Cl/SfB | | (31.9) | Hh2

BETTER BY
DESIGN

IG
STEEL LINTELS

SIGNATURE PROJECTS

A SELECTION OF OUR BESPOKE DESIGN PROJECTS





IG STEEL LINTELS

BETTER BY DESIGN

Architects want to leave their signature on every exceptional building. Through expert lintel design IG makes the architect's vision a reality.

BBA BRITISH BOARD OF AGREMENT CERTIFICATE No 05/4192
BBA Certification

BSI
British Standards Institution
ISO 9001 & ISO 14001

HBF HOME BUILDERS FEDERATION
Home Builders Federation

NSSPlus
National Building Specification Approved

RIBA CPD Approved

BMF Builders Merchants Federation
Builders Merchants Federation

NHBC
National House Building Council

INVESTORS IN PEOPLE
Investors in People Accreditation

bre
Building Research Establishment

www.iglintels.com

Signature Projects

CONTENTS	PAGE
Innovation, Quality & Service	04
Stepped Triple Arch	06
Glazed Gable Apex Sun Lounge	10
Octagonal Portal Frame	14
Glazed Apex Gable	18
Continuous Heavy Duty Arches	22
Structural Apex Frame	26
Special Roof Design	30
Stepped Parabolic Corner	34
Angled Apex Frames	38
Triple Bow Sun Lounge	42
Cantilevered Walkway	46
Venetian Arch Square Bay	50
Special Arch lintels & Colonnade Supports	52
Balcony Support - Large Commercial Project	54
Flexibility	56
Special Gothic Arch Lintels	60
Cantilevered Segmental Arched Corner Lintel	62
Extra Heavy Duty Flat Parabolic Arch Lintel	63





IG Support

The breadth of our product range covers every possible lintel solution within even the most creative building designs.

RANGE



HI-THERM

IG has redefined Lintel performance with Hi-Therm, designed to exceed the thermal requirements in forthcoming building regulations. Hi-Therm is supported by an advanced technical service package.



STANDARD LINTELS

IG produce a wide range of standard galvanised steel and stainless steel lintels. All IG standard lintels satisfy the thermal performance requirements of all UK building regulations.



SPECIAL LINTELS

IG offer a complete custom design service to ensure your project has the best lintel for the job. Our technical expertise is renowned for delivering solutions with total efficiency.



BRICKWORK FEATURE LINTELS

IG Brickwork Feature Lintels are a one piece prefabricated unit, manufactured bespoke to order, achieving even the most challenging architectural designs.



MASONRY SUPPORT & WINDPOST SYSTEMS

IG continues to set the standard for masonry support and windpost systems for a range of building frame configurations. The innovative Qwik Fix angle provides a versatile solution when masonry support is required.



CAVITY TRAYS

The IG Cavity Tray presents a lightweight, simple to install and long-lasting solution to preventing dampness from penetrating below the roof line.

IG gives a hassle free service from enquiry stage through to delivery on site. You can relax in the knowledge that your order is in the hands of experts.





TECHNICAL SUPPORT

IG provides comprehensive technical support for all products. Our free scheduling and specification service offers fast turnaround on standard lintels and windposts. IG leads the market with a bespoke design service for special lintels and brickwork feature lintels, including onsite measurement and technical assistance.

Our in-house experts use the latest thermal modelling software to advise clients on the optimum lintel solution for compliance with and beyond the latest building regulations.

By contacting our engineers at an early stage of your design process you will potentially gain significantly more design flexibility for the overall project. Please send your drawings to: **drawings@iglintels.com**

Please refer to our Fax Back Forms for special lintel requirements. Detailed measuring advice and Fax Back Enquiry Forms are available for download at: **www.iglintels.com/technical**.

FASTRACK DATABASE FOR CAD

The IG Fastrack Database is accessible from the IG website and provides downloads of CAD files for a selection of IG Steel Lintels.

NBS PLUS

IG provides specification details via RIBA NBS Plus, accessible by subscribers to the NBS Plus system.

DELIVERY

IG's fast, efficient delivery service is renowned throughout the construction industry. Our logistics solution is recognised by our customers for superior supply chain management.

IG continues to provide the largest range of lintels available, with the shortest lead times in the industry. We have invested in large stock inventories at our three manufacturing and distribution centres which reassure our customers that all our standard lintels are instantly available upon request.

IG has revolutionised the steel lintel industry by manufacturing and delivering 'special' lintels with lead-times historically associated with ex-stock items.

IG products are available through a national network of merchant suppliers. For information of merchant suppliers in your area please visit our website at: **www.iglintels.com/merchants**

Stepped Triple Arch



A decorative entrance porch to a new entertainment complex.

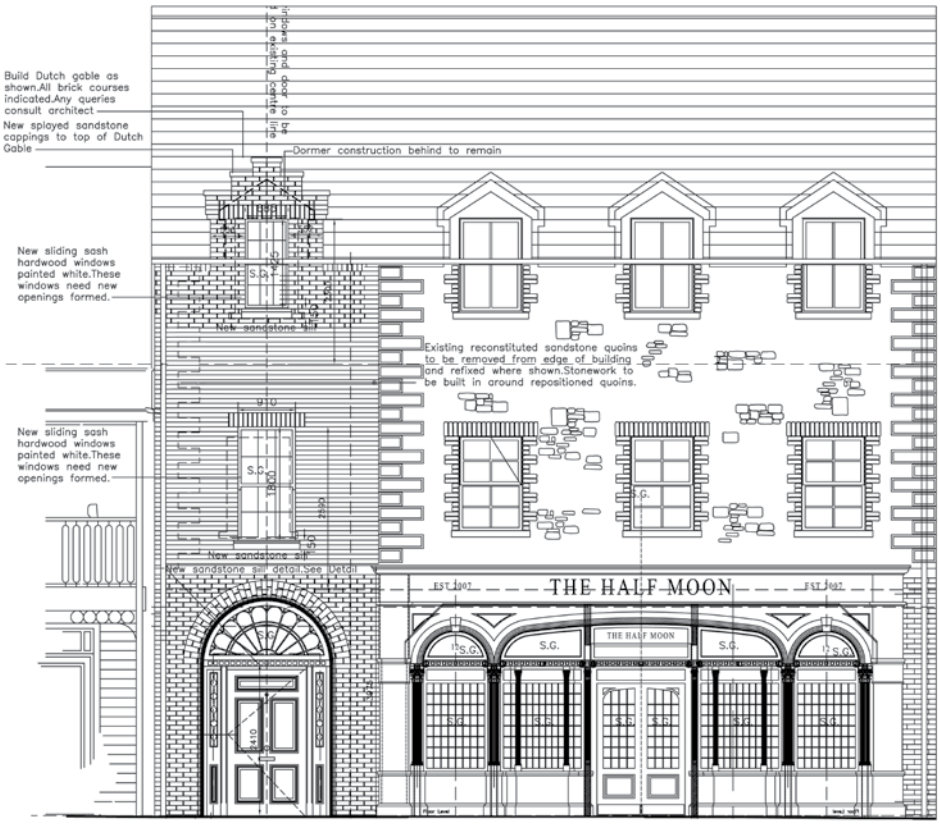
Working closely with architects - McCarter Hamill, IG engineer - Chris Patterson, designed a unique stepped triple arch lintel to facilitate the intricate details of the façade.



PROJECT DETAILS

Spanning 7.2 metres in length this fully insulated, 400mm wide lintel provides full structural support for the entrance porch. To enhance the overall aesthetics of the bar front, the IG Engineer ensured that no steelwork was visible once construction was complete.

The structure also incorporates a steel ladder frame bolted to the vertical support posts. This frame provides a load bearing facility for the decorative wooden framing of the windows and doors.



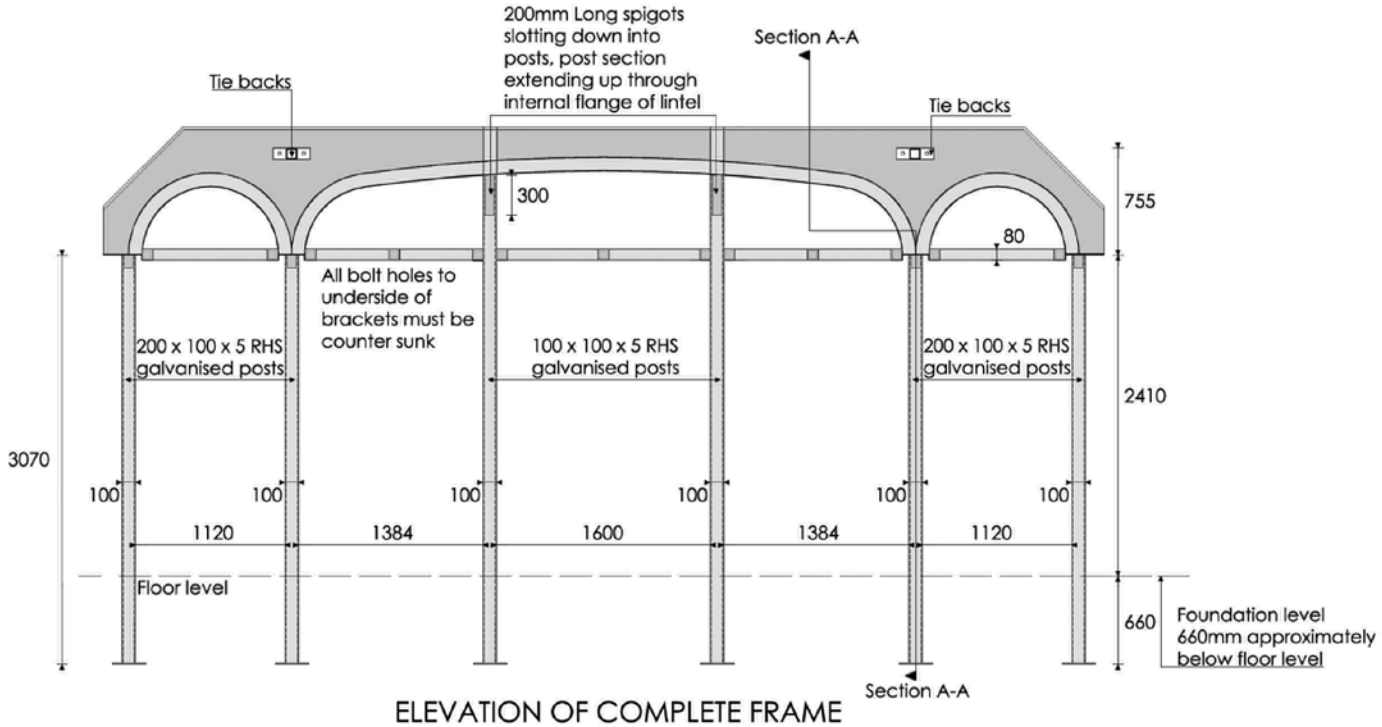
"It was reassuring to have IG's creative technical department on hand when presented with this complex bar front. We acknowledge the invaluable support provided by IG, who worked as a member of the design team to ensure everything went to plan."

Paul Hamill
McCarter Hamill

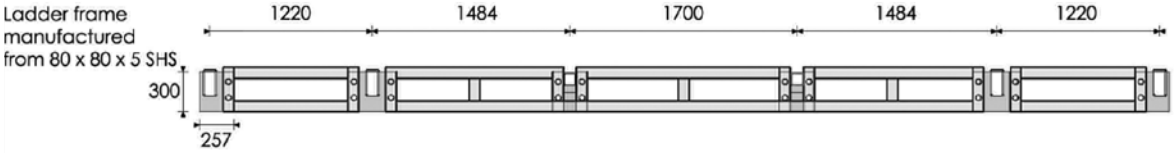


IG ENGINEER TECHNICAL DRAWINGS

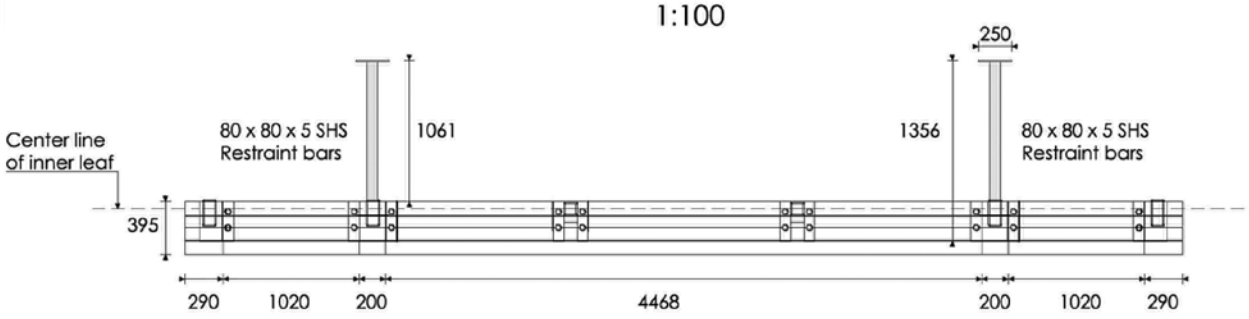
Stepped Triple Arch



ELEVATION OF COMPLETE FRAME
1:100



PLAN VIEW SHOWING POSTS, BRACKETS AND LADDER FRAME.
1:100



PLAN VIEW SHOWING POSITION OF LINTEL IN RELATION TO POSTS
1:100



Special 5mm folded brackets incorporating post spigots fitted with 12mm DIA Bolt holes

Special 10mm brackets to cantilever from post and hold ladder frame fitted with 12mm DIA Bolt holes

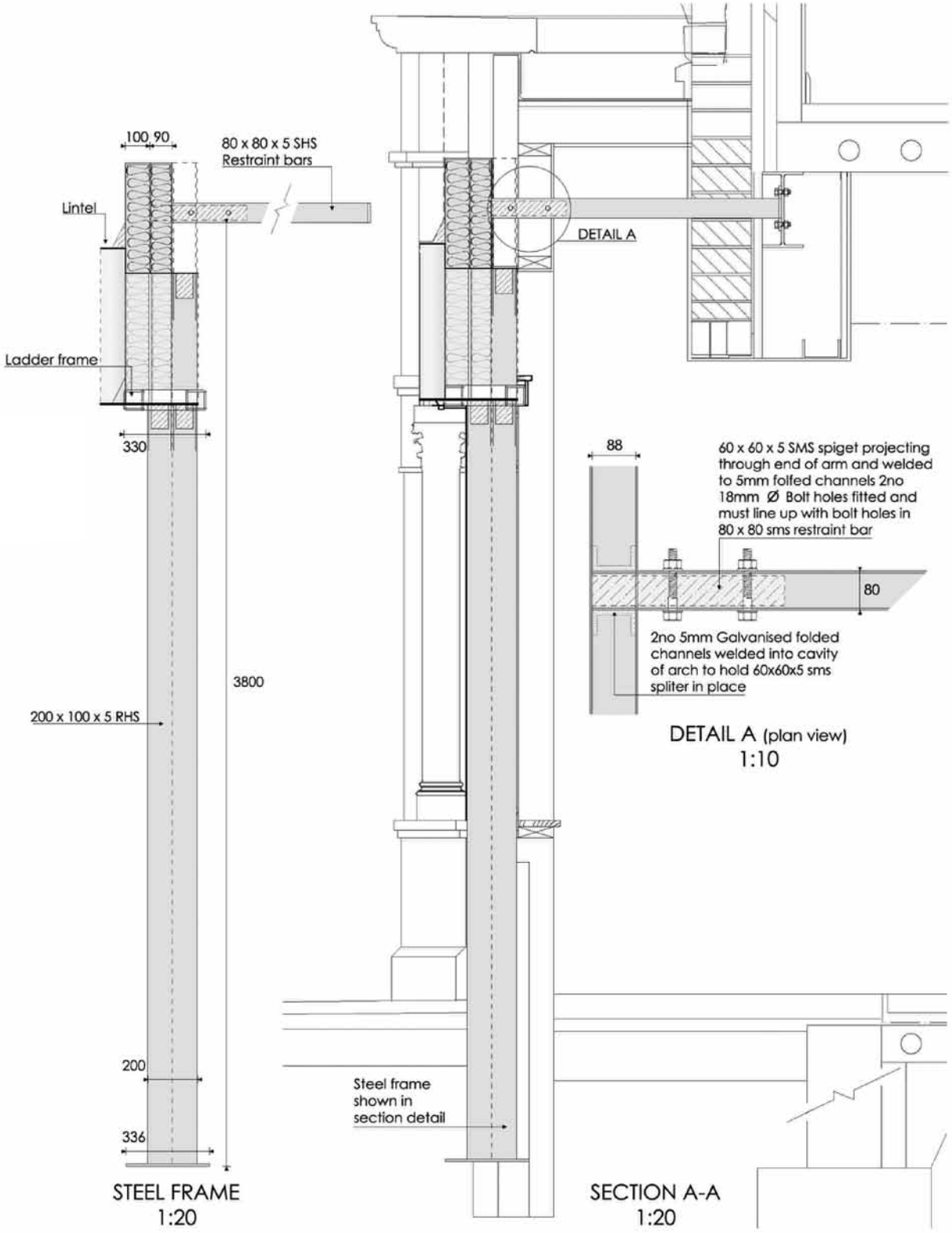
Special 5mm folded brackets incorporating post spigots fitted with 12mm DIA Bolt holes





Stepped Triple Arch Lintel

Client :	M McElroy
Architect :	McCarter Hamill
Contractor :	McElroy
IG Engineer :	Chris Patterson



Glazed Gable Apex Sun Lounge

A key feature in this stunning home in Magherafelt.



Spanning nearly 7m in height and 6m in width the large glazed apex provides a beautiful feature to this prestigious project. The owners wanted light space and a connection with the outdoors and the large glazed gable apex was able to provide this.



PROJECT DETAILS

IG Engineer Paul Graham designed all the steel lintels for this property and was available on-site to assist the architect and builders. He also had to take into consideration the unusual wall construction which consisted of a double cavity of 100mm with two sections of block and one section of brick.

As well as the large Apex sun lounge, many other lintels were used to make this a beautiful family home, including a large 6m wide Arch lintel at the front of the property, a large double storey corner lintel and a ring beam corner lintel at the rear of the property.



