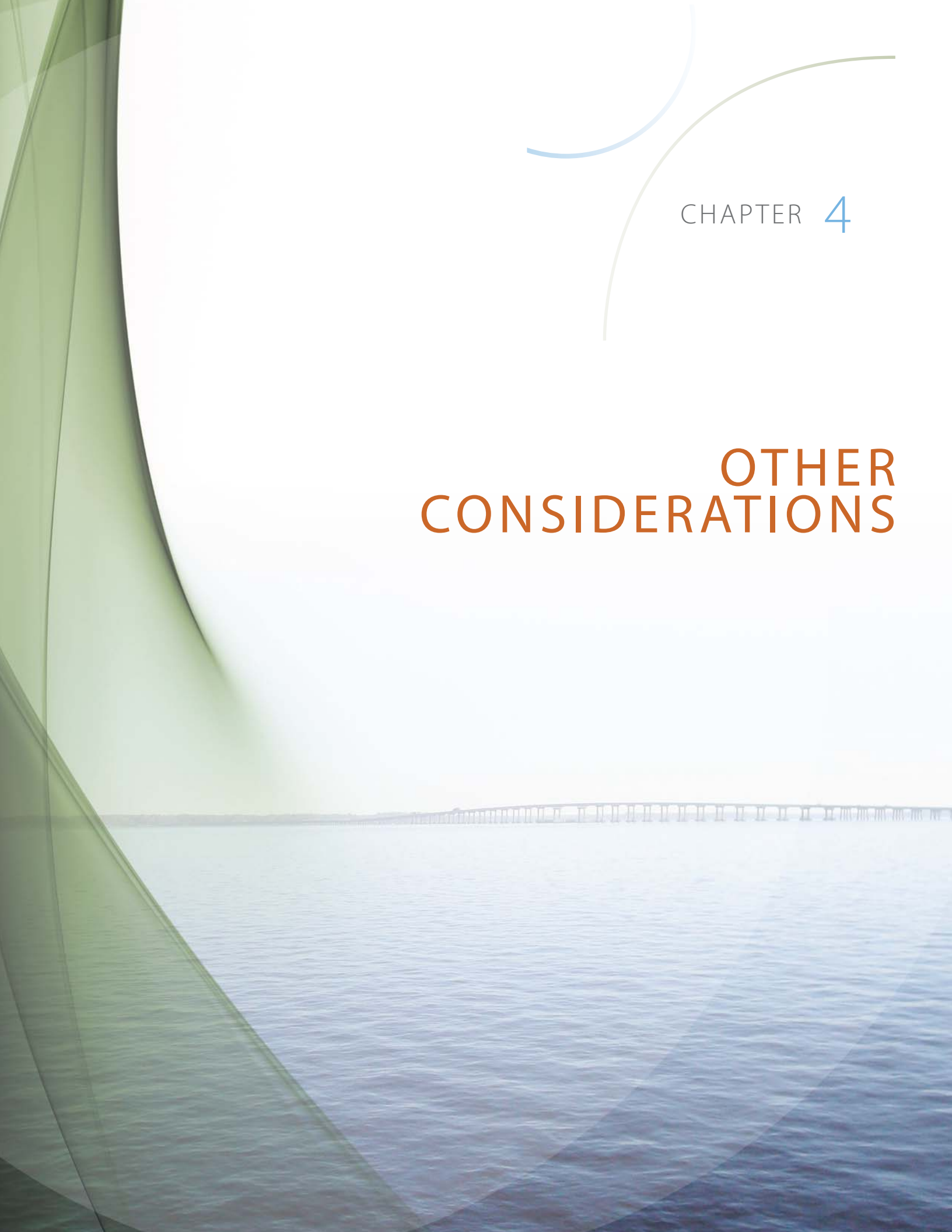




CHAPTER 4

OTHER CONSIDERATIONS



This chapter looks at considerations other than project impacts: irreversible decisions the project would entail, tradeoffs between short-term resource use and long-term gains, permitting and adverse effects that cannot be mitigated.

