



Council Property Files

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IN THE MATTER of the Resource Management Act 1991 ("the Act")

A N D

IN THE MATTER of a subdivision consent as evidenced by Land Transfer Plan No. 396361

A N D

IN THE MATTER of a Consent Notice issued pursuant to Section 221 of the Act by WHANGAREI DISTRICT COUNCIL ("the Council")

IT IS HEREBY CERTIFIED that the following conditions to be complied with on a continuing basis by the subdividing owner and subsequent owners were imposed by the Council as conditions of approval for the subdivision as effected by Land Transfer Plan No. 396361 ("the plan")

Any development undertaken on the properties being lots 2 and 3 on the plan shall be done in accordance with the recommendations and restrictions specified in the site suitability engineering report compiled by Richardson Stevens Consultants (1996) Limited dated 10 September 2007, a copy of which is attached hereto, and in particular shall ensure that:

- (i) foundations for all buildings will be specifically designed to take account of the ultimate bearing strength of the soil testing at less than 300kPa and the moderately expansive soils; and
- (ii) above ground tanks to provide temporary water storage off roofs installed to meet Council's requirement for attenuation to limit 1 in 5 ARI and 1 in 50 ARI storm peak run-offs to predevelopment flows with:
 - (a) the roof down pipes on buildings on each lot to flow into a tank with a minimum volume of 1600 litres;

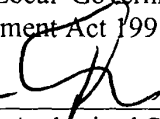
- (b) the outlet orifice at the base of the tank must be 50mm in diameter to reduce the discharge to predevelopment levels; and
- (c) beyond the orifices the pipes will be 100mm diameter stormwater pipes at 1 in 100 minimum grade connected to the Council's reticulation system as shown on the plan attached to the engineering report.

DATED at Whangarei this

19th day of May

2008

SIGNED for WHANGAREI DISTRICT COUNCIL
pursuant to the authority of the Council given pursuant
to the Local Government Act 2002 and the Resource
Management Act 1991



Authorised Signatory



Email: engineers@richardsonstevens.co.nz



Grant Stevens
B.E., M.I.P.E.N.Z. (Civil, Structural)
Chartered Professional Engineer

Steve Turner
B.E., M.I.P.E.N.Z. (Civil, Structural)
Chartered Professional Engineer

CIVIL & STRUCTURAL ENGINEERS, 2 SEAVIEW RD, WHANGAREI. PH: 09 438 3273, FAX: 09 438 5734

File: 8352

10 September 2007

ENGINEERING REPORT

Proposed Subdivision Lots 6 and 7 DP37268

61/63 Raurimu Road Onerahi

Introduction

As assessment has been made of the above properties where it is proposed to subdivide two lots into four lots.

An application for resource consent (subdivision) has been made (RC.No 40450) and a letter received from Whangarei District Council requesting an Engineering Suitability Report.

Site Description

The two lots are located on the south side of Raurimu Road, at the intersection with Cockburn Street. Lots 6 and 7 have areas of 1012m² and 1135m² respectively. Dwellings occupy both lots, situated towards the north end fronting Raurimu Avenue. The land slopes up towards the west from Cockburn Street with moderate slopes at the northern end and gentle slopes at the southern end.

Both lots have a garage immediately behind the house and are landscaped with lawns, gardens and scattered shrubs or trees.

Proposal

The proposal is to divide both lots approximately in half to create two additional lots at the southern end, for residential development. The proposal is shown on plan C2254 prepared by Beasley and Burgess surveyors, dated 2 July 2007.

Geology

The geological map of Whangarei Urban Area (Map 26) indicates this area is underlain by "Northern Allochthon"; Omahuta sandstone – calcareous, glauconitic sandstone and interbedded sandstone and mudstone; minor conglomerate".

Site Investigations

A walkover inspection was carried out by a Chartered Professional Engineer. A hand augered borehole was drilled at proposed Lot 3 and Scala penetrometer tests were carried out at proposed Lots 2 and 3 – refer to attached plan for site test locations.

The borehole revealed a hard pan layer at 0.3m depth, becoming plastic orange clay for the full depth of the hole (2.2m). Undrained shear strengths, measured with the Pilcon shear vane, ranged from 118kPa at 0.7m depth increasing to 200kPa at 1.4m depth. The Scala penetrometer tests indicate that the ground does not comply with NZS3604:1999; "good ground", thereby requiring specific foundation design by a Chartered Professional Engineer. The soils are judged to be moderately expansive.

Site Stability

The northern and southern half of the lots are zoned low and moderate stability hazard respectively, on Councils hazard maps.

No signs of instability were evident at the properties or in the surrounding area.

Based on the gentle slopes, firm soils encountered and our site observations we are satisfied that proposed Lots 2 and 3 are stable against landslip and therefore suitable for residential development.

Foundations

Specific design will be required for foundations to take account of the ultimate bearing strength of the soil testing at less than 300kPa and the moderately expansive soils.

Stormwater

Stormwater from proposed Lots 1 and 4 have existing connections to the Councils stormwater system. These lots include the existing houses.

At Lots 2 and 3 it is proposed to install above-ground tanks to provide temporary water storage off roofs to meet Councils requirement for attenuation to limit 1 in 5 ARI and 1 in 50 ARI storm peak runoffs to predevelopment flows. The roof down pipes at each lot must flow into a tank with a minimum volume of 1600 litres. The tank outlet orifice at the base must be 50mm diameter to reduce the discharge to predevelopment levels. Beyond the orifice the pipe will be 100mm diameter stormwater pipe at 1 in 100 minimum grade connected to the Whangarei District Council reticulation system, as shown on the attached plan.

Refer to attached calculations for stormwater attenuation.

Summary

Lots 6 and 7 DP 37268 are considered stable and suitable for subdivision into four lots subject to the above recommendations regarding foundation design and stormwater attenuation.

In terms of Section 106 of the Resource Management Act the land recommended for building development will not be subject to material damage by slippage.

Limitations

This report has been prepared solely for the benefit of our client and the Whangarei District Council. The comments in it are limited to the purpose stated in this report. No liability is accepted by Richardson Stevens Consultants (1996) Ltd in respect of its use by any other person and any other person who relies upon any matter contained in this report does so entirely at their own risk.

Recommendations and opinions in this report are based on data obtained as previously detailed. The nature and continuity of subsoil conditions away from the test locations are inferred and it should be appreciated that actual conditions could vary from those assumed.

If during excavation and construction conditions are encountered that differ from the inferred conditions on which the report has been based, the site should be examined by a suitably qualified engineer to determine if any modification of the design based upon this report is required.

Prepared by:



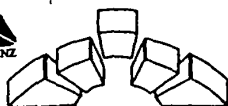
M J Beazley
Senior Design Engineer

Approved by:



G R Stevens
Chartered Professional Engineer

Richardson Stevens Consultants (1996) Ltd



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Richardson Stevens Consultants (1996) Ltd CIVIL & STRUCTURAL ENGINEERS

BOREHOLE LOG

Drill method: HAND AUGER

Logged by: DL

Co-ordinates: Em
Nm

Borehole no: 1

Drill size: 75mm




Dated: 04/09/07

Ground datum level:

Job no: 8352

Project: Hattingh

Location: Proposed Lot 3, Raurimu Ave, Onerahi

Location: Proposed Lot 3, Raurimu Ave, Onerahi		DEPTH (mm)	SAMPLE TYPE	UNDRAINED SHEAR STRENGTH (KPa)										WATER CONTENT %	OTHER TESTING AND COMMENTS (UNDISTURBED / REMOULDED)
SYMBOL	STRATA DESCRIPTION			Vane readings corrected as per GEO 167 GEO 200											
				20	40	60	80	100	120	140	160	180			
	Topsoil	200													
	Weathered Clay pan hard	400													
	Plastic orange clay massive structure	600													
	Mottled white	800												Su=118kPa Rm=51kPa	
		1000													
		1200												Su=155kPa Rm=51kPa	
		1400												Su=237+kPa	
		1600												Su=216kPa Rm=68kPa	
		1800													
		2000												Su=196kPa Rm=101kPa	
	BORE ENDS AT 2.2m NO GROUND WATER	2200												Su=203kPa Rm=105kPa	
		2400													
		2600													
		2800													
		3000													
		3200													
		3400													
		3600													
		3800													
		4000													

COMMENTS:

Clay
 Silt
 Sand
 Gravel
 Fill
 Topsoil
 Organic(peat)
 Rock
 No Bore

RICHARDSON STEVENS CONSULTANTS (1996) Ltd.
CIVIL AND STRUCTURAL ENGINEERS

SCALA PENETROMETER TESTING

Hattingh

Tested: MJ

File: 8352

Date: 4/09/2007

Strengths Shown are Ultimate Bearing

Test 1

height	# of blows	max. depth	depth/ blow	KPa	CBR
2770					
2450	5	320	64	164	3
2200	5	570	50	201	3
1990	5	780	42	232	4
1830	5	940	32	291	6
1650	5	1120	36	264	5
1500	5	1270	30	>300	6
1260	9	1510	27	>300	7
1140	10	1630	12	>300	18
1050	10	1720	9	>300	25

Test 2

height	# of blows	max. depth	depth/ blow	KPa	CBR
1270					
1000	1	270	270	49	0
900	1	370	100	113	2
720	5	550	36	264	5
560	5	710	32	291	6
440	5	830	24	>300	8
300	5	970	28	>300	7
180	5	1090	24	>300	8

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File No. 8352

Plan Ref. No.

Calculated by. MM

Checked by.

Date. 7/09/07

Refers to. Stormwater Attenuation - using roof flows to attenuation tank**Client.** G Hattingh Subdivision - Raurimu Rd, Onerahi**Output Design**

Take tank size as:

deep	Diameter	Volume	Base =
1.75	1.8	4.45 m ³	2.54 m ²

Tank Outlet

Using a Low Flow Orifice

$$Q = 0.62 A (2 g h_i)^{0.5}$$

Exit Size

Use exit orifice size 50 mm

Pipe Area= 0.00196 m²**Check Pipe Flow through Pipe**Using $Q = A 1/n R^{2/3} s^{1/2}$

Pipe Size= 100 mm

Pipe Area= 0.00785 m²

n= 0.011 From New Zealand Building Code

R= 0.025

R= 0.0079 / 0.314159 R=A/P (Q5 pipe)

s= 0.01 1 in 100.00 Actual s used

Q= 1/ 0.011 0.0250^{2/3} 0.01^{1/2}Q= 0.00610 m³/s**Design**

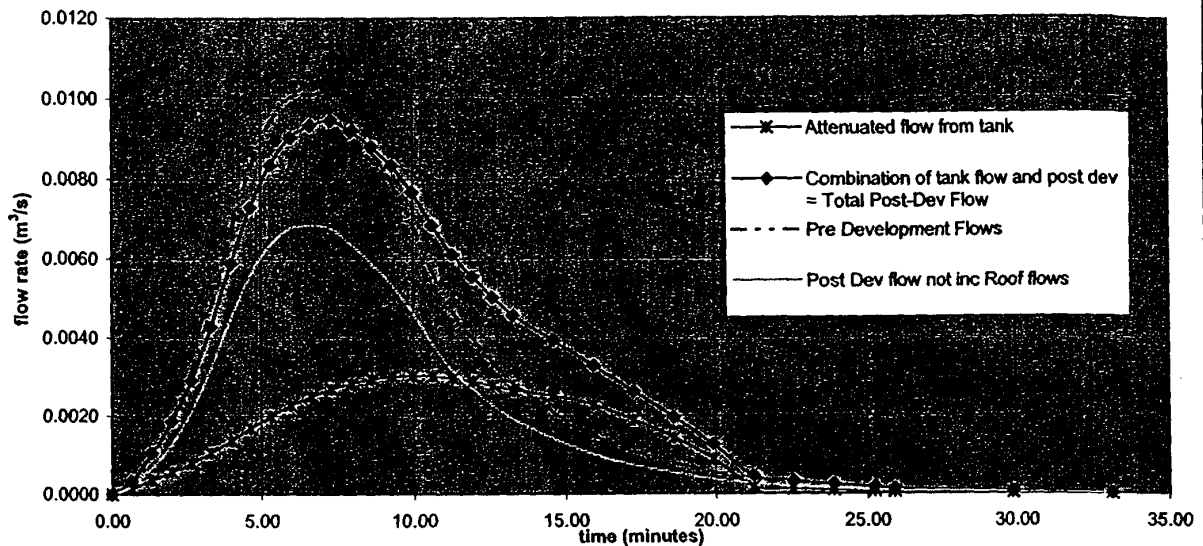
Stormwater flows from the subdivision and development of Lots 6 & 7 DP37268 are to be maintained at or below pre-development by attenuating the stormwater flow off the roof of the proposed houses.
(see conclusion hydrographs)

Design Conclusions

The roof downpipes from a dwelling either Lot are to flow into a tank of at least 1,600 litre via a silt trap.
The flow from the tank is attenuated via a 50mm diameter outlet at the base of the tank, this reduces the flow enough to allow for the increase in impervious areas (roof, paving and roads) in these Lots.
The tank outlet then flows via a 100mm diameter stormwater pipe at a slope of no less than 1:100 to the WDC stormwater system.
An overflow outlet at the top of the tank should be installed for extreme (greater than 1/50 yr events)
Allow for periodical cleaning of the tank to ensure the outlet is not blocked.

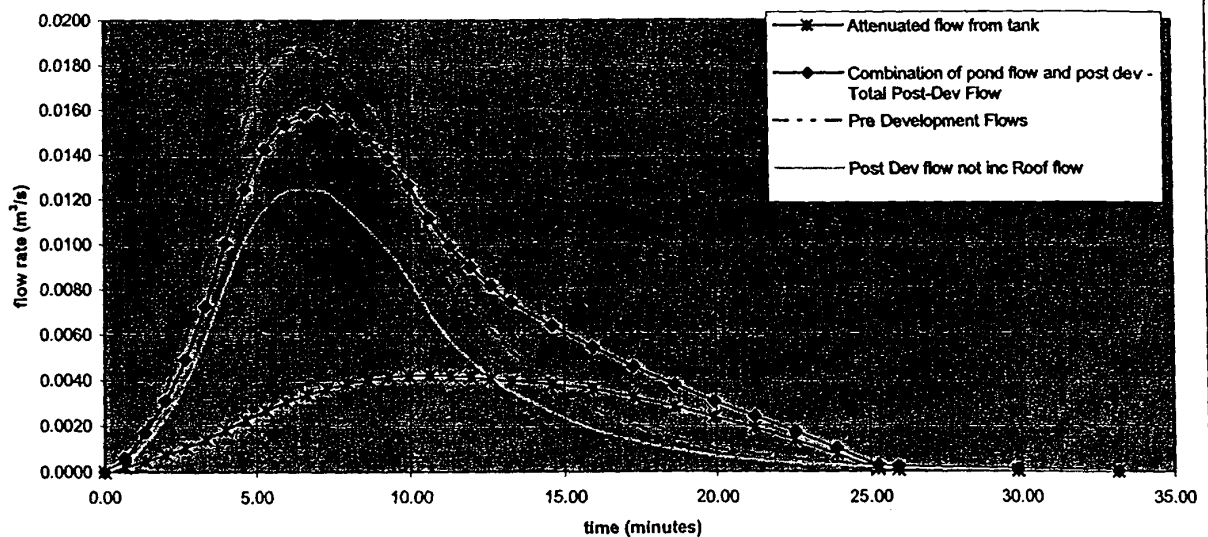
Conclusion Hydrographs

Hydrograph - Pre Vs Post-Development Q5



pre-dev peak=	0.0101 m ³ /sec	tank pipe outflow peak=	0.0030 m ³ /sec
pre-dev volume=	5.388 m ³	TOTAL post dev flow peak=	0.0095 m ³ /sec
post-dev peak non attenuated=	0.007 m ³ /sec	max water level=	0.32 m
Flow off roof peak=	0.005 m ³ /sec	Max water storage=	0.80 m ³

Hydrograph - Pre Vs Post-Development Q50



pre-dev peak=	0.019 m ³ /sec	Tank pipe outflow peak=	0.0042 m ³ /sec
pre-dev volume=	10.0 m ³	TOTAL post dev flow peak=	0.0160
post-dev peak non attenuated=	0.012 m ³ /sec	max water level=	0.61 m
Flow off roof peak=	0.007 m ³ /sec	Max water storage=	1.55 m ³

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File No.

8352

Plan Ref. No.

Calculated by.

MM

Checked by.

Date.

7/09/2007

Refers to. Stormwater Attenuation - using roof flows to attenuation tank**Client.** G Hattingh Subdivision - Raurimu Rd, Onerahi

Calculations are based on Auckland Regional Council's TP 10 and TP 108

Development Catchment Information**PREDEVELOPMENT****5 yr stormwater**Catchment area = 580 m²

Soil type: Type C (pg 8 section 3.2 for soil des)

Change in height = 1 m

length of catchment = 0.06 km

Slope (Sc) = 0.017

catchment slope - see page 14

ARI = 5

P₂₄ = 136.4 mm

24 hour design rainfall depth from WDC for ARI

Find CN	Area (m ²)	CN (Apx B)	look up each area and get individual CN's for each land area from App B
A1	520	79	Natural grassland on clay
A2	0	0	
A3	0	0	
A4	0	0	
A -imperv	60	98	(impervious CN = 98)

CN =
catchment curve
number

Area total 580

CN = 81.0

la = 4.5 mm

C = 1

t_c = 0.166 hrs 10.0 mint_p = 0.111 hrs 6.6 min

S = 59.7 mm

c* = 0.52

q* = 0.128 m³/s/km²mmq_p = 0.0101 m³/s

check same as above

Weighted CN (see section eq 3.4 pg 9)

Weighted initial abstraction - la (mm)

Check channalisation number tbl 4.3 pg 13 (see note)

Time of concentration see sec 4.2 pg 12

Time to peak

Soil Storage parameter see eq 3.2 pg 6

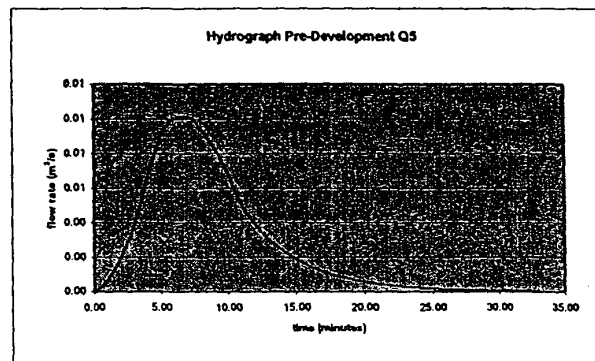
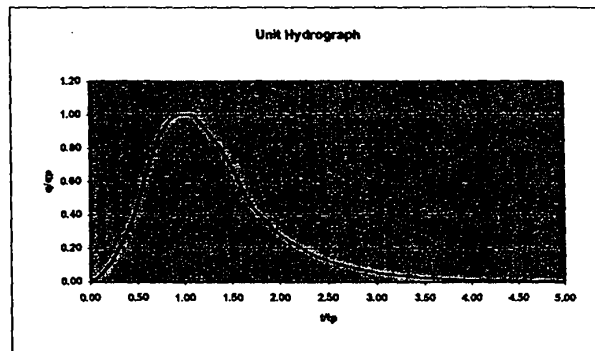
Runoff index for looking up q* fig 6.1 pg 22

Specific flow rate from fig 5.1 pg 22 using c* & tc

Peak flow rate see sec 6.2 pg 21

Unit Hydrograph

U _p	q/q _p	t _p	Q _p	volume
0.00	0.00	0.00	0.00	0.00
0.10	0.03	0.66	0.00	0.01
0.20	0.10	1.33	0.00	0.03
0.30	0.19	1.99	0.00	0.06
0.40	0.31	2.66	0.00	0.10
0.50	0.47	3.32	0.00	0.16
0.60	0.66	3.98	0.01	0.23
0.70	0.82	4.65	0.01	0.30
0.80	0.93	5.31	0.01	0.35
0.90	0.99	5.98	0.01	0.39
1.00	1.00	6.64	0.01	0.40
1.10	0.99	7.30	0.01	0.40
1.20	0.93	7.97	0.01	0.39
1.30	0.86	8.63	0.01	0.36
1.40	0.78	9.30	0.01	0.33
1.50	0.68	9.96	0.01	0.29
1.60	0.56	10.62	0.01	0.25
1.70	0.46	11.29	0.00	0.21
1.80	0.39	11.95	0.00	0.17
1.90	0.33	12.62	0.00	0.15
2.00	0.28	13.28	0.00	0.12
2.20	0.21	14.61	0.00	0.20
2.40	0.15	15.94	0.00	0.14
2.60	0.11	17.26	0.00	0.10
2.80	0.08	18.59	0.00	0.07
3.00	0.06	19.92	0.00	0.05
3.20	0.04	21.25	0.00	0.04
3.40	0.03	22.58	0.00	0.03
3.60	0.02	23.90	0.00	0.02
3.80	0.02	25.23	0.00	0.01
3.90	0.01	25.90	0.00	0.01
4.50	0.01	29.88	0.00	0.02
5.00	0.00	33.20	0.00	0.01

Minutes m³/sec m³Total Volume = 5.4 m³

POST DEVELOPMENT**5 yr Storm**

Catchment area = 380 m²
 Soil type: Type c - clay/volc
 Change in height = 1 m²
 length of catchment = 0.06 km
 Slope (Sc) = 0.017
 ARI = 5
 P₂₄ = 136.4 mm

NOTE: CATCHMENT AREA LESS DUE TO REMOVAL OF FLOW FROM ROOF

see page 8 section 3.2 for soil designations

catchment slope - for larger catchments use equal

24 hour design rainfall depth from WDC for ARI

Developed areas:- example calcs for CN number below

Lot area 0.1482 acre
 total lot area 580 m²
 Impervious area in lots 377 m²
 Roof Area 200 m²
 Grassed area in lots 203 m²
 Other impervious areas (road etc) 177 m²

(lookup table 2-2 Appendix B for impervious % below)
 imperv % 65% Impervious area

	Area (m ²)	CN (Apx B)	
A1	203	68	Grass - Lawn on volc/clay
A2	0	0	
A3	0	0	
A4	0	0	
A -imperv	177	98	(impervious CN = 98)
A total	380		check same as above

Find CN - catchment curve number

look up each area and get individual CN's
 for each land area from App B

CN = 82.0
 la = 2.67 mm
 C = 0.6
 t_c = 0.166 hrs 10.0 min
 t_p = 0.111 hrs 6.6 min
 S = 55.9 mm
 c* = 0.54
 q* = 0.132 m³/s/km²mm
 q_p = 0.007 m³/s

Weighted CN (see section eq 3.4 pg 9)

Weighted initial abstraction - la (mm)

Check channalisation number tbl 4.3 pg 13 (see note)

Time of concentration see sec 4.2 pg 12

Time to peak

Soil Storage parameter see eq 3.2 pg 6

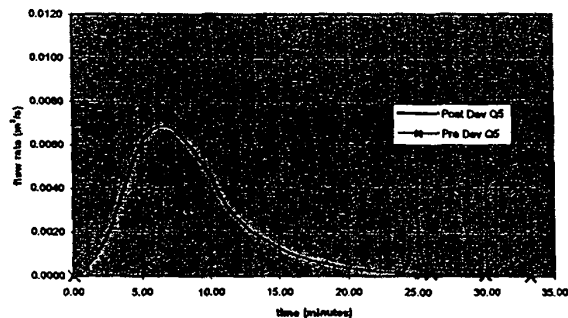
Runoff index for looking up q* fig 6.1 pg 22

Specific flow rate from fig 5.1 pg 22 using q* & tc

Peak flow rate see sec 6.2 pg 21

Unit Hydrograph		Catchment Hydrograph		
t _p	q/q _p	t _p	Q _p	volume
0.00	0.00	0.00	0.0000	0.00
0.10	0.03	0.66	0.0002	0.00
0.20	0.10	1.33	0.0007	0.02
0.30	0.19	1.99	0.0013	0.04
0.40	0.31	2.66	0.0021	0.07
0.50	0.47	3.32	0.0032	0.11
0.60	0.66	3.98	0.0045	0.15
0.70	0.82	4.65	0.0058	0.20
0.80	0.93	5.31	0.0064	0.24
0.90	0.99	5.98	0.0068	0.26
1.00	1.00	6.64	0.0068	0.27
1.10	0.99	7.30	0.0068	0.27
1.20	0.93	7.97	0.0064	0.26
1.30	0.86	8.63	0.0059	0.24
1.40	0.78	9.30	0.0053	0.22
1.50	0.68	9.96	0.0047	0.20
1.60	0.56	10.62	0.0038	0.17
1.70	0.46	11.29	0.0031	0.14
1.80	0.39	11.95	0.0027	0.12
1.90	0.33	12.62	0.0023	0.10
2.00	0.28	13.28	0.0019	0.08
2.20	0.21	14.61	0.0014	0.13
2.40	0.15	15.94	0.0010	0.10
2.60	0.11	17.26	0.0007	0.07
2.80	0.08	18.59	0.0005	0.05
3.00	0.06	19.92	0.0004	0.04
3.20	0.04	21.25	0.0003	0.03
3.40	0.03	22.58	0.0002	0.02
3.60	0.02	23.90	0.0001	0.01
3.80	0.02	25.23	0.0001	0.01
3.90	0.01	25.90	0.0001	0.00
4.50	0.01	29.88	0.0000	0.01
5.00	0.00	33.20	0.0000	0.00

Minutes m³/sec m³
 Total Volume = 3.6

Hydrograph - Pre Vs Post-Development**Pre-development flows**Q5 peak = 0.010 m³/secQ5 volume = 5.388 m³**Post-development flows**Q5 peak = 0.007 m³/secQ5 volume = 3.64 m³

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7/09/2007

Refers to.

