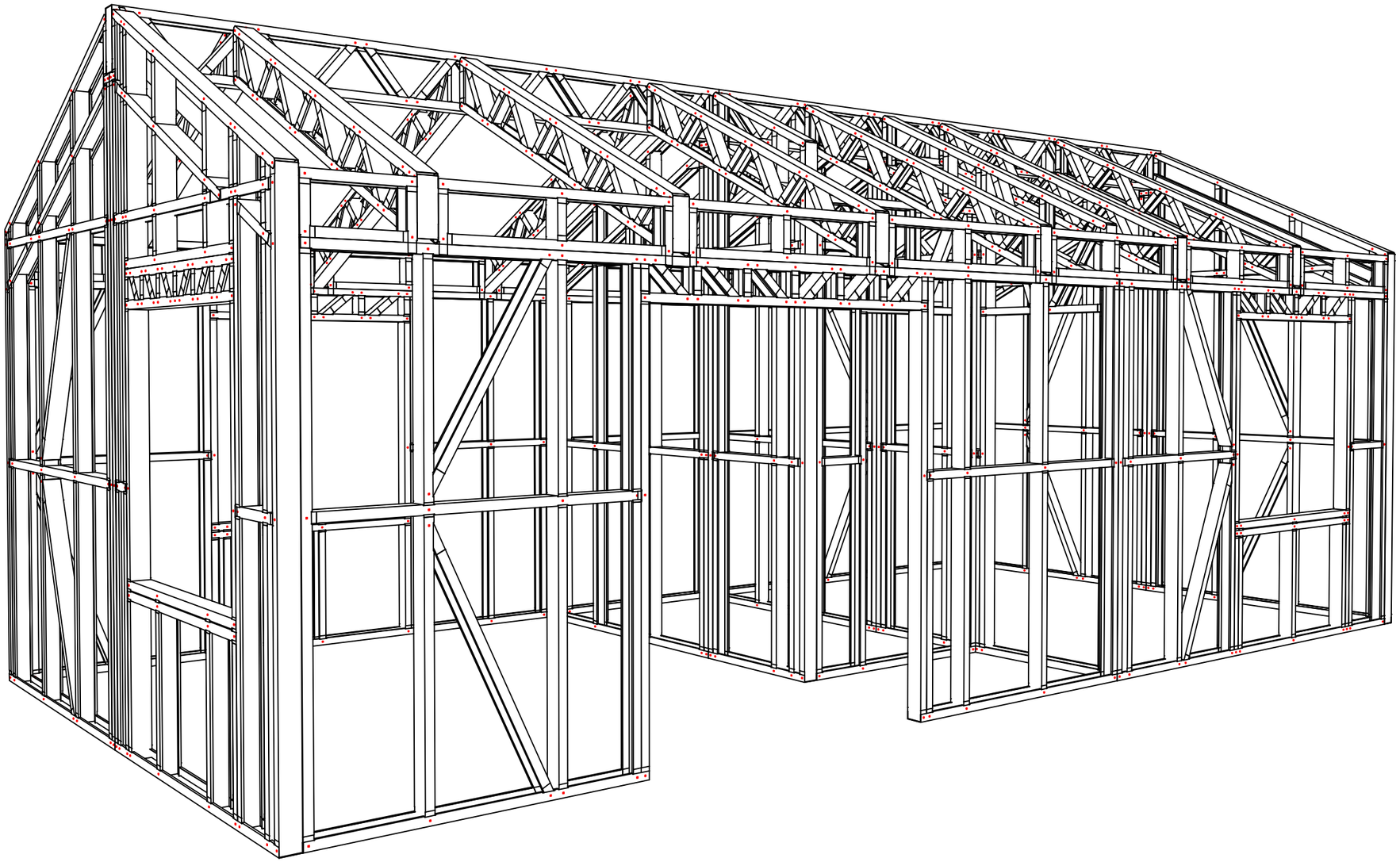


PROPOSED NEW DESIGN FOR
CO-3.8x7.8-A

SITE ADDRESS
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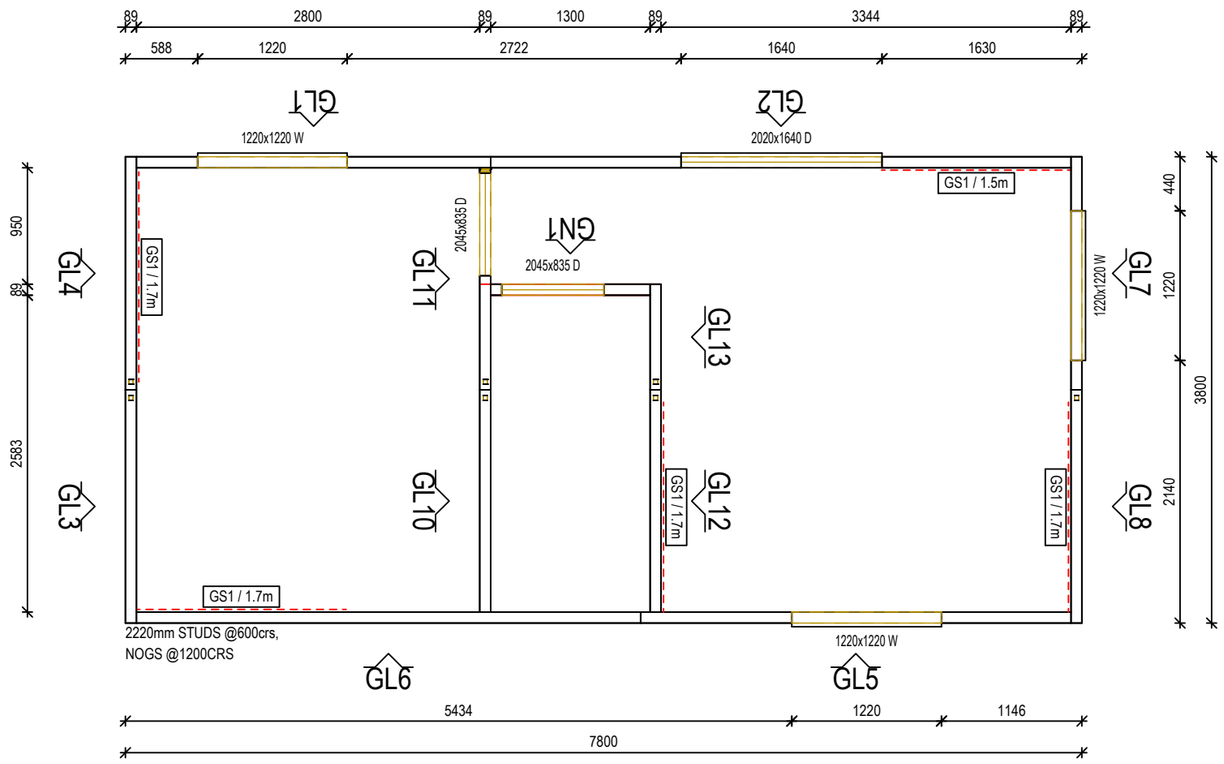
STEEL FRAME CONSTRUCTION PLANS

DESIGN PARAMETERS		COVER SHEET	CONSTRUCTION DRAWING SET	REVISION
WIND ZONE	VH			
SNOW ZONE	1.5kPa			
EARTHQUAKE ZONE	3	JOB NUMBER	ISSUE DATE	A
LOT # -- DP	--	CO-3.8x7.8-A	25.03.2024	

NOTES ON COLD FORMED STEEL FABRICATION AND ERECTION All cold formed steel structure design is to NZ standards or certified by suitably qualified persons prior to construction. Refer to architectural drawings for dimensions, foundations and any structural steel not shown on framing drawings. FRAMING All framing members to be type SC/PC as classified by 'NASH Standard Part Two: May 2019', Tables E1 & E2, UNO. Framing components are to be pre-assembled into panels prior to erecting and will be square with components attached in a manner to avoid raking. Design, fabrication and erection shall comply with NASH SP2:2019. All screws to be 10g tek screws UNO. Splices in studs of load bearing walls are not permitted. Members shall be held positively in place until properly fastened. ERECTION Erect framing and panels level and square in strict accordance with the approved shop drawings. Handling and lifting of prefabricated panels shall be done in a manner as to not cause distortion in a member. Concrete anchors shall be installed after full concrete compressive strength has been achieved. Do not cut load bearing studs, lintels or trusses to install services in excess of a 35mm diameter hole at the centre of a member, unless studs have been reinforced to maintain structural integrity as per details provided. Ensure continuous DPC between any Concrete, Copper, Brass, CCA treated timber and galvanised steel. Builder to check all trim sizes, braces and cladding fixings on site before enclosing. FIXINGS Screw fixings shall be a minimum of 1.5x the diameter of the screw shank from the closest end and edge of the members being connected except for battens that shall be a minimum of 3x the diameter of the screw shank from the closest end of the batten being connected. Minimum spacing crs between screw fixings shall be 3x the diameter of the screw shank. Screw fixings into timber shall be a minimum of 4x the diameter of the screw shank from any edges and ends of the timber member. Screws shall have a minimum of 3 threads penetration through the connection. Please note Steel Frame Manufacturing Ltd only supplies frame to frame connections unless otherwise agreed.

