Mid-Currituck Bridge Project

Local Elected Officials Meeting

February 2008

NORTH CAROLINA
Turnpike Authority

Citizens Informational Workshops

- Currituck Outer Banks – February 26
- Currituck Mainland – February 27
- Dare County Outer Banks – February 28

4:00 to 8:00 p.m.

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Workshop Goals

- Discuss
  - Study activities and schedule
  - Statement of Purpose and Need
  - Alternatives analysis findings
- Answer other questions
- Receive public comments

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Presentation Focus

- Statement of Purpose and Need
- Analysis and current decisions on:
  - Project type
  - Bridge location
  - US 158 interchange and NC 12 intersection characteristics
  - Number of lanes on the bridge
- What's next
- Tolls and toll financing

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Purpose and Need

- Improve traffic flow on NC 12 and US 158
- Reduce travel time between the mainland and the Outer Banks
- Reduce hurricane evacuation time
- Improve system efficiency with an additional linkage between the mainland and Outer Banks

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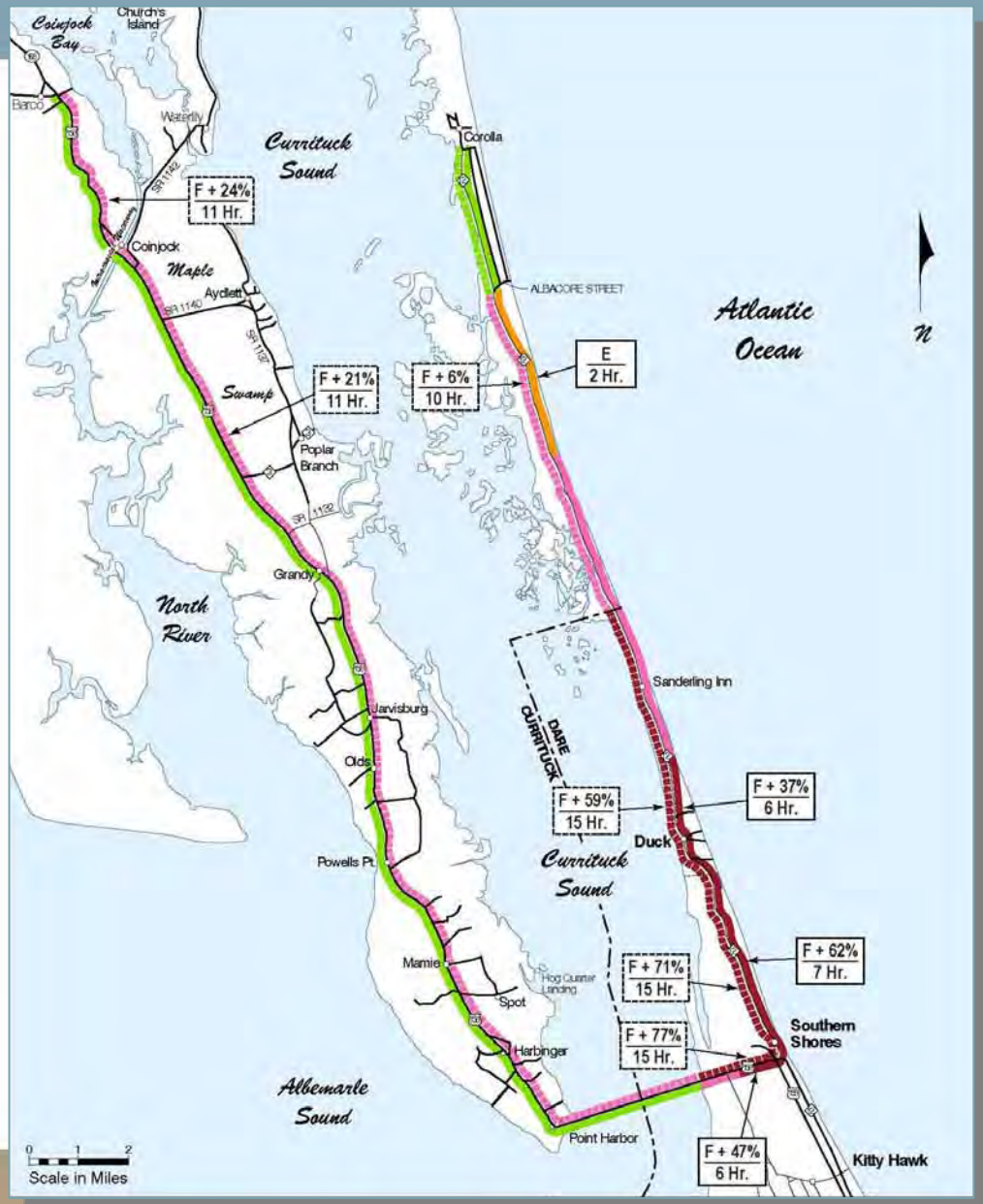
Improve Traffic Flow

- 2035 Forecast Congestion



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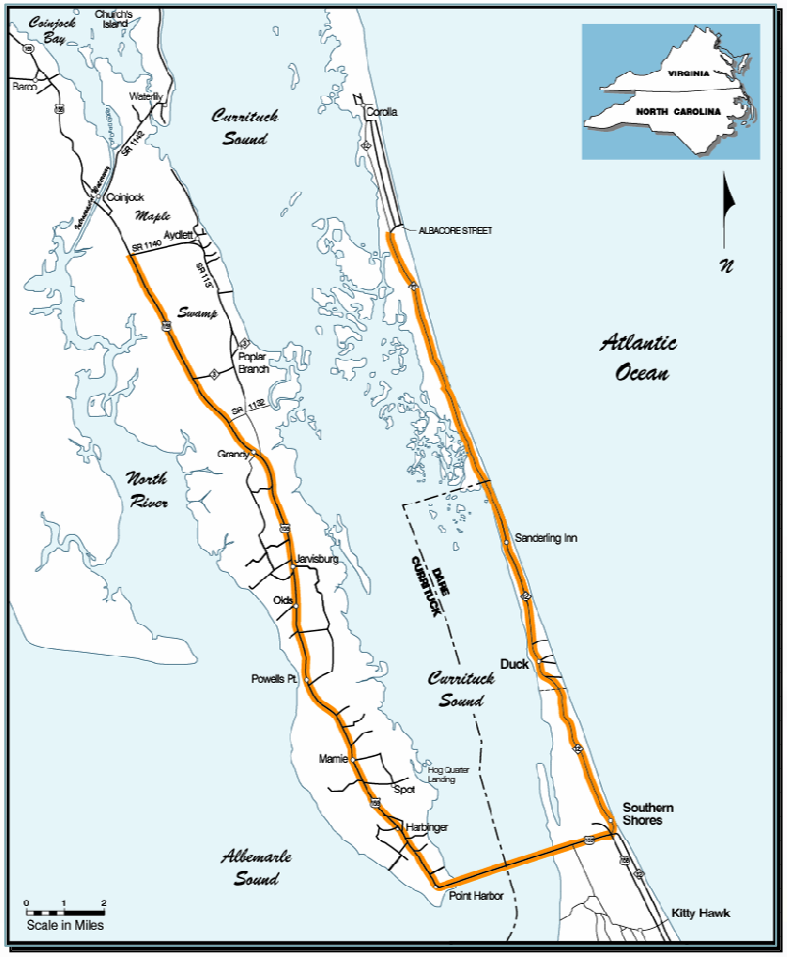
Reduce Travel Time

Aydlett Road on US 158 to Albacore Street on NC 12

- 2006
  - 1 hour on summer weekday
  - 1 hour and 19 minutes on summer weekend
- 2035
  - Just over 2 hours on summer weekday
  - Almost 4 hours on summer weekend
- Worse if accidents or intersection back-ups



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Reduce Hurricane Evacuation Time

