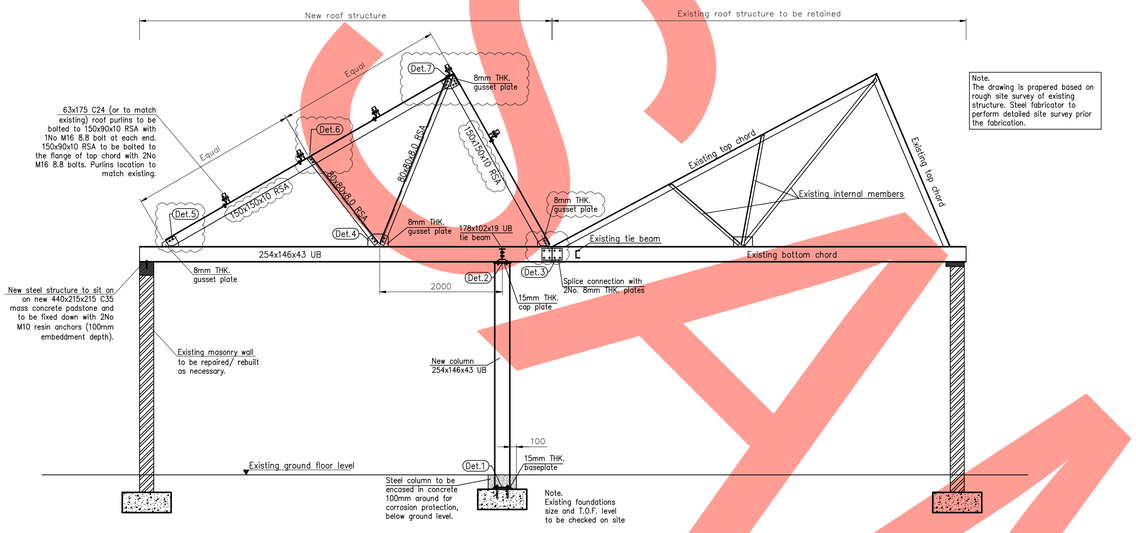
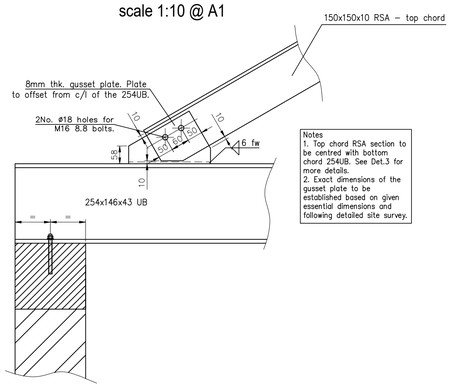
SECTION A-A
Scale 1:50 @ A1



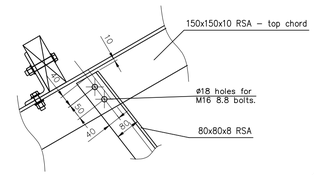
Note.
The drowing is prapered based on rough site survey of existing structure. Steel fabricator to perform detailed site survey prior the fabrication.

Det.5 - Gusset plate details
scale 1:10 @ A1

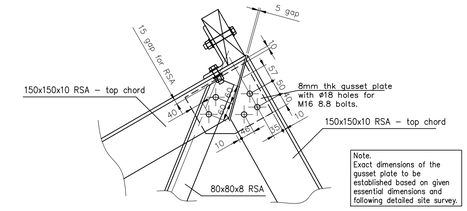


Notes
1. Top chord RSA section to be centred with bottom chord 254UB. See Det.3 for more details.
2. Exact dimensions of the gusset plate to be established based on given essential dimensions and following detailed site survey.

Det.6 - Connection details
scale 1:10 @ A1

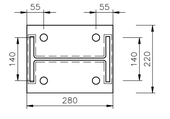


Det.7 - Ridge connection details
scale 1:10 @ A1

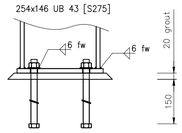


Note.
Exact dimensions of the gusset plate to be established based on given essential dimensions and following detailed site survey.

Det.1 - baseplate details
scale 1:10 @ A1

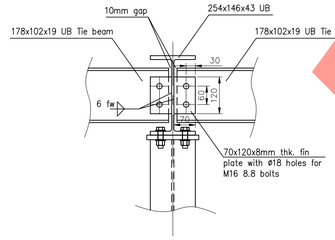


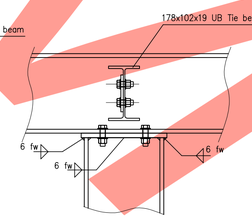
Base–Plate 280 x 220 x 15 mm (7 kg)
With 4 No. 24 mm holes
For 20 mm Grade 8.8 Bolts.



No Void: Bolts Fully Embedded in Base
All Plates S 275

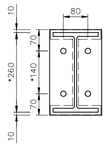
Det.2 - cap plate details
scale 1:10 @ A1





Plates S 275
Column 254x146 UB 43 [S275]
Beam 254x146 UB 43 [S275]

Bottom flange of the beam 254x146 UB 43 [S275]

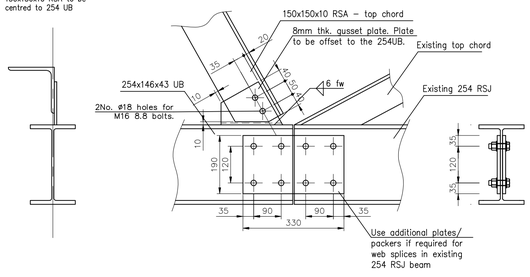


Cap–Plate 280 x 170 x 15 mm (6 kg)
4 No. M16 Grade 8.8 Bolts in 18 mm holes

Det.3 - splice details
scale 1:10 @ A1

Schematic position of RSA, UB and gusset plate.