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WALL FRAME NOTES

1. LOAD BEARING AND NON-LOAD BEARING WALLS INDICATED BY LABELS L AND N RESPECTIVELY

2. WALL DESIGN IN ACCORDANCE WITH NASH STANDARD PART TWO: MAY 2019 UNLESS NOTED OTHERWISE
   - All loadbearing openings to have min 2 jamb studs in accordance with table 7.15
   - All loadbearing lintels to be min 180mm TYPE A2 in accordance with table 11.9
   - Stud spacing and stud to plate connections in accordance with tables 7.4 and 7.5

3. WALL BRACING ELEMENTS READ AS

   BRACING SYSTEM/BRACING LENGTH

INSTALL AS PER GIB EZYBRACE FOR LIGHT STEEL FRAME SYSTEMS MARCH 2017 PRODUCT SUPPLY BY OTHERS

READING THE WALL FRAME LAYOUT PLAN

WALL PANEL ORENTATION:
Each wall panel will have the frame code printed on one side of the frame and the Steel Frame Manufacturing Limited website printed on the other. The side with the frame code is the side that the label points to on the plan.
All external walls should have the frame code facing out.

STEELFRAMEMAN.CO.NZ

FRAME CODE

GL1

PROPOSED NEW DESIGN FOR
CO-3.8x7.8-A

SITE ADDRESS
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DESIGN PARAMETERS