Via US 158/NC 168

- 2004—25.8 hours
- 2030—35.9 hours

18-Hour Legislative Standard
75% Tourist Occupancy
Category 3 Storm

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Improve System Efficiency

- Mid-Currituck Crossing Demand (with tolls)
  - 2006—5,500 average annual vehicles per day
  - 2035—12,600 average annual vehicles per day
- Annual million vehicle-miles traveled on US 158 and NC 12 in project area

	2006	2035
No MCB	347.2	649.0
MCB with Tolls	297.4	556.3
Reduction with MCB	49.8	82.7

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Project Type Alternatives

- Improve[illegible]ency of Existing Roads
  - Shi[illegible]g Rental Times
  - Transportation Systems Management
  - Bus [illegible]
- Fer[illegible]
- Widen Existing Roads
- Mid-Currituck Bridge with various combinations of existing road widening

DROP

DROP

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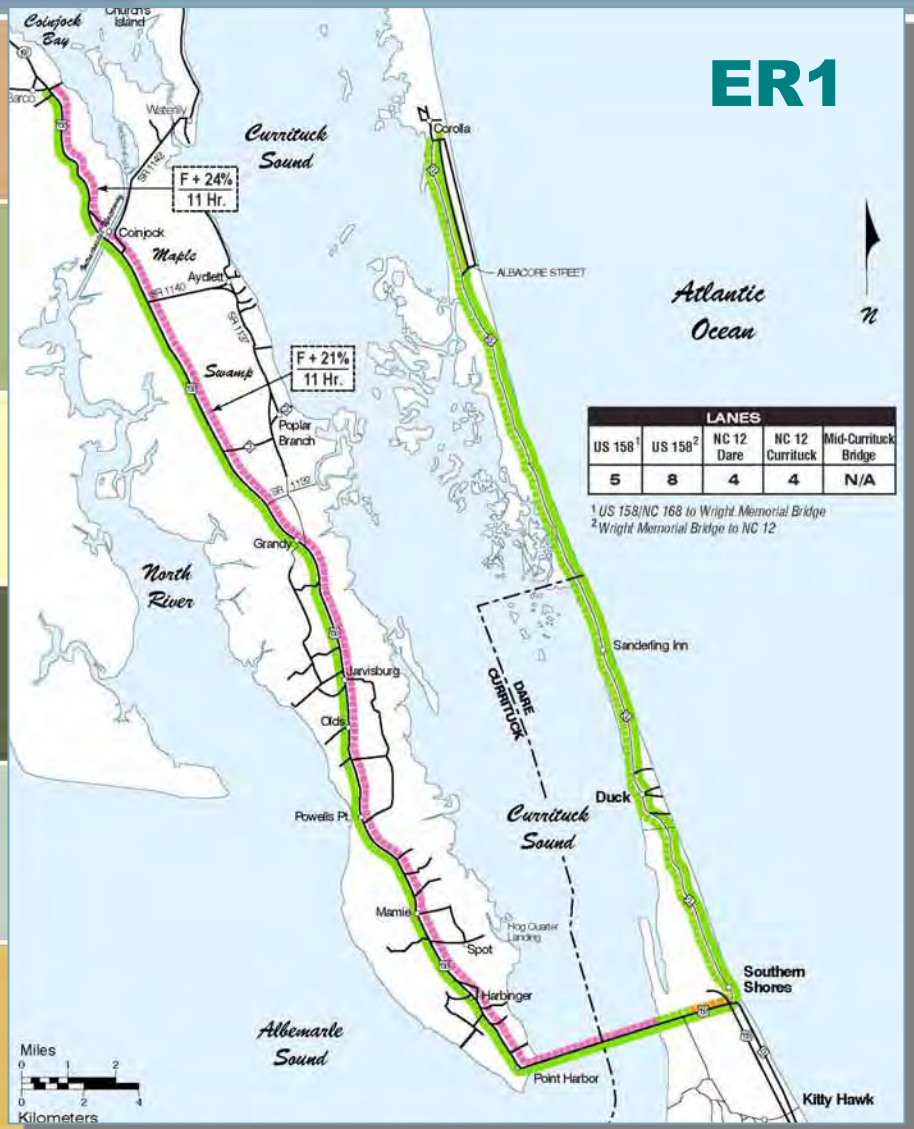
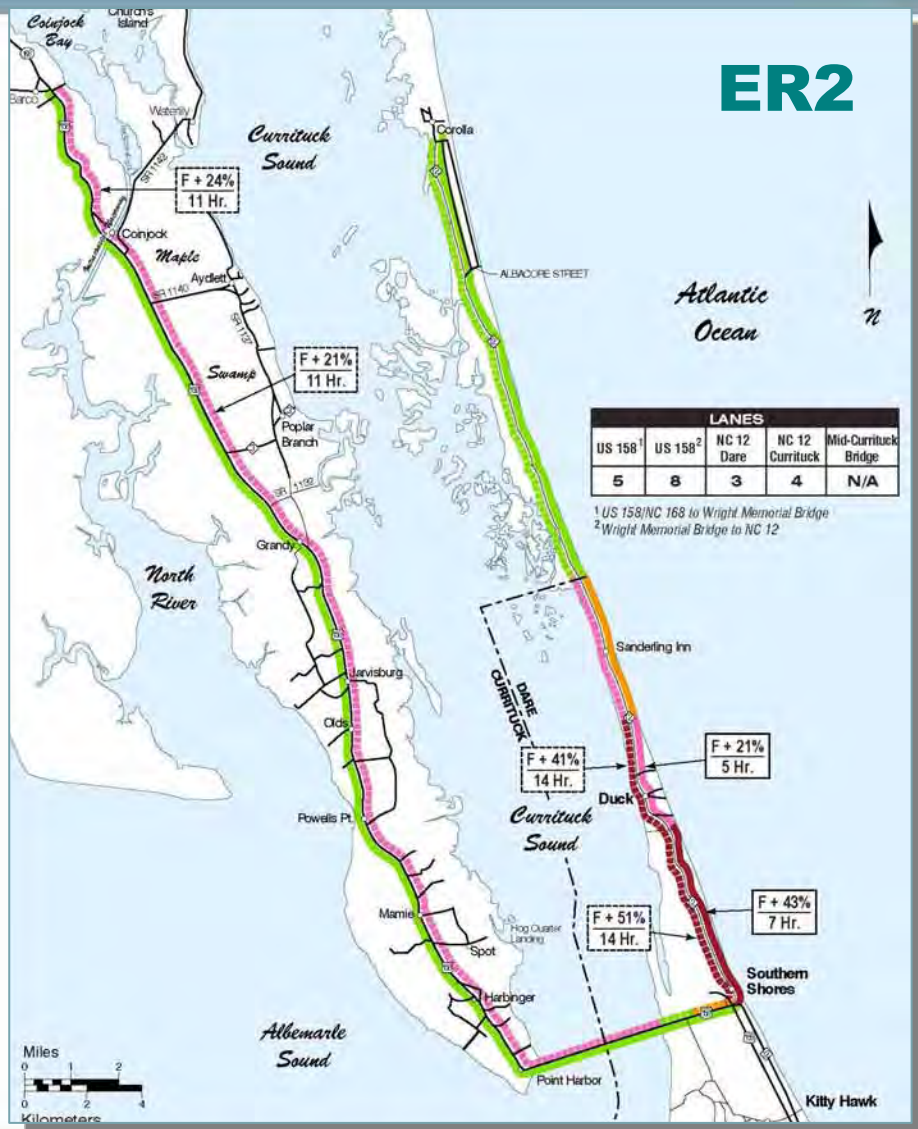
Widen Existing Roads Only

