



YEARS OF EXPERIENCE

35

SPECIALTIES

Site/Civil Design

Roadway & Traffic Improvements

Roadway Reconstruction

Community Revitalization

Brownfields Redevelopment

Solid Waste

Renewable Energy

LICENSES/REGISTRATIONS

Professional Engineer - CT (#28159)

Professional Engineer – MA (#34729)

Professional Engineer – NH (#13245)

Professional Engineer – VT (#18-0006285)

EDUCATION

Bachelor of Science

Civil Engineering

Rensselaer Polytechnic Institute

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

Solid Waste Association of North
America, Southern New England
Chapter

American Public Works
Association

Institute of Transportation
Engineers

Dana Huff is vice president and principal on assignments covering a variety of disciplines, with a primary focus on civil engineering projects. Utilizing technical, analytical, and engineering expertise, he has developed innovative and resourceful solutions to complex engineering challenges for municipal, state, commercial, private and international clients. Dana has assisted a number of clients negotiate contracts with more beneficial terms and conditions.

Professional Experience

Municipal/Public Work

- **Town of Trumbull On-Call:** Served as principal-in-charge for several environmental projects under an on-call engineering contract in Trumbull, CT; some of which included negotiating an Administrative Consent Order related to stormwater sampling and reporting deficiencies under MS4 and industrial permit programs. Assisted with implementation of a Supplemental Environmental Project, prepared renewal application for the existing Spring Hill Road Transfer Station permit, and evaluated potential modifications to the transfer station site with respect to materials movement and traffic circulation. Developed a long term solution to covered storage of the Town's winter deicing materials, and a permanent truck washing facility at the Church Hill Road Highway Dept. site. Revised the Town's Stormwater Pollution Prevention Plan to strengthen their environmental compliance status, and coordinated an environmental assessment of a large track of Town owned land. Prepared two major grant applications for roadway and intersection improvements, investigating elevated phosphorus levels in a residential area of Trumbull.
- **Fairfield Super Storm Sandy Repairs:** Served as principal-in-charge for an investigation into the cause of the Pine Creek Dike overtopping in Fairfield, CT during Super Storm Sandy. Investigated replacement of outlet structures with consideration of tidal flushing, and oversight on preparation of three Hazard Mitigation Grants for Fairfield.
- **Norwalk North Water Street Improvements:** Served as principal-in-charge and worked with the Norwalk Redevelopment Agency to design roadway and streetscape improvements to enhance the "walkability" of the area of North Water Street adjacent to the Aquarium in Norwalk, CT.
- **Thomaston Reeves Field Parking Improvements:** Served as principal-in-charge to investigate the parking needs for the Reeves Field athletic complex in Thomaston, CT. Included investigating the parking needs for local businesses, and preparing a STEAP grant application for Thomaston that was submitted to the Office of Policy Management for funding consideration.
- **Southbury MicroGrid:** Serving as principal-in-charge, assisting the Town of Southbury, CT with preparation of a grant application to fund the implementation of an emergency power microgrid for critical facilities in the center of Southbury, and working with them to solicit bids for Solar PV installation to offset their power needs.
- **Stamford Scofieldtown Road Park:** Served as principal-in-charge to develop a passive recreation park concept at the Scofieldtown Road landfill in Stamford, CT, and develop a more efficient layout of the adjoining residential transfer station and leaf/yard waste drop off area.

