



CAPABILITY STATEMENT

CORE COMPETENCIES

Bridge Hydraulics and Scour: Ensuring bridge structures are of sufficient size, that natural flooding is not worsened, and that the structures can withstand the design flood while remaining traversable is of extreme importance in keeping communities connected. It is no secret that bridge scour is the largest cause of bridge failure in the United States. **At Vortex, we focus on the accurate prediction of design scour depths for bridges over riverine waterways, keeping costs in check and the safety of the public as our number one priority.**

Roadway Drainage Design: Vortex provides engineering services for all aspects of roadway drainage design, including storm drain systems, retention and detention facilities, ditches, cross drains, side drains, optional culvert materials, and floodplain impacts and mitigation. **We use the most advanced stormwater design technology to avoid errors and omissions and deliver a high-quality product to our clients.**

PD&E Studies: Carefully following the process outlined in the Project Development and Environmental (PD&E) Manual of the Florida Department of Transportation (FDOT) to comply with the National Environmental Policy Act (NEPA) of 1969, **Vortex provides services to complete Pond Siting Reports (PSR), Location Hydraulic Reports (LHR), and Bridge Hydraulic Reports (BHR)** for any roadway facility ranging from interstates, arterials, collectors, and local roads.

Standard Plan Reviews: It is essential that technical reviewers check to see that applied standards, codes, and design criteria are appropriate for the project under review. We ensure that the appropriate methodology is applied correctly and verify the accuracy of the calculations. At Vortex, we understand review processes are critical for quality assurance through our **vast experience in reviewing drainage connection permits, roadway plans, LHRs, PSRs, and BHRs.**

DIFFERENTIATORS

- In-demand expertise in bridge hydraulics and scour, with experience in several states including Florida, Hawaii, South Carolina, and Texas.
- Solid reputation with FDOT districts with 45 years of combined experience in water resources.
- As a new start-up, the Vortex Team is 100% available. We not only provide technical expertise in water resources, but we also support prime consultants with the marketing effort required to secure a project win.
- Vortex is a fully remote firm with a strong commitment to work-life balance, which translates into better employee retention.
- **The Vortex leadership is proud to have been the team leader for the development of the Hawaii DOT Scour Program using the FDOT Scour Program. This accomplishment stands out as one of our greatest achievements.**

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PAST PERFORMANCES*

BURNT STORE ROAD PD&E STUDY FROM VAN BUREN PARKWAY TO CHARLOTTE COUNTY LINE | FDOT, District One | The project involved widening 5.7 miles of road from two lanes to four lanes and ultimately six lanes in Cape Coral, Lee County. Deliverables included a pond siting report and a location hydraulics report.

HOWELL DRIVE OVER RIBAUT RIVER BRIDGE REPLACEMENT PD&E STUDY AND DESIGN | FDOT, District Two | The project included realignment and bridge replacement design in Duval County, northwest of the City of Jacksonville. Tasks included the design of a stormwater management facility, a storm drain system, and the preparation of a bridge hydraulic report, which included scour calculations and hydraulic modeling.

DISTRICTWIDE BRIDGE REPAIR DESIGN | FDOT, District Three | The project consisted of repairs and rehabilitation designs for various bridges throughout the district. Tasks included hydraulic services to include low member clearance calculations, channel training, scour calculations, and countermeasures.

CR 510 WIDENING FROM 87TH STREET TO WEST OF 82ND AVENUE FDOT, District Four | Improvements include widening by adding two additional travel lanes and seven-foot buffered bicycle lanes, and replacing an existing bridge with a new 3-sided box culvert in Sebastian, Indian River County.

REVIEW OF DISTRICTWIDE QUALITY ASSURANCE PLANS FDOT, District Five | This contract required quality assurance technical reviews of construction contract plans and supporting documentation for proposed improvements to the district's transportation facilities.

ORLANDO SOUTH ULTIMATE INTERCHANGE PD&E STUDY Florida's Turnpike Enterprise | This PD&E Study evaluated alternative improvements to optimize the Turnpike Mainline/SR 528 interchange operations in Orlando, Orange County. Deliverables included Pond Siting Report and Location Hydraulics Report.

***The above projects are NOT attributed to Vortex Company, LLC but its members**

COMPANY DATA

DBE, MBE, SBE, WBE CERTIFIED

PREQUALIFICATION IN FDOT WORK GROUP 3.1- MINOR HIGHWAY

PE LICENSES: FLORIDA: 84142 & 54769 | GEORGIA: 050592

TENNESSEE: 125786 SOUTH CAROLINA: 36234 | TEXAS: 132443

NAICS: 541330

COMPANY INFO VORTEX COMPANY

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