

Construction Monitoring &
Observations

Construction Materials Testing

Tunnels and Underground Openings

Geotechnical Engineering &
Evaluation

SEECO Consultants Inc.
CONSULTING ENGINEERS

Subsurface Explorations

Foundation Analysis & Design

Structural Rehabilitation
Condition Surveys

Dams and Drainage Studies

OVER 45 YEARS OF SERVICE

FOUNDED IN 1970

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INTRODUCTION

SEECO Consultants, Inc. (SEECO) is a full service consulting engineering firm specializing in civil, geotechnical and structural engineering and construction materials engineering, inspection and quality control. We have a full complement of drilling rigs and a complete geotechnical testing laboratory that is approved by the U.S. Army Corps of Engineers (Ohio River Division), the Illinois Capital Development Board, Illinois Department of Transportation and AASHTO and CCRL.

The company is located in the southwest suburbs of Chicago and has been providing engineering consulting services throughout the Midwest since 1970. The staff includes professional engineers, civil engineers, structural engineers, geotechnical engineers, hydrogeologists and geologists and an experienced team of field engineers and technicians. SEECO's Field Construction Service's Engineers and Technicians and Drillers are represented by Local 150 of the International Union of Operating Engineers.

SEECO has a strong project management system - project managers are involved at the inception of a project and generally have responsibility of a project from proposal to completion. Weekly and monthly project meetings are conducted to monitor project progress. In some cases projects are tracked on a daily basis. A "single source" point of contact for a project provides a single person who interfaces with the client, as well as the project administrator, and provides a very efficient communication system.

From its inception, SEECO has provided a comprehensive in-house training program for construction material monitoring and testing. All staff are provided with annual training including in-house seminars and refresher training, as applicable. All of the engineers and technicians at SEECO are familiar with the American Society of Testing and Materials (ASTM), U.S. Army Corps of Engineers and American Association of State Highway and Transportation Officials (AASHTO) and Cement and Concrete Research Laboratory (CCRL) testing procedures. In addition, a number of the staff and technicians are Illinois Department of Transportation (IDOT) Portland Cement Concrete and Bituminous Proportioning Certified. The senior drillers and select personnel have completed OSHA Hazardous Site Worker Training per 29 CFR 1910.120.

SEECO owns and operates seven (7) truck-mounted drill rigs, two (2) all terrain vehicle (ATV) mounted drill rigs, one (1) skid-mounted drill rig, two (2) floating plants and a motor boat for off-shore drilling work.

SEECO carries comprehensive insurance coverage that includes the following: General Liability, Automobile Liability, Excess Liability, Workers Compensation and Employers Liability and Professional and Pollution Liability. The General and Professional/Pollution Liability Coverage have an aggregate limit of \$2,000,000 and a per occurrence limit of \$2,000,000 (please refer to the attached copy of our current Certificate of Insurance).

Environmental investigations and consulting services are conducted in conjunction with or by our affiliate, SEECO Environmental Services, Inc. (SES). Environmental services include, but are not limited to: Phase I environmental site assessments, Phase II site characterization and delineation studies, Phase III site groundwater and soil remediation clean-up plans and Phase IV site remediation construction and oversight of correction action plans, underground storage tank management and closures, facility permits and compliance commitment agreements, air quality modeling and air quality permitting, NPDES permits, SPCC plans, RCRA compliance,

RCRA corrective action plans, SARA Title III community right-to-know reporting, risk assessment and compliance audits.

SEECO Consultants, Inc. is licensed as a Professional Engineering Service Corporation and is a Small Business Enterprise (SBE).

GEOTECHNICAL AND CONSTRUCTION FIELD SERVICES

Geotechnical Engineering Services

SEECO provides subsurface exploration services to a depth of 300 feet with conventional and hollow stem augers and up to 1,000 feet with NW drill rods. Drilling can be accomplished in virtually any environment from inside buildings and rooms with the skid rig to swamps with the all terrain vehicle-mounted drill rig in all types of soil, rock and fill materials. SEECO has extensive experience drilling in peat and soils with unsuitable bearing capacities in the glacial deposits in and around the Chicago region and the upper Midwest. We have state-of-the-art pressuremeter testing equipment and has used this equipment in the analysis and design of deep foundations in downtown Chicago. We have a full geotechnical testing laboratory with the capacity to test soil and rock, Triaxial shear tests - Q, R and S and permeability Triaxial constant and falling head testing, Atterberg limits, hydrometer and sieve analysis, unconfined compression tests, dry and wet unit density, complete concrete and asphalt testing, unconfined compression tests, Triaxial shear tests and compaction testing. A complete list of tests is included in Service Capabilities portion of this booklet.

We have performed large hydrogeological investigations and provided design recommendations and specifications. The Cup-O'Hare Reservoir Project (near O'Hare International Airport) is an excellent example of SEECO's service capabilities. Hydrogeological investigation and design considerations are a key component of any large construction project. SEECO can install piezometers and monitoring wells, and provide the data and report that defines the groundwater control system required. Our drilling and inspection services support foundation investigations and foundation design, retaining structure design, MSE (mechanically stabilized earth) walls, settlement analysis and slope stability analysis both cut slopes (excavations) and embankment (dams, dikes and levees). In addition, we provide design and analysis of deep foundations (piles and caissons), tunnels, underground openings and underground spaces (gas storage caverns). SEECO Consultants Inc. has performed pile load tests and analysis for various projects.

SEECO has performed combination Environmental Phase II/Geotechnical subsurface investigations. This service can be performed as a planned project or incorporated with an existing geotechnical study immediately upon the detection of suspected contamination. This capability reduces overall investigation and report costs when unexpected contamination is identified at a site.

Construction Field Services

We provide construction monitoring and observation and testing for the placement of concrete and asphalt, the placement and compaction of crushed stone and soil, and road base stabilization. SEECO inspectors possess IDOT Level I and II PCC and IDOT Level I, II and III bituminous concrete certification. SEECO also performs Superpave asphalt mix design per IDOT and INDOT specifications using state of the art binder ignition oven, gyratory asphalt compactor and computer/printer for data collection and recording. Samples and concrete cylinders are transported to our concrete laboratory for testing. We provide steel inspection services (bolts and welds), roof inspections, fire proofing and insulation testing and inspections. SEECO conducts trench backfill, structural earth fills, excavation, caisson, pile and footing

inspections. Field reports and final reports are prepared for each project. Identification of any non-specification items or testing and inspection results are reported immediately to the client.

Special Engineering Services

SEECO provides expertise in forensic geotechnical and foundation engineering; marine investigations, jetties, breakwaters; levees, dam design and construction management; lysimeter and inclinometer installations for horizontal deformation monitoring; seismic engineering design for dams, navigation structures and buildings; and structural condition surveys for existing buildings.

SEECO also provides marketability studies and property condition assessments.

SERVICE CAPABILITIES

Construction Services

Field and Laboratory Quality Control Services

Construction Materials Testing
Caisson and Pile Installation Inspection
Engineered Fill and Backfill Testing
Plastic Concrete Testing
Reinforcing Steel Inspection
Structural Steel
Aggregates
Masonry

Pavement Inspection and Testing
(Nuclear Density Gauge)
Roofing Inspection
Precast Concrete
Posttensioned Concrete
Fireproofing Inspections
Insulation Inspection

Engineering Analysis, Reports and Design

Caisson and Pile Foundation Design
Foundation Investigations
Design of Laterally Loaded Piles and
Caissons
Transmission Tower Foundation Design
Earth Retention Bracing System Design
Sheeting and Bulkhead Design
Construction Groundwater Control for
Shallow and Deep Excavation

Soil Stabilization
Slurry Walls
Offshore Studies
Water Retention Systems
Hydrogeological Investigation and
Groundwater Control Design
MSE Wall and Cantilever and
Counterfort Walls Design

Foundations and Embankments

Foundation Observation
Shallow Foundations
Caissons and Piles
Plate Bearing Tests and Analyses
Pile Load Tests and Analyses
Caisson Load Tests (O-Cell) and
Analyses

Piezometer Installations and
Summary Study
Slope Stability Studies
Settlement Monitoring and Interpretation
Pressuremeter Testing
(Soil and Bedrock)
Inclinometer Installation and Monitoring
and Interpretation of Data

Structure Evaluation Services

Material Evaluation (Concrete, Steel,
Wood, Fireproofing and Insulation)
Technical Specifications
Engineering Design

Preventive Maintenance
Condition Evaluation Surveys
Maintenance and Repair Strategies
Built-up Roofing Test Cuts

Special Engineering Services

Forensic Engineering Services
Expert Testimony
Design of Breakwaters
Design of Levee and Earth and Rock
Filled Dams and Excavated Reservoir
Cut Slopes
Remedial Foundation Design, Plans and
Specifications and Construction
Monitoring
Property Condition Assessments

Seismic Analysis and Design for Dams,
Navigation Structures and Buildings
Construction Management
Structural Rehabilitation Addition
Surveys and Retrofit Design
Marketability Studies
Underseepage Studies of Retention
Pond, Excavated Reservoirs (Soil and
Bedrock) and Embankment Dams

Geotechnical and Materials Laboratory Testing Services

Soil and Rock Testing, Including Q, R
and S Triaxial Compression Testing
and Permeability Testing
Complete Concrete and Asphalt Testing
Engineering Classification of Soils
Particle Size Analysis
Liquid Limit
Atterberg Limit
Shrinkage Factor
Moisture Content
Density - Wet and Dry
Specific Gravity
Unconfined Compression Test with
Stress Strain Curves
Hydrometer Analysis
Combined Analysis (Hydrometer and
Sieve) Soil pH
Hand Penetrometer Unconfined
Strength

Lightweight Pieces in Aggregates
Abrasion and Impact
Illinois and California Bearing Ratio
Tests
Direct Shear Test
Consolidation Test
Swell Test
Time Rate of Settlement Curves
Compaction Tests
Laboratory CBR or IBR Determinations
Harvard Miniature Compaction Test
Organic Content of Soils
Sodium Sulfate Soundness
Test - Aggregates
Wet Combustion of Soils
Point Load Strength of Rock Cores
Rock Quality Designation
Rimac (Unconfined Compression Test)
Clay Lumps Friable Particle

DRILL, RIGS AND EQUIPMENT

SEECO owns and operates seven (7) modern truck-mounted drill rigs, one (1) skid rig, and two (2) all terrain vehicle mounted drill rigs and our field exploration programs are conducted by experienced and reliable drillers who possess many years of drilling experience throughout the continental United States and Canada. Two (2) floating plants and a motorboat are owned by SEECO and, when needed, are operated to perform offshore soil borings.