- **New Canaan Landfill Monitoring:** Served as principal-in-charge on landfill environmental monitoring for the Town of New Canaan, CT.
- **Windsor Locks Roadway:** Authored a successful \$3.5 million grant application for Windsor Locks, CT to reconstruct a heavily traveled street serving residential, commuter, and industrial traffic. Also managed the design and construction through the Connecticut Department of Transportation review/approval process.
- **Gardner Kilby Hammond Bike Path:** Served as principal-in-charge for this project for the City of Worcester, MA. The bike path adds neighborhood benefits to the Gardner, Kilby, Hammond Street area of the City, as well as creating space for Clark University to develop a sports complex immediately adjacent to the new Boys and Girls Club, which will have access to the facility when completed.
- **Worcester Neighborhood Streetscape Improvements:** Serving as principal-in-charge on a \$12,000,000 street scape improvement project extending the “downtown” streetscape theme into adjacent neighborhoods.
- **Putnam Place Renovations:** Served as principal-in-charge for the City of Fitchburg’s Putnam Place renovations, which included developing truck accessibility to this industrial/commercial space which is critical to the viability of downtown Fitchburg, MA.
- **Fitchburg Revitalization:** Served as principal-in-charge for this pedestrian/traffic enhancement project in downtown Fitchburg, MA. The goal is to improve traffic circulation on Main Street, increase parking, improve pedestrian safety, and improve the curb appeal with pedestrian friendly streetscaping.
- **North Adams Revitalization:** Served as principal-in-charge for the revitalization of North Adams, MA downtown area and the approach to the Massachusetts Museum of Contemporary Art (Mass MoCA), including Main Street, sections of Route 2, and adjoining streets. The project challenges included meeting tight timelines while coordinating the project minimizing disruption to downtown businesses, and managing the review/approval through Massachusetts Department of Transportation.
- **Northampton Redevelopment:** Served as principal-in-charge on the redevelopment of severely blighted commercial property in Northampton, MA adjacent to the Connecticut River flood plain. Included significant storm water management versus parking need challenges combined with unsightly landscape at one of the major entrances to the City.
- **North Adams Brownfields Redevelopment:** Served as principal-in-charge for a brownfields redevelopment project in North Adams, MA. Assisted the city with converting a contaminated property into a developable property of mixed residential/commercial/retail space.
- **Dalton Roadway Reconstruction:** Served as principal-in-charge on a 2-mile, full-depth roadway reconstruction project in Dalton, MA that has difficult pedestrian/cross walk, street width, alignment, right of way, and stream crossing issues. Successfully managed the project through the Massachusetts Department of Transportation review/approval process.
- **Bondi Island Landfill:** Served as principal-in-charge on a complicated environmental site assessment, evaluation of a piggyback expansions, design/permitting associated with capacity increases, and design, permitting, and installation of an active gas collection and treatment system at the 70-acre landfill in Springfield, MA. Oversaw the operational aspects of the City owned landfill with a private operator, and provide ongoing solid waste management advice.
- **North Adams Transfer Station:** Principal-in-Charge on design of a new solid waste transfer facility to increase the volume of solid waste transferred out of the Northern Berkshires. Provide ongoing evaluation of MSW and recyclables transfer station options for the City of North Adams, MA and the Northern Berkshire Solid Waste District. Review and evaluation of existing facilities and haul/disposal options.
- **West Springfield Transfer Station:** Project manager on developing a Request for Proposals for the City of West Springfield, MA to privatize their MSW and recyclable Transfer Station off Agawam Avenue and assisted the City with evaluations of the proposals received.



YEARS OF EXPERIENCE

25

SPECIALTIES

Renewable Energy
Community Development & Planning
Commercial & Industrial
Development
Dam Safety
Solid Waste

LICENSES/REGISTRATIONS

Professional Engineer – MA
(#40111 Civil) / (#40530 Structural)
Professional Engineer - CT (#21807)
Professional Engineer - VT (#7975)
Professional Engineer - NY
(#082850)
Leadership in Energy and
Environmental Design (LEED)
Accredited Professional

EDUCATION

Bachelor of Science
Civil Engineering
Worcester Polytechnic Institute

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers
/ BSCE / Structural Institute / Geo-
Institute
American Concrete Institute
International Society of Soil
Mechanics and Foundation
Engineers
American Planning Association
Association of State Dam Safety
Officials
Affiliate Member - Western
Massachusetts Chapter of the
American Institute of Architects

Fran Hoey is an experienced member of our civil engineering group with specialized expertise in structural and geotechnical engineering. Drawing upon his strong technical background, advanced computer skills, and heavy construction experience, he has developed innovative and cost-effective solutions to a wide array of difficult engineering challenges. He holds professional registrations in two disciplines, civil and structural. As Chairman of Holyoke Gas & Electric and a member of the city's Planning Board, he has gained practical experience in both municipal government and the power and telecommunications industries.

