



APPENDIX G

Study Area Development

For the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study

The purpose of the following information is to describe the development of the study area for the Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study being conducted by Florida Department of Transportation, District Five and the Orlando-Orange County Expressway Authority.

The alternatives for this project were identified and evaluated in a multi-step process to allow opportunity for public and agency input throughout the study. The multi-step process involved the following: define the purpose and need, study area development, and alternatives development. The following discussions summarize the process to identify the most reasonable study area for alternatives development. The purpose and need and the development of the alternatives within the study area, including the No Build Alternative, are summarized in the preceding *Sections 2 and 3* of this *Environmental Assessment*.

1. Land Suitability Mapping

A process called land suitability mapping (LSM) was used to develop the project study area. The land suitability mapping process involves using Geographic Information System (GIS) databases to identify, map, and analyze sensitive environmental features. In addition to GIS databases, information was obtained from several other sources including field reviews, agency coordination, and previous engineering and planning studies such as the SR 429 (*Western Expressway*) *Northern Extension Concept Development and Feasibility Study*.

The identification of a study area was preceded by a comprehensive data collection and mapping effort to identify social, cultural, natural and physical environmental features. The general aerial base map for the development of the Wekiva Parkway study area showing the connection points based on traffic needs and systems connections, consistent with constraint concerns, is shown in **Exhibit G-1**. The following sections discuss the major constraints within this region.

1.1. Social Environment

The social environment characteristics within the study area include existing residential neighborhoods and developments, conservation/recreational lands, foliage nurseries and community facilities. In general, the study area has experienced tremendous growth in recent years as the Orlando metropolitan area spreads outward. Since 2005, several new subdivisions were built and developments were approved primarily east of Plymouth Sorrento Road in Orange County. These characteristics within the study area are graphically illustrated on **Exhibit G-2**.

4. Study Area Coordination

The Wekiva Parkway study area was developed through extensive evaluations and analyses conducted by the Wekiva Basin Area Task Force, the SR 429 Northwest Extension Working Group, and the Wekiva Basin Coordinating Committee.

The Wekiva Parkway (SR 429)/SR 46 Realignment PD&E Study area is a combination of two previous studies: the Western Beltway and the SR 429 Northwest Extension. The purpose and need for those studies was previously documented by FDOT and the Expressway Authority and were presented to the Wekiva Basin Area Task Force, the Wekiva Basin Coordinating Committee, the East Central Florida Planning Council, and the Florida Department of Community Affairs.