Our drillers are experienced in hollow stem auger drilling, rotary wash boring, split spoon, Shelby tube and piston sampling, auger profile sampling, large diameter soil sampling, wireline rock coring of bedrock and overburden and bedrock packer permeability (hydraulic conductivity) testing, large diameter core sampling (HQ) and installation of piezometer, monitoring wells, and slope indicator instrumentation installation. Drillers have OSHA 40-hour Hazardous Waste Site Worker training certification and may operate our rigs at hazardous waste sites.

Our drilling equipment consists of seven (7) truck-mounted drill rigs, two (2) all terrain vehicle (ATV) mounted drill rigs, and one (1) skid rig and a motorized cathead with an A-Frame tripod. These rigs are as follows: Sprague & Henwood C-142 Rotary Type Drilling Rig; a four-wheel drive Mobile B-30; a four-wheel drive Brainard Kilman BK-51; an all terrain vehicle mounted CME 750 Model Rotary Rigs; an all terrain vehicle mounted CME-45B Model Rotary Rig; two (2) truck-mounted Central Mine Equipment 55 Model Rotary Rigs; one (1) truck-mounted CME-75 Drill Rig; a truck-mounted Diedrich D-50; and a skid mounted Diedrich D-25. These rigs advance the soil borehole by conventional continuous flight auger, continuous hollow stem augers, and mud rotary wash methods. The CME-75 and CME-55 rigs are also fully equipped with NX wireline core drilling equipment. All rigs have direct push soil sampling capability, water pumps, grout pumps and carry tremie pipes for well installations.

Our Mobile B-30 Rig has the following capabilities: Auger drilling with continuous augers to 100 feet, angle drilling capability, four-wheel drive F-350 truck-mounted rig, which is ideal for small clearance areas and soft ground field conditions.

The Sprague & Henwood rig has the following capabilities: Auger drilling - conventional and hollow stem augers 700 feet up to 6 inch hole size; 150 feet of angle drilling; core and rotary drilling - NWX drill rods, 3-inch hole to depths of 2,400 feet.

Our CME-45B is equipped with the following capabilities: Auger drilling - conventional and hollow augers to a depth of 150 feet and boreholes up to 12-inch diameter. Core and rotary drilling - 500 feet with N rods. This rig is mounted on all terrain "Highmount" four-wheel drive Gemco 300 Buggy with front winch capabilities. The Highmount capabilities allows the rig to maneuver in up to 2.5 feet of water with a solid stream bed.

The CME-55 Rigs possess the following capabilities: Auger drilling - conventional and hollow augers from depths of 125 feet to 250 feet up to 14-inch hole size; core and rotary drilling – 1,000 feet with NW drill rods. These rigs possess automatic standard penetration hammers.

Our CME-75 Rig has the following capabilities: Auger drilling - conventional and hollow augers from depths of 150 feet to 300 feet up to 16-inch hole size; core and rotary drilling – 1,000 feet with NW rods and NW and HX wireline coring.

Our CME 750 Rig has the same capabilities as the CME 75, with all terrain accessibility.

The BK-51 Drill Rig has the following capabilities: Auger drilling - to depths of 175 feet; core and rotary drilling - to 500 feet with NW rods.

Our D-50 Drill Rig is equipped with the following capabilities: Auger drilling - conventional and hollow augers from depths of 125 feet to 250 feet up to 14-inch hole size. Core and rotary drilling – 1,000 feet with NW drill rods. This rig possesses an automatic standard penetration hammer.

Our D-25 Skid Rig has the following capabilities: Conventional and hollow stem auger capabilities to 75 feet, core and rotary drilling to over 100 feet. This rig is trailer-mounted with easy on/off accessibility.

The Acker Motorized Cathead with A-Frame tripod has drilling capabilities using rotary wash techniques and split spoon sampling to 100 feet.

We also have available three (3) portable Truco core drills for drilling concrete and asphalt pavement and bridge deck cores.

SEECO has a complete shop and service facility for the drilling equipment. Our equipment is well maintained. A summary of the drilling equipment is listed below:

<u>Type</u>	<u>Make</u>	<u>Auger Capabilities</u>
Drill Rig - Truck Mounted	CME-75	300 feet in depth
Drill Rig - Truck Mounted	CME-55	250 feet in depth
Drill Rig - Truck Mounted	CME-55	250 feet in depth
Drill Rig - Truck Mounted	BK-51	125 feet in depth
Drill Rig - Truck Mounted	Diedrich D-50	250 feet in depth
All Terrain Vehicle Mounted	CME 750	300 feet in depth
All Terrain Vehicle Mounted	CME-45B	150 feet in depth
Drill Rig - Truck Mounted	Mobile B-30	100 feet in depth
Drill Rig - Truck Mounted	Sprague C-142	700 feet in depth 150 feet of angle drilling
Drill Rig - Skid Mounted	Diedrich D-25	75 feet in depth
Truck Mounted Water Tank		1700 gallons
Segmented Barge Floating Plant		
Foam Filled Floating Plant		
Motor Boat (14 feet long)		
Tripod Cathead Assembly	Acker 40032-1	
Hydro-Punch Ground Water Sampler		Samples groundwater without monitoring wells
Geo Probe Direct Push Sampling Tools for Soil and Groundwater Samples	Diedrich Drilling	

LABORATORY CAPABILITIES

SEECO has been providing reliable geotechnical testing services for over 45 years. The laboratory is run by one of SEECO's senior engineers with over 35 years of geotechnical testing experience. Testing services have supported expert testimony and forensic engineering services for a lawsuit totaling over \$50 million and numerous multi-million dollar construction

projects. Many of the laboratory tests can be completed and reported within 24-48 hours of sample collection when results are required immediately.

Our laboratory is approved by the U.S. Army Corps of Engineers (Ohio River Division), the Illinois Capital Development Board and the Illinois Department of Transportation (IDOT) and the Indiana Department of Transportation (INDOT) and the American Association of State Highway and Transportation Officials (AASHTO) and Cement and Concrete Research Laboratory (CCRL). It is fully equipped with modern equipment for soil and rock testing and materials testing. The following tests/procedures are conducted in the SEECO Geotechnical Laboratory: Conventional visual soil and rock classification of samples, unconfined compressive strength, unit weight determination, natural moisture content, Atterberg limits, shrinkage limit determination, sieve analysis, hydrometer, specific gravity, soil pH, Rimac, hand penetrometer, direct shear, Triaxial shear tests, consolidation test, permeability tests, swell tests, wet combustion tests, Standard and Modified Proctor tests, clay lumps and friable particles and many other tests.

Triaxial shear tests with or without pore pressure measurements and consolidation testing equipment are available in our laboratory for more elaborate testing programs as required in the project analysis and design. In addition, SEECO performs sodium sulfate soundness, organic impurities testing, lightweight pieces in aggregates, abrasion and impact in the Los Angeles Abrasion test, and the combined sieve and hydrometer, and California and Illinois Bearing Ratio tests.

SEECO has a concrete cylinder curing room (per IDOT Specifications) with the capacity to store over 1,000 cylinders. In addition to our concrete compression tester, we have a portable concrete beam tester.

All laboratory testing will be done in accordance with the latest American Society for Testing and Materials, AASHTO, CCRL and IDOT procedures and/or according to project specifications under the direction of SEECO's Geotechnical Laboratory Manager/Senior Project Engineer.

Geotechnical samples are archived for 90-120 days. SEECO has the capacity to store samples up to one year upon request.

SEECO possesses an Hnu Model 311 Portable Gas Chromatograph (GC) which is used to perform environmental testing for Volatile Organic Compounds (VOCs). The GC is located in a dedicated room within the lab and it is a portable unit which can be set up as a mobile lab in our self contained mobile laboratory vehicle. This equipment provides SEECO with the capability of testing potentially contaminated media on-site or in our laboratory for indication of contaminants associated with solvents and gasoline. The GC is operated by an environmental chemist with SEECO's affiliate company SEECO Environmental Services, Inc.

PROJECT EXPERIENCE

The following projects represent SEECO's ability to perform geotechnical services, construction field services, and special engineering services for private, commercial, heavy industry and public agencies.

CLIENT: Butler Aviation

TYPE OF PROJECT: Geotechnical Investigation for Hanger Building at Midway Airport

LOCATION: Chicago, Illinois

SEECO performed the subsurface investigation and geotechnical engineering analysis for a new hangar building. No special foundations were needed for the general engineering applications. We also performed the quality control and material testing for this construction project.

CLIENT: Metropolitan Water Reclamation District of Greater Chicago (MWRDGC)

TYPE OF PROJECT: Marketability Study

LOCATION: Lawndale Avenue Solids Management Area (LASMA),
Lyons Township, Cook County, Illinois

SEECO completed the McCook Reservoir Overburden Marketability Study for the LASMA Property - Stage I, Stage II and Stage III for the MWRDGC. The project included 72 soil borings at the LASMA Site and 6 borings and 17 soil probes at a nearby potential storage area. The drilling program was designed to provide stratigraphic profiles of the soils and in-place volumes and tonnages of materials identified and quality (RQD) of the bedrock below the overburden. All soils were tested and classified. Slope stability analyses were completed with a computer program to determine where the material could be stockpiled with the stockpile dimensions. Calculations included elastic or intermediate ground settlements. Cost estimates were included for seven (7) disposal schemes for the 8 million cubic yards of material at the site. The results of this study will be used for the overburden removal contract for the proposed McCook Reservoir of the TARP project.

CLIENT: Hunter Corporation/CNA Insurance Company

TYPE OF PROJECT: Expert Witness/Forensic Engineering Study

LOCATION: Bailly Town Generating Station, Porter County, Indiana

Mr. Collin W. Gray, S.E., P.E., a registered Professional/Structural Geotechnical Engineer licensed in Indiana with over 48 years of experience and Principal of SEECO performed a Liquefaction Failure Analysis Study at the Bailly Town Generating Station, Porter County, Indiana after two 14-foot circulating water pipes, intake and outfall structures, collapsed during construction and steel sheet pile driving at the plant. He was an expert witness in this case and also gave his deposition.

