



DAVID A. SCHOENWOLF, P.E.

Principal Consultant

EDUCATION

M.S., Geotechnical Engineering, University of Illinois at Urbana, 1977

B.S., Civil Engineering, University of Illinois at Urbana, 1976

PROFESSIONAL REGISTRATIONS

Professional Engineer:

2011/ SC (Reg. No. 28730)

2010/ OH (Reg. No. 75145)

2010/ NC (Reg. No. 037175)

1998/ PA (Reg. No. 053744-E)

1998/ NJ (Reg. No. GE 41462)

1998/ WV (Reg. No. 013836)

1992/ MD (Reg. No. 19067)

1992/ VA (Reg. No. 022802)

1992/ DC (Reg. No. 9700)

1992/ DE (Reg. No. 9087)

1983/ MA (Reg. No. 31447)

PROFESSIONAL SOCIETIES

American Council of Engineering Companies / Metropolitan Washington, College of Fellows 2012, President 1994-1995, National Director 1997-1999

American Society of Civil Engineers

Boston Society of Civil Engineers Section, ASCE - BSCES Geotechnical Technical Group Chairman 1988-1989

Association of Drilled Shaft Contractors, Member

ASFE – The Geoprofessional Business Association

Council of Fellows 2014, President 2012-2013

With over 38 years of experience, Mr. Schoenwolf has been an officer-in-charge and project manager for geotechnical engineering and environmental evaluations for a broad range of projects. His areas of experience include foundations involving driven piles, drilled piles, caissons, spread footings, mat foundations, load bearing elements, slurry wall construction; ground improvement techniques such as jet grouting and compaction grouting; wick drains and surcharging; and excavation support systems for numerous structures in the mid-Atlantic and northeast United States.

His scope of projects has ranged from preliminary feasibility studies, environmental site assessments and remediation, and master plan site development studies to complete design investigations for major projects including preparing geotechnical data and interpretive reports; preparing contract documents, technical specifications, and reviewing contractor submittals; instrumentation monitoring; and construction consulting.

RELEVANT PROJECT EXPERIENCE

D.C. United Soccer Stadium, Washington, D.C. Officer-in-charge of the environmental due diligence and geotechnical engineering services for the design and construction of the new 19,000 seat stadium. The new stadium will be located on eight parcels in the Buzzard Point area. The eight parcels were formerly occupied by industrial facilities with documented releases of petroleum products and chemicals. The scope of work included performing Phase I and Phase II ESA's, preparing a Clean-up Action Plan and assisting the District of Columbia through the Voluntary Clean-up Program. In addition, geotechnical engineering investigations and analyses were performed and foundation design recommendations were prepared for the new stadium.

Gallery Place Project, Washington, D.C. Officer-in-charge of geotechnical and environmental investigations and design for the new Gallery Place project, which was constructed adjacent to the MCI Arena in Washington, D.C. This 400,000-sq-ft, multi-use facility includes a multi-screen AMC theater, 120 residential units, 276,000-sq-ft of retail space, and a 1000-space parking garage. To accommodate a portion of the retail space and the garage, the building has five levels of below grade construction. The site was also contaminated with petroleum hydrocarbons and volatile organics. The design of the below-grade portions of the building incorporated procedures to remediate the soil and groundwater contamination.

Ridley Athletic Complex, Loyola College in Maryland, Baltimore, MD. Officer-in-charge for engineering investigation and design of an athletic complex on a 50-acre closed City of Baltimore landfill site. Subsurface conditions included up to 180 ft of waste in a former rock quarry, up to 180 ft of landfill waste placed in three valley fills, surface streams flowing in storm drains below the landfills, and landfill gas vents. Design issues considered pile foundations extending through 180 ft of landfill waste, active landfill gas control systems below buildings and athletic fields, moving landfill materials to develop level fields and parking areas, deep dynamic compaction to reduce waste settlements, computing 5- to 30-year waste settlements and impacts on utilities and site surfaces, construction and stability of 10 to 90 ft high reinforced steep slopes on existing landfill. A Human Health Risk assessment was performed to assess impacts on site occupants and the abutters as well as a hydrogeologic study to evaluate off-site groundwater flows. Participated and presented at public hearings regarding the geotechnical end environmental aspects of project construction.

