



StrucTemp

StrucTemp
Structural & Temporary Works Consulting

**CONSTRUCTION DESIGN ENGINEERS
TEMPORARY, PERMANENT AND
PRODUCT DESIGNERS**

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About Us...

ABOUT US...

We are **Construction Design Engineers** experienced in the structural design for construction of permanent works, temporary works and product design.

We look at all forms of Structural, Temporary Works and Civil Engineering to ensure that the most optimum, innovative, buildable solution is determined. This will ensure that our clients can maximize the value they bring to all of their projects.

We can re-engineer both temporary and permanent works solutions both on site or during the pre-construction stages. Our digital services can create 3D models and 4D video to support the work winning teams. We have an unenviable success rate in work winning and designing Temporary Works to both programme and cost.

We look at all aspects of the structural design including concept and detailed designs, sequencing, managing changes and bring creativity, flair, integrated engineering designs that are a one stop shop and unique in design and construction.

We also provide professional development to site teams by providing training, creating standard solutions for range of construction subject matters and capture and communicate the lessons learnt.

We have more than 40 years construction design experience and with the aid of general and specialist complex computer modelling capabilities, combining technical excellence and experience in Civil, Structural and Geotechnical Engineering Structemp can provide project centric solutions for all forms of permanent and temporary works design and their safe construction.



Shiraz Gulam DUDHIA

BSc (Hons) CEng MICE with specialisation in Engineering Management.

Post Graduate Diploma in Structures and Foundations

Former Director of Engineering and Temporary Works at Balfour Beatty



A Chartered Engineer and a Fellow of the Institution of Civil Engineers (ICE) and an experienced member of the engineering profession with more 35 years of experience in Temporary works design, checking and approvals.

Shiraz had been responsible and accountable for projects up to £700m, and in his Director-level roles for Balfour Beatty, he had been accountable and responsible for the successful delivery of projects across the UK.

Shiraz is also engaged with the activities of the wider engineering profession, in providing training to both technical and non-technical staff in all aspects of temporary works and externally with the temporary works forum, CIRIA and the ICE.

Our Team

Anh Long THANG

Doctor-Engineer in Civil Engineering

Anh Long has more than 15 years of experience in the construction industry. Anh Long received a Doctor of Science in Civil Engineering from France. Additional Engineering specialization include Bridge Engineering.



Anh Long has work on all forms of civil and structural engineering design for Bouygues Construction, one of the largest contractors in the world. Experience includes restorations and renovations of historic and public buildings, steel and concrete frames, BIM processes and BIM tools.

Kevin PLUCKROSE

BSc (Hons) CEng MICE

Technical and Managerial Consultant

Kevin is a Chartered Civil Engineer with over 35 years experience working on a wide range of major building and infrastructure projects. He worked at Balfour Beatty for 30 years and as an Operations Director led the delivery of many complex design and build projects. Kevin has significant experience of the design process, design management and the integration of specialist and temporary works design into the permanent design.

Chaoru ZHANG

MSc/BEng CEng MIStructE

Chaoru's experience in Civil / Structural Engineering has spanned more than 15 years with commitment responsibility and ambition for profession success. Over those years Chaoru has gained design and management experience in a wide range of fields including bridges, building structures, railway infrastructures, temporary works, earthworks, demolition works & construction engineering, and he is experienced in designing / assessing structures adjacent / over London Underground, Network Rail and Highway infrastructure.

Daniel GOULSBRA

BEng CEng

Daniel is a professional civil engineer specializing in geotechnical analysis and design of excavation support.

Daniel has 6 years of experience in designing excavation support using the fleet of hydraulic frames and struts, trench sheeting or box systems. He has worked for Groundforce, the market leading supplier of shoring equipment.

Product, Structural, Temporary Works and Civil Engineering Design Services

Engineering Capabilities

Construction Product Development
Temporary Works Designs
Construction Videos to Show Buildability
Building Designs and Analysis in Concrete, Steel, Timber, Masonry Structures
Building Information Modelling (BIM)
Value Engineering
Historic Structure Renovations
Extensions and Loft Conversions
Structure Failure Investigation/Evaluation
Foundation, Piling and Retaining Wall Analysis
Façade Retentions, Party Wall Supports
Enabling and Demolition Temporary Works
Temporary Shoring and Support
Basement Propping
Needling and Propping
Piling Mats , Temporary Roads, Bridges, Temporary Shoring, Support and Jacking Structures
Scaffold, Formwork, Falsework and Backpropping Design
Loadings from construction plant on slabs and walls
Hoarding and Signage Designs
Tower Crane, Hoist, Mast climbers, Silo Bases
Category 1, 2 and 3 Checking
Highway, Network Rail Approvals
Scaffold , Access Systems and Steel Gantries
Site Cabins
Peri, Doka & Timber Formwork Drawings
Reinforcement Drawings and Schedules

