile to 1 mile from US 158. The one Dare County day care facility near the DCIA is on the Outer Banks in Kitty Hawk, approximately 1.5 miles south of US 158.

**Table 5-11. Currituck and Dare County Employers with More than 100 Employees
(End of Third Quarter, 2006)**

Company Name	Industry	Employment Range
Currituck County		
Currituck County Board of Education	Education and Health Services	500 – 999
Currituck County Finance Office	Public Administration	250 – 499
Brindley & Brindley Realty and Developers	Financial Activities	100 – 249
Food Lion, LLC	Trade, Transportation, and Utilities	100 – 249
Southland Trade Corporation	Trade, Transportation, and Utilities	100 – 249
C/O Sentara Health Center	Education and Health Services	100 – 249
Sun Realty Nags Head, Inc.	Financial Activities	100 – 249
Corolla Classic Vacations, LLC	Financial Activities	100 – 249
Dare County		
Dare County Schools	Education and Health Services	500 – 999
County of Dare	Public Administration	500 – 999
Food Lion, LLC	Trade, Transportation, and Utilities	250 – 499
Coastal Staffing Service, Inc.	Professional and Business Services	250 – 499
Village Realty & Management Service	Financial Activities	250 – 499
Sun Realty Nags Head, Inc.	Financial Activities	250 – 499
Carolina Designs Realty, Inc.	Financial Activities	250 – 499
East Carolina Health, Inc.	Education and Health Services	250 – 499
NC Department of Transportation	Public Administration	100 – 249
State of North Carolina	Public Administration	100 – 249
Spencer Yachts, Inc.	Manufacturing	100 – 249

Source: North Carolina Department of Commerce, Economic Development Information System, 2006.



**Community
Facilities and
Historic Resources**

**Figure
5-4**

5.5.2 Parks and Recreation Facilities

Public recreation opportunities in the project area are primarily related to Currituck Sound and the Outer Banks beach along the Atlantic Ocean. Should land from any public park or land used for public recreation be used for the project, Section 4(f) of the Department of Transportation Act of 1966 would apply. Section 4(f) requires that the proposed use of land from a publicly-owned park, recreation area, wildlife and/or waterfowl refuge, or any significant historic or archeological site, by a transportation project is permissible only if there is no feasible and prudent alternative to the use.

The only parks and recreation facilities in the DCIA involving the use of funds provided under Section 6(f) of the Land and Water Conservation Fund Act are the tennis courts at Currituck County High School on US 158 between the Knapp (Intracoastal Waterway) Bridge and NC 168.

In the project area, the Currituck Sound is a shallow, grassy body of brackish water, about 3 to 8 miles wide and 3 to 9 feet deep. The sound supports a variety of shallow-water recreation opportunities, including fishing, kayaking, canoeing, windsurfing, and boating. Also, there is duck hunting from duck blinds built along the eastern shore of the sound.

In the project area of the Outer Banks, land-based activities include bird-watching, hiking, biking, golf and tennis.

Most of the beachfront is lined with private homes, with pedestrian walkways at various locations to provide the public with access to the beach. Other recreation facilities are described in the following sections.

5.5.2.1 *Public Parks*

The following public parks and recreational facilities are in Currituck County in the DCIA and are shown on Figure 5-4:

- Veterans Memorial Park is east of US 158 on the Intracoastal Waterway.
- Walnut Island Park is in Grandy, east of US 158 in the Walnut Island Subdivision.
- Sound Park is in Point Harbor on the eastern shore of the Currituck County mainland and is accessible by US 158.
- The Aydlett community has a private community club house. There are no public facilities in Aydlett (Woody, 2009).
- Currituck Heritage Park is on NC 12 in Corolla and includes the following facilities: the Currituck Beach Lighthouse and Light Keeper's House; Whalehead Club; Outer

Banks Center for Wildlife Education; a marina and picnic facilities. Admission to the park is free, but there are fees for tours of the Lighthouse and the Whalehead Club.

The following public parks and recreational facilities are in Dare County in the DCIA and shown on Figure 5-4:

- There are two ball fields at the Kitty Hawk Elementary School, which is adjacent to US 158. The ball fields are maintained by the Dare County Parks and Recreation Department and can be scheduled with the elementary school for public use (White, 2009). Section 4(f) would apply to the ball fields if affected.
- Duck Town Commons/Duck Municipal Park is off of NC 12 on the Currituck Sound. The park includes a parking area, walking trails, picnic shelter, gazebo/stage, water fountains, and a playground.
- The Town of Duck also has a boardwalk along the Currituck Sound, connecting to the town commons. Also, multi-use paths extend the full length of Duck. A canoe/kayak launch is accessible from the boardwalk.
- There is one Regional Beach Access on Black Pine Road in Pine Island. It has 30 parking spaces, bicycle racks, restrooms, and showers.
- There are seven access points to the beach in Southern Shores and Duck at the following locations: Barrier Island, Four Seasons, Plover Drive, Schooner Ridge Drive, Sprigtail Drive, Chickahauk Beach, and Hillcrest Beach.
- Kitty Hawk Woods is a 1,877-acre nature preserve within the Town of Kitty Hawk. It includes a diversity of wildlife and rare and delicate habitats and is open to the public during daylight hours. It is generally bordered on the north by Winsor Place Road, on the east by US 158, on the west by Currituck Sound, and on the south by SR 1208. A portion of Kitty Hawk Woods is in the DCIA; however, none of the access points or hiking trails for which Section 4(f) would apply are in the DCIA.

5.5.2.2 *Golf Courses*

There are four public golf courses in Currituck County and one in Dare County within or near the DCIA:

- Carolina Club Golf Course (off of US 158 in Grandy);
- Pointe Golf Club (off of US 158 in Powells Point);
- Kilmarlic Golf Club (on West Side Lane in Powells Point, just outside the DCIA);
- Holly Ridge Golf Club (on US 158 in Harbinger); and

- Seascape Golf Links (partially within the DCIA near the US 158/NC 12 intersection).

There are three private or semi-private golf courses in the project area:

- Goose Creek Golf and Country Club (on US 158 in Grandy);
- Duck Woods Country Club (off US 158 in Kitty Hawk); and
- Currituck Club Golf Course (on NC 12 in Currituck County).

5.5.2.3 Community Centers and Libraries

Community centers and libraries in the project area also are shown on Figure 5-4. Two welcome centers are within or near the DCIA. The Aycock Brown Welcome Center is at the US 158/NC 12 intersection in Dare County. The Currituck Outer Banks Visitor's Center is on Hunt Club Drive in Corolla.

The Powells Point Senior Center is on US 158 north of Mamie on the Currituck County mainland.

There are two public rest areas in Currituck County within the DCIA. One rest area is on US 158 south of Aydlett Road and is maintained by NCDOT. It provides amenities including restrooms, drinking fountains, telephones, and picnic areas with cooking grills. A second rest area is at the Currituck Outer Banks Visitor's Center. This facility provides tourist information and restrooms. It is open from March through December.

There are two libraries in Currituck County within or near the DCIA. The Currituck County Public Library is on US 158 in Barco near the county high school and middle school. The Currituck County – Corolla Branch is at the Currituck County government's Outer Banks satellite offices.

5.5.2.4 Bird Sanctuaries, Wildlife Refuges, and Kayaking Trails

There is one bird sanctuary in the DCIA – the Pine Island Audubon Sanctuary. The bird sanctuary is also home to one of three kayaking trails in the area. There is also a nature preserve, Kitty Hawk Woods, at the southern end of the DCIA. They are both shown in Figure 5-4. There are no wildlife refuges in the DCIA. Three kayaking trails in the DCIA include Corolla Marshes from TimBuck II (7 miles), Pine Island Audubon Sanctuary from Sanderling (8.5 miles), and Whale Head Bay to Monkey Island (7 miles) (Trails.com, May 2009). They also are shown in Figure 5-4.

5.5.3 Post Offices

There are seven post offices with or near the Currituck County portion of the DCIA (see Figure 5-4) in Aydlett, Grandy, Jarvisburg, Powells Point, Harbinger, Point Harbor, and Corolla. The Aydlett Post Office is on Aydlett Road just south of the proposed bridge

corridor. The Corolla Post Office is at the northern edge of the DCIA in Corolla. The remaining post offices are along US 158.

Within Dare County, the Duck Post Office is on NC 12 in the town village. The Kitty Hawk/Southern Shores Post Office is on US 158, east of the Wright Memorial Bridge.

5.5.4 Places of Worship and Cemeteries

There are 17 places of worship on the Currituck County mainland and one on the Outer Banks in Corolla. Fifteen of these are within the DCIA. In Dare County, three places of worship are in the DCIA (see Figure 5-4). The First Church of Christ Scientist is on US 158 in Kitty Hawk. All Saints Episcopal is in Southern Shores. Duck United Methodist Church is on NC 12 in Duck.

Numerous small cemeteries are found in the DCIA on the Currituck County mainland. The DCIA is rural and low-lying in nature; the existing roads are on the high points of the terrain. Because of the limited amount of high ground, there are numerous family cemeteries near or along the edge of the road. Some of the cemeteries may have been previously relocated when US 158 was widened from two lanes to five lanes in the mid-1980s. There are six small, family cemeteries known in the DCIA. One is a family cemetery in Aydlett on Waterlily Road where a husband and wife are buried.

No known cemeteries are within the DCIA on the Outer Banks.

5.5.5 Commercial Centers or Nodes

In Currituck County, commercial uses are scattered along US 158, characterized by convenience stores, restaurants, tourism shops, and service businesses. Commercial development is concentrated in Coinjock, Grandy, Powells Point, and Point Harbor.

Commercial uses line US 158 within the towns of Kitty Hawk and Southern Shores (the east-west portion of US 158 is the municipal boundary between Kitty Hawk and Southern Shores) as it passes from the Wright Memorial Bridge to its intersection with NC 12. This development includes shopping centers; the most notable is just west of the US 158/NC 12 intersection that is anchored by a Wal-Mart. A Home Depot is adjacent to this center. This area includes retail, institutional, and recreational uses accessible to the surrounding residential areas.

Commercial development on NC 12 is generally comprised of stand-alone shops and small shopping centers with multiple small shops. Various restaurants and businesses related to beach activities are also in the commercial centers. Larger concentrations (anchored by supermarkets) are at Currituck Clubhouse Drive and Albacore Street in Currituck County.

The Town of Duck commercial center on NC 12 includes the municipal offices for the town. This is where most of the non-residential development on NC 12 in Dare County is located. The Waterfront Shops is a center that offers shopping, offices, and restaurants. The town's boardwalk on the Currituck Sound is accessible from this area.

5.5.6 Health Centers and Hospitals

The Outer Banks Hospital in Nags Head is approximately 8 miles south of the DCIA and is the only healthcare facility on the Outer Banks with an emergency department that provides trauma care and is open year round, 24 hours a day, and seven days a week. Regional Medical Center, at Milepost 1.5 in Kitty Hawk just south of the US 158/NC 12 intersection, is a community hospital affiliated with Albemarle Hospital in Elizabeth City. Regional Medical Center provides urgent care, surgery, radiology, and family medicine, but does not provide emergency trauma care. Nearby Beach Medical specializes in family practice.

In the project area, the Outer Banks has two helipads that can be used in the transport of persons to the mainland for medical care. One is at the Regional Medical Center in Kitty Hawk, and the other is at the Duck Fire Station along NC 12 at the USACE property.

5.5.7 Historic Resources

Fourteen historic resources are listed on or eligible for inclusion in the National Register of Historic Places in the project area are described in the *Historic Architectural Resources Report: Mid-Currituck Bridge Project* (NCDOT, 2009) and are:

- On the Currituck County mainland (all eligible)
 - Coinjock Colored School (on US 158 north of the Intracoastal Waterway in DCIA);
 - Samuel McHorney House (on US 158 north of the Intracoastal Waterway in DCIA);
 - Daniel Saunders House (in Aydlett in DCIA);
 - Currituck Sound Rural Historic District (in Poplar Branch south and east of DCIA);
 - Dr. W. T. Griggs House (in Poplar Branch south and east of DCIA);
 - Ellie and Blanton Saunders Decoy Workshop (in Poplar Branch south and east of DCIA);
 - Christian Advocate Baptist Church (on US 158 near NC 136 in DCIA);

- (Former) Grandy School (on US 158 at Grandy in DCIA);
- C. W. Wright Store (on US 158 at Jarvisburg in DCIA);
- Jarvisburg Colored School (on US 158 near Jarvisburg in DCIA); and
- Dexter W. Snow House (on US 158 near Mamie in DCIA);
- On the Currituck County Outer Banks (north of DCIA)
 - Whalehead Club (listed);
 - Currituck Beach Light Station (listed); and
 - Corolla Historic District (eligible).

The location of these resources is shown on Figure 5-4.

5.6 Community Resources - Infrastructure

5.6.1 Pedestrian Routes, Sidewalks, and Bicycle Routes

There are no sidewalks or bicycle trails along US 158 on the Currituck County mainland in the DCIA. Sidewalks, multi-use paths (for pedestrians and cyclists), and wide shoulders that could be used by pedestrians and cyclists exist at various locations on the Outer Banks in the DCIA. A multi-use path is on the north side of US 158 between Barlow Lane/Martins Point Road and the intersection of North Virginia Dare Trail/Ocean Boulevard/North Croatan Highway. In addition, the town of Kitty Hawk plans a new multi-use path on the south side of US 158, between Woods Road and the Wal-Mart.

Along NC 12, a multi-use path either parallels or is a part of the NC 12 shoulder for most of the distance from Sea Bass Circle in Southern Shores to the NC 12 northern terminus at Corolla. The trail is asphalt, 7- to 8-feet wide, and generally maintains a 6- to 10-foot separation from the edge of pavement along NC 12. Just south of the town of Duck at Dogwood Trail, the trail shifts to the east side of NC 12. From here it continues past Sea Oats Trail/13th Street to the area between Four Seasons Lane and Scarborough Lane. At this point NC 12 widens to three lanes, and a dedicated bicycle trail is designated by pavement markings on both sides of the road, continuing through the Duck business section. North of Barrier Island Station, the road narrows to two lanes, but the signed shoulder/bike lanes continue to Sandy Ridge Road. From here, a separate asphalt path continues on the east side of NC 12 past the Dare/Currituck County line to Cadwall Road. This is the Pine Island area, where the continuous path ends and there are discontinuous paths that connect to secondary, residential streets parallel to NC 12. This path ends at Deep Neck Road, which parallels NC 12 toward the northern end of

Pine Island. There is no multi-use path along NC 12 from this point until one begins at Dolphin Street (north of Albacore Street) on the west side of NC 12 and extends to Ocean Forest Court in Monterey Shores. From Pine Island to the Corolla Village subdivision, the shoulders of NC 12 are 3- to 4-feet wide and also serve as a path for bicycles and pedestrians.

Pedestrian travel along NC 12 is concentrated at the town of Southern Shores, the town of Duck, and the resort subdivisions of Sanderling, Monterey Shores, and Whalehead Beach. There are about 12 marked pedestrian crossings in Southern Shores and about eight in Duck, including two at the Sanderling Inn, which has facilities on both sides of NC 12.

5.6.2 Automobile Routes

US 158 and NC 12 are the project area's two main thoroughfares (see Figure 1-2). US 158 is the primary means of north-south travel on the Currituck County mainland. Except on the Joseph P. Knapp Bridge over the Intracoastal Waterway at Coinjock, US 158 on the mainland is a five-lane road south from its intersection with NC 168 at Barco to the Wright Memorial Bridge. US 158 enters the Outer Banks over this bridge, which consists of two 2-lane bridges. It then continues south of the project area as a five-lane road, serving Kitty Hawk, Kill Devil Hills, and Nags Head. US 158 ends at the intersection of US 64 at Whalebone, in Dare County.

NC 12 is a two-lane road that runs the length of the Outer Banks from the southern end of Ocracoke Island in Dare County to just north of Corolla in Currituck County, including the DCIA. NC 12 is the primary Outer Banks north-south thoroughfare. The rest of the DCIA is accessible by local roads and private drives to residential areas.

Access to the Aydlett community on the Currituck County mainland is provided on three primary access roads (see Figure 1-2). Aydlett Road (SR 1140) is a two-lane roadway across Maple Swamp linking Aydlett with US 158 just south of the proposed Mid-Currituck Bridge corridor. In addition, local access is available to the south with SR 1137 (Aydlett Road) providing access to NC 136 (Macedonia Church Road) to reach US 158 near Poplar Branch and SR 1131 (Poplar Branch Road) to reach US 158 near Grandy. The primary north-south road in the local Aydlett network is Narrow Shore Road (SR 1137) (see Figure 1-2), which intersects Aydlett Road just south of the proposed Mid-Currituck Bridge corridor and terminates with no outlet at the northernmost part of Aydlett. Narrow Shore Road is immediately adjacent to the western shoreline of Currituck Sound.

5.6.3 Rail, Transit, and Airports

Freight rail service in Currituck County is provided by the Chesapeake & Albemarle Railroad, an operating unit of Rail America, a short line and regional freight railroad

operator. In addition to Currituck County, the Chesapeake & Albemarle provides freight service for the northeastern North Carolina counties of Camden, Pasquotank, Perquimans, and Chowan. There is no rail service in the DCIA.

There is no fixed route transit or intercity bus service in the DCIA. One public transportation system operates in the DCIA, the Inter-County Public Transportation Authority, which is a van shuttle service. It is based in Elizabeth City and serves the Currituck County area, but has limited service to the Outer Banks.

Several private transportation entities provide the remainder of the available service to the DCIA: a subdivision-specific private shuttle system (Corolla Light Shuttle), taxi services, for-hire limousines (Island Limousine), tour/charter service (Sandy Beach Tours), and a van service (The Connection) mainly to shuttle patrons between the Outer Banks and transportation hubs on the mainland, such as the Norfolk International Airport, Norfolk Bus Terminal, and Newport News Amtrak Station, all in Virginia.

The Currituck County Airport is a publicly owned general aviation airport on Airport Road (SR 1379) in the town of Maple, outside the DCIA but serving it. The airport is approximately 2 miles west of the junction of US 158 and NC 168 and serves small private planes and occasionally smaller “Citation” or corporate jets. There are no air tours or charter services operating out of Currituck County Airport. Future plans include construction of corporate hangars, additional T-hangars, and a terminal building. The aviation-integrated Maple Industrial Park and other properties zoned “Residential Airpark” are under development adjacent to the airport site. The *Airport Layout Plan Update* (Currituck County, 2000), calls for expansion of the existing 4,000-foot runway to 5,500 feet, a parallel taxiway, and other improvements. The improvements will allow the airport to handle larger “Citation” or corporate jets whose passengers would ideally utilize the adjacent business park.

Dare County Regional Airport is a publicly owned, general aviation airport on Airport Road in Manteo, North Carolina, outside the DCIA but serving it. It has two runways (4,400 feet and 3,300 feet) with radio-controlled lighting, a modern terminal building, hangars, and navigational equipment. The airport is capable of serving most regional jets. Uses of the airport include charter flights, corporate transit services, and air tours. Approximately three to four charter flights arrive daily at Dare County Regional Airport, and three companies fly charter services out of the airport. Corporate jets provide transit service for clients to the airport but maintain no set schedule or frequency. Air tours average at least 20 flights per day during summer months. Auto rental and taxi services are available at the airport.

Three publicly owned airstrips for private aircraft are on the Outer Banks. One is near the DCIA, the First Flight Airstrip next to the Wright Brothers Memorial in Kill Devil Hills. The other two are further south on Hatteras and Ocracoke islands in Dare

County. These three airstrips are owned and managed by the National Park Service and operate during daylight hours only.

One privately owned airstrip, Pine Island Airport, is within the DCIA. Located in the Pine Island Community on the Currituck County Outer Banks, this airstrip serves private aircraft and is generally restricted to property owners and guests of the Pine Island community. From May to September, FlightGest offers air shuttles between Norfolk, Virginia, and Pine Island Airport with a single flight on Fridays, Saturdays, and Sundays.

5.6.4 Water and Utilities

The Currituck Shores Water System provides service on the Currituck County mainland. On the Outer Banks, two county-owned water systems in Currituck County along NC 12, the Southern Outer Banks Water System (SOBWS) and the Ocean Sands Water/Sewer District, provide water to the Outer Banks in Currituck County. The SOBWS serves the potable water needs of several communities on the Currituck Outer Banks. These communities are:

- Spindrift, Ocean Sands, The Villages at Ocean Hill;
- Ocean Hill Section 1; and
- Whalehead Beach and the Corolla Village area.

Private water systems serve the needs of Pine Island; The Currituck Club; Buck Island; Monteray Shores Phases 1 and 2; and Corolla Light.

The Ocean Sands subdivisions, sections D-Q, are served by Ocean Sands Water and Sewer District, which is part of the SOBWS (Weist, 2008). Three large surface sewerage treatment plants (Currituck Club Pine Island; Buck Island; and Monteray Shores) are in Currituck County within the project area.

Natural gas is distributed to Currituck County by Eastern North Carolina Natural Gas, a local distribution company. Natural gas lines are on the mainland along NC 34 from the Camden line to NC 168 where they branch northward to Moyock and southward to the intersection of US 158 at Barco. The transmission continues along US 158 to the Currituck Sound at Point Harbor.

Most of the electrical services for Currituck County are provided by Dominion North Carolina Power. However, a small portion of Currituck County's mainland is serviced by the Albemarle Electric Membership Corporation. There is an electrical substation in Aydlett on Narrow Shore Road, just south of the DCIA.

The Embarq Corporation provides telephone service to consumers within Currituck County. Sprint provides telephone service on the Outer Banks.

Water consumers in Dare County receive water from the town of Kill Devil Hills, the town of Nags Head, the Dare County Regional Water System, or from private wells.

Electricity for Outer Banks consumers in Dare County is provided by Dominion North Carolina Power. Natural gas is provided by Eastern North Carolina Natural Gas Company. Solid waste collection for both residential and commercial properties in Dare County is handled by the local governments. Dare County contracts to Kitty Hawk and Southern Shores for solid waste pick-up in these two towns. There is no solid waste collection in Currituck County.

5.7 Community Resources – Natural

5.7.1 Farmland

The US Department of Agriculture, Natural Resource Conservation Service (NRCS), has identified three general categories of important farmland soils—prime, unique, and statewide and locally important. Prime farmlands consist of soils that are best suited for producing food, forage, fiber, and oilseed crops. Such soils have properties that are favorable for production of sustained high yields with minimal inputs of energy and resources. Farmland of statewide and local importance consists of soils that do not meet all of the requirements for prime farmland because of steepness of slope, permeability, susceptibility to erosion, low available water capacity, or some other soil property. Statewide and locally important farmland, however, is considered valuable in the production of crops when managed according to modern farming methods, including drainage to control excess water. Soils that have a special set of properties unique to producing certain high-value crops meet the requirements for unique farmland. There are no unique farmland soils in the project area. All of the farmland soils in the project area are on the mainland in Currituck County. According to Currituck County, much of the mainland is actively farmed (Woody, 2008). Farming occurs along US 158 in the DCIA.

About 10,362 acres, or nearly 6 percent, of Currituck County meets the soil requirements for prime farmland. These soils are Altavista fine sandy loam (0 to 2 percent slopes), Bojac loamy sand (0 to 3 percent slopes), Munden loamy sand, and State fine sandy loam (0 to 6 percent slopes). They are found primarily along the US 158 corridor in the DCIA.

State and locally important soils in Currituck County make up about 85,381 acres, nearly 49 percent of the county. These soils are Augusta fine sandy loam, Cape Fear loam, Conetoe loamy sand (0 to 3 percent slopes), Dragston loamy fine sand, Pasquotank silt loam, Ponzer muck, Portsmouth fine sandy loam, Roanoke fin sandy loam, and

Tomotley fine sandy loam (Soil Conservation Service, 1982). They are found throughout the county.

The DCIA consists of approximately 46,400 acres. Of that, only 27.0 acres are prime farmland soils; however, almost one-third of the DCIA, approximately 13,000 acres, are state and locally important soils.

There are no prime or unique farmland soils on the Outer Banks. There is one state and locally important soil type on the Outer Banks in Dare County; however, it is in a built-up area and is therefore not considered farmland (Soil Conservation Service, 1992).

5.7.2 Open Space

Open space includes agriculture and undeveloped land uses. Within the DCIA, there are 10,261 and 1,364 acres of open space in Currituck and Dare counties, respectively.

Open space is concentrated on the mainland portion of the DCIA in the area of Aydlett (see Figure 5-1). Pockets of open space are along both the beach area of the Atlantic Ocean and Currituck Sound on the Outer Banks in Currituck County. Areas of open space are also on the south side of US 158 in Kitty Hawk on the Outer Banks in Dare County.

5.7.3 Water Supply Watershed Protection

The 2006 Currituck County Land Use Plan states “there are no surface water supply watersheds in the county. Further, concerning groundwater resources in particular, there have been no wellhead protection plans submitted or approved for any of the three county-owned water supply systems in Currituck County: (1) Currituck Mainland Water Department in Maple, (2) Ocean Sands Water and Sewer District in Corolla, and (3) the Southern Outer Banks Water System, also in Corolla.” Additionally, interviews with Currituck County (Doxey, 2008) and the Town of Duck planning director (Garman, 2008) revealed there are no water supply watersheds within the DCIA.

5.7.4 Wild and Scenic Rivers/Water Bodies

The “Wild and Scenic River Act” describes those river areas eligible to be included in a system afforded protection under the Act as free flowing and possessing “...outstandingly remarkable scenic, recreational, geologic, fish and wild life, historic, cultural, and other similar values.” There are no wild and scenic rivers in the DCIA. There are no 303(d) water bodies, outstanding resource waters, or high quality waters in the DCIA. Section 303(d) of the Clean Water Act (CWA) requires states to develop a list of waters not meeting water quality standards or which have impaired uses.

Water bodies in the area of the project include Currituck Sound, the Atlantic Ocean, and the Intracoastal Waterway. Currituck Sound separates the mainland and the Currituck County and northern Dare County Outer Banks. The Atlantic Ocean borders the Outer Banks to the east. The Intracoastal Waterway runs through the northern part of the DCIA in Currituck County. This is a toll-free waterway maintained by the US Army Corps of Engineers.

Surface waters of the project area are found primarily in association with the open waters of Currituck Sound. The Atlantic Intracoastal Waterway and Jean Guite Creek are the only major drainages within the project area. The Intracoastal Waterway runs through the northern part of the DCIA on the Currituck County mainland. In addition, five jurisdictional un-named drainages were identified within the project area and are addressed in detail in the *Natural Resources Technical Report* (CZR Incorporated, 2009) (NRTR). These include two canals that connect to Maple Swamp and drain into Great Swamp and Deep Creek (North River) along the mainland portion of US 158. Two modified natural streams along US 158 drain into Currituck Sound. The southern portion of the project boundary crosses Jean Guite Creek. Also, a small stream identified within the maritime swamp where bridge corridor C2 terminates on the Outer Banks drains into Currituck Sound. The location of each of these features and the physical characteristics of these streams are provided in the NRTR (CZR Incorporated, 2009).

Several small natural ponds and naturalized excavated ponds exist on both the mainland and the Outer Banks. A total of 20 jurisdictional ponds occur within the project area, one within Maple Swamp on the mainland, and the other 19 on the Outer Banks. Ten of these ponds have surface hydrologic connections (often through jurisdictional wetlands) to traditional navigable waterways. The other 10 were determined to be jurisdictional via sub-surface hydrologic connections created by porous sandy soils. None of the ponds in the project area is connected to jurisdictional stream features (CZR Incorporated, 2009).

5.7.5 Coastal Barrier Resources System

The Coastal Barrier Resources Act (CBRA) of 1982 established the John H. Chafee Coastal Barrier Resources System (CBRS), comprised of undeveloped coastal barriers along the Atlantic, Gulf, and Great Lakes coasts. The law encourages conservation of hurricane prone, biologically rich coastal barriers by restricting federal expenditures that encourage development, including federal flood insurance through the National Flood Insurance Program. The CBRA is a free-market approach to conservation. These areas can be developed, but federal taxpayers do not underwrite the investments. The CBRA saves taxpayer dollars and encourages conservation at the same time. It is estimated that CBRA has saved over \$1 billion and will save millions more in the future. The US Fish and Wildlife Service (USFWS) maintains the repository for CBRA maps that depict the CBRS. The USFWS also advises federal agencies, landowners, and Congress

regarding whether properties are located within or outside of the CBRS and what kind of Federal expenditures are allowed.