Stormwater Attenuation - using roof flows to attenuation tank

Client.

G Hattingh Subdivision - Raurimu Rd, Onerahi

Calculations are based on Auckland Regional Council's TP 10 and TP 108

Development Catchment Information**PREDEVELOPMENT****50 yr stormwater**Catchment area = 580 m²

Soil type: Type C (pg 8 section 3.2 for soil des)

Change in height = 1 m

length of catchment = 0.06 km

Slope (Sc) = 0.017

catchment slope - se page 14

ARI = 5

P₂₄ = 220.2 mm

24 hour design rainfall depth from WDC for ARI

Find CN	Area (m ²)	CN (Apx B)	look up each area and get individual CN's for each land area from App B
A1	520	79	Natural grassland on clay/volc
A2	0	0	
A3	0	0	
A4	0	0	
A - imperv	60	98	(impervious CN = 98)

CN =
catchment curve
number

Area total 580

CN = 81.0

la = 4.482759 mm

C = 1

t_c = 0.166 hrs 10.0 mint_p = 0.111 hrs 6.6 min

S = 59.7 mm

c* = 0.64

q* = 0.147 m³/s/km²mmq_p = 0.019 m³/s

check same as above

Weighted CN (see section eq 3.4 pg 9)

Weighted initial abstraction - la (mm)

Check channelisation number tbl 4.3 pg 13 (see note)

Time of concentration see sec 4.2 pg 12

Time to peak

Soil Storage parameter see eq 3.2 pg 6

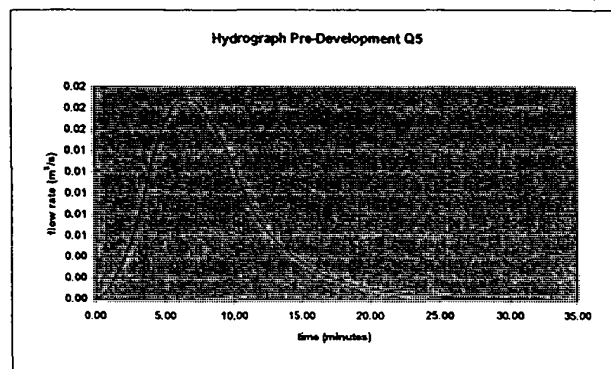
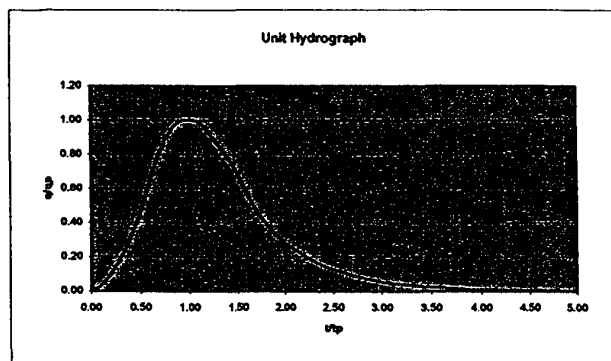
Runoff index for looking up q* fig 6.1 pg 22

Specific flow rate from fig 5.1 pg 22 using c* & t_c

Peak flow rate see sec 6.2 pg 21

Unit Hydrograph**Catchment Hydrograph**

t _p	q/q _p	t _p	Q _p	volume
0.00	0.00	0.00	0.00	0.00
0.10	0.03	0.66	0.00	0.01
0.20	0.10	1.33	0.00	0.05
0.30	0.19	1.99	0.00	0.11
0.40	0.31	2.66	0.01	0.19
0.50	0.47	3.32	0.01	0.29
0.60	0.66	3.98	0.01	0.42
0.70	0.82	4.65	0.02	0.55
0.80	0.93	5.31	0.02	0.65
0.90	0.99	5.98	0.02	0.72
1.00	1.00	6.64	0.02	0.74
1.10	0.99	7.30	0.02	0.74
1.20	0.93	7.97	0.02	0.72
1.30	0.86	8.63	0.02	0.67
1.40	0.78	9.30	0.01	0.61
1.50	0.68	9.96	0.01	0.55
1.60	0.56	10.62	0.01	0.46
1.70	0.46	11.29	0.01	0.38
1.80	0.39	11.95	0.01	0.32
1.90	0.33	12.62	0.01	0.27
2.00	0.28	13.28	0.01	0.23
2.20	0.21	14.61	0.00	0.36
2.40	0.15	15.94	0.00	0.26
2.60	0.11	17.26	0.00	0.19
2.80	0.08	18.59	0.00	0.14
3.00	0.06	19.92	0.00	0.10
3.20	0.04	21.25	0.00	0.07
3.40	0.03	22.58	0.00	0.05
3.60	0.02	23.90	0.00	0.04
3.80	0.02	25.23	0.00	0.03
3.90	0.01	25.90	0.00	0.01
4.50	0.01	29.88	0.00	0.04
5.00	0.00	33.20	0.00	0.01

Minutes m³/secm³Total Volume = 10.0 m³

POST DEVELOPMENT**50yr stormwater****NOTE: CATCHMENT AREA LESS DUE TO REMOVAL**Catchment area = 380 m²**OF FLOW FROM ROOF**

Soil type: Type c - clay/volc

see page 8 section 3.2 for soil designations

Change in height = 1 m²

length of catchment = 0.06 km

Slope (Sc) = 0.017

catchment slope - for larger catchments use equal

ARI = 5

P₂₄ = 220.2 mm

24 hour design rainfall depth from WDC for ARI

Developed areas:- example calcs for CN number below

Lot area 0.1482 acre

(lookup table 2-2 Appendix B for impervious % below)

total lot area 580 m²

imperv % 65% Impervious area

Impervious area in lots 377 m²Roof Area 200 m²Grassed area in lots 203 m²Other impervious areas (road etc) 177 m²**Find CN - catchment curve number**

look up each area and get individual CN's

for each land area from App B

	Area (m ²)	CN (Apx B)	
A1	203	68	Grass - Lawn on volc/clay
A2	0	0	
A3	0	0	
A4	0	0	
A -imperv	177	98	(impervious CN = 98)
A total	380		check same as above

CN = 82.0**la = 2.67 mm****C = 0.6****t_c = 0.166 hrs 10.0 min****t_p = 0.111 hrs 6.6 min****S = 55.9 mm****c* = 0.66****q* = 0.149 m³/s/km²mm****q_p = 0.012 m³/s**

Weighted CN (see section eq 3.4 pg 9)

Weighted initial abstraction - la (mm)

Check channalisation number tbl 4.3 pg 13 (see note)

Time of concentration see sec 4.2 pg 12

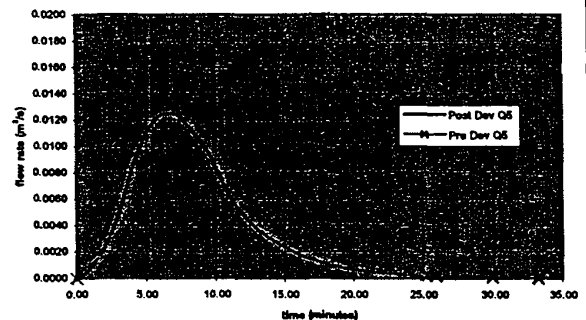
Time to peak

Soil Storage parameter see eq 3.2 pg 6

Runoff index for looking up q* fig 6.1 pg 22

Specific flow rate from fig 5.1 pg 22 using q* & t_c**Peak flow rate see sec 6.2 pg 21****Unit Hydrograph****Catchment Hydrograph**

U _p	q/q _p	t _p	Q _p	volume
0.00	0.00	0.00	0.0000	0.00
0.10	0.03	0.66	0.0004	0.01
0.20	0.10	1.33	0.0012	0.03
0.30	0.19	1.99	0.0024	0.07
0.40	0.31	2.66	0.0039	0.12
0.50	0.47	3.32	0.0059	0.19
0.60	0.66	3.98	0.0082	0.28
0.70	0.82	4.65	0.0102	0.37
0.80	0.93	5.31	0.0116	0.43
0.90	0.99	5.98	0.0123	0.48
1.00	1.00	6.64	0.0125	0.49
1.10	0.99	7.30	0.0123	0.49
1.20	0.93	7.97	0.0116	0.48
1.30	0.86	8.63	0.0107	0.44
1.40	0.78	9.30	0.0097	0.41
1.50	0.68	9.96	0.0085	0.36
1.60	0.56	10.62	0.0070	0.31
1.70	0.46	11.29	0.0057	0.25
1.80	0.39	11.95	0.0049	0.21
1.90	0.33	12.62	0.0041	0.18
2.00	0.28	13.28	0.0035	0.15
2.20	0.21	14.61	0.0026	0.24
2.40	0.15	15.94	0.0018	0.18
2.60	0.11	17.26	0.0013	0.13
2.80	0.08	18.59	0.0010	0.09
3.00	0.06	19.92	0.0007	0.07
3.20	0.04	21.25	0.0005	0.05
3.40	0.03	22.58	0.0004	0.03
3.60	0.02	23.90	0.0003	0.02
3.80	0.02	25.23	0.0002	0.02
3.90	0.01	25.90	0.0001	0.01
4.50	0.01	29.88	0.0001	0.02
5.00	0.00	33.20	0.0000	0.01

Minutes m³/sec m³Total Volume = **6.6****Hydrograph - Pre Vs Post-Development****Pre-development flows**Q50 peak = 0.019 m³/secQ50 volume = 9.989 m³**Post-development flows**Q50 peak = 0.012 m³/secQ50 volume = 6.63 m³

Richardson Stevens Consultants (1996) Ltd.

CONSULTING CIVIL & STRUCTURAL ENGINEERS

2 SEAVIEW ROAD, WHANGAREI.

Ph (09) 438 3273. Fax (09) 438 5734.

E-mail engineers@richardsonstevens.co.nz

File No. 8352

Plan Ref. No.

Calculated by. MM

Checked by.

Date. 7/09/2007

Refers to. Stormwater Attenuation - using roof flows to attenuation tank

Client. G Hattingh Subdivision - Raurimu Rd, Onerahi

Calculations are based on Auckland Regional Council's TP 10 and TP 108

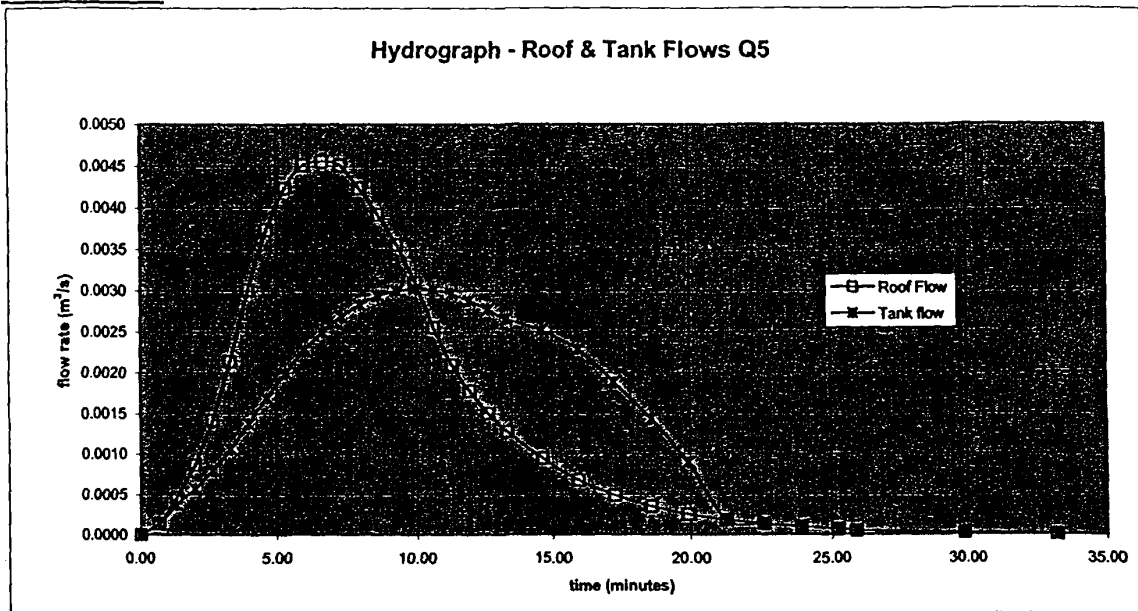
Roof flows to stormwater attenuation tank

Catchment area = 200 m²
 Change in height = 1 m
 Slope (Sc) = 0.025
 ARI = 5 P₂₄ = 136.4 mm
 A total = 200
 CN = 98.0
 Ia = 0.00 mm
 C = 0.6
 t_c = 0.166 hrs 10.0 min
 t_p = 0.111 hrs 6.6 min
 S = 5.2 mm
 c* = 0.93
 q* = 0.167 m³/s/km²mm
 q_p = 0.0046 m³/s

5 yr Stormwater roof flows

Soil type: Roof (impervious)
 length of catchment = 0.04 km
 catchment slope
 24 hour design rainfall depth from WDC for ARI
 Area of roof
 Weighted CN (see section eq 3.4 pg 9)
 Weighted initial abstraction - Ia (mm)
 Check channalisation number tbl 4.3 pg 13 (see note)
 Time of concentration see sec 4.2 pg 12
 Time to peak
 Soil Storage parameter see eq 3.2 pg 6
 Runoff index for looking up q* fig 6.1 pg 22
 Specific flow rate from fig 5.1 pg 22 using q* & tc
 Peak flow rate see sec 6.2 pg 21

Unit Hydrograph		Catchment Hydrograph		Cum		Water	Output	Pipe	Cum	
t _p	q/q _p	t _p	Q _p	volume	in vol	depth	flow P1	output	vol out	
0.00	0.00	0.00	0.0000	0.00	0.0	0.000	0.0000	0.00	0.00	0.00
0.10	0.03	0.66	0.0001	0.00	0.0	0.001	0.0001	0.00	0.00	0.00
0.20	0.10	1.33	0.0005	0.01	0.0	0.005	0.0004	0.01	0.01	0.00
0.30	0.19	1.99	0.0009	0.03	0.0	0.011	0.0006	0.02	0.03	0.01
0.40	0.31	2.66	0.0014	0.05	0.1	0.022	0.0008	0.03	0.06	0.03
0.50	0.47	3.32	0.0021	0.07	0.2	0.039	0.0011	0.04	0.10	0.06
0.60	0.66	3.98	0.0030	0.10	0.3	0.065	0.0014	0.05	0.14	0.12
0.70	0.82	4.65	0.0037	0.13	0.4	0.098	0.0017	0.06	0.20	0.19
0.80	0.93	5.31	0.0042	0.16	0.6	0.137	0.0020	0.07	0.28	0.27
0.90	0.99	5.98	0.0045	0.17	0.7	0.176	0.0023	0.08	0.36	0.36
1.00	1.00	6.64	0.0046	0.18	0.9	0.214	0.0025	0.09	0.46	0.45
1.10	0.99	7.30	0.0045	0.18	1.1	0.248	0.0027	0.10	0.56	0.53
1.20	0.93	7.97	0.0042	0.17	1.3	0.276	0.0028	0.11	0.67	0.59
1.30	0.86	8.63	0.0039	0.16	1.4	0.296	0.0029	0.11	0.79	0.64
1.40	0.78	9.30	0.0036	0.15	1.6	0.310	0.0030	0.12	0.90	0.67
1.50	0.68	9.96	0.0031	0.13	1.7	0.315	0.0030	0.12	1.02	0.68
1.60	0.56	10.62	0.0026	0.11	1.8	0.312	0.0030	0.12	1.14	0.67
1.70	0.46	11.29	0.0021	0.09	1.9	0.301	0.0030	0.12	1.26	0.65
1.80	0.39	11.95	0.0018	0.08	2.0	0.285	0.0029	0.12	1.38	0.61
1.90	0.33	12.62	0.0015	0.07	2.1	0.265	0.0028	0.11	1.49	0.56
2.00	0.28	13.28	0.0013	0.06	2.1	0.242	0.0027	0.11	1.60	0.51
2.20	0.21	14.61	0.0009	0.05	2.2	0.217	0.0025	0.21	1.81	0.39
2.40	0.15	15.94	0.0007	0.04	2.3	0.179	0.0023	0.19	2.00	0.26
2.60	0.11	17.26	0.0005	0.03	2.3	0.122	0.0019	0.17	2.16	0.14
2.80	0.08	18.59	0.0004	0.03	2.3	0.070	0.0014	0.13	2.30	0.05
3.00	0.06	19.92	0.0003	0.02	2.4	0.028	0.0009	0.09	2.39	0.00
3.20	0.04	21.25	0.0002	0.02	2.4	0.007	0.0002	0.04	2.43	0.00
3.40	0.03	22.58	0.0001	0.01	2.4	0.005	0.0001	0.01	2.44	0.00
3.60	0.02	23.90	0.0001	0.01	2.4	0.004	0.0001	0.01	2.45	0.00
3.80	0.02	25.23	0.0001	0.01	2.4	0.003	0.0001	0.01	2.46	0.00
3.90	0.01	25.90	0.0001	0.00	2.4	0.001	0.0001	0.00	2.46	0.00
4.50	0.01	29.88	0.0000	0.01	2.4	0.003	0.0000	0.01	2.47	0.00
5.00	0.00	33.20	0.0000	0.00	2.4	0.001	0.0000	0.00	2.47	0.00
		Minutes	m ³ /sec	m ³	m ³	m	m ³ /sec	m ³	m ³	m ³
		Total Volume =		2.4		0.32	0.0030	max		2.5

Conclusions**Pipe Flows**

Q5 peak= 0.003 m³/sec

Roof Flows

Q5 peak= 0.0046 m³/sec

Q5 total volume= 2.42 m³

Richardson Stevens Consultants (1996) Ltd.

CONSULTING CIVIL & STRUCTURAL ENGINEERS

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File No. 8352

Plan Ref. No.

Calculated by. MM

Checked by.

Date. 7/09/2007

Refers to. Stormwater Attenuation - using roof flows to attenuation tank**Client.** G Hattingh Subdivision - Raurimu Rd, Onerahi

Calculations are based on Auckland Regional Council's TP 10 and TP 108

Roof flows to stormwater attenuation tank

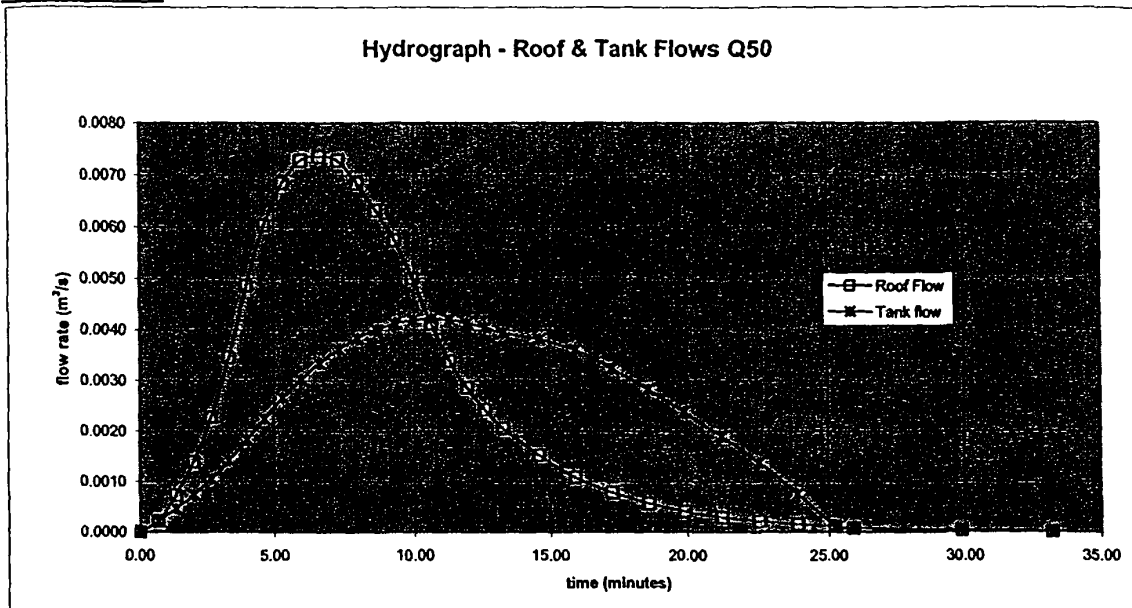
Catchment area = 200 m²
 Change in height = 1 m
 Slope (Sc) = 0.040
 ARI = 5 P₂₄ = 220.2 mm
 A total = 200
 CN = 98.0
 Ia = 0.00 mm
 C = 0.6
 t_c = 0.166 hrs 10.0 min
 t_p = 0.111 hrs 6.6 min
 S = 5.2 mm
 c* = 0.96
 q* = 0.167 m³/s/km²mm
 q_p = 0.0074 m³/s

50 yr Stormwater roof flows

Soil type: Roof (impervious)
 length of catchment = 0.04 km
 catchment slope
 24 hour design rainfall depth from WDC for ARI
 Area of roof
 Weighted CN (see section eq 3.4 pg 9)
 Weighted initial abstraction - Ia (mm)
 Check channalisation number tbl 4.3 pg 13 (see note)
 Time of concentration see sec 4.2 pg 12
 Time to peak
 Soil Storage parameter see eq 3.2 pg 6
 Runoff index for looking up q* fig 6.1 pg 22
 Specific flow rate from fig 5.1 pg 22 using q* & t_c
 Peak flow rate see sec 6.2 pg 21

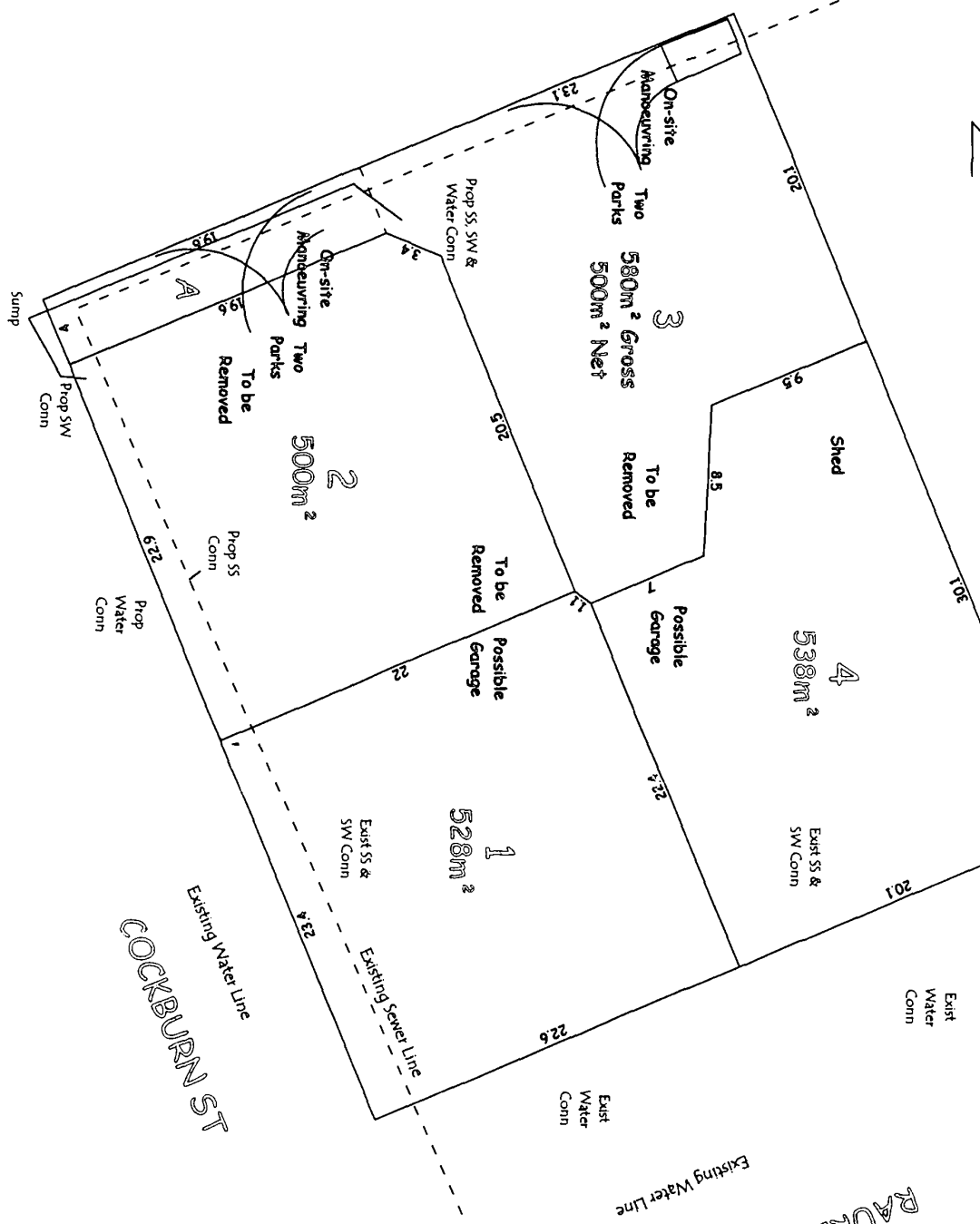
Unit Hydrograph**Catchment Hydrograph**

Unit Hydrograph	Catchment Hydrograph	Q _p	volume	cum in vol	Water depth	Output flow P1	Pipe output	Cum vol out	
t _p	q _p	t _p	Q _p	volume	cum in vol	Water depth	Output flow P1	Pipe output	Cum vol out
0.00	0.00	0.00	0.0000	0.00	0.0	0.000	0.0000	0.00	0.00
0.10	0.03	0.66	0.0002	0.00	0.0	0.002	0.0002	0.00	0.00
0.20	0.10	1.33	0.0007	0.02	0.0	0.007	0.0005	0.01	0.02
0.30	0.19	1.99	0.0014	0.04	0.1	0.019	0.0007	0.02	0.04
0.40	0.31	2.66	0.0023	0.07	0.1	0.038	0.0011	0.04	0.08
0.50	0.47	3.32	0.0035	0.11	0.3	0.069	0.0014	0.05	0.13
0.60	0.66	3.98	0.0049	0.17	0.4	0.115	0.0018	0.06	0.19
0.70	0.82	4.65	0.0060	0.22	0.6	0.175	0.0023	0.08	0.27
0.80	0.93	5.31	0.0068	0.26	0.9	0.243	0.0027	0.10	0.37
0.90	0.99	5.98	0.0073	0.28	1.2	0.315	0.0030	0.11	0.48
1.00	1.00	6.64	0.0074	0.29	1.5	0.386	0.0033	0.13	0.61
1.10	0.99	7.30	0.0073	0.29	1.8	0.450	0.0036	0.14	0.75
1.20	0.93	7.97	0.0068	0.28	2.0	0.506	0.0038	0.15	0.90
1.30	0.86	8.63	0.0063	0.26	2.3	0.551	0.0040	0.16	1.05
1.40	0.78	9.30	0.0057	0.24	2.5	0.584	0.0041	0.16	1.22
1.50	0.68	9.96	0.0050	0.21	2.8	0.604	0.0042	0.17	1.38
1.60	0.56	10.62	0.0041	0.18	2.9	0.611	0.0042	0.17	1.55
1.70	0.46	11.29	0.0034	0.15	3.1	0.604	0.0042	0.17	1.72
1.80	0.39	11.95	0.0029	0.12	3.2	0.587	0.0041	0.17	1.88
1.90	0.33	12.62	0.0024	0.11	3.3	0.563	0.0040	0.16	2.05
2.00	0.28	13.28	0.0021	0.09	3.4	0.534	0.0039	0.16	2.20
2.20	0.21	14.61	0.0015	0.14	3.5	0.500	0.0038	0.31	2.51
2.40	0.15	15.94	0.0011	0.10	3.7	0.447	0.0036	0.30	2.81
2.60	0.11	17.26	0.0008	0.07	3.7	0.360	0.0032	0.27	3.08
2.80	0.08	18.59	0.0006	0.05	3.8	0.274	0.0028	0.24	3.32
3.00	0.06	19.92	0.0004	0.04	3.8	0.195	0.0024	0.21	3.53
3.20	0.04	21.25	0.0003	0.03	3.8	0.124	0.0019	0.17	3.70
3.40	0.03	22.58	0.0002	0.02	3.9	0.065	0.0014	0.13	3.83
3.60	0.02	23.90	0.0002	0.01	3.9	0.020	0.0008	0.08	3.92
3.80	0.02	25.23	0.0001	0.01	3.9	0.004	0.0001	0.03	3.95
3.90	0.01	25.90	0.0001	0.00	3.9	0.001	0.0001	0.00	3.95
4.50	0.01	29.88	0.0000	0.01	3.9	0.006	0.0000	0.01	3.97
5.00	0.00	33.20	0.0000	0.00	3.9	0.001	0.0000	0.00	3.97
Minutes	m ³ /sec	m ³	m ³	m ³	m	m ³ /sec	m ³	m ³	m ³
Total Volume =				3.9	0.61	0.0042	max	4.0	

Conclusions**Pipe Flows**

Q50 peak= 0.004 m³/sec

Roof FlowsQ50 peak= 0.0074 m³/sec
Q50 total volume= 3.91 m³



PROPOSED EASEMENTS
SHOWN PURPOSE SERV TENE DOM TENE
A ROW Lot 3 Lot 2

This is a Concept Plan. Areas and dimensions are approximate only and are subject to final survey.
Consult Beasley & Burgess Surveyors before entering into a sale & purchase agreement using this plan.