4.1 WHAT OTHER CONSIDERATIONS DID FDOT EXAMINE?

Beyond the potential impacts the proposed project may have on both the natural and built environment, the decision makers responsible for selecting the Preferred Alternative need to consider other matters as well. These can vary from project to project, and sometimes involve matters of local importance that may not be involved elsewhere in the analysis. This chapter examines some additional topics considered by the Florida Department of Transportation (FDOT) during their analysis of the St. Johns River Crossing Project.

4.1.1 What irreversible decisions or irretrievable resources would be committed to building the project?

Irretrievable resources that will be committed to this project include the acquisition and use of additional land both east and west of the St. Johns River. While the land could be converted to another use in the future if the project were not built, there is no basis at present to predict whether such a conversion would ever be necessary or desirable.

The St. Johns River Crossing Project will also expend fossil fuels, labor, and highway construction materials such as cement, aggregate, and bituminous material. In addition, projects of this size use large amounts of labor and natural resources in the fabrication and preparation of non-retrievable construction materials. Recent demands in the years following Hurricane Katrina (fall of 2005) reduced the supply of some construction materials. This temporary shortage has resulted in increased construction cost estimates for the Build Alternatives. High demands from the expanding Chinese economy have also affected the availability of steel and other resources, including fossil fuels. However, it is not anticipated that the quantity of materials required to build the proposed St. Johns River Crossing Project will have an adverse effect upon the continued availability of these resources.

The residents and travelers in the area will benefit from the commitment of these resources and the improved quality of the transportation system, as the project will improve existing and future travel conditions, promote local economic development, and provide greater safety during times of emergency evacuation.

4.1.2 What are the tradeoffs between the short-term uses of environmental resources and long-term gains from the project?

The short-term costs of the St. Johns River Crossing Project will include a number of years of construction, creating noise, dust, and traffic congestion as well as the consumption of energy. The long-term cost of not improving the highway corridor and bridge crossing will be substantial and will result in worsening traffic congestion along with additional energy use, regional and local economic losses as residents continue commuting outside their home counties, and inadequate conditions during times of emergency evacuation.

4.1.3 What major permits would be needed to build the project?

The United States Army Corps of Engineers (USACE) and the St. Johns River Water Management District (SJRWMD) regulate wetlands within the study area. The United States Fish and Wildlife Service, the National Marine Fisheries Service, and the Florida Fish and Wildlife Conservation Commission (FWC) will review and comment on the wetland permit applications. It is currently anticipated that the major permits shown in **Exhibit 4-1** will be required for this project.

Exhibit 4-1: **Major Permits Required**

Permit	Agency
Environmental Resource Permit (ERP)	SJRWMD
Section 404 Dredge and Fill Permit	USACE
National Pollutant Discharge Elimination System Permit (NPDES)	FDEP
Section 9 Bridge Permit	USCG
Gopher Tortoise Relocation Permit	FWC

The complexity of the permitting process depends greatly on the degree of impact. The SJRWMD requires an Environmental Resource Permit when construction of any project results in the creation of a water management system or isolated wetlands or an impact to “waters of the State.” The district will require an individual permit along with mitigation since wetland impacts will be greater than one acre.

The USACE will also require an individual permit in compliance with the Section 404(b)(1) guidelines of the Clean Water Act, including verification that:

- All impacts have first been avoided to the greatest extent possible,
- Unavoidable impacts have been minimized to the greatest extent possible, and
- Unavoidable impacts have been mitigated in the form of wetlands creation, restoration, and/or enhancement.

The Florida Department of Environmental Protection (FDEP) requires that any project that results in the clearing of five or more acres of land also obtain a National Pollutant Discharge Elimination System (NPDES) permit pursuant to 40 CFR parts 122 and 124. In association with this permit, they would also require a Stormwater Pollution Prevention Plan that would be implemented during the construction of the project. The primary functions of the NPDES requirements are to ensure that sediment and erosion during construction are controlled. These permits typically utilize Best Management Practices to ensure compliance.

