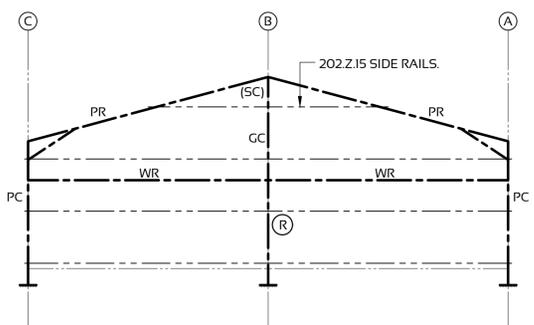
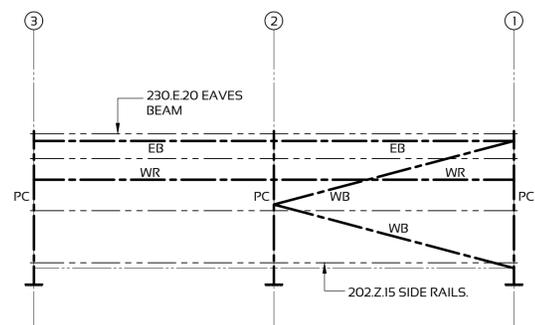


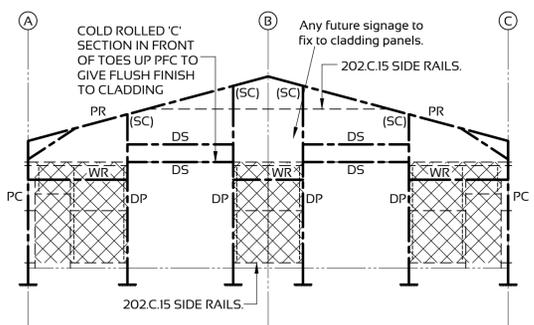
Grid Line A Elevation
Scale 1:100



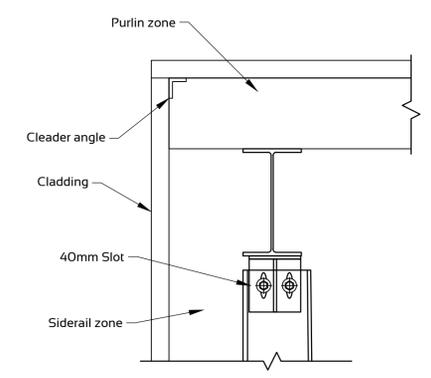
Grid Line 1 Elevation
Scale 1:100



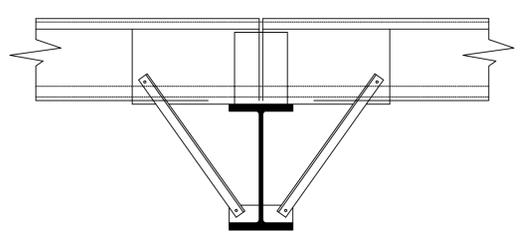
Grid Line A Elevation
Scale 1:100



Grid Line 3 Elevation
Scale 1:100



TYPICAL SLOTTED CONNECTION DETAIL
Scale 1:10



Rafter/Column Restraint Detail
(shown thus (R) on section)
scale 1:10

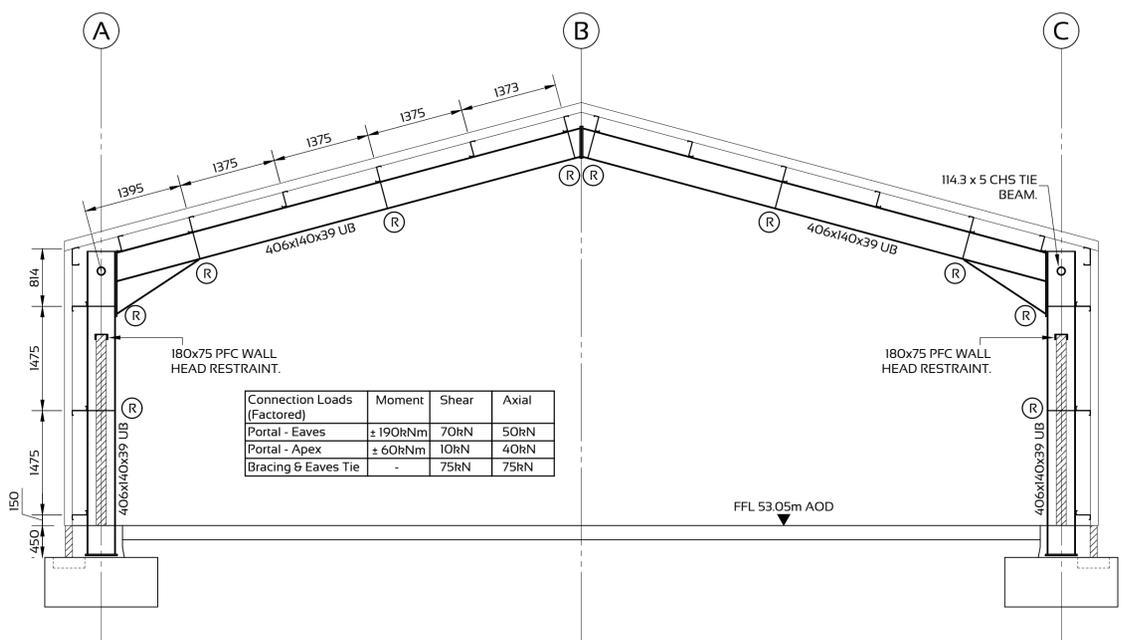
PRIMARY STEEL:-

- The contractor shall prepare fabrication drawings from the architect's and engineer's layout drawings and shall design and detail all connections not already shown or described as typical on the engineer's drawings.
- Fabrication is to be carried out in accordance with BS EN 1090-2, Execution Class 2 (EXC2).
- All internal steelwork except hot rolled hollow sections to be of grade S355 JR in accordance with B.S. EN 10025. All external steelwork except hot rolled hollow sections to be of minimum grade S355 JO in accordance with B.S. EN 10025.
- All hollow sections to be hot rolled and be of grade S355J2H steel in accordance with B.S. EN 10210.
- All black bolts to be iso metric black hexagonal bolts to B.S. 4190 grade 8.8 unless otherwise shown.
- All welding to be carried out in accordance with B.S. 5135.
- Following fabrication the steelwork shall be blast cleaned to B.S. 7079 second quality.
- Immediately after cleaning the steelwork, it shall be protected with one coat of zinc phosphate modified alkyd high build primer to a dry film thickness of 75 microns.
- Steelwork built into external walls shall receive two site applied coats of high build bitumen to 100 microns thickness, to concealed faces.
- Following erection of the steelwork, any damaged paintwork shall be made good.
- For finishing coats to exposed steelwork refer to architect's drawings, contractor to ensure decorative paints are compatible with the primer coat.
- The top flange of beams designed to act compositely with prestressed composite concrete flooring shall not be primed or painted.
- Galvanising to be in accordance with B.S. EN ISO 1461 for subsequent finishing coats refer to architect's drawings.
- All closed sections to be adequately vented prior to galvanising and must be subsequently sealed. Where these vent holes are exposed in the finished works. The architect must be advised and is to approve the method of sealing.
- All welds to be continuous 6mm fillet welds unless noted otherwise, where overlapping plates are welded prior to galvanising, welding is to be carried out on a hit and miss basis, weld seams arranged symmetrically. Prior to fabrication advice of the galvaniser is to be sought in respect of the proposed dipping procedure and potential distortion.
