

the tolleson limited company



Engineering and Planning Consultants

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LOCATIONS

*Corporate Office*

136 Stonemark Lane  
Suite 110  
Columbia, SC 29210  
Office: (803) 783-9013  
Fax: (803) 783-9210

*Turks & Caicos Islands*

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Grace Bay Road  
Providenciales, TCI  
Office: (649) 941-4998

[www.tollesonltd.com](http://www.tollesonltd.com)

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Corporate & Engineer of Record  
**Relevant Project Experience**  
 (Engineering / Research / GIS)

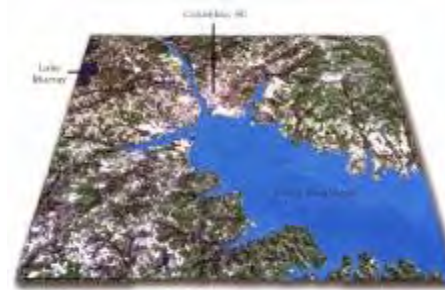
**Project:** Hydrologic Flood Modeling  
 Lake Murray Flood Inundation Mapping

**Location:** Midlands SC Flood Zone

**Client/Owner:** SC Emergency Management Division

**Description:** GIS & Remote Sensing task manager of evacuation planning for dam failure. Provided inundation modeling using DTM data.

**Status/Date:** Completed 2002



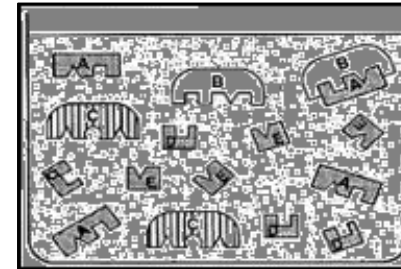
**Project:** Transportation Applied Research Grant  
 Enzyme Stabilized Roadway Base

**Location:** Columbia, South Carolina

**Client:** SC State University – University Transportation Center

**Description:** Principal author for unpaved rural road base stabilization applied research. Published paper on alternative stabilization techniques.

**Status/Date:** Completed 2003



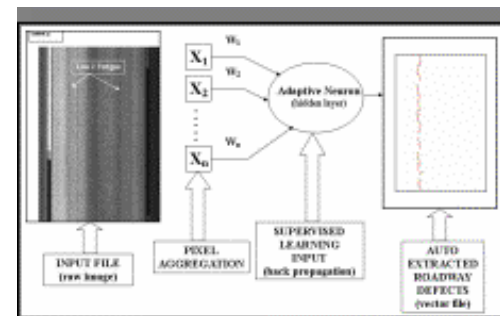
**Project:** Pavement Technology Research

**Location:** Columbia, South Carolina

**Client/Owner:** SC State University - University Transportation Center

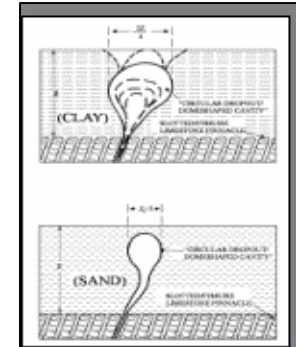
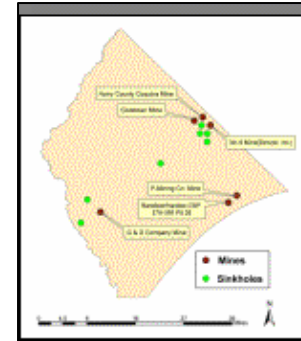
**Description:** Principal author for development of neural net based feature extraction of roadway defects and pavement condition indexing. Professional presentation at international conference on pavement technology in Toronto, Canada.