A Section 9 Bridge Permit from the United States Coast Guard (USCG) is needed for construction of a bridge over navigable waters, which in this case would include the St. Johns River and Black Creek.

During construction, the contractor will likely use borrow pits in the project area to provide fill for roadway construction. In accordance with FDOT procedures, the contractor will be responsible for obtaining necessary permits for such uses, which may vary depending on borrow sites selected. The contractor will be required to obtain appropriate cultural resources clearances for any borrow sites, including conducting any necessary site investigations and consultation with the State Historic Preservation Officer. In the case of threatened and endangered species clearances, however, FDOT will be responsible for these clearances, if necessary, including consultation with the appropriate resources agencies.

4.1.4 Are there any impacts that will remain even after mitigation?

Most transportation projects, even projects that provide substantial public benefits, have some negative effects on the natural and/or the built environ-

ment. FDOT and the Federal Highway Administration (FHWA) are strongly committed to avoiding, minimizing, and mitigating such effects whenever practicable. Nevertheless, the St. Johns River Crossing Project will have several adverse impacts that will remain even after the implementation of mitigation measures. These include:

- Fill and shading impacts on the St. Johns River: A new bridge will increase both fill and shading, particularly in the near-shore waters and wetlands areas, and could have the potential to reduce wetland and aquatic habitat. While these effects would be mitigated, the existing habitat would be altered.
- Visual effects of the roadway and higher bridge structure: The St. Johns River Crossing Project is considered a “greenfield” project, meaning that it will be built along a corridor where a road does not currently exist. Constructing it would make the area look considerably different than it does today. While existing vegetation will be left where possible adjacent to the highway to enhance aesthetics, some people will likely consider at least some of the visual changes created by the new highway to be adverse. If either the Black or Purple Alternative is selected as the Preferred Alternative, a bridge over the St. Johns River would be constructed in a new location. Other than designing an attractive bridge structure, there is little else that can be done to mitigate the visual impacts on users of the river and its banks in the project area.
- Risks to Navigation: Construction of a new bridge at a location where no bridge now exists adds an element of risk for navigation. There is no history of marine accidents in the project area or with the bridges upstream or downstream. Nonetheless, a risk of collision by a vessel while underway or drifting out of control results from any structure being placed in a navigable waterway.
- Residential and business relocations: Although the Conceptual Stage Relocation Plan has determined that there are sufficient properties in the area to accommodate the relocations that will be needed for the project, having to move is always a hardship on a family or business, and will pose some issues that cannot be mitigated simply by providing a new residence or place of business.
- Loss and fragmentation of wildlife habitat: Construction of any project in this area will reduce and fragment existing habitat, and development in the project area will increase the rate at which this habitat degradation will occur.

- Increases in noise: Constructing a new roadway through areas of mainly rural development will increase noise levels throughout the project area. Although the construction of noise barriers was analyzed, none were found to be either prudent or feasible.
- Impacts to community cohesion and changes to the social quality of the area: The nature of the project area continues to become more residential, and this trend will continue regardless of whether the project is constructed. However, construction of the project could increase the rate at which this would occur. These changes will affect the feel of the various communities in the project area, ultimately changing their quality of life.

4.1.5 What are the future traffic impacts to I-95?

All of the Build Alternatives will connect to Interstate 95 (I-95) in St. Johns County at one or more locations. Potential traffic impacts to I-95 between the SR 16 interchange and I-295 were investigated by separating this section of I-95 into segments. The colors shown in **Exhibit 4-2** represent the colored segments shown in **Exhibit 4-3**. These segments were analyzed using the traffic from the *St. Johns River Crossing Traffic Analysis Report*, located on the enclosed CD. I-95 was analyzed at its existing condition, as a six lane facility. The results of the analysis are shown in **Exhibit 4-2**. This table shows the last year that each segment of I-95 is at a particular level of service (LOS). For example, I-95 between International Golf Parkway and SR 16 will have a LOS C until year 2032 for the Orange 1 and 2 Alternatives. The dashes (“-”) shown in the table indicate that the last year at that LOS is before 2015, which is the first traffic analysis year. The asterisks (“*”) shown in the table denote that the last year at that LOS is beyond 2035, which is the last traffic analysis year. Since all of the segments have a LOS lower than LOS B by 2015, the table begins with LOS C. The data presented in **Exhibit 4-2** is presented graphically in Appendix C of the *St. Johns River Crossing Traffic Analysis Report*, included on the enclosed CD.

