

## Statement of Qualification for William N. Nickas, P.E.

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**Position:** Regular Employment as Managing Director, Transportation Systems at PCI  
Part time expert witness, consultant and patent holder

**Education:** B.S. Civil Engineering, The Citadel, Charleston, South Carolina 1983

**Registrations:** Florida (No. 39591)

**Memberships:** American Society of Civil Engineers  
Florida Engineering Society  
National Society of Professional Engineers  
Precast/Prestressed Concrete Institute  
American Segmental Bridge Institute

**Honors:** FDOT Sustained Exceptional Performance Award – 2005  
AASHTO FHWA Scan Trip for Prefabricated Bridge systems - 2004  
ASBI Leadership Award for the advancement of Segmental Bridges – 2004  
National Transportation Leadership Institute at Indiana University (AASHTO) – 2000  
FDOT Leadership Academy – 1999

**Work:**

2008- Present	Precast/Prestressed Concrete Institute ( <i>Director, Transportation Systems</i> )
2008- Present	Willco Industries and Folded Slab, LLC (Part-time Officer and partner)
2007- 2008	Corven Engineering, Inc. ( <i>Principal Bridge Engineer</i> )
1998-2006	Florida Department of Transportation ( <i>State Structure Design Engineer</i> )
1997-1998	Florida Department of Transportation ( <i>State Value Engineer</i> )
1996-1997	Ventry Engineering, Inc. ( <i>Value Engineering Associate</i> )
1987-1995	E.C. Driver & Associates ( <i>Vice President</i> )
1983-1987	Florida Department of Transportation ( <i>Bridge Engineer</i> )

Mr. Nickas' entire career has been spent in the design and construction of transportation facilities. He began his career in the one year Professional Engineer training program at FDOT. It was followed by three years in FDOT design. He then joined the private sector where he has served as a design engineer, project manager, and principal. In his second tenure at FDOT William served as State Structure Design Engineer. In this role he was responsible for all structure design policy development for the State and major and complex bridge project issues. In January of 2007, He joined Corven Engineering as a Principal Engineer. One of his initial contracted assignments was to the National Highway Institute as an instructor for LRFD Concrete Bridge Design Courses. After teaching more than 750 engineers in 38 States, William continues to work as a NHI instructor as an employee of PCI. As a public servant he developed a keen understanding of customer service and owner's perspective and now brings that background to PCI as the Director of Transportation Services for the institute. He also works on some private work where he guided Florida's first privately constructed Toll Road in Leon County.

### Recent Assignments:

Mr. Nickas manages all transportation related activities of the Precast/Prestressed Concrete Institute. These activities included serving as staff liaison to the Transportation Activities Committee (TrAC), Pavement Committee, Pile Committee, Pile Producers, Bridge Producers, and the PCI Committee on Bridges. He works to educate engineers of the benefits of precast and prestressed concrete while continuing to facilitate the advancement of research for infrastructure through code development activities and communications to FHWA, Department of Transportation and members of AASHTO Committees. In May 2012, William assumed the duties of Editor in Chief of *ASPIRE*<sup>™</sup>, The Concrete Bridge Magazine. He is responsible for overall direction and finance accountability of this PCI publication that has support from other concrete associations.

William Nickas also owns and operates two small business (Willco Industries and Folded Slab, LLC) where he consults and holds a patent. He works as an advisor to Orchard Pond Greenway, LLC, the operating entity of the Orchard Pond Parkway toll road in Leon County Florida. He worked as a defense expert to attorneys

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Curtis Brown, Esq. of Wright, Fulford, Moorhead and Brown of Altomonte Springs, Fl. and Russ Emerson, Esq. of Haynes Boone of Dallas, Tx.

Previously he worked with members of the Corven Engineering, Inc.'s team to strengthen personnel development, project management, quality Control, Quality Assurance and business development. These developed a complete list of detailed tasks, schedule, and activity budgets for an assignment. The results of this interaction became the basis of a project management plan (PMP). The PMP is a "roadmap" for executing a project, and it served as Corven's management/planning document. The PMP details the management and administrative requirements of the project and serves as a working reference that enables the project manager to continuously monitor project requirements, including budget, schedule, Quality Control, sub-consultant work, and document delivery dates. While at Corven Engineering, William Nickas lead contract efforts with Utah and Idaho DOT's in the area of Accelerated Bridge Construction.