WIND ZONE	VH
SNOW ZONE	1.5kPa
EARTHQUAKE ZONE	3
LOT #	--
DP	--

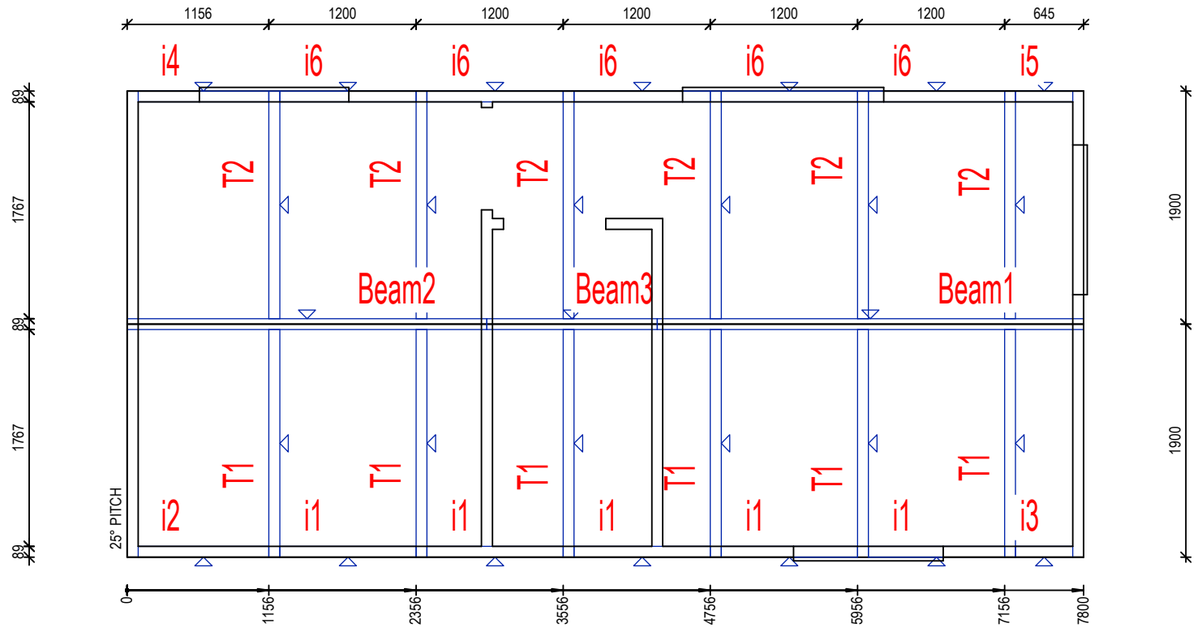
STEEL FRAME CONSTRUCTION PLANS

WALL FRAME LAYOUT

CONSTRUCTION	C01	REVISION
JOB NUMBER CO-3.8x7.8-A	ISSUE DATE 25.03.2024	A
info@steelframeman.co.nz	DETAILER: CT	

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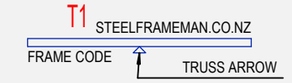


NOTES

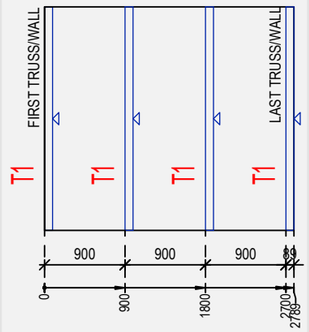
1. ROOF DESIGN IN ACCORDANCE WITH NASH STANDARD PART TWO: MAY 2019 UP TO VERY HIGH WIND ZONE & <1.5kPa SNOW
   - 250mm rafters in accordance with table 11.
   - 300mm ridge beam in accordance with table 11.6
2. TOP HAT PURLINS 40mm 0.75 @900crs MAX TO TOP CHORD OF RAFTERS
   TOP HAT BATTENS 30mm 0.55 @600crs MAX TO BOTTOM CHORD OF RAFTERS
3. RED DASHED LINE INDICATES ROOF STRAP BRACING TO BE INSTALLED AS PER NASH: Each roof brace shall consist of the following: A diagonally opposing pair of continuous steel straps each having a capacity of 4.0kN in tension, fixed to each top chord or rafter that is intersected and the top plate. The angle shall be between 30 and 60 degrees to the truss top chord or rafter and shall not sag more than 1/500 of the distance between supports. Where tension devices are used to remove excessive sag, care shall be taken not to over-tension the braces. At the bottom end the strap shall be carried over the top plate, down a stud by 100 mm, and fixed with a minimum of 4 x 10g screws. SUPPLY BY OTHERS

READING THE JOIST FRAME LAYOUT PLAN

TRUSS / RAFTER ORENTATION:
Each truss/ rafter will have the frame code printed on one side of the frame and the Steel Frame Manufacturing Limited website printed on the other. The side with the truss arrow pointing to it will be the side with the truss code.



TRUSS / RAFTER DIMENSIONS
Each truss / rafter will have a dimension and each dimension will to the same side of the truss. Refer to detail below



PROPOSED NEW DESIGN FOR
CO-3.8x7.8-A

SITE ADDRESS
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DESIGN PARAMETERS

