Land Information Memorandum

Application

Bayleys Mangawhai		No.	L250483
Building 5 Main Street		Application date	29/08/2025
83 Molesworth Drive		Issue date	2/09/2025
Mangawhai 0505		Phone	09 431 5415
		Fax	

Please Note: This LIM report contains information for the entire legal description below.

Property

Valuation No.	0122188727
Location	6 Dune View Drive, Mangawhai
Legal Description	LOT 1 DP 431147
Owner	Gallagher Patricia Dawn: Gallagher Michael James
Area (hectares)	0.0800

Rates

Government Valuation	
Land	$690,000
Capital Value	$1,300,000
Improvements	$610,000
Current Rates Year 2025 to 2026	
Annual Rates	$5,275.48
Current Instalment	$1,318.87
Current Year - Outstanding Rates	$ 0.00
Arrears for Previous Years	$ 0.00
Next Instalment Due	20/11/2025

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Note: Rates are charged in four instalments for the period commencing 1 July and ending 30 June each year.

Mangawhai Wastewater Capital Contribution paid.

Please refer to the Kaipara District Council Long Term Plan 2024/2027 and in particular to the Wastewater Targeted Rates and to the Kaipara District Council Development Contribution Policy 2024 which can be found at the Council website.

Planning/Resource Management

Zoning: **Kaipara District Plan 2013: Residential** – Mangawhai Harbour Overlay. See attached information regarding the District Plan.

Full details of the zone requirements are found in the current District Plan. Relevant zone ordinance can be found at the Council website.

26/08/11 **RESOURCE CONSENT 110081**: Proposed Yard Infringement on Lot 1 DP 431147. Decision Notified 5/08/11: GRANTED UNDER DELEGATED AUTHORITY 4/08/11. **Copy of Decision attached.**

15/03/10 **RESOURCE CONSENT 090153:** Subdivide Lot 18 DP 362172 into four freehold lots. **Created DP 431147**. Section 224 Issued 24/06/10: GRANTED UNDER DELEGATED AUTHORITY 18/02/10.

	RM090153: Consent Notice for Lots 1-3 shall require: i) A vehicle crossing shall be formed at the time of approval of a building consent for a dwelling on the lot in accordance with the following requirements: ii) The vehicle crossing shall be located at least 10m from the boundary of any adjoining lot or be formed as a double crossing on the boundary of the adjoining lot. iii) The vehicle crossing shall be a swale type, designed and constructed in accordance with Council`s Engineering Standards 2009 drawings S05 and S10. iv) The vehicle crossings shall be concreted at least to the road reserve boundary. v) Any necessary permit procedures shall be complied with.
	VC110044 Vehicle crossing permit issued 22/03/2012. No inspection information or final sign off located.
	RM090153: Consent Notice for Lots 1-3 shall require: ii) A stormwater attenuation system shall be provided on each lot to ensure that post-development peak flows off the site do not exceed pre-development flows for storm events of 5- and 100-year ARI. The attenuation system shall be designed by a suitably qualified engineer, having regard to the area of each Lot covered by impermeable surfaces. Details and supporting calculations shall be submitted to Council for approval and approved as part of the building consent process. A separate resource consent is required if the area of impermeable surfaces exceeds 50% of the lot area. iii) On-site storage, a grinder pump and appropriate connections shall be provided for a low-pressure sewerage system in accordance with Council`s Engineering Standards 2009. iv) Development shall be limited to single dwelling and associated buildings on each.
17/12/04	RESOURCE CONSENT 040291: Variation to RM030055 to alter lot numbering - Subdivision of Lot 3 DP 203695 into 23 lots. Created DP 362172 Bond Released 17/12/07: GRANTED UNDER DELEGATED AUTHORITY 26/11/04 (Found on parent property: X0122188700)
	RM040291 consent notice for Lots 1-18 DP 362172 shall require that : (i) residential development of each site shall be limited to single dwellings (ii)Until connection to a public community sewerage scheme for Mangawhai is available, each owner shall be a shareholder or member of the registered company or other corporate body formed to administer all matters associated with the maintenance of all on-site effluent disposal systems within Lots 1-18 of the subdivision. (iii)Owners and prospective purchasers shall be advised that the use of on-site effluent disposal systems within the subdivision is permitted only until such time as connection to the community sewerage scheme planned by the Council for Mangawhai is available. At that time all properties will be required to connect to the community sewerage scheme planned by the Council for Mangawhai and must comply with all of the Council`s requirements relating to such connections, including the payment of any development contribution, connection fee or any other charge. (iv) Require that each lot install an Aerated Wastewater Treatment Systems (AWTS) at the time of building development and that such systems shall be designed and installed under the supervision of a competent Engineer with appropriate experience in Wastewater systems of other suitable person to the approval of the Council.
	RM040291 Consent notice for Lots 1-18 DP 362172 shall require that: (v) Advise that a discharge permit from NRC may be required n respect of individual Aerated Wastewater Treatment System (AWTS) prior to construction and use. (vi) Until the time of the connection to a community sewerage system, Aerated Wastewater Treatment Systems (AWTS) and plumbing fixtures shall be supplied and installed to each lot in accordance with the standards defined by the registered company or other corporate body formed to administer all matters associated with the maintenance of all on-site effluent disposal systems within Lots 1-18 of the subdivision. (vii) Until the time of connection to a community sewerage system, the owners if each lot shall enter into an ongoing contract for the maintenance of the Aerated Waste Water Treatment Systems (AWTS) with an organisation to the approval of the registered company or other corporate body formed to administer all matters associated with the

