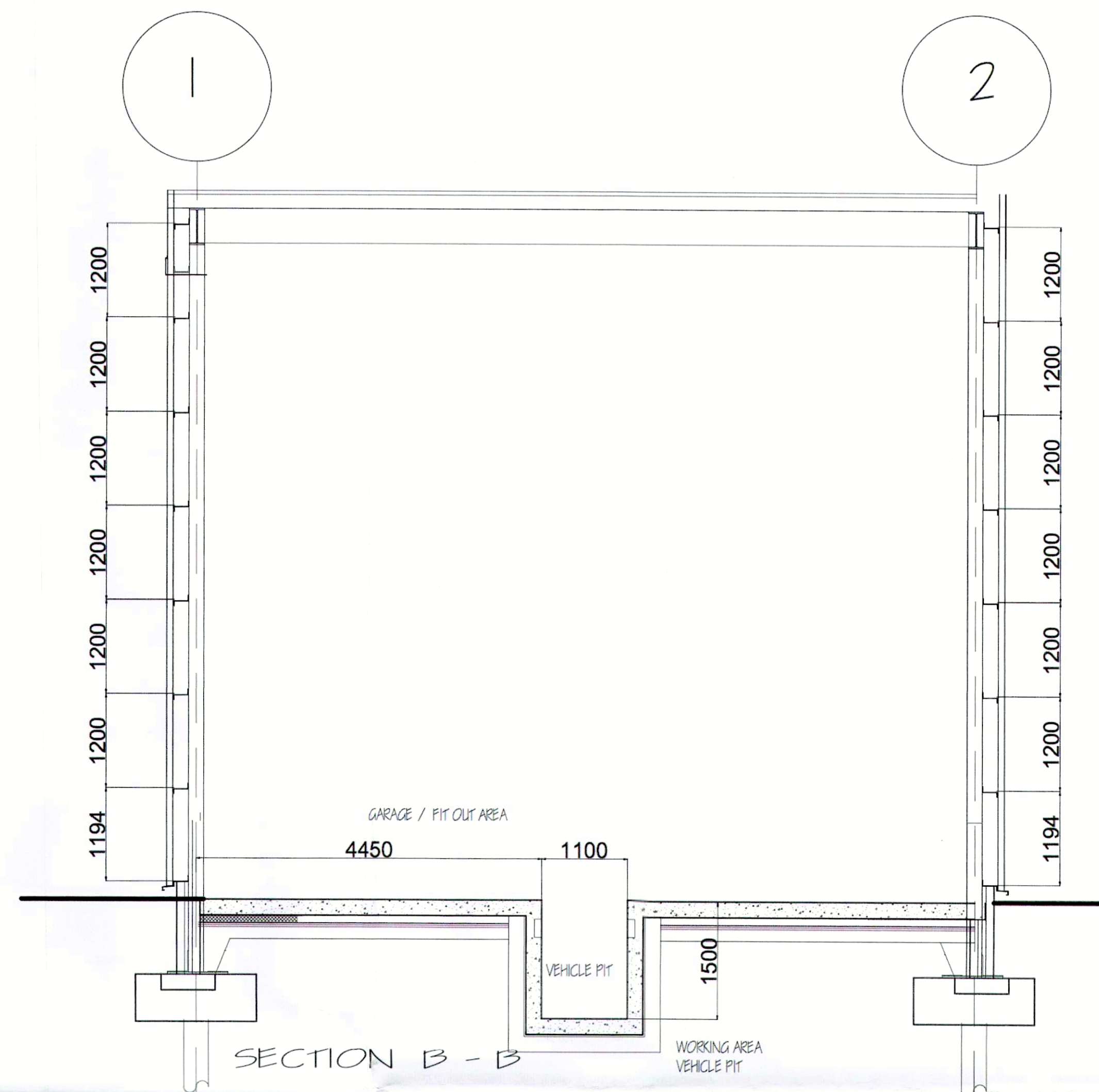