Undeveloped coastal barriers were mapped by the US Department of the Interior using specific criteria, and were then enacted by Congress as units of the CBRS. The affected areas are delineated on maps entitled "John H. Chafee Coastal Barrier Resources System." The CBRS currently includes 585 System units that comprise nearly 1.3 million acres of land and associated aquatic habitat. It also includes 271 "otherwise protected areas," a category of coastal barriers already held for conservation purposes that include an additional 1.8 million acres of land and associated aquatic habitat.

Figure 5-5 shows the limits of the CBRS in the project area. One of the two CBRS limits is in the DCIA. It is owned by the Audubon Society. The CBRS north of the DCIA includes two National Wildlife Refuges, the Currituck Estuarine Research Reserve, and lands in private ownership.

5.8 Crime, Safety and Emergency Services

5.8.1 Crime and Safety Issues

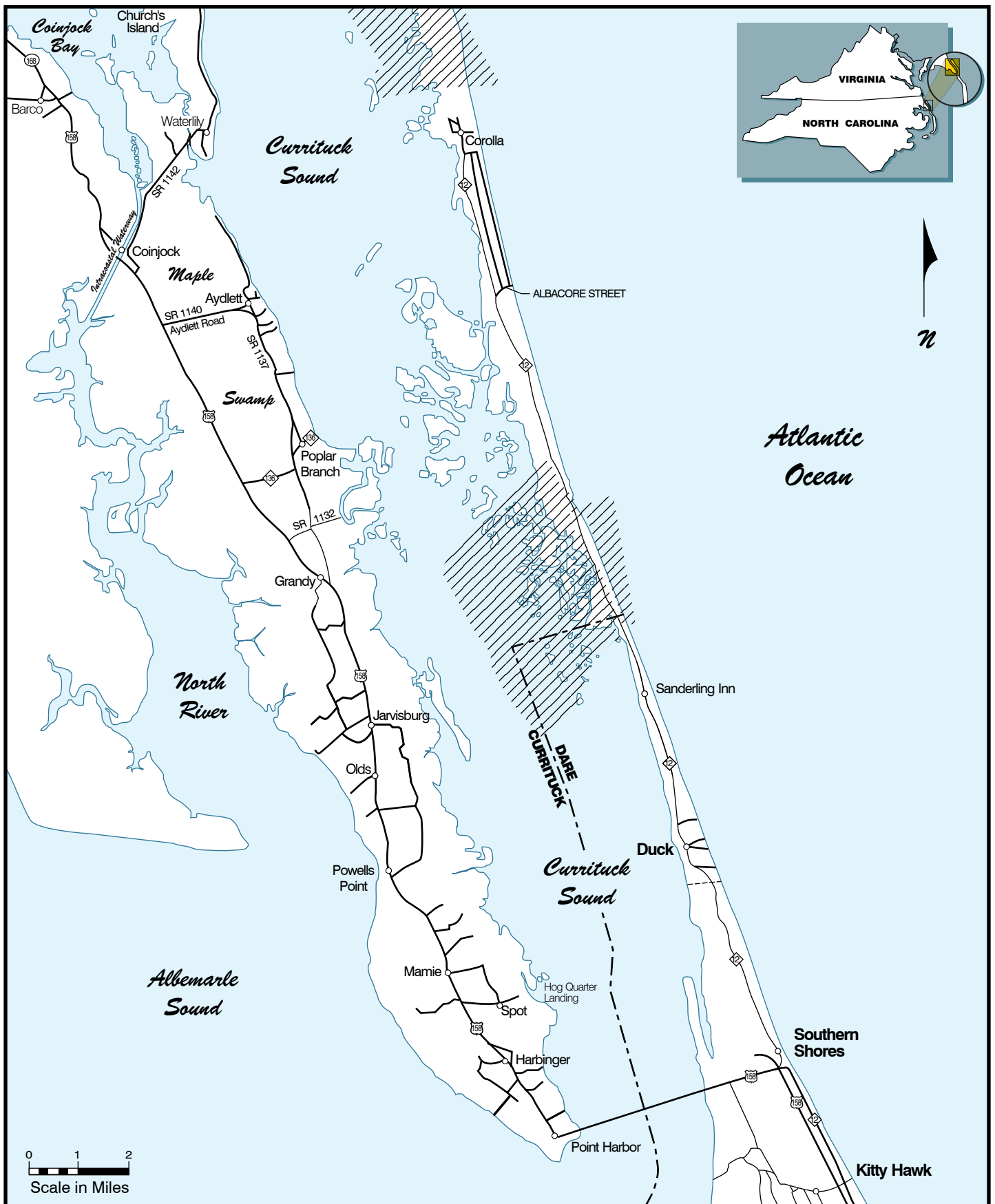
Table 5-12 shows crime rates for Currituck and Dare counties compared to the state of North Carolina from 1993 to 2007. As shown, crime rates in Dare County have decreased since 1993 and in Currituck County and the state since 1997. Crime rates for Currituck County are below those in both Dare County and the state for the period reported. In comparison, crime rates in Dare County have been above rates for Currituck County or the state for the period reported.

Table 5-12. Crime Rates per 100,000 Population

Year	Currituck County	Dare County	North Carolina
1993	3,337	9,385	5,792
1997	4,056	6,786	5,591
2002	3,047	6,703	4,771
2007	2,453	4,687	4,659

Source: North Carolina State Bureau of Investigation

Bicycle and pedestrian paths are generally along or adjacent to thoroughfares within the DCIA and are visible to motor vehicle traffic and/or are visible from homes. They are not lighted. There are no issues related to defensible space (space that creates an environment where an individual feels vulnerable or that facilitates the shielding of potential criminals from public view) in the DCIA.



LEGEND

Coastal Barrier Resources System

County Boundaries

Source: USFWS dated May 31, 2007.

Coastal Barrier Resources System

Figure
5-5

5.8.2 Police and Fire

The locations of police and fire facilities are shown on Figure 5-4. The Currituck County Sheriff's Department main office is on US 158 in the community of Maple, north of the DCIA. There is one law enforcement center near Barco on the Currituck County mainland. The Outer Banks satellite sheriff's office is in Corolla on NC 12, at the northern boundary of the DCIA. However, the office is not generally staffed.

The mainland Currituck County Volunteer Fire Department is on US 158 in Grandy. Other county volunteer fire departments are in Waterlily and Powells Point.

In Dare County, the Kitty Hawk Police Department (KHPD) and Fire Department (KHFD) are on Kitty Hawk Road south of the DCIA. The KHFD is a combination fire and ocean department with a full time staff - KHFD has part-time firefighters, who complement the full-time staff to provide 24-hour service. The KHFD does not have mapped response routes, but utilizes US 158 and nearby roadways, depending on the location of the call. The KHPD does not have formal patrol routes.

The Southern Shores Volunteer Fire Department, South Station, is across from the Kitty Hawk Elementary School on Dogwood Trail off US 158. The East Station is at the corner of Duck Road and East Dogwood. The fire department provides support service to the Dare County EMS.

The Police and Volunteer Fire Departments for the Town of Duck are at the Public Safety Building on NC 12. The fire department is made up of volunteers with a full-time chief and responds to calls involving emergency medical, fire, automobile crashes, and ocean rescue. There is a county wide mutual-aid agreement that includes the Currituck County Outer Banks.

5.8.3 Emergency Medical and Rescue Services

5.8.3.1 Medical Services

The Currituck County Fire-Emergency Medical Services (EMS) provides pre-hospital Advanced Life Support emergency medical care and transportation for Currituck County. The department is staffed by Basic, Intermediate, and Paramedic Emergency Medical Technicians. As shown on Figure 5-4, the EMS office is on US 158. The county staffs eight ambulances 24/7. Emergency crews are also in Waterlily and Grandy in the DCIA area.

The Corolla Fire and Rescue Squad, Inc. (CFR), in partnership with Currituck County EMS, operates out of two locations: the Pine Island Station on Ocean Trail, and the Whalehead Station on Whalehead Drive. The CFR operates 24/7 and provides state-

certified Advanced Life Support/Paramedic level of care throughout the Currituck County Outer Banks.

An EMS in Dare County in the DCIA is stationed in Southern Shores. The Dare County EMS provides emergency response to 911 calls anywhere in the county.

Two Fire-EMS stations are on the Currituck County Outer Banks in the DCIA. One is on NC 12 just north of the Dare/Currituck County line. The second station is on NC 12 in Corolla.

5.8.3.2 *Rescue Services*

Corolla Ocean Rescue (COR), a division of Corolla Fire and Rescue EMS, provides a minimum of 19 lifeguards during the summer months and peak visitor season. A surf rescue team is stationed at the Town of Duck at the Public Safety Building on NC 12. Five lifeguard stations are on the beachfront in the Town of Duck. In Dare County, Kitty Hawk ocean rescue facilities include three stations along the beach that serve as bases for regular beach patrols. Lifeguards are also stationed along the beach from Memorial Day through Labor Day.

5.9 Plans and Regulations

5.9.1 Coastal Area Management Act (CAMA)

The US Coastal Zone Management Act (CZMA) was passed by Congress in 1972. This legislation relies on voluntary measures and incentives to encourage federal, state, and local partnerships for coastal protection. The program does not require that states develop a coastal protection program, but it provides two specific incentives to encourage participation. First, it provides financial assistance to establish coastal management programs. Second, it assures states that federal actions in the coastal areas of participating states will be consistent with enforceable policies. Essentially, the CZMA vests considerable authority in the states to implement coastal management programs. If the federal government wishes to engage in actions that are not consistent with state policies, the President must determine that the actions are paramount to the interests of the United States.

As a result of the federal CZMA, the State of North Carolina passed the Coastal Area Management Act (CAMA) in 1974. CAMA established the North Carolina Coastal Resources Commission (NCCRC), which is responsible for adopting rules that implement CAMA. CAMA requires each of the 20 coastal counties in North Carolina to have a local land use plan that meets guidelines established by the NCCRC. Further, municipalities within coastal counties may establish land use plans independent from their respective counties. CAMA provides financial assistance to support coastal communities in developing their land use plans. Once a land use plan is certified by the

NCCRC, the North Carolina Department of Environment and Natural Resources, Division of Coastal Management (NCDENR-DCM), uses the plan when making CAMA permit decisions. Proposed development must be consistent with the local land use plan, or the NCDENR-DCM will not permit a planned development to be implemented.

In addition to certifying local land use plans, the NCCRC also designates areas of environmental concern (AECs) and adopts rules and policies for coastal development within those areas. These are environmentally fragile and important land and water areas. AECs are broadly defined as: the estuarine system, the ocean hazard system, public water supplies, and natural and cultural resources. AECs encompass less than 3 percent of the land covered by CAMA in North Carolina's 20 coastal counties. The NCCRC, in cooperation with local governments, has developed a program of permit review and coordination for projects within these AECs. The intent of the regulatory program is to ensure the compatibility of development with the continued productivity and value of these critical land and water areas. These areas—including those under state and federal jurisdiction—are subject to special management controls and development permitting procedures. In addition, a proposed development must comply with the policies and land classifications of the local land use plans and with local zoning ordinances, subdivision regulations, and other local development regulations to receive a permit to build in CAMA areas. The DCIA for the project addressed in this CIA contains environmentally fragile areas that have been designated as AECs, as discussed in the *Natural Resources Technical Report* (CZR Incorporated, 2009).

5.9.2 Currituck County Plans

5.9.2.1 Land Use Plan

The *Currituck County Land Use Plan* (Currituck County, 2006) describes economic and land use development goals for the county. Much of the local economic activity in Currituck County is based on tourism and tourism-related industries, such as construction and retail trade. Additionally, the development category of finance, insurance, real estate, accommodation, and food services has become a major employment sector. The main themes for Currituck County's economic and land use development goals are to expand the economic base of Currituck County and to improve employment opportunities, while preserving the character and natural beauty of the county.

The plan contains a number of Transportation Policies that apply specifically to the proposed project alternatives. These include the following:

- Policy TR1: Opportunities to enhance regional transportation connections between Currituck County and other parts of the state and region shall be supported.

- Policy TR13: A new mid-county bridge between the mainland and Corolla shall be supported to provide critical traffic relief to US 158, to improve emergency access to and evacuation from the Currituck Outer Banks, to promote economic development, and to provide better access to public and private services not readily available on the Outer Banks. To protect the character of communities near the bridge (e.g., Aydlett, Churches Island, Poplar Branch), the road leading to the bridge shall have no access points before its intersection with US 158.
- Policy TR14: Plans for improvements to NC 12 shall be an integral part of the planning for the management of traffic to and from the Currituck Outer Banks.

In August 2008, the Board of Commissioners approved an amendment to the Land Use Plan for the southern portion of the county. This amendment allows residential and commercial use on 40 upland acres in a development called Currituck Marina in Harbinger. Wetlands in the 120-acre site remain undeveloped. Plans are to build a marina with 240 housing units (Woody, 2008).

5.9.2.2 *Economic Development Plan*

Consistent with the economic goals of the General Plan, Currituck County commissioned an economic development report from the University of North Carolina Center for Competitive Economies. This *Economic Development Strategy: "Vision Plan" for Currituck County, North Carolina* (Lane and Jolley, 2008) addresses a variety of economic potentials, including the Mid-Currituck Bridge. The plan states that the bridge should provide easier mainland access to Currituck County Outer Banks tourists and would likely capture a considerable amount of tourism spending that currently occurs in Dare County. It also states that, with the bridge, increases in mainland business development is expected, with tourists crossing the bridge mid-week to new retail, entertainment and hospitality establishments in the vicinity of the western bridge terminus at US 158. To support such business functioning, there would need to be changes to the infrastructure of the area, such as access to central water and sewer, garbage collection, effective stormwater management, internet, and the addition of access roads and sidewalks.

The vision plan includes 10 "strategic options" to improve the county's economic development. Those that apply specifically to the proposed project alternatives are summarized below:

- Encourage mainland development resulting from the Mid-Currituck Bridge toward up-market retail, hospitality, and service businesses.
- Help develop Mid-Currituck Bridge tolls to encourage mid-week tourism traffic.

5.9.3 Dare County Plans

The Dare County Board of Commissioners has adopted procedures and standards for the development of all land under the jurisdiction of Dare County. Within Dare County, the DCIA is in three municipalities: Kitty Hawk, Southern Shores and Duck, and an unincorporated peninsula of land west of Southern Shores. The relevant plans and ordinances for the planning jurisdictions within the DCIA are described in the following sections.

5.9.3.1 *Dare County Land Use Plan*

The most recent version of the *Dare County Land Use Plan Use* (March 2003) was certified by the North Carolina Coastal Resources Commission in July 2003. This land use plan applies to the unincorporated portions of Dare County. The major themes of the land use plan include natural resource preservation, residential development as the preferred principal land use, commercial development that reflects the historic architectural patterns of Dare County, and the recognition of the importance of tourism to the county economy.

Goals and objectives that are pertinent to the proposed project include:

- Maintaining the coastal village atmosphere with an emphasis on residential development and small, locally-owned commercial establishments;
- Preference for single-family detached homes as the preferred type of residential development;
- Commercial development that reflects the traditional “coastal village” architecture of the Outer Banks; and
- Development of the foundation for an alternative means of transportation for pedestrians and bicycles that provides a means of movement other than automobiles.

Each of the municipalities in the county adopts its own land use plan.

5.9.3.2 *Kitty Hawk Land Use Plan*

The *Kitty Hawk 2003-2004 CAMA Core Land Use Plan Update* was adopted by the local planning board on April 6, 2005. The Town of Kitty Hawk has jurisdiction over the portion of the DCIA in Dare County that is south of US 158. Almost all of that area is zoned for commercial land use. The general land use plan objectives contained in the *Kitty Hawk 2003-2004 CAMA Core Land Use Plan Update* (Kitty Hawk, April 2005) are:

- Preserve its character as a coastal village;
- Protect and preserve the natural environment;

- Provide adequate public facilities and services;
- Achieve support and consensus for town initiatives;
- Promote unity in its residential and commercial communities; and
- Make infrastructure improvements that compliment but do not duplicate existing systems.

5.9.3.3 *Southern Shores Land Use Plan*

The town of Southern Shores land use plan was updated in 1997 and adopted in 1998. The 1998 plan is still current; however, as of 2009, it is in the process of being updated. Most policies in the plan acknowledge the predominant residential nature of Southern Shores, and the preference and desire to continue this character into the future. Plan policies allow for future infilling on lots platted years ago. The plan indicates that the town does not have or want “commercial uses typically associated with the beach.” Commercial uses are to serve the town and its goal of remaining a low-density community of detached, single-family homes.

In 2005, the Town of Southern Shores updated its *Long Range Plan*, which was adopted in April 2006. It was the product of a committee of residents appointed by the Town Council. Many of the plan’s recommendations are oriented toward operational policy, but the following recommendations are relevant to the Mid-Currituck Bridge project:

- Develop plans and policies in coordination with local, state, and federal officials to alleviate the growing NC 12 traffic problems affecting Southern Shores citizens, particularly during the tourism season; and
- Work closely with the “Build the Bridge and Preserve our Roads Committee” to quickly win necessary support and approval to authorize construction of a Mid-Currituck Bridge to reduce traffic congestion on US 158, the Wright Memorial Bridge, and NC 12.

5.9.3.4 *Duck Land Use Plan*

The *Duck CAMA 2003-2004 Core Land Use Plan* was adopted by the local planning board on February 2, 2005. The town plans to preserve its present physical appearance and form in order to maintain its unique character among coastal villages.

The land use plan also states that “Duck remains committed to keeping NC 12 two-lanes in its present alignment and configuration but supports the construction of the Mid-Currituck County Bridge.”

Some of the relevant goals, policies, and objectives from the Land Use Plan include:

- Goal #26: Ensure a safe, efficient transportation system with NC 12 remaining a two-lane facility and the construction of a mid-Currituck County bridge.
- Policy #26a: Duck supports the construction of a mid-Currituck County bridge and maintenance of the existing two-lane configuration of NC 12 with the Duck Trail along NC 12 through Duck.
- Objective #26a: Lobby for the construction of a mid-Currituck County bridge.
- Objective #26b: Lobby for maintaining NC 12 as a two-lane facility in its present configuration through Duck.
- Objective #26d: Encourage the provision of a safe, efficient transportation system given state and local finances, topography, geography, and natural systems and surrounding land uses and development.

5.9.4 Thoroughfare Plans

Within the DCIA, the *Thoroughfare Plan for Currituck County* (NCDOT, 1999) recommends a new Mid-Currituck Bridge across Currituck Sound. The plan also recommends US 158 be widened to a six-lane road with median from the US 158/NC 168 intersection, east to the proposed Mid-Currituck Bridge and that NC 12 be widened from the Dare County line, north to the proposed Mid-Currituck Bridge. The widened NC 12 would be four lanes with a raised 16-foot wide median. The NCDOT began an update of the Currituck County Comprehensive Transportation Plan in July 2008.

The *Dare County Thoroughfare Plan* (NCDOT, 1988) recommended widening the Wright Memorial Bridge to four lanes and improving US 158 from the bridge east to the US 158/NC 12 intersection. These two projects were completed during the 1990s. From the US 158/NC 12 intersection north to the Currituck County line, the plan also recommended widening NC 12 from two lanes to three lanes, with paved shoulders for pedestrians and bicycles. The center lane would be used for a left-turn lane. Although this aspect of the plan has since been dropped, it is part of the ER2 and MCB2 alternatives addressed in this CIA.

5.9.5 Other Proposed Road Improvements

The Mid-Currituck Bridge Study is included as STIP Project No. R-2576 in NCDOT's 2009-2015 STIP. One other STIP project is within the DCIA, to convert the existing at-grade intersection of US 158 and NC 12 at Southern Shores to an interchange (STIP Project No. R-4457). This project, however, is not funded for either right-of-way acquisition or construction.

5.9.6 North Carolina Strategic Highway Corridor System

The North Carolina Board of Transportation has established a vision that includes a balanced system of roadways and bridges to protect and maximize the mobility and connectivity on a core set of highway corridors throughout North Carolina. The North Carolina Board of Transportation adopted a statewide *North Carolina Strategic Highway Corridors Vision Plan* (NCDOT, 2004) pursuant to the North Carolina Strategic Highway Corridor (SHC) initiative. The vision plan includes an SHC from Hatteras to the Virginia line that includes the project area and classifies area major roads by their function and the minimum level of mobility they are to provide. Within the project area, the vision plan identifies NC 12 and US 158 as a thoroughfare and a boulevard, respectively. The proposed Mid-Currituck Bridge also is listed in the vision plan as a boulevard.

As part of the SHC initiative, NCDOT designated 55 corridors throughout the state. SHC number 55 runs from Hatteras to the Virginia line and includes NC 12, US 158, and NC 168. The corridor includes the “NC 12/Mid-Currituck Bridge” as a spur. Spurs connect parent corridors to activity centers or destinations. The Mid-Currituck Bridge component of the spur connects US 158, the strategic corridor on the mainland peninsula to NC 12, the primary road serving the Outer Banks portion of the project area. The corridor vision plan designates the Mid-Currituck Bridge as a boulevard. The corridor vision plan also designates US 158 (from NC 12 to NC 168) as boulevard and designates NC 12 (from the Hatteras Island Ferry terminal on Hatteras Island to the Mid-Currituck Bridge) as a thoroughfare.

5.9.7 North Carolina Intrastate System

The purpose of North Carolina’s Intrastate System is to provide high-speed, safe travel service throughout the State. North Carolina General Statute § 136-178 designates a “New route from US 158 to NC 12, including a new toll bridge over the Currituck Sound in Currituck County” (this project) as part of the Intrastate System.

6.0 Community Impact Analysis

This section describes potential direct impacts of the Mid-Currituck Bridge detailed study alternatives on the communities within the project area. ER2, MCB2, and MCB4 are assessed separately. In addition, two potential corridors (C1 and C2) for a new bridge under MCB2 and MCB4 are addressed. This chapter addresses community cohesion, community resources, relocations, land use, environmental justice, economics, safety, and travel patterns and access. The No-Build Alternative also is addressed. Detailed descriptions of the detailed study alternatives and the No-Build Alternative are provided in Section 2.0 of this CIA.

Indirect and cumulative impacts of the detailed study alternatives are addressed in the *Mid-Currituck Bridge Study: Indirect and Cumulative Effects Technical Report* (East Carolina University and Parsons Brinckerhoff, 2009).

6.1 Community Impact Assessment Overview

The project area is relatively large; therefore it is not confined to any one town, but includes many communities. The communities within the mainland portion of the project area are small, rural settlements scattered along US 158 on the Currituck County mainland. They are geographically separated by large tracts of swamp land or agricultural areas. The mainland portion of the project area appears generally to contain a wide range of residential and commercial development types.

In contrast, the Outer Banks portion of the project area, generally from Southern Shores to Corolla, is more concerned, through land use plans and development requirements, with the nature of development and what it means to the communities therein. Some factors that weigh on these concerns are: tourism, space limitations, visual character, and sense of community. The Outer Banks portion of the project area has a variety of organizations (i.e., Currituck County Chamber of Commerce, Outer Banks Preservation Association, Coastal Conservation Association), which indicate that residents are very interested in regulating change.

Based on the similarities and differences between the detailed study alternatives, potential impacts would occur in different geographic locations depending on the alternative. For ER2, impacts could occur along the approximately 25-mile corridor of US 158 on the Currituck County mainland between the NC 168/US 158 intersection and the Wright Memorial Bridge and on the Outer Banks along US 158 east of the Wright Memorial Bridge in Dare County, then north along NC 12 to Albacore Street in Currituck County.

With MCB2, impacts would occur along only 5 miles of US 158 between the NC 168/US 158 intersection and the US 158/Mid-Currituck Bridge interchange.

Additional impacts would be expected as a result of the US 158/Mid-Currituck Bridge interchange, as well as the western bridge approach between the interchange and the Currituck Sound. Impacts on the Outer Banks would be generally the same as with ER2, but also would include changes to land use and to NC 12 to accommodate bridge traffic.

Impacts with MCB4 on the Currituck County mainland would be the same as with MCB2. Impacts on the Outer Banks would be the same as those related to the Mid-Currituck Bridge under MCB2.

Under the No-Build Alternative, there would be no impact to existing conditions and ongoing trends in the project area, particularly related to high traffic volumes and congestion during the summer tourist season. However, the No-Build Alternative would be inconsistent with the *Currituck County Land Use Plan* and *Southern Shores Long Range Plan*, as both recommend a Mid-Currituck Bridge. Because there would be no impact to existing conditions or ongoing trends, this alternative is not discussed separately in each of the sections below.

As evaluated in the discussions below, impacts of the three detailed study alternatives and the No-Build Alternative are summarized in Table 6-1.

6.2 Physical, Social, and Psychological Aspects

6.2.1 Community Stability and Neighborhood Cohesion

6.2.1.1 ER2

Currituck County Mainland

With this alternative, adding a third, outbound lane for evacuation use along approximately 25 miles of the Currituck County mainland would occur within and/or adjacent to existing right of way. As a result, there would be no real change from the structure or location of the existing roadway and no effect on community cohesion. No new barriers would be introduced, so there would be no potential to isolate existing communities, which are scattered along US 158 over the length of the mainland.

The commercial developments listed in Section 5.5.5 have been planned and/or recently constructed in Currituck County. ER2 would not affect these developments since little new road right-of-way would be required.

Outer Banks

On the Outer Banks, east of the Wright Memorial Bridge, US 158 is a major thoroughfare and provides the only direct access from the Currituck County mainland. US 158 also serves as a neighborhood boundary between the towns of Southern Shores and Kitty Hawk. As a result, widening this to a six-lane super-street and constructing a single-point interchange would not affect community cohesion.

Table 6-1. Summary of Impacts

CIA Section	Section Title	Detailed Study Alternatives			
		ER2	MCB2	MCB4	No-Build
6.2	Physical, Social/ Psychological Aspects				
6.2.1	Community Stability/ Neighborhood Cohesion	Additional lane along NC 12 perceived as interfering with neighborhood cohesion.			No impact.
		No impact related to bridge.	Bridge corridor C1 takes three lots and physically divides the Corolla Bay subdivision. With Option B, potential impacts on the way of life in Aydlett resulting from changes in the local road system and the presence of the toll plaza in Aydlett.		
6.2.2	Visual/Aesthetic Impacts	No impact related to bridge.	Interchange, toll plaza, bridge approach, and bridge would be notable visual change into rural area of Currituck County mainland. Views from homes with views of the Sound from the Currituck County mainland and Outer Banks would be affected and is considered an adverse change.		No impact.
		The super-street on US 158 east of the Wright Memorial Bridge and US 158/NC interchange would be a notable visual change.		No notable visual change east of Wright Memorial Bridge on US 158.	
		Removing shielding vegetation along roadside to add lanes and multi-use paths along approximately 16 miles of NC 12 would open up some views along and across roadway.		Removing shielding vegetation along roadside to add lanes along approximately 2 miles of NC 12 would open up some views along and across roadway.	

Table 6-1 (continued). Summary of Impacts

CIA Section	Section Title	Detailed Study Alternatives			
		ER2	MCB2	MCB4	No-Build
6.2.3	Relocations				No impact.
	<ul style="list-style-type: none"> Residential 	6 (1 without third outbound lane for hurricane evacuation) plus 10 vacation rental units	6 to 8 plus 10 vacation rental units	5 to 7	
	<ul style="list-style-type: none"> Business 	5 (2 without third outbound lane for hurricane evacuation)	7 to 8 (5 to 6 without third outbound lane for hurricane evacuation)	5 to 6 (3 to 4 without third outbound lane for hurricane evacuation)	
	<ul style="list-style-type: none"> Outdoor Advertising Sign 	29 (none without third outbound lane for hurricane evacuation)	6 to 16 (3 to 13 without third outbound lane for hurricane evacuation)	6 to 16 (3 to 13 without third outbound lane for hurricane evacuation)	
	<ul style="list-style-type: none"> Gravesite 	66 (none without third outbound lane for hurricane evacuation)	35 to 36 (19 to 20 without third outbound lane for hurricane evacuation)	35 to 36 (19 to 20 without third outbound lane for hurricane evacuation)	
6.3	Consistency with Land Use Plans	Inconsistent with Southern Shores proposal for Mid-Currituck Bridge and Town of Duck policy and objective to maintain NC 12 in its existing configuration.	Inconsistent with Currituck County Land Use Plan where western bridge approach would pass through a Conservation Area.		Inconsistent with Currituck County Land Use Policy TR13, Southern Shores Long Range Plan Goal 1.1, and Town of Duck Land Use Plan, as all support a Mid-Currituck Bridge; and with Currituck Policy TR14 (manage traffic to/from Currituck Outer Banks).

