



CASE STUDY



300 KINGS ROAD, READING, BERKSHIRE
A Case Study by Plenitus Construction Services

PROJECT OVERVIEW



Project Details

Client: Titan Property Development

Site: 300 Kings Road, Reading Berkshire, RG1 4HP

Principal Contractor: Brymor Construction Ltd

Project Value: £6m

Overview

The site is approximately 0.34 hectares and is located on the southside of the A329 Kings Road, directly opposite the Reading College Campus, which is circa 1 km east of Reading Town Centre.

About the Project

This refurbishment project comprised of the remodelling and re-cladding of an existing three storey concrete framed 31,034 ft² office block and its conversion/ change of use to a residential four storey property containing 78 flats and studio apartments.

Plenitus Construction Services Limited (PCSL) were responsible for the supply and installation of the structural steel to facilitate additional floor space within the structure and to provide adequate support to the existing structure as required. The overall contract value was circa £75k

SCOPE OF WORKS & METHODOLOGY

SCOPE

Phase 1

- Design, supply and install structural steel to first floor lobby area, including Comfor to provide additional floor space.
- Supply and install structural steel infills at each floor level within two staircores and infill with Comflor to provide additional floor space.

Phase 2

- Provide trimming steels to existing openings in concrete floor slabs to allow them to be infilled with concrete.
- Provide corner support posts at edge of slab on each floor level to provide fixing points for new glazed units.

METHODOLOGY

- Site Survey - Following the completion of the demolition work, PCSL undertook a survey of the existing structure using a 3d laser scanner.
- Production of REVIT Model - From the resulting point cloud data captured, produce a 3d REVIT Model
- Connection Design - Based on loading informaton provided by the Client, design the steel to steel connections and incorporate into General Arrangement drawings (GA's).
- GA Drawings - Produce GA's by modelling the steelwork into the REVIT model, ensuring there are no clashes and review from a buildability perspective; produce 2d GA's for review by Client and thier 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 steel as detailed on GA's/ Marking Plans
- As-Built Information - Provide As-built Drawings & Structural Calculations

