



## BACKGROUND

A leading confectionary brand invested in the development of a new, purpose-built warehouse at its Castleford site, which first started producing the company's famous sweets in 2015. Around 80% of its sweets bought in the UK are produced at factories in Castleford and Pontefract. The 32-acre extension of its facilities will allow the company to manage increased volumes of finished product, stock more raw materials and packaging, and will help safeguard 600 jobs across both of its West Yorkshire sites.

Caddick Construction was appointed as the main contractor and Howard Civil Engineering was appointed as the civil engineering contractor for the project. Howard's £2m contract covered extensive enabling works, main works, and external works over a ten-month programme. Working in close collaboration with Caddick Construction and other stakeholders, the project demanded technical expertise, flexible planning, and the use of specialist equipment to overcome various logistical and environmental challenges.

## SCOPE OF WORK

### Enabling Works

- The enabling phase was critical in preparing the site for the main construction activities. Howard Civil Engineering delivered the following key elements:
- Foul water connection to an existing drainage run and installation of drainage for cabins.
  - Diversion of ducting to allow for excavation of an attenuation tank.
  - Installation of a Puraceptor tank and associated manholes at depths of approximately 5m.
  - Foundation works and general civil support for cabin setup.
  - Excavation works for off-site water connection, enabling future feeding onto the site.

This stage was executed with precision, laying a strong foundation for the forthcoming phases. Working in tight areas and around live services, Howard's teams managed operations efficiently, maintaining safe working conditions while meeting scheduled milestones.

### Main Works

- The main construction phase comprised the delivery of structural foundations and major infrastructure components, including:
- Attendance and support during piling works.
  - Construction of pile caps and main foundations for the factory, offices, and conveyor link.
  - Formation of a 278 entrance and foundations for dock levellers.
  - Complex reinforced concrete works to the Flam and Chiller Store, involving slabs laid to falls and the installation of soffit slabs.
  - Drainage installation, including a second large Puraceptor tank at 6m deep, in challenging ground conditions with no initial outfall, requiring over-pumping solutions.
  - Foundations and installation of a weighbridge, link access roads, fibre reinforced concrete works to a substation, external plant slabs, and ducting infrastructure for follow-on contractors.

### External Works

- The final phase focused on finishing works and external civil packages:
- Formation and paving of perimeter footpaths to all building elevations.
  - Sub-base preparation to external yards, ahead of concrete placement by others.
  - Installation of southern, eastern, and western footpaths.
  - These works were delivered to a high standard, ensuring continuity between internal and external packages and supporting the site's long-term usability.

## PROJECT CHALLENGES

A key challenge emerged post-Christmas, when inclement weather—including heavy snowfall—threatened to delay the critical steelwork milestone. Despite the conditions, Howard Civil Engineering delivered the pile caps for the Flam/Chiller Store ahead of the King Post Wall installation deadline, achieving the required steel date of 17 February.

Drainage installation following the attenuation tank posed another significant hurdle, with no functioning outfall available. This required the team to implement over-pumping solutions to manage water levels safely and effectively.

The 278 works were delayed by the discovery of extensive existing services, extending a two-day formation reduction operation to over two weeks. The team utilised vacuum excavation alongside traditional plant to safely expose and work around the services while adhering to the site's Safe System of Works (SSOW).

Design changes during the conveyor link foundation works presented another obstacle. As-built conditions revealed existing water mains in unexpected locations, requiring live redesigns. Howard's collaborative approach with Caddicks and Severfield ensured the steel installation progressed as planned, showcasing adaptability and problem-solving under pressure.



## SPECIALIST EQUIPMENT AND TECHNIQUES

### Deep Drainage Expertise

The installation of the second 6m-deep Puraceptor tank was carried out by Howard's specialist drainage team using sheet and frame techniques. The team encountered rock, adding complexity to the excavation.

### GPS Excavators

These were deployed for precision excavation of foundations, enhancing both speed and accuracy prior to the engineer's bolt setting.

### HAVS Monitoring

Our operatives wore HAVS watches during pile breakdown operations, ensuring health and safety compliance. This new generation of workplace wearable technology helps workers monitor the risk of exposure to vibration, with sound and vibration alerts inform the wearer if their personalised exposure thresholds have been exceeded.

### Programme Acceleration Workshop

Recognising the critical path status of the Flam and Chiller works, Howard led a site-based workshop to explore ways to reduce durations, including contingency planning for weekend working—a demonstration of our proactive approach to programme adherence.

## OUTCOME

The project is a testament to Howard Civil Engineering's technical capability, adaptability, and commitment to delivery under pressure. Despite challenging site conditions, tight timeframes, and complex interfaces with other contractors, the team maintained high standards of health, safety, and quality.

Through the use of specialist techniques and equipment, and a proactive, collaborative approach, Howard Civil Engineering ensured key timeframes were met and the project remained on track for its planned completion.

