



engenium
smart project delivery

Rail Route Selection & 3D Modelling

Studies have shown that over 80% of the value of a railway is locked in during the selection of the rail corridor. Because the critical path of a project is typically through the approvals process, it is often not possible to revisit the corridor selection later. This is why it is crucial the right team are engaged during the route selection process of your rail project.

Our experience on real projects that have been built, commissioned and are now in operation, provides you with the edge you need to maximise value on your project. We know what works and we apply this knowledge to your advantage.

Our Expertise

Engenium's specialist group of railway engineers and designers are experts at considering all of the factors that determine the best rail route for a particular task, including:

- Project economics
- Rail operations
- Appropriate design criteria
- Drainage/flood mitigation/bridges
- Ground conditions/geological analysis
- Environmental constraints or factors
- Heritage/ethnographic issues.

We utilise recognised industry leaders, experienced designers, the best design hardware and software, train simulation and 3D modelling, to ensure that a reliable fit for purpose railway can be developed for you.

Importantly, our approach and experience enables us to identify potential problems, such as poor ground

Key Service Advantages

- We employ experts in rail engineering and design who will get it right first time, maximising the value of your rail assets.
- During the selection process we identify the best route at the best value before the corridor is locked in, saving you unnecessary time and expense.
- We provide knowledge and experience from designing and delivering real rail projects, so you can be confident you are working with the best.

conditions, and avoid these problems by moving the route before the corridor is locked in.

Our Capabilities

- Development of an overall logistics solution
- Coordination of mapping and survey
- Development of digital terrain models and 3D modelling
- Value engineering and trade off studies
- Drainage and flood assessment
- Geological/geotechnical engineering
- Track design, signals and communications, bridges and other structures.
- Assessment of groundwater needs and development of a groundwater plan
- Services relocations
- Risk analysis
- Assistance with approvals
- Capital and operating cost estimates
- Feasibility studies
- Detailed design and commissioning services
- Project and construction management.

Delivering Value. Delivering Results.