



Sandipkumar Faldu, P.E.

Transportation Engineer

Education

ME, Civil Engineering,
University of Texas at
Arlington, 2005

BE, Civil Engineering, Center
for Environmental Planning
and Technology, Gujarat,
India, 2002

Registrations

Professional Engineer (P.E.)
Texas (#104961)

Years of Experience

Total Years: 6
WSA: 4 ½

Aug 2005-Present
Wilbur Smith Associates
Dallas, Texas

Professional Affiliations

Member, Institute of
Transportation Engineers
(ITE)

Awards

Graduate Scholarship,
University of Texas at
Arlington, 2004-2005

Mr. Sandipkumar Faldu is a transportation engineer with Wilbur Smith Associates' Dallas office. He has closely worked on a variety of engineering projects involving traffic impact assessment, noise and air quality impact assessment, traffic operational analysis, analysis of truck lanes, access management studies, signal timing and operations and corridor studies. Mr. Faldu has experience in numerous transportation related computer software programs including CORSIM, VISSIM, HCS, Synchro/SIMTRAFFIC, TransCAD, Traffix, Microstation, AutoCAD, Traffic Noise Model (TNM 2.5), and Arc View. Related project experience includes:

Staples Street Raised Median Study, Corpus Christi, TX (June 2009- Oct 2009)

Served as project manager and analyst for this access management study for a 1.5 mile section of major arterial to prepare a raised median location plan and analyze the impacts of converting the existing center two-way left turn lane to a raised median. Tasks included collecting traffic data and preparing a VISSIM simulation model to analyze operations, suggesting median opening locations, evaluate intersection levels of service and prepare technical report documenting the results.

Signal Retiming IV, San Antonio, TX (March 2009 – June 2009)

Served as analyst for this comprehensive signal retiming project for the city of San Antonio. The project included extensive data collection, timing plan development and implementation for 88 intersections. Tasks included review of existing signal timing plans, preparing SYNCHRO model of existing operations and model calibration, optimizing signal timing and comparing measures of effectiveness for cost-benefit analysis.

Interstate Access Justification Report and Traffic Operations Analysis for Trinity Parkway, Dallas County, TX (Since March 2008) – Served as analyst for this North Texas Toll-way Authority (NTTA) Project involving development of a complete traffic operation analysis of a 13 mile corridor. Tasks include developing future peak hour volumes, level of service analysis, intersection operation analysis and preparing an Interstate Access Justification Report. In addition, VISSIM modeling is being used to assess the traffic operation of the entire corridor for two future scenarios.

Loop 9 Design Traffic Volumes Update, TX (July 2007-Aug 2007) – Served as analyst for this TxDOT project to update the design volumes for Loop 9 Corridor from US 287 in Mansfield, TX to IH 20 in Mesquite, TX. The project involved updating ADT and Peak hour Volumes for the 20 year and 30 year forecasts for the proposed loop 9 concept.

IH 45 Improvements near weigh station, Dallas County, TX (2007-2008) – Served as analyst for this TxDOT project involving detailed traffic operation analysis during weigh station operation on IH 45 at Fulghum Road. The project tasks include estimating future daily and peak hour traffic volumes, freeway level of service analysis using HCS, analysis of traffic operation in the vicinity of weigh station using Synchro, and analysis of alternative ramp configuration. The project also includes preparation of Interstate Access Justification Report and preparation of schematic design for the chosen alternative.

Travel Time and Delay Study, Jonesboro, AK (June 2007-Oct 2007) – Served as analyst for this project for Jonesboro MPO involving data collection and analysis to determine travel time and delay on 10 major corridors/streets in the project area.

Interstate Highway 30 Corridor Improvement Study, Tarrant County, TX (2006-2007) – Served as analyst for this TxDOT project involving major improvements to the IH 30 Corridor from Oakland Boulevard to proposed SH 161 in Tarrant County. The project tasks assigned include traffic projections in the study area, freeway level of service analysis using HCS for build and no-build conditions and preparation of Interstate Access Justification Report.

Truck Lane Pilot Study, Dallas, and Tarrant County, TX (Oct 2005-Oct 2006) – Served as project manager and analyst for this project for the North Central Texas Council of Governments. The study involved analysis of the operational and safety impacts of truck lane restrictions on specific sections of IH 20 and IH 30 corridors in the Dallas-Fort Worth Metroplex. The study tasks involved analysis of average speed, truck percentage and distribution across lanes, level of service, ramp queuing, truck and non-truck related accidents, citation rate etc. using the data collected before and after restrictions under normal as well as increased enforcement levels. Various types of data analyzed include video data from truck mounted cameras, ITS data using microwave detectors, and accident /citation data from the local police departments.

Traffic Impact Analysis, North Lake Development, TX (Aug 2005-Dec 2005) – Served as project manager and analyst for this traffic impact study for the city of Coppell to analyze the traffic impact of proposed north lake development on the surrounding roadway network. The project tasks include trip generation, trip distribution, analysis of intersection level of service using Synchro and recommendation for roadway geometry and signal timing improvements for various project alternatives.

Noise Impact Analysis, North Lake Development, TX (Aug 2005-Dec 2005) – Served as project manager and analyst for this study to analyze the noise impact of the proposed North Lake development project using FHWA's Traffic Noise Model (TNM 2.5) software. The study involved recording the ambient noise levels at critical locations in the study area using a noise meter, calibrating the Traffic Noise Model, predicting the future noise levels based on the projected traffic, preparing noise level contours in the study area, and identifying the land uses having a noise impact based on the FHWA's noise abatement criteria. The study also included a brief survey of the DFW airport's runway use plan and noise contours due to its proximity to the study area.

Air Quality Impact Analysis, North Lake Development, TX (Aug 2005-Dec 2005) – Served as project manager and analyst for this study to analyze the air quality impact of the proposed North Lake development project using FHWA and TxDOT guidelines. The study involved modeling of the worst case scenario at the critical roadway intersection using specific meteorological conditions, projected traffic and other inputs to obtain pollutant concentration at strategically placed receivers along the intersection using modeling software provided by TxDOT. The modeled concentration levels were compared to the National Ambient Air Quality Standards (NAAQS) to determine the air quality impact.

Other Technical Experience

Texas Department of Transportation Dallas District (June 2004-Nov. 2004)

As college intern (engineering tech-II) for TxDOT's Dallas District, worked closely on several challenging engineering projects viz.

- a. County line road at SH 183 in Irving
- b. Valley Ranch connector at SH 161 and I- 635
- c. Interchange at SH 161 and SH 183

The related project experience includes planning detours and traffic handling in construction areas, inspection, and documentation of all engineering activities on the project, inspection of roadway geometry, alignment, and pavement thickness etc. for conformity with plans and specifications. Other responsibilities include conducting various field and laboratory concrete tests, inspecting structures according to SW3P requirements, approval of materials procured on site, measurement of finished structures for final approval and payment etc.

Spanish Red Cross (Sept 2002-June 2003)

As Construction Engineer for Spanish Red Cross's relief operations in India, worked on "Reconstruction of health facilities in earthquake affected areas"- a crucial rehabilitation project following the devastating earthquake in Kutch District of the state of Gujarat, INDIA in January 2001. Responsibilities include technical supervision of construction activities, quality control, quantity survey, preparation of project schedules, monitoring project progress, co-ordination of all the engineering aspects of the project, checking R.A. bills and preparation technical reports.