Area: 2148 m²

Comprised in: CT 964/212 & 971/148

BEASLEY & BURGESS SURVEYORS
47 Norfolk St, PO Box 5048, WHANGAREI
Ph/Fax 09 438 3081 Mobile 027 224 5811

PROPOSED SUBDIVISION OF LOTS 6 & 7 DP 37268
at 61 & 63 RAURIMU AVENUE, ONERAHI
FOR: G HATTINGH

Date:	Wed Sep 12 10:08:27 2007
A3 Scale:	1:250
Revisions:	FOR RC APPROVAL
Ref:	C 2254

Retaining Wall
Max Height 1400mm

FGL = 10.000

Height GL
0BDY 9.5
RETAINING WALL
MAX HEIGHT
1400mm

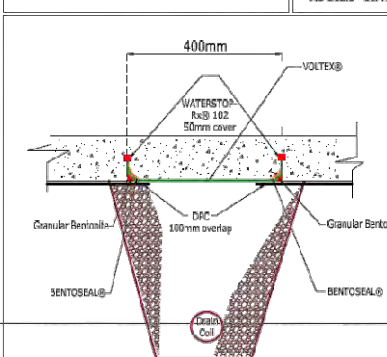
symbol	item
---	100mm pvc SS pipe incl. WC waste
---	100mm pvc SW pipe
---	pvc fixture waste pipes 65mm basins, 65mm shower, bath, 65mm sink & lav tub min 1:40 gradient
+	stair floor waste with clean-out
■	gully trap (max 4 fixtures)

symbol	item
IP	inspection point
IB	inspection bend
TV	terminal vent (vented stack pipe with 60mm terminal vent & cap to roof, weatherproofed by plumber with compatible flashing sealed & riveted to roof)
DP	75mm uPVC downpipe
ORG	overflow relief gully
AAV	Air admittance valve
HT	Hose Tap

Received
Customer Services
19 DEC 2007
Whangarei
District CouncilEXISTING CONCRETE TO BE CUT TO
ALLOW FOR NEW PLUMBING KEEP
CLEAR OF EXISTING REINFORCING
STARTERS REPAIR AND MAKE GOOD
TO MATCH EXISTING
(SHADED AREA)

NOTE: plumbing to AS/NZS3500.2.2 (min 1:80 pipe gradient) by qualified tradesman. Use 75mm uPVC downpipes. Contractor locate all service connections on site prior to earthworks confirm all boundary setbacks & restrictions comply with current regulations prior to commencement of foundations. All waste pipe sizes, fall, venting & discharge to be confirmed by NZ qualified plumber. Confirm positions of available services cabling etc on site prior to any excavation.

building located on levelled building platform
topsoil removed to natural ground - site graded level,
any fill to be dry & approved by engineer & compacted down in
accordance with NZS3604.1999
ensure final building platform & finished ground have an
even fall so as to direct water away from the building in all cases

VOLCLAY® WATERPROOFING SYSTEM
DRAIN CUT EXISTING FLOOR DETAIL
ZA 05
No Scale 09/10

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For Technical Advice Contact
A1 HOMES Ltd
Email: info@a1homes.co.nz
Telephone: 01 441 1110
Facsimile: 01 441 1110

LOT 6
DP - 37268
Area = 500m²



APPROVED
12 FEB 2008
WHANGAREI DISTRICT COUNCIL
BUILDING CONTROL

Drawn: DS	Wind Zone: high	Sheet: SITE & DRAINAGE PLAN
Checked: ST	Earthquake Zone: C	

All dimensions & underground service locations to be checked prior to commencement of works. DO NOT scale off drawings. Cross reference all drawings, confirm site levels, floor heights & restrictions prior to earthworks. If any discrepancies occur, ask the designer or contractor immediately before commencing work or ordering. COPYRIGHT: These drawings remain the property of A1 HOMES Ltd and are provided for use as described only. They are not to be used or reproduced in whole or part without written permission. Products mentioned are trademarks of their respective owners. Any use of these drawings without permission is prohibited.

Client: JORDAN STREET LTD
Project: PROPOSED RESIDENCE FOR
LOT 6, 63 RAURIMU AVE, ONERAHI, WHANGAREI

Date: 14 Nov '07	Job no: PO177
Scale: 1:100	Sheet no: A02
Revision: A-DS-06 12 07	A152 - all

A1 HOMES LTD
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NOTE:
 ensure granular hardfill is evenly compacted down in max. 100mm layers to form a solid base with bearing capacity greater than 300kPa. Min. 5mm - 25mm max. sand blinding to cover hardfill to ensure the vapour barrier is protected from any granular protrusions. 450x450x300 deep conc. pads maybe required under girder pointload areas - 300widex200deep slab thickenings maybe required under load bearing walls - see final roof truss layout plan to confirm location conc. floor to comply with NZS.3109, surface tolerances, & NZS.3114, maximum deviations of 3mm

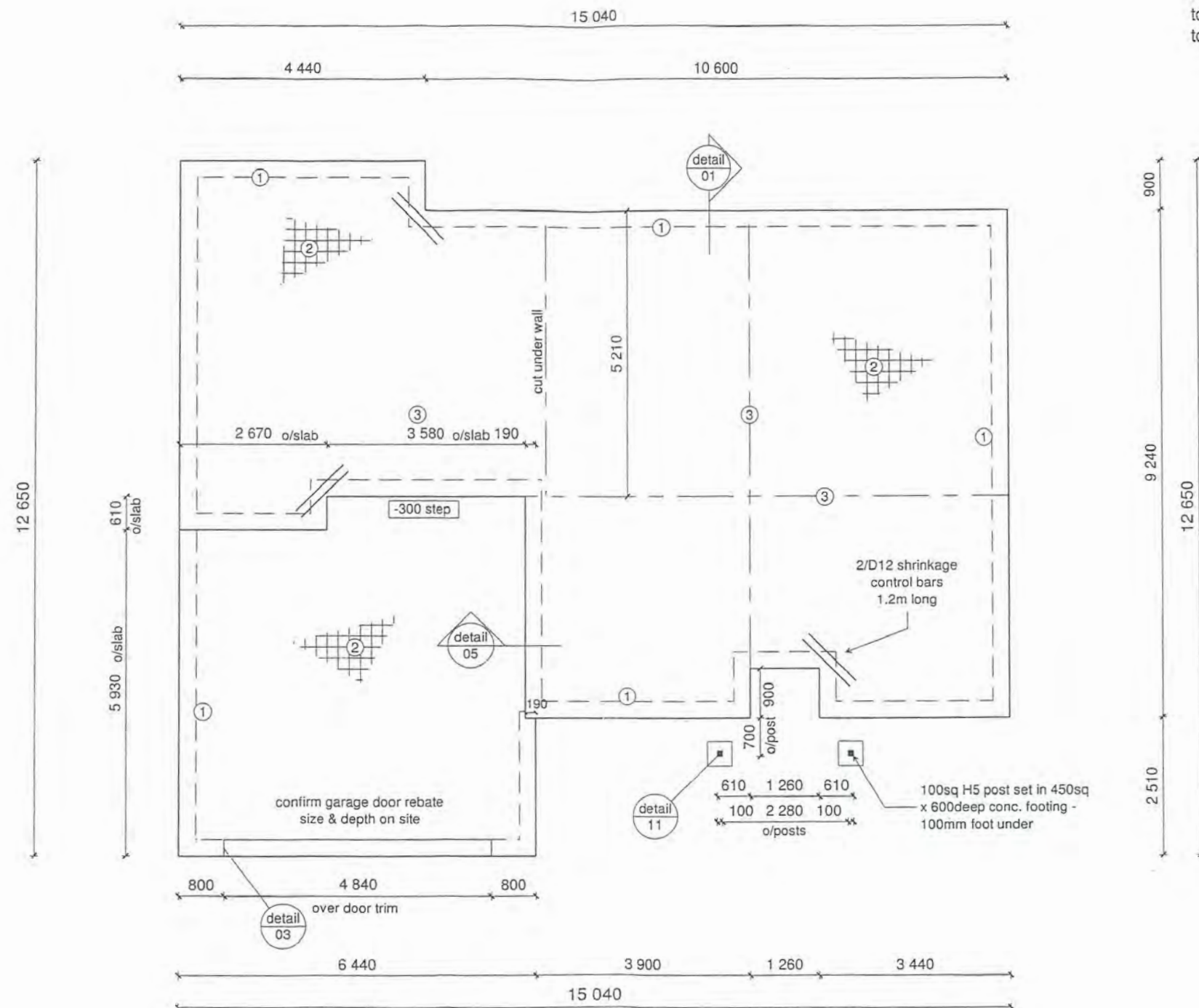
NZS3604:1999 -
 Section 7: floors 7.5.8.6.4

The bay dimensions formed by either instruction or shrinkage control joints shall be limited to a maximum ratio of length:width of 2:1.

Received
 Customer Services

19 DEC 2007

Whangarei
 District Council



Drawn: DS	Wind Zone: high	Sheet : FOUNDATION
Checked : ST	E/Quake Zone : C	

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Client :	JORDAN STREET LTD	Date : 14 Nov '07	Job no : PO177
Project :	PROPOSED RESIDENCE FOR LOT 6, 63 RAURIMU AVE, ONERAHI, WHANGAREI	Scale : 1:100	Sheet no : A03
		Revision : A - DS - 06 12 07	A152 - alt





Where there are more than 3 tapered gib ceiling sheet joints the third joint shall be back blocked using gib off-cuts & cove fix adhesive not gib-fix glue, in accordance with winstones gib fixing site guide MAY 2006

Architectural floor plan of a house, overlaid with a large red 'X'. The plan includes rooms such as MA BEDR, BATH, BED 3, LOUNGE, DINING, KITCH., BED 2, and ENS. Dimensions are provided for various elements, including wall thicknesses, room sizes, and overall footprint. A large red 'X' is drawn across the entire plan. To the right, text reads "FLOOR AREA = 151.2m² over frame 158m² over brick". At the bottom right, a red stamp with the letters "AI" is visible.

FLOOR AREA = 151.2m² over frame
158m² over brick

APPROVED
12 FEB 2008
WHANGAREI DISTRICT COUNCIL
BUILDING CONTROL

Drawn: DS	Wind Zone: high
Checked : ST	E/Quake Zone : C

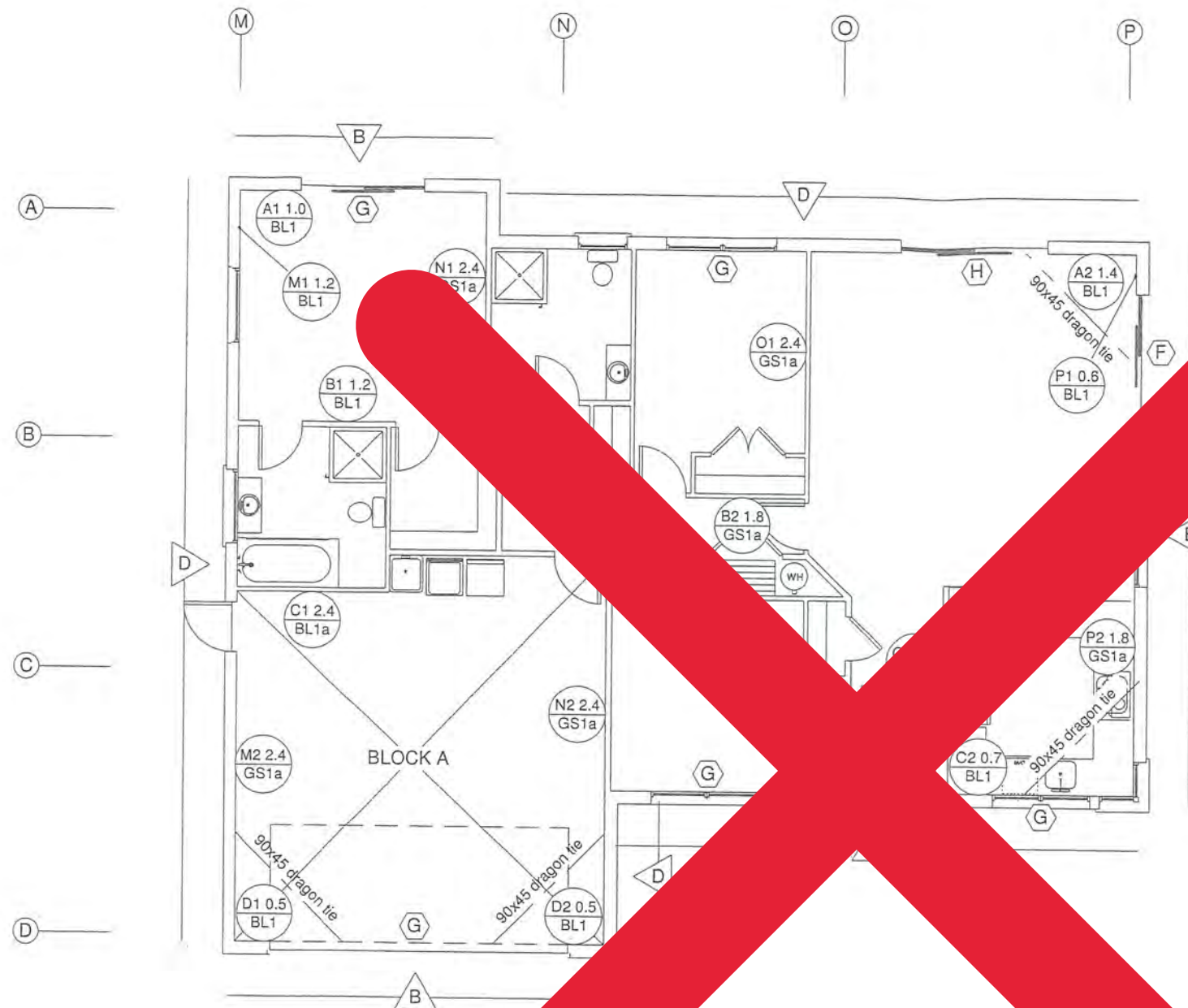
Sheet : FLOOR PLAN

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Client : JORDAN STREET LTD
Project : PROPOSED RESIDENCE FOR
LOT 6, 63 RAURIMU AVE, ONERAHI, WHANGAREI

Date : 14 Nov '07	Job no : PO177
Scale : 1:100	Sheet no : A04
Revision : A-DS-06 12 07	A152 - alt





NOTE :
ALL GIB® BRACES FIXED IN ACCORDANCE WITH
THE LATEST WINSTONES GIB BRACING MANUAL

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BRACING ELEMENT TABLE		
BRACE TYPE	PRIMARY BRACE	SECONDARY BRACE/S
GS1a	10mm GIB ON ONE FACE LENGTH 1800-2400mm OR MORE	DIA BRACE
GS2	10mm GIB ON TWO FACES LENGTH 1200-2400mm OR MORE	N/A
BL1	GIB BRACELINE ON ONE FACE LENGTH 400-600mm OR MORE	hold down straps + 1/M12 bolt ea. end
BL1a	GIB BRACELINE, ONE FACE LENGTH 1800mm OR MORE	hold down straps + 1/M12 bolt ea. end DIA BRACE
BLP	GIB BRACELINE, ONE FACE, 7mm PLY ON THE OTHER LENGTH 600-900mm OR MORE	hold down straps + 1/M12 bolt ea. end
BLG	GIB BRACELINE, ONE FACE, 10mm GIB OTHER FACE LENGTH 600-1200mm OR MORE	hold down straps + 1/M12 bolt ea. end

— LABEL No.
C1 1.8
GS1a — BRACE ELEMENT LENGTH
— BRACE TYPE AS TABLE

X - top plate to stud connection

A - 2/90x3.33 plain steel wire nails driven vertically into stud (0.7kN).

B - 2/90x3.33 plain steel wire nails driven vertically into stud + single TYLOK 2T4 plate (1.7kN).

C - 2/90x3.33 plain steel wire nails driven vertically into stud + pair TYLOK 2T4 plate (2.7kN).

D - 2/90x3.33 plain steel wire nails driven vertically into stud + sheet brace strap 400 with 6/30x3.15 nails ea. stud face (6.0kN).

Y - stud to lintel & bottom plate connection

E - 2 rows of 2/90x3.33 nails, trimmer stud to lintel. Three sets of 2/90x3.33 nails, trimmer stud to understud (1.4kN).

F - 3 rows of 2/90x3.33 nails, trimmer stud to lintel. Three sets of 2/90x3.33 nails, trimmer stud to understud. 2 TYLOK 2T4s one side of stud to bottom plate (4.0kN).

G - 3 rows of 2/90x3.33 nails, trimmer stud to lintel + sheet brace strap 400 one face of stud & lintel, 6/30x3.15 nails ea. end. Three sets of 2/90x3.33 nails, trimmer stud to understud. Sheet brace strap 400 wrap around bottom plate, 6/30x3.15 nails ea. end with 1/M12 bolt & 50x50x3mm washer (7.5kN).

H - 4 rows of 2/90x3.33 nails, trimmer stud to lintel + sheet brace strap 400 one face of stud & lintel, 6/30x3.15 nails ea. end. Three sets of 2/90x3.33 nails, trimmer stud to understud. Pair 6kN stud anchors with 1/M12 bolt & 50x50x3mm washer (13.5kN).

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BUILDING CONTROL

Drawn: DS
Checked: ST
Wind Zone: high
E/Quake Zone: C

Sheet :
BRACING PLAN

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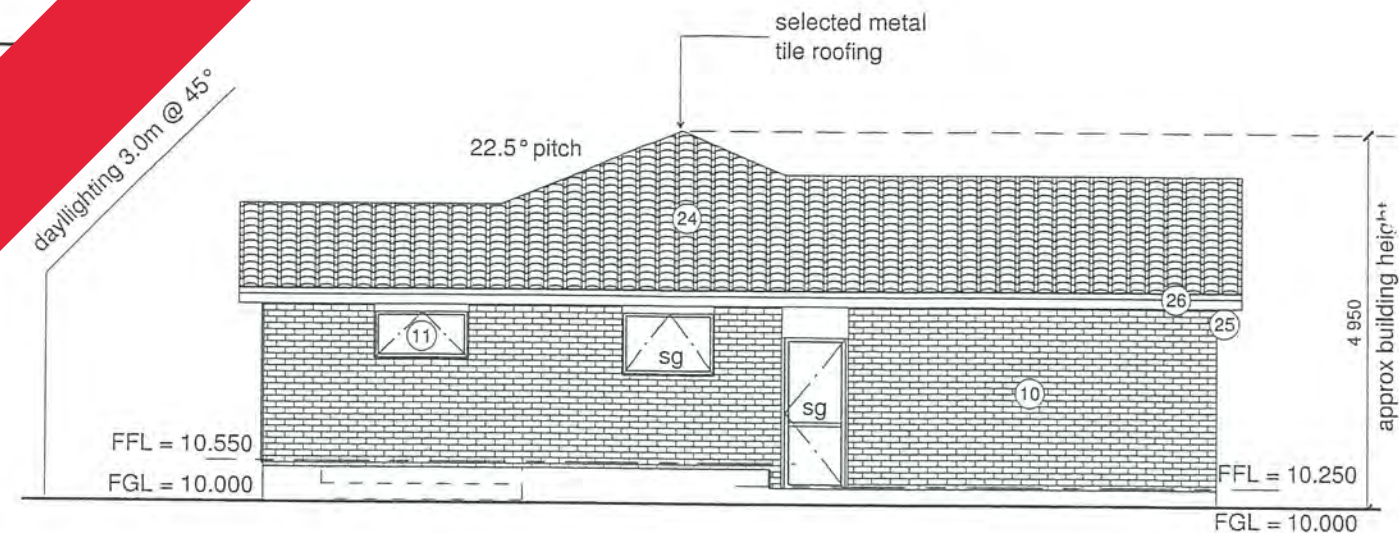
Client : JORDAN STREET LTD
Project : PROPOSED RESIDENCE FOR LOT 6, 63 RAURIMU AVE, ONERAHI, WHANGAREI
Date : 14 Nov '07
Scale : 1:100
Revision : A - DS - 06 12 07
Job no : PO177
Sheet no : A05
A152 - alt