ER1

ER2

ER1/ER2 Travel Benefits



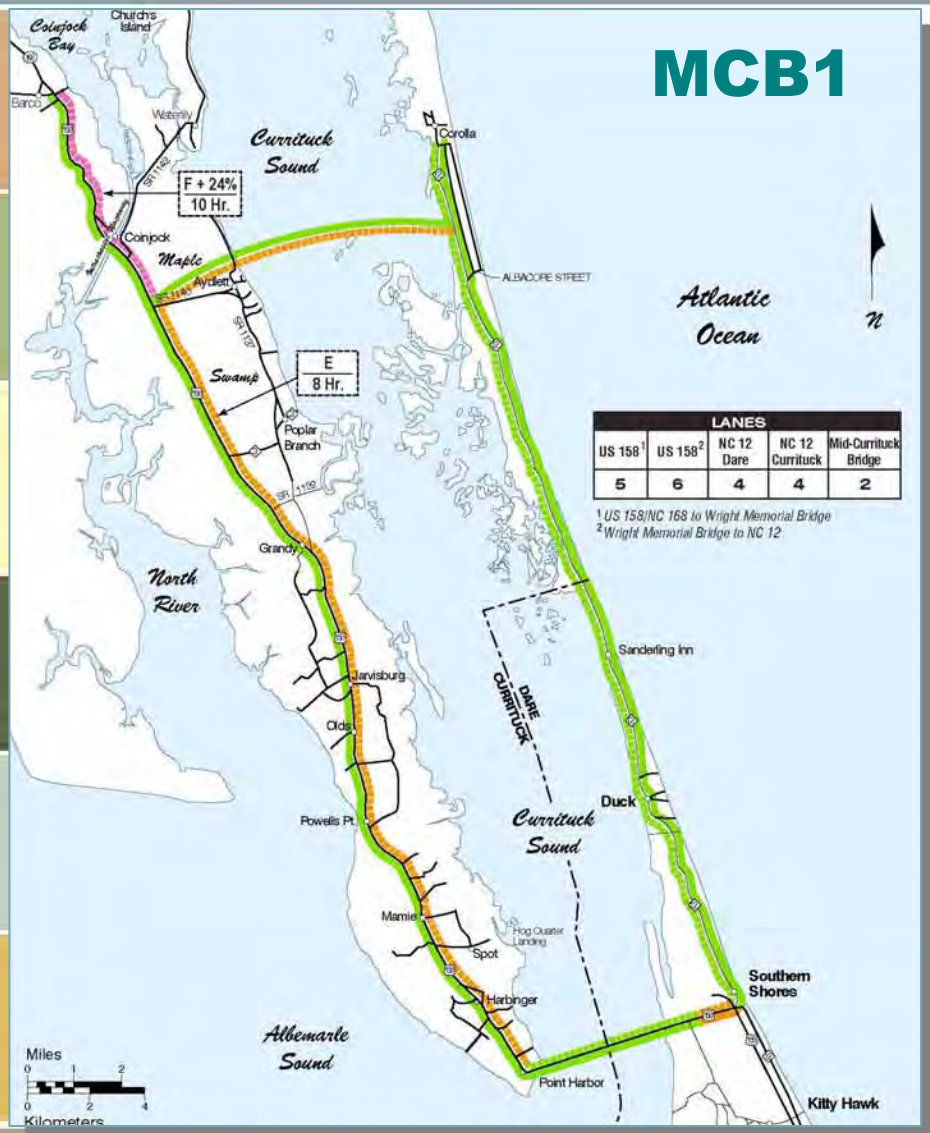


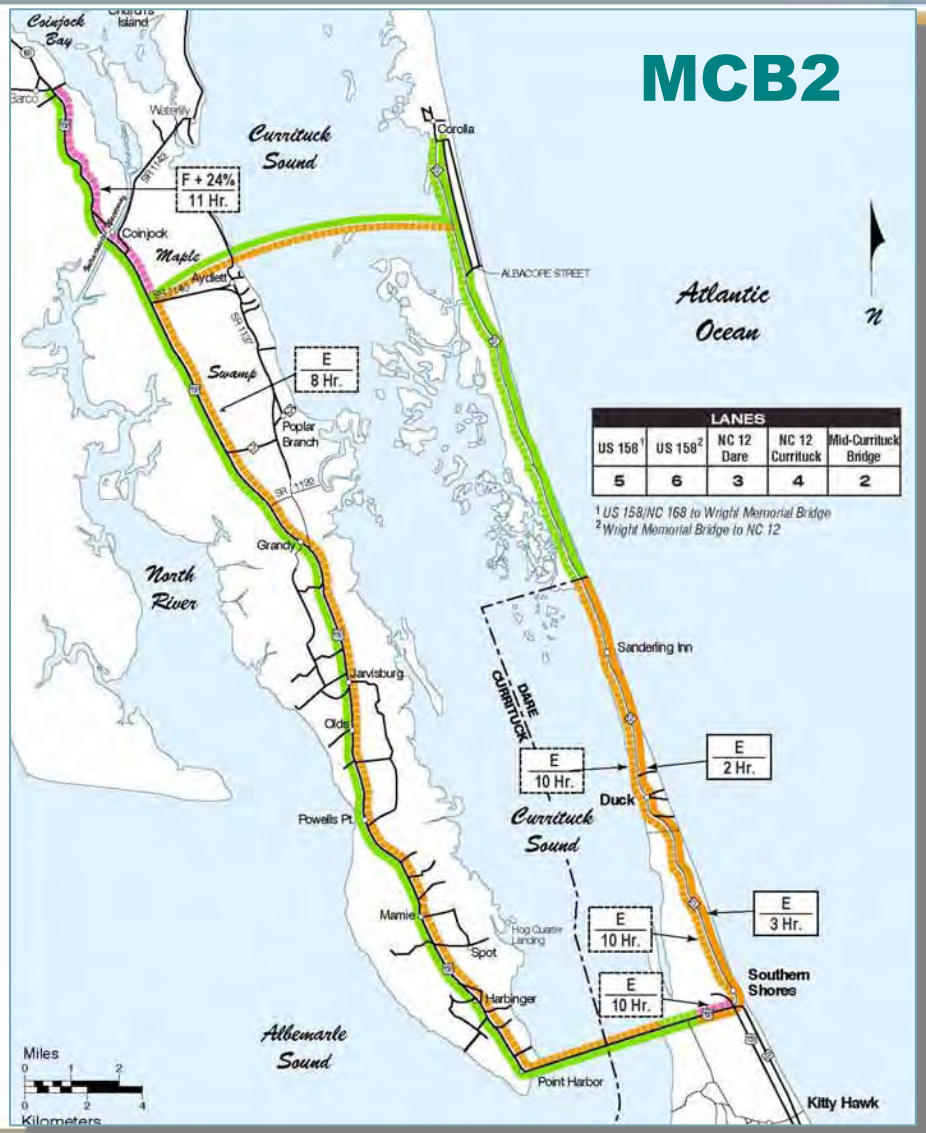
Mid-Currituck Bridge + Widenings

MCB1

MCB2

MCB1/MCB2 Travel Benefits





Mid-Currituck Bridge

MCB3

MCB4

Essential NC 12 Widening

- Needed to the intersection of Clubhouse Road to keep traffic from backing up through the intersection of NC 12 and the Mid-Currituck Bridge