The site is on the Lake Michigan shoreline near the Indiana Dunes National Lakeshore Park. Liquefaction of the saturated loose sand fill overlying the circulating water pipes occurred during a sheet pile driving operation by Thatcher Engineering Company, a subcontractor to Hunter Corporation. SEECO Consultants, Inc. and Mr. Gray were retained to perform a Forensic Engineering Study and act as the expert witness for CNA Insurance Company who insured Hunter Corporation on this project. The Northern Indiana Public Service Company had a \$100

million property damage and loss of income policy with Hartford Insurance Company. Hartford Insurance Company paid NIPSCO \$56 million in damages since the power plant was out of operation for approximately six months. This included new construction of the circulating water pipes as well as loss of revenue. The Hartford Insurance Company sued all of the contractors and engineers working on the site at the time of the failure. The site investigation identified soils to consist of loose saturated dune sand fill material. Based on the Forensic Engineering Study and the testimony and opinion of Mr. Gray and others and the facts related to the geotechnical specifications on historical documents, the courts found in favor of Hunter Corporation and its subcontractors.

CLIENT: Gary Regional Airport

TYPE OF PROJECT: Geotechnical Investigation for Hangar Building
at the Gary Regional Airport

LOCATION: Gary, Indiana

SEECO conducted a subsurface investigation comprised of soil sampling, laboratory testing, geotechnical engineering analysis and report preparation for a new hangar building. SEECO performed quality control and material testing for this project at the time of construction.

CLIENT: Globetrotters Engineering Corporation

TYPE OF PROJECT: Pavement Investigation and Design

LOCATION: Lake and Cook Counties, Illinois

SEECO completed subsurface investigations for existing pavements and laboratory testing of bituminous concrete cores and soil samples. Based on the testing information, recommendations regarding the adequacy of the existing pavement and subsurface soils to support the proposed roadways were reported to the client and SEECO provided recommendations for the design of new roadways. This work was performed according to procedures of Illinois Department of Transportation. A total of five (5) separate projects were completed under contract totaling 15 miles of roadway.

CLIENT: Harza Engineering Company

TYPE OF PROJECT: Subsurface Investigation for Widening of Illinois
Route 38 (IDOT Project No. 91-225-85)

LOCATION: DuPage County, Illinois

SEECO supported Harza Engineering for this Illinois Department of Transportation (IDOT) project. This project included subsurface investigation, soil sampling and laboratory testing. SEECO provided recommendations for the design and construction of the proposed roadway widening in accordance with Geotechnical Report Guidelines of IDOT.

CLIENT: Teng & Associates

TYPE OF PROJECT: Subsurface Investigation for Roadway Widening Project

LOCATION: Route 83 in Elmhurst, Illinois
(IDOT Project No. 91-782-83)

SEECO completed the subsurface soil investigation for the widening of Illinois Route 83. Soil sampling and laboratory testing with recommendations regarding the design and construction of the proposed roadway were provided to IDOT. The geotechnical report was prepared according to the IDOT Geotechnical Report Guidelines.

CLIENT: Metropolitan Water Reclamation District of Greater Chicago

TYPE OF PROJECT: Sewer Tunnel in Bedrock and Soils - Deep Tunnel Project

LOCATION: Berkeley, Bellwood and Hillside, Illinois

SEECO conducted the subsurface investigation to obtain soil samples and bedrock cores and all geotechnical laboratory testing to prepare recommendations regarding the design and construction of the proposed tunnel. The bedrock cores were obtained to an approximate depth of 290 feet. This four mile long mixed face sewer tunnel from 24 feet to 30 feet in diameter varied from 150 to 250 feet below the existing ground surface. This is a tributary tunnel of the Des Plaines Branch of the TARP Project.

CLIENT: U.S. Army Corps of Engineers, Chicago District

TYPE OF PROJECT: Geotechnical Investigation and Analysis
for Breakwater Rehabilitation

LOCATION: Calumet Harbor and River, Illinois

SEECO drilled the soil borings through the Calumet Harbor breakwater, performed the laboratory testing, geotechnical engineering analysis and report preparation. The geotechnical analysis was to determine the stability of the existing structure, settlement analysis and bearing capacity analysis.

CLIENT: Indiana Department of Transportation

TYPE OF PROJECT: Geotechnical Investigations for Various Road and Bridges

LOCATION: Lake County and Porter County, Indiana

SEECO performed these projects for Indiana Department of Transportation which included the subsurface investigation for various roads and bridges, soil sampling, laboratory testing, analysis and preparation of geotechnical reports. The geotechnical reports includes the recommendations regarding the design and construction of foundations for various bridges and culvert structures and highways.

Approximately ten (10) sites were investigated during the two (2) year contract in 1991 and 1992. Our contract was then extended for another four (4) years (1993 to 1996).

CLIENT: Cook County Juvenile Center - West Addition

TYPE OF PROJECT: 10 Story Addition to Existing Building, Geotechnical,
Environmental and Construction Materials Testing and Inspection

LOCATION: Chicago, Illinois

SEECO performed the geotechnical, environmental and construction materials testing and inspection for this \$82,000,000 project. At this site along Ogden Avenue a gasoline station previously demolished to grade was encountered as well as two 1,000 gallon waste oil tanks with TCE (trichloroethylene) had to be removed and the TCE liquid and TCE contaminated backfill soils removed and legally disposed offsite. SEECO handled all engineering oversight, permitting, environmental disposal contractors, landfill acceptance parameter and the closure report to the IEPA Site Remediation Program for Cook County. Typical construction quality control functions included:

Soils: Drilled caisson inspection, slope inclinometer installation and monitoring, foundation subgrade suitability, fill and backfill compaction testing, monitoring of unsuitable soil removal.

Concrete: Mix design review, steel reinforcement inspection, placement inspection and testing, compressive strength testing.

Steel: Welders qualifications review, fabrication shop procedures review, shop and field inspection of welds using visual and NDE methods (ultrasonic and magnetic particle), inspection of bolt pretensioning methods and installation.

Various other inspections included fireproofing, insulation, masonry and roofing.

CLIENT: Illinois State Toll Highway Authority (ISTHA)

TYPE OF PROJECT: Plaza 39 Expansion and Roadway Widening of I-294
Construction Quality Control Testing and Inspection

LOCATION: Cook County, Illinois

SEECO performed the construction quality control testing and inspection services for this project. Typical functions included plant inspection for precast concrete structures, bridge bearing production testing, shop inspection of fabricated steel structures, calibration of ready mix concrete and central batch plants, review of bituminous and PCC mix designs, bituminous and PCC plant inspection and testing, field compaction testing of subgrade, embankments, granular base and bituminous pavement courses.

CLIENT: Yoshino America Corporation

TYPE OF PROJECT: Manufacturing Plant Addition, Chicago Plant Expansion
Construction Quality Control Testing and Inspection

LOCATION: University Park, Illinois

SEECO performed the geotechnical engineering evaluation and construction quality control testing and inspection services for this project. Typical functions included mass earthwork monitoring and fill placement inspection and compaction testing, foundation excavation inspection and subgrade approval, monitoring of unsuitable soil removal, bituminous and PCC mix design review, concrete batch plant inspection, concrete reinforcement inspection, concrete placement inspection and testing, concrete floor slab flatness testing, structural steel inspection of welded and bolted connections, compaction testing of structural pad fill and pavement subgrade, granular base and bituminous concrete courses.

CLIENT: Folgers Architects and Facility Design

TYPE OF PROJECT: AON Corporation Parking Facility Expansion
Construction Quality Control Testing and Inspection

LOCATION: Chicago, Illinois

SEECO performed the typical functions including concrete mix design approval, prestress and post-tensioning concrete tendon profile inspection prior to concrete placement, inspection and testing of concrete during all concrete placement, review of prestress jack pressure gauge calibration, monitoring of post-tensioning procedures.

CLIENT: Foster Wheeler Constructors

TYPE OF PROJECT: New Resource Recovery Facility
Construction Quality Control Testing and Inspection

LOCATION: Robbins, Illinois

SEECO conducted the construction quality control testing and inspection services for this \$400,000,000 project. Foundation engineering inspection also by SEECO Consultants. Typical functions included backfill placement inspection and compaction testing, cast-in-place concrete inspection and testing, compressive strength testing of concrete cylinders and mortar inspection and testing.

CLIENT: U.S. Army Corps of Engineers

TYPE OF PROJECT: CUP-O'Hare Reservoir Project
Geotechnical/Hydrogeological Investigation and Design

LOCATION: Elk Grove Township, Cook County, Illinois

SEECO completed the geotechnical investigation and engineering analysis for the flood control retention reservoir at the terminal end of the O'Hare Tunnel System of TARP (Tunnel and Reservoir Plan) under Contract No. DACW-23-87-D-0014. At the time of this investigation, the vacant 94.6 acre site, owned by the MWRDGC and located on the north side of Higgins Road (Illinois Route 72) and west of Elmhurst Road and south of the Northwest Tollway (I-90), had illegal dumping of earth fill material, construction debris, assorted abandoned cars and miscellaneous junk. The site included two tributaries of Higgins Creek and approximately 23 acres of wetlands.

The scope of work included evaluation of subsurface aquifers, slope stability analysis for the proposed reservoir cut slopes, seepage analysis, under seepage control measures, dewatering considerations and anticipated construction problems. The cut slope stability analysis included end of construction, long term stability and sudden draw down conditions. The construction procedures included construction of a slurry trench cutoff wall, excavation methods, dewatering procedures underdrain system design and construction of the bottom and side slope liner. The seepage analysis included flow net construction and estimation of infiltration of groundwater into the reservoir and design of seepage control measures. The design considered that the reservoir will store a mixture of sanitary wastes diluted with storm water runoff.

CLIENT: ISTHA

TYPE OF PROJECT: Reconstruction and Widening of I-294

LOCATION: Hickory Hills, Palos Hills and Justice, Illinois

SEECO's geotechnical expertise was utilized extensively during the earthwork phases of ISTHA Project MIP87-406, the reconstruction and widening of I-294 from 95th Street through the 83rd Street Toll Plaza and the inspection of over five miles of retaining walls and embankments. In addition to compaction control and subgrade inspection, SEECO also performed the inspection for the installation of over 2,000 piles for the retaining wall and bridge foundation systems.

