

Statement of Qualifications

For

Land Development Engineering

2016





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STATEMENT OF QUALIFICATIONS

INTRODUCTION

H & H Resources, Inc. (HHR) was founded and incorporated in 2001 as a civil engineering consulting firm to assist clients in finding practical, feasible, and economical civil engineering design and permitting solutions. Our goal is to deliver products and services that are on time, accurate, and within budget. **HHR** staff has experience with many types of private land development projects, including residential subdivisions, commercial and industrial sites, and drainage, transportation, and other infrastructure projects. **HHR** is registered as a consulting engineering firm to practice in the states of Texas, Georgia, and North Carolina.

Our principals, Eric Friedrich, P.E., CFM and Wayne Fowler, P.E., CFM, each have over 29 years of experience. The staff includes registered professional engineers, GIS specialists, and technical and administrative support, which makes the firm experienced for most types and sizes of land development projects.

To illustrate our company's comprehensive background, our engineers have worked as staff or consultants for the following public entities:

- U.S.D.A Natural Resources Conservation Service
- Texas Department of Transportation
- Georgia Department of Transportation
- Fort Bend County Toll Road Authority, Texas
- Cities of Houston, Fort Worth, Bryan, Georgetown, Texas
- Cities of Atlanta, Albany, Jefferson, Kennesaw, Dallas, and Hiawassee, Georgia
- Georgia Counties: Union, Henry, Lee, Tift, Fulton, Douglas, Hall
- Harris County, TX Flood Control District
- Texas A&M University's Texas Engineering Extension Service
- UT Austin Center for Lifelong Engineering Education
- University of Texas at Arlington

In an effort to serve our clients better, our engineers continue to update their skills by receiving continuing education in various software programs and engineering topics related to drainage and transportation. As leaders in our profession, HHR provides instructors and training courses in the fields of hydrology, hydraulics, and erosion control. Our principals and employees have been involved in the development of drainage standards, policies, and procedures for local and state governments.

LAND DEVELOPMENT SERVICES

HHR has expertise to offer the following services on site development projects:

- **Zoning**
 - Zoning Requests
 - Variances
 - Local Development Regulations, Permits
- **Site Planning**
 - Feasibility Studies
 - Parking Lot Design
 - Site and Pad Grading
 - Utilities
- **Stormwater Management**
 - Storm Sewer
 - Detention/Retention Pond Design
 - Drainage Reports
 - Floodplain Permitting
- **Road Design**
 - Alignment
 - Drainage
 - DOT Access Permit
- **Erosion, Sedimentation and Pollution Control**
 - E&S Plans, Details
 - NPDES Permit Compliance

Our site development engineering requires us to be knowledgeable about federal, state, and local regulations. We have coordinated with local development offices, state environmental and transportation agencies, the U.S. Army Corps of Engineers, utility companies, and the Federal Emergency Management Agency in permitting land development projects.

Our engineers have extensive experience in a variety of design software, technical manuals, and procedures including:

- EPA-SWMM
- NRCS TR-55
- Geopak Drainage
- PowerCivil
- Georgia Stormwater Management Manual
- Texas DOT Hydraulic Design Manual
- AASHTO Highway Geometry standards
- FEMA Flood Insurance Studies (FIS), Flood Insurance Rate Maps (FIRM)

Zoning

HHR can assist a developer in assessing the existing and proposed zoning of potential project locations. We can assist in having zoning changed or in obtaining zoning variances. Our experience includes working closely with local government officials to prepare designs which comply with all local requirements. We have experience presenting designs to zoning boards and city councils for approval.

Site Planning

If a developer needs to know the cost, regulatory, or design issues related to the proposed project, HHR can prepare a feasibility study. We have experience designing sites in all terrains, from steep mountain regions to flat coastal plains. Each type of terrain presents its own challenges which require unique designs to accommodate the developer's requirements for the site. We have designed land development sites in large cities, small towns, and developing rural areas. Our designs strive to balance cost, constructability and functionality.

