



Highway design & engineering

Our capabilities extend across the full lifecycle from scheme identification, through design and planning, to construction and beyond. We are a first choice partner of contractors, government agencies, and local authorities. Whether it is the largest and most complex highways projects or local highway improvements we bring the same skill and expertise to the solution.

Outputs

Gentek has the technical expertise to combine extensive experience and skills to fully understand the complexities in all steps and processes involved in the design and construction of highways. These include:

- Scheme identification
- Feasibility studies
- Technical and environmental appraisal
- Public consultation
- Statutory procedures
- Detail design
- Procurement
- Construction supervision

We create multi-disciplined project teams who work closely together and who have a track record of working together to deliver demanding projects on time and to budget. As all skills required are “in house” even for the most complex projects, we can deliver solutions that exceed expectations achieving:

- Value for money
- Balanced environmental impact
- Broad stakeholder and public support
- Optimum solutions to providing for all road users
- Effective control of risk

Consideration of the environment is very important to us. Our environmental specialists are involved from the outset to ensure schemes create the minimum of intrusion, and are in keeping with the natural surroundings.

To identify the optimum route or scheme within a corridor, we consider and balance:

- Cost and engineering feasibility
- Environmental and social impacts
- Land use and landscape effects
- Economic value and affordability
- Road safety and traffic capacity
- Constructability
- Statutory obligations
- Financial and programme risk

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Our approach

At Gentek we believe in understanding the issues and devising practical and often innovative approaches to our clients. We are one of few companies who have a combined Quality, Safety and Environment system implemented incorporating ISO9001, ISO14001 and ISO18001.

We have developed an in-house performance measurement tool called PICASO+ embracing:

- Partnering
- Innovation
- Continuous improvement
- Accuracy
- Staff development
- On time
- + Health & Safety

Each factor is aligned to a measurement tool this enables us to ensure that we are meeting the needs and priorities of the project throughout the project lifecycle.

Matching staff expertise and experience to our projects that is why many of our project managers are PRINCE2 certified. We established our Technology Board to drive innovation and technical excellence through our Heads of Technology.

Utilising the best available technology – and developing new solutions enables Gentek to use our own Virtual Reality and 3D visualisation tools for presenting projects visually to clients and the public.

We use the same tools for virtual construction to identify design problems before construction starts. Whilst, continuing to develop and evaluate design tools to make the design process more efficient.

Outcomes

We advise a wide range of public and private sector clients and provide support at every level of the supply chain. We deliver design and project management services throughout the life of a project. We can be a partner in Design and Build, Early Contractor Involvement or DBFO projects. Our depth of skill and knowledge enables to add value at all stages.

Our flexibility and expertise can be found not just in delivering innovative technical solutions but in client and contractor relationships too. We advance risk sharing, promote effective procurement strategies, and develop new management approaches. Our clients have confidence that we understand their requirements, will exceed their expectations, and will deliver on time and on budget.

Gentek is forward-thinking, creative and inspiring. This is an essential part of the way we work in meeting your highway design engineering needs.