



Plenitus

CASE STUDY



HENRY STREET GARDEN CENTRE, BERKSHIRE

A Case Study by Plenitus Construction Services

PROJECT OVERVIEW



Project Details

Client: Henry Street Garden Centre

Site: Henry Street Garden Centre, Swallowfield Rd,
Arborfield, Reading, Berkshire, RG2 9JY

Principal Contractor: Vear Group

Overview

In Autumn 2017 Henry Street Garden Centre undertook a 1,600m² redevelopment that would allow the relocation of the restaurant to a bigger building with a terrace, and install a new canopy to improve customer flow between buildings.

A vital aspect of this new project was to ensure any additional structures integrated perfectly with the existing buildings on site.

Plenitus Construction Services Limited (PCSL) were responsible for the surveying the as-built foundations/ brick retaining walls to the outside areas in order to design, supply and install barriers/ handrails as required. Our works was completed in April 18. The overall contract value was circa £25k

SCOPE OF WORKS & METHODOLOGY

SCOPE

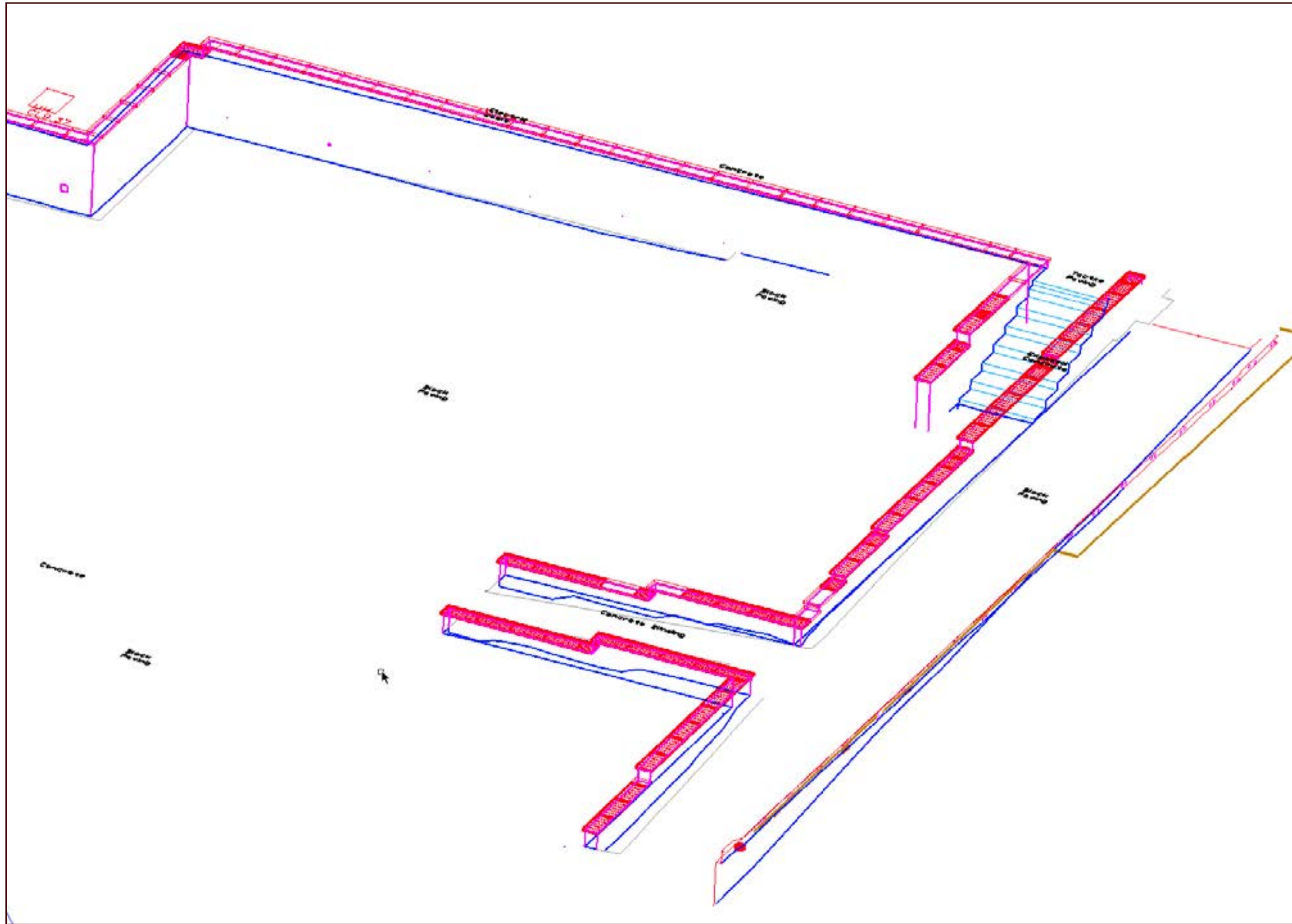
- Design, supply and install the following:
 - 64 linear metres of mild steel railings
 - 24 linear metres of wall mounted railings
 - 21 linear metres of glass balustrading with mild steel post supports