	maintenance of all on-site effluent disposal systems within Lots 1-18 of the subdivision. **RM040291** Consent notice for Lots 1-18 DP 362172 shall require that: (viii) Until the time of connection to a community sewerage system, the registered company of other corporate body formed to administer all matters associated with the maintenance of all on-site effluent disposal systems within Lots 1-18 of the subdivision shall submit to the Kaipara District Council and the Northland Regional Council, a report at not less than 6 monthly intervals from the date of issue of the titles to the subdivision, on the performance of the Aerated Wastewater Treatment Systems (AWTS) from a suitably qualified person, including any measures to be implemented to remedy adverse effects on the environment that might arise from time to time. (ix) Draw attention to and require compliance with the Engineering Report by John Hawley Consulting Ltd dated 22 May 2003 (Reference No.168C) with respect to: Building Foundations. In particular the need to: - Take into account the compressibility hazard of the peaty soils; -Avoid the penetration of the shallow subsurface pan; - Undertake specific design of building foundations. Building Floor levels. In particular the need to establish floor levels at least 300mm above natural ground levels. **Copy of Report attached.**
29/04/04	RESOURCE CONSENT 030055: SUBDIVIDE LOT 3 DP 203695 & LOTS 2 & 5 DP 184383 INTO 18 LOTS Decision Notified 6/04/04: GRANTED UNDER DELEGATED AUTHORITY 6/04/04 (Found on parent property: 0122188700) RESOURCE CONSENT 010150: SUBDIVIDE LOT 3 DP 203695 INTO 20 LOTS Section 224 Issued 12/10/06 (Found on parent property: X0122188700A)
No other information located.	

Building

21/11/11	BUILDING CONSENT 110498: New dwelling with attached garage: Code Compliance Certificate issued 24/05/12.
1/05/10	BUILDING CONSENT 100216: new stormwater and wastewater connections: Code Compliance Certificate issued 10/06/10.
No other information located.	

Sewer and Water

Sewer	Connected – Mangawhai Wastewater.
Stormwater	Available.
Water	Not available
Copy of drainage plan attached.	
No other information located.	

Land and Building Classifications

No information located.

Refer to copy of map from District Plan for other classifications in the immediate vicinity.

Compliance with Swimming Pool Bylaw

No pool registered to this property.

Land Transport Requirements

No information located.

Special Land Features

No information located.

Licences/Environmental Health

No information located.

Network Utility Operators

Information related to the availability of supply, authorisations etc (eg, electricity or gas) can be obtained from the relevant Network Utility Operator.

Other Information

No title search has been done on this property.

Notes

1. Final inspections on buildings were not mandatory prior to 1 January 1993. Should an evaluation of the building be required an independent qualified person should be consulted. In the interests of safety, an inspection of any fireplace within the dwelling may be requested of Council at any time, after paying the appropriate fee.
2. Every care has been taken to ensure that the information supplied by the Council on this form is accurate. The Council relies on information available to it and will not be held responsible for incomplete or inaccurate information provided, or for any errors or omissions made in good faith.
3. Please note that the property was neither inspected nor visited during the preparation of this Land Information Memorandum. Information is based on a search of Council records only and no inspection of the land or any building on it will be undertaken for the purpose of preparing the Report.
4. Other information may be held by other authorities, for example the Northland Regional Council or Heritage New Zealand.
5. This Land Information Memorandum is a disclosure of information (which may be historical) held by the Council at the time of application and is subject to change.
6. Any enquiry not accompanied by a fee will be invoiced separately. (All prices are GST inclusive).
7. Any Resource or Building consents run with the land; if the project is incomplete, there may be existing/additional charges to pay for which the new owner will be liable.
8. A Development Contribution and or Financial Contribution may be payable if development is carried out, the effect of which is to require new or additional assets or assets of increased capacity and as a consequence Council incurs capital expenditure to provide appropriately for those assets and that capital expenditure is not otherwise funded or provided for. Future rating policies are outlined in Council's Long Term Plan 2024-2027.

Name: _____ Date: 2/09/2025.

Performance Standards of the Kaipara District Plan 2013

To view the performance standards (rules) for each zone please refer to the relevant chapter of the Kaipara District Plan 2013:

Rural - Chapter 12

Residential - Chapter 13

Business: Commercial and Industrial - Chapter 14

Māori Purposes: Māori Land – Chapter 15A

Māori Purposes: Treaty Settlement Land – Chapter 15B

Estuary Estates – Chapter 16

Estuary Estates - Chapter 16A – Trifecta Development Area

All Zones - Chapter 10 Network Utilities and Chapter 11 Transport Network

How can I view the Kaipara District Plan 2013?

