

**Juan M. Morales, P.E.**  
President  
J.M. Morales & Associates  
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Over 30 years of experience in transportation and traffic engineering, including transportation planning, traffic management, traffic studies and analysis, software applications, traffic modeling and simulation, intelligent transportation systems, incident management, traffic safety, work zone safety, human factors research and technology transfer. Proven capability in project management, market analysis, technical writings, course development, continuing education, expert witness and technical programs development and evaluation. Excellent personal and communication skills.

**EDUCATION:**

- Masters of Science, Transportation Engineering, Georgia Institute of Technology, 1980
- Bachelors of Science, Civil Engineering, University of Puerto Rico, 1978

**LANGUAGES:** Fully fluent in English and Spanish. Conversational Portuguese.

**PROFESSIONAL EXPERIENCE:**

**President, J.M. Morales & Associates, J.M. Morales & Associates (JMM), 1995 – Present**

Principal of a consulting firm specializing in transportation engineering, and planning, with emphasis in the United States and Latin America. The company specializes in the areas of traffic engineering, specifically traffic safety and operations, traffic management, application of advanced technologies, intelligent transportation systems (ITS), traffic simulation, traffic studies, including traffic control devices, temporary traffic control in work zones, Maintenance of Traffic (MOT) design, traffic modeling and research. Type of work includes traffic safety improvements, safety audits, traffic simulation, traffic impact studies, continuing education and training, work zone expert witness and course development, delivery and evaluation. Responsible for all business and technical decisions within the firm.

**Director of Technical Programs, Institute of Transportation Engineers (ITE), 1990 – 1995**

Responsible for directing the technical and professional programs of the Institute, including managing several technical projects and coordinating their development working through volunteer members of the Institute and the ITE staff. Responsible for providing support to ITE's Technical/Coordinating Council. Responsible for developing and carrying out professional development programs, such as developing textbooks, and informational reports, seminars, and others in the areas of safety, advanced technologies, traffic engineering, traffic management, and

transportation planning. Actively participated in the development of the *Traffic Engineering Handbook*, the *Transportation Planning Handbook*, the *Traffic Safety Toolbox*, the *Manual of Transportation Engineering Studies*, *Trip Generation* and several recommended practices.

Developed several courses in the areas of traffic engineering and safety, including course curriculum and material development, selection of instructors, and course evaluation and modification.

Responsible for the development of the ITE annual meeting technical program. Manager of the ITE Information Clearinghouse. Served as ITE representative in liaison with other organizations, such as the National Committee on Uniform Traffic Control Devices and the AASHTO Traffic Engineering Subcommittee.

### **Highway Research Engineer/Project Manager, Federal Highway Administration (FHWA), 1983 – 1990**

Responsible for the development of traffic and safety implementation packages in the area of traffic engineering and safety, particularly on traffic modeling and incident management. Responsible for Technology Transfer (T2) activities. Managed several projects in the area of project implementation. Coordinated the development of several courses in the areas of traffic simulation, signal optimization, and safety. As a guest lecturer, taught National Highway Institute courses on TRAF-NETSIM, TRANSYT-7F, and the Arterial Analysis Package (AAP). Coordinated the development of several videotapes and reports, including the *Traffic Detector Handbook*, *Guidelines on the Use of Changeable Message Signs*, the *AAP User Manual*, and others. Served as technical advisor on the development of traffic models, including NETSIM, CORFLO, FRESIM, CORSIM and other models within the TRAF family, and was responsible for coordinating the implementation and distribution of several advanced technologies projects.

Responsible for traffic safety research projects including safety design, traffic studies, microcomputer applications, and traffic simulation and modeling. As Contracting Officer Technical Representative (COTR), conducted and managed several research projects, including preparation of statements of work, evaluation and selection of technical proposals, contract monitoring, report evaluation and review. Conducted staff research in the areas of sign retroreflectivity, modeling, quantification of urban freeway delay and others. Conducted a validation study of the ROADSIM two-lane simulation model. Awarded the FHWA's 1987 Outstanding Technical Accomplishment Award and ITE's Past President's Award for research work on sign retroreflectivity.

### **Civil Engineer, Federal Aviation Administration (FAA), 1980 – 1983**

Project manager and field resident engineer for several airport construction projects around the Southern Region of the United States, including feasibility studies, project management, cost estimation, design and construction of air traffic control towers and other airport facilities such as Airport Surveillance Radars (ASR), localizers, middle and outer markers. Resident engineer for phases of the construction of the Chattanooga, TN, Ft. Lauderdale, and Nashville, TN, airport traffic control towers. Responsible for the modernization of several tower cabs.