**Status/Date:** 2004-2006



Corporate & Engineer of Record  
**Relevant Project Experience**  
 (Geo-Civil / Socioeconomic)

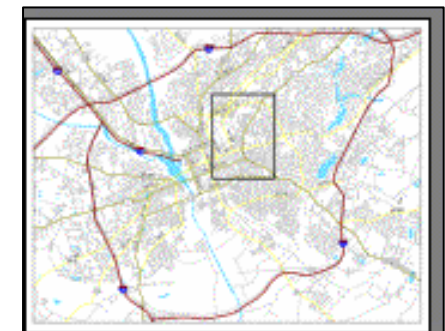
**Project:** Industrial Quarry Permitting  
**Location:** Barefoot Quarry, Horry County, South Carolina  
**Client:** A.O. Hardee & Son  
**Description:** Engineer-of-record for mapping and modeling sinkholes for deep quarry limestone. Used GIS methods for hydrologic evaluation. Obtained operation permit.  
**Status/Date:** Completed 2003



**Project:** Waste Load Allocation  
 Section 208 Water Management Plan  
**Location:** Columbia, South Carolina  
**Owner:** Central Midlands – Council of Governments (CMCOG)  
**Description:** GIS task manager / mapping of water management areas and demographic data for planning and permitting.  
**Status/Date:** Completed 2004



**Project:** Urban Redevelopment Plan  
**Location:** Columbia, South Carolina  
**Owner:** City of Columbia / Housing & Urban Development  
**Description:** Task Manager for GIS mapping of socio-economic and demographic elements using Block Census 2000 data.  
**Status/Date:** Completed 2004



Corporate & Engineer of Record  
**Relevant Project Experience**  
(GeoStructural / Transportation / Remote Sensing)

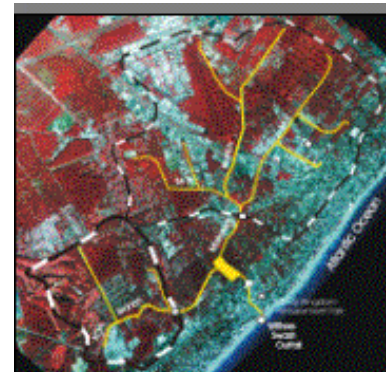
**Project:** Bulkhead Wall Design  
**Location:** City of Columbia Water Treatment Plan  
**Client:** Republic Contracting Corporation  
**Description:** Design of deep 35 foot soldier pile wall using extensive tie-back system in sensitive environment.  
**Status/Date:** Completed 2002



**Project:** Phase I & II Master Plan  
Gravel Road Pavement Program  
**Location:** Richland County, South Carolina  
**Description:** Program Management of comprehensive county wide dirt road paving feasibility studies. Funded through 3 phases and resulted in low volume paving standards  
**Status/Date:** 2006-2008



**Project:** Stormwater Quality Modeling  
NPS Grant / Withers Swash Outfall  
**Location:** Myrtle Beach / Grand Strand, South Carolina  
**Client/Owner:** NASA sponsored / USC VIP  
**Description:** Remote sensing & modeling of NPS pollution along developed urban coastal zone.  
**Status/Date:** Completed 1998



Corporate & Engineer of Record  
**Relevant Project Experience**  
(Coastal Development / Geotechnical)

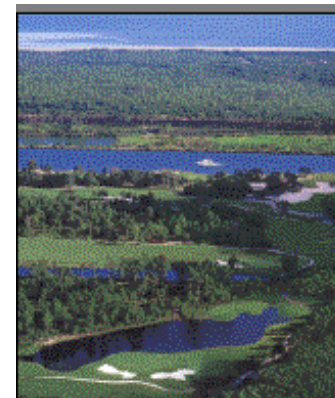
**Project:** Seismic Foundation Design  
**Location:** Vista Del Mar, Myrtle Beach, South Carolina  
**Client/Owner:** Burroughs & Chapin / Grande Dunes  
**Description:** Geotechnical engineer-of-record for collaborative seismic foundation design for five-star condominium development in coastal zone.  
**Status/Date:** Completed 2002



**Project:** Deep Foundation Design / 29-Story  
**Location:** Margate Tower, Myrtle Beach, South Carolina  
**Client:** FelCor Lodging Trust  
**Description:** Geotechnical engineer-of-record for seismic, liquefaction and geotechnical study for 29+ story condominium exposed to high seismic lateral loading.  
**Status/Date:** Completed 2002