If you have access to the internet and want access to the most up to date information, visit the website **www.kaipara.govt.nz**

If you do not have access to a computer, you can visit one of the following locations to view a hard copy of the Plan:

Venue	Opening Hours	
Kaipara District Council Office – Dargaville 32 Hokianga Road Dargaville Telephone 0800 727 059	Monday – Tuesday Wednesday Thursday - Friday	8.00am to 4.30pm 9.00am to 4.30pm 8.00am to 4.30pm
Kaipara District Council Office – Mangawhai Unit 5, The Hub 6 Molesworth Drive Telephone 0800 727 059	Monday – Friday	9.30am to 3.00pm
Dargaville Library Corner Poto and Normanby Streets Dargaville Telephone 0800 534 542	Monday – Wednesday Thursday Friday Saturday	9.30am to 5.00pm 9.30am to 6.00pm 9.30am to 5.00pm 9.30am to 12.30pm
Mangawhai Library 45 Moir Street Mangawhai Telephone 0800 532 542	Tuesday - Wednesday Thursday Friday Saturday	10.00am to 5.00pm 10.00am to 6.00pm 10.00am to 5.00pm 10.00am to 1.00pm
Kaiwaka Library Corner State Highway 1 and Kaiwaka Mangawhai Road Kaiwaka Telephone (09) 431 2539	Monday Tuesday Wednesday - Saturday	4.00pm to 6.00pm Closed 10.00am to 2.00pm
Maungaturoto Library Centennial Building Hurndall Street Maungaturoto Telephone (09) 431 8811	Monday – Tuesday Wednesday Thursday – Saturday Friday Terms 1 & 4 also	10.30am to 1.00pm 10.30am to 4.00pm 10.30am to 1.00pm 4.00pm to 6.00pm
Paparoa Library Brook House 1980 Paparoa Valley Road State Highway 12 Paparoa Telephone (09) 431 7555	Monday Tuesday Wednesday Thursday Friday Saturday	2.00pm to 4.30pm 10.00am to 1.00pm 2.00pm to 4.30pm 10.00am to 4.00pm 11.00am to 1.30pm 10.00am to 12.00pm

All Maps

- State Highway
- Railway
- Bridge or Causeway
- Unformed Road
- Sea, Lakes and Rivers
- Parcel Boundary

Map Series One - Land Use

- Estuary Estates
- Rural
- 8m Height Restriction
- Business: Commercial
- Business: Industrial
- Residential
- Maori Land
- Treaty Settlement
- Estuary Estates
- East Coast Overlay
- Harbour Overlay
- Kai Iwi Lakes Overlay
- West Coast Overlay

Map Series Two - Sites, Features and Units

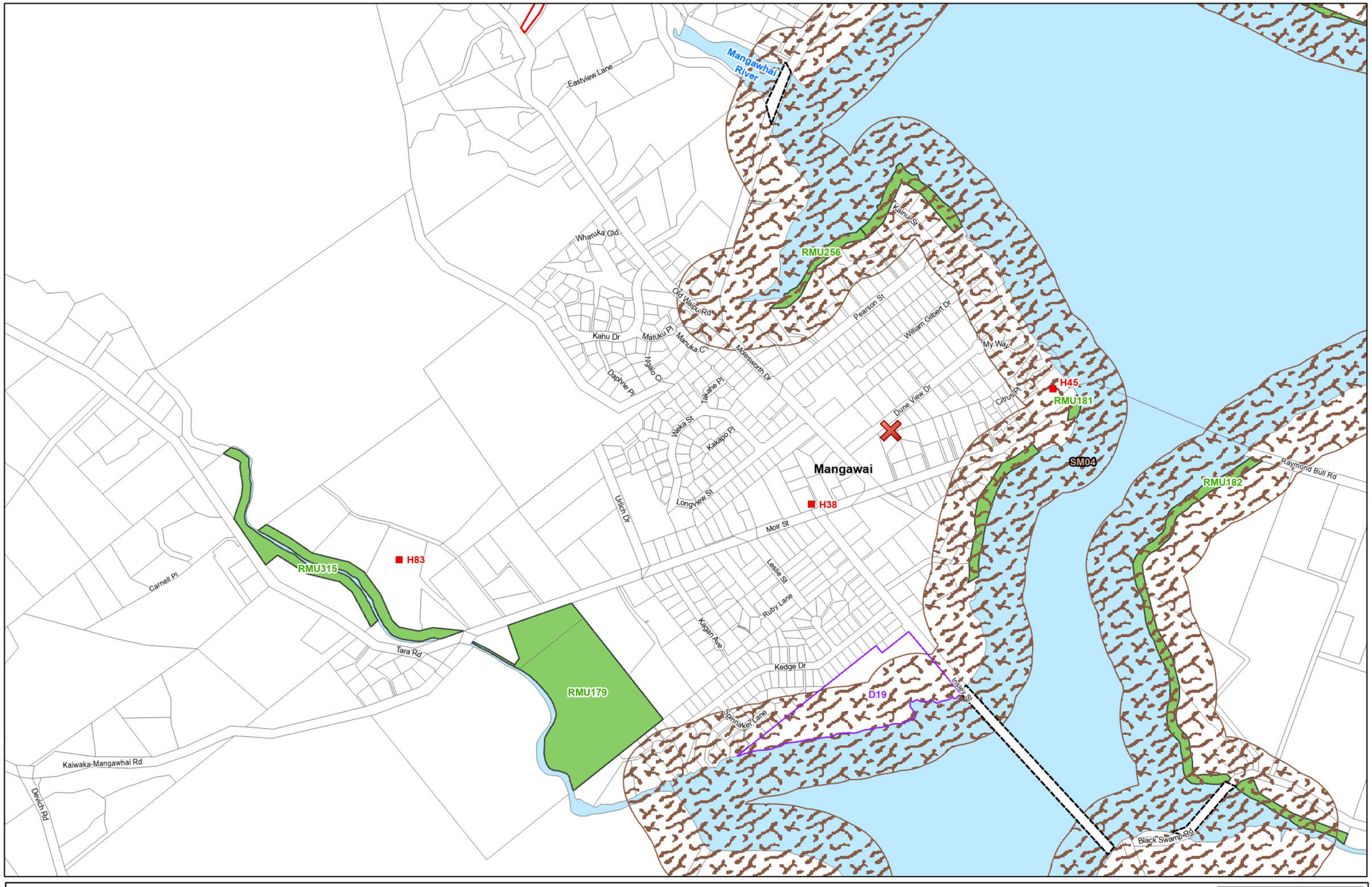
- Heritage Resource
- Notable Tree
- Maungaturoto Dairy Factory Wastewater Pipeline
- 110-220 kV Electricity Transmission Line
- 50 kV Electricity Transmission Line
- Designation Areas
- Outstanding Natural Landscape
- Reserve Management Units
- Areas of Significance to Maori
- Maungaturoto Dairy Factory Noise Contour Boundary (45dBA leq)

