

74 Amelia Garden Way
Lawrenceville, GA 30045

Fax: 770-339-1268
Phone: 404-966-9922
matthewnguyen@bellsouth.net

Matthew Nguyen, PE, LEED AP

Objective

A career utilizing & developing skills that benefit the client & company

Work Experience

August 2009 – Present Self-employed, Lawrenceville, GA

Civil Engineer

Provide Civil Site Design Services

July 2008 – July 2009 **Moreland Altobelli Associates, Inc.**,
working for **MATT** (Metro Atlanta Transit Team, a General Consultant for
MARTA (Metropolitan Atlanta Rapid Transit Authority)
Atlanta, GA

Civil Engineer

Working in a Design Team of Civil Engineers, Structural Engineers,
Electrical Engineers, Mechanical Engineers, and Architects

February 2007 – June 2008
Roswell, GA

Paulson Mitchell Inc.

Senior Project Engineer

Civil Site Design for Commercial/Retail Centers and Industrial/ Office & Ware
House/Distribution Centers & Residential Subdivisions:

- **Senior Project Engineer:** construction plans (erosion and sediment control plans, grading plan, storm drainage design, ditch, culvert design, water distribution plans with fire hydrants, irrigation and domestic lines, and water vault, sanitary sewer design, estimating and calculating water supplies, GDOT plans, Sign Location Permit Plans, storm water management study and report (including water quality volume and channel protection volume, BMP Agreement, and TSS loading modeling), earthwork modeling and calculation including rock/PWR analysis, and more.
- **Project Management:** Projects in several cities, counties, and

states; Proposal; budget; schedule; regulations/ordinances; co-ordination with clients, surveyors, and contractors; supervision, review/check, and training of junior engineers, designers, and Cad technicians; submittal; permitting; and more.

January 2000–January 2007 **Development Consultants Group Inc.** Duluth, GA

Engineer/Project Engineer/Senior Project Engineer/Planner

Civil Site Design for Industrial/ Office & Ware House/Distribution Centers, Commercial/Retail Centers and Residential Subdivisions:

- **Engineer and Project Engineer:** Grading and drainage design, Erosion and Sediment Control design, Earthwork calculation, SWM design (Detention, Water Quality Volume, and Channel Protection Volume), Water Distribution Plans, Sanitary Sewer Design, and Flood Study.
 - **Senior Project Engineer:** preliminary design; feasible study, concept plan, preliminary layout, land planning (maximum pad area, on-site earthwork balance, detention pond area, and entrance), engineering/site exhibits, master grading plan, master stormwater plan, construction plans (erosion and sediment control plans with sediment basin design, site plan/preliminary plat, grading plan, storm drainage design, ditch/channel with stability and capacity design, culvert design, water distribution plans with fire hydrants, irrigation and domestic lines, and water vault, sanitary sewer design, septic tank and septic field, roadway including superelevation design, signage and marking plan, profiles, and construction details), flood study and analysis with hydraulic modeling and CLOMR/LOMR application, dam design (Probable Maximum Precipitation/PMP and Wave Height), storm water management study and report (including water quality volume and channel protection volume, BMP Agreement, and TSS loading modeling), earthwork modeling and calculation including rock/PWR analysis, and more.
 - **Planner:** Proposal; budget; schedule; regulations/ ordinances; co-ordination with clients, surveyors, and contractors; supervision, review/check, and training of junior engineers, designers and Cad technicians; submittal; permitting; and more
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Applied Software

AutoCad Land Desktop and Civil; Haestad Methods HEC-1, HEC-RAS, Pond2, TR-55, PondPack; Hydraflow Storm Sewer, Hydraflow Hydrograph, Storm Sewer and Express; FlowMaster, and CulvertMaster; Microsoft Excel and Words, etc.

Education/Profession

Georgia Institution of Technology, Bachelor Degree in Civil Engineering (1999), Highest Honor

Professional Engineer, registered in Georgia since 2004

GSWCC Level II Certified Design Professional since 2006

L.E.E.D. A.P. since April 2009

Specialty Details

Project Types:

Commercial/Retail Centers and Professional Offices,
Industrial/Office, Ware House, Distribution Centers,
Residential Subdivions, and
Special facilities (MARTA Facilities, PUBLIX Grocery Stores, FEDEX Freight, WALGREEN Pharmacy, HOMELAND Self-Storage, and so on)

Working Experience with Government Agencies:

Georgia (Incorporated areas and Unincorporated Cities): Gwinnett County; Cobb County; Clayton County; Dekalb County; Fulton County; City of Thomson, McDuffie County; City of Jefferson, Jackson County; City of Buford, Gwinnett County; City of Suwanee, Gwinnett County; and so on.