Temporary Works Design

We have extensive experience in every type of temporary works design, including:

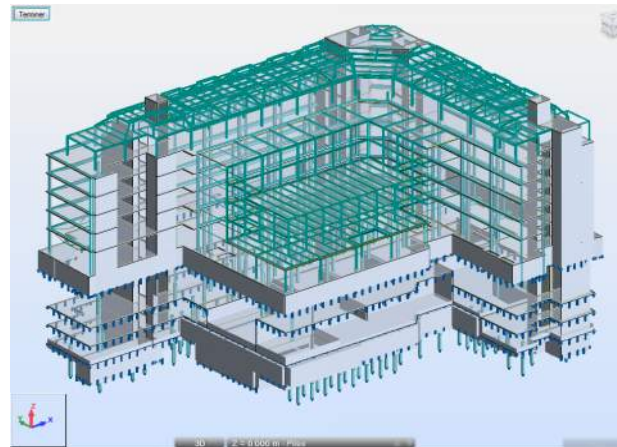


- Stabilising existing buildings during reconstruction and party wall, facade retention
- Excavation support and slope stability
- Tower crane foundations and mats for mobile cranes and piling rigs
- Formwork and falsework design
- Site hoardings and signboards
- Scaffold drawings
- Steel Gantries, Site Cabins

Structural Engineering Design

We provide value-engineered designs that consider buildability whilst recognising build cost as a prime consideration and ensuring adequate and robust performance of the completed structures. As with all of our work, as Construction Design Engineers, we constantly seek smarter ways of working to enhance the programme and economy of construction.

We can assist with all aspects of a design and constructively review the designs of third-party engineers.



CAD & BIM DESIGN

In addition to our computer-aided design (CAD) capabilities, our unique expertise in BIM will enable our clients to visualise structures and operations well before the site operations.

We utilise the latest softwares to produce data-enriched BIM Level 2 compliant civil and structural models to produce detailed designs and support clash detection and manufacture. We can deliver project models within a Common Data Environment (CDE) as specified in the BS1192 suit of standards and digital plan of works,

allowing a federated intelligent model to be used for the life-cycle of the building.

Our CAD services include 2D engineering drawings, 3D modelling, swept path analysis, vehicle tracking, solid resin models and 4D presentations.



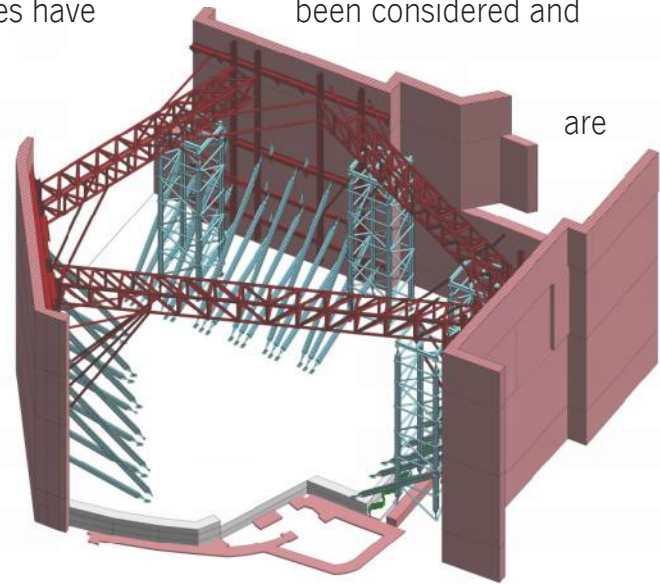
Temporary Works

Façade Retention

We provide façade retention engineering solutions for projects in some of London's most congested areas. These temporary systems are designed to ensure assembly, deconstruction and rebuilt of the structures have been considered and coordinated.