KAIPARA DISTRICT

Kaipara te Oranganui • Two Oceans Two Harbours

Map Legend

Date Updated:4/08/2021



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Cadastre from 19 March 2021.

KAIPARA DISTRICT
Kaipara te Oranganui • Two Oceans Two Harbours

KAIPARA DISTRICT PLAN - OPERATIVE NOVEMBER 2013

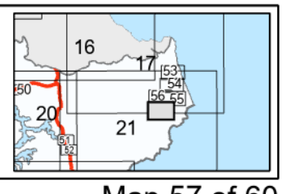
Map Series Two

Sites, Features and Units Mangawhai

N

0 10 20 Km

A3 Scale: 1:7,500



Date Updated:4/08/2021

SUNLEA LANE
OLD WAIPU ROAD
MOLESWORTH DRIVE
PEARSON STREET
WELA ST
LONGVIEW ST
SUNVIEW DRIVE
MOLESWORTH DRIVE
MOIR STREET
MOIR STREET
LESLIE STREET
KAKAMA AVENUE
INSLEY STREET
TARA ROAD
Tara Stream
KEDGE DRIVE
SPINNAKER LN
KAWAKA-MANGAWHAI ROAD
Mangawhai Harbour
BLACK SWAMP ROAD

KAIPARA DISTRICT
Kaipara te Oranganui • Two Oceans Two Harbours

Scale: 1: 7,500 @ A3

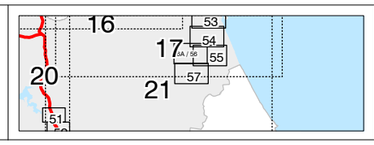
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KAIPARA DISTRICT PLAN - OPERATIVE VERSION - JULY 2013

Map Series One

Land Use : Mangawhai

Map 57 of 60



N

Rates Information - 2025/26

Valuation ID	0122188727	Old Valuation ID	C:0122188700

Property Description

Location (GIS)	6 Dune View Drive, Mangawhai
	View in Google Maps
Legal Description	LOT 1 DP 431147
Certificate of Title	520533

Use	91 Residential: Single Unit (other than bach)	Category	RD201
TORAS	111000	Category Group	Residential Dwelling fully or semi detached
Tenure	Property is not leased. Owner is also occupier.	Ward	4
Ownership	Private: Individual	Region	1
Rateability	Rateable	Zone	9A
Apportionment	Std property - Not Applicable, Not apportionment		

Valuations

Area (Hectares)	0.0800	Land Value	690,000
Improvements	610,000	Capital Value	1,300,000
Nature of Improvements	DWG OI		
Valuation Date	1/09/23		

