



**B.S., Civil Engineering  
University of South Carolina  
2005**

# DENNIS CORPORATION

## **Elizabeth C. Kelly 2005 - Present (Career) Water Resources Manager**

Ms. Kelly is a high performance civil engineering professional with a proven ability to effectively close projects and build long term business relationships. She possesses a specialized technical background in site and highway drainage and bridge hydraulics. A team leader, Ms. Kelly has a strong ability to achieve results in a fast paced, highly competitive, multi-tasking environment. Her areas of specialization include hydrology/hydraulics, roadway drainage, water resources, erosion control, bridge hydraulics, urban hydrology for small watersheds, and detention ponds.

Ms. Kelly's specific project experience prior to joining Dennis Corporation includes:

- ❑ **I-73 Southern Section Right of Way Design, Mullins, South Carolina – Project Engineer- 2008 - 2009:** Ms. Kelly performed hydrologic and hydraulic design for 15 miles of proposed interstate. She also designed drainage system for proposed Trumpet Interchange that connects with SC 22 Conway Bypass. Ms. Kelly prepared monthly reports, drainage plans, and designed notebooks for 90% Right of Way Design.
- ❑ **South Carothers Parkway, Franklin, Tennessee - 2008 - 2009:** For this project, Ms. Kelly set-up HEC-RAS model for hydraulic analysis for the proposed bridge over the Harpeth River. Ms. Kelly also wrote the hydraulic report, performed scour analysis, and submitted design to City of Franklin, Williamson County and FEMA. Ms. Kelly prepared CLOMR documents to submit to FEMA.
- ❑ **Mack Hatcher Parkway, Franklin, Tennessee - 2008 - 2009:** Ms. Kelly set-up HEC-RAS model for hydraulic analysis for the proposed bridge over the Harpeth River. She wrote the hydraulic report, performed scour analysis, and submitted the design to TDOT, City of Franklin, Williamson County and FEMA. Ms. Kelly also prepared CLOMR documents to submit to FEMA.
- ❑ **Veterans Boulevard Bridge, Sevierville, Tennessee - Project Engineer - 2007 - 2008:** For this project, Ms. Kelly set up the HEC-RAS model for hydraulic analysis for the proposed Veterans Blvd Bridge over the Little Pigeon River. She wrote the hydraulic report and submitted the design to City of Sevierville and FEMA. Ms. Kelly also prepared CLOMR documents to submit to FEMA.
- ❑ **USC Bio-Mass, Columbia, South Carolina - Project Engineer - 2007:** This project included the hydraulic design for proposed steam line crossing over Rocky Branch. Ms. Kelly obtained a No-Rise Certification and submitted the Hydraulic Report to DNR.
- ❑ **Tarpon Boulevard Phase 1, Fripp Island, South Carolina - Project Engineer - 2007:** Ms. Kelly designed a stormwater master plan for this roadway widening project. She also prepared drainage plans, a stormwater report, and SWPPP for OCRM DHEC.
- ❑ **SC 6, Lexington, South Carolina- Project Engineer - 2007:** Ms. Kelly assisted the Project Manager with drainage and erosion control design for this 3.9-mile SCDOT roadway widening project. This project consisted of a rural 2-lane upgrade to 5 lanes with curb-and-gutter. Ms. Kelly prepared a SWPPP for DHEC.
- ❑ **South Carolina State University Transportation Research and Conference Center Phase 2, Orangeburg, South Carolina- Project Engineer – 2007:** Ms. Kelly designed a stormwater system to account for a proposed building site and designed an

underground detention system. She also prepared a SWPPP for DHEC.

- ❑ **Santee Cooper Stormwater Plan, Cross, South Carolina - Project Engineer - 2006:** For this project, Ms. Kelly designed stormwater control and drainage for the relocation of Viper Road and the widening of CSX Railroad. She also provided construction plans and quantities for the relocation and widening.
- ❑ **Meineke Stormwater Plan, Lexington, South Carolina - Project Engineer- 2006:** Ms. Kelly designed a detention pond and erosion control design for the proposed site. She also submitted the drainage design to DHEC.
- ❑ **Read Street Drainage, Columbia, South Carolina- Project Engineer – 2005:** Ms. Kelly set up SWMM model to make recommendations for possible pipe size changes. She also wrote the hydraulic report summarizing her recommendations to the City of Columbia.
- ❑ **SC32 Bridge Replacement, Abbeville County, South Carolina – Project Engineer - 2006:** Ms. Kelly assisted with the hydraulic design of four replacement bridges on SC32. She also prepared the bridge hydraulic report for all four bridges and submitted it to the SCDOT.
- ❑ **SC-86 Browns Creek Bridge, Union County, South Carolina - Project Engineer- 2005:** For this project, Ms. Kelly set-up the HEC-RAS model for hydraulic design for both creeks. She also wrote the report for hydraulic design and risk assessment for the bridge replacements over Browns Creek and Gregory Creek.
- ❑ **South Carolina State University Transportation Research and Conference Center Phase I, Orangeburg, South Carolina - Project Engineer - 2005:** Ms. Kelly performed hydrologic analysis for the proposed site. She also prepared a design notebook and permits for DHEC.
- ❑ **Deep Head Swash Outfall Rebid, Myrtle Beach, South Carolina - Project Engineer - 2005:** Ms. Kelly attended and participated in construction meetings and site visits. She also put together bid packages and correspondence with Misener Marine.

#### **Models**

- ⇒ HEC- RAS 4.0 River Analysis
- ⇒ USACE
- ⇒ HEC-2 River Analysis
- ⇒ TR-55, Urban Hydrology for Small Watersheds, NRCS
- ⇒ SWMM Stormwater Management Model, EPA
- ⇒ Hydraflow Hydrographs 2004, Hydrology for Small Watersheds, Intelisolve;
- ⇒ NFF 3.2, National Flood Frequency Analysis, USGS
- ⇒ SEDCAD 4.0 Sediment and Erosion Control Routing, Civil Software Design
- ⇒ Hydraflow Storm Sewers 2008, Intelisolve
- ⇒ HYDRAIN Road Drainage Design, FHWA
- ⇒ Microstation V8

#### **Professional Affiliations**

- ⇒ American Society of Civil Engineers