St. Elizabeth East Campus Redevelopment Phase II Services, Washington, D.C. Performed environmental due diligence activities for the redevelopment of this historic property, including an update of a Phase I environmental site assessment, an assessment of hazardous building materials in several of the existing buildings scheduled for demolition, and environmental ground characterization for identification and disposal of contaminated soil in the infrastructure right-of-way. The reports were provided as design-build bridging documents for the installation of new infrastructure for the overall redevelopment of the campus into a mixed-use center for various businesses and institutions. Also performed geotechnical engineering investigations for design and construction of the stormwater management structures. These investigations included performing falling head permeability tests at 19 locations on the site.

Department of Homeland Security Headquarters Campus, Washington, D.C. Officer-in-charge of geotechnical engineering investigations and design for the adaptive re-use of existing historic structures as well as for several new buildings to be constructed on the west campus of the existing St. Elizabeths Hospital complex. The Department of Homeland Security Headquarters will be developed by the General Services Administration by renovating existing buildings and adding additional new structures on the 176-acre west campus of St. Elizabeth's Hospital in Southeast Washington, D.C. The site poses many underground challenges in that it is underlain by a significant depth of "Marine Clay" which is a very stiff clay deposit that has very low shear strengths due to the presence of slickensides in the deposit. As part of the site redevelopment, performed geotechnical engineering investigations and preliminary design drawings for the stabilization of a 60 ft, high slope that is underlain by the Marine Clay. The site also contains fill soils mixed with ash from the on-site power plant. The ash contains dioxins and furans. Performed ground characterization regarding identification of and disposal of the ash fill.

C&S Wholesale Grocers, Inc., Warehouse, Martinsburg, WV. Officer-in-charge of geotechnical and environmental investigation of a 200-acre site for the development of a new 200,000-sq-ft warehouse addition to an existing 730,000-sq-ft warehouse and associated site development. Site appurtenances included 41 acres of parking lots for truck marshalling area, and a stormwater management pond. The new warehouse will be founded on spread footing foundations bearing at shallow depths below the ground surface on residual soils. Site development recommendations included methods to backfill sink holes. The site development included remediation of oil contaminated soils.

Remediation Management Project, Washington, D.C. Officer-in-charge of an active construction management project for a commercial storage facility located in the northeast section of Washington, D.C. The property owner requested that Haley & Aldrich coordinate and oversee the execution of three environmental housekeeping issues in connection with a pending real estate transaction. Site remediation activities included removal and disposal of 15 non-polychlorinated biphenyl (PCB) transformers; abatement of asbestos-containing materials associated with a former site boiler system; and, the in-place closure of two underground storage tanks (USTs) located approximately 12 feet below the building's first floor. In addition to coordinating the various contractors, project responsibility included securing permission for the in-place abandonment of the USTs from the D.C. Underground Storage Tank Division and applying for the various required permits. Permission was received to abandon the USTs in-place by filling them with an inert slurry.

Gallaudet Baseball and Softball Fields, Gallaudet University in Washington, D.C. Officer-in-charge for the geotechnical investigation and design of new NCAA baseball and softball fields located at Gallaudet University. The construction included new scoreboards, bleachers, dugout structures, retaining walls, and new concrete pavement. Stormwater management was accomplished with underground detention chambers. The geotechnical investigation consisted of performing eleven (11) test borings and six (6) infiltration tests. Engineering analyses included shallow foundations, retaining walls, seismic site classification, pavement design, and infiltration evaluation for stormwater management design.