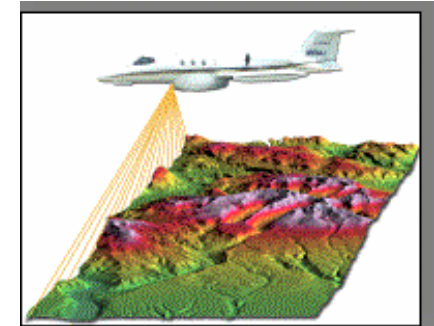


**Project:** Grande Dunes Resort Development  
**Location:** Myrtle Beach, South Carolina  
**Client/Owner:** Burroughs & Chapin / Grande Dunes  
**Description:** Geotechnical consulting services for 2000+ acre exclusive golf, tennis and residential development in Myrtle Beach, South Carolina  
**Status/Date:** Completed 2003

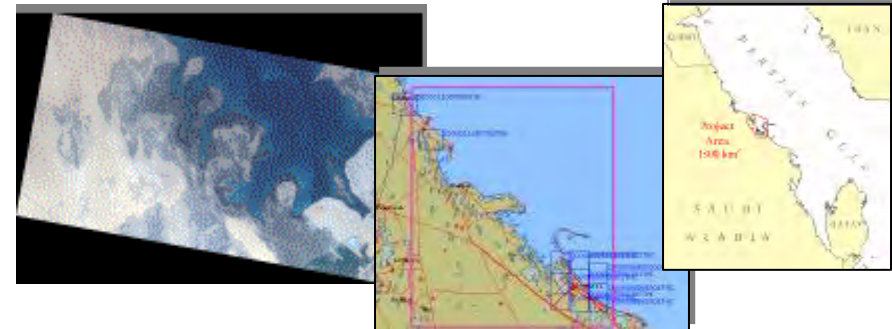


Corporate & Engineer of Record  
**Relevant Project Experience**  
*(Remote Sensing / GeoEngineering)*

**Project:** **McCrary Site LiDAR Mapping**  
**Location:** Fort Jackson / Clarks Hill, South Carolina on Army National Guard Training Sites  
**Client/Owner:** University of South Carolina  
**Description:** LIDAR acquisition for McCrary and Clarks Hill training sites. DTM topo developed.  
**Status/Date:** Completed 2002



**Project:** **Satellite Imaging / Saudi Arabia**  
**Location:** Coastal Zone / Saudi Arabia  
**Client/Owner:** Kingdom of Saudi Arabia  
**Description:** Mapping of oil damaged coastal zone for Environmental assessment of shoreline.  
**Status/Date:** Completed 2001



**Project:** **Cato Property / Site Earthwork**  
**Location:** Charlotte, North Carolina  
**Client/Owner:** CENTEX Homes  
**Description:** Geotechnical engineer-of-record site development geotechnical and site earthwork design for premier Charlotte, NC planned development.  
**Status/Date:** Completed 2004



Corporate & Engineer of Record  
**Relevant Project Experience**  
(Geotechnical / GIS-Transportation)

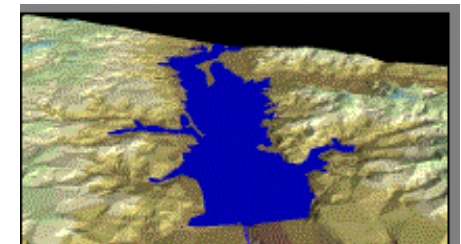
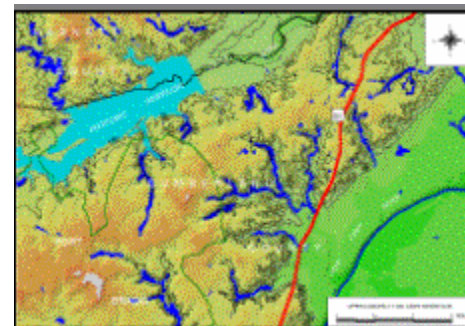
**Project:** Design / Build SCDOT Project  
**Location:** SC Route 31,, Horry County, South Carolina  
**Client/Owner:** SC Dept. of Transportation  
**Description:** Served as geotechnical engineer-of-record for 27 bridges and 22 miles of new roadway on \$275 million fast-track design-build project.