Fran has served in a lead design and management role for many of our large scale development projects including the massive mixed use development in Redding, CT known as Georgetown (national smart growth award winner); the multi-developer, mixed-use Danbury Reserve which will include nearly 2,200 high-end residential units and over 1,000,000 SF of office, hotel, and retail space; and the Village at Hospital Hill, a high profile, joint public/private redevelopment of the 124-acre Northampton State Hospital site.

Professional Experience

- **Energy** - Over a decade of experience on the Board, and currently Chairman, of a large municipal electric company with electric generation, distribution, and transmission facilities – as well as natural gas distribution, state-of-the-art LNG vaporization, district steam, and advanced fiber optic network. Recognized by the Boston Society of Civil Engineers for his public service efforts focusing on hydroelectric, gas, electric, and energy issues with the 2005 Lester Gaynor Award. Currently evaluating the feasibility of small-scale hydroelectric generation at a number of small and intermediate dams in MA. Currently Principal-in-Charge for the 50 MW Berkshire Renewable Energy biomass power generating facility in Pittsfield, MA; a landfill gas to energy project in Moretown, VT; and the North & South Campus Chiller projects at Deerfield Academy.
- **Community Development and Planning** – Principal for peer review of Harvard University's Allston Campus 20-Year Master Plan. Principal for development studies for 43D sites in Gill, Gardner, and Bernardston, MA; the integrated water resources management plan for Holyoke, MA; and the OSRP for Winchendon, MA. Project manager for Churchill HOPE VI project which included infrastructure and environmental assessments, subsurface investigations, hazardous material abatement and demolition of a 30-building public housing development, preparation of subdivision plans, geotechnical reports, and design and construction administration of all improvements. As Principal for on-call engineering projects in Holyoke, Gardner, Winchendon, and Fitchburg, MA, he has gained considerable experience with projects funded by the Massachusetts DHCD and projects utilizing federal funds administered by DHCD.
- **Commercial/Industrial Development** – Principal for the redevelopment of a historic jute mill into the Mill at River's Edge in Ludlow, MA, reported to be largest not-for-profit industrial development project in MA. Principal for the design and permitting of infrastructure for Maple Ridge and Merrimac Landing developments in Tyngsboro, MA. Led permitting effort for adaptive re-use of Cabotville Industrial Park in Chicopee, MA for mixed residential, retail, and light industrial use. Principal for the planning, design, and/or permitting of numerous sites including Tractor

Supply Company (Southwick, MA), MGS Liquors (Chicopee, MA), Vernon Gardens (Vernon, CT), Sentinel Data (Bedford, MA), Kollmorgen headquarters (Northampton, MA), Loomis Communities (S. Hadley, MA), and Applewood Village (Amherst, MA).