Table 6-1 (continued). Summary of Impacts

CIA Section	Section Title	Detailed Study Alternatives			
		ER2	MCB2	MCB4	No-Build
6.4	Transportation Access				
6.4.1	Neighborhood Access				
	<ul style="list-style-type: none"> Currituck County Mainland 	No impact.	Frontage roads used to maintain access to US 158 for properties in the US 158 interchange area. With Option B only, Aydlett Road across Maple Swamp closed, Aydlett traffic would use the Mid-Currituck Bridge approach road to travel to and from Aydlett, and Narrow Shore Road relocated to pass over a toll plaza.		No impact.
	<ul style="list-style-type: none"> US 158 on Dare County Outer Banks 	Super-street would reduce number of 4-way intersections and limit direct access across US 158.		No impact.	
	<ul style="list-style-type: none"> NC 12 on Dare County Outer Banks 	Four streets would be closed to through traffic but not emergency vehicles at their intersection with NC 12: Widgeon Drive, Wood Duck Drive, Canvas Back Drive, and Old Squaw Road. Alternate access exists.		No impact.	
	<ul style="list-style-type: none"> On Currituck Outer Banks 	Left turns limited at Crown Point and Orion's Way with provisions for U-turns.		Left turns limited at Crown Point and Orion's Way with provisions for U-turns. With bridge corridor C1 only, access road that connects NC 12 to the north end of Harbor View would be closed.	No impact.

Table 6-1 (continued). Summary of Impacts

CIA Section	Section Title	Detailed Study Alternatives			
		ER2	MCB2	MCB4	No-Build
6.4.2	Commercial Access, Parking	On Outer Banks, super-street would reduce parking at Home Depot about 10 percent, resulting in non-conforming (does not meet current requirements) ratio of parking/retail space. Direct business access not permitted in the NC 12/US 158 interchange area; right turns to south NC 12 (Virginia Dare Trail) prohibited.		No impact.	No impact.
		No impact related to bridge.	With Option B, direct access from US 158 would be lost for customers of a gas station in the US 158/Mid-Currituck Bridge interchange area. With bridge corridor C2, TimBuck II would lose some of its parking area and left turns limited at one driveway. With bridge corridor C1, left turns limited for businesses between Albacore Street and Monteray Drive, as well as left turn limits at one TimBuck II driveway.		
6.4.3	Pedestrian/Bicycle Access	No impact on Currituck County mainland.			No impact.
		Beneficial impact on Outer Banks, as multi-use paths along approximately 17 miles of US 158 and NC 12 would be retained, replaced, or allowed for in project design.		Beneficial impact along approximately 2 miles of NC 12.	
6.4.4	The Americans with Disabilities Act	No impact.			
6.4.5	Public Transit	Not applicable.			

Table 6-1 (continued). Summary of Impacts

CIA Section	Section Title	Detailed Study Alternatives			
		ER2	MCB2	MCB4	No-Build
6.5	Consistency with Thoroughfare Plans	Inconsistent with <i>Thoroughfare Plan for Currituck County</i> , which recommends a Mid-Currituck Bridge. Inconsistent with <i>North Carolina Strategic Highway Corridor and Intrastate System</i> , as this alternative does not improve system efficiency.	No inconsistency.		Inconsistent with <i>North Carolina Strategic Highway Corridor and Intrastate System</i> , as this alternative does not improve system efficiency.
		Inconsistent with <i>Thoroughfare Plan for Currituck County</i> , as this alternative does not widen NC 12 to four lanes northward from Dare/Currituck County line to Mid-Currituck Bridge.			
6.6	Safety				
6.6.1	Pedestrian/Bicycle Safety	Beneficial impact. On Outer Banks, multi-use paths along US 158 and NC 12 would be retained, replaced to NCDOT standards, or allowed for in project design. Crosswalks would be replaced and, as necessary, added at locations where multi-use path crosses from one side of NC 12 to the other.			No impact.
6.6.2	Emergency Response	Beneficial from additional maneuverability provided by additional lanes. Potential would exist during unusual traffic situations on the bridge, such as with a crash, for emergency vehicles serving Aydlett to be slowed between US 158 and Aydlett.			No impact.
6.6.3	Public Safety	Beneficial impact. Addition of a hurricane evacuation lane within the existing right-of-way of US 158 or use of the center turn lane for outbound travel during a hurricane evacuation. Hurricane evacuation times in 2035 would be reduced to 21.8 hours or 27.4 hours, respectively, from 36.3 hours with the No-Build Alternative.			No impact to projected 2035 hurricane clearance time of 36.3 hours, or twice the North Carolina standard of 18 hours.
6.7	Farmland Impacts	2.7 acres of farmland soil would be converted.	109.8 to 117.1 acres of farmland soil would be converted.	109.4 to 116.8 acres of farmland soil would be converted.	No impact.

Table 6-1 (concluded). Summary of Impacts

CIA Section	Section Title	Detailed Study Alternatives			
		ER2	MCB2	MCB4	No-Build
6.8	Impacts to Water Resources	None.	The Maple Swamp bridge (with Option A) and the Currituck Sound bridge would drain directly into those locations.	The Maple Swamp bridge (with Option A) and the Currituck Sound bridge would drain directly into those locations.	No impact.
6.9	Environmental Justice				
6.9.1	Environmental Justice Regulations	No impact.			
6.9.2	Affected Populations	No impact.			
6.10	Recreation Opportunities and Resources	No impact.	Dock used as starting point for Corolla Marshes from TimBuck II kayak trail would be displaced with the C2 bridge corridor. It would not be affected with the C1 bridge corridor.		No impact.

Widening NC 12 to three lanes along NC 12 from the interchange with US 158 to Hunt Club Drive, and then to four lanes between Hunt Club Drive and Albacore Street, could affect the cohesion of the existing Outer Banks community. Widening along NC 12 could result in increased traffic speeds during part of peak travel periods and make it less desirable for pedestrians to cross the roadway. This could provide a degree of separation for communities on the two sides of the road. Existing pedestrian crosswalks encourage pedestrians to cross at specified locations by providing a measure of safety for foot traffic. Additional lanes of traffic could change the perceived cohesion of an area that can be accessed by crossing a two-lane road compared to crossing a three- or four-lane road (see Section 6.4.3).

6.2.1.2 MCB2

Currituck County Mainland

With this alternative, impacts along the approximately 5 miles of hurricane evacuation lane on US 158 between the NC 168/US 158 intersection and the US 158/Mid-Currituck Bridge interchange would be the same as described for ER2.

MCB2 includes the new Mid-Currituck Bridge. The western portion of the bridge approach, with either Option A or Option B (see Figure 2-2), would pass through the community of Aydlett, which lies along the Currituck Sound on the Currituck County mainland. Aydlett is generally comprised of single-family homes on large lots and farms and is a community of both proposed and existing residential development.

For MCB2/A, the US 158/Mid-Currituck Bridge interchange would be about 2 miles west of Aydlett and the toll plaza would be within the interchange (see Figure 2-2). Between the interchange and Aydlett would be the Mid-Currituck Bridge approach corridor, consisting of a 1.5-mile bridge over Maple Swamp, a 0.3-mile, 3-foot to 23-foot-high earthen embankment, and the western end of the bridge. These bridge approach structures would lie between the northern and southern portions of Aydlett and affect the community visually, which could affect the perceived cohesion of the community. However, the bridge approach would be north of Aydlett Road, and existing access between US 158 and Aydlett would be maintained. Also, because the western end of the bridge would fly over the community and Narrow Shore Road (the only road connecting the two parts of the community), it would not affect existing access between different parts of the community. As a result, community cohesion would not be affected.

For MCB2/B, the US 158/Mid-Currituck Bridge interchange would be in the same location (approximately 2 miles west of Aydlett), but the toll plaza would be in Aydlett (see Figure 2-2). Between the interchange and Aydlett the approach to the bridge over Currituck Sound would be placed on fill within Maple Swamp. Aydlett Road would be removed and the roadbed restored as wetland. Traffic traveling between US 158 and Aydlett would use the new bridge approach road. A connection would be provided

between the bridge approach road and the local Aydlett street system. Aydlett traffic would not pass through the toll plaza facility when traveling between US 158 and Aydlett. No access to and from the Mid-Currituck Bridge would be provided at Aydlett.

In order to accommodate the toll plaza, modifications would be required to the local street system in Aydlett with MCB2/B (see Figure 2-2). The toll plaza's highest elevation would be approximately 2 feet above existing ground. As a result, Narrow Shore Road would be relocated to pass over the toll plaza. The realigned portion of Narrow Shore Road to the south of homes on Lighthouse View would be on an earthen berm that would rise to as high as 21 feet above existing ground. The highest point on the relocated Narrow Shore Road would be where the new road crosses the toll plaza at 25.5 feet above the existing ground.

Like MCB2/A, MCB2/B would affect the community visually, removing trees and introducing the activity of the toll plaza and the new vertical element of the relocated Narrow Shore Road to the community. This visual change, like MCB2/A, could affect the perceived cohesion of the community. However, although access within the community would be changed, it would be maintained on relocated Narrow Shore Road. As a result, community cohesion in terms of people's ability to move conveniently between different parts of the community would not be affected.

At a meeting with representatives of the community of Aydlett and local officials on October 12, 2009 (see Section 1.2.4), attendees expressed concern about the potential impacts on their way of life of the presence of a toll plaza in Aydlett and the revised local road system related to MCB2/B. Concerns expressed included the potential for drivers to change their mind about using the bridge just before the toll plaza and use roads in the Aydlett community to return to US 158, particularly during periods of high traffic congestion such as a crash on the approach road or the bridge. In this case, these drivers would add traffic to the Aydlett street system and introduce strangers with no business in this rural residential community. The possibility was raised that people might knock on doors seeking to use family bathrooms. Concern also was expressed that at times of high traffic congestion emergency vehicles coming from Waterlily to Aydlett and returning to the hospital would be slowed. However, the preliminary design of the MCB2/B toll plaza has adequate traffic capacity during normal peak conditions not to result in queuing from the toll plaza that would block the access to and from Aydlett. But this issue could be of concern during unusual traffic situations that may occur, such as a crash on the approach road or the bridge. In addition, the night-time lighting of the toll plaza also was expressed as a concern, particularly as it relates to star gazing hobbyists who recognize Aydlett as an uncommon dark sky location. Finally, citizens also felt that MCB2/B contradicted previous promises that there would be no access between the bridge project and Aydlett.

Outer Banks

On the Outer Banks, impacts of establishing US 158 as a super-street east of the Wright Memorial Bridge would be the same as with ER2. Impacts related to widening NC 12 between Southern Shores and Albacore Street also would be the same as with ER2 for bridge corridor C2. If bridge corridor C1 were chosen, the widening of NC 12 to accommodate bridge corridor C1 would occur for an additional distance of approximately 2 miles.

Currituck Sound serves as a natural barrier between the Outer Banks and mainland Currituck County. The proposed Mid-Currituck Bridge would remove this barrier and create, instead, a connection between the mainland and Outer Banks. This could result in improving accessibility between the Currituck County mainland and the Outer Banks, as the bridge would provide a direct connection between two parts of the county that currently are separated by the sound.

With bridge corridor C1, the new bridge would enter the Outer Banks within an area proposed for residential uses in the Corolla Bay subdivision. Phase 1 has been planned as one lot deep on both sides of the road, and the development could be extended south, as Phase 2. However, bridge corridor C1 would affect the potential to develop Phase 2, as it would traverse the community, thereby isolating one portion from the other and using six designated residential parcels. This would alter the planned organization and structure of the new community, affecting its cohesion even before it is completed. The new bridge also could create a psychological barrier, as the bridge would limit the ability of persons on one side of the community to have clear views of the other side.

The developer for Corolla Bay notes that views across the Currituck Sound are part of the advertising for the development. The appearance of the bridge along the C1 corridor would be an adverse change to those views and introduce a prominent man-made element into the existing natural view of the sound.

Bridge corridor C2 would reach NC 12 south of the TimBuck II commercial area near Albacore Street. North of this NC 12/Mid-Currituck Bridge intersection, NC 12 would be realigned from an undivided two-lane road to a divided four-lane road with designated left-turn lanes. No communities would be divided by this change.

6.2.1.3 MCB4

Currituck County Mainland

With this alternative, adding a third, outbound, hurricane evacuation lane for approximately 5 miles of US 158 between the NC 168/US 158 intersection and the US 158/Mid-Currituck Bridge interchange would be the same as with MCB2. Impacts related to the Mid-Currituck Bridge also would be the same as with MCB2, both for MCB4/A and MCB4/B.

Outer Banks

On the Outer Banks, adding a third outbound evacuation lane on US 158 between the Wright Memorial Bridge and NC 12 would occur within existing right of way and so would not affect community cohesion.

Along the approximately 2- to 4-mile distance where NC 12 would be widened to four lanes north and south of bridge corridor C1 or C2, impacts would be the same as with MCB2. Also, the impact to residential development as a result of bridge corridor C1 or C2 would be the same as with MCB2. Other impacts along NC 12 that would occur with ER2 and MCB2 would not occur with MCB4.

The potential for the Mid-Currituck Bridge to create cohesion for the two parts of Currituck County separated by the Currituck Sound would be the same as with MCB2.

6.2.2 Visual and Aesthetic Impacts

A detailed discussion of visual and aesthetic impacts is presented in the *Other Physical Features Technical Memorandum* (Parsons Brinckerhoff, 2009).

6.2.2.1 ER2

Currituck County Mainland

Wider pavement would be introduced along US 158 from NC 168 to the Wright Memorial Bridge (approximately 25 miles). Some roadside vegetation would be removed, thereby opening up some views of the road to residents along US 158 and to drivers on US 158. Although some utility lines would be moved, no new substantial vertical attributes, such as poles or barriers, are proposed. Thus, although a visual change would occur for residential or on-road viewers, it would not be adverse.

Outer Banks

With ER2, a super-street and an associated interchange east of the Wright Memorial Bridge would be introduced into the views of businesses along US 158, pedestrians and bicyclists on multi-use paths, and users of US 158. Principal viewers of the interchange would be users of the Aycock Brown Welcome Center, which would overlook the interchange; businesses near the interchange; a multi-story hotel; and users of US 158. The super-street would be the only street of its scale on the Outer Banks. The interchange would be the only interchange on the Outer Banks. Although they would serve a useful purpose in terms of serving travel demand in this area, neither is what one would expect to see in a beach vacation area like the Outer Banks, with its mostly low density development.

Wider pavement, an additional vehicle lane, and new drainage features would be introduced along NC 12. Roadside vegetation would be lost to provide for the drainage features. Although no high quality views would be lost, the overall character of the area

along NC 12 would be changed by these changes. Some of the sense of intimacy and isolation associated with the altered section of NC 12 would be lost.

6.2.2.2 MCB2

Currituck County Mainland

The loss of vegetation along US 158 (although only from NC 168 to the Mid-Currituck Bridge, approximately 5 miles) also would occur with MCB2. In addition, the existing landscape would be substantially changed with the introduction of the US 158/Mid-Currituck Bridge interchange. Existing features would be lost, and new man-made vertical elements would be introduced. Homes and businesses in this area would be relocated. One home close to Aydlett Road would remain and the US 158 interchange would be a notable presence and an adverse change at this home.

For MCB2/A, as the Maple Swamp bridge enters Aydlett from Maple Swamp, it would transition to an earthen berm (see Figure 2-2). Along its alignment, the berm would replace existing woods and would be noticeable from homes to the south. If the forest is not logged, the berm would be obscured by trees from homes to the north. The berm would be visible from locations and homes close to the shore of Currituck Sound.

For MCB2/B, the proposed Mid-Currituck Bridge approach corridor would enter Aydlett from Maple Swamp near the existing ground elevation. It would include a toll plaza and an elevated realignment of Narrow Shore Road to take it over the toll plaza (see Figure 2-2). These features would affect the community visually. Views to the south from homes along Lighthouse View would no longer be of the forest, but rather would be replaced by views of relocated Narrow Shore Road on top of an up to 21-foot-tall earthen berm. Drivers on the relocated Narrow Shore Road would have views of the back yards of homes along Lighthouse View. The toll plaza would be to the south of the berm, but views of the plaza from the homes along Lighthouse View mostly would be blocked by the berm. The toll plaza and elevated realigned Narrow Shore Road would be in view from homes to the south, replacing the existing forest view. The toll plaza would be lighted at night and those lights would be visible from homes to the south. As noted above, the night-time lighting of the toll plaza was expressed as a concern at an October 2009 meeting with citizens from Aydlett, particularly as it relates to star gazing hobbyists who recognize Aydlett as an uncommon dark sky location. Light control would be a consideration in developing the final design of a toll plaza in Aydlett. It is expected that within 10 years of the bridge opening that toll collection could be done electronically. At that time, the toll plaza would be narrowed to a two-lane road and lights removed.

For both MCB2/A and MCB2/B, the bridge crossing Currituck Sound would represent a notable change in the high quality view of Currituck Sound for Aydlett residents. Essentially, the 180-degree panorama of Currituck Sound would be split, with the bridge becoming a new and substantial man-made element in half the view. This adverse

change with MCB2 would be greatest at homes nearer the bridge, where it would be a more dominant presence.

Outer Banks

With the C1 terminus, the bridge would be introduced into existing panoramic views of Currituck Sound at the planned subdivision of Corolla Bay and, to a lesser extent, the existing subdivision of Monterey Shores. The C1 bridge terminus would have the greatest adverse change in Corolla Bay, where it would pass through the subdivision, introducing views of NC 12 to the subdivision in addition to obscuring views of Currituck Sound.

With the C2 bridge terminus, a viewing platform in Currituck Sound associated with the TimBuck II commercial area would be displaced. As a result, views of the natural vegetation and the sound from a TimBuck II outdoor recreation area would be replaced by views of the bridge. This would be considered an adverse visual change.

6.2.2.3 MCB4

Currituck County Mainland

Changes to the visual environment of the Currituck County mainland would be the same as would occur with MCB2, including MCB4/A and MCB4/B.

Outer Banks

The impacts described for the C1 and C2 bridge corridor termini would be the same as would occur with MCB2.

6.2.3 Relocations

Relocations of homes, businesses, outdoor advertising signs, and gravesites for the detailed study alternatives are presented in Table 6-2. Appendix A includes the Relocation Reports.

6.2.3.1 ER2

As indicated in Table 6-2, assuming a third outbound lane is built to facilitate hurricane evacuation on the mainland, ER2 would result in the least business relocations on the mainland (two business relocations less than MCB2 and MCB4). Outdoor advertising and gravesite impacts, however, would be substantially greater with ER2. If the option of using the center turn lane for outbound travel to reduce hurricane evacuation times were chosen, the mainland relocations would not occur.

Home relocations on the Outer Banks would occur along NC 12, primarily associated with providing drainage detention basins along parts of NC 12 in Dare County. The two business displacements would be associated with the interchange at the intersection of US 158 and NC 12.

Table 6-2. Relocations

Location and Alternative	Homes	Business	Outdoor Advertising Sign	Gravesite
Currituck County Mainland				
ER2	5 (0) ¹	3 (0)	29 (0)	66 (0)
MCB2/A and MCB4/A	5 (5)	5 (3)	6 (3)	36 (20)
MCB2/B and MCB4/B	7 (7)	5 (3)	16 (13)	35 (19)
No-Build Alternative	0	0	0	0
Outer Banks				
ER2	1 (plus 10 vacation rental units)	2	0	0
MCB2/C1	1 (plus 10 vacation rental units)	2	0	0
MCB2/C2	1 (plus 10 vacation rental units)	3	0	0
MCB4/C1	0	0	0	0
MCB4/C2	0	1	0	0
No-Build Alternative	0	0	0	0

¹The number in parentheses is the number of relocations that would occur if reversing the center turn lane were implemented to reduce hurricane clearance times rather than a third outbound lane.

Vacation rental units are shown separately in Table 6-2; no permanent residents would be relocated as a result of taking these homes.

6.2.3.2 MCB2

Relocations indicated in Table 6-2 on the mainland generally would be along US 158. The five to seven residential, three of the businesses, three to 13 outdoor advertising signs, and 19 to 20 of the gravesite relocations would be associated with the mainland bridge approach road, including the interchange with US 158. The rest would be associated with the addition of the third outbound evacuation lane for 5 miles of US 158 between NC 168 and the Mid-Currituck Bridge. If the option of using the center turn lane for outbound travel during a hurricane evacuation were chosen, the relocations resulting from the third outbound lane would not occur.

On the Outer Banks, relocations would be the same as with ER2 with one exception. The use of bridge corridor C2 would relocate one additional business, a water sports business that relies on the dock extending from TimBuck II. Bridge corridor C2 could require the dock to be displaced.

6.2.3.3 MCB4

On the Currituck County mainland, relocations would be the same as with MCB2.

On the Outer Banks, there would be one business relocation with MCB4/C2 only, the water sports business noted in Section 6.2.3.2.

6.2.3.4 No-Build Alternative

No relocations would occur with the No-Build Alternative.

6.3 Consistency with Land Use Plans

6.3.1 ER2

6.3.1.1 Currituck County Mainland

With this alternative, the additional outbound lane and drainage features that would be constructed along US 158 would occur within or adjacent to existing right of way. Therefore, the project-related changes along US 158 would be compatible with existing Currituck County land use plans and, specifically, Policy TR1. However, it would be inconsistent with Policy TR13, which supports a bridge between the mainland and Corolla.

6.3.1.2 Outer Banks

On the Outer Banks, the roadway widening and drainage features for the US 158 super-street and interchange would occur within or adjacent to existing right of way. Therefore, the project-related changes would be consistent with existing land use plans for Southern Shores and Kitty Hawk, the jurisdictions along the north and south sides of the roadway, respectively.

The proposed addition of a third lane along NC 12 northward from Southern Shores would be consistent with the *Southern Shores Long Range Plan* (Town of Southern Shores, 2006), Goal 1.2, to alleviate the growing NC 12 traffic problems, particularly during the tourist season. However, the town has strongly objected to attempts to widen NC 12 in the past and has a preference for a Mid-Currituck Bridge as a solution to their traffic problems. Because this alternative does not include a Mid-Currituck Bridge, it would be inconsistent with the plan's Goal 1.1 that a Mid-Currituck Bridge be built.

With ER2, there would be no road widening or other project-related changes within the Town of Duck commercial area. However, with this alternative, widening would occur along portions of NC 12 that are north and south of the Duck commercial area and would be inconsistent with some provisions of the town's adopted land use plan related to widening NC 12 (Morrison, 2008).

The road widening along NC 12 would be consistent with Policy TR14 of the Currituck County land use plan, which supports measures along NC 12 for the management of traffic to and from the Currituck County Outer Banks.

6.3.2 MCB2

6.3.2.1 Currituck County Mainland

With MCB2, changes related to the outbound hurricane evacuation lane would be consistent with Currituck County land use plans, the same as with ER2 since the type of improvement proposed is the same, although only along 5 miles of US 158 compared to 25 miles with ER2.

With MCB2, the western terminus of the Mid-Currituck Bridge and a new US 158/Mid-Currituck Bridge interchange would be built on the Currituck County mainland. This aspect of the project could be inconsistent with the *Currituck County Land Use Plan* because the bridge approach would pass through an existing “Conservation Area,” and the Mid-Currituck Bridge interchange would be placed in an existing “Limited Service Area.”

However, the Currituck County land use plan states that goals include expansion of the county’s economic base. According to the *Economic Development Strategy Vision Plan for Currituck County*, Final Report (UNC, 2008), future development could include retail, restaurants, service businesses, and hotel between US 158 and the Currituck Sound. The *Currituck County Land Use Plan* identifies this area as limited service, which is to provide for primarily residential development at low densities, and conservation. In order to be consistent with the land use plan, the vision plan recommends that bridge-related development be clustered in the area of the US 158/Mid-Currituck Bridge interchange.

Transportation Policy TR13 states that there is to be no access from the road leading to the bridge into the Aydlett community, thereby protecting the community from unwanted commercial development. The bridge component of MCB2/A and MCB2/B would be consistent with this policy, as access to and from the bridge would occur only at the US 158/Mid-Currituck Bridge interchange.

6.3.2.2 Outer Banks

MCB2 would be consistent with land use plans for the Outer Banks and US 158 in Dare County. It would be consistent with land use plans along US 158 in Southern Shores and Kitty Hawk, as it would not affect the existing the mix of land uses since at these locations, MCB2 would involve only widening existing roads. This alternative also would be consistent with the *Southern Shores Long Range Plan* because the plan includes the Mid-Currituck Bridge project as a goal.

Widening NC 12 to four lanes, which would begin about 2 miles north of Pine Island to accommodate traffic to and from the Mid-Currituck Bridge, would be consistent with Currituck County Transportation (improvement) Policies TR1, TR13 and TR14 as contained in the county land use plan.

With MCB2, there would be no road widening or other project-related changes within the commercial area of the Town of Duck. However, the addition of a third, turning, lane would be inconsistent with Goal 26 and Objective 26b of the town's land use plan, which support NC 12 remaining a two-lane facility.

6.3.3 MCB4

6.3.3.1 Currituck County Mainland

Impacts of MCB4 related to US 158, the US 158/Mid-Currituck Bridge interchange, and the bridge approach to the Currituck Sound would be the same as with MCB2 since MCB4 would involve similar transportation improvements, including MCB4/A and MCB4/B.

6.3.3.2 Outer Banks

Impacts along US 158 east of the Wright Memorial Bridge would be the same as with MCB2 and would be consistent with the Southern Shores and Kitty Hawk land use plans, as explained above.

To the extent that the Mid-Currituck Bridge would alleviate traffic congestion on NC 12 by providing a second point of access to the Outer Banks, MCB4 would be consistent with the *Southern Shores Long Range Plan*.

Impacts related to widening NC 12 to four lanes to accommodate traffic to and from the eastern terminus of the Mid-Currituck Bridge would be the same as with MCB2 (because the identical improvements are proposed) and would be consistent with Currituck County Transportation Policy TR14.

6.4 Transportation Access

Changes in transportation access associated with the detailed study alternatives are shown in Table 6-3 and discussed for each alternative in the paragraphs that follow. Opportunities to mitigate access changes further would be considered during final design.

