



**Dan Dennis, PE, PLS**  
**President**  
**(1993-Present)**

MBA, The Citadel Evening College - 1993

B.S. Civil Engineering, The Citadel - 1990

US Army Reserve Officer  
Training Corps

- Professional Engineer: SC
- Professional Land Surveyor: SC
- National Council Record - NCEES
- Expert Witness: SC



Dan Dennis' experience includes planning, surveying, engineering, construction inspection, construction management, project management and program management for hundreds of civil engineering projects. Specific responsibilities have included topographic and property surveys; roadway, drainage, site, foundation, and pavement design; construction document development; permitting; bidding; contract administration; construction engineering and inspections; construction management; project management; and program management.

Dennis' engineering and management experience includes the following projects, to name a few:

**SC 802 Road Widening and new Intracoastal Bridge over the Beaufort River, Beaufort County, SC:** Mr. Dennis served as the roadway project design manager for this \$54,000,000 project, which includes a new four-lane bridge across Beaufort River and widening the existing approach roadways from two lanes to five lanes. Dennis oversaw the roadway design, utility coordination, survey and traffic studies for the project.

**Palmetto Commerce Parkway, Phase II, Charleston County, SC:** Mr. Dennis supervised preliminary plans for the design of a four mile divided highway from US 78 to Ashley Phosphate Road in Charleston County. This \$29,000,000 project was accelerated due to the Daimler Chrysler automobile manufacturing facility under construction. The project also required the construction of two bridges spanning the Blue House Swamp and two future railroad spur bridges.

**Fairfield County CTC Program Manager:** Mr. Dennis was the principal-in-charge of several projects located throughout Fairfield County and funded through the CTC and county. These projects include the 2006, 2007, 2008, 2009, and 2010 Road Improvement Programs; West Moultrie Street Sidewalk; Wateree Road Reconstruction; Voter Polling Locations Paving Program; Dutchman's Creek Pedestrian Bridge; Brown's Bridge Replacement Study and the Safe Routes to School Program.

**US Highway 17 Design, Mount Pleasant, SC:** Mr. Dennis Corporation provided roadway design services for the Town of Mt. Pleasant for the \$25,000,000 roadway widening of US 17 from the Isle of Palms Connector to Highway 41. The scope of services included surveying, construction plan preparation, utility coordination services, drainage services and public meetings and hearings coordination for this eight mile widening.

**US 76 Bridge Replacement, Sumter, SC:** Mr. Dennis served as principal in charge for the \$13,700,000 replacement of a bridge on US Route 76 over US Route 521. Project services include environmental assessment, right-of-way plans, roadway construction plans, bridge construction plans, traffic engineering, specifications, permit applications, and utility coordination.

**Beaufort County Sales Tax Program Management:** Mr. Dennis served as Program Manager for the Beaufort County Sales Tax Program, assisting the County with the program management of fourteen transportation projects with construction costs totaling over \$350 million. Projects included both local road and bridge projects in the county over a four year duration. As the program manager, Dennis was responsible for assisting Beaufort County with scheduling, budgeting, and construction management of these projects.

**Richland County Recreation Commission IDC, SC:** Mr. Dennis served as the Engineer-of-Record for several projects for Richland County Recreation Commission. Dennis Corporation provided services including, but not limited to, master planning, surveying, site civil engineering and design, construction document development, and permitting services. The five recreational facilities for the Commission included civil engineering and site design for the Meadowlake Park Press Box, Kelly Mill Soccer Complex, Polo Road Park Tennis Courts, Crane Creek Community Center and Parking Facility, and structural design for the Garners Ferry Sports Complex, all in Richland County.

**Sandstone Subdivision and Plaza:** Mr. Dennis oversaw the water, wastewater, and stormwater system designs for a new 150-lot commercial and residential development in Florence, South Carolina. It will also serve as the new location for the Town of Irmo's Annual Okra Strut Festival.

**Midlands STEM Institute Charter School, Winnsboro, SC:** Mr. Dennis Corporation was hired as the Project Manager for this building conversion project. An ambitious schedule was set to renovate an existing 2 story church into classrooms and working cafeteria. In order to receive an occupancy permit from the Office of School Facilities, contractors and architects were hired and talks with SCDOT for encroachment permits began. In a matter of 6 weeks from notice to proceed the firm was able to secure the OSF permit by renovating both floors to upfit them to code.

**The Farm at Ridgeway, Fairfield County, SC:** Mr. Dennis oversaw the Engineering and Construction Management Divisions with the design and construction inspection of the water distribution systems and wastewater disposal systems for this project. The Farms at Ridgeway consisted of a 44-lot subdivision which covers 127-acres.

**Live Oak Village, Murrells Inlet, SC:** Mr. Dennis served as project manager for Live Oak Village, a mixed use development in Murrells Inlet, South Carolina. The project involved many modern concepts, including town home style condominiums with both commercial and residential space, and utilization of pervious parking and water quality treatment facilities in lieu of conventional detention basins.