- **Geographic Information Systems (GIS)** – Responsible for the planning and implementation of firm's entry into the GIS market. Pioneered application of GIS solutions to engineering problems and the use of mapping systems to streamline data collection and expedite the evaluation of developable land. Developed the geo-coding database currently utilized by the Holyoke Police Department.
- **Solid Waste** –Principal, project manager, or lead geotechnical engineer in the planning, design, permitting, and construction of more than forty solid waste projects, including transfer stations, double composite liner systems, intermediate and final landfill closures, horizontal and vertical expansions, leachate management systems, and landfill gas collection and treatment systems. Implemented many of our innovate solid waste technologies including: alternative landfill capping materials such as paper sludge, combined gas extraction / leachate recirculation systems, alternative drainage and venting materials such as recycled glass cullet, the first geosynthetic piggyback liner system in MA, and the first piggyback landfill in VT. Analyzed the geosynthetic piggyback liner system using combination of soil arching and tension membrane theories and designed a geogrid reinforcing system. Developed a unique, simplified method of evaluating slope stability along a pre-determined failure plane during seismic events. Analyzed the feasibility of closing a 62-acre abandoned landfill overlying deep peat deposits in Springfield, MA with a MADEP-approved landfill cap and then redeveloping the site as an industrial park.
- **Geotechnical** - Designed innovative solution for a road constructed over highly compressible organic silt layer more than 20 feet thick, with shear strength of less than 1 psi. Using geosynthetics, lightweight fill, and wick drains, devised a phased construction technique to allow equipment to take advantage of time-dependent strength gains. Utilized geogrids to reinforce the embankment and create a wrapped face wall to allow the road to be built with side slopes steeper than 1H:1V. Provided geotechnical engineering services to Deerfield Academy for their new 30,000 square foot Math, Science and Technology building, managed subsurface exploration program, geotechnical reports, the design and specification of ground improvements, and construction monitoring.
- **Directional Drilling** - Spearheaded design of twin high-pressure gas mains through the corporate boundaries of three municipalities and under the Weymouth Fore River for the Massachusetts Water Resources Authority. Designed two drilled stormwater crossings in Greenfield, MA to allow construction below sensitive Native American habitation sites. Designed drilled river crossing to facilitate construction of a sanitary sewer siphon beneath the Chicopee River.
- **Dam Safety** – Led permitting and design effort for rehabilitation of the Palmer Dam in Stonington, CT – one of the largest and most complex dam projects in recent history in New England - which received the Engineering Excellence Grand Award from ACEC/CT. Designed pressure grouting repair program for Factory Pond Dam in Redding, CT. Developed a monitoring plan and emergency action plan for a 90-foot tall concrete gravity dam in Leyden, MA. Designed extensive structural modifications and method for increasing spillway capacity to meet design storm. Managed the rehabilitation and de-classification of the high-hazard, earth embankment dam at Parkers Pond in Gardner, MA.



YEARS OF EXPERIENCE

19

SPECIALTIES

Engineering Analysis & Design

Geotechnical Evaluations

Site Investigations

Retaining Walls & Slopes

Dam Inspections & Design

LICENSES/REGISTRATIONS

Professional Engineer - MA (#47184)

Professional Engineer - NH (#13750)

Professional Engineer - CT (#28898)

EDUCATION

Bachelor of Science

Civil Engineering

Northeastern University

Master of Civil Engineering

Geotechnical Specialization

Georgia Institute of Technology

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

Boston Society of Civil Engineers

Association of State Dam Safety
Officials

New England Environmental Business
Council (EBC)/Member of EBC's Dam
Management Committee

American Council of Engineering
Companies of Massachusetts
(ACEC/MA)

Christopher Haker's background in dam engineering, foundation and earth retaining structure design and analysis, and soils engineering equips him to serve as project manager and technical lead on dam-related and geotechnical projects. He has served as project manager, performed engineering analysis and design, and prepared contract drawings and specifications for dam rehabilitation (concrete, stone masonry, and earth embankments), commercial and industrial building foundations (shallow and deep), blasting, earthwork, temporary earth support, and permanent retaining wall structures. He has performed numerous Phase 1 and Phase 2 dam inspections. He has also conducted analysis, design, and forensic investigations of mechanically stabilized earth walls. His construction observation experience includes shallow and deep foundations, soil/cement mix columns, deep dynamic compaction, tieback installation and testing, advanced drilling techniques including in-situ testing and instrumentation installation, and earthwork operations.

