



## Bubba Knight: A Wide and Varied Career

Word to the wise, don't let the "I'm just an ole country boy" demeanor fool you. He may go by the name "Bubba." His conversational style may be slow with a lilting southern drawl, but that may be the only thing slow about William "Bubba" Knight, P.E. He is an accomplished and respected geotechnical engineer with a resume of varied experience that renders him "tops" at his craft. His official title at Fugro Loadtest is business development manager/senior engineer. In this role, he promotes the use of Loadtest technology for deep foundation testing in both the public and private sectors. In that his wide experience includes working in both realms, he is infinitely suited to promote the services provided by Fugro Loadtest.

### In the Beginning

A 1978 graduate of Auburn University with a BSCE degree, Knight started his career with PDM Corporation in Birmingham, Ala. As a contract administrator and fabrication and field engineer, he was involved in contract management projects for the design and construction of facilities for materials-handling, nuclear power plant containment and petroleum/chemical storage. In 1984 he joined District 3 of the Florida Department of Transportation (FDOT) serving as the assistant district materials and geotechnical engineer. There, he took on a wide variety of tasks, including all phases of

deep foundation project construction from design through confirmation testing, which included every deep foundation type for bridge construction. You name it — drilled shafts, driven piles, MSE walls, embankments, drainage structures, water containment ponds, soils support for pavement design — if geotechnics were involved, Knight was the go-to guy.

In 2000 he left FDOT to work for Professional Services Industry where he helped develop a national focus on the transportation industry. Through 2008 he was involved with major highway construction projects throughout the southeastern and southwestern U.S. The projects included I-20 in Augusta, Ga.; Cooper River Bridge in Charleston, S.C.; Biscayne Bay Tunnel in Miami, Fla.; I-30 in Little Rock, Ark.; and I-10 Escambia Bay Bridge in Pensacola, Fla.

In 2011 Knight joined Fugro Loadtest, where he has become the public face of the company, participating in activities of professional organizations and government entities throughout the industry. He is the vice chair of DFI's Drilled Shaft Committee and a member of the organization's Manufacturers, Suppliers and Service Providers Committee.

### A Winding Path

When asked about how he chose a career in geotechnical engineering, Knight replies, "It was a roundabout path. Upon graduation, FDOT didn't immediately offer me a position. It was thought that I had another quarter of school. For the next six years, I worked in the plate steel construction business. As fate would have it, in the early 1980s, the slump in the oil and steel industries coincided with FDOT beginning to implement new foundation technology approaches. The need for someone interested in working in that realm led them to me. In this case, opportunity merged with availability and interest."

### Opportunities

"My career was the 'luck of the draw,'" Knight says. "I arrived at a confluence of opportunity in that there were many bridge replacements in the works along with advancements in technology and knowledge. There was an increase in designing for greater foundation loads, larger foundations, undertaking scour and lateral load analysis for vessel impact, along with the advent of new testing protocols (e.g., Pile Driving Analyzer [PDA] and Osterberg Load Cell [O-Cell]) and an emerging interest in how lateral loads came into play."

He continues, "Many of the issues encountered on the older structures or those in trouble were caused by a lack of understanding of what was involved. The bridges were built back-in-the-day with what was thought to be right at that time. As a district geotechnical engineer, my M.O. became a constant search for what we 'didn't understand' and to uncover the substance of new data and how it could affect what we should be doing now. I embraced the challenge."

To amplify this point, Paul Passe, P.E., a longtime colleague at FDOT and in private practice, tells us that, "Bubba has always been one to search for the 'why.' Why are these shafts having a problem? Is it the construction method or soils? He has always worked toward pushing the limit and then providing testing to verify that push." To further describe how Bubba was perceived by cohorts, Aubrey Graves, a longtime associate at FDOT, recalls, "Bubba was not afraid to try new ideas, but only did so after a thorough investigation. Innovation did not intimidate Bubba but seemed a way for him to explore and expand on his innate curiosity and understanding of soils and deep foundations." Graves adds, "I, and many engineers both within and outside of FDOT,

learned much from him as he was always willing and excited about sharing his knowledge.”

## **Influences in His Career**

Knight continues with the theme of “right place-right time” in acknowledging those who influenced his thinking and actions. “I had the fortunate opportunity to interface with the ‘greats’ of the time. These include Dr. David Crapps, Dr. John Schmertmann, Jack Hayes, Dr. Jorg Osterberg, Jerry DiMaggio, Dr. George Goble, Dr. Frank Rausche, and many others, especially a number of forward-thinking contractors, such as Bud Stebbins, who undertook seminal research in the use of mineral and polymer slurries in drilled shaft construction in Florida. There were so many others.” He reflects, “Looking at my career, I’m amazed at the individuals who I’ve had the opportunity to meet and to learn from.”

## **Bubba-isms**

As to his home turf, he notes, “The Florida Panhandle is such a varied mix in geology; the challenges seemed endless. It is a mix of the karstic formations formed from life under the oceans mixed with remnants of the Appalachian foothills cut by paleo channels that infilled over time. I developed a number of sayings known as ‘Bubba-isms’ to describe the circumstances: ‘It’s wonderland, I wonder what we’ll find in the next hole.’; ‘I’m not sure what you folks from Alabama and Georgia are grouching about; we have to build on everything y’all didn’t want and washed downstream!’; and ‘God made this country to let us see how smart we thought we were!’”

## **Future Need**

Knight is a humble person, but he is not shy about sharing his well-founded opinions. He has seen a great deal of change in the deep foundations industry. He has personally contributed to advances in the profession. Knight feels that, “the industry

is struggling with how to develop a ‘complete picture’ of the needs of the total project. Doing so would enhance the likelihood of delivering the best product to the owner. The introduction of P3 (Public Private Partnerships) and design/build concepts are forcing a recognition from both the design and contracting sides that a cooperative, knowledge-based approach would best serve the needs of all the parties involved in the process. With some exception, not enough weight is being placed on the ‘technical score /merits’ of a given proposal, thus reducing the selection process to a low-bid-only approach. This stymies the potential for innovation and optimal application of existing technology, and often results in unnecessary project costs, delays and claims.”

William “Bubba” Knight has been at the cutting edge of the evolution of the deep foundations industry for some time. We do not see his position as a respected professional, astute observer and friend to many changing any time soon.