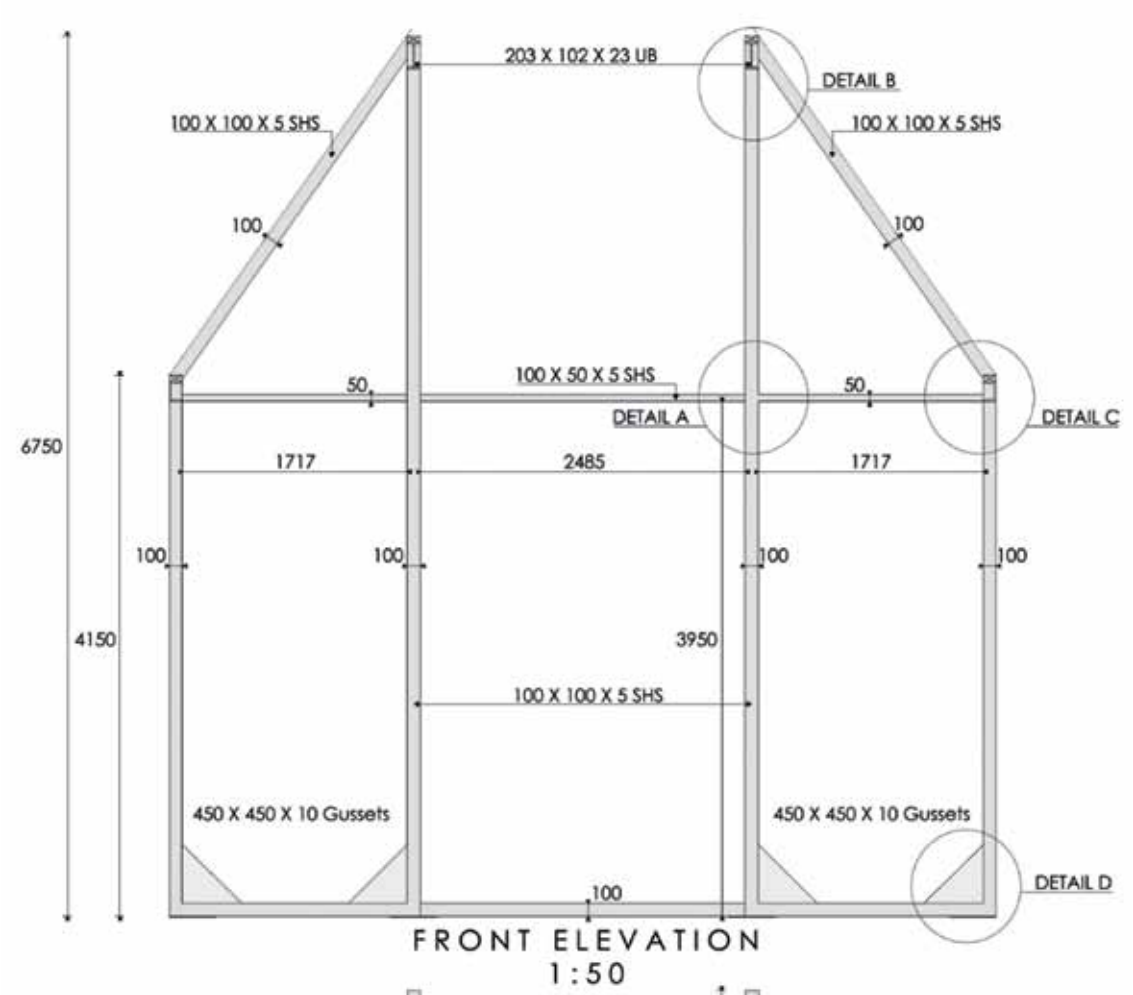
IG provide peace of mind that a unique structure will be both structurally safe and value engineered.

Nigel Jones
GM Design

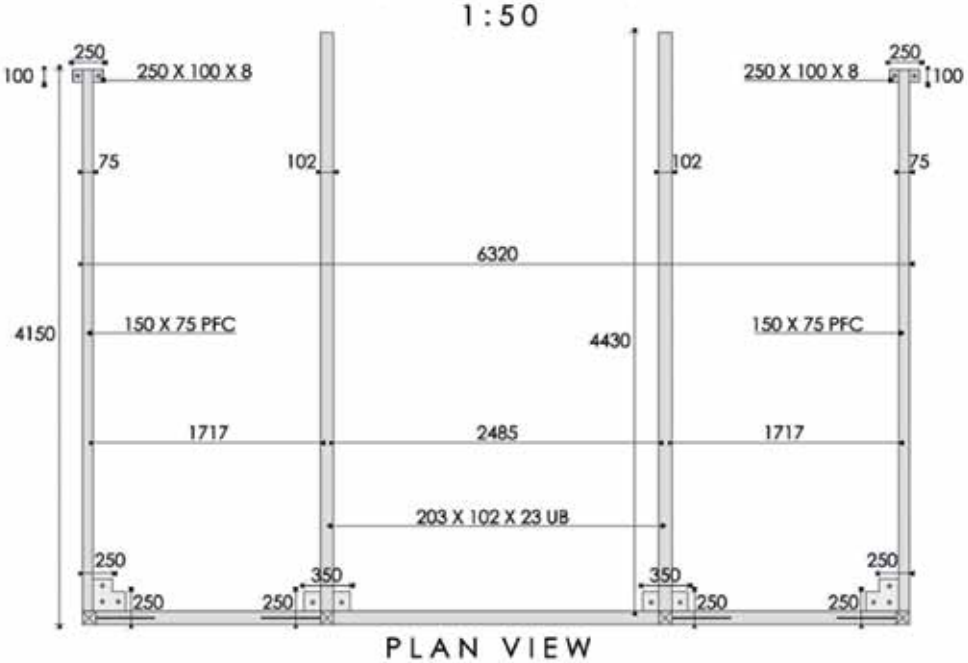


IG ENGINEER TECHNICAL DRAWINGS

Glazed Gable Apex Sun Lounge



FRONT ELEVATION
1:50



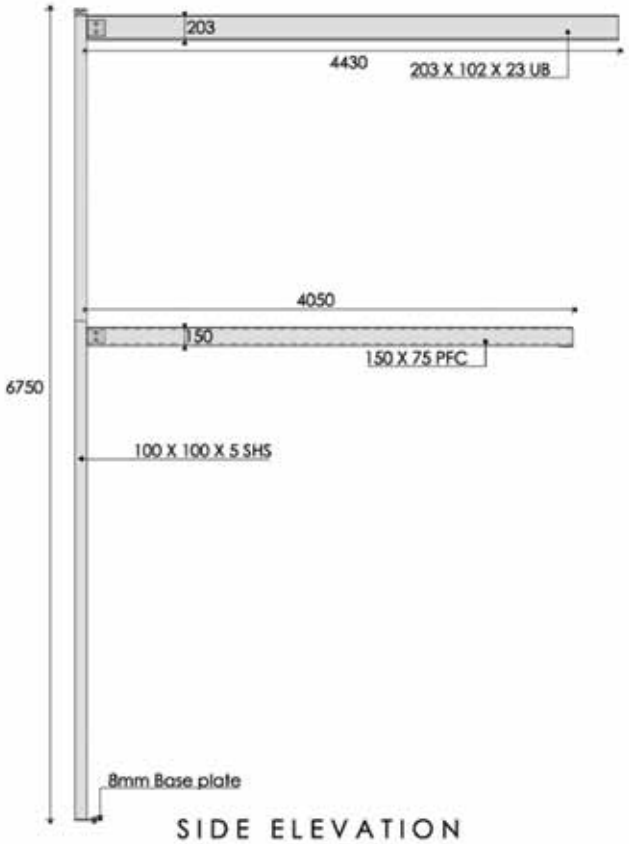
PLAN VIEW
1:50



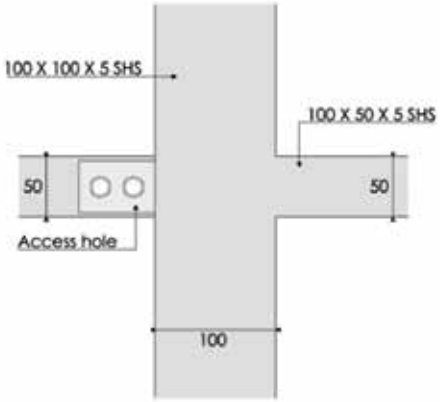


Glazed Gable Apex Sun Lounge

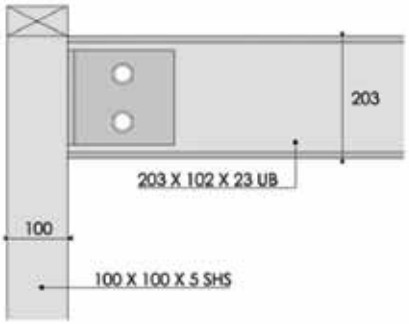
Client :	Private House
Architect :	G M Design
Contractor :	Higgins Construction
IG Engineer :	Paul Graham



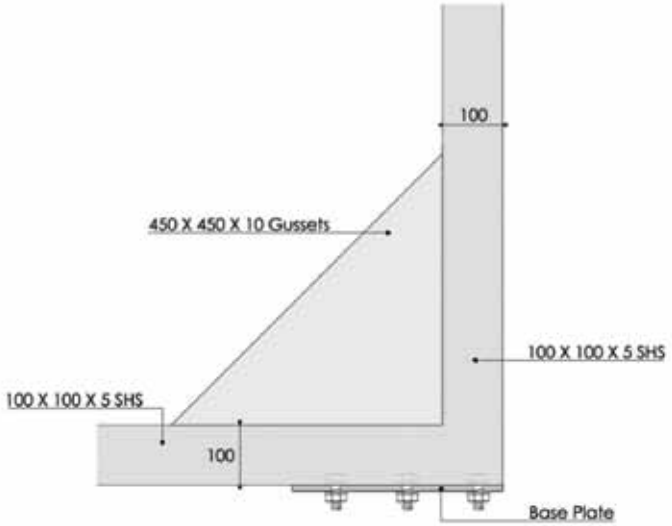
SIDE ELEVATION
1:50



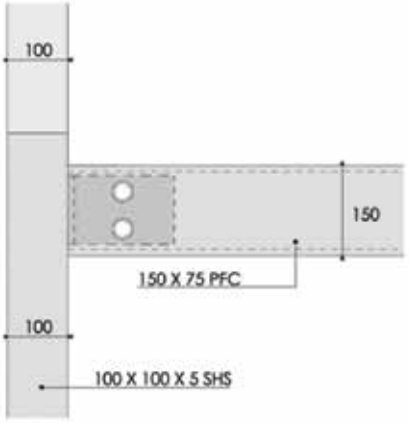
DETAIL A
1:5



DETAIL B
1:10

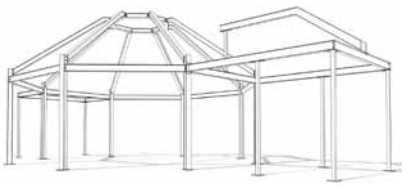


DETAIL D
1:10



DETAIL C
1:10

Octagonal Portal Frame



Designed to cater for exclusive wedding ceremonies.

Galgorm Manor Hotel, a leading luxury hotel and spa, required a classic building to cater for exclusive wedding ceremonies. RRP architects liaised with IG engineer, Kyle Alexander, to create this bespoke structure.



PROJECT DETAILS

Measuring 16 metres in length, with the main vaulted ceiling spanning 9.7 metres, this deluxe private wedding venue combines modern open space with elegant style.

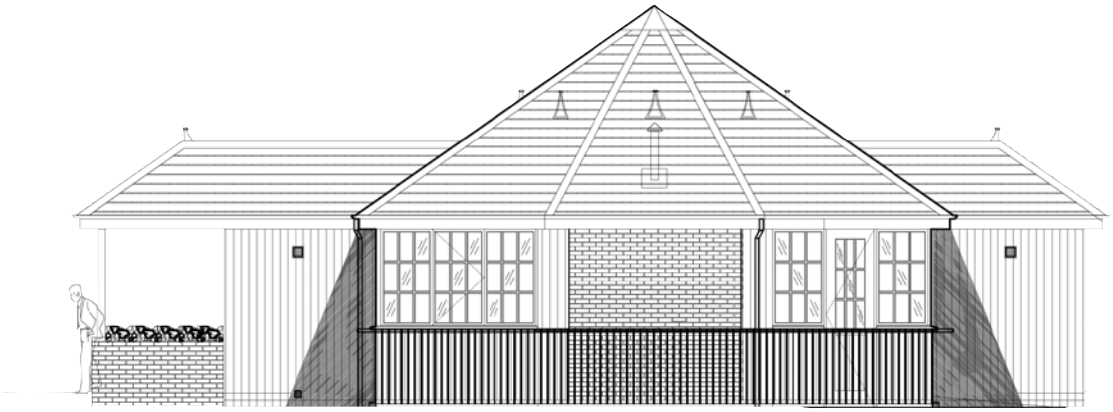
The Octagonal Portal Frame was manufactured using a variety of steel beams, columns and sections bolted together to create a structural support for the building.











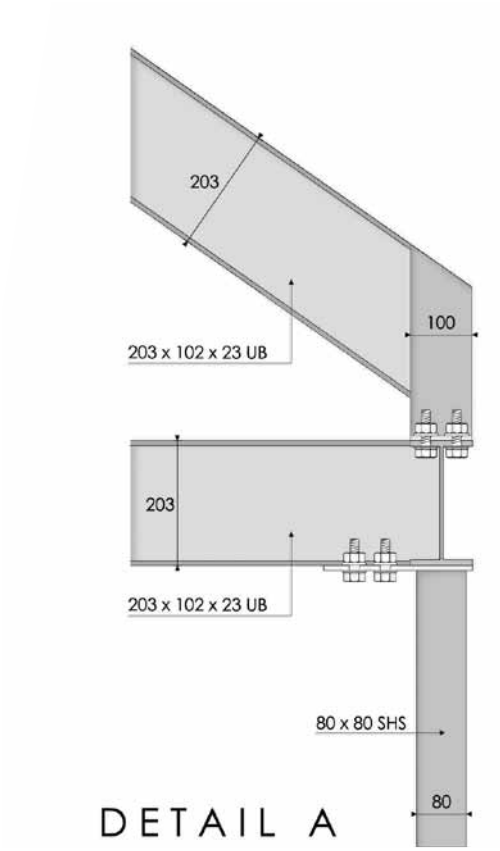
"We are delighted with this unique building and we give great credit to IG's engineer for his expertise, professionalism and guidance on-site."

