

## JOB DESCRIPTION & PERSON SPECIFICATION

Director Area: Place	Job Ref Number: 02570
Service Area: Design Services (TSP)	Grade: 10

**Job Title: Senior Engineer**

### PURPOSE OF JOB:

Undertaking the **design** of high value (multimillion pound) and / or complex highway or drainage infrastructure projects and programmes. Responsible for all aspects of project delivery and execution, from inception to completion, including procurement, contract management and meeting budget targets.

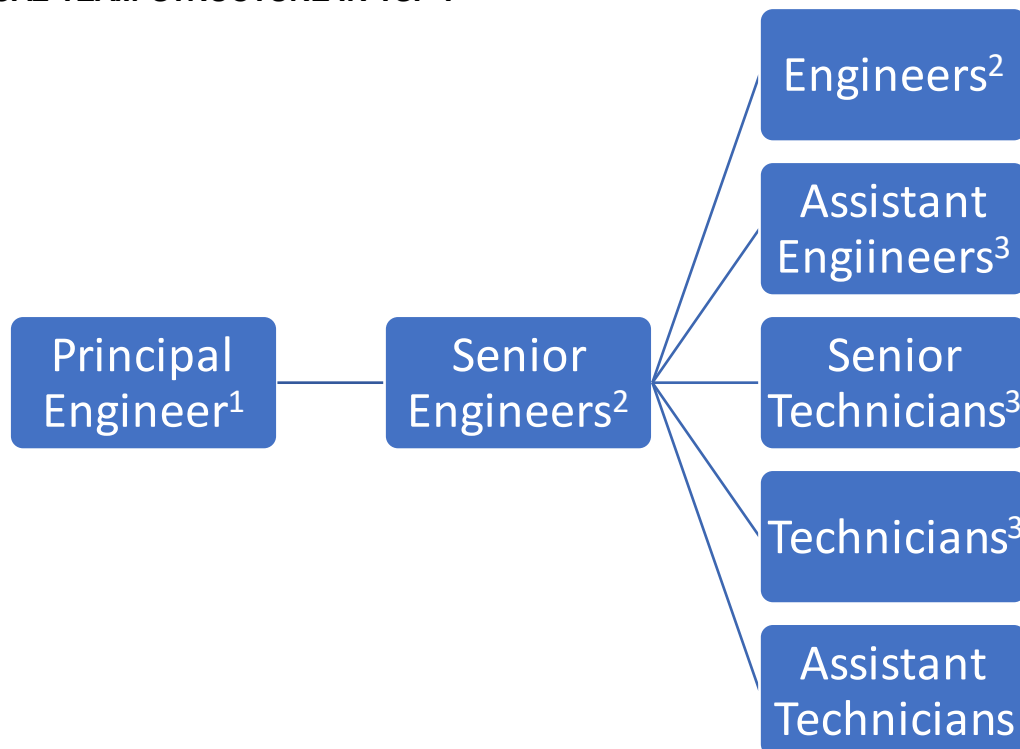
**Asset management** of highways infrastructure, including leading asset-related programmes of work. Providing specialist asset management technical expertise for Lincolnshire County Council and other clients.

To **supervise on site** these projects during construction, including leading the client's supervision team assisting with this.

To **deputise for and assist** the team's Principal Engineer in delivering the relevant technical, asset management and legal duties on behalf of the authority, and undertaking team-management functions.

Provide unparalleled **expertise in specialist technical areas**, within LCC, regionally and nationally. Develop, maintain and promote TSP as a centre of technical excellence and knowledge for the benefit of LCC, other clients and industry bodies..

### TYPICAL TEAM STRUCTURE IN TSP<sup>4</sup>:



### Notes:

1. Line management responsibility for the team
2. Supervisory responsibility within the team
3. Mentoring and development responsibility within the team
4. A number of personnel from the Professional Services Partner may be embedded within the structure, matching the defined roles.