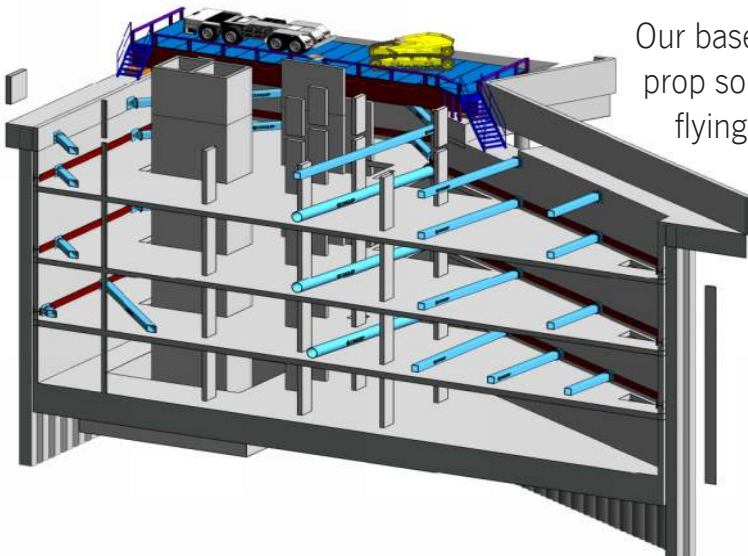
Our façade retentions are project-specific and can be either internal or external, based off ground bearing slabs or on piles.

Our design process also includes consultation with contractors for the demolition and construction phases, permanent works designers and relevant bodies.



Basement Retention

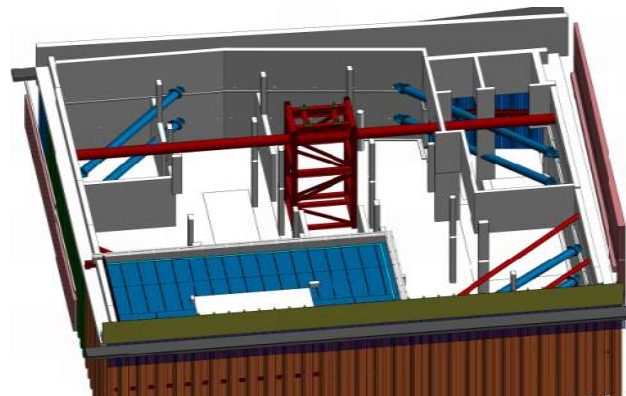
StrucTemp have a wide range of experience in basement temporary works from single storey basements to deep excavations, employing a range of different techniques.



Our basement portfolio includes simple raking prop solutions, king posts, and walers with flying shores.

Tower Crane Supports

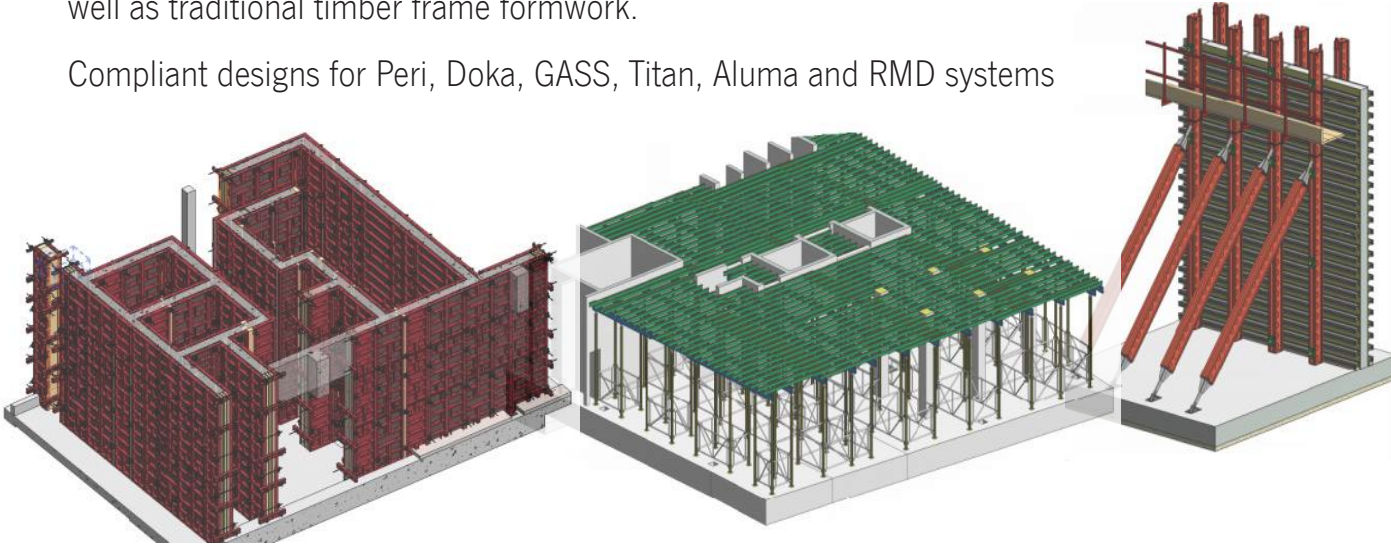
We offer design services for crane foundation in reinforced concrete or steel structure on plunged column, crane mats and mobile outrigger back propping...



