

**CARLOS WOOD, P.E.**  
**ENGINEERING CONSULTANT**

**STATEMENT OF QUALIFICATIONS**

**122 CR 375**  
**BONO, ARKANSAS 72416**  
**870-972-8335**  
**woodengr@sbcglobal.net**  
**www.woodengr.com**

## **INTRODUCTION:**

A professional engineering consultant providing a diverse scope of civil engineering services with a mission of providing clients with respect and experienced service to accommodate their specific needs. Providing municipal, commercial, and private entities with engineering design and construction assistance to meet their needs with the most economical solution. This is accomplished using the latest technology, software, and engineering methods offering the level of professionalism and expertise that the client deserves. Utilizing the latest equipment and software to create 3D modeling for client review for preliminary planning and also for construction equipment to maximize efficiency. A contractual team with larger professional consultant firms can be formulated for larger projects and/or specific expertise services when the need requires.

Project capabilities include but are not limited to the following list.

## **AREAS OF EXPERTISE / SERVICES:**

- Subdivision Design & Development
- Flood Control and Drainage Evaluation
- Storm Water Collection System Design
- Sanitary Sewer Collection System Design
- Water Distribution System Design
- Commercial Site Development Design
- Construction Layout & Inspection
- Project Management & Inspection
- GPS Field Data Collection & Site Preparation
- Site Data Modeling (adaptation for GPS layout & machine control)
- Structure Foundation Design
- Retaining Wall Design
- Transportation System Design
- GIS Data Acquisition & Map Production
- Construction Cost Estimating
- Earthwork Volume Estimating and Site Material Quantity Estimating
- Bid Documents & Technical Specifications Preparation
- 3D Modeling of Pipeline (Natural Gas, Sewer, etc.)

## **Carlos Wood, P.E.**

### **CERTIFICATION:**

1983, Arkansas Registered Professional Civil Engineer, No. 5620  
1985, Certificate, Nuclear Density Technician

### **EDUCATION:**

2009, Certificate, ATC-20 Post Earthquake Safety Evaluations of Buildings  
2009, Certificate, FEMA 154: Rapid Visual Screening of Buildings  
for Potential Seismic Hazards  
2007, Certificate, Floodplain Management  
2003, Certificate, Material Science Faculty Workshop  
2001, Certificate, Floodplain Management  
2000, Certificate, Seismic Effects of Designs  
2000, Certificate, Water Distribution System Analysis  
1999, Certificate, Concrete Structure Design  
1988, Certificate, Water Distribution Modeler  
1979, Certificate, Highway Traffic Design  
1977, Bachelor of Science, Engineering  
Arkansas State University, Jonesboro, Arkansas  
1974, Certificate, Materials and Testing Training

### **EXPERIENCE:**

Instructor; Arkansas State University Engineering Department  
(2000 to 2006)

Courses: Water & Waste Systems, Environmental, Soils, Surveying,  
Civil Engineering Drafting, Hydrology, Transportation,  
Civil Engineering Materials & Testing, & Fluid Mechanics

Sole Proprietor; Civil engineering consultant in Northeast Arkansas  
(1983 to Present)

Construction Project Engineer; McGoodwin, Williams, & Yates Inc.  
Jonesboro, Batesville, Fayetteville, Arkansas – (1993 to 1997)  
Inspection of 24" sewer main for CWL project in Jonesboro,  
Inspection of 18" water main for City of Batesville project,  
Design & plan preparation for a 400 acre development in Fayetteville.

Street Superintendent; City of Jonesboro (1981 to 1983)  
Supervised daily operations of the Street Department & Engineering  
Department, inspected construction of new subdivision being developed  
inside city limits, designed & supervised the design of city street projects,  
and assisted Director of Public Works in reviewing plans for the  
Metropolitan Area Planning Commission to insure compliance of the  
city ordinances.

Project Engineer; City of Jonesboro (1977 to 1981)  
Supervised the Engineering Department, designed plans and prepared  
specifications for the HUD Housing Authority CDBG projects for the City  
of Jonesboro. Designed drainage and reconstruction projects and reviewed  
plans for approval by the Metropolitan Area Planning Commission.

Engineer's Aid; Arkansas Highway & Transportation Dept.  
Jonesboro, Arkansas – (1970 to 1977)

Performed quality control inspection, worked with survey crew,  
and assisted in preparing final estimates in the Resident Engineer's  
Construction Field Office in Jonesboro.