## MAIN DUTIES:

### **People**

- Directly supervising design teams (including when they are working remotely), including being responsible for allocating duties, setting targets, checking outputs and monitoring and taking action in respect of non-conforming products.
- Peer technical reviews of projects managed by others, including sign off of major design decisions.
- Liaison with external specialist teams in other offices to give specific and highly complex technical advice to externally promoted works,
- Leading a site supervision team on the construction phase of the project, including day-to-day allocation and prioritisation of workload to junior staff. The team will be based on site, remote from the technical knowledge base,
- Ensure technical competencies of supervised staff are developed
- Mentoring and development of junior staff managed by others, and providing guidance and expertise for these staff to fulfil their roles.
- Resource planning, identifying recruitment needs, training plan development
- Assist the Principal Engineer in resource planning, identifying recruitment needs, training plan development
- Assist with recruitment of new staff
- Carrying out appraisals of allocated staff, including ensuring technical competences are developed
- Be Delegated Engineer under the ICE approved training scheme
- When supervising construction works outside normal hours, the post holder routinely has autonomy and responsibility for all site supervision matters without the possibility of passing contentious issues needing immediate decisions up the chain of command ,

### **Technical**

- As a professionally qualified engineer (see Person Specification), take responsibility for technical knowledge in relevant specialism areas, resolving complex issues (for both junior and senior colleagues).
- Be expert in design (including calculations) in the relevant specialism areas, with detailed applied knowledge of relevant standards (eg Eurocodes, DMRB, Manual for Streets, BS5489, SuDS Manual etc.).

- Being responsible for

#### **EITHER (in the Roads teams):**

1. Leading and coordinating the design of complex and / or major highway schemes (whether new or improvements) including multiple disciplines across multiple locations

#### **OR (in the Drainage team):**

2. Leading and coordinating the investigation, assessment and design of solutions for complex flood prevention or drainage schemes (whether new or improvements) including within the EA's Flood Defense Grant in Aid process

#### **OR (in the Lighting, Signs and CAD team):**

3. Up to two of:
  - a) the Street Lighting capital programme and budget;
  - b) the Street Lighting revenue programme and budget;
  - c) the Signs and Lines programmes and budgets;
  - d) the management of the CAD team

#### **OR (in the Structures Team):**

4. Up to two of:
  - a) The Vehicle Restraint (safety fencing) asset inventory, programme and budget
  - b) Being the technical expert for highway structures undertaken by third parties, including:
    - checking external designs (and inspecting their construction on site) for compliance with LCC standards, adequacy and durability

- reporting on failings and promoting remedies
  - resolving tensions between the Highway Authority's needs and the third party's needs (eg. funding and achieving national housing targets)
  - c) the management of the technical aspects of the A17 Cross Keys Swing Bridge, being:
    - Budget management
    - Maintenance programs, including work undertaken by staff and contractors (to mechanical, electrical and hydraulic systems)
    - Procuring and managing the specialist term maintenance contract
  - d) being the County Council's Abnormal Load Officer, including undertaking or initiating structural checks and assessments of highway structures.
- Feasibility, Design, Supervision of schemes (Scale and Complexity increasing with grade)
  - Establishing, recommending and maintaining policy in respect of issues in specialist area, including setting criteria for others to comply with – both internal and external to TSP. Subject to political approval and legal challenge.
  - Where relevant, asset management in specialist area, including updating and maintaining inventory, in accordance with the Asset Management Plan
  - Where relevant, from asset records, develop work programmes for routine and non-routine maintenance
  - Carry out topographical surveys
  - Carry out surveys and inspections in specialist area
  - Prepare technical specifications for new, improvement and maintenance works
  - Writing, publishing and maintaining standing advice for external consultants, laying out LCC's requirements for the design and construction of externally promoted infrastructure projects in the specialist area, including clarifying and defending this when required.
  - Be the technical expert in at least one area of the relevant specialism
  - Act as Site Supervisor under NEC works contracts
  - Fulfil delegated Project Manager functions under NEC works contracts
  - Providing technical guidance and advice in the form of reports, recommendations and analysis in specialist area(s) for internal and external clients (senior officers, members, other authorities, developers etc.) including for strategy development and application.
  - Interpret and check designs (including calculations) prepared by others (colleagues and third parties) against national and local standards, regulations and guidance
  - Preparation of as built drawings and asset records
  - Following legal process for land acquisition, including negotiation and liaison with landowners, their agents, legal and land valuation services
  - Being the most senior officer in the Council with technical knowledge in the relevant area
  - Use of specialist software relevant to the area of responsibility, including making selections and recommendations for its purchase, installation and maintenance.
  - Follow legal order processes associated with the delivery of infrastructure projects (e.g. CPO, Side Roads etc.)
  - Carry out the responsibilities of the Lead Design Engineer as laid out in the Quality Management System

