

## **7.0 PREFERRED MOBILITY ENHANCEMENT ALTERNATIVE**

The development and evaluation of alternatives for the I-10 Master Plan utilized a tier screening process. This process permitting the alternatives to be successively screened and ranked, thereby eliminating alternatives that did not meet the study's objectives. The I-10 Master Plan utilized two tiers for the evaluation, each with an increasing level of detail.

The PMEA synthesizes the recommended Tier 1 CMEAs and the recommended Tier 2 Interchange Concepts.

### **7.1 MAINLINE PREFERRED MOBILITY ENHANCEMENT ALTERNATIVE**

CMEA No. 2 is the mainline PMEA for Segment 1 of I-10.

The PMEA for Segment 1 from US 221 (SR 55) to CR 137 (and beyond to just west of I-75), of the I-10 mainline of Segment 1 is 4 GPL, with the exception of two subsections (between CR 255 and US 90, and between US 129 and CR 137), where the I-10 mainline is being designed as a 6 GPL.

### **7.2 INTERCHANGE PREFERRED MOBILITY ENHANCEMENT ALTERNATIVES**

#### **7.2.1 US 221 (SR 55)**

The Interchange PMEA for US 221 is the Level 1 Concept. The US 221 Level 1 Concept corrects all geometric and operational deficiencies, meets the mobility needs without any land use and environmental impacts at a low cost.

The Interchange PMEA for US 221 Level 1 Concept is illustrated in Figure 5-1.

#### **7.2.2 SR 14**

The Interchange PMEA for SR 14 is the Level 1 Concept. The SR 14 Level 1 Concept corrects all geometric and operational deficiencies, meets the mobility needs with minimal land use and environmental impacts at a low cost.

The Interchange PMEA for SR 14 Level 1 Concept is illustrated in Figure 5-2.

#### **7.2.3 SR 53**

The Interchange PMEA for SR 53 is the Level 1 Concept. The SR 53 Level 1 Concept corrects all geometric and operational deficiencies, meets the mobility needs without any land use impacts and minimal environmental impact at a minimum cost.

The Interchange PMEA for SR 53 Level 1 Concept is illustrated in Figure 5-3.

#### **7.2.4 CR 255**

The Interchange PMEA for CR 255 is the Level 1 Concept. The CR 255 Level 1 Concept corrects all geometric and operational deficiencies, meets the mobility needs without any land use impact, and relatively simple to build at a low cost.

The Interchange PMEA for CR 255 Level 1 Concept is illustrated in Figure 5-4.

#### **7.2.5 US 90 (Suwannee County)**

The Interchange PMEA for US 90 is the Level 1 Concept. The US 90 Level 1 Concept corrects all geometric and operational deficiencies and meets the mobility needs without any land use impact.

The Interchange PMEA for US 90 Level 1 Concept is illustrated in Figure 5-5.

#### **7.2.6 US 129 (SR 51)**

The Interchange PMEA for US 129 is the Level 1 Concept. The US 129 Level 1 Concept corrects all geometric and operational deficiencies and meets the mobility needs with a simple construction approach that minimizes costs.

The Interchange PMEA for US 129 Level 1 Concept is illustrated in Figure 5-6.

#### **7.2.7 CR 137**

The Interchange PMEA for CR 137 is the Level 2 Concept. The CR 137 Level 2 Concept corrects all geometric and operational deficiencies, meets the mobility needs without any land use impacts. When compared to the CR 137 Level 1 Concept, the main difference is that it provides for a full diamond configuration which is a preferred design concept.

The interchange PMEA for CR 137 Level 2 Concept is illustrated in Figure 5-8.

### **7.3 OTHER ELEMENTS**

#### **7.3.1 ITS**

According to the FDOT Central Office ITS Office report, Interstate 10 Corridor Implementation Plan for Florida's Principal FHHS Limited-Access Corridors, there is no ITS coverage on I-10 from the Jefferson-Madison County line to I-75. The report also identifies functional gaps in ITS coverage. A functional gap is defined as an area that lacks the appropriate technological infrastructure to support advanced ITS projects. The area from the Jefferson/Madison County Line to I-75 is listed as an ITS Functional Gap in the report.

The current ITS programs along Segment 1 of I-10 include Motorist Aid Call Boxes. The roadside call boxes are deployed at one-mile intervals. Communication with a base position that

sends assistance is achieved by a series of microwave towers. The call boxes are a partnership between the FDOT and the FHP. The FDOT maintains the call boxes, acknowledges calls for assistance, and redirects call to the FHP. The FHP dispatches service vehicles to aid motorists.

ITS improvements to I-10 are identified in the FIHS 2025 Cost Feasible Plan. In order to better serve the traveling public and the freight industry, fiber optics and traveler information are planned for the length of the corridor. Specific ITS improvements include Freeway Management Systems; implemented through conceptual projects that include Closed Circuit TV cameras, loop detectors and Dynamic Message Signs for all interchanges except for the US 129 interchange.

### **7.3.2 Hurricane Evacuation**

The FDOT's Analysis of Florida's One Way Operations for Hurricane Evacuation: I-10 Jacksonville to Tallahassee / Monticello (US 19) Report investigated the feasibility of reverse-laning I-10 from Jacksonville to Tallahassee in an effort to mitigate travel delays and the highway congestion that characterized the Hurricane Floyd evacuation in 1999.

This report cites the need to provide and / or maintain adequate communications infrastructure along I-10 in order to effectively execute these evacuation scenarios. Such infrastructure would primarily be needed to adequately accommodate the dynamic message sign network and other mechanisms to keep the public informed throughout the evacuation. In addition, some improvements related to signing and fixed object protection would be necessary to safely serve westbound traffic flow on the eastbound roadway.