WIND ZONE	VH
SNOW ZONE	1.5kPa
EARTHQUAKE ZONE	3
LOT #	--
DP	--

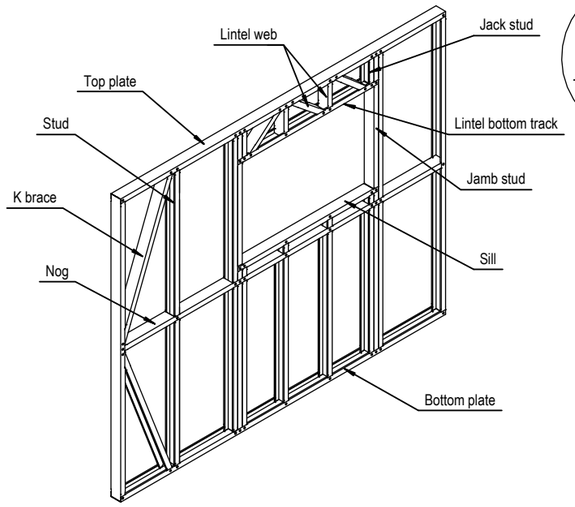
STEEL FRAME CONSTRUCTION PLANS

ROOF FRAME LAYOUT

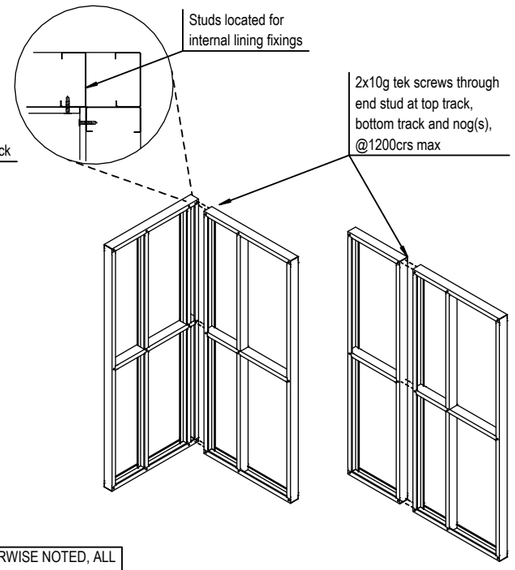
CONSTRUCTION	C02	REVISION
JOB NUMBER CO-3.8x7.8-A	ISSUE DATE 25.03.2024	A
info@steelframeman.co.nz	DETAILER: CT	

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WALL FRAME TERMINOLOGY



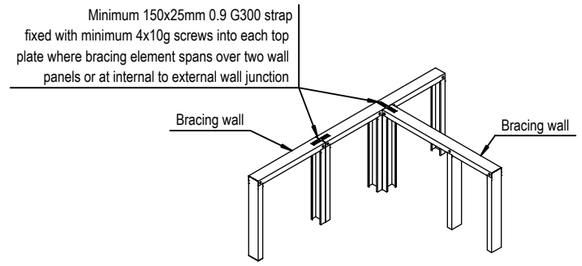
UNLESS OTHERWISE NOTED, ALL CONNECTIONS ARE MADE USING 2x10-16x16mm TEK SCREWS

WALL PANEL CONNECTIONS

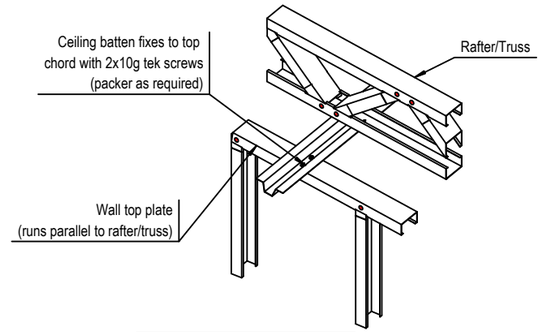
BRACING WALL TOP PLATE CONNECTIONS

BRACING WALL TOP PLATE STRAP CONNECTION
4x10g tek screws to each top plate to be used where:
-Internal walls with less than 125BUs connect to ONE external wall
-Internal walls with less than 250BUs connect to TWO external walls
When internal walls with more than 250BUs fix to TWO external walls, add an extra 2x10g tek screws to each top plate connection for each additional 100BUs

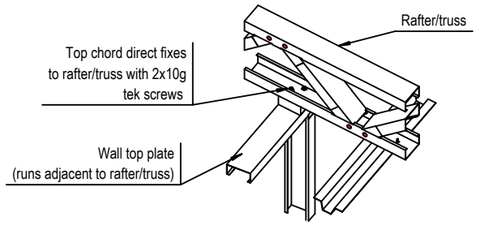
BRACING WALL TOP PLATE DIRECT FIX TO TRUSS/BATTEN
2x10g tek screws to rafter/truss bottom chord or ceiling batten to be used where:
-Internal wall connects to ONE external wall and exceeds 125 BUs
-Internal walls do not connect to any external walls
One connection is required for each 250BUs in bracing wall line



