

# CASE STUDY



**Project:** Cranbrook Wastewater Treatment Works - Civil Engineering Upgrade  
**Client:** Bridges  
**Value:** £763,000



## Project Introduction

Coleman Construction & Utilities Limited successfully delivered a complex civil engineering package as part of the upgrade works at Cranbrook Wastewater Treatment Works on behalf of Bridges. The works were undertaken within a live wastewater treatment facility, requiring careful planning to maintain operational continuity throughout the construction process.

The project involved excavation and removal of an existing concrete tank base and underground beams, construction of reinforced concrete structures including RC base slabs, hardstanding's and delivery bunds / roads, duct and draw pit systems installed for separate cable and dosing ducts and pipe and manhole systems within a live wastewater treatment facility.

Through proactive planning, collaborative working, and strong coordination with the client and stakeholders, the project was delivered on time and completed with zero incidents, demonstrating the effectiveness of the company's safety planning and site management.

## Scope of Works

Coleman Construction & Utilities Limited delivered a comprehensive civil engineering package including:

- Breaking out an existing redundant tank base and underground spreader beams.

- RC works including base slabs, hardstanding's and roads including a new delivery bunded area
- Duct and draw pit systems for chemical dosing and electrical systems
- Associated pipework and manhole installations

### Pipework and Manhole Installation

Pipework installations included drainage for new assets and site wide drainage systems, including a new ACO drain for the delivery bund

- Installation of 160mm osma drainage
- Installation of 32mm potable water supplies and connections to existing mains
- Installation of 32mm washwater standpipes
- Intercept chamber installation with manhole rings excavated and concreted and pipework connected including provision of core holes

### Ductwork Installation

- Site-wide ducting infrastructure was installed using 150mm twin-wall ducting, with Cubis RapidStak systems used to construct draw pits across the site.
- This infrastructure supported future electrical and control system installations as part of the treatment works upgrade.

RC Works for package plant kit, hardstanding's and roads

- Bases installed for the package plant kiosks and tanks were installed on hardstanding's and footpaths were installed for accessing site areas.
- A delivery bund with containment hump was completed and coated with chemical application.

**Challenges and Solutions**

Throughout the project, several technical and logistical challenges were successfully managed by the Coleman Construction & Utilities team. This included relocating the stormwater drainage, which enabled the reduction of time and method related risks through the elimination of temporary works.

**Wildlife Management**

During site inspections, the presence of newts was identified within and around the proposed development area. As newts are a protected species, their presence presented ecological constraints and potential delays to construction activities.

To mitigate impacts, a detailed ecological survey was undertaken to determine the species present, population size, and habitat usage. Construction was stopped to determine what species of newts we had on site. Once determined that the species was a smooth common newt, we were advised how to carry on.

**Project Outcomes and Benefits**

The project demonstrated Coleman Construction & Utilities Limited's ability to deliver complex civil engineering works within live operational environments.

Key outcomes included:

- Completing the project within the agreed scope, budget, and programme.
- Delivering high-quality works that met the project objectives.
- Improving operational efficiency and performance.
- Enhancing stakeholder satisfaction and long-term value creation.

The project was delivered to a high standard, reflecting Coleman Construction & Utilities' commitment to quality workmanship, attention to detail, and snag-free project completion