



**Sara E. Knight, P.E.**

[sara.knight@strataearth.com](mailto:sara.knight@strataearth.com)

(847)489-9175

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## PROFESSIONAL PROFILE

Ms. Knight is a Professional Engineer and is the Owner and President of Strata Earth Services, LLC.

Strata is a full service subsurface exploration company specializing in the field of geotechnical and environmental exploration. Strata employs highly experienced drillers and has skid, all-terrain, hi-rail and barge mounted drill rigs. Prior to starting Strata, Ms. Knight worked as a geotechnical engineer in the Midwest area for over 10 years and was responsible for project management and technical support of geotechnical engineering and projects including foundation studies, soil testing, slope stability, tunneling and retaining wall analyses. Ms. Knight also managed quality assurance/quality control construction services projects for various projects throughout Chicagoland.

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## EXPERIENCE

### **STRATA EARTH SERVICES, LLC, Managing Member, Owner, President – 2010 to Present**

#### **President and Owner Responsible for:**

- **Operations and Planning**
  - Management of all company affairs and operations
  - Oversee and manage all employees, field supervisors and laborers
  - Negotiate and enter into all company contracts and other legal documents
  - Decision maker for all legal issues and company business direction including collections, contract negotiation, and insurance
  - Responsible for all major supplies and equipment purchases
- **Construction and Project Management**
  - Direct and coordinate field personnel and supervisors regarding manpower, project schedules, job progress, subcontractor issues and deadlines
  - Attend job sites to observe field conditions and working field personnel
  - Negotiate and enter into subcontracts and purchase orders with suppliers
  - Attend job-site meeting to observe site conditions to discuss schedule and manpower and other requirements.
- **Personnel Management**
  - Overall management of all employees
  - Meetings with field supervisors to discuss job issues, labor issues and scheduling, and communicate decisions to supervisors to implement directives
  - Responsible for interviewing, hiring/firing, oversight, and discipline of all management personnel and employees
  - Coordinate hiring of union labor, including signatory and responsibility of managing union obligations and communications, onsite labor and conflict management

### **PAST WORK EXPERIENCE**

#### **STS/AECOM, Vernon Hills, IL - 2000 to 2010**

##### **Technical Resource Manager – 2008 to 2010**

- Directed 17 office staff
- Responsible for creating and maintaining annual budget of \$5 Million
- Managed staff utilization and project assignments
- Developed and maintained key client accounts

## **Geotechnical Engineer – 2000 to 2010**

- Project Manager for various high-rise developments in Downtown Chicago. Various aspects of projects included up to four-level below-grade spaces, slurry walls, top of rock and rock socketed caissons, caisson re-use, dewatering deep silt deposits, existing caisson conflicts and freight tunnel conflicts and backfilling.
- Project Manager for various projects contract for the Metropolitan Water Reclamation District of Greater Chicago from 2002 through 2008. Projects included oxidation pond remediation, deepening and lining of oxidation ponds and lagoons, a pump station, skip hoist, utility and pedestrian tunnels, grit dewatering tanks, water tower, communications tower, central boiler facility and various buildings. Areas of engineering included braced and open-cut excavations, shallow and deep foundations, slope stability, fill and backfill, pavements and earth retention. Projects were performed at the Stickney, Calumet, North Side, Kirie, Egan, Hanover Park and Lemont Water Reclamation Plants and LASMA.
- Project Manager for the Block 37 redevelopment which included the 108 N. State Building which had a 50-foot deep basement and the CBS Media Tower. Project foundation systems included new belled and top of rock caissons, re-use of existing top of rock caissons, and micropiles. Earth retention systems included steel sheet pile, slurry and secant pile walls. Served as the Project Manager in charge of the City of Chicago freight tunnel system monitoring including extensometers, crack gauges and a laser alignment system.
- Project Engineer for the geotechnical study of the McCormick Place tunnel. The tunnel consisted of a 3,300 foot long, 12.5 foot diameter tunnel to convey stormwater from the 70 acre McCormick Place roof to Lake Michigan. The tunnel was constructed 160 feet below ground using a tunnel boring machine in dolomitic bedrock. Monitoring wells, field permeability (packer testing), advanced rock laboratory testing, RMR ratings and rock logging was completed.
- Project Manager for multiple bridge replacements for Canadian Pacific and Canadian National Railway. Geotechnical aspects included slope stability of embankments, culvert analysis, driven H-pile recommendations and settlement analysis for deep organic deposits
- Project Manager for dynamic compaction projects for Perspectives Charter School and a paper storage warehouse facility. Dynamic compaction observation, vibration monitoring and compaction verification activities were managed for both projects.
- Task manager and field engineer for proposed Terminal 6 project at O'Hare International Airport including consultation for the design of the terminal building and associated structures. Aspects of the project included coordination with the Airport Owners Authority, a multi-level terminal and parking structure, elevated highways and retaining walls.

## **Law Engineering, Milwaukee, WI - 1999 to 2000 – Field Engineer**

### **Education**

BS, Civil Engineering, University of Illinois, Urbana-Champaign

MS, Civil Engineering, Northwestern University

### **Registrations**

Professional Engineer License, Illinois

### **Additional Training and Certifications**

Goldman Sachs 10KSB Graduate – Chicago Cohort 11

Turner School of Construction Management – 2011

DFI 44 Conference – Exhibit and Session Chair

Geo-Institute Chicago Chapter Chair

### **Professional Affiliations**

American Society of Civil Engineers (ASCE), ASFE, American Railway Engineering and Maintenance-of-Way Association (AREMA), Deep Foundations Institute (DFI), Federation of Women Contractors

### **Honors and Awards**

Women Builders Council Championship Award

### **Publications and Presentations**

- "Unexpected Caisson Problems, Soil Structure Interaction Predictions and Required Ground Modification", 6th International Conference, Case Histories in Geotechnical Engineering, Arlington, VA, August, 2008, co-authored with Clyde N. Baker, Jr., Ryan C. Rusk and Donald W. Hamlin.
- "A Walk Around the Block", *Structure Magazine*, December 2007, co-authored with Suzanne Provanzana, SE, PE