Table 2.3
Alternatives Considered by the ACT
Interstate 73 EIS: I-95 to the Myrtle Beach Region

Alternative	Recommendation
1	Recommended for further study
2	Recommended for further study
3	Eliminated due to having high relocations
4	Eliminated due to having high wetland impacts and the second highest relocations
5	Recommended for further study
6	Eliminated due to having the highest wetland impacts
7	Recommended for further study
8	Eliminated due to having high wetland impacts and the highest relocations
9	Recommended for further study
10	Recommended for further study

limits, interchange boundaries, and bridge lengths were estimated to provide a more accurate representation of potential impacts. The categories discussed previously were utilized, as well as the following resources to evaluate the six alternatives in further detail:

- Streams (total crossings, perennial crossings, and intermittent crossings);
- Water Quality (Outstanding Resource Waters and 303(d) impaired waters);
- Floodplain acreage;
- Hazardous Material sites;
- Parks and Wildlife Refuges;
- Historical Structures;
- Areas with a High Probability for Archaeological sites (acres);
- Community impacts;
- Land Use;
- Economics;
- Noise;
- Uplands;
- Biotic Communities;
- Farmland (Prime, Unique, and Statewide Important);
- Air Quality;
- Indirect Impacts;
- Cumulative Impacts; and,
- Cost.

Recent aerial photography (2005) was used to update the National Wetland Inventory (NWI) mapping for a more accurate representation of potential wetland boundaries. In areas where wetland boundaries could not be readily distinguished on the aerial photography, ground-truthing was performed. Due to the wetland value being dependent on the type and size of the wetland being impacted, these categories

were subsequently updated with the modified wetland information for each alternative. Furthermore, projected impacts to species of concern, infrastructure facilities, and relocations were refined based on the preliminary construction limits.

As a result of the more detailed data, the USEPA and NOAA, through the ACT dispute resolution process, requested that Alternative 6 (refer to Figure 2-6, page 2-16), an alternative that was previously eliminated, be reconsidered as one of the Reasonable Alternatives to be evaluated further (January 19, 2006 ACT Meeting). The USEPA stated that in their opinion Alternative 6 compared favorably to the other alternatives that were to be evaluated in further detail. Concerns were raised by the USEPA that by not further evaluating Alternative 6 potential complications and/or delays in the NEPA and Section 404 processes could arise. Furthermore, USEPA stated that by including Alternative 6, agency and public perception that the alternative evaluation process was prematurely narrowed in scope may be avoided. NOAA requested the reinstatement of Alternative 6 due to lower number of stream crossings, potentially less habitat fragmentation by keeping alternatives closer to existing roadways, potentially lower indirect impacts on wetlands and riparian systems, and to prevent perception that alternatives were prematurely narrowed.

FHWA and SCDOT requested that another alternative that was also previously eliminated, Alternative 3 (refer to Figure 2-6, page 2-16), also be reconsidered as one of the Reasonable Alternatives to be evaluated further. SCDOT expressed concerns about potential future complications and/or delays by only reinstating Alternative 6, which had a high amount of potential wetland impacts, since Alternative 3 had substantially lower wetland impacts. Also, Alternative 3 would be the only combination of the remaining segments not included as one of the Reasonable Alternatives. All combinations of the remaining segments would be represented if both Alternatives 3 and 6 were reinstated (eliminating Alternatives 4 and 8 did away with an entire segment along U.S. Route 501 and S.C. Route 38 at the northern end of the project).

The ACT agreed to reinstate both Alternative 3 and Alternative 6. In addition, the crossing of the Little Pee Dee River in the vicinity of S.C. Route 917 was also revised to minimize impacts to wetlands. The initial alignment corridor traversed the Little Pee Dee River south of the existing S.C. Route 917 crossing to avoid the SCDNR Heritage Trust Preserve Vaughn Tract, which was a constraint. Impacting this property would create a Section 4(f) impact. However, by utilizing the existing crossing, the potential impact to wetlands would be reduced and the fragmentation of habitat would not occur in the Little Pee Dee River crossing. The ACT voted to continue with the alternative crossing the Little Pee Dee River on the existing S.C. Route 917 roadway (January 19, 2006 ACT Meeting). SCDNR stated that although they saw merit in this change, they could not approve this without the approval of the Heritage Trust Advisory Board. This shift resulted in a modification to the Alternative 5 and Alternative 10 alignments. As a result of the addition of two alternatives and the modification of two alternatives, the alternatives were renumbered as represented in Table 2.4 (page 2-19).