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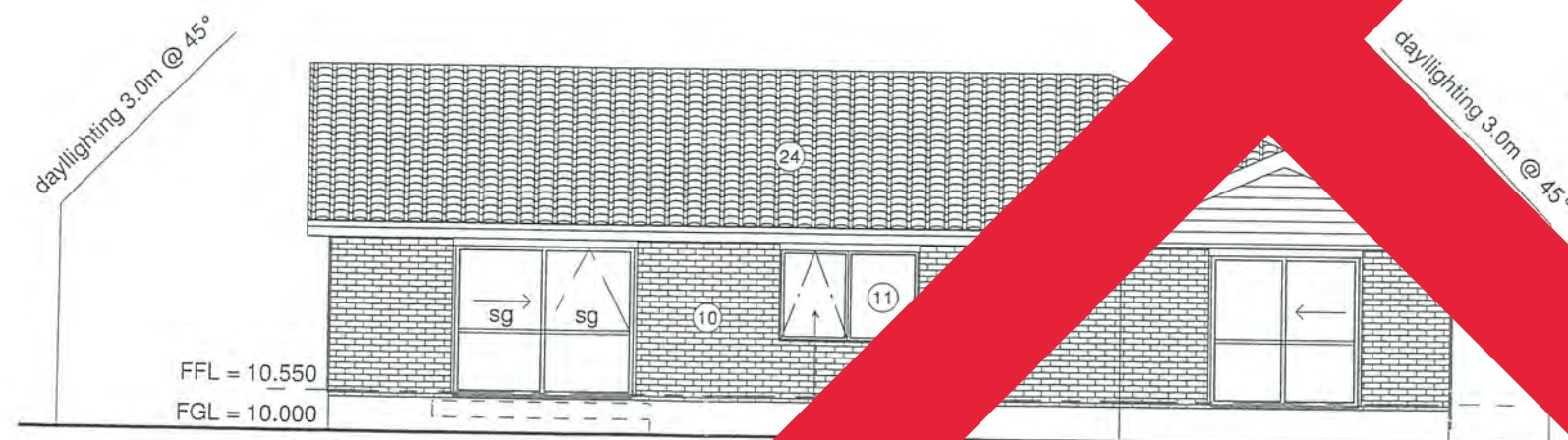
sg = Safety glass - as shown.
Glazing in accordance with NZS 4223
All glazing clear float, except wet areas, obscure glass



elevation 1



elevation 2



elevation 3



WHANGAREI DISTRICT COUNCIL
BUILDING CONTROL

Drawn: DS	Wind Zone: high	Sheet : ELEVATIONS
Checked : ST	E/Quake Zone : C	

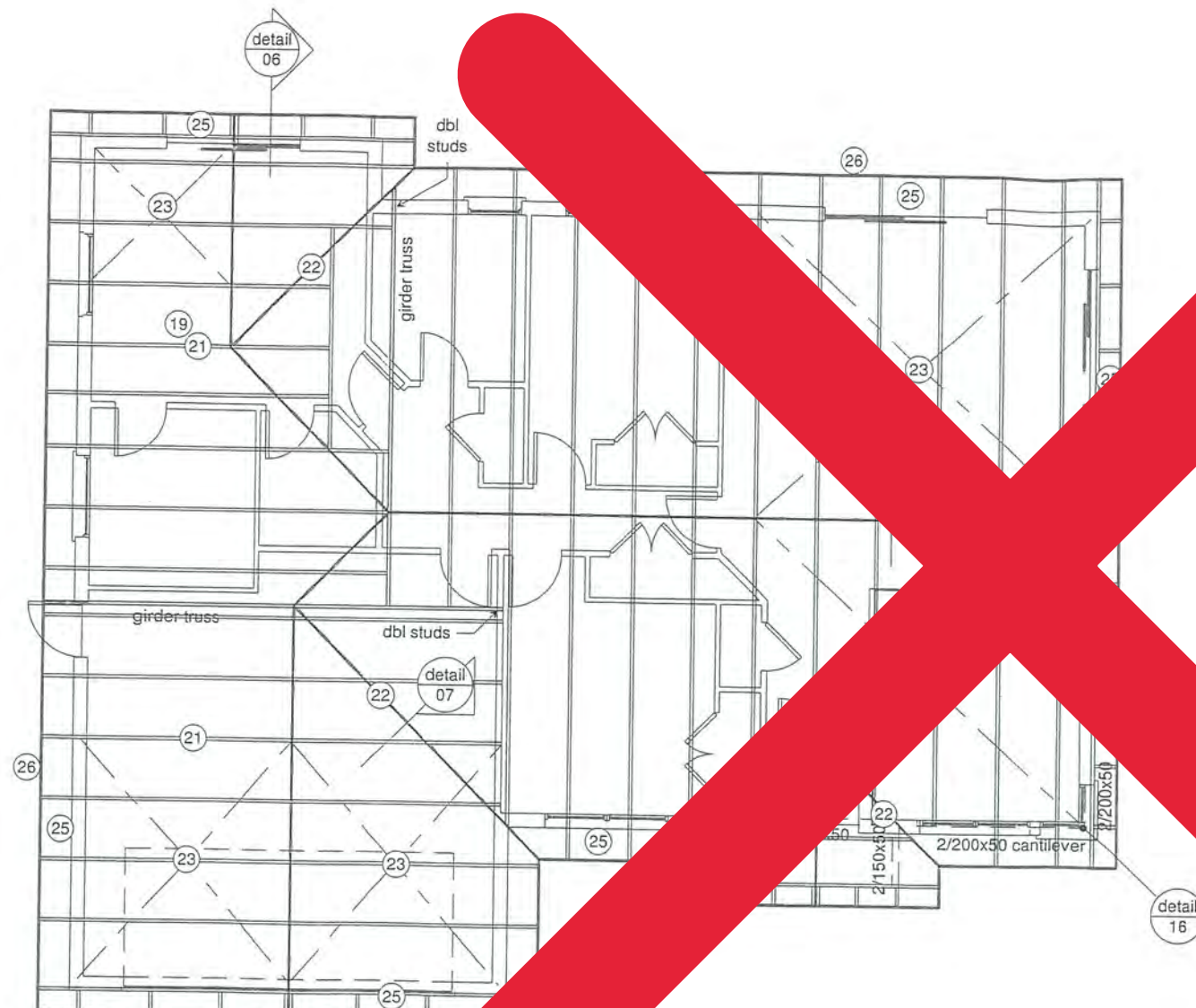
All dimensions & underground service locations to be checked prior to commencement of all works. DO NOT scale off drawings. Cross reference all drawings, confirm site levels, floor heights & restrictions prior to earthworks. If any discrepancies occur, ask the designer or contractor immediately before commencing works or ordering. COPYRIGHT: These drawings remain the property of A1 HOMES Ltd and are provided for use as described above and may not be used or re-produced in whole or part without written permission. Producer statements issued by all suppliers & tradesmen where applicable. Any site/construction works are not to commence until building permit becomes unconditional.

Client : JORDAN STREET LTD	Date : 14 Nov '07	Job no : PO177
Project : PROPOSED RESIDENCE FOR LOT 6, 63 RAURIMU AVE, ONERAHI, WHANGAREI	Scale : 1:100	Sheet no : A01
	Revision : A - DS - 06 12 07	A152 - alt

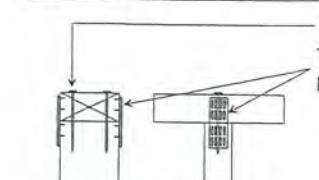


NOTE :
THIS LAYOUT IS PRELIMINARY ONLY, REFER TO THE MANUFACTURER FOR TRUSS TYPE, BEAM COMPLIANCE, LOCATION & FIXING REQUIREMENTS

TRUSS MANUFACTURER TO INFORM DESIGNER OF ANY FURTHER FOOTINGS /SLAB THICKENINGS THAT MAY BE REQUIRED TO SUPPORT ROOF LOADS

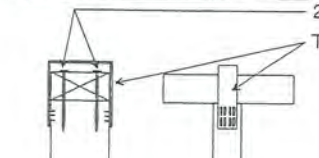


NOTE:
Top plate to stud fixings to all studs @ 600 ctrs - where truss width less than 5.2m, omitt (1x) TYLOK 2T4 plate.



FIXING TYPE C 2.7KN

NOTE:
Where loaded dimension of truss is greater than 3.5m, use fixing type D.

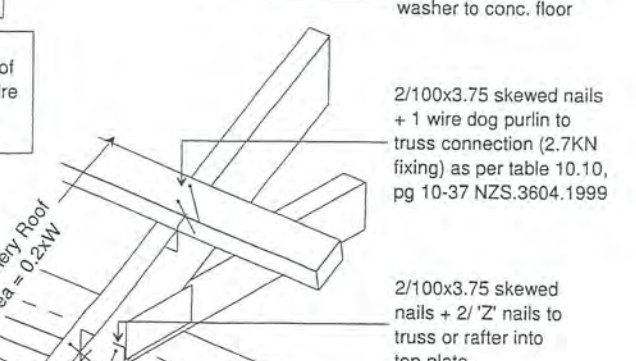
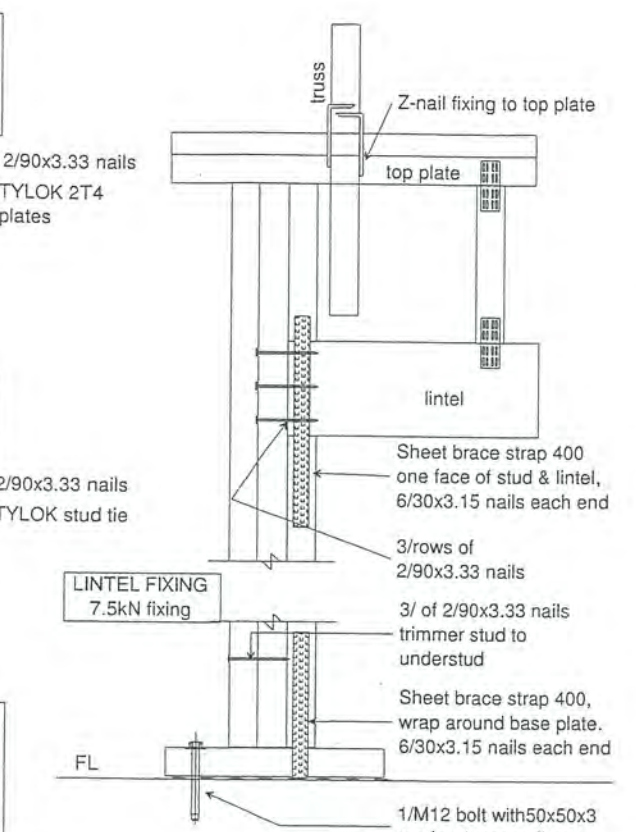
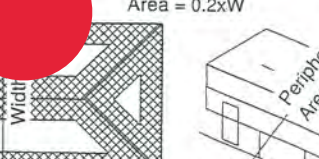


FIXING TYPE D 6.0KN

NOTE:
use these details for all openings 1.5m wide & greater
Other fixings omitt the Sheet brace straps & TYLOK 2T4 connectors

NOTE:
use these details for Periphery Roof Area only, all other purlins omitt wire dog & fix with 3/100x3.75 skewed nails to each purlin (1.2KN fixing)

Periphery Roof Area = 0.2xW



Drawn: DS
Checked: ST

Wind Zone: high
E/Quake Zone: C

Sheet :
ROOF PLAN

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Client : JORDAN STREET LTD

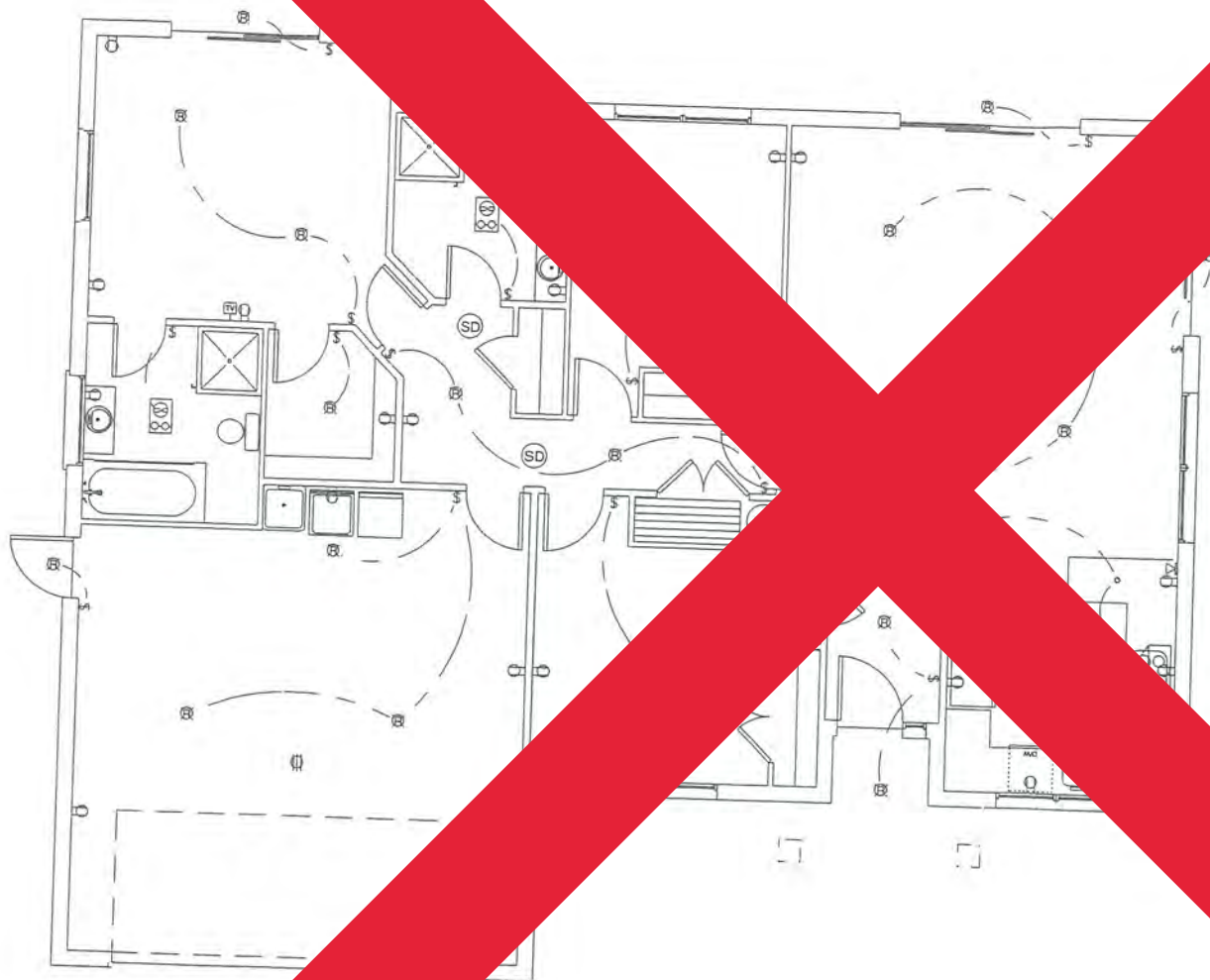
Project : PROPOSED RESIDENCE FOR LOT 6, 63 RAURIMU AVE, ONERAHI, WHANGAREI

Date : 14 Nov '07
Scale : 1:100
Revision : A - DS - 06 12 07

Job no : PO177
Sheet no : A06
A152 - alt



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NOTE:
all electrical work & items to comply with;
NZBC F7/AS1, AS/NZS 3000, AS/NZS 3008,
AS 3786, NZS 6401

This layout is preliminary only - confirm final
positioning & fitting allowance with client
contract specifications

SD - Approved smoke detectors required
within 3.0m of any sleeping space - first alert
or similar

SYMBOL	ELECTRICAL LEGEND
	recessed downlight
	switch
	feature halogen
	television outlet
	telephone jack
	double power point
	3in1 fan light
	wall light - internal
	wall light - external
	auto garage door opener
	smoke detector

APPROVED
12 FEB 2008
WHANGAREI DISTRICT COUNCIL
BUILDING CONTROL

Drawn:
DS
Checked:
ST

Wind Zone:
high
E/Quake Zone:
C

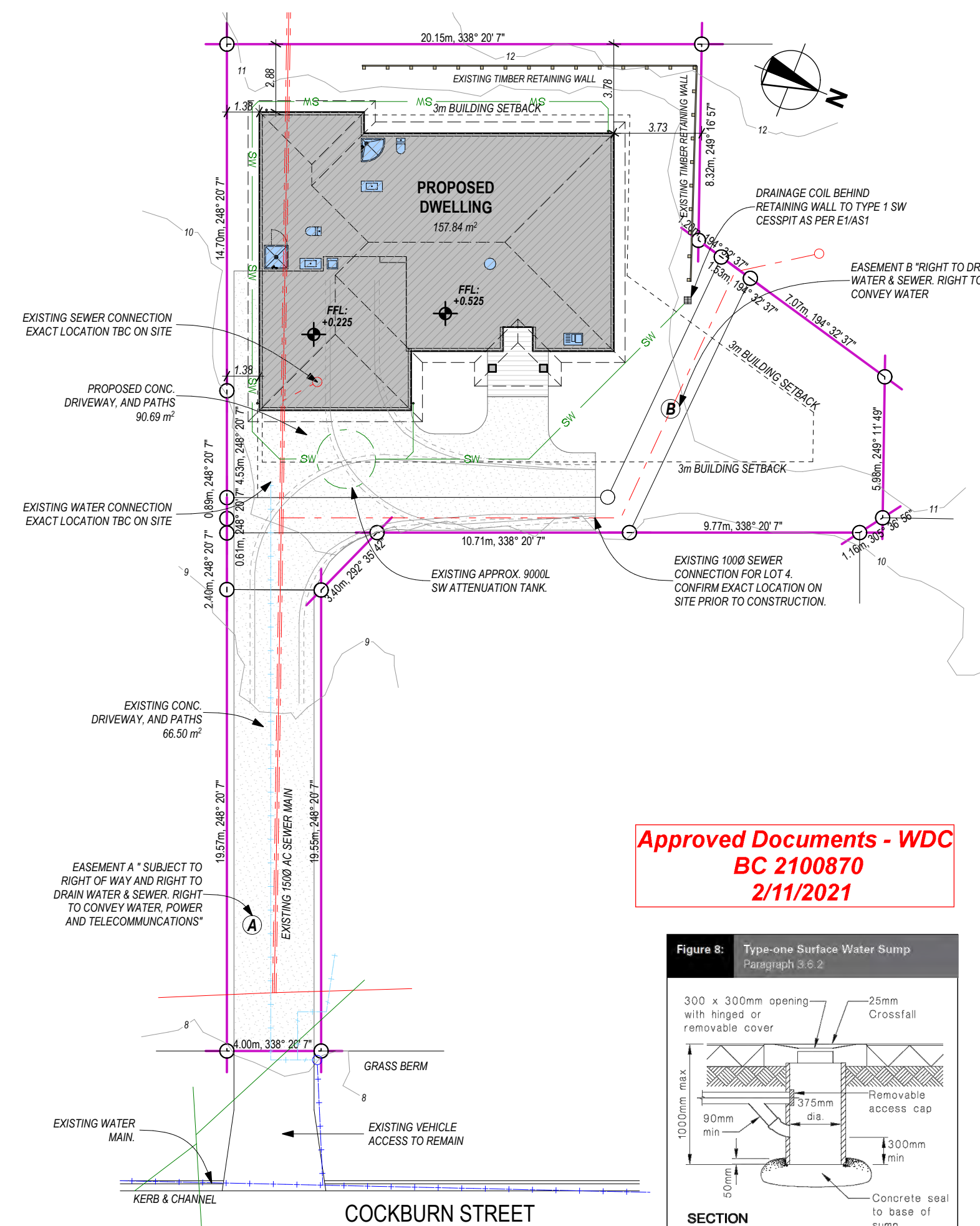
Sheet :
ELECTRICAL LAYOUT

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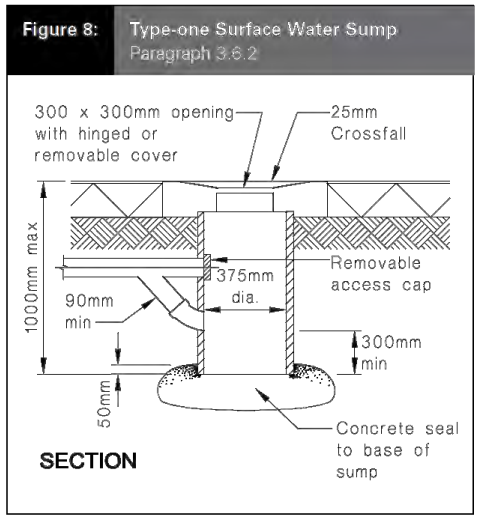
Client : JORDAN STREET LTD
Project : PROPOSED RESIDENCE FOR
LOT 6, 63 RAURIMU AVE, ONERAHI, WHANGAREI

Date : 14 Nov '07
Scale : 1:100
Revision : A - DS - 06 12 07
Job no : PO177
Sheet no : A07
A152 - alt

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Approved Documents - WDC
BC 2100870
2/11/2021



SITE PLAN
1:200

IMPORTANT NOTES:
THIS SET OF DRAWINGS MUST BE READ IN CONJUNCTION WITH ATTACHED,
2) MANUFACTURER'S LITERATURE.
3) SPECIFICATIONS.

1. ALL CONSTRUCTION TO COMPLY WITH NZS 3604 2011 AND LOCAL TERRITORIAL AUTHORITY BYLAWS.
2. ALL DIMENSIONS, LAYOUT, WINDOW & DOOR POSITIONS ARE APPROXIMATE-CONFIRM WITH EXISTING BUILDING
3. ALL DIMENSIONS & UNDERGROUND SERVICES TO BE CHECKED ON SITE BY CONTRACTORS BEFORE COMMENCEMENT OF ANY WORK.
4. CONTRACTOR TO ENSURE ALL GROUND LEVELS & HEIGHT RESTRICTIONS ARE CORRECT AND COMPLY WITH TERRITORIAL AUTHORITY BYLAWS THROUGHOUT CONSTRUCTION.
5. DO NOT SCALE FROM DRAWINGS & WORK FROM DIMENSIONS SHOWN.

PLUMBING GAS & DRAINAGE NOTES
1. ALL SANITARY PLUMBING AND DRAINAGE WORK MUST COMPLY WITH NZ BUILDING CODE ACCEPTABLE SOLUTION NZ STANDARD - AS/NZS 3500 OR G13/AS1
2. ALL STORMWATER DRAINAGE WORK MUST COMPLY WITH NZ BUILDING CODE ACCEPTABLE SOLUTION E1/AS1.
3. ALL GAS WORKS MUST COMPLY WITH NZ BUILDING CODE ACCEPTABLE SOLUTION G11/AS1
4. ALL HOT & COLD POLYBUTYLENE PIPEWORK MUST COMPLY WITH G12/AS1
5. KITCHEN SINK DISTRIBUTION PIPE FROM THE HOT WATER HEATER TO THE OUTLET SHOULD BE INSULATED.

MINIMUM GRADIENT RATIO OF SANITARY DISCHARGE PIPES AND DRAINS:
1. AS/NZS 3500 PART 2 DISCHARGE PIPES AND DRAINS.
Ø65-1:40 FALL
Ø100-1:60 FALL

MINIMUM GRADIENT RATIO OF STORMWATER DRAINS:
NZBC E1/AS1
Ø100 - 1:60

SITE NOTES:
LEGAL DESCRIPTION: LOT 3, D.P. 396361
SITE AREA: 580m²

PHYSICAL ADDRESS
29A COCKBURN STREET, ONERAHI, WHANGAREI, 0110

WIND ZONE (TO NZS3604:2011): MEDIUM
ENVIRONMENT: LIVING 1 & GRZ
EXPOSURE ZONE: D
EARTHQUAKE ZONE: 1
INSTABILITY AREA: NA
FLOOD SUSCEPTIBILITY: NA
ACID SULPHATE SOIL: NA

BUILDING COVERAGE AREAS: (40% MAX)
PROPOSED DWELLING: 157.84m²
PROPOSED COVERED AREAS: 5.10m²
TOTAL BUILDING AREA Inc Ex: 162.94m² (28.09%)

IMPERVIOUS AREAS: (60% MAX)
TOTAL ROOF AREA: 190.31m²
PROPOSED DRIVEWAY AREA: 157.19m²
TOTAL IMPERVIOUS AREA: 347.50m² (59.91%)

CONTOURS: CONTOUR LINES 0.5m
EXCAVATION VOLUME: NA
EXCAVATION AREA: NA

IMPORTANT NOTES:
PLEASE CHECK ALL DIMENSIONS TO VERIFY SETOUT OF BUILDINGS IS AS REQUESTED.
SITE BOUNDARIES ARE SUBJECT TO SURVEY
SITE CONTOURS ARE SUBJECT TO SURVEY
CONFIRM LOCATION OF ALL EXISTING SERVICES ON THE SITE PRIOR TO ANY SITE WORKS.

SURVEY NOTES:
SITE LEVELS/CONTOURS, EASEMENTS AND SERVICE LOCATIONS ARE TAKEN FROM COUNCIL GIS MAPS. AN ON SITE SURVEY PLAN BY A SUITABLY QUALIFIED PERSONS MAY BE REQUIRED FOR MORE ACCURATE DATA. DESIGNERS WILL ACCEPT NO RESPONSIBILITY FOR ANY DATA SUPPLIED BY GIS MAPS.

POWER SUPPLY
POWER SUPPLY LOCATION TO BE CONFIRMED ONSITE

POTABLE WATER SUPPLY:
WATER SUPPLY MUST BE POTABLE AND COMPLY WITH NZBC G12. BY WAY OF WATER TREATMENT OR FILTRATION CONNECT INTO EXISTING CONNECTION PROVIDED ON SITE.

01	06/08/21	RFI	DF
REV.	DATE	DESCRIPTION	DRAWN

DWELLING FOR WOODING HOMES LTD
29A, COCKBURN STREET, ONERAHI, WHANGAREI

SITE PLAN	
BC SET ONLY	
JOB NO:	0194
REVISION:	01
SHEET SIZE:	A3
PAGE:	01 OF 13
DATE:	6/08/2021
DRAWN:	DF

CLAYTON
ARCHITECTURE LTD

office@claytonarchitecture.co.nz PH: 021589219

ONLY COUNCIL STAMPED PLANS TO BE USED FOR CONSTRUCTION.
DO NOT SCALE OFF PLANS.