**Project:** Transportation Corridor Study  
Roadway Alignment / GIS Mapping  
**Location:** Harrelson Blvd. Roadway, Myrtle Beach, South Carolina  
**Client/Owner:** City of Myrtle Beach  
**Description:** GIS mapping of new roadway alignment using high-resolution satellite imagery.  
**Status/Date:** Completed 2004

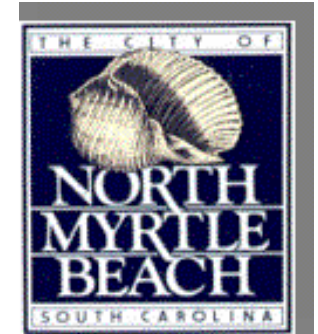
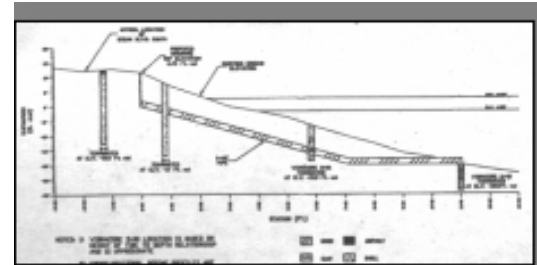


**Project:** Water Supply Master Planning  
Reservoir Impact Study  
**Owner:** Cumberland County, North Carolina  
**Description:** Engineer-of-record for GIS and Remote Sensing Related to reservoir hydrology and mapping.  
**Status:** Completed study 2000/2001

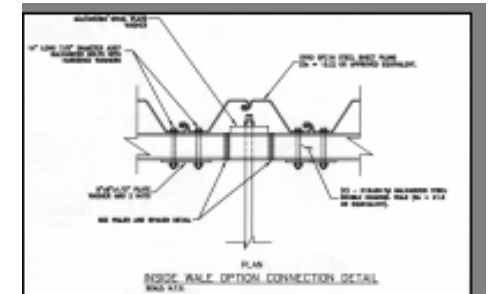


Corporate & Engineer of Record  
**Relevant Project Experience**  
*(Bulkheads / Retaining Walls / Heavy GeoStructural)*

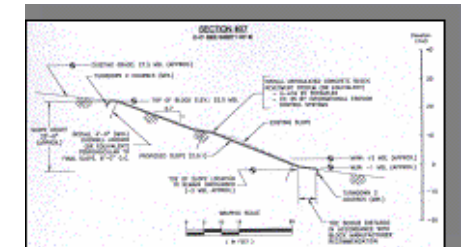
**Project:** GeoCoastal Engineering  
**Location:** North Myrtle Beach, South Carolina  
**Client/Owner:** City of North Myrtle Beach  
**Description:** Geotechnical Analysis for Twin-Four Hundred Foot Ocean Outfall Structures beyond surf zone  
**Status/Date:** Completed April 2000



**Project:** Construction Retaining Wall Design  
**Location:** Beaufort County, South Carolina  
**Client/Owner:** SC Dept. of Transportation  
**Description:** Design engineer-of-record for 1,200 LF anchored sheetpile bulkhead during construction  
**Status/Date:** Completed August 1998



**Project:** 2,600 Foot Slope Repairs  
 Embankment Stabilization Design  
**Location:** Horry County, South Carolina  
**Client/Owner:** River Oaks Development  
**Description:** Slope Stabilization designs using geotextile stone & rock with articulated concrete mats. 1,500 LF slope  
**Status/Date:** Completed 2000



Corporate & Engineer of Record  
**Relevant Project Experience**  
(Bulkheads / Retaining Walls / Heavy GeoStructural)

**Project:**

**Location:**

**Client/Owner:**

**Description:**

**Status/Date:**

**Waterfront Marina Design**

Little River, South Carolina

Powell Associates of North Myrtle Beach, Inc.