CLIENT: RMT, Inc.

TYPE OF PROJECT: Univar Corporation New 200,000 Square Foot Warehouse Hub Facility

LOCATION: Bedford Park, IL

SEECO conducted the geotechnical engineering evaluation and construction quality control testing and inspection services for this \$40,000,000 project. Typical inspection services performed included subgrade undercut and proofrolling inspection, structural earth fill compaction testing, field density testing during asphalt laydown, cast-in-place concrete inspection and testing and laboratory concrete compressive strength and proctor testing.

REFERENCES

A/E Firms:	Healy Bender & Associates Mr. Scott Anderle.....(630) 904-4300
	Bollinger, Lach & Associates Mr. Craig Lukowicz..... (630) 438-6400
	Harley Ellis Devereaux Mr. Mark Jones..... (312) 324-7432
	Baxter & Woodman Mr. Ray Koenig..... (708) 478-2090
Municipalities:	City of Joliet Mr. Mike Eulitz..... (815) 724-3650
	Village of Homewood Mr. Max Massi..... (708) 206-2909
	Village of Lombard Mr. Ray Schwab... .. (630) 620-5740
IDOT:	IDOT Materials Mr. Abdul Dahan (847) 705-4337
	IDOT Soils Mr. James Stewart (847) 705-4003
Businesses:	McDonald's Chicago Region Mr. Al Daniels.....(630) 836-9090
	Catholic Cemeteries Mr. Steve Jankowski (708) 449-6100

RESUMES SEECO Consultants, Inc.

NAME: Collin W. Gray, S.E., P.E.

TITLE: Principal Engineer

YEARS EXPERIENCE WITH THIS FIRM: 45

YEARS EXPERIENCE WITH OTHER FIRMS: 3

EDUCATION: B.S.C.E. 1965 University of Notre Dame, Civil Engineering
M.S.C.E. 1967 University of Notre Dame, Geotechnical Engineering

ACTIVE REGISTRATION: P.E. 1970 Civil Engineering, Illinois, Indiana
S.E. 1971 Structural Engineering, Illinois
P.E. 2010 Civil Engineering - Wisconsin

RELEVANT TRAINING: Groundwater Contamination Management for Industry, National Water Well Association, 1990
Aeration Technologies, Environmental Education Enterprises, 1994
Bioremediation of Organic Constituents in Soil & Groundwater, National Groundwater Association, 1993

EXPERIENCE:

Mr. Gray has over 48 years of experience in engineering including 45 years' experience as a Principal of SEECO Consultants. His extensive experience includes building foundation engineering, marine site development involving reinforced earth design, dam and foundation design, landfill closure, construction management, pavement design; environmental investigations (Phase I, Phase II and Risk Assessment, Remedial Investigation/Feasibility Studies), Remedial Design and closure of sites regulated by various state and federal agencies, construction material testing and inspection projects; investigation, analysis and design of deep foundations, tunnels and underground openings. Mr. Gray is an expert Foundation Geotech/Structural Engineer and a Forensic Engineering Specialist.

As the President of the company, Mr. Gray is responsible for management and the performance of the company, market trends, regulations and new technologies and is actively involved in all phases of SEECO's consulting services. He is well known in the Engineering Industry for the quality work provided by the company and his attention to detail. Mr. Gray reviews and signs each report prepared by SEECO Consultants.

-Village of Lombard 2007 – 2014

- Great Western Trail – Construction
- Great Western Trail – PESA
- Great Western Trail – Borrow Source Geotech
- Various CCDD Certifications
- Garfield Street Public Works Facility – Construction
- North Industrial Park Pavement – Geotech & Construction
- Olde Towne East Phase V – Construction
- Terrace View Pond – Geotechnical & Construction
- Lombard Meadows Utility Improvements – Geotechnical

Madison & Rte. 53 – Geotechnical
Westin Hotel Deck Repairs – Construction
Various Other Projects – Geotechnical & Construction

- Village of Lyons – Geotechnical, Construction & CCDD
- Village of North Riverside– Geotechnical, Construction & CCDD
- Village of Hodgkins– Geotechnical, Construction & CCDD
- City of Bedford Park– Geotechnical, Construction & CCDD
- City of Cicero– Geotechnical, Construction & CCDD
- Village of Countryside– Geotechnical, Construction & CCDD
- City of Berwyn– Geotechnical, Construction & CCDD
- Village of Burbank– Geotechnical, Construction & CCDD
- Illinois American Water – CCDD Services
- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Village of Downers Grove-Variou Projects 2009, 2011-current
- Jefferson Street Corridor Watermain Corrosion Study – Bensenville
- Mattoon Elevated 1MG Water Tank – Mattoon, IL
- PESA – 183rd and Oak Park – Tinley Park, IL
- PESA – East Avenue – Hodgkins, IL
- PESA-Egyptian Trail – Crete, IL
- IDOT – D-91-295-12, PTB 163-019 – District One Geotechnical Contract
- MWRDGC – Geotechnical Contracts – 2010-2012 & 2013-2015
- Nathan Hale School – Chicago, IL
- Higgins Elementary School – Chicago, IL

- St. Charles WTP Improvements – St. Charles, IL
- Lockport WWTP Expansion – Lockport, IL
- Lake Street Studios – Chicago, IL
- Fullerton Avenue Bridge over Salt Creek – Addison, IL
- Palos Township Annual Street Program
- Naperville Township Annual Street Program
- Lemont Township Annual Street Program
- Milton Township Annual Street Program
- Southwest Area High School – Chicago, IL
- Green Valley WWTP Improvements – DuPage County, IL
- 75th Street Improvements – Woodridge – Darien – Downers Grove
- Joliet Park District Soccer Facility – Joliet, IL
- Lagoon 8 – Calumet WRP – MWRDGC
- Disinfection Facility – Calumet and Northside WRP – MWRDGC
- Electrical Storage Building – Stickney WRP – MWRDGC
- Data Storage Buildings – Egan and Stickney WRP- MWRDGC
- VA Home – Chicago, IL
- Village of Plainfield –Various Projects
- Westmont Annual MFT Program
- Lisle Township Street Program
- Downers Grove Township Roadways Projects
- Downers Grove Park District Improvements - Various Projects
- School District 99 - Downers Grove North and South High School – Geotechnical
- Downers Grove Sanitary District Improvements

-Plainfield School District 2002, two (2) elementary school sites and a high school site, Plainfield and Bolingbrook, Illinois. Phase I environmental site assessment and nearby quarry blasting noise study

-Capital Development Board, State of Illinois, underground storage tank management, ten sites throughout the State

- U.S. Army Corps of Engineers, Calumet Harbor Breakwater Major Rehabilitation, Subsurface Investigation (Marine Borings) and Engineering Analysis, Contract No. DACW23-87-D-0014

-U.S. Army Corps of Engineers, Chicago District Design, Plans & Specifications, CUP O=Hare Reservoir, Elk Grove Township, Cook County, IL

Expert witness for Hunter Corporation/CNA Insurance and provided a Forensic Engineering Study (Liquefaction Failure Analysis) for the NIPSCO Bailly Town Generating Station. Porter County, Indiana. Mr. Gray's testimony and the study completed by SEECO protected Hunter/CNA from \$56 million in damages.

- Metropolitan Water Reclamation District of Greater Chicago, McCook Reservoir/LASMA Marketability Study with Slope Stability Analyses and Ground Settlements for stockpiled materials, Lyons Township, Cook County, Illinois.

- Subsurface Investigation for Calumet River, Flood Control Project for U.S. Army Corps of Engineers, Chicago District.

- Subsurface Investigation for Railroad Yard Facilities, Michigan City, IN.

- Project Manager - Domtar Industries, Salt Storage Buildings, Chicago, Illinois (Construction Cost \$7,000,000).

- Project Manager - Geotechnical Engineering Evaluation Subsurface Exploration and Quality Control - Several U.S. Post Office Facilities, including Orland Park, Hinsdale, Bolingbrook, West Dundee, Northbrook, New Lenox, Worth, IL; and Hammond, Valparaiso, and Wausau, IN.

- 205th Street and Bridge over I-57 - Construction Quality Control

- I-355 Widening - Butterfield Road to Army Trail Road - Construction Quality Control

- Route 83 - I-55 to 63rd St. IDOT QC/QA Du Page County, IL - Construction Quality Control

- I-80 and Houbolt Road, IDOT Improvements, Joliet, IL - Construction Quality Control

- Village of Morton Grove 1993 - 2001 Street Improvements Construction Quality Control

- Combined Sewer Relief System Improvements, Franklin Park, IL - Construction Quality Control

- Route 113 and Route 47 Repaving Project, IDOT QC/QA, Grundy County, IL

- Carpentersville WWTP Expansion, Carpentersville, IL - Geotech Investigation & Earthwork Quality Control

SEECO CONSULTANTS INC.

NAME: Amrit Rai, P.E.

