Matthew J. Brokaw, p.e.

Education

BS – Construction Engineering and Management,

North Carolina State University, 2013

Minor in Parks and Recreation

Professional Licenses

Professional Engineer – North Carolina

Professional Affiliations

American Society of Civil Engineers

National Society of Professional Engineers

Solid Waste Association of North America

US Composting Council – NC Chapter

Professional Experience

As a Senior Project Professional, Mr. Brokaw is responsible for engineering and design of a variety of projects, with a primary focus in solid waste, sustainable materials management, stormwater management, and other environmental and civil engineering fields. Mr. Brokaw works closely with SCS’s municipal clients across the Carolinas and is currently expanding his services to regional and national clients. Mr. Brokaw had previously worked for another environmental design and consulting firm for 7 years prior to joining SCS in early 2020.

Since then, he has provided technical and consulting services for composting facilities, landfills, and other solid waste sites. Mr. Brokaw has provided design, recommendation, and permitting for solid waste facilities and landfill expansions, closures, and redevelopment projects. He is well versed in construction stormwater management and pollution prevention, erosion and sediment control, permanent stormwater BMP’s, and regulatory compliance. Mr. Brokaw is also highly experienced in Site-Civil design, which provides services in utility design, grading and stabilization, pavement design, facility layout, and general construction services and Construction Quality Assurance (CQA). Other projects have included feasibility studies, environmental permitting, site assessments, environmental rehabilitation and remediation, and preparation Construction/Bid documents. Mr. Brokaw has over a decade of experience executing projects using AutoCAD Civil 3D and is knowledgeable in the wide-range of solutions it can provide for our client’s needs.

The projects described below highlight some of Mr. Brokaw’s notable involvements.

Civil-Site & Facility Design

**Anson County, North Carolina, Indoor Compost Facility.** Mr. Brokaw is providing on-going engineering and consulting services for a new indoor Type 4 composting facility in North Carolina for one of our private sector clients. The facility is anticipated to take in and compost approximately 100 tons per year of biosolids, food waste, wood ash, and other industrial sludges. Mr. Brokaw is leading the solid waste permitting, stormwater permitting, and civil-site design aspects of the project.

**City of Raleigh, North Carolina, Yard Waste Center.** Mr. Brokaw has been the lead design engineer for the composting facility in Raleigh since 2020 and has provided various improvements and consulting services for the Yard Waste Center. Mr. Brokaw was responsible assisting with stream restoration, site master plan, and led Design/Build of a new construction access road, as well as erosion control, stormwater, and environmental permitting. Feasibility studies and long-term planning have also been an integral part of working with the client and the success of the facility.

**Cumberland County, Ann Street Landfill, Scale and Site Entrance Project, Fayetteville, NC.** Project Engineer for the preparation of the construction drawings, specifications, and bidding documents for a site entrance at the Ann Street Landfill. Components includes three truck scales, scale house, and new pavement. Prepared and submitted permit applications for erosion and sediment control and stormwater permitting to the City of Fayetteville.

**Wake County, North Carolina, South Wake Northeast District Improvements Project.** Project engineer for the improvements project to the waste disposal and recycling facilities at South Wake Landfill. The project included the replacement of existing convenience center, renovations to the multi-materials and household hazardous waste (HHW) facilities, improvements to traffic flow, relocation of offices, an additional entrance office building, and removal over buried waste under the site.

**City of Raleigh, North Carolina, East Neuse Pump Station and Forcemain Project.** Project engineer for design of 3,200 LF of oversized gravity sewers, a 30,000 SF pump station site, and 2,500 SF of dual 48” forcemains to the Neuse River Waste Water Treatment Plant. The project included 30’ deep manholes, a custom oversized concrete junction box, a directional-bore river crossing, and site design for the pump station site. Mr. Brokaw was responsible for setting up CAD drawings, performing calcs for pipe layout, grading and drainage, as well as erosion control, stormwater, and environmental permitting.