Design engineer of bulkhead, fixed pier and boat ramp waterfront structure design using vinyl sheeting and timber pile anchoring. Wall length 1,500 LF

Completed 1999



**Project:**

**Location:**

**Client/Owner:**

**Description:**

**Actual Cost:**

**Status/Date:**

**Structural Bridge Foundation Design**

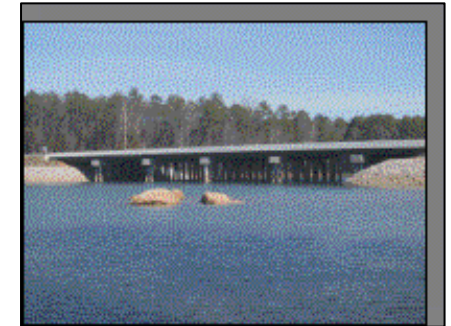
Lexington County, South Carolina

SC Dept. of Transportation

Value Engineering re-design of 7-span bridge  
Foundation system using AASHTO requirements

Engineering fee's \$24,780

Completed 1998



**Project:**

**Location:**

**Client/Owner:**

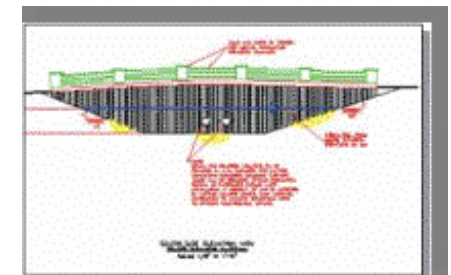
**Description:**

**Causeway / Bulkhead Design**

Celebrity Circle, Myrtle Beach, South Carolina

Vistana Myrtle Beach, Inc. (a Disney Company)

Turn-Key design of causeway access across water amenity. Used steel sheeting designed for heavy AASHTO road loading and incorporated aesthetic architecture in a cellular cofferdam.



## Relevant Project Experience

*(Bulkheads / Retaining Walls / Heavy GeoStructural)*

**Project:** Atlantic Intracoastal Waterway Bridge  
**Location:** North Myrtle Beach, South Carolina at US 17  
**Client/Owner:** Barefoot Resorts  
**Description:** Overwater Borings and Geosturctural Foundation Analysis  
Private center pivot bridge over waterway  
**Status/Date:** Completed in 2000



**Project:** 6,800 LF Bulkhead Design  
Greg Norman Golf Course  
**Location:** North Myrtle Beach, South Carolina  
**Client/Owner:** Silver Carolina Development Corporation, LLC  
**Description:** GeoStructural Design Engineer for 6,800 LF Bulkhead  
along Intracoastal Waterway  
**Status/Date:** Completed June 1999



**Project:** Marina Channel Seawall Design  
Windmill Harbor Marina  
**Location:** Hilton Head, South Carolina  
**Client/Owner:** Windmill Harbour Marina Association  
**Description:** Repair design for marina channel seawall/training  
wall using cantilevered sheeting  
**Status/Date:** Completed 1998

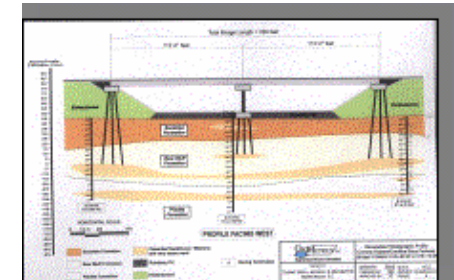


Corporate & Engineer of Record  
**Relevant Project Experience**  
(Bridge Foundations / Cofferdams)

**Project:** **Grande Dunes Bridge over AIWW**  
**Location:** Myrtle Beach, South Carolina  
**Client/Owner:** Burroughs & Chapin Company  
**Description:** Geotechnical Investigation and GeoStructural Foundation Design for Mid-Span Bridge over Intracoastal Waterway  
**Cost:** Estimated +/- \$5 Million  
**Status/Date:** Completed 2000



**Project:** **Carolina Bays Parkway**  
**Location:** Horry County, South Carolina  
**Client/Owner:** SC Dept. of Transportation  
**Description:** Geotechnical Subsurface Investigation & GeoStructural Foundation Analysis with Seismic for ICWW Bridge  
**Actual Cost:** Part of \$250 Million design/build roadway project