Each section of I-95 is affected differently by each alternative. Some sections are benefited and some are impacted. The Black Alternative does not deteriorate the I-95 LOS; rather it provides an improvement to the LOS by as much as seven years. The affects of the Purple Alternative and the Brown 1 and 2 Alternatives to I-95 are similar. They vary from degrading the LOS by one year in one section to improving the LOS by eight years in another section. The Orange 1 and 2 Alternatives do not degrade the LOS; instead they im-

Exhibit 4-2: Future I-95 Levels of Service

Scenario	Direction	I-95 Mainline Segment		Last Year at Level of Service			
		From	To	C	D	E	F
No Build	Northbound	SR 16	Int'l Golf Pkwy	2030	2035	*	*
		Int'l Golf Pkwy	CR 210	2016	2030	2035	*
		CR 210	SR 9B	-	2022	2030	2035
		SR 9B	St. Aug. Rd	-	2017	2026	2035
		St. Aug. Rd	I-295	-	-	-	2035
	Southbound	I-295	St. Aug. Rd	-	-	-	2035
		St. Aug. Rd	SR 9B	-	2017	2026	2035
		SR 9B	CR 210	-	2022	2029	2035
		CR 210	Int'l Golf Pkwy	2016	2030	2035	*
		Int'l Golf Pkwy	SR 16	2029	2035	*	*
Black Alternative	Northbound	SR 16	Int'l Golf Pkwy	2031	2035	*	*
		Int'l Golf Pkwy	SR 23	2021	2032	2035	*
		SR 23	CR 210	2023	2034	2035	*
		CR 210	SR 9B / SR 23	2021	2028	2035	*
		SR 9B / SR 23	St. Aug. Rd	-	-	2028	2035
		St. Aug. Rd	I-295	-	-	-	2035
	Southbound	I-295	St. Aug. Rd	-	-	-	2035
		St. Aug. Rd	SR 9B / SR 23	-	-	2028	2035
		SR 9B / SR 23	CR 210	2021	2028	2035	*
		CR 210	SR 23	2023	2034	2035	*
Purple Alternative	Northbound	SR 16	Int'l Golf Pkwy	2029	2035	*	*
		Int'l Golf Pkwy	CR 210	2020	2030	2035	*
		CR 210	SR 9B / SR 23	2019	2027	2033	2035
		SR 9B / SR 23	St. Aug. Rd	-	-	2025	2035
		St. Aug. Rd	I-295	-	-	-	2035
	Southbound	I-295	St. Aug. Rd	-	-	-	2035
		St. Aug. Rd	SR 9B / SR 23	-	-	2027	2035
		SR 9B / SR 23	CR 210	2021	2030	2035	*
		CR 210	Int'l Golf Pkwy	2023	2035	*	*
		Int'l Golf Pkwy	SR 16	2035	2037	*	*
Brown 1 and 2 Alternatives	Northbound	SR 16	Int'l Golf Pkwy	2032	*	*	*
		Int'l Golf Pkwy	CR 210	2021	2034	2035	*
		CR 210	SR 9B / SR 23	2019	2028	2035	*
		SR 9B / SR 23	St. Aug. Rd	-	-	2025	2035
		St. Aug. Rd	I-295	-	-	-	2035
	Southbound	I-295	St. Aug. Rd	-	-	-	2035
		St. Aug. Rd	SR 9B / SR 23	-	-	2027	2035
		SR 9B / SR 23	CR 210	2021	2030	2035	*
		CR 210	Int'l Golf Pkwy	2023	2035	*	*
		Int'l Golf Pkwy	SR 16	2035	*	*	*

"-" indicate that the last year at that level of service is before 2015 (the first traffic analysis year)

*** indicate that the last year at that level of service is beyond 2035 (the last traffic analysis year)

NOTE: I-95 was analyzed as existing (6 lanes).