**Richland County Township Auditorium Renovations, SC:** Mr. Dennis Corporation served as the on-site construction management advisor for the historic Township Auditorium in downtown Columbia, SC. Dennis Corporation provided construction management and inspection services on the renovations consisting of: a back stage loading area, replacement of stage floor, upgrade of rigging support system, orchestra shell, sound and video equipment, stage lighting, dressing rooms, offices, electrical, fire alarms, communications, lobby area, restrooms, elevators, concession areas, replacement of Marquee, grading, utility relocation, drainage, parking lot patching and service and exterior lighting. Dennis as the Principal-in-Charge and provided quality control for this project.

**Foxchase Subdivision Stormwater Improvements, Aiken County, SC:** Mr. Dennis served as the Engineer-of-Record for the rehabilitation of an existing storm drainage system in Aiken County. Engineering included horizontal and vertical realignment and new structural controls. Project responsibilities included hydraulic modeling and design, permitting, and preparation of construction documents for bidding.

**Lincoln Street Parking Garage, Columbia, SC:** Mr. Dennis served as the project manager for the City of Columbia's Lincoln Street Parking Garage site/civil design. This \$9 million structure is located in the City's burgeoning Congaree Vista business district, home to upscale shopping, restaurants, and nightlife. Dennis oversaw design of the parking structure, including ingress/egress points on two levels, parallel parking, hardscaping, and surface parking areas.

**Lexington Town Square and Fallen Officers Memorial, SC:** Mr. Dennis served as the Engineer-of-Record for this project. Dennis Corporation provided survey, civil engineering design and construction management for this project. The project site is slightly less than an acre and sits on the west side of the Lexington Judicial Center.

**Lexington-Richland School District Five Civil Engineering & Surveying IDC, SC:** Mr. Dennis served as the Principal-in-Charge for several projects for Lexington-Richland School District 5. Dennis Corporation has provided services to include, but not be limited to, master planning, surveying, traffic studies, civil engineering and design, construction document development, and permitting services for the five schools across the district. The projects have included site and boundary surveys, parking lot rehabilitations, and site civil design projects.

**Community Park of Irmo, SC:** Mr. Dennis served as the Engineer-of-Record for this project. Dennis Corporation was retained to provide civil engineering design and surveying services for a new 14.4 acre park for the Town of Irmo. The park consists of a walking trail around its perimeter and throughout, an access road, two parking facilities, restrooms, playgrounds, covered picnic areas, and an amphitheatre for outdoor concerts. The park now serves the community year around for leisure activities. It will also serve as the new location for the Town of Irmo's Annual Okra Strut Festival.

**Little Jackson Creek Improvement Project, Richland County, SC:** Mr. Dennis served as the Engineer-of-Record for the development of a restoration strategy and design improvements for a 7,340 linear foot storm drainage ditch and jurisdictional stream. The system conveys stormwater runoff generated from a heavily developed commercial corridor consisting of 450 acres. The project involves close coordination with Richland County Public Works, CSX Railroad, corporate and individual stakeholders, and the US Army Corps of Engineers. Project responsibilities included the analysis and evaluation of the existing and proposed stormwater conveyance systems, development of an overall strategy to reduce the runoff velocities within the channel, preparation of engineering reports and public hearing documents and preparation of construction documents.

**Horry County School District Civil Engineering & Surveying On-Call, SC:** Mr. Dennis serves as the Engineer-of-Record for several projects for Horry County School District. Dennis Corporation is providing conceptual development, construction cost estimation, preconstruction surveys, site civil engineering and design, construction document development, and permitting for these projects. These projects have included athletic track resurfacing, the implementation of new fire lanes, and site storm drainage improvements.

**Design Build: SCDOT I-85 Access Improvements at the Greenville-Spartanburg Airport and BMW Interchanges, Greenville/Spartanburg Counties, SC:** Deputy Project Manager responsible for the coordination of activities of the key organization for this \$30 million project including CEI Teams, Construction Administration Team, Design Review Team, and Support Services Team. In this role, Dennis reported directly to the SCDOT Project Manager and ensured appropriate resources were provided and that the various groups were responsive to the client's needs.

**Cottonwood Plantation, Florence, SC:** Mr. Dennis served as Principal-in-Charge for the Cottonwood Plantation project, a 100-acre development in Florence, South Carolina. The development includes approximately 150 single family residential lots and 6,000 linear feet of roadway in its first phase, with phase II to include "big box" commercial space mixed with additional residential and one (1) to two (2) acre outparcels. Cottonwood Plantation was to be constructed at the site of a borrow pit in accordance with SCDHEC mining reclamation standards and regulations.

**The Meadows, Florence County, SC:** Mr. Dennis oversaw all aspects of design, permitting, and project management for The Meadows subdivision in Florence County, South Carolina. The Meadows is a subdivision consisting of approximately 4,000 linear feet of roadway and 100 single family residential homes. Dennis assisted in guiding the project through Florence County planning, SCDHEC Land Disturbance permitting, and SCDOT Encroachment permitting and coordination with a current SCDOT widening project at the site of the subdivision.

**Construction and Resource Manager, South Carolina Department of Transportation:** Assistant Construction Manager for the Construction Engineering and Inspection of 40 Road and Bridge projects located throughout the State. The projects had a combined construction cost of approximately \$720 million. Responsibilities included construction management of two area offices with a combined staff of 35 people, including construction engineers, inspectors, testing technicians, and surveyors. Work activities included project staffing, technical specification writing, inspector QA/QC certification training, contracting, constructability reviews, value engineering reviews, and construction schedule reviews.