### **Performance**

- Deliver own tasks to time and budget
- Reporting expenditure, and seeking alterations as necessary.
- Where required by specialist responsibilities above, meeting budget management requirements
- Work with clients to achieve successful outcomes, reporting on delivery, programme and expenditure
- Being responsible for the outputs of supervised junior staff, including checking quality, timeliness, adherence to budget constraints and content of outputs
- Identify areas of weak performance and provide / seek support as applicable
- Achievement and monitoring of statutory, national and local performance indicators

### ***Quality, Health and Safety***

- Ensure a safe design is completed, by post holder and others (including subordinate and junior) staff.
- Take responsibility for the final sign off of designs undertaken in TSP and by external consultants.
- When on site, take professional responsibility for ensuring construction site works are undertaken safely and in accordance with national and local regulations and guidance.
- Promote site safety, and health and welfare of both our own and contractors' staff.
- Follow established systems of work, including providing specialist advice for others.
- Promoting and ensuring compliance with the Quality Management System
- Own the relevant Quality Management System processes in specialist areas of responsibility
- If a trained Internal Auditor, undertake audits, including those outside of area of responsibility.
- Lead on procurement of infrastructure projects, including recommending strategy and risk appetite.
- Work within and follow established Health and Safety guidance and regulations, including whilst on site
- Act as Principal Designer's representative for Lincolnshire County Council under the CDM Regulations
- Carry out Gateway reviews of designs, including assessing the work of others to ensure efficient and effective designs and project implementation
- Carry out formal hazard analysis and risk assessments appropriate to the grade and level of work
- Prepare and maintain project risk registers
- Ensure compliance with Quality Management systems and contribute to their improvement

### ***Communications and Relationships***

- Day to day supervision of complex construction projects and programmes of work.
- Respond to members of the public affected by works or proposals
- Carry out media interviews
- Work effectively with third parties such as contractors, suppliers, statutory undertakers, other agencies etc.
- Build relationships with and Influence colleagues, partners and stakeholders
- Where relevant, deal with Central government departments on standards, new material trials and approvals.
- Proactively supply information to the public and the media as required in own area of responsibility
- Be in routine contact with contractors, developers and consultants
- Dealing with stakeholders adversely affected by proposals or works, and those who may disagree with the approach being taken
- Take responsibility for all LCC's duties and decision-making in relation to construction projects when working outside of hours.

### ***Service and Corporate***

- Contribute to the wider management of TSP, including Business Planning, Performance Management etc.
- Deputise for team leader
- If needed for planned supervision of site works, the post-holder is expected to carry out duties (either as additional or contracted hours) on any day of the week, including evenings and nights (applicable payments will be made in accordance with the Council's conditions of services).
- Represent the specialist area at meetings of the Council (e.g. Scrutiny)
- Provide information to develop the County's future budget needs in relation to the specialist area
- Authorise payments to contractors and other service providers

- Where relevant, manage capital and revenue budgets in relation to the specialism

### **Project Management**

- Prepare works cost and fee estimates for relevant schemes
- Prepare works orders and tender documents
- Prepare and follow programmes for delivering of projects
- Monitoring, reviewing, controlling and reporting on projected outturn costs of works
- Assessing tenders and work prices and making recommendations for appointment
- Agree fee levels with clients

## **PERSON SPECIFICATION**

Requirements	Where identified*	Essential/ Desirable
<b>SKILLS</b>		
Be innovative	A I P	E
Provide an integrated approach to performance management, quality standards and service delivery	A I	E
Embed new ways of thinking and working	A I	E
Able to travel around the county (e.g. possess a driver's license)	A	E
Collaboratively work in partnership with public and private sector partners (including contractors and consultants)	A I P	E
Customer care and interpersonal skills	A I P	E
Proactive in management of projects, focused on delivery to time, cost and quality	A I	E
An experienced negotiator.	A I	E
An active problem solver	A I P	E
Able to take staff with you in decisions	I P	E
Building own (and team's where relevant) relationships with colleagues across the organisation	I	E
Comfortable working with ambiguity and uncertainty.	I	E
Self-motivated and organised	A I P	E
Good written English communication and comprehension	A	E
Good verbal English communication	I P	E
Good numerical skills	A	E
Good spatial awareness skills (including interpreting plans and technical drawings)	A	E
<b>QUALIFICATIONS</b>		
Certified technical and professional competence, proved through IEng or CEng Membership of an appropriate professional institution achieved through independent review or test	A I	E
Appropriate certification through the Construction Skills Certification Scheme (achieved in probationary period if necessary)	A	E
IOSH or LCC equivalent Managing Safely Certificate (commenced in probationary period if necessary)	A	E
Relevant management qualification	A	D
<b>KNOWLEDGE</b>		
Knowledge of relevant specialist software	A I	E
Knowledge of the NEC, especially the Engineering Construction, Term Service and Professional Service contracts	A I	E
Knowledge and experience of the effective management /	A I	E