TITLE: Project Geotechnical/Environmental Engineer

YEARS EXPERIENCE WITH THIS FIRM: 35

YEARS EXPERIENCE WITH OTHER FIRMS: 3

EDUCATION: B.S.C.E. 1973 Punjab University, India, Geotechnical Engineering
M.S.C.E. 1977 Kurukshetra Univ., India, Geotechnical Engineering

ACTIVE REGISTRATION: P.E. 1987 Civil Engineering, Illinois

EXPERIENCE:

Mr. Rai is a Project Engineer with 38 years' experience in Soils and Rock Mechanics, Construction Materials, Foundation Design Engineering and Geotechnical Construction Applications. His experience with SEECO includes sampling and assessment design, remedial design, cost analysis and oversight for both special and hazardous waste projects. His experience includes the following Geotechnical/Structural and Construction Engineering, environmental services and underground tank management projects:

-Village of Lombard 2007 – 2014

- Great Western Trail – Construction
- Great Western Trail – PESA
- Great Western Trail – Borrow Source Geotech
- Various CCDD Certifications
- Garfield Street Public Works Facility – Construction
- North Industrial Park Pavement – Geotech & Construction
- Olde Towne East Phase V – Construction
- Terrace View Pond – Geotechnical & Construction
- Lombard Meadows Utility Improvements – Geotechnical
- Madison & Rte. 53 – Geotechnical
- Westin Hotel Deck Repairs – Construction
- Various Other Projects – Geotechnical & Construction

-Village of Lyons – Geotechnical, Construction & CCDD

-Village of North Riverside– Geotechnical, Construction & CCDD

-Village of Hodgkins– Geotechnical, Construction & CCDD

-City of Bedford Park– Geotechnical, Construction & CCDD

-City of Cicero– Geotechnical, Construction & CCDD

-Village of Countryside– Geotechnical, Construction & CCDD

- City of Berwyn– Geotechnical, Construction & CCDD
- Village of Burbank– Geotechnical, Construction & CCDD
- Illinois American Water – CCDD Services
- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Village of Downers Grove-Various Projects 2009, 2011 - current
- Jefferson Street Corridor Watermain Corrosion Study – Bensenville
- Lagoon 8 – Calumet WRP – MWRDGC
- Disinfection Facility – Calumet and Northside WRP – MWRDGC
- Electrical Storage Building – Stickney WRP – MWRDGC
- Data Storage Buildings – Egan and Stickney WRP- MWRDGC
- Mattoon Elevated 1MG Water Tank – Mattoon, IL
- Southwest Area High School – Chicago, IL
- Green Valley WWTP Improvements – DuPage County, IL
- 75th Street Improvements – Woodridge – Darien – Downers Grove
- Joliet Park District Soccer Facility – Joliet, IL
- VA Home – Chicago, IL
- PESA-Egyptian Trail – Crete, IL
- IDOT – D-91-295-12, PTB 163-019 – District One Geotechnical Contract
- MWRDGC – Geotechnical Contracts – 2010-2012 & 2013-2015
- Nathan Hale School – Chicago, IL
- Higgins Elementary School – Chicago, IL
- St. Charles WTP Improvements – St. Charles, IL

- Lockport WWTP Expansion – Lockport, IL
- Lake Street Studios – Chicago, IL
- Fullerton Avenue Bridge over Salt Creek – Addison, IL
- Palos Township Annual Street Program
- Naperville Township Annual Street Program
- Lemont Township Annual Street Program
- Milton Township Annual Street Program
- Downers Grove Park District Improvements - Various Projects
- Downers Grove Sanitary District Improvements
- School District 99 - Downers Grove North and South High School - Geotechnical
- Village of Matteson, underground storage tank Investigation, upgrades, removal and soil remediation
- Marketability Study - LASMA McCook Reservoir Project
- Fountain Square Condominiums, Lombard, IL - Construction
- Ozanam Village, Chicago, IL - Construction
- St. Ailbe II, Chicago, IL - Construction
- Tony Bettenhausen Park and Recreation Center, Tinley Park, IL - Construction
- 3631 N. Halsted, Chicago, IL – Construction
- Upper Des Plaines Jacked in Place UD-10A Sanitary Sewer, Metro. Sanitary District of Greater Chicago, Subsurface Investigation and Engineering Analysis
- U.S. Army Corps of Engineers, Calumet Harbor Breakwater Major Rehabilitation, Subsurface Investigation (Marine Borings) and Engineering Analysis. Contract No. DACW23-87-D-0014
- LTV Steel Corporation Ladle Metallurgical Facility, Indiana Harbor Works, Subsurface Investigation and Engineering Analysis
- Joliet Correctional Center, Utility System Upgrade, Subsurface Investigation, Civil Design and Engineering Analysis CDB Project No. 120-120-049
- Southwest Transit Project, Contract Numbers 111, 112 and 116. Subsurface Investigation and Engineering Analysis

SEECO CONSULTANTS INC.

NAME: Donald C. Cassier

TITLE: Project Manager

YEARS EXPERIENCE WITH THIS FIRM: 25

YEARS EXPERIENCE WITH OTHER FIRMS: 9

EDUCATION: Illinois Institute of Technology, Civil Engineering
Environmental Drilling Technology, University of Wisconsin, 1991

ACTIVE REGISTRATION: American Concrete Institute
American Public Works Association - Chicago Chapter Executive Committee

EXPERIENCE:

Mr. Cassier is responsible for coordinating SEECO's field services including soil and rock drilling, construction observation and testing of commercial, residential, industrial and transportation projects and environmental testing, drilling and monitoring well installation.

Mr. Cassier's expertise in construction inspection is relied upon during all construction projects. His knowledge of construction techniques allows him to discern areas of potential environmental concern and he is able to provide practical solutions to the potential problems from a constructability standpoint. His field expertise includes performing soil, rock drilling and well installations, soils, concrete, asphalt, structural steel and fireproofing testing, and construction staking, layout and verified as built quantities.

His expertise in field explorations and sampling techniques allows SEECO to develop workable solutions to even the most novel sampling situation. Familiar with numerous drilling and sampling procedures, he is able to develop work plans that address each project's specific needs. He also has spearheaded the fore front of SEECO's work on numerous CCDD LPC 663 site certification projects.

His general project experience includes:

-Village of Lombard 2007 – 2014

- Great Western Trail – Construction
- Great Western Trail – PESA
- Great Western Trail – Borrow Source Geotech
- Various CCDD Certifications
- Garfield Street Public Works Facility – Construction
- North Industrial Park Pavement – Geotech & Construction
- Olde Towne East Phase V – Construction
- Terrace View Pond – Geotechnical & Construction
- Lombard Meadows Utility Improvements – Geotechnical
- Madison & Rte. 53 – Geotechnical
- Westin Hotel Deck Repairs – Construction

Various Other Projects – Geotechnical & Construction

- Village of Lyons – Geotechnical, Construction & CCDD
- Village of North Riverside– Geotechnical, Construction & CCDD
- Village of Hodgkins– Geotechnical, Construction & CCDD
- City of Bedford Park– Geotechnical, Construction & CCDD
- City of Cicero– Geotechnical, Construction & CCDD
- Village of Countryside– Geotechnical, Construction & CCDD
- City of Berwyn– Geotechnical, Construction & CCDD
- Village of Burbank– Geotechnical, Construction & CCDD
- Illinois American Water – CCDD Services
- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Village of Downers Grove-Variou Projects 2009, 2011 - current
- Jefferson Street Corridor Watermain Corrosion Study – Bensenville
- Lagoon 8 – Calumet WRP – MWRDGC
- Disinfection Facility – Calumet and Northside WRP – MWRDGC
- Electrical Storage Building – Stickney WRP – MWRDGC
- Data Storage Buildings – Egan and Stickney WRP- MWRDGC
- PESA-Egyptian Trail – Crete, IL
- IDOT – D-91-295-12, PTB 163-019 – District One Geotechnical Contract
- MWRDGC – Geotechnical Contracts – 2010-2012 & 2013-2015
- Nathan Hale School – Chicago, IL
- Higgins Elementary School – Chicago, IL

- St. Charles WTP Improvements – St. Charles, IL
- Lockport WWTP Expansion – Lockport, IL
- Lake Street Studios – Chicago, IL
- Fullerton Avenue Bridge over Salt Creek – Addison, IL
- Palos Township Annual Street Program
- Naperville Township Annual Street Program
- Lemont Township Annual Street Program
- Milton Township Annual Street Program
- Mattoon Elevated 1MG Water Tank – Mattoon, IL
- PESA – 183rd and Oak Park – Tinley Park, IL
- PESA – East Avenue – Hodgkins, IL
- Southwest Area High School – Chicago, IL
- Green Valley WWTP Improvements – DuPage County, IL
- 75th Street Improvements – Woodridge – Darien – Downers Grove
- Joliet Park District Soccer Facility – Joliet, IL
- VA Home – Chicago, IL
- Village of Plainfield –Various Projects
- Downers Grove Park District Improvements - Various Projects
- Downers Grove Sanitary District Improvements
- CCDD Source Site Certification for LPC 663 Forms—Downers Grove Sanitary District, Elmhurst Hospital, Commercial Developments and various municipalities including Westmont, Lombard, Countryside, Cicero, Algonquin, Glenview, Hodgkins, Bedford Park, Lemont, Burbank, Summit, Lyons, McCook and Union.
- Village of Tinley Park Convention Center Addition-Tinley Park, IL
- Tinley Park 80th Avenue METRA Station-Tinley Park, IL
- Woodridge Community Center
- District 99 School Expansions

- Westmont MFT Project
- Lisle Township Street Program
- Downers Grove Township Street Program
- Bolingbrook Street Program
- MWRDGC Concrete Testing and Inspection - 1998 & 1999, 2005-2007, 2008-2011
- Marketability Study - LASMA McCook Reservoir Project
- Deepening of Lagoon 17, Calumet Treatment Plant
- Berkeley-Bellwood-Hillside TARP Sewer Tunnel
- Lagoon 29 - LASMA
- 3631 N. Halsted, Chicago, IL - Construction
- U-Haul Facilities, Aurora & Bolingbrook, IL - Construction
- Tony Bettenhausen Park and Recreation Center, Tinley Park, IL - Construction
- Our Lady of Victory Convent, Lemont, IL - Construction
- Ozanam Village, Chicago, IL - Construction
- Fountain Square Condominiums, Lombard, IL - Construction
- St., Ailbe II, Chicago, IL - Construction
- US Army COE - Structure 29A, Trail Creek and Kennedy Avenue Borrow Sites
- US Army COE - Cady Marsh Ditch Project
- Illinois Route 83 - Chicago Avenue to 55th Street, Clarendon Hills, IL
- Illinois Route 83 and Ogden Avenue, Westmont, IL
- IDOT - District One Geotechnical D-91-132-95
- Illinois Route 45, Orland Park, IL
- Illinois Route 47 - Huntley to Hebron
- Illinois Route 83 and 22nd Street
- Illinois Route 83 and North Avenue
- I-290 Widening - Elmhurst, IL

SEECO Consultants, Inc.

NAME: Tony Chen, PhD, P.E.

TITLE: Field Engineer

YEARS EXPERIENCE WITH THIS FIRM: 13

YEARS EXPERIENCE WITH OTHER FIRMS: 20

EDUCATION: Bachelors of Civil Engineering - Tamkang University, Taiwan, 1973
M.S. Civil, University of Idaho, 1991
PhD -Civil Engineering, Michigan Tech, Michigan, 1991

REGISTRATION: P.E. - Michigan
IDOT Documentation 12/9/10
IDOT Level III Bituminous and Aggregate Inspector 1/03

EXPERIENCE:

Dr. Chen is an experienced materials engineer. He is responsible for conducting SEECO's materials laboratory testing and field inspections.