**AFFILIATIONS:**

American Concrete Institute – member  
Arkansas Ground Water Association – member  
Arkansas Floodplain Management Association – Associate Member  
American Standard Testing & Materials Association – member  
American Society of Civil Engineers

**PRIMARY SOFTWARE:**

- Site Development
  - Autodesk Civil 3D
  - Haestad WaterCAD & SewerCAD
- Hydrology / Hydraulics & Drainage
  - EPANET Water Distribution
  - Haestad StormCAD
  - Hydraflow
  - HEC-HMS, HEC-RAS, WIN-TR55
  - StormNet (SWMM)
- GPS Data Modeling
  - Autodesk Civil 3D
  - Trimble Business Center – Heavy Construction Edition
  - Topcon 3D Office
- GIS Development
  - Autodesk Map 3D
  - Delorme X-Map Professional
  - ESRI ArcGIS Desktop
  - Forestry GIS

**PRIMARY EQUIPMENT:**

- GPS System
  - Real-Time Kinematic & Static Measurement Capability
  - L1, L2, L2C, L5 & GLONASS capable (GNSS System)
- Total Station - Data collection & construction layout
- Levels (Automatic & Laser).

## **Residential Design**

The following is a non-comprehensive list of projects:

- Barrington Park Phases I ,II, & IV  
(75 Lots Design & Layout)
- Bridger Place (98 Lots Design & Layout)
- Bridlewood Phase I  
(50 Lots Design & Layout)
- Colony Park Addition (113 Lots Design)
- Fox Run Apartment Complex  
(76 Unit Design)
- Dunwoody – Huntcliff Estates  
(104 Lots Design & Layout)
- Forest Green (60 Lots Design & Layout)
- Gregory Subdivision  
40 Lots Design & Layout)
- Griffin Park Phases I - V  
(145 Lots Design & Layout)
- Jamestown Manor I & II  
(33 Lots Design & Layout)
- John Hardy Meadow (28 Lots Design & Layout)
- Johnson Ave. Villas Apartments (36 Unit Design)
- Leggett Street Apartments (23 Unit Design)
- Kensington Estates (90 Lots Design & Layout)
- Madison Estates (72 Lots Design & Layout)
- Maple Valley Estates  
(61 Lots Design & Layout)
- Marchbanks Estates (20 Lots Design & Layout)
- MeadowWood Subdivision  
(73 Lots Design & Layout)
- Paddock Subdivision (107 Lots Design & Layout)
- Prairie Meadows ( 92 Lots Design & Layout)
- Ridge Run (80 Lots Design & Layout)
- Stoneridge Estates (60 Lots Design & Layout)
- Windsor Landing Phases I – III (205 Lots Design & Layout)
- Woodland Heights (220 Lots Design & Layout)
- Woodridge (85 Lots Design & Layout)
- Wyattwood (22 Lots Design & Layout)
- Multiple Projects of Duplex, Triplex, and Quadplex Sites



## **Street Improvements**

- Fox Meadow Lane Improvement  
(Design & Layout)



## **Commercial Design**

The following is a non-comprehensive list of projects:

- Brown's Shopping Plaza  
(Site Design & Layout)
- Collision Repair (Site Design & Layout)
- Cornerstone Methodist Church  
(Site Design)
- East Highland Park Center  
(Site Design & Layout)
- Family Life Center (Site Design & Layout)
- Greensboro Road Church of Christ  
(Site Design)
- Harmony Gardens (Site Design & Layout)
- Heavenly Ham (Site Design & Layout)
- Jonesboro Blueprint (Site Design & Layout)
- KFC Southwest Drive & Parker Road  
(Site Design & Layout)
- Living Word Church (Site Design)
- Marriott Office Complex (Site Design)
- Meadows Construction Office Complex  
(Site Design & Construction Layout)
- Olympus Construction Office (Design)
- Stone Street Office Complex  
(Site Design & Foundation Design)
- West Washington Business Complex  
(31 Lot – 37 Acre Site Design & Layout)
- Valley View Church of Christ (Site Design)



## **Industrial Design**

The following is a non-comprehensive list of projects:

- City Water & Light  
Gas Fired Generator Plant, Jonesboro  
(Foundation Design & Site Plan Design)
- City Water & Light Operations Facility  
Parker Road (Site Design)
- City Water & Light Water Treatment Facility  
Commerce Drive (Site Design & Construction Inspection)
- CWC Mechanical  
(5 Acre Site Design & Layout)
- Harmon Industrial Park  
(16 Lot – 31 Acre Site Design)
- Poinsett County Solid Waste Landfill  
(Design & Closure Plans, Class 1 & 4)