Table 6-3. Changes in Access

	Applicable Alternative				
	ER2	MCB2/ C1	MCB2/ C2	MCB4/ C1	MCB4/ C2
<p>Mainland, US 158 Frontage Roads:</p> <p>For one house and one business along the eastern side of US 158 just south of Waterlily Road, access to US 158 provided via a frontage road to Waterlily Road instead of direct driveway access to US 158. With Option B only, a frontage road is provided along the western side of US 158 adjacent to the US 158/Mid-Currituck Bridge interchange to provide access to properties in this area that currently have direct access to US 158. Direct access from US 158 would be lost for customers of a gas station near the end of the frontage road. With Option A, no upland is available for a frontage road and thus properties west of US 158 that lose their access to US 158 would be purchased.</p>		X	X	X	X
<p>Mainland, US 158/Waterlily Road Intersection:</p> <p>With Option A, There would be the potential for merging traffic from the US 158 interchange to wait until just before the intersection to merge into US 158. This would increase the challenge of turning left into or out of Waterlily Road during peak travel periods. With Option B, the interchange ramp would end approximately 1,800 feet south of Waterlily Road, so there would be no impact to existing conditions at the Waterlily Road intersection.</p>		X	X	X	X
<p>Mainland in Aydlett:</p> <p>With Option B, existing Aydlett Road through Maple Swamp removed. Access between US 158 and Aydlett provided from the Mid-Currituck Bridge approach road. Narrow Shore Road altered to pass over the toll plaza, which would be in Aydlett with Option B only. With Option A, no changes to Aydlett access or the local street system. No access in Aydlett to and from the Mid-Currituck Bridge with either option.</p>		X	X	X	X
<p>Direct access to the Outer Banks (at NC 12) from the mainland (at US 158) via a Mid-Currituck Bridge.</p>		X	X	X	X
<p>Outer Banks, US 158 between the Wright Memorial Bridge and NC 12:</p> <p>Left turners from Amandas Avenue, North Croatan Highway, South Dogwood Trail, Woods Road, Duck Woods Drive, Cypress Knee Trail, Juniper Trail, Wal-Mart Shopping Center, and the Market Place Shopping Center would need to turn right and make a U-turn at a signalized location.</p>	X	X	X		

Table 6-3 (concluded). Changes in Access

	Applicable Alternative				
	ER2	MCB2/ C1	MCB2/ C2	MCB4/ C1	MCB4/ C2
<p>Outer Banks, US 158 South of NC 12 to Bennett Street:</p> <p>On the east side of US 158, the CVS pharmacy would only have access off of NC 12. With ER2, drivers would have to access CVS via NC 12 south of US 158/NC 12 interchange. Driveway access for two other businesses and residential properties driveway access to US 158 would be closed, with access only from an alley behind the properties. On the west side of US 158, the Regional Medical Center main access would be closed, with full access being allowed at Grissom Street via Putnam Road.</p>	X	X	X		
<p>Outer Banks, NC 12 at US 158:</p> <p>With ER2, from the eastbound off ramp of US 158 to NC 12 northbound, right turns to NC 12 south (Virginia Dare Trail) would be prohibited. Drivers would reach this part of Virginia Dare Trail via NC 12 south of US 158/NC 12 interchange.</p>	X				
<p>Outer Banks, NC 12 in Dare County:</p> <p>Since subdivision are served by more than one street, intersections with NC 12 would be closed at Widgeon Drive (SR 1479), Wood Duck Drive (SR 1477), Canvas Back Drive (SR 1476), and Old Squaw Drive (SR 1474) to facilitate NC 12 traffic flow.</p>	X	X	X		
<p>Outer Banks, NC 12 in Currituck County South of Albacore Street:</p> <p>No left turns to or from Crown Point. No left turn from southernmost entrance of TimBuck II to NC 12 with ER2, MCB2/C1, and MCB4/C1; no left turns to or from southernmost entrance of TimBuck II with MCB2/C2 and MCB4/C2. No left turns from Orion's Way to NC 12. Provisions made for left turners to make U-turns at adjoining intersections.</p>	X	X	X	X	X
<p>Outer Banks, NC 12 in Currituck County North of Albacore Street:</p> <p>Either no left turns from or no left turns to NC 12 from business driveways between Albacore Street and Monteray Drive. Provisions made for left turners to make U-turns at adjoining intersections. Corolla Bay subdivision divided with no direct access between the two parts. NC 12 would need to be used to travel between the two parts. The northern intersection of Harbor View with NC 12 closed. The southern intersection would remain open.</p>		X		X	

6.4.1 Neighborhood Access

6.4.1.1 ER2

Currituck County Mainland

With this alternative, the addition of a hurricane evacuation lane along US 158 on the Currituck County mainland would not affect neighborhood access. Because road construction would occur within existing right of way, neighborhood access either would be undisturbed or restored in the same location to accommodate both NCDOT vehicular requirements and the travel destination needs of the community.

Outer Banks

On the Outer Banks, where a US 158 super-street and interchange would be constructed east of the Wright Memorial Bridge, right-in/right-out and right-turn only access would be provided at specific locations (see Table 6-3). In some places, this would create the need for drivers to pass by the desired turning point and make a U-turn to get to the desired destination. The pavement would be widened (U-turn bulb) to allow most U-turns to be made in a single movement. Although this would be a change from existing travel patterns, its purpose would be to enhance traffic flow and capacity on US 158. As a result, access to the surrounding neighborhood resources would be changed but maintained.

With the new interchange at US 158 and NC 12, improvements to US 158 would extend southward to Bennett Street. As a result, existing access to the Regional Medical Center in Kitty Hawk would be closed, and traffic destined for the medical center would need to proceed south to Grissom Road to turn right, then turn right (north) on Putnam Road to access the medical center. Putnam Road would see additional traffic as well as emergency vehicles that may transport persons to the medical center for helicopter transport to a hospital on the mainland. Access also would be changed for two homes. At the US 158/NC 12 interchange, right turns to NC 12 south would be prohibited.

From north of the Duck town center, where a middle turn lane would be added to NC 12, the intersections of NC 12 and four residential streets would be closed to daily traffic: Widgeon Drive (SR 1479), Wood Duck Drive (SR 1477), Canvas Back Drive (SR 1476), and Old Squaw Drive (SR 1474). These closures would be implemented in areas where alternative daily public street access is available. Access for emergency vehicles at these locations would be maintained. In addition, alternative right-in/right-out and right-turn only access would be provided at other intersections northward along NC 12.

Along NC 12 between Hunt Club/Spindrifft and Albacore Street, the road would be widened to four lanes, with a raised median. As a result of NCDOT design criteria for four-lane divided roads, vehicle crossings would be limited to intervals of 1,200 feet. Thus, access would be altered at Orion's Way and Crown Point as indicated in Table 6-3. Also, with the presence of a four-lane road rather than the existing two-lane road, pedestrians would be expected to cross NC 12 at marked crosswalks.

6.4.1.2 MCB2

Currituck County Mainland

On the Currituck County mainland, a hurricane evacuation lane would be added along US 158 between the US 158/NC 168 intersection and the US 158/Mid-Currituck Bridge interchange, a distance of approximately 5 miles. Effects along US 158 would be the same as with ER2, but would occur over a shorter distance. Neighborhood access either would be undisturbed or restored in the same location to accommodate both NCDOT vehicular requirements and the travel destination needs of the community.

For MCB2/A, because the new US 158/Mid-Currituck Bridge interchange would eliminate access to US 158 for one house and one business along the east side of US 158 just south of Waterlily Road, a new frontage road would be built so that access for this home and business would be maintained. Also for MCB2/A, pavement marking on the Mid-Currituck Bridge ramp to US 158 would be designed to have traffic on the ramp completely merged into US 158 approximately 600 feet south of Waterlily Road. However, the additional pavement for the ramp would continue to the Waterlily Road intersection to serve as the right-turn lane, so there would be the potential for merging traffic to wait until just before the intersection to merge into US 158. This would increase the challenge of turning left into or out of Waterlily Road during peak travel periods because drivers would have to contend with three lanes of traffic attempting to merge into two lanes, as well as right-turning traffic at Waterlily Road, in making their turning decisions. Citizens at the October 12, 2009, community meeting in Aydlett stated that they often must turn left from Waterlily Road to US 158 in two stages, using the center turn lane on US 158 as a refuge until traffic clears to allow a merge into the southbound US 158 travel lanes. An approach for resolving this complication without restricting Waterlily Road turning movements would be included in the final design.

MCB2/B's ramps would end approximately 1,800 feet south of Waterlily Road because the toll plaza would be in Aydlett. This would require ramp traffic to merge into US 158 before reaching Waterlily Road, so there would be no impact to existing conditions at the Waterlily Road intersection.

The approach road for the new Mid-Currituck Bridge with MCB/2A would extend from the US 158/Mid-Currituck Bridge interchange, over Maple Swamp, to the community of Aydlett (see Figure 2-2). Because the bridge structure would extend over Narrow Shore Road, neighborhood access would remain as it currently exists and would not be affected. The Maple Swamp bridge, earthen embankment, and western extension of the Mid-Currituck Bridge would be constructed north of Aydlett Road and would preserve this access between US 158 and Aydlett.

For MCB2/B, the new US 158/Mid-Currituck Bridge interchange would eliminate access to US 158 for the same house and business along the east side of US 158 as with MCB2/A, so again a new frontage road would be built. In addition, a frontage road would be provided along the west side of US 158 adjacent to the US 158/Mid-Currituck

Bridge interchange to provide access to properties in this area that currently have direct access to US 158. With MCB2/A these properties would be purchased and no frontage road would be provided because there is no upland available upon which to place a frontage road.

With MCB2/B (see Figure 2-2,) existing Aydlett Road through Maple Swamp would be removed. Access between US 158 and Aydlett would be provided instead from the Mid-Currituck Bridge approach road. Narrow Shore Road would be altered to pass over the toll plaza, which would be in Aydlett with MCB2/B. Travel patterns would be altered by these changes, but no access to properties would be lost and travel distances for those using Aydlett Road and Narrow Shore Road would be similar to what they are today.

There would be no access in Aydlett to and from the Mid-Currituck Bridge with either MCB2/A or MCB2/B.

On the west side of US 158 in the Option A interchange area and in Maple Swamp with either Option A or Option B, public road access would be lost to some properties. These properties would be purchased. In these cases, public road access could be retained only by building frontage roads in wetlands, a sensitive natural resource, and the purchase of the affected lands is considered a practicable alternative.

Outer Banks

With MCB2, a US 158 super-street and US 158/NC 12 interchange would be constructed east of the Wright Memorial Bridge. With this action, access to the surrounding neighborhood resources would be the same as described above for ER2 except that right turns to NC 12 south would not be prohibited.

Impacts related to roadway reconfiguration and closures along NC 12 would be the same as described with ER2.

Impacts related to neighborhood access would occur if bridge corridor C1 were chosen. The bridge terminus and realignment of NC 12 would divide the planned Corolla Bay subdivision north of the Ocean Forest/NC 12 intersection. With bridge corridor C1, there would not be direct access between the now southern and northern portions of the subdivision. Access would be via NC 12. In addition, because of realignment of NC 12 for bridge corridor C1, the access road that connects NC 12 to an undeveloped area at the north end of Harbor View would be closed. The southern intersection of Harbor View with NC 12 would remain open.

Like ER2, access would be altered at Orion's Way and Crown Point as indicated in Table 6-3. Also, with the presence of a four-lane road rather than the existing two-lane road, pedestrians would be expected to cross NC 12 at marked crosswalks.

6.4.1.3 MCB4

Currituck County Mainland

With this alternative, impacts related to neighborhood access along US 158, Waterlily Road, the Mid-Currituck Bridge interchange, and the bridge approach on the Currituck County mainland would be the same as described for MCB2.

Outer Banks

Neighborhood access along US 158 east of the Wright Memorial Bridge would not be affected, as there would be no changes to US 158 other than the addition of a third outbound emergency lane.

Potential impacts related to the C1 and C2 bridge corridors on NC 12 in Currituck County would generally be the same as those described above for MCB2, including those related to MCB4/A and MCB4/B. With MCB4, there would be no NC 12 widening in Dare County and thus no associated changes in access.

6.4.2 Commercial Access and Parking

The changes in commercial access associated with the detailed study alternatives also are presented in Table 6-3. On-street parking does not exist anywhere along US 158 or NC 12 in the project area and thus would not be affected by any of the detailed study alternatives.

6.4.2.1 ER2

Currituck County Mainland

Small off-street parking areas are found along US 158 on the Currituck County mainland, primarily associated with churches and local businesses that front the highway. Portions of these off-street parking areas could be temporarily affected during construction of the third out-bound emergency lane to the extent that parking falls within a needed construction easement. Efforts would be made during final design to minimize this impact. These effects would not occur if using the center turn lane for outbound travel during a hurricane evacuation is selected instead of a new third outbound emergency lane. Commercial access would not be altered except for one business, where access to US 158 would be via a frontage road instead of directly onto US 158.

Outer Banks

As indicated in Table 6-3, impacts to commercial access are anticipated with widening US 158 east of the Wright Memorial Bridge and construction of an interchange. Access to some properties would be altered, with the addition of right-in/right-out access only, and with left turns restricted and controlled by signalization. Of particular note is that the CVS pharmacy in the area would only have access to and from NC 12. With ER2

that access and the access for other businesses on NC 12 south (Virginia Dare Trail) would only be from the south since right turns would be prohibited onto Virginia Dare Trail. Also, direct access to US 158 would be removed for two businesses south of the US 158/NC 12 interchange. Remaining access would be from an alley behind the properties.

The right-of-way for the US 158/NC 12 interchange would extend into the Home Depot parking lot adjacent to the south of US 158. Based on the current parking configuration, approximately 40 parking spaces (about 10 percent of the total) would be taken, and traffic circulation within the parking lot would be affected. With fewer spaces available, parking could be affected during both peak and off-peak hours. In accordance with the Town of Kitty Hawk development standards, this Home Depot would remain a conforming use, but the ratio of parking to retail space would be non-conforming (does not meet current requirements) (Heard, 2009).

The only business access change along NC 12 would be where no left turns would be allowed from the southern-most entrance to TimBuck II near Albacore Street. No off-street business parking would be affected.

6.4.2.2 MCB2

Currituck County Mainland

Impacts along US 158 from MCB2 would be the same as with ER2 with one exception, but would occur over a shorter distance – approximately 5 miles instead of 25 miles. MCB2/B would change access to a gas station on the west side of US 158 in the US 158/Mid-Currituck Bridge interchange area. It currently has direct access to US 158. This alternative would place the gas station close to the end of a long frontage road (approximately 4,000 feet down the 5,000-foot-long frontage road) that connects to US 158 at a single point. This change would make it inconvenient for customers to reach the gas station, particularly drive-by customers who would not likely associate the frontage road intersection with the gas station access. The gas station would be displaced with MCB2/A.

With this alternative, access to commercial resources and services would be improved between the Outer Banks and mainland Currituck County with the presence of the Mid-Currituck Bridge across Currituck Sound. The bridge would reduce both miles and travel times between the mainland and the Outer Banks.

Outer Banks

On the Outer Banks, impacts related to commercial access, parking, and economics along US 158 and NC 12 northward to the eastern terminus of the Mid-Currituck Bridge would be the same as those described for ER2 with one exception – left turns to southbound NC 12 (Virginia Dare Trail) would continue to be permitted.

To accommodate traffic to and from the Mid-Currituck Bridge, NC 12 would be realigned to the west to create a new intersection with the bridge terminus. This would affect access to the TimBuck II commercial center. Impacts would be as described in Section 1.3. The signal at Albacore Street would not be affected.

The terminus for bridge corridor C1 or C2 would result in impacts to commercial access and parking, and resulting potential economic impacts specific to the selected corridor alternative. With Mid-Currituck Bridge corridor C2, TimBuck II shopping center would lose some of its parking area. This would be the only off-street business parking impact along NC 12. Like with ER2, with either bridge corridor no left turns would be allowed from the southern-most entrance to Tim Buck II. The most notable business access impact would be associated with bridge corridor C1 between Albacore Street and Dolphin Avenue, where the road would be widened to four lanes with a center median. As a result, left turns across NC 12 from seven commercial driveways would be restricted; five would be right in/right out only, and two would be right in/right out and left in. None of the driveways would maintain the current left out turn. Left turners would need to turn right and make a U-turn at the next intersection. To promote traffic flow, the new configuration would adhere to the general NCDOT standard of 1,200 feet between full intersections and would restrict left turns.

The proposed Mid-Currituck Bridge also would shorten the distance from the Outer Banks to schools on the Currituck County mainland, including Currituck County High School, Currituck County Middle School, Moyock Middle School, and Knotts Island and Jarvis Elementary Schools.

6.4.2.3 MCB4

Currituck County Mainland

With this alternative, impacts related to commercial access and parking along US 158 on the mainland would be the same as those described for MCB2.

Impacts to the western bridge terminus and Mid-Currituck Bridge interchange also would be the same as described for MCB2.

Outer Banks

With MCB4, US 158 between the Wright Memorial Bridge and NC 12 would be configured with a third outbound emergency lane or contraflow lane. No change to commercial access or parking would occur.

Potential impacts related to the C1 and C2 bridge corridors would generally be the same as those described above for MCB2. Improvements related to access to schools on the Currituck County mainland would be the same as described for MCB2.

6.4.3 Pedestrian and Bicycle Access

6.4.3.1 ER2

Currituck County Mainland

There are no sidewalks or bicycle trails along US 158 in the project area, so this alternative would not affect existing facilities.

Outer Banks

East of the Wright Memorial Bridge along the US 158 super-street, pedestrian and bicycle access would be maintained. The multi-use path in Southern Shores on the north side of US 158 would be replaced, consistent with NCDOT standards. Kitty Hawk plans to build a multi-use path on the south side of US 158. If this path has been built when this alternative is implemented, it also would be replaced, consistent with NCDOT standards. If no path exists at the time the project is implemented, the super-street would be designed so a multi-use path could be added at a later date. Many of the existing multi-use paths are less than 10 feet from travel lanes. When these are replaced, they would be 10 feet from travel lanes, where possible, in accordance with NCDOT standards.

From Southern Shores northward along NC 12, existing bicycle and pedestrian access could be temporarily disrupted by project construction. However, if existing multi-use paths were affected, they would be replaced, consistent with NCDOT standards.

Northward from Duck, the Sanderling Inn has extensive facilities on both sides of the road, and there is substantial related pedestrian movement across the road. Existing marked pedestrian crossings here and at other locations would be retained or replaced as a part of the detailed study alternatives.

From approximately the northern end of Pine Island to TimBuck II, there is currently no multi-use path. The preliminary project design is such that a new path could be installed, should Currituck County determine to do so, either alone or by contributing to project funding.

6.4.3.2 MCB2

Currituck County Mainland

At the US 158/Mid-Currituck Bridge interchange, no special provision would be made for pedestrian or bicycle access. The Mid-Currituck Bridge would have a 10-foot paved shoulder and a bicycle-safe rail. The shoulder could be used by bicyclists. No special provisions would be included on the bridge for bicyclists except the rail. Should MCB2 be selected for implementation, additional bicycle and pedestrian provisions, including an exclusive lane, lighting, and a parking lot on the Outer Banks to provide a starting point, would be considered and developed further during project design.

The realignment of Narrow Shore Road in the Aydlett community associated with MCB2/B would alter existing bicycle and pedestrian routes the same as for local vehicular traffic. The opportunity for pedestrians and bicyclists to use the local road system to reach all points in Aydlett would be unchanged, but pedestrians and bicyclists would have to walk or cycle up to the top of the bridge over the toll plaza, a height of 25.5 feet above existing ground.

Outer Banks

With MCB2, impacts to bicycle and pedestrian access along US 158 and NC 12 would be the same as described above for ER2.

Pedestrian and bicycle access for bridge corridor C1 or C2 of the eastern Mid-Currituck Bridge terminus would be provided along the 10-foot wide bridge shoulder and then the 4-foot wide paved shoulders of NC 12.

6.4.3.3 MCB4

Currituck County Mainland

Impacts related to pedestrian and bicycle access along US 158 would be the same as described above for MCB2, including MCB4/A and MCB4/B.

Outer Banks

Along US 158 east of the Wright Memorial Bridge, the addition of a third, outbound lane or contraflow lane for hurricane evacuation would occur within the existing roadway. Therefore, it would not change existing access for pedestrians and bicycles.

This alternative would not include any activities along NC 12 in Dare County. Therefore, no impacts related pedestrian and bicycle access would occur.

Potential impacts related to bridge corridors C1 and C2 would generally be the same as those described above for MCB2. The primary difference is that with bridge corridor C1, existing multi-use paths also would be replaced between Dolphin Street and the bridge terminus in the same manner as described for ER2 along NC 12. That path would not be affected with bridge corridor C2.

6.4.4 The Americans with Disabilities Act

The Americans with Disabilities Act of 1990 (ADA) (42 USC section 12101 et seq.) was signed into law by President Bush on July 26, 1990. It has been described as the world's first comprehensive civil rights law for people with disabilities. The ADA prohibits discrimination in employment, public services, public accommodations, and telecommunications against people with physical and mental disabilities.

All aspects of the detailed study alternatives would be designed and constructed in accordance with ADA requirements. No adverse impacts would occur.

6.4.4.1 ER2

With this alternative, the proposed hurricane evacuation lane along US 158 on the Currituck County mainland, the super-street, and interchange on US 158 east of the Wright Memorial Bridge, and the turn lane along NC 12 would be designed and constructed in compliance with the Americans with Disabilities Act of 1990 (ADA) and the ADA Amendments Act of 2008 (ADAAA). This would include, but not be limited to, roadway access, design, and signage. No curbs or gutters would be included in the project, and the proposed multi-use paths on the Outer Banks would be ADA/ADAAA-compliant. Also, reconstructed and new pedestrian crossings along NC 12 would be implemented in accordance with ADA and ADAAA requirements.

6.4.4.2 MCB2

This alternative would be implemented in compliance with ADA/ADAAA requirements as stated for ER2, above. Also, the toll booth system on the Mid-Currituck Bridge would be ADA/ADAAA-compliant.

6.4.4.3 MCB4

This alternative would be implemented in compliance with ADA/ADAAA requirements as stated for MCB2, above.

6.4.5 Public Transit

There is no fixed-route transit system in the DCIA. Therefore, none of the detailed study alternatives would have an adverse impact.

6.5 Consistency with Thoroughfare Plans

The two applicable thoroughfare plans for the proposed project are the *Thoroughfare Plan for Currituck County* (NCDOT, 1999) and the *North Carolina Strategic Highway Corridors Vision Plan* (NCDOT, 2004). Provisions of the *Dare County Thoroughfare Plan* (NCDOT, 1988) applicable to the project area either have been completed or were deleted from the plan and, therefore, no longer apply.

6.5.1 ER2

6.5.1.1 Currituck County Mainland

This alternative is inconsistent with the *Thoroughfare Plan for Currituck County* (NCDOT, 1999), as it does not include the recommended Mid-Currituck Bridge across the

Currituck Sound. This alternative also does not include the plan's recommendation that US 158 be widened to six lanes between the US 158/NC 168 intersection and the approach corridor for the new bridge. However, this improvement is not defined as a part of the Mid-Currituck Bridge project in the STIP and could be built as a part of a future project.

6.5.1.2 Outer Banks

On the Outer Banks, ER2 would reflect in part the portion of the *Thoroughfare Plan for Currituck County* (NCDOT, 1999) that recommends NC 12 be widened from the Dare County line north to the eastern terminus of the proposed Mid-Currituck Bridge. The recommendation is for NC 12 to be widened to four lanes with a raised 16-foot-wide median. ER2 would differ from this recommendation in that the part of ER2 in Currituck County is only three lanes so that the improvement would remain within the existing 60-foot right-of-way. Where this alternative would widen NC 12 to four lanes from Hunt Club/Spindrift to Albacore Street, it would be consistent with the *Thoroughfare Plan for Currituck County*. ER2 would be inconsistent with the *Dare County Thoroughfare Plan* in that the plan does not include widening NC 12 in Dare County or improvements to US 158.

Overall, ER2 would be inconsistent with the *North Carolina Strategic Highway Corridors Vision Plan* (NCDOT, 2004), as this alternative would not improve the efficiency of the thoroughfare system. Although traffic would operate at an improved level of service, the annual millions of vehicle-miles traveled in the project area would not be reduced. Also, this alternative would not provide a new connection across Currituck Sound as specified in the *North Carolina Strategic Highway Corridors Vision Plan* (NCDOT, 2004).

6.5.2 MCB2

6.5.2.1 Currituck County Mainland

This alternative is consistent with the portion of the *Thoroughfare Plan for Currituck County* (NCDOT, 1999) that recommends a new Mid-Currituck Bridge across Currituck Sound. However, this alternative does not contain the plan's recommendation that US 158 be widened to six lanes between the NC 168/US 158 intersection or the approach corridor for the new bridge. Like ER2, however, this improvement is not defined as a part of the Mid-Currituck Bridge project in the STIP and could be built as a part of a future project.

Overall, MCB2 would improve system efficiency. This alternative would provide a new link in the transportation system, which would provide a more direct route to and from the Currituck County Outer Banks, in accordance with the *North Carolina Strategic Highway Corridors Vision Plan* (NCDOT, 2004). The increased efficiency of the project-area network would be reflected in a 13 percent reduction in the millions of vehicle-miles traveled in 2035 (from 663.9 million to 578.3 million).

6.5.2.2 Outer Banks

MCB2 has the same consistency/inconsistency characteristics along NC 12 as ER2.

6.5.3 MCB4

MCB4 has consistency/inconsistency characteristics on both the mainland and the Outer Banks similar to MCB2. The primary exception is that, consistent with the *Dare County Thoroughfare Plan*, MCB4 does not include improvements in Dare County on NC 12 and US 158.

6.6 Safety

6.6.1 Pedestrian and Bicycle Safety

6.6.1.1 ER2

Currituck County Mainland

Consistent with existing conditions along US 158 in the project area, no specific accommodation would be made for pedestrian or bicycle traffic.

Outer Banks

On the Outer Banks, the US 158 super-street and interchange would not be designed for pedestrian or bicycle use. They would be constructed specifically for vehicular traffic, with no specific accommodation for bicycles or pedestrians. However, the multi-use path on the north side of US 158 would be retained or replaced; the planned multi-use path on the south side of US 158 would be retained, replaced, or provided with sufficient space for future development alongside the super-street.

Northward along NC 12 from Southern Shores to Albacore Street, the project would relocate existing multi-use paths and provide space for some new ones to be built by Currituck County. Where possible, the relocated paths would be 10 feet from travel lanes. At the least, they would be further from travel lanes than existing ones. New multi-use paths would be located and designed in accordance with NCDOT criteria. Overall, the new and relocated multi-use paths would maintain or improve pedestrian and bicycle safety over existing conditions.

Along NC 12, existing marked pedestrian crossings would be retained or replaced as a part of the detailed study alternatives, and new ones would be established at locations where a new or replaced multi-use path would cross from one side of NC 12 to the other. The addition of a third, turning, lane along NC 12 at existing pedestrian crossings in Dare County would result in additional lanes of traffic for pedestrians to cross as they go to and from beaches and other recreation areas.

Along the US 158 super-street and NC 12, the relocated and new multi-use paths would enhance pedestrian safety, as the new paths would be at least 10 feet from travel lanes, and the relocated paths would be further from travel lanes than under existing conditions.

6.6.1.2 MCB2

Currituck County Mainland

From the US 158/Mid-Currituck Bridge interchange across the Mid-Currituck Bridge, road shoulders would be 10 feet wide and could be used by bicyclists. In addition, the bridge would be equipped with bicycle-safe rails. Consistent with existing conditions along US 158 in the project area, no specific accommodation would be made for pedestrian or bicycle traffic.

Outer Banks

MCB2 would have the same pedestrian and bicycle safety impacts and benefits along US 158 and NC 12 as ER2.

6.6.1.3 MCB4

Currituck County Mainland

On the Currituck County mainland and the Mid-Currituck Bridge, impacts related to pedestrian and bicycle safety would be the same as with MCB2.

Outer Banks

Pedestrian and bicycle safety provisions would not change on US 158 and NC 12 in Dare County and the southern part of Currituck County because no road improvements would occur in these areas. Where NC 12 would be widened to four lanes in Currituck County, the same pedestrian and bicycle safety impacts and benefits would occur as with MCB2.

6.6.2 Emergency Response

Impacts to emergency response are expected to be beneficial for all detailed study alternatives. The No-Build Alternative would have no impact on emergency response.

6.6.2.1 ER2

Currituck County Mainland

Under ER2, the addition of 25 miles of a third outbound emergency lane along US 158 on the Currituck County mainland would provide additional space for drivers to move out of the way of northbound emergency vehicles. This benefit would not occur if using the center turn lane for outbound travel during a hurricane evacuation were chosen as the means for improving hurricane clearance times.

Outer Banks

The new super-street and interchange along US 158 on the Outer Banks would improve the safety of emergency response vehicles, as the number of vehicles turning across travel lanes would be reduced, and new through-lanes would be established, providing additional space for drivers to move out of the way of emergency vehicles. ER2 would change access to the Regional Medical Center in Kitty Hawk, which would no longer be accessible from US 158 (Croatan Highway). However, emergency vehicles could turn left or right from US 158 onto Grissom Road, then turn north on Putnam Road. Emergency vehicles could use this route to access the helicopter pad at Regional Medical Center or transport persons via US 158 to the Outer Banks Hospital in Nags Head for emergency medical care.

Additional lanes on NC 12 would provide the opportunity for emergency vehicles to pass vehicles (three-lane section) or improve opportunities for drivers to move out of the way (four-lane) section. At locations in Dare County where connecting streets would be proposed for closure, provisions would be made for emergency vehicles to use still the connection. At locations where the median of the four-lane road would prevent left turns from NC 12 to a street, provisions would be made for emergency vehicles to cross the median.

6.6.2.2 MCB2

Currituck County Mainland

Under MCB2, the Mid-Currituck Bridge would provide a second and faster route for back-up emergency services between the Currituck County mainland and the Currituck County Outer Banks. This would enable back-up police, fire, and other emergency responders quicker access to the Currituck County Outer Banks by reducing travel distance and time between the mainland and the Outer Banks. It also would allow a shorter response time from the Outer Banks to hospitals and other facilities on the mainland.

Under MCB2, the addition of 5 miles of a third outbound emergency lane along US 158 on the Currituck County mainland would provide additional space for drivers to move out of the way of northbound emergency vehicles.