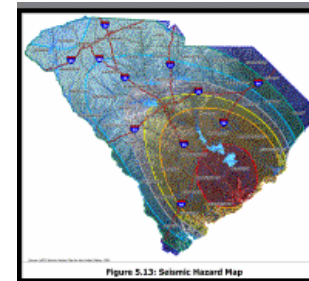


**Project:** **Deep Cofferdam Design South Carolina Aquarium**  
**Location:** Charleston, South Carolina  
**Client/Owner:** State of South Carolina  
**Description:** GeoStructural design of deep cellular cofferdam structures for construction excavations of all foundation elements supporting massive dead loads from aquarium.

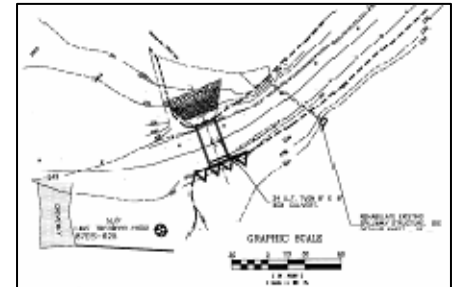


Corporate & Engineer of Record  
Relevant Project Experience  
(Hydrology / GIS)

**Project:** Hazard Mitigation of South Carolina  
**Location:** Statewide (State of South Carolina)  
**Client/Owner:** SC Emergency Management Division (SCEMD)  
**Description:** Select as GIS task manager for hazard mapping and vulnerability assessment associated with natural disasters  
**Status/Date:** Selected on team in 2004



**Project:** Earthen Dam & Spillway Design  
Lake Trotwood /High Hazard Dam  
**Location:** Richland County, South Carolina  
**Client/Owner:** Lumber Corporation / Columbia, South Carolina  
**Description:** Design engineer-of-record for hydrology and hydraulic study of 1/2 PMF storm for high hazard dam & spillway.



**Project:** Marina Wall Repair Design  
**Location:** Leeward Marina, Providenciales, Turks & Caicos Islands, BWI  
**Client/Owner:** Engineering Design Services, LTD c/o Peter Kerrigan  
**Description:** Geostructural design assistance to provide anchor/tie back system for 4,600 LF steel bulkhead.  
**Status/Date:** Completed 2007



Corporate & Engineer of Record  
**Relevant Project Experience**  
(Geostructural Design)

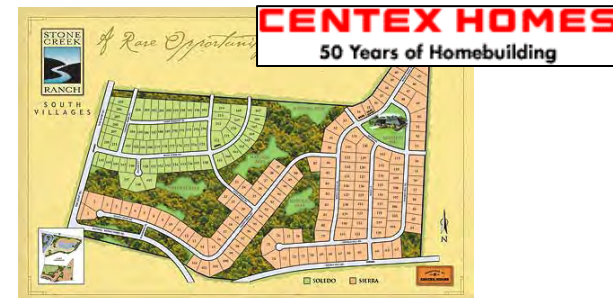
**Project:** **Resort Development Engineering**  
**Location:** Dellis Cay Island, Turks & Caicos Islands, BWI  
**Client/Owner:** Coastal Design & Engineering, LTD c/o Karyn Erickson, PE  
**Description:** 470 acre uninhabited, remote island. Performed hydrology & hydraulic studies for inland pond features. Part of planned resort development.



**Project:** **Geo-Coastal Design Engineer  
Structural Sheeting Wall / Groin Design**  
**Location:** Blood Point Beach, Daufuskie Island, South Carolina  
**Client/Owner:** Erickson Consulting Engineers, Inc. c/o Jason Gowland  
**Description:** Designed two t-head groin structures that extend 200 LF into breakwaters. Used steel sheeting and rock armourment.  
**Status/Date:** Completed 2006



**Project:** **Turn-Key Geo-Civil Site Earthwork**  
**Location:** Stone Creek Development Pineville/Charlotte, North Carolina  
**Client/Owner:** CENTEX Homes c/o John Brunner  
**Description:** Design Engineer-of-Record for all land development and soil/concrete/pavement QA certifications. Provided full time PE-crew during 3-plus year rapid build out of Centex development.  
**Status/Date:** To Be Completed 2007