Table 2.4
Alternatives
Interstate 73 EIS: I-95 to the Myrtle Beach Region

Name	Action	Revised Name
1	None	Alternative 1
2	None	Alternative 2
3	Eliminated, then Reinstated	Alternative 8
4	Eliminated	---
5	Modified	Alternative 3
6	Eliminated, then Reinstated	Alternative 7
7	None	Alternative 4
8	Eliminated	---
9	None	Alternative 5
10	Modified	Alternative 6

Figures 2-7 through 2-14, (pages 2-21 to 2-28), illustrate the eight alternatives that were recommended for further analysis in the Draft Environmental Impact Statement, while Table 2.5, (page 2-29), depicts their respective impacts.

2.5 How were the eight Reasonable Alternatives evaluated to designate the Preferred Alternative?

Based on the information presented in Table 2.5, (page 2-29), each of the eight Reasonable Alternatives was evaluated to determine the Preferred Alternative. The Alternative Evaluation Criteria was used to compare the Reasonable Alternatives against one another. The Reasonable Alternatives were first evaluated against how well they addressed the needs for the project. In that regard, the Reasonable Alternatives, also referred to as the Build Alternatives, were generally very similar, they all provided interstate connectivity, the traffic benefits were relatively similar, they all provided similar economic benefits, the hurricane evacuation benefits would be virtually identical and they each provided for multimodal planning. Next, the Build Alternatives were evaluated based upon public input, agency concerns, and benefits and impacts that would result from each of them. After careful consideration of all of these factors, a Preferred Alternative could be identified.

2.5.1 How would the alternatives meet the primary needs of the project?

There are eight reasonable Build Alternatives and the No-build Alternative. The No-build Alternative does not satisfy the purpose and need for the project, but would not result in some of the impacts that the Build Alternatives would. The purpose of the project is to connect the Myrtle Beach region to the interstate system to improve economic opportunities and tourism in the project study area, help reduce congestion on the existing traffic network, provide multimodal planning, and improve the efficiency of hurricane evacuation. The No-build Alternative would not meet any of these needs. At the same time, it would not result in the changes of land use, impacts to wetlands, noise impacts, for example, that the Build Alternatives would.

How do the alternatives meet the primary need of system linkage?

It is essential that the project improve national and regional connectivity by providing a direct link between I-95 and the Myrtle Beach region. Each of the eight Build Alternatives would provide the direct link stated as one of the project's primary needs. This direct link would reduce the travel time between Myrtle Beach and I-95. As shown in Figures 2-15 to 2-23, (pages 2-30 to 2-38), and Table 2.6, the travel times between U.S. Route 17 and I-95 would

Table 2.6
Minimum Trip Time Between U.S. Route 17 and I-95 in Year 2030
Interstate 73 EIS: I-95 to the Myrtle Beach Region

	No-build	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 8
Minimum Travel Time (Minutes)	75-80	60-65	60-65	55-60	60-65	55-60	55-60	55-60	60-65

decrease from between 10 to 15 minutes for the approximately 65 miles. This means that with I-73, the trip could take 55-65 minutes, whereas without I-73 the trip would take 75-80 minutes,

based upon the average annual daily traffic volume. This same trip would result in similar time savings during the peak season.

How do the alternatives meet the primary need of economic development?

The other primary need identified was the ability to enhance economic opportunities and tourism in South Carolina. An analysis was performed that examined two sources of potential economic impacts arising from I-73: travel efficiencies and strategic development benefits. The economic impact evaluation involves the estimation of the nature and magnitude of potential transportation efficiency gains and an assessment of the strategic development economic impact.

In general, there are four categories of benefits that arise from transportation investments including:

- Travel Efficiencies: Benefits that accrue to potential facility users upon project completion. These are measured in terms of travel time savings, vehicle operating cost savings, accident savings and emission benefits.
- Construction Impacts: Impacts that arise as a result of the expenditures on local labor and materials to build the facility.
- Operating and Maintenance Impacts: Benefits that arise from the expenditures on local labor and supplies to operate and maintain the facility upon completion.
- Strategic Development Impacts: The economic development impacts associated with attracting and retaining business activity as a result of increased accessibility, mobility and connectivity.