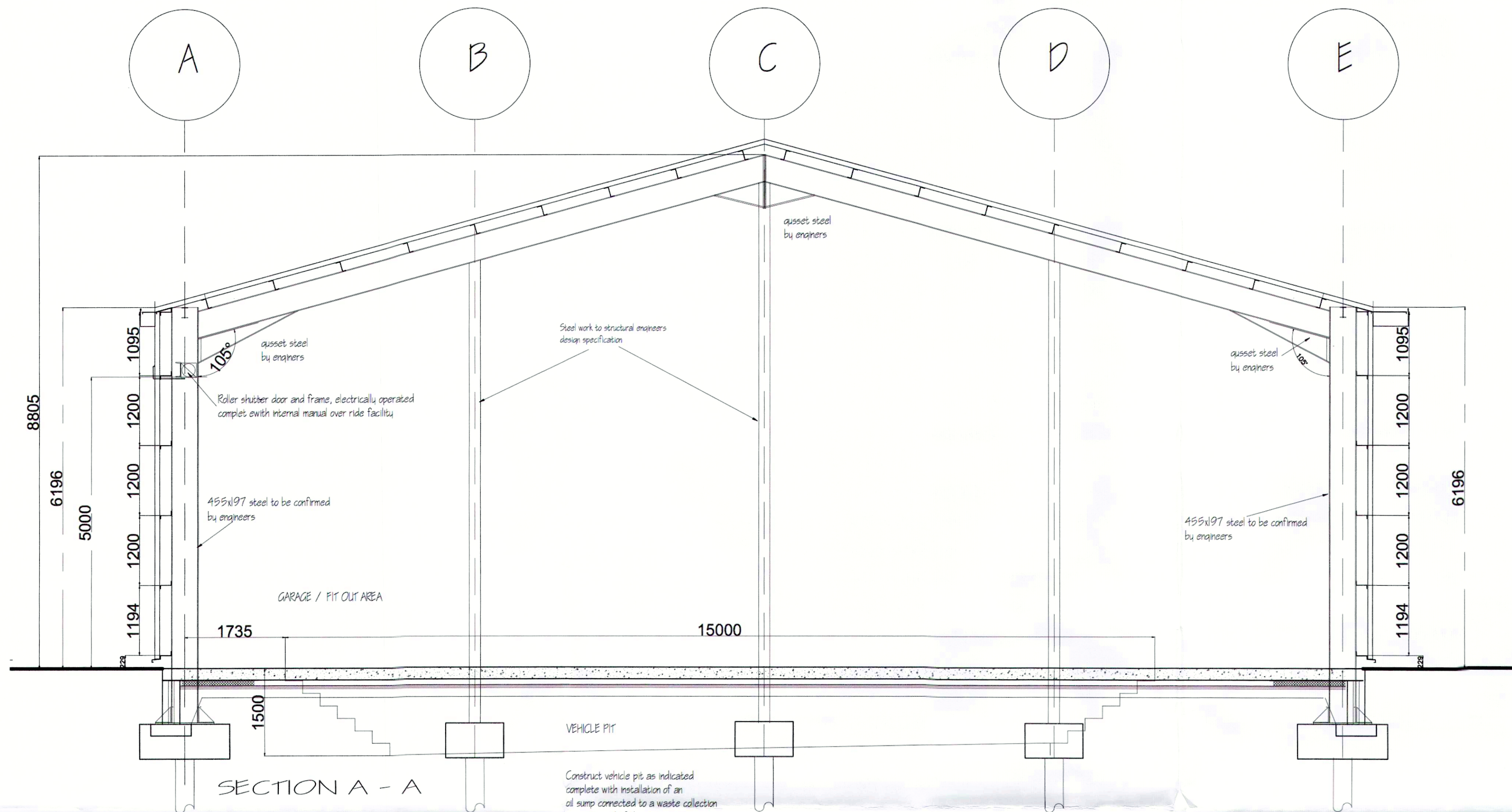