Claremont Elementary Storm Drainage Outfall Remediation, Arlington, VA. Officer-in-charge of design and construction management services during the installation of an underground infiltration system and slope repair at Claremont Elementary School in Arlington, VA. The project consisted of repairing an eroded slope at an existing outfall that was associated with an existing stormwater management underground detention facility. In addition, the existing stormwater management facility was modified to eliminate stormwater release and to allow infiltration for the 100-year design storm event. Prior to construction, Haley & Aldrich performed a geotechnical investigation to support the design, which included onsite infiltration testing. Construction management responsibilities included overseeing the construction activities, preparing contract change orders, and conducting progress meetings.

Comcast Center, Philadelphia, PA. Officer-in-charge of project during foundation construction phase of the 57-story building. The 975-ft high building contains 1.2 million-sq-ft of usable office space and serves as the corporate headquarters for the Comcast Corporation. The project is located in the center of downtown Philadelphia and is adjacent to an historic church and an underground SEPTA tunnel. The building design features a center core and perimeter columns located outside the core. Due to the relatively high column loads within the tower core, the use of a structural mat foundation bearing on schist rock to support the tower core was utilized. Columns located outside the core were founded on 3- to 8-ft-dia caisson foundations socketed into rock.

DC Government Center Parking Garage, Washington, D.C. Officer-in-charge of the geotechnical investigation and design of the District of Columbia Government Center Parking Garage at the Minnesota Avenue Metrorail Station (Orange Line). The construction of the pre-cast concrete structure consisted of four levels of above-grade parking and one level of below-grade parking. The subsurface exploration program consisted of drilling eight test borings. Based on the building configuration and structural loadings, driven piles were recommended for support of the building. Project responsibilities included project scope development, planning and executing the subsurface exploration program, analysis of geotechnical laboratory test data, and report preparation. Engineering analyses included drilled shafts, driven pile foundations, lowest level floor slabs, retaining walls and seismic design (in accordance with IBC 2000). Coordinating the design with Washington Metropolitan Area Transit Authority (WMATA) was a critical aspect of the project as the garage was constructed in close proximity to the active transit line.

GSA Federal Laboratories, Beltsville, MD. Officer-in-charge of geotechnical engineering services for design of a new 16,400-sq-m atrium-styled structure on a 14-hectare site. The facility will house the National Laboratory, the Forensic Science Laboratory and the Fire Research Center, the first laboratory of its kind in the world. Project responsibilities included performing field and laboratory investigations for project design, including performing a hydrogeologic pump test to estimate a sustainable pumping rate for the confined soil aquifer under the site. The plan is to pump groundwater into a storage tank to be used as a fire suppression system. Foundation recommendations included spread footings, dynamic compaction and GeoPiers™ to support foundation loads.

United States Post Office and Courthouse, San Juan, PR. Officer-in-charge of a seismic retrofit upgrade design of the historic post office structure foundations. The facility consisted of two buildings, one completed in 1914 and the other in 1940. Project responsibilities included designing the mini-pile foundation units, designing and coordinating a compression, tension and lateral load test as well as consistent monitoring and quality assurance of the foundation installation.

Internal Revenue Service Computing Center, Martinsburg, WV. Officer-in-charge of a geotechnical engineering investigation into the distress that was occurring in certain sectors of the newly constructed facility. The facility consisted of three interconnected buildings: a 3-story office building, a 2-story automatic data processing building with basement, and a warehouse with a mechanical room. The distress was occurring in the mechanical room area. Based on our investigations, it was concluded that the cause of the distress was swelling of the rock bearing stratum due to pyrite in the shale.

National Law Enforcement Museum, Washington, D.C. Officer-in-charge of geotechnical investigation and design for a new museum. The museum is located immediately to the south of the existing National Law Enforcement Officers Memorial on E Street, NW. The museum will be constructed totally underground with two levels of below-grade space. The depth of excavation to create the underground facility will be as much as 50 ft and will be constructed immediately adjacent to existing buildings.