Florida: City of Panama City Beach, Bay County, Florida.

Studies/Structures/Facilities/Method Types

Hydrology Computation and Detention Pond (On-ground Pond, Retaining Wall Pond, and/or Underground Box/Pipes; Pond-In-Series; Interconnected Ponds; Models and Study Reports; Rational Method and/or SCS Method); Water Quality (On-ground Pond and/or Structure Devices, and TSS Loading Calculation); Channel Protection

Hydraulic Computation and Flood Study (LOMA, CLOMA, LOMR, and CLOMR; Modeling with several Culverts, Roads, Dams, and Encroachments; Excavate Compensatory Calculation)

Grading and Drainage Design: Culvert Design (Arch and/or Circle Pipes and/or Box; Single or Multiple); Ditch Design (Capacity and Stability Design); Gutter Spread; Lateral Pipe System (Arch, Ellipse, and/or Circle pipes; HDPE, RCP, CMP, and/or PVC pipes; Storm Pipe Chart and Profile); Earthwork computation (Soil, PWR, and/or Rock; several phases); Plan (elevation spots and contours; storm structures and pipes)

Erosion, Sediment, and Pollution Control Plans (Sediment Basin, Retrofit, Excavated Trap, Diversion Berm, Check Dam, Silt Fence, Construction Exit, Stream Crossing, Down Drain, Permanent/Temporary Stabilization, Dust Control, Storm Outlet Protection, and so on)

Roadway Design: Local Street, and/or Main Street with Superelevation Design (Horizontal and Vertical Design)

Site Computation Layout (Building, Parking Spaces, Island, Sidewalk, Retaining Wall and Driveway); Preliminary Site Layout (Rough Earthwork Calculation, Driveway, Parking Spaces, and Detention Pond); Master Grading Plan; and so on
Utility Design: Sanitary Sewer (Gravity System and/or Septic Tank and Field; One Building, Several Buildings; or Shopping Center; Plan and Profile); Water Distribution Plan (One Building, Several Buildings, or Shopping Center; Available Residual and Static Pressure Calculation; Fire Hydrant Locations; DDC; FDC; Plan and Profile; and so on)

Project Details

MARTA Facilities

MARTA Ashby Station: Grading and Drainage

MARTA West Lake Station: Grading and Drainage

Memorial Drive Bus Rapid: MARTA Bus Stops, Dekalb County, Georgia

- Grading Plan
- Erosion and Sediment Control Plans
- Stair Design
- Shopping Drawing Review

StoneCrest Park and Drive: MARTA parking area, Dekalb County, Georgia

- Road Design
- Retaining Wall Profiles
- Construction Layouts
- Cross Sections
- Civil Drawing Review

Brady Paratransit Facility: MARTA facility, Fulton County, Georgia

- Grading and Drainage Design
- Retaining Wall Profiles
- Cross Sections
- Storm Sewer Design
- Sequence Construction Plans

Commercial/Retail Centers and Professional Offices

North Georgia Family and Cosmetic Dentistry: Dentist Office, 2,083 square feet, 1.04 acre, Lawrenceville, Gwinnett County, Georgia

- Site Layout Computations
- Grading and Drainage Plan
- Water Distribution Plan
- Sanitary sewer design
- Erosion and Sediment Control Plans

- Sign Location Permit Plans
- GDOT Plans
- SWM Study and Report

San Marco Plaza : Two-Story Retail Center, 26,332 square feet, 1.0 acre, Norcross, Gwinnett County, Georgia

- Site Layout Computations
- Grading and Drainage Plan
- Storm Drainage Design
- Water Distribution Plan
- Sanitary Sewer design
- Erosion and Sediment Control Plans
- SWM Study and Report

Homeland Self-Storage: 317,988 square feet, Sandy Springs, Fulton County, Georgia

- Site Layout Computations
- Grading Plan including earthwork computation
- Storm Drainage Design
- Water Distribution Plan
- Sanitary sewer design
- Erosion and Sediment Control Plans
- Detention and Water Quality Design

Publix Center at Beckrich Pavilion: 15.6 acres, Panama City Beach, Bay County, Florida

- Site Layout Computations
- Grading Plan including earthwork computation
- Storm Drainage Design
- Water Distribution Plan
- Sanitary sewer design
- Erosion and Sediment Control Plans
- Detention and Water Quality Design