CLADDING
External Weather Sheet
Substrate to be 0.5mm thick 27275 Galvalume hot dipped zinc coated steel to BS EN 10147 External coating to be Corus UK Ltd Colour coat PVDF 27 micron thick colour - Standard, reverse to have a light grey polyester coating
Insulation Core
To consist of 50mm thick closed cell with zero vapour diffusion (Zero COP) and LPCB certified polyisocyanurate (PIR) insulation. The auto adhesive properties of the core bond the external and internal sheets together, and control the panel thickness achieved during manufacture.
Internal Liner Sheet
Substrate to be 0.4mm thick hot dipped zinc coated steel to BS EN 10147 Internal coating to be living enamel, 15microns thick Colour White

THERMAL INSULATION
The panel to have thermal transmittance of max 0.30w/m2K calculated using the method required by the building regulations part L2 and building standards Part 1

FIRE
The external and internal faces of the panel to be Class 0 in accordance with building regulations when tested to BS 476 pt 6 The wall to have 60min integrity, 20min insulation Overall air tightness for complete envelope less than 10m3/m2/m at 80Pa Horizontal Panel joints To be a tongue & groove & female type of joint with a factory applied weather seal within the groove & female section in addition the panel joint to be exposed internally through the female external sheet at 200mm c/c using SFS Intec 12 4 8 x72 flange or similar. Also a 200mm thick x100 wide living enamel coated steel flashing to be fixed internally at 250mm c/c Joints
Junctions between the roof and walls & penetrations insulated with PIR board insulation any gaps filled with Atlasbond FR the rated gun applied canister urethane insulation. Internal face of panel to be air sealed along the length by an unbroken 6mm diameter bead of gun grade sealant Fasteners
All primary fasteners must be self-tapping, self-drilling screws. Manufactured from carbon steel, anti corrosion coated, and fitted with a 16mm dia bonded 16 in weather.
All fasteners to be located through the tongue (male) section of the panel. To comply with the BS 6399 pt 2 it may be necessary to provide additional fixings through the male section in areas of high local suction.
Where panels have their male sections removed on site they must be fixed with a similar type of fastener. The fastener must be covered by a flashing to maintain the concealed appearance Secondary Flashings to be fabricated at 400mm c/c (maximum) with carbon steel extruding screws, complete with washers and colour coated low profile heads
All side laps should be lapped away from the prevailing wind and to be sealed with a 40mm x10mm wide low rool. Mastic strip on the weather side of the fastener and close to the edge of the joint. Fasteners must be fixed through the profile flange. All exposed fasteners must be covered with colour matching caps or be of a type which adopts integral coloured heads. Damaged sheets and cut edges are to be treated with touch up paint of the correct colour. Apply paint with a medium to fine artists brush ensuring that the applied paint is no wider than the damaged area.
Lap joints
All end laps are to be max 150mm and must be positioned directly above a support source. Sealant must be of a cross-linked rubber formulation and must be positioned close to the end of each lap. The min cross section for each pre formed bead should be sufficient to fully fill any gap between the male and female over profile of the lap
Side lap joints
All side laps should be lapped away from the prevailing wind wherever possible and on to be sealed with a pre formed strip. The sealant strip must be positioned on the weather side of the seam fastener and close to the edge of the joint. The sealant must be of a cross-linked rubber formulation
Seams and fixings
All seams should be manufactured from EPDM material, filler pieces should be positioned at all termination points and where indicated, ventilated fillers should be provided. The sealant used on self adhesive films must be of the cross-linked type and should have a min cross section of 12x1 mm
Ventilated Filler
All films should be manufactured from EPDM material. Filler pieces should be positioned at all termination points and where indicated, ventilation filler should be provided. The sealant used on self-adhesive films must be of the cross-linked type and should have a min cross section of 12x1 mm
Flashings
All flashings should be manufactured from material with the same substrate quality and coating specification as the main body sheet. The min sheet thickness is 0.7mm (nominal thickness)

H43 METAL COMPOSITE PANEL CLADDING/COVERING
To be read with Preliminaries/General conditions

TYPE OF CLADDING SYSTEM
H31127A METAL COMPOSITE PANEL WALL CLADDING TO WALLS

Drawing reference:
Supports: Kingspan Multibeam core rolled steel system.
Bearing: with 300mm intermediate, Min 130mm vertical joint.
Manufacturer and reference: Kingspan Limited, horizontally laid wall cladding system for standard internal & external non-corrosive inland environments also Loss Prevention Certification Board certified to LPS 1181 Grade EXT-B
Test results

LPS1181: 2014, Part 1, Issue 1.2 Wall Living Test: Passed all requirements.
Panels:
Profile reference: K31000 Optimo EcoBale - Optimo Insulated Wall Panel.
Cover width: 1200mm
External fixings:
Material: SS304-2A No-tye aluminium Galfen protected steel to BS EN 10346: 2008
Thickness: 0.83 mm nominal
Finish/Colour: Kingspan Spectum, colour standard
Internal fixings:
Material: Hot-dip zinc coated steel to BS EN 10346: 2008
Thickness: 0.4mm nominal
Finish/Colour: ClearBale 15
Core insulation: Ecobale LPCB certified PIR formulation, Receiving BREEMAM Credit (Pollution 4: Insulant GWP) 2008 credit.
Panel thickness: 60mm (England & Wales) or 60mm (Scotland)
Manufacture panel joint sealant:

Factory applied weather seal as set in detail.
System D - Factory applied back EPDM gasket Ref:SP11
System B - 30mm x 10mm polyester powder coated extruded aluminium mullion cover ref: SP5 snapped into extruded aluminium mullion finished pressure plate ref: SP1. Two lines of 6mm diameter butyl rubber sealant, Class A, ref: NFRIC T356, also applied between pressure plate and panel.
Kingspan AWP filler and non-setting gun-grade Phenobond CV or similar, also applied at the end of each panel where flashings pass over the joint.
Bringing seal access panel joint in line with AWP filler and internal seal to be non-setting gun-grade, Phenobond CV or similar.
Fasteners, As determined by clause 225A

Number and location:
For panels: As determined by clause 197A, but with each panel fixed to each support using not less than one fastener at panel ends and two fasteners at intermediate supports, located through long edge section, as recommended by cladding manufacturer.
For panel fasteners: Fix each one using two fasteners.
For vertical top-to-bottom support at 500mm centres.
Vertical joints:
Type:
System A - Option A with meet top-to-top flashing, 4mm diameter butyl rubber sealant, Class A, ref: NFRIC T356.
Fastenings: Finish as external face of panel.
System B - 50mm x 20mm polyester powder coated extruded aluminium mullion cover ref: SP5 snapped into extruded aluminium mullion finished pressure plate ref: SP1. Two lines of 6mm diameter butyl rubber sealant, Class A, ref: NFRIC T356, also applied between pressure plate and panel.
Fastenings: Polyester powder coating.
System C - Extruded aluminium top-to-top sections ref: SP6 with 6mm x 4mm PVC tape (T356 type) and top hat profile gasket ref: SP10.
Fastenings: Polyester powder coating.
System D - Nominal 20mm x 2mm BPA push in back EPDM 30-free gasket - horizontal male/female joint closed off at the vertical joint using site applied non-setting gun-grade, Phenobond CV or similar assembly (see detail of AWP filler).

PIR insulation board with air gaps between board and panels, fit with Premier Sealants (0724 84100) Primform (class B1 rated) or similar, the rated gun applied canister urethane insulation.
Vertical panel joints to have 1/2 EPDM 60mm x 10mm self adhesive air seal bubble gasket applied to vertical supporting steelwork and lapped over drip flashing.
Accessories:
Panel fasteners located at panel ends and at maximum 1000mm intervals in-between, located in positions recommended by cladding manufacturer to support the bottom row of horizontally laid panels.
Thermal Transmittance (U Value) calculated using the method required by the Building Regulations Part L2A (England & Wales) and Building (Scotland) Regulations Section 6: 0.29 w/m2K (England & Wales) or 0.28 w/m2K (Scotland). Manufacturers 23 year thermal guarantee required.
Air leakage rate of 5m3/m2/m at 50 Pa, based on the assumption that the full building envelope is constructed using Kingspan panels.

Other requirements:
1/2 EPDM 60mm x 10mm self adhesive air seal bubble gasket applied to vertical intermediate supporting steelwork and lapped over drip flashing.
Internal face of panel to be air sealed along the full length by an unbroken row of 6mm bead of non-setting gun-grade, Phenobond CV or similar.
Factory made pre-formed corner panels.
Integrated windows are not recommended with Optimo System D.
Manufacturers 30 year maintenance and inspection free coating guarantee. Manufacturers coating guarantee to be available on project completion and be fully transferable for future changes of building ownership.
Panels manufactured under the following ISO standards 14001, 18001, 9001.
Cladding contractor to attend a product training course at Kingspan.

PLANNING AND
BUILDING CONTROL
22 AUG 2023

ALL DIMENSIONS TO BE CHECKED ON SITE
PRIOR TO ORDERING OR ERECTING MATERIALS
DO NOT SCALE

J.KENDAL
9 SOUTH SQUARE
THORNTON-CLEVELEYS
FYS I/P

Drawing Title
PROPOSED HGV GARAGE / REPAIR BAY

Project Title
DELTA CONTAINERS (MANCHESTER) Ltd
PRESTON STREET, WEST GORTON
MANCHESTER, M18 8DP

REV.	DRG.NO.
DATE	SCALE
AUG 2023	1:50 @ A1

