

## **The History of SUE**

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First introduced in early 1980's, subsurface utility engineering has evolved from an innovative concept to an industry standard. Utilities had become a major headache on roadway projects by the early 1980's. Typically, utilities were ignored until construction. This resulted in costly, unnecessary utility relocations and project delays. Combining two relatively new technologies, surface geophysics and air/vacuum excavation, engineers were able to gather data on the exact location of underground utilities early in the design of projects, thus subsurface utility engineering was introduced. It wasn't until the early 1990's, then the Federal Highway Administration (FHWA) began promoting subsurface utility engineering, did the practice begin to get notice throughout the country. It would be another 10 years before subsurface utility engineering became widely accepted. Two key events triggered this growth: the creation of a standard by the American Society of Civil Engineers and a study by Purdue University and commissioned by FHWA to help quantify the value of subsurface utility engineering.

Today, subsurface utility engineering is used in some capacity by many local governmental agencies, engineers and infrastructure contractors throughout the United States. The use of subsurface utility engineering has been adopted by other industries, involved with trenchless technologies, in which construction projects have the capability to affect underground utilities. As new technology is introduced, subsurface utility engineering providers are able to advance and perfect the process. While a standard in the United States, globally, subsurface utility engineering is just taking off.

*R. Mark Pitchford is the Vice President for the Southern Region of Cardno TBE's Utility Division. In this capacity, Mr. Pitchford oversees and coordinates resources for Cardno TBE's Surveying and Mapping. Subsurface Utility Engineering and professional Utility Coordination services provided in Florida, Georgia, North Carolina, South Carolina, Alabama, Tennessee, Mississippi, Arkansas and Louisiana.*

*For over 21 years, Mr. Pitchford has earned a reputation for his innovation and extensive expertise in Surveying and Mapping and Subsurface Utility Engineering. He has introduced many governmental entities and private firms to the cost saving benefits of integrating Subsurface Utility Engineering into a wide variety of design-build projects, including freeways, railroad, airports, ports, bridges and highways. Mr. Pitchford's personal attention and management experience is responsible for Cardno TBE's satisfied clients and repeat project opportunities in the South.*

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