Formwork/Falsework Design

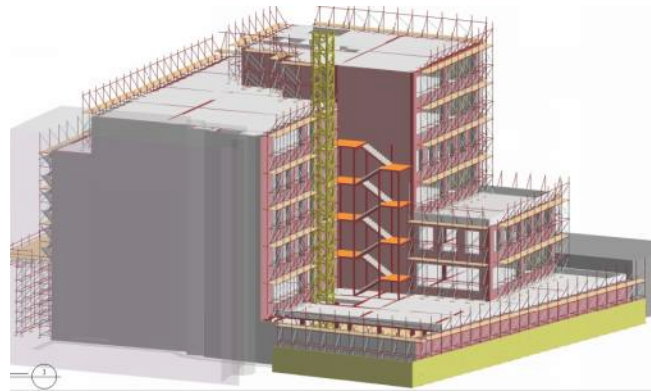
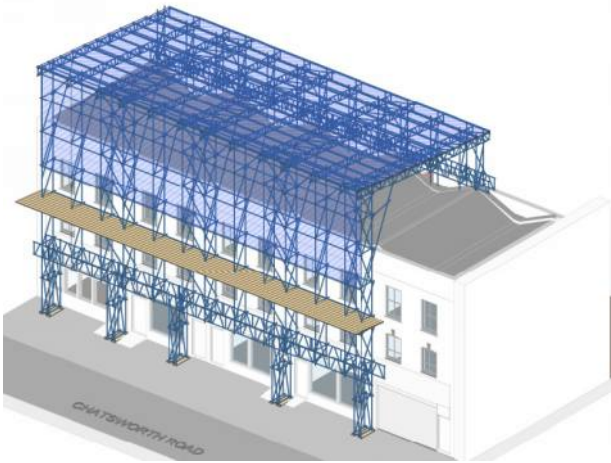
With a strong background in formwork design, our team have developed a reputation for delivering efficient and clear formwork designs for leading industry systems, as well as traditional timber frame formwork.

Compliant designs for Peri, Doka, GASS, Titan, Aluma and RMD systems



Scaffold Design

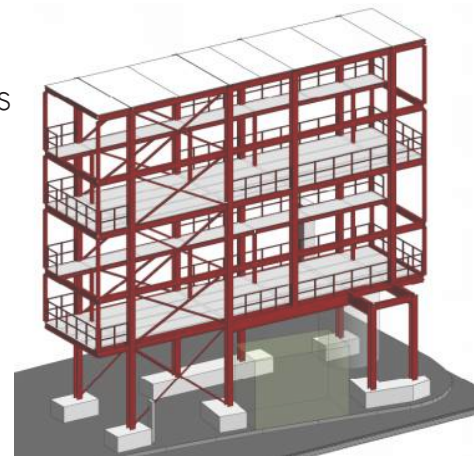
With our experienced team of scaffold design engineers, we produce designs for all major system scaffolds such as Layher, HAKI and Apollo as well as traditional tube and fitting.



Construction Gantries

We appreciate that construction/welfare gantries offer a logistical benefit which aid construction timelines. Our gantries are designed to support various loading conditions from typical storage gantries, to welfare and machinery gantries.

