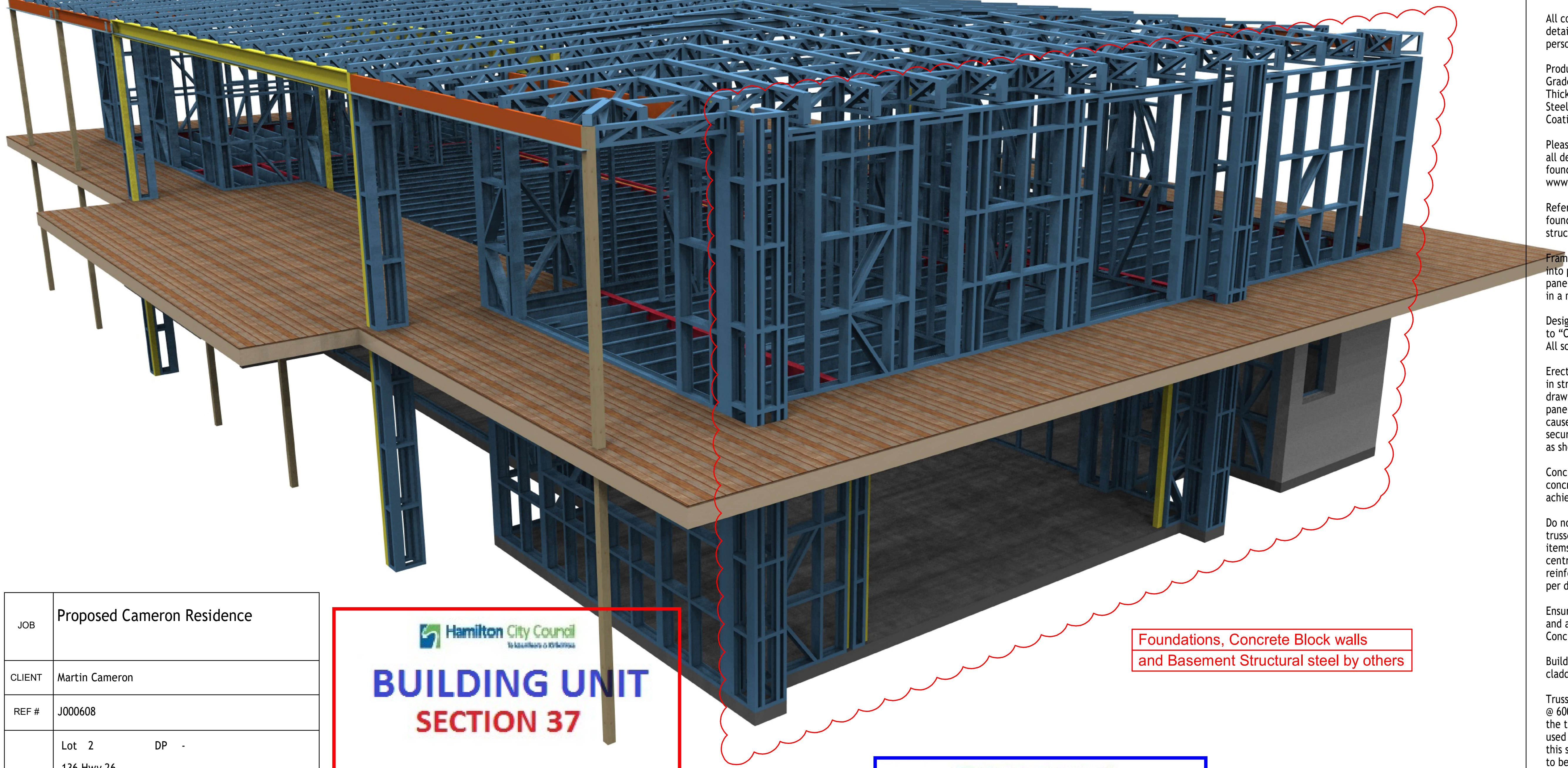


Foundations, Concrete Block walls and Basement Structural steel by others

GENERAL NOTES ON COLD FORMED STEEL FABRICATION AND ERECTION

All cold formed steel structure design and detailing to be certified by suitably qualified persons prior to construction.

Product Range and Specifications
Grade Standard AS 1397:2011
Thickness (Base Metal) 0.75
Steel grade G550
Coating weight Z275 or AZ150

Please refer to current Construction Manual for all details. Current construction manual can be found at.
www.steelhaus.co.nz

Refer to architectural drawings for dimensions, foundation structure and any additional structural steel not shown on structural drawings.

Framing components are to be pre-assembled into panels prior to erecting. Prefabricated panels shall be square with components attached in a manner to avoid raking.

Design, fabrication and erection shall conform to "Cold Formed Steel Structures" AS4600.
All screws to be 10gx16 TPI Tek screws UNO

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. Tracks shall be securely anchored to the supporting structure as shown on the construction drawings.

Concrete anchors shall be installed after full concrete compressive strength has been achieved.

Do not cut load bearing studs, headers, joists or trusses to install plumbing, electrical or other items 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 galvanised steel and any;
Concrete, Copper, Brass and CCA treated timber.

Builder to check all trim sizes, braces and cladding fixings on site before enclosing.

Trusses have been designed with ceiling battens @ 600/450 crs. fixed directly to the underside of the truss. If steel ceiling battens with clips are used the trusses will need to be redesigned to suit this system and bottom chord restraints will need to be used.

JOB	Proposed Cameron Residence
CLIENT	Martin Cameron
REF #	J000608
LEGAL DESC.	Lot 2 DP - 136 Hwy 26 Newstead 3286

FRAMING PARAMETERS

STEEL SECTION:	89.0x41.3x0.75mm LC
GROUND STUD HEIGHT:	2720mm
UPPER STUD HEIGHT:	2720mm
STUD CENTRES:	600mm

DESIGN LOADS

WIND ZONE:	HIGH
GROUND SNOW LOAD:	0kPa
EARTHQUAKE ZONE:	ZONE 1

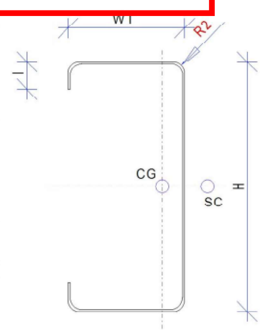
STEELHAUS

Hamilton City Council
Te kaunihera o Kirikiriroa

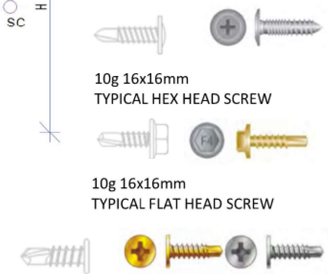
BUILDING UNIT
SECTION 37

BC Number - DD007.2021.00043914.001

LIPPED C SECTION PROPERTIES			
NAME 58975			
GRADE		G	550
COATING		Z	275
YIELD STRESS	fy	Mpa	550
TENSILE STRENGTH	fu	Mpa	550
HEIGHT	h	mm	89
WIDTH TOP	wt	mm	41
WIDTH BOTTOM	wb	mm	39
THICKNESS	t	mm	0.75
LIP TOP	l	mm	10.1
FEED		mm	182
AREA		mm2	136.5
MASS		kg	1.072
2ND MOMENT OF AREA	Ix	mm4	174103
2ND MOMENT OF AREA	Iy	mm	29996
RADIUS OF GYRATION	rx	mm	35.7
RADIUS OF GYRATION	ry	mm	14.8
CENTROID POSITION	x	mm	12.6
CENTROID POSITION	y	Cmm	44
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



TYPICAL C SECTION



Hamilton City Council
Te kaunihera o Kirikiriroa

BUILDING UNIT
APPROVED

BC Number - DD007.2021.00043914.001

MICIUS
Civil & Structural Engineering Consultants
Company: Micius Consultants Limited
Engineer: Yang Benson Zhang CPEng, IntPE(NZ), CMEngNZ, MEngSt(Hons), BE
Registration#: 1009976
Signature/Date: 21/02/2022
*Scopes refer Micius PS1 & Calculation #210176

ENGINEERED BY:
MICIUS
Civil & Structural Engineering Consultants

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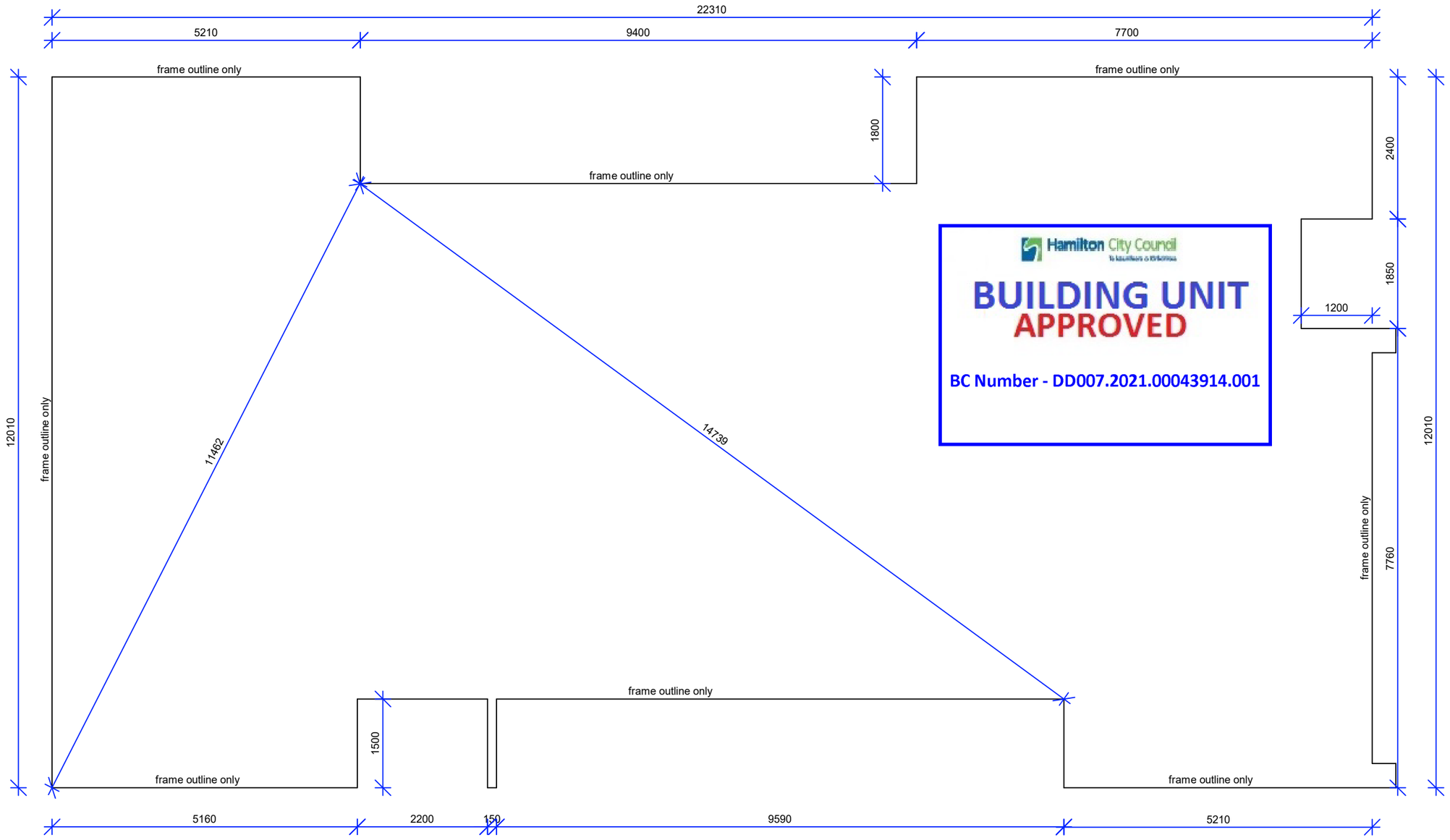
ISSUE	DETAILS	DATE	BY
1.	FOR PS1	21.10.26	CF
2.	FOR PS1 RESIGN	21.12.06	CF

NOTES

DIMENSIONS PROVIDED REPRESENT EXTERIOR LINE OF STEELHAUS FRAMES

CLADDING REBATES OR ANY ADDITIONAL SLABS NOT RELATIVE TO STEELHAUS FRAMING HAVE NOT BEEN SHOWN.

"FRAMING OUTLINE" DIMENSIONS ARE PURELY PROVIDED FOR A DOUBLE CHECK.



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BUILDING UNIT APPROVED

BC Number - DD007.2021.00043914.001

MICIUS Civil & Structural Engineering Consultants

Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022

*Scopes refer Micius PS1 & Calculation #210176

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STEELHAUS

SteelHaus (2014) Ltd
12 Hautu Drive, Wiri, Auckland 2104
0508 826 766
www.steelhaus.co.nz

JOB	New Residence Proposed Cameron Residence
CLIENT	Martin Cameron
REF #	J000608

LEGAL DESCRIPTION
Lot 2 DP -
136 Hwy 26
Newstead
3286

FRAMING OUTLINE

ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants

SHEET	SIZE	SCALE
A01	A3	

ISSUE	DETAILS	DATE	BY
1.	*FOR PS1*	*21.10.26*	*CF*
2.	*FOR PS1 RESIGN*	*21.12.06*	*CF*

DO NOT SCALE, IF IN DOUBT ASK

ALL LOAD BEARING LINTELS TO
BE NASH TYPE A2 UNLESS OTHERWISE STATED
REFER TO DETAIL ON PAGE A09

Hamilton City Council

BUILDING UNIT
APPROVED

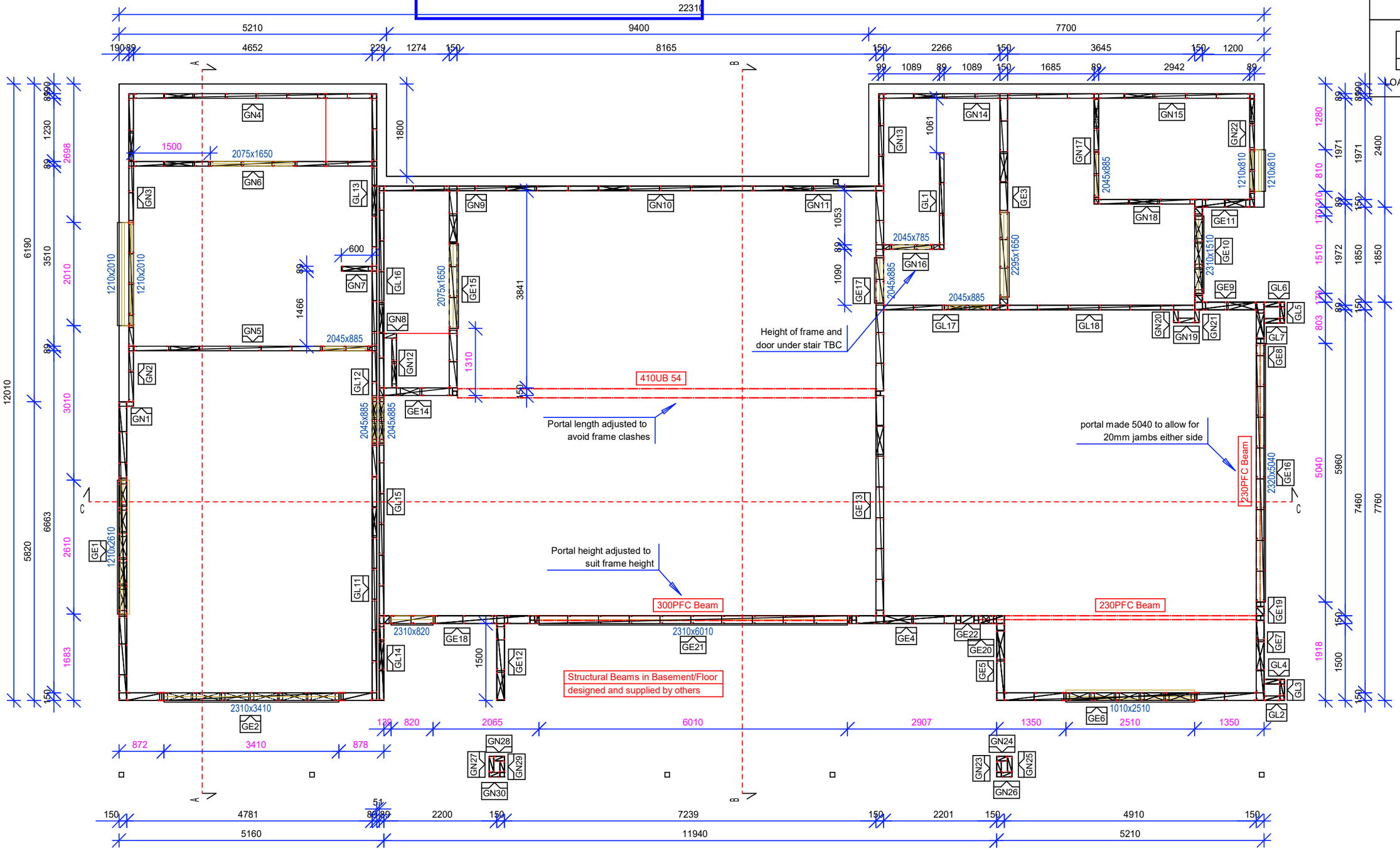
BC Number - DD007.2021.00043914.001

NOTES

1. LOAD BEARING AND NON-LOAD BEARING WALLS INDICATED BY LABELS L AND N RESPECTIVELY
2. ALL LOAD BEARING LINTELS TO BE TYPE 1 UNLESS OTHERWISE SPECIFIED
   SEE CONSTRUCTION MANUAL FOR SPECIFICATION
3. FOUNDATION THICKENINGS REQUIRED ONLY IF POINT LOADS ARE INDICATED. SEE ARCHITECTURALS FOR THICKENING DETAIL

GL1 LOAD BEARING

GN1 NON-LOAD BEARING



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Micius Civil & Structural Engineering Consultants
Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022
*Scopes refer Micius PS1 & Calculation #210176

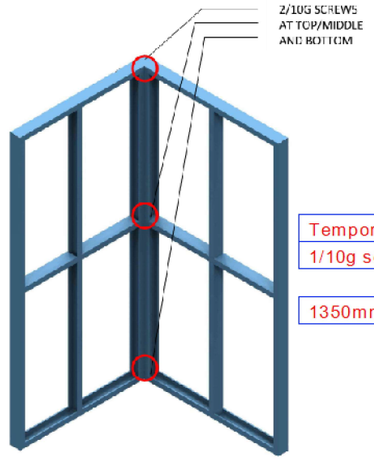
STEELHAUS	SteelHaus (2014) Ltd 12 Hautu Drive, Wiri, Auckland 2104 0508 826 766 www.steelhaus.co.nz	JOB	New Residence Proposed Cameron Residence	LEGAL DESCRIPTION Lot 2 DP - 136 Hwy 26 Newstead 3286	GF WALL LAYOUT	ENGINEERED BY: Micius Civil & Structural Engineering Consultants	SHEET A02	ISSUE	DETAILS / DATE / BY
		CLIENT	Martin Cameron				SIZE A3 / SCALE	1.	FOR PS1 / 21.10.26 / CF
		REF #	J000608					2.	FOR PS1 RESIGN / 21.12.06 / CF

DO NOT SCALE, IF IN DOUBT ASK

Hamilton City Council

BUILDING UNIT APPROVED

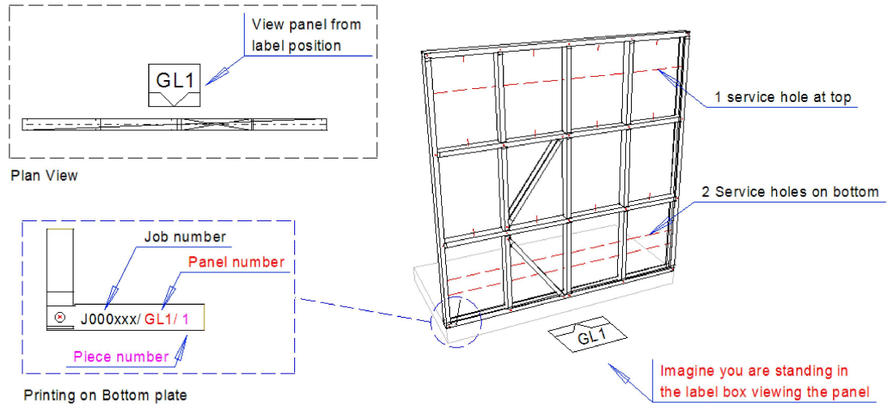
BC Number - DD007.2021.00043914.001



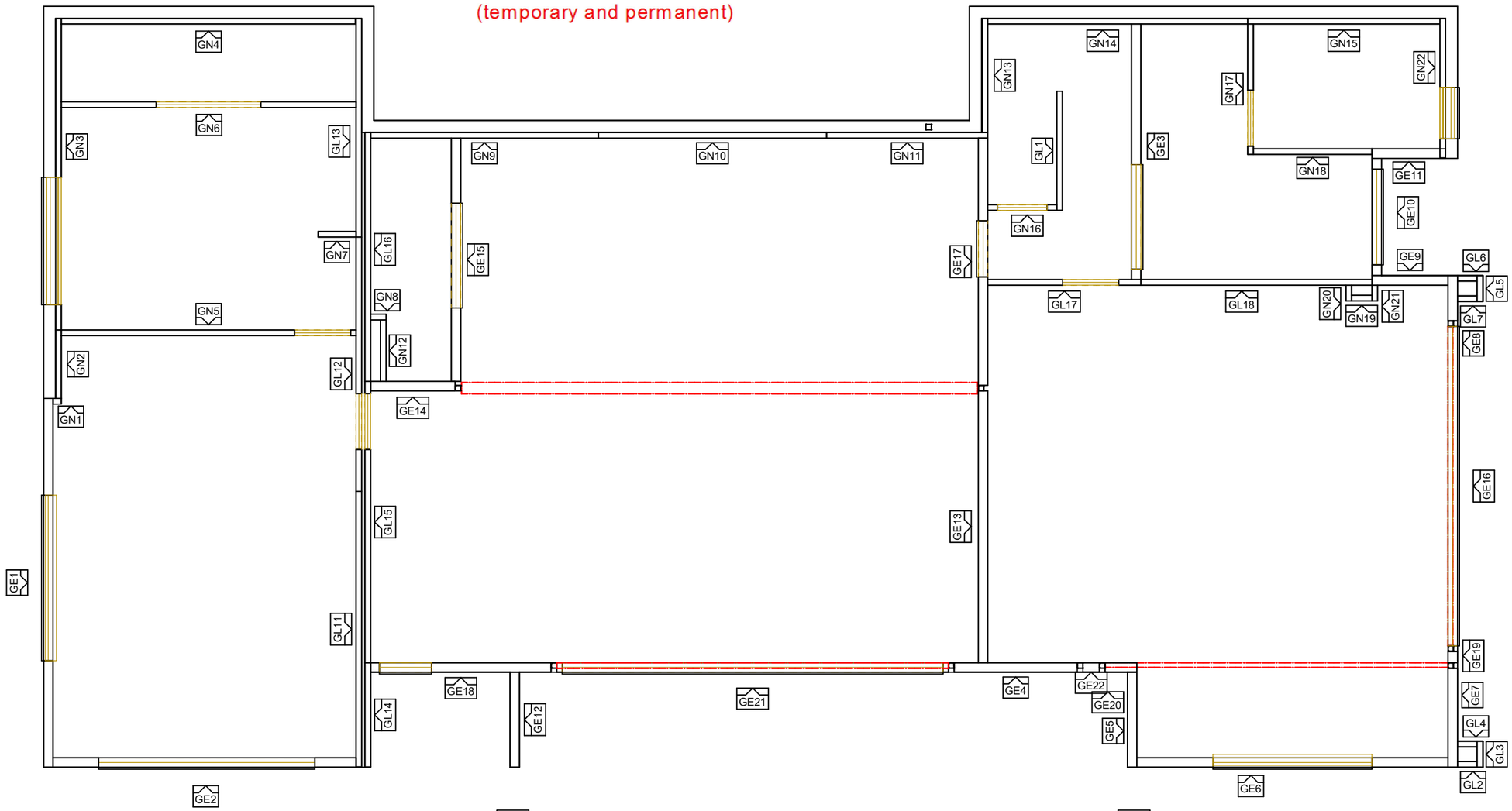
Temporary fixing;
1/10g screw top and 1 bottom

1350mm max distance between

Wall to wall connections
(temporary and permanent)



Frame Orientation



Micius
Civil & Structural Engineering Consultants
Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022
*Scopes refer Micius PS1 & Calculation #210176

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12 Hautu Drive, Wiri, Auckland 2104
0508 826 766
www.steelhaus.co.nz

JOB	New Residence Proposed Cameron Residence
CLIENT	Martin Cameron
REF #	J000608

LEGAL DESCRIPTION
Lot 2 DP -
136 Hwy 26
Newstead
3286

GF WALL - LAB

ENGINEERED BY: Micius Civil & Structural Engineering Consultants

SHEET	SIZE	SCALE
A03	A3	

ISSUE	DETAILS	DATE	BY
1.	*FOR PS1*	*21.10.26*	*CF*
2.	*FOR PS1 RESIGN*	*21.12.06*	*CF*

DO NOT SCALE, IF IN DOUBT ASK

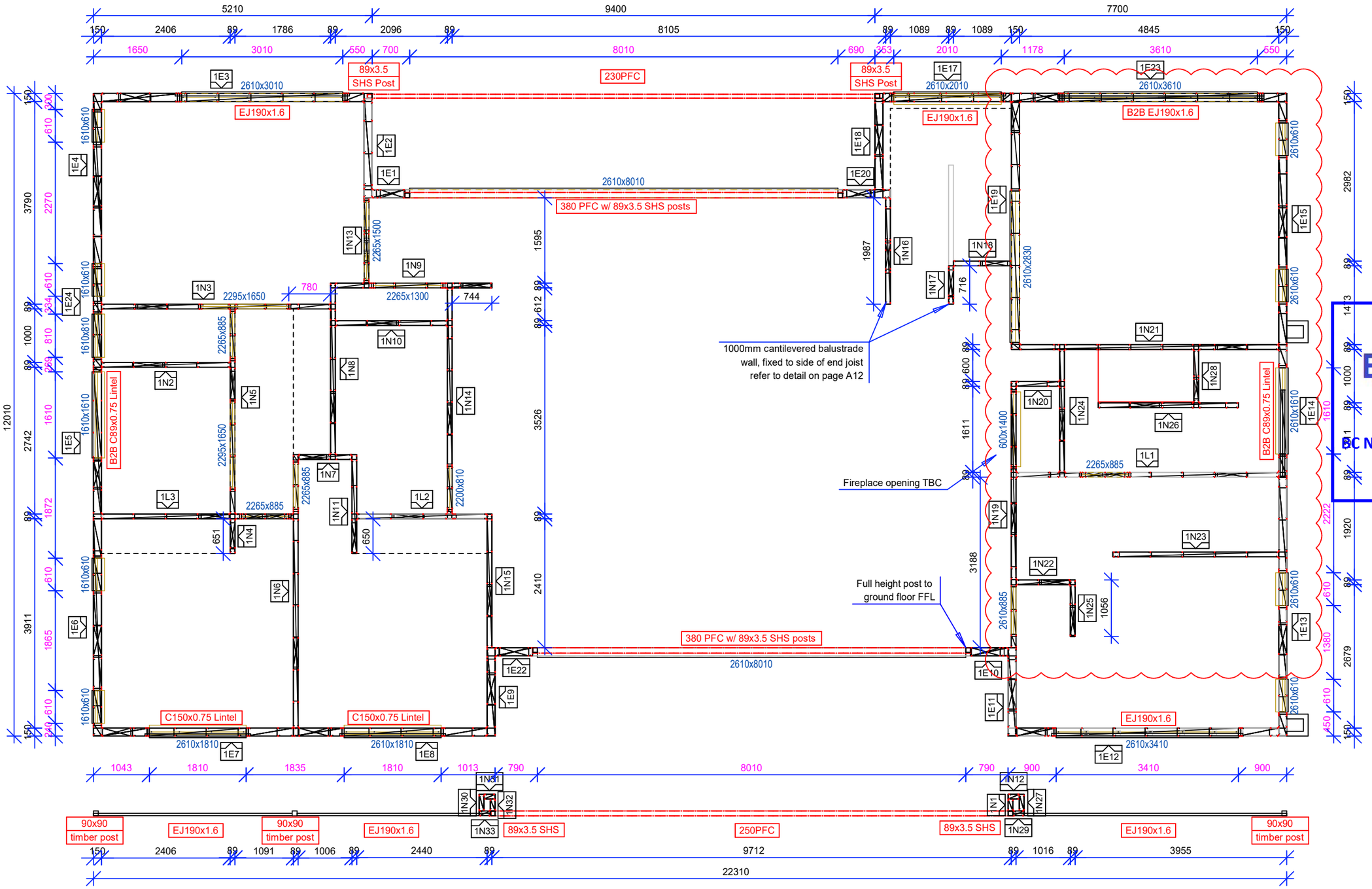
ALL LOAD BEARING LINTELS TO
BE NASH TYPE A2 UNLESS OTHERWISE STATED
REFER TO DETAIL ON PAGE A09

NOTES

1. LOAD BEARING AND NON-LOAD BEARING WALLS INDICATED BY LABELS L AND N RESPECTIVELY
2. ALL LOAD BEARING LINTELS TO BE TYPE 1 UNLESS OTHERWISE SPECIFIED
SEE CONSTRUCTION MANUAL FOR SPECIFICATION
3. FOUNDATION THICKENINGS REQUIRED ONLY IF POINT LOADS ARE INDICATED. SEE ARCHITECTURALS FOR THICKENING DETAIL

1L1 LOAD BEARING

1N1 NON-LOAD BEARING



Hamilton City Council

BUILDING UNIT
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BC Number - DD007.2021.00043914.001

MICIUS
Civil & Structural Engineering Consultants
Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022
*Scopes refer Micius PS1 & Calculation #210176

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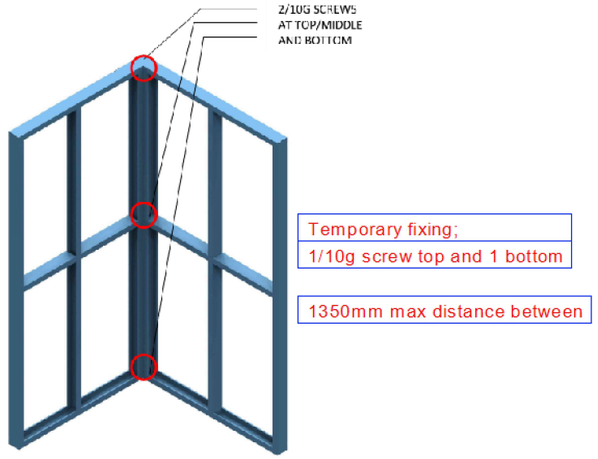
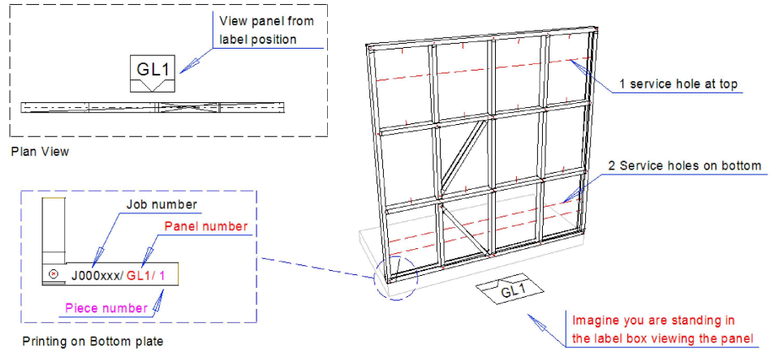
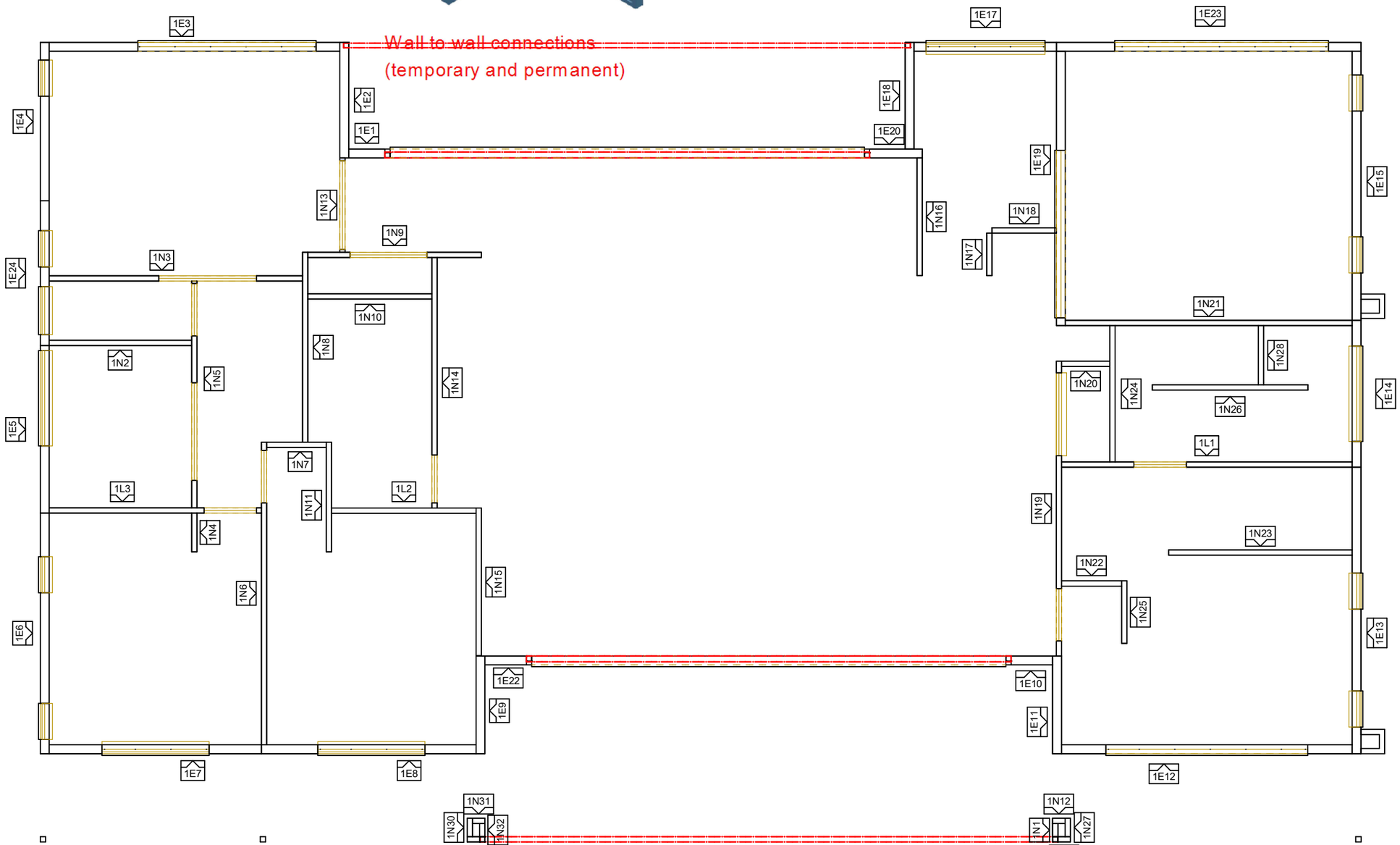
STEELHAUS	SteelHaus (2014) Ltd 12 Hautu Drive, Wiri, Auckland 2104 0508 826 766 www.steelhaus.co.nz	JOB	New Residence Proposed Cameron Residence	LEGAL DESCRIPTION Lot 2 DP - 136 Hwy 26 Newstead 3286	1F WALL LAYOUT	ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants	SHEET A04 SIZE A3 SCALE	ISSUE / DETAILS / DATE / BY 1. FOR PS1 21.10.26 CF 2. FOR PS1 RESIGN 21.12.06 CF
		CLIENT	Martin Cameron					
		REF #	J000608					

DO NOT SCALE, IF IN DOUBT ASK





Frame Orientation



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BUILDING UNIT APPROVED

BC Number - DD007.2021.00043914.001

MICIUS Civil & Structural Engineering Consultants

Company: Micius Consultants Limited
Engineer: Yang Benson Zhang (Reg. NZPEng, CMEngNZ, MEng(Hons), BE)
Registration#: 1009976
Signature/Date: 21/02/2022

*Scopes refer Micius PS1 & Calculation #210176

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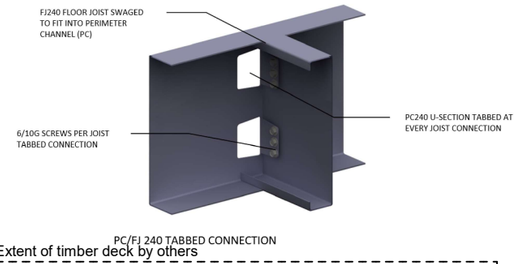
STEELHAUS	SteelHaus (2014) Ltd 12 Hautu Drive, Wiri, Auckland 2104 0508 826 766 www.steelhaus.co.nz	JOB	New Residence Proposed Cameron Residence	LEGAL DESCRIPTION Lot 2 DP - 136 Hwy 26 Newstead 3286	1F WALL - LABELS	ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants	SHEET A05	SIZE A3 / SCALE
		CLIENT	Martin Cameron					
		REF #	J000608					

ISSUE	DETAILS	DATE	BY
1.	*FOR PS1*	*21.10.26*	*CF*
2.	*FOR PS1 RESIGN*	*21.12.06*	*CF*

DO NOT SCALE, IF IN DOUBT ASK



NOTES

1. TOP PLATE PACKERS TO BE PLACED ON LOAD BEARING WALLS ONLY

Extent of timber deck by others

Extent of timber deck by others

Extent of timber deck by others

5210 | 9400 | 7700

289 | 1089 | 89 | 1089 | 5145

240 joists- rebate

240 joists- rebate

240 joists- rebate

Floor joists - EJ290x2.5 @450crs

Cantilevered balustrade framing
refer to detail on page A12

plinth by others

plinth by others

1800

12010

8710

1355

4346

6085

1214

364

1500

1580

joists @400crs for tiled bathrooms

joists @400crs for tiled bathrooms

double joist

1F1

1F2

1F3

1F4

1F5

1F6

1F7

1F8

240 joists- rebate

Midspan strap bracing installed
as per detailon page A10

240 joists- rebate

240 joists- rebate

Pack section of 240 joist on site with timber to suit frames above

240 joists- rebate

240 joists- rebate

240 mm joist panel
for recessed shower
-refer to detail on A13

5020 | 51 | 2439 | 9590 | 5210

Structural Beams in Basement/Floor designed and supplied by others

Timber Deck framing/ posts and beams designed and supplied by others

Extent of timber deck by others

Extent of timber deck by others

Extent of timber deck by others

Extent of timber deck by others

Hamilton City Council

BUILDING UNIT
APPROVED

BC Number - DD007.2021.00043914.001

MICIUS
Civil & Structural Engineering Consultants
Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022
*Scopes refer Micius PS1 & Calculation #210176

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STEELHAUS

SteelHaus (2014) Ltd
12 Hautu Drive, Wiri, Auckland 2104
0508 826 766
www.steelhaus.co.nz

JOB	New Residence Proposed Cameron Residence
CLIENT	Martin Cameron
REF #	J000608

LEGAL DESCRIPTION
Lot 2 DP -
136 Hwy 26
Newstead
3286

1F FLOOR LAYOUT

ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants

SHEET	SIZE	SCALE
A06	A3	

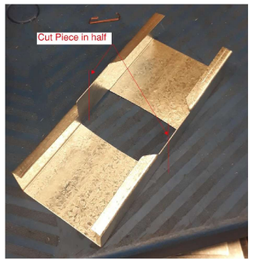
ISSUE	DETAILS	DATE	BY
1.	*FOR PS1*	*21.10.26*	*CF*
2.	*FOR PS1 RESIGN*	*21.12.06*	*CF*

DO NOT SCALE, IF IN DOUBT ASK

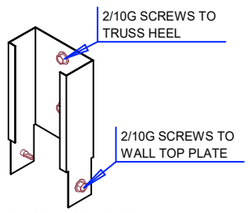
Truss Connection Screw #s

Unless otherwise specified all truss uplift connections are to be 5.0kN

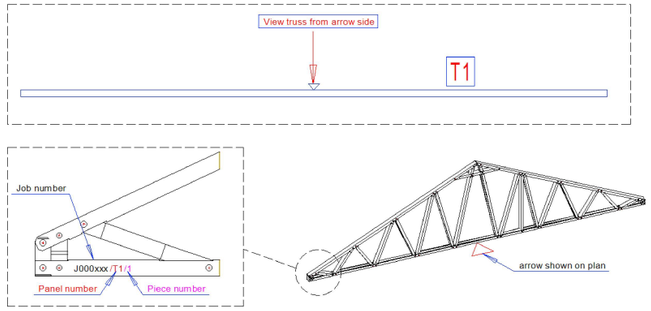
Uplift Capacity	Screw Quantity per connection
5.0 kN	2/10g
7.5 kN	3/10g
10.0 kN	4/10g
12.5 kN	5/10g



H-Bracket supplied

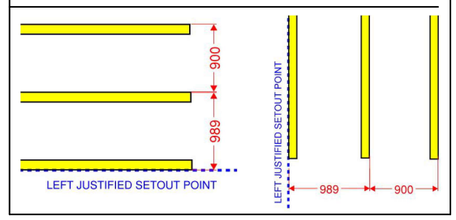


STANDARD H-BRACKET



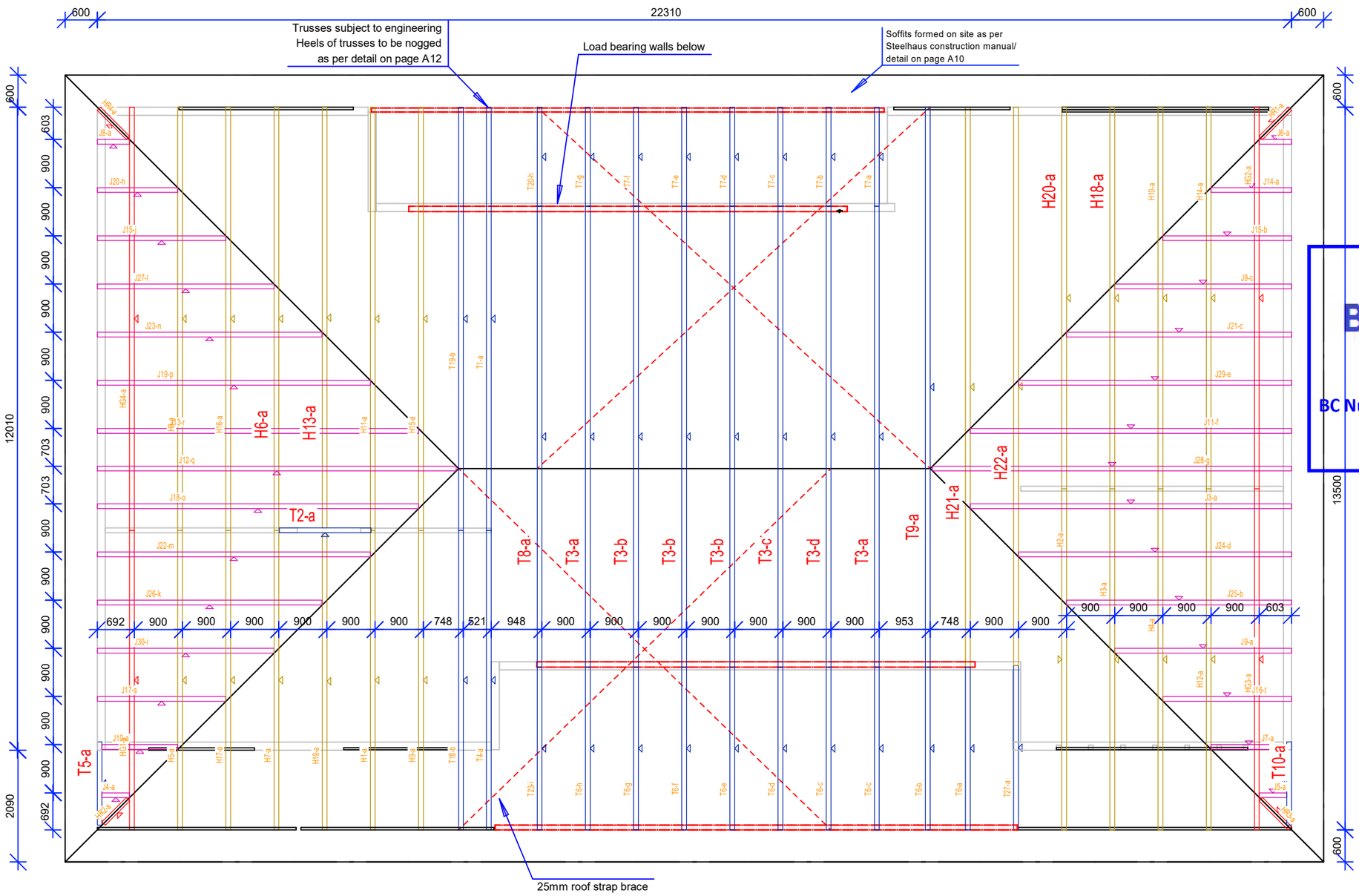
Truss Orientation

TRUSS DIMENSION JUSTIFICATION



NOTES

1. TOP PLATE PACKERS TO BE PLACED ON LOAD BEARING WALLS ONLY
2. ALL TRUSS CONNECTIONS TO BE 5kN UNLESS OTHERWISE STATED
3. TRUSS DETAILS REFER TO PS1 & ENGINEERS CALCULATIONS
4. RPB - ROOF PLANE BRACE
   25x0.55mm MS STRIP ROOF PLANE BRACE EACH ROOF PLANE DIAGONAL BRACE IS TO CONSIST OF A DIAGONAL OPPOSING PAIR OF CONTINUOUS STEEL STRIPS EACH HAVING A CAPACITY OF 8kN IN TENSION, FIXED TO EACH TOP CHORD THAT IS INTERSECTED WITH 2/10G SCREWS AND TO THE TOP PLATE WITH 4/10G SCREWS.