## **PROFESSIONAL AND CIVIC AFFILIATIONS:**

- Fellow Member, Institute of Transportation Engineers (ITE)
- Member , American Traffic Safety Services Association (ATSSA)
- Member, Tau Beta Pi, National Engineering Honor Society

## **CERTIFICATIONS:**

- Professional Engineer (PE), Commonwealth of Virginia (1986)
- Professional Engineer (PE), Commonwealth of Puerto Rico (1985)
- National Highway Institute (NHI)-Certified Instructor
- American Traffic Safety Services Association (ATSSA)-Certified Instructor

## **AWARDS:**

- ITE's Edmund R. Ricker Transportation Safety Council Award, 2011.
- Special Service Award, Federal Highway Administration, 1989.
- ITE's Past Presidents' Award, Institute of Transportation Engineers, given in recognition of technical accomplishments in transportation engineering, Institute of Transportation Engineers, 1987
- Outstanding Technical Accomplishment Award, Federal Highway Administration, 1987
- Tau Beta Pi, Outstanding Project Award, Puerto Rico Alpha Chapter, 1978.

## **SELECTED PUBLICATIONS:**

- *Vulnerable Road User Safety Training Course Notebook*, The World Bank, 2010 and 2011.
- *"Transportation Management Plans (TMPs) for Highway Contractors"*, American Traffic Safety Services Association, 2009.
- *"Work Zone Strategies"*, American Traffic Safety Services Association, 2009.
- *"Temporary Traffic Control for Utility Operations"*, American Traffic Safety Services Association, 2009.
- *"Traffic Impact Analysis for Highway Work Zones"*, American Traffic Safety Services Association, 2009.
- *"Emergency Traffic Control for First Responders"*, American Traffic Safety Services Association, 2005.
- *"Portable Changeable Message Sign Handbook"*, American Traffic Safety Services Association, 2004.
- *"Basic Traffic Control for Utility Operations"*, American Traffic Safety Services Association, 2003.
- *"The Traffic Research Laboratory"*, Public Roads, Fall 1999.
- *"Evaluation of Emergency Vehicle Signal Preemption on the Route 7, Virginia Corridor"*, with Darcy Bullock and Bobby Sanderson, ITT Systems, McLean, VA, 1998."
- *"Simulation Study of the I-495 – I-66 Interchange, Fairfax County, Virginia"*, Virginia Department of Transportation, Fairfax, VA, 1998.

- “*Traffic Signing Handbook*”, Training and Continuing Education Chapter, Institute of Transportation Engineers, Washington, DC, 1997.
- “*ITS Keeps Traffic, Trade Flowing in Mercosur Region*”, ITS World, March/April 1997 Issue, Eugene, OR, 1997.
- “*ITS in Latin America: Privately Speaking*”, ITS Quarterly, 1996 Summer Issue, ITS America, Washington, DC, 1996.
- “*ITS America Outreach Mission to the Mercosur Countries of Brazil, Uruguay, Argentina and Chile*”, ITS America, Washington, DC, 1996.
- “*Traffic Management and Traveler Information Systems in Finland, Sweden, the Netherlands and the United Kingdom*”, International Scanning Report, prepared for the Federal Highway Administration, Washington, D.C., 1996.
- “*Improving Traffic Signal Operations, A Primer*”, Institute of Transportation Engineers, Washington, DC, 1995.
- “*Strategies to Alleviate Traffic Congestion*”, ITE Seminar Notebook, San Juan, Puerto Rico, 1994.
- “*Strategies to Alleviate Traffic Congestion*”, Seminar Notebook, Institute of Transportation Engineers, Washington, DC, 1993.
- “*Transportation Engineering in Latin America*”, Pan American Institute of Highways Annual Meeting, Querétaro, Mexico, 1992.
- “*Getting Started – Selecting and Using Computerized Traffic Models*”, Public Roads, June 1989.
- “*Retroreflective Requirements for Traffic Signs*”, ITE Journal, November 1987 and Public Roads, December 1987.
- “*Analytical Procedures for Estimating Traffic Congestion*”, ITE Journal, January 1987.
- “*Analysis of Positive Guidance Improvements*”, Master’s Thesis, Georgia Institute of Technology, 1980.

#### **SELECTED TECHNICAL PRESENTATIONS:**

- *Congestion Management Workshop*, International Road Federation, Orlando, FL, 2011.
- *Vulnerable Road User Safety Training Course*, presented in Lima, Peru (2010) and Quito, Ecuador (2011), Colombia for the World Bank.
- *Vulnerable Road User Safety Training Course*, presented in Accra, Ghana and Bogota, Colombia for the International Road Federation (IRF) and the World Bank Global Road Safety Facility, 2010.
- *Roadside Safety Training Course*, presented in Kampala, Uganda and Lima, Peru for the International Road Federation (IRF) and the World Bank Global Road Safety Facility, 2010.
- Numerous presentations of Work Zone courses through the American Traffic Safety Services Association, ongoing.
- “*Recommended Practices for Temporary Traffic Control (for Transmilenio Phase 2)*”, Instituto de Desarrollo Urbano, Bogota, Colombia, 2008.
- “*Safe Practices for Installing Highway Lane Closures*”, American Traffic Safety Services Association Annual Meeting, New Orleans, LA, 2008.

