

## **Job Description: Geometric Engineer**

**Position Title:** Geometric Engineer

**Location:** Pietermaritzburg

**Employment Type:** [Contract 12-months]

**Reporting To:** Technical Lead

### **About Us:**

Zimile Consulting Engineers is a leading engineering consultancy in South Africa, delivering innovative and sustainable infrastructure solutions. Our team specializes in the design and implementation of transport and road networks that improve mobility and drive development. We are seeking an experienced and detail-oriented Geometric Engineer to join our dynamic team and contribute to the design and delivery of world-class infrastructure projects.

### **Role Overview:**

The Geometric Engineer will be responsible for the planning, design, and review of geometric aspects of roads, highways, and other transportation infrastructure. The ideal candidate will ensure that all designs comply with standards and guidelines, contributing to the creation of efficient, safe, and sustainable road networks.

### **Key Responsibilities:**

- **Geometric Design:**
  - Develop geometric design solutions for roads, intersections, interchanges, and other transport-related projects.
  - Apply design standards (e.g., TRH, TMH, or SAPEM guidelines) to ensure compliance and quality.
- **Project Planning and Development:**
  - Conduct feasibility studies, site assessments, and route selection for new and existing projects.
  - Collaborate with other specialists to integrate geometric designs with overall project objectives.
- **Software and Tools Utilisation:**
  - Experience with using engineering software such as Civil 3D, AutoCAD, TechnoCAD, Bentley OpenRoads, or similar tools for geometric design and modelling.
  - Analyse and optimize designs for safety, efficiency, and cost-effectiveness.
- **Stakeholder Coordination:**
  - Liaise with clients, contractors, and government authorities to ensure project alignment and adherence to regulations.
  - Provide technical input during project review and approval processes.
- **Data Analysis and Reporting:**
  - Prepare detailed design reports, drawings, and specifications for submission to stakeholders.
  - Perform quality assurance and quality control (QA/QC) checks on design deliverables.
- **Sustainability and Innovation:**
  - Implement sustainable design practices and innovative solutions to enhance project outcomes.
  - Stay abreast of emerging technologies and trends in geometric and transportation engineering.

## **Qualifications and Skills:**

- **Education:**
  - Bachelor's degree or BTech in Civil Engineering or related field.
  - Professional registration with ECSA or eligibility to register is required.
- **Experience:**
  - 5+ years of experience in geometric design and transportation projects.
  - Familiarity with road design standards and guidelines.
- **Technical Skills:**
  - Proficiency in design software such as Civil 3D, AutoCAD, TechnoCAD, or Bentley OpenRoads.
  - Knowledge of road safety, traffic engineering principles, and drainage integration.
  - Strong understanding of earthworks, grading, and terrain analysis.
- **Soft Skills:**
  - Strong analytical and problem-solving capabilities.
  - Excellent communication and collaboration skills.
  - Ability to manage multiple projects and meet deadlines.

## **What We Offer:**

- Opportunities to work on impactful and high-profile infrastructure projects across South Africa.
- A supportive, inclusive, and innovative work environment.
- Competitive remuneration and career development opportunities.