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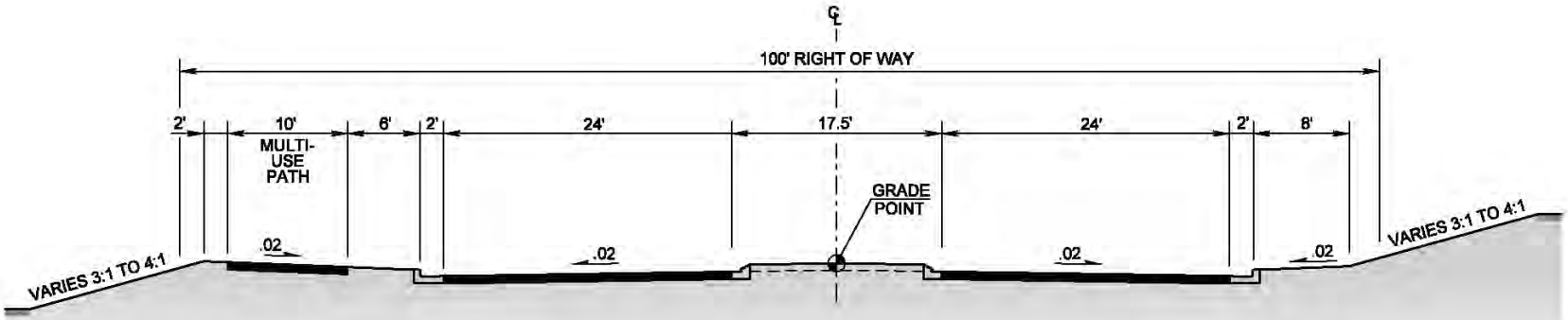
Essential NC 12 Widening

- Four 12-foot lanes
- 17.5-foot median
- 10-foot multi-use path
- Except for some minor grading, will fit within the existing 100-foot right-of-way



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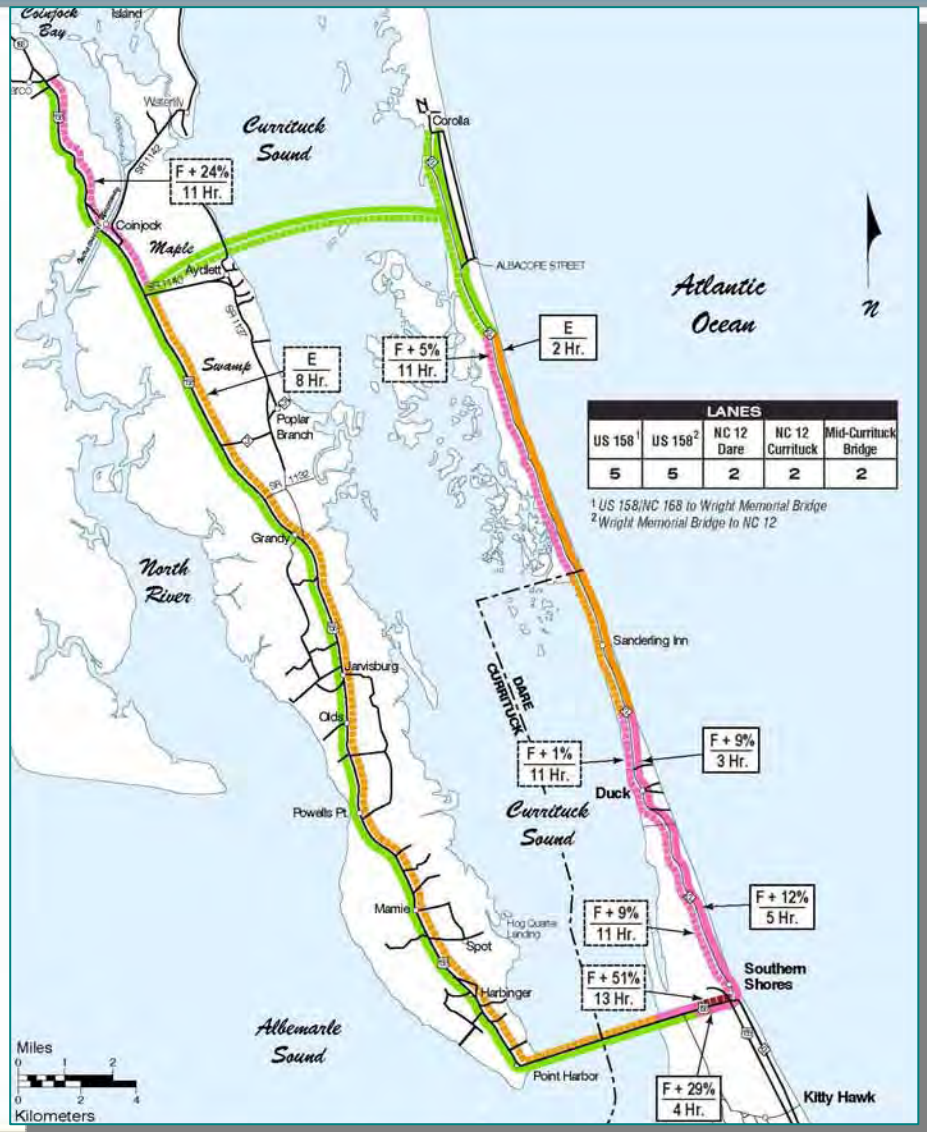
MCB3/MCB4 Travel Benefits



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Comparison

	ER1	ER2	MCB1	MCB2	MCB3	MCB4
Annual VMT	-0%	-0%	-13%	-13%	-13%	-13%
Annual Congested VMT	-59%	-23%	-64%	-50%	-43%	-43%
Average Summer Travel Time Via WMB	-48%	-19%	-53% +MCB	-44% +MCB	-31% +MCB	-31% +MCB
Clearance Time	21.4 to 27 hrs	21.4 to 27 hrs	21.4 to 27 hrs	21.4 to 27 hrs	26.2 to 27 hrs	21.4 to 27 hrs
Relocations	227	47	201	21	11	11
Wetlands Filled/Bridged	27.5/ 0.0	27.0/ 0.0	38.8/ 7.2	38.8/ 7.2	30.8/ 7.2	30.8/ 7.2
Cost (millions)	$656	$313	$938	$631	$469	$476
Toll Financing	No	No	Bridge	Bridge	Yes	Yes
	DROP				SELECT	

Agency Thoughts

- Retain ER2
  - Some travel benefit
  - Avoids major displacement in Dare County
  - Avoids natural resource impacts of Maple Swamp and Currituck Sound crossing
  - Potentially affects development patterns differently from a MCB
- Retain MCB2
  - Offers the best travel benefits while avoiding major displacement in Dare County