**Expert Witness Testimony** including research, discovery, depositions and trial testimony on over 150 cases for the SCDOT and private defense and trial attorneys.

**Design Build: NCDOT Cary US 1-64/SR 1009 (Tryon Road) Interchange to South of I-40, Wake County, NC:** Mr. Dennis served as the CEI manager for this \$64 million highway construction project. Dennis was in charge of the following:

Teaming with the Contractor and Engineer to win the project. This included team meetings discussing design and construction value engineering to determine how to get the highway built safely, quickly, for the lowest possible cost; preparing the technical proposals which NCDOT used to select the most qualified team; preparing construction sequencing options, scheduling, and cost estimates; reviewing preliminary designs; mobilizing CEI staff consisting of resident engineer, inspectors, testing technicians, and survey personnel to inspect the project; setup of office and infrastructure to handle large CEI staffs, computer network, and testing equipment; and ensuring that office and field staff were complying with NCDOT standards.

**Design Build: I-77 from I-485 to SR 2136 (Gilead Road) Exit 23, Mecklenburg County, NC:** Mr. Dennis served as the CEI manager for this \$6 million highway project in charge of the following:

- Team meetings with the Contractor and Engineer discussing design and construction value engineering to determine how to get the highway built safely, quickly, and for the lowest possible cost; preparing the technical proposals which NCDOT used to select the most qualified team; reviewing preliminary designs; preparing construction sequencing options, scheduling, and cost estimates; mobilizing CEI staff consisting of resident engineer, inspectors, testing technicians, and survey personnel to inspect the project; set up of office and infrastructure to handle large CEI staffs, computer network and testing equipment; and ensuring that office and field staff were complying with NCDOT standards.

**Louisiana TIMED Program, LaDOTD, LA:** Mr. Dennis was highly instrumental in the pursuit, and start-up phases of this \$2.3 billion program involving program, design, and construction management of fifty-three (53) major highway projects. Dennis prepared much of the technical proposal, participated in due-diligence analysis for the development of the "cost-to-complete" portion for the design, utility relocation, right-of-way, and construction aspects of this program. Additionally, he assisted with the development of fees for the design, program management, right-of-way acquisition, utility relocation, and construction management phases of this program.

**Design Build: SCDOT Conway Bypass, Horry County, SC:** Project Engineer for the engineering and construction of a 28 mile, \$435 million design-build limited access highway from US 17 in Myrtle Beach, SC to US 501 north of Conway, SC. The project, comprised of 5.5 miles of bridges and 22.5 miles of embankment filled roadway, included right-of-way acquisition, utility relocations, clearing and grubbing, grading, "superpave" bituminous asphalt pavement, storm water drainage design, and erosion control. Wetland, stream, or river crossings consist of either flat slab of AASHTO girder bridges. The latest design and construction guidelines were utilized including FHWA, SCDOT, and AASHTO standards. Design software for the project included the latest versions of Microstation and Inroads. Responsibilities on this project included the following:

- Roadway and storm drainage design and bridge geometry coordination for the US 17 and Conway Bypass Interchange located adjacent to the former Briarcliffe Mall. The roadway design at this interchange included the vertical and horizontal design for US 17, Ramps, NE, NW, SE, SW Connectors, Connectors A & B, Loop SE, Mall Access Road, Hilton Road, relocated Kings Road, and all associated bridges. All work was designed in accordance with both The 1990 Policy on Geometric Design of Highways and Streets and the SCDOT Highway Design Manual. The designed storm drainage system along US 17 included approximately 130 SCDOT type 16 catch basins; 17,000

linear feet of drainage pipe; and a 5 acre storm water detention pond. All drainage design was done in accordance with the 1997 SCDOT manual on Hydraulic Design.

- Structural design for all pile locations, cut off elevations, and deck grade calculations for 42 flat slab bridges totaling 5.5 miles of structure. Design computations were complex due to the complex geometric design and super elevation requirements.
- Stormwater design for all cross line drainage on the mainline from US 17 to US 501 along the Conway Bypass. The design criteria for this work included either the rational method, SCS TR-55, or USGS Regression Equations depending upon the size of the drainage area.
- Aerial photography coordination for a 5 mile by 1000 foot corridor for the relocation of the Conway Bypass around Brown Bay wetlands. Work included route layout, survey controls, and monumentation.

**Lynches River Bridge (US 52 Northbound), Effingham, SC:** Project Engineer responsible for the design and construction plans of a 660 ft. long 46 ft wide cast-in-place bridge supported with 18 in. concrete piles. Design included hydraulic analysis using US Army Corps of Engineers HEC-RAS River Analysis System and WSPRO, plan and profile design, pile layout, cut off elevations, and structural details.

**Fairfield County Animal Shelter:** Mr. Dennis served as the Principal-in-Charge for the design of a new animal shelter/adoption center for Fairfield County, SC. The animal shelter consists of a pre-engineered metal building with floors sloped for washing waste and indoor and outdoor dog pens. Dennis consulted with the County on site selection, and oversaw the development of construction plans, including utilizing an architect as a sub-consultant for development of the building plans.

