

RAPID PVCU SYSTEMS

DONCASTER, SOUTH YORKSHIRE
STRUCTURAL MODIFICATIONS



PROJECT OVERVIEW

ReviveLogix was appointed by **Crowclad Roofing** to deliver a structural modification package for **Rapid PVCU Systems** in Doncaster.

The project involved altering an existing industrial building to create a significantly wider door opening, improving material movement and reducing operational disruption.

Works included structural design, strengthening of the existing frame, removal and replacement of steelwork, and supply and installation of a new sectional door.

THE CHALLENGE

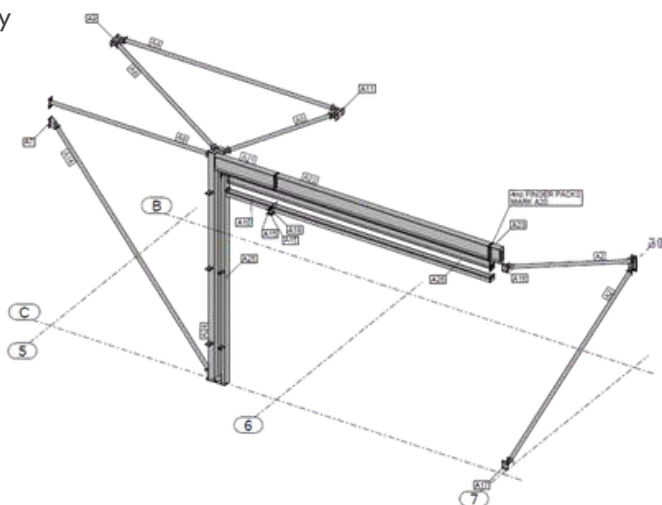
Rapid PVCU Systems required a **7-metre clear door opening** to allow stillages to move safely and efficiently in and out of a key production area.

The existing building was constructed on **6-metre bay centres**, meaning the original door opening was limited to approximately **5.5 metres**. This restricted access was creating operational issues for the client. The door was being regularly damaged, and moving materials through the opening was slowing production.

The challenge was not simply to replace the door, but to structurally alter the building to create the required clear opening while maintaining the stability of the existing frame.

A key complication was that achieving the 7-metre clear opening required the removal of a **main portal column**, which meant the structure had to be carefully redesigned and strengthened to safely transfer loads around the new opening.

Client	Rapid PVCU Systems
Contractor	Crowclad Roofing Ltd
Location	Doncaster, South Yorkshire
Scope	Structural design, steelwork modification, strengthening, sectional door removal and replacement
Key Requirements	Increase the existing door opening from 5.5m to 7m clear
Main challenge	Removal of a main portal column while maintaining structural stability
Outcome	Wider access, reduced door damage, improved material movement and uninterrupted production during works.



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THE SOLUTION

The solution involved removing one of the main portal columns to achieve the required **7-metre clear door opening**.

To maintain structural integrity, ReviveLogix introduced **new bracing** and installed a **replacement column**. The new column was designed and fabricated with rail cleats that aligned with the existing cladding rails, reducing the need for intrusive site alterations and supporting a clean, efficient installation.

A **new transfer beam** was installed in two sections. The splice connection was a critical element of the design and incorporated a pre-set with friction grip bolts to help mitigate deflection once the existing column was removed.

Once the transfer beam and strengthening works were complete, the existing column was cut away and new door frame steelwork was installed. ReviveLogix also cut away the existing blockwork wall up to the face of the new door post, allowing Crowclad Roofing to complete the installation of the new trims and flashings.

By day three, the main structural works and blockwork alterations had been completed. On day four, the new sectional door was installed, providing the client with the required clear opening.

BEFORE



AFTER



Key Highlights

- 7-metre clear opening achieved by removing a main portal column
- Structural redesign to safely transfer loads around the new opening

- New transfer beam installed in two sections with splice connection
- Production continuity maintained throughout the works
- Full works completed over a four-day programme