Our site designs have included parking lot layout, site grading, onsite wastewater treatment, municipal sewer and water extensions, and coordination with utility companies. We have prepared earthwork and other quantity estimates, opinions of probable cost, and bid documents. An important feature of our site design experience is coordinating with the client's architect to achieve an overall project that meets the client's design objectives.

Stormwater Management

Local requirements for stormwater management often control the design and layout of a proposed site. Our engineers have experience working with local officials to follow local stormwater management requirements. Water quality concerns have become a major component in stormwater management designs and detention/retention ponds and pipe networks must function to meet the water quality and runoff requirements of a site.

Some sites require compliance with FEMA's National Flood Insurance Program (NFIP) and local floodplain ordinances. As Certified Floodplain Managers, we have extensive experience with floodplain engineering related to the NFIP and can provide engineering solutions related to floodplain mitigation and flood map revisions/amendments. Drainage projects have also required HHR to coordinate with the U.S. Army Corps of Engineers and state environmental regulations.

Roadway Design

Industrial, commercial, and particularly residential developments have the potential to require design of roads. HHR's road design experience includes highway geometry that meets AASHTO standards, drainage design for bridges and culverts, stormwater management, DOT access permits, and related pavement marking, signage, and traffic control using MUTCD.

Erosion, Sedimentation and Pollution Control

HHR understands and applies the erosion, sedimentation and pollution control requirements for construction projects. Members of our staff are certified instructors for erosion control licenses in the state of Georgia, and teach erosion control to TxDOT employees. We have completed SW3P plans in Texas, and ESPCC designs in Georgia and North Carolina. In addition to working with local and state regulations, our engineers have experience with the National Pollutant Discharge Elimination System (NPDES) stormwater permitting program.

KEY PERSONNEL

At **HHR**, we value our employees and believe they are second to none. Our experienced professional staff of civil engineers, hydraulic and transportation engineers, GIS professionals, technical support and administrative personnel are selected based on their exceptional qualifications in our areas of expertise to provide our high standard of quality to ensure consistent client satisfaction.

Wayne E. Fowler, P.E., CFM

Vice President

B.S. Engineering, Auburn University, 1983

Post-graduate studies, Auburn University, 1984

Mr. Fowler is a registered professional engineer in Georgia, Texas, North Carolina, and Alabama. He has over 30 years of experience in a variety of public and private sector civil engineering projects, particularly in hydrology and hydraulics analysis and design, and has been involved with land development projects since 1984 including site layouts, grading and drainage, utility design and coordination with various public entities and regulatory agencies. He has managed roadway, drainage, floodplain, utility, and land development projects. He has served as a County Engineer and Floodplain Administrator. Prior employment experience includes USDA-NRCS; engineering consulting firms in Texas, Georgia, and Alabama; and a 2-yr international assignment in water resource development.

He has provided engineering design and analysis for water resources projects including, bridge hydraulics and scour analysis, municipal and transportation storm sewers, pump stations, detention facilities, pavement drainage, and erosion control. Software experience includes HEC-1, HEC-HMS, SWFHYD, HEC-2, HEC-RAS, HY-8, WSP2, PeakFQ, XP-SWMM.

Mr. Fowler is especially qualified for projects that have National Flood Insurance Program (NFIP) implications, having prepared over 90 Conditional Letter of Map Revision (CLOMR) and LOMR applications, No-Rise certifications, and other NFIP- or FEMA-related submittals in Texas, Georgia, and North Carolina. He has assisted with countywide floodplain mapping and floodplain map modernization projects. He has extensive experience in watershed hydrology, floodplain analysis, bridge, floodway, and encroachment modeling, coordination with FEMA, and floodplain/floodway delineation.

Mr. Fowler is a member of the American Society of Civil Engineers (ASCE), Association of State Floodplain Managers (ASFPM), and Georgia Association of Floodplain Management (GAFM). He is an instructor in Georgia's Erosion Control Certification Program.

Adam Faulkner, P.E., CFM

Engineer

B.S. Biological Systems Engineering, Virginia Polytechnic Institute & State University (Virginia Tech), 2002

Mr. Faulkner works from the Blairsville, GA office, and has over 14 years of experience in public works improvement projects, stormwater facility maintenance management, land development, and stream/wetland restoration. His recent employment experience includes the Hall County Georgia Public Works Department where Mr. Faulkner performed permit review, design and construction phase services. He has also participated in stream and wetland restoration projects and land development projects.