- All galvanised components are to conform to the fabrication and erection tolerances as specified in B.S. 5950 Part 2.
- All blockwork to be tied to adjacent steelwork by Ancon Clark masonry anchors O.E.A., at centres not exceeding 450mm horizontally and vertically (unless noted otherwise).
- Washers to be provided under all nuts including those at purlins and sheeting rails.
- Exact lengths of new steelwork shall be determined by the contractor.
- Contractor to submit steelwork fabrication drawings, any calculations and details of proposed erection sequence. During erection, the contractor shall be responsible for ensuring that the work is securely bolted and, if necessary, shall provide temporary bracing or other members to cater for all erection stresses and conditions including those due to erection equipment and its operation.
- For fire protection to steelwork refer to architect's drawings.
- Steel members to be fabricated with lifting hooks/eyes to allow members to be lifted on-site, position of hooks/eyes to take into account lifted member centre of gravity.
- Steel members to roof to be provided with hooks to support roof safety nets.
- Primary fixings to cladding are to be SXC5-5.5mm grade A4 austenitic stainless steel self tapping screws with 19mm washer (29mm washer to rooflights) as manufactured by SFS Intec or equal approved. Fixings to be provided as each purlin with a minimum of one screw per trough, (i.e at 300mm c/c) fixings at both ends of every sheet to be provided at 150mm c/c.
- Cladding panel side laps and flashings to be stitched with SX3 grade A4 austenitic stainless steel self-tapping screws with 16mm washer as manufactured by SFS Intec or equal approved at 450mm c/c maximum.
- Roller shutter door to be Magroll 95mm insulated lath by D4 Products Ltd, with associated 80x90mm Magroll Guide and fixings or similar approved to be suitable for wind class 4 (>700 Pa)/5 (>1000 Pa) in accordance with B.S. EN 12424, tested in accordance with B.S. EN 12444.
- Where wind locks are required to restrict deflection of horizontal spanning doors, the lateral force on the guides at maximum wind load must be provided by the door manufacturer, to ensure that guides, fixings and the main member supporting the guides are suitably designed to cater for these additional loads.
- Fabricator is to ensure the steelwork should either be protected during site storage and erection, or given a suitable primer coat. The dry film thickness should be appropriate for the expected storage time and severity of the storage environment. If in doubt, please ask.