As the State Chief Structures Engineer, Mr. Nickas lead the agency during what appeared to be daunting challenges. The challenges began with unexpected closure of Royal Park Bridge, a critical connection to Palm Beach, followed by the finding of corrosion of Post Tension tendons in Niles Channel, Mid-Bay Bridge and Sunshine Skyway Bridge. He served as the lead technical person to resolve construction challenges for the Ringling and Memorial bridge projects. In August of 2004, He personally directed the recovery efforts of the I-10 bridge over Escambia Bay which resulted in two lanes of traffic being opened in 17 days. He then assembled and lead the peer review team of the Tampa Crosstown Pier Collapse which resulted in the letter of finding in Jan 2005. He then took a team to aid in post Katrina recovery efforts for ravished Mississippi and Louisiana. His efforts were acknowledged by MissDOT and LaDOTD management. He has developed a reputation for his ability to access the issue, quickly explore options and set and execute the direction. His position also made him the State's representative the AASHTO Subcommittee for Bridges and Structures, where he served on many Technical committees including six years as Chairman of the prestigious T-10 Concrete Bridge Committee.

During his 12 years in the private sector in Florida, William was a officer of E.C. Driver and Associates and very active with industry (FICE) efforts toward providing input to the FDOT new guidelines for consultant selection, consultant negotiations, overhead rates and CADD costing. As the State Structures Design engineer has built upon these contacts with both FICE and FTBA members.

He is the engineer of record of over 50 roadway and bridge construction projects. He has attended and participated in many conferences and symposiums. He has published several papers and taught more than 2000 engineers during FDOT project manager's workshop about quality control as it relates to checking construction plans and bridge design concepts. Recently William has chaired several TRB Panels and participated in many national engineering initiatives such as post-tensioning improvement and Load Resistance Factor Design and Load Rating bridge code development and deployment.

Other significant projects that Mr. Nickas participated in include:

### **Representative Projects as Engineer of Record**

- ❑ Suncoast Parkway Section 6, Hernando County; Mr. Nickas was serving as the principal in charge of this twelve mile limited access toll road in Florida. This project had a full time project manager, 8 in-house engineers and six sub consultants. This two year design project was 50% complete at the time of his departure. The coordination effort with right of way, geotechnical, survey, permitting, etc. staff was a challenging effort.
- ❑ S.R.44 Bascule Bridge Replacement, Volusia County; A 2-lane, single leaf low level bascule bridge replacement project with the tender house on the rest pier. The tender house has been specially designed to match the island look of the New Smyrna beach area. The structure is designed for ship impact and tidally influenced scour conditions. Mr. Nickas served as the design consultant's project manager and structural engineer of record.

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- ❑ S.R.706 Bascule Bridge Replacement, Palm Beach County; A 6-lane mid level bascule bridge replacement project. This 35 foot clear bascule has skewed piers in order to reduce the scour of the foundation. Mr. Nickas was the engineer of record for the structure.
- ❑ U.S.41 Venice, Sarasota county; Mr. Nickas was the engineer of record for the original Bridge Development Report for the Hatchet creek crossing. He also served as the Principal for the project until his departure from the firm. (The project was approx. 60% complete)
- ❑ C.R. 267 Emergency Bridge Replacement; The project involved the replacement of a small Flat slab bridge. This project was designed with all plans ready for letting in 21 calendar days.
- ❑ S.R. 71 Design/Build, Gulf County; A fast track pilot project which was designed and built in six (6) months. Mr. Nickas served as the Project Manager and Project Engineer for plans production and construction inspection. This project involved Water District Management Permit, Corp of Engineers Permit approvals, along with the production of roadway plans, signing and pavement markings.
- ❑ U.S. 98 over Holiday Inn Pedestrian and Vehicular Underpass, Bay County; Engineer of Record of this project which involved the preparation of structural, drainage and roadway plans for the construction of a curved 150' long tunnel.
- ❑ I-295/I-10 Interchange, Duval County; This project involved the upgrading of the interchange to accommodate additional traffic. The geometrics of the ultimate interchange were controlled by the existing bridge configurations. In order to accommodate ramp termination and acceleration lanes, extensive geometric configurations were required to complete this design. He is the engineer of record for the eight bridge widenings including two curved steel plate girder bridges.
- ❑ St. Mark's River Bridge Replacement, Wakulla County; Engineer of Record for completed Project Development & Environment Study and Final Engineering Report. This contract included a multi discipline team involving R/W mapping, permitting, biologists, geotechnical, and civil engineering.
- ❑ Forest Hill Blvd. Bridge Replacement and I-95 Interchange Upgrade, Palm Beach County; The project included the development of roadway, signing and pavement marking, and signal plans for this complex urban bridge replacement. The project's traffic control plans established much of the design considerations for the signalized interstate diamond interchange at I-95, the CSX Railroad and the bridge replacement.
- ❑ Veterans Expressway bridge on section 3.1, Hillsborough County; Engineer of Record for twin bridges crossing two stream crossings, five local streets, and a major interchange at Hillsborough Ave.
- ❑ Nearly a dozen minor stream crossing replacements and a dozen repairs from bascule rehabilitation's to cathodic protection projects.
- ❑ A half dozen operational improvement assignments including: ie. S.R. 366 & Appleyard Drive, Leon County; Engineer of Record for intersection redesign which involved roadway, signals, signing and pavement marking plans; S.R. 61 (Monroe St) three (3) resurfacing and safety projects: From I-10 to Tenn. St. (SR 10), Leon County roadway plans, signals, signing and pavement marking; S.R. 20 intersection redesign in Niceville, Fl.; and the S.R. 30 @ Fairpoint Dr. intersection redesign in Santa Rosa County, FL.
- ❑ Dania Cut-off Canal, Broward County; A mid-level canal crossing in an area developed by Florida Power and Light. This divided roadway has a concrete bridge with a planter down the median of the bridge.
- ❑ Nine Mile Road Bridge over I-95, St. Johns County; As a subconsultant our group designed and detailed this privately funded interchange. Once construction was complete it was accepted by FDOT and FHWA for all future maintenance. Mr. Nickas is the engineer of record for the structure.