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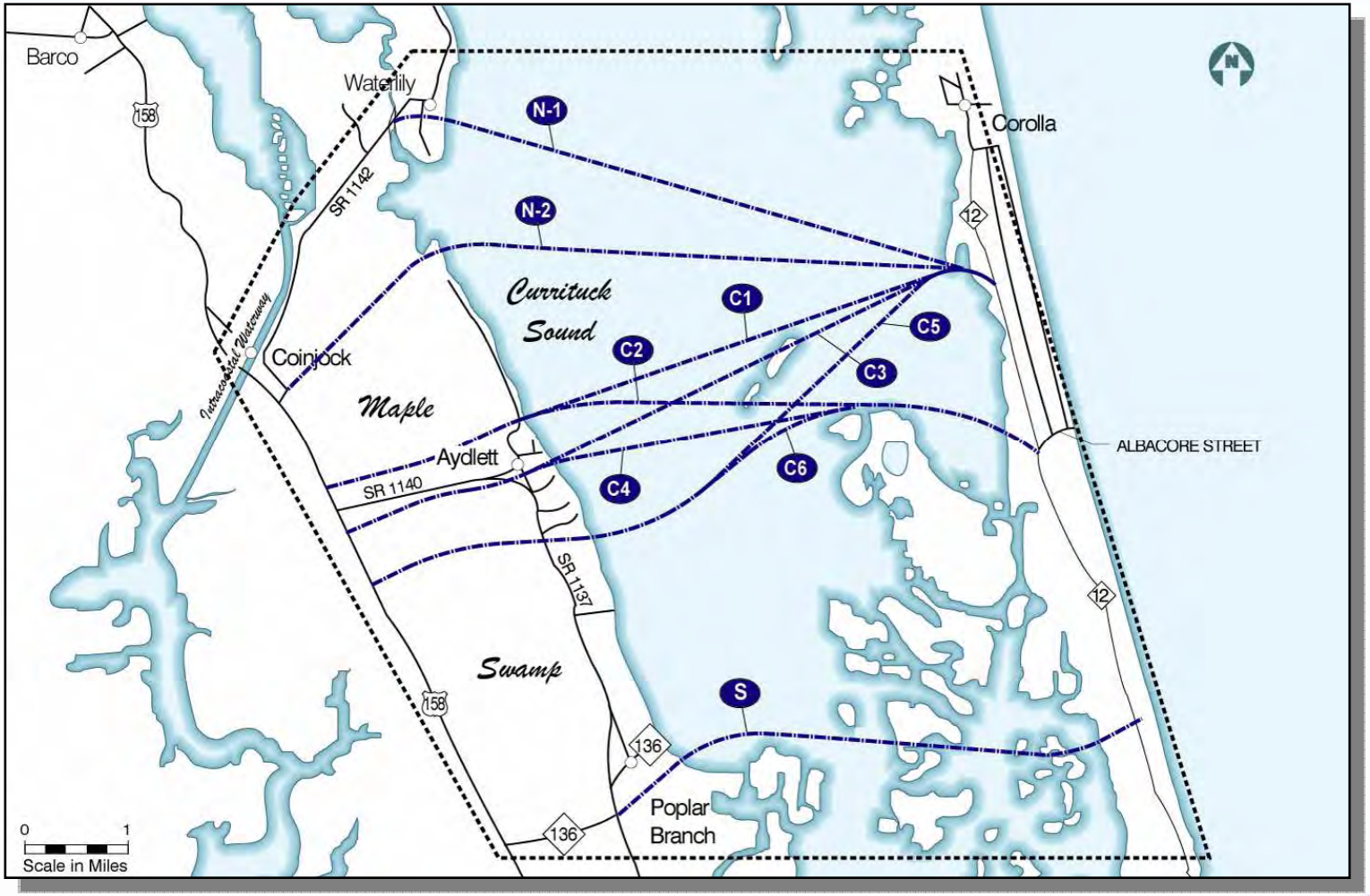
NCTA Detailed Study Alternatives

MCB3

MCB4

Bridge Corridor Alternatives



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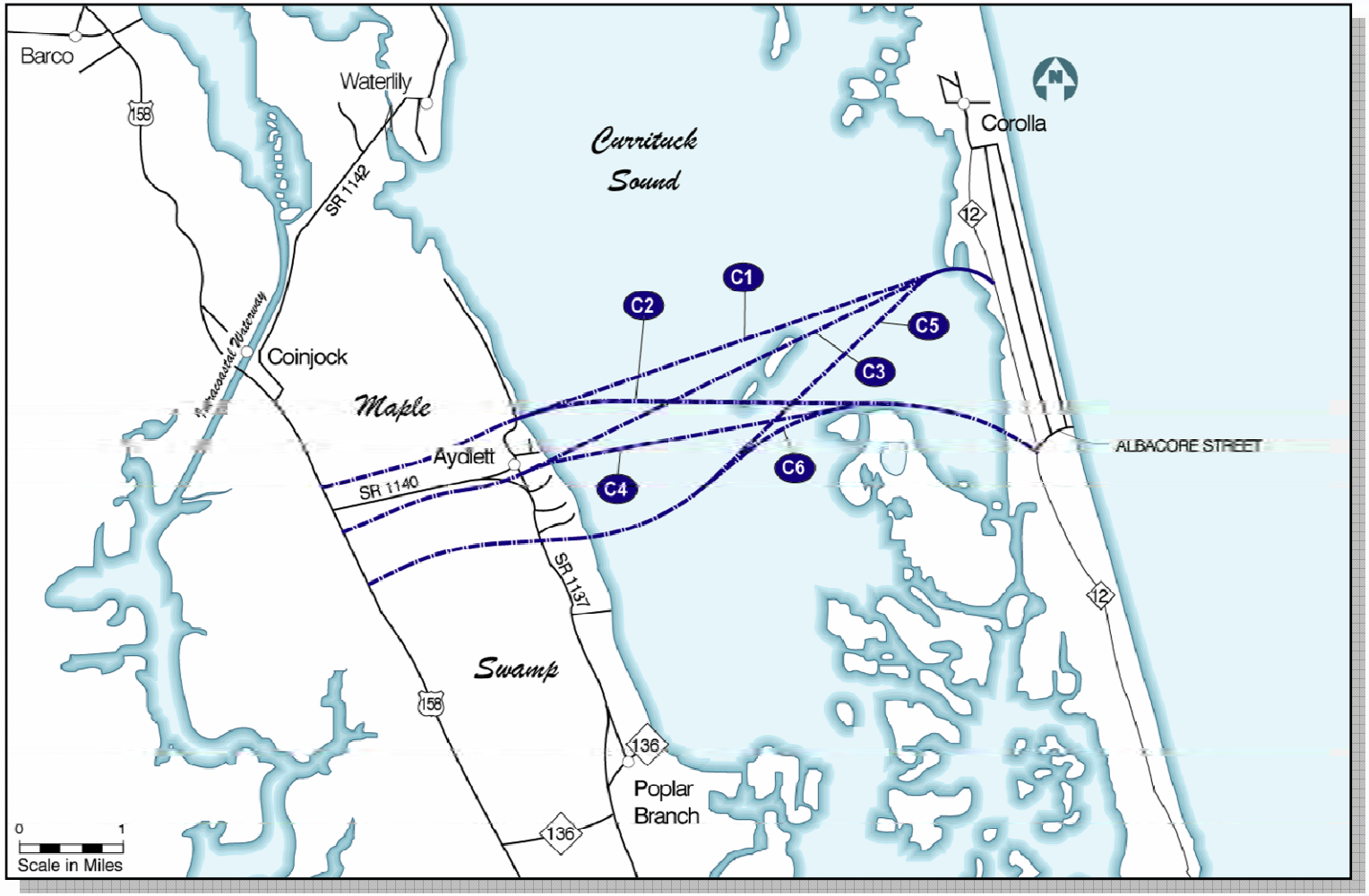
Bridge Corridor Alternatives



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Mainland Corridor Selection

- C1/C2
  - Best bal[illegible]tween minimizing Aydlett impacts and nat[illegible] resource impacts
- C3/C4
  - Substantial [illegible]s with both impacts to Aydlett and nat[illegible]sources
- C5/C6
  - Near southern edge of Aydlett
  - Passes thr[illegible]nique Bay Forest
  - New [illegible]agmentation
  - Like[illegible]ot permitable under Section 404 of the Clean Water Act

SELECT

DROP

DROP

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Outer Banks Corridor Selection

- C1
  - Affec[illegible]uthern end of new subdivision
  - Minimizes wetland impacts
- C2
  - End[illegible]mmercial area
  - [illegible]ades site selected for Official Map in the 1990's
  - Bridges wetlands and natural habitat