Beth Swindlehurst
Galgorm Manor Resort & Spa

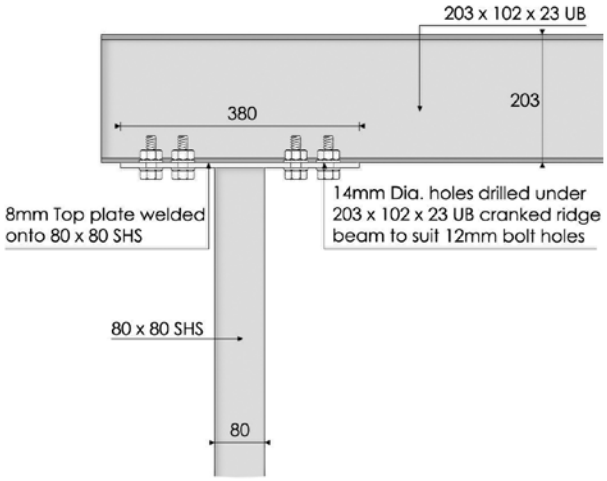


IG ENGINEER TECHNICAL DRAWINGS

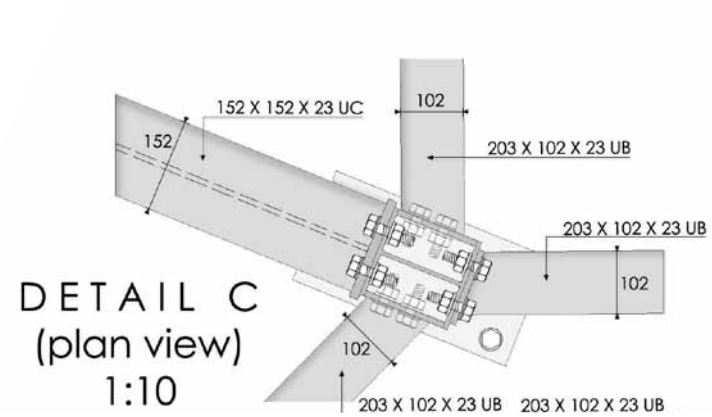
Octagonal Portal Frame



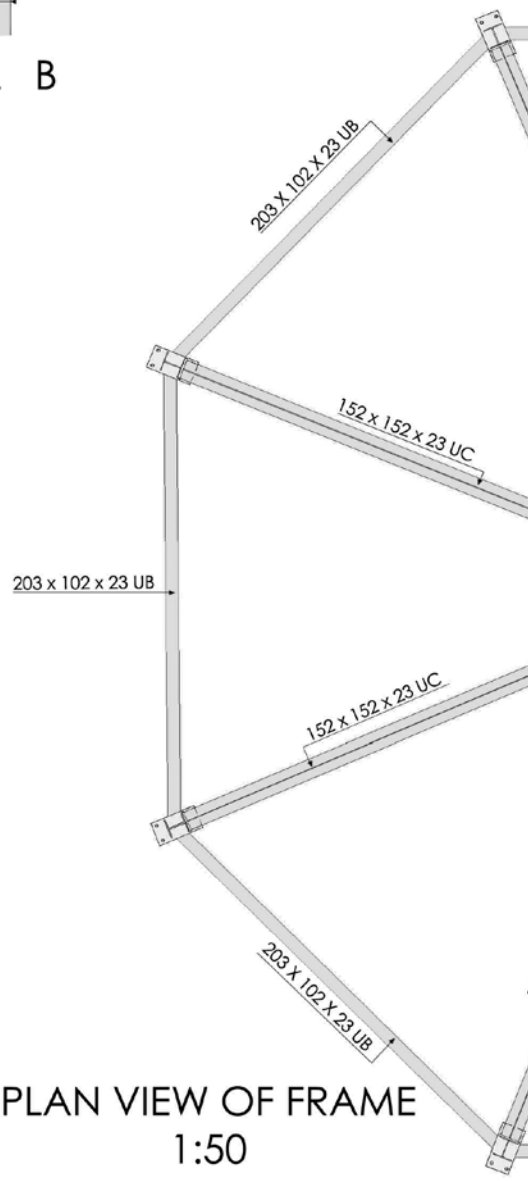
DETAIL A



DETAIL B



DETAIL C
(plan view)
1:10



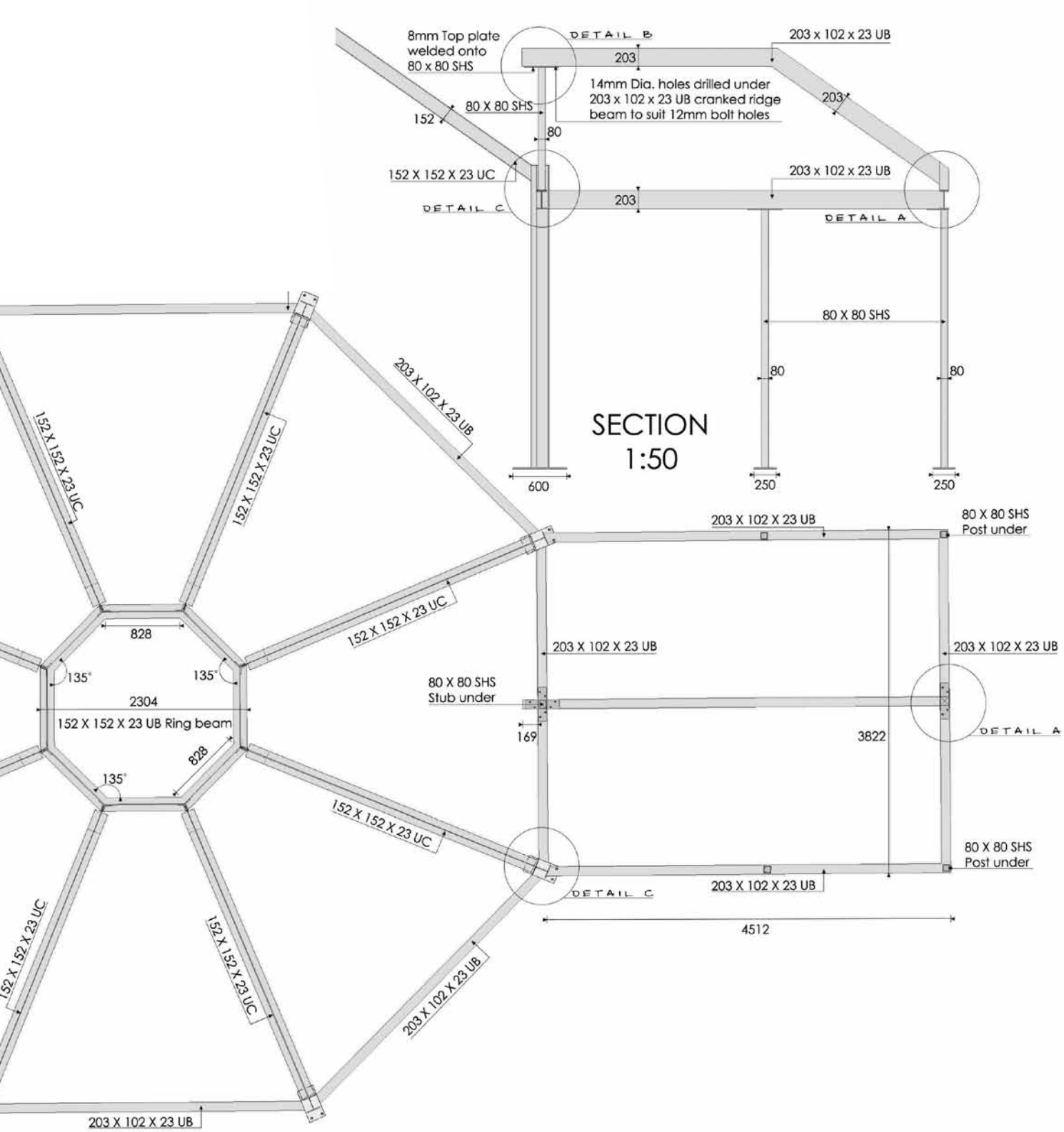
PLAN VIEW OF FRAME
1:50





Octagonal Portal Frame

Client :	Galgorm Manor Hotel
Architect :	RPP Architects
Contractor :	–
IG Engineer :	Kyle Alexander



Glazed Gable Apex



Including cantilevered balcony.

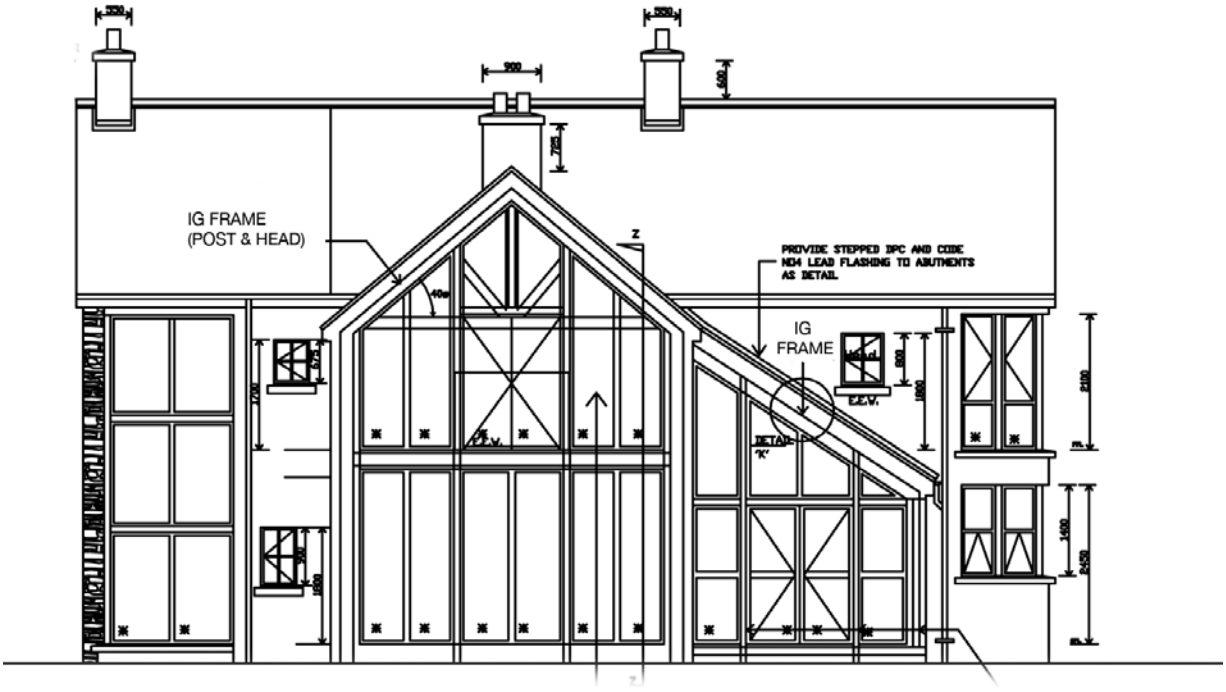
Working closely with architect - Andrew Coulter, IG engineer - Chris Patterson, detailed the unique two storey glazed gable apex with a cantilevered balcony, two story corner lintels and half apex corner lintels.



PROJECT DETAILS

Recently televised in the BBC's "House of the Year 2010", this family home is a quintessential example of IG's innovative engineering. Working closely with Architect - Andrew Coulter, IG Engineer - Chris Patterson, detailed the unique two storey glazed gable apex with a cantilevered balcony, two story corner lintels and half apex corner lintels.

The apex portal frame is 8.5 metres high and spans 5 metres wide. IG also supplied a ridgebeam to bolt back from the apex of the gable frame to provide support for the vaulted ceiling. This diversity of steel framing was created using a combination of structural steel sections and supports.



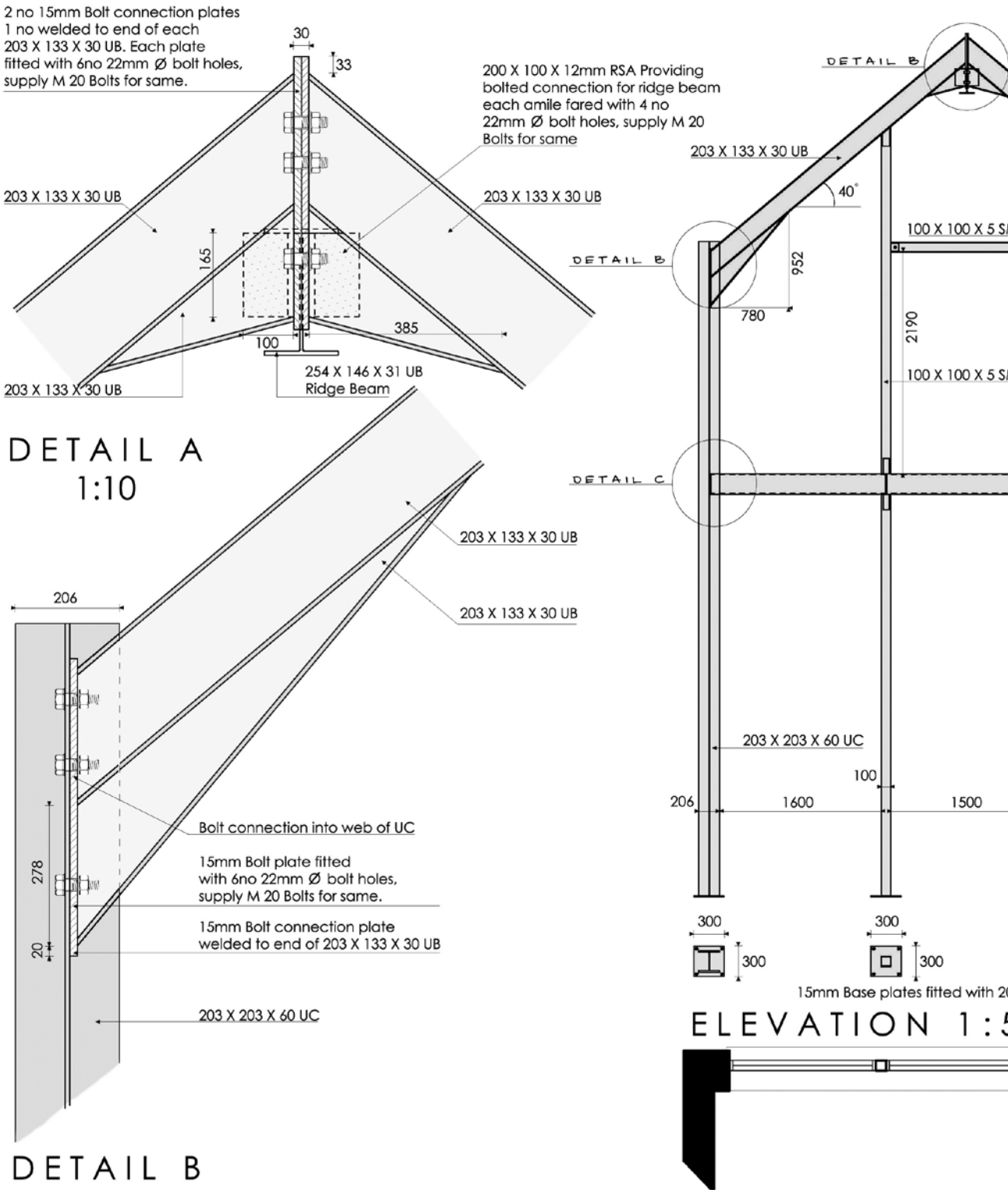
"IG ensured full structural support without compromising the original vision we had for the building. They made sure their steel systems slotted seamlessly into place."

Denver McMahon
Andrew Coulter Architects



IG ENGINEER TECHNICAL DRAWINGS

Glazed Apex Gable

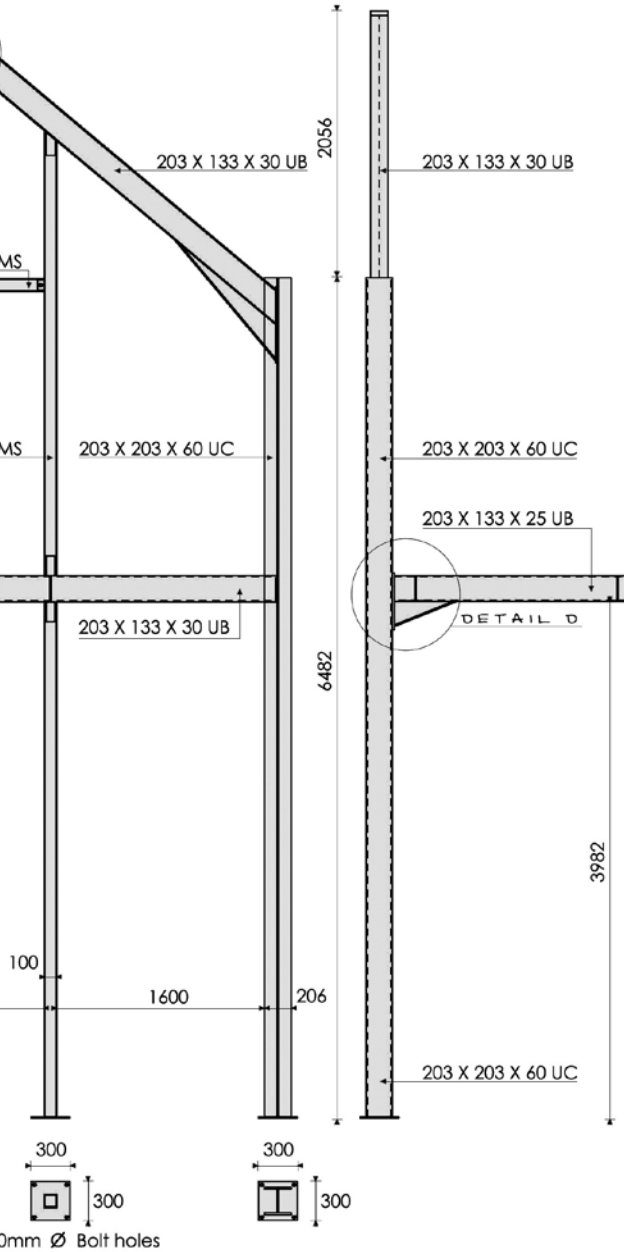


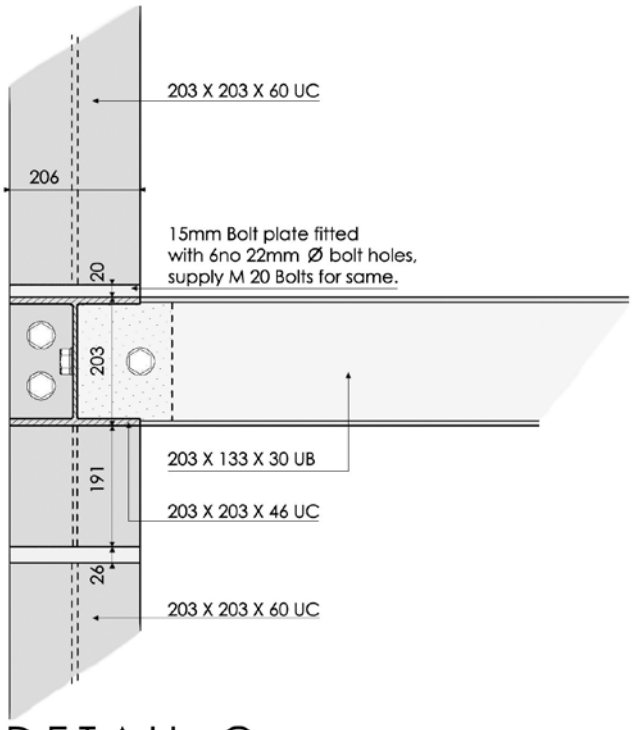




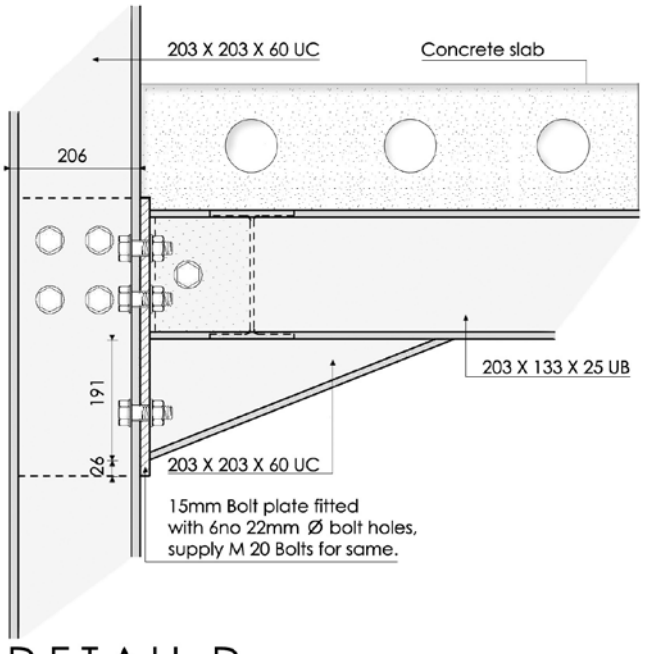
Glazed Gable Apex with Balcony

Client :	Private
Architect :	Andrew Coulter Architects
Contractor :	H&J Martin
IG Engineer :	Chris Patterson





DETAIL C
1:10



DETAIL D

Continuous Heavy Duty Arches

Agricultural, Food & Bio-Sciences Building.

The arches required for the government's Agricultural, Food and Bio-sciences building span 16.5 metres and carry a 600mm thick solid stone wall. IG engineer, Chris Patterson, designed the continuous five arch heavy duty system for this restoration project.



PROJECT DETAILS

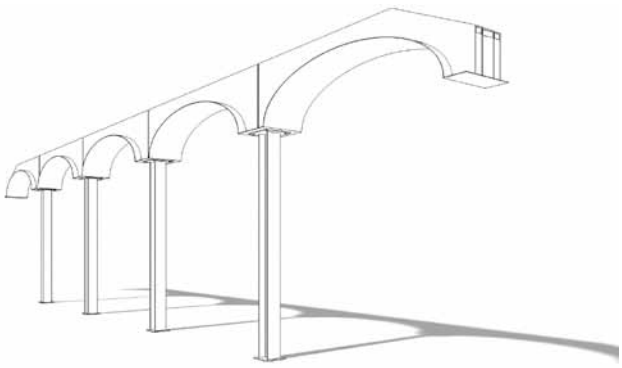
The original arches had been blocked up and supported by concrete lintels. The client wanted to reveal the traditional arches of the building and needed a support structure for the brickwork above. Due to the deterioration of the existing brickwork the contractor required further structural support and contacted the IG Technical Team to discus a possible solution.