Hamilton City Council

BUILDING UNIT APPROVED

BC Number - DD007.2021.00043914.001

MICIUS Civil & Structural Engineering Consultants

Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022

*Scopes refer Micius PS1 & Calculation #210176

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STEELHAUS

SteelHaus (2014) Ltd
12 Hautu Drive, Wiri, Auckland 2104
0508 826 766
www.steelhaus.co.nz

JOB	New Residence Proposed Cameron Residence
CLIENT	Martin Cameron
REF #	J000608

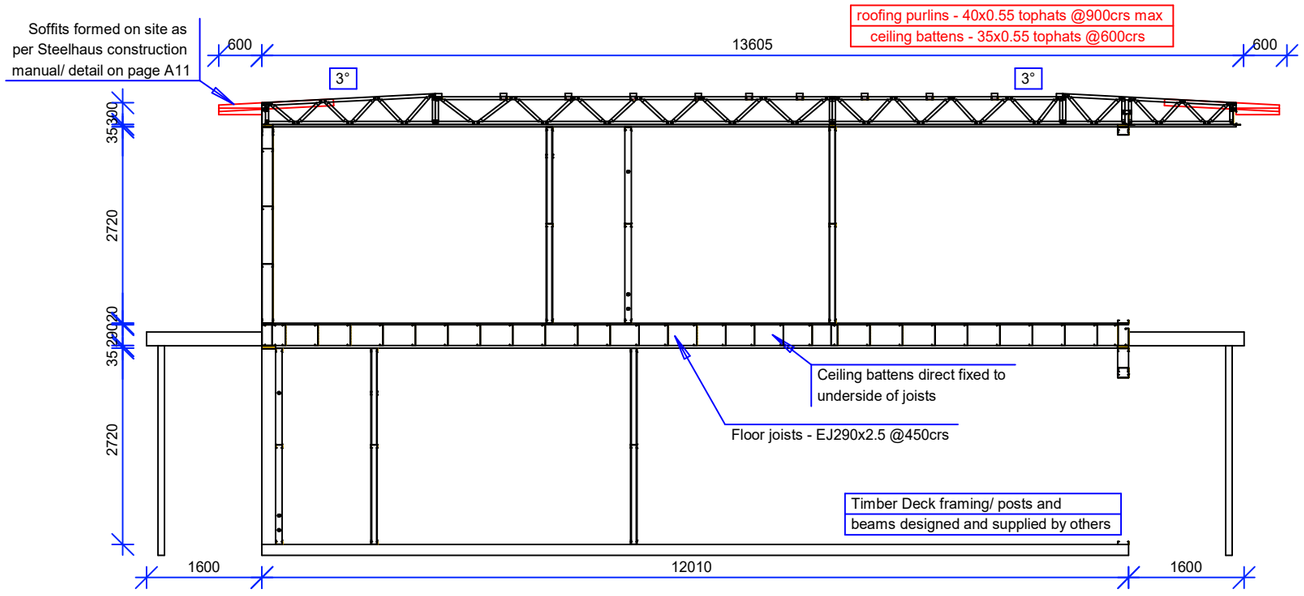
LEGAL DESCRIPTION
Lot 2 DP -
136 Hwy 26
Newstead
3286

ROOF LAYOUT

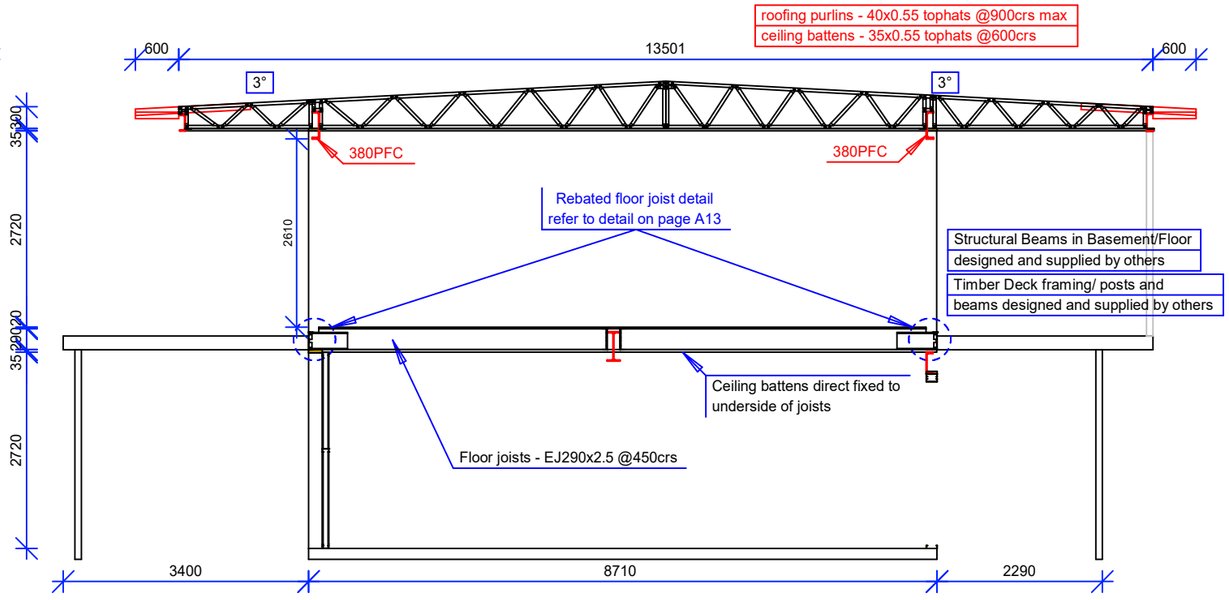
ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants

SHEET	ISSUE	DETAILS	DATE	BY
A07	1.	*FOR PS1*	*21.10.26*	*CF*
	2.	*FOR PS1 RESIGN*	*21.12.06*	*CF*
SIZE / SCALE				
A3				

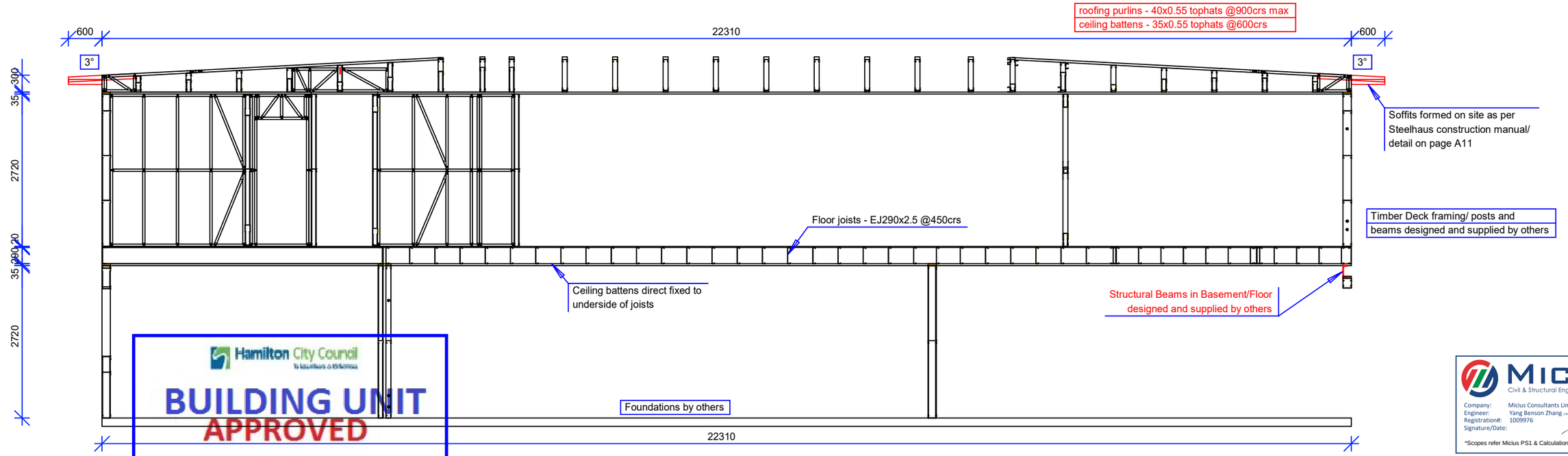
DO NOT SCALE, IF IN DOUBT ASK



SECTION A-A



SECTION B-B



SECTION C-C

Hamilton City Council
Te Kaunihera o Kirikiriroa

BUILDING UNIT APPROVED

BC Number - DD007.2021.00043914.001

Micius Civil & Structural Engineering Consultants
Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022
*Scopes refer Micius PS1 & Calculation #210176

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STEELHAUS

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0508 826 766
www.steelhaus.co.nz

JOB	New Residence Proposed Cameron Residence
CLIENT	Martin Cameron
REF #	J000608

LEGAL DESCRIPTION
Lot 2 DP -
136 Hwy 26
Newstead
3286

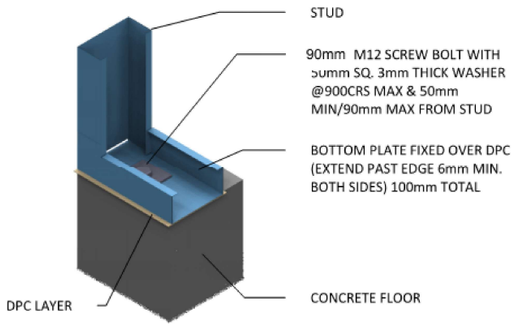
SECTIONS

ENGINEERED BY: Micius Civil & Structural Engineering Consultants

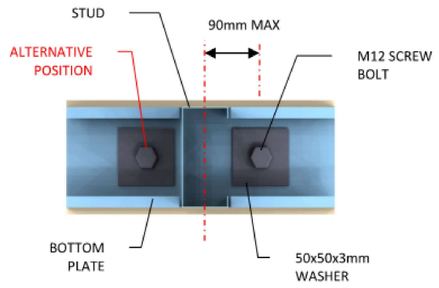
SHEET	SIZE	SCALE
A08	A3	

ISSUE	DETAILS	DATE	BY
1.	*FOR PS1*	*21.10.26*	*CF*
2.	*FOR PS1 RESIGN*	*21.12.06*	*CF*

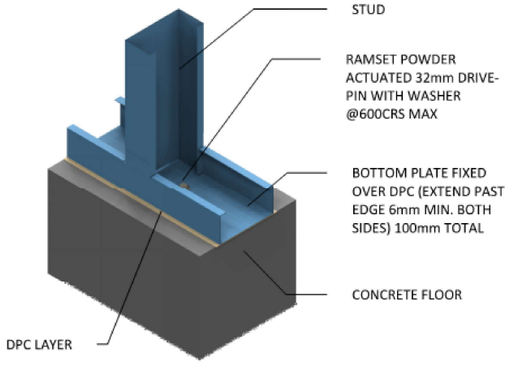
DO NOT SCALE, IF IN DOUBT ASK



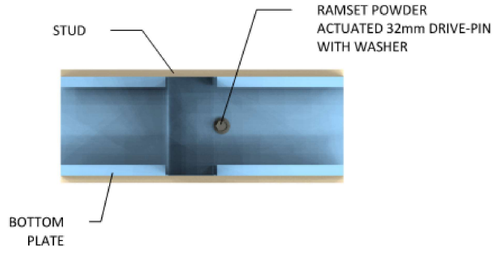
LOAD BEARING WALL HOLD DOWN



LOAD BEARING WALL HOLD DOWN PLAN VIEW



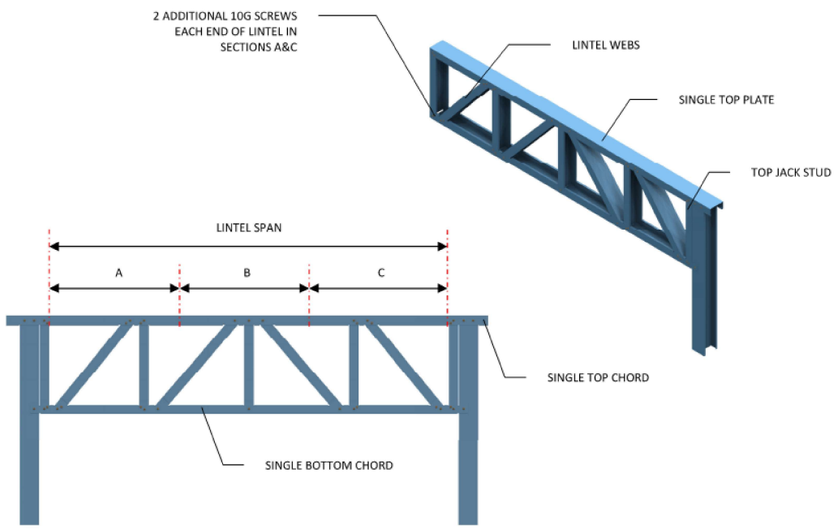
NON-LOAD BEARING WALL HOLD DOWN 3D VIEW



NON-LOAD BEARING WALL HOLD DOWN (PLAN VIEW)

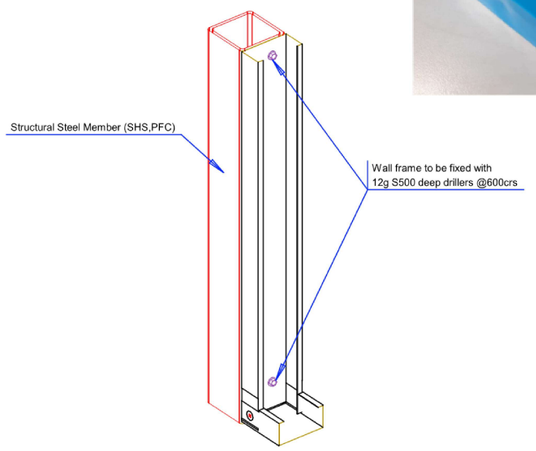
NOTE: ALL EXTERNAL AND BRACED WALL FRAMES ON CONCRETE FLOORS MUST HAVE M12 BOLTS @CRS NO GREATER THAN 900mm WITH 50x50x3 WASHERS LOCATED WITHIN 90mm TO END OF PANEL AS PER NASH 3405:2011 8.9.1

NOTE: ALL CONCRETE HOLD DOWNS REQUIRE A SCREW BOLT OR CONNECTION AT:
-EACH INTERSECTION OF EXTERNAL OR BRACED WALL.
-EACH SIDE OF OPENINGS.
-CENTRES NO GREATER THAN 900mm.

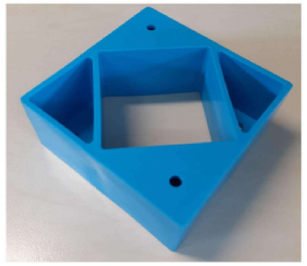


LINTEL (NASH TYPE A2)

ALL LOAD BEARING LINTELS TO BE NASH TYPE A2 UNLESS OTHERWISE STATED



Wall to Structural Steel connection



STRAP BRACE TO BE CONTINUOUS TO ACES TO PART

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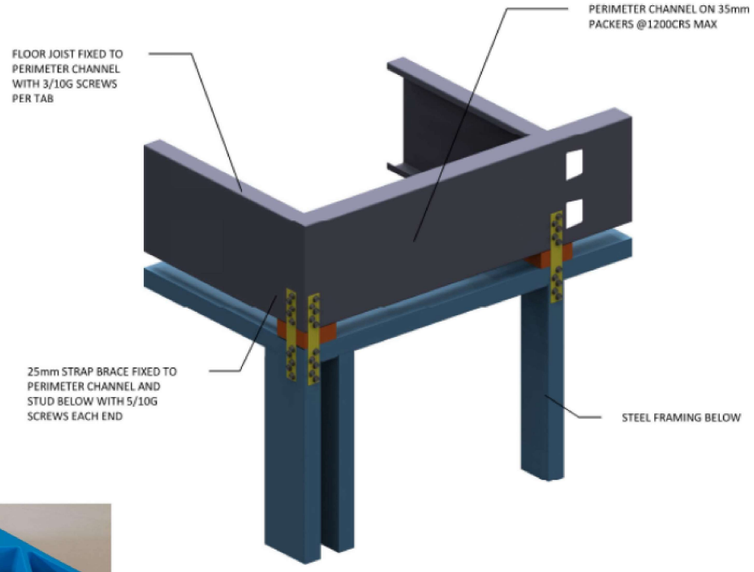
BC Number - DD007.2021.00043914.001



Packer spaced at 1200mmcrs MAX.
place within 100mm of stud below

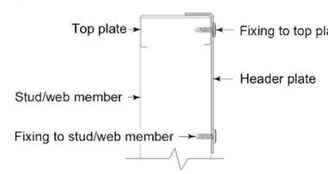
Midfloor packer installation

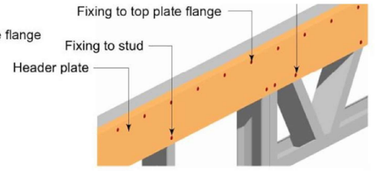
HEADER PLATES/ TOP PLATE STIFFENING WHERE SPECIFED SHALL BE FIXED AS PER BELOW;

-1/10G FLAT HEAD SCREW TO TOP PLATE FLANGE @150CRS AND AT EACH END.
-1/10G FLAT HEAD SCREW INTO EACH INTERSECTING VERTICAL/WEB MEMBER AND AT EACH END.

NO HOLES ALLOWED IN L-ANGLEW APART FROM FIXINGS
JOINS OF L-ANGLE TO BE DIRECTLY ON VERTICAL MEMBER

HEADER PLATE = 150x30 0.95 G550





HEADER PLATE/ TOP PLATE STIFFENER

MICIUS Civil & Structural Engineering Consultants
Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022
*Scopes refer Micius PS1 & Calculation #210176

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STEELHAUS

SteelHaus (2014) Ltd
12 Hautu Drive, Wiri, Auckland 2104
0508 826 766
www.steelhaus.co.nz

JOB	New Residence Proposed Cameron Residence
CLIENT	Martin Cameron
REF #	J000608

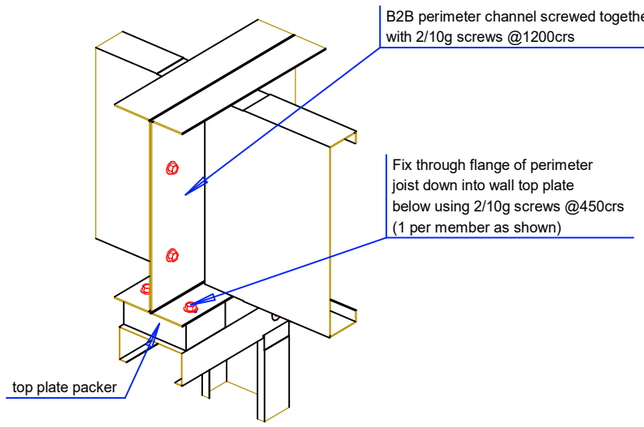
LEGAL DESCRIPTION
Lot 2 DP -
136 Hwy 26
Newstead
3286

DETAILS

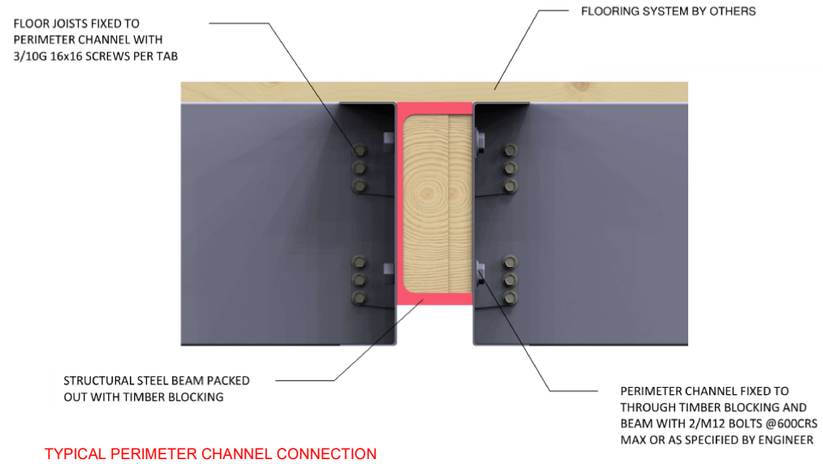
ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants

SHEET	ISSUE	DETAILS	DATE	BY
A09	1.	FOR PS1	21.10.26	CF
	2.	FOR PS1 RESIGN	21.12.06	CF
SIZE SCALE				
A3				

DO NOT SCALE, IF IN DOUBT ASK



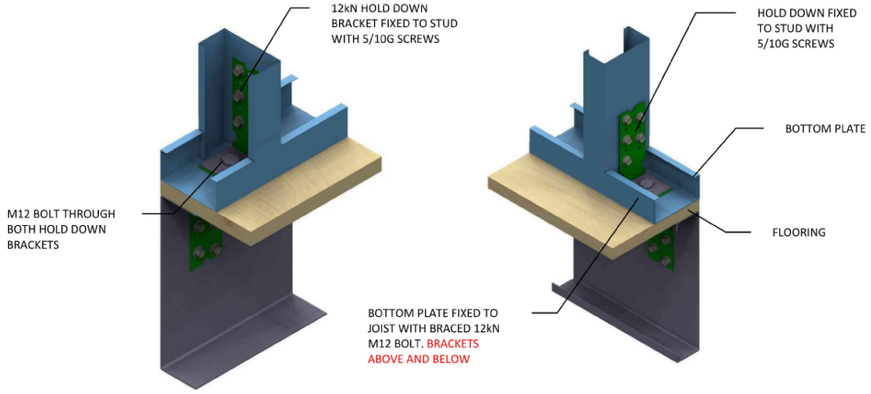
B2B perimeter channel onto load bearing wall

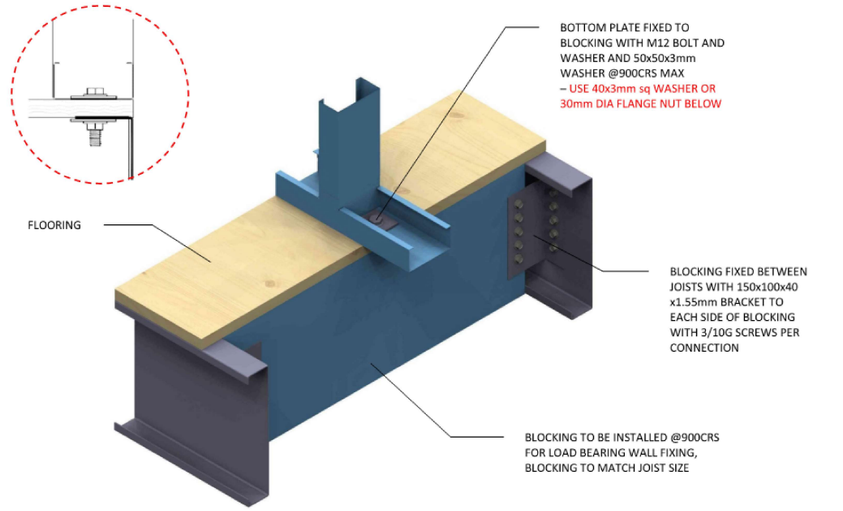


TYPICAL PERIMETER CHANNEL CONNECTION TO PACKED OUT STRUCTURAL BEAM

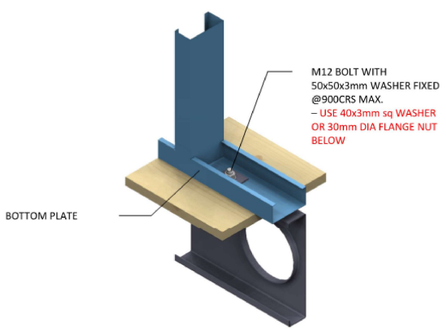
12kN BRACED WALL HOLD DOWN (WALL BETWEEN JOISTS)

DPC LAYER REQUIRED BETWEEN STEEL AND TREATED TIMBER.



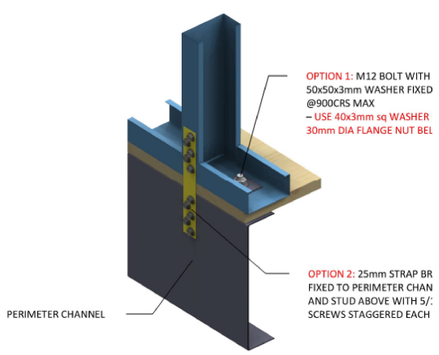


12kN BRACED WALL HOLD DOWN (WALL ALONG BOUNDARY JOIST)



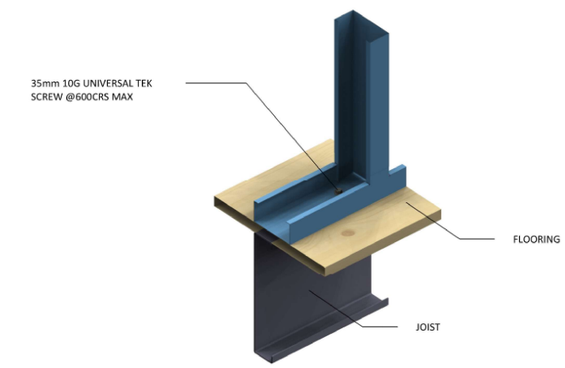
LOAD-BEARING WALL HOLD DOWN (WALL ALONG JOIST)

12kN BRACED WALL HOLD DOWN (WALL ALONG JOIST)



LOAD-BEARING WALL HOLD DOWN (WALL ALONG BOUNDARY JOIST)

DPC LAYER REQUIRED BETWEEN STEEL AND TREATED TIMBER.



NON LOAD-BEARING WALL HOLD DOWN (WALL ALONG JOISTS)

Hamilton City Council

BUILDING UNIT APPROVED

BC Number - DD007.2021.00043914.001

MICIUS Civil & Structural Engineering Consultants

Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022

*Scopes refer Micius PS1 & Calculation #210176

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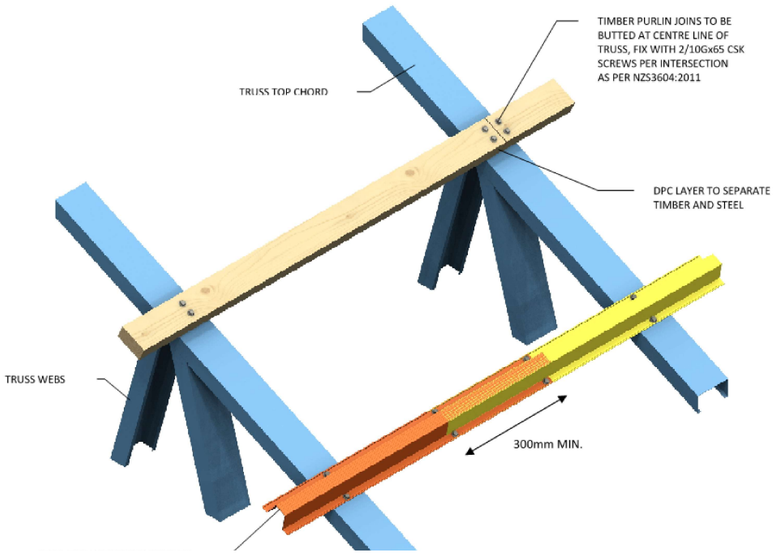
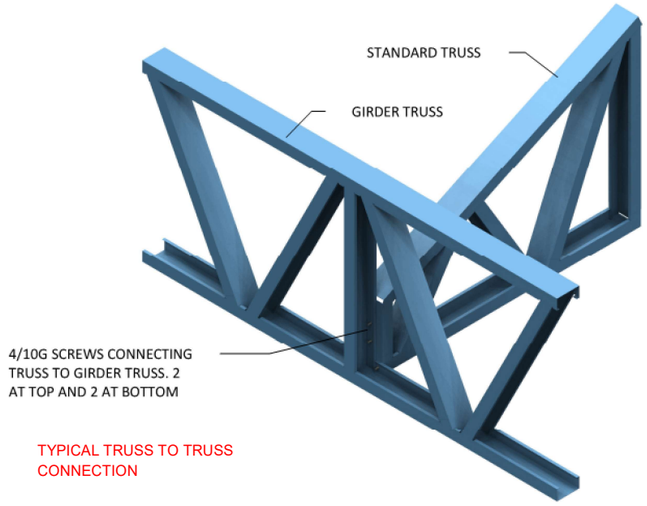
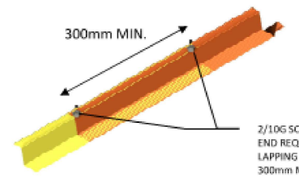
STEELHAUS	SteelHaus (2014) Ltd 12 Hautu Drive, Wiri, Auckland 2104 0508 826 766 www.steelhaus.co.nz	JOB	New Residence Proposed Cameron Residence	LEGAL DESCRIPTION Lot 2 DP - 136 Hwy 26 Newstead 3286	DETAILS	ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants	SHEET A10 SIZE A3 SCALE	ISSUE / DETAILS / DATE / BY 1. FOR PS1 21.10.26 CF 2. FOR PS1 RESIGN 21.12.06 CF
		CLIENT	Martin Cameron					
		REF #	J000608					

DO NOT SCALE, IF IN DOUBT ASK

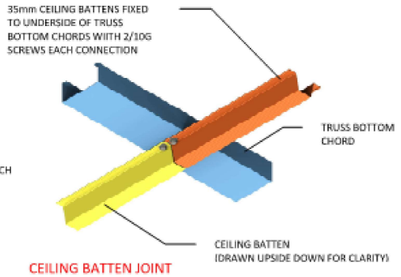




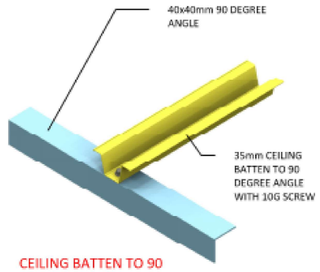
TYPICAL TRUSS TO TRUSS CONNECTION



CEILING BATTEN JOINT (NOT ON TRUSS)



CEILING BATTEN JOINT (ON TRUSS)

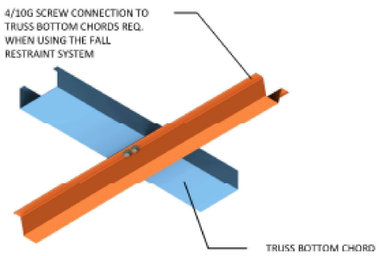


CEILING BATTEN TO 90 DEGREE BEND ANGLE

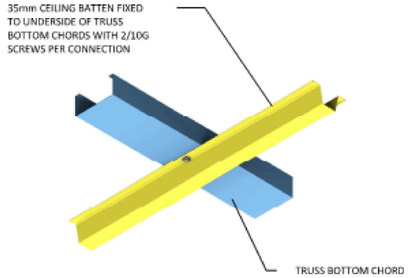
Ceiling Battens
35mm Top Hat Section
Proprietary ceilings with 0.5kPa Live load

Table of max span vs. Spacings

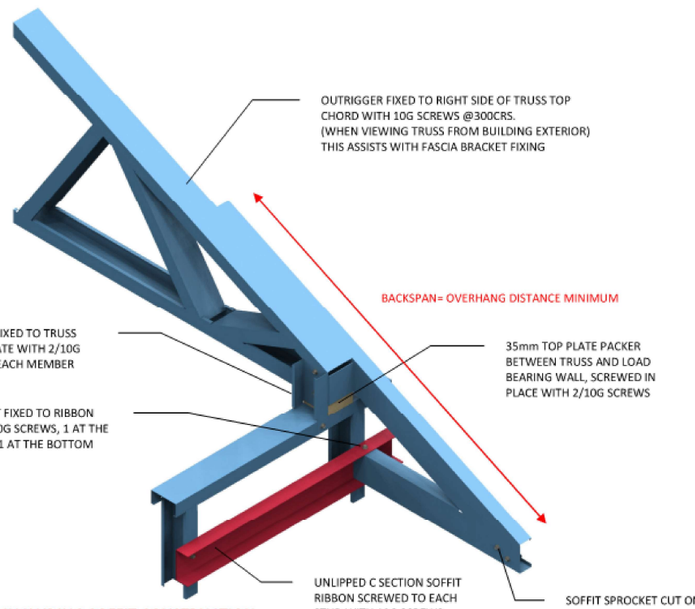
	Section Spacings (mm) 400 Span (m)	450 Span (m)	600 Span (m)	Figs based on Deflection L/500
Using 10mm gib ceilings	1.7	1.6	1.4	
Using 13mm gib ceilings	1.5	1.4	1.3	
Using 16mm gib Ceilings	1.4	1.4	1.2	
Using 20mm gib Ceilings	1.3	1.3	1.2	



CEILING BATTEN TO TRUSS CONNECTION (IF USED WITH FALL RESTRAIN SYSTEM)



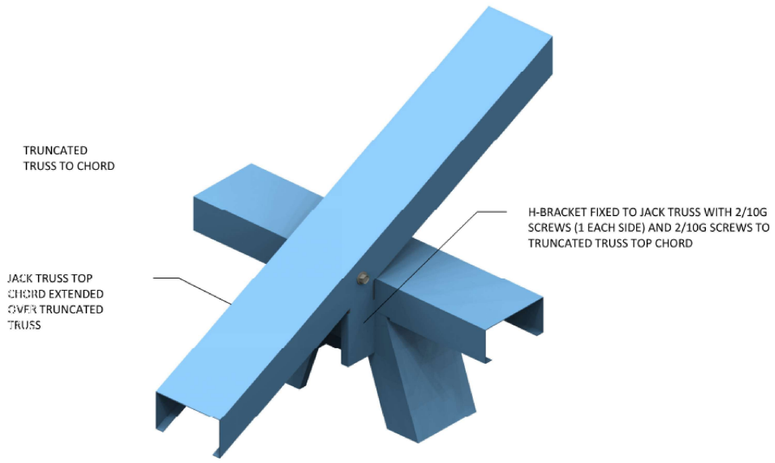
CEILING BATTEN TO TRUSS CONNECTION (STANDARD)



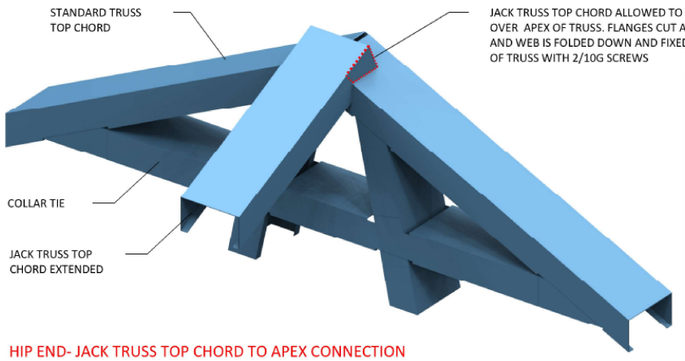
TRUSS HOLD-DOWN INCLUDING SOFFIT CONSTRUCTION

NOTE: THE SOFFIT RIBBON CAN BE EITHER LENGTHS OF UNLIPPED FRAMING SECTION OR LENGTHS OF 40x40mm STEEL ANGLE.
-THE SOFFIT RIBBON IS TO BE INSTALLED OVER THERMAL BREAK AND BUILDING PAPER. SOFFIT FRAMING MUST BE IN PLACE PRIOR TO THE FASCIA BEING FIXED TO ALLOW FOR BRACKET FIXING.