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0194-COCKBURN-(BC)-220621.pln



LOCATION PLAN

FLOOR PLAN

100

KEY: ** CONFIRM LOCATION SHOWN WITH OWNER PRIOR TO INSTALLATION

WARDROBE EXTERIOR WATER TAP ** POWER METER BOX ** POWER DISTRIBUTION BOARD ** SMOKE ALARM - TO COMPLY WITH NZBC F ROOF STRUCTURE POINT LOAD ABOVE

EXPOSURE ZONE D: FIXINGS ARE TO COMPLY WITH NZBC B2 DURABILITY AND NZS 3604:2011 SECTION 4 - DURABILITY. ALL FIXINGS AND FIXINGS SHELTERED & EXPOSED) TO BE TYPE 304 STAINLESS STEEL

NOTE
ALL BOLTS SHALL HAVE 50SQ X 3MM WASHERS TO TIMBER FACES

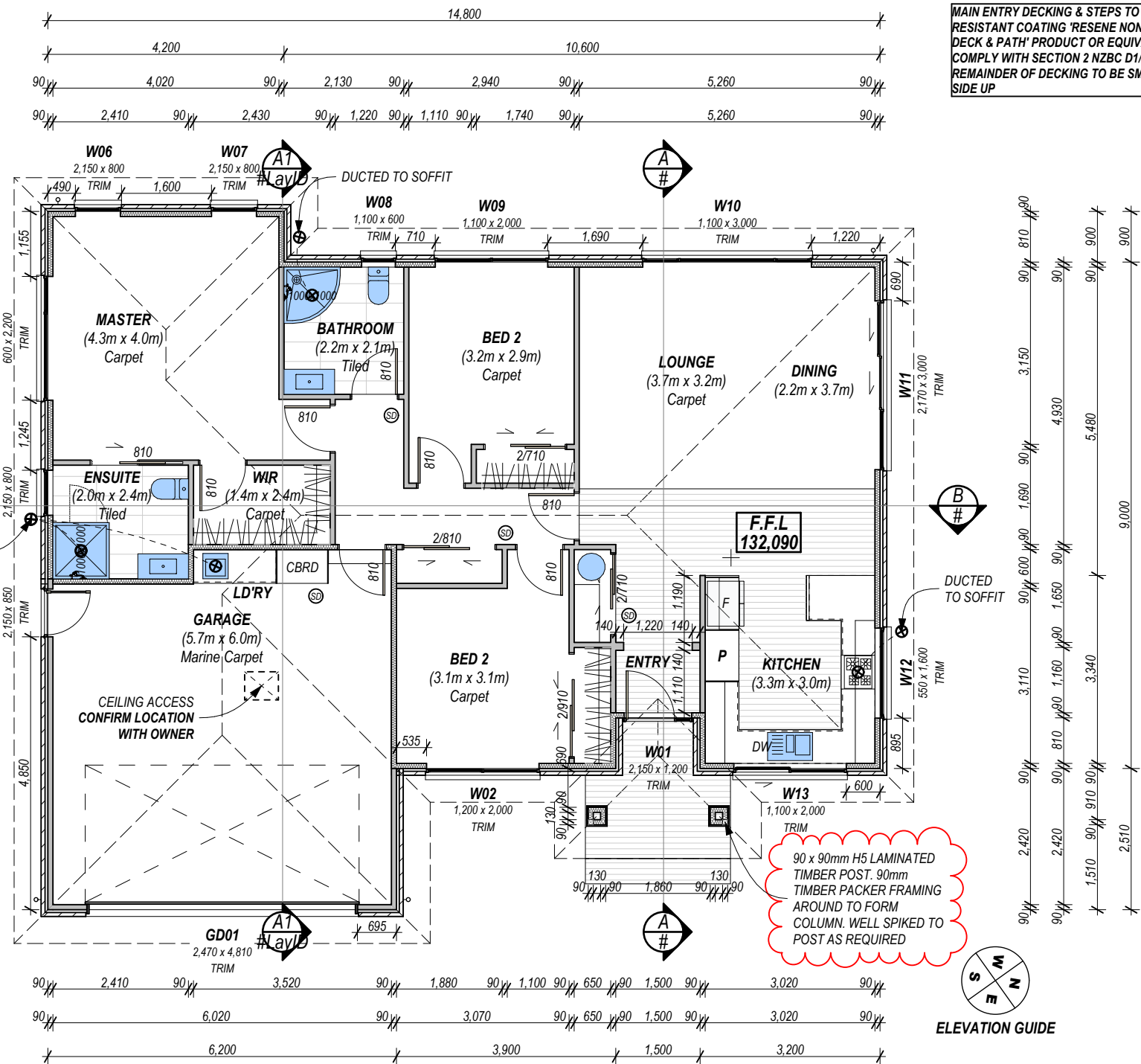
FLASHING AND WRAP SYSTEMS
ALL FLASHINGS, FLASHING TAPES, WRAPS, UNDERLAYS AND ASSOCIATED ACCESSORIES ARE TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

LIGHTING
ARTIFICIAL LIGHTING TO COMPLY WITH NZBC G8/AS1
SMOKE ALARMS
SMOKE ALARMS SHALL COMPLY WITH APPROVED DOCUMENT F7 WARNING SYSTEMS.

CONFIRM THE LOCATION OF THE FOLLOWING WITH OWNER PRIOR TO INSTALLATION:
• CEILING HATCH/ACCESS (IF AVAILABLE) - CHECK HEAD HEIGHT FOR ACCESS
• FLOOR COVERINGS - CONFIRM LOCATION, EXTENT AND DIRECTION OF FLOOR COVERINGS SHOWN
• METER BOX & DISTRIBUTION BOARD
• EXTERIOR TAPS
WET AREAS WATERPROOFING SYSTEM OPTIONS.
ALL DETAILS/WINDOWS TO COMPLY WITH NZBC E3 INTERNAL MOISTURE AND MANUFACTURER'S PRODUCT DETAILS.
PROVIDE AN IMPERVIOUS AND EASILY CLEANABLE SURFACE TO ALL WALLS & FLOOR AREAS LIKELY TO BE SPLASHED TO COMPLY WITH E3/AS1.
USE GIB AQUALINE ON WET AREA WALLS & CEILINGS
BATHROOM-FULL HEIGHT AQUALINE
LAUNDRY, WC & KITCHEN- 1200mm DADO
WET AREA VENTILATION
TO COMPLY WITH NZBC G4 VENTILATION

INTERIOR DOORS
TYPICAL DOORS:
1980mm PAINT QUALITY HOLLOW CORE DOORS WITH 18mm PAINT QUALITY DOOR JAMBS AND SELECTED HANDLES/UNLESS STATED OTHERWISE
EXTERNAL WINDOWS & DOORS
ALL EXTERNAL WINDOW AND DOOR HEIGHTS TO BE 2110mm ABOVE FINISHED FLOOR LEVEL (OPENING TRIM) UNLESS OTHERWISE STATED
INSULATION-EXCLUDING GARAGE
CEILING INSULATION: R3.2 MAMMOTH POLYESTER INSULATION ON CEILING BATTENS BETWEEN TRUSSES
WALL INSULATION: R2.2 MAMMOTH WALL INSULATION TO EXTERIOR WALLS

TIMBER TREATMENT:
TREATMENT LEVELS TO COMPLY WITH NZBC CLAUSE B2/AS1 DURABILITY, NZS3602. TIMBER AND WOOD BASED PRODUCTS FOR USE IN BUILDING AND NZS3640 CHEMICAL PRESERVATION OF ROUND AND SAWN TIMBER.
H1.2-ALL WALL FRAMING AND ASSOCIATED MEMBERS
ROOF FRAMING, TRUSSES AND CEILING JOISTS
ENCLOSED FRAMING WITHIN SKILLION / FLAT ROOFS
H3.1-CLADDING CAVITY BATTENS
STUD GRADE
UNLESS SPECIFIED OTHERWISE WALL FRAMING IS GRADED TO SG8 AS PER NZS3604:2011
STUD SIZE
90x45 STUDS



MAIN ENTRY DECKING & STEPS TO HAVE SLIP RESISTANT COATING 'RESENE NON-SKID DECK & PATH' PRODUCT OR EQUIVALENT TO COMPLY WITH SECTION 2 NZBC D1/AS1 REMAINDER OF DECKING TO BE SMOOTH SIDE UP

FLOOR FINISHES:
HATCHING SHOWN INDICATING FLOORING FINISH INDICATIVE ONLY. CONFIRM LOCATION AND EXTENT WITH OWNER
ALL TILING IN WET AREAS TO HAVE FULL WATERPROOF MEMBRANE BENEATH

DIMENSIONS:
CONTRACTOR IS TO CONFIRM ALL DIMENSIONS ONSITE BEFORE COMMENCING ANY WORKS

G4 VENTILATION:
NATURAL VENTILATION =
- 5% OF FLOOR AREA (OPENABLE WINDOW)
MECHANICAL VENTILATION =
REFERENCE AS1668.2 TABLE B1 EXTRACT RATES
- BATHROOM/TOILETS: MIN. 25L/S
- LAUNDRIES: MIN. 20L/S
- KITCHENS: MIN. 50L/S

D1 ACCESS:
MAIN ENTRY DECKING & STEPS TO HAVE SLIP RESISTANT COATING 'RESENE NON-SKID DECK & PATH' PRODUCT OR EQUIVALENT TO COMPLY WITH SECTION 2 NZBC D1/AS1 REMAINDER OF DECKING TO BE SMOOTH SIDE UP

Figure 65: Levels and garage openings
Paragraphs 9.1.3, 9.1.3.4, 9.2.5, Table 18

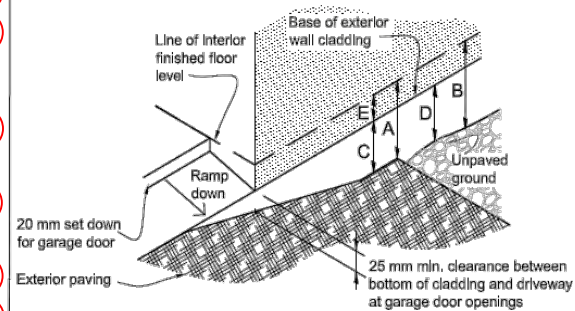


Table 18: Minimum clearances
Paragraphs 9.1.3, 9.1.3.1, 9.1.3.2, 9.1.3.3, 9.1.3.4, 9.1.3.5 and 9.2.7

Minimum clearances (mm)	Masonry veneer		Other claddings				
	A	B	A	B	C	D	E
Concrete slab	100	150	150	225	100	175	50
Timber floor	Refer Note 1)				100	175	502)

NOTE: 1) Refer to NZS 3604 for requirements.
2) Cladding to extend minimum 50 mm below bearer or lowest part of timber floor framing.

FRAMING SETOUT:
DUE TO EXISTING SLAB BEING IN PLACE PLEASE MEASURE FRAMING LENGTHS ON SITE BEFORE PRE-NAIL AND MAKE ADJUSTMENTS AS REQUIRED. PACKING OUT OF WALLS MAY BE NECESSARY TO ACHIEVE DIMENSIONS SHOWN. DESIGNER ACCEPTS NO RESPONSABILITY FOR DISCREPANCIES SHOWN ON THE PLANS BETWEEN THE SLAB AND FRAMING.

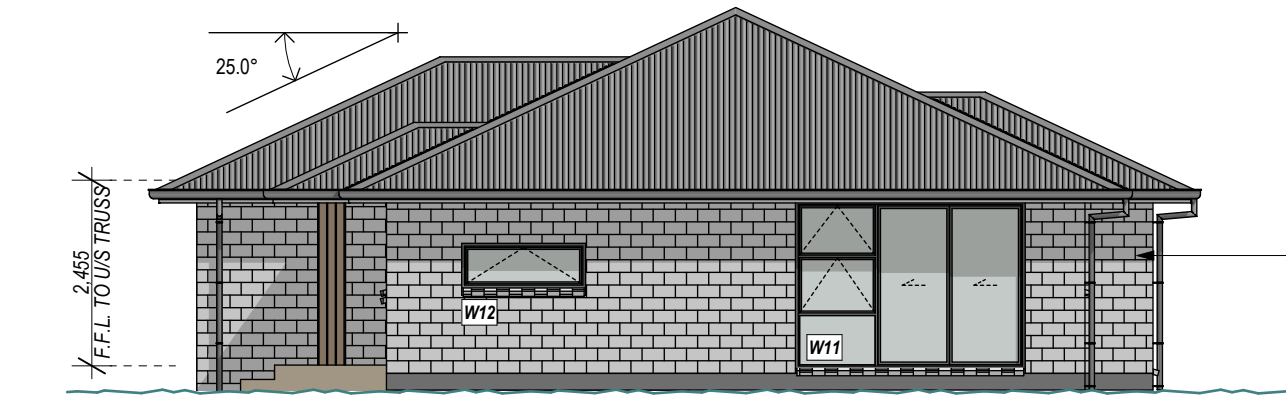
01	06/08/21	RFI	DF
REV.	DATE	DESCRIPTION	DRAWN

DWELLING FOR WOODING HOMES LTD
29A, COCKBURN STREET, ONERAHI,
WHANGAREI

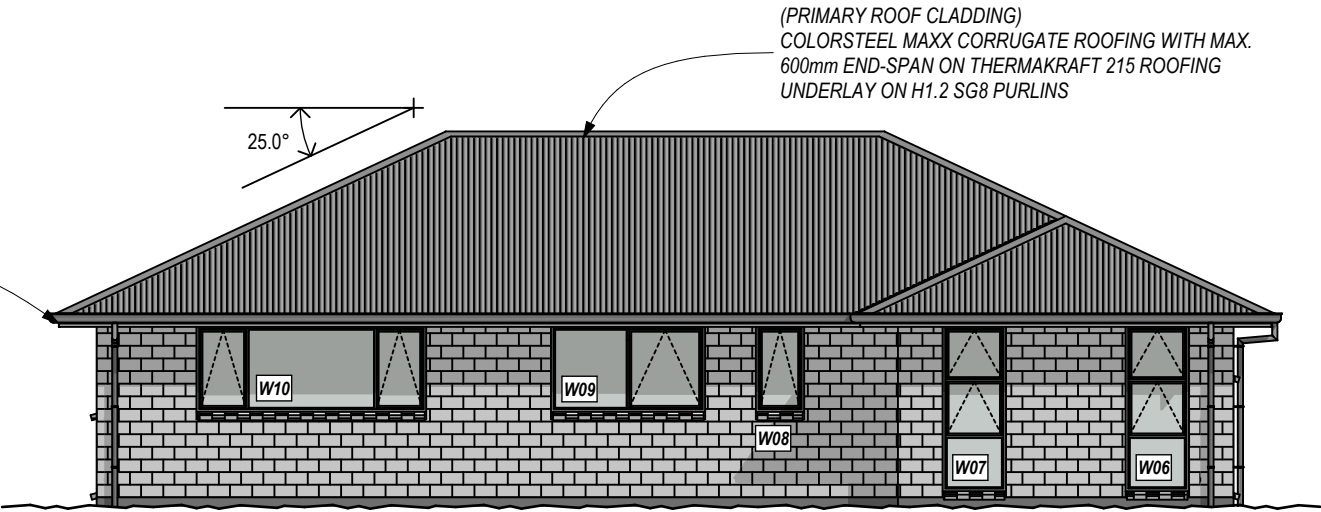
FLOOR PLAN

****BC SET ONLY****

JOB NO:	0194
REVISION:	01
SHEET SIZE:	A3
PAGE:	02 OF 13
DATE:	6/08/2021
DRAWN:	DF



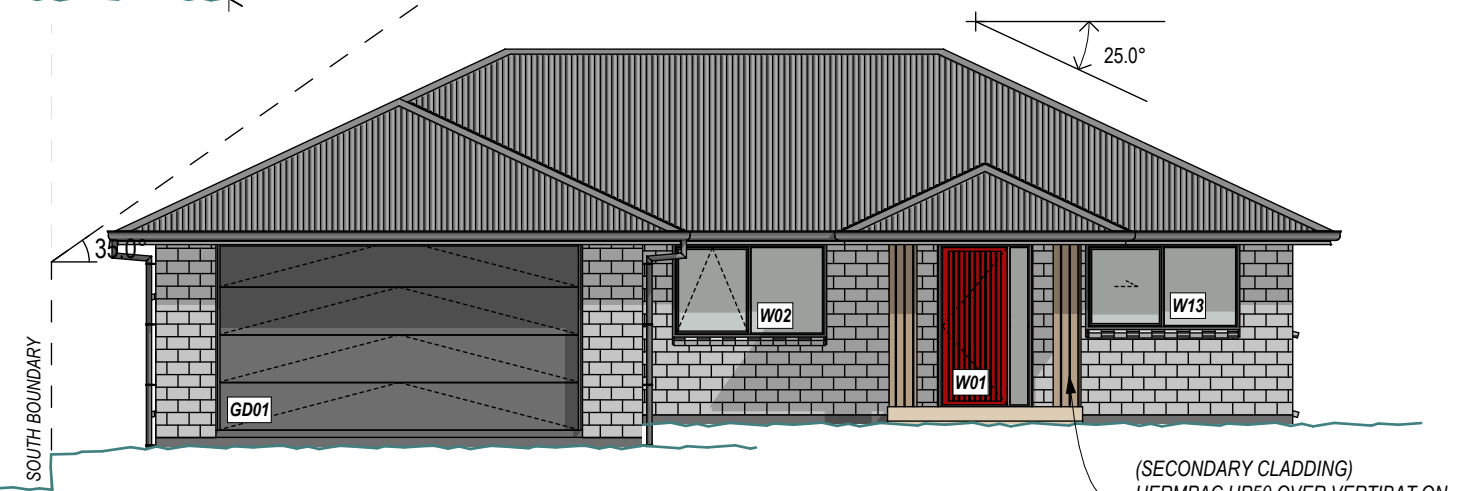
NORTH ELEVATION
1:100



WEST ELEVATION
1:100



SOUTH ELEVATION
1:100



EAST ELEVATION
1:100

RISK MATRIX

ALL ELEVATIONS

Risk Factor	Risk Severity	Risk Score
Wind zone (per NZS 3604)	Medium risk	0
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Medium risk	1
Deck design	Low risk	0

Total Risk Score: 2

LINTEL BARS OVER OPENINGS

GALVANISED STEEL ANGLE BRICK VENEER LINTELS AS PER CLAY BRICK & PAVER MANUFACTURERS ASSOCIATION - 2 STOREY CLAY BRICK VENEER CONSTRUCTION - MADE EASY (BRANZ APPRAISAL No. 690). ALLOW MIN 100mm SEATING EACH SIDE (TO OPENINGS UP TO 2.0m LONG AND ALLOW 200mm SEATING EACH SIDE TO OPENINGS OVER 2.0m. DO NOT FIX TO FRAMING. PROP LINTEL FOR MIN. 7 DAYS.

TABLE 5.6 - LINTEL BARS SUPPORTING VENEER OVER OPENINGS

Max.Span (mm)	Size of Angle
3000 mm	80 x 80 x 6
3500 mm	100 x 100 x 6 or 125 x 75 x 6
4500 mm	125 x 75 x 8
4800 mm	125 x 75 x 10

Approved Documents - WDC
BC 2100870
2/11/2021

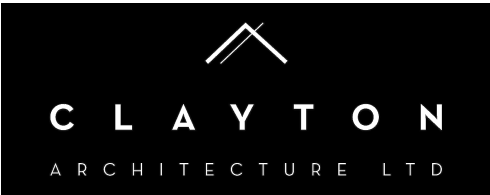
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29A, COCKBURN STREET, ONERAHI,
WHANGAREI

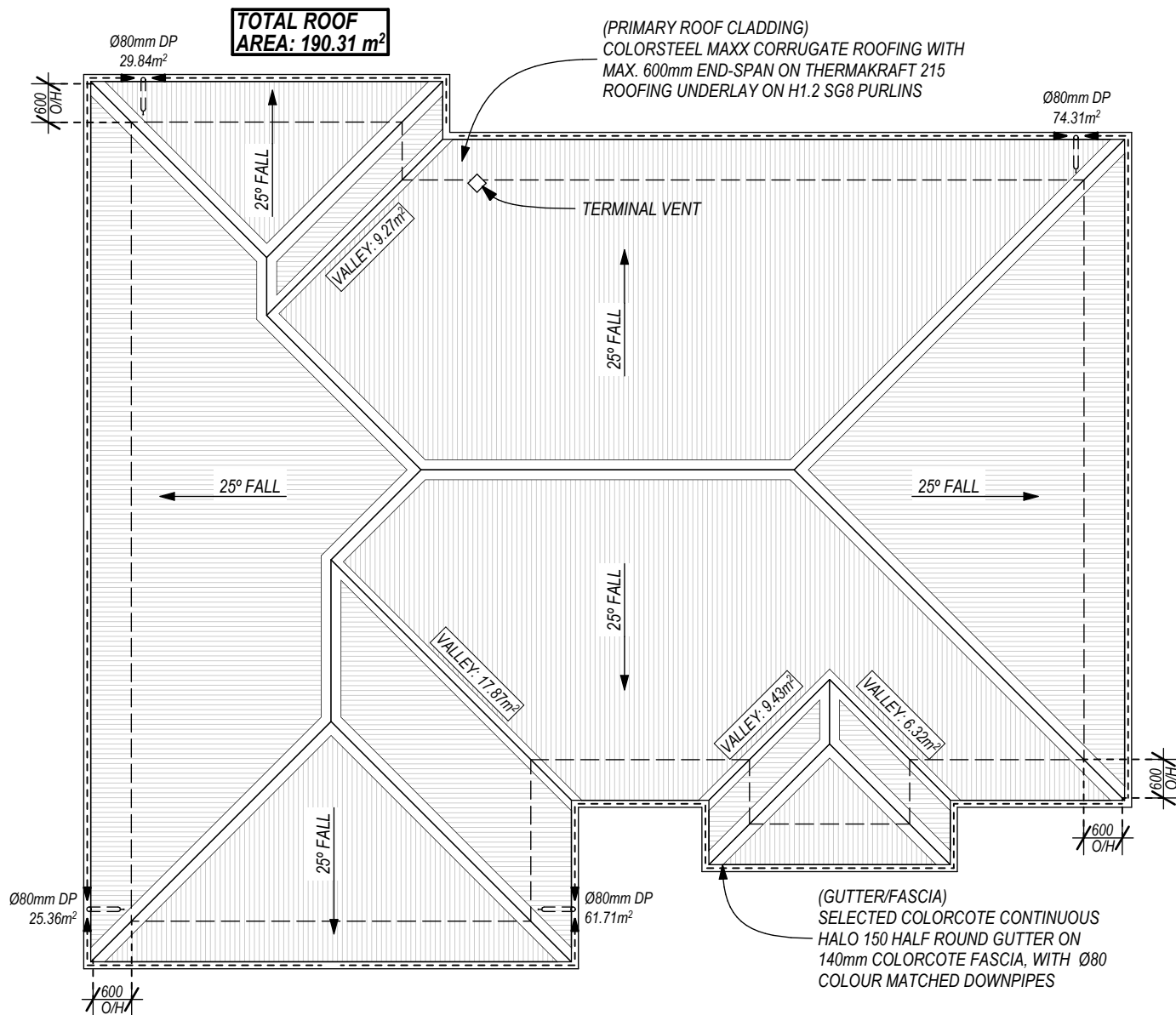
ELEVATIONS

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EXISTING DP LOCATION:
DOWNPIPES ARE EXISTING

ROOF PLAN

1:100

ROOF FRAMING NOTES

PURLINS

70x45mm H1.2 SG8 PURLINS LAID ON FLAT @ MAX. 900mm CRS.

IMPORTANT: FIRST PURLIN SPACING AT EAVE AND RIDGE **600mm MAX.** (MAX. ROOFING END-SPAN 600mm)

FIXING: FIX TO GANGNAILS TRUSSES USING 1/10G SELF-DRILLING SCREW, 80mm LONG (OR ALTERNATE 2.4kN FIXING).

TRUSSES:

GANGNAIL TRUSSES @ MAX. 900mm CRS. LOCATED AS SHOWN ON ROOF FRAMING PLAN AND INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. 2,455mm TO U/S TRUSS (CONFIRM ONSITE)

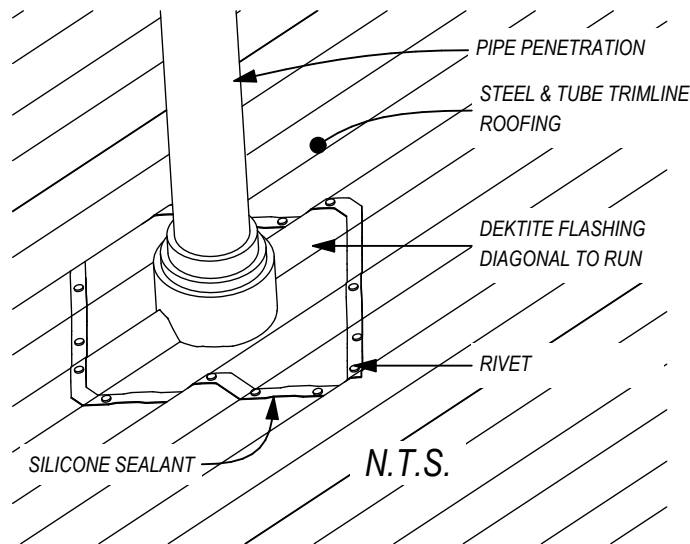
TOP PLATE TO STUD FIXING

LUMBERLOK TYPE B - 4.7kN. FOR ALL REQUIRED WALLS ALTERNATIVE TO NZS 3604:2011. REFER MITEK ON SITE GUIDE 2012 FOR LINTEL FIXING AND TOP PLATE FIXING DETAILS.

