



Powered by Volumetric

A case study on College Road, Croydon



I. An introduction to Tide and Vision

Driving the modernisation of construction and real estate

A decorative graphic consisting of four overlapping rounded rectangles in a staggered pattern, creating a sense of depth and movement. The rectangles are a lighter shade of blue than the background.

Tide



- Developer and 3rd Party Contractor
- Specialise in various asset classes, regeneration and placemaking; Co-Living, Build-to-Rent, Affordable, PBSA & Hotels
- Significant ESG credentials inherent in our volumetric methodology

Vision



- 3D volumetric manufacturing company
- Uses traditional construction materials e.g. steel, concrete, gypsum board
- £millions invested on research, development and testing to refine and advance the system

Vision Bedford 180,000 sqft facility

Our volumetric manufacturing process

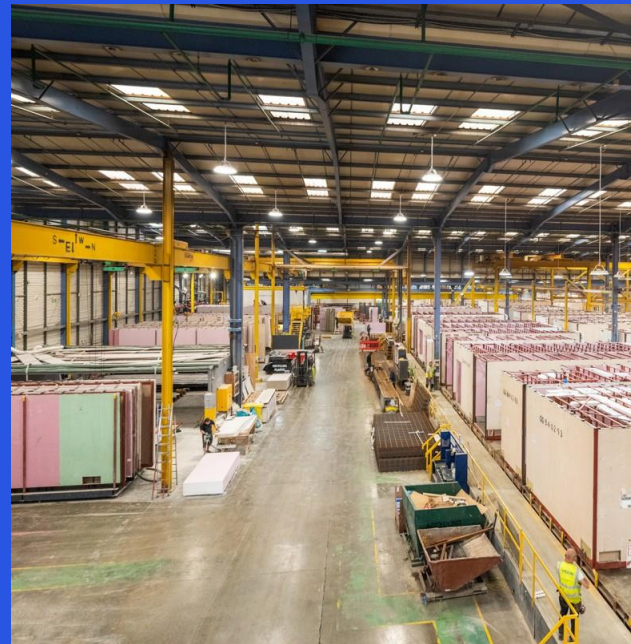


Vision Volumetric Manufacture

Quality



The Vision units move through each manufacturing station ensuring production efficiencies and stringent quality control



10 days from start to finish

Productivity

Manufacture 45 volumetric units per week on average
Fully fitted leaving the factory

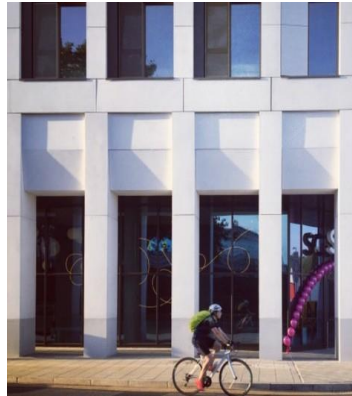


Tide & Vision

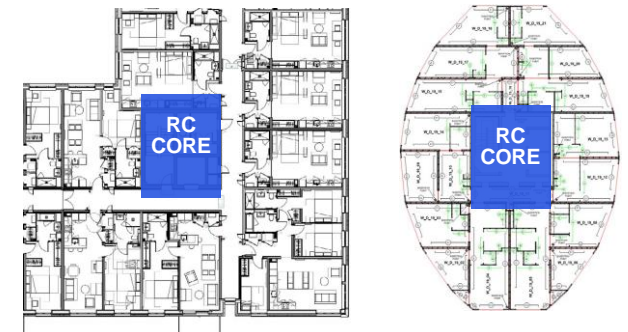
Vertically Integrated Procurement Model



Façade, exterior finishes
and treatments



Design Flexibility



Shape, Height, Massing

£4bn GDV delivered in recent years >3,000 homes on site

7 of the 10 world's tallest volumetric buildings

Victoria Hall, Wolverhampton | 25 storeys | 82 m (2008)
Mapleton Crescent, London | 27 storeys | 89 m (2017)
Apex House, London | 29 storeys | 89 m (2017)
The Mall, Walthamstow | 34 & 27 storeys | 94 m (2024)
Lewisham Exchange, London | 35 & 20 storeys | 110 m (2021)
Ten Degrees, London | 44 & 38 storeys | 136 m (2020)
Marsh Wall, London | 48 storeys | 156 m (2026)
College Road, London | 50 & 35 storeys | 157 m (2023)

25 storeys



27 storeys



29 storeys



35 & 20 storeys



44 & 38 storeys



48 storeys



50 & 35 storeys



Strategic Client Relationships

Proven ability to consistently deliver large schemes



Strategic Institutional Partners

Robust due diligence



Fundable Mortgageable and Insurable

Fully accredited system

The full accreditation and warranty of the Vision System ensures that all Vision Modular schemes are **fully fundable, mortgageable and insurable**.

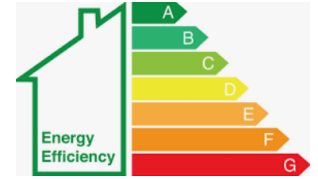
The system uses **traditional construction materials** (i.e. reinforced steel and concrete) and has a **minimum** 60 year design life.

We have invested significantly in Research and Development to comply with the ever-evolving **Building Regulations**.

Furthermore, assets incorporating the Vision system have qualified for **a 12-year liability insurance** against defects, loss of rent, M&E and other such insurables as per the Client's request.



(Progressing)



2. College Road, Croydon

Boosting urban renewal powered by volumetric





College Road Co-Living

50 & 30 Storeys

The Challenges

A

Engineering Design Challenges

The movement between the two buildings and the differential movement between the structural steel volumetric units and the concrete core.

B

Height Challenge

A 50 storey building constructed using MMC hadn't be delivered before .

C

Constrained 0.2 Hectare Site

Building footprint occupied the full extent | Immediately bounded by London's tramlines, railway lines, bus lanes, bridge structure | Adjacent to London's 3rd busiest rail station

D

Vertical installation

Installation of 1725 volumetric units and TC removal strategy

E

Challenging Construction Programme

28 months to complete from excavation to practical completion on a restricted Site

Building a safer future

Holistic approach to Fire Safety at College Road

DESIGN

Our Buildings

Our Systems

Fire Strategy
Enhancements

FIRE TESTING

Elemental
Testing of the
Primary
Elements

Full Scale Fire
Testing

THERMO MECHANICAL MODELLING

Third party
review on all
buildings

STRINGENT QUALITY CONTROLS & INSTALLATION

Our factories

Our sites

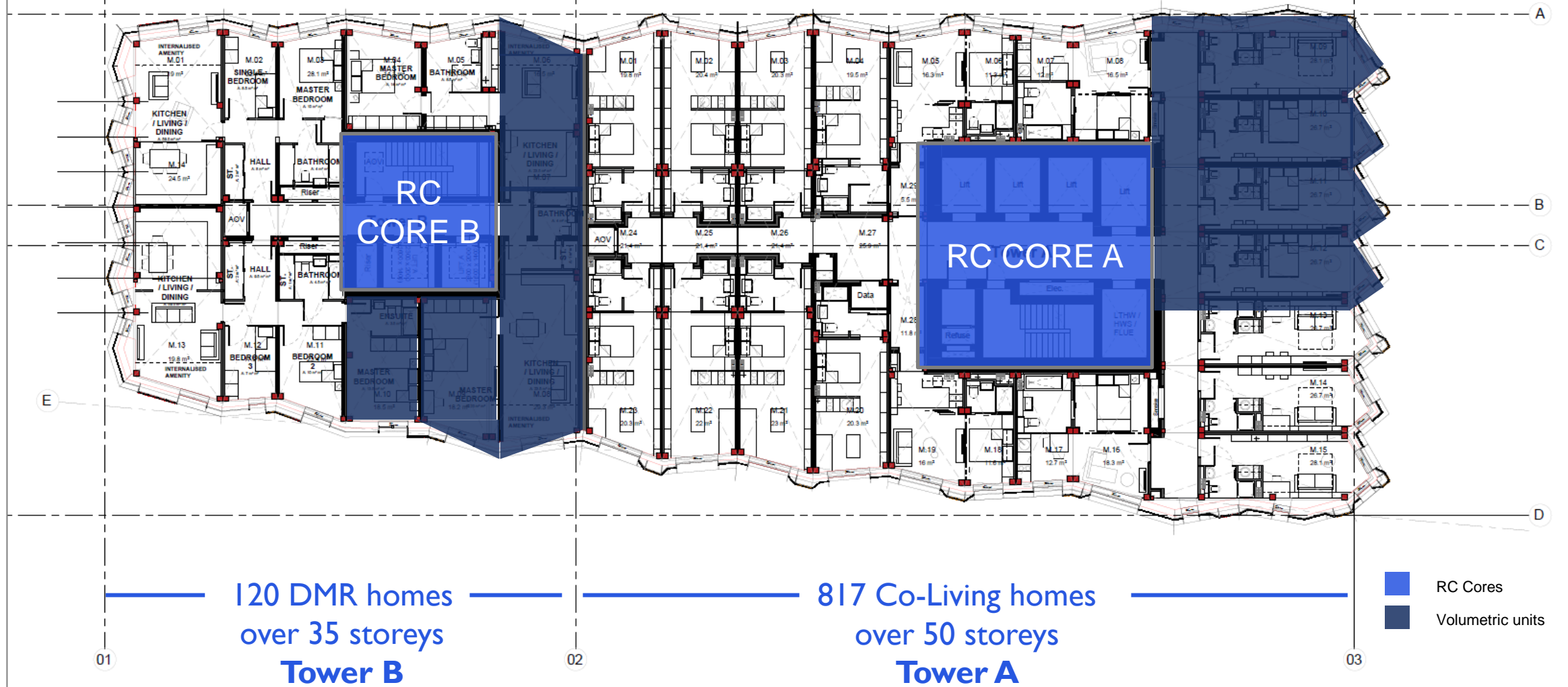
ROBUST BUILDING HANDOVER

Digitalised

Golden Thread

EWS1

The Design

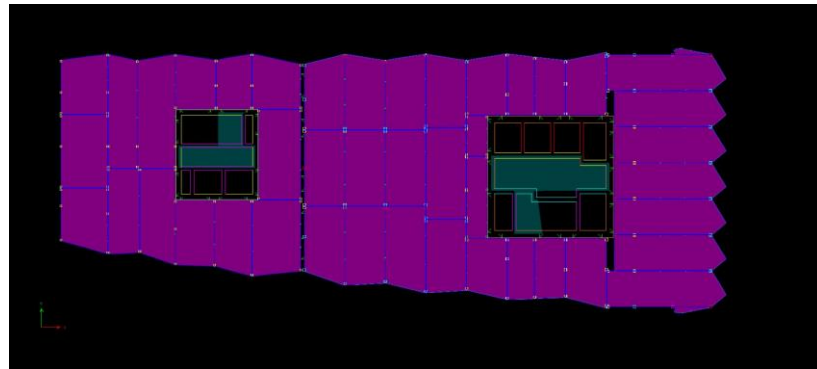
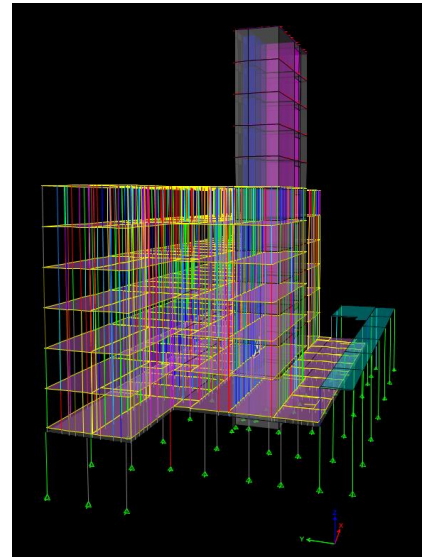
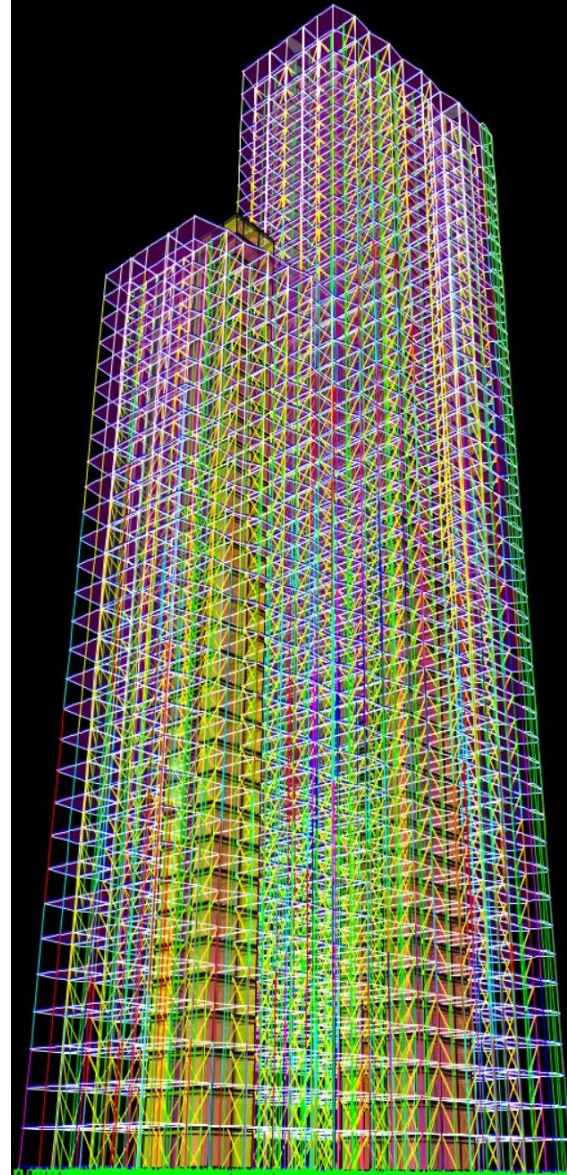
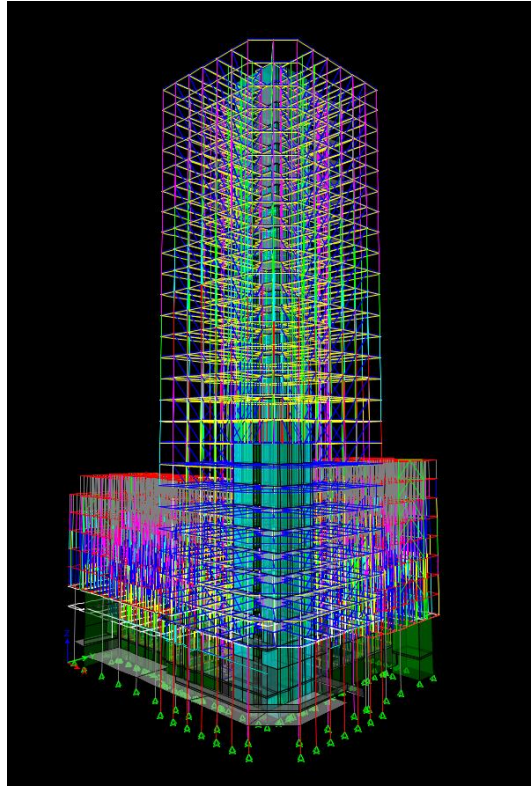


Modelling Structural engineering

We use very detailed
Engineering models to
assess the building

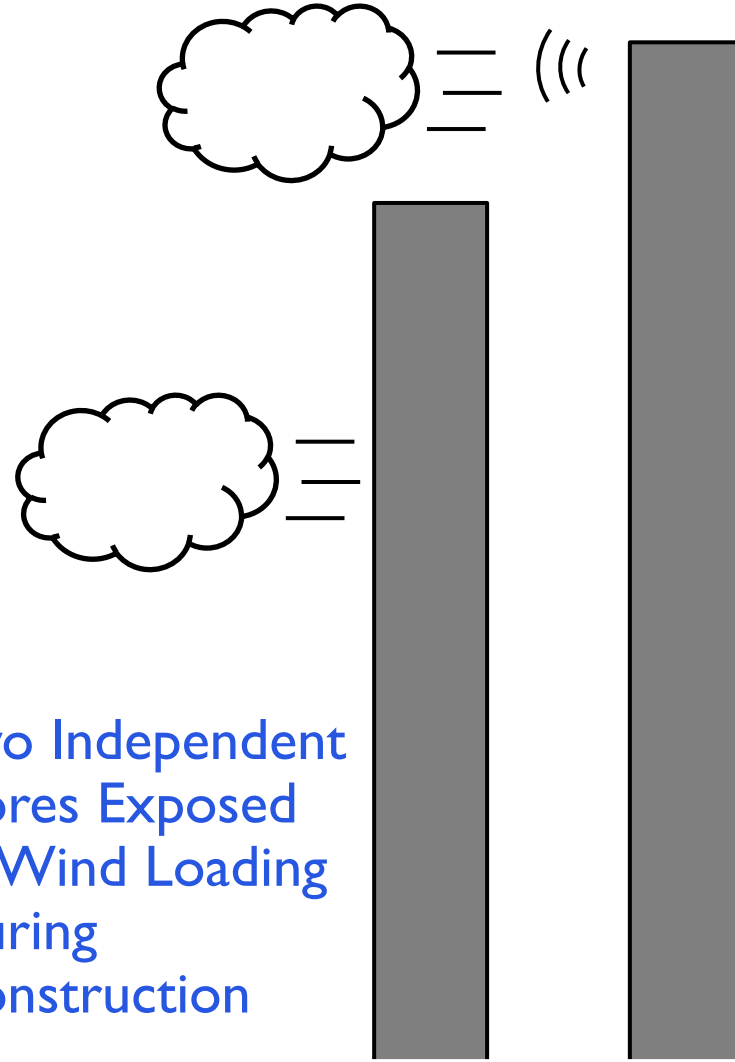
Each structural
member is designed to
suit the level and
position in the building

Similar modules on the
same floor may have
different structural
sizes



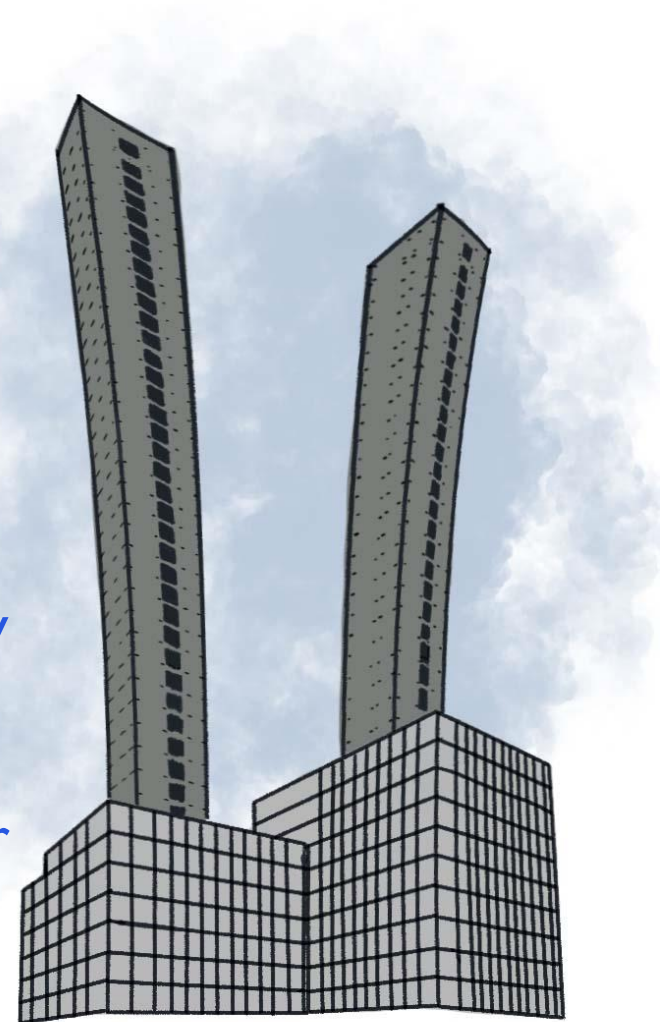
Wind loading and differential movement

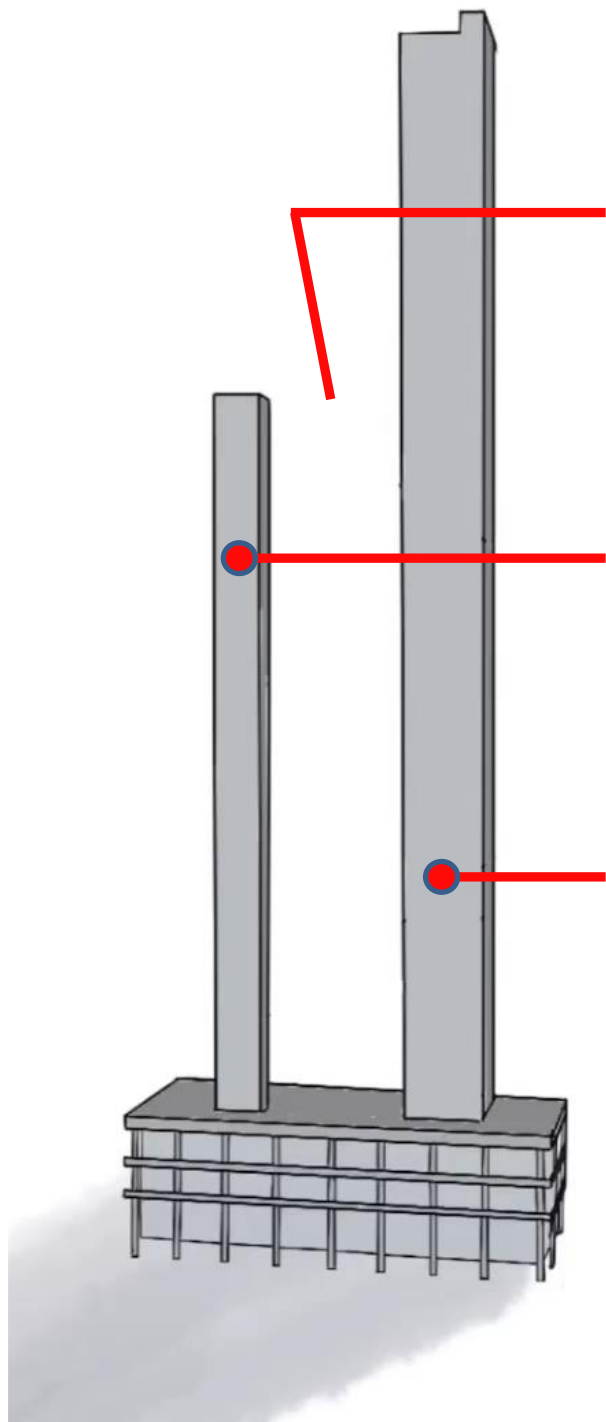
Structural engineering



Two Independent
Cores Exposed
to Wind Loading
During
Construction

Movement of
the Cores may
not match and
cores may
move together
or apart





The cores were tied together above the modules

Tower B modules were placed to their full

Tower A was constructed to the top level of



- When the towers are completely separate, they move independently in the wind.
- The amount of movement is related to the speed of the wind.
- The top tie reduces the movement



College Road
East Croydon

20+
Years idle

2,200 m2
Site size

Constrained
Development site

How we did it?

01

Structural Concrete Cores

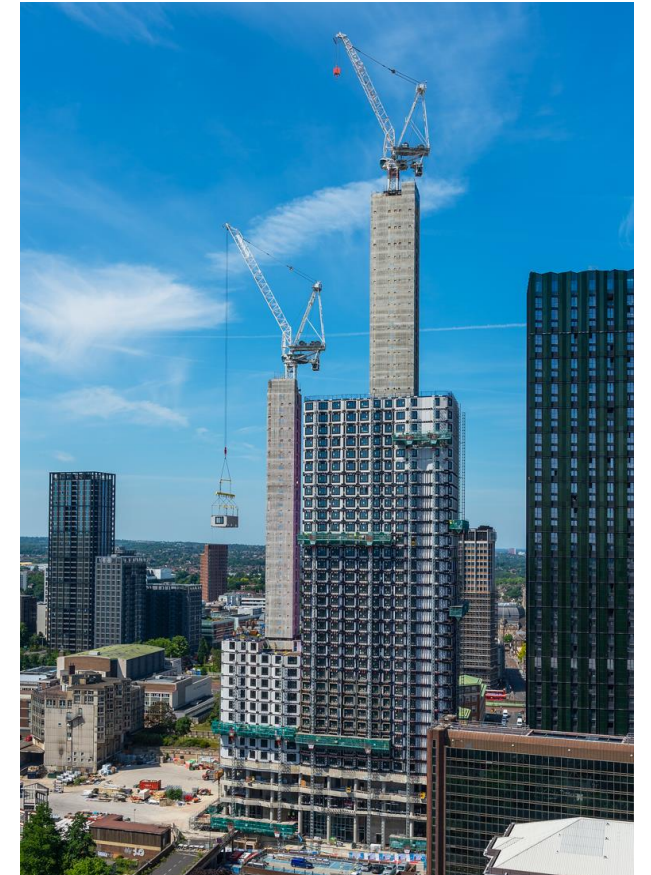
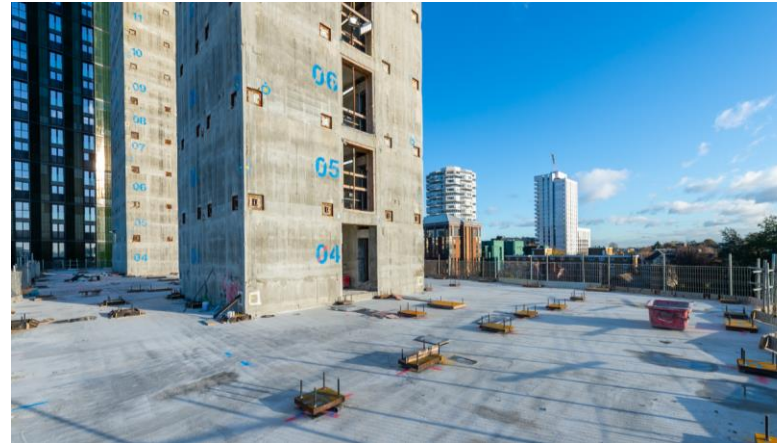
Slipformed to full height taking the horizontal load of the building



02

Transfer Structure

Takes the vertical load of the building



03

Craneage Strategy

Cranes are located on top of the structural concrete cores providing vertical transportation for the volumetric unit

How we did it?



04

Vision Volumetric Manufacturing

Vision units are manufactured utilizing structural steel framing with solid concrete floors



10 days from start to finish

05

Controlled assembly line manufacture

The units move through each manufacturing station ensuring production efficiencies

The system delivers high manufacturing accuracy



06

Units Arrive on Site

95% completed including fit out leaving the factory



07

Efficient Construction Logistics

Logistics are strictly monitored with units arriving just in time

Efficient Installation

Maximum install rate is typically 60 units per week

Tower A = 60 homes per week

Tower B = 25 homes per week



08



Early Access to Show Flats

Crucial for marketing and leasing

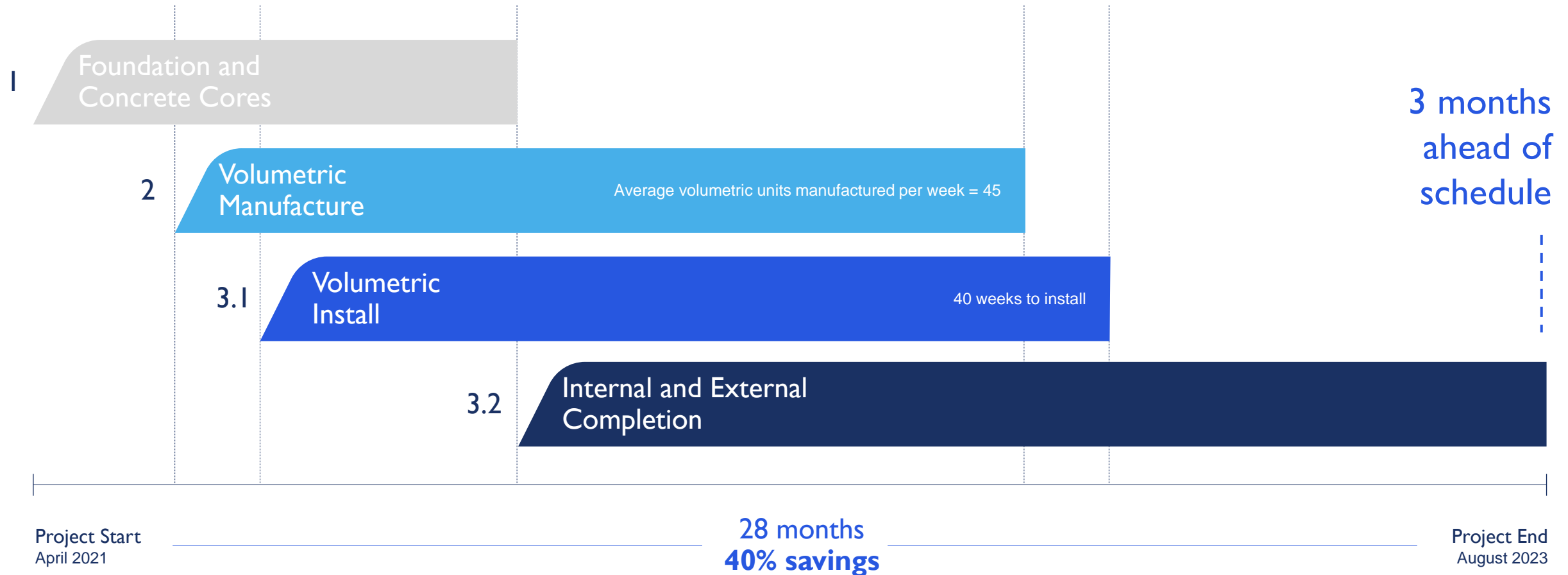
Completing the Building from the Inside Out

Smoother for commissioning and handover to client



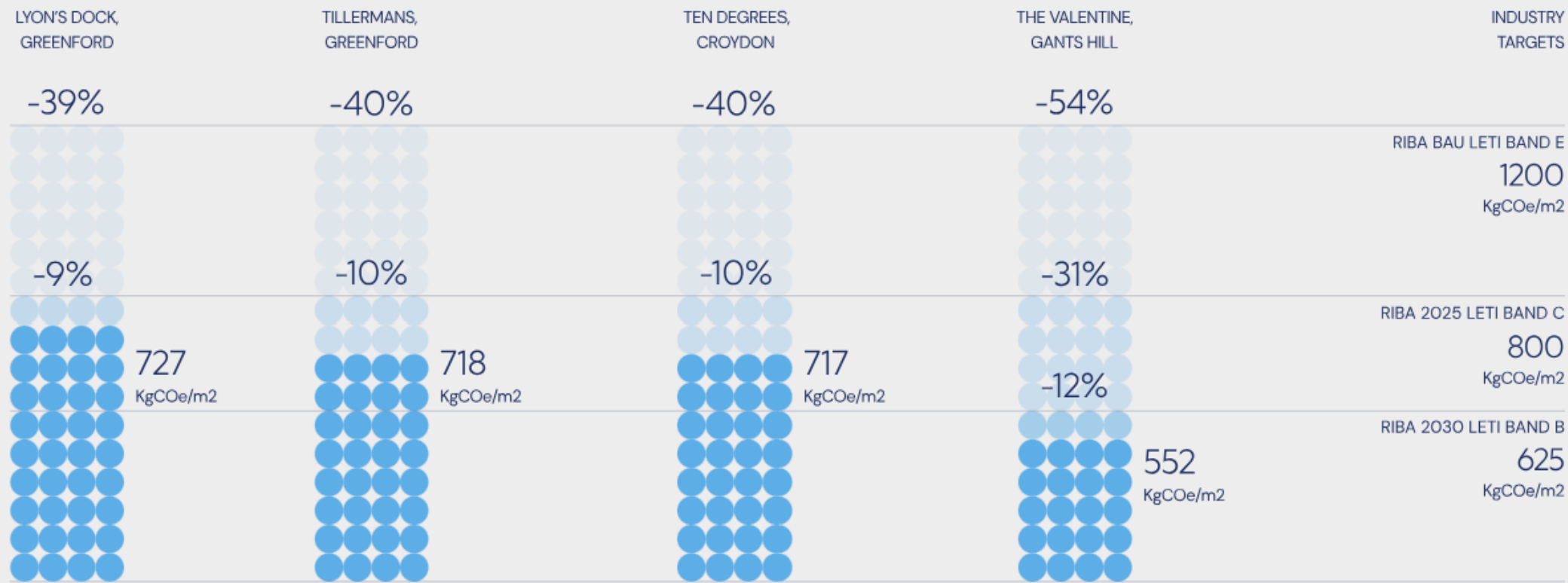
Programme Savings & Certainty

Parallel Workstreams at College Road



Sustainability

Embodied Carbon Post Construction LCAs



● VISION'S EMBODIED CARBON EMISSIONS
 ● % SURPASSING RIBA 2030 LETI BAND B
 ● % SURPASSING RIBA 2025 LETI BAND C
 ● % SURPASSING RIBA BAU BAND E

Delivering the World's Tallest Volumetric building

c. 1,000 homes in 28 months on budget & 3 months ahead of schedule





College Road Co-Living

50 Storeys

817 Co-Living Homes



High quality homes with
minimal defects



7 Floors of amenity space



Community generation



An aerial photograph of a city skyline, featuring a prominent white skyscraper with a distinctive, stepped, and textured facade. The building is surrounded by other urban structures, including a red building and a large stadium-like structure with a white roof. The city extends to the horizon under a clear blue sky. A blue diagonal graphic element is overlaid on the left side of the image.

College Road Affordable

35 Storeys



I20 Discount Market Rent Homes

High quality and fully furnished





High EPC B Rating | EWSI Form | BREEAM Excellent



Bold articulation of the glazed terracotta facade

The power of volumetric regeneration

Powered by Volumetric
A case study on College Road

Thank You

VISION  **TIDE** 

visionvolumetric.co.uk

tideconstruction.co.uk