Argentine Naval Commission Building, Washington, D.C. Officer-in-charge of an investigation into the potential causes of settlement of this historic structure located on Pennsylvania Avenue. It was determined that the structure settled due to loss of ground during tieback installation when the adjacent building was constructed. In order to reduce the potential for future building settlement, it was recommended that the building be underpinned using jet grouting. Designed the jet grouting underpinning scheme for the structure and prepared contract documents for retaining contractor services to perform the work.

Naval Sea Systems Command Headquarters, Washington Navy Yard, Washington, D.C. Officer-in-charge for geotechnical engineering investigation for proposed four floor level redevelopment of an existing 90,000-sq-ft (plan area) gun assembly building, and development of two new structures. The new structures will include a five-story, pile-supported building addition to the renovated building and an eight level, pile-supported parking structure, including one level below-grade. Studies included an evaluation of the existing timber pile foundation of the gun assembly building. The site was under evaluation by the Environmental Protection Agency (EPA) concerning soil and groundwater contamination. The geotechnical investigations were performed using environmental drilling protocols and health and safety trained personnel to reduce the potential for cross contamination of the various soil strata at the site. Haley & Aldrich was on the team representing the Owner; this project was procured using the design-build delivery approach. The scope of work included assisting with the preparation of the bridging documents.

Removal of Underground Fuel Oil Storage Tanks, National Institutes of Health (NIH) Building No. 11, Bethesda, MD. Officer-in-charge of design of jet-grouted soilcrete columns for underpinning of the existing structure and excavation support to allow removal of two underground fuel oil storage tanks located below and adjacent to the existing power plant at NIH (Building 11). Evaluated soilcrete test program results prior to production jet grouting.

USA Today, Underground Storage Tank (UST) Removal and Replacement, Arlington, VA. Officer-in-charge of project that required removal of an existing UST and the installation of an aboveground storage tank (AST) as its replacement. Project responsibilities included obtaining bids from qualified contractors to remove the UST; conducting contamination studies with regard to the UST; and designing and installing a new AST to replace the UST. A closure report was submitted after the UST was removed, and an operating manual was prepared to support the operations and maintenance of the newly installed AST.

USA Today, Wastewater Discharge Solids Reduction, Arlington, VA. Officer-in-charge of that evaluated means to reduce wastewater discharge solids for the USA Today Production Department. The project included evaluating the existing photocopy operations for opportunities to modify the system and/or production procedures in order to reduce the amount of solids that collect in the drain piping. Based on our analyses, it was recommended that the existing silver recovery units be replaced with a recovery system which does not add either iron or increase the pH of the waste stream.

USA Today, Tank Sampling and Analysis, Arlington, VA. Officer-in-charge of project that included sampling and analyzing limestone chips that neutralize the effluent generated by newspaper photochemical processes. In addition

to performing the sampling, the project also required development of health and safety protocols that USA Today employees were to follow during subsequent tank cleaning operations.

USA Today, Acid Dilution Tank Closure, Arlington, VA. Officer-in-charge for project that included managing the closure of two existing acid dilution tanks at the Gannett Corporation headquarters. The 660 gallon tanks were used for primary neutralization of effluent generated by newspaper photochemical processing operations. Project responsibilities included engaging contractors to remove the tanks, laboratories for analytical testing, and performing required contamination studies to permanently close out the tanks.

Merchant Tire Store, Vienna, VA. Officer-in-charge for underground storage tank removal and remediation at a tire store. The project included working with the store manager to engage a tank pull contractor, monitoring the tank removal activities, obtaining soil samples for analytical testing, evaluating the results, and preparing a letter to the local regulatory authorities requesting closure.

South Port Apartments, Alexandria, VA. Officer-in-charge of Spill Prevention Control and Countermeasures Plan for an apartment complex. The multi-unit apartment complex maintains an AST that contains approximately 12,000 gallons of heating oil. Project responsibilities included preparing interfacing with the on-site apartment management, preparing the plan and obtaining approval from the local regulatory authorities.