Rates for Current Year - 2025/26

Type	Description (Basis)	Factor	Amount $
002	Uniform Annual General Charge - Rating Unit	1.00	725.00
012	Mangawhai Stormwater - (L)	690,000.00	405.65
081	Mangawhai Harbour Restoration (MHR) - Rating Unit	1.00	80.00
233	General Rate Residential & Small Sized Lifestyle - (L)	690,000.00	1,550.02
201	Mangawhai Wastewater Connected - SUIP	1.00	1,357.76
239	Parks and Libraries Targeted Rate - (U)	1.00	384.34
242	Museums Targeted Rate - (U)	1.00	14.00
	** Kaipara District Council Sub-Total		4,516.77
250	NRC Targeted Council Services Rate - (U)	1.00	262.32
253	NRC Pest Management Rate - (U)	1.00	125.86
254	NRC Targeted Flood Infrastructure Rate - (U)	1.00	41.66
255	NRC Targeted Emergency and Hazard Management Rate - (U)	1.00	77.38
256	NRC Targeted Regional Rescue Services Rate - (U)	1.00	8.87
257	NRC Targeted Regional Sporting Facilities Rate - (U)	1.00	16.09
259	NRC Targeted Land and Freshwater Management Rate - (L)	690,000.00	205.83
260	NRC Targeted Regional Economic Development Rate - (L)	690,000.00	20.70
	** Regional Council Sub-Total		758.71
	Total Rates Levied 2025/26		5,275.48
	(GST on Rates Levied)		688.11
	Rates Last Year 2024/25		4,951.29
	Last Year's Final Instalment		1,237.82

Rates Last Year 4,951.29 Instalments YTD 1,318.87 Current Instalment 1,318.87

History

Year	Land Value	Capital Value	Annual Rates
2024/25	690,000	1,300,000	4,951.29
2023/24	390,000	970,000	4,266.96
2022/23	390,000	970,000	3,985.93
2021/22	390,000	970,000	3,705.95
2020/21	345,000	830,000	3,868.16
2019/20	345,000	830,000	3,671.59
2018/19	345,000	830,000	3,509.81
2017/18	139,000	460,000	2,684.42
2016/17	139,000	460,000	2,635.09
2015/16	139,000	460,000	2,590.17

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SCANNED: 31/07/2019 08:37:07 BATCH: 814 BOX: 6 DOC: DOCC001

KAIPARA DISTRICT

Kaipara te Oranganui • Two Oceans Two Harbours

KAIPARA DISTRICT COUNCIL

In the Matter of:	*The Resource Management Act 1991*
And	
In the Matter of:	*An application under Section 88 of the Resource Management Act 1991 made by James & Glenice Ainsworth*
File Reference:	*RM110081*

Decision on Resource Consent Application

a) *Pursuant to Section 93(1) of the Resource Management Act 1991, the Kaipara District Council is satisfied that the application is for a Limited Discretionary Activity and that, as the adverse effects of the proposal will be less than minor, the application need not be notified. The Council is further satisfied that, after taking into due consideration the requirements of Section 94A(a) and Section 94B, written approval has been obtained from all parties considered to be adversely affected by the proposal. The Council is further satisfied that no special circumstances exist that require notification of the consent application in accordance with Section 94C(2) of the Resource Management Act 1991.*

b) *Pursuant to Section 104, 104C, and 108 of the Resource Management Act 1991, the Kaipara District Council grants consent to the application by James & Glenice Ainsworth to construct a residential dwelling on the property legally described as Lot 1 DP 431147(CT 520533), subject to compliance with the following conditions:*

Conditions of Consent

1) *The proposed activity shall be carried out in accordance with the plans and all information submitted with the application, being plans prepared by Golden Homes, Sheets 3/5 and 4/5 dated 2 June 2011.*
2) *The consent holder shall pay all charges set by the Council under Section 36 of the Resource Management Act 1991, including any administration, monitoring and supervision charges relating to the conditions of this resource consent. The consent holder will be advised of the charges as they fall.*

Reasons for Decision

1. *The proposed development is a Limited Discretionary Activity under the District Plan and satisfies the requirements of Sections 104 and 104C of the Act.*

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KAIPARA DISTRICT

2. *The proposal is considered to be consistent with the Objectives and Policies of the District Plan and the purposes and principles of the Resource Management Act 1991. The proposed retaining wall will not adversely affect the existing residential character or amenity of the surrounding environment.*

3. *Te Uri o Hau have assessed the application.*

Advice Notes

1. *All archaeological sites are protected under the provisions of the Historic Places Act 1993. It is an offence under that act to modify, damage or destroy any archaeological site, whether the site is recorded or not. Application must be made to the New Zealand Historic Places Trust for an authority to modify, damage or destroy an archaeological site(s) where avoidance of effect cannot be practised.*

2. *If subsurface archaeological evidence (shell, midden, hangi, storage pits, etc) should be unearthed during construction, work should cease in the immediate vicinity of the remains and the Historic Places Trust should be contacted.*

3. *In the event of koiwi (human remains) being uncovered, work should cease immediately and the tangata whenua of Te Uri o Hau shall be contacted so that appropriate arrangements can be made.*