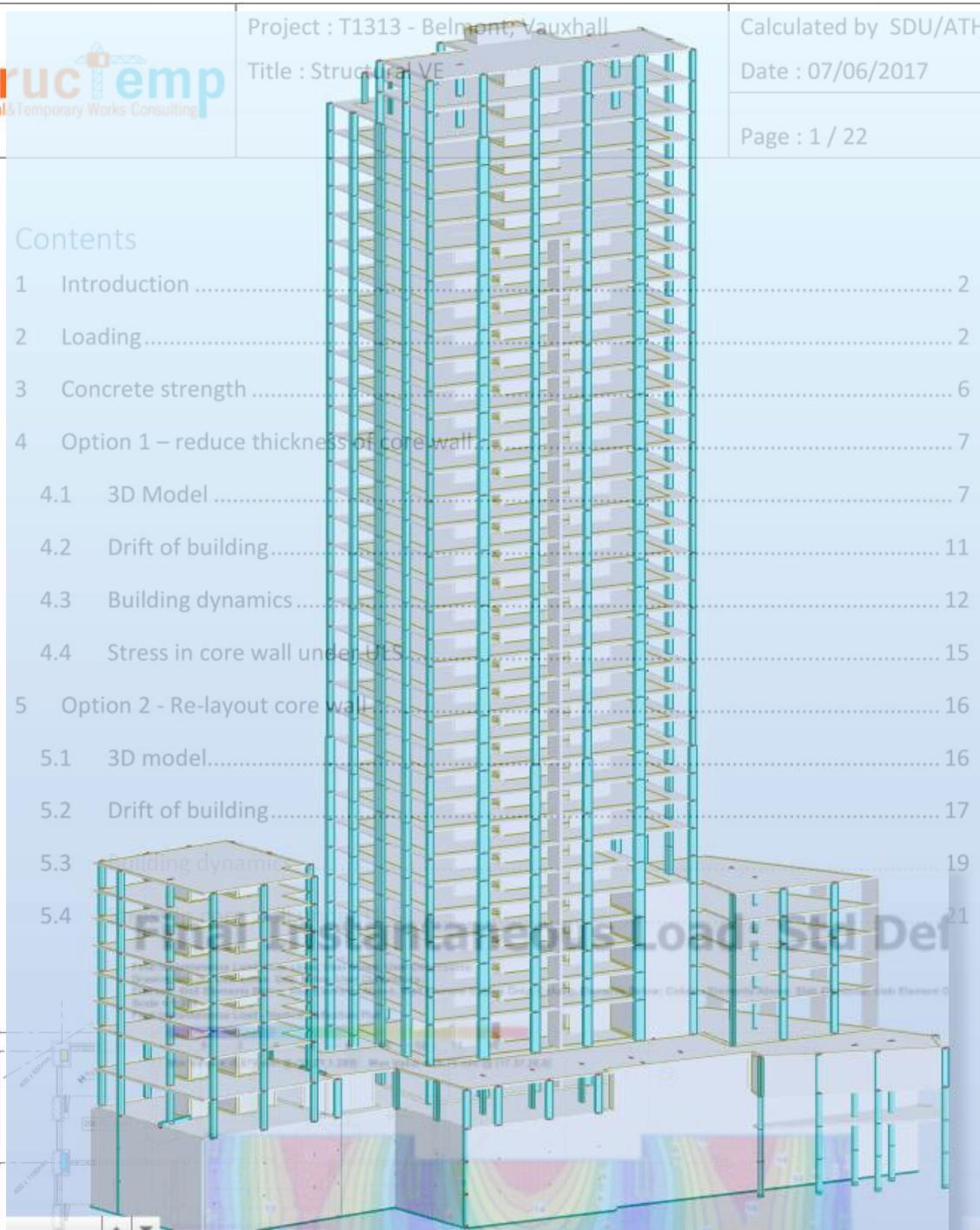
Our portfolio consists of machine gantries fixed to plunge columns to steel and scaffold gantries based on street pavements, coordinated with services, existing and proposed structures.



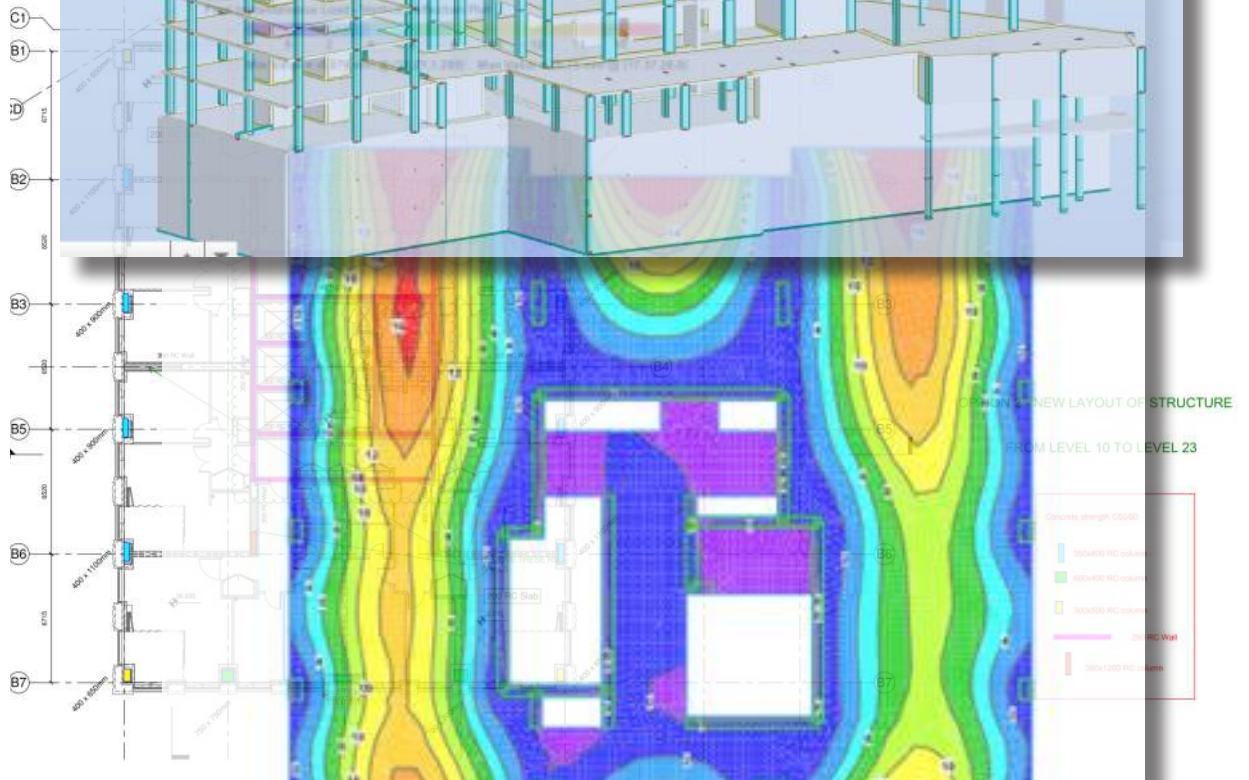
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Permanent Works



Civil/Structural Engineering

Many projects we work on have aspects of civil engineering to them. We have experience engineering below ground drainage solutions, access roads, working platform...

Along with civil engineering, structural engineering is one of the cornerstones of the StrucTemp business.

Whether the project is a multi-million pound commercial development or a small scale refurbishment / loft extension project it receives the same attention to detail. Using state of the art engineering analysis software and BIM coupled with good solid engineering knowledge and experience, we are able to provide our clients with solutions which are not only practical but also elegant and pushes the boundaries of innovation.

- Building structures of all types
- Historical structures
- Bridges and Infrastructure
- Basements Including Construction Method Statements for Planning
- Precast Concrete Detailing
- Timber Engineering

Value Engineering Proposal

We can re-engineer both temporary and permanent works solutions both on site or during the pre-construction stages.

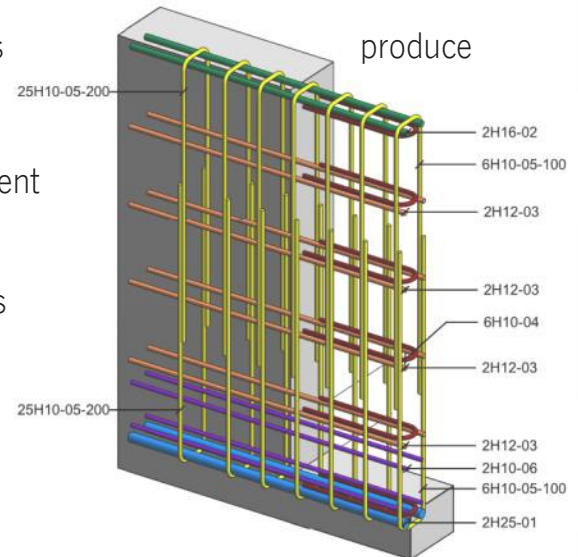
- Optimize the slab thickness, reinforcement allowances, concrete strengths
- Identify risk and opportunities
 - Waterproofing strategy
 - Heave protection strategy
 - ...
- PT Slab option
- Re-layout the core walls, review building loads

Reinforced Concrete Detailing

We produce efficient rebar designs and schedules for any size project ready for fabrication.

Using the structural analysis skills, our engineers produce rebar designs ready for fabrication. Working to Eurocode 2 and using Revit/Tekla software we offer clear designs detailing the steel reinforcement required.

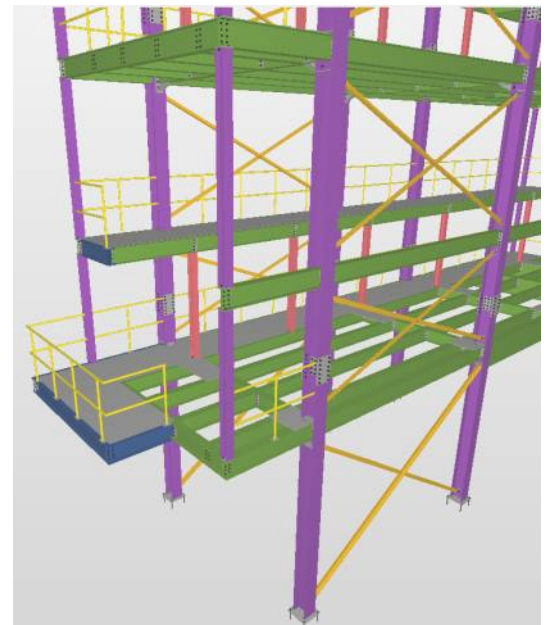
- 2D Design Bar Mark Arrangement Drawings
- 3D Models
- Bar Bending Schedules
- Bill of Materials



Structural Steelwork & Detailing

From our experience in temporary works and the associated permanent structures we understand the importance of precision engineered structural steels. Using our structural steelwork design competency, we can produce detailed fabrication and erection design drawings to Eurocodes using AutoCAD as well as Tekla Structures 3D modelling software.

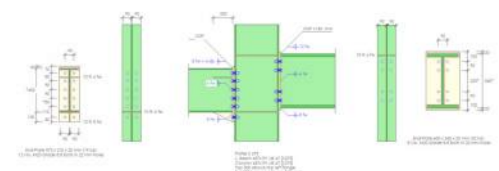
- Frame analysis and design
- Connections design
- General Assembly Drawings/
Assembly drawings/Single Part drawings
- Material & bolt lists
- NC/DXF files



Connection Design & Calculations

Using the latest connection design software – we will design and calculate your connections.

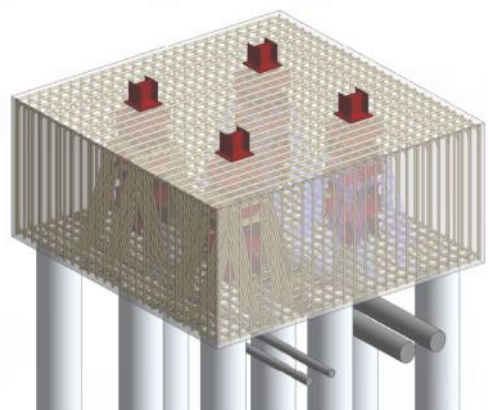
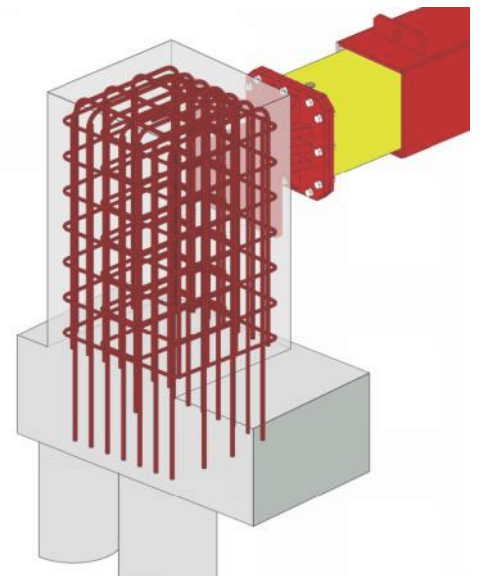
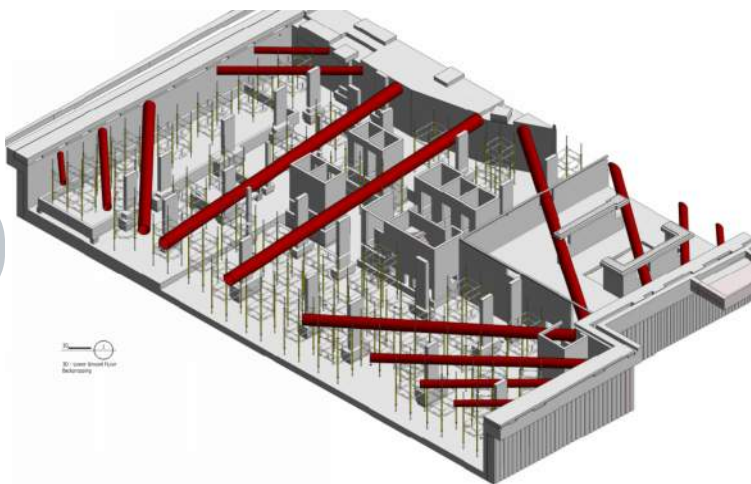
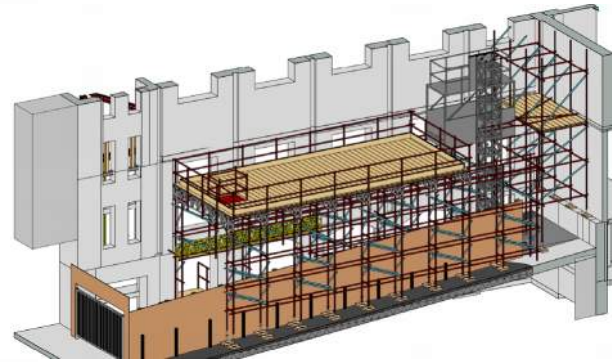
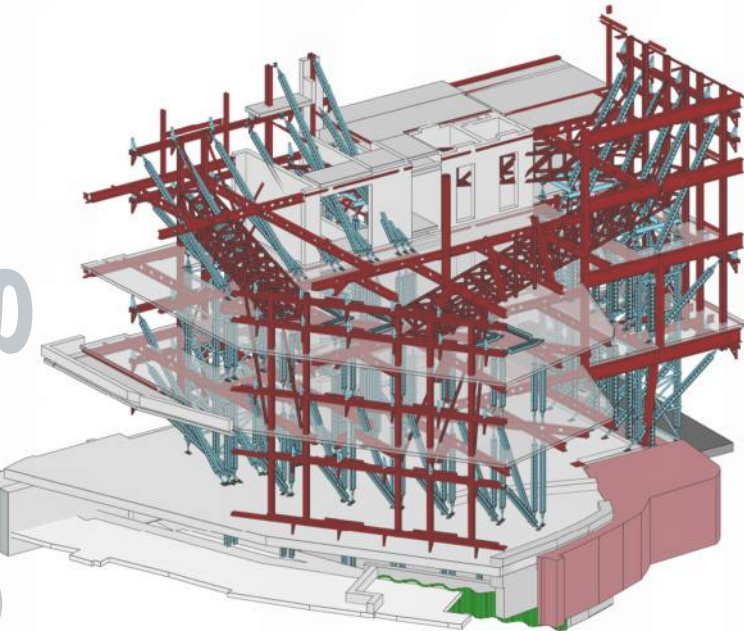
- beam to beam
- column to beam
- splice, bracing connections.



A Model Worth a Thousand Words

Engineering is “an art backed up by science.” All our engineers and technicians are encouraged to focus on the quality of their sketches and drawings. Engineering isn’t just about calculations and analysis, 3D models drive our highly graphical drawings are central to our design process and our primary communication tool at every stage of the process.

Digital Engineering



A Model Worth a Thousand Words

Employing the latest analytical and 3D/4D modelling software we can quickly and efficiently develop and test design options to establish an optimal economic and buildable solution. Building it twice, once virtually and then once in the real world.

Digital Engineering



TRAINING

Temporary Works Courses (TWC, TWS, General Awareness)

Bracing in Scaffold

Understanding Soils

BIM Implementation

Training

3. TRAINING

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• TRAINING

- Temporary Works Co-ordination
- Bracing in Scaffold
- We can assist with all aspects of a design and constructively review the designs of third-party engineers....
- Understanding Soils
- Design management Structures

StrucTemp LLP

Structural & Temporary Works Consulting



Presenter : Shiraz Dudhia

COURSE OUTLINE

Introduction to BIM

- What is BIM?
- The benefits realised by stakeholders
- COBie
- Governments soft landing policy
- BIM management documentation
- Case study & lessons learnt

PRACTICAL INFORMATION



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