Professional Experience

Dams and Levees

- **Department of Conservation and Recreation (DCR) Dams:** Managed and provided engineering design for DCR's Dam Maintenance and Office of Dam Safety divisions. Projects included Phase 1 and Phase 2 dam inspections, jurisdictional determinations, and complete dam rehabilitation or reconstruction. Services included inspections, design, permitting, bidding assistance and construction observation. Highlighted projects include:
 - Aldrich Lake Dam in Granby, MA -concrete resurfacing
 - Brigham Pond Dam in Hubbardston, MA - spillway repairs and embankment stabilization
 - Emergency inspection, design, permitting, and construction phase services during major storm events, including Hurricane Irene in August 2011.
- **Municipal Dams:** Managed and provided engineering design, permitting and construction phase services for complete dam rehabilitations and re-constructions for municipal dam owners in Massachusetts including:
 - Green River Dam in Greenfield, MA (water supply dam that failed during Hurricane Irene)
 - Lower Pond Dam in Brewster, MA (Historical structure with fish ladder)
 - Eddy Pond and Auburn Pond Dams in Auburn, MA (Recreational dams)
 - DelCarte Dams Nos. 3 and 4 in Franklin, MA (Recreational dams)
- **Westfield Levee:** Managed the provisionally accredited levee process in Westfield, MA. As part of that process, FEMA required the City to certify the levee in accordance with federal regulation 44 CFR 65.10. The process included topographic, visual inspection of the earth levee and pump station, and soil borings and stability analysis of the levee.
- **Linwood Mill Dam:** Designed and managed major repairs to an earth embankment dam in Northbridge, MA. Repairs included installation of embankment overtopping protection, downstream slope filter blanket and toe drain system, rip rap armoring of upstream slope, and repairs the low-level outlet stem, stem guides and operator. Project was also

successful in reducing the spillway design flood from the ½ PMF to the 500-year which allowed for less costly repairs and overtopping protection system.

- **Inspections:** Performed numerous Phase I and Phase II dam inspections for various concrete gravity and earth embankment dams for water supply and recreational dams throughout Massachusetts and Connecticut.
- **Dam Safety Repairs:** Managed and provided engineering design and environmental and construction permitting for major dam safety repairs at municipal water supply in Lenox, MA. Repairs included replacement of concrete spillways, raising earth embankment crests and downstream slopes, installation of toe drain/filter blanket systems, replacement of gatehouse/outlet works, and replication of wetlands disturbed.
- **Investigation & Analyses:** Performed field investigations, hydraulic and hydrologic analyses, and stability analyses for water supply dams and dikes, including a 150-foot high concrete gravity arch dam on Nepaug Reservoir in West Hartford, CT. Performed alternatives analysis with estimated construction costs for various repair and improvement options.
- **Breaching & Decommissioning:** Provided engineering design and environmental and construction permitting for breaching and decommissioning a dam in Hanover/Norwell, MA. Breach consisted of concrete sluiceway removal and partial earth embankment removal. Permits included MEPA ENF and EIR waiver, DEP Section 401 Water Quality Certificate, DEM Office of Dam Safety Chapter 253 Permit, and US Army Corp of Engineers Section 404 Category II Permit.

Geotechnical

- **Municipal Infrastructure:** Performed geotechnical evaluations for foundation and retaining wall design for numerous municipal infrastructure projects such as new bike paths, water tanks, pump stations, roadway embankments, and bridges.
- **Commercial Development:** Performed geotechnical evaluations for foundation and retaining wall design for numerous commercial developments, such as office buildings, hospitals, and retail stores. Included "Lot E" in New Haven, CT, a mixed use development site dealing with excavation and replacement of urban fill for building foundation support. Also included One Quarry Place in Milford, MA with bedrock removal, site slopes and retaining walls, and spread footing foundations for a multiple store development site.
- **Industrial Development:** Performed geotechnical evaluations for numerous industrial facilities for foundation and site retaining wall design. Designed ground improvement via temporary surcharge of soft clays to reduce potential settlement of the Kollmorgen's new world headquarters in Northampton, MA. Performed geotechnical evaluations and designed a groundwater contamination migration cutoff system for an industrial site along the Chicopee River in Chicopee, MA.