Steel pins were placed through the original stonework and supported from below. This suspended the upper floor of the building whilst the deteriorated bottom floor stonework was removed. IG posts were then put in place and the arches bolted on top. The original brick and stone were then replaced and the structural pins removed leaving IG's heavy duty arches to carry the load.



"It was beautiful to see the old barn arches restored. IG made our dream come true."

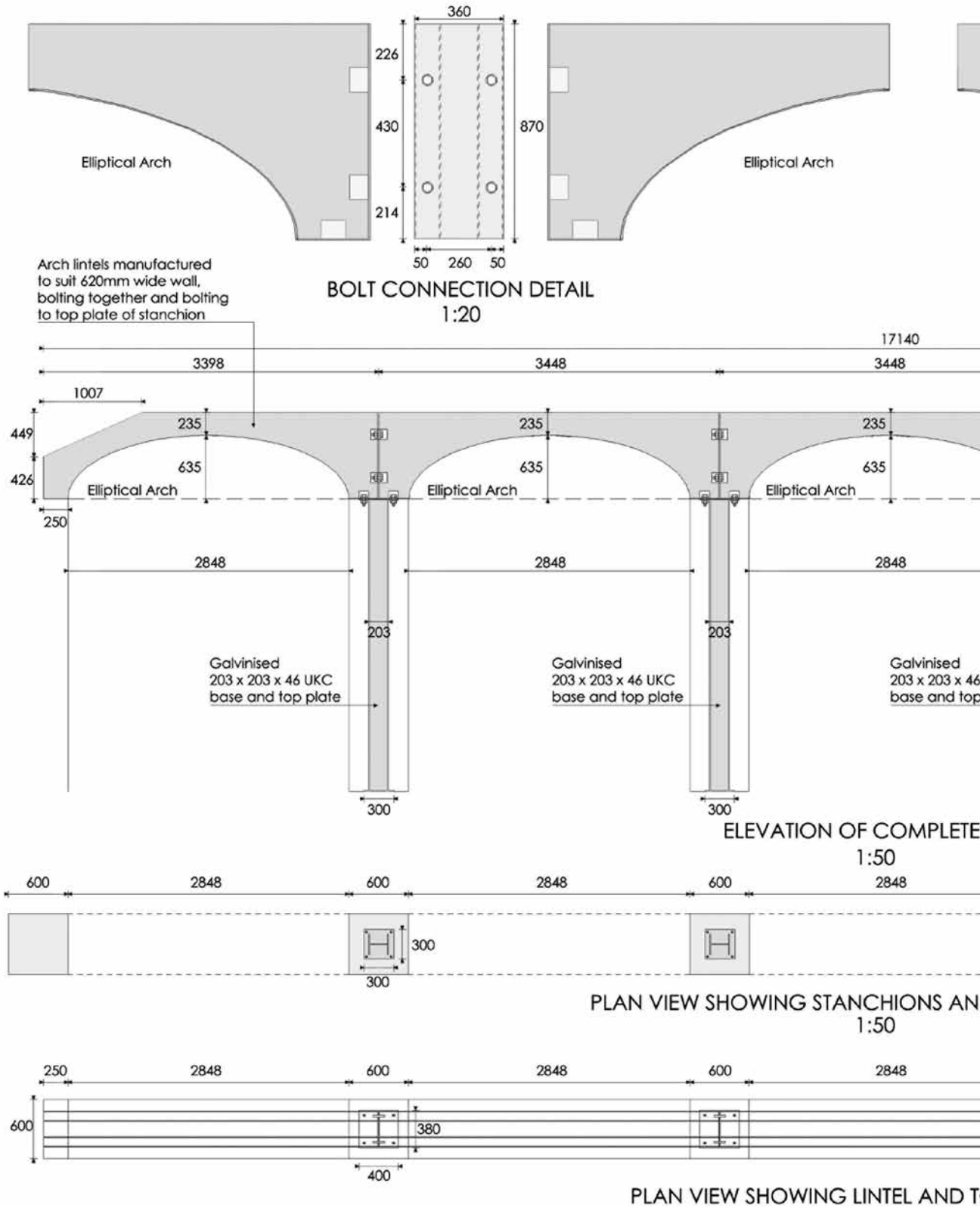
Derek Cahoon
Agriculture Food & Bio-Sciences Institute





IG ENGINEER TECHNICAL DRAWINGS

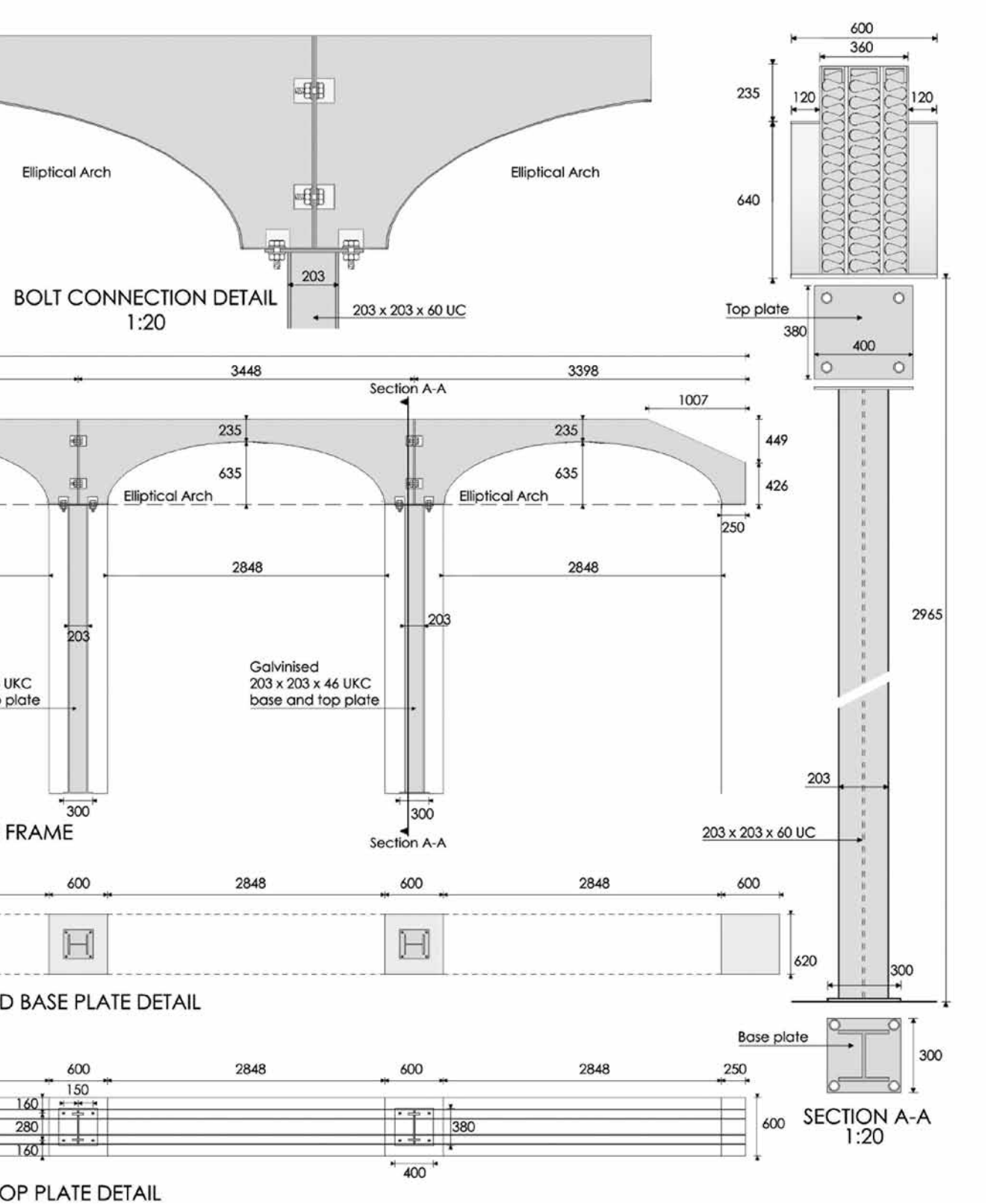
Continuous Heavy Duty Arches





Continuous Heavy Duty Arches

Client :	Agri-Foods & Bio-Sciences
Architect :	Todd Architects
Contractor :	H&J Martin
IG Engineer :	Chris Patterson



Structural Apex Frame



A double height apex window frame.

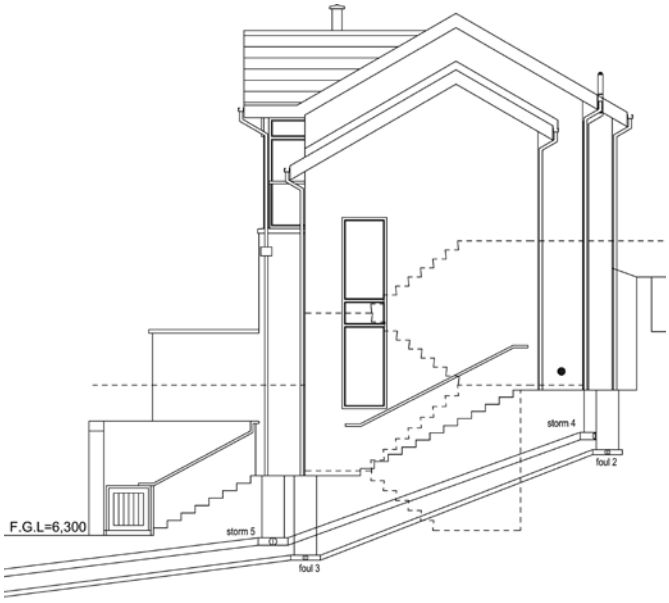
The dramatic double height apex window, at the front of the building, flood this beach front home with light and sunshine. The main open plan living area opens on to a balcony terrace with sliding retractable doors. The design maximizes the sea views by drawing the outside in.



PROJECT DETAILS

G.M. Design Architects called on IG's creative lintel department to detail this unique lintel. IG Engineer - Kyle Alexander, developed the structural steel framework to support the glazed gable apex and the roof structure above the balcony terrace.

Spanning 8 metres long and 4.5 metres high this complex steel frame was constructed from a range of steel sections.





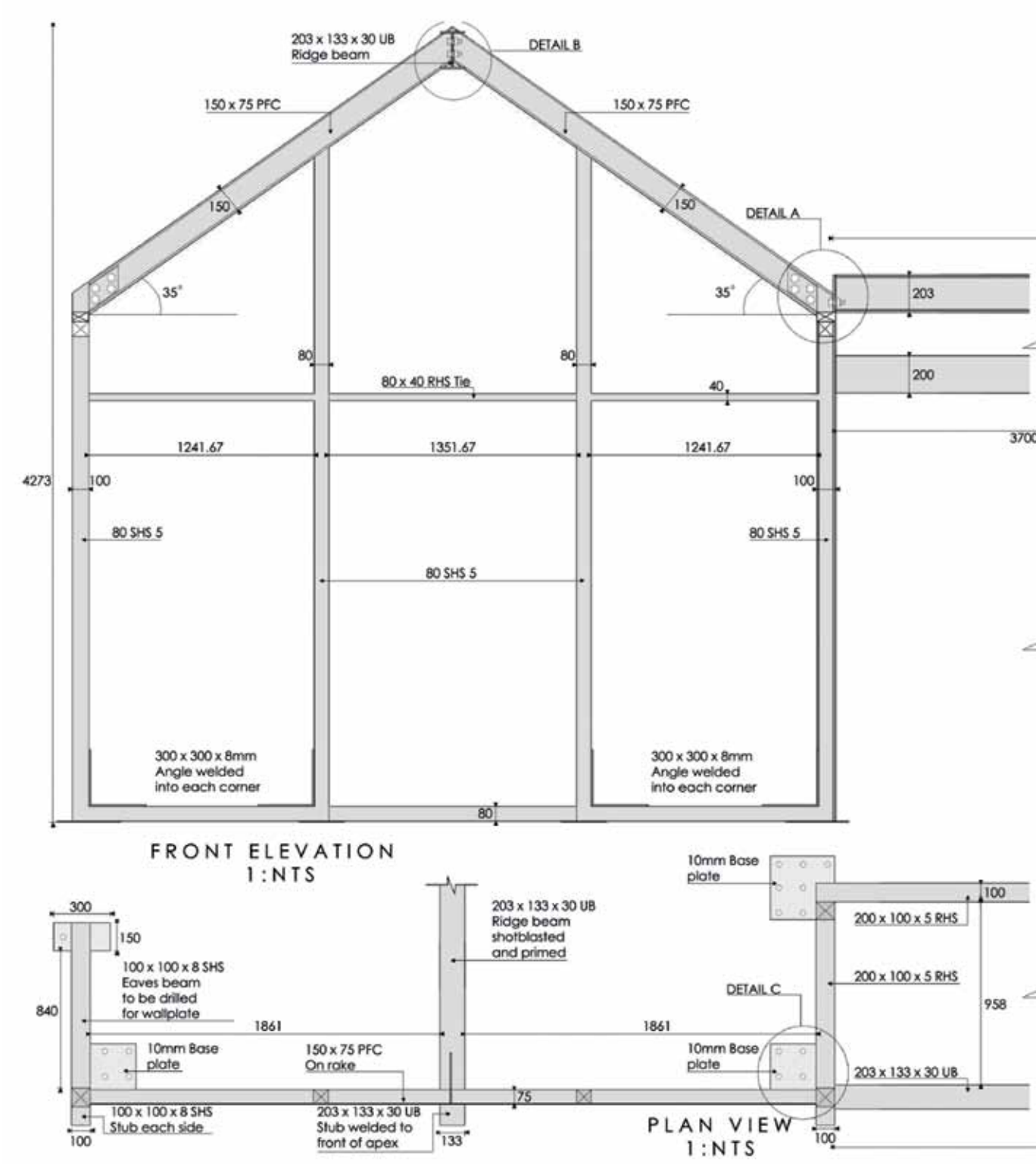
"A really interesting project for our team to work on. When presented with the clients brief we knew immediately that IG Engineers should be involved in the design stage. We were very impressed with the level of service provided by IG."

Derek Logue
GM Design



IG ENGINEER TECHNICAL DRAWINGS

Structural Apex Frame

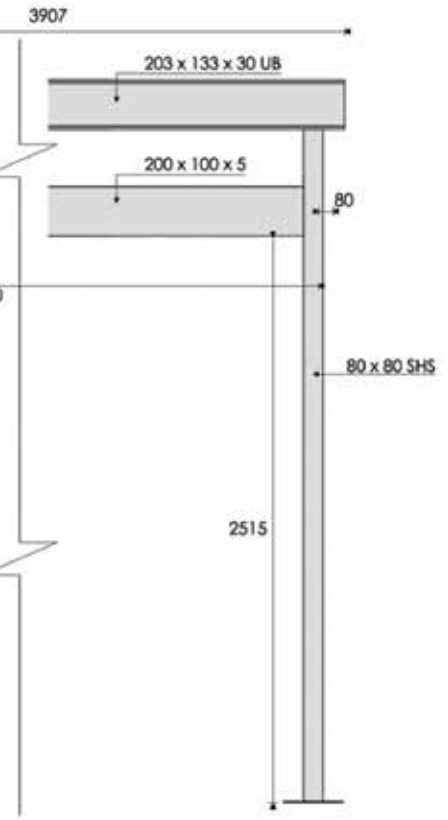


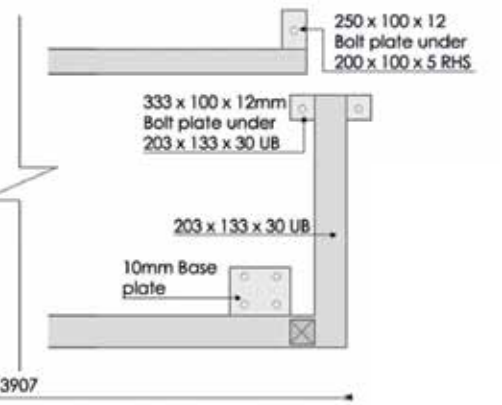


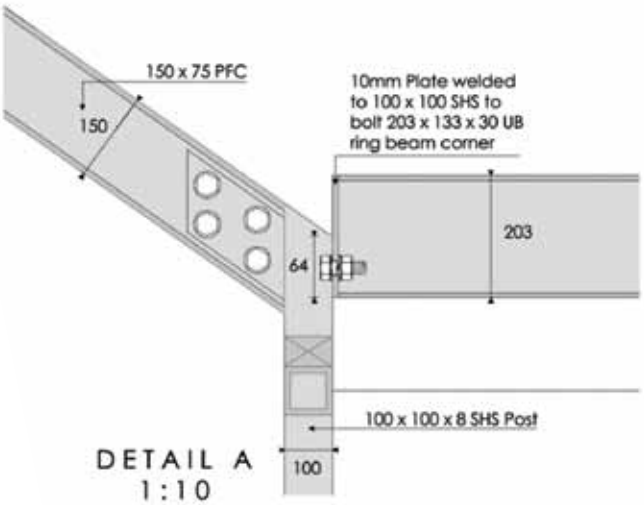


Structural Apex Frame

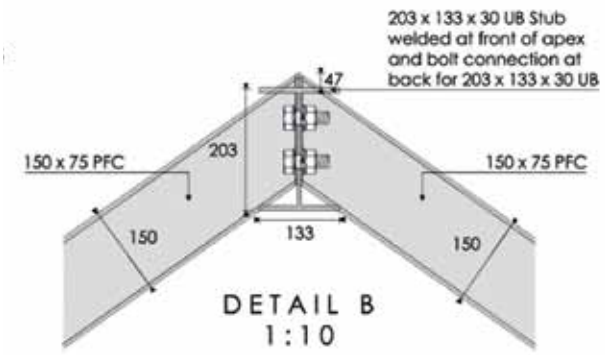
Client :	Private
Architect :	GM Design
Contractor :	Glebeview Builders
IG Engineer :	Kyle Alexander



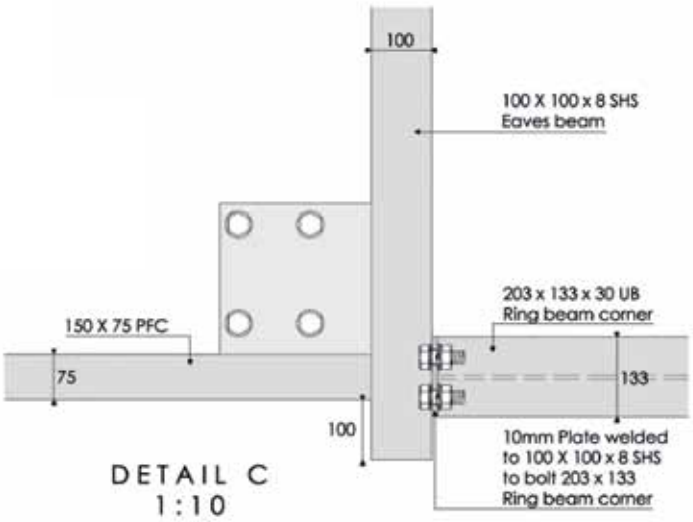




DETAIL A
1:10



DETAIL B
1:10



DETAIL C
1:10

Special Roof Design

Award winning country home with elegant proportions.