SELECT

SELECT

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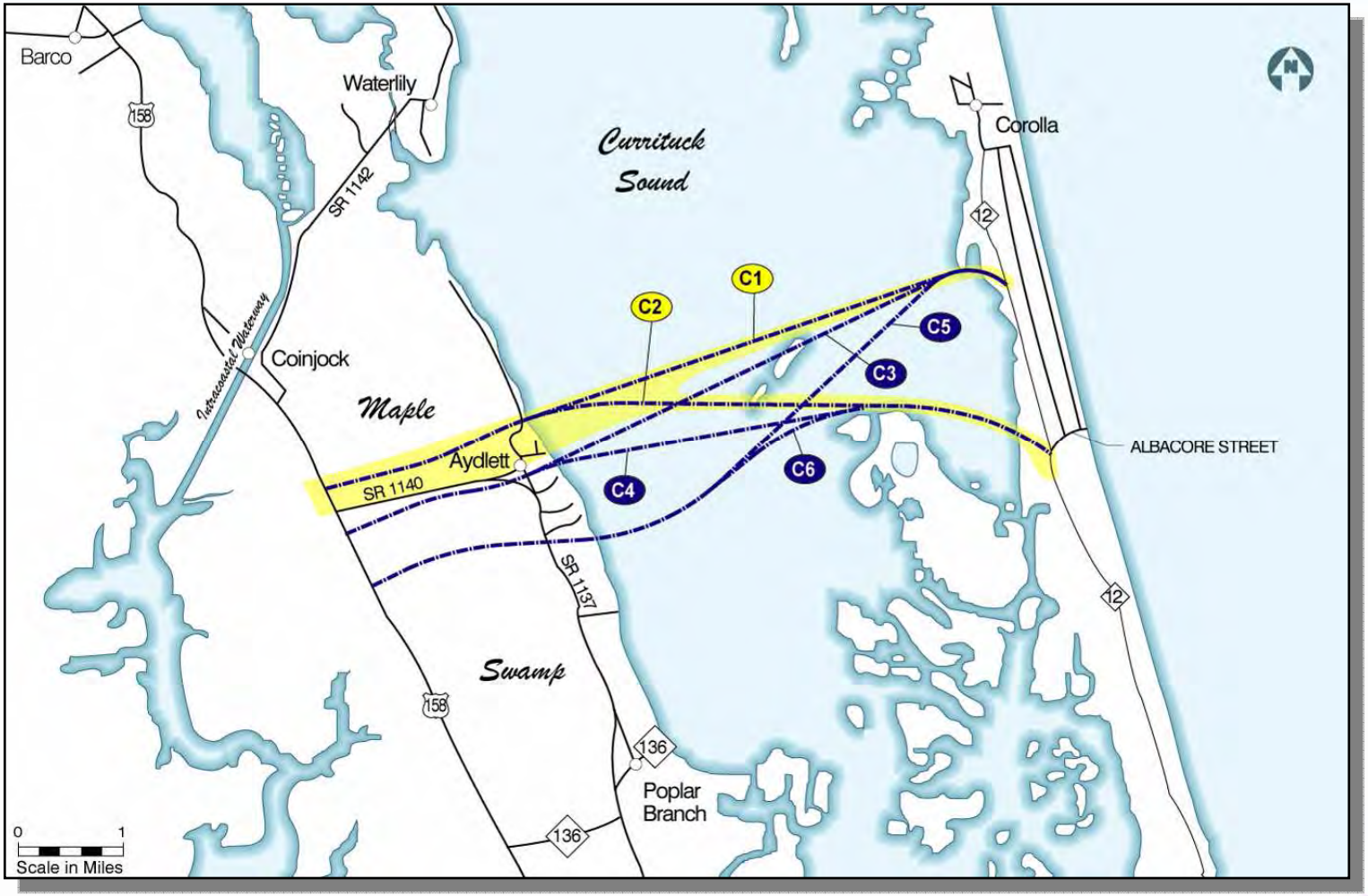
NCTA Detailed Study Bridge Corridors



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Interchange Alternatives

DROP

Trumpet Interchange Design

SELECT

Compressed Y Interchange Design

DROP

Partial Interchange/Intersection Design

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C1/C2 and NC 12 Access Changes

- With four-lane road
  - Median is now the NCDOT standard
  - Full breaks in the median at 1,200-foot intervals
- Where remains two-lane
  - No change in access is required

C2—South of TimBuckII

South of TimBuckII to Currituck Clubhouse Drive	
NC 12 to 4 Lanes	**2.1 miles**
Revised Access Points	**3 of 10**
Right In – Right Out Only	**3**
Leftovers	**0**

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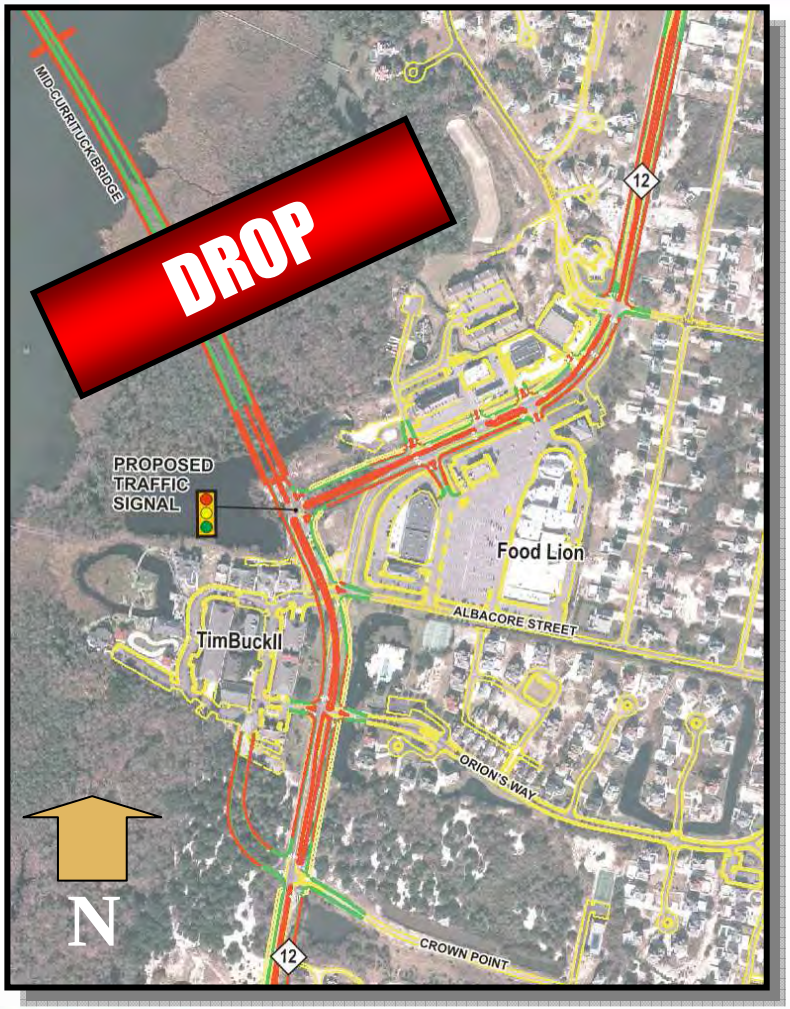
C2—North of TimBuckII



North of TimBuckII to Currituck Clubhouse Drive	
NC 12 to 4 Lanes	**2.5 miles**
Revised Access Points	**10 of 17**
Right In – Right Out Only	**8**
Leftovers	**2**