YEARS OF EXPERIENCE

18

SPECIALTIES

Dam Rehabilitations

Dam Inspections & Evaluations

Hydrologic/Hydraulic Analyses

Construction Observation

Water & Wastewater Infrastructure

LICENSES/REGISTRATIONS

Professional Engineer – MA (#45948)

EDUCATION

Bachelor of Science

Civil and Environmental Engineering

University of Massachusetts Amherst

PROFESSIONAL AFFILIATIONS

Association of State Dam
Safety Officials

American Water Works Association

Western Massachusetts Water
Works Association

American Society of Civil Engineers

Steven Sroka has extensive experience in the study, design, and construction of a variety of civil engineering projects with a primary focus on dam engineering. Providing construction phase assistance and developing bid documents for both municipal and private clients are his main responsibilities.

Professional Experience

Dams

- **Granville Reservoir Dam** – Managed design and construction phase services for a dam improvements project in Granville, MA. The project included replacement of the majority of the spillway discharge channel that failed during Tropical Storm Irene and installation of a filter blanket along the downstream slope of the dam embankment combined with slope flattening. The reservoir is a primary drinking water source for the City of Westfield, MA.
- **Windsor Reservoir Dam:** Performed construction administration and observation of the \$4.6M Windsor Reservoir Dam reconstruction for the Dalton Fire District in Dalton, MA. The project replaced an existing, unsafe, high hazard stone masonry dam with a concrete gravity dam for a backup drinking water supply.
- **Linwood Pond Dam:** Performed multiple dam related services for Linwood Pond Dam in Northbridge, MA. Services included repair recommendations for upgrading the dam from poor to fair condition, a hydrologic/hydraulic analysis to determine adequacy of spillway capacity, an Incremental Damage Assessment to reduce the spillway design flood and design of embankment overtopping protection.
- **Brigham Pond Dam:** Designed improvements for Brigham Pond Dam in Hubbardston, MA for the MA Department of Conservation and Recreation for compliance with a Dam Safety Order. The improvements included soil grouting to address seepage issues, grout repair of the spillway, a parapet wall to provide additional freeboard, slip lining of low-level outlet and a new intake structure for the outlet.
- **Dam Inspections & Evaluations:** Performed several Phase I dam inspections, follow-up inspections, and Phase II dam evaluations for various dam owners. Phase I formal dam safety inspections ensure compliance with the MA Office of Dam Safety Regulations and associated follow-up detailed evaluations to investigate the structural safety and hydraulic capacity of the dam and present alternatives for rehabilitation.
- **Lakeville Reservoir No. 3 Dam:** Completed engineering analyses and developed repair alternatives for Lakeville Reservoir No. 3 Dam in Salisbury, CT. The dam was in poor condition and is part of Aquarion Water Company's drinking water supply system.
- **Mount Holyoke College Dams:** Managed design and provided construction phase services for an emergency repair project at the Lower Pond Dam (High Hazard) for Mount Holyoke College in South Hadley, MA. A sinkhole had developed on the upstream slope of the embankment. The repairs included investigation and repair of the sinkhole and installation of rip slope protection. Also have provided a variety of dam engineering services for the College's two high hazards dams for several years.

STEVEN M. SROKA, P.E. | *Senior Engineer*

- **Snows Mill Pond Dam:** Performed construction administration for this high hazard dam improvement project in Fitchburg, MA. The project replaced a severely deteriorated downstream training wall with a new concrete wall.
- **Intake Reservoir:** Designed dam improvements for the Intake Reservoir in Amherst, MA, including repointing of the stone masonry dam, bypass piping, dredging, and gatehouse modifications.
- **Mount Holyoke College Dams:** Provided a variety of dam engineering services for two high hazards dams for Mount Holyoke College in South Hadley, MA. Services included advice on maintenance activities and preparation of associated Chapter 253 Permits. Performed a hydrologic and hydraulic analysis to determine adequacy of passing the spillway design flood, and designed and performed construction administration for the replacement of the low-level outlet gate at one of the dams.
- **Big Pond Dam:** Managed engineering studies and repairs to the Big Pond Dam in South Windham, CT. Big Pond provides boating and water activities for Camp Horizons, which provides services to special needs children.
- **Emergency Action Plans (EAP):** Managed multiple EAP updates for dams in South Hadley, Fitchburg, Granville and Montgomery. The updates involve addressing both Office of Dam Safety and MEMA comments on the original EAPs.