**Morrisville Church of Latter Day Saints Ward Center:** Mr. Dennis served as the Principal-in-Charge for the site/civil design of the Town of Morrisville Ward Center for the Church of Latter Day Saints. This project includes the construction of the 16,000 SF building and associated parking, detention facilities, water and wastewater mains, an off-site wastewater extension of the Town of Cary system, and a widening of McCrimmon Parkway to accommodate the increased traffic.

**West Alexander Avenue, Greenwood, SC:** Project Engineer responsible for design, construction plans, specifications, bidding, and inspection for the widening and overlay of SCDOT road S-24-128 and reconstruction and overlay of various county roads contiguous to the project. Design included geometric layout, horizontal and vertical design, pavement design, drainage and erosion control design, coordination with SCDOT and several utilities, right-of-way platting, and right-of-way acquisition. All right-of-way and engineering design was approved by SCDOT District 2 Engineering and conformed to AASHTO and SCDOT specifications.

**Munitions Road, Shaw Air Force Base, Sumter, SC:** Project Engineer for the design of a dedicated road approximately one mile in length to be used solely for the purpose of transporting F-16 aircraft munitions from the bunkers located at the Northeast end of Runways 22L and 22R to the arm/disarm ramp located at the Northeast end of Runways 22L and 22R. The munitions, including air to air missiles and air to ground weaponry, will be transported by munitions tow vehicles similar to large tugs used at commercial airports. Design responsibilities included the evaluation and selection of a preferred roadway alignment, topographical surveys, horizontal alignment layout, subsurface information review, horizontal and vertical roadway design, pavement design, stormwater design, sediment and erosion control permitting, environmental coordination, utility relocation design, and the preparation of construction plans, specifications, and cost estimates.

**Nations Road, Greenwood, SC:** Project Engineer responsible for design, construction plans, specifications, bidding, and inspection for the widening and overlay of SCDOT Road S-96 and US 25/S-96 intersection. Design included geometric layout, horizontal and vertical design, pavement design, drainage and erosion control design, and utility coordination. All designs were approved by SCDOT District 2 Engineering and conformed to AASHTO and SCDOT specifications.

**Greenville, SC:** Project Engineer for construction and right of way plans for improvements to various city streets. Design included property research, plat preparation, plan and profile and drainage improvements.

**The Citadel, Murray Barracks Replacement/Jenkins Avenue Road Construction, Charleston, SC:** Project Engineer for construction plans and specifications for the construction of a 110,000 sq. ft., 220 room barracks. Design included all civil site work including grading, drainage, utility and pavement design for the building site and adjacent Jenkins Avenue Road construction. Utility relocations included potable water, stormwater, sanitary sewer, gas, fire protection, HVAC, steam, irrigation, electrical and fiber optic.

**Isle of Palms Connector Bridge (SC Route 703) Mt. Pleasant, SC:** Assistant Resident Engineer for the \$40 million construction of 2.2 miles of reinforced concrete and precast girder bridge. The 11,460 foot bridge is 54 feet wide and supported by 714 pre-stressed concrete girders ranging in height from 18 feet to 76 feet above sea level. Project consisted of 23,000 LF of concrete barrier parapet wall; 66,000 SY of grooved surface finish; 30,000 SY of reinforced concrete; and 23,000 LF of drilled shafts. His responsibilities included the supervision of employees performing field inspections, quality control and materials testing, change orders, maintenance of project records, processing progress payments, and construction schedule reviews.

**Isle of Palms Connector Roadway (SC Route 703), Mt. Pleasant, SC:** Assistant Resident Engineer for the construction of 3.5 miles of roadway. The project consisted of unclassified excavation, 8-inch stabilized aggregate base course, asphalt concrete binder course, asphalt concrete surface course, seeding, guard rail, signage, and markings. His responsibilities included supervision of employee's performing field inspections, quality control and materials testing, change orders, maintenance of project records, processing progress payments, and construction schedule reviews.

**Rehabilitation of the Grace and Pearman Bridges, Charleston, SC:** Office Engineer and Construction Inspector for the rehabilitation of four miles of precast girders, steel plate girders, and steel truss bridges (\$16M). The project consisted of extensive structural steel and concrete repair in addition to abrasive blast cleaning and coating of two cantilevered trusses.

#### **Over 550 additional transportation/civil engineering and inspection projects**

Recent roadway and bridge experience includes the following projects:

**Windmill Harbour Traffic Study and Design, Jenkins Island, SC:** Mr. Dennis supervised this project as Principal-in-charge. Dennis Corporation performed a traffic mitigation study outlining possible solutions to alleviate the difficulty of turning onto US 278 from developments on Jenkins Island. Dennis Corporation performed traffic counts. Dennis Corporation then prepared a Traffic Signal Warrant Analysis for the Intersection of US 278 and Harbour Passage to determine if the location met the minimum conditions for signal installation with respect to federal and state criteria. Factors such as number of approaching vehicles, accident history, intersection layout and future road construction was considered. From the study, Dennis Corporation recommended that the intersection be considered for signalization.

**SC 802 Road & Bridge Widening, Beaufort County, SC:** Mr. Dennis served as the roadway project design manager for this project which includes a new four-lane bridge across the Beaufort River and widening the existing approach roadways from two lanes to five lanes. Dennis oversaw the roadway design, utility coordination, survey and traffic studies for the project.