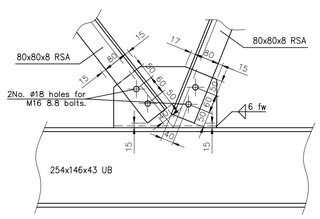
Centre line of the leg of 150x150x10 RSA to be centred to 254 UB



Splice Plates
Web
2 No 330 x 190 x 8 mm (2x5 kg)
8 No. 16 mm ø Bolts
In 17 mm Holes

Beams 254x146 UB 43 and 254 RSJ [S275]
All Plates S275
Beam gap 2 mm

Det.4 - Gusset plate details
scale 1:10 @ A1



Note.
Exact dimensions of the gusset plate to be established based on given essential dimensions and following detailed site survey.

GENERAL NOTES

1. Any discrepancies between the drawings or documents shall be brought to the attention of the Engineer before placing orders or commencing construction.
2. The drawings shall not be scaled; use only figured dimensions.
3. Dimensions and conditions shall be verified on site. Variations between the drawings and site conditions shall be brought to the attention of the Engineer for resolution before placing orders or construction.
4. All work shall comply with the Building Regulations and the requirements of the Local Authority, current Codes of Practice and British Standards.
5. All workmanship shall be first class trade practice and to the recommendations given in BS8000: Basic Workmanship.
6. Do not use: high alumina cement; wood wool slabs; calcium chloride as an admixture; asbestos products; sea dredged aggregates; aggregates subject to alkali silica reaction or which do not comply to BS8110; materials containing fibres with a diameter of less than 3 microns and length less than 200 microns; any unsealed fibre materials; lead products in plumbing or drainage; urea formaldehyde; calcium silicate bricks and tiles; slip bricks; lead based paints; vermiculite plaster or any material considered to be deleterious or harmful to health.
7. Take all measures necessary to ensure the safety and security of operatives and the integrity of adjoining structures and roads or walkways.
8. This drawing is to be read in conjunction with all relevant drawings and specifications.
9. All dimensions are to be confirmed by the contractor on-site prior to construction onsite. The Contractor is to satisfy himself that dimensions, levels etc. are sufficiently accurate and complete for fabrication, within the specified tolerances of all prefabricated elements.
10. All works to be undertaken by an experienced and competent contractor in accordance with the current Building Regulations Part A, British Standards and good working practice.
11. All temporary works / Propping to the contractor's design and details.
12. The main contractor shall be entirely responsible for the stability of the structure whilst the works are in progress. Due regard shall be given to lateral stability of elements in the addition of support of vertcial loads when construction has the need for temporary support works.
13. To minimise deflections of the existing structure, new beams must be pinned uptight to existing construction with slate or dry-pack mortar, and all mortar allowed to cure prior to de-propping.

Steelwork

1. The connection drawings are prepared based on approximated site measurements. Steel fabricator to perform detailed site survey to establish exact dimensions for proposed steel frame and connections.
2. Steelwork in cavity to receive 2No. coats of bitumastic paint.
3. Fabrication drawings to be submitted to supervising engineer for comment 10 days prior to fabrication of steelwork.
4. Erection shall be carried out so that the partially completed structure is stable and has an adequate factor of safety at all times. The contractor shall submit a method statement prior to commencing erection.
5. All steelwork to be minimum grade S275JR to BS EN 10025:1993 unless noted otherwise, execution class 2 & CE marked.
6. All steels that support timber work are to have the flanges pre-drilled @ 500mm centres to accept timber plates.
7. External steelwork to be galvanised.
8. All connections to have a minimum 2No M16 grade 8.8 bolts, 6mm full profile fillet welds & 10mm thick end plates unless noted otherwise.
9. All loose beams to have a minimum bearing length of 150mm to parallel walls and 100mm to perpendicular walls and 440x100x215mm deep concrete padstones unless noted otherwise. 2No. M10 Resin Anchor locating bolts or similar approved to connect beam to padstone.
10. All beam ends to be painted with 2No. coats bituminous paint where embedded.
11. All base plates to be minimum 15mm thick with 4No M20 minimum grade 8.8 HD bolts unless noted otherwise.
12. Beams and lintels to have a minimum bearing length of 100mm when perpendicular to the wall, and 200mm when parallel to the wall unless noted otherwise.
13. Fire protection to be in accordance with relevant Building Regulations and Architect's details.

EXACT DIMENSIONS OF THE PLATES WHICH ARE SHOWN ON THIS DRAWING TO BE ESTABLISHED BASED ON GIVEN ESSENTIAL DIMENSIONS AND FOLLOWING DETAILED SITE SURVEY PREFORMED BY STEELL FABRICATOR PRIOR TO FABRICATION.

Rev	By	Date	Details	Chkd
P2	KL	15/04/22	Revised top chords to RSA's with associated connections	DI
P1	KL	30/03/22	Preliminary Issue	DI

Drawing Status: PRELIMINARY

IKT CONSULTING
STRUCTURAL ENGINEERS LIMITED

Enterprise Centre,
6 David Lane
Basford,
Nottingham

e: info@iktconsulting.co.uk
w: www.iktconsulting.co.uk
m: 07950477550
t: 0115 6976006

Client: ******** Designs Limited

Project: Atlas Road
Birchwood Avenue
Long Eaton

Title: SECTION A-A AND STEELWORK CONNECTION DETAILS

Scale (A1) 1:10/1:50	Drawn by. KL	Drg. No. 2208-02
Date. 30.03.2022	Checked by. IKT	