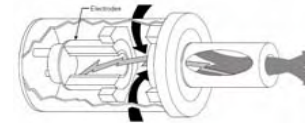


Corporate & Engineer of Record  
**Relevant Project Experience**  
(Geotechnical & Solid Waste Services)

**Project:** **MSE Slope Design & Expert Witness**  
**Location:** Woodside Plantation, Aiken, South Carolina  
**Client/Owner:** Woodside Development, LP  
**Description:** Provided Engineer-of-Record geogrid reinforced slope repair design Of 250 LF of roadway shoulder. Slope height of 50 FT coupled with Wetland encroachment and extensive groundwater were considerations.  
**Status/Date:** Completed 2007



**Project:** **Plasma Arc / Waste to Energy  
Renewable Energy Feasibility Study**  
**Location:** Richland County, South Carolina  
**Client/Owner:** Private Client  
**Description:** Engineer-of-Record for preliminary planning and technology feasibility for MSW waste to energy plant using refuse derived fuel. 500 ton / day capacity evaluation. Conceptual pro-forma term sheet using 500 TPD refuse generating 40 MW output.  
**Status/Date:** Completed 2009

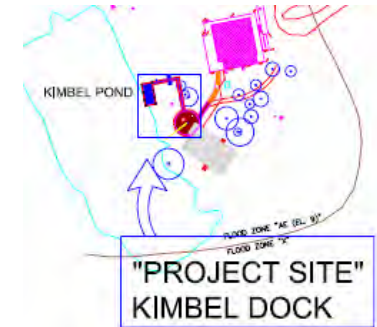
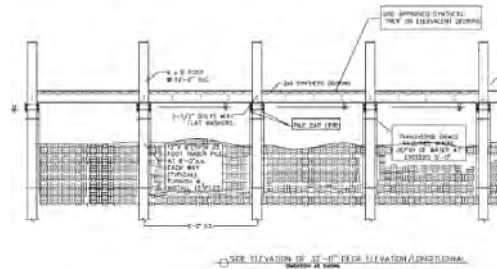


**Project:** **MSW / Waste Transfer Facility Plan**  
**Location:** Richland County, South Carolina  
**Client/Owner:** Private Client  
**Description:** Program Manager and engineer-of-record for civil master plan on 200 acre property. Includes air curtain incinerator, tire recycling and MSW transfer station.  
**Status/Date:** 2008 / 2009

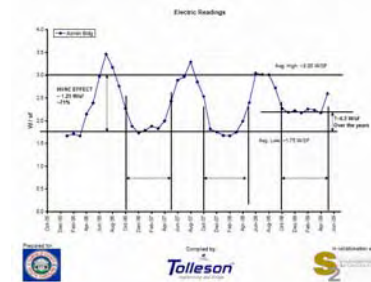


Corporate & Engineer of Record  
**Relevant Project Experience**  
 (Planning & Design Services)

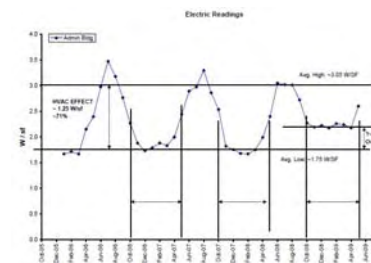
**Project:** **Hobcaw Deck Design**  
**Location:** Hobcaw / USC Dock Baruch Institute, Georgetown, South Carolina  
**Client/Owner:** Hobcaw Education Center  
**Description:** Engineer-of-Record for planning & design of fixed pier dock. ADA accessible.  
**Status/Date:** Completed 2009



**Project:** **Energy Audit / Phase I Municipal Building**  
**Location:** Winnsboro, South Carolina  
**Client/Owner:** Fairfield County Council, Administrative Department  
**Description:** County Administration Building, 32,000 SF Facility  
**Status/Date:** Completed 2009