**SC 165 (Delemar Hwy) Improvements, Dorchester County, SC:** Mr. Dennis served as Principal-in-Charge for this project. It consisted of the design and construction of more than two miles of roadway improvements along SC-165 from Carolinian Ave to Ashley Ridge High School in Dorchester County. Improvements included widening the existing 18' two-lane travel way to five lanes and incorporating new bicycle lanes, sidewalks and crosswalks along the roadway. Services provided include survey, roadway and hydrological design, NEPA documentation and permitting, threatened and endangered species surveys and coordination, right-of-way acquisition, utilities coordination, cost estimation, bidding, federal funding applications, and construction management, permitting and coordination with US Army Corps of Engineers, SCDHEC and OCRM are being required.

**Killian Crossing Intersection at S-52 Design & Roadway Improvement, Richland County, SC:** This project consisted of an intersection design, traffic signal design and roadway widening for the construction of the primary entrance to a new retail development at Killian Road (S-3050/52) in Blythewood, SC. The scope of the project included a traffic impact study, survey, roadway design, traffic signal design, pedestrian facility design, hydraulic/hydrologic design, and roadside beautification associated with the improvements at the intersection as well as within the public right-of-way along Interstate 77, Farrow Road and Killian Road.

**Saluda River Pedestrian Bridge, West Columbia, SC:** Mr. Dennis served as Principal-in-Charge for this project. The proposed pedestrian bridge will be located on the downstream side, adjacent to the existing I-26 bridge over the Saluda River. The bridge is designed to be approximately 450-feet in length and 11-feet wide. Ramps will be constructed at both ends to connect to the planned and existing trail system. Services include: project management, bridge design, seismic design, hydraulic design, environmental studies and permitting, NPDES studies, surveys, traffic control and staging plans, as-built plans and final quantities preparation, and construction specifications.

**Traffic Impact Study for Polawana Island, Beaufort, SC:** Author of a detailed study on the proposed traffic generated from a 288 single family development in the Lady's Island District of Beaufort County and its impact on SC 602 and US 21. Contents of the report include functional classification, road jurisdiction, land use analysis, design capacity, signalization study, and review of accident and congestion data.

**Traffic Impact Study for Burlington Plantation, Beaufort, SC:** Author of a detailed study on the proposed traffic generated from a 1300 residential dwelling units comprising the Burlington Plantation and its impact on SC 40. Contents of the report include functional classification, road jurisdiction, land use analysis, design capacity, preliminary intersection design, signalization study, and review of accident and congestion data.

**Prosperity Force Main, Town of Prosperity, SC**

**North Columbia Wastewater Outfall Improvement Project, Columbia, SC**

#### **AIR CARRIER AIRPORTS:**

**Henry H. Rohlsen Airport, St. Croix, Virgin Islands:** Mr. Dennis served as the Project Engineer for the runway extension for the existing 7,600 foot runway, expanding it to 10,000 feet. Dennis' duties included hydrology calculations for a large culvert under the runway and an extended field visit to conduct engineering reconnaissance, locate borrow sites, investigate asphalt paving capabilities and perform limited filed surveys. The \$18,000,000 project was completed on an accelerated schedule due to FAA grant limitations on funding.

**Columbia Metropolitan Airport, Columbia, SC:** Project Engineer for design and preparation of construction plans and specifications for construction of the East Air Freight Apron. Project included approximately 185,000 s.y. of 15-inch Portland Cement concrete pavement, bituminous asphalt perimeter roads, encroachments permits with South Carolina Department of Highways Route 302, phased construction operations, high mast lighting, blast deflector fences, and a de-icer collection and containment system. Constructed facilities will accommodate 22 DC-8 aircraft and all necessary ground service equipment.

**Greenville-Spartanburg International Airport, Greer, SC:** Project Engineer for the site preparation of a \$18 million, 2000 ft. runway extension involving 5.6 million cubic yards of earthwork, emergency access roads, utility relocations, and environmental permitting. Responsibilities included coordinating all utility relocations, SC Road 439 relocation, construction cost estimates, and preparation of contract documents in bidding phase. Constructed facilities will accommodate nonstop B-747 operations to Europe.

**Greenville-Spartanburg International Airport, Greer, SC:** Project Engineer for the future expansion of the existing air cargo apron - Phase II. Project included approximately 30,000 s.y. of 15-inch Portland Cement concrete pavement, bituminous asphalt stub taxiway pavement, vehicle access road pavement, and reconstruction of existing failed pavement slabs.

**Myrtle Beach International Airport, Myrtle Beach, SC:** Design Engineer for the expansion of the existing air carrier apron. Project included approximately 25,000 s.y. of 15-inch Portland Cement concrete pavement. Design included geometric layout, pavement design, concrete box culverts, edge lights, taxiway guidance signs and specification writing. Box culverts were utilized due to cover restraints, allowable slope and flow requirements.