Lake View
Dillon
Nichols
Loris
North Myrtle Beach
Latta
Mullins
Marion
Aynor
Conway
Myrtle Beach
Surfside Beach
9
41
57
76
95
38
501
301
917
410
701
905
22
319
378

Legend

- Cemetery (SCDOC)
- City
- Eligible/Potentially Eligible NHRP Sites (SHPO)
- Landfills (SCDHEC)
- NPS/SPL Superfund Sites (SCDHEC)
- Schools (SCDOC)
- Airports (SCDNR)
- Interstate
- Highway
- Alternative Construction Limit
- All Current Alternatives
- Carolina Bays
- Site Eligible for National Register
- Mitigation Banks and Sites (SCDHEC)
- Mines (SCDHEC)
- NHRP Historic Districts (SHPO)
- Parks (SCDNR & SCPRT)
- Refuges (SCDNR)
- Heritage Preserves (SCDNR)
- Municipal Boundary
- County Boundary

0 4 8 12 Miles

N E W S

FIGURE 2-7

ALTERNATIVE 1

Lake View
Dillon
Nichols
Loris
North Myrtle Beach
Latta
Mullins
Marion
Aynor
Conway
Myrtle Beach
Surfside Beach

9
41
57
76
95
38
501
301
917
410
701
905
22
319
378

Legend

- Cemetery (SCDOC)
- City
- Eligible/Potentially Eligible NHRP Sites (SHPO)
- Landfills (SCDHEC)
- NPS/SPL Superfund Sites (SCDHEC)
- Schools (SCDOC)
- Airports (SCDNR)
- Interstate
- Highway
- Alternative Construction Limit
- All Current Alternatives
- Carolina Bays
- Site Eligible for National Register
- Mitigation Banks and Sites (SCDHEC)
- Mines (SCDHEC)
- NHRP Historic Districts (SHPO)
- Parks (SCDNR & SCPRT)
- Refuges (SCDNR)
- Heritage Preserves (SCDNR)
- Municipal Boundary
- County Boundary

0 4 8 12 Miles

N E W S

FIGURE 2-8

ALTERNATIVE 2

Lake View
Dillon
Nichols
Loris
North Myrtle Beach
Latta
Mullins
Marion
Aynor
Conway
Myrtle Beach
Surfside Beach
9
41
57
76
95
38
501
301
319
701
917
410
905
22
378

Legend

- Cemetery (SCDOC)
- City
- Eligible/Potentially Eligible NHRP Sites (SHPO)
- Landfills (SCDHEC)
- NPS/SPL Superfund Sites (SCDHEC)
- Schools (SCDOC)
- Airports (SCDNR)
- Interstate
- Highway
- Alternative Construction Limit
- All Current Alternatives
- Carolina Bays
- Site Eligible for National Register
- Mitigation Banks and Sites (SCDHEC)
- Mines (SCDHEC)
- NHRP Historic Districts (SHPO)
- Parks (SCDNR & SCPRT)
- Refuges (SCDNR)
- Heritage Preserves (SCDNR)
- Municipal Boundary
- County Boundary

0 4 8 12 Miles

N E W S

FIGURE 2-9

ALTERNATIVE 3

Lake View
Dillon
Nichols
Loris
North Myrtle Beach
Latta
Mullins
Marion
Aynor
Conway
Myrtle Beach
Surfside Beach
9
41
57
76
95
38
501
301
917
410
701
905
22
319
378

Legend

- Cemetery (SCDOC)
- City
- Eligible/Potentially Eligible NHRP Sites (SHPO)
- Landfills (SCDHEC)
- NPS/SPL Superfund Sites (SCDHEC)
- Schools (SCDOC)
- Airports (SCDNR)
- Interstate
- Highway
- Alternative Construction Limit
- All Current Alternatives
- Carolina Bays
- Site Eligible for National Register
- Mitigation Banks and Sites (SCDHEC)
- Mines (SCDHEC)
- NHRP Historic Districts (SHPO)
- Parks (SCDNR & SCPRT)
- Refuges (SCDNR)
- Heritage Preserves (SCDNR)
- Municipal Boundary
- County Boundary

0 4 8 12 Miles

N W E S

FIGURE 2-10

ALTERNATIVE 4

Lake View
Dillon
Nichols
Loris
North Myrtle Beach
Latta
Mullins
Marion
Aynor
Conway
Myrtle Beach
Surfside Beach
9
41
57
76
95
917
410
701
905
22
38
501
301
319
378

Legend

- Cemetery (SCDOC)
- City
- Eligible/Potentially Eligible NHRP Sites (SHPO)
- Landfills (SCDHEC)
- NPS/SPL Superfund Sites (SCDHEC)
- Schools (SCDOC)
- Airports (SCDNR)
- Interstate
- Highway
- Alternative Construction Limit
- All Current Alternatives
- Carolina Bays
- Site Eligible for National Register
- Mitigation Banks and Sites (SCDHEC)
- Mines (SCDHEC)
- NHRP Historic Districts (SHPO)
- Parks (SCDNR & SCPRT)
- Refuges (SCDNR)
- Heritage Preserves (SCDNR)
- Municipal Boundary
- County Boundary

0 4 8 12 Miles

N E W S

FIGURE 2-11

ALTERNATIVE 5