- \* “Designing and Operating Intersections for Safety” Seminar, for Federal Highway Administration, Phoenix, AZ, Baton Rouge, LA, Trenton, NJ, Jefferson City, MO, San Juan, PR, 2005.
- “*Effective Use of Law Enforcement Officers in Work Zones*”, for Federal Highway Administration, Nashville, TN, February, 2005.
- “*Urban Work Zone Traffic Control*”, Traffic Safety Conference, Lithicum, MD, February 2005.
- “*ADVANCED Work Zone Traffic Control*”, for Florida Department of Transportation, presented in several Florida cities, 2000-present.
- “*Best Safety Practices in US Work Zones*”, Roadway Safety Management Conference, University of Delaware, Dover, DE, 2004.
- “*Introduction to Access Management*”, INTERTRAFFIC Latin America, Mexico City, 2003.
- “*Overview of Work Zone Standards Latin America*”, INTERTRAFFIC Latin America, Mexico City, 2003.
- “*Introduction to Traffic Simulation and the CORSIM Model*”, National Institute of Highways Course, presented in Atlanta, GA (2), Charlottesville, VA, and Richmond, VA (2003-2004)
- “*Strategies to Improve Highway Safety*“, Technical seminar presented in Bogotá, Barranquilla, Medellín, and Cali, Colombia, 2000.
- Work Zone Traffic Control for Technicians, Supervisors & Flaggers, presented for the American Traffic Safety Services Association, in several cities throughout the US. 1998 to present.
- “*Introduction to Traffic Simulation and the CORSIM Model*”, presented in Tallahassee, FL, Phoenix, AZ, Fargo, MN, Topeka, KS, Madison, WI, Concord, NH, Lawrence, KS, Baltimore, MD, San Luis Obispo, CA, McLean, VA, Richmond, VA, for the Federal Highway Administration, 1999-2001
- \* “Introduction to Traffic Simulation and the CORSIM model” short course presented at ITS Virginia annual meeting. Roanoke, VA 1999
- “*Introduction to Intelligent Transportation Systems*”, Seminar Developer and Instructor, presented at the Colombia Engineering School, Bogotá, Colombia, 1998.
- “*Intelligent Transportation Systems and the Environment*”, University of Belgrano, Buenos Aires, Argentina, 1998.
- “*Intelligent Transportation Systems*”, Urban Transportation Intensive Course IV: the technological revolution towards the 21st Century, Metropolitan University, Caracas, Venezuela, 1998.
- “*Introduction to Intelligent Transportation Systems*”, Seminar Developer and Instructor, Panamerican Institute of Highways, presented in Spanish in 1) Querétaro, Mexico, 2) Quito, Ecuador, 3) Asunción, Paraguay, 4) Sao Paulo, Brazil, 5) Rosario and Buenos Aires, Argentina, 1997.
- “*Introduction to the 1994 Highway Capacity Manual*”, Seminar Instructor, San Juan, PR, and St. Croix, VI, 1997.
- “*Autopistas Del Sol Data Collection Program: Design and Implementation*”, presented (in Spanish), Autopistas del Sol, Buenos Aires, Argentina, 1996.
- “*Strategies to Improve Safety and Reduce Congestion*”, presented (in Spanish) at the 1st Provia Conference, Valencia, Venezuela, 1996.

- “*Strategies to Alleviate Traffic Congestion*”, presented (in Spanish) at 1996 International Transportation Engineering Symposium, Mexico City, Mexico, 1996.
- “*Intelligent Transportation Systems and the Latin American Perspective*”, ITS America Annual Meeting, Houston, TX, 1996.
- “*The Role of the Transportation Engineer in the Future*”, American Association of State and Highway Transportation Officials Annual Meeting, New Orleans, LA, 1992.
- “*Estimating Freeway Traffic Congestion*”, Conference on Traffic Management and Planning for Freeway Emergencies and Special Events, Washington, D.C., 1989.
- “*Analytical Procedures for Estimating Traffic Congestion*”, Traffic Management Conference, NYS Association of Transportation Engineers, NYC, 1987.

#### **RELATED EXPERIENCE:**

- **Teaching Experience:** In addition to presenting several courses in traffic engineering and traffic safety, served as part time Instructor for “Spreadsheet Software” and “Introduction to Microcomputers,” Northern Virginia Community College, Annandale Campus, VA, 1988 – 1990. Former Toastmasters member.
- **Language Skills:** Fully bilingual (English/Spanish). Speaks Portuguese at intermediate level. Informal Spanish-English and English-Spanish translator/reviewer for various Federal Highway Administration and ITE technical publications, 1983 – 1995.

#### **CITIZENSHIP:**

U.S.A. (Puerto Rico)