Mr. Faulkner is member of Georgia Association of Floodplain Management and a Certified Floodplain Manager in the State of Georgia. He is experienced in the use of various computer programs including ArcMap, Spatial and 3D Analyst, HEC-RAS, Microstation and Geopak.

PROJECTS

Our land development projects vary in size and scope. The following is a sample listing of projects that demonstrate some of the various types of services we can provide for land development projects.

- **Brookview Heights, East Ellijay, GA (2012);** Erosion and sediment control Corrective Action Plan for emergency stabilization of 60 acre site under GDNR-EPD Consent Order.
- **Flint River Preserve, Warwick, GA (2013);** Base flood elevation and Letter of Map Revision (LOMR) for proposed 300+ acre residential development along the Flint River. Design software: USGS PeakFQ, HEC-RAS, Microstation
- **Union County Farmer's Market, Blairsville, GA (2010);** Site, grading, drainage, utility, erosion control design. Coordinate with architect. NPDES compliance. Local permitting.
- **Reeves Construction, Perry, GA (2009);** Site and grading design for asphalt plant. Hydrology report. Local permitting.
- **Grace Presbyterian Church, Blairsville, GA (2008);** Site and parking lot layout, pavement design, grading, drainage, erosion and sediment control design, underground stormwater detention. Local permitting.
- **Appalachian Community Bank, Murphy, NC (2008);** Site and parking lot layout, grading, drainage, erosion and sediment control design. Coordinate with geotechnical engineer, architect. Local permitting.
- **Young Harris Village, Young Harris, GA (2008);** HHR provided services to extend water and sewer service to this 20-lot residential subdivision. Services included pressure and flow testing, design, permitting, coordination with city and state agencies, construction observation. The sanitary sewer system included two lift stations.
- **Fatz Café, Blairsville, GA (2007);** Site design and drainage impact analysis, storm drain design.
- **Foggy Bottom S/D, Union County, GA (2007);** Community water system design, including wells, pumps, storage, distribution. Local and state permitting.
- **The Arbor S/D, Union County, GA (2006);** This project is a redevelopment of an industrial site to a mixed-use upscale residential community with adjacent commercial zone. HHR provided drainage design for new roads, and hydrologic analysis and hydraulic design of spillway for new lake.
- **Best Western Hotel, Hiawassee, GA (2005);** Site, parking, grading, drainage, sanitary sewer design extension. Local and state permitting.
- **Rivendell S/D, Towns County, GA (2005);** Sewer collection system, onsite wastewater management system design. Local permitting.

- **Cadence Bank, Blairsville, GA (2002);** This new bank retained HHR to provide site design services. Services included coordination with architect, site and parking layout, grading, drainage, paving, stormwater management, utilities, local permitting.
- **Cox Circle Development, Forsyth County, GA;** HHR developed a floodplain impact study and No-Rise Certification for a new residential development adjacent to Dick Creek. The study included hydrologic and hydraulic analysis to determine both upstream impacts due to floodplain encroachment, and downstream impacts due to loss in storage volume. This analysis determines the need for onside stormwater management. Local regulations required a floodplain storage assessment to ensure that 100-year storage volume was not decreased.
- **Fox Lake, Union Co, GA;** This aging spillway was to be replaced, and embankment enlarged to accommodate a road crossing for a proposed residential subdivision. HHR provided hydrologic analysis of watershed and hydraulic design of proposed spillway, determination of base flood elevations along Zone A floodplain, and floodplain impact analysis of improvements.
- **Sunset Valley RV Park Bridge, Union County, GA;** HHRs services on this new development project included design and permitting for the community water and sewer systems, hydraulic design of covered bridge, and determination of floodplain elevations. The floodplain evaluation included two mountain streams that converge on this site. The 1% flood diverts between the streams, requiring complex modeling in HEC-RAS. We also evaluated the impact of the proposed bridge crossing on the Zone A floodplain.

REFERENCES

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