Signed: 4/8/2011

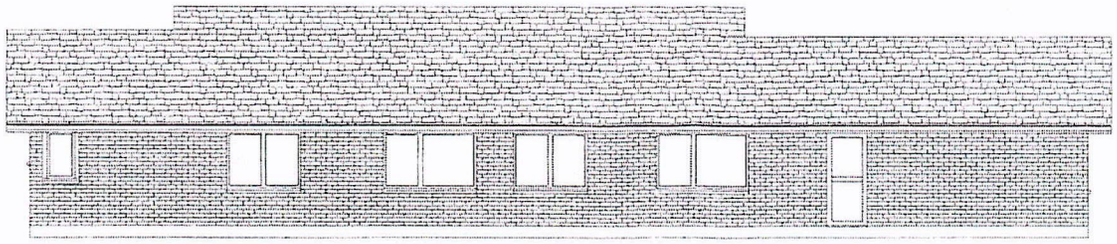
Regulatory Manager

Kaipara District Council

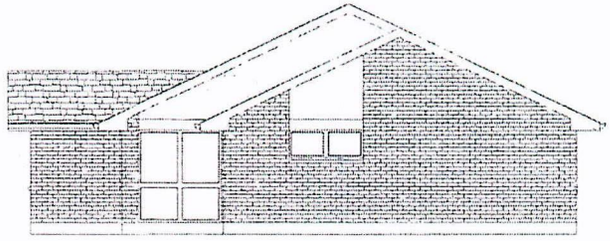
Signed under delegated authority pursuant to Section 34A of the Resource Management Act 1991.

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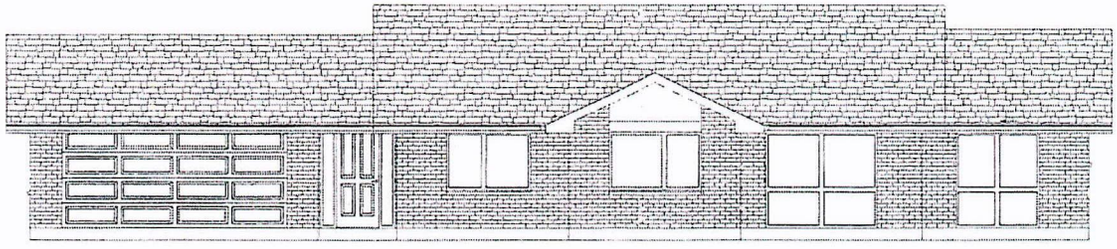
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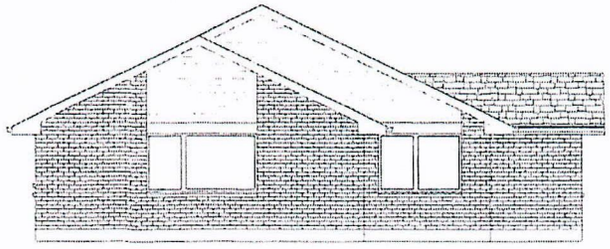
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APPROVED
03 AUG 2011
KAIPARA DISTRICT COUNCIL
RM 110081



Frames by: 20g
steel frames of the future today

ZANO LTD
Phone: (09) 476 0440

GOLDEN HOMES

PLAN NAME Altered

MONDEO

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NOTES

SCHEME PLAN ONLY

RCDC gives no undertaking that these plans can be completely workable until working plans are completed for permit. Variations may be necessary for working plans due to requirements for bracing, engineering, unforeseen site conditions or any other complication outside of RCDC's control.