Walgreens: 1.83 acres, City of Riverdale, Clayton County, Georgia

- Site Layout Computations
- Grading Plan including earthwork computation
- Storm Drainage Design
- Water Distribution Plan
- Sanitary sewer design
- Erosion and Sediment Control Plans
- Detention and Water Quality Design

Walgreens: 3.90 acres, City of Thomson, McDuffie County, Georgia

- Site Layout Computations
- Grading Plan including earthwork computation
- Storm Drainage Design
- Water Distribution Plan
- Sanitary sewer design
- Erosion and Sediment Control Plans
- Detention and Water Quality Design

John Deere: 3.03 acre, Dacula, Gwinnett County

- Site Layout Computations (one building)
- Grading Plan including earthwork computation
- Storm Drainage Design
- Water Distribution Plan
- Septic Tank Design
- Erosion and Sediment Control Plans
- Detention and Water Quality Design (Haestad Methods Pondpack)

Arnold Road Tract: 5,000-square-foot retail/warehouse; Gwinnett County

- Grading Plans & Earthwork Computations
- Site Layout Computations
- Gravity Sanitary Sewer Design
- Storm Drainage System Design
- Stormwater Detention Design
- Water Quality BMP design
- Erosion & Sediment Control Plans

Industrial/Office, Ware House, Distribution Centers

Jefferson Mill Industrial Park: 300-acre, City of Jefferson, Jackson County, Georgia

- **Land Planning:**
 - Master Grading Plan: showing/defining seven pad sites with earthwork balance
 - Master Storm Water Management Plan: locating/showing/sizing seven detention-water quality ponds (using Haestad Methods Pond 2 Estimator) & locating/showing storm structures
- **Site Layout for Dick's Sporting Goods:** Building, guardhouse, loading/unloading docks, trailer parking spaces, car parking spaces, SWM detention area considering site constraints, such as topography, cemetery site, power poles, and stream buffers; six versions; including two phases of development.
- **Possum Creek Road:** design a roadway, 45 mph, superelevation $e = 4\%$, roadside ditches, two travel lanes, one intersection, including signage and marking plan, grading design, street profile, drainage design, erosion & sediment design, water line design, sanitary sewer design (approved by City of Jefferson)
- **Hog Mountain Road:** design a roadway, 30 mph and 45 mph, superelevation $e = 4\%$, curb and gutter, four travel lanes (two travel lanes/each direction) and one waiting lane, two intersections, and nine driveways, including signage and marking plan, grading design, street profile, drainage design, erosion & sediment design, and water line design (approved by City of Jefferson and Jackson County)

Hamilton Mill Business Center: 317-acre, City of Buford, Gwinnett County, Georgia

- **Land Planning**
 - Preliminary Earthwork Computations (317 acres, 12 buildings)
 - Floodplain and Floodway Hydraulic Modeling (five models, compensation flood storage volumes)
- **Building I:** 59 acres; 871,000 square feet
 - Grading Plans & Earthwork Computations (59 acres, one building)
 - Site Layout Computations (59 acres, one building)
 - Storm Drainage System Design (2,000 LF of storm pipes)
 - Gravity Sanitary Sewer Design (1,000 LF of sewer pipes)
 - Water Distribution Design (5,000 LF of water pipes)
 - Erosion & Sediment Control Plans (59 acres)
 - Water Quality BMP Ponds (2 ponds)
- **FedEx Freight:** 67,373 s.f., custom-built design (125-door customer center & office building), 36.0 acres
 - Erosion & Sediment Control Plans* (77 acres, 3 sediment basins)
 - Compute Layout – FedEx Freight (Custom Build)
 - Storm Drainage Designs* (five lateral storm pipe systems, ditches and flumes)
 - Water Quality Design* (5 ponds)
 - Grading design including earthwork computation
 - Sanitary sewer design/ layout
 - Water distribution Plan
- **Building M:** 646,380 square feet, 40.9 acres
 - Erosion & Sediment Control Plans* (77 acres, 3 sediment basins)
 - Compute Layout – Building M
 - Storm Drainage Designs* (five lateral storm pipe systems, ditches and flumes)
 - Water Quality Design* (5 ponds)
 - Grading design including earthwork computation
 - Sanitary sewer design/layout including sanitary sewer outfall (2,800 LF)
 - Water distribution plan
 - Erosion & Sediment Control Plans, Storm Drainage Designs, Water Quality Design were prepared/calculated for both Building M and FedEx Freight sites

Shawnee Ridge: 611-acre; Suwanee City, Gwinnett County, Georgia

Building A-1 site: 7 acres; one building, total 112,000 square feet

- Parking Expansion (25 additional parking spaces)

