Job Description

Job Title: Design Engineer

Grade: P1

Overall purpose of the job

To support the Design Services Manager and other managers within Place & Sustainability in delivering the Council and Directorate's objectives through joined-up service planning, community engagement and the flexible use of resources.

The design team will work with wider teams within Infrastructure and Project Delivery to progress local infrastructure projects and maintenance projects with varied levels of difficulty, being the main point of contact, and centre of excellence on those projects which require design input.

The team will be responsible for developing the design of the project in line with CDM 2015 requirements to meet the agreed objectives, whilst working to a defined scope, budget, and programme.

Main accountabilities

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1.	**Project Delivery** Lead all aspects of the planning and design of local infrastructure projects (e.g., highways, bridges, rights of way, etc), taking full account of design and health and safety matters. Monitor progress and expenditure through regular meetings. Represent the County Council at meetings, including public meetings. Ensure projects take due regard of the needs of all users of the network, especially those who are vulnerable or have particular needs. Liaise with colleagues across the directorate and the Council to ensure the service / projects are delivered in the most efficient, effective, and co-ordinated manner. Respond and provide advice to the public in relation to scheme progress and design. Be the design lead on medium complex infrastructure projects in agreement with your line manager. Escalate serious problems and disputes, recommending appropriate action. Monitor consultants and contractor's performance and delivery of the design programme of local infrastructure projects. Consult and liaise with other statutory and local groups to achieve acceptable solutions for all.
2.	**Technical Understanding** Keep up to date with changing guidance and standards, sharing new concepts with the team and promoting best practice. Lead on new initiatives through testing new concepts particularly when it comes to reducing carbon in our construction phase. Oversee the monitoring and record change control throughout all design packages.

	Able to diversify between a range of highway related design packages and seek to broaden exposure through ownership of multiple highway design disciplines. Seek growth areas for additional design capability and complexity. Review design choices and champion best value solutions in terms of social, Environmental and Financial benefit.
3.	**Financial, Programme and Risk Management** Be able to work to an agreed design programme to deliver work on time. Monitor and manage expenditure against project budgets. Feed financial information to the Principal Engineer. Maintain project risk registers and comply with management processes. Comply with all relevant Health and Safety legislation and best practice in the planning and design of projects.
4.	**Construction Design Management (CDM)** Take ownership of relevant Health & Safety regulations and how they apply to the design discipline. Be responsible for overseeing Design Technician and Assistant Design Engineer application of the Construction Design and Management Regulation within their design. Challenge design choices and explain how they will impact the outcome of projects in a construction phase. Able to pre-empt the impact design choices will have on the construction phase and end users. Assess the impact of design choices on construction operations and maintain a clear record and change log structure for the team. Oversee design commentary requirements justifying engineering/design choices whilst optioneering and communicating the benefits and constraints of solutions in relation to design options, and their impact on CDM. Ensure there is a continuous learning ethos amongst the team and review the use of change control process.
5.	**Communication and Customer Focus** Support the wider design team in developing projects that best meet the needs of the local community by actively seeking input from local members, key stakeholders, potential users, and the local community, throughout the design of projects. Ensure project sponsors are kept informed of project progress and queries are dealt with sympathetically and within agreed response times. Capable of explaining technical design aspects to non-technical stakeholders.
6.	**Partnership Working** Engage with key partners such as the District Councils, Department for Transport, Highways England, Network Rail, Environment Agency, Local Enterprise Partnership, Community Groups, and others as required, to deliver infrastructure projects that meet the Council's and partners' objectives. Negotiate with stakeholders such as communities, businesses, landowners, public transport operators and Statutory Undertakers to secure the necessary inputs to the project under the direction of the Principal Engineer. Represent the Service on technical working groups as appropriate.