Located on an impressive 28 acre site, this elegant country home won the Sunday Telegraph's Home and Living, Best Traditional House in the UK, in 2007. At 950 square metres this new build is vast but despite its scale it appears snug and appropriate due to delicate detailing.



PROJECT DETAILS

IG Engineer created an exceptional structural steel roof as well as a two storey bowed lintel frame and two arched lintels for the stone quarters. The steel roof structure spans 19 metres in length, 12 metres wide and has a total height of 2.8 metres.

Before the structure went to site the full steel frame was erected in IG's manufacturing facilities to ensure it could be slotted perfectly into place. The frame was then dismantled and delivered to site by IG. This magnificent steel roof structure helps make this project a bit more special.

Architect Des Ewing has successfully softened the impact of the sheer size and newness of this dwelling by creating a playful mix of old and new architecture.

The main house is linked to a smaller stone wing by a curved gallery, lending the building a much more organic feel typical of older houses that have spread and extended over time.



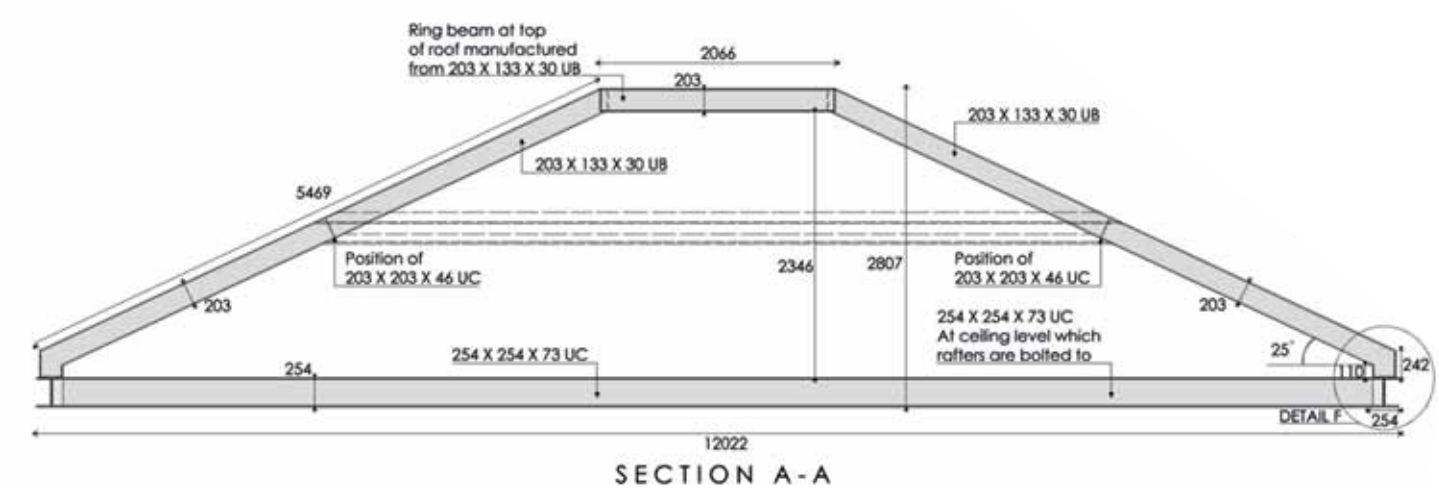
"We like to use market leaders, quality is always assured when we use IG Lintels "

Des Ewing
Architect

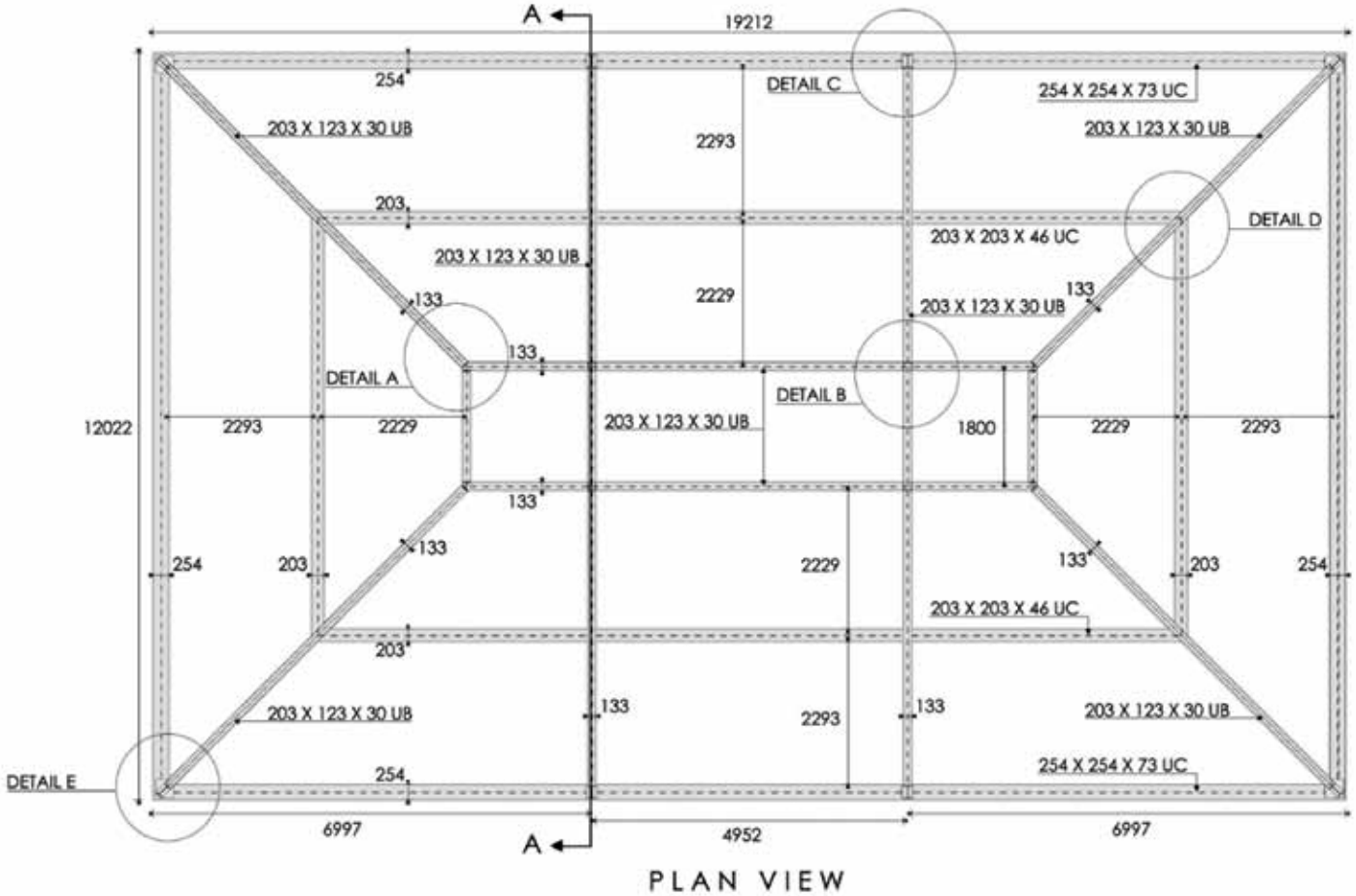


IG ENGINEER TECHNICAL DRAWINGS

Special Roof Design



SECTION A-A



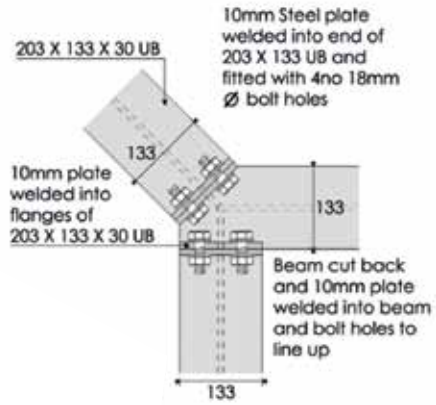
PLAN VIEW



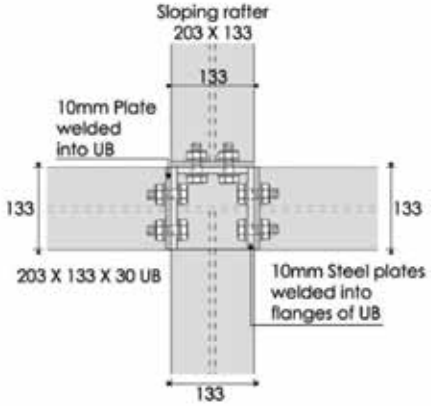


Special Roof Design

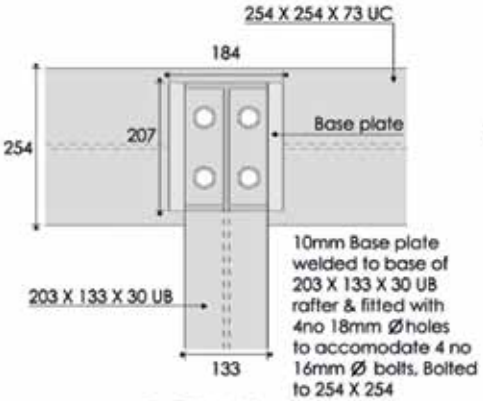
Client :	Private
Architect :	Des Ewing
Contractor :	Seaview Developments
IG Engineer :	Chris Patterson



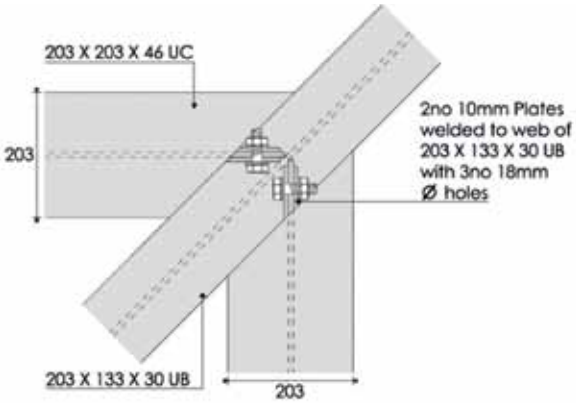
DETAIL A
1:10



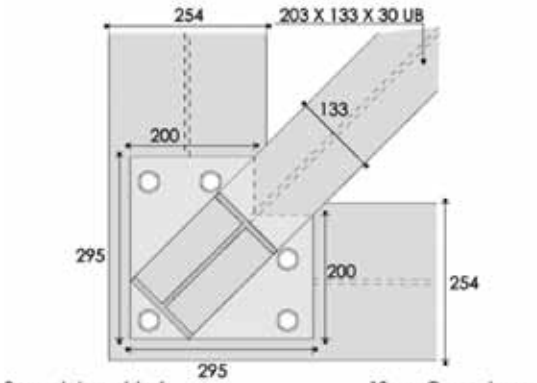
DETAIL B
1:10



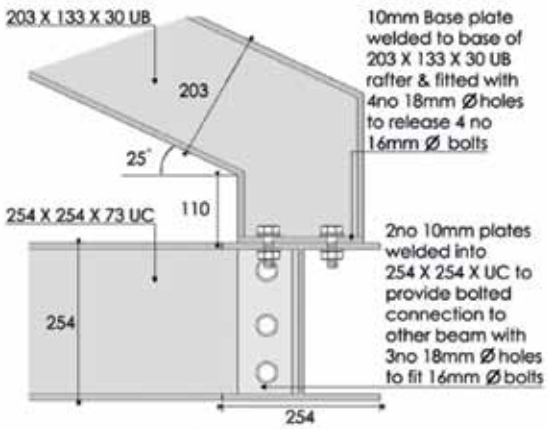
DETAIL C
1:10



DETAIL D
1:10



DETAIL E
1:10



DETAIL F
1:10

Stepped Parabolic Corner

A stepped corner lintel with a parabolic arch.



Special stonework features in this elegant bungalow really make the building stand out. Mountcharles sandstone sourced from County Donegal in Ireland, add's rich vibrant colours and texture to the external finish.



PROJECT DETAILS

For this project, IG Engineer - Kyle Alexander designed a stepped corner lintel with a parabolic arch to suspend over 1 tonne of stone from the outer steel shelf. The lintel was designed to ensure that no steelwork was visible.

This system works by drilling holes into the outer steel shelf. Expansion plugs are then placed into the hanging sandstone and are bolted from above through the holes in the steel shelf. In addition to supporting the load of the hanging stone, the fully insulated lintel carries a 500mm wide wall structure above.

Spanning 7 metres along the front face and returning a further 3 metres at the corner, this special lintel is a prime example of how IG lintels can adapt to the client's brief.



SIDE ELEVATION

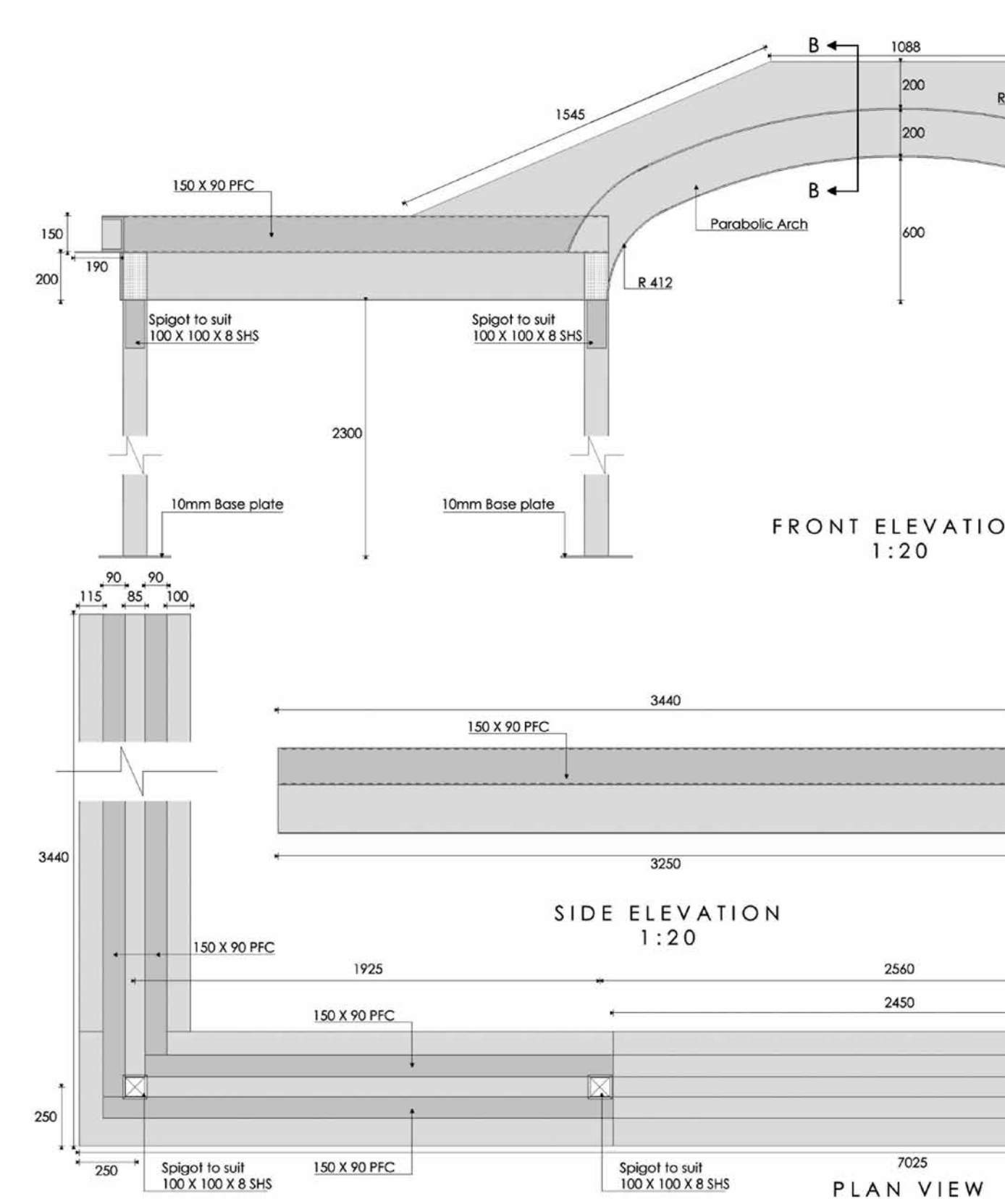
"IG provided an exceptional service to create this custom built lintel. Suspending stone from the outer shelf ensured we had full structural support with no steel visible. IG make the Architects vision a reality."