For MCB2/B, concern was expressed at an October 12, 2009 citizens meeting that at times of high traffic congestion emergency vehicles coming from Waterlily to Aydlett and returning to the hospital would be slowed. However, the preliminary design of the MCB2/B toll plaza has adequate traffic capacity during normal peak conditions not to result in queuing from the toll plaza that would block the access to and from Aydlett. But this issue could be of concern during unusual traffic situations that may occur, such as a crash on the approach road or the bridge. MCB2/A would leave local Aydlett traffic on Aydlett Road, so emergency vehicles would not mix with thoroughfare traffic except on US 158.

Outer Banks

Effects related to emergency response on the Outer Banks would be the same as with ER2.

6.6.2.3 MCB4

Currituck County Mainland

Under MCB4, impacts related to the proposed Mid-Currituck Bridge would be the same as those described above for MCB2. Also, the benefit of adding a hurricane evacuation lane along US 158 would be the same as with MCB2.

Outer Banks

Impacts and benefits with MCB4 would be confined to locations in Currituck County where NC 12 would be widened to four lanes. Additional lanes on NC 12 would improve opportunities for drivers to move out of the way of emergency vehicles. At locations where the median of the four-lane road would prevent left turns from NC 12 to a street, provisions would be made for emergency vehicles to cross the median.

6.6.3 Public Safety

Impacts related to public safety would be beneficial for all three detailed study alternatives. The benefits would be associated with improvements to hurricane evacuation times. As shown in Table 6-4, all three detailed study alternatives, in association with the completion of a third outbound emergency lane, would result in the same hurricane clearance time of 21.4 hours, which is 3.4 hours over the North Carolina standard of 18 hours (NC General Statute, paragraph 136-102.7, "Hurricane Evacuation Standard"). Based on hurricane evacuation studies documented in the *Statement of Purpose and Need* (Parsons Brinckerhoff, October 2008) and *Alternatives Screening Report* (Parsons Brinckerhoff, 2009), this would be the best clearance time that could be achieved through improvements in the project area. Further reductions would require capacity improvements to US 158 between Elizabeth City and NC 168. The statute setting the standard does not specify that the 18 hours must be achieved in a single project.

As shown in Table 6-4, if using the center turn lane for outbound travel during a hurricane evacuation is chosen as the means for improving hurricane evacuation times, the 2035 clearance time would be 27.4 hours, which is 9.4 hours over the North Carolina standard of 18 hours. Using the center turn lane for outbound traffic does not offer as great a benefit as adding a third outbound lane because traffic also would continue to use the lanes for turns, reducing the ability of the lane to efficiently serve evacuating traffic.

Table 6-4. Hurricane Clearance Time in 2035

	No-Build	ER2	MCB2	MCB4
Third Outbound Emergency Lane on US 158	36.3 hours	21.8 hours	21.8 hours	21.8 hours
Reverse Center Turn Lane on US 158	36.3 hours	27.4 hours	27.4 hours	27.4 hours

The No-Build Alternative would result in a hurricane clearance time of 36.3 hours in year 2035. This would be two times, the North Carolina clearance time standard of 18 hours.

6.7 Farmland Impacts

As indicated in Section 5.7.1, the US Department of Agriculture, Natural Resource Conservation Service (NRCS), has identified three general categories of important farmland soils – prime, unique, and state and locally important. There are no unique farmland soils in the project area. Most of the farmland soils in the project area are located on the mainland in Currituck County. There are no farmland soils of any type on the Outer Banks in Currituck County. There are state and locally important farmland soils on the Outer Banks in Dare County; however, these soil types are in built-up areas and thus are not considered farmland. Appendix B provides a copy of the Farmland Conversion Impact Rating form (Form CPA-106) for the proposed project.

6.7.1 ER2

The impact to prime and state and locally important farmland soils with ER2 would be minimal, as shown in Table 6-5. On the mainland portion of Currituck County, most of the project activities would occur within existing right-of-way. Only 1.5 acres of prime farmland soils and 1.2 acres of state and locally important farmland soils would be affected by ER2. Further, within the Outer Banks portion of the project area, there are no prime or unique farmland soils. There is one state and locally important farmland soil type present on the Outer Banks portion of the project area in Dare County. However, this soil type exists in a built-up area and, therefore, is not considered farmland.

Based upon aerial photography and Geographic Information System (GIS) data, it is estimated that less than 20 percent of the ER2 corridor is being farmed, and less than 10 percent of the ER2 right-of-way is currently zoned for agricultural use.

The average farm size in Currituck County is 447 acres. The largest parcel currently being farmed that would be affected by ER2 is approximately 113 acres. However, only approximately .005 acre of this parcel would be used by ER2.

Table 6-5. Farmland Conversion Impact Rating

Criterion	ER2	MCB2/C1	MCB2/C2	MCB4/C1	MCB4/C2
Option A					
Total Acres Converted	127.9	261.7	254.9	158.9	152.1
Total Acres of Farmland Soils Converted	2.7	109.8	109.8	109.4	109.4
Acres of Prime or Unique Farmland Soils	1.5	37.4	37.4	37.4	37.4
Acres of State and Locally Important Farmland Soils	1.2	72.4	72.4	72.0	72.0
Percentage of Farmland in County Converted	<0.01	<0.01	<0.01	<0.01	<0.01
Land Evaluation Rating by NRCS	2.8	30.2	31.0	49.7	51.9
Corridor Assessment Points	8	14	14	22	25
Total Points¹	10.8	44.2	45.0	71.7	76.9
Option B					
Total Acres Converted		296.7	290.0	193.8	187.1
Total Acres of Farmland Soils Converted		117.1	117.1	116.8	116.8
Acres of Prime or Unique Farmland Soils		76.2	76.2	76.2	76.2
Acres of State and Locally Important Farmland Soils		40.9	40.9	40.6	40.6
Percentage of Farmland in County Converted		<0.01	<0.01	<0.01	<0.01
Land Evaluation Rating by NRCS		34.2	35.0	52.3	54.2
Corridor Assessment Points		14	14	22	25
Total Points¹		48.2	54.0	93.7	79.2

¹Total Points on the Farmland Impact Rating Form for corridor type projects (CPA-106). This is the sum of the relative value of the farmland to be converted (rated as such by the NRCS) and the corridor assessment points based on assigned criteria (see Appendix B).

6.7.2 MCB2

Table 6-5 shows that MCB2/A would affect approximately 37 acres of prime farmland soils and 72 acres of state and locally important farmland soils. MCB2/B would affect approximately 76 acres of prime farmland soils and 41 acres of state and locally important farmland soils. According to the NRCS, this is less than 0.01 percent of all farmland soils in Currituck County.

The land needed to build the project would require the taking of private land, some of which is currently being farmed. The largest land requirement for this alternative would be at the interchange of US 158 and the proposed Mid-Currituck Bridge. This location also is where the largest farmland impact (to a farmed parcel of land) would occur. The greatest farmland single impact would be the taking of approximately 4.5

acres from a 5-acre farm (on an 83-acre parcel). There would be other, smaller farms affected in this same interchange area. These farms are much smaller than the average farm size (447 acres) in Currituck County.

Based upon aerial photography and Geographic Information System (GIS) data, it is estimated that less than 20 percent of the MCB2 corridor is being farmed, and less than 15 percent of the MCB2 right-of-way is currently zoned for agricultural use.

6.7.3 MCB4

As shown in Table 6-5, the total acres of farmland soils for MCB4 would be almost the same as MCB2 with either Option A or Option B. However, the amount of total land required for MCB4 would be approximately 100 acres less than that required by MCB2. Thus, the land evaluation rating by NRCS is higher for MCB4 than for MCB2, as shown in Table 6-5 (further detail is available in Form CPA-106 in Appendix B). Other aspects of this alternative would be the same as described for MCB2.

6.8 Impacts to Water Resources

There is no water supply watershed, Wild and Scenic River, or High Quality Water in the project area. With MCB2 and MCB4, the Maple Swamp bridge (with Option A only) and the Currituck Sound bridge would drain directly into Maple Swamp and the Currituck Sound, respectively, with the associated introduction of motor vehicle pollutants into those locations. Water quality impacts and mitigation opportunities are discussed in detail in the *Natural Resources Technical Memorandum* (CZR Incorporated, 2009).

6.9 Environmental Justice

6.9.1 Environmental Justice Regulations

Executive Orders 12898 and 13045 require federal agencies to identify and address, as appropriate, the potential for disproportionately adverse human health or environmental effects of federal programs, policies, and activities on minority and low-income populations. For the proposed project, these requirements were met by analyzing environmental justice data in accordance with regulatory guidance from the Council on Environmental Quality (CEQ) (CEQ, 1997), US Environmental Agency (USEPA) (USEPA, 1998), and USDOT guidelines for assessing environmental justice impacts (USDOT, 1997).

Three criteria must be met for impacts to minority and low-income communities or children to be considered significant: 1) there must be one or more populations within the region of comparison (ROC); 2) there must be adverse (or substantial) impacts from

the proposed action; and 3) the environmental justice populations within the ROC must bear a disproportionate burden of those adverse impacts. If any of these criteria are not met, then impacts with respect to environmental justice or protection of children would not be substantial.

6.9.2 Potential Impact

Minority is defined as Black, American Indian or Alaskan Native, Hispanic, or Asian-American populations. *Low-income* is defined as a household income at or below the US Department of Health and Human Services poverty guidelines (Federal Highway Administration [FHWA], 1998). A minority population or a low-income population is any readily identifiable group of minority or low-income persons who live in geographic proximity and (if circumstances warrant) geographically isolated persons who would be similarly affected by a proposed FHWA program, policy, or activity.

As shown in Table 6-6, minority populations make up approximately 8 percent of the total population in the Demographic Area. Minority concentrations of a greater percentage than this are not in the DCIA and would not be affected. Field observations and public involvement opportunities did not reveal that any of the communities in the DCIA held concentrations of minorities. Communities affected by the detailed study alternatives also would benefit from the improvements to existing roads associated with ER2, MCB2, and MCB4, both in terms of reductions in summer congestion and reduced hurricane evacuation times. MCB2 and MCB4 would introduce a new thoroughfare (the

Table 6-6. 2000 Racial and Poverty Characteristics

	Demographic Area ¹		Currituck County		Dare County		North Carolina	
	No.	%	No.	%	No.	%	No.	%
Total Population	14,018	100.0	18,190	100.0	29,967	100.0	8,049,313	100.0
White	13,030	93.0	16,445	90.4	28,393	94.7	5,804,656	72.1
Black	687	4.9	1,318	7.2	797	2.7	1,737,545	21.6
Other Racial Minorities	301	2.1	427	2.3	777	2.6	507,112	6.3
Total Minority ²	1,089	7.8	1,903	10.5	1,939	6.5	2,402,158	29.8
Total Hispanic	187	1.3	261	1.4	666	2.2	378,963	4.7
Persons below Poverty Level	1,248	8.9	1,922	10.6	2,381	8.0	958,667	12.0

Source: US Bureau of the Census, 2000.

¹Demographic Area is defined as the combination of the US Census block groups for the mainland and the Outer Banks, as shown on Figure 4-1.

²Total minority includes persons other than non-white Hispanic.

Mid-Currituck Bridge) into the community of Aydlett. Although residents could use the bridge, they would not be among the primary beneficiaries of the bridge and as such the benefits they may accrue are disproportionately low compared to the impacts. However, field studies and public involvement opportunities did not reveal that the portion of Aydlett affected contains a concentration of minorities. No concentrations of minorities occur where changes in access are proposed with the detailed study alternatives.

As shown in Table 6-6, persons below the poverty level make up approximately 9 percent of the total population in the Demographic Area. Census block groups with persons below the poverty level greater than the Demographic Area average are on the mainland portion of the Demographic Area west of US 158. Like minorities, field observations and public involvement opportunities did not reveal that any of the communities in the DCIA held concentrations of low income households, including Aydlett. The same impact conclusions presented for minorities would apply to low income households.

Although there are no concentrations of low income households in the project area that would be directly affected by construction of the detailed study alternatives, there are such persons that live in Currituck County. Businesses on the Outer Banks do employ service workers that could in some cases come from low income households on the mainland. Persons from mainland low income households also may choose to visit the Outer Banks for recreation. These persons currently use the Wright Memorial Bridge to reach the Outer Banks and could continue to do so with any detailed study alternative. Some Outer Banks service workers report for work at pick-up locations on the mainland and are taken in vans by their employers to their work sites.

MCB2 and MCB4 would create a second means to reach the Outer Banks from mainland Currituck County. It would be tolled. The new bridge to the Outer Banks could bring service jobs closer to the homes of low income households, reducing travel distance and the associated cost. The same would be true for recreational trips. From this perspective, MCB2 and MCB4 would benefit persons from low income households. However, using the bridge would be an additional expense (offsetting distance savings) and electronic toll collection does involve establishing an account and some potential low income users may not be willing or able to establish an account. The specific payment options have not yet been determined. Persons from low income households who cannot pay the toll could continue to use the Wright Memorial Bridge, their current route to the Outer Banks. Those that continue to use the Wright Memorial Bridge would benefit from less congestion and improved travel times on those roads because the bridge would divert traffic from those roads.

Thus, there would not be an impact that is disproportionately high or adverse to low income households with the detailed study alternatives. These households would not be directly affected by project construction, would receive project travel benefits, and

with MCB2 and MCB4 could use the bridge, although they may choose not to or use it less frequently because of the toll. There would be no tolls with ER2 and all users would benefit without a direct out-of-pocket cost for their travel. An indirect cost would exist, however, in the form of motor vehicle taxes.

There are no concentrations in the DCIA of persons not proficient with English, as indicated in Section 5.2.

6.10 Recreation Opportunities and Resources

6.10.1 ER2

6.10.1.1 *Currituck County Mainland*

On the Currituck County mainland, there would be no effect to public recreation, including the tennis courts at Currituck County High School, the only Section 6(f) resource in the DCIA and the only recreation facility along US 158.

6.10.1.2 *Outer Banks*

On the Outer Banks, the proposed US 158 super-street would result in approximately 50 feet of property along the southern boundary of Kitty Hawk Elementary School being purchased for right of way. This property is between US 158 and the school baseball field. Access and/or use of the ball field would not be affected. However, the existing septic field between the ball field and US 158 could be affected. Means for avoiding the impact to the field would be developed in final design. Such design changes need not affect the ball field, its access, or its use.

The US 158/NC 12 interchange would change access to the Aycock Brown Welcome Center at Milepost 1.5 on US 158 Bypass. The existing access road would be replaced with similar driveways in roughly the same location. Access to the welcome center would be maintained during project construction.

Potential effects to multi-use paths would be as described in Section 6.6.1.

6.10.2 MCB2

6.10.2.1 *Currituck County Mainland*

On the Currituck County mainland, there would be no effect to public recreation, including the tennis courts at Currituck County High School, the only Section 6(f) resource in the DCIA and the only recreation facility along US 158 or the bridge corridor.

6.10.2.2 Outer Banks

On the Outer Banks, impacts related to the school ball field would be the same as with ER2. Unlike ER2, the access driveways to the Aycock Brown Welcome Center would not be affected. The existing driveways would connect into the new US 158/NC 12 interchange at their current locations.

Potential effects to multi-use paths along NC 12 would be as described in Section 6.6.1.

With bridge corridor C1, private recreational piers and docks on the Outer Banks near the bridge would not be affected by bridge construction or operation. The nearest two piers and docks are more than 0.5 mile south of the bridge corridor and would not be affected. A pier and dock more than 1 mile north of the bridge is protected by land that juts into the sound between the bridge alignment and the pier. Private duck blinds in the area would not be affected.

With bridge corridor C2, the bridge alignment would cross over a private pier and dock that contain several buildings. The pier and dock would be displaced. This is the dock from where the kayaks are launched for the Corolla Marshes from TimBuck II kayak trail. The remainder of this trail would not be affected. The other two kayak trails in the DCIA would not be affected.

Except for the launching point for the Corolla Marshes from TimBuck II trail, recreation activities on the sound are expected to be unaffected by operation of the new Mid-Currituck Bridge, which is assumed at this time to be the same height over water and provide the same span as the Wright Memorial Bridge to the south. During construction, however, access to areas near construction sites would be limited to protect the public safety.

6.10.3 MCB4

6.10.3.1 Currituck County Mainland

On the Currituck County mainland, impacts would be the same as with MCB2.

6.10.3.2 Outer Banks

On the Outer Banks, impacts related to the school ball field would be similar to ER2. No changes would occur at the Aycock Brown Welcome Center or its access.

Potential effects to multi-use paths along the US 158 super-street and NC 12 would be as described in Section 6.6.1. Impacts related to the Mid-Currituck Bridge would be the same as with MCB2.

7.0 CIA Conclusions

The following conclusions are derived from the analyses conducted for this CIA. These conclusions are presented in a format that shows both the benefits and impacts of each alternative. As shown, there are both benefits and impacts associated with the three detailed study alternatives (ER2, MCB2, and MCB4). There would be no impacts, but no benefits to be derived from maintaining the status quo (No-Build Alternative).

7.1 ER2

7.1.1 Benefits

- On Outer Banks, multi-use paths along US 158 and NC 12 would be retained, replaced, or allowed for in project design.
- Crosswalks would be replaced and, as necessary, added at locations where multi-use paths cross from one side of NC 12 to the other.
- The year 2035 hurricane clearance time would be 21.8 hours (compared to 36.3 hours with the No-Build Alternative) with a third outbound evacuation lane and 27.4 hours with using the center turn lane for outbound travel during a hurricane evacuation. These times compare to the North Carolina Standard of 18 hours.

7.1.2 Impacts

- Inconsistent with the *North Carolina Strategic Highway Corridor and Intrastate System*, as this alternative does not improve the system efficiency of the 41-mile transportation system evaluated.
- Inconsistent with the *Thoroughfare Plan for Currituck County* (NCDOT, 1999), which recommends:
 - Mid-Currituck Bridge and widening along US 158. However, the improvement of US 158 is not defined as a part of the Mid-Currituck Bridge project in the STIP and could be built as part of a future project.
 - Widening NC 12 northward to four lanes between the Dare/Currituck County line and Mid-Currituck Bridge. This is done in part, but not in areas where the existing right-of-way is 60 feet wide. Here, widening to three lanes is proposed to reduce impacts to surrounding land uses.
- Inconsistent with Southern Shores proposal for Mid-Currituck Bridge.

- Inconsistent with the Town of Duck policy and objective to maintain NC 12 in its existing configuration.
- On the Outer Banks, the US 158 super-street could reduce parking at the Home Depot about 10 percent, resulting in a non-conforming (does not meet current requirements) ratio of parking/retail space.
- A super-street and an associated interchange east of the Wright Memorial Bridge would be introduced into the views of businesses along US 158, pedestrians and bicyclists on multi-use paths, and users of US 158.
- Four streets would be closed to through traffic on NC 12: Widgeon Drive, Wood Duck Drive, Canvas Back Drive, and Old Squaw Road.

7.2 MCB2

7.2.1 Benefits

- On the Outer Banks, multi-use paths along US 158 and NC 12 would be retained, replaced to NCDOT standards, or allowed for in project design.
- Crosswalks would be replaced and, as necessary, added at locations where multi-use paths cross from one side of NC 12 to the other.
- The year 2035 hurricane clearance time would be 21.8 hours (compared to 36.3 hours with the No-Build Alternative) with a third outbound evacuation lane and 27.4 hours using the center turn lane for outbound travel during a hurricane evacuation. These times compare to the North Carolina Standard of 18 hours.

7.2.2 Impacts

- Inconsistent with the *Thoroughfare Plan for Currituck County* (NCDOT, 1999), which recommends:
 - Widening US 158 to six lanes between NC 168/US 158 and the bridge approach corridor. However, the improvement of US 158 is not defined as a part of the Mid-Currituck Bridge project in the STIP and could be built as a part of a future project.
 - Widening NC 12 northward from the Dare/Currituck County line to the Mid-Currituck Bridge to four lanes. This is done in part, but not in areas where the existing right-of-way is 60 feet wide. Here, widening to three lanes is proposed to reduce impacts to surrounding land uses.

- Inconsistent with the *Currituck County Land Use Plan*, as the western bridge approach would pass through a Conservation Area, and the US 158/Mid-Currituck Bridge interchange would be in a Limited Service Area.
- Inconsistent with the Town of Duck policy and objective to maintain NC 12 in its existing configuration.
- On the mainland, the existing landscape would be substantially changed with the introduction of the US 158/Mid-Currituck Bridge interchange. Existing features would be lost, and new man-made vertical elements would be introduced. Homes and businesses in this area would be relocated. One home close to Aydlett Road would remain, and the US 158 interchange would be a notable presence and an adverse change at this home. Views from homes with views of the sound from the Currituck County mainland and Outer Banks would be affected. This adverse change with MCB2 and MCB4 would be greatest for homes near the bridge which would be a dominant presence.
- With MCB2/B, a toll plaza would be built in Aydlett and the local street network in Aydlett would be altered. This would not be the case with MCB2/A. Citizens in attendance at the October 2009 meeting with representatives of the community of Aydlett expressed concern about the potential impacts of these changes on their way of life. Concerns expressed included the presence of night-time lighting at the toll plaza and the possibility that drivers could change their mind about using the bridge just before the toll plaza, particularly during periods of high traffic congestion such as a crash on the approach road or the bridge, and use roads in the Aydlett community to return to US 158. In addition, there was concern expressed that at times of high traffic congestion emergency vehicles coming from Waterlily to Aydlett and returning to the hospital would be slowed.
- On the Outer Banks, the US 158 super-street could reduce parking at the Home Depot about 10 percent, resulting in a non-conforming (does not meet current requirements) ratio of parking/retail space.
- A super-street and an associated interchange east of the Wright Memorial Bridge would be introduced into the views of businesses along US 158, pedestrians and bicyclists on multi-use paths, and users of US 158.
- Access to and from business properties and the Regional Medical Center would be changed. Direct access to and from US 158 would be removed in the US 158/NC 12 interchange area.
- Four streets would be closed to through traffic on NC 12: Widgeon Drive, Wood Duck Drive, Canvas Back Drive, and Old Squaw Road.

- Because of realignment of NC 12 with bridge corridor C1, the access road that connects NC 12 to the north end of Harbor View would be closed.
- Bridge corridor C1:
 - Would take three residential lots and physically divide the Corolla Bay subdivision.
 - The bridge would be introduced to panoramic views of Currituck Sound at the planned subdivision of Corolla Bay, resulting in an adverse change.
 - Left turns across NC 12 from seven commercial driveways would be restricted; five would be right in/right out only, and two would be right in/right out and left in. None of the seven driveways would maintain the current left out turns across NC 12.
 - The access road that connects NC 12 to the north end of Harbor View would be closed.
- Bridge corridor C2
 - The TimBuck II shops would lose some of their parking area.
 - There would be no left turn across NC 12 from the Tim Buck II driveways.
 - A viewing platform/dock, with buildings, in Currituck Sound associated with the TimBuck II commercial area would be displaced, and views of natural vegetation and the sound from a TimBuck II outdoor recreation area would be replaced by the bridge. This would create an adverse visual change. The displaced platform/dock is where the kayaks are launched for the Corolla Marshes from TimBuck II kayak trail. The remainder of this trail would not be affected.

7.3 MCB4

7.3.1 Benefits

- On the Outer Banks, multi-use paths along US 158 and NC 12 either would be unaffected, retained, replaced to NCDOT standards, or allowed for in project design.
- The year 2035 hurricane clearance time would be 21.8 hours (compared to 36.3 hours with the No-Build Alternative) with a third outbound evacuation lane and 27.4 hours with using the center turn lane for outbound travel during a hurricane evacuation. These times compare to the North Carolina Standard of 18 hours.

7.3.2 Impacts

- Inconsistent with the *Thoroughfare Plan for Currituck County* (NCDOT, 1999), which recommends:
 - Widening US 158 to six lanes between NC 168/US 158 and bridge approach corridor. However, the improvement of US 158 is not defined as a part of the Mid-Currituck Bridge project in the STIP and could be built as a part of a future project.
 - Widening NC 12 northward between the Dare/Currituck County line and Mid-Currituck Bridge to four lanes. This is done in part, but not in areas where the existing right-of-way is 60 feet wide. Here, widening to three lanes is proposed to reduce impacts to surrounding land uses.
- Inconsistent with the *Currituck County Land Use Plan*, as the western bridge approach would be in a Conservation Area, and the US 158/Mid-Currituck Bridge interchange would be in a Limited Service Area.
- On the mainland, the existing landscape would be substantially changed with the introduction of the US 158/Mid-Currituck Bridge interchange. Existing features would be lost, and new man-made vertical elements would be introduced. Homes and businesses in this area would be relocated. One home close to Aydlett Road would remain, and the US 158 interchange would be a notable presence and an adverse change at this home. Views from homes with views of the sound from the Currituck County mainland and Outer Banks would be affected. This adverse change with MCB2 and MCB4 would be greatest for homes near the bridge, which would be a dominant presence.
- With MCB4/B, a toll plaza would be built in Aydlett and the local street network in Aydlett would be altered. This would not be the case with MCB4/A. Citizens in attendance at the October 2009 meeting with representatives of the community of Aydlett expressed concern about the potential impacts of these changes on their way of life. Concerns expressed included the presence of night-time lighting at the toll plaza and the possibility that drivers could change their mind about using the bridge just before the toll plaza, particularly during periods of high traffic congestion such as a crash on the approach road or the bridge, and use roads in the Aydlett community to return to US 158. In addition, there was concern expressed that at times of high traffic congestion emergency vehicles coming from Waterlily to Aydlett and returning to the hospital would be slowed.
- Bridge corridor C1:
 - Would take three residential lots and physically divide the Corolla Bay subdivision.

- The bridge would be introduced to panoramic views of Currituck Sound at the planned subdivision of Corolla Bay, resulting in an adverse change.
- Left turns across NC 12 from seven commercial driveways would be restricted; five would be right in/right out only, and two would be right in/right out and left in. None of the seven driveways would maintain the current left out turns across NC 12.
- The access road that connects NC 12 to the north end of Harbor View would be closed.
- Bridge corridor C2
 - The TimBuck II shops would lose some of their parking area.
 - There would be no left turn across NC 12 from the Tim Buck II driveways.
 - A viewing platform/dock, with buildings, in Currituck Sound associated with the TimBuck II commercial area would be displaced, and views of the natural vegetation and the sound from a TimBuck II outdoor recreation area would be replaced by the bridge. This would create an adverse visual change. The displaced platform/dock is where the kayaks are launched for the Corolla Marshes from TimBuck II kayak trail. The remainder of this trail would not be affected.

8.0 Mitigation, Enhancement, and Recommendations

The following measures would serve to mitigate key impacts of the detailed study alternatives or would be included as enhancement measures in the project design. Not all impacts are included, but only those for which mitigation is proposed. However, means to minimize impacts would be pursued during final design. Further, impacts can be perceived by some as beneficial consequences, while others can see the same impacts as detrimental. For example, with MCB2 and MCB4, the US 158/Mid-Currituck Bridge interchange would change the character of the interchange from rural to commercial. Although this would be consistent with the Currituck County land use plan and seen by some as economic opportunity for the county, others would lament development within this rural area. As a result, not all impacts are considered key impacts, and not all impacts are addressed for mitigation. Mitigation measures would include:

- Visual

Much of the visual change associated with the project cannot be substantially mitigated because the change is associated with the introduction of wider pavement, new drainage features, and with MCB2 and MCB4, bridge- and interchange-related structures and fills. Their presence and the associated visual changes cannot be hidden. As a part of final design for the alternative chosen for implementation, a landscaping plan would be developed. Sensitivity to their context would be considered in bridge- and interchange-related structure design if MCB2 or MCB4 is chosen.

- Relocations

It is the policy of the NCDOT and NCTA to ensure that comparable replacement housing or business location is available prior to the construction of state and federally-assisted projects. The three-part relocation program, which would be implemented for the Mid-Currituck Bridge project, would be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (Public Law 91-646) and the North Carolina Relocation Assistance Act (GS-133-5 through 133-18).

The *Relocation Assistance Program* provides information such as availability and prices of homes, apartments, or businesses for sale or rent and financing or other housing programs. The *Relocation Moving Payments Program* provides for payment of actual relocation moving expenses.

Where displacement requires an owner or tenant to purchase or rent property of higher cost or to lose a favorable financing arrangement, the *Relocation Replacement*

Housing Payments or Rent Supplement Program compensates up to \$22,500 to qualifying owners and up to \$5,250 to qualifying tenants.