ROOF UNDERLAY:

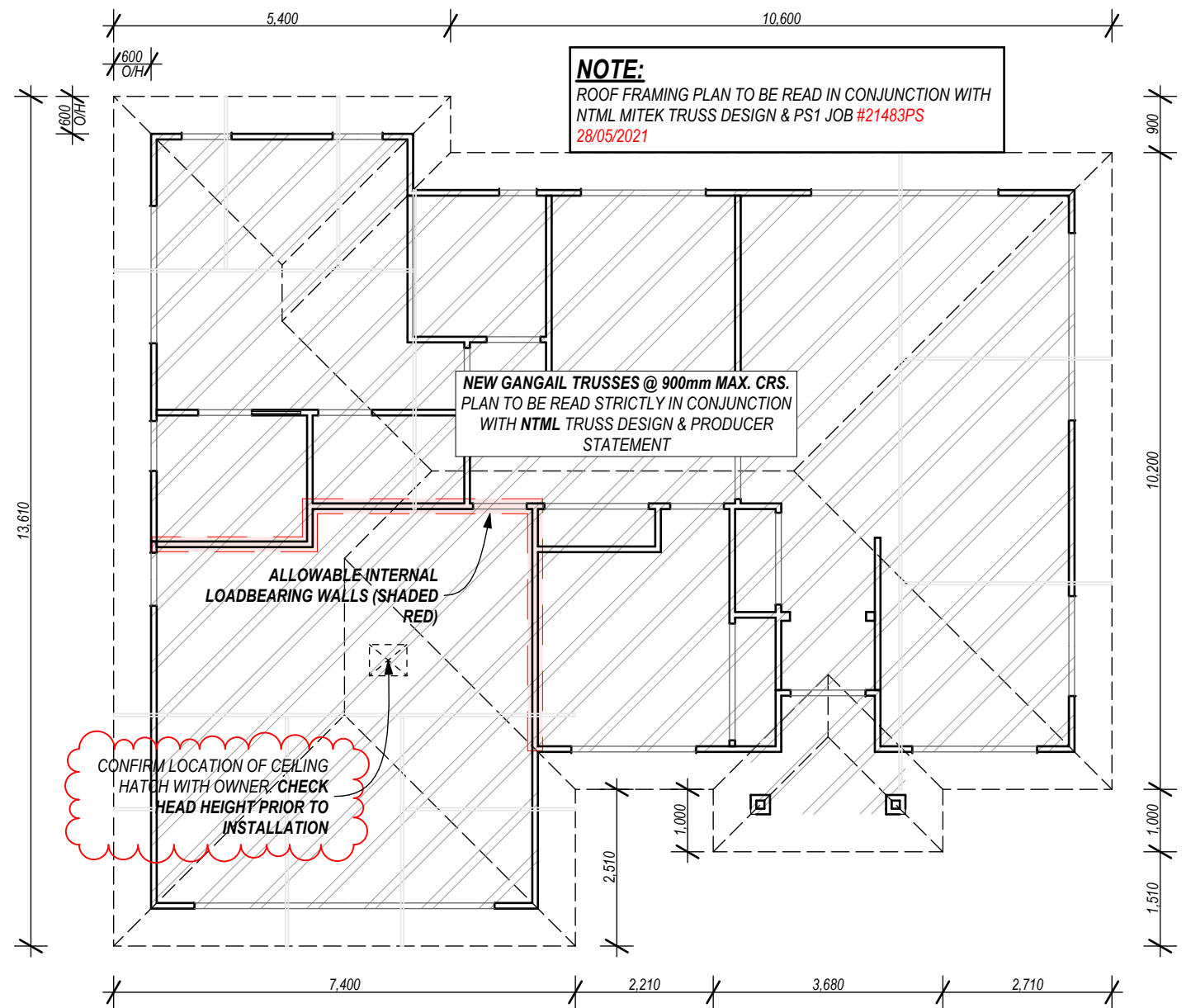
THERMAKRAFT 215 BITUMINOUS SELF SUPPORTING ROOF UNDERLAY INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. AS PER ROOFING CODE OF PRACTICE - SELF SUPPORTING UNDERLAY TO BE SUPPORTED ON NETTING / WIRE MESH:

- UNDER DARK METAL CLADDING
- ON ROOF PITCHES LESS THAN 8°
- IF SUPPORT SPACING IS GREATER THAN 1,100mm



ROOF PENETRATION DETAIL

1:10



ROOF FRAMING PLAN

1:100

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ROOF PLAN

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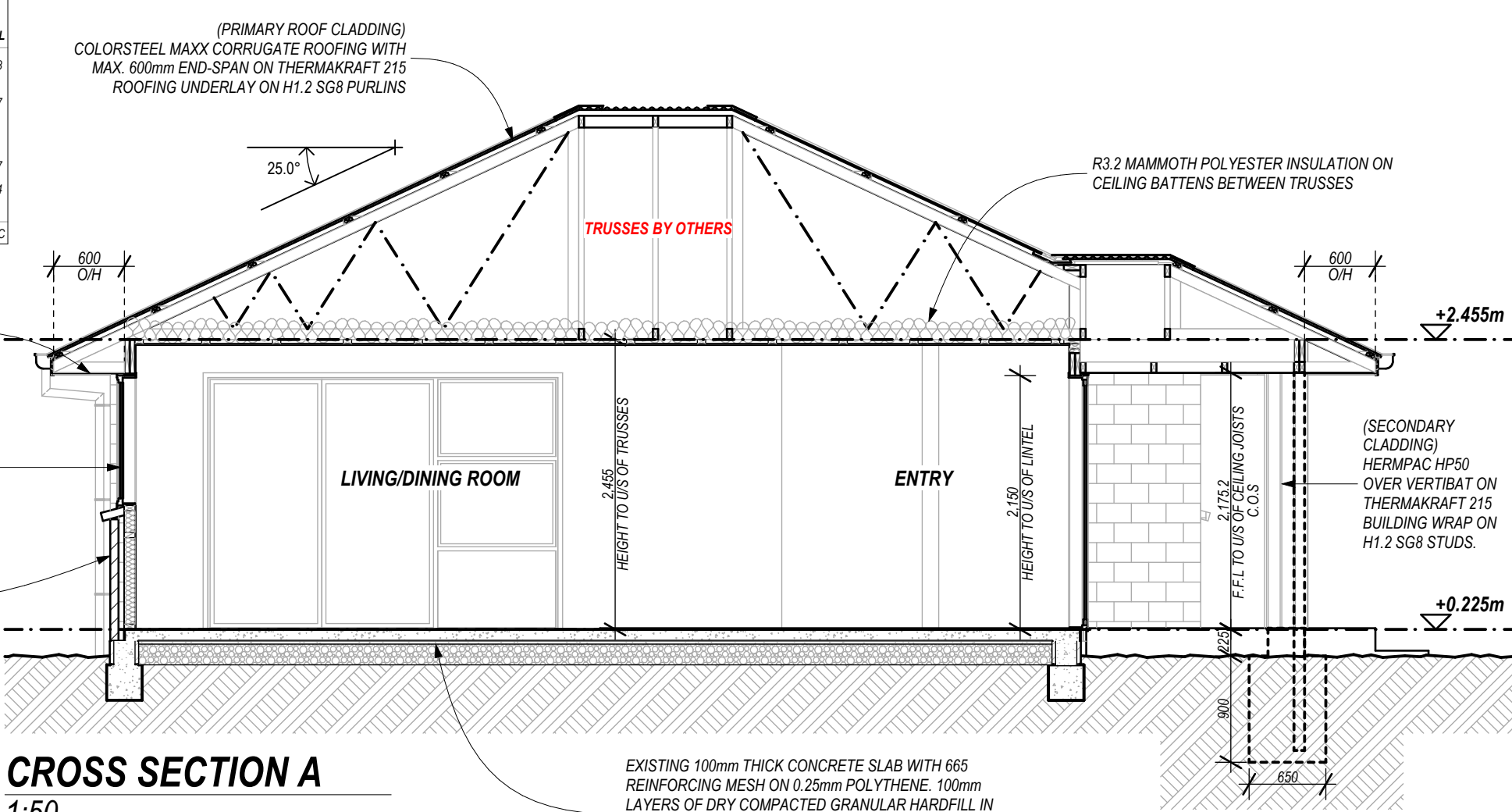
H1/AS1 CALCULATION METHOD:	
H1 ENERGY EFFICIENCY CALCULATIONS	
BUILDING DATA:	
Climate Zone	Zone 1
A _{Roof} (Total Roof Area)	113.43 m²
Total Wall Area (including glazing)	155.90 m²
30% of Total Wall Area	46.77 m²
70% of Total Wall Area	109.13 m²
A _{Wall} (Total Wall Area - Total Glazing Area)	128.69 m²
A _{Glazing} (Total Glazing Area)	27.21 m²
Glazing Ratio	17.45 %
A _{Floor} (Total Floor Area)	118.34 m²
REFERENCE BUILDING HEAT LOSS:	
$HL_{REF} = \frac{A_{Roof}}{2.9} + \frac{A_{70\% \text{ Total Wall Area}}}{1.9} + \frac{A_{30\% \text{ Total Wall Area}}}{0.26} + \frac{A_{Floor}}{1.3}$ $= \frac{113.43}{2.9} + \frac{109.13}{1.9} + \frac{46.77}{0.26} + \frac{118.34}{1.3}$ $= 39.11 + 57.44 + 179.88 + 91.03$ $= 367.5 \text{ W/}^{\circ}\text{C}$	

PROPOSED BUILDING HEAT LOSS:				
Building Element		R (m² °C/W)	A (m²)	HL
Roof	Longrun roofing over R3.2 batts insulation	3.51	113.4	32.3
Wall	Selected cladding over 90mm framing with R2.2 fibreglass batts insulation	1.90	128.7	67.7
Glazing	Double-glazed windows	0.26	27.2	104.7
Floor	100mm concrete slab on vapour barrier	1.49	118.3	79.4
		Total Heat Loss = 284.1 W/°C		

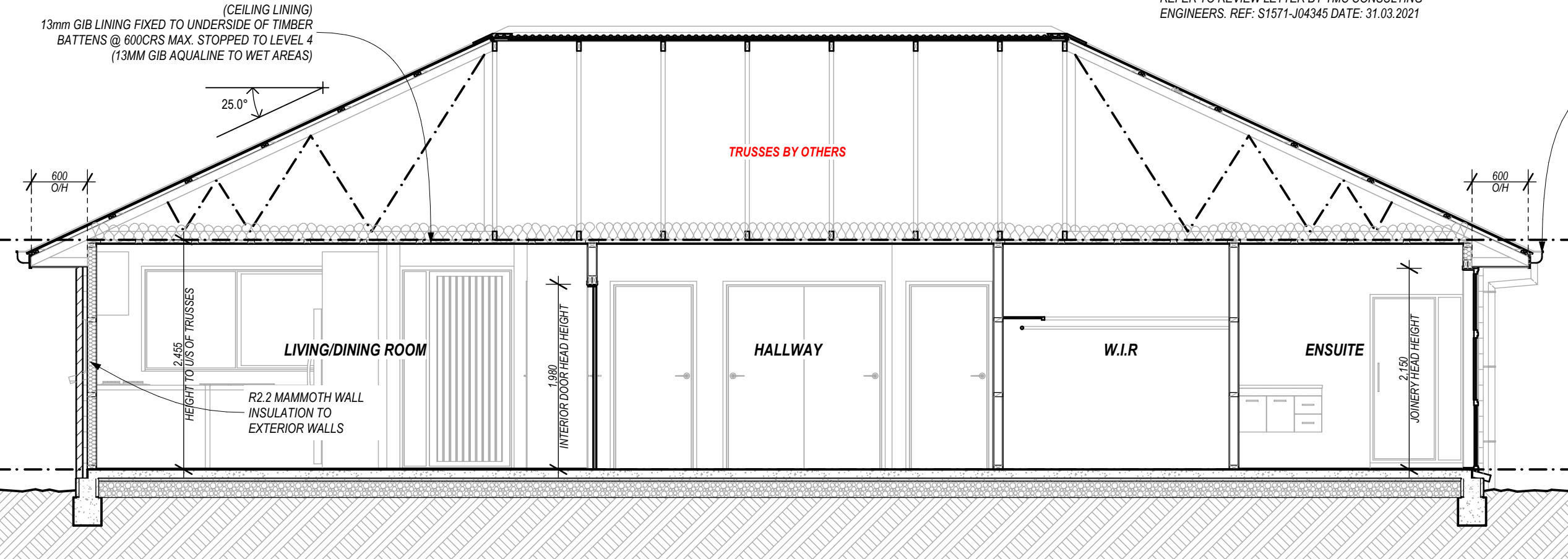
(SOFFIT)
4.5mm HARDIFLEX SOFFIT LINING
DIRECT FIXED TO UNDERSIDE OF
SOFFIT FRAMING

(NEW JOINERY)
DOUBLE GLAZED CLEAR,
ALUMINIUM POWDERCOATED
JOINERY.

(PRIMARY CLADDING)
SELECTED 70 SERIES BRICK OVER
50mm CAVITY ON THERMAKRAFT
215 BUILDING WRAP ON H1.2 SG8
STUDS.



CROSS SECTION A
1:50



CROSS SECTION B
1:50

(GUTTER/FASCIA)
SELECTED COLORCOTE
CONTINUOUS HALO 150 HALF
ROUND GUTTER ON 140mm
COLORCOTE FASCIA, WITH Ø80
COLOUR MATCHED DOWNPIPES

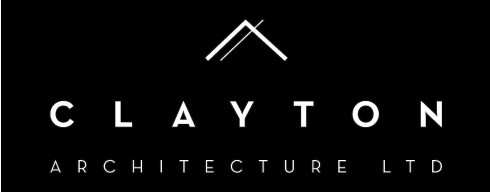
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CROSS SECTIONS

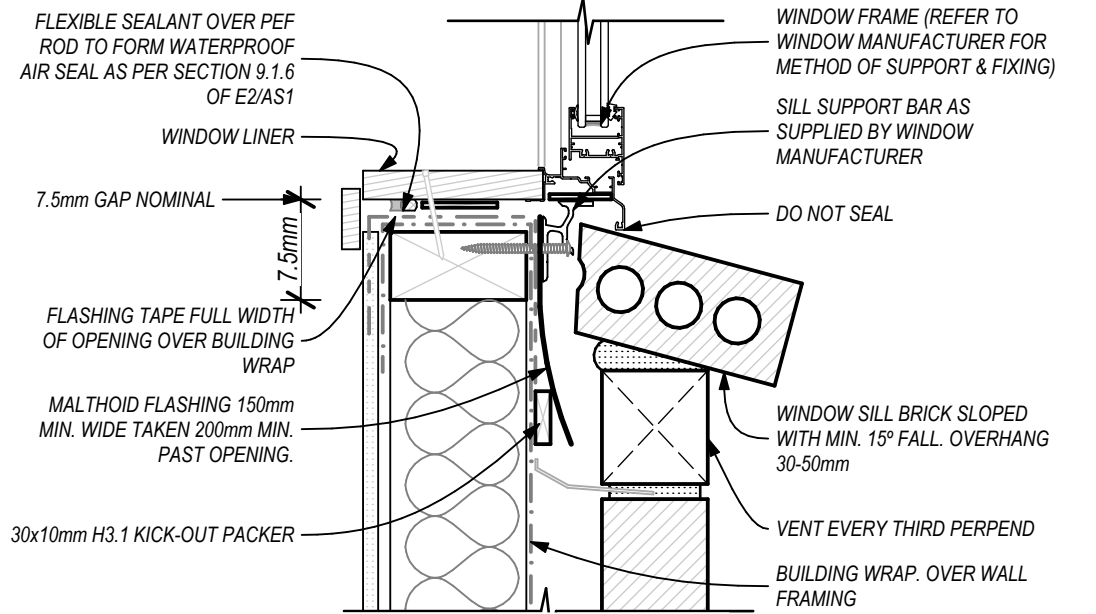
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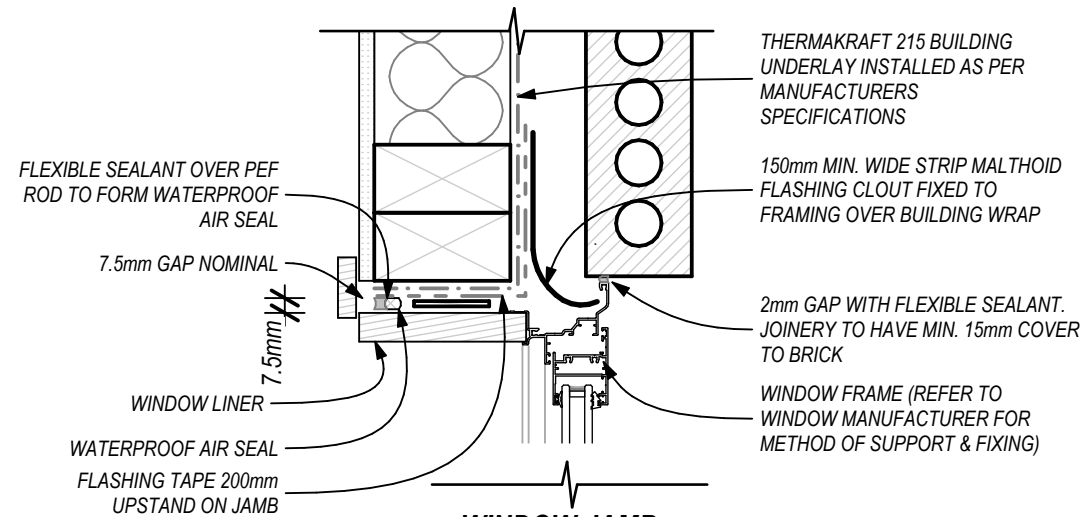


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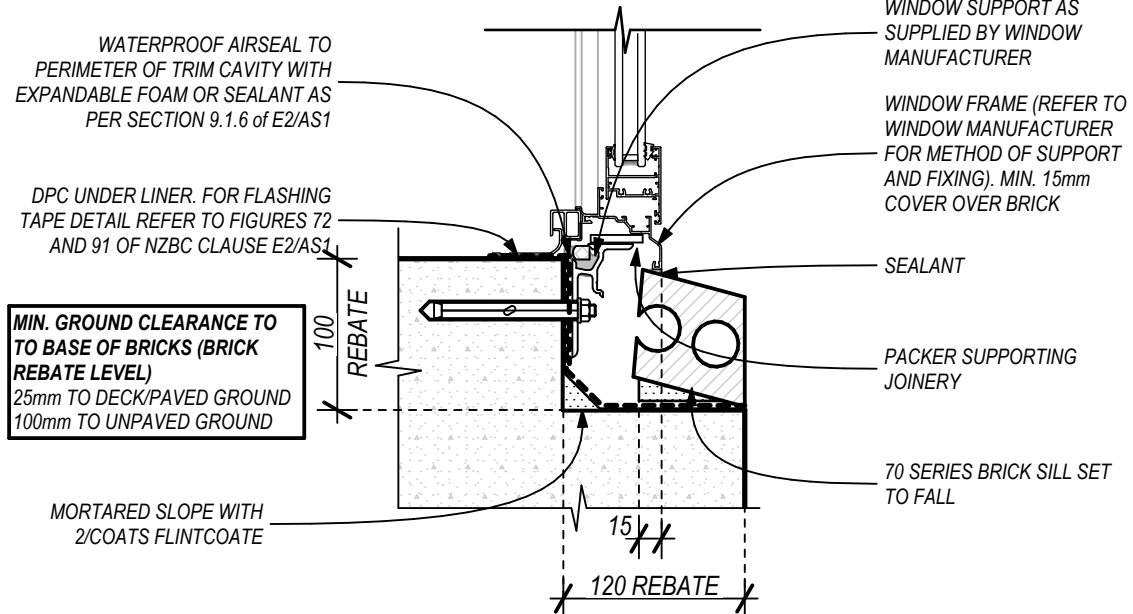
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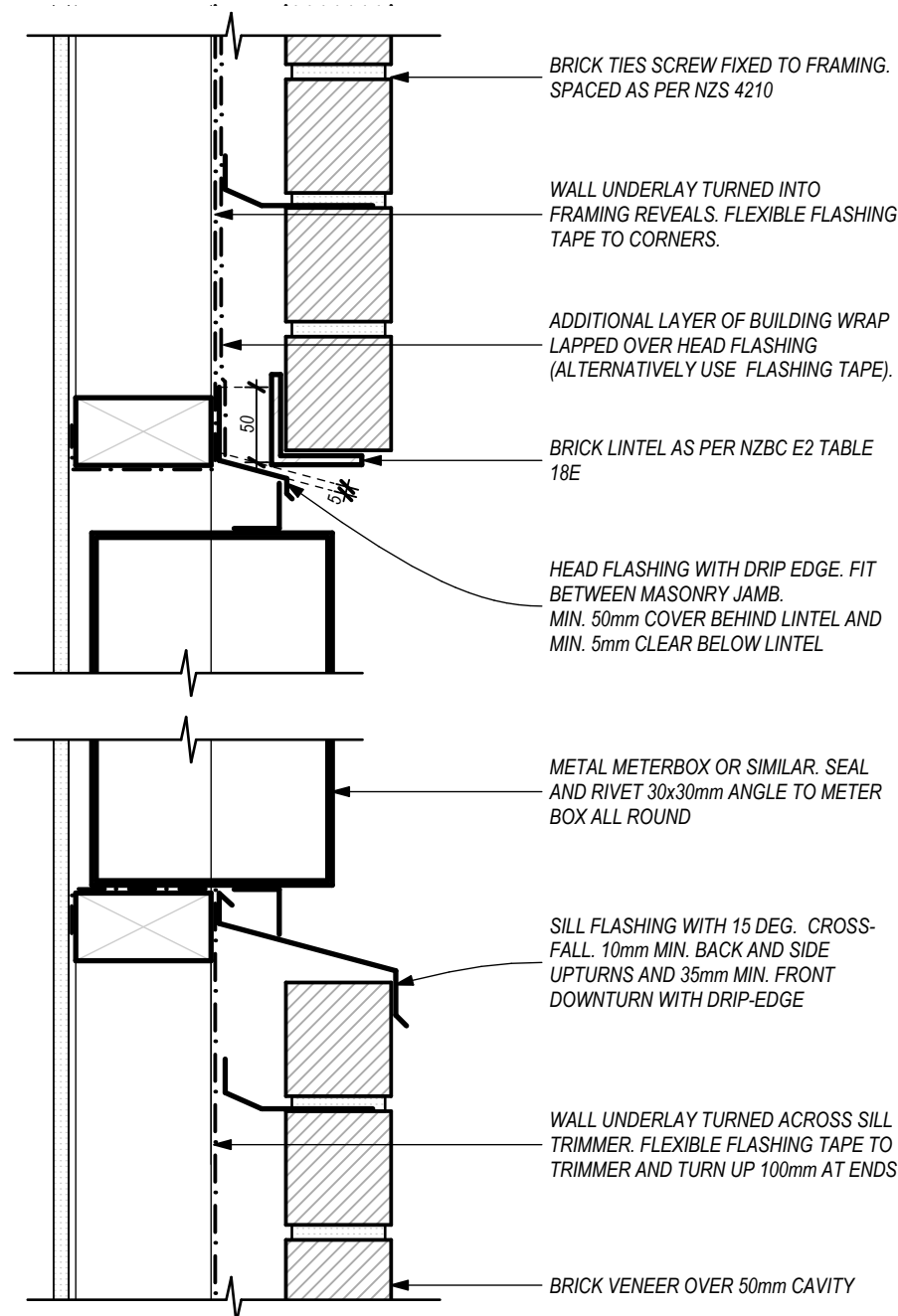
WINDOW SILL (TYPICAL)



WINDOW JAMB

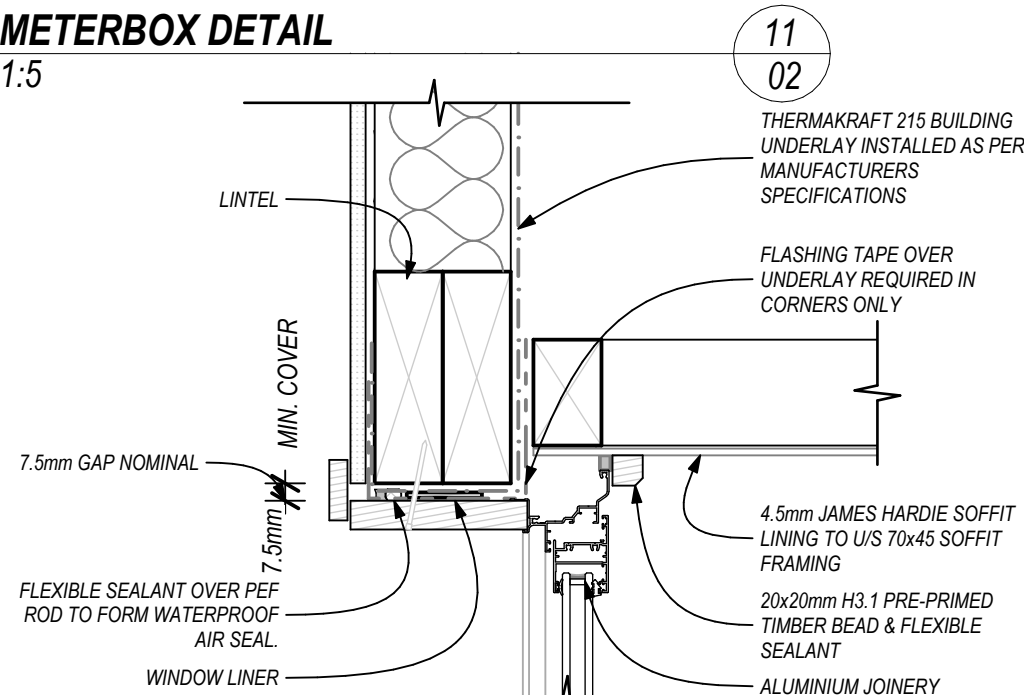


SILL DETAIL (FULL HEIGHT)