I-95 Landfill Project Final Closure Construction Plan, Lorton, VA. Officer-in-charge of investigation to determine potential cause(s) of failures in the stormwater management system at the landfill. Also, performed an investigation into potential leakages of methane gas through the final landfill closure cap.

Brook Evaluation, Malden, MA. Officer-in-charge of project to evaluate the possible contamination of a brook due to a previous coal gasification plant founded in the project vicinity. The environmental assessment included an internal inspection in Level B protection of the twin box culvert that housed the brook.

PUBLICATIONS

"Redevelopment of a Municipal Solid Waste Landfill: Engineering Design Challenges," with D.A. Shelton and N.P. Mohanan, for the 6th International Conference on Case Histories in Geotechnical Engineering, Arlington, VA, August 11-16, 2008.

"Jet Grout Underpinning of an Historic Building in Washington, DC," with N.A. Straub, M.ASCE, published in the Third National Conference of the Geoinstitute of ASCE, Geo-Engineering for Underground Structures, June 13-17, 1999.

"Micropile Application for Seismic Retrofit Preserves Historic Structure in Old San Juan, Puerto Rico," with B. H. Zelenko, D. A. Bruce and R. P. Traylor, published in the conference proceedings and presented at the Geotechnical Session at the American Society of Civil Engineers National Convention, Boston, Massachusetts, October 18-21, 1998.

"Predictions & Observations of Groundwater Conditions During a Deep Excavation in Boston," with C.M. Erikson, published in Civil Engineering Practice, Journal of the Boston Society of Civil Engineers Section ASCE, Fall 1993.

"Post Office Square Garage Project - A Case History of Instrumented Slurry Wall Performance," with R.V. Whitman, E.L. Abbott and J.M. Becker, published in Slurry Walls: Design, Construction and Quality Control, ASTM STP 1129, D.B. Paul, R.R. Davidson, and N.J. Cavalli, Eds., American Society for Testing and Materials, Philadelphia, 1992.

"Underreamed Drilled Shafts Installed Using Slurry Methods," with D. J. Dobbels, published in Slurry Walls: Design, Construction and Quality Control, ASTM STP 1129, D.B. Paul, R.R. Davidson and N.J. Cavalli, Eds., American Society for Testing and Materials, Philadelphia, 1992.

"Foundation Considerations for the Expansion and Renovation of the Hynes Auditorium", with E.G. Johnson, published in Civil Engineering Practice, Journal of the Boston Society of Civil Engineers Section/ASCE, Volume 2, Number 2, Fall 1987.

INVITED LECTURER OR SPEAKER

Mr. Schoenwolf has been a Guest Speaker at over 15 seminars/presentations for professional societies and universities.

Assisted in teaching an all-day course to three VDOT Districts on "Trenchless Technology Design and Construction," May 2011.

Presentation at the Society for College and University Planning Conference on March 25-27, 2007 entitled Building an Athletic Complex on Landfills: Problem? Or Solution?

Lecturer at 2001, A Geo-Odyssey, Foundations and Ground Improvement, presentation entitled "Woodrow Wilson Bridge Project, Alexandria, Virginia."

Lecturer at Course entitled "Slurry Walls and Slurry Trenches," presented by the University of Wisconsin—Milwaukee, on 30 September and 1 October 1999.

Assisted in teaching a course at MIT entitled "Geo-Construction," Spring 1990.

"Correlations of Rock Index Values with Engineering Properties and the Classification of Intact Rock", with B.E. Beverly and G.S. Brierley, presented at the Fifty-Eighth Annual Meeting of the Transportation Research Board, Washington, D.C., January 1979.

Presentation at University of Maryland entitled "Forensic Engineering, A Geotechnical Engineer's Perspective."