TOP PLATE STRAP



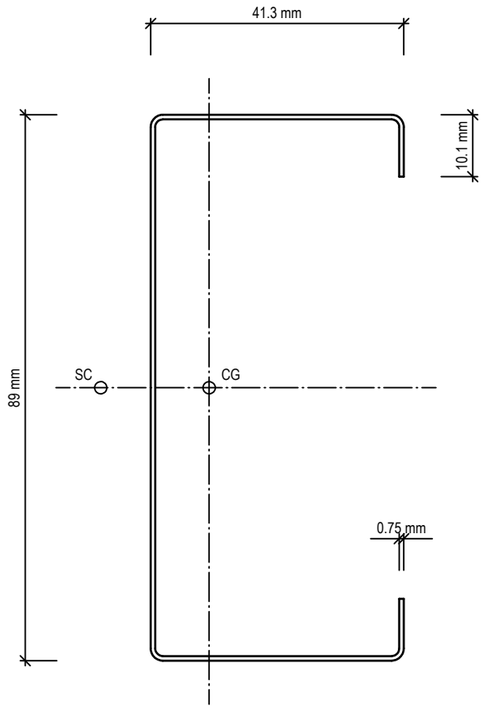
DIRECT FIX TO BATTEN



DIRECT FIX TO RAFTER

C89x41.3mm 0.75BMT LIPPED CEE SECTION PROPERTIES

ALL FRAMING MEMBERS TO BE 0.75 BMT UNO



Name			S8975
Grade			G550
Coating			AZ150
Feed		mm	182.0
Area		mm2	136.5
Mass		kg	1.072
Yield Stress	fy	Mpa	550
Tensile Strength	fu	Mpa	550
Second Moment of Area	Ix	mm4	174103
Second Moment of Area	Iy	mm4	29996
Radius of Gyration	rx	mm	35.7
Radius of Gyration	ry	mm	14.8
Centroid Position	x	mm	12.6
Centroid Position	y	mm	44.0
Shear Centre	xo	mm	33.2
Shear Centre	yo	mm	0
Polar Radius of Gyration	ro1	mm	43.6
Tortion Constant	J	mm4	25.6
Warping Constant	Iw	mm6	48912422
Sectional Modulus	Zxt	mm3	3957
Sectional Modulus	Zxb	mm3	3869
Sectional Modulus	Zyt	mm3	2381
Sectional Modulus	Zyb	mm3	1056

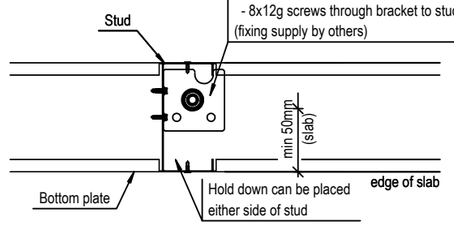
HOLD DOWN CONNECTION NOTES

CONNECTION NOTES NASH Part 2 2019
NASH Tie Down references in brackets
All hold downs max 1200 crs (inclusive of bracing hold downs)
Bracing Hold downs - refer to Bracing system requirements and details
DURABILITY
SCREWS
Screws shall conform to AS 3566.2 with a minimum of class 3.
BRACKETS
Brackets shall be either hot-dipped galvanized complying to AS/NZS4680 Table 1 or mechanically galvanized to AS 1397.

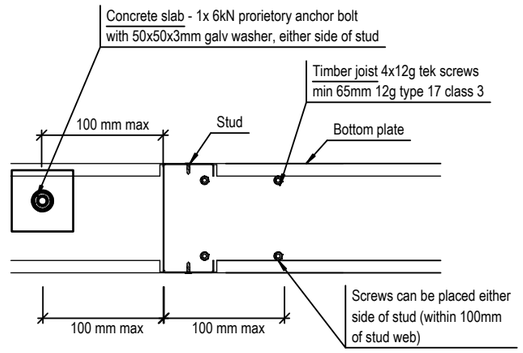
GROUND FLOOR
Hold down Type E - 10kN
- below ridge beams
Hold down Type E - 6kN external walls 4kN internal walls
- each side of every opening (unless type 1 applies)
- at the start and end of wall panels
- elsewhere not exceeding 1200mm crs

NASH TYPE E Hold down bracket and washer - In accordance with 9.6.6, a proprietory bracket with min 12kN capactiy can be substituted i.e Framecad HDF-A1. Refer to product specification for further info

Timber joist - 1x prorietory 12kN coach screw through HDF-A1
Concrete slab - 1x prorietory 12kN concrete anchor through HDF-A1 installed min 50mm from slab edge
- 8x12g screws through bracket to stud (fixing supply by others)