THERMAL BREAK AND BUILDING PAPER IS NOT SHOWN IN RENDERS FOR VISUAL CLARITY



HIP END- JACK TRUSS TOP CHORD TO TRUNCATED TRUSS CONNECTION



HIP END- JACK TRUSS TOP CHORD TO APEX CONNECTION

Hamilton City Council

BUILDING UNIT APPROVED

BC Number - DD007.2021.00043914.001

MICIUS Civil & Structural Engineering Consultants
Company: Micius Consultants Limited
Engineer: Yang Benson Zhang
Registration#: 1009976
Signature/Date: 21/02/2022
*Scopes refer Micius PS1 & Calculation #210176

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STEELHAUS

SteelHaus (2014) Ltd
12 Hautu Drive, Wiri, Auckland 2104
0508 826 766
www.steelhaus.co.nz

JOB	New Residence Proposed Cameron Residence
CLIENT	Martin Cameron
REF #	J000608

LEGAL DESCRIPTION
Lot 2 DP -
136 Hwy 26
Newstead
3286

DETAILS

ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants

SHEET	SCALE
A11	
A3	

ISSUE	DETAILS	DATE	BY
1.	*FOR PS1*	*21.10.26*	*CF*
2.	*FOR PS1 RESIGN*	*21.12.06*	*CF*

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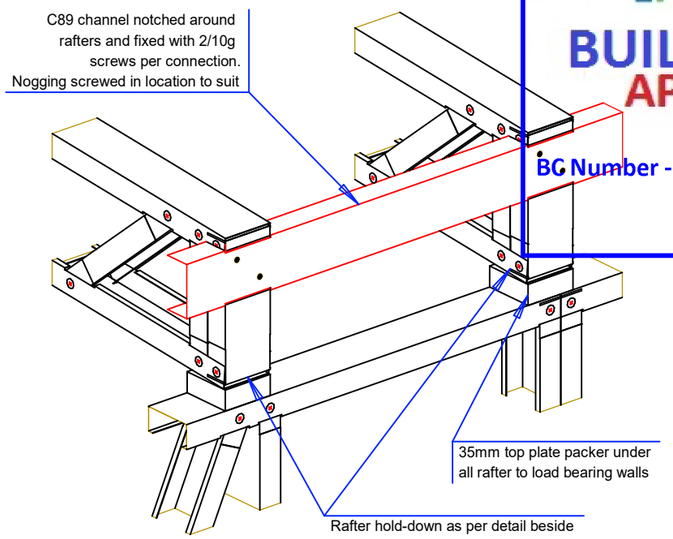
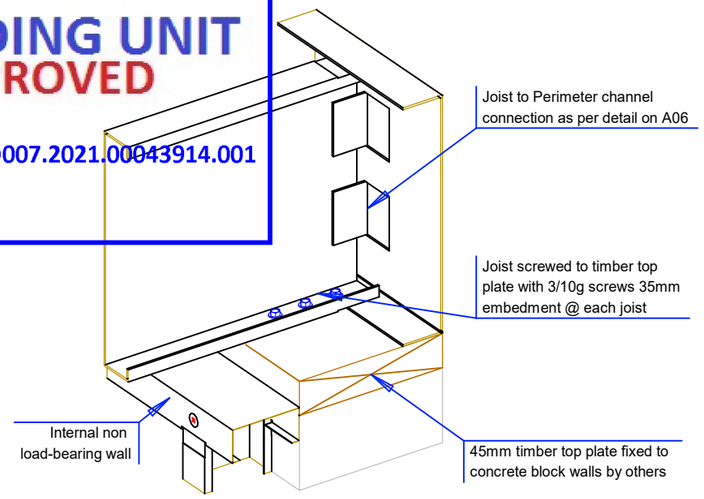
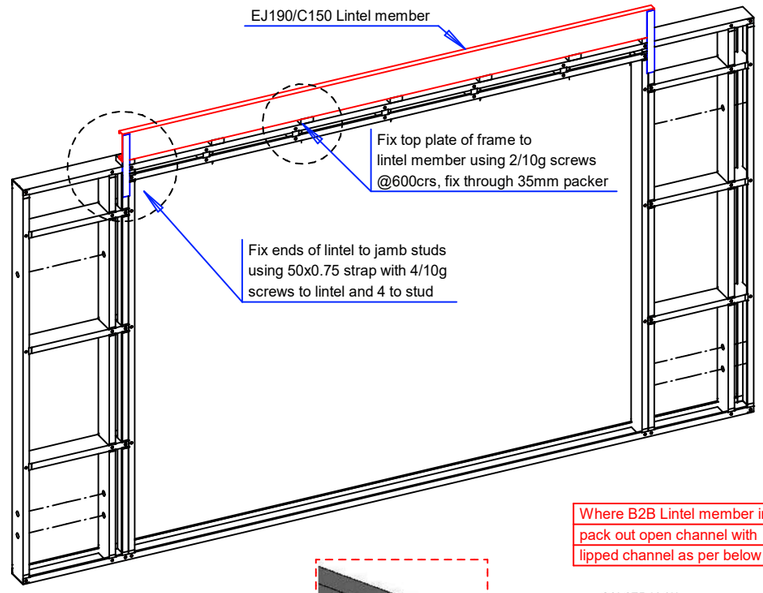
Hamilton City Council
BUILDING UNIT
APPROVED
BC Number - DD007.2021.00043914.001



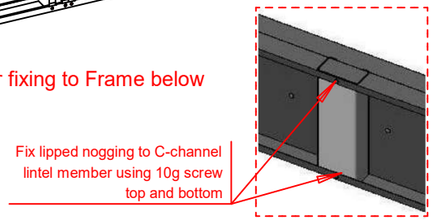
Rafter nogging for cladding fixing



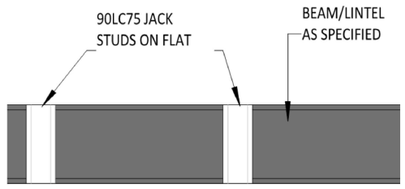
Typical Perimeter channel to concrete block wall top plate connection

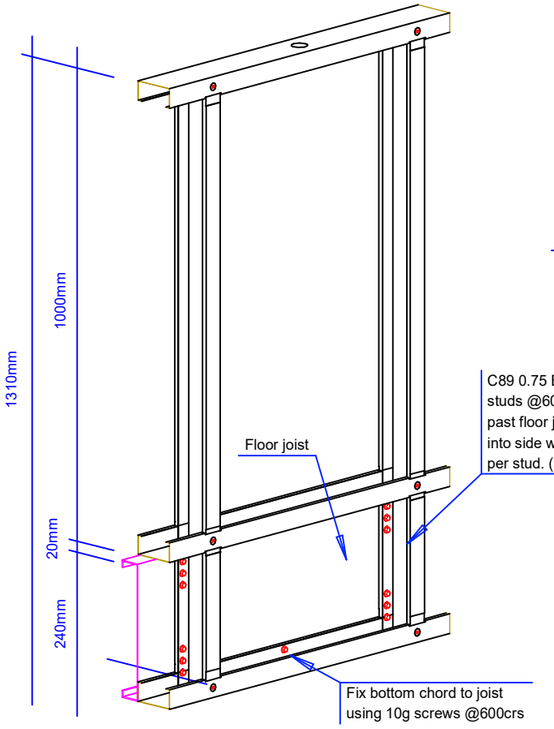


Typical EJ lintel member fixing to Frame below

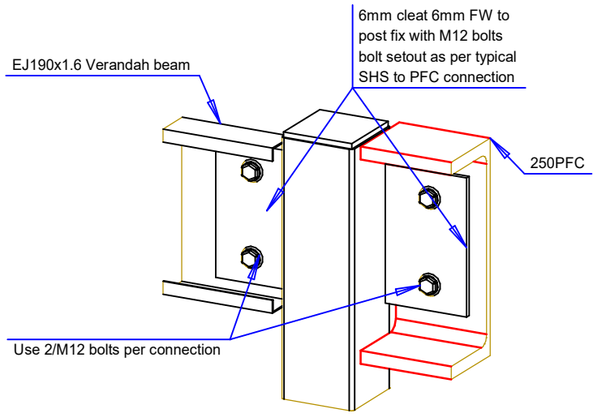


Where B2B Lintel member in used - pack out open channel with lipped channel as per below

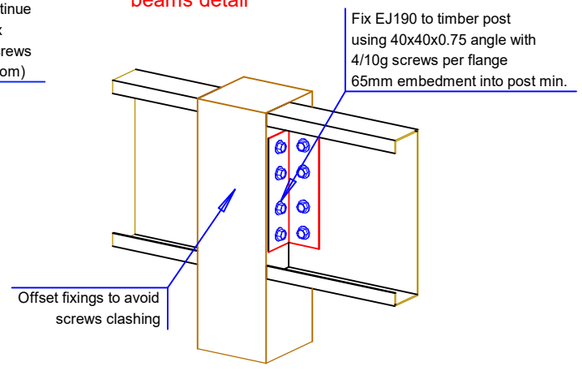




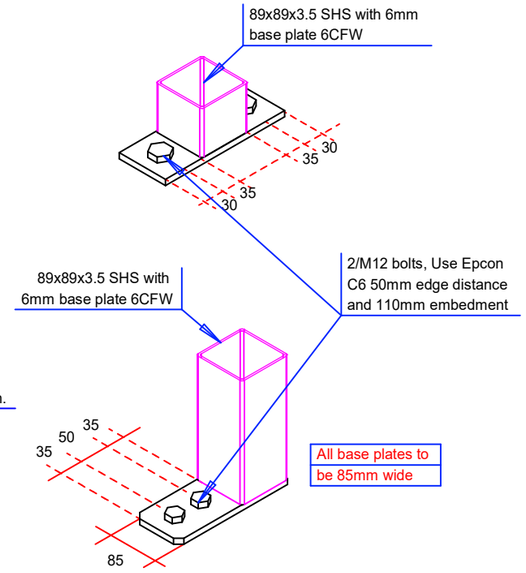
Balustrade wall fixing to side of joist connection



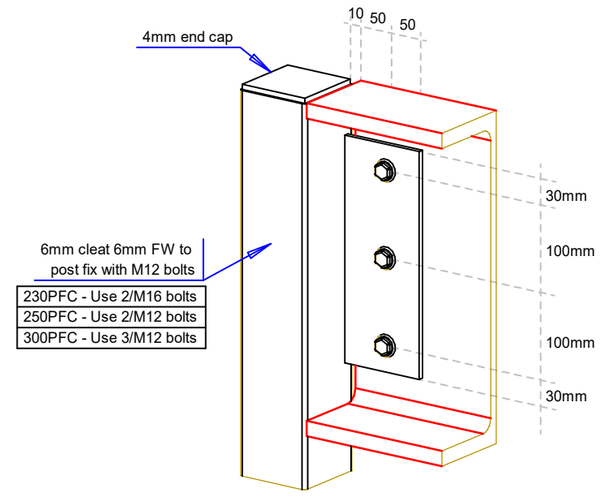
SHS post to Verandah beams detail



90x90 Timber post to Verandah beams detail



SHS Hold-down (Typical) relevant to position of post



Typical SHS to PFC connection 380PFC/250PFC

MICIUS Civil & Structural Engineering Consultants
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Signature/Date: 21/02/2022
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		CLIENT	Martin Cameron					
		REF #	J000608					

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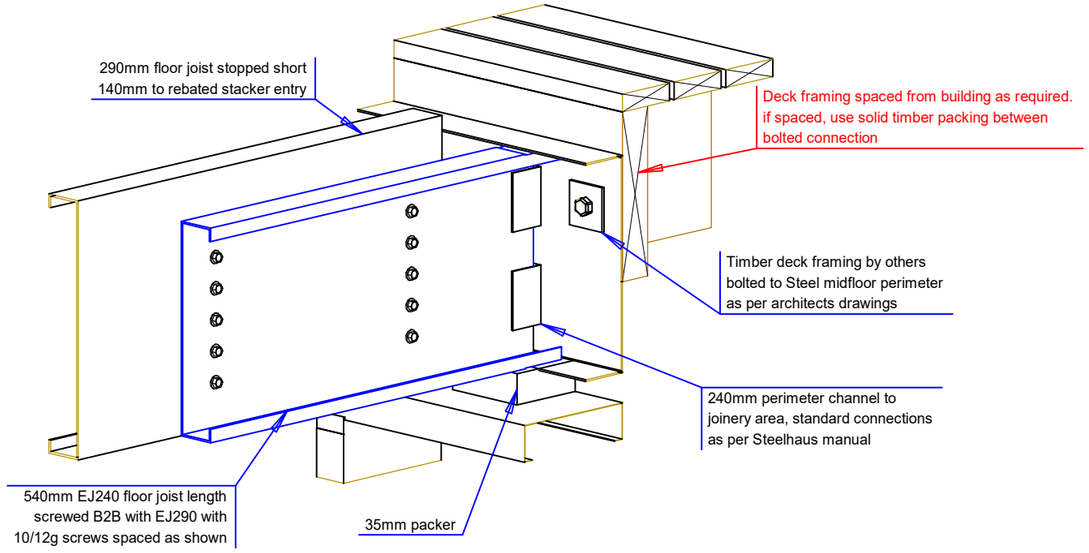
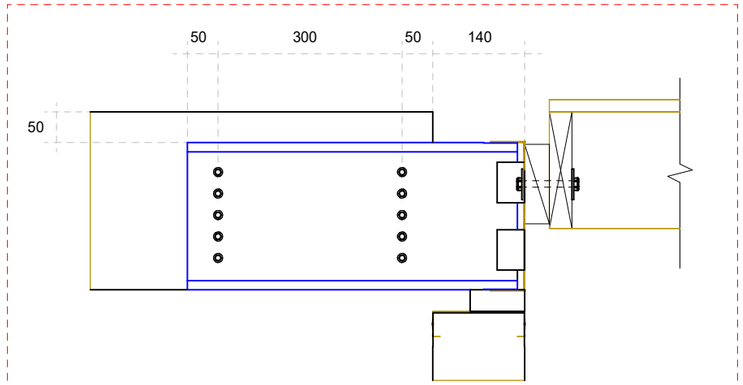


Rebated floor joist detail/
Timber deck connection to Midfloor



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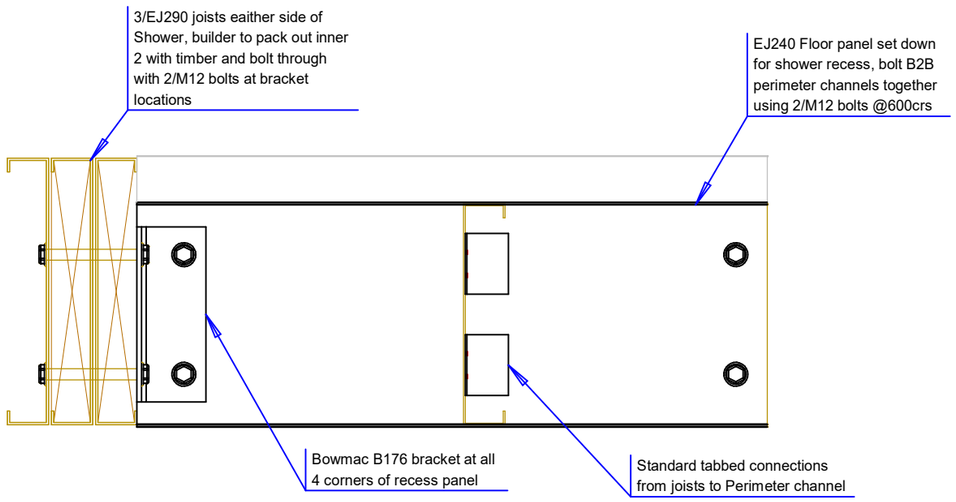
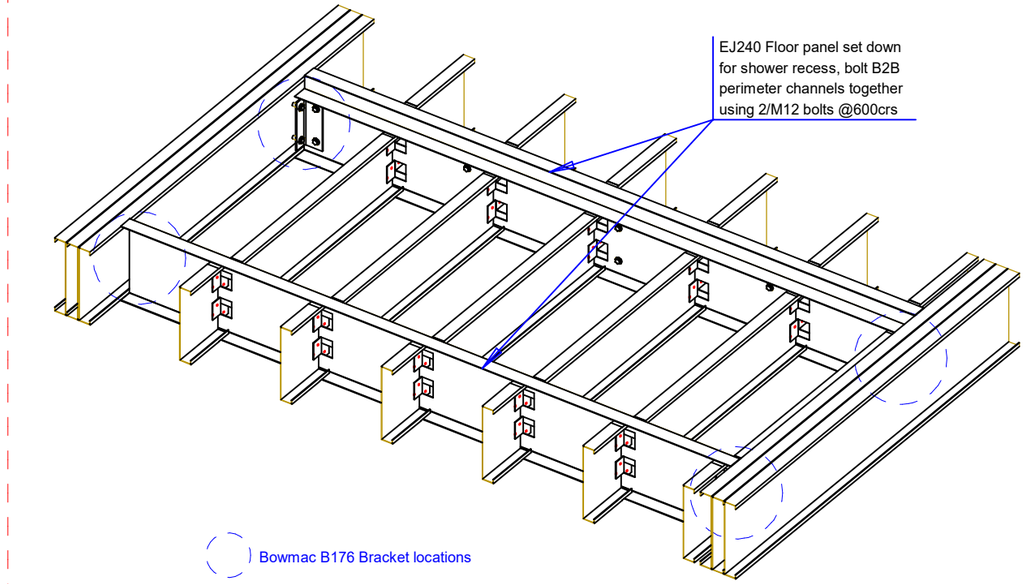


Shower rebate floor panel connection detail



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REF #	J000608

LEGAL DESCRIPTION
Lot 2 DP -
136 Hwy 26
Newstead
3286

DETAILS

ENGINEERED BY: MICIUS Civil & Structural Engineering Consultants

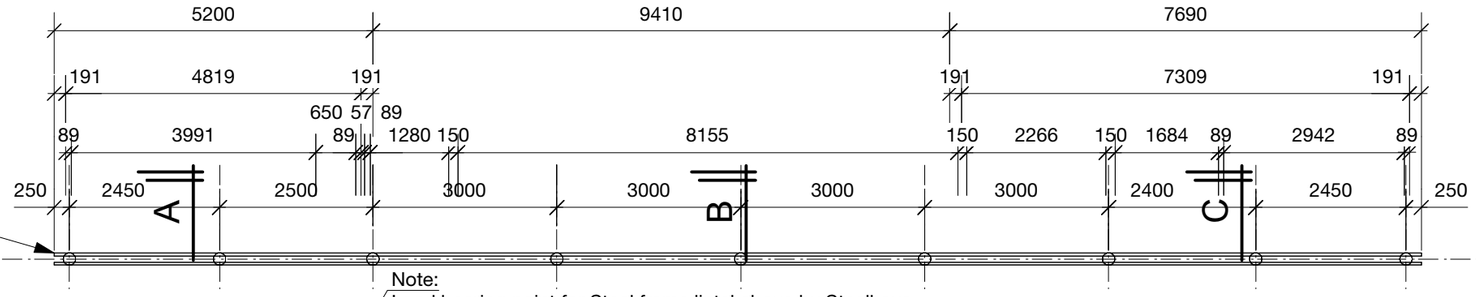
SHEET A13
SIZE A3 SCALE

ISSUE	DETAILS	DATE	BY
1.	*FOR PS1*	*21.10.26*	*CF*
2.	*FOR PS1 RESIGN*	*21.12.06*	*CF*

DO NOT SCALE, IF IN DOUBT ASK

Note:
Kiwi Frame - steel for framing wall framing with steel EZY JOIST mid floor framing.

Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans supported on 200 SED HDT driven piles.



Note:
Load bearing point for Steel frame lintel above by Steelhaus.

Note:
2600 high x 8000 wide stacker S/D at upper F.L. with steel portal frame lintel above by Steelhaus.

1210Dx2010W opening. Masonry Lintel. Refer Masonry Lintel detail 17, sht.17. 1-HD12 T&B R6-200 links.

1200Dx2600W Window Lintel by Steelhaus.

810D x 810W Opening. Refer Masonry Lintel detail 17, sht.17. 1-HD12 T&B R6-200 links.

Note:
1.2m high retaining wall refer detail 12 sht.17

Note:
100mm dia. stack pipe.

Note:
100mm dia. stack pipe.

Load bearing Fire wall.

810 Fire door. min. 30min.

Beam 1 - 410UB54 beam on * 89x89x6 SHS post each end. Refer sheet 18 & 19.

Load bearing wall.

Note:
GBSA 60c (59 STC, 60/60 FRR) Two way Noise Control, Fire rated wall construction:

2300x6000 S.D.
Beam 2 - 300 PFC beam on 89x89x6 SHS * post each end. Refer sheet 18 & 19.

Beam 3 - 230 PFC beam on * 89x89x6 SHS post each end. Refer sheet 18 & 19.

2310D x 5010W Sectional door. Beam 4- 230PFC beam on 89x89x6 SHS post each end. Refer sheet 18.

2300x3400 S/D Lintel by Steelhaus.

1000D x 2500W Window opening. Lintel by Steelhaus.

Note:
2600 high x 8000 wide stacker S/D at upper F.L. with steel portal frame lintel above by Steelhaus.

Note:
410x400 garage columns. Refer detail 9 sht. 21.

6m Set back Line

Note:
410x510 column encasement. Refer detail 8 sht. 20. Load bearing point for Steel lintel above by Steelhaus.

Note:
If bearer is single span then it needs to be 2/300x50 PL12 H3.2.

Top of Bank.

22310 O/A Steel Frame.

* Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans supported on 135x135 H3.2 PROLAM posts.

Entry / L'dry. / Stairs Area.....31 m2
Workshop / Rumpus Area.....85 m2
Living Area.....60 m2
Garage Area.....55 m2
Total Basement Area....231.0 m2 (Outside block/Slab)

BASEMENT FLOOR PLAN

ELEVATION KEY

Don Cowie Draughting & Design Services Ltd
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Email: dcowie_design@hotmail.com

DESIGN ENGINEER
The structural elements designated * on this drawing have been designed by Arnold & Johnstone 2015 Ltd, Consulting Engineers
Date 21/2/22
Job No 12843 Signed

PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Column notes added.

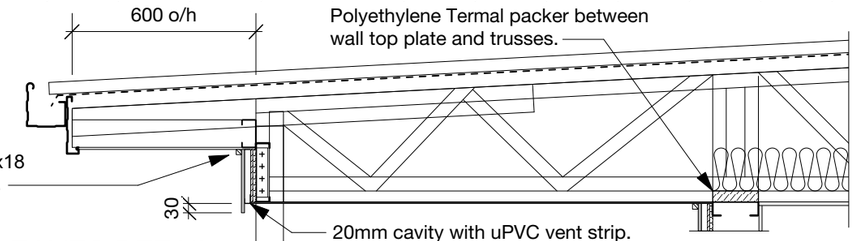
BASEMENT FLOOR PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

DWG No. 3 A REV
OF 22

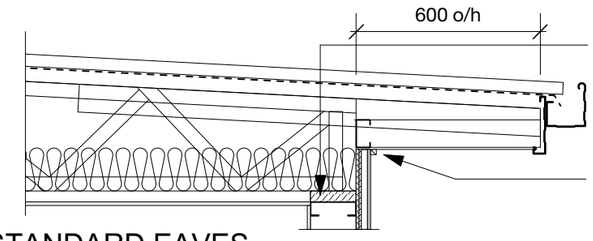
Hamilton City Council
BUILDING UNIT APPROVED
BC Number - DD007.2021.00043914.001

Hamilton City Council
BUILDING UNIT SECTION 37
BC Number - DD007.2021.00043914.001



4 Sht. 7,9 VERANDAH EAVES DETAIL

Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.



5 Sht. 7-11 STANDARD EAVES DETAIL

DESIGN ENGINEER

The structural elements designated * on this drawing have been designed by Arnold & Johnstone 2015 Ltd, Consulting Engineers

Date 21/2/22

Job No 12843 Signed

600 o/h | 13500 O/A Truss. | 600 o/h

1490 | 12010 O/A framing.

90 | 150 | 150

5mm framing overhang. | 12000 - O/A Basement Foundation | 5mm framing overhang.

4 sht.7

3°

Foundation.

Hip / Ridge Detail
NASH Building Envelope solutions for E2/AS1
Fig. 41 (b) Refer spec.

Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

Foundation / Blockwall.

5 sht.7

185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

Aluminium joinery (Double glazed)

External Walls:
Weathergroove 150 Woodsman panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

Note:
7.5mm Hardigroove or 6mm Hardiflex soffit lining on Gib Rondo metal battens @ 600crs. to covered deck areas.

90x90 H3.2 Prolam verandah posts.

Note:
Proposed 1.0m high glazed handrail. Refer Detail 5, sht.12

1 sht.11

3 sht.11

13mm Gib ceiling on Gib Rondo metal battens @ 600crs. Mammoth R3.6 cieling insulation.

Internal Walls:
89x41x0.75 Steelhaus interior steel wall Framing @ 600crs. with nogs @ 1350crs. with 10mm GIB bd. interior wall lining fixed horizontal.

20mm Plywood flooring on EJ290x2.5 EZYJOIST @ 450crs. floor joists

GBSJA 45 (55 STC, 45/45/45 FRR) Noise Control, Fire rated ceiling construction:
2 layers of 13mm Gib Fyreline on Gib Rondo metal battens @ 600crs. on Gib Quiet clips.
Mammoth R3.2 cieling insulation.

BED 2

LIVING AREA

BEDROOM

BATH

FAMILY

2755 F.L. to u/s Trusses.

2600 - Joinery head height.

20 | 290

2755 F.L. to u/s EZYJOISTS.

190x45 SG8 H3.2 tan. Deck joists @ 400crs.

45 | 310

2800

Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 135x135 H3.2 Prolam posts with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers. Fix posts to foundation beam with cast in Bowmac BS197 bracket and s.s. bolts & washers.

3065

250 | 400

400 | 450 | 400

200 | 150 | 300

90 | 360

200 SED HDT H5 treated pile. Min. 3.6m embedment, pre-drilled 2.5m.

11 Sht.16

400 | 400

* 200 SED HDT H5 treated pile. MIn. 5m embedment, pre-drilled 3.5m.

* 200 SED HDT H5 treated pile. Min. 3.6m embedment, pre-drilled 2.5m.

200 | 1850 | 250 | 1800

* 250 SED HDT H5 treated pile. Min. 3.6m embedment, pre-drilled 2.5m.

SECTION A-A

BUILDING UNIT APPROVED
BC Number - DD007.2021.00043914.001

BUILDING UNIT SECTION 37
BC Number - DD007.2021.00043914.001

A 17/2/22 Eaves Details 4 & 5 added.
REVISION: DATE: REVISION NOTE:

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH1 HAMILTON

SECTIONS A-A

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50' 1:20	2107

DWG No. 7 A REV
OF 22

600 o/h | 13500 O/A Trusses. | 600 o/h

2990 Trusses (1490 | 1500) | 8710 Trusses. | 1800 Trusses

Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

Aluminium joinery (Double glazed)

External Walls:
Weathergroove 150 Natural exterior cladding to reccessed deck areas on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

Note:
Proposed 1.0m high glazed handrail.
Refer Detail 5, sht.12

190x45 SG8 H3.2 tan. Deck joists @ 400crs.

Note:
Provide 400mm wide x 500mm deep x 250mm high plinth on top of foundation beam for encased columns.
Refer detail 16 sht. 17.

Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 135x135 H3.2 Prolam posts with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers. Fix posts to foundation beam with cast in Bowmac BS197 bracket and s.s. bolts & washers.

6 sht.20 | 7 sht.20 | 4 sht.12 | 3 sht.11 | 8 sht.20 | 11 Sht.16

3°

200

Note:
Steelhaus Engineer designed beams project into truss roof framing.

Ridge / Hip Detail
NASH Building Envelope solutions for E2/AS1
Fig. 41 (b)
Refer spec.

380PFC | 250PFC | 230PFC

13mm Gib ceiling on Gib Rondo metal battens @ 600crs. Mammoth R3.6 cieling insulation.

19mm Plywood flooring on EJ290x2.50 EZYJOIST @ 450crs. floor joists

13mm Gib ceiling on Gib Rondo metal battens @ 600crs. on Gib Quiet clips. Mammoth R3.2 cieling insulation.

DECK | DINING | KITCHEN | DECK | WORKSHOP / RUMPUS ROOM

89x3.5 SHS/post. | F.L. to u/s Trusses. 2610 | 2755

1000 | 1395 cantilever. | 3065 | 2566 to u/s bearers. | 135x135 H3.2 Prolam post. | 2310 | 2552 | 2755 F.L. to u/s EZYJOISTS. | 2800 | 355 | 90 | 250 | 400 | 450 | 400 | 200 | 400 | 400

Note:
Beam 1 - 410UB54 Engineer designed steel beam on 89x89x6 SHS supports each end. Refer sheet 18 & 19.

Note:
Beam 2 - 300 PFC Engineer designed steel beam on 89x89x6 SHS supports each end. Refer sheet 18 & 19.

200 SED HDT H5 treated pile. Min. 5m embedment, pre-drilled 3.5m.

200 SED HDT H5 treated pile. Min. 3.6m embedment, pre-drilled 2.5m.

200 SED HDT H5 treated pile. Min. 5.0m embedment.

200 | 1350 | 250 | 1800

250 SED HDT H5 treated pile. Min. 3.6m embedment, pre-drilled 2.5m.

Hamilton City Council
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BC Number - DD007.2021.00043914.001

Hamilton City Council
BUILDING UNIT
SECTION 37
BC Number - DD007.2021.00043914.001

SECTION B-B

DESIGN ENGINEER
The structural elements designated * on this drawing have been designed by Arnold & Johnstone 2015 Ltd, Consulting Engineers
Date 21/2/22
Job No 12843 Signed

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION	DATE	REVISION NOTE
A	17/2/22	Ridge, eaves and column reference details added.

SECTIONS B-B

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50	2107

DWG No. 8 A REV. OF 22

600 o/h | 13500 O/A Truss. | 600 o/h

1490 | 12010 O/A/ framing.

Note:
7.5mm Hardigroove or 6mm Hardiflex soffit lining on Gib Rondo metal battens @ 600crs. to covered deck areas.

Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

Note:
Proposed flue kit and roof flashing fitted to manufactures spec.

3°

4 sht.7

185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

Aluminium joinery (Double glazed)

External Walls:
Weathergroove 150 Woodsman panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

3 sht.11

190x45 SG8 H3.2 tan. Deck joists @ 400crs.

1 sht.11

Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 135x135 H3.2 Prolam posts with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers. Fix posts to foundation beam with cast in Bowmac BS197 bracket and s.s. bolts & washers.

13mm Gib ceiling on Gib Rondo metal battens @ 600crs. Mammoth R3.6 cieling insulation.

Internal Walls:
89x41x0.75 Steelhaus interior steel wall Framing @ 600crs. with nogs @ 1350crs. with 10mm GIB bd. interior wall lining fixed horizontal.

19mm Plywood flooring on EJ290x2.50 EZYJOIST @ 400crs. floor joists

13mm Gib ceiling on Gib Rondo metal battens @ 600crs. on Gib Quiet clips. Mammoth R3.2 cieling insulation.

ENS.

STUDY

DOUBLE GARAGE

ENTRY

Note:
Trim for tiled shower in Ensuite to suit 25mm falls to waste outlet as shown.

Note:
* Beam 3 - 230 PFC Engineer designed steel beam on 89x89x6 SHS supports each end. Refer sheet 18 & 19.

2755 F.L. to u/s Trusses.

290 | 20

2755 F.L. to u/s EZYJOISTS.

Note:
89x41x0.75 Steelhaus interior steel wall Framing @ 600crs. with nogs @ 1350crs. with 10mm GIB bd. interior wall lining fixed horizontal.
N.B. Provide D.P.C. between masonry wall.

45 | 310

200 SED HDT H5 treated pile. Min. 3.6m embedment, pre-drilled 2.5m.

2800

90 | 360

5 sht.7

11 Sht.16

250 | 350 | 450 | 400 | 200 | 400 | 400 | 150 | 300 | 200 | 1350 | 250 | 1800

* 200 SED HDT H5 treated pile. Min. 5m embedment, pre-drilled 3.5m.

* 200 SED HDT H5 treated pile. Min. 3.6m embedment, pre-drilled 2.5m.

* 250 SED HDT H5 treated pile. Min. 3.6m embedment, pre-drilled 2.5m.

SECTION C-C

Hamilton City Council
BUILDING UNIT APPROVED
BC Number - DD007.2021.00043914.001

DESIGN ENGINEER
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Date 21/2/22
Job No 12843 Signed

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Hamilton City Council
BUILDING UNIT SECTION 37
BC Number - DD007.2021.00043914.001

REVISION: DATE: REVISION NOTE:
A 22/3/22 Floor and column reference details added.

PROPOSED CAMERON RESIDENCE AT LOT 2 SH26 HAMILTON.

SECTION C-C

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50	2107

DWG No. 9 A REV
OF 22

Hamilton City Council

BUILDING UNIT
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BC Number - DD007.2021.00043914.001

Hamilton City Council

BUILDING UNIT
SECTION 37

BC Number - DD007.2021.00043914.001

185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

Aluminium joinery (Double glazed)

North Facing External Feature Wall:
Weathergroove 1200 Smooth panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

Note:
Proposed flue kit and roof flashing fitted to manufactures spec.

Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

Ridge / Hip flashing Detail
NASH Building Envelope solutions for E2/AS1
Fig. 38 Refer spec.

600 o/h

5 sht.7

9 sht.?

13mm Gib ceiling on Gib Rondo metal battens @ 600crs. Mammoth R3.6 cieling insulation.

Note:
2600x8000 wide Sliding doors. with Steelhaus designed lintel.

Scullery

KITCHEN

LIVING

BED 1

22755 F.L. to u/s Trusses.

2755 F.L. to u/s Trusses.

Internal Walls:
89x41x0.75 Steelhaus interior steel wall Framing @ 600crs. with nogs @ 1350crs. with 10mm GIB bd. interior wall lining fixed horizontal.

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 450crs. floor joists

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 400crs. floor joists

290 20

* Beam 1 - 410UB54 Engineer designed steel beam on 89x89x6 SHS post supports. Refer sheet 18 & 19.
N.B. Taking Floor Load only.

3065 F.L. to F.L.

2755 F.L. to u/s EZYJOISTS.

* Beam 4 - 230PFC on 89x89x6 SHS supports each end. Refer sheet 18 & 19. 3410x5010 opening.

2755 3065

WORKSHOP / RUMPUS ROOM

DOUBLE GARAGE

Note:
GBSA 60c (59 STC, 60/60 FRR) Two way Noise Control, Fire rated wall construction:
1 layer of 13mm Gib Fyreline on one side of seperated double metal frame wall and 2 layers of 10mm std. Gib on the other with min. 1 layer R1.8 pink Batts sound insulation.

Note:
P1 200 SED H5 treated pile.
Min. 3.6m embedment, pre-drilled 2.5m.

DESIGN ENGINEER
The structural elements designated * on this drawing have been designed by Arnold & Johnstone 2015 Ltd, Consulting Engineers

Date 21/2/22

Job No 12843 Signed

SECTION D-D

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Ridge / Hip flashing, Eaves and column reference details added.

SECTION D-D

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50	2107

DWG No. 10 A REV
OF 22

185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

Aluminium joinery (Double glazed)

External Walls:
Weathergroove 150 Woodsman panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

5 sht.7

3°

13mm Gib ceiling on Gib Rondo metal battens @ 600crs. Mammoth R3.6 cieling insulation.

Hamilton City Council
BUILDING UNIT
SECTION 37

BC Number - DD007.2021.00043914.001

BED 2

BED 3

DINING

Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

Internal Walls:
89x41x0.75 Steelhaus interior steel wall Framing @ 600crs. with nogs @ 1350crs. with 10mm GIB bd. interior wall lining fixed horizontal.

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 450crs. floor joists

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BC Number - DD007.2021.00043914.001

GBSJA 45 (55 STC, 45/45/45 FRR) Noise Control, Fire rated ceiling construction:
2 layers of 13mm Gib Fyreline on Gib Rondo metal battens @ 600crs. on Gib Quiet clips.
Mammoth R3.2 cieling insulation.

LIVING AREA

WORKSHOP / RUMPUS

Note:
GBSA 60c (59 STC, 60/60 FRR) Two way Noise Control, Fire rated wall construction:
1 layer of 13mm Gib Fyreline on one side of seperated double metal frame wall and 2 layers of 10mm std. Gib on the other with min. 1 layer R1.8 pink Batts sound insulation.

F.L. to u/s Trusses. 2755

F.L. to u/s EZYJOISTS. 2755

3065 F.L to F.L.

305 35 2720 20 290 35 2720 50

290 20

DESIGN ENGINEER
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Date 21/2/22

Job No 12843 Signed

Note:
90x90 SG8 H3.2 verandah posts to sit on outside bearer fixed with 450x75x6mm S.S. plate with 4-M12 dia. s.s. bolts & 50x50x5mm s.s.washers.

Double 190x45 H3.2 tan. boundary joists fixed with S.S. Multigrip each side of deck joists.

90 45 100 45

190x45 H3.2 tan. deck joists @ 400crs.

S.S. CT160 each side.

60 170 60

Note:
* 2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 135x135 H3.2 PROLAM post with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers.

1 sht. 7-9 DECK BEARER FIXING DETAIL

SECTION E-E

57 89 89

100 100

200x110x1 S.S. Nailon plate

60 170 60 75 75

* 2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans.

Fixed to 135x135 H3.2 PROLAM post with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers.

2 – DECK BEARER JOIN DETAIL

Weathergroove 150 Woodsman panels exterior cladding with Weathergroove 150 Natural to reccessed deck areas and Weathergroove 1200 smooth panels to Northern Elevation on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets (with 'Z' flashing at mid floor) on Steelhaus 150mm Metal framing.

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 450crs. floor joists

Note:
M16 dia. S.S. bolts with 50x50x5 S.S. washers @ 900crs. max.

12 min. 19 190 115

190x45 H3.2 tan. deck joists @ 400crs. fixed to 190x45 H3.2 tan. deck stringer with s.s. joist hangers.

20mm x 90 x 170mm long H3.2 timber packers at each bolt fixing. Refer NASH Building Envelope Solutions Fig. 11 (a).

20 10 18 150 10

3 sht. 7-9 DECK STRINGER FIXING DETAIL

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	14/2/22	Detail 3 amended. Eaves reference detail added.

SECTION E-E & DETAILS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50, 1:20	2107

DWG No. 11 A REV
OF 22

Hamilton City Council

BUILDING UNIT APPROVED

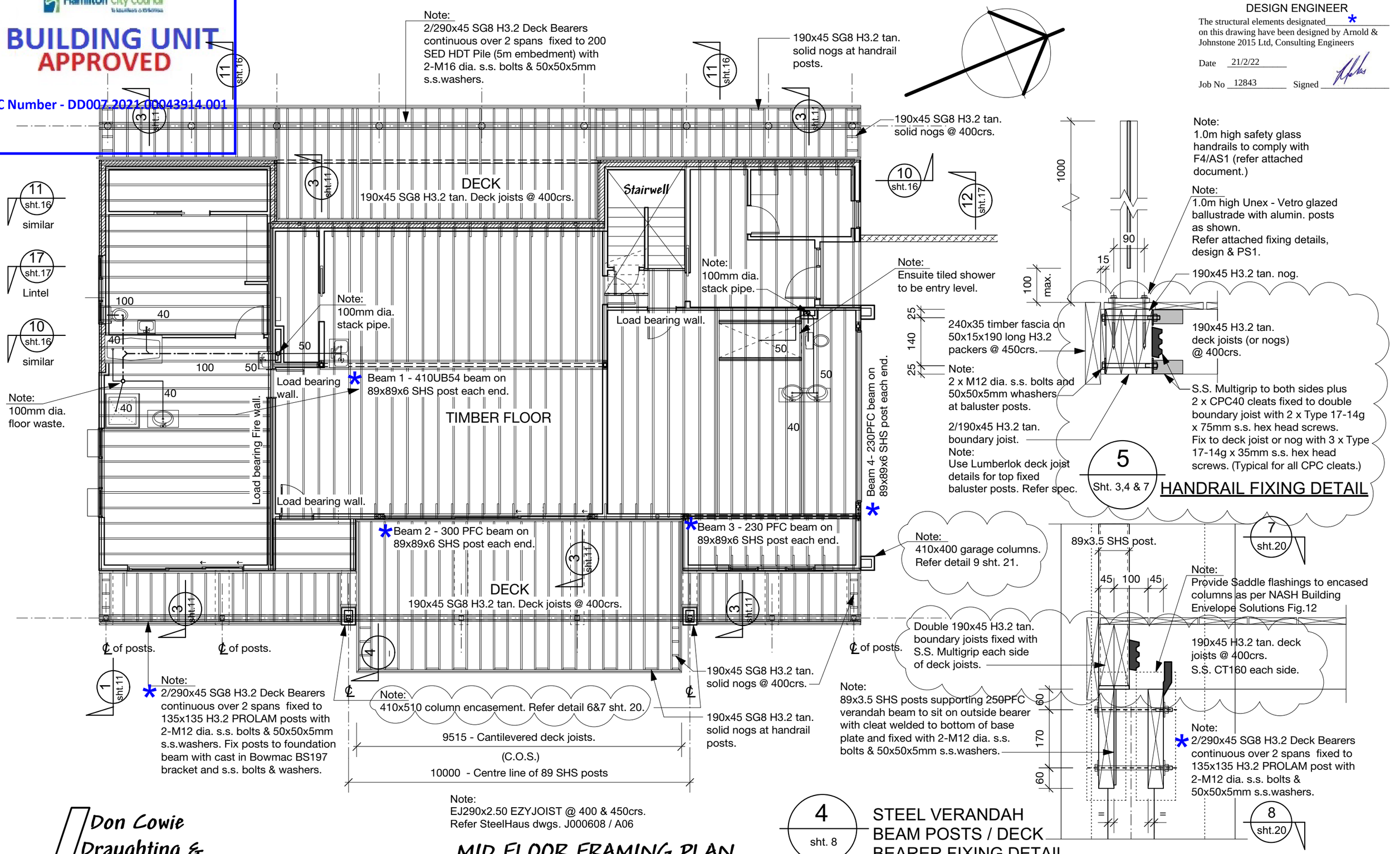
BC Number - DD007.2021.00043914.001

DESIGN ENGINEER

The structural elements designated * on this drawing have been designed by Arnold & Johnstone 2015 Ltd, Consulting Engineers

Date 21/2/22

Job No 12843 Signed



5 Sht. 3,4 & 7 HANDRAIL FIXING DETAIL

7 sht.20

8 sht.20

4 sht. 8 STEEL VERANDAH BEAM POSTS / DECK BEARER FIXING DETAIL

MID FLOOR FRAMING PLAN

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PROPOSED CAMERON RESIDENCE AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Column reference details added. Multi grips & CT160 added to deck joists.