DELIVERABLES

POINT CLOUD

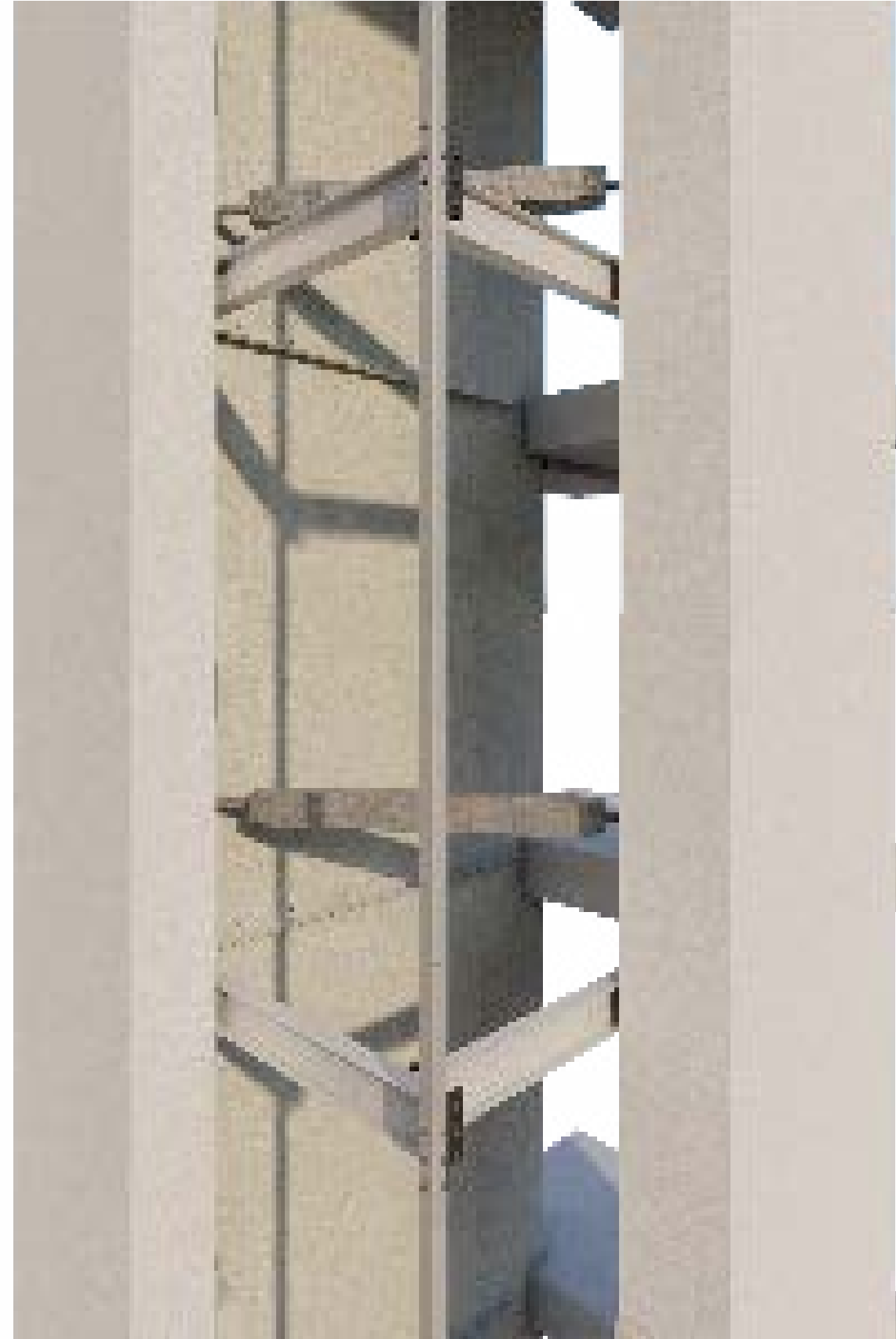


Point Cloud cropped.
Existing Lobby Area

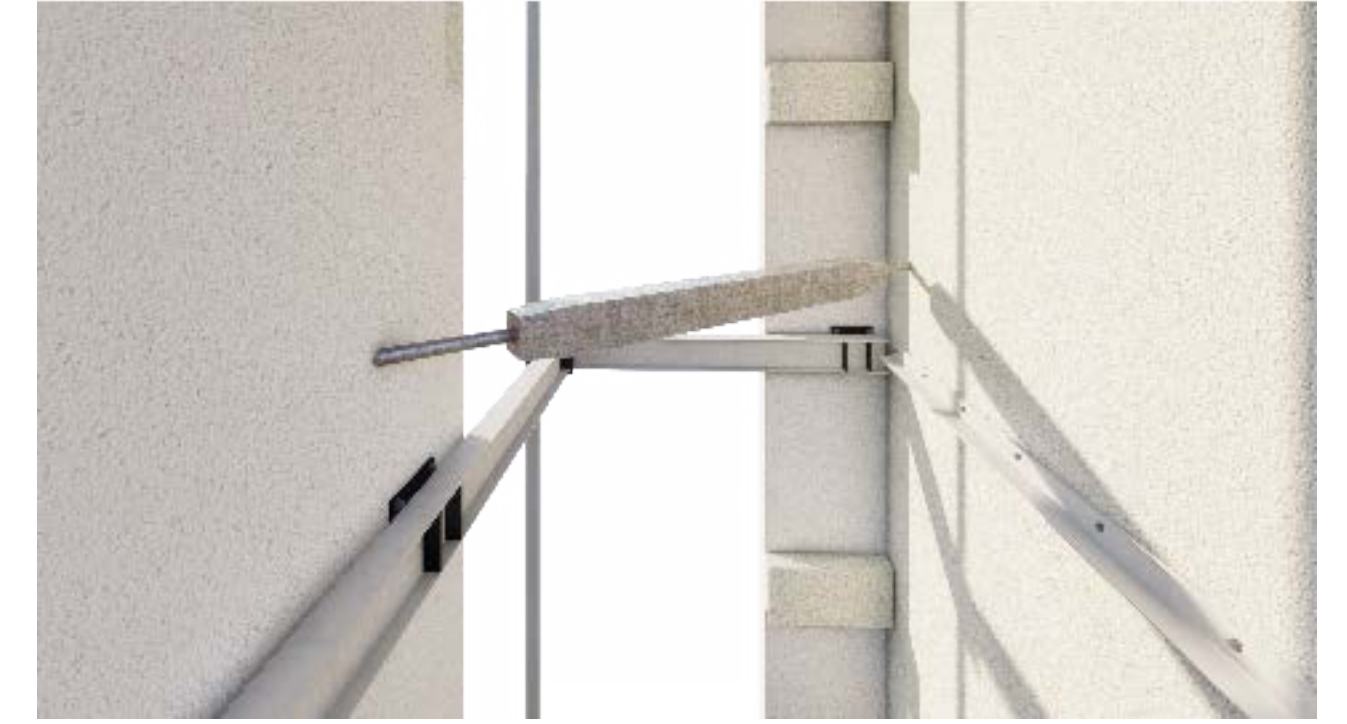
Point Cloud cropped.
Existing Staircore

DELIVERABLES

REVIT MODELS



REVIT Model with steel positioned
