Mid-Currituck Bridge Project

Local Elected Officials Meeting

February 2008
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.
Workshop Goals

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

- 2035 Forecast Congestion
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
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
### 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**

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>No MCB</td>
<td>347.2</td>
<td>649.0</td>
</tr>
<tr>
<td>MCB with Tolls</td>
<td>297.4</td>
<td>556.3</td>
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<tr>
<td>Reduction with MCB</td>
<td>49.8</td>
<td>82.7</td>
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</tbody>
</table>
Project Type Alternatives

- Improve Efficiency of Existing Roads
  - Shifting Rental Times
  - Transportation Systems Management
  - Bus Transit
- Ferry
- Widen Existing Roads
- Mid-Currituck Bridge with various combinations of existing road widening
Widen Existing Roads Only
ER1/ER2 Travel Benefits
Mid-Currituck Bridge + Widenings
MCB1/MCB2 Travel Benefits
Mid-Currituck Bridge
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
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
MCB3/MCB4 Travel Benefits
## Comparison

<table>
<thead>
<tr>
<th></th>
<th>ER1</th>
<th>ER2</th>
<th>MCB1</th>
<th>MCB2</th>
<th>MCB3</th>
<th>MCB4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual VMT</td>
<td>-0%</td>
<td>-0%</td>
<td>-13%</td>
<td>-13%</td>
<td>-13%</td>
<td>-13%</td>
</tr>
<tr>
<td>Annual Congested VMT</td>
<td>-59%</td>
<td>-23%</td>
<td>-64%</td>
<td>-50%</td>
<td>-43%</td>
<td>-43%</td>
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<tr>
<td>Average Summer</td>
<td>-48%</td>
<td>-19%</td>
<td>-53% +MCB</td>
<td>-44% +MCB</td>
<td>-31% +MCB</td>
<td>-31% +MCB</td>
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<tr>
<td>Travel Time Via</td>
<td>21.4 to 27 hrs</td>
<td>21.4 to 27 hrs</td>
<td>21.4 to 27 hrs</td>
<td>21.4 to 27 hrs</td>
<td>26.2 to 27 hrs</td>
<td>21.4 to 27 hrs</td>
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<tr>
<td>Clearance Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Relocations</td>
<td>227</td>
<td>47</td>
<td>201</td>
<td>21</td>
<td>11</td>
<td>11</td>
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<tr>
<td>Wetlands Filled/Bridged</td>
<td>27.5/0.0</td>
<td>27.0/0.0</td>
<td>38.8/7.2</td>
<td>38.8/7.2</td>
<td>30.8/7.2</td>
<td>30.8/7.2</td>
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<tr>
<td>Cost (millions)</td>
<td>$656</td>
<td>$313</td>
<td>$938</td>
<td>$631</td>
<td>$469</td>
<td>$476</td>
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<tr>
<td>Toll Financing</td>
<td>No</td>
<td>No</td>
<td>Bridge</td>
<td>Bridge</td>
<td>Yes</td>
<td>Yes</td>
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</table>
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
NCTA Detailed Study Alternatives
Bridge Corridor Alternatives
Bridge Corridor Alternatives
Mainland Corridor Selection

- **C1/C2**
  - Best balance between minimizing Aydlett impacts and natural resource impacts

- **C3/C4**
  - Substantial concerns with both impacts to Aydlett and natural resources

- **C5/C6**
  - Near southern edge of Aydlett
  - Passes through unique Bay Forest
  - New habitat fragmentation
  - Likely not permitable under Section 404 of the Clean Water Act
Outer Banks Corridor Selection

- **C1**
  - Affects southern end of new subdivision
  - Minimizes wetland impacts

- **C2**
  - Ends in commercial area
  - Includes site selected for Official Map in the 1990’s
  - Bridges wetlands and natural habitat
NCTA Detailed Study Bridge Corridors
Interchange Alternatives

- **DROP**
  - Trumpet Interchange Design
  - Compressed Y Interchange Design
  - Partial Interchange/Intersection Design

- **SELECT**
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

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<thead>
<tr>
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<tbody>
<tr>
<td>NC 12 to 4 Lanes</td>
<td>2.1 miles</td>
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<tr>
<td>Revised Access Points</td>
<td>3 of 10</td>
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<tr>
<td>Right In – Right Out Only</td>
<td>3</td>
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<tr>
<td>Leftovers</td>
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C2—North of TimBuckII

North of TimBuckII to Currituck Clubhouse Drive

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<tbody>
<tr>
<td>NC 12 to 4 Lanes</td>
<td>2.5 miles</td>
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<tr>
<td>Revised Access Points</td>
<td>10 of 17</td>
</tr>
<tr>
<td>Right In – Right Out Only</td>
<td>8</td>
</tr>
<tr>
<td>Leftovers</td>
<td>2</td>
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Official Map Site
C1 Termini on Outer Banks

Corolla Bay to Currituck Clubhouse Drive

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<tbody>
<tr>
<td>NC 12 to 4 Lanes</td>
<td>4.1 miles</td>
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<tr>
<td>Revised Access Points</td>
<td>13 of 26</td>
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<tr>
<td>Right In – Right Out Only</td>
<td>10</td>
</tr>
<tr>
<td>Leftovers</td>
<td>3</td>
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C1 NC 12 Widening at Food Lion
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
Bridge Alternatives

C1

C2

2-LANE BRIDGE
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
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**
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
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
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
Mid-Currituck Bridge Toll Plaza
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
NCTA staff now authorized to issue a Request for Proposals for a pre-development agreement for the Mid-Currituck Bridge project.
Questions