MID FLOOR FRAMING PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

DWG No. 12 A REV OF 22

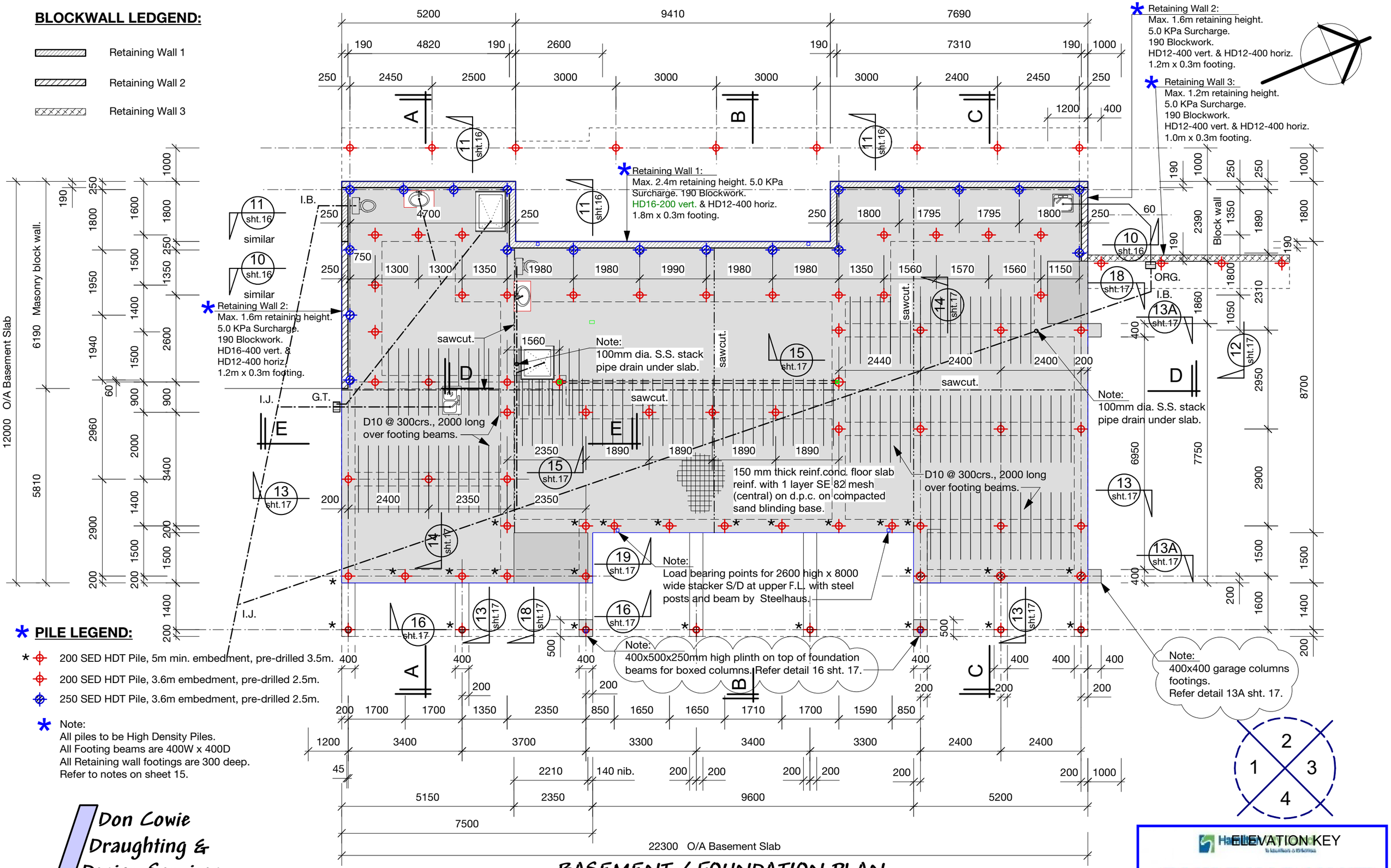
BLOCKWALL LEDGEND:

- Retaining Wall 1
- Retaining Wall 2
- Retaining Wall 3

* PILE LEGEND:

- * 200 SED HDT Pile, 5m min. embedment, pre-drilled 3.5m.
- 200 SED HDT Pile, 3.6m embedment, pre-drilled 2.5m.
- 250 SED HDT Pile, 3.6m embedment, pre-drilled 2.5m.

* Note:
All piles to be High Density Piles.
All Footing beams are 400W x 400D
All Retaining wall footings are 300 deep.
Refer to notes on sheet 15.



BASEMENT / FOUNDATION PLAN

PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Column reference details added.

BASEMENT / FOUNDATION PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.	DWG No.	REV.
D. Cowie	D. Cowie	3/12/21	1:100	2107	13	A

OF 22

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DESIGN ENGINEER
The structural elements designated * on this drawing have been designed by Arnold & Johnstone 2015 Ltd, Consulting Engineers
Date 21/2/22
Job No 12843 Signed

Hamilton City Council
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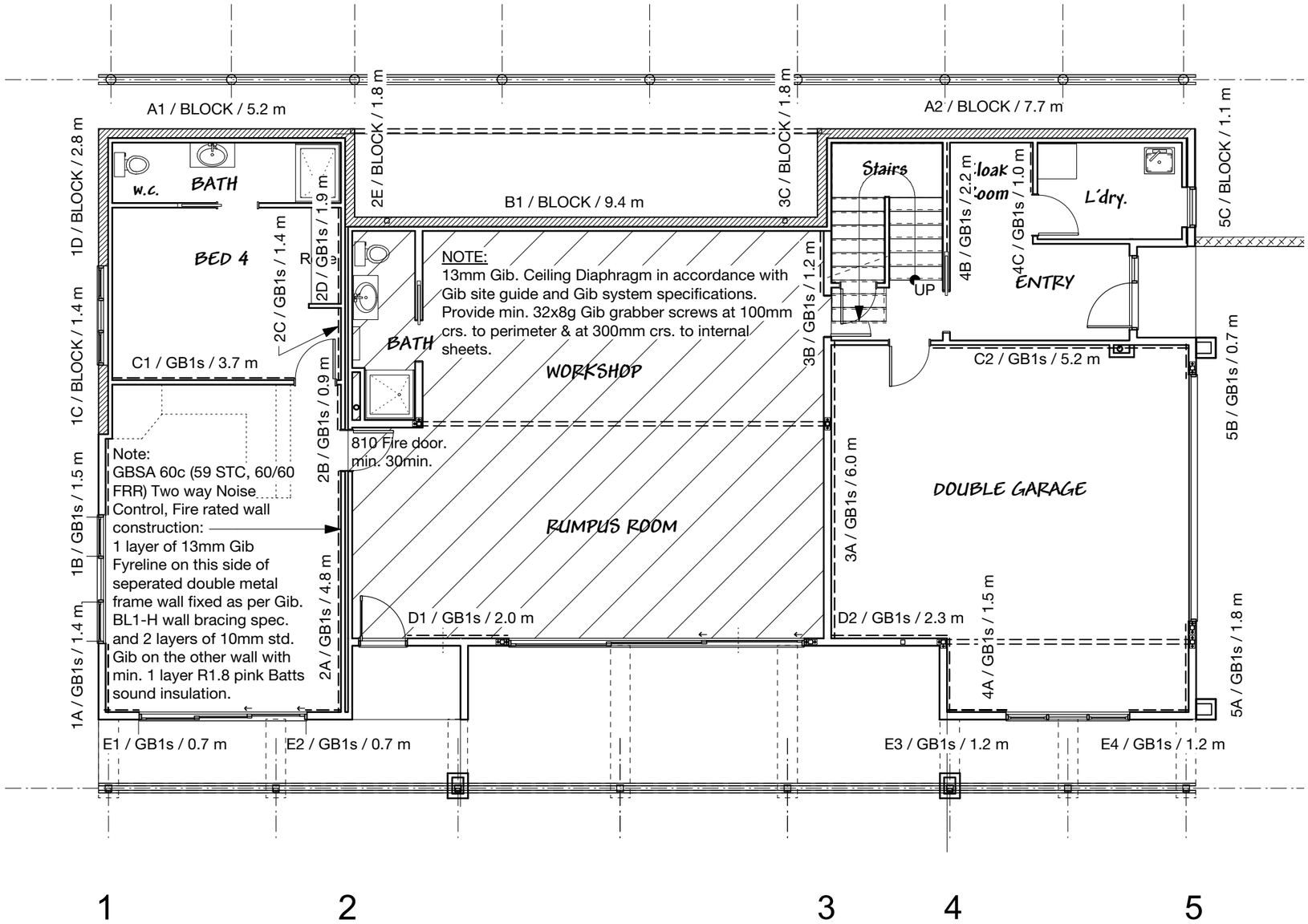
BC Number - DD007.2021.00043914.001



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Note:

Refer to Gib Ezy Brace literature for full system installation details.

* BASEMENT WALL BRACING PLAN

BASEMENT WALL BRACING LEGEND:

Brace Type	Lining requirement	Bottom plate fixing
GB1s	Min 10mm Gib Braceline on one side.	Gib EzyBrace end brace hold down washer as per NASH Gib System Specifications
BLOCK	190 series concrete blockwall.	N/A

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:

BASEMENT WALL BRACING PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

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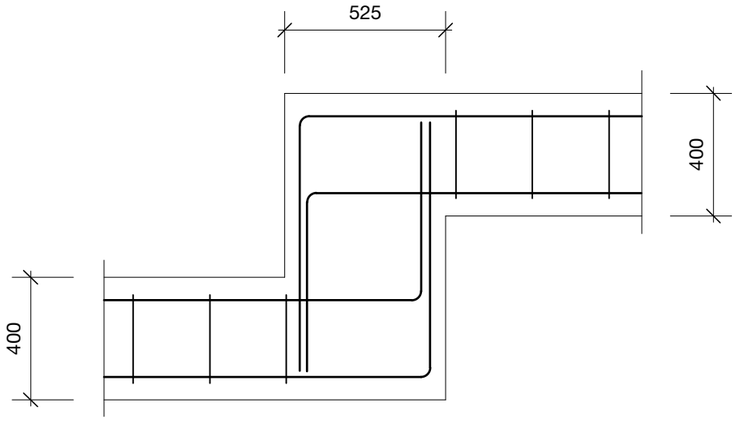
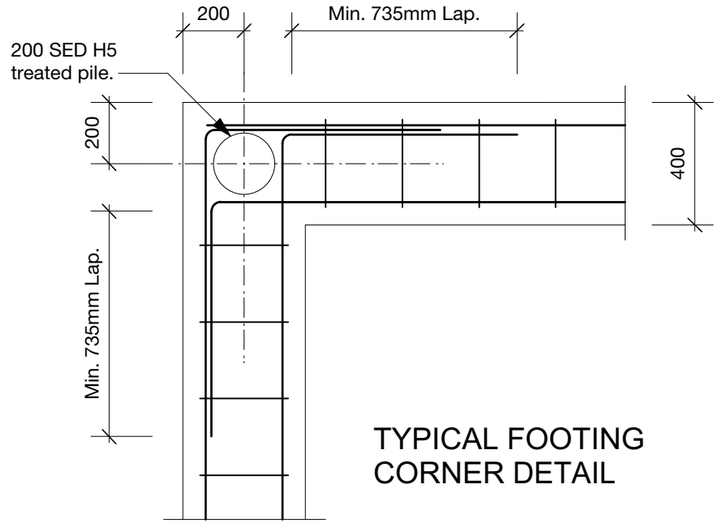
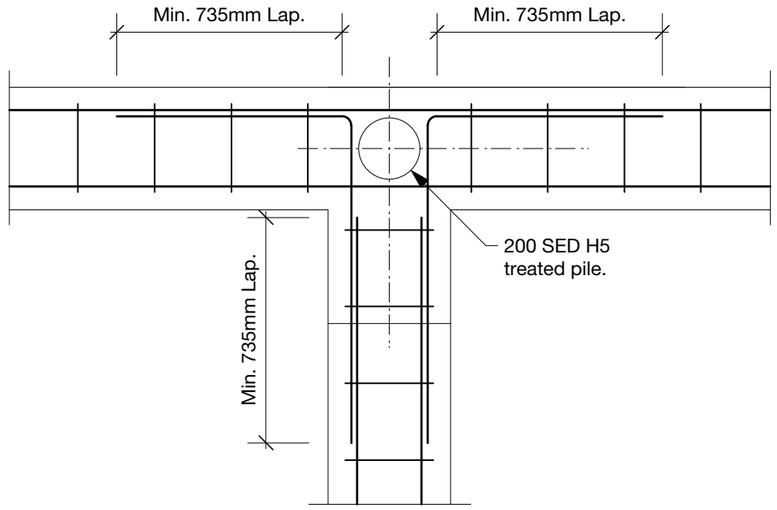
OF 22



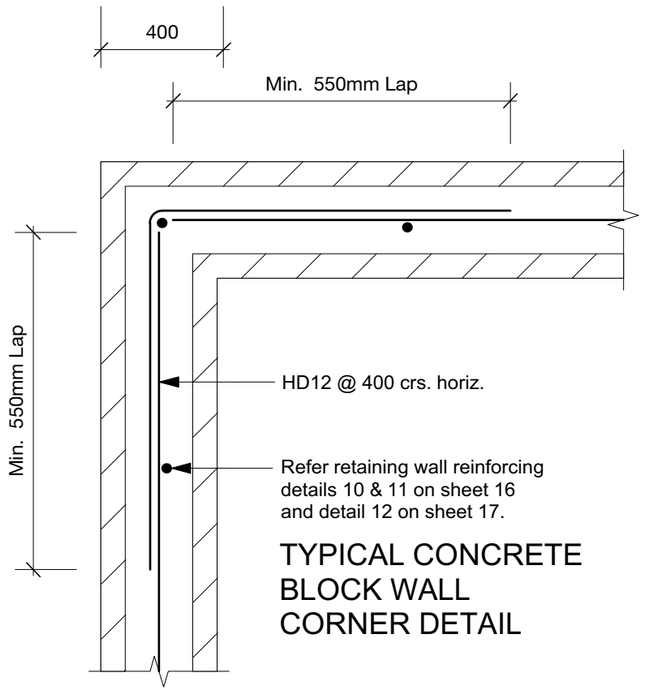
FOOTING STEP ELEVATION



TYPICAL FOOTING
CORNER DETAIL



TYPICAL FOOTING
INTERSECTION DETAIL



TYPICAL CONCRETE
BLOCK WALL
CORNER DETAIL

CONCRETE NOTES

1. CONCRETE TO BE 20MPa
2. ALL STEEL INCLUDING MESH SHALL BE DUCTILITY CLASS E IN ACCORDANCE WITH NZS 4671
3. BAR REINFORCEMENT SHALL BE GRADE 500 UNO.
4. LAP MESH 225mm MINIMUM OR GREATER IF MANUFACTURER RECOMMENDS.
5. CONCRETE PLACING, FINISHING & CURING SHALL BE IN ACCORDANCE WITH NZS3109:1997.
6. CURING OF THE CONCRETE MUST TAKE PLACE IMMEDIATELY AFTER FINISHING THE CONCRETE BY PONDING OR CONTINUOUSLY SPRINKLING OF WATER.
7. SHRINKAGE CONTROL JOINTS: GENERALLY SAW CUTS ARE TO COINCIDE WITH MAJOR CHANGES IN PLAN. WHERE THE CONCRETE IS TO BE EXPOSED OR BRITTLE COVERING PLACED OVER, SPACED AT 6m CENTRES MAXIMUM TO CREATE BAYS WITH LENGTH: WIDTH RATIO OF 2:1.
8. SHRINKAGE CONTROL JOINTS SHALL BE FORMED BY SAW CUTTING 25mm DEEP AFTER CONCRETE HARDENING AND NO LATER THEN 24 HOURS.
9. PLUMBING & SERVICES SHALL BE CONVEYED UNDERGROUND TO THEIR PLAN LOCATION AND THEN BROUGHT UP THROUGH THE SYSTEM. AT NO STAGE SHALL ANY OF THE REINFORCEMENT BARS BE RELOCATED OR CUT TO ALLOW FOR THE SERVICES. SERVICES ARE TO BE PLACED CENTRALLY WITHIN AN OPENING 50mm GREATER IN DIAMETER THAN THE PIPE. HORIZONTAL PENETRATIONS THROUGH BEAMS SHALL BE LOCATED IN THE CENTRAL THIRD. ALL PIPES SHALL BE WRAPPED IN DENSO TAPE AND THE GAP SEALED WITH COMPRESSIVE FOAM.
10. PROVIDE MIN. 75MM COVER TO FOOTING REINFORCEMENT.

PILE NOTES

1. ALL PILES TO BE PLACED SMALL END DOWN AND DRIVEN TO THE FOLLOWING CRITERIA;
   200 SED PILES:
   HAMMER WEIGHT = 500kg
   DROP = 1.0m
   SET = 15mm / BLOW
   250 SED PILES:
   HAMMER WEIGHT = 500kg
   DROP = 1.0m
   SET = 10mm / BLOW
2. MINIMUM PILE EMBEDMENT DEPTH TO BE 5m min. for leading edge piles.
3. PRE-DRILL HOLES 2.5m. CARE IS TO BE TAKEN WHEN DRIVING PILES IN TERMS OF VIBRATION EFFECTS ON ADJACENT STRUCTURES & SERVICES
4. ENGINEER TO OBSERVE THREE TEST PILES AT OPPOSITE ENDS OF THE SITE
5. DRAWINGS TO BE READ IN CONJUNCTION WITH TITUS CONSULTING ENGINEERING ASSESSMENT AND DESIGN REPORT 11122 DATED 19 JUNE 2020
6. CUT TOP SURFACES ON PILES TO BE TREATED WITH TWO COATS OF METALEX
7. ALL PILES TO BE HIGH DENSITY PILES
8. ALL PILES TO BE TREATMENT CLASS H5
9. BACKFILL HOLES AROUND LEADING EDGE PILES WITH LOOSE SAND OR CONCRETE TO ENSURE NO VOIDS ARE PRESENT.

MASONRY NOTES

1. ALL MASONRY WALL SHALL BE LAID STRETCHER (RUNNING) BOND
2. ALL MASONRY GROUT TO BE 20MPa MIN. STRENGTH AFTER 28 DAYS
3. ALL GROUTING SHALL BE CARRIED OUT USING THE HIGH LIFT GROUTING METHOD
4. ALL MASONRY UNITS SHALL BE SOLID FILLED WITH GROUT
5. ALL WALL ENDS TO BE TRIMMED WITH HD12 BAR (U.N.O.) ALL WALLS TO HAVE HD12 BOND BEAM AT TOP UNO
6. PROVIDE CONTROL JOINTS: - MAXIMUM 5.0m CENTRES OR ONE SIDE OF DOOR OPENINGS
7. CONTROL JOINTS ARE NOT REQUIRED IN RETAINING WALLS (U.N.O.)
8. ALL HORIZONTAL AND VERTICAL WALL REINFORCEMENT TO HAVE 200mm HOOK RETURN ENDS

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:
* FOUNDATION NOTES & DETAILS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:20	2107

DWG No. 15 REV
OF 22

DESIGN ENGINEER

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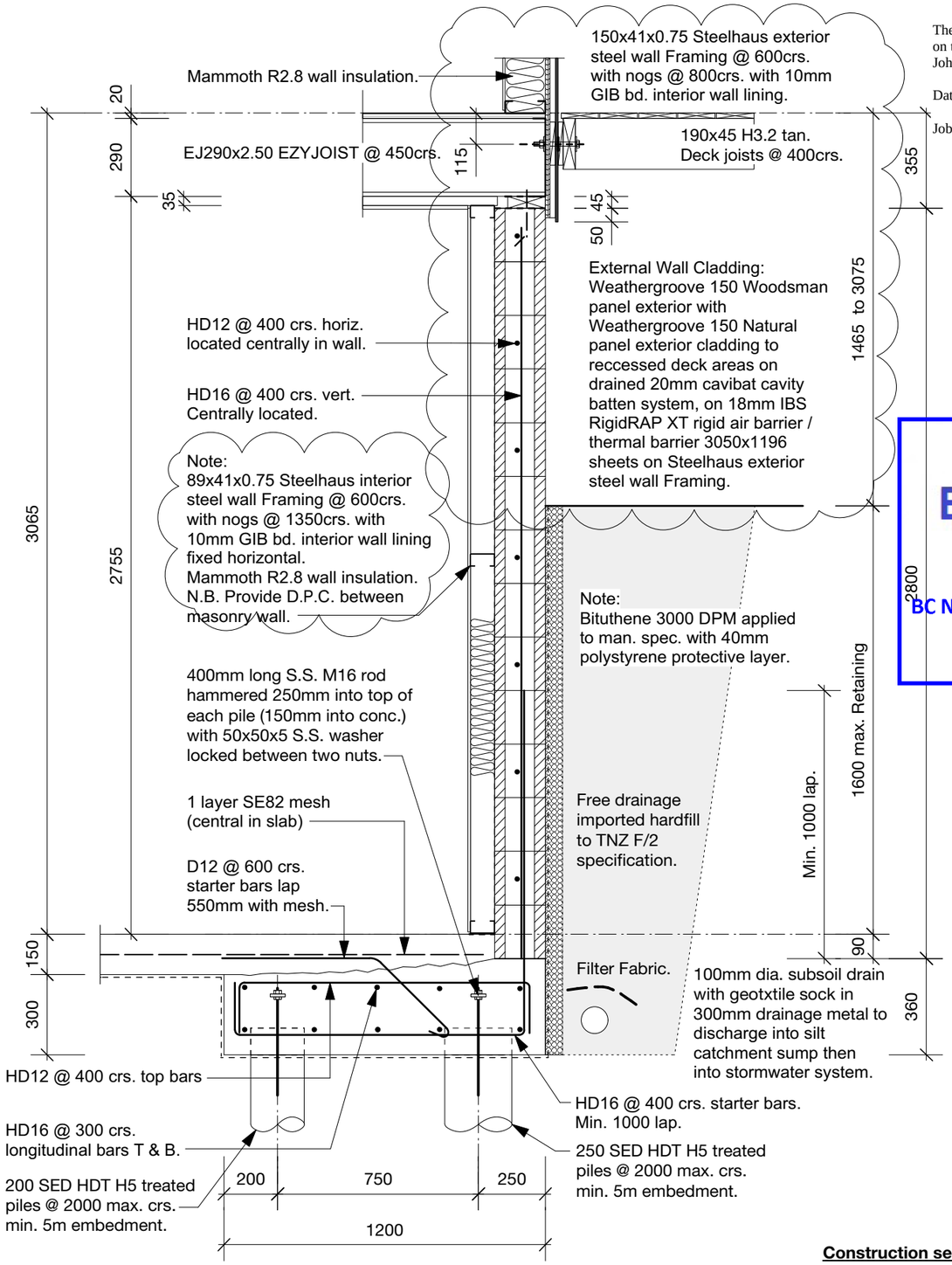
Date 21/2/22

Job No 12843 Signed



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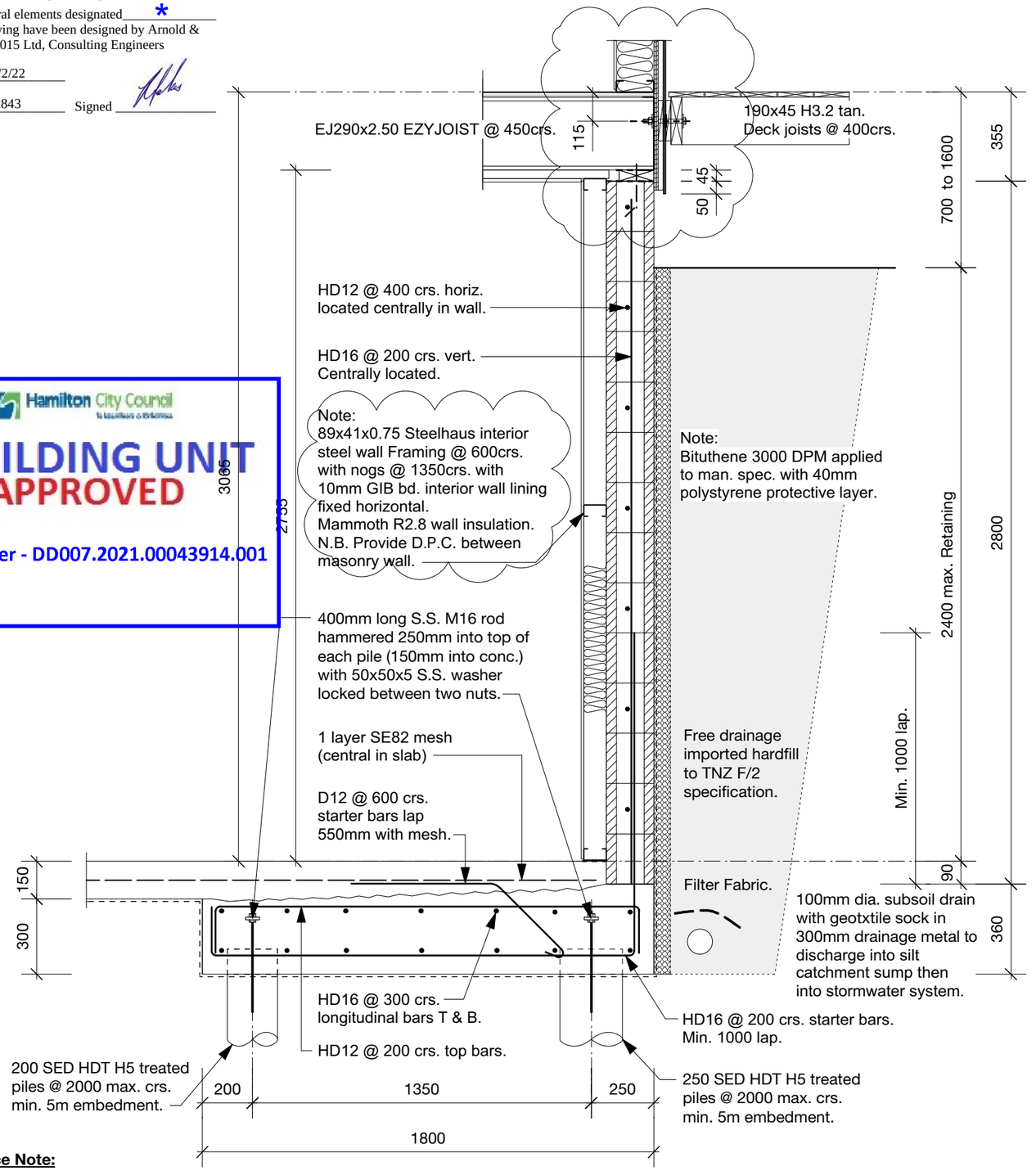

Construction sequence Note:
Retaining wall foundations are to be poured first followed by laying of the bottom course of conc. blocks, then the remainder of the Basement foundations can be boxed and poured with the concrete slab.

10 / Sht. 13 — BASEMENT RETAINING WALL 2 DETAIL *

11 / Sht. 7-9,13 — BASEMENT RETAINING WALL 1 DETAIL *

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REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Steel framing and wall cladding shown.

FOUNDATION DETAILS CONTINUED

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:20	2107

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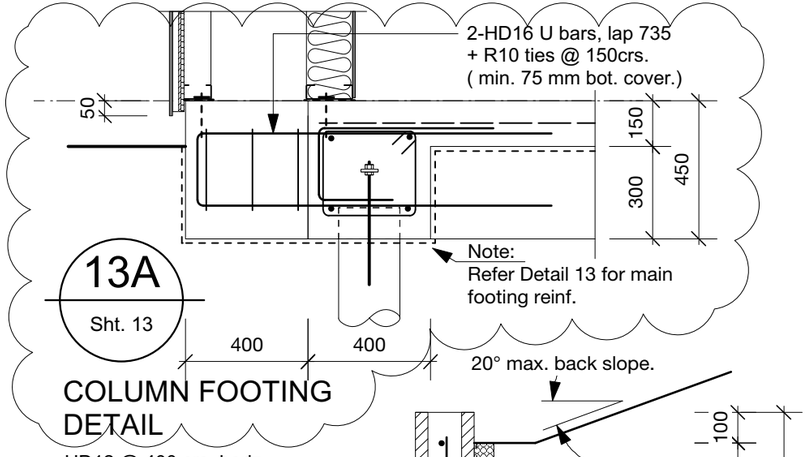
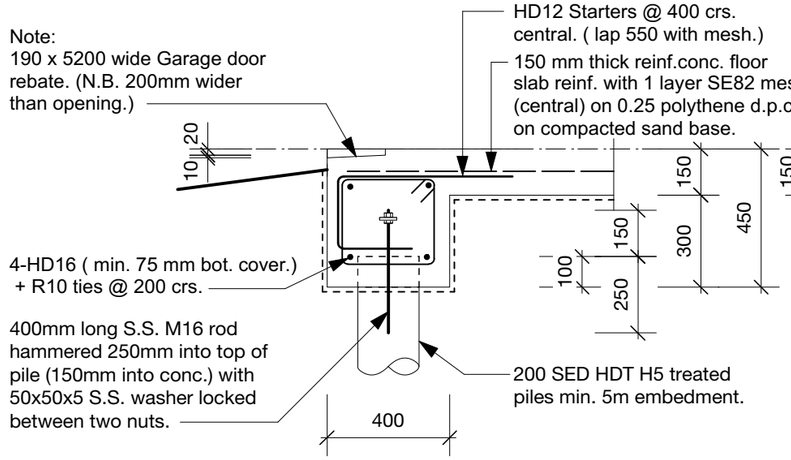


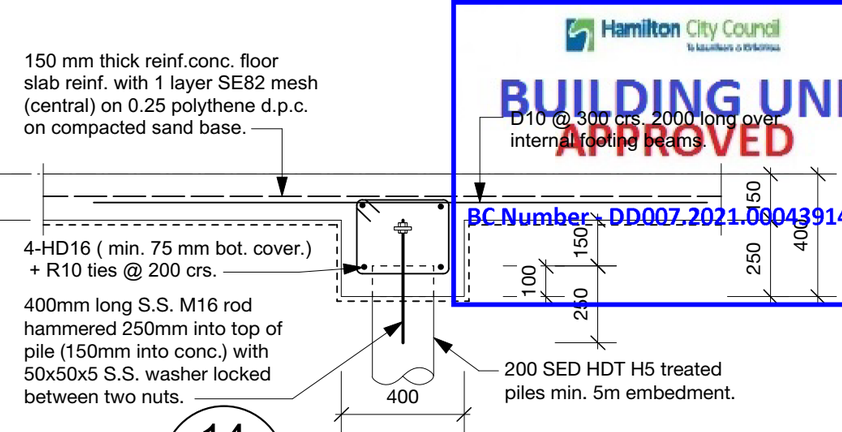
13A
Sht. 13

COLUMN FOOTING DETAIL



13
Sht. 13

EXTERNAL FOOTING DETAIL



14
Sht. 13

INTERNAL FOOTING DETAIL

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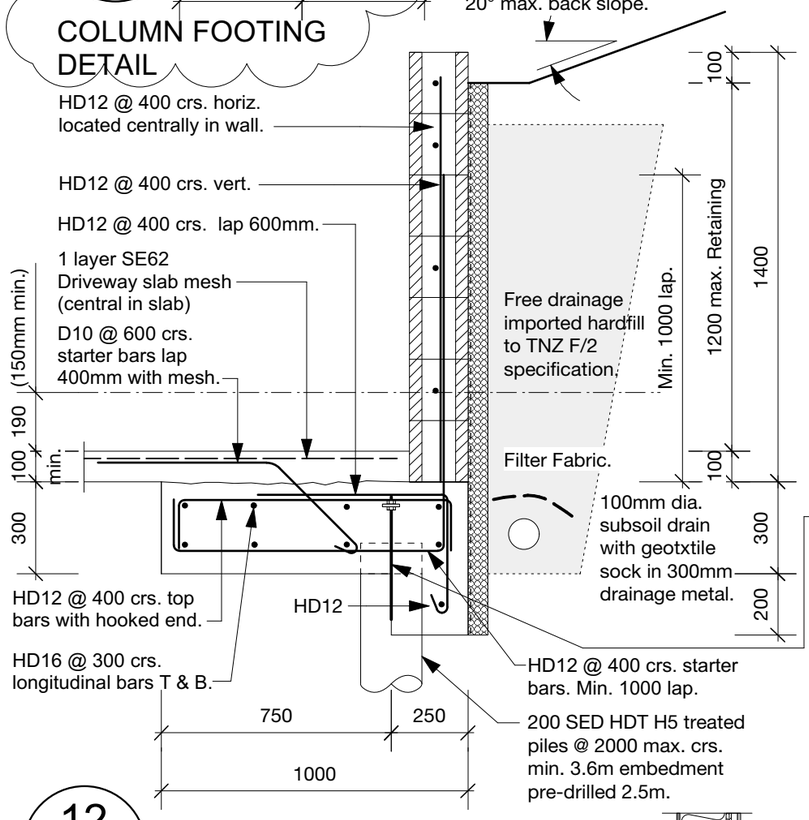
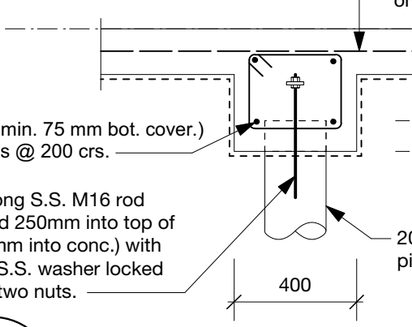


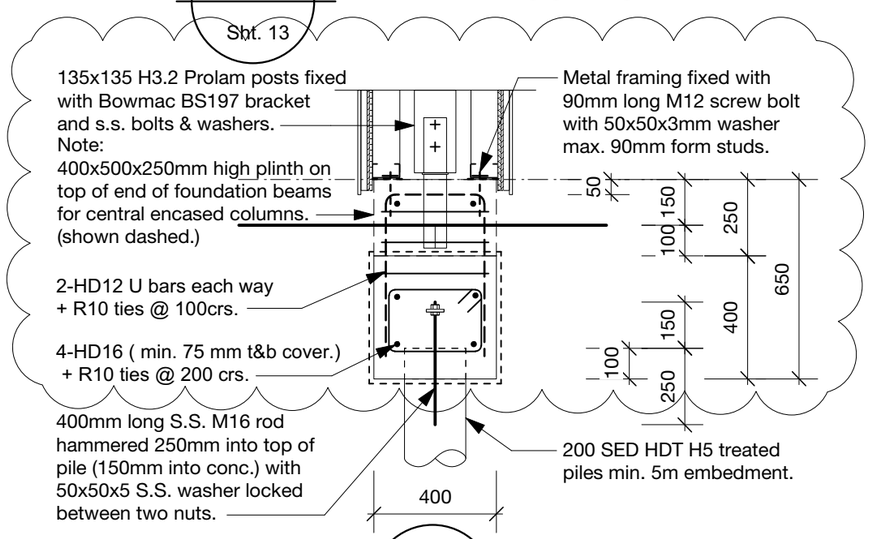
12
Sht. 13

RETAINING WALL 3 DETAIL



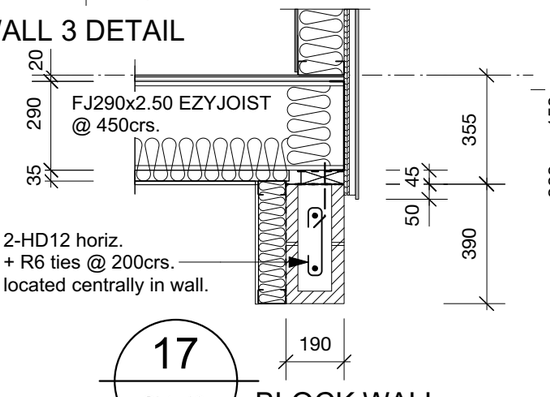
15
Sht. 13

INTERNAL FOOTING DETAIL



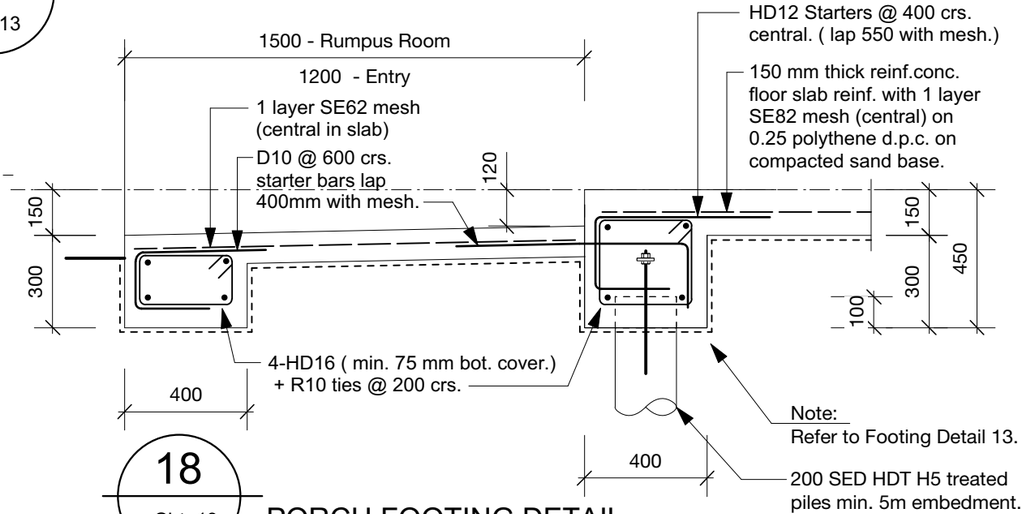
16
Sht. 13

LINK FOOTING DETAIL



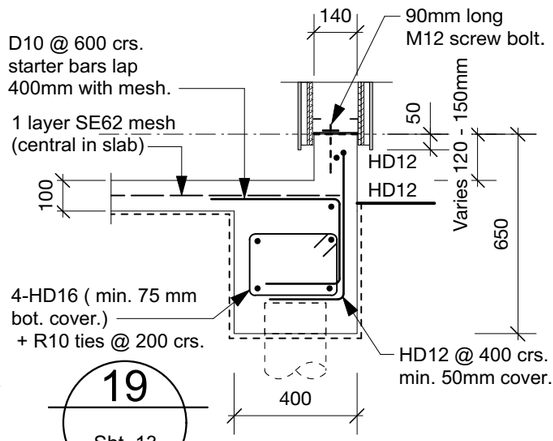
17
Sht. 13

BLOCK WALL LINTEL DETAIL



18
Sht. 13

PORCH FOOTING DETAIL



19
Sht. 13

DESIGN ENGINEER

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Detail 16 Amended to show plinth for central encased columns and Detail 13A for Garage columns.