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### Technical Papers & Presentations:

- ❑ Presentations and papers to various DOTs on PCI initiatives and Concrete Bridge innovations. - fall 2008 thru present
- ❑ Background Presentation to local, state and international delegates witnessing the FHWA Show Case Project of FDOT's "**I-4 and Graves Ave. use of Self Propelled Modular Transporter**" -2006.
- ❑ PCI Journal Cover story "**Design-Build Replacement Bridge for St. George Island Protects the Environment and Ensures Durability**" by Steve Zendegui, William Nickas, Ed Scheuermann and Don Theobald.- Nov.-Dec. 2005
- ❑ "**Florida 2004 Hurricane Findings and I-10 Response**", Presentation to AASHTO Subcommittee on Structures and Bridges –June 2005.
- ❑ FHWA/FHWA International Technology Exchange Program Publication "**Prefabricated Bridge Elements and Systems in Japan and Europe**"- March 2005.
- ❑ *fib* Post-Tensioning Conference paper on "**FDOT's Pursuit of Durable Post-tensioned Bridges**" - Switzerland – Sept. 2004
- ❑ FHWA Symposium on Accelerated Construction presentation on "**Speed verses Durability**", New Jersey Presentation –August 2004
- ❑ FICE/FDOT Design Conference "**Bridge Innovations of the future**" and Self Propelled Modular Transporters- Orlando, Florida- 2004
- ❑ ASBI Letter to the Editor of Civil Engineering Magazine in response to the ASCE article, "Enduring Strength" in the September 2003 issue of Civil Engineering - by William N. Nickas, State Structures Design Engineer Florida Department of Transportation Andrea Schokker, Henderson Professor of Civil Engineering The Pennsylvania State University Clifford L. Freyermuth, Manager, American Segmental Bridge Institute
- ❑ "**Florida Post-Tension Findings**", Presentation to AASHTO Subcommittee on Structures and Bridges - 2001.
- ❑ TRB third International Bridge workshop in Tampa, Florida, Mr. Nickas was the luncheon Speaker for "**A tour of Florida's bridges and the Sunshine Skyway Construction**"- 2000
- ❑ "**Corrugated High Density Polyethylene Pipes for Gravity Flow Applications-Service Life and Design Issues**," Chaallal, O., Shahawy, M., and Nickas, W., Florida Department of Transportation -1999.
- ❑ FDOT/Consultants Partners, "**Excellence & Quality in Project Management**" – 1994
- ❑ National Quality Initiative "**Quality Control in a Medium Size Engineering Firm**" – 1993
- ❑ ACI Journal "**Florida Bulb-Tee And Double-Tee Beams**" – 1987
- ❑ FDOT Report "**Development of Double-Tee Bridge Systems for Interstate Highways**" – 1987
- ❑ International Bridge Conference "**Report on Cracking Shear Capacity of Prestressed Concrete Beams**" - 1986