#### **GENERAL AVIATION AIRPORTS:**

**Orangeburg Municipal Airport, Orangeburg, SC:** Project Engineer responsible for design and construction plans and specifications for construction of a future 6,000 ft. runway. Design included geometric layout, horizontal and vertical control design, bituminous asphalt paving design, drainage design, permanent stormwater detention facilities, sediment control and reduction structures, geotechnical soils evaluations, navigational aids, and extensive coordination with Federal Aviation Administration and South Carolina Department of Commerce Division of Aeronautics. Specific design issues include design of a 84" RCP culvert under the new runway using the USGS Regression Equation (7-parameters) for a 50 year storm and 853 acre drainage basin. Pre- and post-development rate discharges were calculated using the Quick TR-55 method utilizing both manual and HAESTAD computer program solutions.

**Orangeburg Municipal Airport, Orangeburg, SC:** Project Engineer responsible for design, construction plans, specifications, bidding, and inspection for construction of a 21 acre wetland mitigation site. Project consisted of 136,000 c.y. of unclassified excavation, 45,000 c.y. of wetland topsoil excavation, clearing, and grubbing 50 acres of wetland and upland areas, and the planting of 7,000 wetland species of trees and shrubs.

**Orangeburg Municipal Airport, Orangeburg, SC:** Design Engineer for construction plans and specifications for construction of a 21 acre wetland mitigation site. Design included pre- and post-development rate discharge calculations using the Rational Method, and sediment control using sediment basins, check dams and silt fence in order to provide a minimum of 80% reduction in sediment load. SCDHEC Engineering Aids were used to design and evaluate the sediment control management techniques.

**Dorchester County Airport, Summerville, SC:** Project Engineer for the preparation of construction plans and specifications for construction of a new 3700 ft. parallel taxiway. Project included construction phasing, unclassified excavation, soil stabilization, bituminous asphalt pavement, airfield markings, lighting and signage. Responsibilities included stormwater detention and sediment reduction design using computer modeling, grading, pavement design, construction phasing and sequencing plan and writing of the technical specifications. The pre- and post-developed stormwater discharges were calculated for each main drainage area using the Quick TR-55 method utilizing the HAESTAD computer program solutions. The detention pond's design and analysis was performed with POND-2, a HAESTAD computer program. Sediment control during construction is provided by a combination of rip rap check dams, silt fence, and detention ponds with sediment control appurtenances. The computer program Sedcad + was used to calculate the efficiency of these devices and the effluent sediment concentration required to meet OCRM regulations. The computer program HYDRAIN was used to model roadside channels and rip rap linings to ensure slope stability and erosion protection.

**Grand Strand Airport, Myrtle Beach, SC:** Project Engineer responsible for the transfer of dredge material disposal easements along Atlantic Intracoastal Waterway between the Horry County Department of Airports and the United States Army Corps of Engineers. Dennis' responsibilities included environmental assessment and documentation, property research, and design of a dredge disposal containment dike.

**Lancaster County Airport, Lancaster, SC:** Design Engineer for the obtainment of a South Carolina Department of Health and Environmental Control permit for stormwater management and sediment reduction. The project consisted of two future stormwater detention and sediment reduction ponds within sensitive wetland areas. Detention/sediment Pond No. 1 was designed for a 106 acre drainage basin. The pond will control sediment until the site is stabilized and then it will be converted into a detention structure that will mitigate for wetland losses. Detention/sediment Pond No. 2 was designed for a 1068 acre drainage basin. The primary function of this pond is to control the majority of sediment from the construction of a 4000' taxiway and the 1300' relocation of a stream.

#### **MILITARY AIRFIELDS:**

**Shaw Air Force Base, Sumter, SC:** Design Engineer responsible for the repair of existing failed bituminous asphalt and Portland Cement concrete driveways and sidewalks located in the base housing area.



**Munitions, Shaw Air Force Base, Sumter, SC:** Project Engineer for the design of a dedicated road approximately one mile in length to be used solely for the purpose of transporting F-16 aircraft munitions from the bunkers located at the Northeast end of Runways 22L and 22R to the arm/disarm ramp located at the Northeast end of Runways 22L and 22R. The munitions, including air to air missiles and air to ground weaponry, will be transported by munitions tow vehicles similar to large tugs used at commercial airports. Design responsibilities included the evaluation and selection of a preferred roadway alignment, topographical surveys, horizontal alignment layout, subsurface information review, horizontal and vertical roadway design, pavement design, stormwater design, sediment and erosion control permitting, environmental coordination, utility relocation design, and the preparation of construction plans, specifications, and cost estimates.

**Marine Corps Air Station, Beaufort, SC:** Project Engineer for construction plans and specifications for repairing various roads and storm drainage systems located throughout the 5400 acre air station. Repairs included pavement reconstruction, slurry seal application, asphalt overlays, milling, and new Portland Cement concrete pavement construction. Additional projects included providing inspection, planning and estimating services for designated roads, storm drainage systems that will require future repairs and maintenance, and a complete field survey and plan production of all air station road and parking lot markings and signage.

#### **PARKS:**

**New Irmo Town Park, Irmo, SC:** Dennis Corporation provided survey and other professional services for the New Irmo Town Park. This project consisted of the development of a 14.4 acre densely-wooded tract of land with a jurisdictional stream running through it. The park includes an access road, retention pond, restroom facility, picnic shelter, amphitheatre and stage, paved walking trails, pedestrian bridges and two (2) parking facilities. This will be the new site for the annual Okra Strut Festival each year. The park was completed in fall of 2013.