REFER TO ARCHITECTS DRAWINGS FOR FIRE BOUNDARY ELEVATIONS, SIDE RAILS ON FIRE ELEVATIONS TO BE DETAILED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, TYPICALLY WITH PLASTIC WASHERS UNDER THE BOLT HEADS.

AREA OF ELEVATIONS TO RECEIVE HCS' AT MAXIMUM OF 15m C/C SPANNING BETWEEN HORIZONTAL RAILS FOR THE KINGSPAN KS1000RW PANELS SPANNING HORIZONTALLY.

This drawing has been overmarked with engineering information in relation to relevant warrant application.
Body number - SERI - DB - 0198
SER certification - 320007
SER issue date - 16/03/2020



Typical Cross Section
Scale 1:50

Elevations Secondary Steel

- Any dimensions to doors and windows are clear structural openings.
- Rail setting out to be in strict accordance with the relevant elevation drawing by the architect.
- Siderails to be 202 Z 15 double span at maximum 1.475m centres to all elevations except Grid Line 3 elevation which requires 202 C 15 rails with additional HCS supports to suit the horizontal cladding system on this elevation.
- Side rails to be in a sleeved system unless noted otherwise.
- Restraint and wires to be as per METSEC typical requirements.

(SC) Denotes slotted connection to head of column

Roof Secondary Steel

- Rail setting out to be in strict accordance with the relevant elevation drawing by the architect.
- Unless noted otherwise all purlins to be 202 Z 15 double span at maximum 1.375m centres.
- Purlins to be in a sleeved system unless noted otherwise.
- Restraint and wires to be as per METSEC typical requirements.
- Purlins to have minimum of 1No. sag restraint.

PURLIN DESIGN BASED ON KINGSPAN KS1000RW PROFILE SHEETS, 131mm THICK

SIDERAIL DESIGN BASED ON KINGSPAN KS1000RW PROFILE SHEETS, 111mm THICK

Structural Framing Schedule

Ref.	Size
WB	114.3 x 5 CHS
PC	406 x 140 x 39 UB
PR	406 x 140 x 39 UB
DP	200 x 75 x 23 PFC
DS	200 x 75 x 23 PFC
TB	114.3 x 5 CHS
GC	254 x 146 x 31 UB
RB	114.3 x 5 CHS
WR	180 x 75 PFC

Schedule 1: The following items, while forming part of the structural design covered by this certificate, are subject to detailed design by a specialist contractor which has yet to be completed. All relevant drawings and calculations to be provided to Cameron + Ross and the local authority, for approval, prior to manufacture of these items.

ITEM DESCRIPTION
Piling
Vibro stone columns
Precast foundation systems
Precast concrete floor units
Precast concrete stair
Timber roof trusses
x Steelwork connections

Issue	Revision	Initial	Date

Cameron + Ross
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Client:
MCGA

Project:
Plot 2
Macduff Industrial Estate
Macduff

Drawing Title:
Elevations and Sections

Status:
Warrant

Scale: 1:100, 1:10 @ A1 Date: 27/01/2020
By: CNB Checked: SAF Approved: --

Dwg. No. 190282 - 03 Rev. -