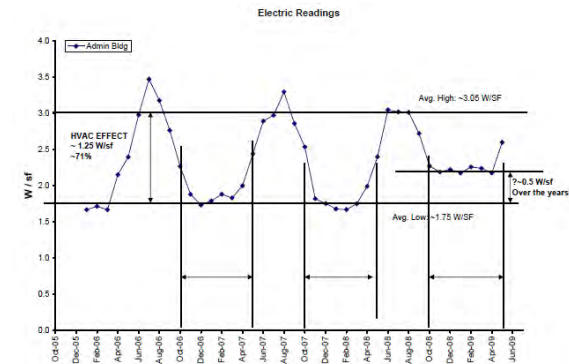
**Project:** **Energy Audit / Phase II Judicial Building**  
**Location:** Winnsboro, South Carolina  
**Client/Owner:** Fairfield County Council, Administrative Department  
**Description:** 28,000 SF County Courthouse Facility. Performed comprehensive Energy Efficient Audit (Phase II) of municipal building. Included Analysis of historical energy use and calculation of EIC.  
**Status/Date:** Completed 2009



Corporate & Engineer of Record  
**Relevant Project Experience**  
*(Building Maintenance Services)*

**Project:** Energy Audit / Phase II  
**Detention Center**

**Location:** Winnsboro, South Carolina  
**Client/Owner:** Fairfield County Council, Administrative Department  
**Description:** 160,000 SF County Detention Facility Performed comprehensive Energy Efficient Audit (Phase II) of municipal building. Included Analysis of historical energy use and calculation of EIC.  
**Status/Date:** Completed 2009



**Project:** Stairway Deck Rehabilitation  
**Historical Courthouse Structural Repairs**

**Location:** Winnsboro, South Carolina  
**Client/Owner:** Fairfield County Council, Administrative Department  
**Description:** Program Manager and engineer-of-record. Turn-key design and repair to historical steel frame elevated stairway structure.  
**Status/Date:** Completed 2009.



**Project:** Turn-Key Building Roof Repair  
**“Cool Roof” Energy Efficient**

**Location:** Winnsboro, South Carolina  
**Client/Owner:** Fairfield County Council  
**Description:** Program Manager for turn Key Maintenance Program, Boykin Recreation building 11,900 SF Facility. Specification & oversight.  
**Status/Date:** Completed 2009.



Corporate & Engineer of Record  
**Relevant Project Experience**  
 (Government Building Maintenance Services)

**Project:** Turn-Key Building Roof Repair  
**Location:** Fairfield County, South Carolina  
**Client/Owner:** Fairfield County Council,  
**Description:** High Energy Efficiency, Cool-Roof Maintenance  
 8,000 SF Armory Building  
**Status/Date:** Completed 2009.



**Project:** Retaining Wall Design for Stadium  
**Location:** Spring Valley High School, Richland County, South Carolina  
**Client/Owner:** M.B. Kehn & Taylor Construction  
**Description:** Structural Wall Design, Anchored Sheetpile, Parone Stadium Improvements  
**Status/Date:** Completed 2009 / 2010



**Project:** Community Park Master Plan  
**Location:** Syrup Mill Road Community Park  
**Client/Owner:** Fairfield County Council, Administrative Department  
**Description:** Program Manager for comprehensive County-Wide Park Improvement.  
 Layout civil design for sport and playground recreation.  
**Status/Date:** 2009 / 2010



Corporate & Engineer of Record  
**Relevant Project Experience**  
(Design & Civil Planning Services)

**Project:** **Resort Hotel Master Plan**  
**Location:** Providenciales, Turks & Caicos  
**Client/Owner:** Leeward Village Hotel Development  
**Description:** 130,000 SF / 4 Star Hotel  
130,000 SF Commercial Pro-Forma & Feasibility  
**Status/Date:** Program Manager and partner in hotel-resort master plan.



**Project:** **Civil & Geotechnical Assessment  
Proposed County EMS Facility**  
**Location:** Jenkinsville, South Carolina  
**Client/Owner:** Fairfield County Council, Administrative Department  
**Description:** Site-Stability Studies, Pre-purchase Assessment  
Conducted geotechnical and on-site waste disposal feasibility  
**Status/Date:** Completed 2009.