**Hyatt Park, City of Columbia, SC:** Dennis Corporation was retained by the City of Columbia to perform master planning services for Hyatt Park. This is an existing park that is looking to address some parking issues, as well as improve the existing athletic facilities. The purpose of the park is to create a dual use park with approximately one half for athletics and one half for passive uses.

**Lincoln Park, City of Columbia, SC:** Dennis Corporation was selected by the City of Columbia to perform master planning services for Lincoln Park. Lincoln Park will be a passive use park that takes advantage of the old growth trees and topography of the site. In addition, there is a stream that bisects the park. A walking trail may be added in the future with multiple stream crossings.

**Lexington Town Square, Lexington, SC:** Dennis Corporation provided survey, civil design and construction management for the Lexington Town Square in Lexington, SC. The project also included a Fallen Police Officer Memorial. The project site is slightly less than an acre and sits on the west side of the Lexington Judicial Center.

**Lexington Sports Complex, Lexington, SC:** Dennis Corporation prepared a Phase 1 Conceptual Master Plan for the Town of Lexington's Sports Complex. The initial phase of the project will include seven (7) soccer fields, and amphitheatre, walking trails, playgrounds, and associated parking.

**First Responders Remembrance Memorial, Columbia, SC:** Dennis Corporation volunteered services for the First Responders Remembrance Memorial, a partnership between Columbia and Lexington Cities and Lexington and Richland Counties, commemorating fallen first responders. Dennis Corporation employees were instrumental in the planning process of Memorial construction, providing structural engineering, surveying and construction management.

**Silver Fox Site Feasibility Study, Irmo, SC:** The Silver Fox Site was deemed a potential location to develop a new town park for the Town of Irmo. Dennis Corporation was hired by the Town to perform a feasibility study to determine if the proposed site would accommodate the Town's "new park vision." Dennis Corporation performed soil borings for geotechnical analyses, and developed multiple conceptual plans with respective cost estimates. Although this site was not selected, Dennis Corporation did provide surveying, engineering, and QA/QC services for the site that was ultimately selected for the Town's new park, which was completed in the fall of 2013.

**Richland County Recreation Commission Bond Projects, Richland County, SC:** Dennis Corporation is currently providing engineering design and master planning for numerous parks in Richland County, South Carolina. This includes both new parks to be constructed and renovations to existing complexes. These projects include: press boxes, baseball fields, gymnasiums, administration buildings, parking areas, security lighting, numerous soccer fields, football fields, tennis courts, walking trails, canteen areas and well systems.

**James Island Park Trails, Charleston County, SC:** Dennis Corporation was recently selected to provide consulting services for Asphalt Trails at James Island County Park. Services include design development of the existing asphalt trail, surveying, cost estimates with recommendations for construction phasing, project schedule, construction documents, permitting and construction administration.

**Horry County Park and Boat Ramp, Horry County, SC:** This project consists of the surveying, environmental, design and geotechnical services for the permitting and construction of an access road, parking area, boat ramp and other amenities including docks and landscaping for a park along the Intercoastal Waterway. Dennis Corporation is also responsible for formalizing the master plan for the entire park as they are the ON-Call Engineer for Horry County.

**Leisure Trail System, Columbia, SC:** This project consisted of design and construction administration of sidewalks and nature trail improvements for the Fort Jackson Leisure Trail System. Project personnel provided consulting services for all aspects of the project, from preliminary planning to surveying and design. This project was completed on time on budget.

**George Street Sidewalks, Dorchester, SC:** Preliminary engineering, route survey, compilation of plats and easement exhibits as required, development of construction drawings, bidding award and contract administration, project inspection, compilation of record drawing information and submittals necessary for project closeout for George Street sidewalks.

**Expert Witness:**

**Traffic Accidents:** Mr. Dennis has worked as a forensic engineer on a number of auto accident cases including the following:

**Matthew George v Weaver Company:** Mr. Dennis reviewed all case material including photographic evidence, police reports, SCDOT logs, and depositions in order to form an expert opinion on this case. Dennis conducted the necessary research into the standards and regulations surrounding SCDOT paving jobs, and was able to give an expert opinion during deposition.

**Lake City Auto Accident:** Mr. Dennis reviewed the police records and photographs taken from the accident and provided an analysis regarding the state of the traffic control in place at the time of the accident. An analysis was also provided detailing the proper safety measures that should have been in place at the time of the accident.

**CR Jackson Auto Accident:** Mr. Dennis reviewed the police records, photographs, and case notes provided on this accident, and provided an expert opinion detailing the condition of the roadway and shoulders at the time of the crash.

**Flooding:** Mr. Dennis has worked as a forensic engineer on a number of cases involving property flooding and damage due to flooding. Some of these cases include the following:

**Geiseking v St Andrews Commons:** Mr. Dennis oversaw the preparation of a summary report and multiple trial exhibits for this case. Several site visits, videos, depositions, and photos were recorded. A stormwater analysis was also performed for the property.

**Gist Property:** Mr. Dennis oversaw the review of the construction plans and a site inspection was performed. A summary report was provided detailing the findings regarding the clients property and the nearby detention pond.