These measures would be applicable to all the detailed study alternatives and are described in greater detail in Section 6.2.3.

- Inconsistency with Land Use Plans

Although the No-Build Alternative and ER2 do not include a Mid-Currituck Bridge and are inconsistent with local plans from that perspective, MCB2 and MCB4 do include a Mid-Currituck Bridge and could be selected for implementation.

- Access

Access would be retained to all properties or they would be purchased from their owners. The latter would only occur on the west side of US 158 in the Option A interchange area and in Maple Swamp with either Option A or B. Provisions would be made to support U-turns at nearby intersections where left turns would be restricted. In interchange areas, opportunities to mitigate further access changes would be considered during final design.

With MCB2/A, there would be the potential for merging traffic to wait until just before the Waterlily Road intersection to merge into US 158. This would increase the challenge of turning left into or out of Waterlily Road during peak travel periods. An approach for resolving this complication without restricting Waterlily Road turning movements would be included in the final design. With MCB2/B and MCB4/B, direct access from US 158 would be lost for customers of a gas station in the US 158/Mid-Currituck Bridge interchange area.

At the four intersections in Dare County where connecting streets are proposed for closure along NC 12, provisions would be made for emergency vehicles to use still the connection. At locations where the median of the four-lane road would prevent left turns from NC 12 to a street, provisions would be made for emergency vehicles to cross the median. As a result, emergency response time would not be affected as a result of the project on the Outer Banks. With MCB2/B and MCB4/B during unusual traffic situations such as a crash on the approach road or bridge, the potential exists for emergency vehicles serving the Aydlett community to be slowed between US 158 and Aydlett. Minimization of this potential impact would be considered during the development of the bridge operator's emergency response plan, including how best to accommodate emergency vehicles on the bridge and its approach roads whether the emergency is on the project or in the communities through which it passes or serves.

These measures apply to and would be implemented with ER2, MCB2, and MCB4.

- Parking Loss

Opportunities to reduce further parking loss would be considered during final design.

- Use of Land from a Bird Sanctuary for a Permanent Drainage Easement Adjacent to the NC 12 Right-of-Way

If ER2 or MCB2 are selected for implementation, additional drainage design studies would be conducted during final design. MCB4 would avoid this impact because no NC 12 improvements are proposed adjacent to the sanctuary.

- Loss of Boat Launch Dock for Kayak Trail

If MCB2 or MCB4 is selected for implementation with the C2 bridge design, opportunities for relocating the dock would be considered.

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Appendix A

Relocation Reports

A. Relocation Reports

Relocation Report for ER2, MCB2 (with Option A), and MCB4 (with Option A)	A-2
Relocation Report for MCB2 and MCB4 Option B Mainland Approach Road.....	A-47

Relocation
Study
Mid-Currituck Bridge Project

Prepared for:



Prepared by:



and



February 4, 2010

SECTION 1 RELOCATION STUDY

The Mid-Currituck Bridge Study provides five alternates for bridge and road construction, including ER2, MCB2 with C1, MCB2 with C2, MCB4 with C1, and MCB4 with C2. This report will discuss the existing conditions of the area impacted by this road and/or bridge construction as well as discussing the impacts and environmental consequences of each alternate. Each alternate was analyzed to determine how it would affect existing private and public properties, businesses, and persons residing in the project area. This includes impacts to outdoor advertising signs and gravesites.

All land necessary for transportation improvements must be purchased from existing property owners in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (URA). The URA contains specific requirements that govern the manner in which a governmental entity acquires property for public use. The purpose of the URA includes providing a uniform policy for fair and equitable treatment of persons and businesses displaced as a result of federal and federally assisted programs.

This study will be divided into the following eleven segments.

- A. US 158 6-lane – Dare County
- B. US 158 8-lane – Dare County
- C. NC 12 3-lane – Dare County
- D. NC 12 4-lane – Currituck County
- E. Outer Banks Bridge Approach and C2 Terminus South (Albacore Street) – Currituck County
- F. Outer Banks Bridge Approach and C1 Terminus North – Currituck County
- G. Mainland Bridge Approach, Interchange and Frontage Roads North (common for C1 and C2 Mid-Currituck Bridge corridors) – Currituck County
- H. Access frontage roads along US 158 – Currituck County
- I. US 158 Hurricane Lane (Wright Memorial Bridge to Mid-Currituck Bridge) – Currituck County
- J. US 158 Hurricane Lane (Mid-Currituck Bridge to NC 168) – Currituck County
- K. US 158 Hurricane Lane (NC 12 to Wright Memorial Bridge) – Dare County

Using a combination of these eleven segments, the total number of relocations for each of the five alternates will be provided.

1.1 Current Conditions

The proposed alternates are located in Dare County as well as on both the mainland and Outer Banks of Currituck County. The largest of the alternatives, ER2, begins in Corolla on the Outer Banks. The project follows a southerly direction from Currituck County until it reaches the Dare County line. From there, the project continues in a southerly direction until reaching Kitty Hawk where it veers west ending at the Wright Memorial Bridge.

The mainland portion of the project begins at the Wright Memorial Bridge in Currituck County and continues in a northwestern direction, over the Mid-Currituck Bridge, concluding at NC 168.

There are two locations for the bridge options on the Outer Banks. Corridor C1 is located in the Albacore Street area while C2 is approximately two miles north of Albacore. Both C1 and C2 share a single approach corridor on the mainland, which parallels an existing power line easement north of Aydlett Road.

1.1.1 Affected Environment

Existing land use in the project area includes a mix of residential, commercial, industrial, special use, and governmental. The Outer Banks project area is primarily residential, with the residences being large beach homes used for seasonal rentals. During the off-season, most of these homes are vacant. Most affected commercial properties on the Outer Banks are businesses associated with tourism.

The mainland portion has a wider variety of land uses. This area includes owner-occupied residences, tenant-occupied mobile home parks, and commercial properties ranging from kayak rentals to pool sales, numerous outdoor advertising signs, churches, and several gravesites.

1.1.2 Demographics

The project area includes a large portion of Currituck County as well as Census Tract 9701 of Dare County. The demographic information in this report was obtained from the 2000 US Census Data website. This demographic study will include population, households, income, employment, and economics for the State of North Carolina, Currituck County, and Census Tract 9701 of Dare County.

1.1.2.1 Population.

While the growth rate throughout the state of North Carolina has increased steadily since 1990, Currituck County and the portion of Dare County affected by the project have both grown tremendously since 1990, with the populations increasing by 32.42% and 50.75% respectively. This far exceeds the growth of the State of North Carolina, which is only 21.43%.

**Table 1-1
Population Comparison of 1990 & 2000 Census**

	State of North Carolina	Currituck County	Dare County - Census Tract 9701
Total Population – 1990 Census	6,628,637	13,736	4,023
Total Population – 2000 Census	8,049,313	18,190	6,065
Growth %	21.43%	32.42%	50.75%

Table 1-2 indicates that the racial composition of all groups is predominantly white, although the percentage of white population is much higher in both counties than the state of North Carolina as a whole.

Table 1-2
Population by Race and Gender

	State of North Carolina		Currituck County		Dare County – Census Tract 9701	
Race	Number	%	Number	%	Number	%
White	5,804,656	72.1	16,445	90.4	5,953	98.2
Black	1,737,545	21.6	1,318	7.2	27	0.4
Other	507,112	6.2	427	2.4	85	1.3
Gender	Number	%	Number	%	Number	%
Male	3,942,695	49	9,032	49.7	3,029	49.9
Female	4,106,618	51	9,158	50.3	3,036	50.1

Table 1-3 provides information on the age of the population. North Carolina and Currituck County are very similar with regards to age. Dare County, however, has a substantially older population, reflecting a larger concentration of retired persons.

Table 1-3
Age Breakdown and Median Age

	Under 5		5-19		20-64		65+		Median Age
	#	%	#	%	#	%	#	%	
NC	539,509	6.7	1,653,851	20.5	4,886,905	60.8	969,048	12	35.3
Currituck	1,101	6.1	3,874	21.3	11,029	60.8	2,186	12	38.3
Dare (9701)	296	4.9	1,011	16.7	3,649	60.2	1,109	18.2	45.6

1.1.2.2 Households. The breakdown of housing units differs immensely from the State to Currituck and Dare Counties. This is consistent with the abundance of housing units available for short-term rent in both counties. Since Currituck County includes the mainland and the coastal area, its vacancies due to recreational and seasonal rentals consists of 87% of all vacancies. Dare County Census Tract 9701, on the other hand, is entirely on the Outer Banks and its vacancies due to recreational and season rentals are higher, consisting of 97% of all vacancies.

**Table 1-4
Households**

	State of North Carolina		Currituck County		Dare County – Census Tract 9701	
	Housing Units	%	Housing Units	%	Housing Units	%
TOTAL	3,523,944	100	10,687	100	6,846	100
Occupied	3,132,013	88.9	6,902	64.6	2,590	37.8
Vacant	391,931	11.1	3,785	35.4	4,256	62.2
Recreational or Seasonal Rental or Use	134, 870	3.8	3,297	30.9	4,158	60.7
Owner Occupied	2,172,355	69.4	5,630	81.6	2,168	83.7
Renter Occupied	959,658	30.6	1,272	18.4	422	16.3

The median monthly mortgage and rental rates are higher for both Currituck County and Dare County Census Tract 9701, with the Census Tract having the highest rates.

**Table 1-5
Median Mortgage and Rental Rates**

Area	Median Monthly Mortgage Rate	Median Monthly Rental Rate
State of North Carolina	\$985	\$548
Currituck County	\$1,028	\$590
Dare County (Census Tract 9701)	\$1,329	\$730

1.1.2.3 Income

The median family income and families below poverty level are nearly identical between the State of North Carolina and Currituck County. Dare County, however, has a much higher median family income at \$59,583, and a much lower percentage of families living below poverty level, at 2.9%.

**Table 1-6
Median Household Income and Poverty Levels**

Area	Median Family Income in 1999	Families Below Poverty Level (%)
State of North Carolina	\$46,355	9%
Currituck County	\$46,382	8.9%
Dare County (Census Tract 9701)	\$59,583	2.9%

1.1.2.4 Employment

Construction makes up the highest percentage of the work force in both Currituck County and Dare County Census Tract 9701. This correlates with the increases in population in both areas. Retail trade, realty services and recreation/accommodation/food services also are major industries in the Currituck County and Dare County Census Tract 9701 areas. These four industries, all associated with tourism, encompass 45.6% of the industry in Currituck County and 54.5% of the industry in Dare County Census Tract 9701.

Table 1-7
Labor Force Percentages

Industry	State of North Carolina	Currituck County	Dare County - Census Tract 9701
Agricultural/Forestry/Mining	1.6%	2.9%	1.8%
Construction	8.2%	16.7%	16.4%
Manufacturing	19.7%	6.8%	3.3%
Wholesale Trade	3.4%	4.1%	2%
Retail Trade	11.5%	13.9%	13.1%
Transportation/Warehousing	4.6%	4.7%	2.7%
Information	2.3%	1.9%	2.6%
Finance/Insurance/Realty	6.0%	6.0%	12.9%
Professional/Mgmt/Admin	7.7%	5.7%	10.4%
Educational/Health/Social	19.2%	14.8%	12.9%
Recreation/Food/Accommodation	6.9%	9.0%	12.1%
Other Services	4.6%	5.3%	4.7%
Public Administration	4.1%	8.2%	5.2%

1.2 Relocation Impacts

Potential relocation impacts will be required for many of the individual segments associated with the project as well as each of the alternatives. Relocation impacts include residential, business, outdoor advertising, and gravesites. Housing and commercial opportunities appear readily available within the vicinity of the proposed project.

Very few sites that provide services to the immediate neighborhood, such as convenience stores, banks, restaurants, gas stations, and shopping centers, would require relocation. Therefore, it can be assumed that the services necessary to support an existing neighborhood will remain available.

1.2.1 Relocations per Segment

To summarize the relocation effects, Table 1-8 identifies the number and type of displacements identified for each segment.

**Table 1-8
Relocation by Segment**

Alternate	Property Type			
	Residential Relocations	Business Relocations	Outdoor Advertising Sign Relocation	Gravesite Relocations
US 158 6-Lane	0	0	0	0
US 158 8-Lane	0	2	0	0
NC 12 3-Lane	1	0	0	0
NC 12 4-Lane	0	0	0	0
Outer Banks C2 South	0	1	0	0
Outer Banks C1 North	0	0	0	0
Mainland C1 & C2	5	3	3	20
Frontage Roads US 158	0	0	0	0
US 158 Hurricane (Wright Mem Br to Mid-Curr Br)	5	1	26	50
US 158 Hurricane (Mid-Curr Br to NC 168	0	2	3	16
US 158 Hurricane (NC 12 to Wright Mem Br)	0	0	0	0

In addition to these potential relocation impacts, several secondary structures such as sheds and garages on properties are affected. In general, parcels where these structures are impacted are large enough to allow for relocating or rebuilding these structures elsewhere on the property.

There are also three properties impacted which will likely require the relocation of underground storage tanks.

Finally, there are several seasonal rental homes that are impacted. However, because they are currently vacant and appear to be rented on a weekly basis, they are not considered residential relocations in this report. These residences, along with the underground storage tanks, will be discussed in more detail in the applicable segment description below.

1.2.1.1 US 158 8-Lane

This section of roadway is located in Dare County and is primarily commercial. Properties in this area include car dealerships, restaurants, strip shopping centers, and office spaces. There are two displaced businesses, one being a banner/flag retail sales shop and the other being a sports equipment sales shop. The business owners appear to

be leasing the space. Several comparable spaces for lease were noted within a 5-mile radius of the property. Local realty companies also had comparable spaces for sale or lease. Considering these factors, it appears that adequate replacement sites will be available to the tenant.

1.2.1.2 NC 12 3-Lane

This section of roadway is located on the Outer Banks in Dare County. Housing on this stretch of roadway includes consists of large and expensive short-term vacation rental properties. The residential relocation associated with this segment involves one of a few homes in the area leased to a long-term tenant. The home is smaller and older than most in the immediate vicinity. Long-term rentals in this area will be difficult to find and Last Resort Housing could potentially be required.

In addition to the occupied rental property, there are ten single family residences being acquired. Most are currently vacant, and all appear to be weekly seasonal rentals. Since they are currently unoccupied and will likely not be rented to a long-term tenant, they are considered personal property moves only.

1.2.1.3 Outer Banks Bridge Approach & C2 Terminus

This section of the project is the approach for the new bridge. This area is common for MCB2 C2 & MCB4 C2. The relocation involved with this section concerns a dock. The dock is related to a business located within the TimBuck 11 shopping area. The dock is used for water sport rentals, Kitty Hawk Water Sports. If this alternate is chosen, it would need to be decided if the dock could remain under the bridge or possibly relocated to another area. If the dock remains or can be relocated, then it would eliminate this as a relocation parcel. This will need to be studied further once the decision is made.

1.2.1.4 Mainland Bridge Approach, Interchange and Frontage Roads North (common for C1 and C2 mid-Currituck Bridge Corridors)

This section of road is located in the Coinjock community of Currituck County. Relocations in this segment include three businesses, one of which likely has an underground storage tank. Also displaced are five owner-occupied residences. There is another home being acquired, but it appears to be vacant and uninhabitable. There are also three outdoor advertising signs which will be displaced. Finally, there is a plot of approximately 20 graves that will be impacted by the acquisition.

Based on an intensive review of the area as well as conversations with several realtors, sufficient comparable housing and commercial properties are available to the displaced individuals.

1.2.1.5 US 158 Hurricane Lane (Wright Memorial Bridge to Mid-Currituck Bridge)

This section of roadway is located in Currituck County, encompassing the area from the Wright Memorial Bridge to the Mid-Currituck Bridge. The acquisition within this area involves temporary easements. The parcels identified as relocations were considered based on the location of the construction limits as shown on the plans provided.

There are 5 residential relocations in this segment, including 2 owner-occupied properties and 3 tenant-occupied properties.

Regarding the owner-occupied residences, there are numerous comparable houses for sale in the area and locating replacement housing should not be an issue.

One business is affected in this segment, a dentist office. Local realtors have comparable replacement facilities available and there should be no adverse conditions in locating a new facility for sale or rent.

There are approximately five cemeteries impacted on this segment. With the exception of the approximately 14 graves located at the Pleasant Branch Baptist Church, the remaining gravesites are located on individually-owned properties. Within the five cemetery plots, there are approximately 50 that appear to be impacted by the temporary easement.

Likewise, there are approximately 26 outdoor advertising signs located in the temporary easement area. Depending on the purpose of the easement, these may not be impacted.

1.2.1.6 US 158 Hurricane Lane (Mid-Currituck Bridge to NC 168)

There does not appear to be any residential relocation along this alternate. There are two businesses being impacted. One appears to be a retail outlet for the sale of fireworks. This may be a seasonal business. The second business is a small auto mechanic shop. There are potentially three outdoor advertising signs located in the permanent easement area. There are also three small cemeteries with a total of approximately sixteen gravesites which may be affected.

1.2.2 Relocations per Alternate

The five potential Mid-Currituck Bridge Alternatives include ER2, MCB2 with C1, MCB2 with C2, MCB4 with C1, and MCB4 with C2. Each of these alternatives includes a combination of the above segments. The tables below provide total potential relocations for each of the options.

1.2.2.1 Alternative ER2

This alternative involves the greatest number of relocations, including approximately 50 gravesites. However, much of this portion of the project involves permanent easement and it is possible that some of the structures could remain in place, dependent upon the function of the easement.

The residential relocations on this alternative will likely require last resort housing. This assumption is made after a visual inspection revealed that many of the structures are old dwellings which appear to be poorly maintained. Additionally, income will likely be a factor in determining the rental supplement, also requiring the use of last resort housing.

**Table 1-9
Alternative ER2
Relocations**

Alternate	Property Type			
	Residential Relocations	Business Relocations	Outdoor Advertising Sign Relocation	Gravesite Relocations
US 158 6-Lane	0	0	0	0
US 158 8-Lane	0	2	0	0
NC 12 3-Lane	1	0	0	0
NC 12 4-Lane	0	0	0	0
US 158 Hurricane (Wright Mem Br to Mid-Curr Br)	5	1	26	50
US 158 Hurricane (Mid-Curr Br to NC 168)	0	2	3	16
TOTALS	6	5	29	66

1.2.2.2 Alternative MCB2 with C1 Bridge Alternative

This alternative involves the fewest number of total relocations, with only six residential relocations, seven business relocations, and six outdoor advertising signs. The major impacts involved with this alternative are the approximate 36 gravesites. Although the 16 listed in the US 158 Hurricane (Mid-Currituck Bridge to NC 168) are located within the temporary easement area, the 20 located in the Mainland C1 & C2 segment are on property acquired by fee simple. These are the only gravesites in any of the alternates acquired by fee simple rather than temporary easement.

There are additionally ten weekly rentals that are impacted with this alternative. Though they are not considered residential relocations, there would be personal property moving costs associated with these parcels.

Table 1-10
Alternative MCB2 with C1 Bridge Alternative
Relocations

Alternate	Property Type			
	Residential Relocations	Business Relocations	Outdoor Advertising Sign Relocation	Gravesite Relocations
US 158 6-Lane	0	0	0	0
US 158 8-Lane	0	2	0	0
NC 12 3-Lane	1	0	0	0
NC 12 4-Lane	0	0	0	0
Outer Banks C1 North	0	0	0	0
Mainland C1 & C2	5	3	3	20
Frontage Roads US 158	0	0	0	0
US 158 Hurricane (Mid-Curr Br to NC 168	0	2	3	16
TOTALS	6	7	6	36

1.2.2.3 Alternative MCB2 with C2 Bridge Alternative

The only variance to this alternative from the alternative discussed in 1.2.2.2 involves the bridge construction on the Outer Banks portion of the project, which includes one relocation.

Table 1-11
Alternative MCB2 with C2 Bridge Alternative
Relocations

Alternate	Property Type			
	Residential Relocations	Business Relocations	Outdoor Advertising Sign Relocation	Gravesite Relocations
US 158 6-Lane	0	0	0	0
US 158 8-Lane	0	2	0	0
NC 12 3-Lane	1	0	0	0
NC 12 4-Lane	0	0	0	0
Outer Banks C2 South	0	1	0	0
Mainland C1 & C2	5	3	3	20
Frontage Roads US 158	0	0	0	0
US 158 Hurricane (Mid-Curr Br to NC 168	0	2	3	16
TOTALS	6	8	6	36

1.2.2.4 Alternative MCB4 with C1 Bridge Alternative

This alternate involves the fewest number of residential relocations. The affected properties are owner-occupied. Comparable housing is readily available. There are five business relocations in this alternative, one of which likely includes an underground storage tank. There are also numerous gravesites impacted by this alternative.

Table 1-12
Alternative MCB4 with C1 Bridge Alternative
Relocations

Alternate	Property Type			
	Residential Relocations	Business Relocations	Outdoor Advertising Sign Relocation	Gravesite Relocations
Outer Banks C1 North	0	0	0	0
Mainland C1 & C2	5	3	3	20
Frontage Roads US 158	0	0	0	0
US 158 Hurricane (Mid-Curr Br to NC 168	0	2	3	16
US 158 Hurricane (NC 12 to Wright Mem Br)	0	0	0	0
TOTALS	5	5	6	36

1.2.2.5 Alternative MCB4 with C2 Bridge Alternative

The only variance to this alternative from the alternative discussed in 1.2.2.4 involves the bridge construction on the Outer Banks portion of the project, which includes one relocation.

Table 1-13
Alternative MCB4 with C2 Bridge Alternative
Relocations

Alternate	Property Type			
	Residential Relocations	Business Relocations	Outdoor Advertising Sign Relocation	Gravesite Relocations
Outer Banks C2 South	0	1	0	0
Mainland C1 & C2	5	3	3	20
Frontage Roads US 158	0	0	0	0
US 158 Hurricane (Mid-Curr Br to NC 168	0	2	3	16
US 158 Hurricane (NC 12 to Wright Mem Br)	0	0	0	0
TOTALS	5	6	6	36

1.2.2.6 Summary

Alternative ER2 involves the greatest number of residential relocations with a high probability for the use of Last Resort Housing. It also has the highest number of business relocations as well as impacts to underground tanks. Finally, it has the largest number of outdoor advertising sign and gravesite relocations.

The other four options involve fewer relocations, with MCB4 with C1, having a total of 52 relocations, and MCB4 with C2 having a total of 53 relocations each of which includes 36 gravesites.

MCB2 with C1 has a total of 55 relocations and MCB2 with C2 has a total of 56 relocations, each of which includes 36 gravesites. Although these two options have the fewest relocations, they do have the personal property moves associated with the ten weekly rentals along the NC 12 3-lane segment.

1.3 Relocation Assistance

A thorough review of the subject area has been completed to ensure adequate replacement housing is available for all potential residential relocations. In order to minimize the unavoidable effects of Right of Way acquisition and displacement of individuals and businesses, all relocation parcels will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the North Carolina Relocation Assistance Act (GS-133-5 through 133-18). Relocation services and payments are provided without regard to race, color, religion, sex, or national origin.

Advance notification to owners of properties containing impending right of way acquisition is required. Before acquiring right of way, all properties are appraised on the basis of comparable sales and land use values in the area. Owners of property to be acquired will be offered and paid fair market value for their property rights.

No person lawfully occupying real property will be required to move without at least 90 days written notice of the intended vacation date. For residential relocations, this notice cannot be provided until a written offer to acquire the subject property has been presented, and at least one comparable replacement dwelling has been made available.


At least one relocation specialist is assigned to each highway project to carry out the relocation assistance and payments program. A relocation specialist will contact each person or business to be relocated to determine individual needs and desires, and to provide information, answer questions, and give assistance in finding replacement property.

Relocation of displaced persons will be offered in areas not generally less desirable in regard to public utilities and commercial facilities. Rent and sale prices of replacement housing will be within the financial budget of the families and individuals displaced and will be reasonable accessible to their places of employment. The relocation specialist will also assist owners of displaced businesses, non-profit organizations, and farm operations in searching for and moving to replacement property.

EIS RELOCATION REPORT

**North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM**

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Dare	Segment	A	of	11	Segments				
I.D. NO.:		F.A. PROJECT										
DESCRIPTION OF PROJECT:		Segment A – US 158 (6-Lane)										
ESTIMATED DISPLACEES					INCOME LEVEL							
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP			
Residential	0	0	0	0								
Businesses	0	0	0	0	VALUE OF DWELLING		DSS DWELLING AVAILABLE					
Farms	0	0	0	0	Owners		Tenants		For Sale	For Rent		
Non-Profit	0	0	0	0	0-20M	0	\$ 0-150	0	0-20M	0	\$ 0-150	0
ANSWER ALL QUESTIONS					20-40M	0	150-250	0	20-40M	0	150-250	0
Yes	No	Explain all "YES" answers.			40-70M	0	250-400	0	40-70M	0	250-400	0
		1. Will special relocation services be necessary?			70-100M	0	400-600	0	70-100M	0	400-600	0
		2. Will schools or churches be affected by displacement?			100 UP	0	600 UP	0	100 UP	0	600 UP	0
		3. Will business services still be available after project?			TOTAL	0		0		0		0
		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.			REMARKS (Respond by Number)							
		5. Will relocation cause a housing shortage?			<p>There was no business or residential relocation identified on this segment</p> <p>20 graves will be impacted by this alternate</p>							
		6. Source for available housing (list).										
		7. Will additional housing programs be needed?										
		8. Should Last Resort Housing be considered?										
		9. Are there large, disabled, elderly, etc. families?										
		10. Will public housing be needed for project?										
		11. Is public housing available?										
		12. Is it felt there will be adequate DSS housing available during relocation period?										
		13. Will there be a problem of housing within financial means?										
		14. Are suitable business sites available (list source).										
		15. Number months estimated to complete RELOCATION?										
					2/4/2010							
Janice G. Rogers Right of Way Agent					Date		Relocation Coordinator				Date	

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Dare	Segment B of 11 Segments
I.D. NO.:		F.A. PROJECT		
DESCRIPTION OF PROJECT:		Segment B- US 158 (8 Lane)		

ESTIMATED DISPLACED					INCOME LEVEL				
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP
Residential	0	0	0	0					
Businesses	0	2	2	0					
Farms	0	0	0	0					
Non-Profit	0	0	0	0					

ANSWER ALL QUESTIONS				
Yes	No	Explain all "YES" answers.		
	X	1. Will special relocation services be necessary?		
	X	2. Will schools or churches be affected by displacement?		
X		3. Will business services still be available after project?		
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.		
	X	5. Will relocation cause a housing shortage?		
	X	6. Source for available housing (list).		
	X	7. Will additional housing programs be needed?		
	X	8. Should Last Resort Housing be considered?		
	X	9. Are there large, disabled, elderly, etc. families?		
	X	10. Will public housing be needed for project?		
X		11. Is public housing available?		
X		12. Is it felt there will be adequate DSS housing available during relocation period?		
	X	13. Will there be a problem of housing within financial means?		
X		14. Are suitable business sites available (list source).		
		15. Number months estimated to complete RELOCATION? 18 months		

REMARKS (Respond by Number)	
4. See attached spreadsheet.	
14. Sun Realty, Beath Realty & Construction, Coldwell Banker Seaside Realty.	
NOTE: A difference in the number of displaced persons on the Relocation EIS Report and the Cost Estimate may be noted. This is due to proximity damage being a factor on the Cost Estimate Report (improvements not actually in the proposed take but damaged to the point of no value). The displaced persons shown on this report only include those actually located within the proposed right of way limits of this project.	