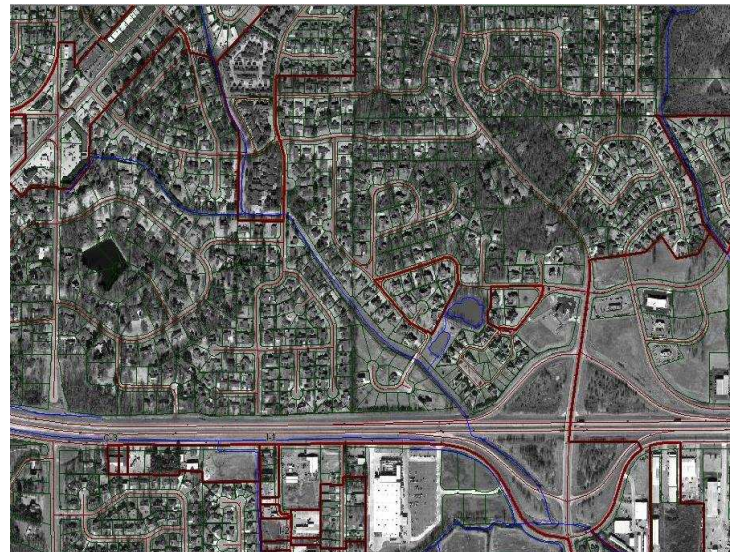
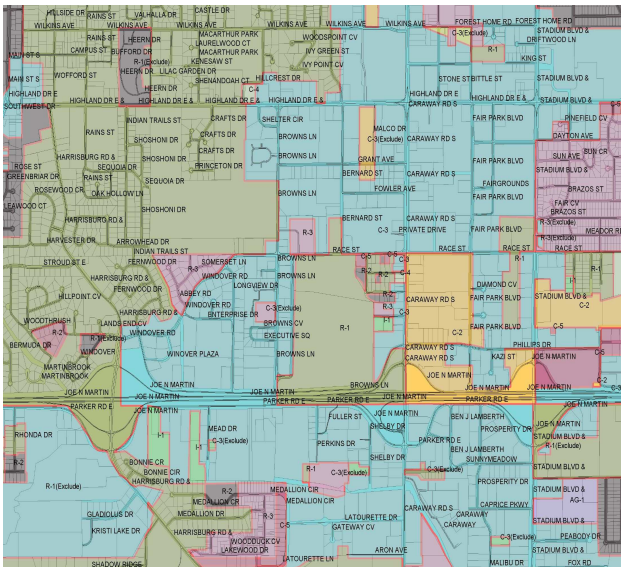
## Hydrology / Hydraulic Design

- City Water & Light Lost Creek Drainage Improvement (Design & Layout)
- Culvert Designs
- Detention & Retention Basin Designs
- FEMA Elevation Certificates
- Flood Elevation Determinations



## GIS (Geographic Information Systems) Services

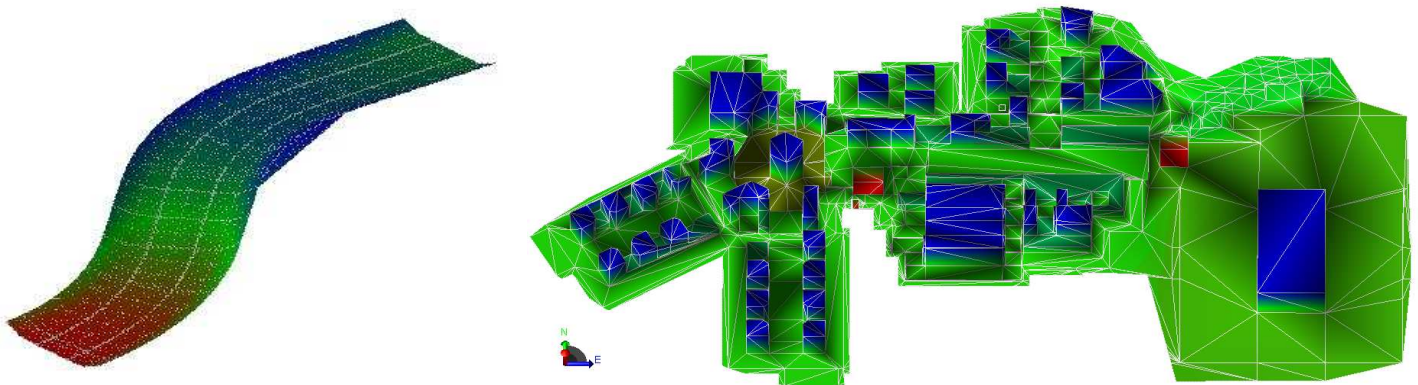
- County wide map compiled from various data sources
  - Aerial Photography
  - Parcel & Zoning Information
  - City Boundaries
  - Roadway & Railroad Systems
  - Floodplain Delineation
  - Water & Sewer Infrastructure
  - Drainage Infrastructure
  - School District Boundaries



