

Biographical Sketch

Samuel McIntosh is a dynamic civil engineer with over twenty-one years of experience within the private and public sectors, and operating at various experience levels from project engineer to senior project manager and company director. He is a registered professional engineer in the state of Georgia and has worked extensively in the Caribbean as well as the United States.

Education

B.Sc., Civil Engineering, 1982
University of the West Indies, Trinidad

MBA, 2000
Mercer University, Atlanta, Georgia

Experience & Expertise

Mr. McIntosh has over 21 years of experience in the following technical disciplines:

- Water distribution systems
- Sewer collection and conveyance systems
- Storm Water collection and conveyance systems
- Erosion and Sediment Control BMPs
- Site design including grading, infrastructure design, drainage and utility design
- Flood plain analysis
- Hydraulic modeling, including HEC packages, KY Pipe, XP-SWMM, Hydraflow, WaterCAD
- Project Management
- Hydrology studies

Specific Experience and Accomplishments

Creative Professional Consultants, Inc., Atlanta, Georgia 2001 – Present

Company director responsible for setting company goals, establishing internal business procedures and also performs senior design tasks and provide oversight for junior technical staff.

- Lead design engineer for the City of Atlanta West CSO Tunnel project, which will provide approximately 5 miles of 28-foot diameter tunnel for temporary storage of

storm water runoff in sections of the City's combined sewer system. Specific responsibilities include hydraulic and site development design of diversion structures and construction shaft sites to convey up to 5,000cfs of peak flow from the existing CSO facilities into the proposed tunnel drop shaft; subcontracted to the Delon Hampton/Jordan Jones & Golding joint venture team. Also supervises junior engineers and prepare design schedule.

- Performs senior design engineering tasks on various site development projects including churches, shopping centers, hotels and residential developments. Also liaise with Clients and permitting agencies to ensure a smooth design process. Typical design elements include grading, site layout, water and sewer systems, drainage systems and erosion control devices.

Khafra Engineering, Inc., Atlanta, Georgia

1999 – 2001

Senior design engineer within the water resources department, and supervised junior engineering staff.

- Prepared hydraulic design for various drainage sub-basins within the City of Atlanta's sewer conveyance system, including Peachtree Creek, and Nancy Creek. Typical tasks included hydraulic modeling of the existing system using XP-SWMM software package to evaluate system capacity, performance of the system under different loading conditions, and developing options for practical solutions to areas demonstrating capacity problems. Also developed technical reports for submission to Environmental Protection Division (EPD), and attended review meetings with the City and EPD to review the design and work progress.

Carried out flood plain analysis for the Mulberry River System in Gwinnett County. Tasks involved hydrological analysis of seven major tributaries to determine peak flows and water surface profiles using the HEC-HMS and HEC-RAS computer modeling software packages.

- Performed water distribution modeling using the KY-Pipe software for several water distribution systems to determine optimum system design arrangement and resultant residual pressures throughout the system.

W.L. Jorden & Co., Inc., Atlanta, Georgia

1996 – 2000

Senior project engineer and project manager

- Provided senior design and project management services for the City of Atlanta's East Area Sewer Separation Project. The objective of this project was to develop conceptual sewer separation design and budget cost estimates for a major portion of the City's combined system. Lead design engineer and project manager for the project team, which comprised of six engineers, two CAD technicians, and three field technicians. Main tasks included compiling existing data to build a comprehensive hydraulic model (XP-SWMM) of the conveyance

system, reviewing CCTV data to determine pipeline rehabilitation requirements, modeling the existing system assuming different rainfall conditions, analyzing the model results to determine areas with capacity limitations, developing various options for sewer separation, preparing budget cost estimates, and preparing a detailed technical report for submission to the City.

- Carried out hydraulic designs for several sewer systems within the City of Atlanta including the North Fork Peachtree Creek Relief Sewer, South Fork Peachtree Creek Relief Sewer, and the Nancy Creek sewer system.
- Carried out site design for various projects including residential and commercial developments.

MAC & Associates Ltd., Kingston, Jamaica

1990 – 1995

Owner and president of small firm of six employees, offering design, project management and construction services.

- Lead engineer for the Ocho Rios Water Supply Project, a new system with a river source providing 15MGD of treated water to the tourist resort town and surrounding areas. The project featured two river intake structures, gravity raw water pipelines, rapid gravity filter plant, a 10MG treated water storage reservoir, transmission pipelines, and upgrading of the existing distribution system. Main responsibilities included design of the transmission pipelines and distribution system, coordinating the design team, and construction management.
- Senior design engineer and project manager for the Savlamar Drainage Project, which involved construction of a new drainage system of underground pipes and open concrete-lined channels for a small resort town.
- Senior design engineer for Darliston Water Supply Project, including expansion of an existing water treatment plant, three pump stations, three storage reservoirs as well as transmission and distribution pipelines.
- Design engineer and project manager for various residential and commercial development projects.

Resource Engineering, Ltd., Kingston Jamaica

1987 – 1990

Design engineer and project manager for a variety of projects

- Lead design engineer and project manager for the Font Hill Farms Water Supply Project, which involved the development of a new water supply well and pump, installation of transmission pipelines and construction of a storage reservoir for a large vegetable and citrus farm. Main responsibilities included design of all elements of the project, including sizing of the well pump and transmission lines;

coordinating all construction activities and supervised the final testing and project start-up.

- Lead design engineer for various water distribution projects, ranging from 0.5mgd to 12mgd.

National Water Commission, Kingston, Jamaica

1982 - 1987

Project engineer for government-owned water utility company

- Managed in-house capital improvement projects including defining project requirements, selecting consultants, coordinating work by outside consultants and contractors, carrying out design for small expansion or rehabilitation projects, prepared department budgets and supervised field supervisors and supervised treatment plant supervisors.

Professional Registrations

Registered Professional Engineer, Georgia