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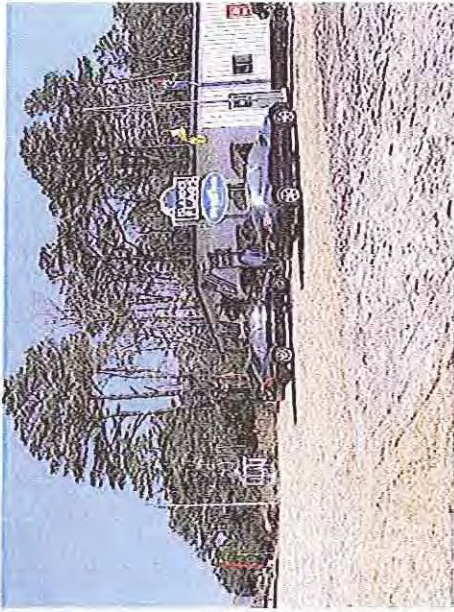
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2 Copy Division Relocation File

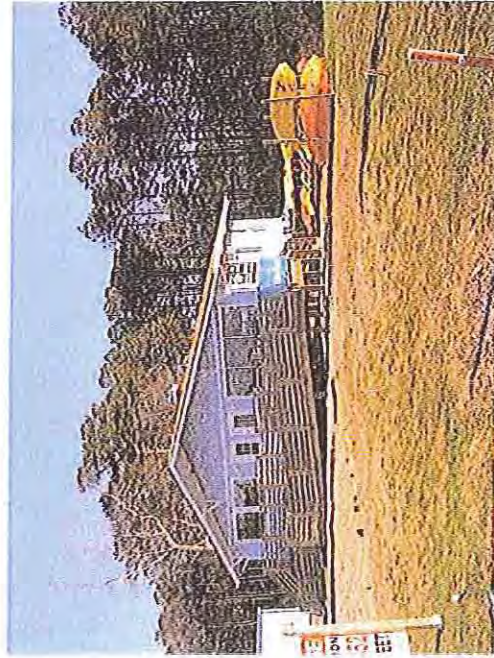
Business Relocations
Mid-Currituck Bridge Alternatives
Section B US 158 (8-June)

#	Parcel #	Owner	Address	City	Name of Business	Size (Square Feet)	Type Business	Est. # of Employees	Minorities
1	986606388903	Banks Land Co., LLC	6146 N. Croatan Hwy.	Kitty Hawk	Islander Flags	4,136	Banner Flags & Gifts	10	1
2	986606388903	Banks Land Co., LLC	6146 N. Croatan Hwy.	Kitty Hawk	Kitty Hawk Sports Shop		Sports Equipment & Canoes	6	1

**Business Relocations
Mid-Currituck Bridge Alternatives
Section B – US 158 (8-lane)**



Parcel 986606491077 – 6146 Croatan Hwy.



Parcel 986606491077 – 6146 Croatan Hwy.

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Dare	Segment C of 11 Segments			
I.D. NO.:		F.A. PROJECT					
DESCRIPTION OF PROJECT:		Segment C – NC 12 (3-lane)					

ESTIMATED DISPLACED					INCOME LEVEL					
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP	
Residential	0	1	1	0	0	0	0	1	0	
Businesses	0	0	0	0	VALUE OF DWELLING				DSS DWELLING AVAILABLE	
Farms	0	0	0	0	Owners		Tenants		For Sale	
Non-Profit	0	0	0	0	For Rent		For Sale		For Rent	
					0-20M	0	\$ 0-150	0	0-20M	0
					20-40M	0	150-250	0	20-40M	0
					40-70M	0	250-400	0	40-70M	1
					70-100M	0	400-600	0	70-100M	4
					100 UP	0	600 UP	1	100 UP	>100
					TOTAL	0		1		>105

ANSWER ALL QUESTIONS		
Yes	No	Explain all "YES" answers.
	X	1. Will special relocation services be necessary?
	X	2. Will schools or churches be affected by displacement?
X		3. Will business services still be available after project?
	X	4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5. Will relocation cause a housing shortage?
	X	6. Source for available housing (list).
	X	7. Will additional housing programs be needed?
X		8. Should Last Resort Housing be considered?
	X	9. Are there large, disabled, elderly, etc. families?
	X	10. Will public housing be needed for project?
X		11. Is public housing available?
X		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	X	13. Will there be a problem of housing within financial means?
NA		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 18 months

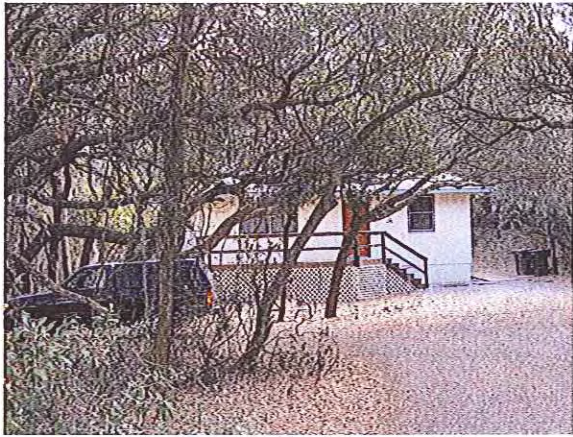
REMARKS (Respond by Number)	
<p>6. Sun Realty, Beath Realty & Construction, Coldwell Banker Seaside Realty.</p> <p>8. As necessary in accordance with State Law.</p> <p>11. HUD housing</p> <p>12. With sufficient lead time, DSS housing should be available to all displaced persons. Adequate lead time is 12 to 18 mo.</p> <p>NOTE: A difference in the number of displaced persons on the Relocation EIS Report and the Cost Estimate may be noted. This is due to proximity damage being a factor on the Cost Estimate Report (improvements not actually in the proposed take but damaged to the point of no value). The displaced persons shown on this report only include those actually located within the proposed right of way limits of this project.</p>	

<p><i>Janice M. Rogers</i></p> <p>Janice G. Rogers Right of Way Agent</p>	<p>2/4/2010</p> <p>Date</p>	<p>Relocation Coordinator</p> <p>Date</p>
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Residential Relocations
Mid-Currituck Bridge Alternatives
Section C - NC 12 3-Lane

#	Parcel #	Name	Address	City	# of Repos	Property Type
1	986805198058	Joseph Ferrani	352 Duck Road	Southern Shores	1	Rental (Year-Round)

**Residential Relocations
Mid-Currituck Bridge Alternatives
Section C – NC 12 (3-Lane)**



Parcel 986805198058 – 352 Duck Rd.

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Currituck	Segment	D	of	11	Segments		
I.D. NO.:		F.A. PROJECT								
DESCRIPTION OF PROJECT:		Segment D – NC 12 (4-Lane)								
ESTIMATED DISPLACED					INCOME LEVEL					
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP	
Residential	0	0	0	0						
Businesses	0	0	0	0	VALUE OF DWELLING		DSS DWELLING AVAILABLE			
Farms	0	0	0	0						
Non-Profit	0	0	0	0						
ANSWER ALL QUESTIONS										
Yes	No	Explain all "YES" answers.								
		1. Will special relocation services be necessary?			0-20M	0	\$ 0-150	0	0-20M	0
		2. Will schools or churches be affected by displacement?			20-40M	0	150-250	0	20-40M	0
		3. Will business services still be available after project?			40-70M	0	250-400	0	40-70M	0
		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.			70-100M	0	400-600	0	70-100M	0
		5. Will relocation cause a housing shortage?			100 UP	0	600 UP	0	100 UP	0
		6. Source for available housing (list).			TOTAL	0		0		0
		7. Will additional housing programs be needed?			REMARKS (Respond by Number)					
		8. Should Last Resort Housing be considered?			<p>There was no business or residential relocation identified on this segment</p>					
		9. Are there large, disabled, elderly, etc. families?								
		10. Will public housing be needed for project?								
		11. Is public housing available?								
		12. Is it felt there will be adequate DSS housing available during relocation period?								
		13. Will there be a problem of housing within financial means?								
		14. Are suitable business sites available (list source).								
		15. Number months estimated to complete RELOCATION?								
<div style="display: flex; justify-content: space-between;"> <div> Janice G. Rogers Right of Way Agent </div> <div> 2/4/2010 Date </div> </div>					<div style="display: flex; justify-content: space-between;"> <div>Relocation Coordinator</div> <div>Date</div> </div>					

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EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Currituck		Segment	E	of	11	Segments	
I.D. NO.:		F.A. PROJECT								
DESCRIPTION OF PROJECT:		Outer Banks Bridge Approach & C2 Terminus South (Albacore St.)								
ESTIMATED DISPLACEES					INCOME LEVEL					
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP	
Residential	0	0	0	0						
Businesses	1	0	0	0	VALUE OF DWELLING		DSS DWELLING AVAILABLE			
Farms	0	0	0	0						
Non-Profit	0	0	0	0	Owners	Tenants	For Sale	For Rent		
					0-20M	0	\$ 0-150	0	0-20M	0
					20-40M	0	150-250	0	20-40M	0
					40-70M	0	250-400	0	40-70M	0
					70-100M	0	400-600	0	70-100M	0
					100 UP	0	600 UP	0	100 UP	0
					TOTAL	0		0		0
ANSWER ALL QUESTIONS					REMARKS (Respond by Number)					
Yes	No	Explain all "YES" answers.			<p>4. Business relocation involves the dock serving Kitty Hawk Water Sports, an owner-operated business in the TimBuck II complex. The dock may be acquired or relocated if this alternate is chosen in the final design. # of employees is 3</p>					
	X	1. Will special relocation services be necessary?								
	X	2. Will schools or churches be affected by displacement?								
X		3. Will business services still be available after project?								
x		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.								
	X	5. Will relocation cause a housing shortage?								
	X	6. Source for available housing (list).								
	X	7. Will additional housing programs be needed?								
	X	8. Should Last Resort Housing be considered?								
	X	9. Are there large, disabled, elderly, etc. families?								
	X	10. Will public housing be needed for project?								
	X	11. Is public housing available?								
	N/A	12. Is it felt there will be adequate DSS housing housing available during relocation period?								
	N/A	13. Will there be a problem of housing within financial means?								
X		14. Are suitable business sites available (list source).								
		15. Number months estimated to complete RELOCATION?								

Janice G. Rogers

2/4/2010

Janice G. Rogers
Right of Way Agent

Date

Relocation Coordinator

Date

Business Relocations
Mid-Currituck Bridge Alternatives
Section E - Outer Banks Bridge Approach & C2 Terminus South
(common for MCB4 & MCB2 C2 Mid-Currituck Bridge Corridors)

#	Parcel #	Owner	Address	City	Name of Business	Size (square feet)	Type Business	Est. # of Employees	Minorities
1	116D00000760000	Andrew D. Meredith, Jr.	798-K Sunset Blvd	Corolla	Kitty Hawk Water Sports This relocation involves the dock which is used in conjunction with the operation of Kitty Hawk Water Sports	400	Sales of Water Sports Equipment and Rentals of Water Sports Activities - boat charters, cruises, etc.	3	0

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Currituck		Segment	F	of	11	Segments	
I.D. NO.:		F.A. PROJECT								
DESCRIPTION OF PROJECT:		Outer Banks Bridge Approach & C1 Terminus North								
ESTIMATED DISPLACEES					INCOME LEVEL					
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP	
Residential	0	0	0	0						
Businesses	0	0	0	0	VALUE OF DWELLING		DSS DWELLING AVAILABLE			
Farms	0	0	0	0						
Non-Profit	0	0	0	0						
ANSWER ALL QUESTIONS										
Yes	No	Explain all "YES" answers.								
		1. Will special relocation services be necessary?			0-20M	0	\$ 0-150	0	0-20M	0
		2. Will schools or churches be affected by displacement?			20-40M	0	150-250	0	20-40M	0
		3. Will business services still be available after project?			40-70M	0	250-400	0	40-70M	0
		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.			70-100M	0	400-600	0	70-100M	0
		5. Will relocation cause a housing shortage?			100 UP	0	600 UP	0	100 UP	0
		6. Source for available housing (list).			TOTAL	0		0		0
		7. Will additional housing programs be needed?			REMARKS (Respond by Number)					
		8. Should Last Resort Housing be considered?			There was no business or residential relocation identified on this segment					
		9. Are there large, disabled, elderly, etc. families?								
		10. Will public housing be needed for project?								
		11. Is public housing available?								
		12. Is it felt there will be adequate DSS housing available during relocation period?								
		13. Will there be a problem of housing within financial means?								
		14. Are suitable business sites available (list source).								
		15. Number months estimated to complete RELOCATION?								
<div style="display: flex; justify-content: space-between;"> <div> </div> <div>2/4/2010</div> </div>										
<div style="display: flex; justify-content: space-between;"> <div>Janice G. Rogers Right of Way Agent</div> <div>Date</div> </div>					<div style="display: flex; justify-content: space-between;"> <div>Relocation Coordinator</div> <div>Date</div> </div>					


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EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Currituck	Segment	G	of	11	Segments
I.D. NO.:		F.A. PROJECT						
DESCRIPTION OF PROJECT:		Segment G – Mainland Bridge Approach, Interchange & Frontage Roads North (common for C1 & C2 Mid-Currituck Bridge corridors)						
ESTIMATED DISPLACED					INCOME LEVEL			
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M
Residential	4	1	5	0	0	0	0	2
Businesses	3	0	3	1	VALUE OF DWELLING			
Farms	0	0	0	0	DSS DWELLING AVAILABLE			
Non-Profit	0	0	0	0	Owners	Tenants	For Sale	For Rent
					0-20M	\$ 0-150	0-20M	\$ 0-150
					20-40M	150-250	20-40M	150-250
					40-70M	250-400	40-70M	250-400
					70-100M	400-600	70-100M	400-600
					100 UP	600 UP	100 UP	600 UP
					TOTAL	2	0	>105
ANSWER ALL QUESTIONS					REMARKS (Respond by Number)			
Yes	No	Explain all "YES" answers.						
	X	1. Will special relocation services be necessary?			4. See attached spreadsheet for list of businesses.			
	X	2. Will schools or churches be affected by displacement?			6. Sun Realty, Beath Realty & Construction, Coldwell Banker Seaside Realty.			
X		3. Will business services still be available after project?			8. As necessary in accordance with State Law.			
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.			11. HUD housing			
	X	5. Will relocation cause a housing shortage?			12. With sufficient lead time, DSS housing should be available to all displaced persons. Adequate lead time is 12 to 18 mo.			
	X	6. Source for available housing (list).			14. Suitable business sites will be available during the relocation period. Sources are the same as those listed in Item 6.			
X		7. Will additional housing programs be needed?			20 graves will be impacted by this alternate			
	X	8. Should Last Resort Housing be considered?			NOTE: A difference in the number of displaced persons on the Relocation EIS Report and the Cost Estimate may be noted. This is due to proximity damage being a factor on the Cost Estimate Report (improvements not actually in the proposed take but damaged to the point of no value). The displaced persons shown on this report only include those actually located within the proposed right of way limits of this project.			
	X	9. Are there large, disabled, elderly, etc. families?						
	X	10. Will public housing be needed for project?						
X		11. Is public housing available?						
X		12. Is it felt there will be adequate DSS housing available during relocation period?						
	X	13. Will there be a problem of housing within financial means?						
X		14. Are suitable business sites available (list source).						
		15. Number months estimated to complete RELOCATION?			18 months			
 Janice G. Rogers Right of Way Agent					2/4/2010 Date			
					Relocation Coordinator Date			

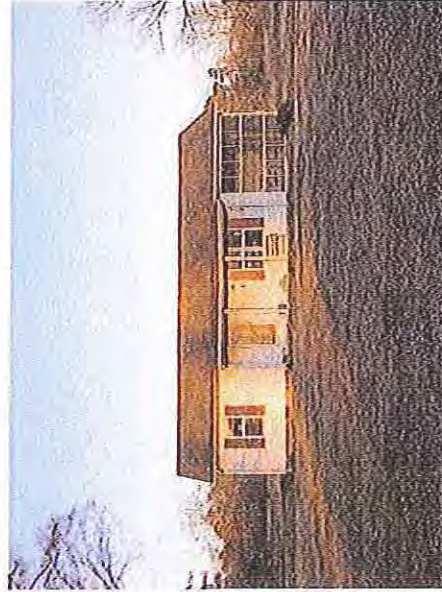
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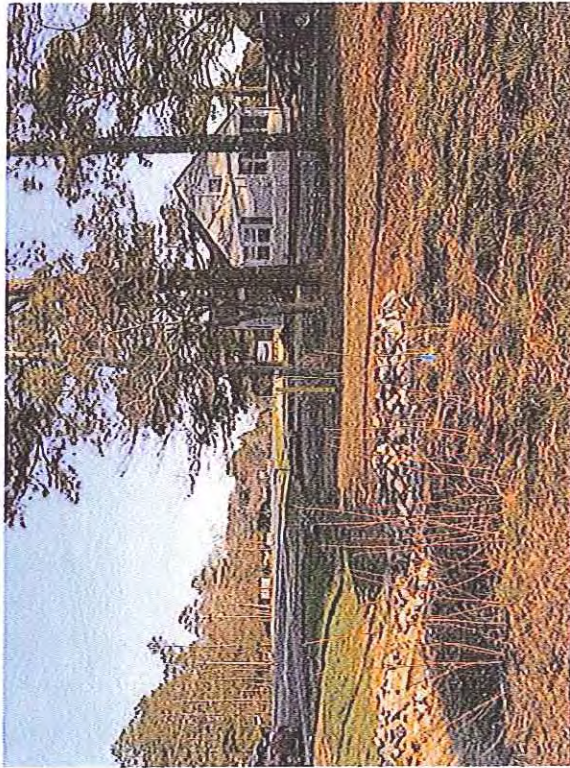
Residential Relocations
Mid-Currituck Bridge Alternatives
Section G - Mainland Bridge Approach, Interchange, and Frontage Roads North
(common for C1 & C2 Mid-Currituck Bridge Corridors)

#	Parcel #	Name	Address	City	# of Relocs	Property Type
1	008200000640000	Ruth B Crain	5023 Caratoke Hwy.	Coinjock	1	Owner Occupied
2	00820000083B0000	Rebecca L Walker	5013 Caratoke Hwy.	Coinjock	1	Owner Occupied
3	00820000085A0000	Richard & Julie Perkins	5039 Caratoke Hwy.	Coinjock	1	Owner Occupied
4	00820000085A0000	Richard & Julie Perkins	5031 Caratoke Hwy.	Coinjock	1	Owner Occupied
5	820000000820000	Clyde and Susie Spruill	5005 Caratoke Hwy.	Coinjock	1	Owner Occupied

**Residential Relocations
Mid-Currituck Bridge Alternatives
Section G
Mainland Bridge Approach, Interchange and Frontage Roads North
(Common for C1 & C2 Mid-Currituck Bridge Corridors)**



Residential Relocations
Mid-Currituck Bridge Alternatives
Section G
Mainland Bridge Approach, Interchange and Frontage Roads North
(Common for C1 & C2 Mid-Currituck Bridge Corridors)



Business Relocations
Mid-Currituck Bridge Alternatives
Section G - Mainland Bridge Approach, Interchange, and Frontage Roads North
(common for C1 & C2 Mid-Currituck Bridge Corridors)

#	Parcel #	Owner	Address	City	Name of Business	Size (Square Feet)	Type Business	Est. # of Employees (Min/Max)
1	0082000059D0000	Lynn Gagnon	4987 Caratoke Hwy.	Coinjock	Precision Auto	3,600	Auto/Boat Repair & Storage	10 - 2
2	008200000610000	David Baldwin	4995 Caratoke Hwy.	Coinjock	The Stuff Shop	4,000	Retail Shop	8 - 1
3	0071000060A0000	Banco & Cade	4952 Caratoke Hwy.	Coinjock		3,400	Convenience Store	12 - 2

Business Relocations
Mid-Currituck Bridge Alternatives
Section G
Mainland Bridge Approach, Interchange and Frontage Roads North
(Common for C1 & C2 Mid-Currituck Bridge corridors)



Parcel 0082000059D0000 – 4987 Caratoke Hwy.



Parcel 008200000610000 – 4995 Caratoke Hwy.



Parcel 0071000061A0000 – 4952 Caratoke Hwy.

Grave Impacts
Mid-Currituck Bridge Alternatives
Section G - Mainland Bridge Approach, Interchange, and Frontage Roads North
(common for C1 & C2 Mid-Currituck Bridge Corridors)

#	Parcel #	Name	Address	City	Approx # of Affected Graves
1	0082000065A0000	Richard & Julie Perkins	5031 Caratoke Hwy.	Coinjock	20

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Dare	Segment	H	of	11	Segments
I.D. NO.:		F.A. PROJECT						
DESCRIPTION OF PROJECT:		Segment H – Access Frontage Roads Along US 158						

ESTIMATED DISPLACEES					INCOME LEVEL								
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP				
Residential	0	0	0	0									
Businesses	0	0	0	0	VALUE OF DWELLING				DSS DWELLING AVAILABLE				
Farms	0	0	0	0	Owners		Tenants		For Sale		For Rent		
Non-Profit	0	0	0	0	0-20M	0	\$ 0-150	0	0-20M	0	\$ 0-150	0	
					20-40M	0	150-250	0	20-40M	0	150-250	0	
					40-70M	0	250-400	0	40-70M	0	250-400	0	
					70-100M	0	400-600	0	70-100M	0	400-600	0	
					100 UP	0	600 UP	0	100 UP	0	600 UP	0	
					TOTAL	0		0		0		0	

ANSWER ALL QUESTIONS		
Yes	No	Explain all "YES" answers.
		1. Will special relocation services be necessary?
		2. Will schools or churches be affected by displacement?
		3. Will business services still be available after project?
		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
		5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
		7. Will additional housing programs be needed?
		8. Should Last Resort Housing be considered?
		9. Are there large, disabled, elderly, etc. families?
		10. Will public housing be needed for project?
		11. Is public housing available?
		12. Is it felt there will be adequate DSS housing housing available during relocation period?
		13. Will there be a problem of housing within financial means?
		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION?

<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> Janice G. Rogers Right of Way Agent </div> <div style="text-align: center;"> 2/4/2010 Date </div> </div>	<div style="border-bottom: 1px solid black; padding-bottom: 5px; margin-bottom: 10px;"> REMARKS (Respond by Number) </div> <div style="padding: 10px;"> <p>There was no business or residential relocation identified on this segment</p> </div>
Relocation Coordinator	Date

FRM15-E Revised 09-02

Original & 1 Copy: Relocation Coordinator
2 Copy Division Relocation File

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Currituck	Alternate	I	of	11	Alternate
I.D. NO.:		F.A. PROJECT						
DESCRIPTION OF PROJECT:		Segment I – US 158 Hurricane Lane (Wright Memorial Bridge to Mid-Currituck Bridge)						

ESTIMATED DISPLACED					INCOME LEVEL				
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP
Residential	2	3	5	1					
Businesses	0	1	1	0					
Farms	0	0	0	0					
Non-Profit	0	0	0	0					

ANSWER ALL QUESTIONS					VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Yes	No	Explain all "YES" answers.			Owners		Tenants		For Sale		For Rent	
	X	1. Will special relocation services be necessary?			0-20M		\$ 0-150		0-20M		\$ 0-150	
	X	2. Will schools or churches be affected by displacement?			20-40M		150-250		20-40M		150-250	
		3. Will business services still be available after project?			40-70M		250-400		40-70M		250-400	
		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.			70-100M		400-600		70-100M		400-600	
		5. Will relocation cause a housing shortage?			100 UP		600 UP		100 UP		600 UP	
		6. Source for available housing (list).			TOTAL							
		7. Will additional housing programs be needed?										
		8. Should Last Resort Housing be considered?			REMARKS (Respond by Number)							
		9. Are there large, disabled, elderly, etc. families?										
		10. Will public housing be needed for project?			3. Proposed project site has numerous businesses. Abundant business services will be available after project.							
		11. Is public housing available?										
		12. Is it felt there will be adequate DSS housing available during relocation period?			4. Wright Clinic. Dental office, approx. 1,900 SF. Estimated Number of employees – 6 with 1 minority..							
		13. Will there be a problem of housing within financial means?										
		14. Are suitable business sites available (list source).			6. Sun Realty, Beach Realth & Construction, Caldwell Banker & Seaside Realty.							
		15. Number months estimated to complete										
		RELOCATION?			8. Last resort housing may be required, particularly for tenant-occupied properties.							
		18 MONTHS										

NOTE: RENTALS LISTED ON THIS REPORT DO NOT APPEAR TO BE SEASONAL RENTALS.

Janice G. Rogers Right of Way Agent	2/4/2010 Date		Relocation Coordinator _____ Date _____
--	------------------	--	---

Residential Relocations
Mid-Currituck Bridge Alternatives
Section I US 158 - Hurricane Lane
Wright Memorial Bridge to Mid-Currituck Bridge

#	Parcel #	Name	Address	City	# of Relos	Property Type	PLANS LOCATION
1	010900000620000	Matthew & Gay Chappell	7197 Caratoke Hwy.	Jarvisburg	1	Owner Occupied	RIGHT OF 525+00
2	010800000170000	Ralph & Lenora Aydlett	6637 Caratoke Hwy.	Grandy	1	Rental	RIGHT OF 665+00
3	009400001260000	Floyd Gilden, Jr.	6399 Caratoke Hwy.	Grandy	1	Rental	RIGHT OF 724+48
4	009400001270000	Floyd Gilden, Jr.	6395 Caratoke Hwy.	Grandy	1	Rental	RIGHT OF 725+50
5	0094000088A0000	Clifton Ayers	6150 Caratoke Hwy.	Poplar Branch	1	Owner Occupied	LEFT OF 786+58

**Residential Relocations
Mid-Currituck Bridge Alternatives
Section I US 158 – Hurricane Lane
Wright Memorial Bridge to Mid-Currituck Bridge**



Parcel 010900000620000 – 7197 Caratoke Hwy.
PLANS LOCATION RIGHT OF 525+00



Parcel 010800000170000 – 6637 Caratoke Hwy.
PLANS LOCATION RIGHT OF 665+00



Parcel 009400001260000 – 6399 Caratoke Hwy.
PLANS LOCATION RIGHT OF 724+48



Parcel 009400001270000 – 6395 Caratoke Hwy.
PLANS LOCATION RIGHT OF 725+50



Parcel 0094000088A0000 – 6150 Caratoke Hwy.
PLANS LOCATION LEFT OF 786+58

Business Relocations
Mid-Currituck Bridge Alternatives
Section I US 158 - Hurricane Lane
Wright Memorial Bridge to Mid-Currituck Bridge

#	Parcel #	Owner	Address	City	Name of Business	Size (square feet)	Type Business	Est. # of Employees	Minorities
1	0109000121A0000	Pauline Wright, Trustee	7106 Caratoke Hwy.	Jarvisburg	Wright Clinic	1,892	Dentist	6	1

PLANS LOCATION - LEFT OF STATION 547+50

Business Relocations
Mid-Currituck Bridge Alternatives
Section I US 158 – Hurricane Lane
Wright Memorial Bridge to Mid-Currituck Bridge



Parcel 0109000121A0000 – 7106 Caratoke Hwy.
PLANS LOCATION LEFT OF 547+50

Grave Impacts
Mid-Currituck Bridge Alternatives
Section I US 158 - Hurricane Lane
Wright Memorial Bridge to Mid-Currituck Bridge

#	Parcel #	Name	Address	City	Approx # of Affected Graves
1	012300000940000	Pleasant Branch Baptist	107 Foster Forbes Rd.	Powells Point	14
2	008400000070000	William Cuggle Owens Heirs	5665 Caratoke Hwy.	Poplar Branch	6
3	0108000000300000	William Wright Sr.	6861 Caratoke Hwy.	Jarvisburg	6
4	011000000620000	Diana & Kirk Shaw	7387 Caratoke Hwy.	Jarvisburg	12
5*	Not Listed	Not Listed	Not Listed	Not Listed	4
6	0082000065B0000	Currituck County	Caratoke Hwy	Poplar Branch	8

Total Relocations: 50

* Currituck County shows this location as a cemetery with global pin #9921-19-5983. It is located near 6590 Caratoke Hwy. between Pine Needle Dr. and Walnut Island Rd.

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Dare	Segment J of 11 Segments
I.D. NO.:		F.A. PROJECT		
DESCRIPTION OF PROJECT:		US 158 Hurricane Lane (Mid-Currituck Bridge to NC 168)		

ESTIMATED DISPLACEES					INCOME LEVEL				
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP
Residential	0	0	0	0					
Businesses	3	0	3	0					
Farms	0	0	0	0					
Non-Profit	0	0	0	0					

ANSWER ALL QUESTIONS									
Yes	No	Explain all "YES" answers.							
	X	1. Will special relocation services be necessary?							
	X	2. Will schools or churches be affected by displacement?							
X		3. Will business services still be available after project?							
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.							
	X	5. Will relocation cause a housing shortage?							
	X	6. Source for available housing (list).							
	X	7. Will additional housing programs be needed?							
	X	8. Should Last Resort Housing be considered?							
	X	9. Are there large, disabled, elderly, etc. families?							
	X	10. Will public housing be needed for project?							
X		11. Is public housing available?							
X		12. Is it felt there will be adequate DSS housing available during relocation period?							
	X	13. Will there be a problem of housing within financial means?							
X		14. Are suitable business sites available (list source).							
		15. Number months estimated to complete RELOCATION? 							