**Richards Property:** Mr. Dennis oversaw the site visit, expert summary report, and cost to cure analysis for this report.

**Long Property:** Mr. Dennis oversaw this project, providing a cost to cure estimate for the property, along with an expert summary report requiring several updates as the case progressed. Several hand augers were taken. A pre and post development analysis was also put together by Dennis Corporation detailing peak runoff rates.

**Barberry Woods:** Mr. Dennis provided a site assessment, a cost to cure assessment including a survey, plans, and a cost analysis, and reports with detailed calculations illustrating the cause of the existing defects. In addition, Dennis provided a deposition detailing his finding.

**Construction Defects:** Mr. Dennis has worked as a forensic engineer on several cases investigating construction defects in both public and private property, and has provided expert testimony on a wide range of potential defects. Cases involving Construction Defects include the following:

**Olde Park Subdivision:** Mr. Dennis oversaw all calculations and analysis for the storm drainage investigation/report, affidavits, and the cost to cure

**Celebrations vs Crouch Construction:** Mr. Dennis oversaw all inspections, reports, affidavits, and tests including concrete corings, penetrometer, and proctor tests. In addition, he oversaw preparation of an expert summary and earthworks analysis report.

**English Residence:** Mr. Dennis reviewed results from previous tests performed and oversaw a field penetrometer log.

**Lucas Property:** Mr. Dennis oversaw an inspection of this property and completed an expert witness summary report and a cost to cure analysis.

**Condemnation:** Mr. Dennis has represented the SCDOT on a number of condemnation cases including the following:

**SC 120 Condemnation:** Mr. Dennis oversaw site visits and photos which were taken for property for multiple businesses impacted by the widening of SC 120. Site surveys, alternate parking lot layouts, and cost analysis's were performed for much of this property.

**SC 602:** Mr. Dennis oversaw site visits and photos which were performed for property for multiple businesses and private properties impacted by the widening of SC 120. Site surveys, alternate parking lot layouts, and cost analysis's were performed for much of this property.

**HWY 707 Condemnation:** Mr. Dennis oversaw site visits and photos for several businesses impacted by the widening of HWY 707. Alternate parking lot layouts and cost analysis's were performed for many of these properties.

**US 76 Condemnation:** Mr. Dennis oversaw the site visit, alternate parking/loading dock layouts, and a cost to cure analysis which was performed for a warehouse impacted by the widening along US 76.

**SCDOT v Rose Hill Plantation POA:** Mr. Dennis provided a comprehensive report on this project, responding to alleged issues arising due to the condemnation including traffic backups, stormwater runoff increases, increases in noise impacts, and tree removals. In addition, an analysis was provided to settle disputes over land acreage and ownership clarifying exactly what property should be included within the appraisal. Mr. Dennis was also asked to provide a deposition for this case.

**SCDOT v Rose Hill Golf Course Holding Company:** Mr. Dennis provided a comprehensive report on this project, responding to alleged issues arising due to the condemnation including increases in noise impacts, the necessity of adding guardrail along the newly acquired right-of-way, and tree removals. In addition, an analysis was provided to settle disputes over land acreage and ownership, clarifying exactly what property should be included within the appraisal.

**Structural:** Mr. Dennis has worked as a forensic engineer on a number of cases requiring analysis of structural defects, including the following:

**Lucas Property:** Mr. Dennis oversaw an inspection of this property and completed an expert witness summary report and a cost to cure analysis.

**Isaacson Property:** Mr. Dennis conducted a site inspection, noting the condition of various defects in place in addition to several new defects that had went undiscovered. An expert summary report was produced detailing all of the damages.

**Premises liability:** Mr. Dennis has represented several clients in several cases requiring expert testimony on premises liability, including the following:

**Branham v IGA:** Mr. Dennis oversaw analysis of the IGA to determine if the flooring met all applicable codes and standards.

**Regional Medical Center of Orangeburg:** Mr. Dennis oversaw an analysis of the sidewalk that was performed to determine if it met all applicable codes and standards. In addition, a rainfall analysis was performed in order to determine if there were any potential flooding issues regarding the sidewalk.

**Property disputes:** Mr. Dennis has represented clients in cases involving disputes over property lines and boundary issues. Examples include the following:

**Lavender v Schwacke:** Mr. Dennis oversaw a boundary survey done on this property to determine the correct property lines purchased by the client. Once the survey was completed, a conceptual design was put together detailing exactly how many lots the client lost due to the surveying error.

#### Construction Engineering and Inspection (CEI) Certification Classes

- Asphalt Roadway Inspection Course - Clemson University, Clemson, SC (Expired)
- Nuclear Gauge Safety Training Course - Troxler Laboratories, Raleigh, NC
- Bridge Foundations - SCDOT, Columbia, SC (Expired)
- Concrete Inspection Level 1 - SCDOT, Columbia, SC (Expired)
- Earthwork, Base Course and Nuclear Gauge - SCDOT, Columbia, SC (Expired)
- AASHTO Site Manager Construction Management Software
- SC Work Zone Traffic Control Supervisor's Course - Institute for Transportation Research, Columbia, SC
- OSHA 10 Hour Construction Safety Course