Exhibit 4-2: Future I-95 Levels of Service (cont)

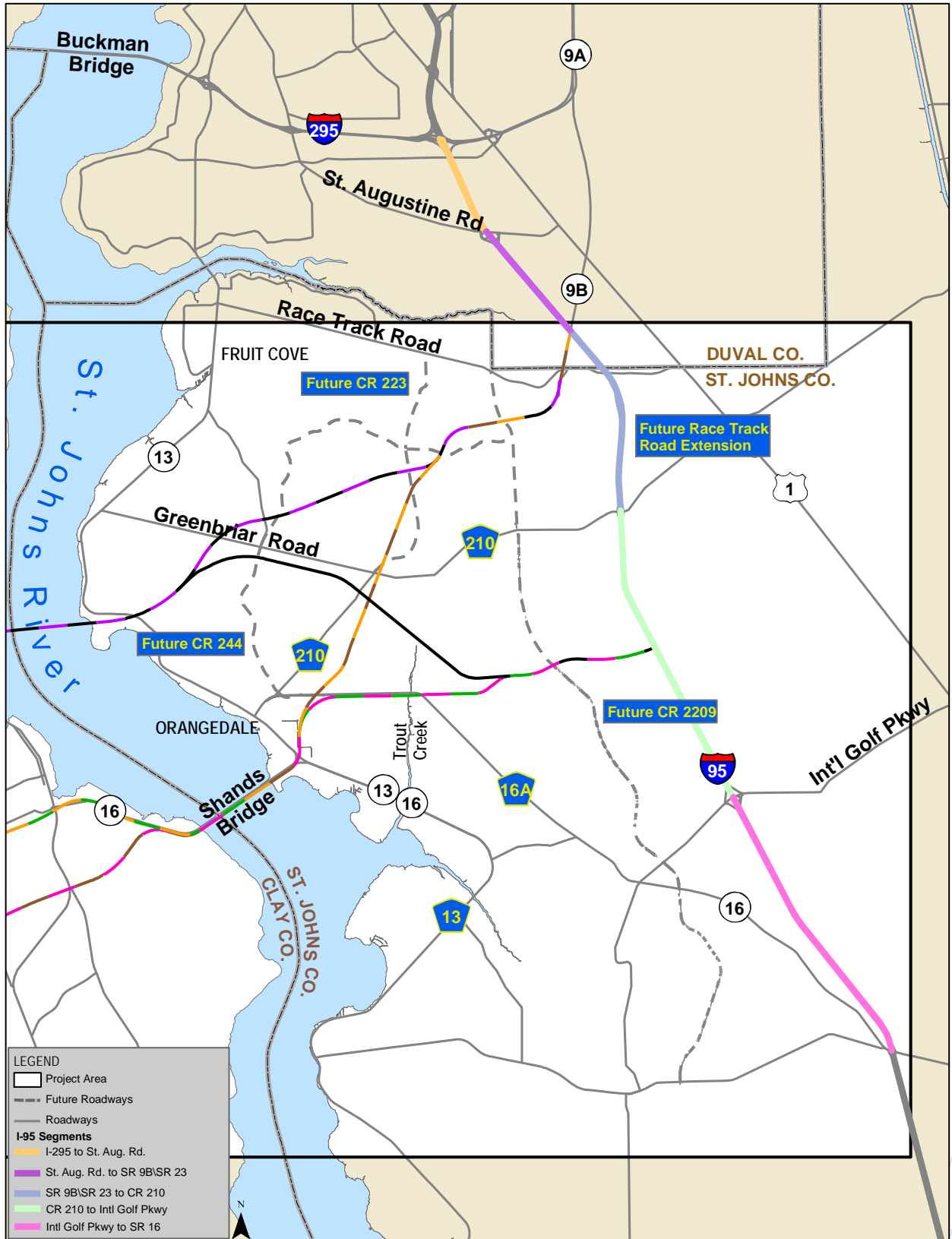
Scenario	Direction	I-95 Mainline Segment		Last Year at Level of Service					
		From	To	C	D	E	F		
Orange 1 and 2 Alternatives	Northbound	SR 16	Int'l Golf Pkwy	2032	2035	*	*		
		Int'l Golf Pkwy	CR 210	2021	2034	2035	*		
		CR 210	SR 9B / SR 23	2019	2027	2035	*		
		SR 9B / SR 23	St. Aug. Rd	-	-	2026	2035		
		St. Aug. Rd	I-295	-	-	-	2035		
	Southbound	I-295	St. Aug. Rd	-	-	-	2035		
		St. Aug. Rd	SR 9B / SR 23	-	-	2027	2035		
		SR 9B / SR 23	CR 210	2021	2030	2035	*		
		CR 210	Int'l Golf Pkwy	2023	2035	*	*		
		Int'l Golf Pkwy	SR 16	2035	*	*	*		
Green 1 and 2 Alternatives	Northbound	SR 16	Int'l Golf Pkwy	2030	2035	*	*		
		Int'l Golf Pkwy	SR 23	2015	2032	2035	*		
		SR 23	CR 210	-	2024	2033	2035		
		CR 210	SR 9B	-	-	2029	2035		
		SR 9B	St. Aug. Rd	-	-	2027	2035		
		St. Aug. Rd	I-295	-	-	-	2035		
	Southbound	I-295	St. Aug. Rd	-	-	-	2035		
		St. Aug. Rd	SR 9B	-	-	2028	2035		
		SR 9B	CR 210	-	-	2031	2035		
		CR 210	SR 23	-	2024	2033	2035		
		SR 23	Int'l Golf Pkwy	2015	2032	2035	*		
		Int'l Golf Pkwy	SR 16	2031	2035	*	*		
		Pink 1 and 2 Alternatives	Northbound	SR 16	Int'l Golf Pkwy	2030	2035	*	*
				Int'l Golf Pkwy	SR 23	2015	2032	2035	*
SR 23	CR 210	-		2024	2032	2035			
CR 210	SR 9B	-		-	2029	2035			
SR 9B	St. Aug. Rd	-		-	2027	2035			
St. Aug. Rd	I-295	-		-	-	2035			
Southbound	I-295	St. Aug. Rd	-	-	-	2035			
	St. Aug. Rd	SR 9B	-	-	2028	2035			
	SR 9B	CR 210	-	-	2030	2035			
	CR 210	SR 23	-	2024	2033	2035			
	SR 23	Int'l Golf Pkwy	2016	2033	2035	*			
	Int'l Golf Pkwy	SR 16	2031	2035	*	*			