Water Resources

- **Water Main:** Designed and performed construction observation of 28,500 feet of ductile iron water main ranging in diameter from 8-inch to 16-inch in East Longmeadow, South Hadley and Hardwick, MA. The Hardwick project included insulated culvert crossings and railroad crossings. Handled permitting for state highway, railroad crossing, and wetland issues.
- **Water System Studies:** Conducted water system studies in Amherst, Blandford, Monson, and Lanesborough, MA, including development of distribution system computer models and evaluation of the ability to deliver fire flows while maintaining acceptable pressures. Evaluated supply sources and storage components and developed recommendations for system improvements.

Wastewater

- **Sanitary Sewers:** Designed and performed construction phase services under multiple contracts for 12,000 feet of sanitary sewer. Ranged from 8-inches to 15-inches in East Longmeadow, MA to upgrade an aging system, and 4,200 feet of sanitary sewer ranging from 8 to 18 inches in the Pemberton Area of Hull, MA to reduce incoming flow to a pump station.
- **Winchendon Sewer Rehabilitation:** Designed and performed construction observation of multiple Massachusetts Department of Environmental Protection-funded sewer replacement and rehabilitation projects in Winchendon, MA to reduce wastewater flows, increase capacity, and eliminate two sewage overflows to Millers River. Contracts involved construction of 12,300 feet of 18-inch and 24-inch gravity interceptor sewer, separation of common manholes, trenchless rehabilitation, and state highway and wetlands issues.
- **Hoosac Water Quality District Wastewater Treatment Plant Upgrade:** Performed construction observation for the Hoosac Water Quality District facility upgrade in Williamstown, MA. The project included construction of an additional secondary clarifier and complete replacement of influent pumps, RAS/WAS pumps, primary clarifier mechanisms, and aerators.

Civil/Site

- **Emergency Slope Failure Repairs:** Provided design and construction related services for multiple emergency slope failure projects in North Adams, MA for both the City of North Adams and the Hoosac Water Quality District. The failures were a result of Tropical Storm Irene. Key components of the various projects included concrete retaining walls, rip rap stream barbs and rip rap slope protection.
- **Bridge Culvert Replacement:** Designed bridge culvert replacement on a heavily traveled road in South Hadley, MA under a tight deadline to comply with a Massachusetts Highway Department directive. Used river profiling software to size and shape the new bridge culvert and analyze the corresponding effects on the flood plain level.



YEARS OF EXPERIENCE

15

SPECIALTIES

Shallow Foundations

Deep Foundations

Slope Stabilizations

Dams

Subsurface Explorations

LICENSES/REGISTRATIONS

Professional Engineer – CT (#23992)

Professional Engineer – MA (#50059)

EDUCATION

Bachelor of Science

Civil Engineering

Rensselaer Polytechnic Institute

Master of Engineering

Civil Engineering

Rensselaer Polytechnic Institute

40-Hour OSHA HAZWOPER Training

10-Hour OSHA Construction Safety & Health Training

Nuclear Density Gauge Certification

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

Association of State Dam Safety Officials

Allison McCauliffe applies specific technical skills to a wide range of projects. She has completed geotechnical design for various sized commercial and municipal buildings, additions, small earthen dams, tanks, and slopes. Her duties include subsurface exploration program coordination, report and contract document preparation, as well as reviews of daily field reports for projects under construction. She has also served as a field representative for geotechnical construction observation on a number of projects with specialized geotechnical foundation elements.