Official Map Site

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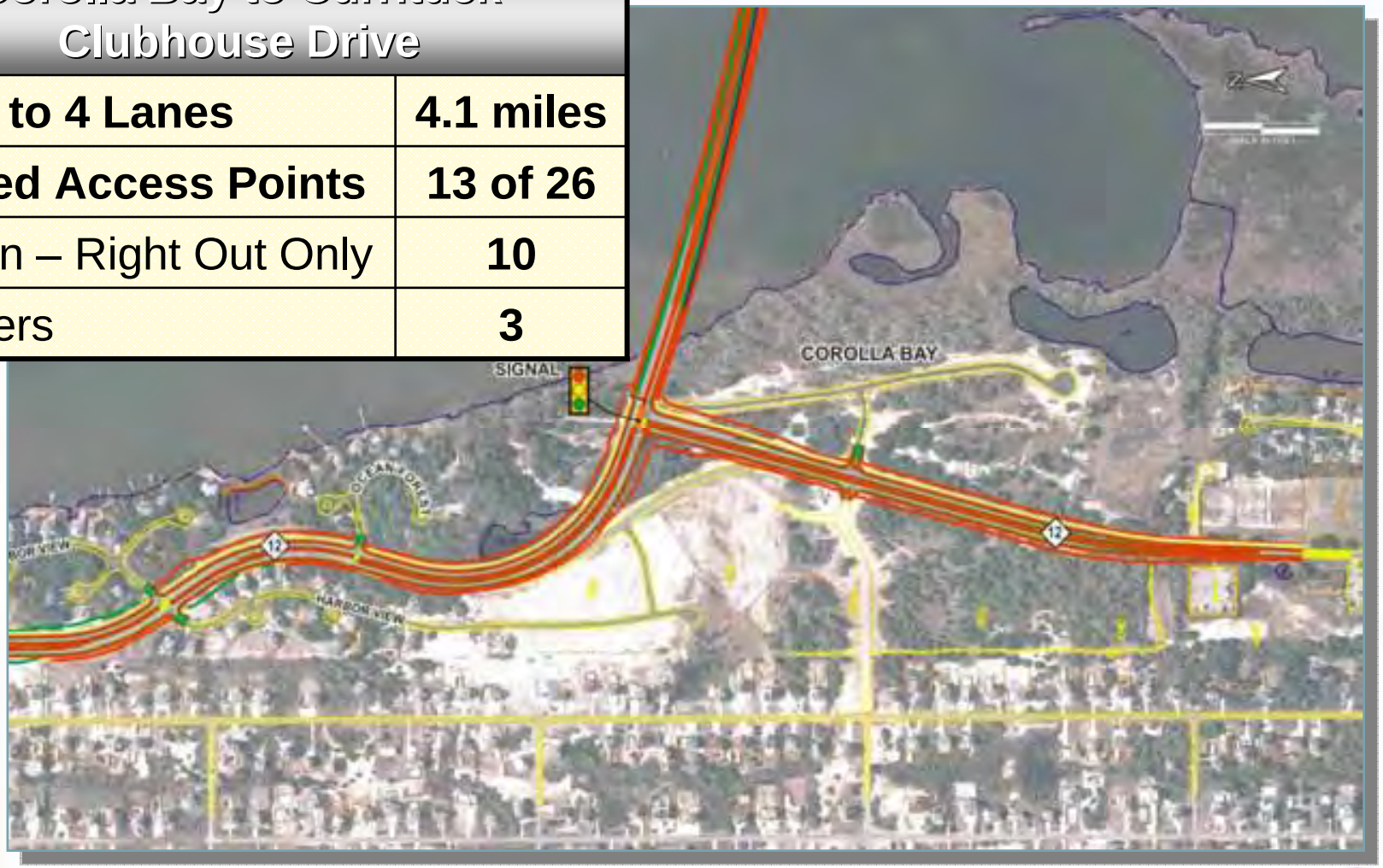
C1 Termini on Outer Banks

Corolla Bay to Currituck Clubhouse Drive	
NC 12 to 4 Lanes	**4.1 miles**
Revised Access Points	**13 of 26**
Right In – Right Out Only	**10**
Leftovers	**3**



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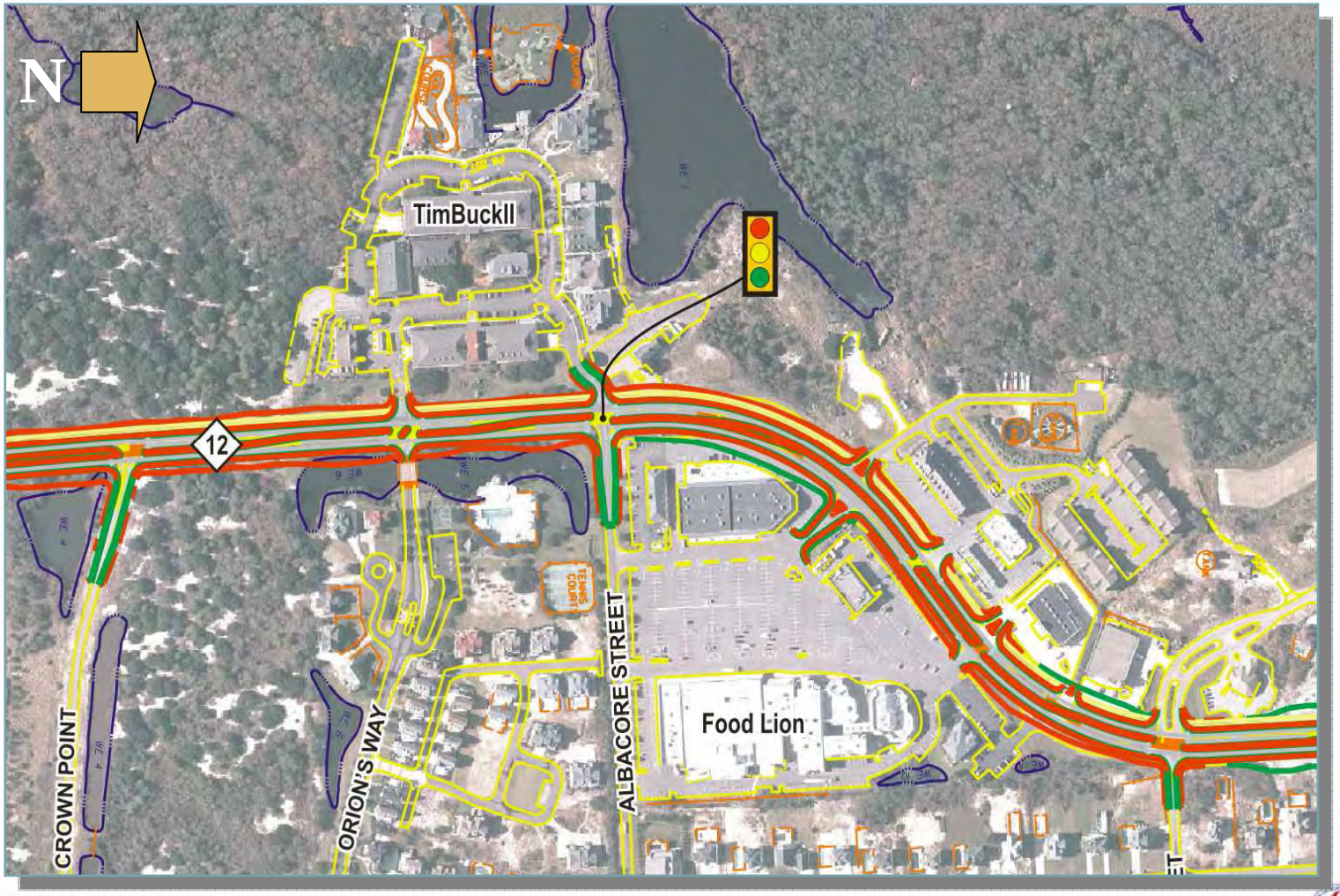
C1 NC 12 Widening at Food Lion



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Two-Lane Bridge Decision

- Substantially less expensive than a 4-lane bridge ($130 million to $200 million less)
- Provide acceptable summer weekend travel times
  - 2-Lane—38 mph and 12.6 minutes
  - 4-lane—54 mph and 8.9 minutes