7.	**Effective challenge** Able to delivery technical communications to a varying audience, communicating design choices and concepts, promoting their benefits and identifying the constraints. Able to defend design choices and use constructive challenge when assessing design choices of your peers and public/member challenge. Ensure there is a 'safe to challenge' culture, where design solutions are tested within the team. Take ownership of programme change control as a result of healthy challenge. Oversee the team's Principal Designer outcomes and responsibility during design. Invite challenge on all aspects of design choices and coordinate sign off for construction ready designs. Ensure the team drives continual improvement of our processes and procedures, effectively challenge the way we work and contribute to improved outcomes. Lead new ways of working.
8.	Demonstrate an awareness and understanding of equality, diversity and inclusion.
9.	**Low carbon by default** Engage with partners to understand new concepts and low carbon products and solutions. Able to challenge design options and encourage alternative low carbon solutions taking into consideration a triple bottom line approach including social, environmental and financial benefit throughout the review process. Work in partnership with our supply chain to work up innovative solutions to design that reduce our carbon footprint both in construction phase and following implementation Ability to contribute to our organisational commitment to becoming a Net Zero organisation by 2030.

Qualifications, knowledge, skills and experience

Minimum level of qualifications required for this job

Qualifications Required	**Subject**	**Essential/Desirable**
Degree	Civil Engineering or related subject	Essential
Professional membership (or working towards membership)	Minimum IEng status	Essential

Minimum levels of knowledge, skills and experience required for this job

Identify	**Describe**	**Essential/Desirable**
Knowledge	• Understanding of legislation, practices, programmes, and funding arrangements for transport infrastructure projects. • Understanding of specific legislation relating to highway design. • Extensive knowledge of technical and contractual requirements relating to scheme development, design, and construction. • Traffic management requirements and constraints.	Essential

	• CDM 2015 requirements and responsibilities of Designer and Principal Designer.	
Skills	• Good letter writing and report writing skills. • Strong communications skills both written and verbal including persuading and influencing. Capable of representing the Authority at public meetings, out of hours where necessary. • Ability to develop effective working relationships with senior staff throughout the Authority and staff of external organisations including other Councils and Government agencies. • Comprehensive IT skills including an understanding of spreadsheet and database packages. • Proficient AutoCAD (CAD) user. • Be able to respond in an emergency, to quickly analyse a situation and decide on a course of action without reference to senior colleagues. • Good organisational skills and a flexible approach in planning and promoting work to meet tight deadlines. • Strong commitment to public services and local democracy. • Well-developed customer awareness and sensitivity in consulting and dealing with the public. • Political sensitivity and the ability to manage conflicting priorities. • Ability to plan, manage and prioritise workload to meet deadlines. • Ability to work independently and as part of a team. • Ability to work to deadlines. • Good problem solving and decision-making skills. • Excellent interpersonal skills and a robust attitude to driving progress. • Preparation of committee papers. • Demonstration of a creative and flexible approach to work. • Knowledge and understanding of consultation/ approval/ planning processes for transport projects.	Essential
Experience	• Previous experience in the development, planning, and design of transport infrastructure and related projects. • Experience in budget management (including local government finance), programme and risk management best practises. • Experience in local government practices including dealing with locally elected politicians, the public and media. • Experience of managing external consultants and contractors. • Practical experience in dealing and negotiating with consultants and contractors and other organisations. • Experience producing detailed construction drawings for tender.	Essential

	• Experience undertaking the role of Designer under CDM 2015 and maintaining designers' decision logs and designers risk assessments as required. • Experience in managing, mentoring, and developing less experienced team members.	
Equality, Diversity and Inclusion	• Ability to demonstrate awareness and understanding of equality, diversity and inclusion and how this applies to this role.	Essential
Net Zero	• Ability to contribute towards our commitment of becoming a net zero organisation.	Essential
Other	• Can visit offices and sites, when necessary, where public transport is limited. • Can visit and inspect sites which may have difficult access. • Be able to attend meetings out of hours when necessary.	Essential
Knowledge	• Working knowledge of County Council Standing Orders and Financial Regulations/Practices. • Working knowledge of various highways and planning legislation, codes of practice, etc. • Working knowledge of County Council Policies, Planning Framework and Transport Plan.	Desirable

Disclosure level

What disclosure level is required for this post?	**Options**		
	None		

Work type

What work type does this role fit into? (tick one box that reflects the main work type, the default work type is hybrid)	~~Fixed~~	Hybrid	~~Field~~	~~Remote~~	~~Mobile~~