Building K-4 site: 14 acres; two buildings, total 145,800

square feet

- Land Planning (2 acres, one building)
- Site Layout Computations (2 acres, one building)
- Flood Studies (compensation flood storage volumes)
- Grading Plans (14 acres)
- Storm Drainage Design

Building B-4 site: 12 acres; 150,000 square feet
Expansion Analysis of Existing Building (minimum 30,000 SF to be added)

Building A-4 site: 17 acres; 135,000 square feet

- Grading Plans & Earthwork Computations (17 acres, one building)
- Site Layout Computations (17 acres, one building)
- Storm Drainage System Design (1,530 LF of storm pipes)
- Gravity Sanitary Sewer Design (550 LF of sewer pipes)
- Water Distribution Design (1,455 LF of water pipes)
- Erosion & Sediment Control Plans (17 acres)

Building M-2 site: 25 acres; 317,000 square feet

- Grading Plans & Earthwork Computations (25 acres, one building)
- Site Layout Computations (25 acres, one building)
- Storm Drainage System Design (1,370 LF of storm pipes)
- Gravity Sanitary Sewer Design (395 LF of sewer pipes)
- Water Distribution Design (2,200 LF of water pipes)
- Erosion & Sediment Control Plans (25 acres)

Building M-1 site: 25 acres; 318,000 square feet

- Grading Plans & Earthwork Computations (25 acres, one building)
- Site Layout Computations (25 acres, one building)
- Floodplain Definition Studies
- Storm Drainage System Design (1,200 LF of storm pipes)
- Gravity Sanitary Sewer Design (120 LF of sewer pipes)
- Water Distribution Design (2,500 LF of water pipes)
- Erosion & Sediment Control Plans (25 acres)

Building O-4 site: 9 acres; 136,000 square feet

- Grading Plans & Earthwork Computations (9 acres, one building)
- Site Layout Computations (9 acres, one building)
- Storm Drainage System Design (1,360 LF of storm pipes)
- Gravity Sanitary Sewer Design (75 LF of sewer pipes)
- Water Distribution Design (1,320 LF of water pipes)
- Erosion & Sediment Control Plans (9 acres)

Atlanta AirLogistics Center II: 25-acre, City of Forest Park, Clayton County
Design and preparation of construction plans for three buildings totaling 333,500 square feet:

- Grading Plans & Earthwork Computations (25 acres, three buildings)
- Site Layout Computations (three buildings)
- Storm Drainage System Design (3,300 LF of storm pipes)

Broadmoor Industrial Park: 220 acres, business park, Gwinnett County
(building size range: 50,000 square feet to 200,000 square feet)

- Land Planning (220 acres, 22 buildings): estimate pad sites, compute/show buildings, driveways, and detention-water quality ponds
- Master Sanitary Sewer Plan: determine and show sanitary sewer lines to serve whole site (22 buildings)

Residential Subdivisions

Temple Johnson Road Tract: 238-acre, 399-lot residential community; Gwinnett County

- Roadway Design (79,800 LF of roads)
- Grading Plans & Earthwork Computations (160 acres, 380 lots)
- Lot Computations (160 acres, 380 lots)
- Storm Drainage System Design (12,800 LF of storm pipes)
- Gravity Sanitary Sewer Design (23,700 LF of sewer pipes)
- Design of Water Distribution (20,300 LF of water pipes)
- Erosion & Sediment Control Plans (160 acres)
- Stormwater Detention Design (one pond, 12 acres)

The Retreat at Apalachee: 12-acre, 46-lot residential community, Gwinnett County

- Roadway Design (2,200 LF of roads)
- Grading Plans & Earthwork Computations (12 acres, 46 lots)
- Lot Computations (12 acres, 46 lots)
- Floodplain Definition Studies
- Detention Design (Interconnected ponds modeling, Haestad Method Pondpack)
- Water Quality BMP Design
- Storm Drainage System Design (1,300 LF of storm pipes)
- Design of Water Distribution (2,600 LF of water pipes)
- Erosion & Sediment Control Plans (12 acres)

Apalachee Heritage: 233-acre, 420-lot residential community, Gwinnett County

- Roadway design (3,100 LF of roads)
- Storm Drainage System Design (1,760 LF of storm pipes)
- Stormwater Detention Design (one pond)
- Floodplain Definition Studies

Pinecrest Station: 48-acre residential community, Gwinnett County

- Stormwater Detention Design (one pond)
- Floodplain Definition Studies
- Erosion & Sediment Control Plans
- Post-Construction Stormwater Management Analysis