* FOUNDATION DETAILS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:20	2107

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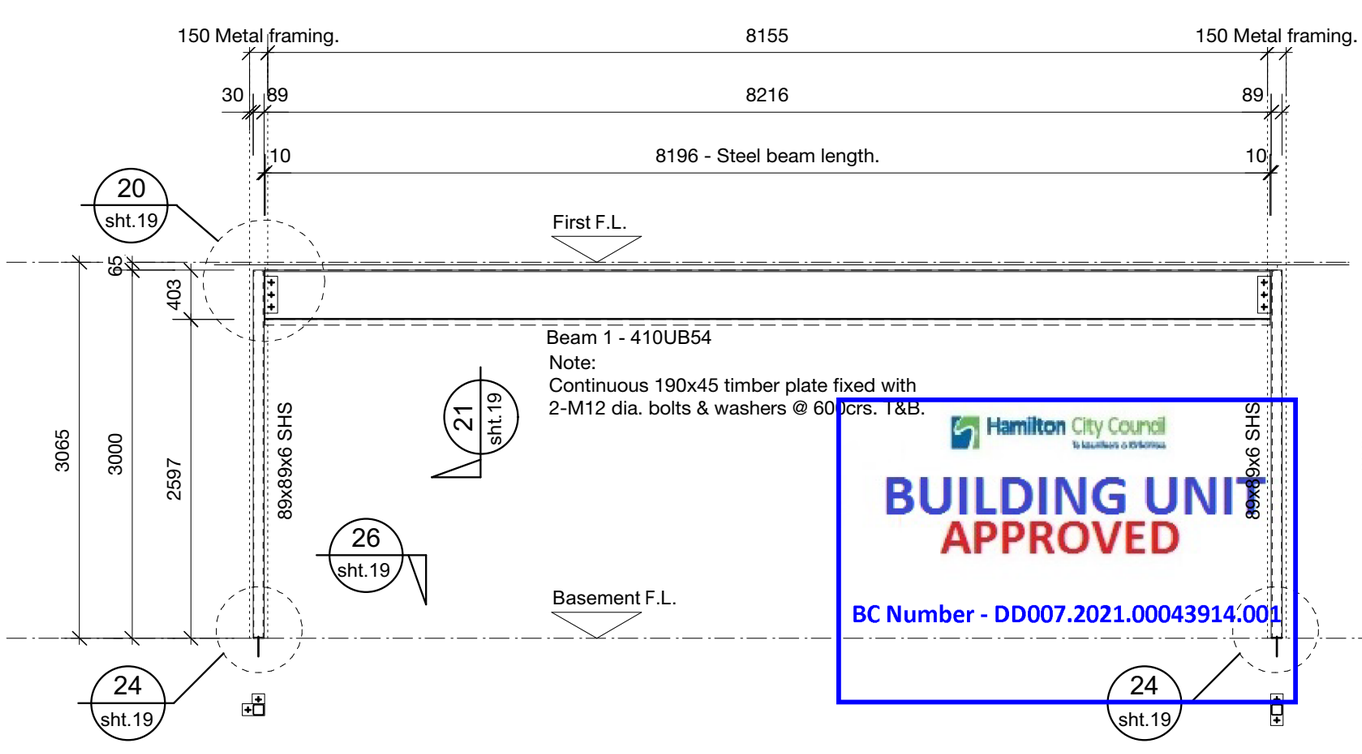
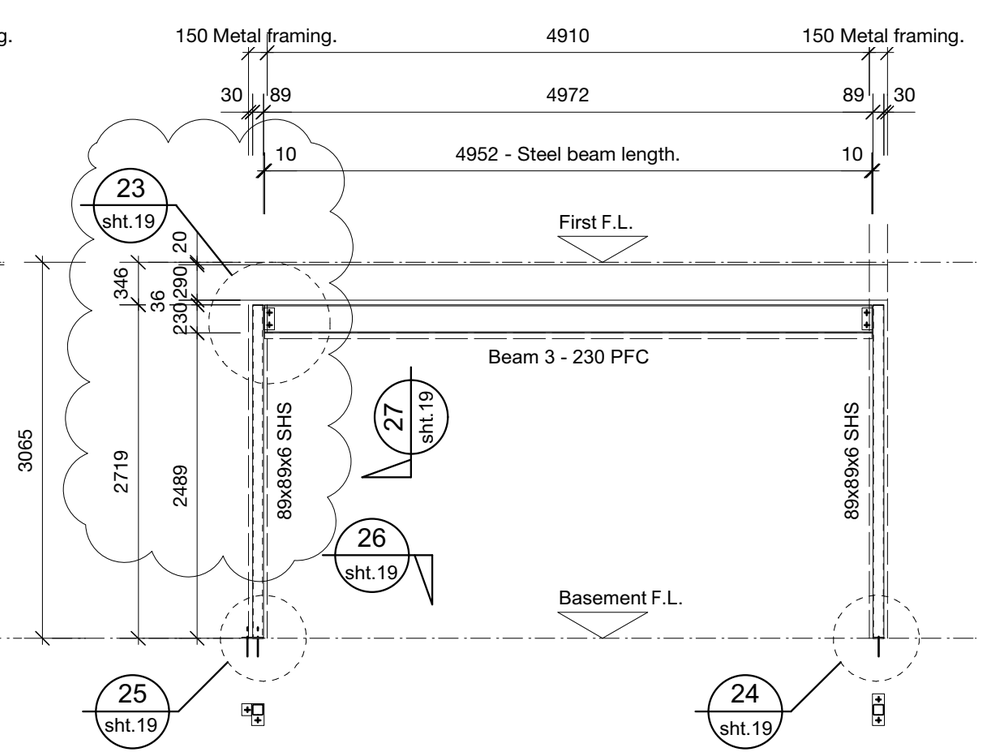
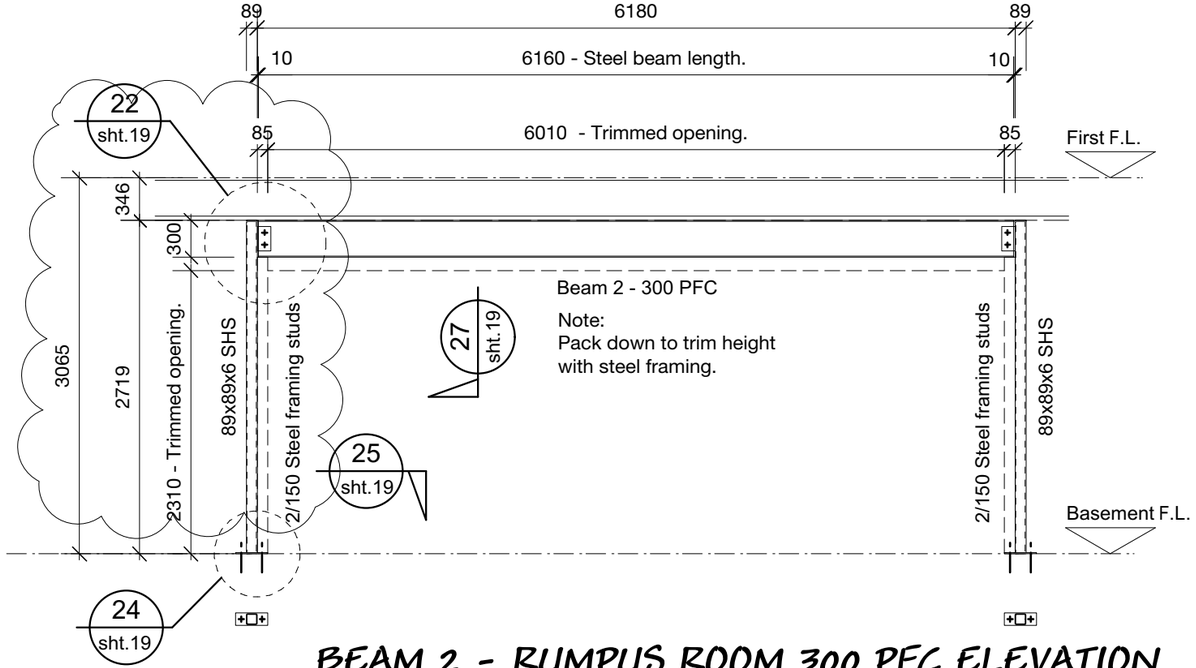
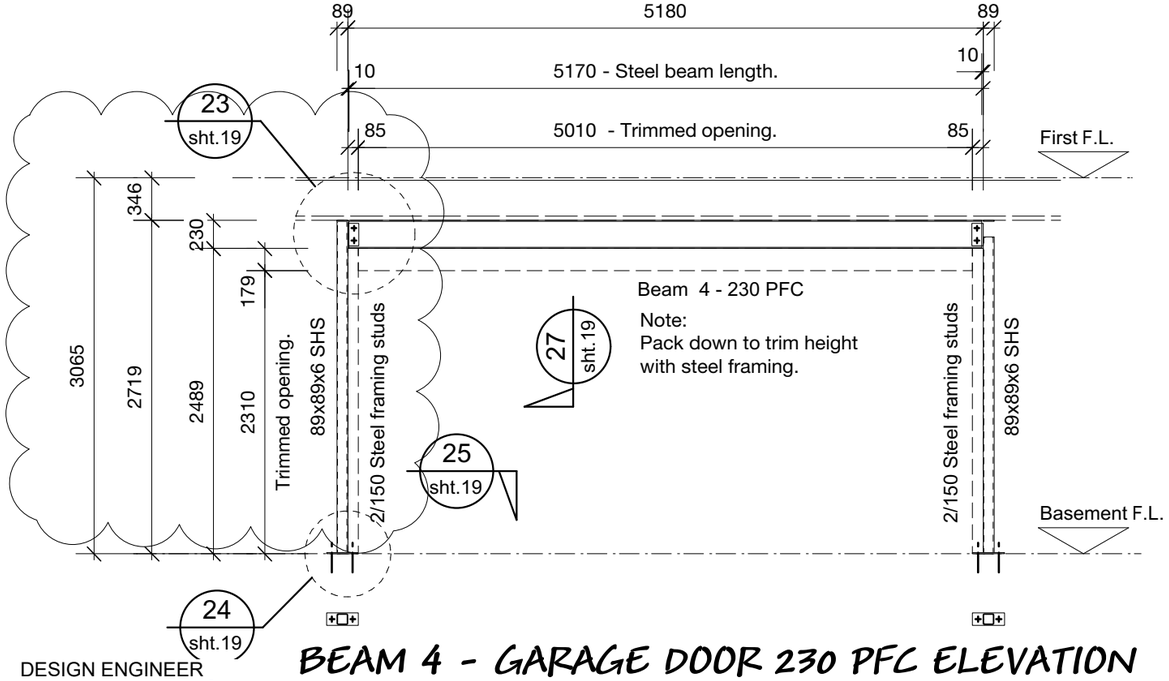




BEAM 1 - WORKSHOP 410UB54 ELEVATION



BEAM 2 - RUMPUS ROOM 300 PFC ELEVATION



BEAM 4 - GARAGE DOOR 230 PFC ELEVATION

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REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Steel frame heights amended to suit steel framing.

* BASEMENT STEEL BEAM ELEVATIONS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50	2107

DWG No. 18 A REV

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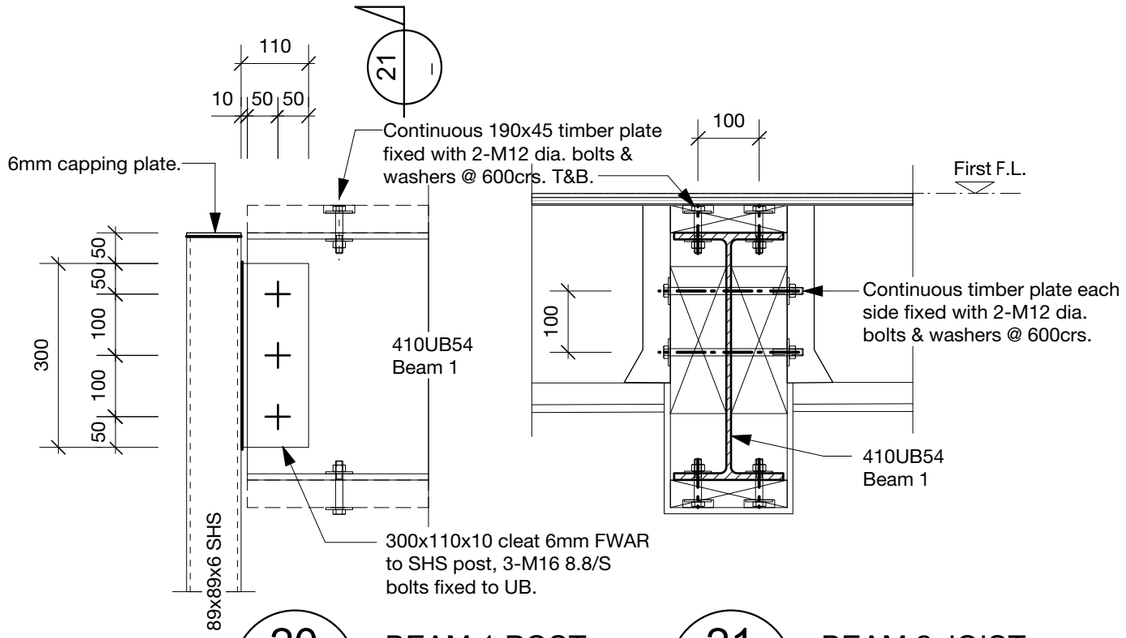
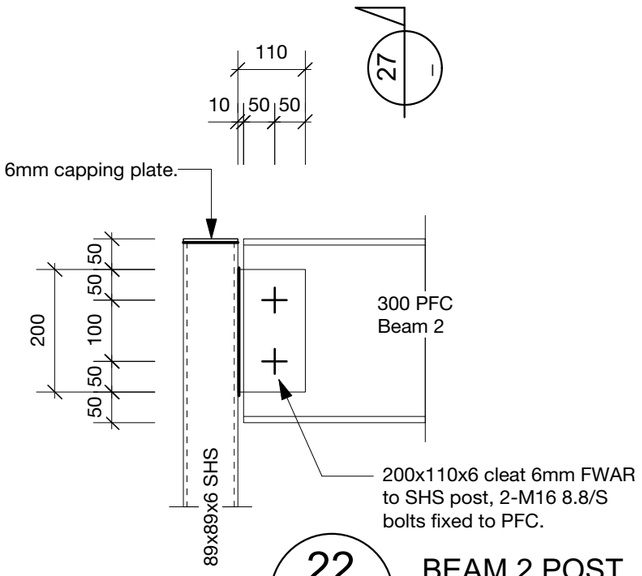
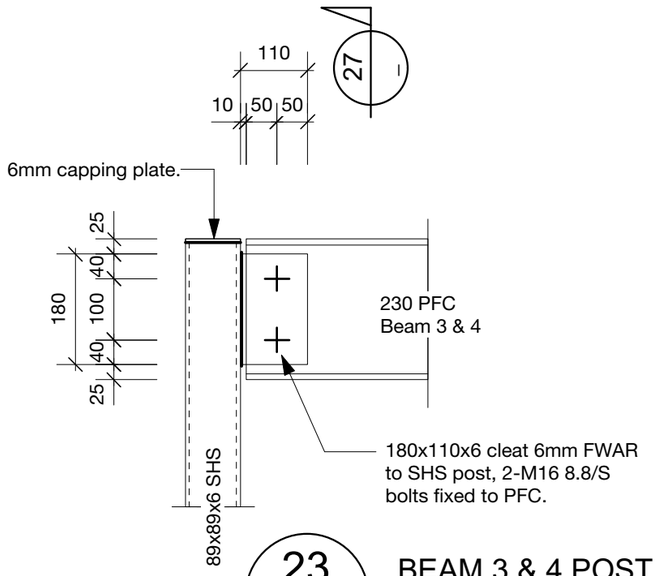


20 Sht. 18 BEAM 1 POST FIXING DETAIL

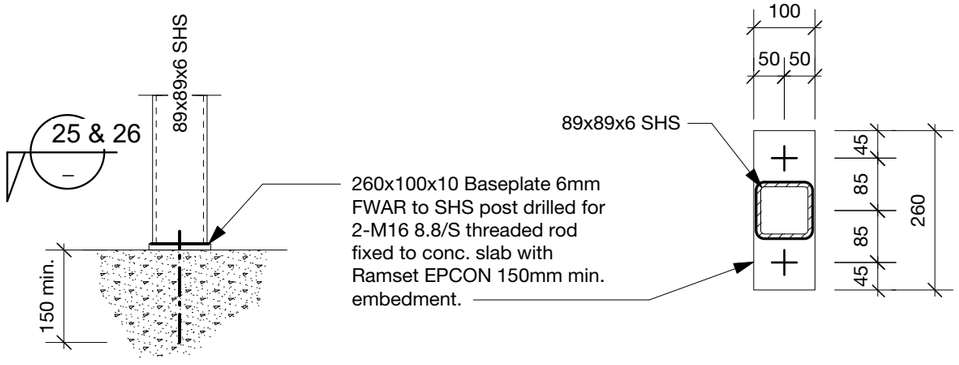
21 Sht. 18 BEAM 2 JOIST FIXING DETAIL



22 Sht. 18 BEAM 2 POST FIXING DETAIL

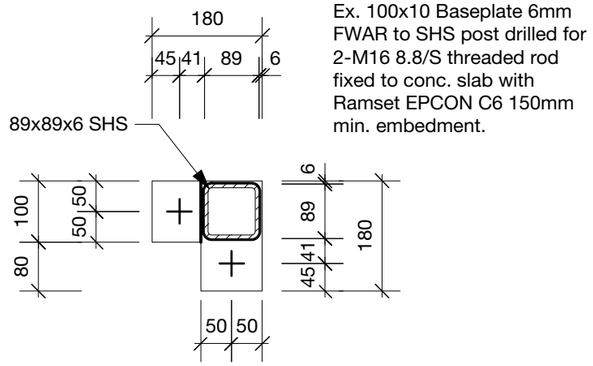


23 Sht. 18 BEAM 3 & 4 POST FIXING DETAIL

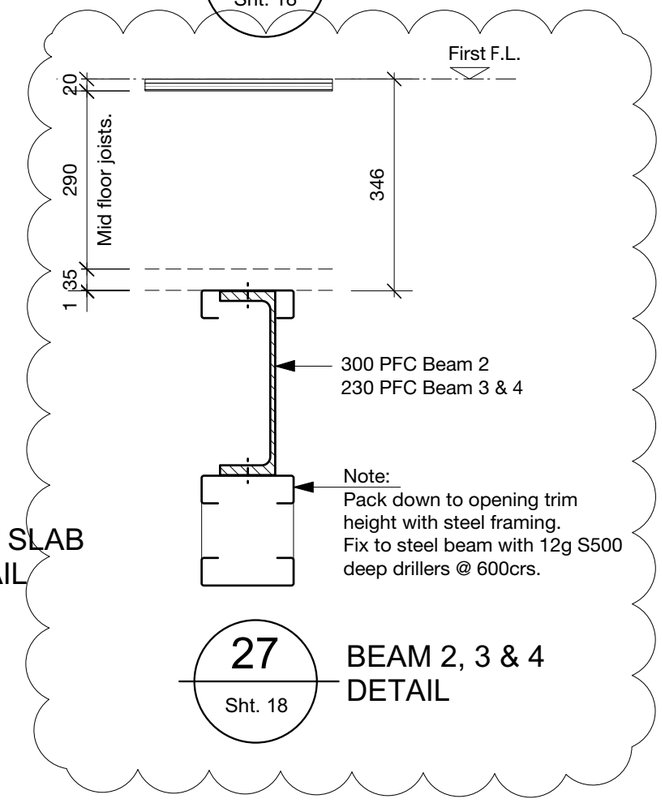


24 Sht. 18 BEAM 1, 2, 3 & 4 POST / SLAB FIXING DETAIL

25 Sht. 18 BEAM 1, 2, 3 & 4 POST / SLAB PLAN FIXING DETAIL



26 Sht. 18 BEAM 1 & 3 POST / SLAB PLAN FIXING DETAIL



27 Sht. 18 BEAM 2, 3 & 4 DETAIL

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Notes:

1. All internal steelwork to be shop primed and painted with Resene 22 interior paint specification.
2. Allow for holes for M12 - 600crs. bolts into beam 1 as required shown for fixing to timber framing.
3. Fasten any HySpan members together with 2 rows of 90x3.3 dia. nails @ 100mm crs. as per figure 9 of the Futurebuild LVL Residential Design Guide.

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PROPOSED CAMERON RESIDENCE AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	172/22	Steel frame heights amended to suit steel framing.

* BASEMENT STEELWORK DETAILS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:10	2107

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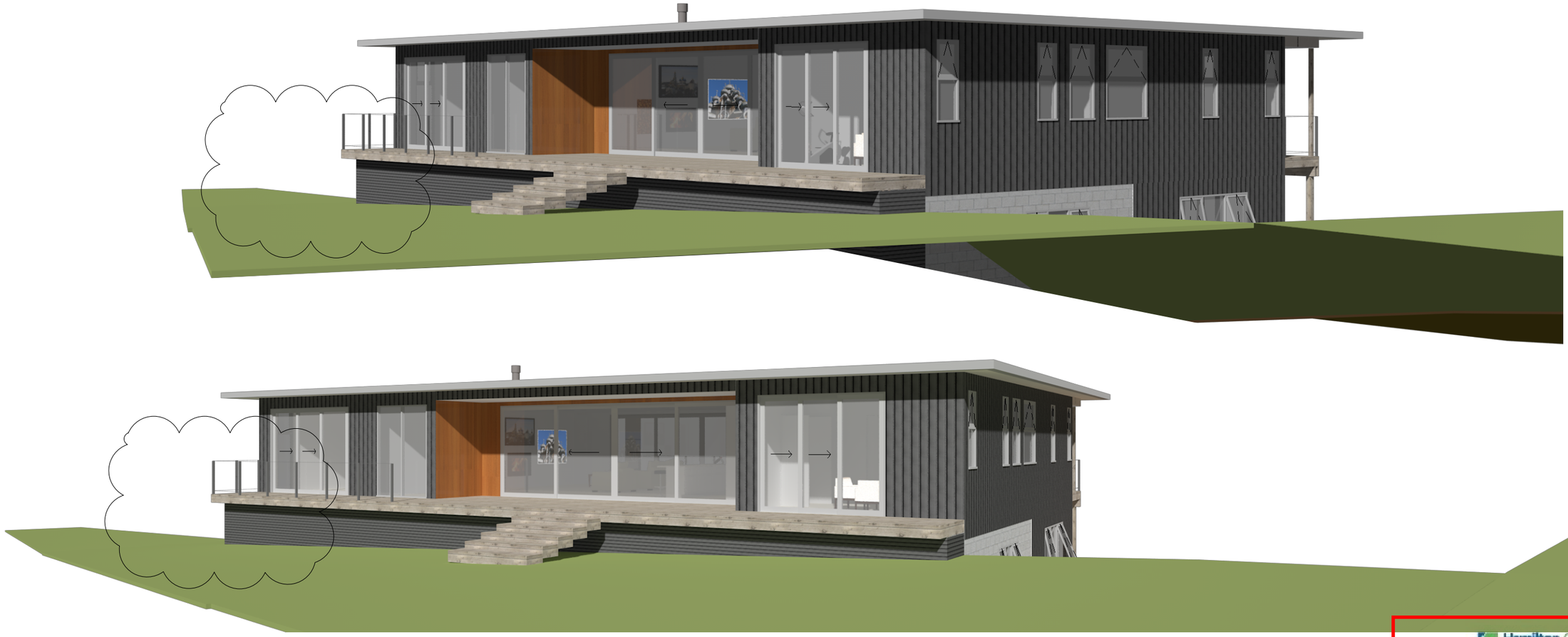

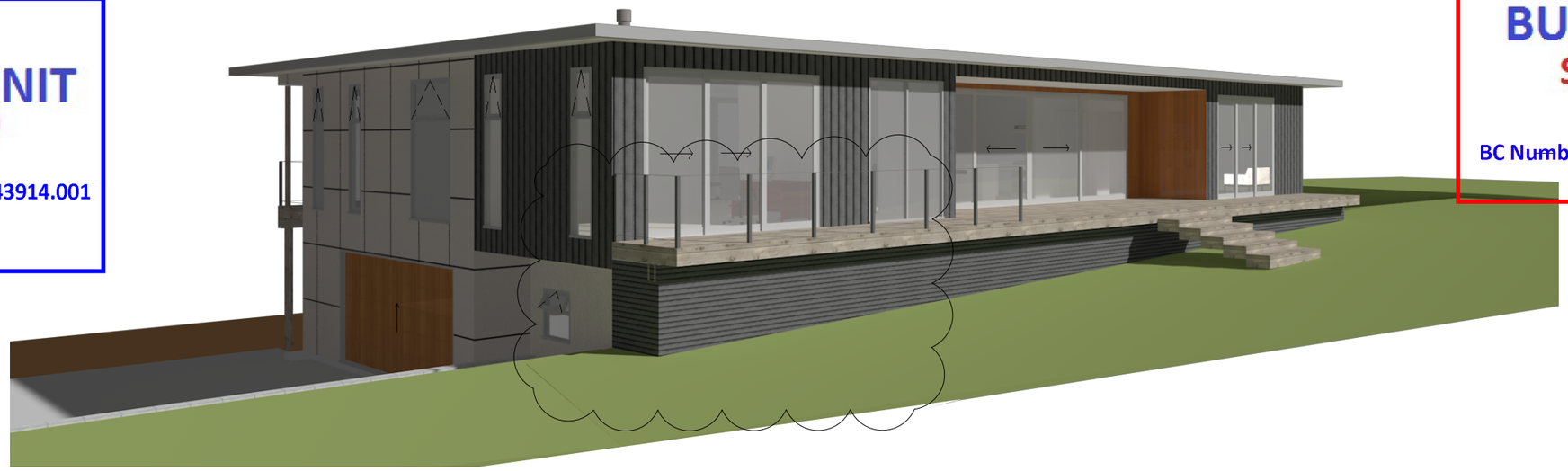

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Te Kaunihera o Kirikiriroa

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Hamilton City Council
Te Kaunihera o Kirikiriroa

BUILDING UNIT
SECTION 37

BC Number - DD007.2021.00043914.001

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PROPOSED CAMERON RESIDENCE
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REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Deck amended for resource consent application.

PROPOSED RENDERS 1

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	Feb. 2022	NTS	2107

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OF 22

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Te kaunihera o Kirikiriroa

BUILDING UNIT
SECTION 37

BC Number - DD007.2021.00043914.001

Hamilton City Council
Te kaunihera o Kirikiriroa

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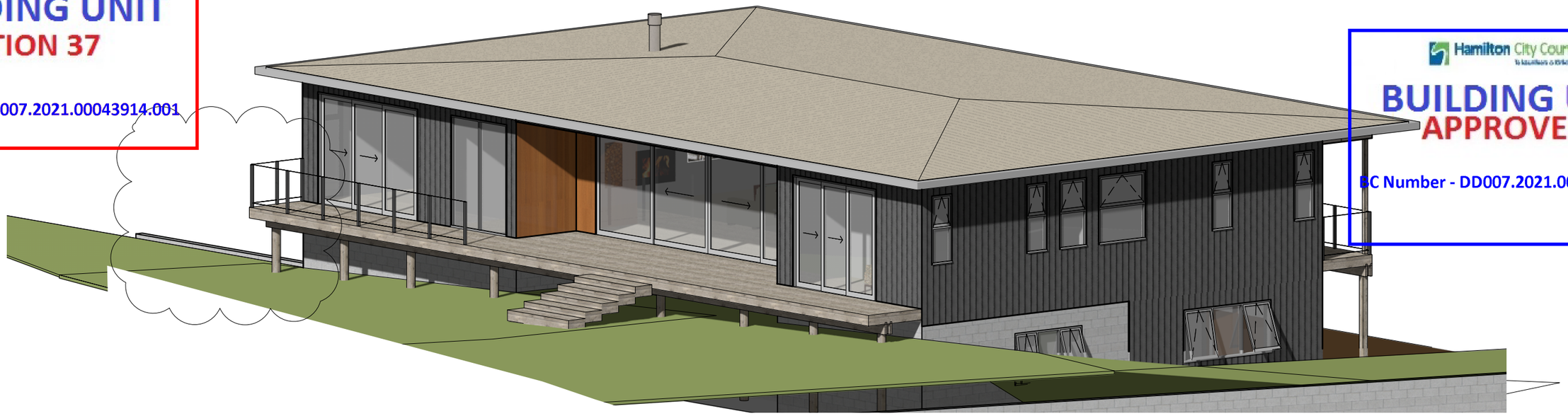

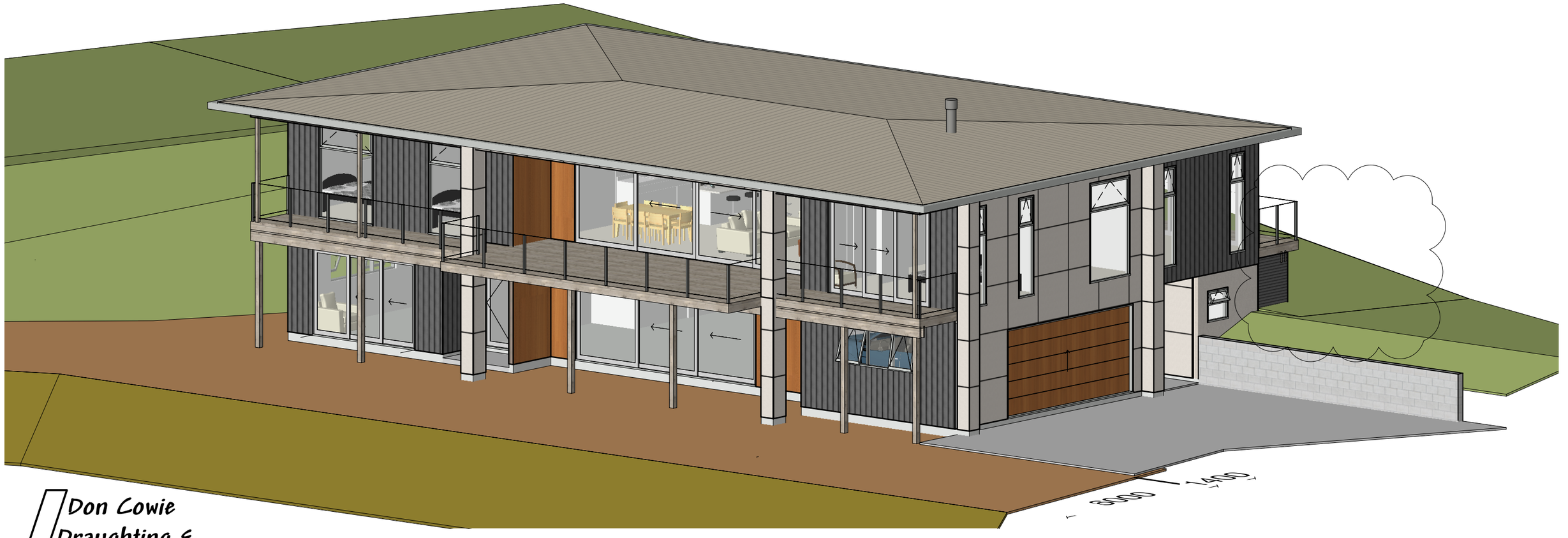

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PROPOSED CAMERON RESIDENCE
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REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Deck amended for resource consent application.

PROPOSED RENDERS 2

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
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OF 22

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Deck amended for resource consent application.

PROPOSED RENDERS 3

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	Feb. 2022	NTS	2107

DWG No. R3 A REV
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Gully Hazard Area
6m setback line.

Gully Hazard
Area Overlay

LEGAL ROAD

S.H. 26.

Bdy. 32.39 m

Bdy. 49.98 m

30m

25m

24m

35m

39m

6000

1953

BDY. PEG 1.
Datum

Bdy. 12.31 m

Note:
Vehicle access off
Legal Road.
5.5m wide crossing.

Note:
Provide 1.8m high
screen fence to
proposed service area.

6m Set back Line

Set-out line.

7215

4000

1500

C.P.

Driveway.
88 m2

6927

O.R.G.
I.B.

11500

5600

T.V.

3100

15 m2
Service Court
D.P.

Zone Boundary

Top of Bank Line

85 m2
Living Court

Note:
Corner of proposed 1.3m
high deck encroaches 1.0m
into side boundary set back.
(1.4 m2)

4000

700

42.5m

Reserve
bed.

D.P.

PROPOSED
HOUSE

1st FL. Living Area...236.6 m2
Basement Area.....231 m2

22300

D.P.

D.P.

C.P.

I.J.

G.T.

I.J.

I.B.

11595

12711

8165

8526

Disposal beds.

Distribution box.

Bdy. 37.31 m

43.0m

Bdy. 57.00 m

Bdy. 3.61 m

BDY.
PEG 2

R.O.W.

Existing crossing.

S.H. 26

43.5m

BDY. PEG 3.
(Pin in R.O.W.)

15439

29419

Bdy. 37.22 m

Bdy. 3403 m

LOT 2
D.P. 556335
Area 3389 m2
(LLRZ 1490m2 + EPO 1899m2)

Lot 2 DP 556
3389

50mm dia.
vent.

W.C.

40

100

40

40

40

40

100mm dia.
stack pipe.

100mm dia.
floor waste.

100mm drain in
Basement slab.

First Floor Bathroom
Drainage Isometric.

50mm dia. T.V.
through roof.

W.C.

ENSUITE.

40

40

40

40

100

100mm dia.
stack pipe.

100mm drain in
Basement slab.

First Floor Ensuite
Drainage Isometric.

Wind Zone: High
EQ Zone: 1
Corrosion: B
Lot Size: 3389 m2
LLRZ : 1489 m2
Allowable site coverage 20%: 298 m2
Actual site coverage 19%: 282 m2
Permable site area = 1115 m2 (75%)

Proposed 100 mm dia. subsoil drain behind retaining walls.

Proposed 100 mm dia. stormwater line with min. 1:90 fall.

Proposed 100 mm dia. sewer line with min. 1:60 fall.

Proposed 50 mm dia. thick walled alkathene LDPE pressure pipe.

SHEET INDEX:

Hamilton City Council
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Sanitary Sewer Note:
Sewer lines to discharge into
Engineer designed septic tank
system as shown.
Refer to Engineers Design Report
by TITUS Consulting Engineers
Ref. 11122

Stormwater Note:
Trickle feed and Roof water to discharge
into 2x25000L water tanks as shown with
over flow piped to the bottom of the gully
and discharge through a level spreader
onto an erosion control blanket of rock.
Refer to Engineers Design Report by
TITUS Consulting Engineers Ref. 11122
N.B. 50,000L caters for min. reservoir
capacity of 45,000L for Fire fighting
purposes as per Rule 25.13.4.4d

FIXTURE PIPE SIZES:

Basin	40mm dia. @ 1:40 fall
Bath	40mm dia. @ 1:40 fall
Shower	40mm dia. @ 1:40 fall
Sink	50mm dia. @ 1:40 fall
Tub	50mm dia. @ 1:40 fall
W.C. & waste pipes under conc. slab.	100mm dia. @ 1:60 fall

KEY:

T.V.	Terminal Vent
AAV	Air Admittance Valve
V	Vent
G.T.	Gully Trap
O.R.G.	Overflow Relief Gully
I.J.	Inspection Joint
I.B.	Inspection Bend
D.P.	100mm dia. Down Pipe

Note:
All foul water sanitary plumbing and drainage shall comply with AS/NZS 3500.
All stormwater drainage shall comply with NZBC E1 / AS1

All plumbing fixtures to be low flow and to have a min. 3 star rating to comply with NZ water efficiency scheme.

REVISION:	DATE:	REVISION NOTE:
A	28/1/22	Amendments for Resource Consent Application.

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PROPOSED CAMERON RESIDENCE AT LOT 2 SH26 HAMILTON.

SITE PLAN - GULLY PROTECTION OVERLAY

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:250	2107

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Wet Areas Note:
- All wet areas are to have approved safety glazing to windows and shower screens/doors and tiled or vinyl floors with tiled / painted finish to walls on 10mm Gib Aqualine wall lining and painted 13mm Aqualine ceiling linings to E3/AS1.
First Floor Bathroom, W.C. & Ensuite to have tiled floors Refer attached E3/AS1 Fig.1(b),Fig.3(b), Ens. tiled shower refer Fig.4(c). Basement Bathroom & L'dry. to have vinyl floors & cubical showers refer E3/AS1 Fig.1(a), Fig.3(b) & Fig.4(b). N.B. Main First floor Bathroom also has cubical shower (Fig.3(b))

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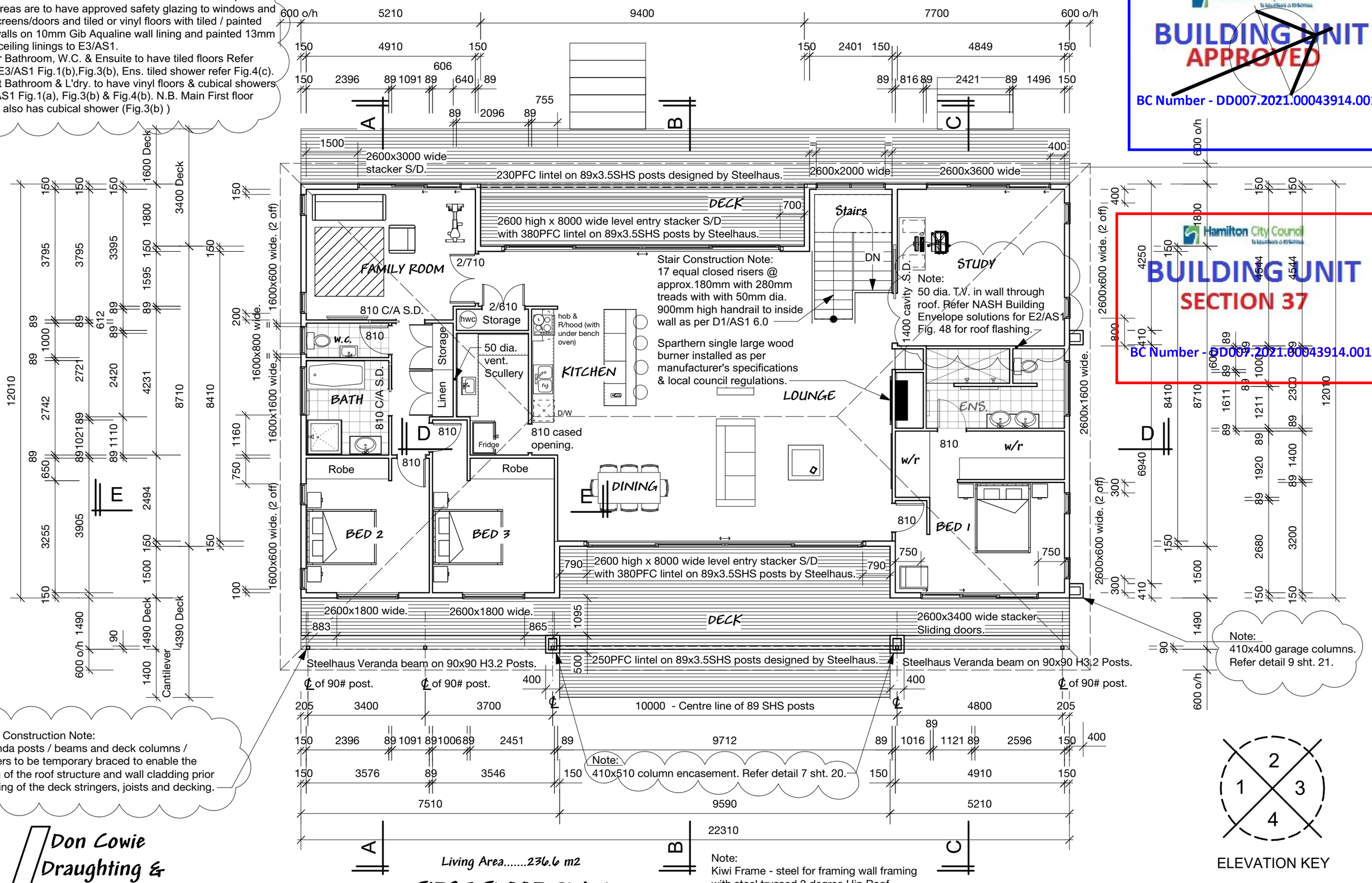

Hamilton City Council
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Deck Construction Note:
Veranda posts / beams and deck columns / bearers to be temporary braced to enable the fixing of the roof structure and wall cladding prior to fixing of the deck stringers, joists and decking.

Note:
Kiwi Frame - steel for framing wall framing with steel trussed 3 degree Hip Roof.

Living Area.....236.6 m2

FIRST FLOOR PLAN

ELEVATION KEY

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	28/1/22	Bathroom wet areas note, column note, Deck construction note & T.V. note added.