REMARKS (Respond by Number)	
<p>Three businesses are being impacted by this segment (see Chart). No residential relocations were identified</p> <p>According to local realtors, numerous business sites are Available in this area.</p>	

<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> Janice G. Rogers Right of Way Agent </div> <div style="text-align: center;"> 2/4/2010 Date </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> Relocation Coordinator </div> <div style="text-align: center;"> Date </div> </div>
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FRM15-E Revised 09-02

Original & 1 Copy: Relocation Coordinator
2 Copy: Division Relocation File

Mid-Currituck Bridge Alternatives
Section J US 158 - Hurricane Lane
Mid-Currituck Bridge to NC-168

Parcel #	Owner	Address	City	Name of Business	Size square feet	Type of Business	Est. # of Employees	Minorities
1	0070000034B0000 Earl Travis Morris	Caratoke Hwy.	Barco	Avis Sports & Fireworks	2,300	Sports Equip & Fireworks Sales	6	1
2	0070000033A0000 Cynthia Spruill	Caratoke Hwy.	Barco	Convenience Store	1,100	No gas pumps - Conv. Store	12	2
3	0070000031A0000 Currituck Realty Company	Caratoke Hwy	Cornlock	Currituck Realty Co.	300	Real Estate Sales	2	0
4								
5								
6								
7								
8								
9								
10								

Business Relocations
 Mid-Currituck Bridge Alternatives
 Section J
 US 158 Hurricane Lane
 Mid-Currituck Bridge to NC 168



Parcel 0070000034B0000 Caratoke Hwy, Barco



Parcel 00700000083A Caratoke Hwy, Barco



Parcel 00700000081A Caratoke Hwy, Barco

Grave Impacts
Mid-Currituck Bridge Alternatives
Section J US 158 - Hurricane Lane
Mid-Currituck Bridge to NC 168

#	Parcel #	Name	Address	City	Approx # of Affected Graves
1	6900000007000.00	Cemetary		Crawford	12
2	0070000074C0000	Ronnie & Mabel Cooper	Caratoke Hwy.	Poplar Branch	4

Total Relocations: 16

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:		COUNTY	Dare	Segment	K	of	11	Segments
I.D. NO.:		F.A. PROJECT						
DESCRIPTION OF PROJECT:		Segment K – US 158 Hurricane Lane (NC 12 to Wright Memorial Bridge)						

ESTIMATED DISPLACED					INCOME LEVEL				
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP
Residential	0	0	0	0					
Businesses	0	1	1	1					
Farms	0	0	0	0					
Non-Profit	0	0	0	0					

ANSWER ALL QUESTIONS				
Yes	No	Explain all "YES" answers.		
	X	1. Will special relocation services be necessary?		
	X	2. Will schools or churches be affected by displacement?		
X		3. Will business services still be available after project?		
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.		
	X	5. Will relocation cause a housing shortage?		
	X	6. Source for available housing (list).		
	X	7. Will additional housing programs be needed?		
	X	8. Should Last Resort Housing be considered?		
	X	9. Are there large, disabled, elderly, etc. families?		
	X	10. Will public housing be needed for project?		
X		11. Is public housing available?		
X		12. Is it felt there will be adequate DSS housing available during relocation period?		
	X	13. Will there be a problem of housing within financial means?		
X		14. Are suitable business sites available (list source).		
		15. Number months estimated to complete RELOCATION? 18 months		

REMARKS (Respond by Number)	
4. See attached spreadsheet.	
14. Sun Realty, Beath Realty & Construction, Coldwell Banker Seaside Realty.	
NOTE: A difference in the number of displaced persons on the Relocation EIS Report and the Cost Estimate may be noted. This is due to proximity damage being a factor on the Cost Estimate Report (improvements not actually in the proposed take but damaged to the point of no value). The displaced persons shown on this report only include those actually located within the proposed right of way limits of this project.	

<div style="display: flex; justify-content: space-between;"> <div> <i>Janice A. Rogers</i> <div style="border-top: 1px solid black; width: 100%;"></div> Right of Way Agent </div> <div> 2/4/2010 <div style="border-top: 1px solid black; width: 100%;"></div> Date </div> </div>	<div style="display: flex; justify-content: space-between;"> <div> <div style="border-top: 1px solid black; width: 100%;"></div> Relocation Coordinator </div> <div> <div style="border-top: 1px solid black; width: 100%;"></div> Date </div> </div>
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FRM15-E Revised 09-02

Original & 1 Copy: Relocation Coordinator
2 Copy: Division Relocation File

Business Relocations
 Mid-Currituck Bridge Alternatives
 Section K - US 158 Hurricane Lane
 (NC 12 to Wright Memorial Bridge)

#	Parcel #	Owner	Address	City	Name of Business	Size (square feet)	Type Business	Est. # of Employees	Minorities
1	986606388903	Banks Land Co., LLC	6146 N. Croatan Hwy.	Kitty Hawk	Islander Flags	4,136	Banner Flags & Gifts	10	1

Business Relocations
Mid-Currituck Bridge Alternatives
Section K – US 158 Hurricane Lane
(NC 12 to Wright Memorial Bridge)



Parcel 986606491077 – 6146 Croatan Hwy.

MID-CURRITUCK BRIDGE PROJECT

ADDENDUM FOR THE RELOCATION STUDY

FOR OPTION B

Prepared for:



Prepared by:



FEBRUARY 4, 2010

Contents

MID-CURRITUCK BRIDGE ADDENDUM TO THE RELOCATION STUDY FOR OPTION B

1) Relocation Study	2
<u>A</u>)Relocation Assessment: Alternative Option B	5
Appendices:.....	6
A EIS Relocation Report for Alternative Option B	
B Pictures of Houses to be Relocated with Alternative Option B	
C Pictures of Business to be Relocated with Alternative Option B	
D Maps Showing Alternative Option B Maps Provided by NCTA on 9/4/09	

MID-CURRITUCK BRIDGE

RELOCATION STUDY

ALTERNATIVE OPTION B

SECTION 1 RELOCATION STUDY

The Mid-Currituck Bridge Study provides two basic alternatives for bridge and road construction, including MCB2/C1 and C2 and MCB4/C1 and C2. A new study option, known as Option B, has been added to both alternatives. This report will discuss the existing conditions of the area impacted by this alternative. Alternative option B was analyzed to determine how it would affect existing private and public properties, businesses, and persons residing in the project area. This includes impacts to outdoor advertising signs and gravesites.

All land necessary for transportation improvements must be purchased from existing property owners in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (URA). The URA contains specific requirements that govern the manner in which a governmental entity acquires property for public use. The purpose of the URA includes providing a uniform policy for fair and equitable treatment of persons and businesses displaced as a result of federal and federally assisted programs.

1.1 Current Conditions

Option B would be located on the mainland of Currituck County between US 158 and Currituck Sound. It would include the construction of an interchange at US 158, a bridge approach road on fill through Maple Swamp, removal of existing Aydlott Road and a toll plaza in the community of Aydlott.

1.1.1 Affected Environment

Alternative option B located on the mainland is mostly residential properties mixed with commercial properties.

This area includes owner-occupied residences, tenant-occupied residences, and commercial properties ranging from auto services and a flea market to numerous outdoor advertising signs and several gravesites.

1.2 Relocation Impacts

Potential relocation impacts would be required for this alternative. The impacts include residential, business, outdoor advertising, and gravesites. Housing and commercial opportunities appear readily available within the vicinity of the proposed project.

Very few sites that provide services to the immediate neighborhood, such as convenience stores, banks, restaurants, gas stations, and shopping centers, would require relocation. Therefore, it can be assumed that the services necessary to support an existing neighborhood will remain available.

1.2.1 Relocations per Alternative Option B

To summarize the relocation effects, Table 1 identifies the number and type of displacements identified for alternative option B.

Table 1-8

Relocation For Alternative Option B

Alternate	Property Type			
	Residential Relocations	Business Relocations	Outdoor Advertising Sign Relocation	Gravesite Relocations
Alternative Option B	7	3	13	19

In addition to these potential relocation impacts, several secondary structures such as sheds and garages on properties are affected. In general, a few of the parcels impacted are large enough to allow for relocating or rebuilding these structures elsewhere on the property.

1.2.1.1 Mainland Bridge Approach, Interchange, Frontage Roads and Toll Plaza (common for MCB2 & MCB4 C1 and MCB2 & MCB4 C2 Mid-Currituck Bridge Corridors)-Alternative Option B

This section of road is located in the Coinjock community of Currituck County. Relocations in this segment include three businesses. Also displaced are six owner-occupied residences and one tenant occupied residence. There are also nine outdoor advertising signs and four on premise signs which would be displaced. Finally, there are two plots of approximately 19 graves that would be impacted by the acquisition.

1.2.2.3 Summary

Alternative Option B would have a total of 10 residential and business relocations.

1.3 Relocation Assistance

A thorough review of the subject area has been completed to ensure adequate replacement housing is available for all potential residential relocations. In order to minimize the unavoidable effects of Right of Way acquisition and displacement of individuals and businesses, all relocation parcels will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the North Carolina Relocation Assistance Act (GS-133-5 through 133-18). Relocation services and payments are provided without regard to race, color, religion, sex, or national origin.

Advance notification to owners of properties containing impending right of way acquisition is required. Before acquiring right of way, all properties are appraised on the basis of comparable sales and land use values in the area. Owners of property to be acquired will be offered and paid fair market value for their property rights.

No person lawfully occupying real property will be required to move without at least 90 days written notice of the intended vacation date. For residential relocations, this notice cannot be provided until a written offer to acquire the subject property has been presented, and at least one comparable replacement dwelling has been made available.

At least one relocation specialist is assigned to each highway project to carry out the relocation assistance and payments program. A relocation specialist will contact each person or business to be relocated to determine individual needs and desires, and to provide information, answer questions, and give assistance in finding replacement property.

Relocation of displaced persons will be offered in areas not generally less desirable in regard to public utilities and commercial facilities. Rent and sale prices of replacement housing will be within the financial budget of the families and individuals displaced and will be reasonably accessible to their places of employment. The relocation specialist will also assist owners of displaced businesses, non-profit organizations, and farm operations in searching for and moving to replacement property.

The general findings are as follows:

A) Relocation Assessment: Alternative Option B

3 Business relocations	\$150,000
1 Residential tenant relocation	\$20,000
6 residential owner relocations	\$240,000
4 on premise signs	\$8,000
9 billboards	\$162,000
19 grave sites	\$66,500
Total	\$646,500

Appendices:

A. EIS Relocation Report for Alternative Option B

B. Pictures of Houses to be Relocated with Alternative Option B

C. Pictures of Businesses to be Relocated with Alternative Option B

D. Maps Showing Alternative Option B Maps Provided by NCTA on 9/4/09

Appendix A

EIS Relocation Report For Alternative Option B

EIS RELOCATION REPORT

North Carolina Department of Transportation RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN


WBS:		COUNTY		Currituck	
I.D. NO.:		F.A. PROJECT		MID-CURRITUCK BRIDGE: ALTERNATIVE OPTION B	
DESCRIPTION OF PROJECT:		Ramps off US 158 to Toll Booths at Sound-Aydlett Road Removal			

ESTIMATED DISPLACED					INCOME LEVEL				
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP
Residential	6	1	7	0				3	4
Businesses	1	2	3	0					
Farms	0	0	0	0					
Non-Profit	0	0	0	0					

ANSWER ALL QUESTIONS									
Yes	No	Explain all "YES" answers.							
	X	1. Will special relocation services be necessary?							
	X	2. Will schools or churches be affected by displacement?							
X		3. Will business services still be available after project?							
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.							
	X	5. Will relocation cause a housing shortage?							
	X	6. Source for available housing (list).							
X		7. Will additional housing programs be needed?							
	X	8. Should Last Resort Housing be considered?							
	X	9. Are there large, disabled, elderly, etc. families?							
	X	10. Will public housing be needed for project?							
X		11. Is public housing available?							
X		12. Is it felt there will be adequate DSS housing housing available during relocation period?							
	X	13. Will there be a problem of housing within financial means?							
X		14. Are suitable business sites available (list source).							
		15. Number months estimated to complete RELOCATION? 18 MONTHS							

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M		\$ 0-150		0-20M		\$ 0-150	
20-40M		150-250		20-40M		150-250	
40-70M		250-400		40-70M	3	250-400	
70-100M	6	400-600	1	70-100M	18	400-600	5
100 UP		600 UP		100 UP	56	600 UP	6
TOTAL	6		1		77		17

REMARKS (Respond by number)	
<p>3. Proposed project site has numerous businesses. Abundant business services will be available after project.</p> <p>4. The Stuff Store, approx.4,000sf Estimated Number of employees – 4 with 1 minority- Precision Automotive approx. 3600sf-Estimated number of employees-6 with 2 minority Coinjock Automotive-approx. 3200sf-Estimated number of employees-4 with 2 minority</p> <p>6. Sun Realty, Beach Realty & Construction, Caldwell Banker Seaside Realty.</p> <p>8. Although LRS may not be required, market changes dictate that LRS could be required at time of displacement.</p> <p>11. HUD housing is available.</p> <p>12. Discussions with local realtors determined that adequate housing will be available during the relocation period.</p> <p>14. Suitable business sites will be available during the relocation period. Sources are listed in Item 6.</p> <p>NOTE: RENTALS LISTED ON THIS REPORT DO NOT APPEAR TO BE SEASONAL RENTALS</p>	

 Right of Way Agent	10/8/2009 Date	Relocation Coordinator Date
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Appendix B

Pictures of Houses to be Relocated with Alternative Option B

**Residential Relocations
ALTERNATIVE OPTION B**



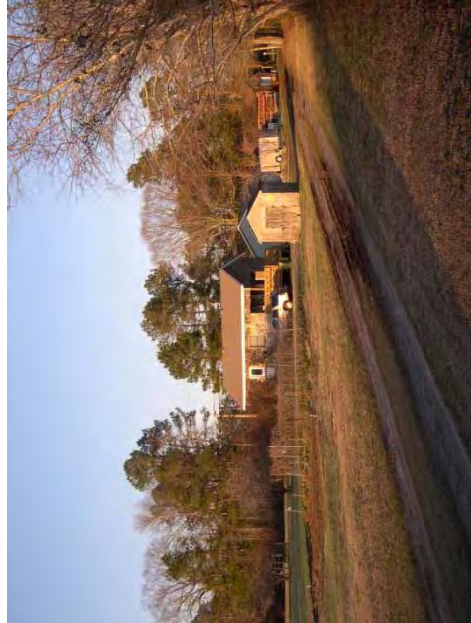
0082-000-0041-0000-Owner
Occupied-Robert and Barbara
Jordan-330 Narrow Shore Road

Photo 1



0082-000-0066-0000-Owner
Occupied-Mildred T. Quidley,
Trustee-5067 Caratoke Hwy.

Photo 2



0082-000-0065A-0000-Owner Occupied
Richard & Julie Perkins -5031 Caratoke Hwy.
Photo 3



0082-000-0065A-0000-Tenant Occupied
Richard & Julie Perkins -5031 Caratoke Hwy.
Photo 4 (This house is owned by Richard & Julie
Perkins. The house is currently rented)

**Residential Relocations
ALTERNATIVE OPTION B**



0082-000-0064-0000-Owner Occupied
Ruth B. Crain-5023 Caratoke Hwy.
Photo 5



0082-000-0063B-0000-Owner Occupied
Rebecca L. Walker-5013 Caratoke Hwy.
Photo 6



0082-000-0060A-0000-Owner Occupied
Mildred Markert-4929 Caratoke Hwy.
Photo 7





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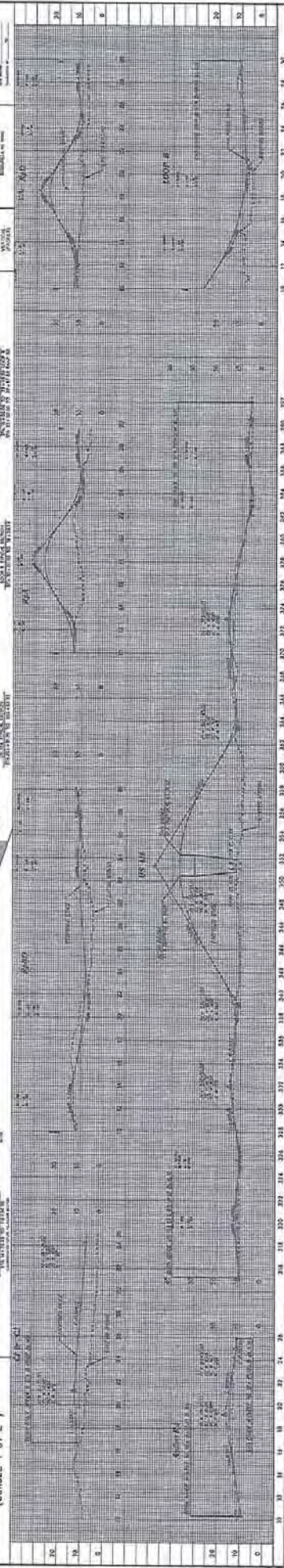
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MTD-CURRITUCK BRIDGE STUDY
ALTERNATIVE OPTION B
TIP PROJECT NO. R-2576
CURRITUCK COUNTY
(SCROLL 1 of 2)

2 20 40



MID-CURRITUCK BRIDGE STUDY
ALTERNATIVE OPTION B



Appendix C

Pictures of Businesses to be Relocated with Alternative Option B

Business Relocations ALTERNATIVE OPTION B



The Stuff Store (Owner-Baldwin)
Parcel 008200000610000-4995 Caratoke Hwy.
Photo 1



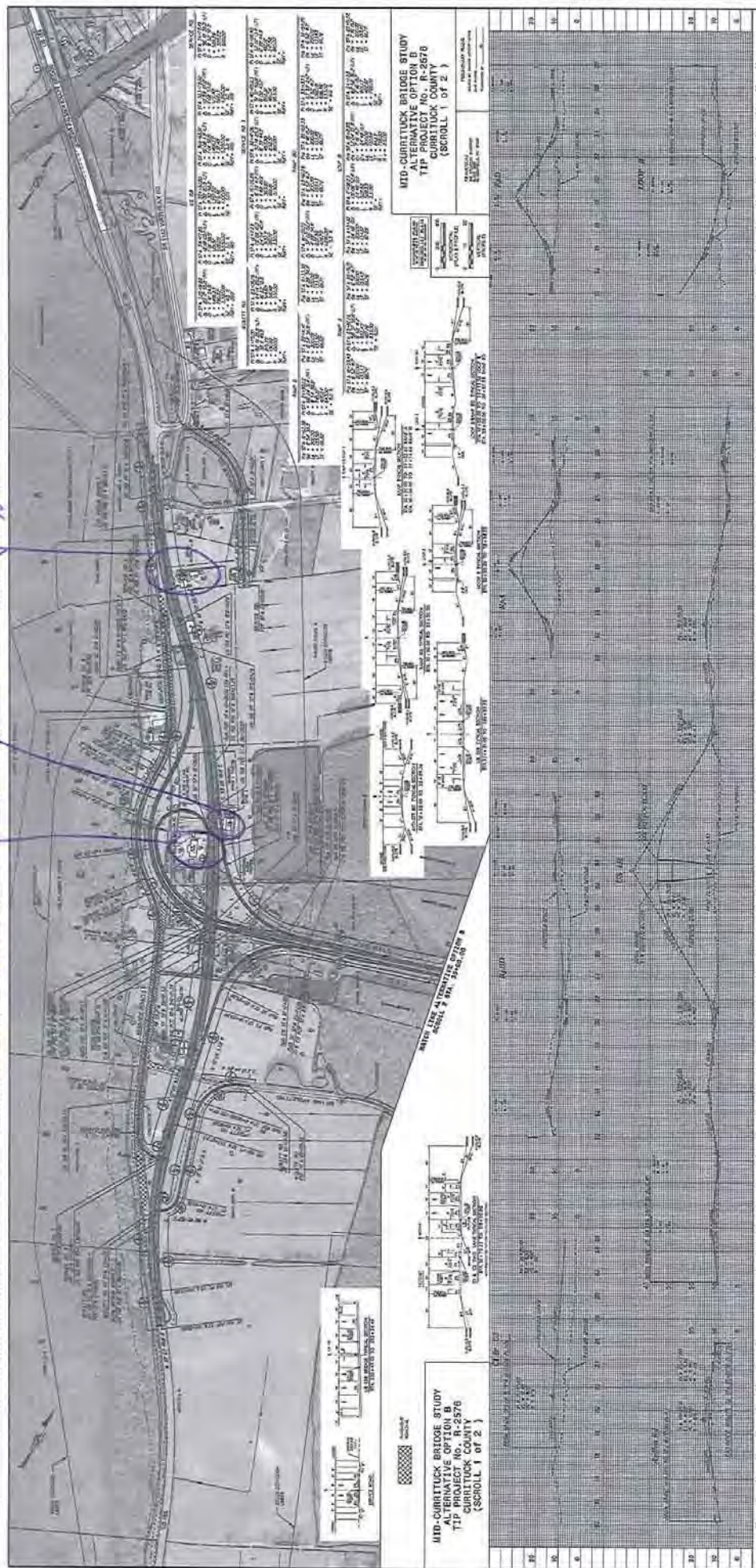
Precision Automotive (Owner-Gagnon)
Parcel 0082000059D0000 -4987 Caratoke Hwy
Sign and Entrance
Photo 2



**Business Relocations
ALTERNATIVE OPTION B**



Coinjock Automotive (Owner-Mason)
Parcel 0071000074B0000-4901 Caratoke Hwy.
Photo 3



Appendix D

Maps Showing Alternative Option B Maps Provided by NCTA on 9/4/09



Appendix B

Form CPA-106

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106

(Rev. 1-81)

FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 2/10/09		Sheet 1 of 2	
1. Name of Project Mid-Currituck Bridge Project		5. Federal Agency Involved Federal Highway Administration			
2. Type of Project Bridge and approach roads on new location		6. County and State Currituck and Dare, North Carolina			
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 2-10-09		2. Person Completing Form John Gorman R55	
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply. Do not complete additional parts of this form.) YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated / Average Farm Size NONE / 447		5. Amount of Farmland As Defined in FPPA Acres: 106 912 % 61	
5. Major Crop(s) CORN		6. Farmable Land In Government Jurisdiction Acres: 197 772 % 62		7. Date Land Evaluation Returned by NRCS 2-27-09	
8. Name Of Land Evaluation System Used Currituck LE		9. Name of Local Site Assessment System NONE			
PART III (To be completed by Federal Agency)		Alternative Corridor For Segment			
		ER2	MCB2G1	MCB2G2	MCB4G1
A. Total Acres To Be Converted Directly		128	262	255	159
B. Total Acres To Be Converted Indirectly, Or To Receive Services		128	262	255	159
C. Total Acres In Corridor		128	262	255	159
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		1.0	40.6	40.6	40.6
B. Total Acres Statewide And Local Important Farmland		6.8	20.8	20.8	20.5
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		4.01	4.01	4.01	4.01
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		61.2	61.7	61.7	61.2
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative Value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)		2.9	30.2	31	49.7
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))		Maximum Points			
1. Area in Nonurban Use		15	1	4	8
2. Perimeter in Nonurban Use		10	0	1	5
3. Percent Of Corridor Being Farmed		20	0	0	0
4. Protection Provided By State And Local Government		20	1	2	2
5. Size of Present Farm Unit Compared To Average		10	0	0	0
6. Creation Of Nonfarmable Farmland		25	0	0	0
7. Availability Of Farm Support Services		5	5	5	5
8. On-Farm Investments		20	1	2	2
9. Effects Of Conversion On Farm Support Services		25	0	0	0
10. Compatibility With Existing Agricultural Use		10	0	0	0
TOTAL CORRIDOR ASSESSMENT POINTS		160	8	14	22
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	2.8	30.2	49.7
Total Corridor Assessment (From Part VI above or a local site assessment)		160	8	14	22
TOTAL POINTS (Total of above 2 lines)		260	10.8	44.2	71.7
1. Corridor Selected:		2. Total Acres of Farmlands to be Converted by Project:		3. Date Of Selection:	
				4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>	
5. Reason For Selection:					

Signature of Person Completing this Part:

DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation ServiceNRCS-CPA-106
(Rev. 1-91)FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request	2/10/09	4. Sheet 2 of 2	
1. Name of Project Mid-Currituck Bridge Project		5. Federal Agency Involved Federal Highway Administration			
2. Type of Project Bridge and approach roads on new location		6. County and State Currituck and Dare, North Carolina			
PART II (To be completed by NRCS)		1. Date Request Received by NRCS		2. Person Completing Form	
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply. Do not complete additional parts of this form).		YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		4. Acres Irrigated Average Farm Size	
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %		7. Amount of Farmland As Defined in FPPA Acres: %		
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System		10. Date Land Evaluation Returned by NRCS		
PART III (To be completed by Federal Agency)		Alternative Corridor For Segment			
		MCB4C2			
A. Total Acres To Be Converted Directly		152			
B. Total Acres To Be Converted Indirectly, Or To Receive Services		152			
C. Total Acres In Corridor		152			
		0 0 0			
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		40.6			
B. Total Acres Statewide And Local Important Farmland		20.5			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		2.01			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		61.9			
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative Value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)		51.9			
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))		Maximum Points			
1. Area In Nonurban Use	15	10			
2. Perimeter In Nonurban Use	10	6			
3. Percent Of Corridor Being Farmed	20	0			
4. Protection Provided By State And Local Government	20	2			
5. Size of Present Farm Unit Compared To Average	10	0			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availability Of Farm Support Services	5	5			
8. On-Farm Investments	20	2			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS		160 25 0 0 0			
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100 51.9			
Total Corridor Assessment (From Part VI above or a local site assessment)		160 25 0 0 0			
TOTAL POINTS (Total of above 2 lines)		260 76.9 0 0 0			
1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?		
			YES <input type="checkbox"/> NO <input type="checkbox"/>		
5. Reason For Selection:					

Signature of Person Completing this Part:

DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 2/10/09		4. Sheet 3 of 3	
1. Name of Project Mid-Currituck Bridge Project		5. Federal Agency Involved Federal Highway Administration			
2. Type of Project Bridge and approach roads on new location		6. County and State Currituck and Dare, North Carolina			
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 9-17-09		2. Person Completing Form John Gagnon	
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated none		Average Farm Size 447	
5. Major Crop(s) CORN	6. Farmable Land in Government Jurisdiction Acres: 107,772 % 62		7. Amount of Farmland As Defined in FPPA Acres: 106,912 % 61		
8. Name Of Land Evaluation System Used Currituck LE	9. Name of Local Site Assessment System NONE		10. Date Land Evaluation Returned by NRCS 10-1-09		
PART III (To be completed by Federal Agency)		Alternative Corridor For Segment Option B			
		MCB2/B/C1	MCB2/B/C2	MCB4/B/C1	MCB4/B/C2
A. Total Acres To Be Converted Directly		296.7	290	193.8	187.1
B. Total Acres To Be Converted Indirectly, Or To Receive Services		0	0		
C. Total Acres In Corridor		296.7	290	193.8	187.1
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		76.2	76.2	76.2	76.2
B. Total Acres Statewide And Local Important Farmland		40.9	40.9	40.6	40.6
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<0.01	<0.01	<0.01	<0.01
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		61.7	61.7	61.7	61.7
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)		34.2	35.0	52.3	54.2
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))		Maximum Points			
1. Area in Nonurban Use		15	4	4	8
2. Perimeter in Nonurban Use		10	1	1	5
3. Percent Of Corridor Being Farmed		20	0	0	0
4. Protection Provided By State And Local Government		20	2	2	2
5. Size of Present Farm Unit Compared To Average		10	0	0	0
6. Creation Of Nonfarmable Farmland		25	0	0	0
7. Availability Of Farm Support Services		5	5	5	5
8. On-Farm Investments		20	2	2	2
9. Effects Of Conversion On Farm Support Services		25	0	0	0
10. Compatibility With Existing Agricultural Use		10	0	0	0
TOTAL CORRIDOR ASSESSMENT POINTS		160	14	14	22
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	34.2	35.0	52.3
Total Corridor Assessment (From Part VI above or a local site assessment)		160	14	14	22
TOTAL POINTS (Total of above 2 lines)		260	48.2	49.0	74.3
1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>		
5. Reason For Selection:					

Signature of Person Completing this Part:

DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor