

QED structures

hove ■ london ■ watford ■ manchester ■ leeds ■ barcelona

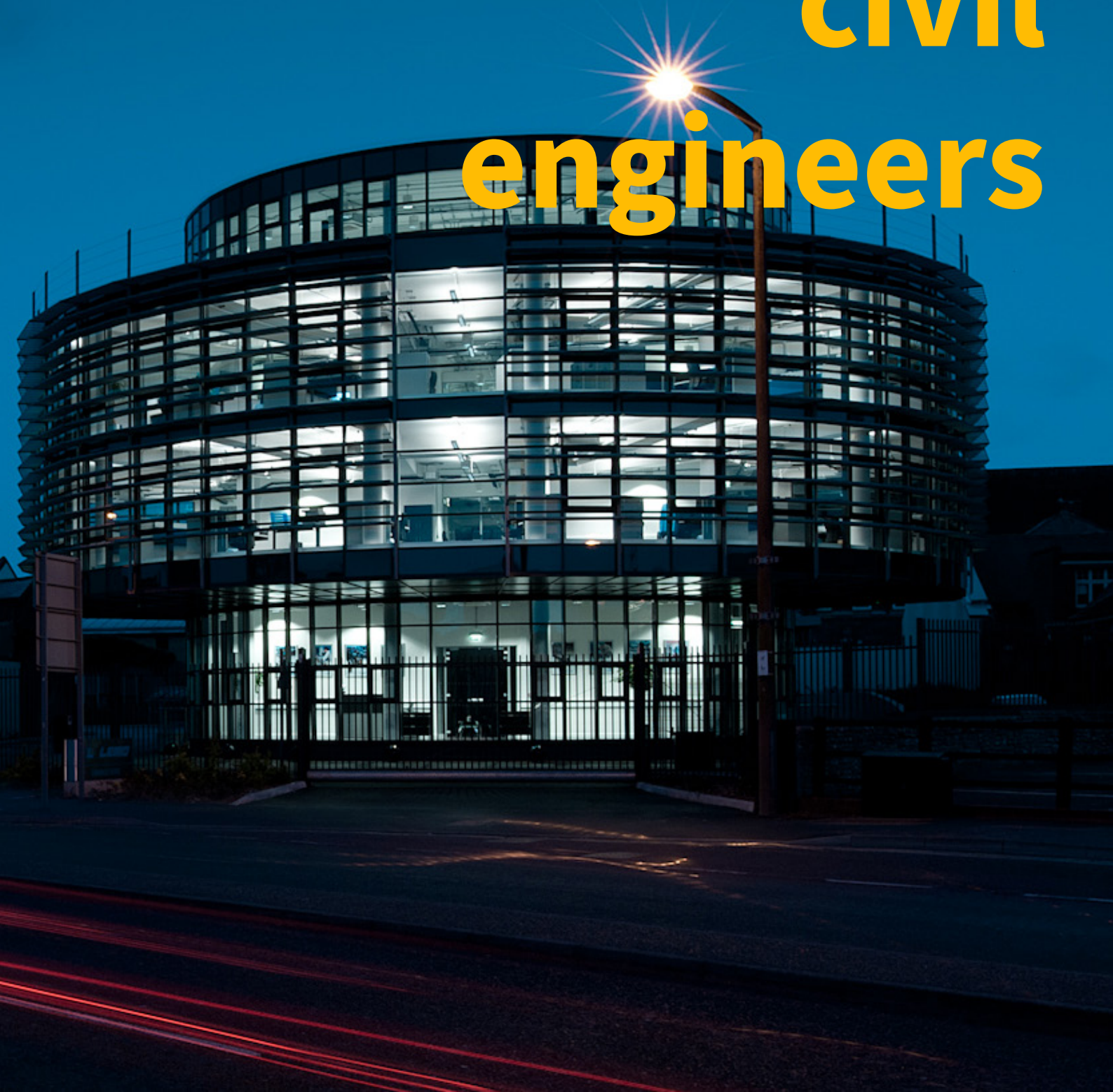
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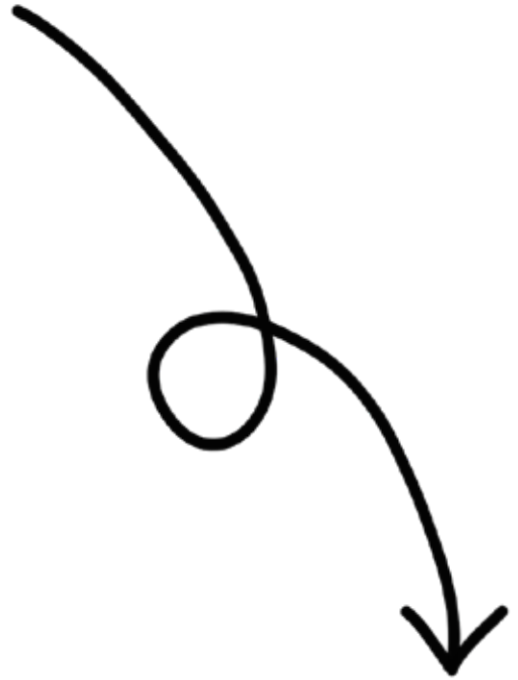
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consulting structural and civil engineers



hi there



“ a message from the managing director

At QED Structures we are committed to delivering cost-effective solutions that meet your budget and timeline, we stay up-to-date on the latest technology and techniques, and invest in the ongoing training and development of our team. You can trust that we will always be at the forefront of our field.

We understand the importance of having a building that not only looks great but is also safe and secure. That's why our team of highly skilled and experienced Structural and Civil Engineers are dedicated to providing you with the best possible solutions for your unique needs.

We believe that communication is key to the success of any project, which is why we are here to answer any questions you may have and guide you through the process from start to finish. Our goal is to help bring your vision to life and exceed your expectations.

Contact us today to learn more about how we can help you achieve your vision. We look forward to working with you and helping you create a strong and elegant structure.

- ian waddingham

what is this? and why is it everywhere?...

This rectangular symbol can be used to denote the end of a proof, in place of the traditional abbreviation “Q.E.D.” for the Latin phrase:

“quod erat demonstrandum”

Which translates to “Which was to be demonstrated”. This phrase is the exact ethos behind our consultancy. We have demonstrated our ability to provide outstanding designs and details on a range of unique projects.

motto

collaborate. achieve. succeed. ■

Our motto “collaborate. achieve. succeed.” represents the philosophy of QED Structures that places a strong emphasis on teamwork, high-quality results, and success for all involved. This means working closely with clients and partners, delivering impactful solutions, and striving for success in everything we do.

who are we?



QED Structures is a Structural and Civil Engineering Consultancy and was formed in 2005 in Brighton & Hove and now has additional offices in London, Watford, Manchester, Leeds and Barcelona.



Over the years QED Structures have worked all over the UK and internationally in countries such as Gibraltar, Spain, Switzerland, Libya, Dubai, India, Mexico and USA. Whilst the main focus for projects is in the UK, our passion for working overseas continues with our expansion into Europe.



We pride ourselves in our focus, attention to detail, adaptability, innovation, sustainable design (including embodied carbon assessments) and full collaboration with our clients & design team.

what we can offer



Early involvement in projects to provide creative input and direction for architects to be able to design with confidence ensuring they achieve their visions and aspirations.



Senior leadership on all projects ensuring every project has a focused and clear direction at all times. Management of every project through 'Zoho' project management software to ensure all tasks and deadlines are achieved.



Full design service from concept through to completion, ensuring that each project is delivered in a smooth and professional manner.



Full construction information including general arrangement plans, sections, reinforcement drawings and schedules, steelwork connection details, bespoke and exposed connection details, typical details and temporary works.



Primary focus on the sustainability and conscious design from the start of the project.



MMC expertise with vast experience in modular and light gauge steel frame structures.



Full Building Information Modelling (BIM) expertise and coordination with the design team.



Efficient and cost effective designs with the use of sophisticated structural and civil engineering design software.

our core values

value considerate

Our team takes the time to discuss ALL the needs and requirements you foresee for your building, both now and in the future. This results in a design that is not overly-conservative, enables the building to work to its potential, and allows flexibility in how it may be used over time.

efficient delivery

You'll enjoy working with our team, as they are well practised at working in harmony with other construction professionals. Due to our extensive expertise, we are able to go beyond the standard boundaries of engineers and offer valuable contributions in other areas too.

sophisticated

The tools and software used by our team are market leading and used by true experts. They allow us to provide greater detail, broader solutions, and more refined outcomes for all of our projects.

pragmatic

Having been involved with thousands of projects, we draw on that experience to provide very measured and pragmatic advice to our partners. This helps them understand the 'how it will be built' and enables them to make more informed decisions of their own.

detail focused

Using the latest BIM (Building Information Modelling) techniques, our approach helps improve the accuracy of information management and multiple stakeholder inputs. This means that our clients enjoy a better co-ordinated project experience, and a higher quality result.

consultative

Where it will be appreciated, we always offer honest opinions and advice to turn a vision into a reality.

caring

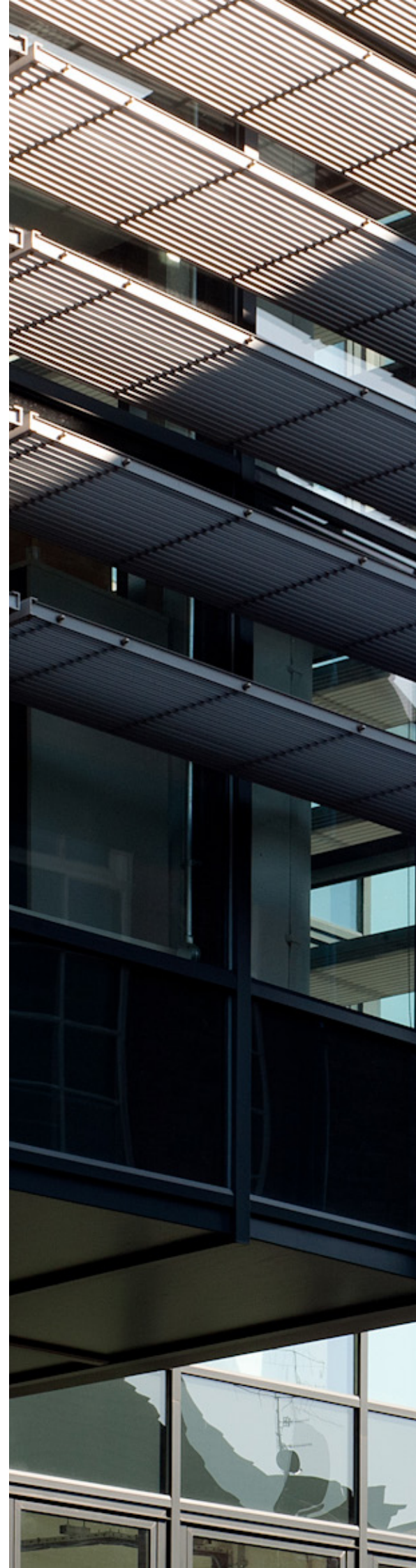
Our team takes great pride in their work, and in the buildings created with their input. They truly care about generating positive working relationships, and long-term reputation.

structural

Superstructure and substructure engineering designs in all materials ranging from reinforced concrete, mass concrete, hot rolled steel, light gauge steel, timber, masonry, cross-laminated timber, SiPS panels, glass etc. Our projects range from small domestic projects to multi million pound bespoke projects in all sectors including residential, retail, commercial, office, education, health sector, leisure. Calculations, details, drawings and specifications are provided to support all of our designs. We provide services from RIBA Stages 0-6 from concept to completion.

civil's

Civil engineering designs including, below ground drainage, SuDS, pavements, roads, FRA's, external levels, cut and fill, pre-planning assessments etc. Our projects range from small domestic projects to multi million pound bespoke projects in all sectors including residential, retail, commercial, office, education, health sector, leisure. Calculations, details, drawings and specifications are provided to support all of our designs. We provide services from RIBA Stages 0-6 from concept to completion.



residential

commercial

healthcare

education

community

hospitality

institutional

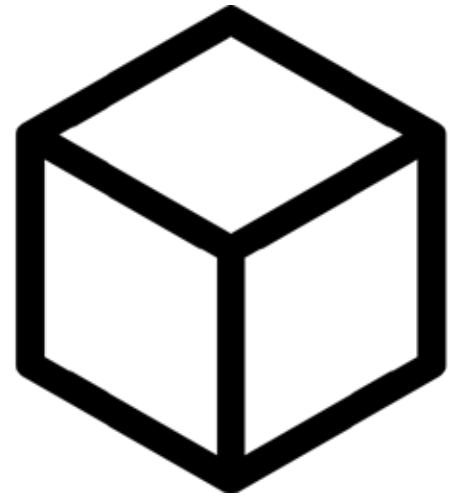
industrial

transport

sustainability

mmc

offsite modular construction



Our experience and capability make us an ideal partner for designing using modular construction, whether it is panelised or volumetric. Our in-house BIM resource coordinates closely with our structural engineering team to provide complete solutions through the full DfMA (Design for Manufacture and Assembly) process.

Offsite modular construction reaches its potential with high volume production where it is critical to reduce waste, increase productivity and improve replicability. We have a proven track record in working with manufacturers to achieve these goals through providing innovative solutions, sometimes to areas which clients did not know need improving upon.

why choose modular construction?

- Vastly reduced time on site
- Certainty of program – most manufacturers are set up as a production line with automated processes where the uncertainties such as those related to the weather and coordinating the various trades are eliminated
- Airtightness can be improved due to the quality and accuracy that can be achieved offsite
- Modular construction plays a big role in a sustainable future with less waste and net zero homes that can be consistently replicated
- Safer sites and safer overall construction process

what to consider...

- Modular construction works best if thought of at the concept stage
- High volume repetitive volumes are where this method excels
- Most of the time you will have ceiling and floor joists making the separating floor make up larger
- The areas to leave for site finishing are critical to get right
- There are transportation restrictions to modules
- Access for lifting modules into place is important

light gauge steel



Our Modern Methods of Construction team have been designing using light gauge steel for more than 15 years, both as part of their cladding support work (SFS infill) and as full load bearing elements. QED Structures experience spans across the globe, including in the US, across Africa and the Middle East, India, Europe and Australasia. Our experience in the UK includes 240 unit apartment schemes, including 10 storey blocks made primarily of light gauge steel.

We work in all sectors, particularly in the fastest growing sector of affordable housing where we have been able to provide efficient solutions to clients.

why choose light gauge steel?

- Prefabricated sticks, panels or volumetric modules lead to less waste and accurate builds
- Less time on site
- Frame goes up regardless of the weather and so a watertight structure is achieved much quicker
- Less skilled labour required than traditional forms of construction
- Sustainable – less waste, less deliveries of materials and recyclable
- Compatible with the BIM environment
- Lighter structure – makes it ideal for roof top extensions
- Versatile cladding options
- Non-combustible

what to consider...

- The elements are usually cut to the exact size designed for – site adjustment is difficult
- This system is most efficient where load bearing walls stack, such that not too much traditional structural steel (HRS) is required
- There are span limitations similar to timber joists
- The light gauge steel should be raised above ground level on concrete blocks or RC upstands

sustainability



With the impact of construction and the high emissions produced in our industry, at QED Structures we are passionate and committed in ensuring that sustainability is considered from concept all the way through to the end of life of projects. We believe in a construction industry that considers the environment and places sustainability at the core of all solutions. We fully promote sustainable design and pride ourselves in lowering the carbon emissions of buildings and structures. We believe that by selecting the correct materials and methods we can optimise design, which therefore lowers the carbon emissions produced by our structures without increasing costs.

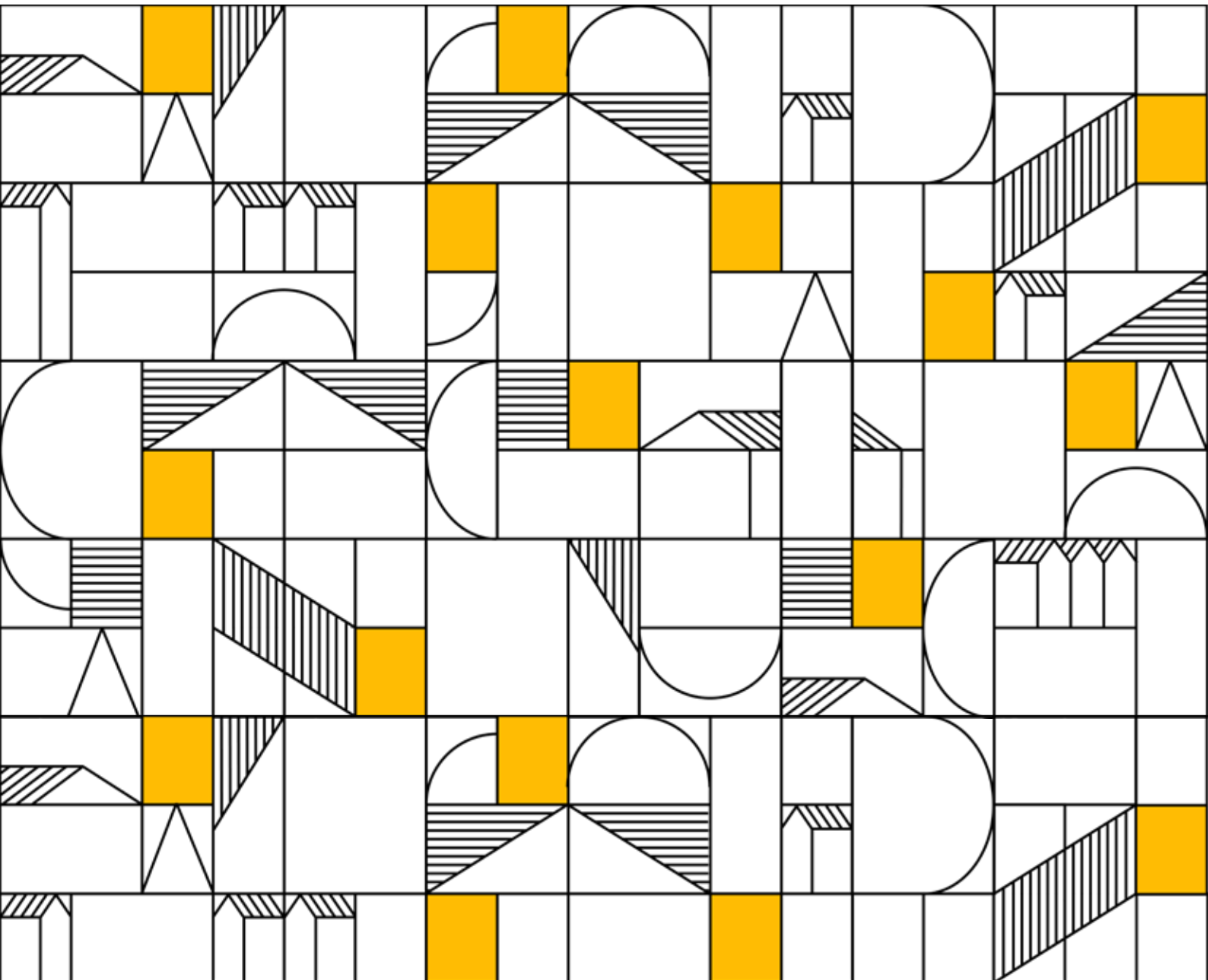
“the structures we build today will have a lasting impact on the world around us. we believe that sustainability is an essential part of our work and we are committed to staying at the forefront of sustainable technology and techniques.”

what we do to help:

- Always consider how to design for deconstruction reuse or recycle to encourage zero waste when the building reaches its end of life.
- Use locally sourced materials, particularly reclaimed or recycled materials, reducing transportation and actively supporting local businesses.
- Use local labour and sub-contractors.
- Provide efficient and optimised designs.
- Consider designing flexibility into the structure to allow change of use later or provide a dual use facility without over-engineering, maintaining lower cost.
- Compost organic waste on site, reducing vehicle movements and limiting the volume of material sent to landfill.
- Use Modern Methods of Construction (MMC)
MMC - We are specialists in the design of modular and light gauge steel frame structures. Our designs allow precision accuracy which minimises waste, less vehicle movements to site, use of local labour and sub-contractors, less time on site and impact locally, smaller foundations and less concrete.

temporary works

During the design stages of any projects, consideration has to be made with regards to how structures are built. This is essential to ensure our designs are efficient and fit for purpose, as part of this exercise the temporary works requirements need to be considered and thought about. This is why at QED Structures we also pride ourselves that we can provide the temporary works design, detailing and sequencing for any project for the main contractor during the construction stages



A complex architectural collage featuring various building designs. At the top left, a modern glass structure is shown with the text "designing the world we live in" overlaid. Below it, a historic building labeled "FORT ROAD HOTEL" is visible. To the right, a building with a curved glass facade and a large green wall is shown. The collage also includes a building with a curved glass facade and a large green wall, and a building with a curved glass facade and a large green wall. The text "designing the world we live in" is overlaid on the top left.

**scan here
to see our
projects**



projects



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