PROPOSED FIRST FLOOR PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

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Note:
2/290x45 SG8 H3.2 Deck Bearers
continuous over 2 spans supported
on 200 SED HDT driven piles.

Note:
Load bearing point for Steel frame lintel above by Steelhaus.

Note:
2600 high x 8000 wide stacker S/D at upper F.L.
with steel portal frame lintel above by Steelhaus.

1210Dx2010W opening. Masonry Lintel.
Refer Masonry Lintel detail 17, sht.17.
1-HD12 T&B R6-200 links.

810D x 810W Opening.
Refer Masonry Lintel detail 17,
sht.17. 1-HD12 T&B R6-200 links.

Note:
1.2m high retaining
wall refer detail 12
sht.17

1200Dx2600W Window
Lintel by Steelhaus.

2310D x 5010W Sectional door. Beam 4- 230PFC
beam on 89x89x6 SHS post each end. Refer sheet 18.

w.c.
BATH
810 cavity .S.D.
BED 4
Robe
BATH
810 cavity .S.D.
Note:
100mm dia.
stack pipe.
WORKSHOP
Load bearing Fire wall.
810 Fire door.
min. 30min.
Beam 1 - 410UB54 beam on
89x89x6 SHS post each end.
Refer sheet 18 & 19.
Note:
GBSA 60c (59 STC,
60/60 FRR) Two way
Noise Control, Fire rated
wall construction:
RUMPUS ROOM
LIVING
Stairs
Cloak
Room
L'dry.
810 cavity .S.D.
ENTRY
Load bearing wall.
Note:
100mm dia.
stack pipe.
DOUBLE GARAGE
2300x6000 S.D.
Beam 2 - 300 PFC beam on 89x89x6 SHS
post each end. Refer sheet 18 & 19.
Beam 3 - 230 PFC beam on
89x89x6 SHS post each end.
Refer sheet 18 & 19.
2300x3400 S/D
Lintel by Steelhaus.
Note:
2600 high x 8000 wide stacker S/D at upper F.L.
with steel portal frame lintel above by Steelhaus.
1000D x 2500W Window opening.
Lintel by Steelhaus.
6m Set back Line
Note:
Load bearing point for Steel portal
frame lintel above by Steelhaus.
Note:
If bearer is single span then it needs
to be 2/300x50 PL12 H3.2.
22310 O/A Steel Frame.
Top of Bank.
Note:
Kiwi Frame - steel for framing wall framing
with steel EZY JOIST mid floor framing.

Note:
2/290x45 SG8 H3.2 Deck Bearers
continuous over 2 spans supported
on 135x135 H3.2 PROLAM posts.

Entry / L'dry / Stairs Area.....31 m2
Workshop / Rumpus Area.....85 m2
Living Area.....60 m2
Garage Area.....55 m2
Total Basement Area....231.0 m2 (Outside block/Slab)

ELEVATION KEY

BASEMENT FLOOR PLAN

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

BASEMENT FLOOR PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

DWG No. 3 REV
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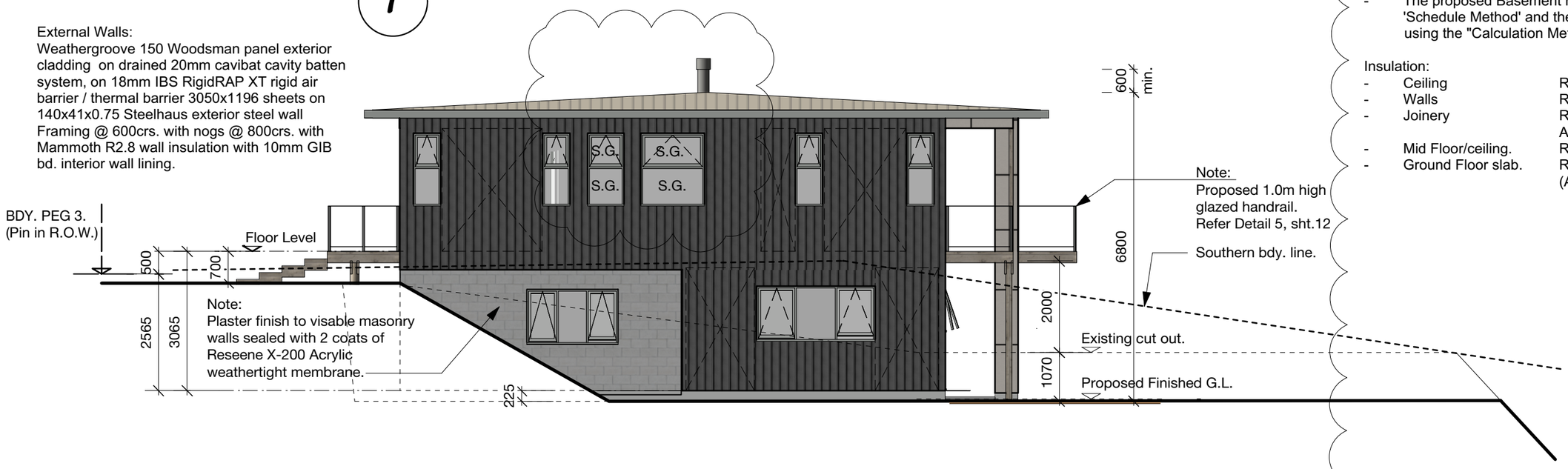
1

External Walls:
Weathergroove 150 Woodsman panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

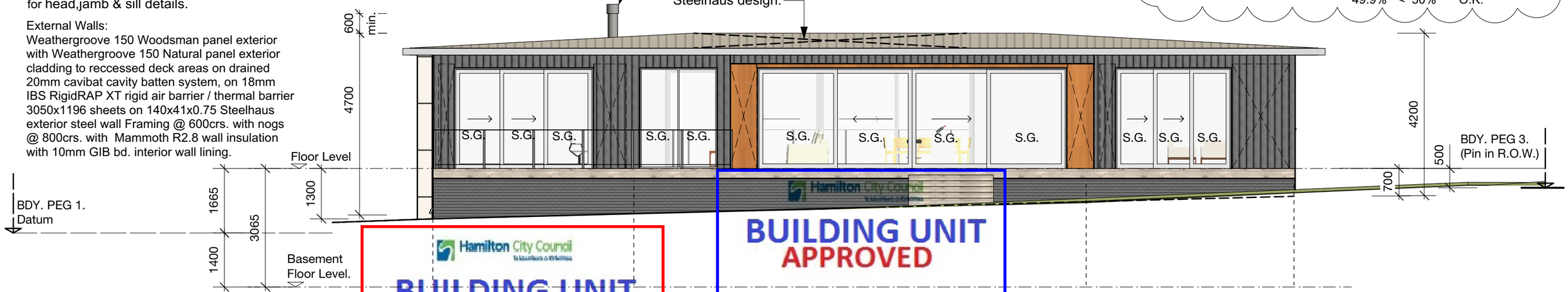


2

Colorsteel Trapazoidal longrun roofing iron on 3 degree hip roof with colorstel 185 metal fascia and external box guttering.

Aluminium joinery. (Double glazed)
Refer to spec. for NASH Building Envelope solutions for E2/AS1 Fig. 107 and clause 9.8.8 for head,jamb & sill details.

External Walls:
Weathergroove 150 Woodsman panel exterior with Weathergroove 150 Natural panel exterior cladding to reccessed deck areas on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.



Insulation Notes: Compliance with H1

- The proposed Basement meets the critera required by using the 'Schedule Method' and the First Floor level meets the criteria by using the "Calculation Method" (refer attached calc's.)

Insulation:

-	Ceiling	R3.1 -R3.2 'Mammoth' Insulation.
-	Walls	R2.0 -R2.8 'Mammoth' Insulation.
-	Joinery	R0.26 - Clear double glazed with Aluminium frame.
-	Mid Floor/ceiling.	R3.1 -R3.2 'Mammoth' Insulation.
-	Ground Floor slab.	R1.3 -Conc. slab on DPM. (Area/perimeter ratio=2.8)

Basement Floor Level 'Schedule Method':

NORTH ELEVATION:
Wall area 31m2
Joinery area 1.9m2
6% < 30% O.K.

COMBINED WEST, EAST & SOUTH ELEVATIONS:
Wall area 150m2
Joinery area 31.4m2
21% < 30% O.K.

TOTAL ELEVATIONS:
Wall area 181m2
Joinery area 33.3m2
18% < 30% O.K.

'H1 - First Floor Level':

TOTAL ELEVATIONS:
Wall area 200m2
Joinery area 99.8m2
49.9% < 50% O.K.

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Note:
S.G. - shown on elevations denotes required safety glazing to comply with NZS 4223.3:2016

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PROPOSED ELEVATIONS

PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	28/1/22	Safety glass to elevation 1 wet areas. H1 Compliance. notes amended.

PROPOSED ELEVATIONS 1 & 2

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

DWG No. 4 A REV
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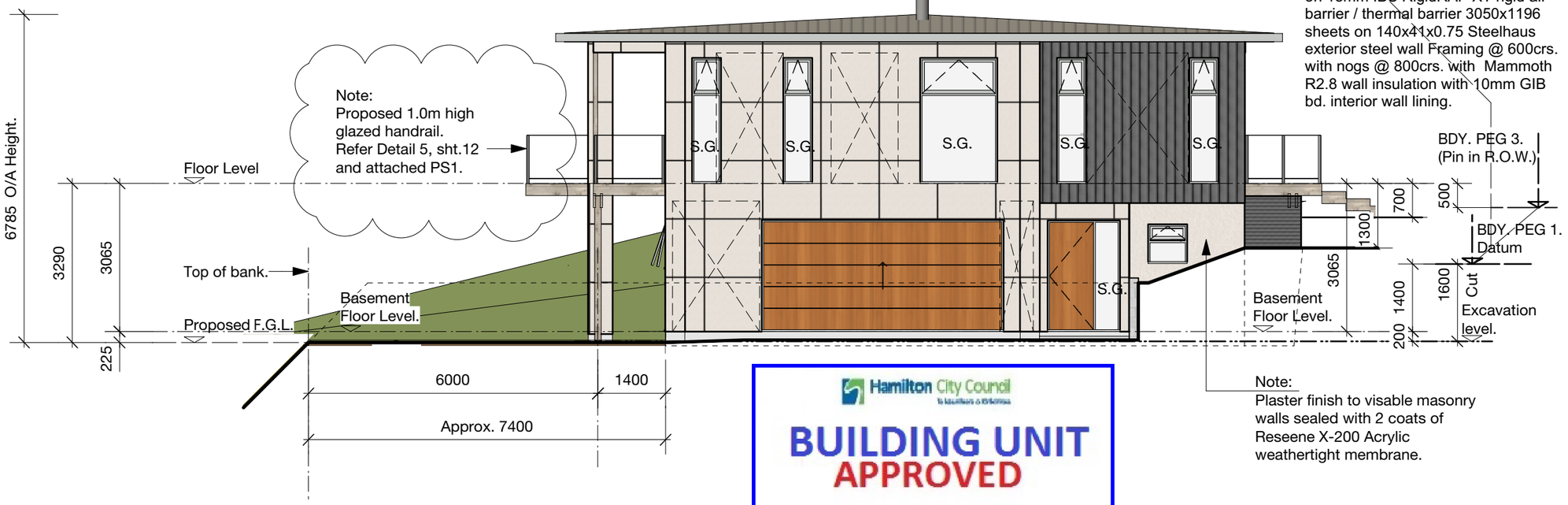
Colorsteel Trapazoidal longrun roofing iron on 3 degree hip roof with colorstel 185 metal fascia and external box guttering.

Aluminium joinery. (Double glazed) Refer to spec. for NASH Building Envelope solutions for E2/AS1 Fig. 107 and clause 9.8.8 for head,jamb & sill details.

North Facing External Feature Wall:
Weathergroove 1200 Smooth panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

3



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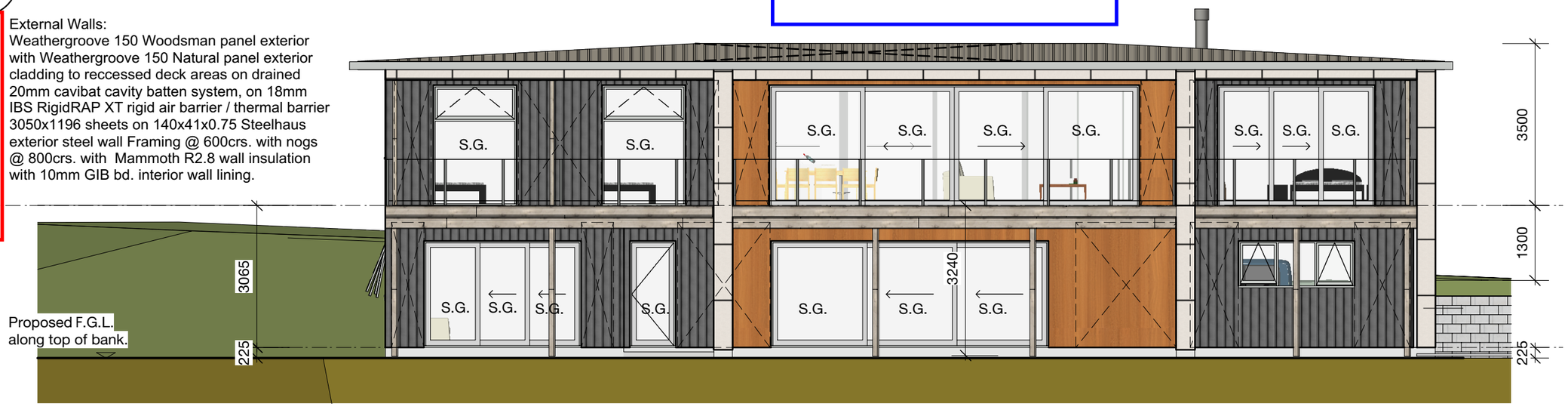
4

Hamilton City Council

BUILDING UNIT SECTION 37

BC Number - DD007.2021.00043914.001

External Walls:
Weathergroove 150 Woodsman panel exterior with Weathergroove 150 Natural panel exterior cladding to reccessed deck areas on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.



PROPOSED ELEVATIONS

Note:
S.G. - shown on elevations denotes required safety glazing to comply with NZS 4223.3:2016

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	28/1/22	PS1 reference on handrail note.

PROPOSED ELEVATIONS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

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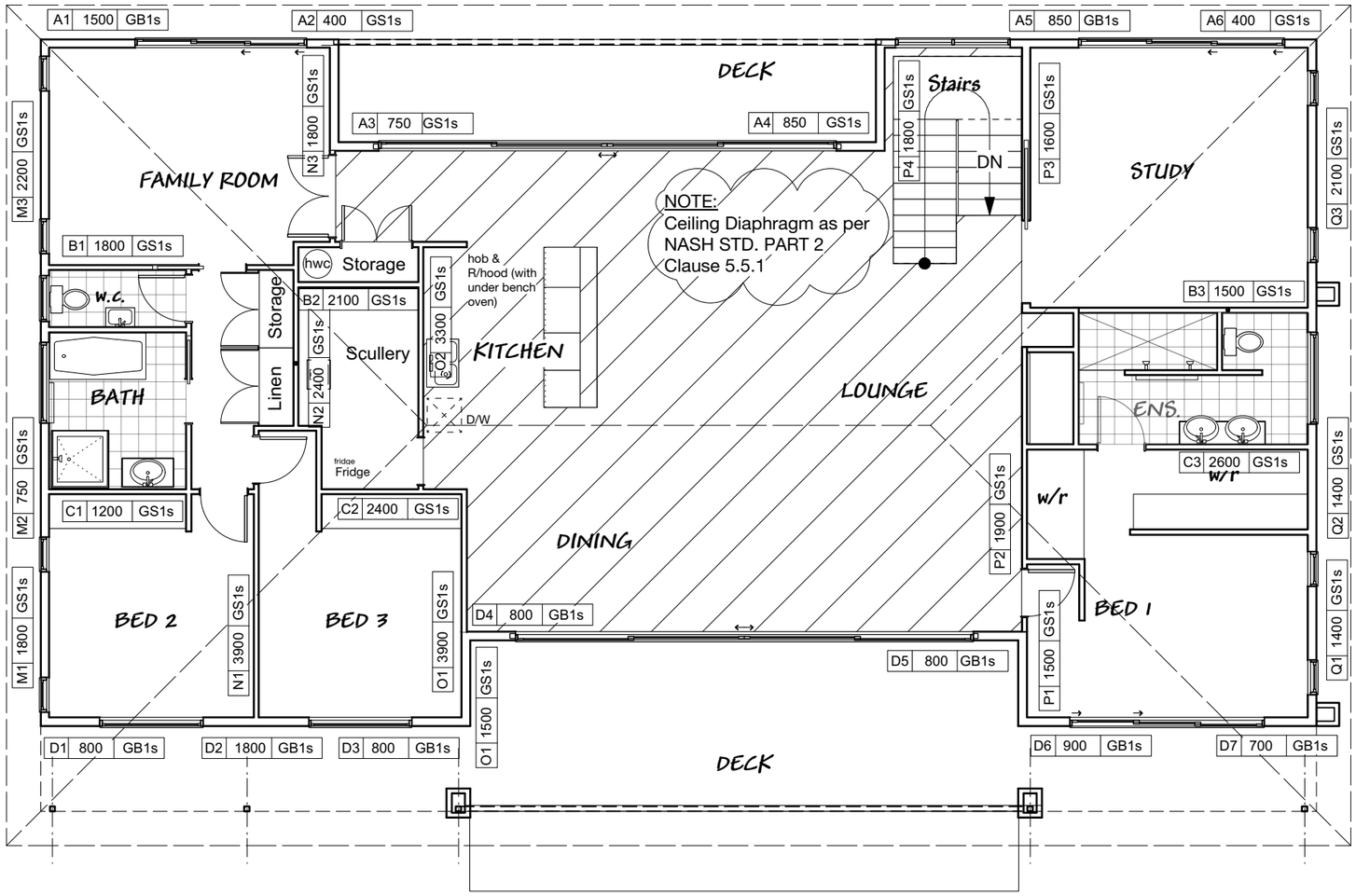

NOTE:
Wall Bracing as per NASH STD. PART 2
Clause 5.0 to 5.5

Wind Zone: Very High

WALL BRACING PLAN

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	28/2/22	Wall Bracing designed to NASH STD. PART 2.

FIRST FLOOR WALL BRACING PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

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600 o/h | 1490 | 90 | 150 | 5mm framing overhang.

13500 O/A Truss.

12010 O/A framing.

12000 - O/A Basement Foundation

600 o/h | 150 | 5mm framing overhang.

Foundation.

Foundation / Blockwall.

Note:
Steelhaus Engineer designed beams project into truss roof framing.

3°

Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

Aluminium joinery (Double glazed)

External Walls:
Weathergroove 150 Woodsman panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

90x90 H3.2 Prolam verandah posts.

Note:
Proposed 1.0m high glazed handrail.
Refer Detail 5, sht.12

1 sht.11

3 sht.11

Internal Walls:
89x41x0.75 Steelhaus interior steel wall Framing @ 600crs. with nogs @ 1350crs. with 10mm GIB bd. interior wall lining fixed horizontal.

20mm Plywood flooring on EJ290x2.5 EZYJOIST @ 450crs. floor joists

190x45 SG8 H3.2 tan. Deck joists @ 400crs.

Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 135x135 H3.2 Prolam posts with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers. Fix posts to foundation beam with cast in Bowmac BS197 bracket and s.s. bolts & washers.

GBSJA 45 (55 STC, 45/45/45 FRR) Noise Control, Fire rated ceiling construction:
2 layers of 13mm Gib Fyreline on Gib Rondo metal battens @ 600crs. on Gib Quiet clips.
Mammoth R3.2 cieling insulation.

BED 2 | LIVING AREA | BEDROOM | FAMILY | BATH

F.L. to u/s Trusses. 2755

F.L. to u/s EZYJOISTS. 2755

2600 - Joinery head height.

20 | 290 | 45 | 310 | 2800 | 90 | 360 | 150 | 300

3065

250 | 400 | 450 | 400 | 200 | 400 | 400

200 SED HDT H5 treated pile.
Min. 3.6m embedment, pre-drilled 2.5m.

11 Sht.16

200 | 1350 | 250 | 1800

* 200 SED HDT H5 treated pile.
MIn. 5m embedment, pre-drilled 3.5m.

SECTION A-A

200 SED HDT H5 treated pile.
Min. 3.6m embedment, pre-drilled 2.5m.

250 SED HDT H5 treated pile.
Min. 3.6m embedment, pre-drilled 2.5m.

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PROPOSED CAMERON RESIDENCE AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

SECTIONS A-A

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50	2107

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Hamilton City Council
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Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

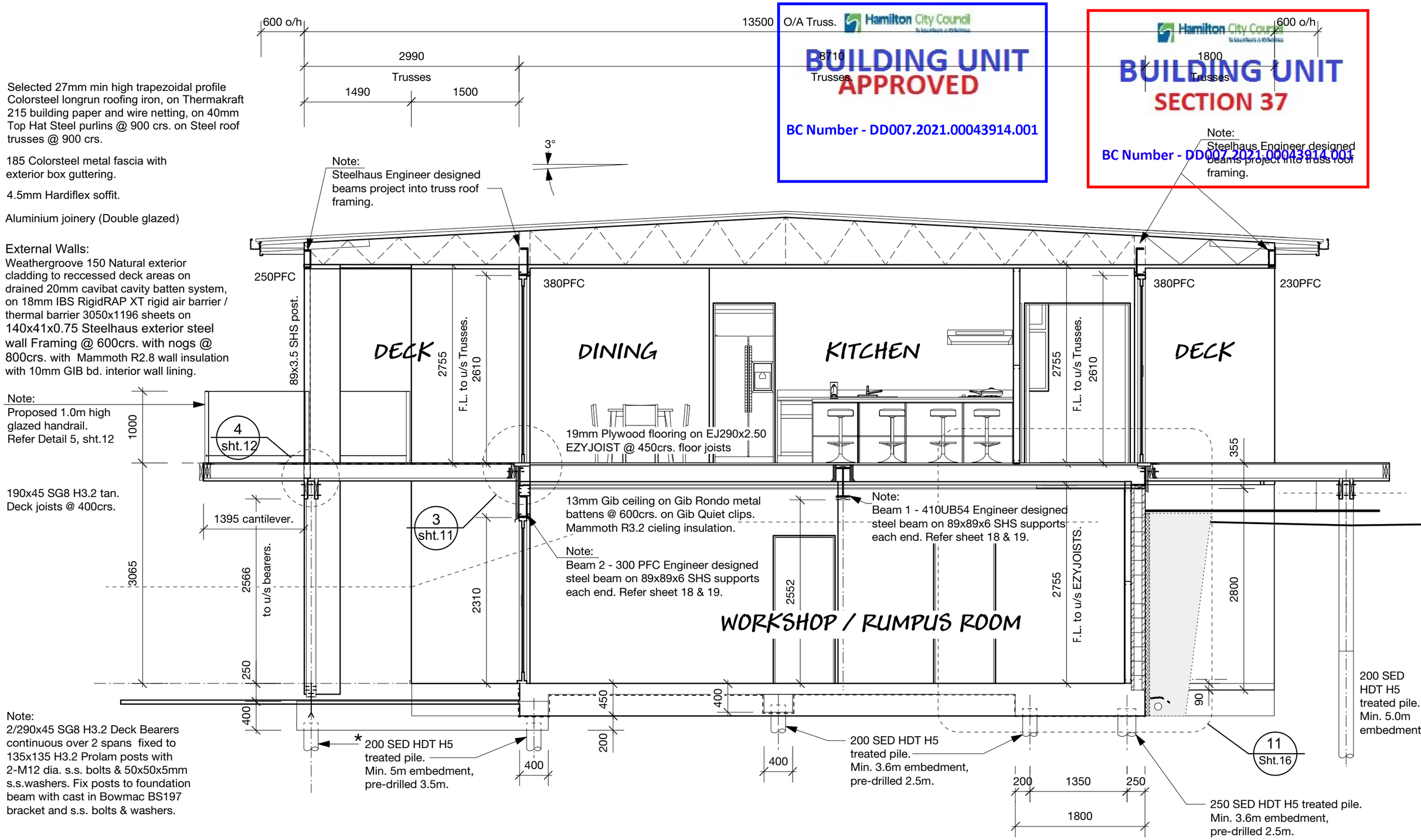
Aluminium joinery (Double glazed)

External Walls:
Weathergroove 150 Natural exterior cladding to reccessed deck areas on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

Note:
Proposed 1.0m high glazed handrail.
Refer Detail 5, sht.12

190x45 SG8 H3.2 tan.
Deck joists @ 400crs.

Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 135x135 H3.2 Prolam posts with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers. Fix posts to foundation beam with cast in Bowmac BS197 bracket and s.s. bolts & washers.



SECTION B-B

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

SECTIONS B-B

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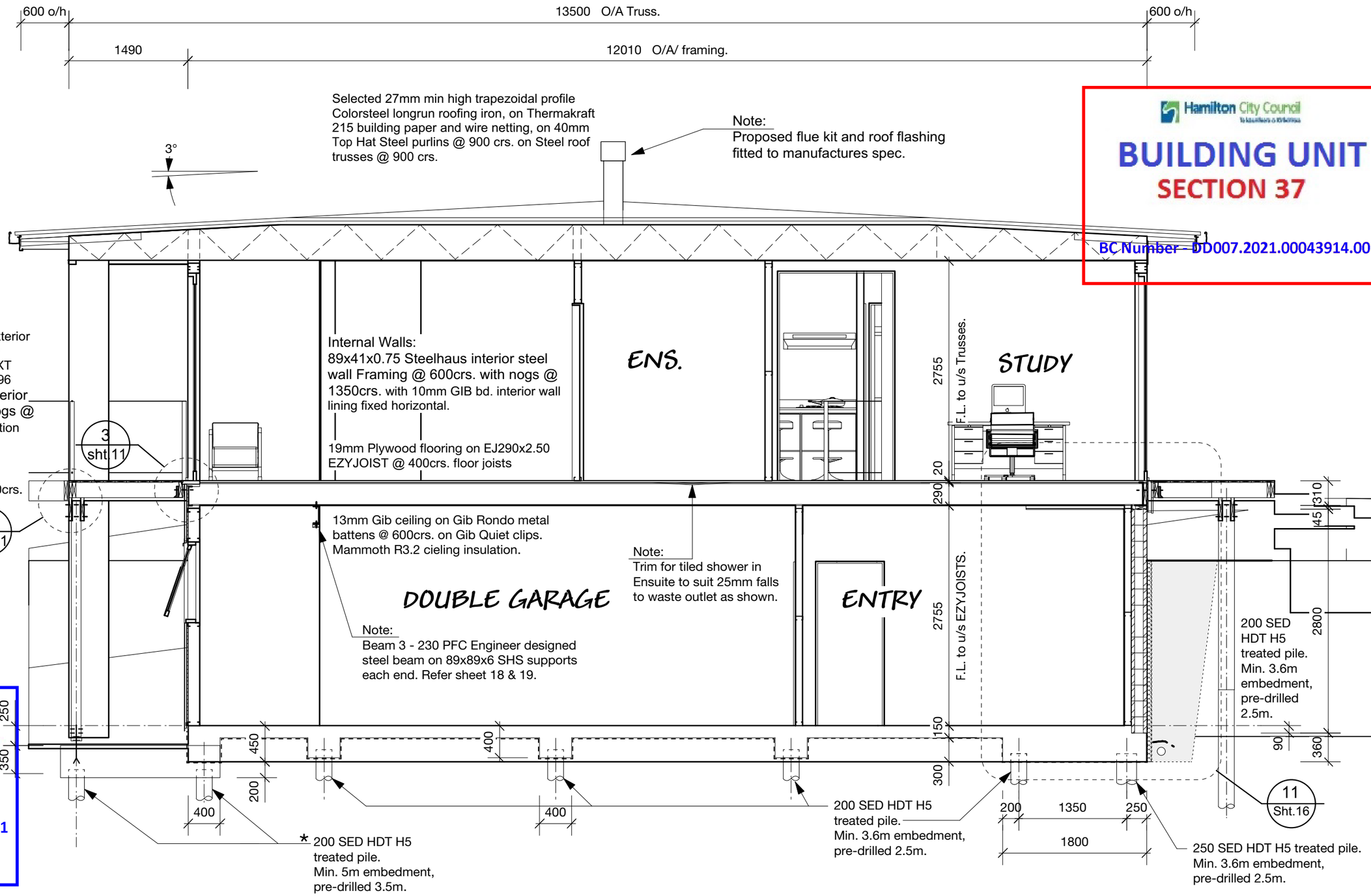
D. Cowie	D. Cowie	3/12/21	1:50	2107

DWG No. 8 REV
OF 22



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SECTION C-C

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

SECTION C-C

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50	2107

DWG No. 9 REV
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Hamilton City Council

BUILDING UNIT
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BC Number - DD007.2021.00043914.001

Hamilton City Council

BUILDING UNIT
SECTION 37

BC Number - DD007.2021.00043914.001

Note:
Proposed timber barge flashing fitted to manufactures spec.

185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

Aluminium joinery (Double glazed)

North Facing External Feature Wall:
Weathergroove 1200 Smooth panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

600 o/h

13mm GIB ceiling lining on 35x70 ceiling battens 600crs.

Note:
2600x8000 wide Sliding doors. with Steelhaus designed lintel.

Scullery

KITCHEN

LIVING

BED 1

22755 F.L. to u/s Trusses.

Internal Walls:
89x41x0.75 Steelhaus interior steel wall Framing @ 600crs. with nogs @ 1350crs. with 10mm GIB bd. interior wall lining fixed horizontal.

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 450crs. floor joists

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 400crs. floor joists

2755 F.L. to u/s Trusses.

290 20

Beam 1 - 410UB54 Engineer designed steel beam on 89x89x6 SHS post supports. Refer sheet 18 & 19.
N.B. Taking Floor Load only.

Beam 4 - 230PFC on 89x89x6 SHS supports each end. Refer sheet 18 & 19.
3410x5010 opening.

3065 F.L. to F.L.

2755 F.L. to u/s EZYJOISTS.

2755

3065

WORKSHOP / RUMPUS ROOM

DOUBLE GARAGE

Note:
GBSA 60c (59 STC, 60/60 FRR) Two way Noise Control, Fire rated wall construction:
1 layer of 13mm Gib Fyreline on one side of seperated double metal frame wall and 2 layers of 10mm std. Gib on the other with min. 1 layer R1.8 pink Batts sound insulation.

Note:
P1 200 SED H5 treated pile.
Min. 3.6m embedment, pre-drilled 2.5m.

SECTION D-D

Don Cowie
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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

SECTION D-D

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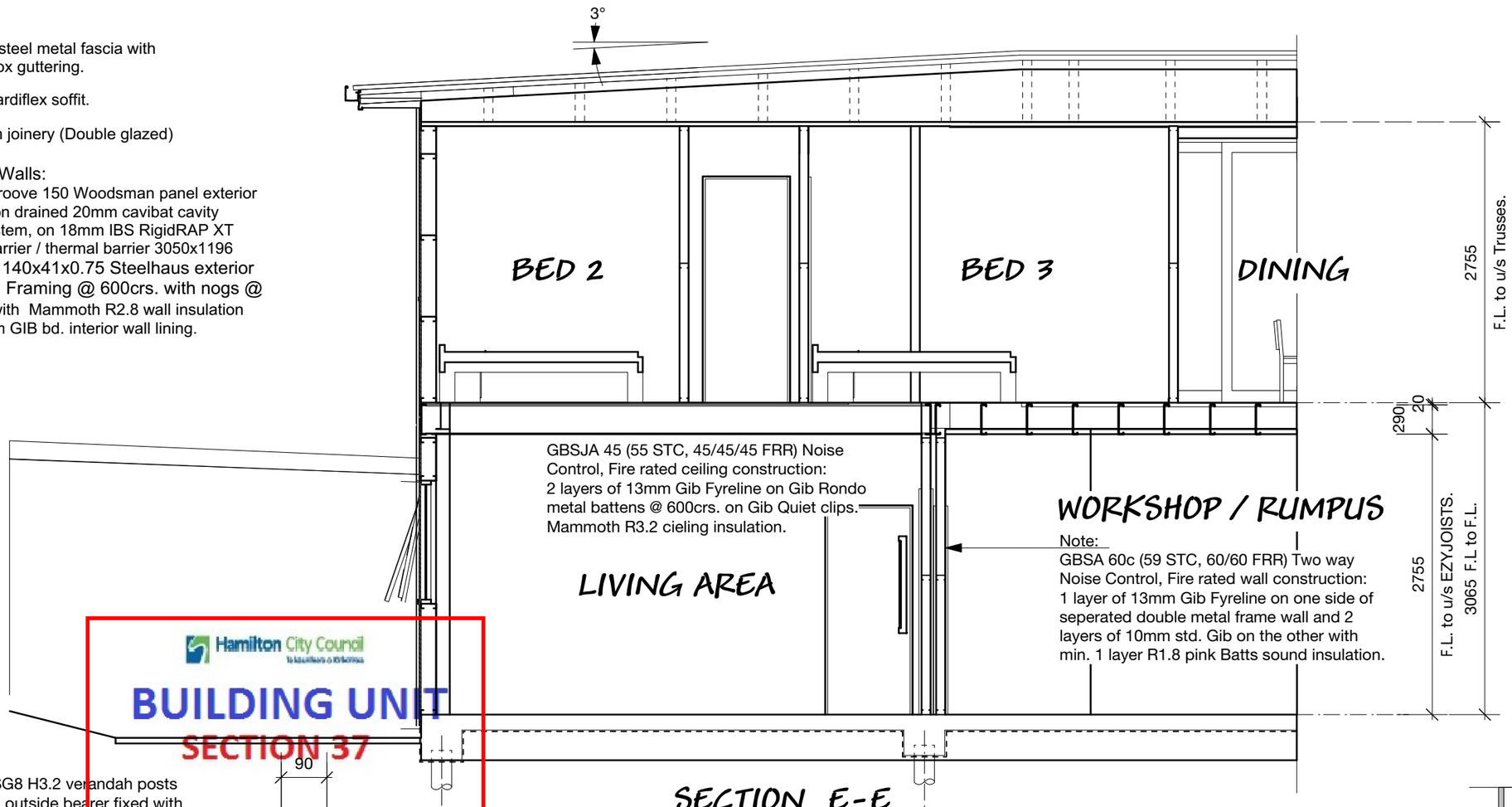
185 Colorsteel metal fascia with exterior box guttering.

4.5mm Hardiflex soffit.

Aluminium joinery (Double glazed)

External Walls:
Weathergroove 150 Woodsman panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.



Selected 27mm min high trapezoidal profile Colorsteel longrun roofing iron, on Thermakraft 215 building paper and wire netting, on 40mm Top Hat Steel purlins @ 900 crs. on Steel roof trusses @ 900 crs.

Internal Walls:
89x41x0.75 Steelhaus interior steel wall Framing @ 600crs. with nogs @ 1350crs. with 10mm GIB bd. interior wall lining fixed horizontal.

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 450crs. floor joists

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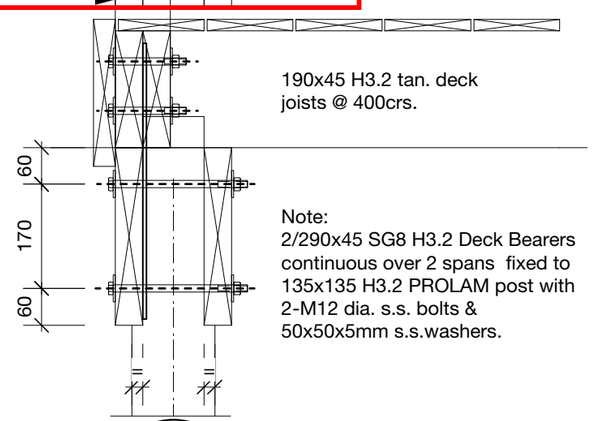
Note:
90x90 SG8 H3.2 verandah posts to sit on outside bearer fixed with 450x75x6mm S.S. plate with 4-M12 dia. s.s. bolts & 50x50x5mm s.s.washers.

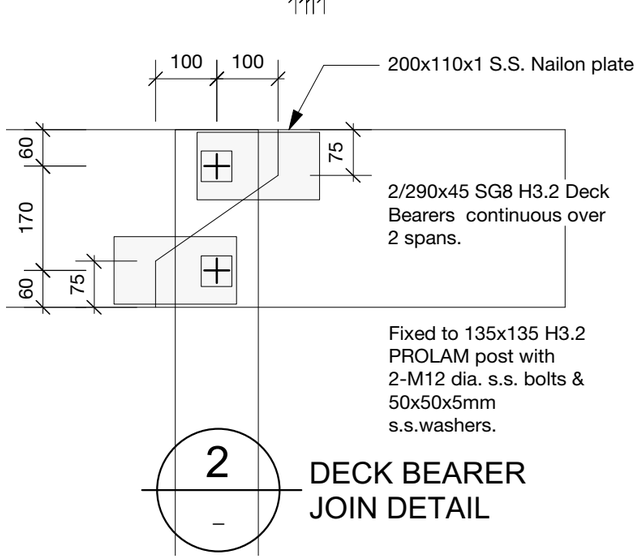
SECTION E-E



190x45 H3.2 tan. deck joists @ 400crs.

Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 135x135 H3.2 PROLAM post with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers.

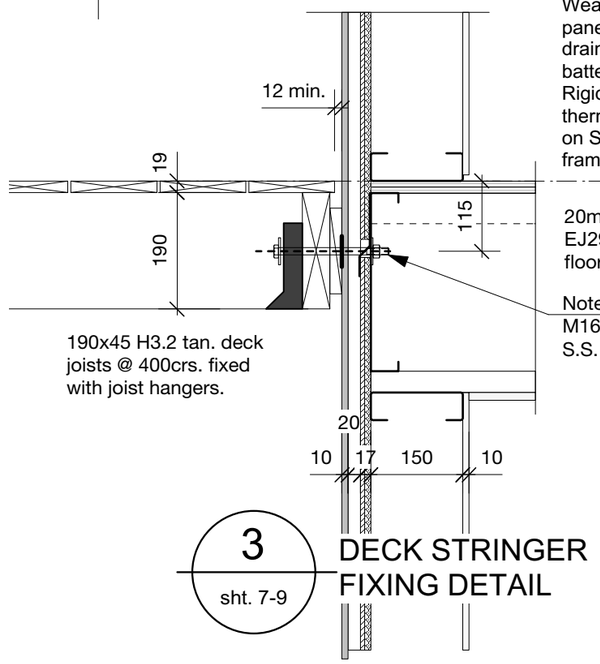
1 / sht. 7-9 DECK BEARER FIXING DETAIL



2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans.

Fixed to 135x135 H3.2 PROLAM post with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers.

2 / – DECK BEARER JOIN DETAIL



190x45 H3.2 tan. deck joists @ 400crs. fixed with joist hangers.

Weathergroove 150 Woodsman panels exterior cladding with Weathergroove 150 Natural to reccessed deck areas and Weathergroove 1200 smooth panels to Northern Elevation on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on Steelhaus 150mm Metal framing.

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 450crs. floor joists

Note:
M16 dia. S.S. bolts with 50x50x3 S.S. washers @ 900crs. max.?

3 / sht. 7-9 DECK STRINGER FIXING DETAIL

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

SECTION E-E & DETAILS

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Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 200 SED HDT Pile (5m embedment) with 2-M16 dia. s.s. bolts & 50x50x5mm s.s.washers.

11 sht.16 similar

17 sht.17 Lintel

10 sht.16 similar

Note:
100mm dia. floor waste.

DECK
190x45 SG8 H3.2 tan. Deck joists @ 400crs.

Stairwell

Note:
100mm dia. stack pipe.

Load bearing wall.

Load bearing Fire wall.

Load bearing wall.

Beam 1 - 410UB54 beam on 89x89x6 SHS post each end.

TIMBER FLOOR

Note:
100mm dia. stack pipe.

Load bearing wall.

Note:
Ensuite tiled shower to be entry level.

Beam 4- 230PFC beam on 89x89x6 SHS post each end.

Beam 2 - 300 PFC beam on 89x89x6 SHS post each end.

Beam 3 - 230 PFC beam on 89x89x6 SHS post each end.

DECK
190x45 SG8 H3.2 tan. Deck joists @ 400crs.

℄ of posts.

℄ of posts.

℄ of posts.