Joe Diamond
Diamond Architecture

IG ENGINEER TECHNICAL DRAWINGS

Stepped Parabolic Corner

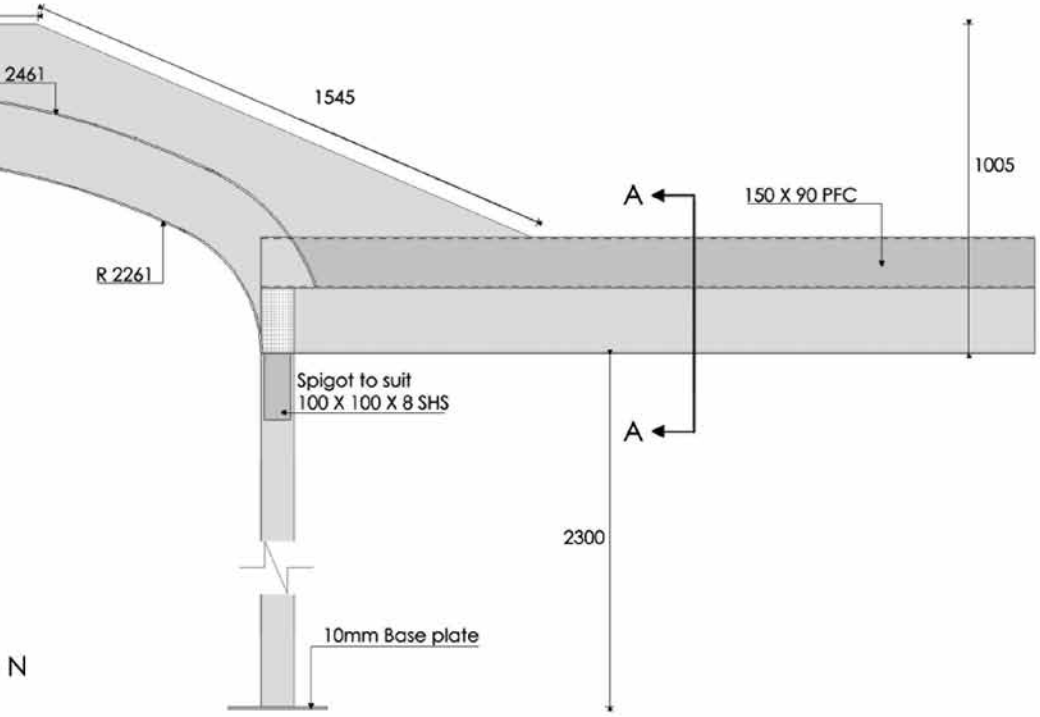


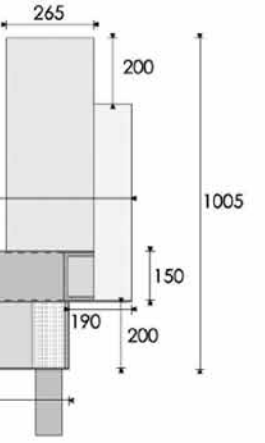


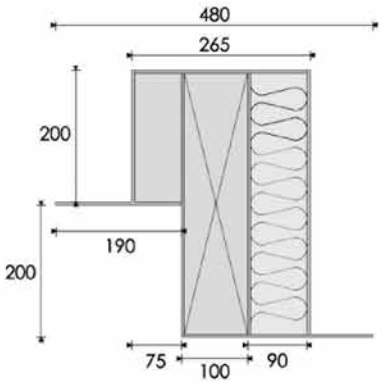


Stepped Parabolic Corner

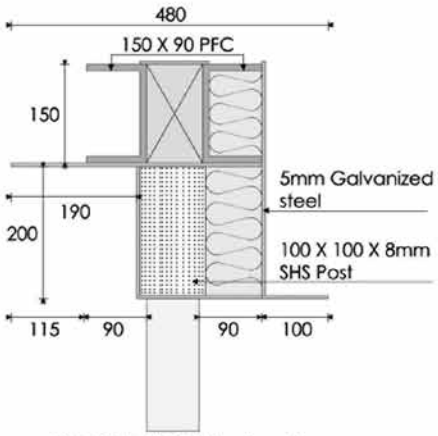
Client :	Private
Architect :	Diamond Architecture
Contractor :	Self-build
IG Engineer :	Kyle Alexander



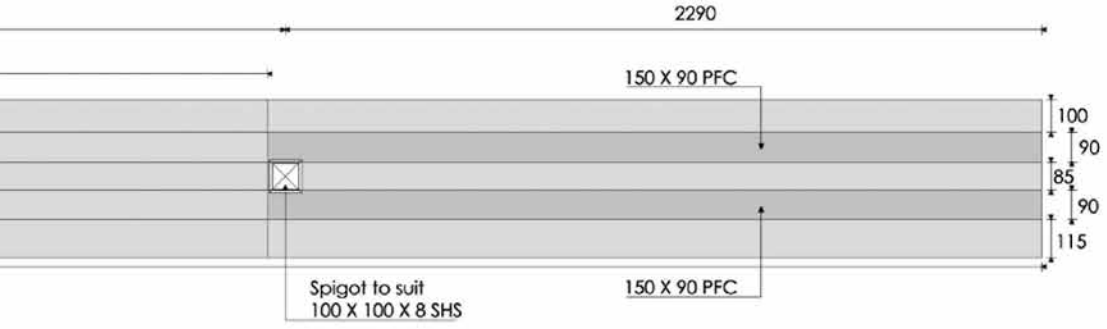




SECTION B-B
1:10



SECTION A-A
1:10



Angled Apex Frames

Private house, Ballykelly.



Hamilton Architects wanted to create some breath taking features for the family home. This included two feature windows that lean into the sunrise to help fill the owner's home with colour and light.



PROJECT DETAILS

The architect liaised with an IG engineer who had to take precise measurements onsite to create two very different but equally stunning Angled Apex Frames.

The Angled Apex Frame measured 4.8 metres high and 4 metres wide and included fully insulated 180mm box sections. The frames had to be delivered to site in two sections, these were bolted onsite via pre-drilled access holes.

The homeowner wanted to create a feature of not only the lintels used but also on the finishes, deciding on a natural stone finish for the outside of the house. Due to the stone finish IG had to include welded gusset plates to carry the stonework on the outer leaf and to resist against sliding.



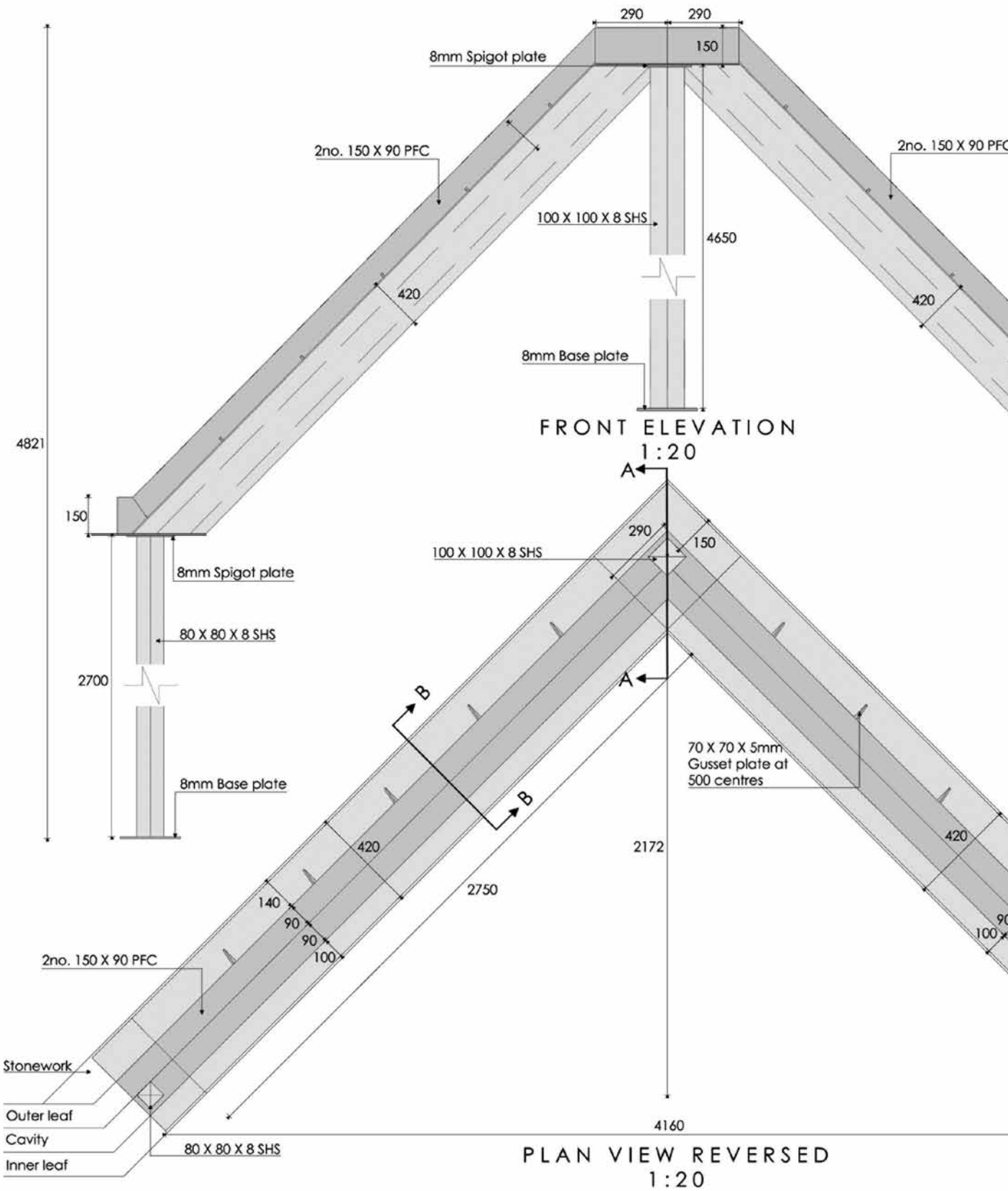
"IG designed the structural steelwork required to make this concept a reality."

Kyle Alexander
IG Lintels



IG ENGINEER TECHNICAL DRAWINGS

Angled Apex Frames

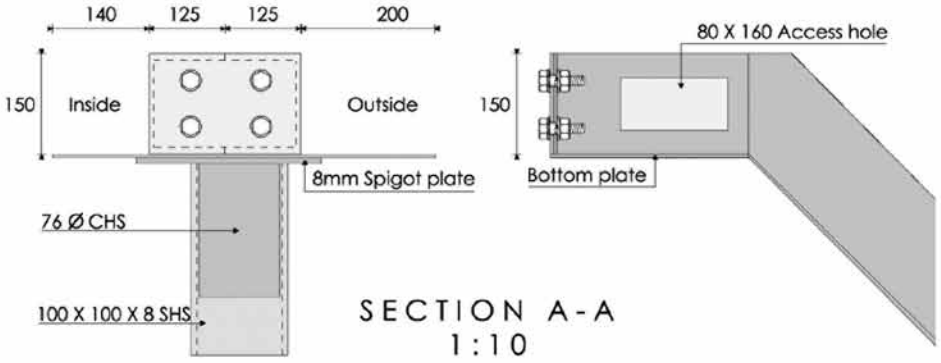




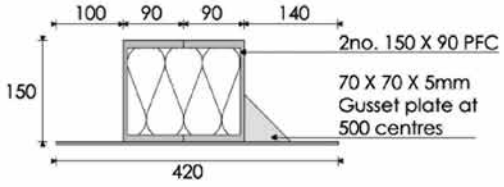


Angled Apex Frames

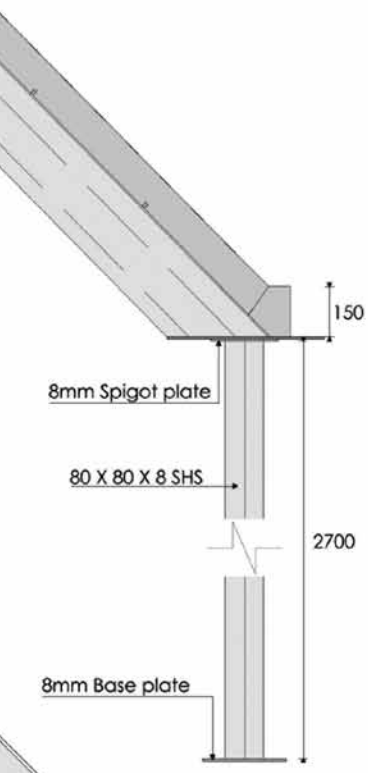
Client :	Private
Architect :	Hamilton Architects
Contractor :	–
IG Engineer :	Kyle Alexander

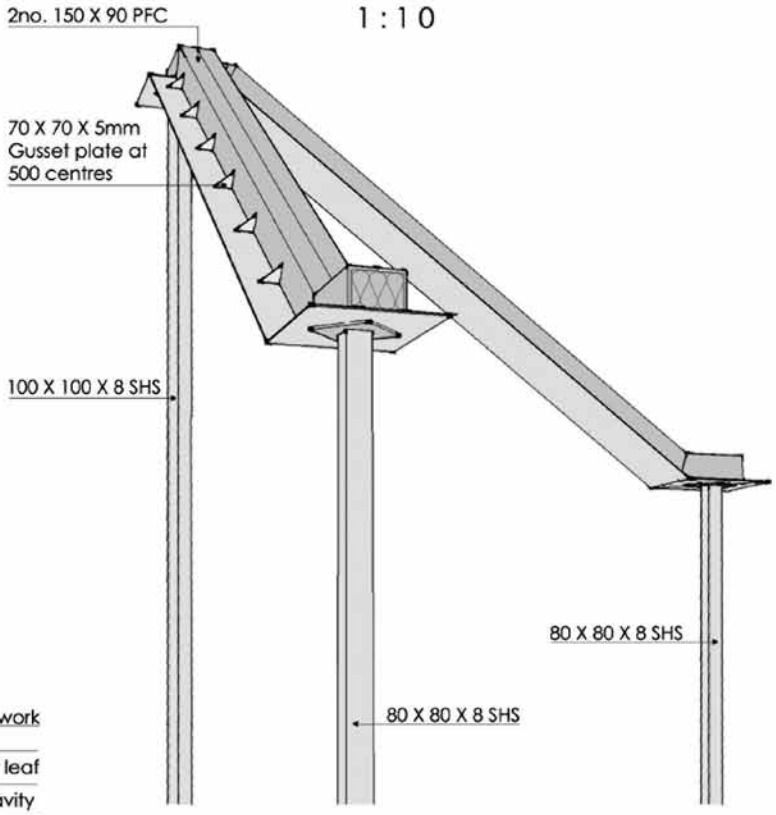


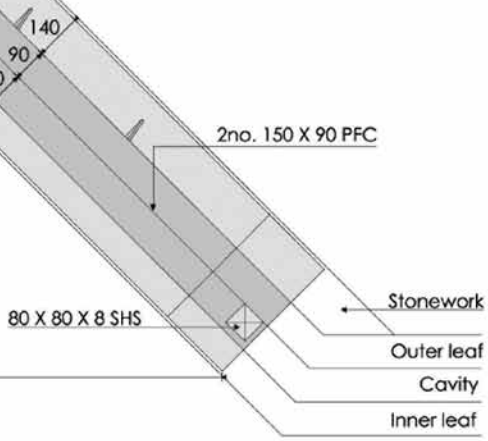
SECTION A-A
1:10



SECTION B-B
1:10







3D PERSPECTIVE

Triple Bow Sun Lounge

An elegant feature for a prestigious project.



G.M. Design architects liaised with IG engineer, Odhran McGoldrick, to develop a special triple bowed sun lounge with a glazed lantern effect for this new build.



PROJECT DETAILS

Due to the precise onsite measurements taken by IG's Engineer, the full steel structure could be slotted perfectly into place. Two parallel flange channels were rolled 'back to back' to create the 3.3 metre radius bows.

A steel plate which was curved on plan, was welded to the channels to facilitate blockwork on the outer flange. Two additional smaller bows with a radius of 1.25 metres create a lantern effect in the valuted ceiling of the sun lounge.

Spanning 6.5 metres in length with a total height of 4.7 metres this steel frame provides an elegant feature to this prestigious project.



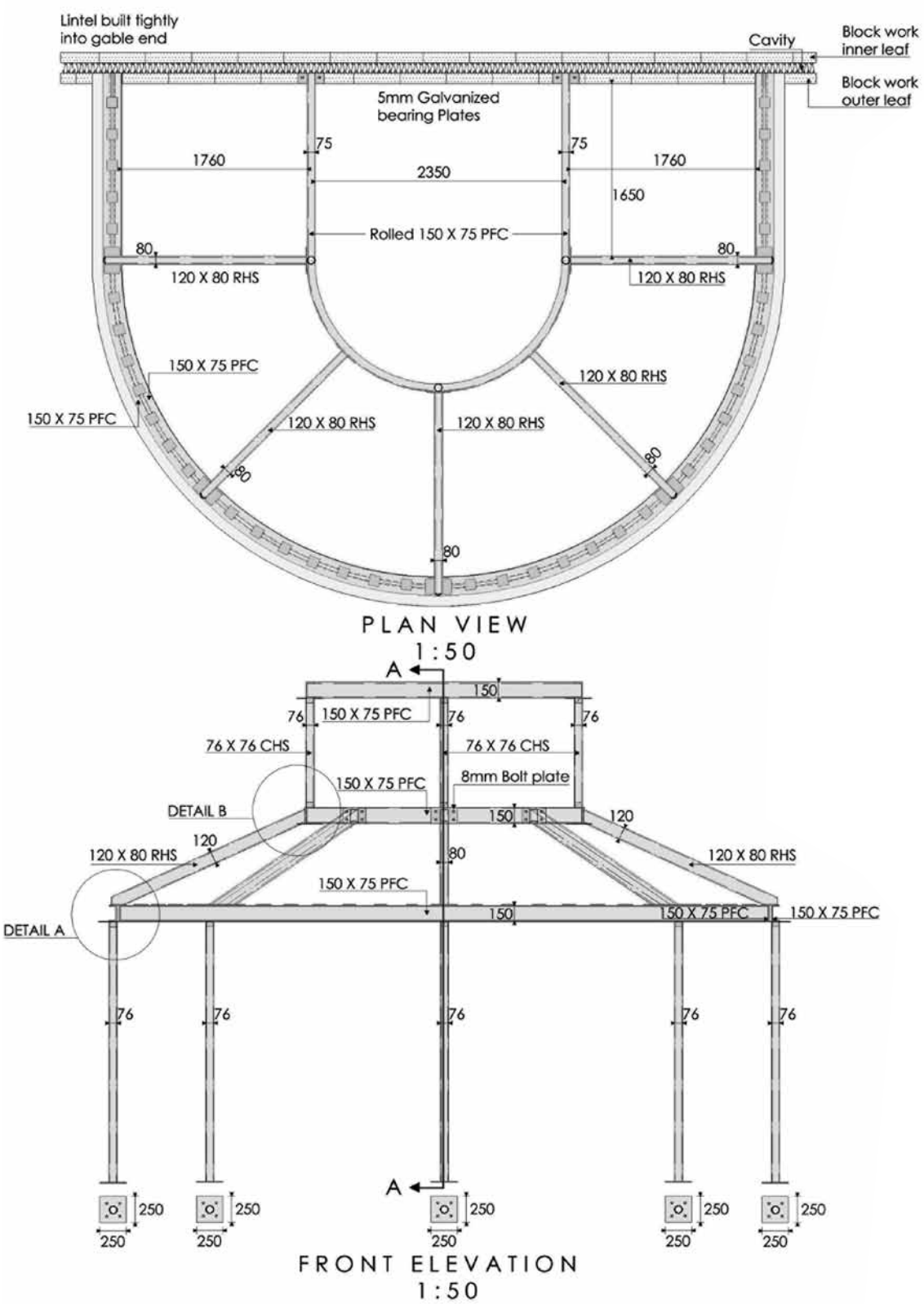
"Precise on-site measurements by IG Engineers, allowed the full steel structure to slot perfectly into place."