His responsibilities include bituminous and concrete plant, field and laboratory testing, field and laboratory testing of soils and aggregates. He provides expertise on all of SEECO's construction materials testing projects.

Dr. Chen is an experienced geotechnical engineer whose broad level of expertise transcends two continents. His expertise includes slope stability analysis for embankments and structures, dam and retaining wall design, foundation design parameters for shallow and deep foundations supporting single story to multi story high rise buildings, as well as geotechnical engineering application of physical laboratory data. His work duties include analysis and design parameters for roadway embankment investigations.

Dr. Chen is proficient in geotechnical site investigations and in-situ testing methods, procedures and data collection. His exhaustive background in computer applications is utilized for data reduction and analysis, including modeling efforts. His field experience includes drilling, logging and rig supervision, pressuremeter testing, vane shear testing and various soil sampling techniques.

A partial listing of his work experience includes:

-Village of Lombard 2007 – 2014

- Great Western Trail – Construction
- Great Western Trail – Borrow Source Geotech
- Garfield Street Public Works Facility – Construction
- North Industrial Park Pavement – Geotech & Construction
- Olde Towne East Phase V – Construction

Terrace View Pond – Geotechnical & Construction
Madison & Rte. 53 – Geotechnical
Westin Hotel Deck Repairs – Construction
Various Other Projects – Geotechnical & Construction

- Village of Lyons – Geotechnical, Construction & CCDD
- Village of North Riverside– Geotechnical, Construction & CCDD
- Village of Hodgkins– Geotechnical, Construction & CCDD
- City of Bedford Park– Geotechnical, Construction & CCDD
- City of Cicero– Geotechnical, Construction & CCDD
- Village of Countryside– Geotechnical, Construction & CCDD
- City of Berwyn– Geotechnical, Construction & CCDD
- Village of Burbank– Geotechnical, Construction & CCDD
- Illinois American Water – CCDD Services
- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Village of Downers Grove-Variou Projects 2009, 2011 - current
- Jefferson Street Corridor Watermain Corrosion Study – Bensenville
- Lagoon 8 – Calumet WRP – MWRDGC
- Disinfection Facility – Calumet and Northside WRP – MWRDGC
- PESA-Egyptian Trail – Crete, IL
- IDOT – D-91-295-12, PTB 163-019 – District One Geotechnical Contract
- MWRDGC – Geotechnical Contracts – 2010-2012 & 2013-2015
- Nathan Hale School – Chicago, IL
- Higgins Elementary School – Chicago, IL
- St. Charles WTP Improvements – St. Charles, IL

- Lockport WWTP Expansion – Lockport, IL
- Lake Street Studios – Chicago, IL
- Fullerton Avenue Bridge over Salt Creek – Addison, IL
- Palos Township Annual Street Program
- Naperville Township Annual Street Program
- Lemont Township Annual Street Program
- Milton Township Annual Street Program
- Mattoon Elevated 1MG Water Tank – Mattoon, IL
- Southwest Area High School – Chicago, IL
- 75th Street Improvements – Woodridge – Darien – Downers Grove
- Joliet Park District Soccer Facility – Joliet, IL
- Village of Plainfield –Various Projects
- Westmont MFT Project -
- Oak Park Avenue Reconstruction, Tinley Park, IL -
- Downers Grove Township Street Program - HMA Plant and Laboratory Testing
- 2002 MFT Street Program, Tinley Park, IL - HMA Plant and Laboratory Testing
- Lemont Township Street Program - HMA Plant and Laboratory Testing
- Route 14 Reconstruction, Palatine, IL - Laboratory Sieve Analysis.
- Woodridge Community Center - Geotechnical
- 2002 MFT Street Resurfacing, Olympia Fields, IL - HMA Nuclear Field Density Testing
- 2002 MFT Street Resurfacing, Beecher, IL - HMA Plant Proportioning
- Lockport Master Sewer, Lockport, IL - Geotechnical Investigation
- Edgewater Condominiums, Tinley Park, IL - Geotechnical Investigation
- Uncle Julio=s Restaurant, Lombard, IL - Geotechnical Investigation
- St. Peter Claver, Robbins, IL - Geotechnical Investigation

SEECO Consultants, Inc.

NAME: Patrick Gray

TITLE: Senior Field Technician

YEARS EXPERIENCE WITH THIS FIRM: 19

EDUCATION: Bachelors of Science Degree, Accounting, Lewis University, 1996

ACTIVE REGISTRATION: IDOT Bituminous Proportioning
IDOT Aggregate
IDOT PCC Level 1, 2 & 3
IDOT Bituminous Level 1, 2 & 3
ACI Concrete Field Testing Technician - Grade 1

EXPERIENCE:

Mr. Gray is an experienced engineering technician proficient in roadway, bridge and building construction material testing and Quality Control in soils, fireproofing, asphalt and masonry construction. In addition, Mr. Gray's duties also include borehole logging.

His general project experience includes:

-Village of Lombard 2007 – 2014

- Great Western Trail – Construction
- Various CCDD Certifications
- Garfield Street Public Works Facility – Construction
- North Industrial Park Pavement – Geotech & Construction
- Olde Towne East Phase V – Construction
- Terrace View Pond – Geotechnical & Construction
- Various Pavement Projects – Geotechnical & Construction

-Village of Lyons – Geotechnical, Construction & CCDD

-Village of North Riverside– Geotechnical, Construction & CCDD

-Village of Hodgkins– Geotechnical, Construction & CCDD

-City of Bedford Park– Geotechnical, Construction & CCDD

-City of Cicero– Geotechnical, Construction & CCDD

-Village of Countryside– Geotechnical, Construction & CCDD

-City of Berwyn– Geotechnical, Construction & CCDD

-Village of Burbank– Geotechnical, Construction & CCDD

- Illinois American Water – CCDD Services
- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Village of Downers Grove-Variou Projects 2009, 2011 - current
- Southwest Area High School – Chicago, IL
- Green Valley WWTP Improvements – DuPage County, IL
- 75th Street Improvements – Woodridge – Darien – Downers Grove
- Village of Plainfield –Variou Projects
- Bolingbrook Street Program
- Westmont MFT Project
- Woodridge Community Center
- Downers Grove Township Program
- Lisle Township Street Program
- Midway Airport Runway 13L - 31R, Bituminous Testing, Chicago, IL
- PESA-Egyptian Trail – Crete, IL
- IDOT – D-91-295-12, PTB 163-019 – District One Geotechnical Contract
- MWRDGC – Geotechnical Contracts – 2010-2012 & 2013-2015
- Nathan Hale School – Chicago, IL
- Higgins Elementary School – Chicago, IL
- St. Charles WTP Improvements – St. Charles, IL
- Lockport WWTP Expansion – Lockport, IL
- Lake Street Studios – Chicago, IL
- Fullerton Avenue Bridge over Salt Creek – Addison, IL

- Palos Township Annual Street Program
- Naperville Township Annual Street Program
- Lemont Township Annual Street Program
- Milton Township Annual Street Program
- O'Hare Airport Runway 14L - 32R, Bituminous Testing, Chicago, IL
- Morton Grove Street Program, Bituminous Testing, Morton Grove, IL
- Greater Chicago Area Auto Auction, Matteson, IL
- Anderson Court, Bituminous Testing, Franklin Park, IL
- ISTHA Projects - I-294, MIP 93-580, 581 & 583, Bituminous Testing, Cook County, IL
- I-88 DeKalb to Sugar Grove - Construction Inspection
- MFT Projects in Tinley Park, Homewood, Lemont, Romeoville, Morton Grove - Bituminous Inspection
- Naperville Municipal Parking Garage Rehabilitation, Naperville, IL - Concrete Inspection
- Old Navy Store, Chicago, IL - Concrete Inspection
- Messenger Glen Retirement Village, Homer Township, IL - Earthwork Inspection
- 5 Million Gallon Ground Storage Reservoir, Tinley Park, IL - Concrete Inspection
- Office, Shop and Storage Facilities, Stickney Water Reclamation Plant, Stickney, IL - Earthwork and Asphalt Inspection
- New Intermediate School, Orland Park, IL - Earthwork and Concrete Inspection
- Du Page Water Commission, 60" & 72" Transmission Lines, Du Page County, IL - Earthwork and Asphalt Inspection
- Others too numerous to mention

SEECO Consultants, Inc.

NAME: Garrett W. Gray, P.E.

TITLE: Project Geotechnical/Environmental/Construction Engineer

YEARS EXPERIENCE WITH THIS FIRM: 19

EDUCATION: B.S.E.E. 1996 University of Notre Dame, Environmental Engineering
M.S.C.E. 1998 Iowa State University, Geotechnical/Environmental Engineering

ACTIVE REGISTRATION: P.E., State of Illinois, 2008
IDOT Documentation 12/9/10
IDOT PCC – 1, 2, 3
IDOT BIT – 1, 2, 3
IDOT Soils – S33

EXPERIENCE:

Mr. Garrett Gray has worked as a field and staff engineer for SEECO Consultants. He has also worked as a field engineer logging boreholes and logging monitoring well installations. He has extensive experience in field and laboratory testing of soils, concrete and asphalt. Mr. Gray's experience with environmental services includes sampling and assessment design, remedial design, cost analysis and oversight for both special and hazardous waste projects. His experience includes the following:

-Village of Lombard 2007 – 2014

- Great Western Trail – Construction
- Great Western Trail – PESA
- Great Western Trail – Borrow Source Geotech
- Various CCDD Certifications
- Garfield Street Public Works Facility – Construction
- North Industrial Park Pavement – Geotech & Construction
- Olde Towne East Phase V – Construction
- Terrace View Pond – Geotechnical & Construction
- Lombard Meadows Utility Improvements – Geotechnical
- Madison & Rte. 53 – Geotechnical
- Westin Hotel Deck Repairs – Construction
- Various Other Projects – Geotechnical & Construction

