

ZIG-ZAG FOOTBRIDGE

COLCHESTER ESSEX

Our client wished to commission a suitably qualified and experienced consultant to prepare and present options to redesign an existing footbridge which crosses a rail line and links the University of Essex campus, university accommodations and the town centre.

The Frankham Civil Engineering team were successful and awarded the project. The bridge, which also crosses a river and is adjacent to ancient barrows, is part of the Borough's strategic plans to improve mobility and boost travel to and from the university, by pedestrians and cyclists.

Objectives

- Improve the user's experience for pedestrian, restricted mobility users and cyclists
- Improve the security on the bridge and in the immediate vicinity
- Comply with current guidance and legislation including Equality Act 2010
- Ensure the proposals are acceptable to the stakeholders, comprising Network Rail, Environment Agency and University of Essex.

Collaboration

Our team worked with the University and the client in an open and collaborative way to accommodate differing aims and objectives. Progress meetings ensured the client was regularly informed of advancement of tasks and so that the final deliverable took account of client feedback as new information became available. We consulted stakeholders, such as local cycle groups and university staff, to understand how the bridge is currently used and the future usage.

We provided a clear programme and activity schedule for the work we were to undertake. To achieve the timescales and budget outlined from the start, we assembled an experienced team that understood and implemented the tasks in a logical and efficient order.

We provided a wide-ranging report laying out the context of the site, constraints, health, safety, welfare, environmental and project risks, and requirements for improving the existing bridge or the development of a new structure. This information was supported with 2D drawings and

3D concept images to bring all options to life. The report highlighted the design related and technical issues associated with the modification of the existing footbridge or construction of a new footbridge, in order that our client may have a better understanding of the work and thereby costs involved.

Challenges

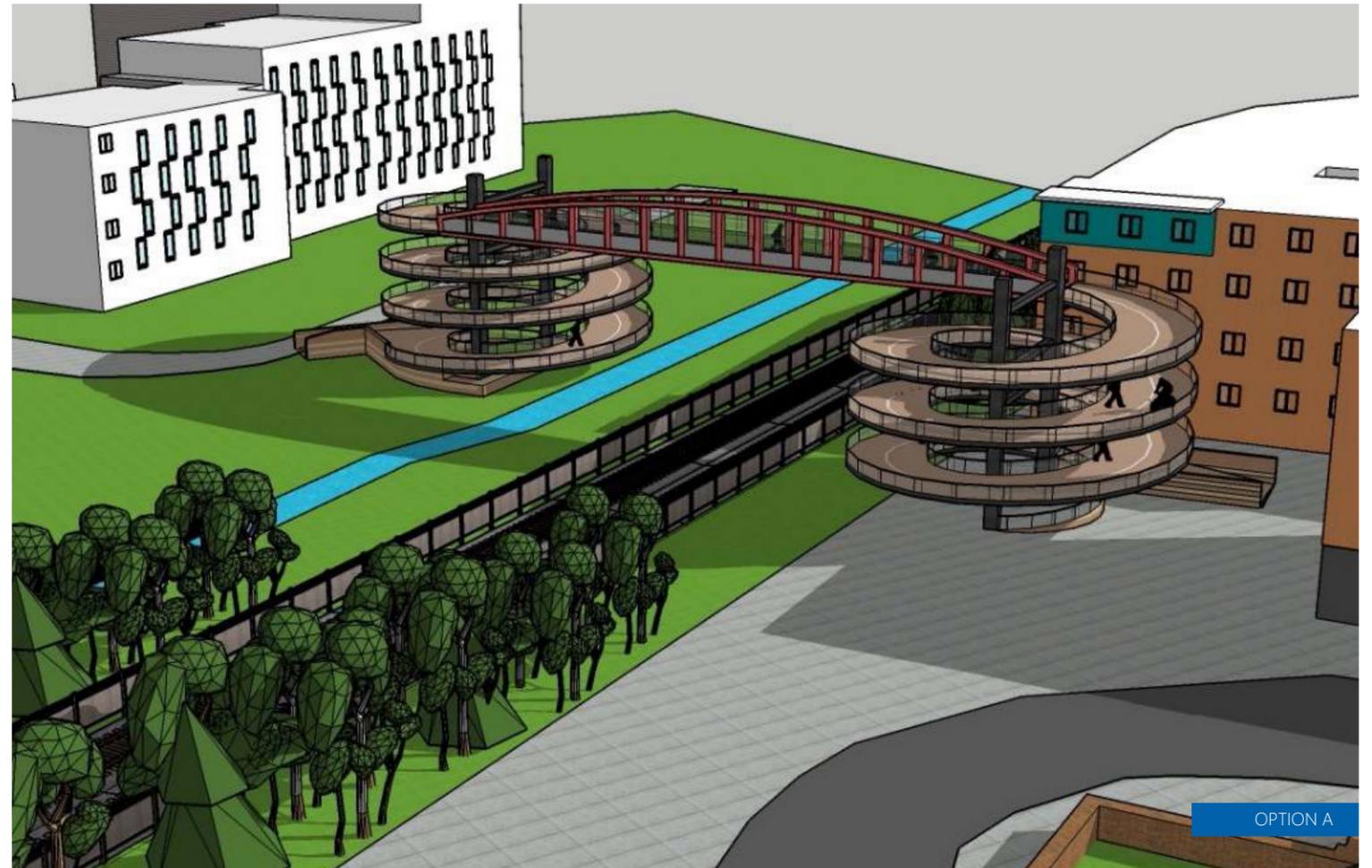
The physical constraints of the site added to complexity of developing solutions, having to consider a heritage site, railway infrastructure, the Salary Brook river and the position of the existing student accommodation.

We were able to present 3 main options; repair, refurbish/remodel and replacement, with each option broken down into sub-options. Additional replacement options were also reviewed.

Innovation

We used a mixture of traditional plan drawing and 3D visualisations to bring specific detail, along with visual interpretation, to the client and stakeholder workshops. All parties were able to see exactly what was being proposed regardless of the level of knowledge in understanding plans.

We delivered a professional and bespoke response to the client's original brief with great success, with the client delighted with the initial stage outcome.



Client
Local Authority

Contract value
£1.5M

Date commenced
10/10/2019

Date completed
09/12/2019

Services
**Civil Engineering
Feasibility
Optioneering
Design
Stakeholder Consultation
Topographical Survey**