Lobby Area

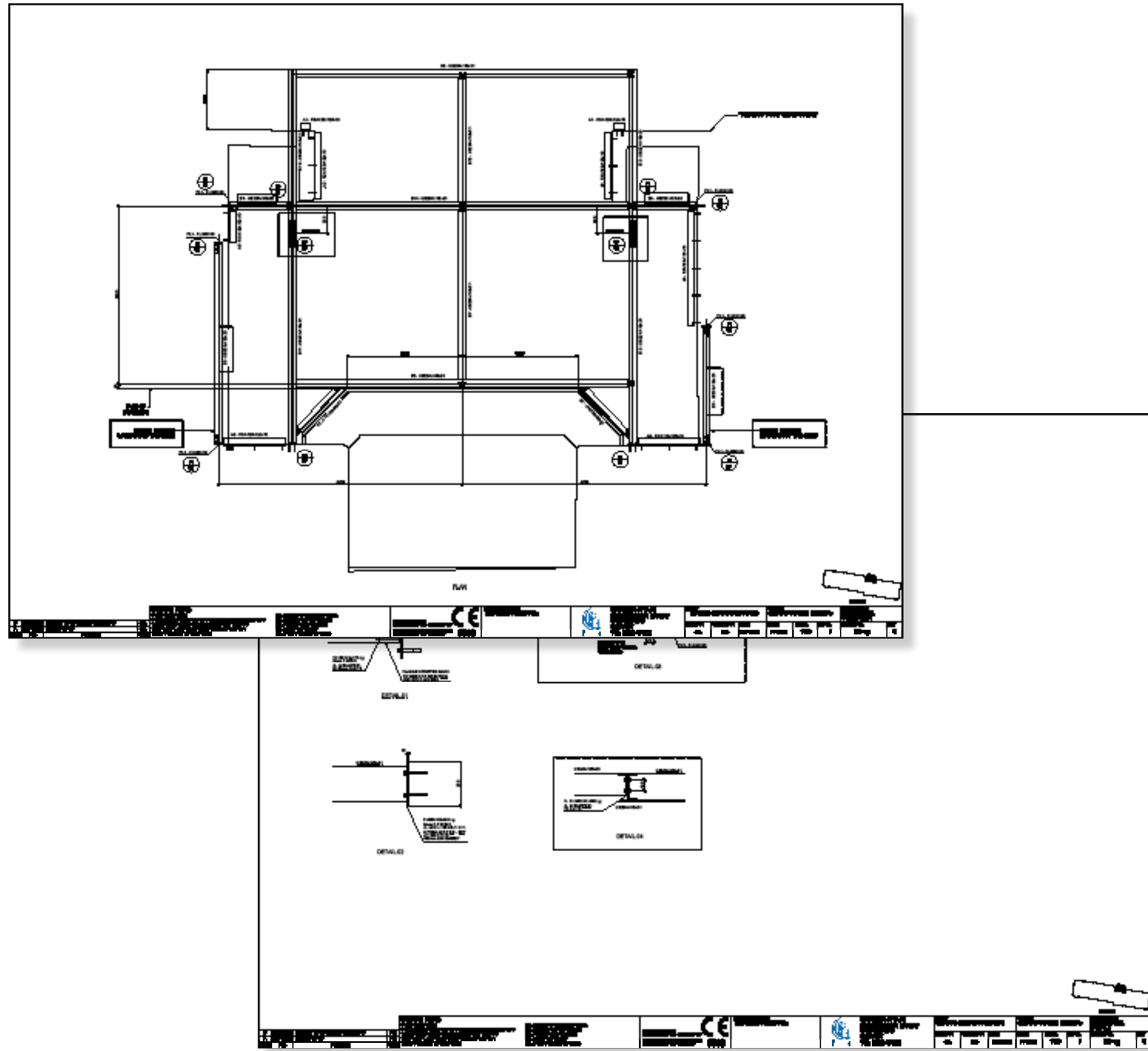


REVIT Model with steels positioned
East & West Staircores

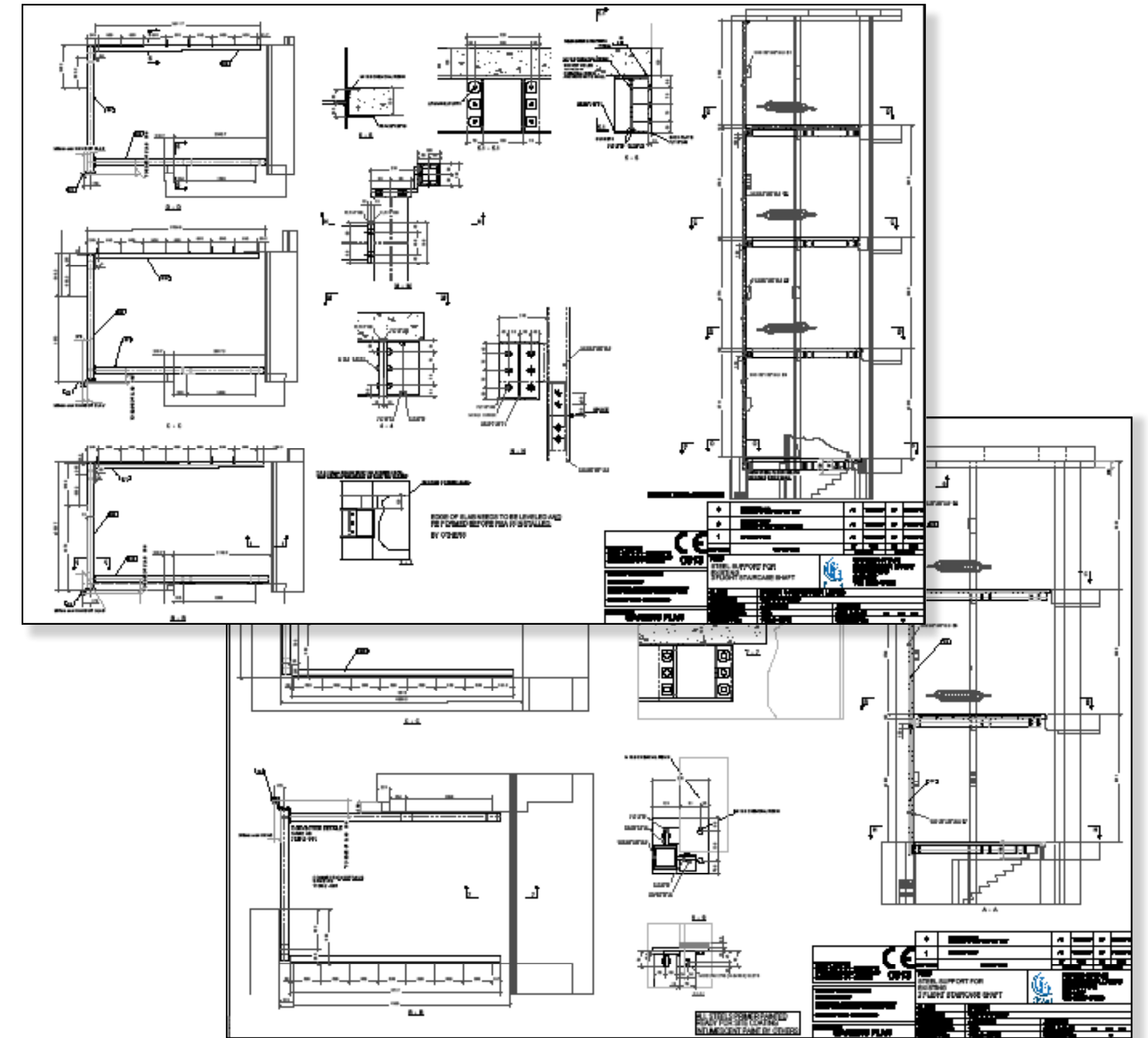


DELIVERABLES

GA & Fabrication Drawings



GA's & Fabrication Package
Lobby Area Steels



GA's & Fabrication Package
Staircores Infill Steels

PHOTOGRAPHS



Pre-Installation
East & West Staircores



Post Installation
East & West Staircores

Pre-Installation
Lobby Area



Post Installation
Lobby Area



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