JOB TITLE

AINSWORTH Residence
Lot No. 1, DP 431147
Dune View Drive
Kaipara

TERRITORIAL AUTHORITY

District/City Council

Suitable for Geographical Zones up to 3 including

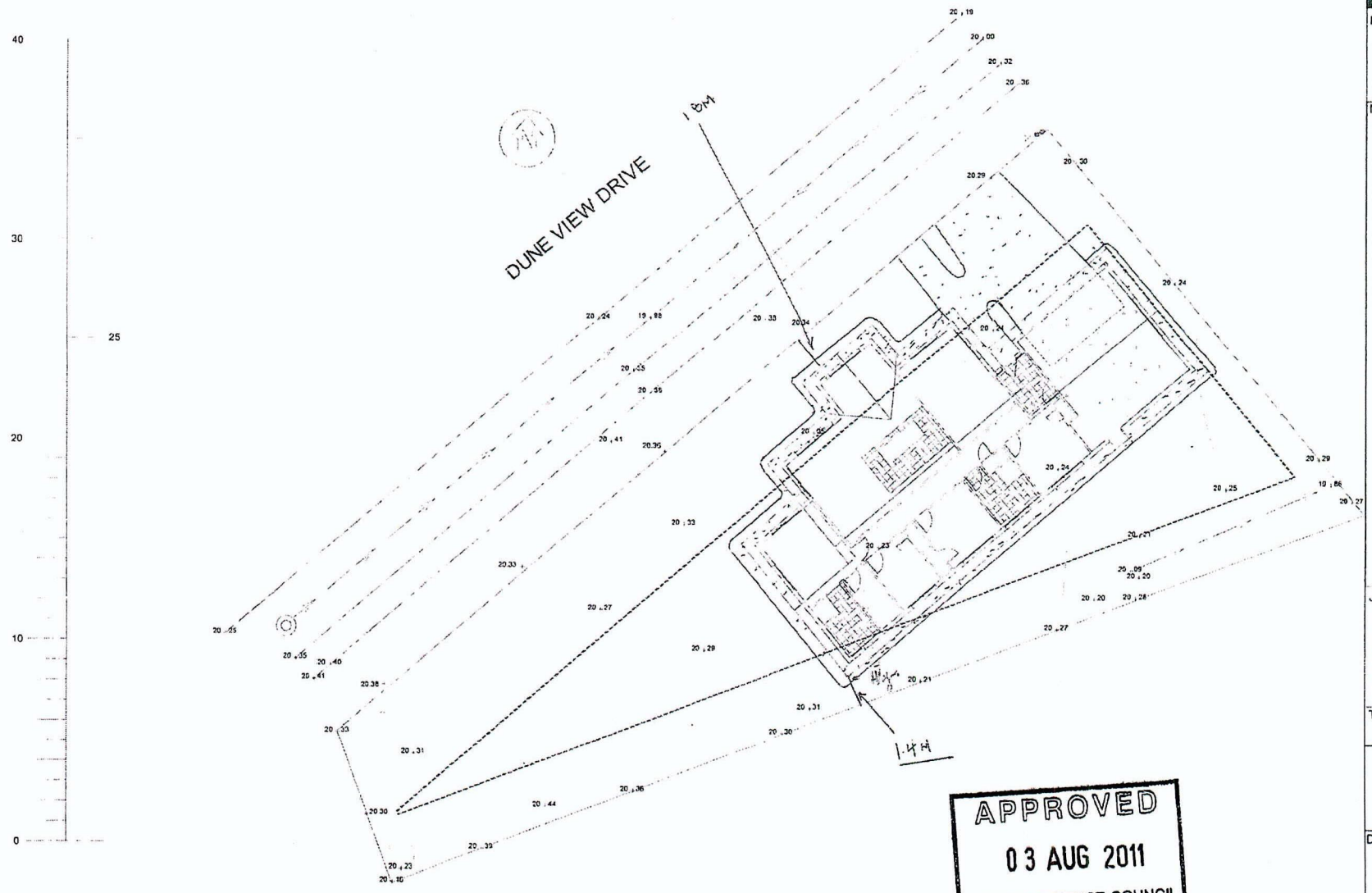
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	1
Snowload:	n/a

DRAWING TITLE

Elevations

SALES	MIKE COSIER
DRAWN	RCDC
SHEET No.	3 OF 5
JOB No. ####	DATE 2/06/2011
SCALE 1:100	TIME 12:21:09 p.m.

SCANNED: 31/07/2019 08:37:07 BATCH: 814 BOX: 6 DOC: DOCC001



APPROVED
03 AUG 2011
KAIPARA DISTRICT COUNCIL

RM110081.

Frames by: 20g steel frames of the future today

ZANO LTD
Phone: (09) 478 0440

GOLDEN HOMES

PLAN NAME Altered

MONDEO

© GOLDEN HOMES HOLDINGS LTD. 2009

NOTES

SCHEME PLAN ONLY

RCDC gives no undertaking that these plans can be completely workable until working plans are completed for permit. Variations may be necessary for working plans due to requirements for bracing, engineering, unforeseen site conditions or any other complication outside of RCDC's control.

JOB TITLE

AINSWORTH Residence
Lot No. 1, DP 431147
Dune View Drive
Kaipara

TERRITORIAL AUTHORITY

District/City Council

Suitable for Geographical Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	1
Snowload:	n/a

DRAWING TITLE

Location Plan

SALES	MIKE COSIER
DRAWN	RCDC
SHEET No.	4 OF 5
JOB No. ####	DATE 2/06/2011
SCALE 1:200	TIME 12:21:09 p.m.

SCANNED: 30/06/2017 07:58:04 BATCH: 251 BOX: 11 DOC: DOCC001

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

AND

IN THE MATTER of a subdivision consent as evidenced by Land Transfer Plan No. LT 431147

AND

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

I, ALAN JOHN McKERCHAR Principal Administrative Officer for the Council HEREBY CERTIFY that the following condition to be complied with on a continuing basis was imposed by the Council as a condition of approval for the subdivision as effected by Land Transfer Plan No. LT 431147 ("the plan").

The registered proprietor for the time being of Lots 1-3 on the plan will notify any prospective purchaser of such allotment(s) that a consent Notice Pursuant to Section 221 of the Act shall be prepared for registration against the title of proposed Lots 1-3 of the Subdivision. The Consent Notice shall require:

i) A vehicle crossing shall be formed at the time of approval of a building consent for a dwelling on the lot in accordance with the following requirements:

- The vehicle crossing shall be located at least 10m from the boundary of any adjoining lot or be formed as a double crossing on the boundary of the adjoining lot.
- The vehicle crossing shall be a swale type, designed and constructed in accordance with Council's Engineering Standards 2009 drawings S05 and S10.
- The vehicle crossings shall be concreted at least to the road reserve boundary
- Any necessary permit procedures shall be complied with.

ii) A stormwater attenuation system shall be provided on each lot to ensure that post-development peak flows off the site do not exceed pre-development flows for storm

SCANNED: 30/06/2017 07:58:04 BATCH: 251 BOX: 11 DOC: DOCC001

events of 5 and 100 year ARI. The attenuation system shall be designed by a suitably qualified engineer having regard to the area of each Lot covered by impermeable surfaces. Details and supporting calculations shall be submitted to Council for approval and approved as part of the building consent process. A separate resource consent is required if the area of impermeable surfaces exceeds 50% of the lot area.

iii) On-site storage, a grinder pump and appropriate connections shall be provided for a low pressure sewerage system in accordance with Council's Engineering Standards 2009.

iv) Development shall be limited to a single dwelling and associated buildings on each lot.