"-" indicate that the last year at that level of service is before 2015 (the first traffic analysis year)

*** indicate that the last year at that level of service is beyond 2035 (the last traffic analysis year)

NOTE: I-95 was analyzed as existing (6 lanes).

Exhibit 4-3: Future I-95 Levels of Service Segments



prove the LOS by as much as eight years. The impacts of the Green 1 and 2 Alternatives on I-95 vary from deteriorating the LOS by six years to improving the LOS by two years. The Pink 1 and 2 Alternatives decrease the LOS by six years in one section and improve the LOS by three years in another section.

According to the data in **Exhibit 4-2** for the No Build scenario, segments of I-95 will need to be widened as early as 2017 and as late as 2035. All of the Build Alternatives improve some segments of I-95; however, some Build Alternatives (Purple, Brown 1 and 2, Green 1 and 2 and Pink 1 and 2) degrade the LOS of I-95 as much as six years. These degraded segments occur between the proposed interchange with I-95 and the next interchange to the north. This may be helped by constructing auxiliary lanes between these interchanges. This impact will be analyzed further in the I-95 and St. Johns River Crossing Interchange Justification Report, which will begin once a Preferred Alternative is selected. Since I-95 needs to be widened regardless of the construction of this project (as shown in the No Build scenario), the widening of I-95 will be evaluated under a separate Project Development and Environment Study. The North Florida Transportation Planning Organization (NFTPO) is currently working on the 2035 LRTP and FDOT is coordinating with the NFTPO to have the widening of I-95 to eight lanes included. The 2035 LRTP will be finalized in December of this year.