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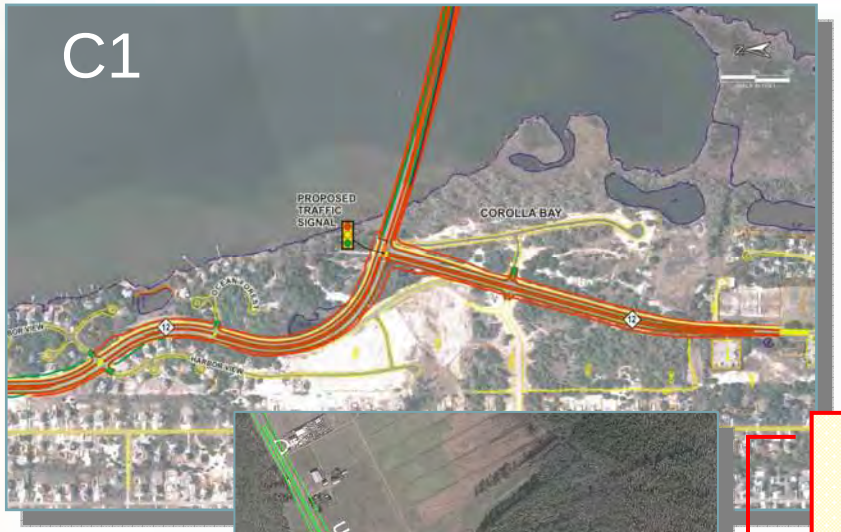
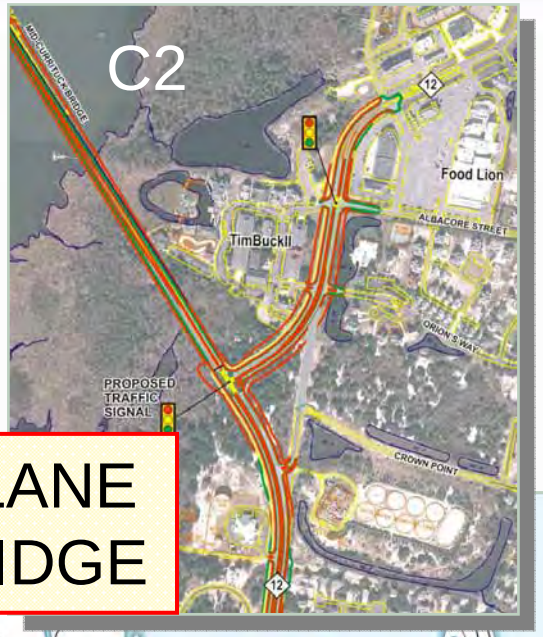
Bridge Alternatives





2-LANE BRIDGE

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Next Steps

- Obtain public comment on purpose and need and alternatives
- Complete purpose and need and alternatives decisions
- Prepare the Draft Environmental Impact Statement
- Public Hearings
- Select a Preferred Alternative

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Schedule

- Draft Environmental Impact Statement—**Summer 2008**
- Final Environmental Impact Statement—**May 2009**
- Record of Decision—**August 2009**
- Begin Construction—**October 2009**
- Project open to traffic—**Fall 2013**

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Why Toll Roads in North Carolina?

- Conventional funding not sufficient to meet all transportation needs
- 42% increase in population by 2030
- $65 billion gap between transportation needs and revenues
- Expedite roadway construction
- Provide less congested, higher speed routes

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North Carolina Turnpike Authority

- Created in 2002 to use alternative financing to pay for roads
- Authorized to plan, develop, construct, operate, and maintain up to 9 toll facilities
- Mid-Currituck Bridge adopted by NCTA in 2006

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Tolls for Mid-Currituck Bridge

- Cash and ETC accepted
- Toll rate has not been determined
  - Tolls may be relatively high due to unique nature of the bridge location and the potential toll customer market
  - Seasonal pricing and other pricing mechanisms may be considered to market the toll bridge

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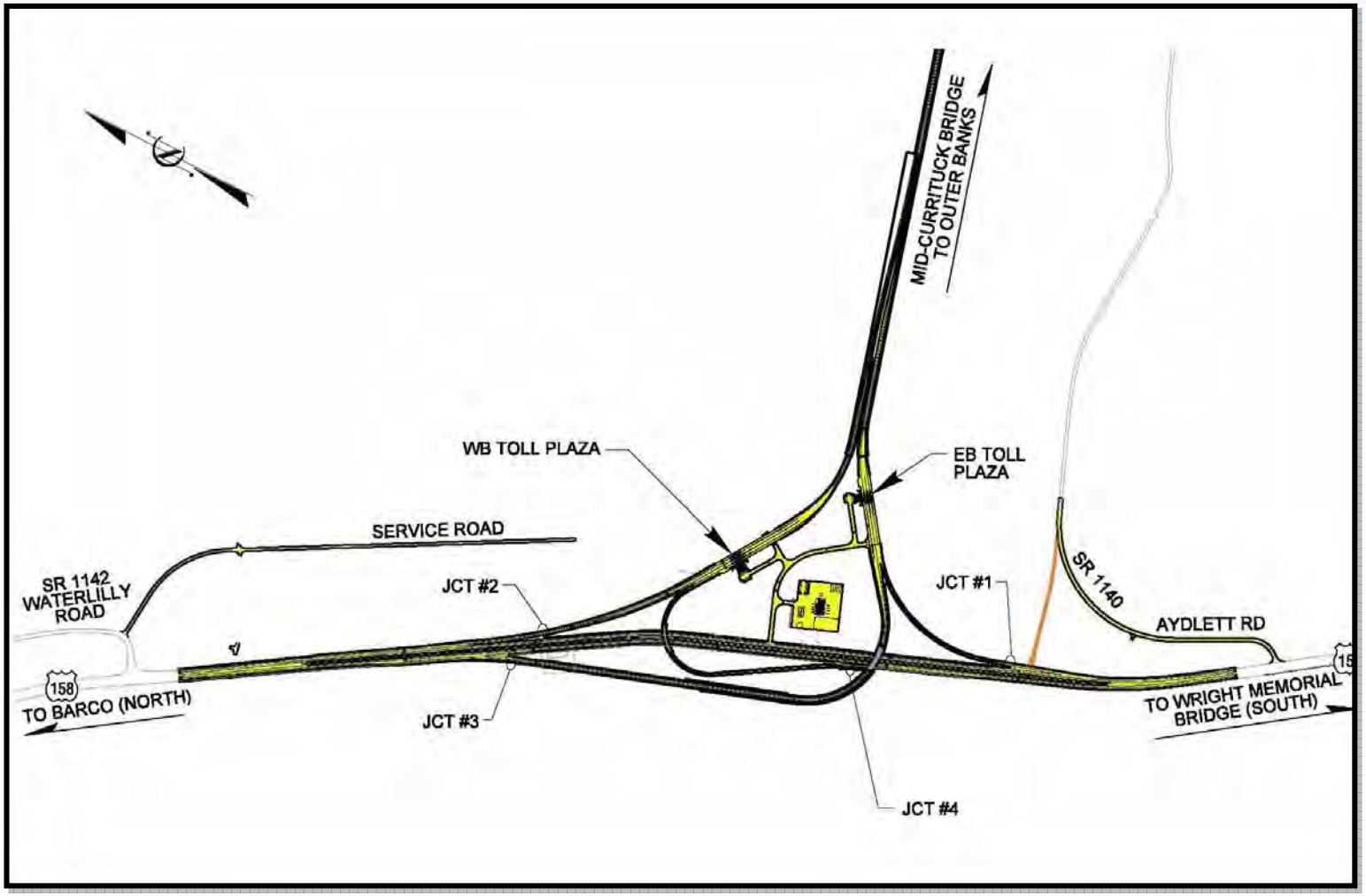
Mid-Currituck Bridge Toll Plaza



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Public Private Partnership (PPP)

- PPP
  - Contractual agreements formed between a public agency and private sector entity that allow for greater private sector participation in the delivery of transportation projects
- Long term lease agreement
  - Long term lease to a private sector concessionaire for a prescribed period during which they have the right to collect tolls on the facility
  - The private partner must operate and maintain the facility and in some cases make improvements to it

Pre-Development Agreement

- NCTA staff now authorized to issue a Request for Proposals for a pre-development agreement for the Mid-Currituck Bridge project.

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Questions

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