Professional Experience

Geotechnical Design

- **Fortis Datacenter:** Prepared geotechnical engineering and construction recommendations for this new state-of-the-art facility in Norwalk, CT that will house a 170,000 square foot data and disaster recovery center. Prepared geotechnical evaluation for shallow foundations bearing on soil and bedrock, as well as the below grade retaining wall.
- **Colonial Village Community Center:** Prepared the geotechnical engineering evaluation and construction recommendations for design of shallow foundations bearing on soil and bedrock.
- **Trumbull DPW Salt Shed & Truck Wash:** Prepared the geotechnical evaluation and construction recommendations for the new Salt Shed and Truck Wash in Trumbull, CT
- **East Lyme Interconnection:** Prepared geotechnical evaluation and recommendations for the proposed pipeline, pump stations, and tanks included in the design of the East Lyme-New London Interconnection in CT. The scope included coordination and analysis of 40 test borings.
- **Metropolitan District Commission:** Prepared geotechnical reports and developed foundation recommendations for numerous structures in West Hartford and Hartford, CT. This included tanks, bridges and office buildings. Also prepared geotechnical data and baseline reports for the Clean Water Project sewer separation at Granby Street in Hartford, CT. The report included analysis of 30 borings as well as laboratory test data.
- **Howard Legion Block:** Prepared geotechnical report and developed foundation recommendations for the redevelopment of the Howard Legion block in New Haven, CT.
- **The Reserve Development:** Prepared geotechnical report and foundation recommendations for numerous residential structures, as well as a small office building associated with the development of the Danbury Reserve in Danbury, CT.
- **Norwalk Fire Department Headquarters:** Prepared geotechnical design recommendation recommendations for a new Fire Department headquarters located in Norwalk, CT. The constrained site included significant over-excavation of unsuitable fill materials.
- **Crane River Seawall:** Prepared design plans and specifications for repair of a failing seawall along the Crane River in Danvers, MA.

Slope Analysis and Stabilization

- **Town of Agawam:** Prepared a permanent riverbank sheeting design for protection of a sanitary sewer main in Agawam, MA.
- **Housatonic River Bank Improvement:** Prepared recommendations and construction documents for slope improvements along the Housatonic River at the Crane & Co. Baystate Mill in Dalton, MA. This project included the use of a geogrid to construct a reinforced slope.
- **Massachusetts Municipal Wholesale Electric Company:** Completed stability analysis of steep quarry slope adjacent to an existing gas pipeline for the Massachusetts Municipal Wholesale Electric Company in Ludlow, MA. Also prepared construction documents detailing the repairs necessary to stabilize the slope.
- **City of Meriden:** Completed stability and alternatives analysis for steep slopes in a residential neighborhood for the City of Meriden, CT.

Subsurface Explorations

- **Test Borings:** Coordinate and observe test boring programs for various projects. This includes both large and small scale programs, as well as coordination of in-situ testing.
- **Test Pits:** Coordinate and observe test pit programs that have included location of depth to bedrock, rippability of bedrock, uncovering foundations, infiltration testing, and more.

Dams

- **Lakeville Reservoir No. 3:** Completed stability analysis, plans, and specifications for improvements to the earthen embankment dam and spillway at the Lakeville Reservoir No. 3 located in Salisbury, CT, for the Aquarion Water Company.
- **Rockwood Lake Dam** – Completed alternatives analysis for improvements to Rockwood Lake Dam in Greenwich, CT with is part of the Aquarion Water Company system.

Construction Observation

- **West Springfield High School:** Coordinated and managed geotechnical construction observation services during construction of the new West Springfield High School in West Springfield, MA. This included managing field staff, reviewing daily field reports, submittal review, and supplying geotechnical advice as construction related issues arose.
- **Deerfield Academy:** Observed installation of wick drains for the foundation construction of the new science, math and technology building at Deerfield Academy, Deerfield, MA.
- **Louis Allen Drive:** Provided construction observation for installation of a ConSpan precast concrete bridge at the new Peterson Farms development in Danbury, CT. This included bearing surface inspection, foundation construction, placement of precast units, and backfilling.
- **West Hills Conte School:** Observed completion of vibro-compaction and compaction grouting for the reconstruction of the West Hills Conte School in New Haven, CT.
- **Arts Magnet School:** Provided construction observation for the installation of over 200 stone columns for new Arts Magnet School in New Haven, CT. The project also called for constant seismic monitoring due to close proximity of neighbors and utilities.