4.1.6 What are the future impacts to I-10?

All of the Build Alternatives connect to Branan Field – Chaffee Road north of SR 21 (Blanding Boulevard). Branan Field – Chaffee Road begins just north of SR 21 in Clay County and ends at I-10 in Duval County. **Exhibit 4-4** compares the traffic for Branan Field – Chaffee Road (existing condition) with the toll traffic for the First Coast Outer Beltway, which includes the St. Johns River Crossing alternatives and Branan Field – Chaffee Road. It should be noted that the only consideration for Branan Field – Chaffee Road in this EIS is for the tolling of this road; therefore, toll design traffic was not developed for the Branan Field – Chaffee Road and the volumes used for comparison were taken from the Sketch Level Traffic and Revenue Study (a separate study) which reported \$0.10/mile volumes. As shown in the table, the toll traffic for all of the Build Alternatives is lower than the free traffic for Branan Field – Chaffee Road. This means that the St. Johns River Crossing project will not adversely impact I-10; rather it will reduce the traffic on I-10.

Exhibit 4-4: **Branan Field - Chaffee Road Toll Traffic Comparison**

Branan Field - Chaffee Road Segment		2035 No Build AADT*	2035 Toll AADT** by Alternative					
From	To		Black	Purple	Brown 1 and 2	Orange 1 and 2	Green 1 and 2	Pink 1 and 2
Blanding Boulevard (SR 21)	Oakleaf South (Frontage Ramps)	69,700	52,100	52,500	50,600	49,900	51,500	50,200
Oakleaf South (Frontage Ramps)	Argyle Forest Boulevard	80,500	63,400	63,500	64,300	63,800	65,100	63,500
Argyle Forest Boulevard	103rd Street	84,200	66,700	67,500	67,300	67,100	68,200	66,900
103rd Street	Normandy Boulevard (SR 228)	72,800	54,200	54,900	55,100	55,300	56,100	55,400
Normandy Boulevard (SR 228)	New World Ave	53,000	42,700	43,400	44,000	43,300	44,100	44,700
New World Ave	I-10	62,300	51,200	51,900	53,100	52,300	53,000	52,400

SOURCE: *Branan-Field Chaffee traffic (toll free); assumes St. Johns River Crossing is not built

SOURCE: **Interpolated from the First Coast Outer Beltway Planning Level Traffic and Revenue Analysis and Sketch Level Toll Traffic Forecast for the St. Johns River Crossing Alternatives, dated December 20, 2007. This report assumed a \$0.10 per mile toll rate.

4.1.7 What is the Locally Preferred Alternative?

As noted in Chapter 2, FDOT has identified the Pink 1 Alternative as the Locally Preferred Alternative, based on input from scoping, local jurisdictions and alternative analysis. The selection of the Pink 1 Alternative by FDOT as the Locally Preferred Alternative is supported by the local governments. In 2006, the St. Johns County Board of County Commissioners adopted a resolution stating the County’s support for a new highway facility that crossed the St. Johns River near the existing Shands Bridge and terminated at I-95. The County has also stated that the Pink 1 Alternative is consistent with their planning efforts, including the 2015 St. Johns County Comprehensive Plan and the St. Johns County Northwest Sector Plan, and that the alternative’s location puts the County in the best position for promoting existing and future employment and economic opportunities. In 2006, the Clay County Board of County Commissioners also passed a resolution stating their support and need for a new highway facility in their county that crossed the St. Johns River near the existing Shands Bridge. Clay County stated in the resolution that an alternative crossing at this location is a “critically needed traffic reliever and economic development stimulator.” Copies of the Clay and St. Johns County resolutions are included in Appendix C of the *Public Involvement Discipline Report* located on the enclosed CD.

The Final EIS will identify the preferred alternative and evaluate all reasonable alternatives. FHWA will address the selected alternative in the Record of Decision.