### **3D Model Data Preparation for Machine Control**

The following is a non-comprehensive list of projects:

- ASU – Student Apartments, Reynolds Building, Wellness Center
- City Water & Light – Gas Fired Generator Plant
- City Water & Light – Commerce Drive Water Treatment Facility – 4 Acres
- Colt Regional Airport – 120 Acres (Runway, Taxiways, Apron & Hanger Areas)
- Culpepper Place Assisted Living
- FedEx Distribution Facility
- Fox Meadow Chase Commercial – 6 Acres
- Frito Lay Expansion
- Hardees – Jonesboro
- Highway 18 (Jonesboro – Lake City) - 6 Miles
- Highway 49 (Paragould) - 2 Miles
- Highway 62 / 67 (Pocahontas) - 1.3 Miles
- Hollywood Cinema Building & Parking Expansion
- Lawson Road Improvements - 1 Mile
- Legacy Landfill – Detention Basin and Access Road – 40 Acres
- Lost Creek Drainage Improvement
- Marion Jr. High School – 10 Acres
- Martin Marietta Mining – Black Rock – 20 Acres
- NEA Food Bank
- Nestle Foods Expansion
- Trumann High School – 10 Acres
- Walgreens - Paragould – 1 Acre
- Walnut Ridge Airport Runway Extension – 80 Acres (Runway, Taxiway, Safety Areas)



### **Construction Layout**

The following is a non-comprehensive list of projects:

- Hwy 141 – Jonesboro: Johnson Ave to Philadelphia Rd
- Hwy 49 – Jonesboro: Parker Rd to Maple Valley Dr
- Hwy 18 – Jonesboro: Lake City: Barnhill Rd to St. Francis Bridge
- Hwy 62 & 67 – Pocahontas, AR: Park St. to Hwy 90
- Matthews Ave Improvement – Jonesboro (Construction Layout)
- Marion Jr. High School (Layout)
- Trumann High School (Layout)
- Washington Ave Improvement – Jonesboro (Construction Layout)
- Multiple Commercial & Industrial Sites

**ASSOCIATED**

**TEAM**

**PERSONNEL**

## **Mark Morris, P.E.**

**CERTIFICATION:** 2008, Arkansas Registered Professional Civil Engineer, No. 13212  
2005, Arkansas Residential Contractors License  
2003, Arkansas Engineer Intern, No. 6537  
2002, Certificate, American Concrete Institute Technician

**EDUCATION:** 2009, Masters of Engineering Management,  
Arkansas State University, Jonesboro, Arkansas  
2005, Masters of Business Administration,  
Arkansas State University, Jonesboro, Arkansas  
2003, Bachelor of Science in Engineering (Civil Emphasis)  
Arkansas State University, Jonesboro, Arkansas

**EXPERIENCE:** Sole Proprietor; MBM Enterprises (2005 to Present)  
Commercial & residential construction.  
Construction layout for developers and contractors.  
CAD drafting services.

Project Engineer; for Carlos Wood, P.E.  
(October 2002 to 2005), Jonesboro, Arkansas  
Design and plan preparation for subdivisions and site developments.  
Construction layout & inspection for subdivisions, site developments,  
and highway/street improvements.  
Operating construction layout equipment.  
Experienced in Autodesk Land Desktop, Autodesk Civil 3D & HydraFlow

Project Engineer; Hamman/Newell Engineering  
(March 2002 to October 2002), Jonesboro, Arkansas  
Design and plan preparation for subdivisions and site developments.

Laborer; Drummond Asphalt & Construction (2000 to 2002)  
Wynne, Arkansas  
Performed construction layout, plant maintenance, and traffic control.