HOLD DOWN TYPE E



NOTE: both slab and timber foundation hold downs shown - use hold down that applies to your foundation type only

HOLD DOWN TYPE D

PROPOSED NEW DESIGN FOR
CO-3.8x7.8-A

SITE ADDRESS
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DESIGN PARAMETERS

WIND ZONE	VH
SNOW ZONE	1.5kPa
EARTHQUAKE ZONE	3
LOT #	--
DP	--

STEEL FRAME CONSTRUCTION PLANS

DETAILS - WALLS

CONSTRUCTION	C03	REVISION
JOB NUMBER CO-3.8x7.8-A	ISSUE DATE 25.03.2024	A
info@steelframeman.co.nz	DETAILER: CT	

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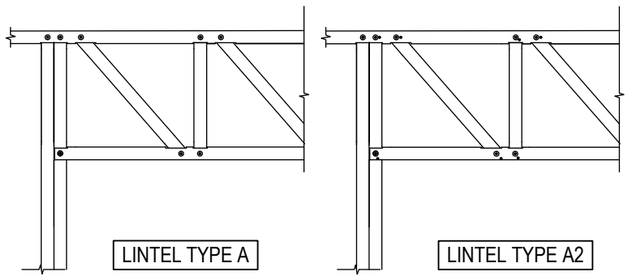
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LINTEL TYPES

All lintels as per NASH Standard Part Two: May 2019 - Light steel framed Buildings

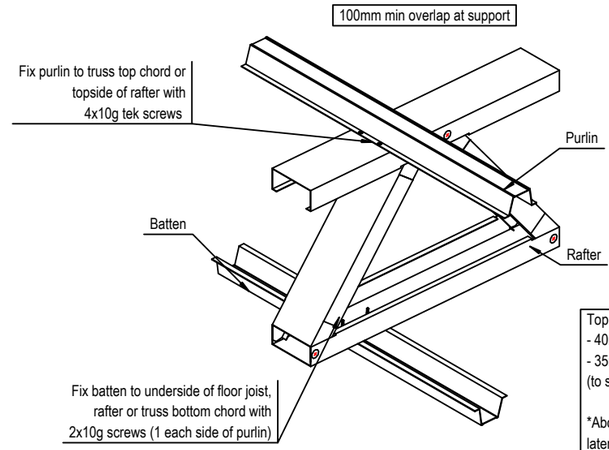
TYPE A
- For use in non-loadbearing walls

TYPE A2
- For use in all loadbearing walls unless noted otherwise
- Extra 10g tek screw required to each connection to the first two webs