METHODOLOGY

- Site Survey - Following the completion of the foundations and partial completion of the brickwork, PCSL undertook a survey of the existing structures using a total station to obtain a 3d topographical survey of the areas requiring railing and handrails
- Production of 3d AutoCAD Model - From the resulting survey data captured, produce a 3d AutoCAD Model
- Connection Design - Based on loading information provided by the Client, design the railings and balustrading to suit the application as required.
- GA Drawings - Produce GA's by modelling the railings and handrail into a model file, ensuring it complies with the Bldg Regs and review from a buildability perspective; produce 2d GA's for review by Client and their appointed engineer and architect.
- Fabrication Drawings - On approval of GA's, produce fabrication drawings
- Fabrication - Manufacture members in accordance with to BS EN 1090-2: 2008 Execution of steel structures and aluminium structures part 2 – Technical requirements for the execution of steel structures, Execution Class 2 (Exc 2), to meet adequate levels of mechanical resistance, stability, serviceability and durability.
- Installation - Install railings and handrail as detailed on GA's/ Marking Plans
- As-Built Information - Provide As-built Drawings & Design Calculations

DELIVERABLES

3D Autocad MODEL

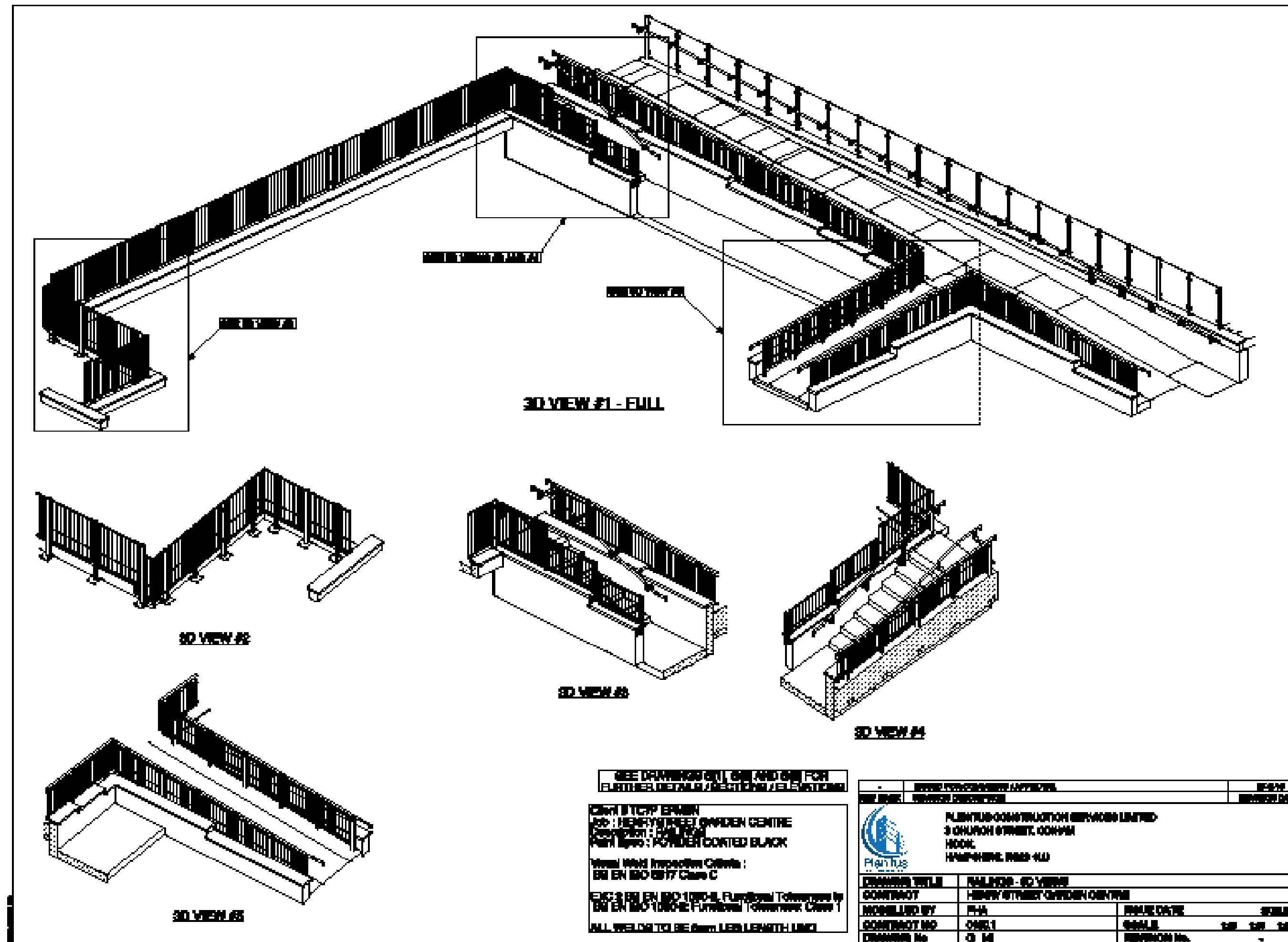


3D Model.

Existing Area

DELIVERABLES

General Arrangement Drawings