Landfill Engineering

**New Hanover County, North Carolina, Landfill Cell 11 & 12A Expansion.** Engineer of Record for a 20-acre MSW landfill expansion project. Mr. Brokaw prepared bid and construction documents, worked with the County to select a qualified and responsive bidder, and managed the construction of the project. Due to the timing of the project the, bid cost was above the budget and Mr. Brokaw led the value engineering to reduce the contract amount by several hundred thousands of dollars.

**Berkeley County, South Carolina, Berkeley County Landfill.** Senior Project Professional support for Berkeley County Landfill, assisting with facility airspace analysis, regulatory compliance, and landfill engineering. Mr. Brokaw completed the airspace analysis and reporting for the Class 3 (MSW) and Class 2 (C&D) landfills over the past couple years. Mr. Brokaw also supported the landfill expansions with design and grading assistance for the Cell 14 MSW expansion.

**Wake County, North Carolina, South Wake Partial Landfill Closure.** Project engineer for the 20-acre Partial Landfill Closure project for the South Wake Landfill. Mr. Brokaw provided design and CAD drafting support as well as CQA inspection throughout the project. Gaining a unique experience to be a vital component of the project from design through construction. Mr. Brokaw is also the design engineer and construction manager for the next phase of permanent and temporary closures for the County, currently on-going.

**ECM Landfill of Ridgely, Tennessee, MSW Landfill Expansion and Related Projects.** Senior Project Professional for consultant services at the ECM landfill facility, including developing a new SWPPP and operations grading plan. Mr. Brokaw assisted in the design and construction of a large project to expand the MSW landfill with a new cell, construct a new sediment pond for the Landfill, and fix various erosion issues on the site, as well as engineering support and compliance review.

**Buncombe County, North Carolina, Landfill Expansions.** Mr. Brokaw provides a wide-range of engineering services for Buncombe County, including airspace analysis, leachate management study, borrow area expansion, and MSW and C&D landfill expansion. Mr. Brokaw worked directly with the County to provide dynamic solutions to the various needs of a large solid waste site. The C&D expansion included a Permit to Construct for the next 5 acre cell as well as a comprehensive facility plan, as well as construction documents for both the C&D expansion and 13-acre MSW expansion.

**Massena, New York, Coal Ash Landfill Operations and Closures.** Project Engineer for the environmental remediation, landfilling, lining, and capping of coal ash from aluminum manufacturing. Project team was tasked with dredging several hundred thousand cubic yards of contaminated sediment from a river bed and simultaneously incorporate the contaminated material into the coal ash landfill. Mr. Brokaw, along with the project team, provided successful support to the client throughout this process.

Environmental Services

**NCDEQ, North Carolina, Pre-regulatory Landfill Remedial Action Plans.** Project engineer for the remediation plan to evaluate, excavate, remove off-site waste, and close multiple pre-regulatory landfill sites. Mr. Brokaw led the design plans for the remediation of more than five pre-regulatory sites throughout NC. In addition to steep slopes and challenging terrain, some NCDEQ remediation projects included waste along streambanks, riparian buffers, and/or wetlands and how to mitigate these impacts, as well as 401/404 permitting, which Mr. Brokaw was also responsible for.

**Various Sites, North Carolina, Onsite Wastewater Systems.** Mr. Brokaw has provided various design and consulting services for both private and public clients to permit and operate septic systems in North Carolina. Mr. Brokaw is knowledgeable of the applicable NCAC code and regulations, and can assist clients with navigating development when public water/sewer lines are not available for a site.

**USACE, New Jersey, Woodbrook Rd. Dump.** Staff engineer and primary CAD technician for the remediation plan to excavate and remove off-site a large amount of PCB contaminants. The USACE has requested analysis and presentation of the test pit data, development and review of a detailed excavation plan, off-site removal plan, and final construction drawings to Army Corps and NJDEP.

### Publications/Presentations

“Composting Regulatory Update and More” SCS Annual Solid Waste Seminar, Charlotte & Raleigh, North Carolina, November 2022.

“Construction Quality Assurance Strategies and Methodologies: Communications & Recordkeeping” Landfill & LFG System CQA Summit, June 2020 (Virtual Conference).