LINTEL TYPE A

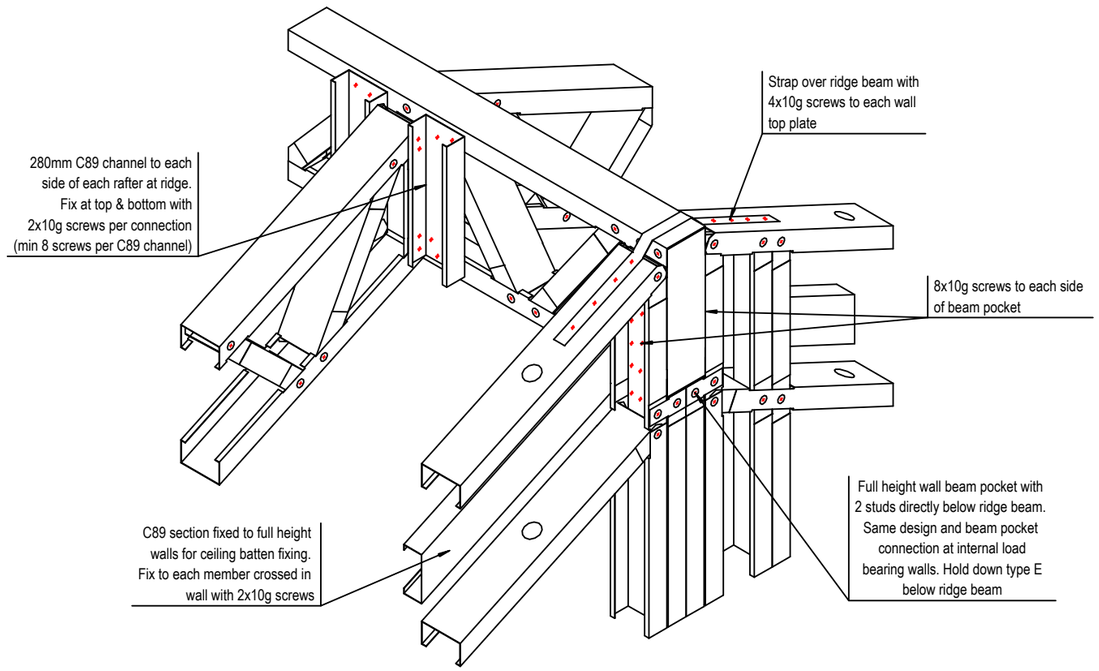
LINTEL TYPE A2



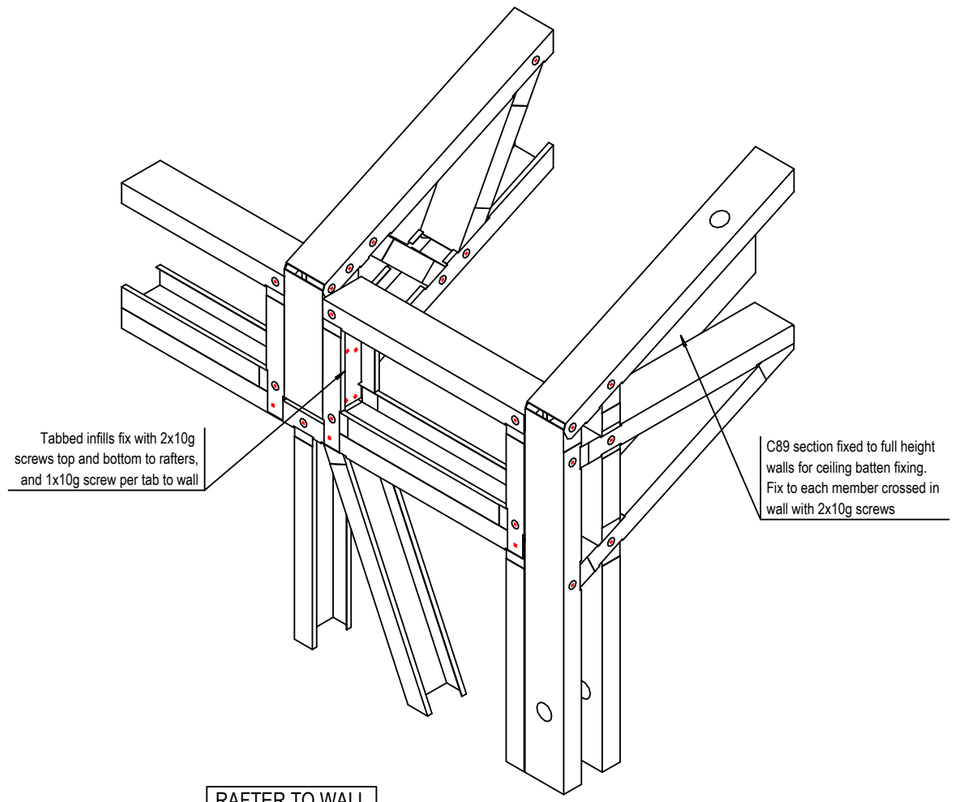
Tophat Section for use as
- 40mm 0.55 roof purlin @ 900 crs max*
- 35mm 0.55 ceiling batten @ 600 crs max*
(to suit 13mm linings)

*Above are maximum spacings required for lateral restraint as per NASHSP2/2019. Refer to architectural product specifications for further spacing/fixing requirements for roof claddings and ceiling linings

PURLIN & BATTEN FIXING



RIDGE BEAM



RAFTER TO WALL

PROPOSED NEW DESIGN FOR
CO-3.8x7.8-A

SITE ADDRESS
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DESIGN PARAMETERS

WIND ZONE	VH
SNOW ZONE	1.5kPa
EARTHQUAKE ZONE	3
LOT #	--
DP	--

STEEL FRAME CONSTRUCTION PLANS

DETAILS - ROOF

CONSTRUCTION	C04	REVISION
JOB NUMBER CO-3.8x7.8-A	ISSUE DATE 25.03.2024	A
info@steelframeman.co.nz	DETAILER: CT	

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