J & D Mooney Building Contractors



IG ENGINEER TECHNICAL DRAWINGS

Triple Bow Sun Lounge

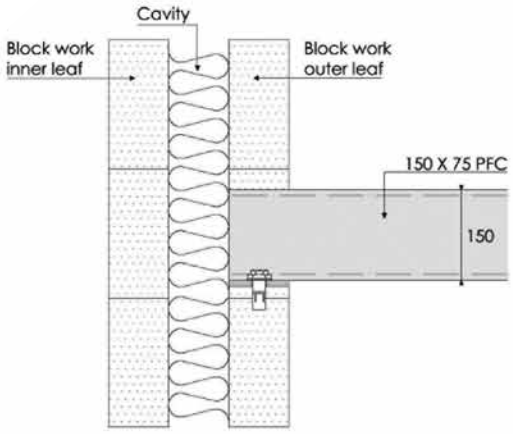




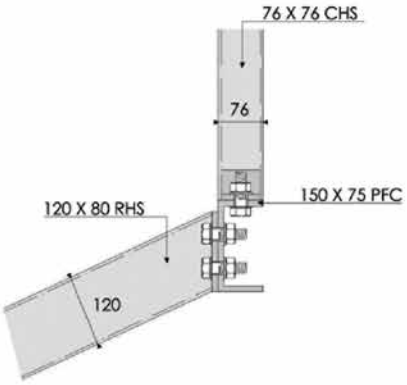


Triple Bow Sun Lounge

Client :	Private
Architect :	GM Design
Contractor :	J & D Mooney
IG Engineer :	Odhran McGoldrick

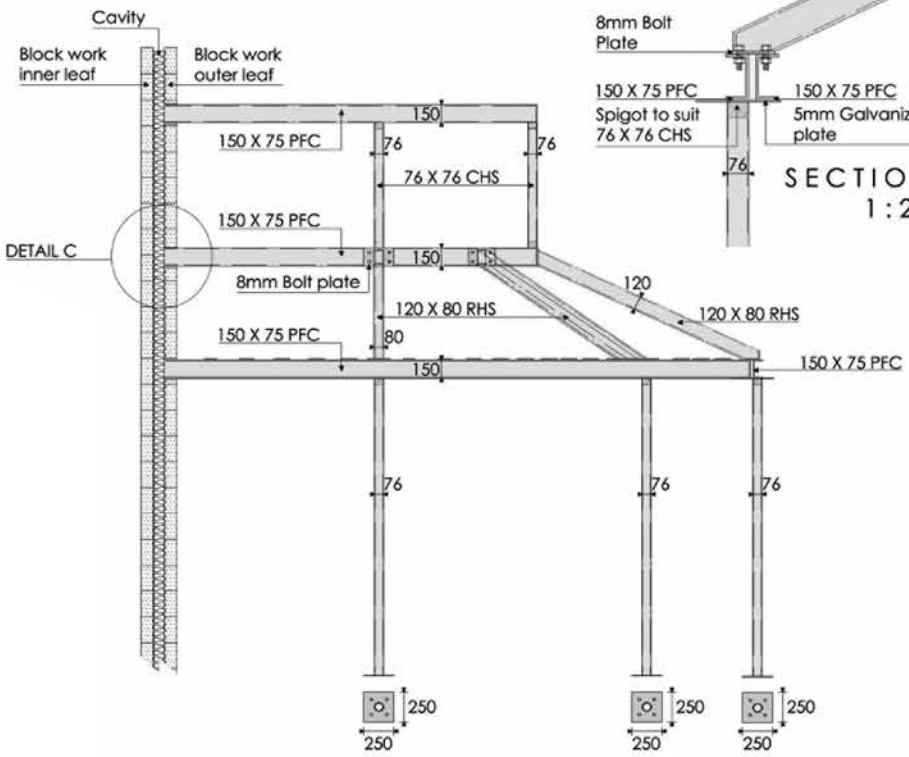


DETAIL C
1:10

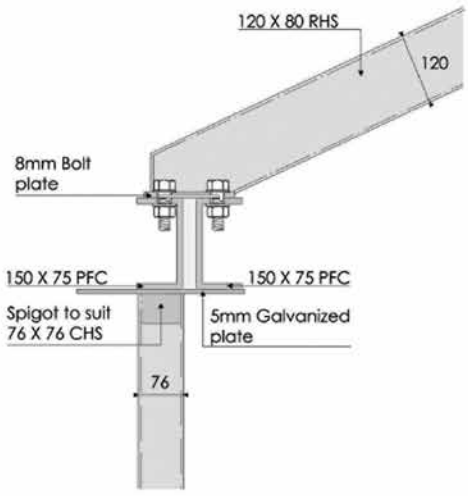


DETAIL B
1:10

SECTION A-A
1:20



SIDE ELEVATION
1:50



DETAIL A
1:10

Cantilevered Walkway

Retrofit balcony and walkway.



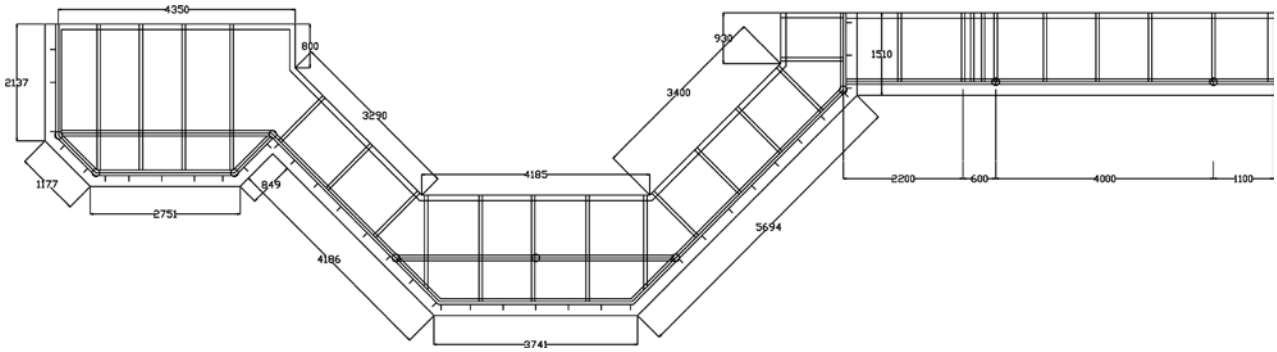
IG engineer, Odhran McGoldrick, designed a continuous cantilevered walkway after numerous discussions with the client, the original specification of a 5 metre balcony was transformed into a 22.5 metre walkway.



PROJECT DETAILS

The steel structure was manufactured from a mixture of universal beams, square and circular hollow sections bolted to a concrete ring-beam in the existing building. Specially designed fin plate bolted connections secured the walkway to IG galvanized steel posts. The outer flange incorporates an extended leaf to facilitate 300mm stonework.

The most notable feature of this project is that, the IG engineers measured, designed and detailed every aspect of the walkway. This retrofit walkway proved to be a perfect example of how IG's team can be relied upon to design, manufacture and deliver onsite to the clients exact requirements.



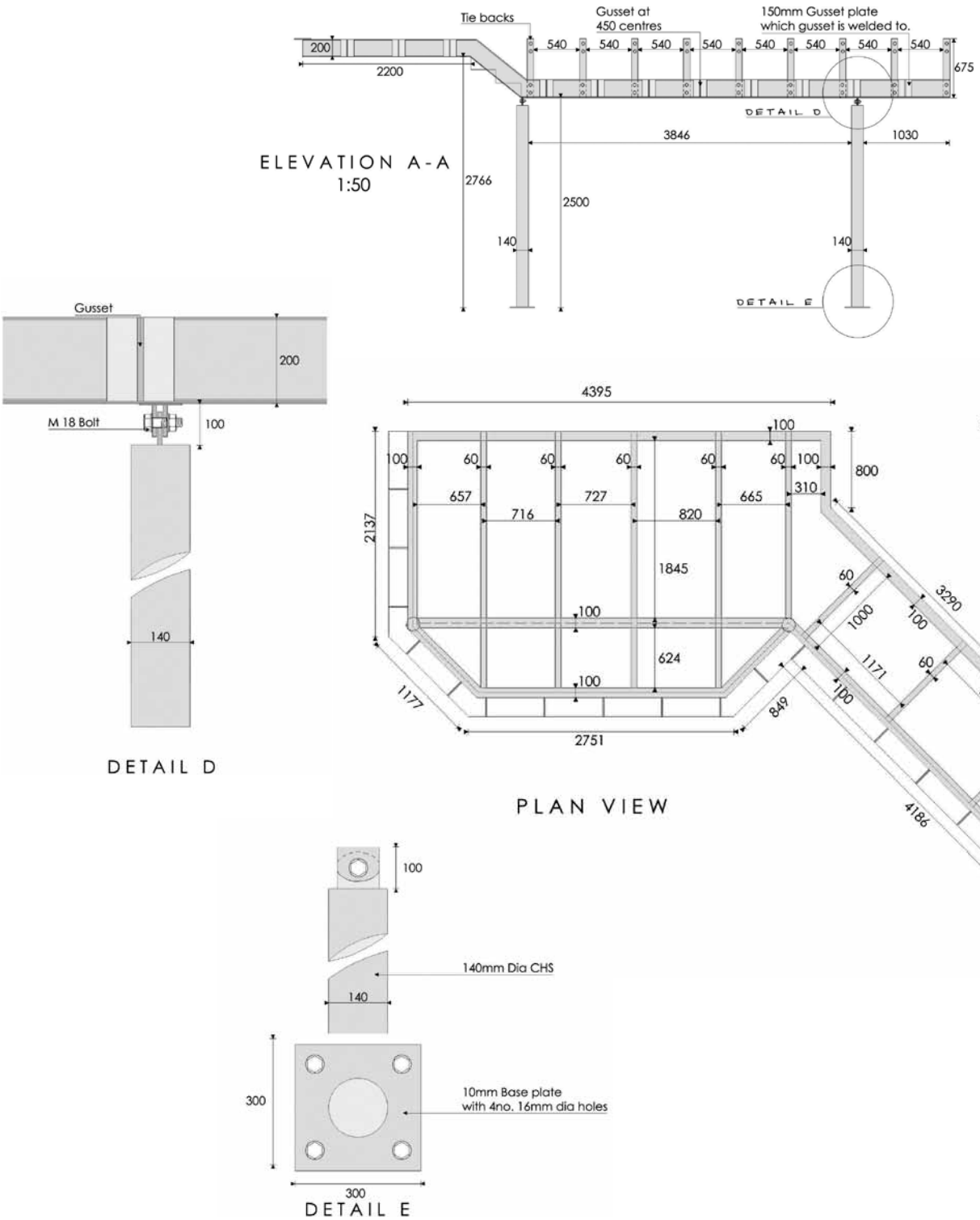
"This project proved how IG's team can be relied upon from individual design consultation to manufacture."

David Ford
IG Technical Team Leader



IG ENGINEER TECHNICAL DRAWINGS

Cantilevered Walkway

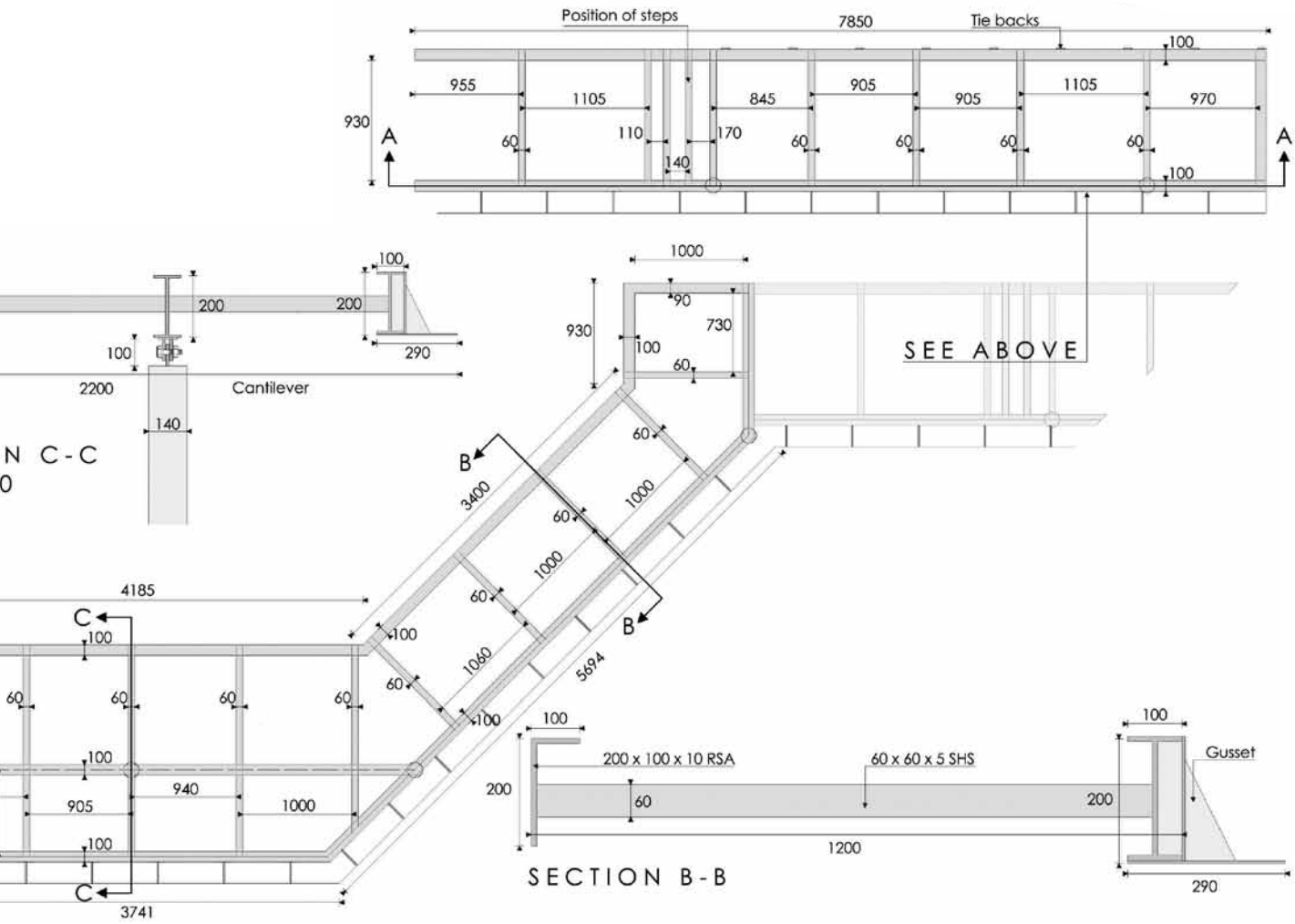






Cantilevered Walkway

Client :	Private
Architect :	–
Contractor :	John Ladden
IG Engineer :	Kyle Alexander



Venetian arch square bay



IG have a great understanding and appreciation of the architects approach to a design and as a consequence help to bring the concept into built form.

Paul McLocklin
Montague Architects

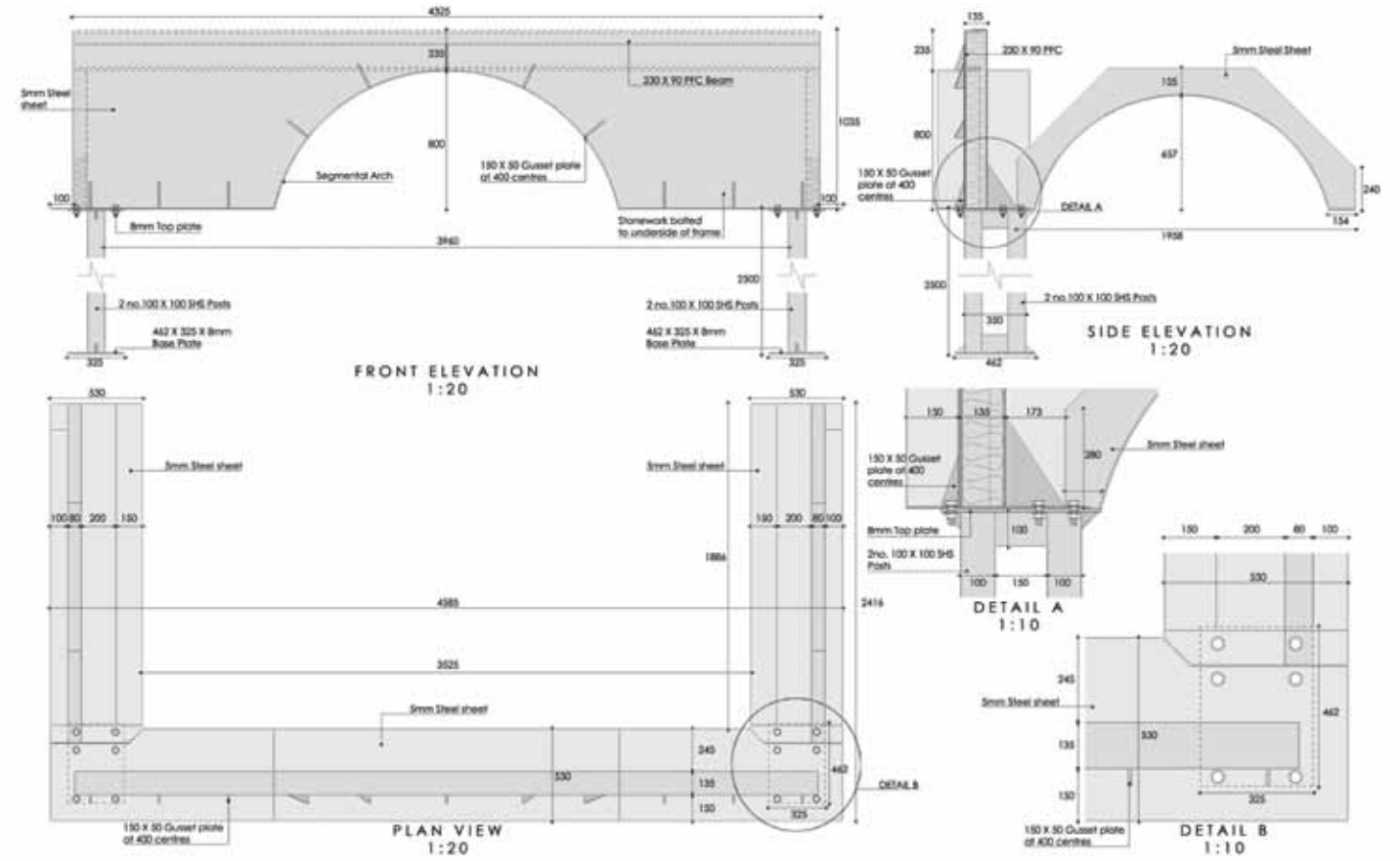


PROJECT DETAILS

Contractor Hardwick Coleman and Whotten came to IG Lintels looking for a solution to form the spectacular entrance porch feature for this project in Derbyshire.

