



**Alan Davis, EIT**  
**2005– Present (Career)**  
**Expert Witness Services Manager**

**B.S., Civil Engineering- 2006**  
**The University of South**  
**Carolina**

**South Carolina EIT #16524**

Mr. Davis has three years of experience in the civil engineering field. Mr. Davis has worked for SCDOT and at a large private engineering firm while obtaining his B.S. in Civil engineering from The University of South Carolina. Mr. Davis's project experience includes:

### **Expert Witness Experience**

- ❑ **Condemnation** — Mr. Davis has worked on many condemnation cases for both the SCDOT and for several counties in South Carolina, including Fairfield and Beaufort Counties. These cases also included the justification for acquiring condemned properties. Responsibilities for these cases typically include providing case opinion, cost to cure, deposition, mediation, as well as the creation of exhibits to be used in trial.
- ❑ **Construction** — Mr. Davis has assisted in several construction litigation cases in which engineering expertise was called upon in order to establish facts in several cases. Various disciplines of civil engineering are required in the responsibilities required of Mr. Davis. These included drainage and water resources engineering, traffic engineering, and various transportation engineering issues. Through the application of various techniques associated with these disciplines, Mr. Davis is able to provide engineering opinions for cases.
- ❑ **Hydrology and Drainage** — Mr. Davis has worked in the analysis of several cases which involved drainage and hydraulic analysis of cases. His responsibilities included the analysis of existing conditions as well as the design of solutions to existing failures.

### **Engineering Experience**

- ❑ **Beaufort County Transportation Sales Tax Program Management**—Mr. Davis' responsibilities for this project include the management of three separate design and construction projects. These projects include consultant selection to actual construction.
- ❑ **SCDOT DBE Legal Services**—A sub consultant to a large law firm, Mr. Davis will provide essential construction and engineering advice for attorneys for the handling of routine technical questions. Mr. Davis also assisted in developing materials for and in conducting the construction law seminars. He also assisted and participated in mediations providing expert help on contract issues between prime contractors and DBE firms.
- ❑ **SC 802 Widening—Beaufort County**—Mr. Davis has worked on this project from its initial proposal to its current stage of design. His main tasks were to provide critical right-of-way and traffic analysis and opinion for the design of the facility.
- ❑ **Ashley River Bridge Pedestrian/Bicycle Facility Retrofit—Feasibility Study**—Mr. Davis managed Dennis Corporation's subcontract for work performed on this study which included traffic analysis, alignment selection, cost estimation and structural concept creation and evaluation. This study will be used in

determining the City of Charleston and Charleston County's future steps in providing this essential link in Charleston's pedestrian/bicycle connectivity.

- ❑ **Charleston County Pedestrian/Bike Improvement Allocation Projects** — Mr. Davis assisted in the management of the design of five new sidewalks in Charleston County as a part of the Charleston County Roadwise program. His responsibilities included assisting in management of the projects as well as the design and production of construction plans for approximately three miles of sidewalk.
- ❑ **Fairfield County Road Improvement Program** — Mr. Davis assisted in the 2006 Fairfield County Road Improvement Program. This program utilizes county transportation funds to provide improvements to the county road infrastructure at a low cost. Mr. Davis' responsibilities included:
  - Field Surveys
  - Cross Sections
  - Database Management
  - Construction Engineering
- ❑ **Dutchman's Creek Trail and Pedestrian Bridge** – This project involved the design and construction of a new parking lot and walkway along the Dutchman's Creek Bridge in Fairfield County. Responsibilities included plan development, development of public displays and information, cost estimation and providing design and CADD support.
- ❑ **Palmetto Commerce Parkway** – This project consisted of the construction of the design and construction of approximately three miles of a new four-lane road in Charleston County. Responsibilities included plan development, development of public displays and information, cost estimation and providing design and CADD support.
- ❑ **Traffic Impact Studies** – Mr. Davis' responsibilities include the analysis of existing traffic patterns and known traffic generation patterns to study and evaluate the impact a new facility of site will have on an existing road network. Analysis includes the use of Synchro and SimTraffic.
- ❑ **Engineering Assistant** – South Carolina Department of Transportation – Mr. Davis spent a year working with the Special Projects and Operations Unit of Traffic Engineering. Here he specialized in working with traffic signal design, railroad preemption, as well as traffic safety assessment programs. Mr. Davis also worked with the Traffic Design Review Unit. Mr. Davis focused primarily on evaluating traffic engineering aspects and geometric design of highway construction projects, assisting in the preliminary design of highway projects to provide for safe and efficient traffic operations, as well as evaluating various design alternatives and benefits of roadway improvements. Mr. Davis was also involved with updating the SCDOT "Access Roadside and Management Standards" Manual.

**Projects for the SCDOT included:**

- ❑ **Fairview Street and I-385 Interchange Improvements** – The project included the analysis of existing traffic patterns for the interchange as well as the design of a new concept for the interchange based on traffic patterns.
- ❑ **US 1 and 5th Street Bridge Interchange Improvements** – This project consisted of the review of existing traffic at the interchange as well as the design of a new conceptual design for a new interchange.
- ❑ **Ramp Upgrades for Safer Highways (RUSH) Program** – This project involved a before and after study of interstate ramp improvements using HCS+ software to evaluate the effectiveness of safety improvements.
- ❑ **Design Review** – Mr. Davis reviewed the design for various projects for conformity to SCDOT standards as well as their traffic and safety performance.
- ❑ **Traffic Signal Design** – Mr. Davis assisted in the completion and update of new and existing traffic signal designs, as well as signals involving railroad preemption.

- ❑ **Traffic Safety Assessment Program** – This project involved with the review of intersections and evaluation of improvements at locations of high collision incidents.
- ❑ **Engineering Assistant- SRS Engineering, LLC** – Mr. Davis' responsibilities included assisting in traffic impact analysis studies as well as drafting various CAD graphics in MicroStation.