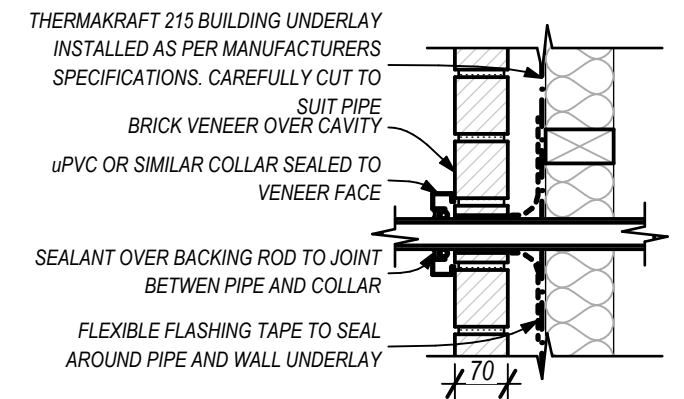


METERBOX DETAIL

1:5



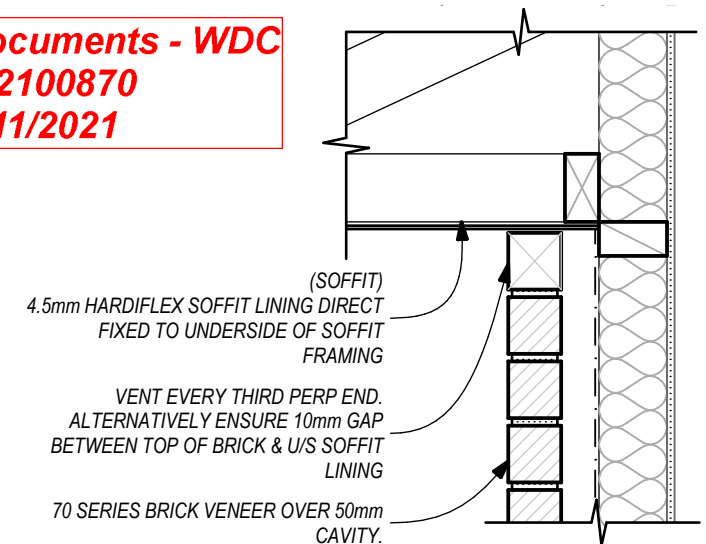
WINDOW HEAD (TO SOFFIT)



CLADDING PENETRATION DETAIL 08

1:10

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BRICK SOFFIT DETAIL

1:10

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CLADDING DETAILS

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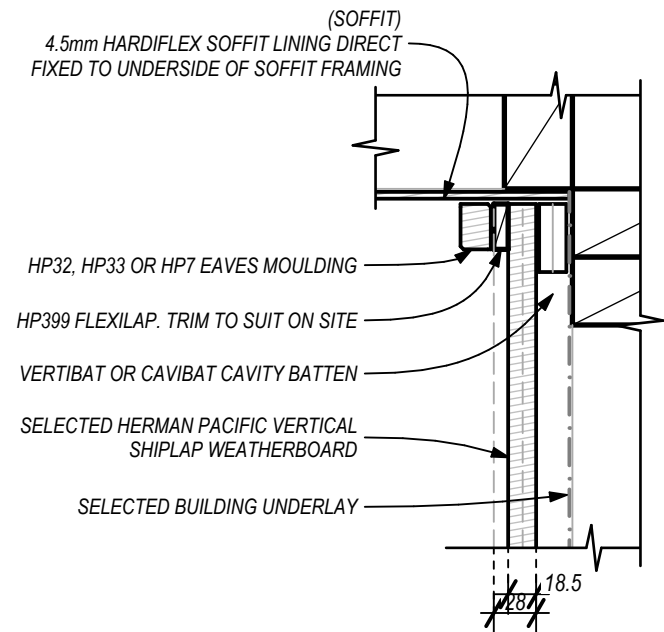
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JOINERY DETAILS

1:5

7



NOTES:

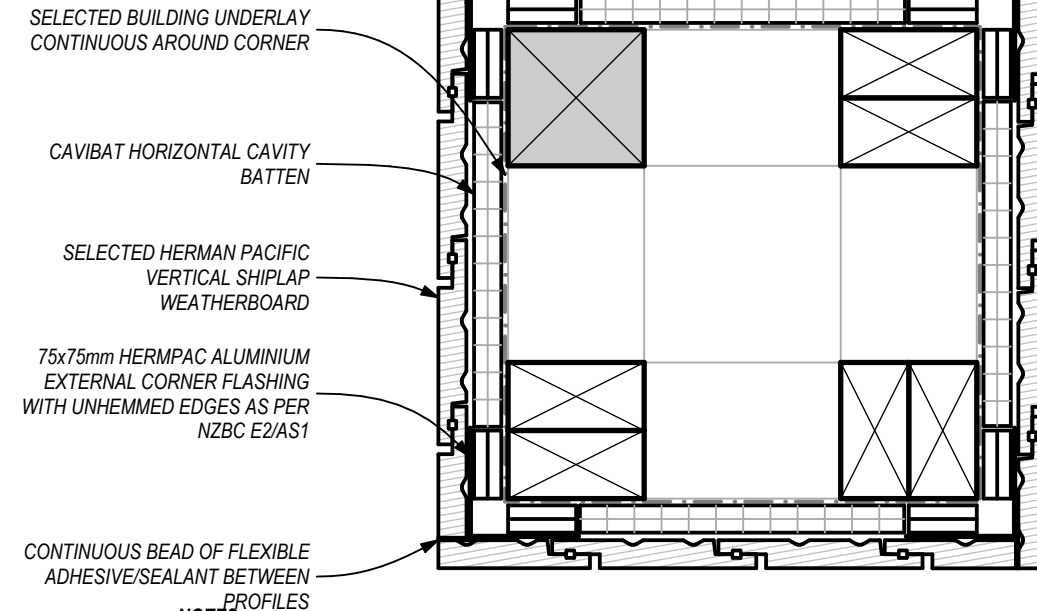
- ALL NAIL FIXINGS PRE-DRILLED MINIMUM 1mm DIAMETER SMALLER THAN THE NAIL GAUGE
- ALL HERMAN PACIFIC TIMBER PRODUCTS TO BE PRECOATED & CUT ENDS AND EDGES AND ALL FRESH CUT SURFACES DOUBLE COATED AND SEALED BEFORE FIXING.
- ALL MATERIALS AND FIXTURES ARE TO COMPLY WITH E2/AS1 CLAUSE .2.2
- FOR NON-HEMMED CORNER FLASHINGS, ENSURE A MINIMUM 75mm COVER TO WEATHERBOARDS BEYOND THE POINT WHERE BRANZ BULLETIN 411 COMPLIANT WEATHERBOARD LAP OR REBATE COMBINATIONS TERMINATE AT THE CORNER JUNCTION.
- IN EXTRA HIGH WIND ZONE AND ABOVE, THE 75mm COVER REQUIREMENT REMAINS AND HEMMED EDGES MUST ALSO BE USED.

REFERE TO NZBC ACCEPTABLE SOLUTION E2/AS1 TABLE 21 FOR THE SEPARATION REQUIREMENTS BETWEEN CCA TREATED BATTENS AND METAL FLASHINGS.

SHIPLAP SOFFIT DETAIL

1:5

14



NOTES:

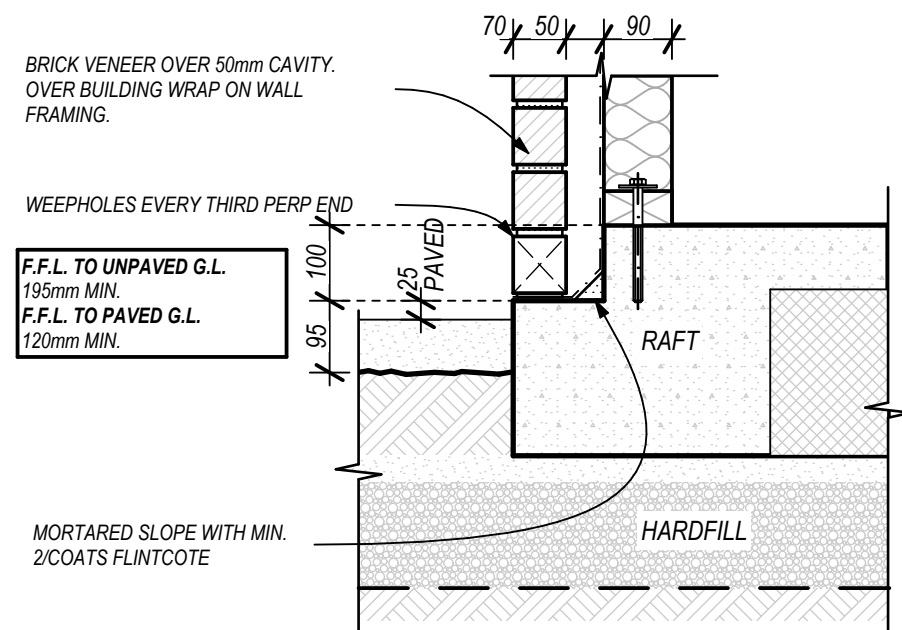
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REFERE TO NZBC ACCEPTABLE SOLUTION E2/AS1 TABLE 21 FOR THE SEPARATION REQUIREMENTS BETWEEN CCA TREATED BATTENS AND METAL FLASHINGS.

SHIPLAP COLUMN DETAIL

1:5

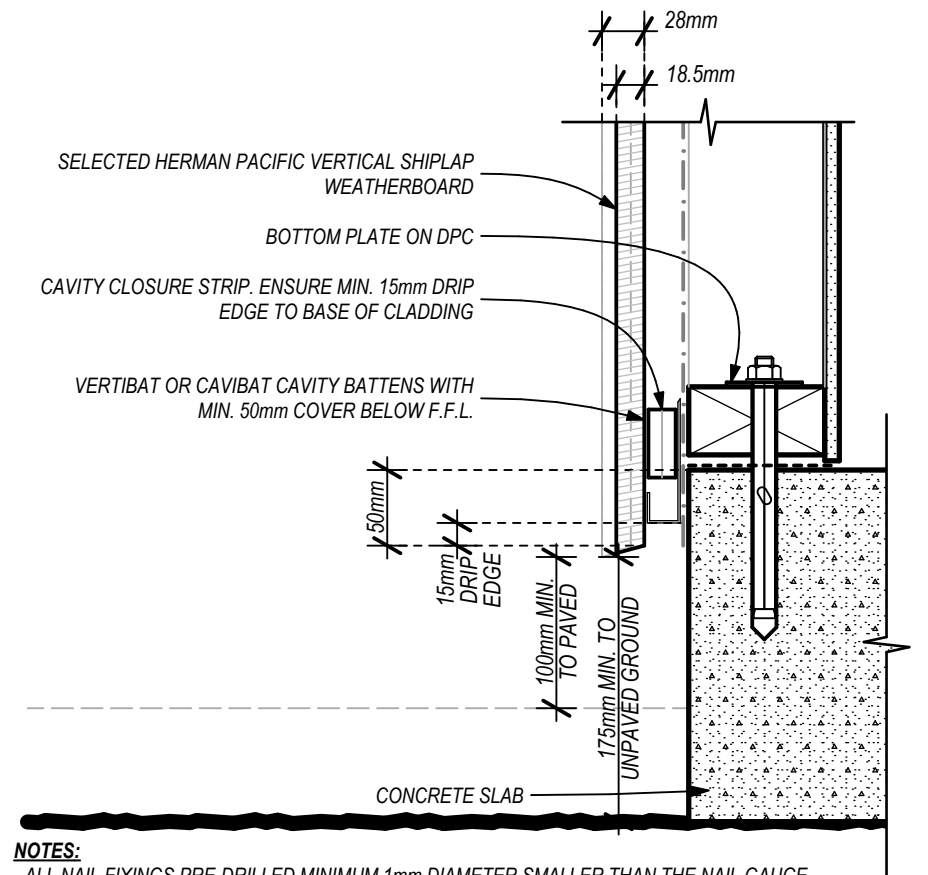
08



BRICK BASE DETAIL

1:10

09



NOTES:

- ALL NAIL FIXINGS PRE-DRILLED MINIMUM 1mm DIAMETER SMALLER THAN THE NAIL GAUGE
- ALL HERMAN PACIFIC TIMBER PRODUCTS TO BE PRECOATED & CUT ENDS AND EDGES AND ALL FRESH CUT SURFACES DOUBLE COATED AND SEALED BEFORE FIXING.
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REFERE TO NZBC ACCEPTABLE SOLUTION E2/AS1 TABLE 21 FOR THE SEPARATION REQUIREMENTS BETWEEN CCA TREATED BATTENS AND METAL FLASHINGS.

SHIPLAP BASE DETAIL

1:5

10

IMPORTANT:
ALL DETAILS TO BE READ IN CONJUNCTION WITH AND INSTALLED AS PER E2/AS1 & HERMPAC TECHNICAL MANUAL

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CLADDING DETAILS

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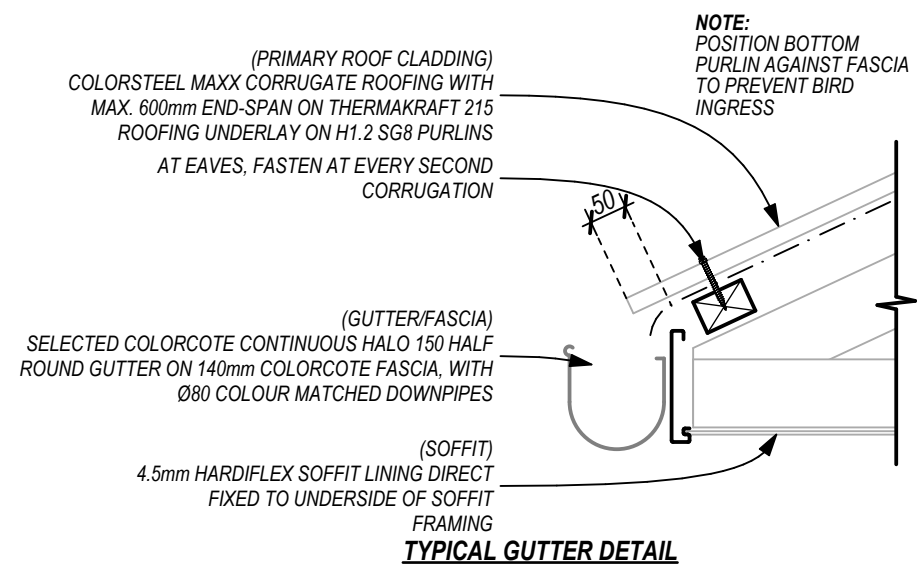
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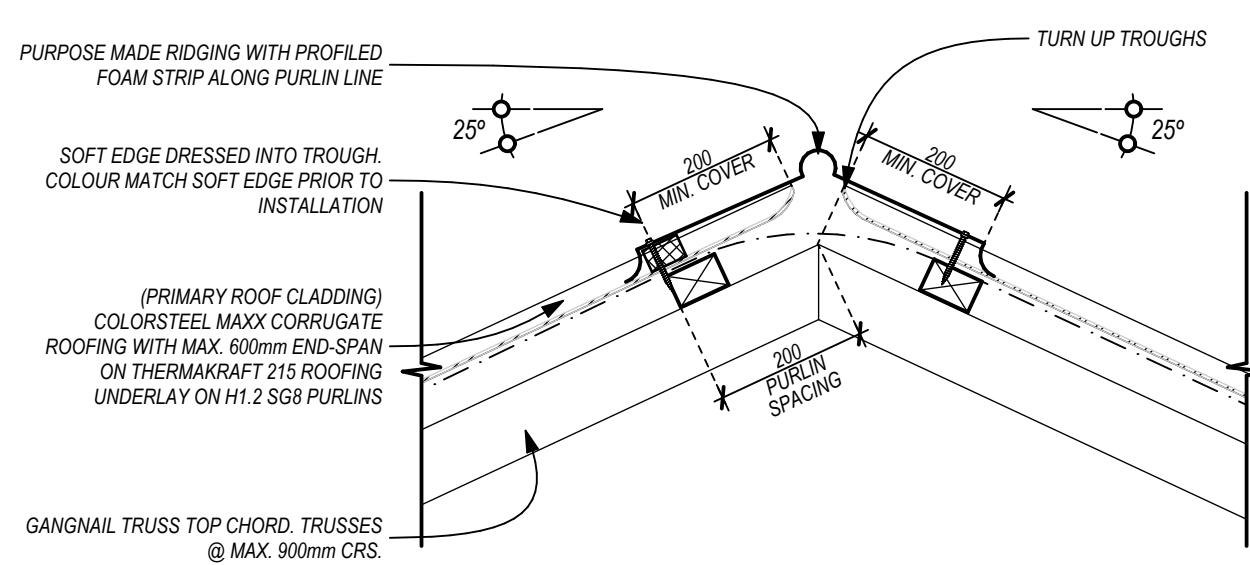


GUTTER/FASCIA DETAIL

1:10

17

09

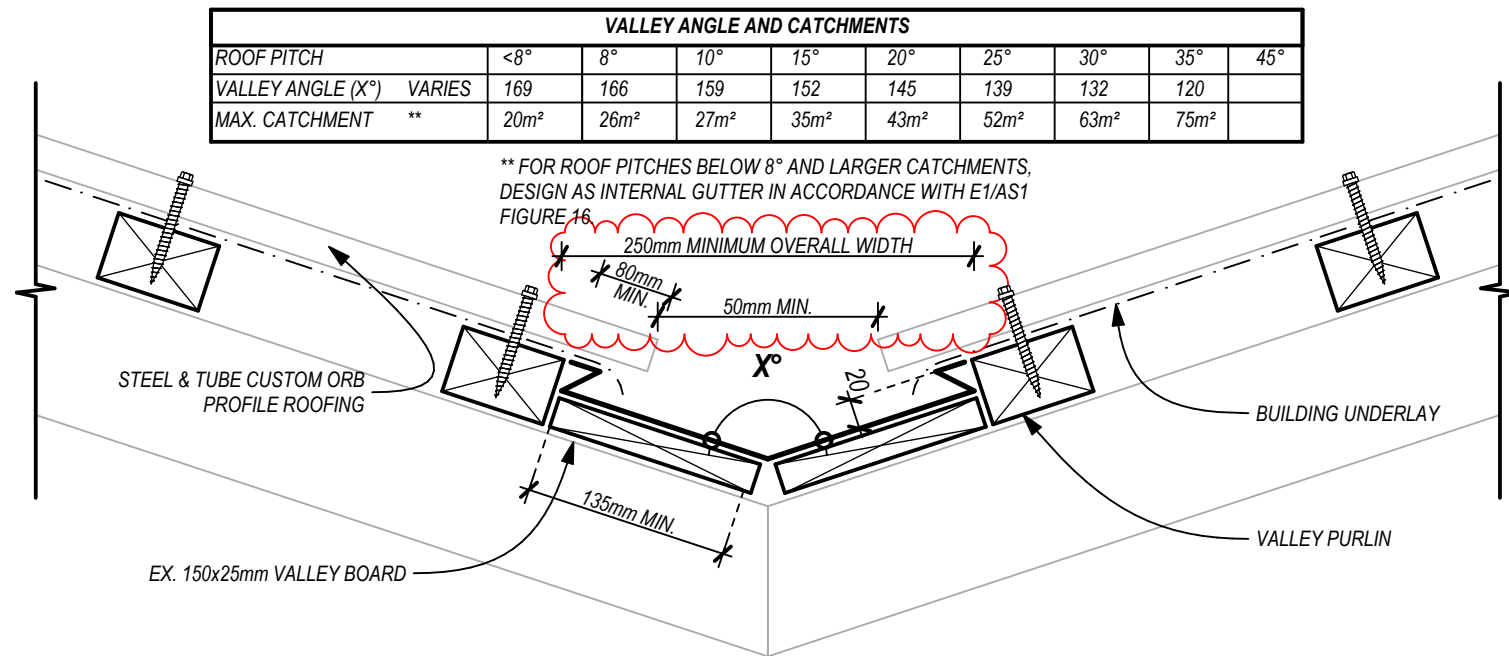


RIDGE DETAIL

1:10

18

09



VALLEY DETAIL

1:5

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ROOF DETAILS

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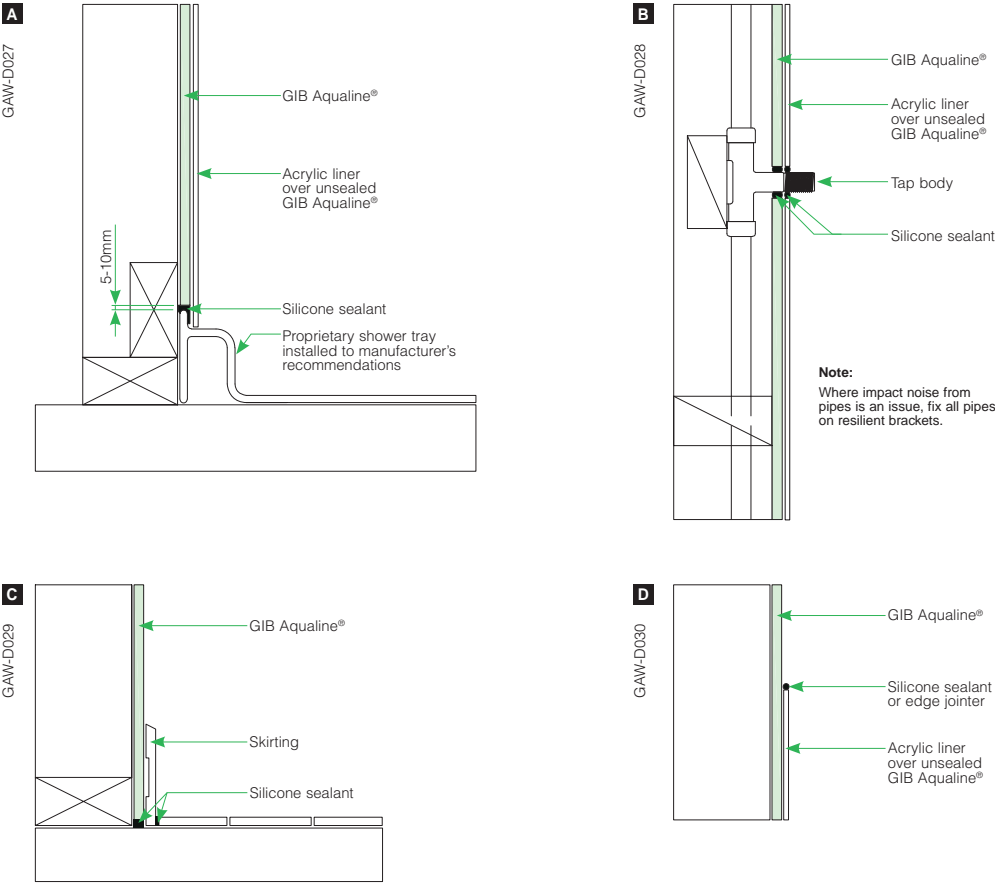
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GIB AQUALINE® WET AREA SYSTEMS – TYPICAL DETAILS