-Village of Lyons – Geotechnical, Construction & CCDD

-Village of North Riverside– Geotechnical, Construction & CCDD

-Village of Hodgkins– Geotechnical, Construction & CCDD

-City of Bedford Park– Geotechnical, Construction & CCDD

-City of Cicero– Geotechnical, Construction & CCDD

- Village of Countryside– Geotechnical, Construction & CCDD
- City of Berwyn– Geotechnical, Construction & CCDD
- Village of Burbank– Geotechnical, Construction & CCDD
- Illinois American Water – CCDD Services
- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Village of Downers Grove-Variou Projects 2009, 2011 - current
- Jefferson Street Corridor Watermain Corrosion Study – Bensenville
- Lagoon 8 – Calumet WRP – MWRDGC
- Disinfection Facility – Calumet and Northside WRP – MWRDGC
- Electrical Storage Building – Stickney WRP – MWRDGC
- Data Storage Buildings – Egan and Stickney WRP- MWRDGC
- Mattoon Elevated 1MG Water Tank – Mattoon, IL
- Southwest Area High School – Chicago, IL
- Green Valley WWTP Improvements – DuPage County, IL
- 75th Street Improvements – Woodridge – Darien – Downers Grove
- Joliet Park District Soccer Facility – Joliet, IL
- VA Home – Chicago, IL
- PESA-Egyptian Trail – Crete, IL
- IDOT – D-91-295-12, PTB 163-019 – District One Geotechnical Contract
- MWRDGC – Geotechnical Contracts – 2010-2012 & 2013-2015
- Nathan Hale School – Chicago, IL
- Higgins Elementary School – Chicago, IL

- St. Charles WTP Improvements – St. Charles, IL
- Lockport WWTP Expansion – Lockport, IL
- Lake Street Studios – Chicago, IL
- Fullerton Avenue Bridge over Salt Creek – Addison, IL
- Palos Township Annual Street Program
- Naperville Township Annual Street Program
- Lemont Township Annual Street Program
- Milton Township Annual Street Program
- Downers Grove Park District Improvements - Various Geotechnical Projects
- Marketability Study - LASMA McCook Reservoir Project
- Downers Grove Sanitary District Improvements
- School District 99 - Downers Grove North and South High Schools - Geotechnical
- Concrete Testing and Inspection, 1998 and 1999, 2005-2007, 2008-2011 - MWRDGC
- Lagoon 29 - LASMA
- Tony Bettenhausen Park and Recreation Center, Tinley Park, IL - Geotech & Construction
- 3631 N. Halsted, Chicago, IL - Geotech & Construction
- Our Lady of Victory Convent, Lemont, IL - Geotech & Construction Inspection
- St. Ailbe II, Chicago, IL - Construction
- 135th Street Bridge, Romeoville, IL – Geotechnical
- Plainfield School District 2002, two (2) elementary school sites and a high school site, Plainfield and Brookfield, Illinois. Phase I environmental site assessment and nearby quarry blasting noise study
- Village of Frankfort, 432 West Nebraska Street (Village Hall), Frankfort, Illinois, various and multiple projects throughout Frankfort
- Village of Tinley Park, 16250 Oak Park Avenue (Village Hall), Tinley Park, Illinois, various and multiple projects throughout Tinley Park
- Capital Development Board, State of Illinois, underground storage tank management, ten sites throughout the State

SEECO CONSULTANTS INC.

NAME: Aaron Simpson

TITLE: Environmental Scientist

YEARS EXPERIENCE WITH THIS FIRM: 22

YEARS EXPERIENCE WITH OTHER FIRMS: 22

EDUCATION: B.A. 1970, Indiana University, Bloomington, Indiana-Chemistry

RELEVANT TRAINING:

OSHA Hazardous Site Worker Training 29 CFR 1910.120 (e)(8), 1993
OSHA 8-Hour Refresher Course, 1993-present
Asbestos Building Inspector, UIC, Chicago, 1994
Asbestos Management Planning, UIC, Chicago, 1994
Bioventing, International Network for Environmental Training, 1995
Wetlands and Wildlife Workshop, Wildlife Habitat Council, 1996
Level 2 First Aid, Allied Health Consultants-National Safety Council, 1997

EXPERIENCE:

As SEECO's Mobile Laboratory Supervisor, he supervises field environmental chemical testing on soils and groundwater for BTEX and VOCs and Mr. Simpson's environmental experience includes performing Phase I environmental assessments for commercial, industrial and government clients, Phase II Subsurface Investigations and underground storage tank closures.

His experience includes:

-Village of Lombard 2007 – 2014

Great Western Trail – PESA
Great Western Trail – Borrow Source Geotech
Various CCDD Certifications
North Industrial Park Pavement – Geotech
Olde Towne East Phase V – Construction
Terrace View Pond – Geotechnical
Lombard Meadows Utility Improvements – Geotechnical
Madison & Rte. 53 – Geotechnical
Various Pavement Projects – Geotechnical

-Village of Lyons – Geotechnical, & CCDD

-Village of North Riverside– Geotechnical, & CCDD

-Village of Hodgkins– Geotechnical, & CCDD

-City of Bedford Park– Geotechnical, & CCDD

- City of Cicero– Geotechnical, & CCDD
- Village of Countryside– Geotechnical, & CCDD
- City of Berwyn– Geotechnical, & CCDD
- Village of Burbank– Geotechnical, & CCDD
- Illinois American Water – CCDD Services
- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Jefferson Street Corridor Watermain Corrosion Study – Bensenville
- Mattoon Elevated 1MG Water Tank – Mattoon, IL
- PESA – 183rd and Oak Park – Tinley Park, IL
- PESA – East Avenue – Hodgkins, IL
- 75th Street Improvements – Woodridge – Darien – Downers Grove
- PESA-Egyptian Trail – Crete, IL
- IDOT – D-91-295-12, PTB 163-019 – District One Geotechnical Contract
- MWRDGC – Geotechnical Contracts – 2010-2012 & 2013-2015
- Lockport WWTP Expansion – Lockport, IL
- Lake Street Studios – Chicago, IL

McDonald’s Corporation, numerous Phase I environmental site assessments and Phase II environmental site studies for potential restaurant sites, 1997 through present

Catholic Charities, Hines Building # 14, #51 and #53, Hines VA Complex, Hines, Illinois, Phase I environmental site assessment as required by HUD, 2004.

Village of Tinley Park, 16250 Oak Park Avenue (Village Hall), Tinley Park, Illinois, various and multiple projects through the Frankfort area over approximately the past 18 years

McAllister Equipment Co., 12500 South Cicero Ave., Alsip, Illinois, Phase I, Site Investigation Completion Report, Corrective Action Plan (CAP), and Corrective Action Completion Report (CACR)

Ada S. McKinley Community Services, Inc., 7640 Vincennes Avenue, Chicago, Illinois, Phase I

environmental site assessment and asbestos and lead survey, proposed Senior Housing

Plainfield School District 2002, two (2) elementary school sites and a high school site, Plainfield and Bolingbrook, Illinois. Phase I environmental site assessment (ESA) and nearby quarry blasting noise study, 2005

National Shopping Plazas, Inc. Proposed Wal-Mart Shopping Center, near Southwest Corner (SWC) Harlem and 191st Street, Tinley Park, Illinois, September 2006- Phase 1 ESA

Village of Frankfort, 432 West Nebraska Street (Village Hall), Frankfort, Illinois, various and multiple projects through the Frankfort area over approximately the past 18 years

Water quality surveys for heavy industry (18 years) sampling and permitting for NPDES compliance

CLP data packages and CLP QA/QC protocols

Olivet Nazarene University, Kankakee, Illinois, asbestos building surveys

Walgreens, Matteson, Illinois, asbestos survey

Burger King Restaurant, lead based paint abatement and management study for existing restaurant in Westmont, IL

Alivio Medical Center Chicago, IL, asbestos and lead based paint abatement and management study-existing two (2) story office building

Village of Frankfort Waste Water Treatment Plant, Frankfort, Illinois, microbiological assessment and mitigation of effluent of Frankfort Square WWTP discharge into Hickory Creek

Smrt Property, Wayne, Illinois, site characterization and remediation of paper waste materials

McDonald's Corporation, Phase I and Phase II investigations and remediation oversight on numerous projects

Metropolitan Water Reclamation District of Greater Chicago, Calumet Water Reclamation Plant, underground storage tanks removal and closure

SEECO CONSULTANTS INC.

NAME: Michael M. Cassidy

TITLE: Supervising Technician

YEARS EXPERIENCE WITH THIS FIRM: 10

YEARS EXPERIENCE WITH OTHER FIRMS: 15

EDUCATION: B.S. 1989, Slippery Rock University, Pennsylvania, Physics

ACTIVE REGISTRATION: Colorado Laboratory for Certification of Asphalt Technician (LabCAT) Levels: A-Laydown, B-Plant Materials Control, C-Volumetrics and Stability, D-Smoothness, E-Aggregates; Wyoming DOT: Asphalt Concrete, Aggregates, Soils
American Concrete Institute: Concrete Strength Testing

RELEVANT TRAINING: Superpave Mixture Design, Asphalt Institute
Troloxer Radiological Safety
Troloxer Radiation Safety Officer
HAZMAT Certification
IDOT Soil Subgrade Stability
IDOT Geotechnical Field Testing and Inspection

PUBLICATIONS: *ASTM STP 1378 Hot Mix Asphalt Construction: Certification and Accreditation Programs:* Michael M. Cassidy, Scott A. Conner "Asphalt Technician Certification: The Rocky Mountain Way", pp. 11-22, December 1998

AFFILIATIONS: American Society for Testing and Materials, Member

EXPERIENCE:

Mr. Cassidy supervises and schedules field engineers and technicians in the field and laboratory. Mr. Cassidy has over 19 years of experience in Construction Materials Testing and Inspection Services. For the past five years, Mr. Cassidy has been involved in the oversight of field and laboratory construction materials testing and QC/QA construction inspections. Mr. Cassidy's responsibilities include maintenance of SEECO's Quality System, staff training and evaluation, determining testing frequencies and procedures, report review, data reduction and initial technical review. His background includes extensive training in Soil Mechanics, Construction and Material Testing.