supervision of staff.		
Working knowledge of the roles under the CDM Regulations	A I	E
Specialist knowledge of relevant design standards, specifications, construction techniques and legal regulations relating to specialist technical area	A I	E
Relevant knowledge of specialist design, analysis and asset management IT systems and software	A I	E
<b>EXPERIENCE</b>		
Experience in managing budgets and financial reporting to meet the County Council's Financial Regulations and Procedures.	A I	D
Experience of acting as Site Supervisor (with relevant Project Manager's delegated powers) under NEC contracts	A I	E
Experience of acting as Project Manager under NEC Engineering and Construction Contracts	A I	D
Broad experience (8 years) in EITHER: <ul style="list-style-type: none"> <li>- design and construction supervision of <b>road improvement and maintenance schemes</b>, new road schemes and the delivery of multi-disciplinary major highway schemes OR</li> <li>- design, maintenance, improvement, construction supervision and asset management of highway structures OR</li> <li>- investigation, assessment, design, construction supervision and maintenance of flood prevention and surface water drainage systems</li> <li>- design, maintenance, improvement, works supervision and asset management of street lighting, illuminated signs and bollards and/or non-illuminated signs and markings</li> </ul>	A I	E
Preparation of appropriately detailed hazard analyses and risk assessments	A I	E
Experience of undertaking project risk management	A I	E
Performance management of services, including development and monitoring of key performance indicators, setting of targets and challenging below target performance.	A I	D
Experience in the recruitment and management of a team of staff including work allocation and resource planning	A I	D
Estimating works and fee costs for projects	A I	E

\*A = Application form      T = Test/Assessment      I = Interview      P = Presentation

## GENERAL

The postholder is required to take personal responsibility for contributing to organisational transformation and changes in ways of working, maximising the benefits and efficiencies for both internal and external customers, including the promotion and use of self-service to achieve maximum cost effectiveness.

The postholder is expected to work to the [Lincolnshire County Council Core Values and Behaviours](#) and to carry out the duties in accordance with Lincolnshire County Council policies.

**Other Duties** - The duties and responsibilities in this job description are not exhaustive. The post holder may be required to undertake other duties within the general scope of the post. Any such duties should not substantially change the general character of the post. Duties and responsibilities outside of the general scope of this grade of post will be with the consent of the post holder.

**Safeguarding** -. All employees need to be aware of the possible abuse of children and vulnerable adults and if you are concerned you need to follow the Lincolnshire County Council Safeguarding Policy. In addition employees working with children and vulnerable adults have a responsibility to safeguard and promote the welfare of children and vulnerable adults during the course of their work.

**Job Details:**

<b>Job Title</b>	Senior Engineer
<b>Identifier</b>	02570
<b>Director Area</b>	Place
<b>Service Area</b>	Design Services
<b>Section</b>	
<b>Date</b>	02/07/2018
<b>Score</b>	578
<b>Grade</b>	Grade 10
<b>Description</b>	

**Factor Levels:**

<b>Supervision/Management Of People</b>	3.1
<b>Dispersal Awarded</b>	No
<b>Creativity &amp; Innovation</b>	5
<b>Contacts &amp; Relationships</b>	5
<b>Decisions - Discretion</b>	3
<b>Decisions - Consequences</b>	3
<b>Resources</b>	1
<b>Work Demands</b>	3
<b>Physical Demands</b>	2
<b>Working Conditions</b>	1
<b>Work Context</b>	2
<b>Knowledge &amp; Skill</b>	6