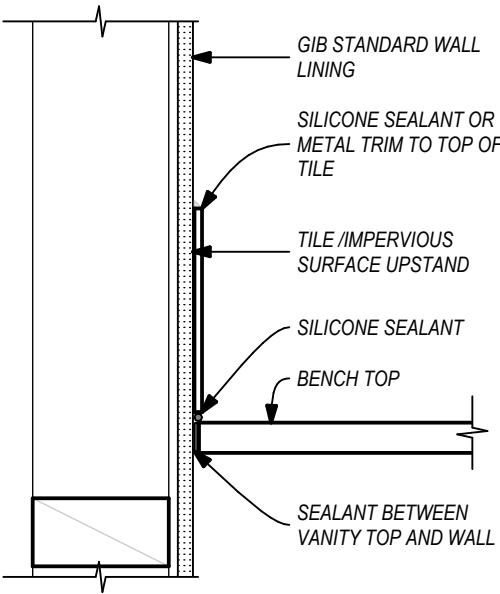


Shower – Acrylic Liner and Base

MARCH 2007



SHOWER DETAILS



KITCHEN BENCH SPLASHBACK

20

1:5

-

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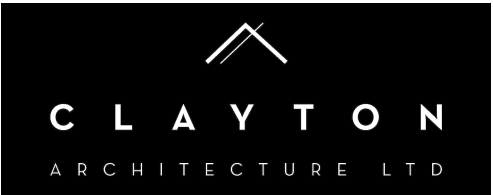
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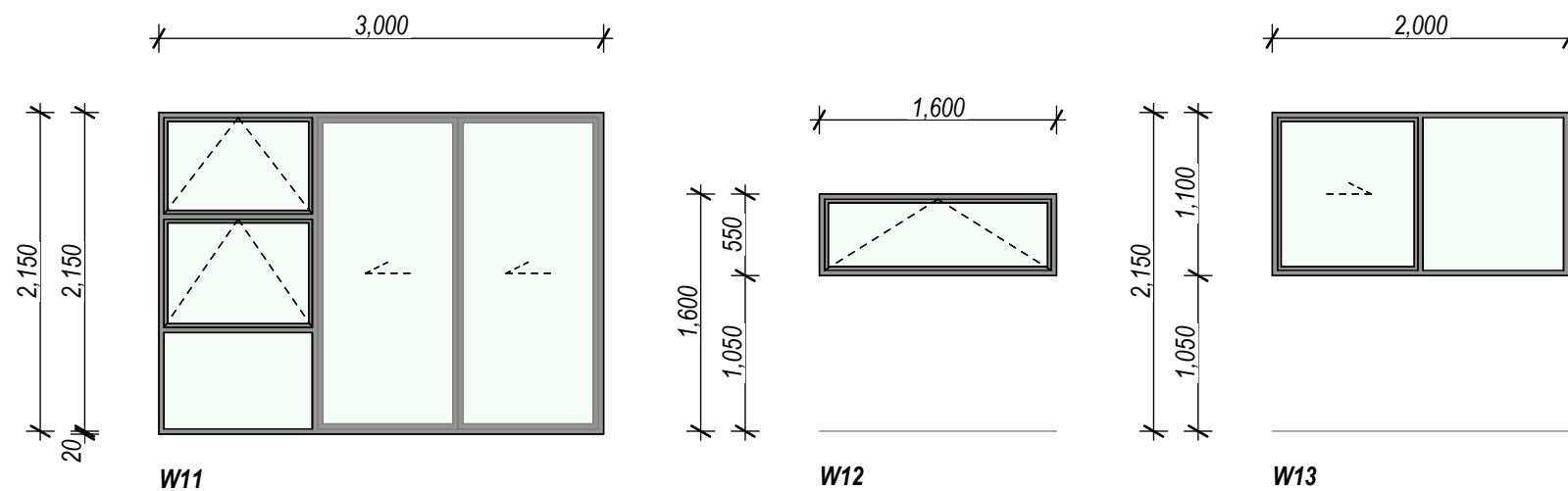
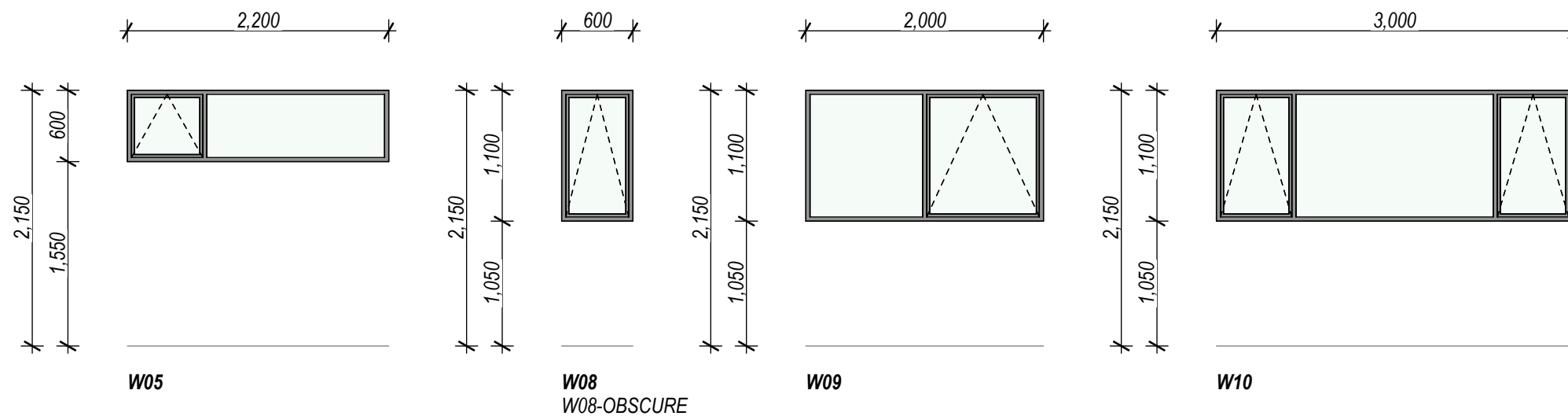
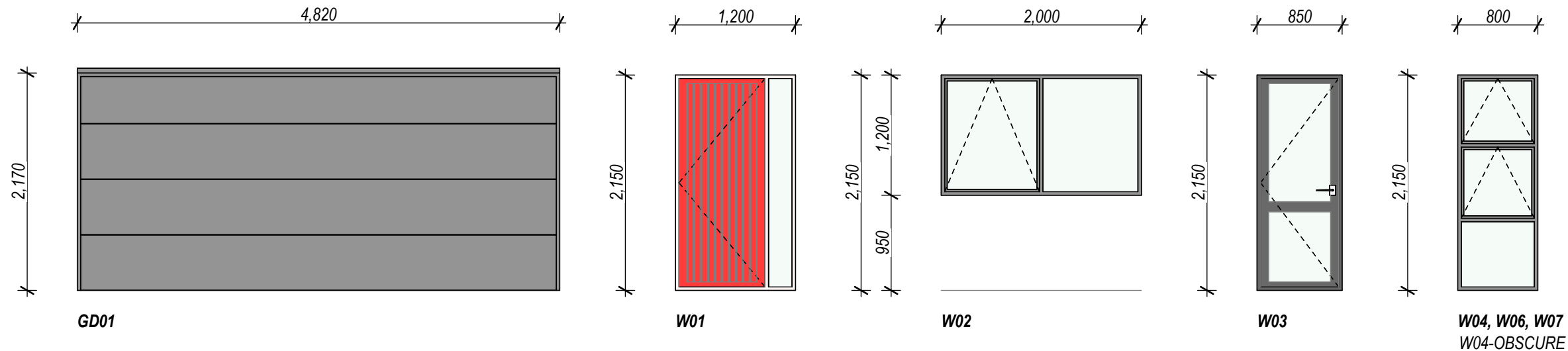
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SHOWER DETAILS

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JOINERY NOTES:

(NEW JOINERY)

DOUBLE GLAZED CLEAR , ALUMINIUM POWDERCOATED JOINERY.

ALL UNITS VIEWED FROM EXTERIOR

ALL DIMENSIONS ARE TRIM SIZE (NOT WINDOW SIZE)

CONFIRM BEFORE COMMENCING CONSTRUCTION.

ALL JOINERY TO BE POWDERCOATED ALUMINIUM AND BE INSTALLED IN

STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS.

ALL JOINERY TO HAVE H3.1 JAMBLINERS.

ALL GLAZING BELOW 800mm FROM F.F.L. TO BE TOUGHENED SAFETY GLASS

JOINERY MANUFACTURER TO CHECK AND VERIFY ALL DIMENSIONS, AND STRUCTURAL SUPPORTS WHERE REQUIRED.

GLAZING TO COMPLY WITH THE FOLLOWING STANDARDS

NZS 3504: SPECIFICATION FOR ALUMINIUM WINDOWS

NZS 4223: CODE OF PRACTICE FOR GLAZING IN BUILDINGS

NZS 4211: SPECIFICATION FOR THE PERFORMANCE OF WINDOWS

ALL GLASS SHOWER SCREENS TO BE TOUGHENED SAFETY GLASS TO COMPLY WITH NZS 4223:

ANY WINDOW SILL CLOSER THAN 760mm TO THE TOP OF A TOILET SEAT OR WINDOW SEAT TO HAVE RESTRICTORS INSTALLED AS PER F4/AS1 2.0 AND BE TOUGHENED SAFETY GLASS TO COMPLY WITH NZS 4223:

GLASS, TOUGHENED AS REQUIRED FOR PANE SIZE.

ALL FIXINGS AND FLASHINGS TO MANUFACTURERS DETAILS AND SPECIFICATIONS.

INSTALL WITH FLASHING TAPE SYSTEM TO WRAP MANUFACTURERS SPECIFICATIONS AND DETAILS.

FINISHES TO ALL SILL TRAYS AND FLASHINGS TO MATCH JOINERY FRAMES.

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JOINERY SCHEDULE

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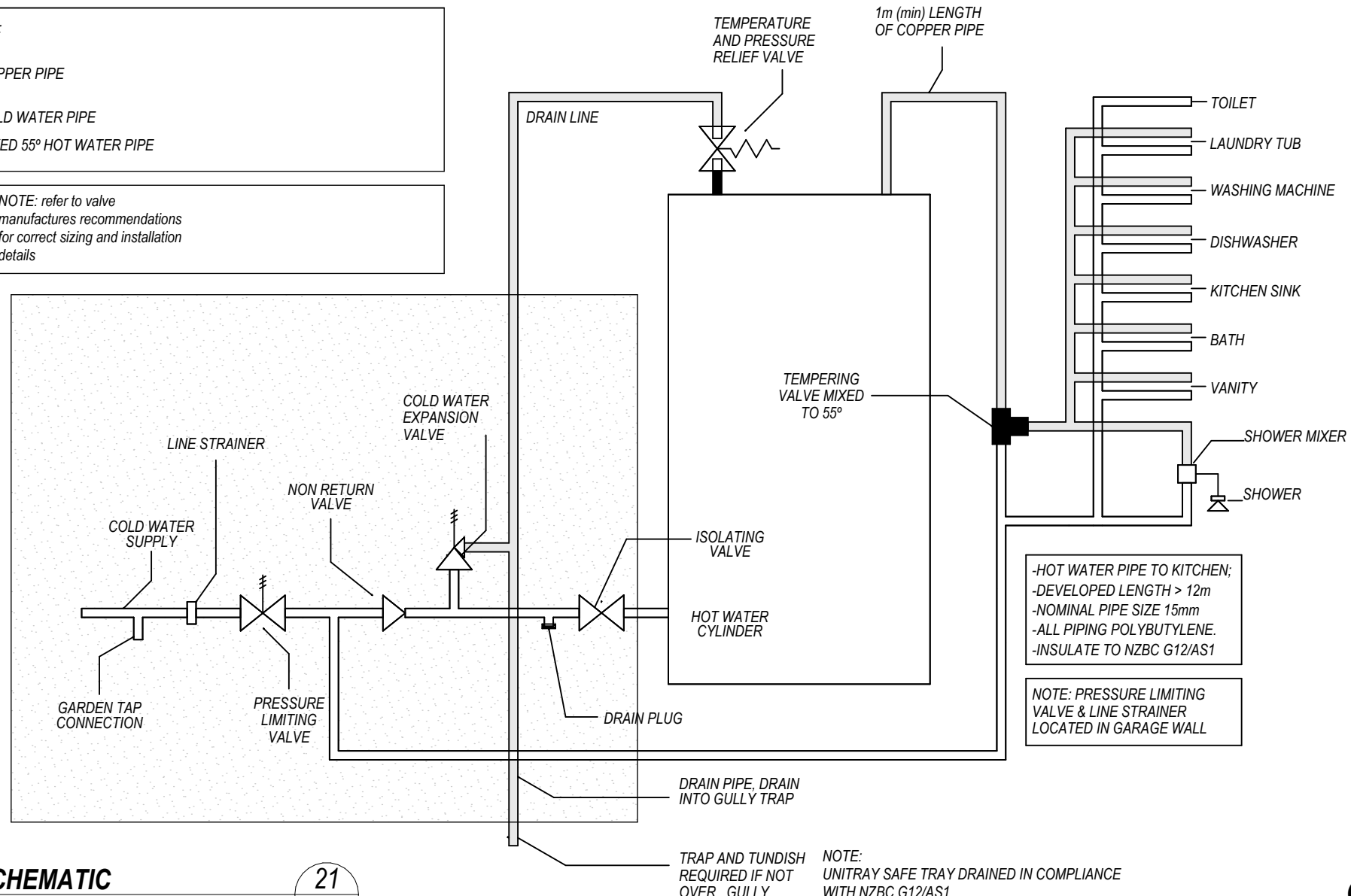
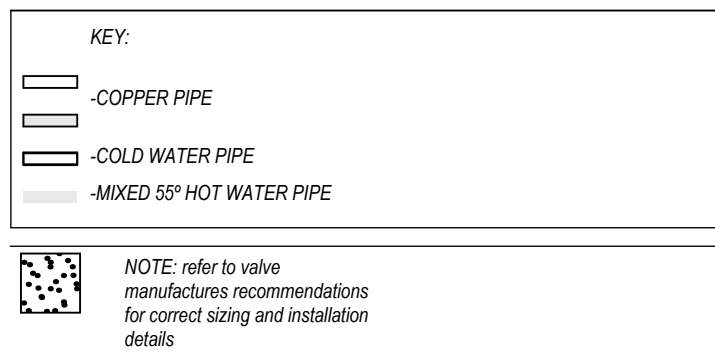


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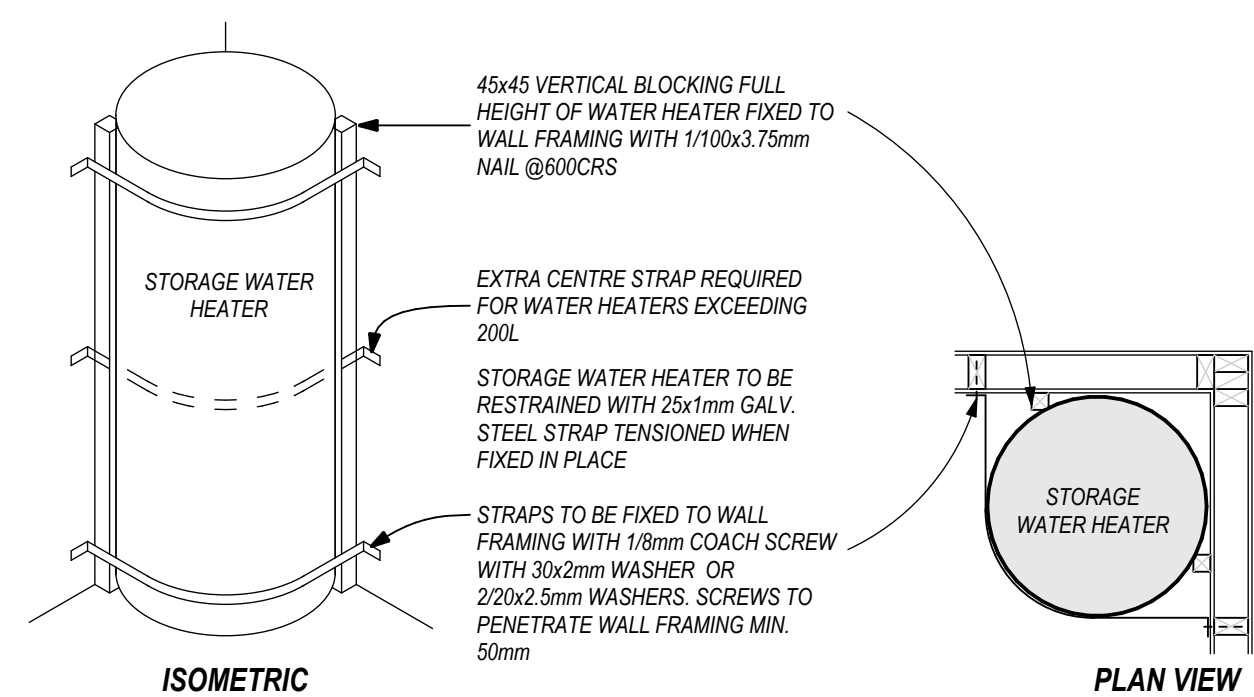
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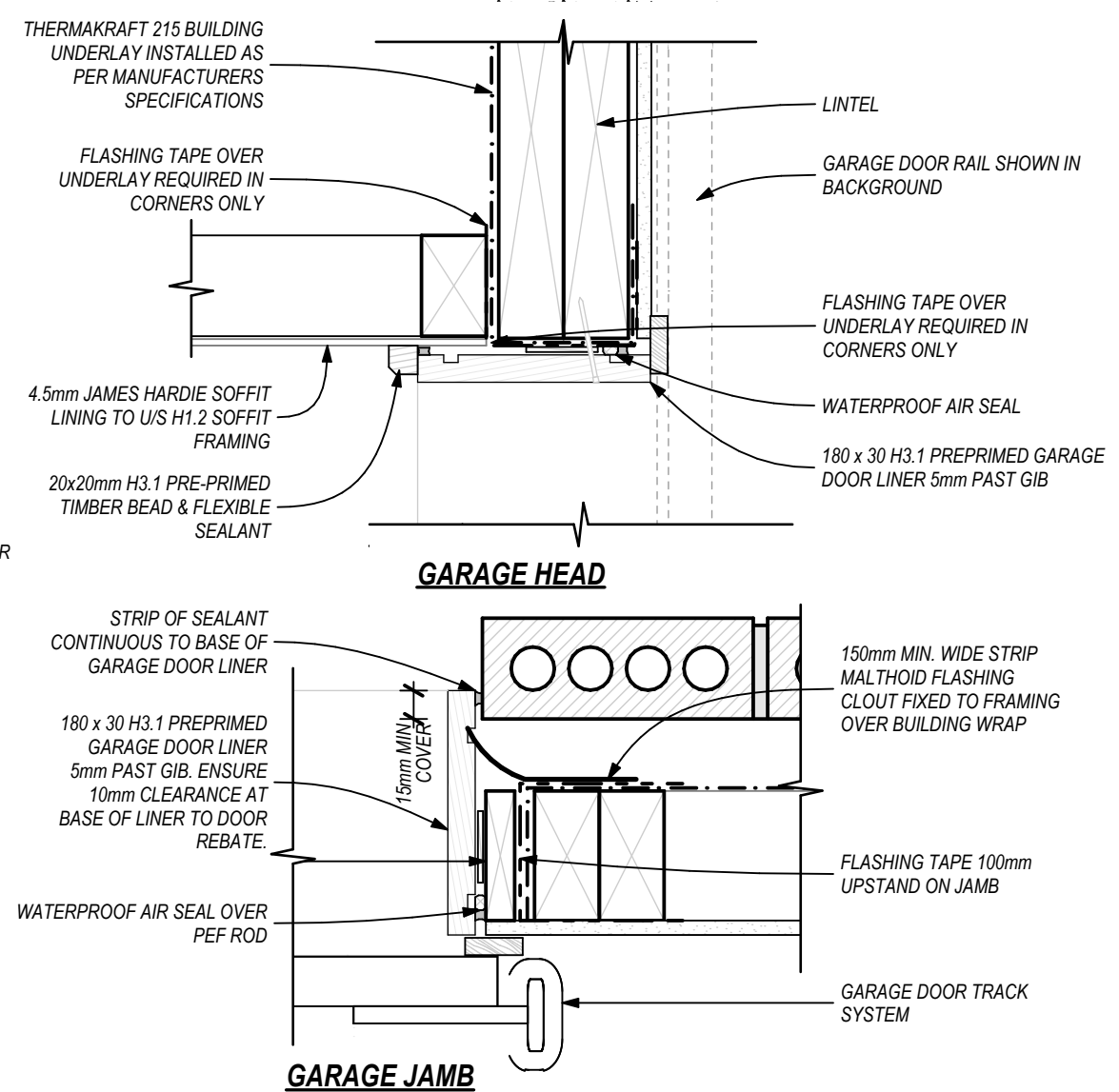
HWC SCHEMATIC

21



HWC RESTRAINT DETAIL

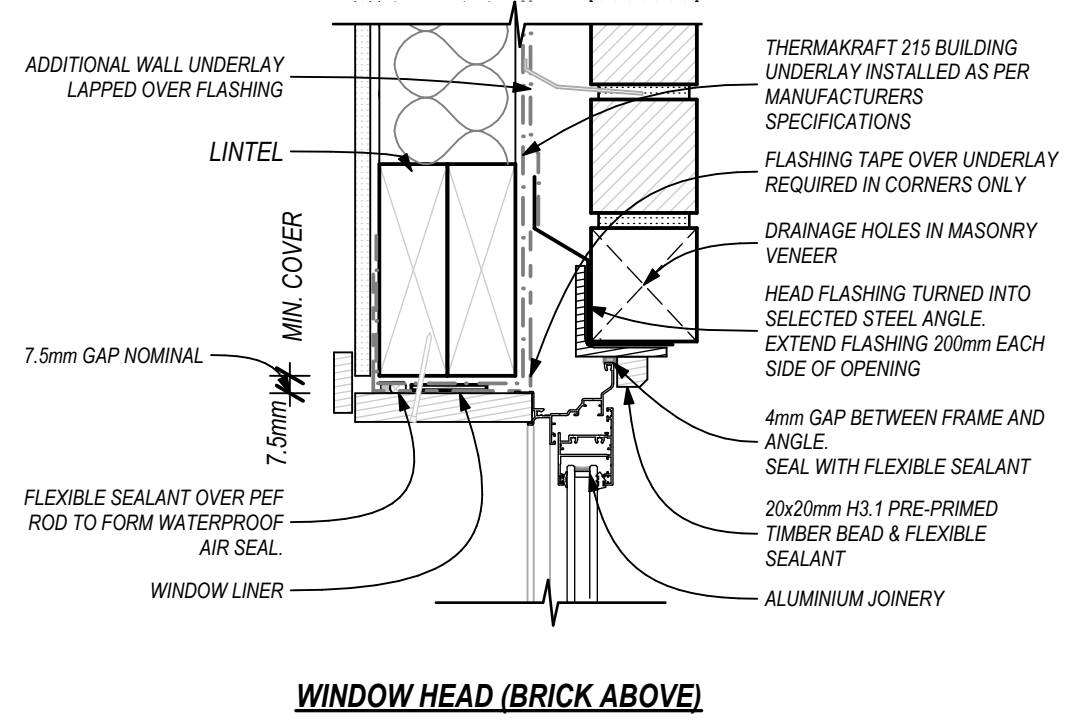
22



GARAGE DOOR DETAILS

1:5

24



BRICK VENEER JOINERY HEAD

1:5

23

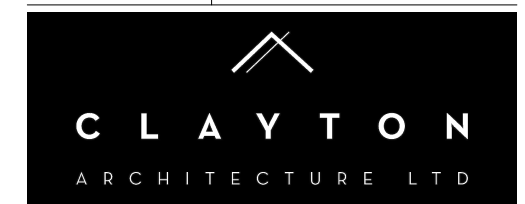
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PART B As-built services information (continued)

Wastewater - pressure (pump make/model)

Connection diameter ☐ 40mm ☐ 50mm ☐ 80mm ☐ Other _____

Pipe material ☐ uPVC ☐ Vitrified clay ☐ Concrete ☐ Other _____

Connection type ☐ Public utility service connection ☐ Septic tank ☐ Other _____

Wastewater - gravity

Connection diameter ☐ 65mm ☐ 80mm ☒ 100mm ☐ Other _____

Pipe material ☒ uPVC ☐ Vitrified Clay ☐ Concrete ☐ Other _____

Connection type ☒ Public utility service connection ☐ Septic tank ☐ Other _____

Wastewater - disposal system description

Septic tank Size _____ litres _____ m

Type ☐ Ecotank ☐ Biocycle ☐ Other _____

Effluent field ☐ Trench ☐ Deep soak hole ☐ Depth _____ m

No of holes _____ m

Other _____ m

Sanitary facilities

Toilet no ☐ Yes ☐ No ☐ Waste Disposal Unit ☐ No ☐ Yes - type _____

Bidet no ☐ Yes ☐ No ☐ Urinal no ☐ Yes ☐ No ☐ type _____

Being this ☐ Owner ☐ Occupier ☒ Certifying plumber ☒ Certifying drainlayer

Reg no _____ Reg no 23122

Signature Joe Cull Date 26/10/21

Certify that this private utility service as-built record is an accurate representation of the work carried out

Private utility service as-built record

(Section 216, Building Act 2004)

PART A Consent details (to be completed in all cases)

Building consent no 800705 105758

Applicant's name _____

Mailing address _____

Site address 279 Colburn St Whangarei

PART B As-built services information (to be completed in relation to service provided, ✓ each box as appropriate)

Stormwater

Pipe diameter ☐ 80mm ☐ 100mm ☐ 150mm ☐ 225mm ☐ Other _____

Pipe material ☒ uPVC ☐ Vitrified clay ☐ Ductile iron ☐ Concrete ☐ Other _____

Connection type ☒ Public utility service connection ☐ Soak hole ☐ Stream ☐ Drain ☐ Other Alteration

Water supply

Pipe material - cold ☐ uPVC ☐ Copper ☐ Polybutylene ☐ Other _____

Pipe material - hot ☐ uPVC ☐ Copper ☐ Polybutylene ☐ Other _____

Hot water cylinder ☐ High pressure ☐ Low pressure ☐ Meter type _____

Marks _____ Model _____

Diameter _____ Serial no _____

Reading _____ m³

(Quote all black figures inclusive of zero only)

Note Part B As-built services information (continued on last page)

(to be completed in all cases. If details are already noted on separate drawings then provide copies in duplicate as appropriate and attach to this sheet. Ensure that drawing numbers, etc., is noted below)



Form 7

Code Compliance Certificate BC07105758

Section 95, Building Act 2004

Issued: 17 November 2021

The Building

Street address of building: 29A Cockburn Street
Whangarei 0110

Legal description of land where building is located: LOT 3 DP 396361

LLP: 121747

Building name: N/A

Location of building within site/block number: N/A

Level unit number: N/A

Current, lawfully established use: Detached Dwelling

Year first constructed: 2021

The Owner

Dunnwood Properties Limited
49 Tuatara Drive
Kamo 0112

Phone number: N/A

Mobile number: 0277627826

Facsimile number: N/A

Email address: dunnwood19@gmail.com

Website: N/A

Street address/registered office: 29A Cockburn Street
Whangarei 0110

First point of contact for communications with the building consent authority:

Contact Person

M Wooding
49 Tuatara Drive
Kamo 0112

Phone number: N/A

Mobile number: 0277627826

Facsimile number: N/A

Email address: dunnwood19@gmail.com

Website: N/A

Building Work

Building Consent Number:

Issued by:

House Slab and Drainage Only

BC07105758

Whangarei District Council

Code Compliance

The building consent authority named below is satisfied, on reasonable grounds, that -

- (a) The building work complies with the building consent.



Lolly Muliipu
Support Assistant – Building Processing
On behalf of Whangarei District Council

17 November 2021

Date

In reply please quote

BC07105758



17 November 2021

Dunnwood Properties Limited
49 Tuatara Drive
Kamo 0112

Forum North, Private Bag 9023
Whangarei 0148, New Zealand
P +64 9 430 4200
F +64 9 438 7632
E mailroom@wdc.govt.nz
www.wdc.govt.nz

Building Consent number	BC07105758
Building Work	House Slab and Drainage Only
Site Address	29 A Cockburn Street Whangarei 0110

Issue of Code Compliance Certificate

Congratulations on successfully completing your building project.

A Code Compliance Certificate (CCC) has now been issued for your new building.

This brings the consent process to its conclusion and your property files have been updated accordingly.

Thank you for choosing to build in the Whangarei District.

Yours faithfully

A handwritten signature in black ink, appearing to read "Lolly Multiipu", is positioned above the printed name.

Lolly Multiipu
Building Support – Building Control Department