3D Model with railing & handrail positioned

External Area

DELIVERABLES

GA & Fabrication Drawings

The image displays a comprehensive set of architectural drawings for railings and handrails. It includes:

- GA's (General Arrangements):** A large central drawing showing the overall layout of the railings and handrails, with various sections and details labeled.
- Fabrication Drawings:** Detailed drawings showing the construction of individual railing and handrail components, including cross-sections and assembly details.
- Section Views:** Vertical section views showing the railing and handrail assembly, including the base, posts, and balusters.
- Area Views:** Horizontal section views showing the railing and handrail assembly, including the base, posts, and balusters.
- Technical Specifications:** Tables and notes providing material specifications, dimensions, and other technical details.

Technical Specifications:

ITEM	DESCRIPTION	UNIT	QTY
1	POSTS	NO.	10
2	BALUSTERS	NO.	10
3	RAILING	M	10
4	HANDRAIL	M	10

Material Specifications:

ITEM	DESCRIPTION	UNIT	QTY
1	POSTS	NO.	10
2	BALUSTERS	NO.	10
3	RAILING	M	10
4	HANDRAIL	M	10

Notes:

- ALL DIMENSIONS ARE IN METERS.
- ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
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Project Information:

PROJECT NAME	CLIENT	DATE
GREEN CENTRE <td>GREEN CENTRE<td>2023</td></td>	GREEN CENTRE <td>2023</td>	2023

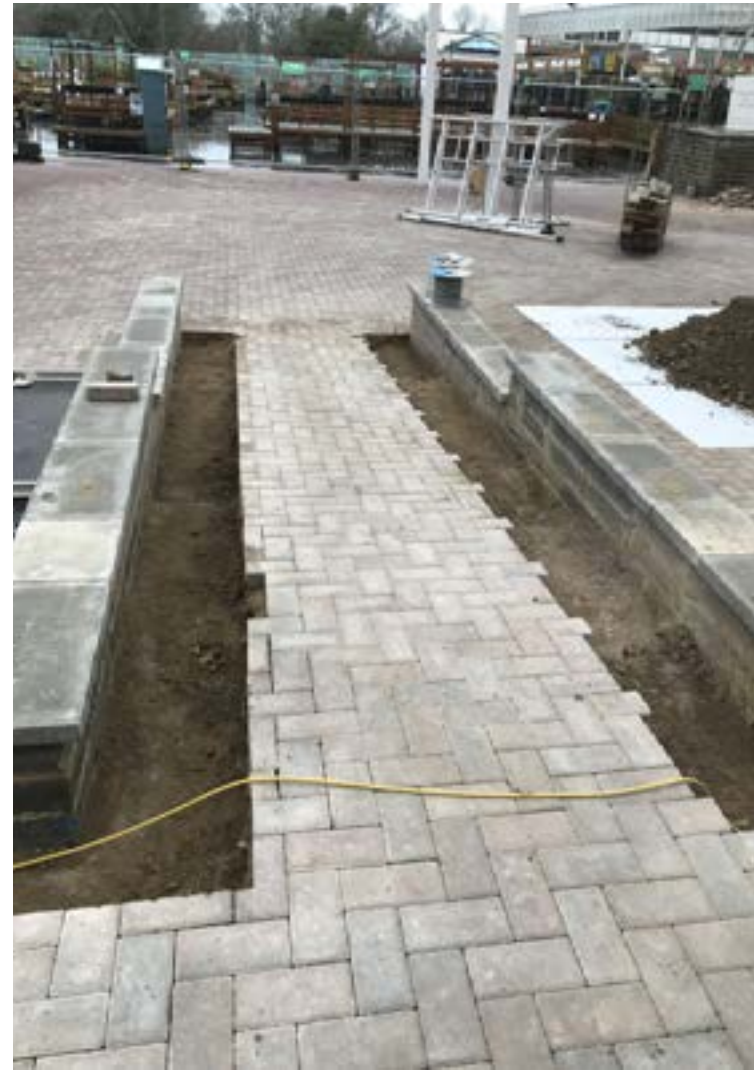
Company Information:

COMPANY NAME	ADDRESS	CONTACT
GREEN CENTRE	1234567890	01234 567890

GA's & Fabrication Package
Railings & Handrail

PHOTOGRAPHS

Pre-Installation



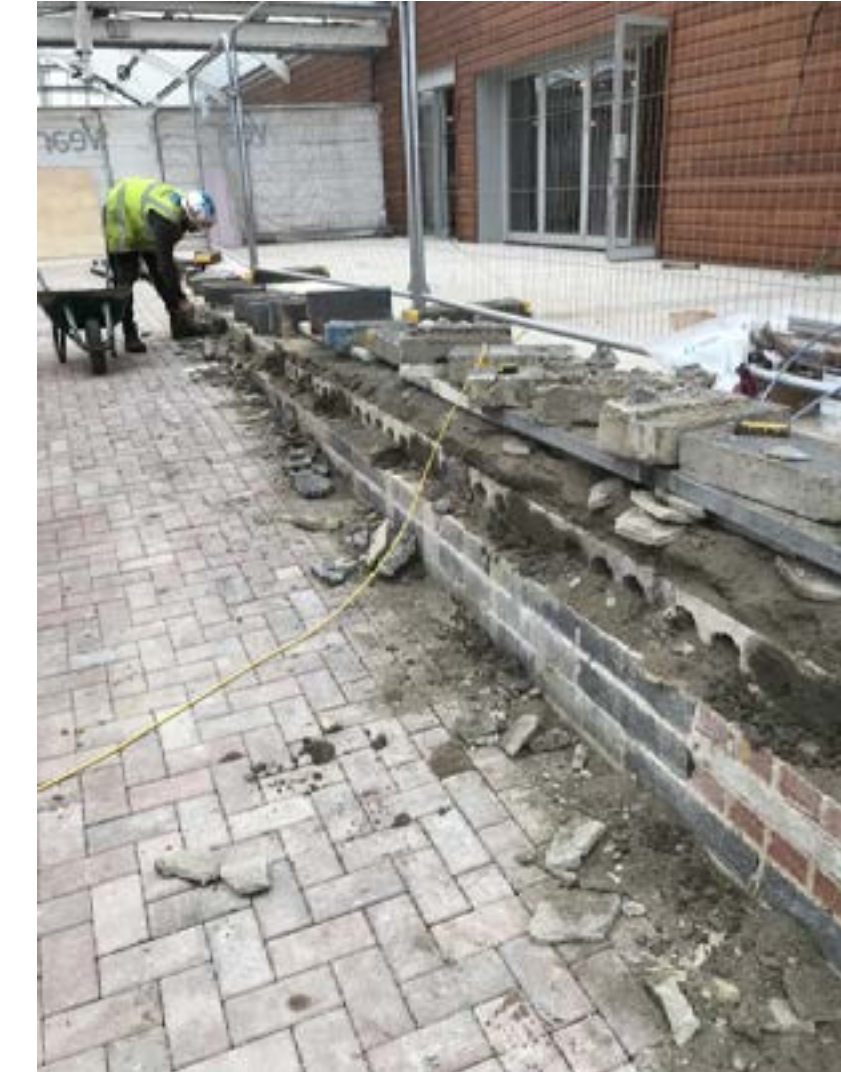
Pedestrian Ramp



Pedestrian Stair



Edge of Raised Area



Edge of Restaurant Patio

Post Installation



Pedestrian Ramp Railings & Glass Balustrading to Restaurant Patio



Railings to Stairs and Raised Platform



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