IG Engineer Andy Sharlot had a meeting onsite with the contractor and the reconstituted stone manufacturer to ensure the lintel and the stone would fit together. Andy then designed a bay with a full arch to each side leg and a Venetian arch to the front. The bay was designed to carry a full storey constructed from a 300mm wide cavity wall above the lintel and to support 580mm wide stone underneath the lintel.

The lintel was then designed, manufactured and delivered to site and the lintel went up without a problem and all the stone fitted first time. IG proved that when something bespoke is required they can manufacture to the exact requirements.





Venetian Arch Square Bay	
Client :	Private
Architect :	Montague Architects
Contractor :	Hardwick Coleman & Whotton
IG Engineer :	Andy Sharlot

Special arch lintels & colonnade supports

Complex lintel solutions for a new build mansion

Updown court, a neo classic georgian style home designed by US architects John B Scholz, provided enormous opportunities for creative lintel design.



IG designed and manufactured hundreds of special arch lintels and colonnade supports throughout this magnificent mansion. We also supplied numerous standard, heavy duty and extra heavy duty straight lintels. At £70 million it is reported to be the most expensive new home ever built in Britain.







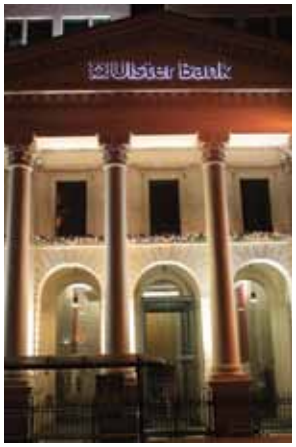


Balcony support details on large commercial project

A prestigious refurbishment project which demanded a sensitive design approach and high performance lintels.

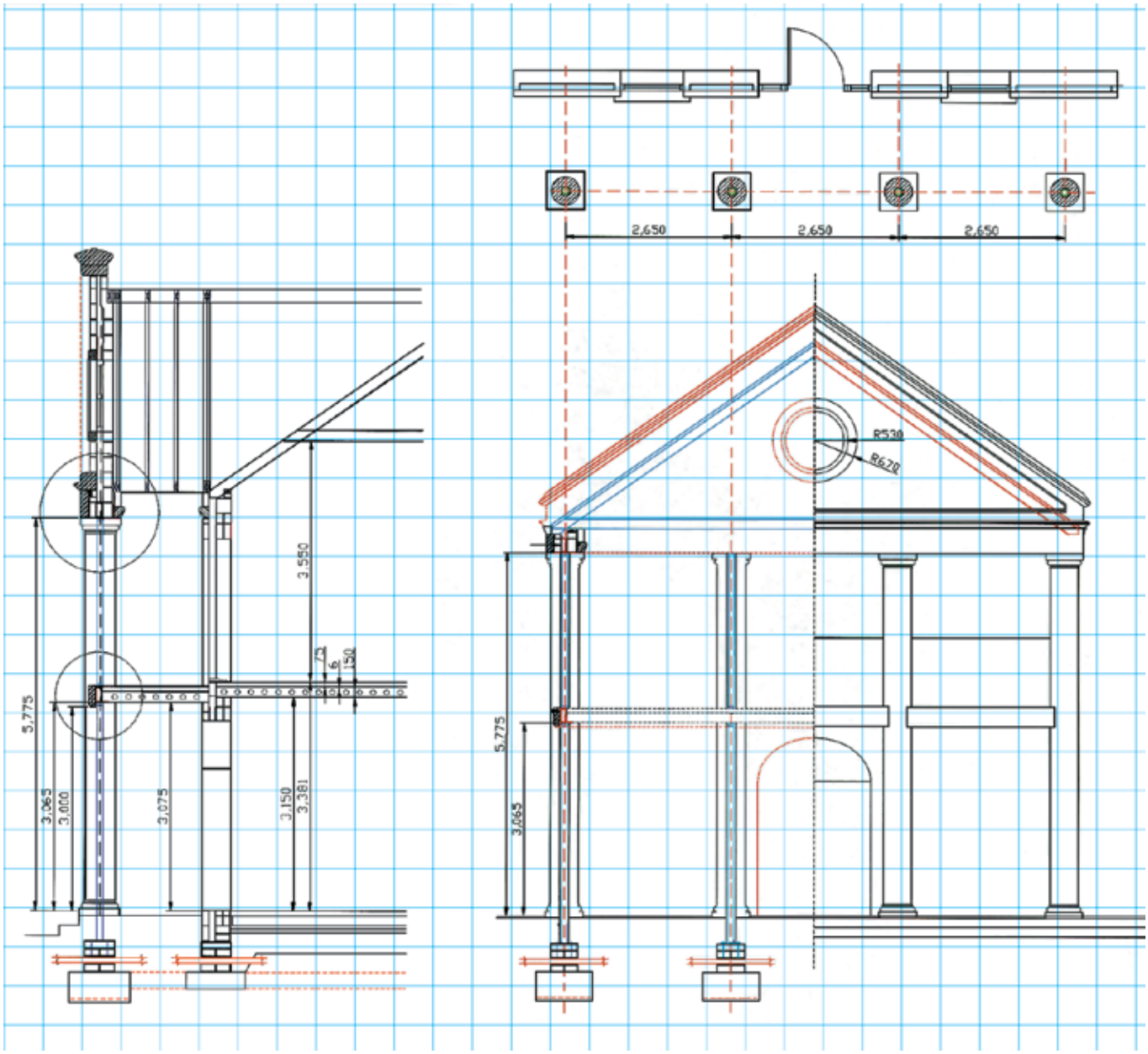






"IG's ability to design and deliver standard and custom made lintels quickly and efficiently has made this job so much easier. A product and service we highly recommend."

Mr S Jones
McAleer & Rushe



Flexibility is key to success





The leisure, retail and office sectors have proved a constant challenge for creative lintel design.

"The prestigious and internationally acclaimed Royal Portrush Golf Club required something special in its design. The help and advice given by IG's Technical Department encouraged me to include some quite complex details. I am delighted with what has been achieved."

Mr Kieran Mullan
Senior Partner, GM Design.











AWARD WINNING PROJECT

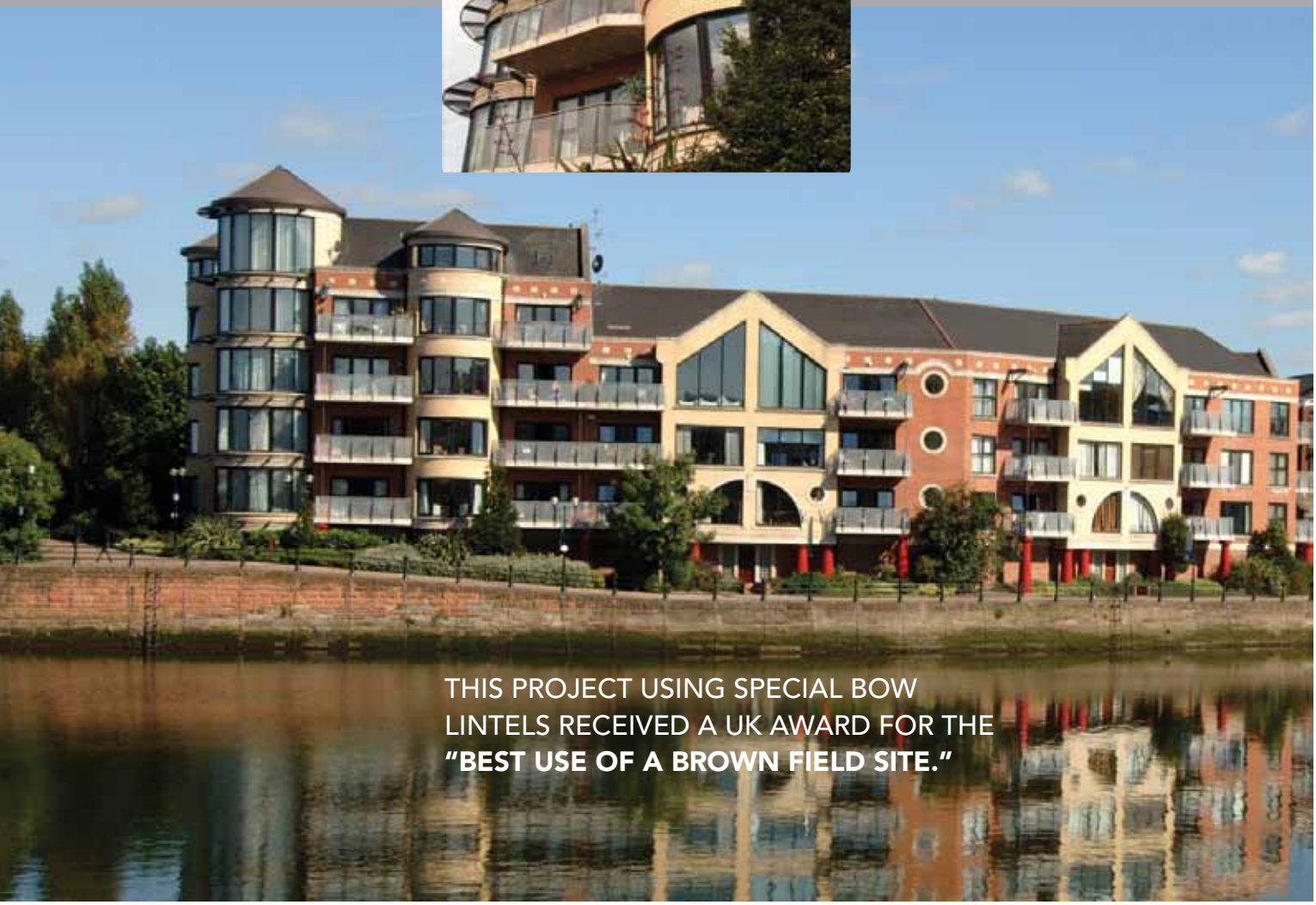
"Too often, using 'special' designs in a project is an invitation for delays. Using lintels from IG however gave my site foreman confidence. The steel lintels required for the unusual window head features were supplied correctly and on time."

Mr Des Savage
Director, Savage Bros.

"The Greggs Quay development called for apartments designed to a very high specification. Creative lintel designs helped bring the original design concept to a reality"

Mr Colin Stewart
McAdam Stewart Architects





THIS PROJECT USING SPECIAL BOW LINTELS RECEIVED A UK AWARD FOR THE **"BEST USE OF A BROWN FIELD SITE."**

Taking quality to higher levels

Homes that demand special specifications.

Our bespoke lintel service has provided solutions to a diverse rang of domestic projects. From dramatic new builds to restoring victorian town houses, IG offer expertise, efficiency and value at every stage of the project.



KEEPING WITH TRADITION

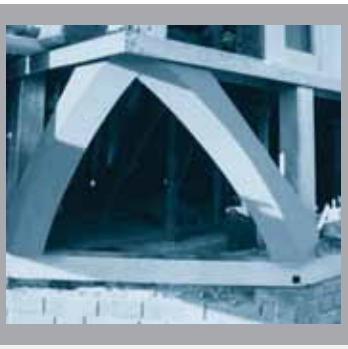
"When converting this old dwelling into flats, we discovered the timber brickwork support detail on the second floor had deteriorated badly. After several restoration proposals were considered non-feasible, we called in IG. Their engineer made one site visit and came up with this solution. Five days later they delivered the goods. An excellent product with an excellent service"

Arthur Rogers
A & J Rogers



Cantilevered corbelled brickwork support system







Special bow-bay, arch and square bay lintels



Extra heavy duty flat parabolic arch lintel



Heavy duty corbelled lintels

Special gothic arch lintels



This private residence is a mixture of medieval inspiration and modern lintel design.



TAILORED SERVICE

IG engineers help to make every Architects vision become a reality. If you wish to benefit from this service, simply call our office to speak with one of our creative Engineers with details of your project. We relish the opportunity to liaise with industry professionals on building projects, regardless of size.







Cantilevered segmental arched corner lintel

IG produced a bespoke design for this cantilevered segmental arched corner lintel and delivered to site within 5 days.





"Ordering this special cantilevered arched corner was a pleasure. Details like this can often cause expensive delays between site measurement, design and manufacture.

Using Lintels from IG, we alleviated these problems and have now constructed an entrance which was at first thought to be impossible!"

Gerry Gray
Contracts Manager
Felix O'Hare Contractors



Extra heavy duty flat parabolic arch lintel



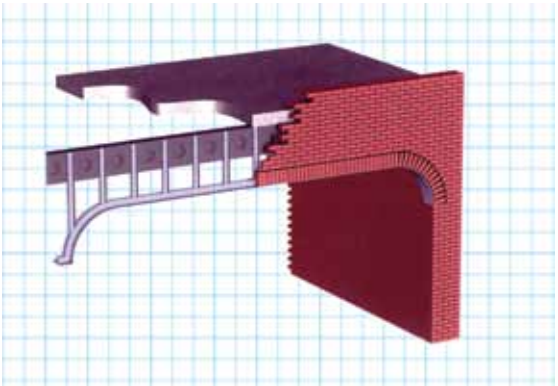
Three acre housing development sites near busy town centres are hard to find, and all too often have limited access.



When Development Architect Roger Sally approached this access problem he contacted IG for assistance.

"IG's Technical Department designed these 8000mm span Flat Parabolic Arch Lintels to support the apartment above and to provide an attractive archway to the landscaped courtyard of townhouses behind."

Roger Sally
Teague & Sally Architects



BETTER BY
DESIGN

IG
STEEL LINTELS

Hi-Therm

IG has redefined Lintel performance with Hi-Therm, designed to exceed the thermal requirements in forthcoming building regulations. Hi-Therm is supported by an advanced technical service package.

Special Lintels

IG offer a complete custom design service to ensure your project has the best lintel for the job. Our technical expertise is renowned for delivering solutions with total efficiency.

Masonry Support & Windposts

IG continues to set the standard for masonry support and windpost systems for a range of building frame configurations. The innovative Qwik Fix angle provides a versatile solution when masonry support is required.

Standard Lintels

IG produce a wide range of standard galvanised steel and stainless steel lintels. All IG standard lintels satisfy the Thermal Performance requirements of all UK building regulations.

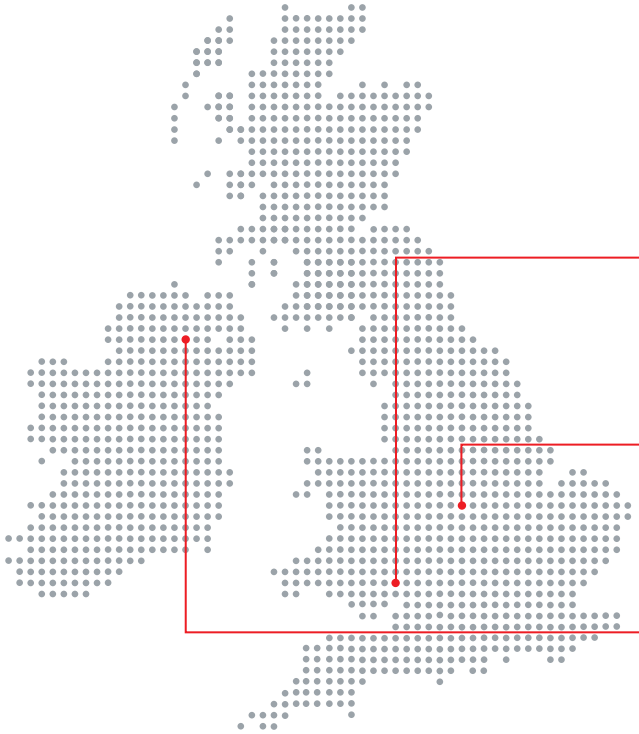
Brickwork Feature Lintels

IG Brickwork Feature Lintels are a one piece prefabricated unit, manufactured bespoke to order, achieving even the most challenging architectural designs.

Cavity Trays

The IG Cavity Tray presents a lightweight, simple to install and long-lasting solution to preventing dampness from penetrating below the roof line.

www.iglintels.com



LINTEL HOTLINE

01633 486486



IG - CWMBRAN
Avondale Road, Cwmbran,
Gwent, NP44 1XY
T: +44 (0) 1633 486486
F: +44 (0) 1633 486465



IG - SWADLINCOTE
Ryder Close, Cadley Hill Industrial Estate
Swadlincote, South Derbyshire DE11 9EU
T: +44 (0) 1283 200150
F: +44 (0) 1283 223352



IG - IRELAND
Ballyreagh Industrial Estate,
Cookstown, Co. Tyrone BT80 9DG
T: +44 (0) 28 86762184
F: +44 (0) 28 86761011

ISO 14001 BSI EMS 553955
ISO 9001 BSI FM 21541
BBA BRITISH BOARD OF AGRÉMENT CERTIFICATE No 05/4192
nsPlus
NHBC
INVESTORS IN PEOPLE
HBF HOME BUILDERS FEDERATION
BMF Builders Merchants Federation