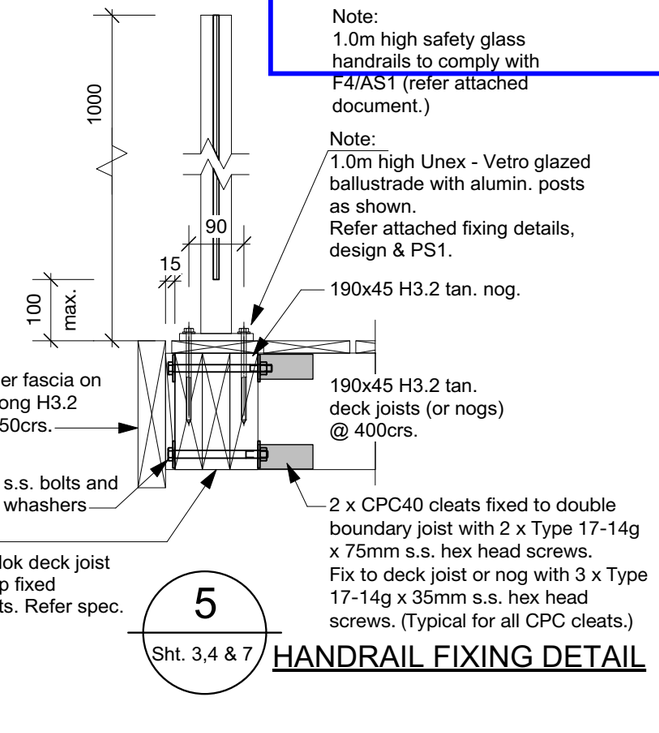
Note:
2/290x45 SG8 H3.2 Deck Bearers continuous over 2 spans fixed to 135x135 H3.2 PROLAM posts with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers. Fix posts to foundation beam with cast in Bowmac BS197 bracket and s.s. bolts & washers.

9515 - Cantilevered deck joists.

10000 - Centre line of 89 SHS posts

Note:
EJ290x2.50 EZYJOIST @ 400 & 450crs.
Refer SteelHaus dwgs. J000608 / A06

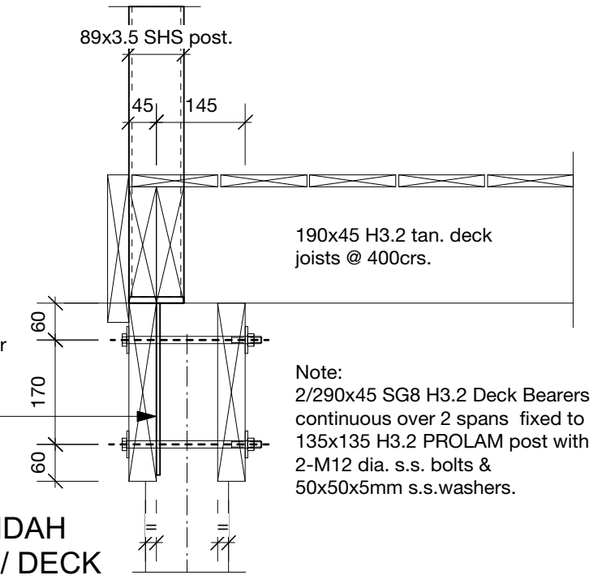
Note:
89x3.5 SHS posts supporting 250PFC verandah beam to sit on outside bearer with cleat welded to bottom of base plate and fixed with 2-M12 dia. s.s. bolts & 50x50x5mm s.s.washers.



Note:
1.0m high safety glass handrails to comply with F4/AS1 (refer attached document.)

Note:
1.0m high Unex - Vetro glazed ballustrade with alumin. posts as shown.
Refer attached fixing details, design & PS1.

5 Sht. 3,4 & 7 HANDRAIL FIXING DETAIL



4 sht. 8 STEEL VERANDAH BEAM POSTS / DECK BEARER FIXING DETAIL

MID FLOOR FRAMING PLAN

Don Cowie Draughting & Design Services Ltd
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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:

MID FLOOR FRAMING PLAN

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BLOCKWALL LEDGEND:

- Retaining Wall 1
- Retaining Wall 2
- Retaining Wall 3

Retaining Wall 1:
Max. 2.4m retaining height. 5.0 KPa Surcharge. 190 Blockwork.
HD16-200 vert. & HD12-400 horiz.
1.8m x 0.3m footing.

Retaining Wall 2:
Max. 1.6m retaining height.
5.0 KPa Surcharge.
190 Blockwork.
HD12-400 vert. & HD12-400 horiz.
1.2m x 0.3m footing.

Retaining Wall 3:
Max. 1.2m retaining height.
5.0 KPa Surcharge.
190 Blockwork.
HD12-400 vert. & HD12-400 horiz.
1.0m x 0.3m footing.

Retaining Wall 2:
Max. 1.6m retaining height.
5.0 KPa Surcharge.
190 Blockwork.
HD16-400 vert. &
HD12-400 horiz.
1.2m x 0.3m footing.

Note:
100mm dia. S.S. stack pipe drain under slab.

Note:
100mm dia. S.S. stack pipe drain under slab.

D10 @ 300crs., 2000 long over footing beams.

D10 @ 300crs., 2000 long over footing beams.

150 mm thick reinf.conc. floor slab reinf. with 1 layer SE 82 mesh (central) on d.p.c. on compacted sand blinding base.

Note:
Load bearing points for 2600 high x 8000 wide stacker S/D at upper F.L. with steel posts and beam by Steelhaus.

Note:
Load bearing points for steel posts and beam by Steelhaus . (posts fixed to bearer at deck level.)

Block wall

Masonry block wall.

12000 O/A Basement Slab

G.T.

ORG.

sawcut.

similar

PILE LEGEND:

- 200 SED HDT Pile, 5m min. embedment, pre-drilled 3.5m.
- 200 SED HDT Pile, 3.6m embedment, pre-drilled 2.5m.
- 250 SED HDT Pile, 3.6m embedment, pre-drilled 2.5m.

Note:
All piles to be High Density Piles.
All Footing beams are 400W x 400D
All Retaining wall footings are 300 deep.
Refer to notes on sheet 15.

ELEVATION KEY

Hamilton City Council
Te Kaunihera o Kirikiriroa

BUILDING UNIT APPROVED
22300 O/A Basement Slab
BC Number : DH01/2021/0004392/1001

BASEMENT / FOUNDATION PLAN

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:

BASEMENT / FOUNDATION PLAN

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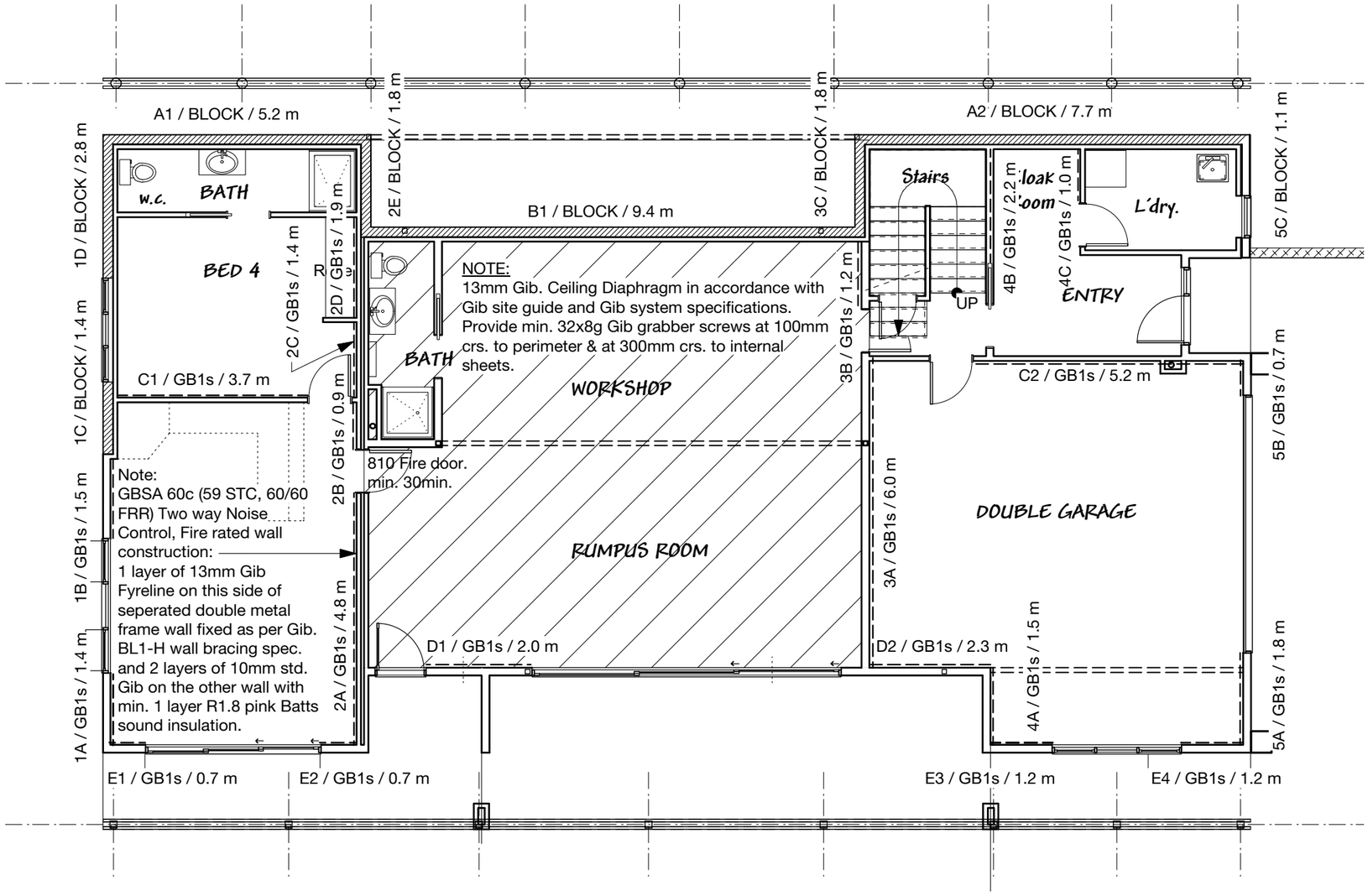

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Note:

Refer to Gib Ezy Brace literature for full system installation details.

BASEMENT WALL BRACING LEGEND:

Brace Type	Lining requirement	Bottom plate fixing
GB1s	Min 10mm Gib Braceline on one side.	Gib EzyBrace end brace hold down washer as per NASH Gib System Specifications
BLOCK	190 series concrete blockwall.	N/A

BASEMENT WALL BRACING PLAN

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BASEMENT WALL BRACING PLAN

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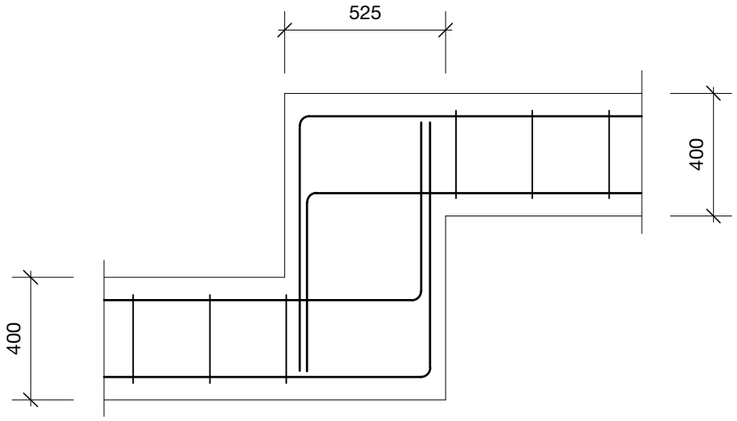
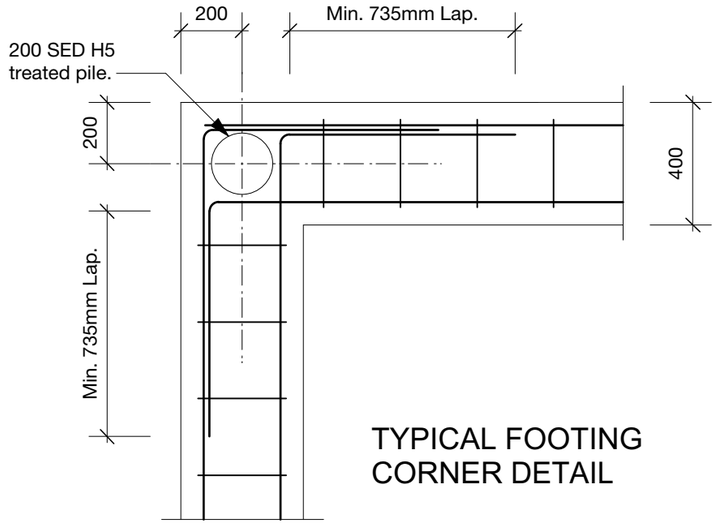
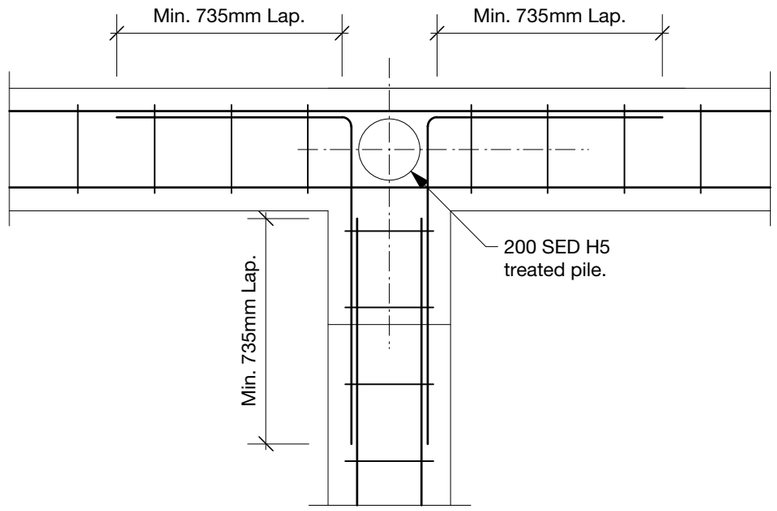


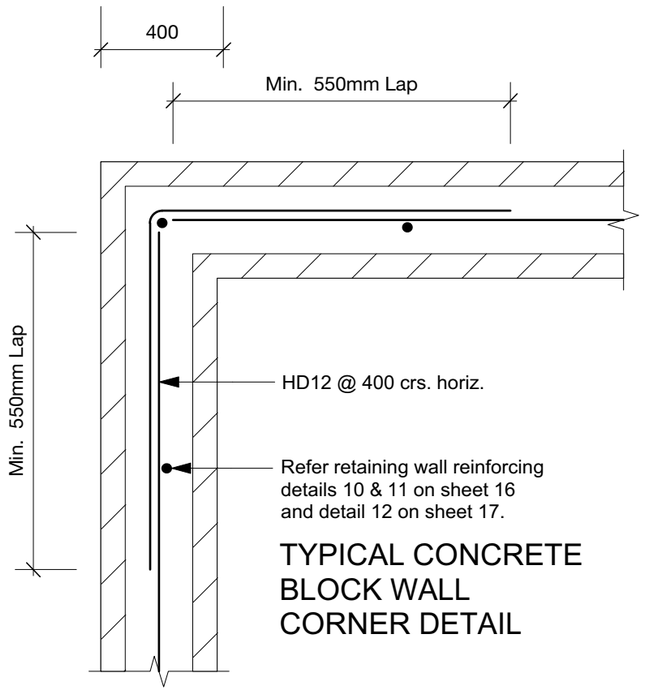
FOOTING STEP ELEVATION



TYPICAL FOOTING
CORNER DETAIL



TYPICAL FOOTING
INTERSECTION DETAIL



TYPICAL CONCRETE
BLOCK WALL
CORNER DETAIL

CONCRETE NOTES

1. CONCRETE TO BE 20MPa
2. ALL STEEL INCLUDING MESH SHALL BE DUCTILITY CLASS E IN ACCORDANCE WITH NZS 4671
3. BAR REINFORCEMENT SHALL BE GRADE 500 UNO.
4. LAP MESH 225mm MINIMUM OR GREATER IF MANUFACTURER RECOMMENDS.
5. CONCRETE PLACING, FINISHING & CURING SHALL BE IN ACCORDANCE WITH NZS3109:1997.
6. CURING OF THE CONCRETE MUST TAKE PLACE IMMEDIATELY AFTER FINISHING THE CONCRETE BY PONDING OR CONTINUOUSLY SPRINKLING OF WATER.
7. SHRINKAGE CONTROL JOINTS: GENERALLY SAW CUTS ARE TO COINCIDE WITH MAJOR CHANGES IN PLAN. WHERE THE CONCRETE IS TO BE EXPOSED OR BRITTLE COVERING PLACED OVER, SPACED AT 6m CENTRES MAXIMUM TO CREATE BAYS WITH LENGTH: WIDTH RATIO OF 2:1.
8. SHRINKAGE CONTROL JOINTS SHALL BE FORMED BY SAW CUTTING 25mm DEEP AFTER CONCRETE HARDENING AND NO LATER THEN 24 HOURS.
9. PLUMBING & SERVICES SHALL BE CONVEYED UNDERGROUND TO THEIR PLAN LOCATION AND THEN BROUGHT UP THROUGH THE SYSTEM. AT NO STAGE SHALL ANY OF THE REINFORCEMENT BARS BE RELOCATED OR CUT TO ALLOW FOR THE SERVICES. SERVICES ARE TO BE PLACED CENTRALLY WITHIN AN OPENING 50mm GREATER IN DIAMETER THAN THE PIPE. HORIZONTAL PENETRATIONS THROUGH BEAMS SHALL BE LOCATED IN THE CENTRAL THIRD. ALL PIPES SHALL BE WRAPPED IN DENSO TAPE AND THE GAP SEALED WITH COMPRESSIVE FOAM.
10. PROVIDE MIN. 75MM COVER TO FOOTING REINFORCEMENT.

PILE NOTES

1. ALL PILES TO BE PLACED SMALL END DOWN AND DRIVEN TO THE FOLLOWING CRITERIA;
   200 SED PILES:
   HAMMER WEIGHT = 500kg
   DROP = 1.0m
   SET = 15mm / BLOW
   250 SED PILES:
   HAMMER WEIGHT = 500kg
   DROP = 1.0m
   SET = 10mm / BLOW
2. MINIMUM PILE EMBEDMENT DEPTH TO BE 5m min. for leading edge piles.
3. PRE-DRILL HOLES 2.5m. CARE IS TO BE TAKEN WHEN DRIVING PILES IN TERMS OF VIBRATION EFFECTS ON ADJACENT STRUCTURES & SERVICES
4. ENGINEER TO OBSERVE THREE TEST PILES AT OPPOSITE ENDS OF THE SITE
5. DRAWINGS TO BE READ IN CONJUNCTION WITH TITUS CONSULTING ENGINEERING ASSESSMENT AND DESIGN REPORT 11122 DATED 19 JUNE 2020
6. CUT TOP SURFACES ON PILES TO BE TREATED WITH TWO COATS OF METALEX
7. ALL PILES TO BE HIGH DENSITY PILES
8. ALL PILES TO BE TREATMENT CLASS H5
9. BACKFILL HOLES AROUND LEADING EDGE PILES WITH LOOSE SAND OR CONCRETE TO ENSURE NO VOIDS ARE PRESENT.

MASONRY NOTES

1. ALL MASONRY WALL SHALL BE LAID STRETCHER (RUNNING) BOND
2. ALL MASONRY GROUT TO BE 20MPa MIN. STRENGTH AFTER 28 DAYS
3. ALL GROUTING SHALL BE CARRIED OUT USING THE HIGH LIFT GROUTING METHOD
4. ALL MASONRY UNITS SHALL BE SOLID FILLED WITH GROUT
5. ALL WALL ENDS TO BE TRIMMED WITH HD12 BAR (U.N.O.) ALL WALLS TO HAVE HD12 BOND BEAM AT TOP UNO
6. PROVIDE CONTROL JOINTS: - MAXIMUM 5.0m CENTRES OR ONE SIDE OF DOOR OPENINGS
7. CONTROL JOINTS ARE NOT REQUIRED IN RETAINING WALLS (U.N.O.)
8. ALL HORIZONTAL AND VERTICAL WALL REINFORCEMENT TO HAVE 200mm HOOK RETURN ENDS

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

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FOUNDATION NOTES & DETAILS

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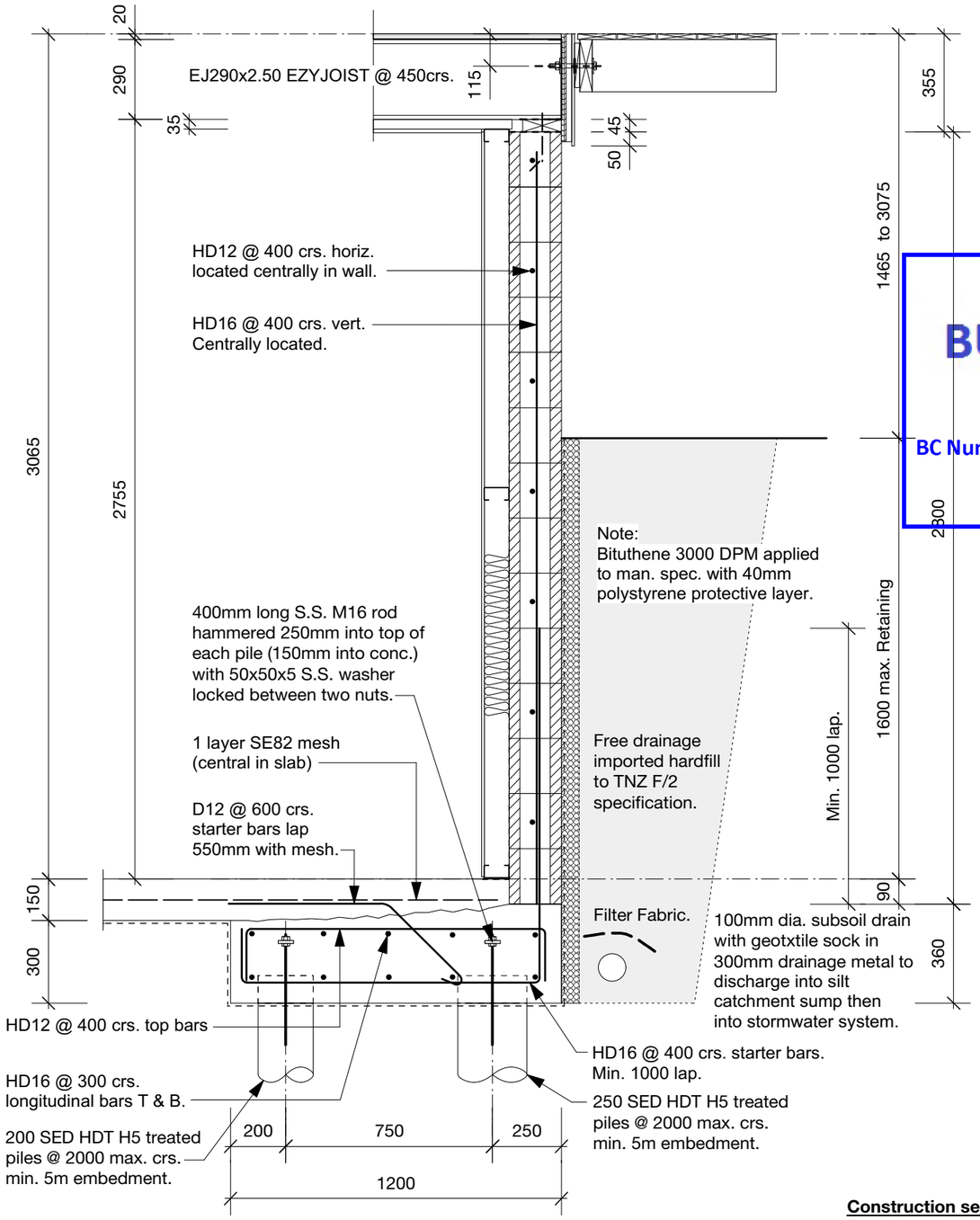

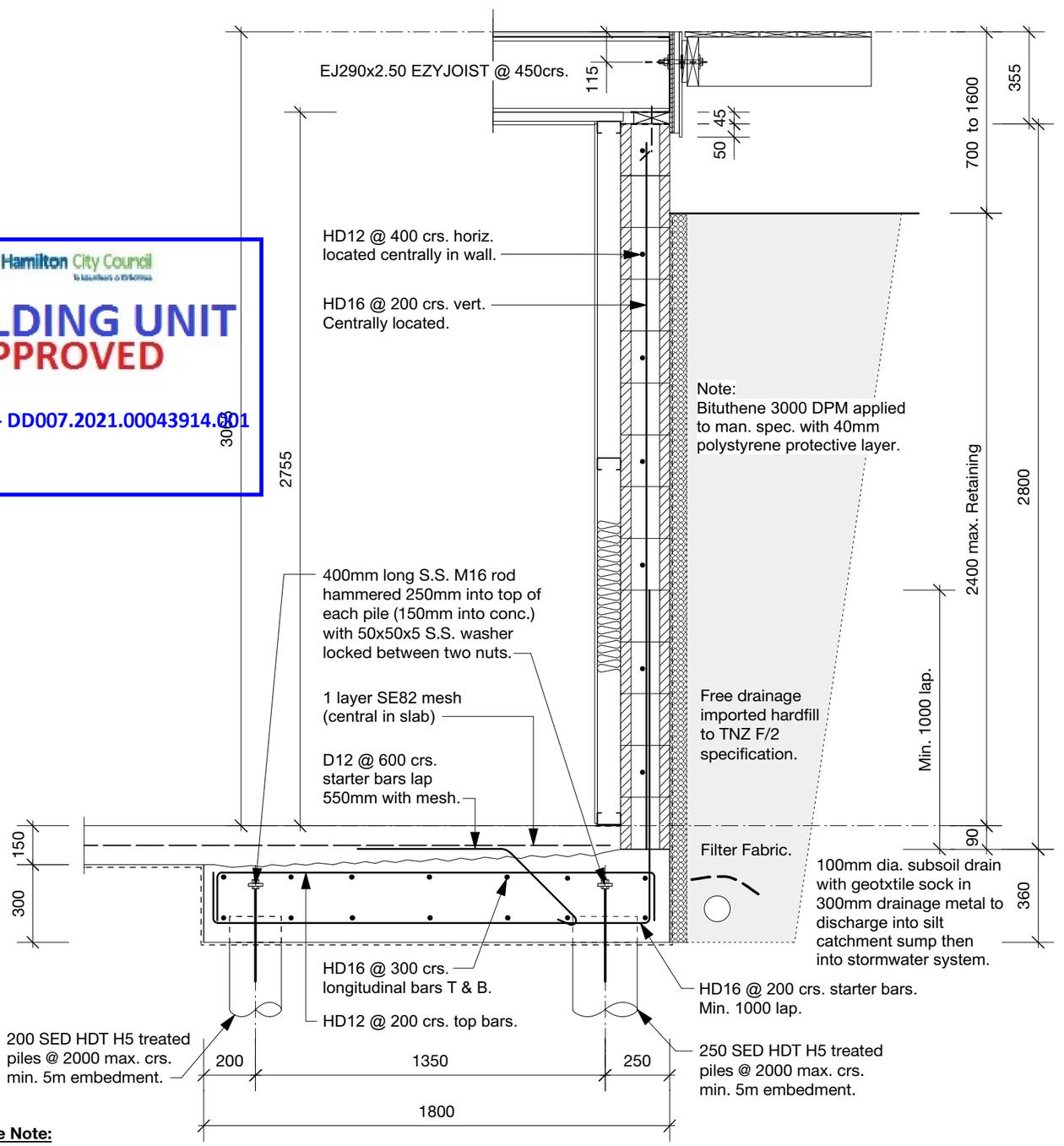

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Construction sequence Note:
Retaining wall foundations are to be poured first followed by laying of the bottom course of conc. blocks, then the remainder of the Basement foundations can be boxed and poured with the concrete slab.

10 / Sht. 13 — BASEMENT RETAINING WALL 2 DETAIL

11 / Sht. 7-9,13 — BASEMENT RETAINING WALL 1 DETAIL

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

FOUNDATION DETAILS CONTINUED

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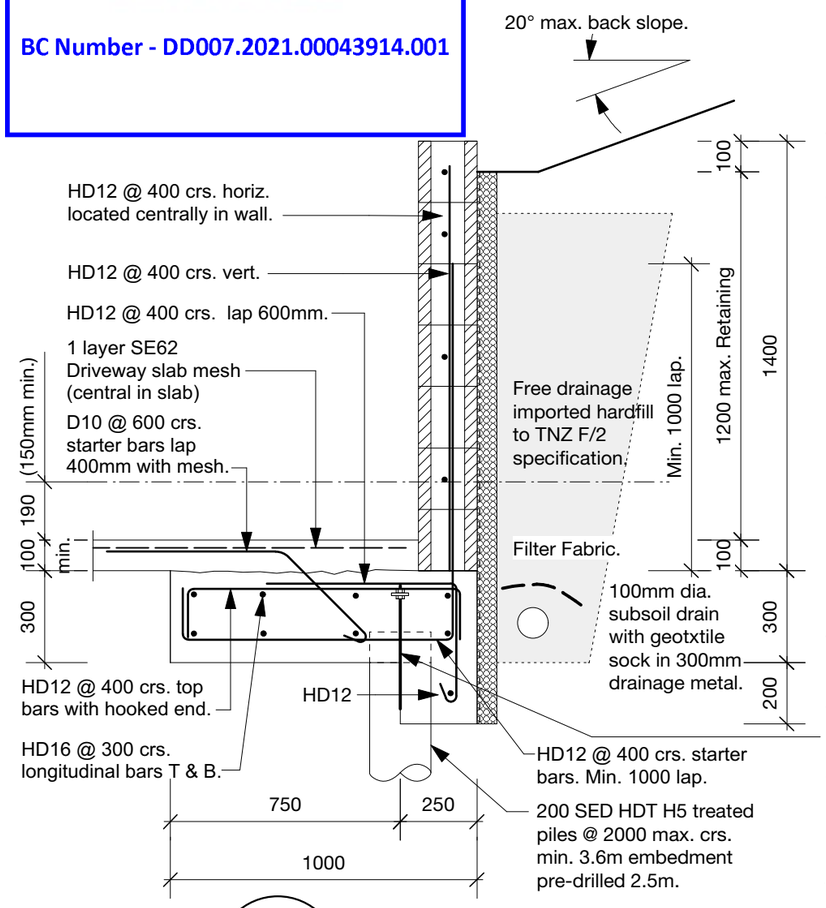
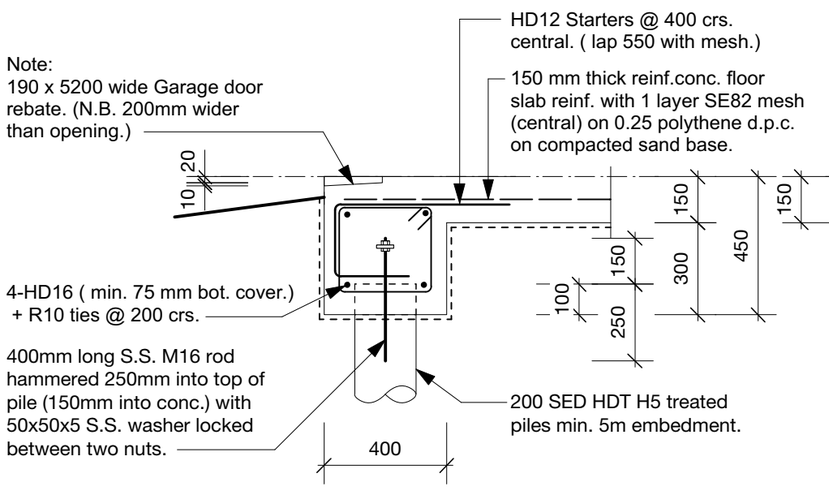
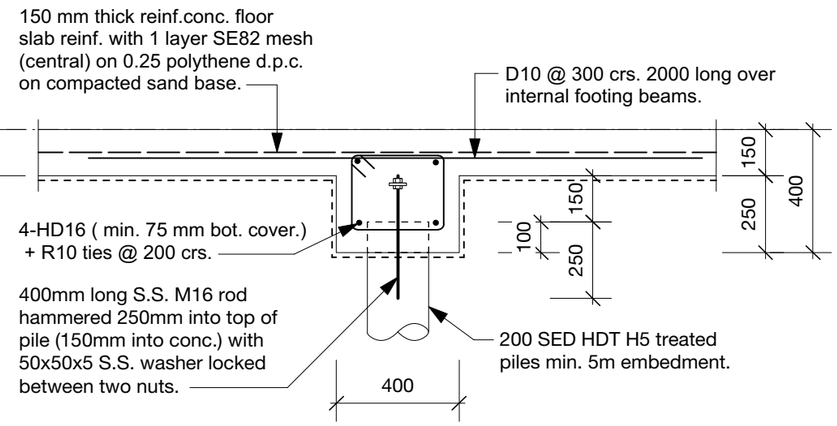


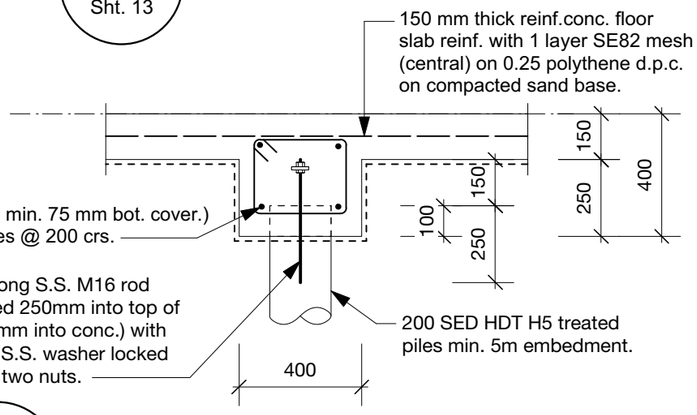
12 Sht. 13 — RETAINING WALL 3 DETAIL



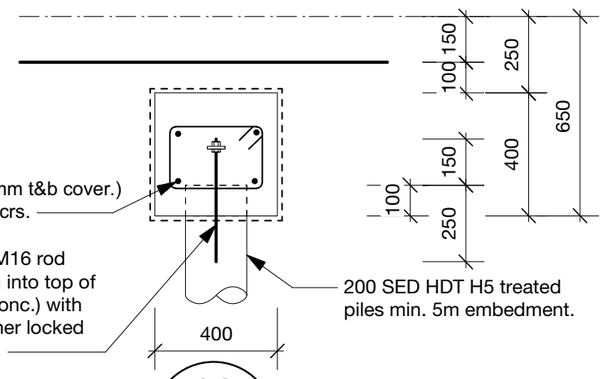
13 Sht. 13 — EXTERNAL FOOTING DETAIL



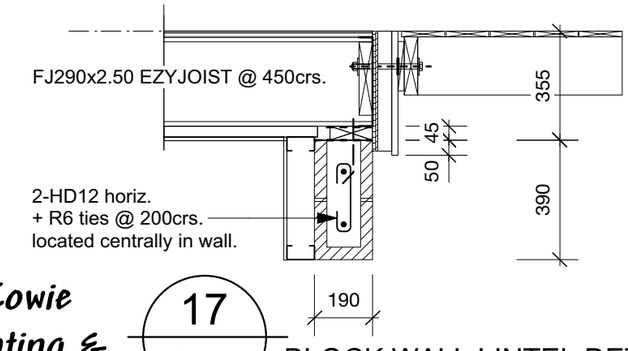
14 Sht. 13 — INTERNAL FOOTING DETAIL



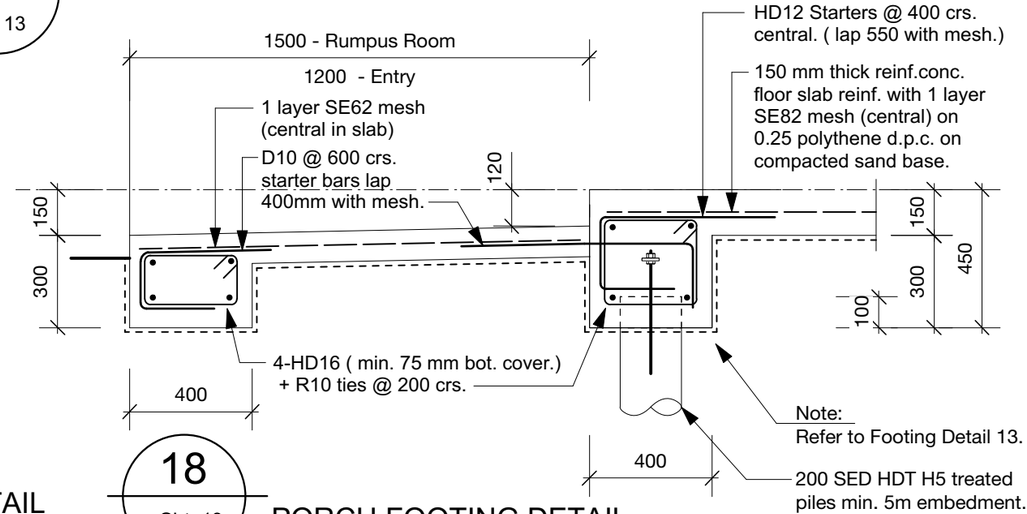
15 Sht. 13 — INTERNAL FOOTING DETAIL



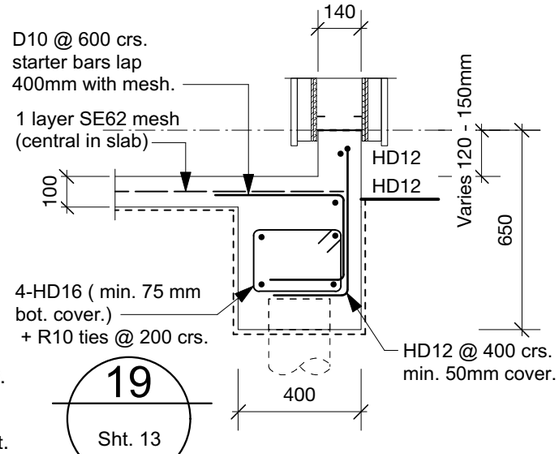
16 Sht. 13 — LINK FOOTING DETAIL



17 Sht. 13 — BLOCK WALL LINTEL DETAIL



18 Sht. 13 — PORCH FOOTING DETAIL



19 Sht. 13

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

FOUNDATION DETAILS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:20	2107

DWG No. 17 REV.
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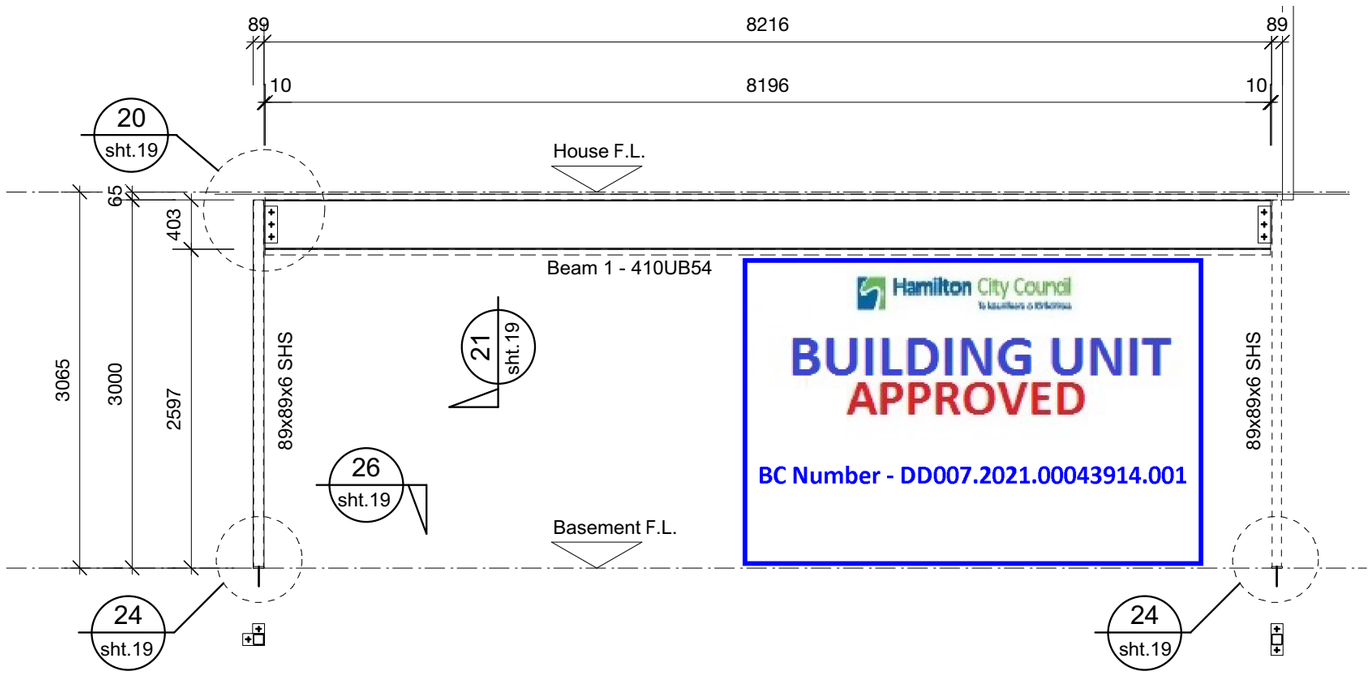

