

Job Title:

Civil Engineer

Position Reports to:

**President or Project Engineer
Peak Engineering & Design, PLLC**

Responsibilities and Duties

Candidate should be capable of performing tasks such as producing drawings from sketches and layouts prepared by others with limited supervision. Should possess AutoCAD Civil 3D or comparable knowledge, with the ability to learn and increase efficiency while executing production work. Candidate should be motivated, with a sincere passion to grow and excel in this field. Candidate will have good organization and mathematical skills, be able to work in a fast paced and ever-changing environment and is expect to be challenged to assist in the production of high quality, cost effective, on-time design documents as part of a team.

Candidate will be responsible for the preparation of Civil Engineering plans using traditional design tools to create the following: layout of roads, lots, and buildings; establishment of street cross-sections and profiles; site grading; erosion and sediment control design; drainage area maps and calculations (hydrology and hydraulics) and relevant details; storm drainage layout, storm water management design, details, drainage area maps and calculations (hydrology and hydraulics), water system layout, design flow estimate and flow network hydraulic calculations; sanitary sewer system layout & profiles, design flow estimate and flow network hydraulic calculations.

As a professional Engineer, the Candidate will design to promote the public's health, safety and welfare. Duties will include:

- Analyze survey reports, maps, drawings, aerial photography, and other topographical or geologic data to plan projects;
- Prepare or review public reports, such as bid proposals, deeds, environmental impact statements and property and right-of-way descriptions.
- Estimate cost and quantities of material, equipment, and labor to evaluate project feasibility;
- Plan and design transportation or hydraulic systems and structures, following construction and government standards, using design software and drawing tools;
- Compute grade requirements, water flow rates, and other factors to determine design specifications;
- Meet fixed deadlines working as part of a project team;
- Exercise considerable judgment and initiative in the performance of job duties;
- Prepare submittal packages from municipality checklist and other requirements;
- Coordinate with clients, coworkers, consultants, contractors and regulatory agencies for any architectural, engineering or construction coordination issues.
- Work with local municipalities and other public agencies to plan, design and coordinate the approval of various civil engineering projects
- Direct construction, operation, and maintenance activities at project sites;
- Inspect project sites to monitor progress and ensure conformance to design standards and specifications;

- Knowledge of advanced civil engineering techniques, including hydrology, storm water design and/or roadway design;
- AutoCAD Civil 3D Proficiency;

Licenses, Certifications and Registrations

Bachelors of Science degree in Civil Engineering

Ability to obtain a North Carolina Professional Engineering license within 12 months

5-7 years of progressive work experience in the civil engineering site development field

Must possess a valid North Carolina Driver's License.

Physical Requirements

While performing the essential functions of this job, there is frequent need to sit; stand; walk; talk; hear; distinguish between shades of color; use hands to finger, handle, or feel; and lift and/or move up to 25 pounds without assistance.

Additional Skills

Additional skills may include:

- Intricate knowledge of AutoCAD (Civil 3D), Microsoft Word and Excel, Microsoft Outlook, Adobe, Photoshop and other design software
- Working knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
- Residential, commercial, office and institutional experience preferable
- Experience working with local and state government agencies through design approvals
- A creative approach for generating new ideas
- Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and assisting with solutions to issues discussed
- An excellent grasp of engineering and design principles
- Construction Administration experience a benefit
- Good team-working skills
- An appreciation of business demands
- An awareness of the environmental impact of design ideas
- Sound knowledge of civil engineering design principles
- Excellent problem-solving skills and great creative flair
- Ability to review and interpret local zoning and subdivision guidelines
- Ability to explain design ideas and plans clearly
- May directly supervise additional personnel
- Maintains up to date working and technical knowledge of all procedural and improvement changes to computer hardware and software applications
- Develops and drafts complex engineering drawings and plans, drafts contract documents, maintains engineering records, generates correspondence for clients and managers and provides other related technical support on a variety of Engineering Projects

Specific Design Experience

Specific Design Experience Preferred:

- Water and sewage distribution systems
- Storm water management including storm water BMP and Nitrogen design calculations
- Residential and commercial subdivision plan review
- Commercial, industrial and municipal development plans
- Design of transportation projects including municipal streets and parking lots
- These specific skills are a benefit and will be relied upon to determine level of competency:
 - layout of roads, lots, buildings, parking fields, etc
 - water and sewer distribution systems
 - water and sewer profiles
 - site grading
 - erosion and sediment control design
 - drainage area maps and relevant details
 - storm drainage layout, drainage area maps, details and profiles
 - storm water management detail production coordinated with the Responsible Professional
 - roadway layout and profiles
 - establishment of street cross-sections
- Storm water management including SCM layout
- Design of transportation projects including municipal streets and parking lots
- Specific project type should include:
 - Residential subdivision plans
 - Commercial and other retail designs
 - Office building and office park site plans
 - Industrial project layout
 - Greenways and parks & recreation projects