His project experience includes:

-Village of Lombard 2007 – 2014

- Great Western Trail – Construction
- Great Western Trail – Borrow Source Geotech
- Garfield Street Public Works Facility – Construction
- North Industrial Park Pavement –Construction
- Olde Towne East Phase V – Construction
- Terrace View Pond –Construction
- Various Other Projects –Construction

-Village of Lyons –Construction

- Village of North Riverside–Construction
- Village of Hodgkins– Construction
- City of Bedford Park–Construction
- City of Cicero–Construction
- Village of Countryside–Construction
- City of Berwyn–Construction
- Village of Burbank–Construction
- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Village of Downers Grove-Variou Projects 2009, 2011 - current
- Southwest Area High School – Chicago, IL
- PESA-Egyptian Trail – Crete, IL
- Nathan Hale School – Chicago, IL
- Higgins Elementary School – Chicago, IL
- St. Charles WTP Improvements – St. Charles, IL
- Fullerton Avenue Bridge over Salt Creek – Addison, IL
- Palos Township Annual Street Program
- Naperville Township Annual Street Program
- Lemont Township Annual Street Program
- Milton Township Annual Street Program
- Village of Plainfield –Various Projects
- Westmont MFT Project -
- Oak Park Avenue Reconstruction, Tinley Park, IL -
- Downers Grove Township Street Program - HMA Plant and Laboratory Testing

SEECO CONSULTANTS INC.

NAME: Victor McDuffee, P.E.

TITLE: Staff Geotechnical Engineer

YEARS EXPERIENCE WITH THIS FIRM: 4

YEARS EXPERIENCE WITH OTHER FIRMS: 7

EDUCATION: B.S.C.E. 2003 University of Illinois - UC, Civil Engineering
(Geotechnical and Environmental Engineering)
M.S.C.E. 2004 University of Illinois – UC, Geotechnical Engineering

ACTIVE REGISTRATION: P.E. State of Illinois, 2008

EXPERIENCE:

Mr. McDuffee has worked as field and staff geotechnical engineer and as a project geotechnical engineer writing reports for retaining walls, buildings, roadways and MSE and SBRW walls. He has experience logging boreholes. He also has experience in geotechnical engineering analysis, design foundations, detention pond slope stability, embankment and retaining wall design, roadway geotech reports and structure geotech reports on IDOT and municipal projects settlement and time rate of settlement for surcharge foundation alternatives and sign foundations and geotech and foundation engineering report preparation. As a Geotechnical Engineer with Hanson Professional Services, Inc. Springfield, IL his general project experience includes:

-Village of Lombard 2010 – 2014

Various CCDD Certifications
Terrace View Pond – Geotechnical
Lombard Meadows Utility Improvements – Geotechnical
Various Other Projects – Geotechnical

-Village of Lyons – Geotechnical & CCDD

-Village of North Riverside– Geotechnical & CCDD

-Village of Hodgkins– Geotechnical & CCDD

-City of Bedford Park– Geotechnical & CCDD

-City of Cicero– Geotechnical & CCDD

-Village of Countryside– Geotechnical & CCDD

-City of Berwyn– Geotechnical & CCDD

-Village of Burbank– Geotechnical & CCDD

-Illinois American Water – CCDD Services

- Greene Street Reconstruction – Bensenville
- River and Roberts Roundabout – Lake County, IL
- Barrington Rd. & Schaumburg Rd. Improvements – Schaumburg, IL
- South Beloit Watermain Extension – South Beloit, IL
- Valley View Pump Station – Glen Ellyn, IL
- Goodenow Grove Bridges, Will County, IL- Geotechnical Investigation
- BNSF, UP Railroad and CN-IC Railways – Replacement of early 20th century timber-trestle
- City Light and Power – Construction of Pullman #4 – Power Station Springfield, IL
- Ameriem – Design of coal, landfills and gypsum piles at Canton, Coffeen, Joppa, Illinois
- U.S. Army Corps of Engineers – Chicago District – Construction of slurry cutoff wall
- U.S. Army Corp of Engineers – Roads Acting as Dams (RAADS – Devils Lake, ND)
- IDOT – Iron Bridge Junction, Chatman, Illinois
- Illinois and Iowa DOTs – I-74 Mississippi River Bridge Replacement (Quad Cities)
- City Water Light and Power – Springfield, IL Water Purification Plant Improvements
- PESA-Egyptian Trail – Crete, IL
- IDOT – D-91-295-12, PTB 163-019 – District One Geotechnical Contract
- MWRDGC – Geotechnical Contracts – 2010-2012 & 2013-2015
- St. Charles WTP Improvements – St. Charles, IL
- Lockport WWTP Expansion – Lockport, IL
- Lake Street Studios – Chicago, IL
- Fullerton Avenue Bridge over Salt Creek – Addison, IL
- Palos Township Annual Street Program
- Naperville Township Annual Street Program
- Lemont Township Annual Street Program
- Milton Township Annual Street Program

SEECO Consultants, Inc.

NAME: Jeronimo S. Cabal

YEARS EXPERIENCE WITH THIS FIRM: 11

YEARS EXPERIENCE WITH OTHER FIRMS: 8

EDUCATION: B.S.C.E. 1990, St. Louis University, Baguio City, Philippines

ACTIVE REGISTRATION: IDOT Soil Subgrade Stability Course
IDOT Aggregate Course
IDOT Bituminous Proportioning
IDOT PCC Levels I, II and III
IDOT Bituminous Level I, II and III
ACI Concrete Field Testing Technician - Grade I
ACI Concrete Mix Design, Grade II

EXPERIENCE:

Mr. Cabal's background includes construction inspection, laboratory testing, and surveying. His experience includes soil, concrete, steel and asphalt testing and analysis of the data relative to Construction Material and Inspection Services. His expertise includes construction observation and field testing and analysis, caisson and pile inspections as well as routine soil, concrete and asphalt laboratory data.

His background includes extensive training in Soil Mechanics, Construction and Material Testing. His project experience includes:

- Dominguez Athletic Field – Chicago, IL - PBC
- Humboldt Park Library Site Preparation – Chicago, IL – PBC
- DuPage Water Commission Metering Stations and Transmission Lines, Various Locations – Construction Observation Inspection, Field and Laboratory Testing – Soil, Concrete and Asphalt
- Williams and Harrison Elementary School, 1101 Harrison Avenue, Joliet, IL – Rock Excavation inspection, earthwork, field density testing and proofrolling
- Riverside Medical Center, 350 North Wall Street, Kankakee, Illinois – Rock excavation inspection, concrete inspection and testing and fireproofing inspection and testing
- Extra Space Storage Building, Blue Island, Illinois – Soil, Concrete and Asphalt
- Fisher House VA, Hines, Illinois – Soil, Concrete and Steel
- LaGrange Library – Soil, Foundations Concrete, Asphalt and Steel
- Plainfield School District 202 – Various Projects for different Schools– Foundations, Concrete, Asphalt, Structural Steel.
- Anton Dvorak Elementary Specialty Academy, Chicago, Illinois for Chicago Public Schools- Foundations, Concrete, Asphalt
- MWRDGC - Concrete Testing and Inspection – 2006- 2009-ongoing
- New Lenox Village Hall – Soil, Foundations Concrete, Asphalt and Steel
- St. Brendan Assisted Living – Soil, Foundations Concrete, Asphalt and Steel
- St. Casmir Cemetery Mausoleum – Soil, Foundations Concrete, Asphalt and Steel
- Salvation Army Building, Chicago, Illinois – Soil, Concrete, Asphalt, High Strength Bolt
- Delnor Hospital, Geneva, Illinois – Soil, Concrete, Asphalt and Fireproofing

SEECO Consultants, Inc.

NAME: Matthew Boladz, EIT

TITLE: Staff Engineer/ACAD Draftsperson

YEARS EXPERIENCE WITH THIS FIRM: 1

YEARS EXPERIENCE WITH OTHER FIRMS: 0

EDUCATION: BSCE 2014 University of Illinois at Chicago

ACTIVE REGISTRATION: EIT 2014 Civil Engineer, Illinois

EXPERIENCE:

As a Staff Engineer, Mr. Boladz is responsible for ACAD design for SEECO's geotechnical, structural and civil engineering projects. His expertise includes geotechnical laboratory analysis and data reduction for field applications. He routinely performs field sampling, laboratory analysis and documentation for CCDD projects.

A partial listing of applicable projects include the following:

- MWRDGC – Egan Plant Permeable Pavement
Koppers Force Main – Stickney
- IDOT – Cumberland Ave. at I-90 Pavement Failure
North Ave. & Rt. 59 Utility Crossing
- Public Building Commission of Chicago – Edwards School Addition
- Frankfort Village Hall Addition
- Village of Park Forest Sidewalk Program
- Various CCDD Projects

AFFILIATE COMPANY

SEECO Environmental Services, Inc. (SES)

SEECO Environmental Services, Inc. (SES) is a full service environmental consulting firm that was established in 1991. The company was created to provide environmental investigations, environmental engineering remediation design and cleanups and consulting services for our clients in the Midwest.

In the 1980's, environmental services were provided by SEECO Consultants and centered around Phase I environmental site assessments, Phase II subsurface investigations and underground storage tank management and closures and RCRA closures, some of which were associated with civil engineering projects. SEECO Consultants also provided investigations and monitoring for industrial clients, landfill facilities and municipalities.

Environmental services and capabilities were expanded to accommodate the increasing needs of industrial clients (air quality modeling and permitting, asbestos abatement and removal, NPDES permits, SPCC plans, site remediation, RCRA compliance, SARA Title III), lenders (Phase I and Phase II assessments), developers (Phase I and Phase II assessments and site remediation), various commercial businesses (Phase I ESAs, combination geotechnical/Phase II subsurface investigations) and federal, state and local government agencies. SES was established with this expansion in mind.

Hydropunch groundwater sampling equipment and direct push technology were added to the drilling equipment and capabilities in 1991 and 1995, respectively. Operating our own drill rigs presents a two-fold advantage over many of our competitors: We can schedule a drill rig for on-site work immediately, and we are able to closely monitor and control our drilling teams and the quality of the samples and data collected. This flexibility is not possible with many other environmental firms which subcontract their required drilling services.

SES has a mobile laboratory with a portable gas chromatograph for analyzing benzene, toluene, ethylbenzene, and xylenes (BTEX) and volatile organic compounds (VOCs) to expedite investigation, reporting and closure of leaking underground storage tanks (LUST) sites and remediation at industrial sites for our clients. On-site analyses can significantly reduce the amount of time and analytical costs for large remediation projects or projects where time is a critical factor and accelerated site characterization has been chosen to expedite corrective action at a contaminated site.

SEECO Consultants, Inc. and SES have the capacity to provide our clients with combination geotechnical/environmental investigations and services. This capacity allows SEECO to supply the client with a coordinated multi-disciplinary investigation team that results in reduced investigation and engineering report costs for any particular project.