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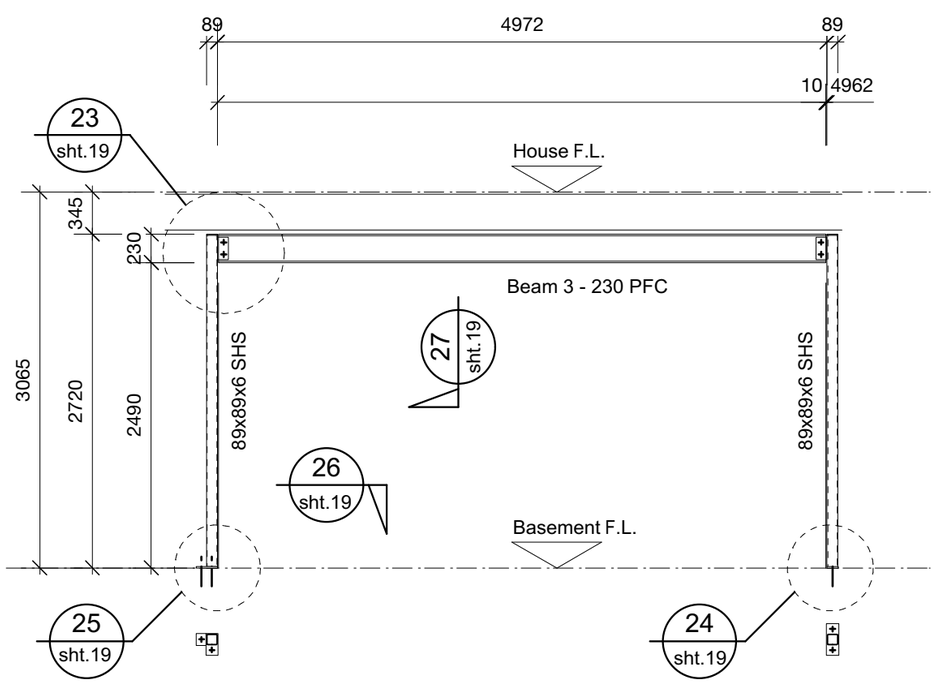
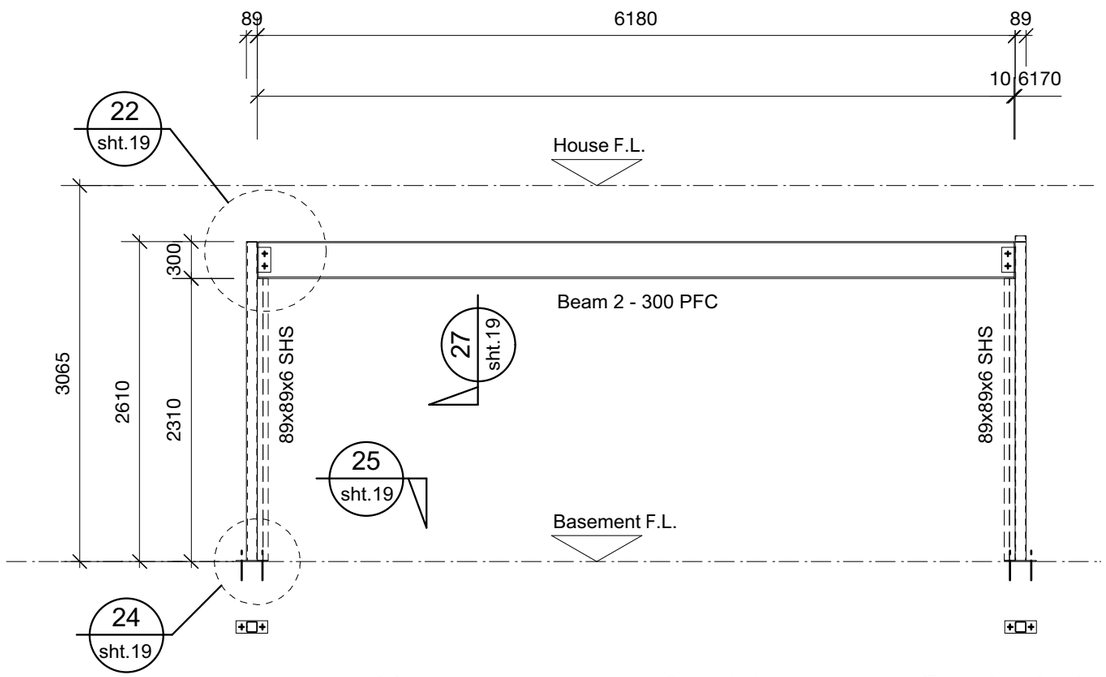
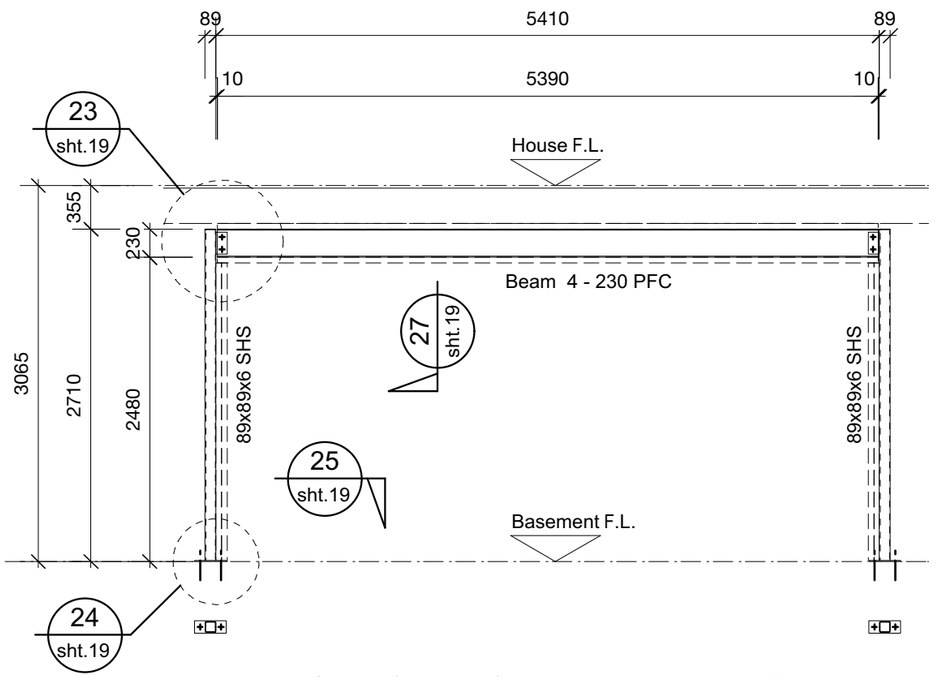
BEAM 1 - WORKSHOP 410UB54 ELEVATION



BEAM 3 - GARAGE 230 PFC ELEVATION



BEAM 2 - RUMPUS ROOM 300 PFC ELEVATION



BEAM 4 - GARAGE DOOR 230 PFC ELEVATION

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

BASEMENT STEEL BEAM ELEVATIONS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:50	2107

DWG No. 18 REV
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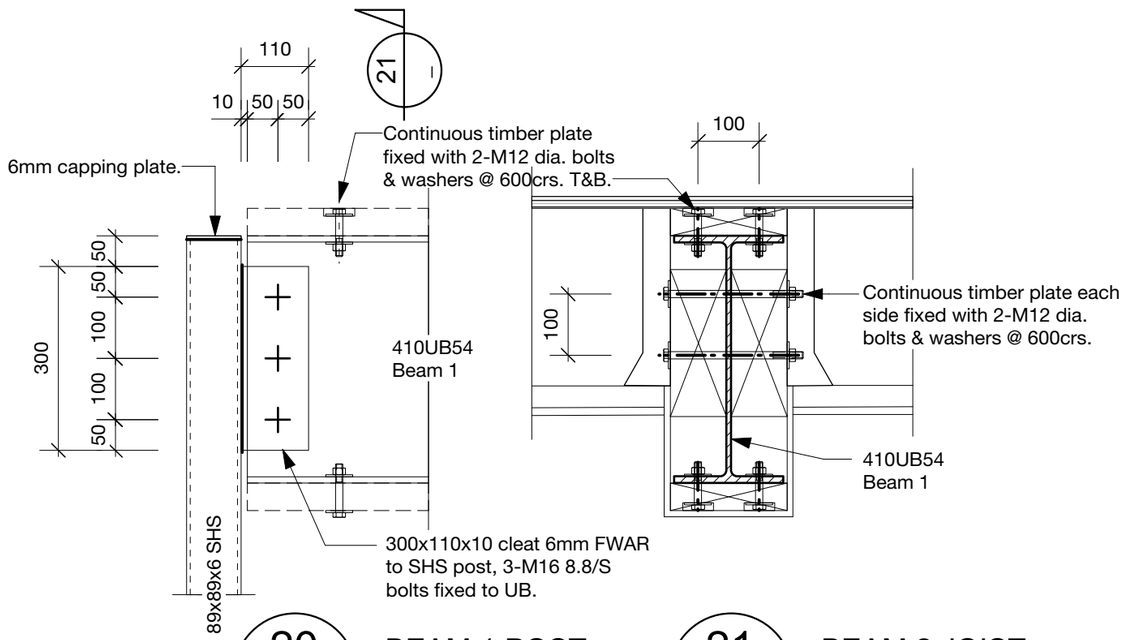
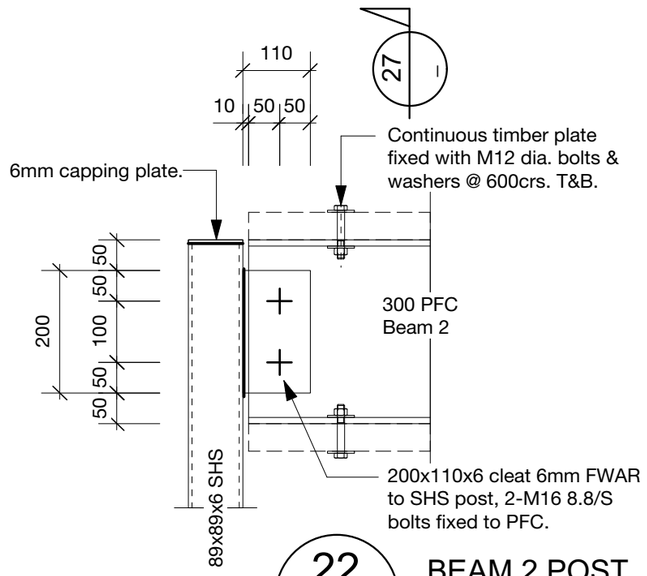
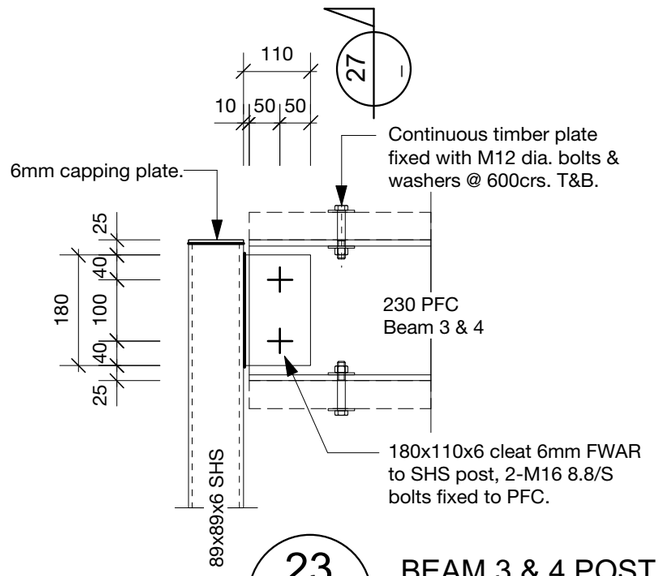


20 Sht. 18 BEAM 1 POST FIXING DETAIL

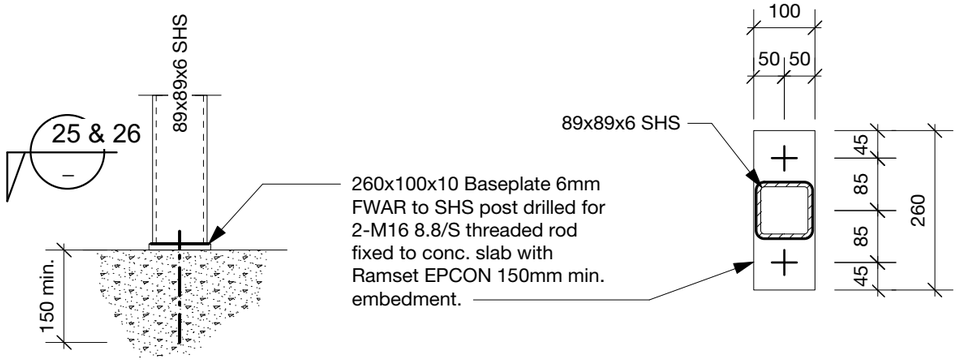
21 Sht. 18 BEAM 2 JOIST FIXING DETAIL



22 Sht. 18 BEAM 2 POST FIXING DETAIL

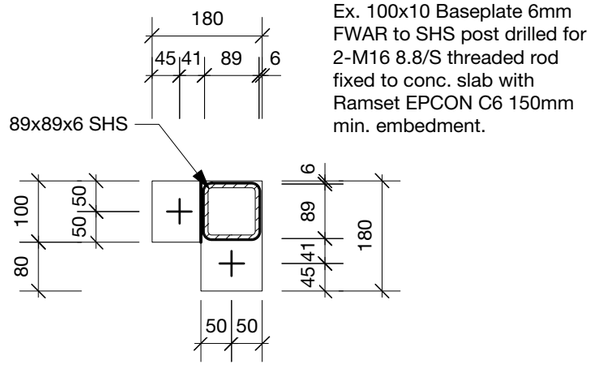


23 Sht. 18 BEAM 3 & 4 POST FIXING DETAIL

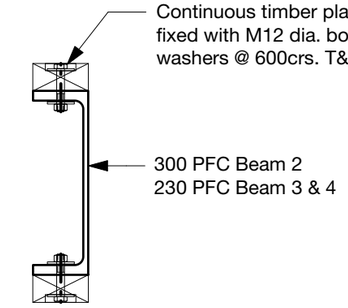


24 Sht. 18 BEAM 1, 2, 3 & 4 POST / SLAB FIXING DETAIL

25 Sht. 18 BEAM 1, 2, 3 & 4 POST / SLAB PLAN FIXING DETAIL



26 Sht. 18 BEAM 1 & 3 POST / SLAB PLAN FIXING DETAIL



27 Sht. 18 BEAM 2, 3 & 4 DETAIL

Notes:

1. All internal steelwork to be shop primed and painted with Resene 22 interior paint specification.
2. Allow for holes for M12 - 600crs. bolts into beams and posts as required for fixing to steel / timber framing.
3. Fasten any HySpan members together with 2 rows of 90x3.3 dia. nails @ 100mm crs. as per figure 9 of the Futurebuild LVL Residential Design Guide.

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

BASEMENT STEELWORK DETAILS

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:10	2107

DWG No. 19 REV

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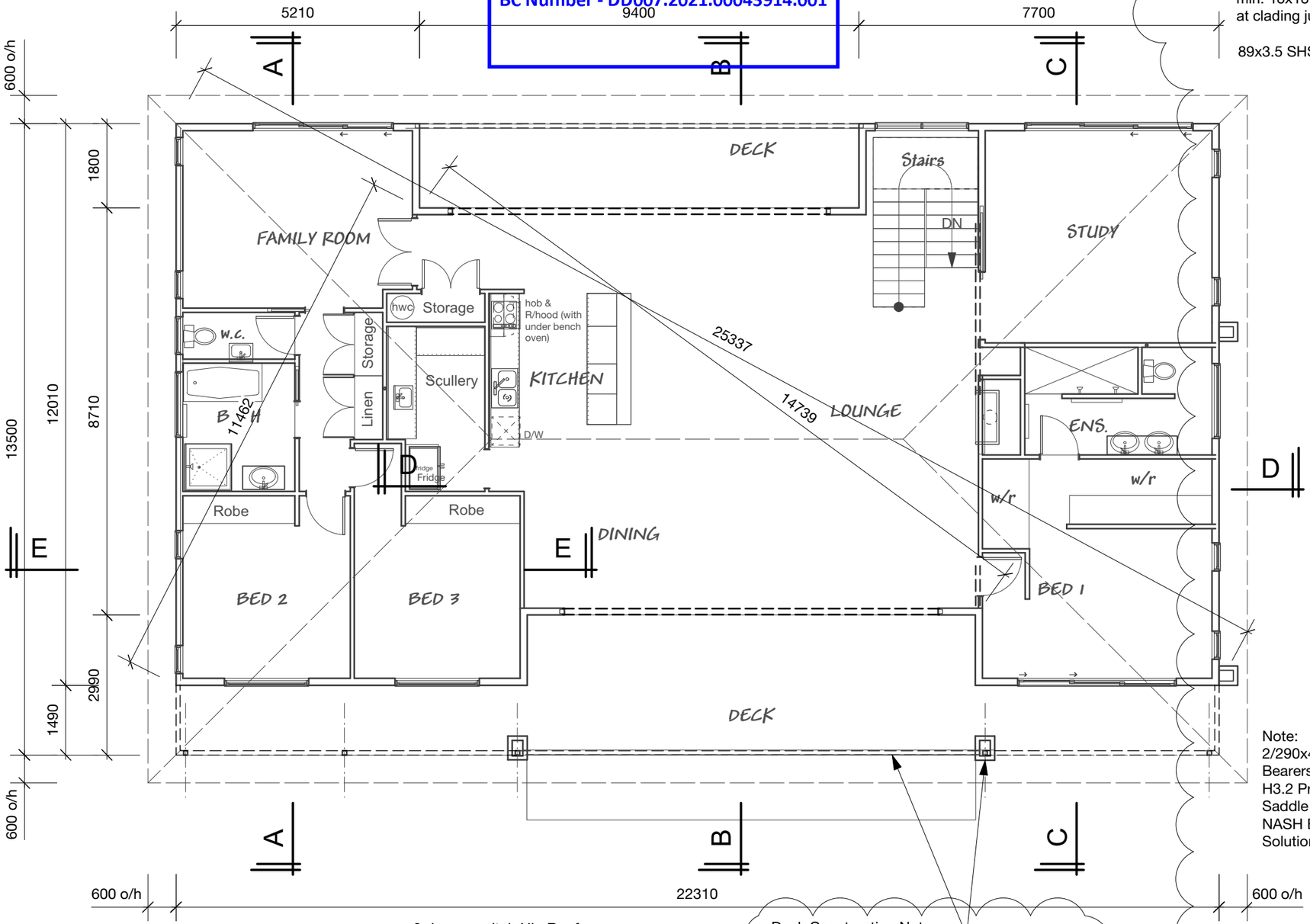
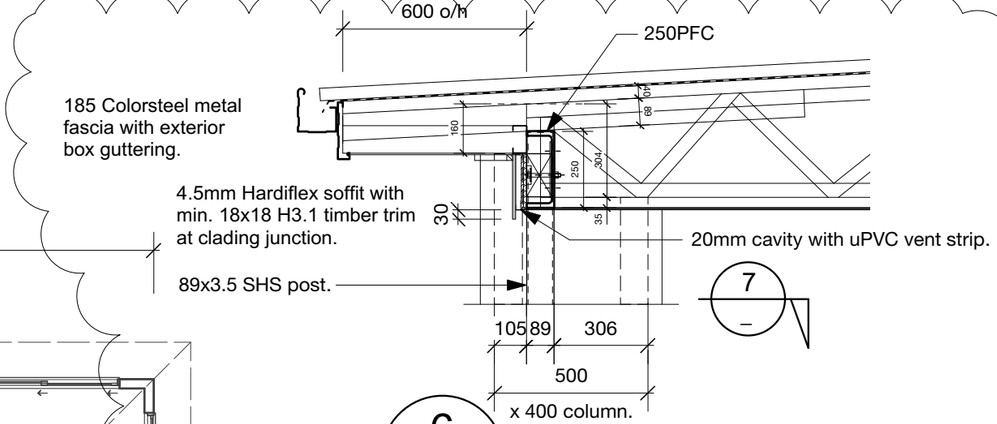


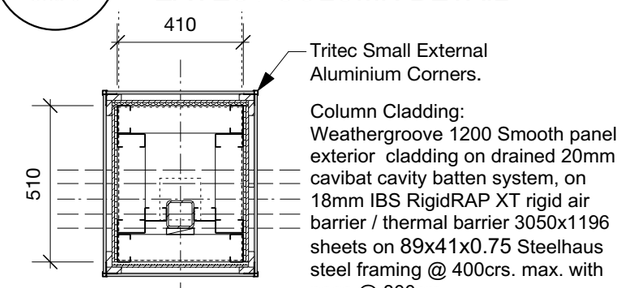
3 degrees pitch Hip Roof:
600mm eaves over hang.
40mm Top Hat steel purlins @ 900 crs.
on Steel roof Trusses @ 900 crs.
2760 from U/S Trusses to F.L.
Refer to Steelhaus Roof Framing Plan.

Deck Construction Note:
Veranda posts / beams and deck columns / bearers to be temporary braced to enable the fixing of the roof structure and wall cladding prior to fixing of the deck stringers, joists and decking.

FIRST FLOOR FRAMING / ROOF SET-OUT PLAN



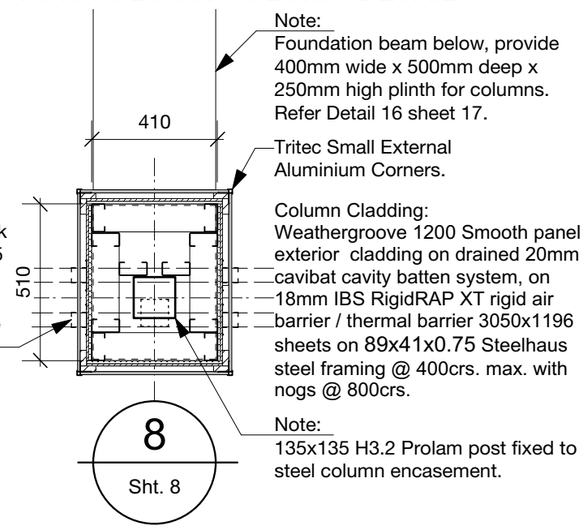
6 / Sht. 8 — CENTRE VERANDAH EAVES / COLUMN DETAIL



7 / Sht. 8

Note:
89x3.5 SHS post supporting 250PFC beam above fixed to steel column encasement.

FIRST FLOOR COLUMN DETAIL



8 / Sht. 8

BASEMENT COLUMN DETAIL

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION:	DATE:	REVISION NOTE:
A	17/2/22	Column details 6,7 & 8 added. Deck construction note added.

FIRST FLOOR FRAMING / ROOF SET-OUT PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
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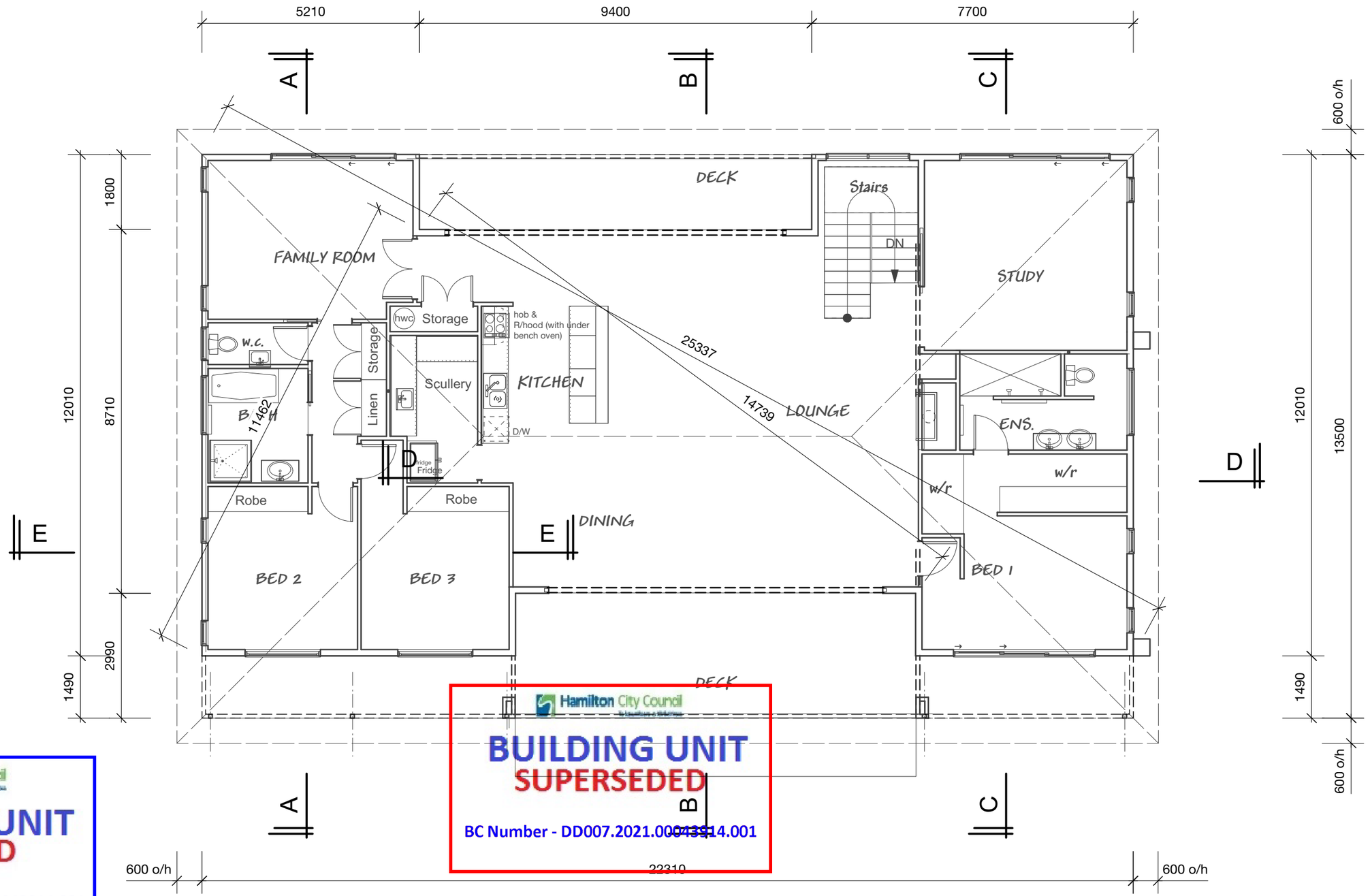

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3 degrees pitch Hip Roof:
600mm eaves over hang.
40mm Top Hat steel purlins @ 900 crs.
on Steel roof Trusses @ 900 crs.
2760 from U/S Trusses to F.L.
Refer to Steelhaus Roof Framing Plan.

FIRST FLOOR FRAMING / ROOF SET-OUT PLAN

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PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

REVISION: DATE: REVISION NOTE:

FIRST FLOOR FRAMING / ROOF SET-OUT PLAN				
DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
D. Cowie	D. Cowie	3/12/21	1:100	2107

DWG No. 20 REV
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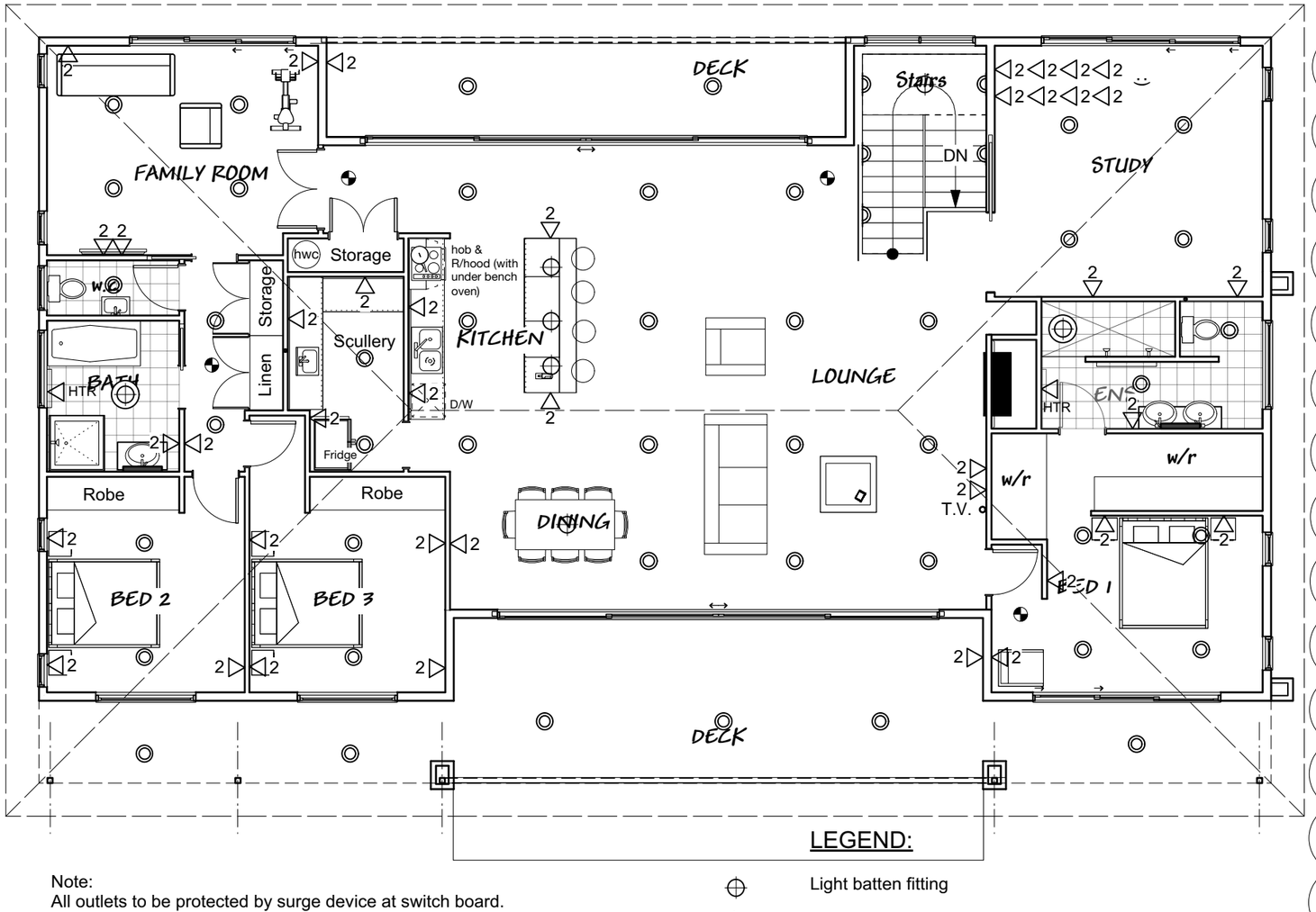

LEGEND:

	Light batten fitting
	Single LED wall light
	Single LED downlight with IC or IC-F rating.
	Exterior Flood light with sensor
	LED Strip ligh
2	Double Power Point
HTR	Heated Towel Rail
T/ph	Telephone
T.V.	Television
	Extractor fan with light (Vented to underside of eaves)
	Meter Board
	Switch Board
	Domestic Smoke Detector (with hush switch)
hwc	180 l electric mains presure hot water cylinder. Refer adjacent note.

Note:
All outlets to be protected by surge device at switch board.
Seperate switching is not shown for:
Hot water cylinder, Kitchen fittings (cook top,wall oven, dishwasher & microwave. Allow to wire for and install.

Note:
180 l electric mains presure hot water cylinder to be fitted as per Acceptable Solutions G12/AS1 fig. 8 with tempering valve as per fig. 16 and seismic restraint to fig. 14 with 40mm dia. min. drain pipe outlet and overflow tray to comply with G12/AS1 6.11.3 & .5.2.3.

Note:
Extractor fan to Ensuite and Bathroom and Kitchen range hood to be vented to underside of eaves.
N.B. Flow rates not less than 25 L/sec. for Bathrooms and 50 L/sec. for Kitchen Range hood as per G4/AS1 1.3.3

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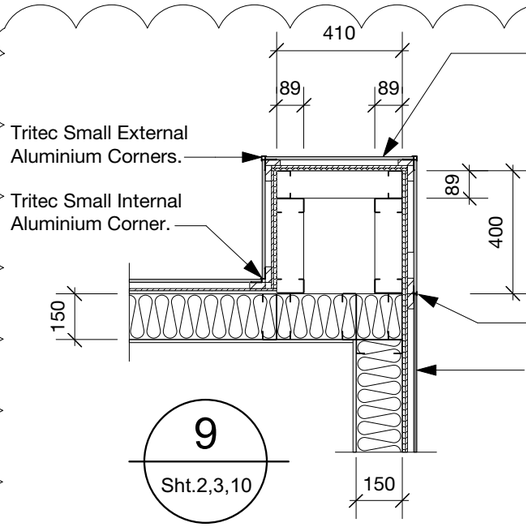
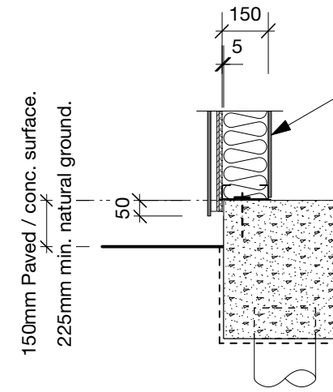


Column Cladding:
Weathergroove 1200 Smooth panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 89x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs.

Weathergroove vertical joiner.

Wall Cladding:
Weathergroove 150 Woodsman panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

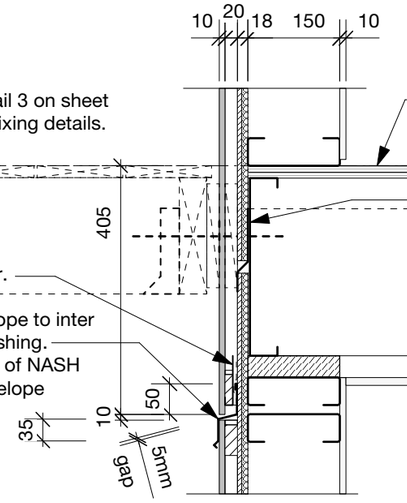
FIRST FLOOR/ BASEMENT GARAGE COLUMN DETAIL



External Walls:
Weathergroove 150 Woodsman, 150 Natural or 1200 Smooth panel exterior cladding on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets on 140x41x0.75 Steelhaus exterior steel wall Framing @ 600crs. with nogs @ 800crs. with Mammoth R2.8 wall insulation with 10mm GIB bd. interior wall lining.

Note:
Refer Detail 13, sheet 17 for main footing reinf.

TYPICAL CLADDING FOUNDATION DETAIL



Note:
Refer to Detail 3 on sheet 11 for deck fixing details.

20mm Plywood flooring on EJ290x2.50 EZYJOIST @ 450crs. floor joists

'Z' Flashing.

Cavity closer.

15 degree slope to inter storey 'Z' flashing. Refer Fig. 65 of NASH Building Envelope Solutions.

Weathergroove 150 Woodsman panels exterior cladding with Weathergroove 150 Natural to reccessed deck areas and Weathergroove 1200 smooth panels to Northern Elevation on drained 20mm cavibat cavity batten system, on 18mm IBS RigidRAP XT rigid air barrier / thermal barrier 3050x1196 sheets (with 'Z' flashing at mid floor) on Steelhaus 150mm Metal framing.

INTER-STOREY CLADDING JUNCTION DETAIL

REVISION	DATE	REVISION NOTE:
A	17/2/22	180L HWC note added and Garage column & cladding details added. Gas Infinity unit note removed.

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FIRST FLOOR ELECTRICAL PLAN

PROPOSED CAMERON RESIDENCE
AT LOT 2 SH26 HAMILTON.

FIRST FLOOR ELECTRICAL PLAN				
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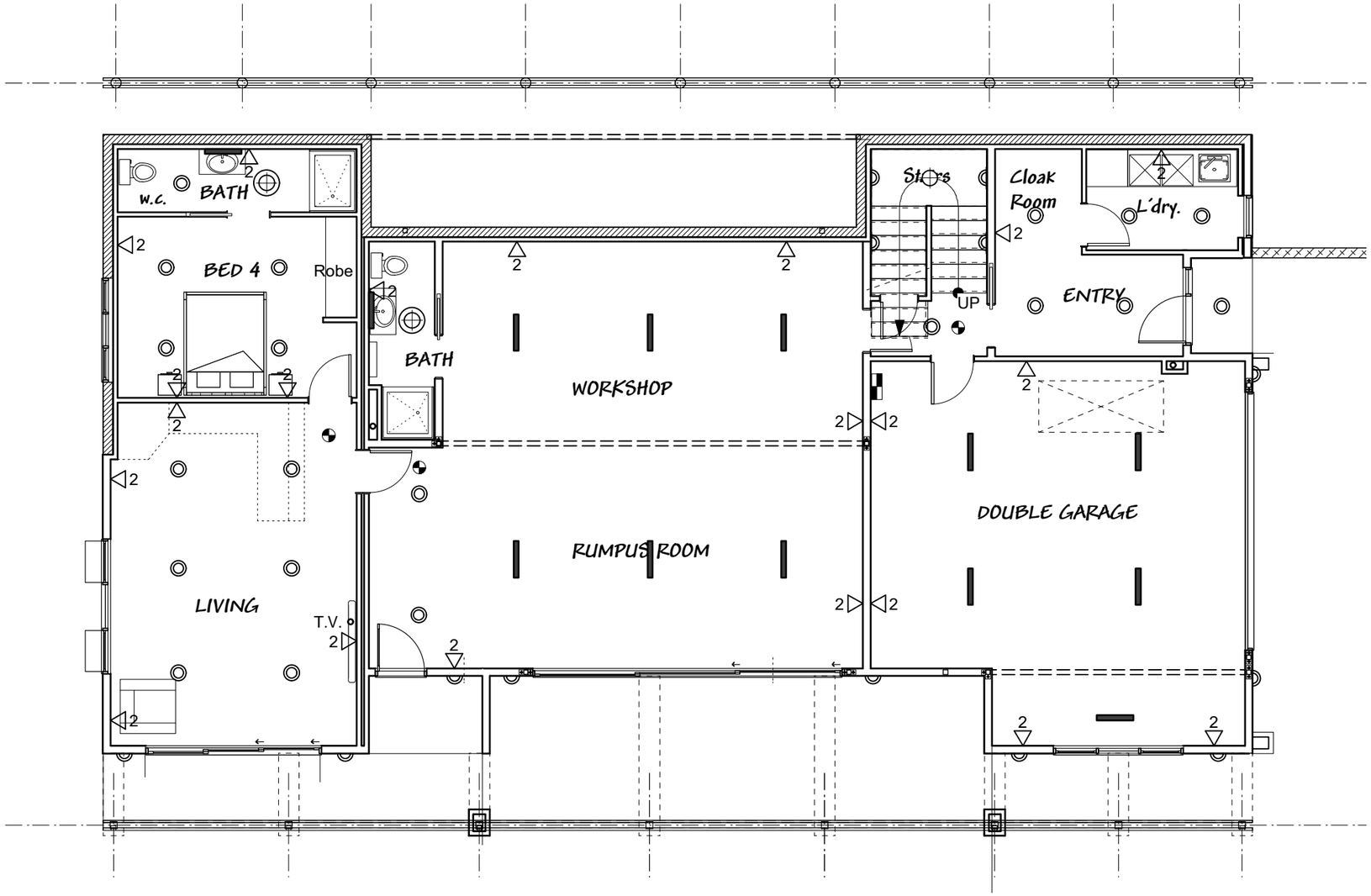

LEGEND:

- Light batten fitting
- Single LED wall light
- Single LED downlight with IC or IC-F rating.
- Exterior Flood light with sensor
- LED Strip light
- 2 — Double Power Point
- HTR — Heated Towell Rail
- T/ph — Telephone
- T.V. — Television
- Extractor fan with light (Vented to underside of eaves)
- Meter Board
- Switch Board
- Domestic Smoke Detector (with hush switch)

Hamilton City Council

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BASEMENT ELECTRICAL PLAN

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REVISION:	DATE:	REVISION NOTE:
A	17/2/22	as Infinity unit note removed from Legend.

BASEMENT ELECTRICAL PLAN

DRAWN	CHECKED	DATE	SCALE @ A3	JOB No.
S. Fowler	D. Cowie	3/12/21	1:100	2107

DWG No. 22 A REV
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