## **Brandon Wood, P.E.**

- CERTIFICATION:** 2010, Arkansas Surveyor Intern, No. 636  
2009, Arkansas Registered Professional Civil Engineer, No. 13854  
2005, Arkansas Engineer Intern, No. 6806
- EDUCATION:** 2010, Certificates for training in ESRI GIS Software (18 educational hours)  
2009, Map Projections & Coordinates Systems course, Metro State of Denver  
2009, Boundary Law I course, Metro State College of Denver  
2009, Certificate, ATC-20 Post Earthquake Safety Evaluations of Buildings  
2009, Certificate, FEMA 154: Rapid Visual Screening of Buildings  
for Potential Seismic Hazards  
2008, Certificate, ESRI Learning Pathway:  
Fundamentals of ArcGIS Desktop  
2008 - 2009, Certificates for training in ESRI GIS software  
(126 educational hours)  
2004, Bachelor of Science in Engineering (Civil Emphasis)  
Arkansas State University, Jonesboro, Arkansas
- AFFILIATIONS:** American Society of Civil Engineers – Associate Member  
Arkansas Floodplain Management Association – Associate Member  
North American Cartographic Information Society – Member  
Memphis Area Geographic Information Council – Member  
Arkansas Society of Professional Surveyors - Member
- EXPERIENCE:** Sole Proprietor; Digital Design Consultants (2005 to Present)  
3D data modeling for GPS and machine control for construction layout.  
CAD drafting services.  
Construction layout services.  
GIS modeling services.
- Project Engineer; for Carlos Wood, P.E. (2000 to 2005)  
Design and plan preparation for subdivisions and site developments.  
Operating construction layout equipment and GPS equipment.  
Digital data preparation for use with GPS and machine control.  
Construction layout & inspection for subdivisions, site developments,  
and highway/street improvements.  
Experienced in Autodesk Land Desktop & Civil 3D.
- Engineer's Aide; for Carlos Wood, P.E. (1995 to 2000)  
Assisted in construction layout.  
Assisted in plan preparation for subdivisions and site developments.

## **Brad Cline, E.I.**

**CERTIFICATION:** 2005, Arkansas Engineer Intern, No. 6837  
2006, Stormwater Certification for Construction Sites (Hot Springs, AR)

**EDUCATION:** 2005, Bachelor of Science in Engineering (Civil Emphasis)  
Arkansas State University, Jonesboro, Arkansas

**EXPERIENCE:** Sole Proprietor; Erosion Control of Arkansas (October 2006 to Present)  
Develop Erosion Control/Best Management Practices plans and provide site inspection services.  
Provide construction & installation of erosion control devices for construction sites.  
CAD drafting services.

Part-time Project Engineer; for Carlos Wood, P.E.  
(May 2006 to October 2006), Jonesboro, Arkansas  
Design and plan preparation for subdivisions and site developments.  
Construction layout & inspection for subdivisions, site developments, and highway/street improvements.  
Preparation of permit applications  
Experienced in Autodesk Land Desktop.  
Operating construction layout equipment

Project Engineer; Terracon Consultants, Inc. (GEC),  
(2005 to May 2006), Little Rock, Arkansas  
Construction Inspection and Project Management.  
Participate in Major and Minor Modification Permit Applications.  
Leachate Remediation Projects and Reports.  
Annual Engineering Reports.  
Work with State Regulators and Arkansas State Regulation 22.  
Worked under Professional Engineer on several other Solid Waste compliance projects.

Operator / Safety Manager; Cline Trenching  
(1994 to May 2005), Jonesboro, Arkansas  
Coordinated and overseen safety meetings.  
Participated in construction projects for various utility companies.  
Performed utility locates.

## **Bruce Wood**

**CERTIFICATION:** 1996, Certificate, Traffic Signalization  
1996, Certificate, Nuclear Density Technician  
1996, Certificate, American Concrete Institute Technician

**EDUCATION:** 1977, Graduate of Brookland High School  
Brookland Arkansas

**EXPERIENCE:** Engineering Technician; for Carlos Wood P.E. (2007 to Present)  
Construction layout & inspection for subdivisions, site developments,  
and highway/street improvements.  
Operating construction layout equipment.

Construction Layout Technician; Meadows Construction (2004 – 2007)  
Performed construction layout for the preparation of earthwork,  
drainage systems, curb, sidewalk and various other aspects.  
Operating construction layout equipment.

Survey Crew Chief; Hime Land Surveying (2002 – 2004)  
Performed construction layout.  
Assisted in performing land surveys.  
Assisted in performing GPS control & network surveys.  
Assisted in performing topographic surveys.

Engineering Technician; Carlos Wood P.E. (1999 – 2002)  
Construction layout & inspection for subdivisions, site developments,  
and highway/street improvements.  
Operating construction layout equipment.

Street Maintenance Supervisor; City of Jonesboro (1996 – 1999)  
Managed personnel performing various maintenance tasks.  
Managed traffic signalization network.

Group Leader; City of Jonesboro Engineering Dept. (1984 – 1996)  
Managed personnel for the construction layout crew.

Engineering Aide; City of Jonesboro Engineering Dept. (1978 – 1984)  
Assisted in construction layout.