DATED at Dargaville this 16th day of June 2010

Authenticated by the said ALAN JOHN McKERCHAR, Chief Executive Officer for THE KAIPARA DISTRICT COUNCIL.

A.J. McKerchar

RECEIVED: 17 May 2011 SCANNED: 17 May 2011 BOX: 5 BATCH: 72287 DOC: KDCAAMUZ

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

AND

IN THE MATTER of a subdivision consent as evidenced by Land Transfer Plan No. 362172

AND

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

I, ALAN JOHN McKERCHAR, Chief Executive Officer of the Council HEREBY CERTIFY that the following condition to be complied with on a continuing basis was imposed by the Council as a condition of approval for the subdivision as effected by Land Transfer Plan No. 362172

1. The registered proprietor for the time being of Lots 1- 18 on the Plan will notify any prospective purchaser of each allotment that:
   (i) Residential development of each site shall be limited to single dwellings until a connection to a public community sewerage scheme for Mangawhai is available.
   (ii) Until a connection to a public community sewerage scheme for Mangawhai is available, each owner shall be a shareholder or member of the registered company or other corporate body formed to administer all matters associated with the maintenance of all on-site effluent disposal systems within Lots 1- 18 of the subdivision
   (iii) Owners and prospective purchasers shall be advised that the use of on-site effluent disposal systems within the subdivision is permitted only until such time as connection to the community sewerage scheme planned by the Council for Mangawhai is available. At that time all properties will be required to connect to the community sewerage scheme planned by the Council for Mangawhai, and must comply with all of the Council's requirements relating to such connection, including the payment of any development contribution, connection fee or any other charge.

RECEIVED: 17 May 2011 SCANNED: 17 May 2011 BOX: 5 BATCH: 72287 DOC: KDCAAMUZ

(iv) Require that each lot install an Aerated Wastewater Treatment System (AWTS) at the time of building development and that such systems shall be designed and installed under the supervision of a competent Engineer with appropriate experience in wastewater systems or other suitable person to the approval of the Council.

(v) Advise that a discharge permit from the Northland Regional Council may be required in respect of individual Aerated Wastewater Treatment System (AWTS) prior to construction and use.

(vi) Until the time of connection to a community sewerage system, Aerated Wastewater Treatment Systems (AWTS) and plumbing fixtures shall be supplied and installed to each lot in accordance with the standards defined by the registered company or other corporate body formed to administer all matters associated with the maintenance of all on-site effluent disposal systems within Lots 1- 18 of the subdivision.

(vii) Until the time of connection to a community sewerage system, the owners of each lot shall enter into an ongoing contract for the maintenance of the Aerated Wastewater Treatment Systems (AWTS) with an organisation to the approval of the registered company or other corporate body formed to administer all matters associated with the maintenance of all on-site effluent disposal systems within Lots 1- 18 of the subdivision.

(viii) Until the time of connection to a community sewerage system, the registered company or other corporate body formed to administer all matters associated with the maintenance of all on-site effluent disposal systems within Lots 1- 18 of the subdivision shall submit to the Kaipara District Council and the Northland Regional Council, a report at not less than 6 monthly intervals from the date of issue of the titles to the subdivision, on the performance of the Aerated Wastewater Treatment Systems (AWTS) from a suitably qualified person, including any measures to be implemented to remedy adverse effects on the environment that might arise from time to time.

RECEIVED: 17 May 2011 SCANNED: 17 May 2011 BOX: 5 BATCH: 72287 DOC: KDCAAMUZ

(ix) Draw attention to and require compliance with the Engineering Report by John Hawley Consulting Ltd dated 22 May 2003 (Reference No. 168C) with respect to:

- Building Foundations. In particular the need to:
  - Take into account the compressibility hazard of the peaty soils;
  - Avoid the penetration of the shallow subsurface pan;
  - Undertake specific design of building foundations.
- Building Floor Levels. In particular the need to establish building floor levels at least 300mm above natural ground levels.

DATED at Dargaville this 16th day of May 2006

AUTHENTICATED by the said ALAN JOHN McKERCHAR, Chief Executive Officer for THE KAIPARA DISTRICT COUNCIL.

A. J. McKerchar

RECEIVED: 29 Oct 2009 SCANNED: 29 Oct 2009 BOX: 4 BATCH: 45864 DOC: KDCAAJEC

JOHN HAWLEY CONSULTING

4 Gordon Craig Place
Algies Bay
WARKWORTH

Tel:094256949
Fax:094256946
Mob: 025 622 1693

jghawley@voyager.co.nz

20 May 2003

Job No: 168c

GEOTECHNICAL REPORT RE SIXTEEN PROPOSED NEW HOUSE SITES

from subdivision for

MR TIM WALKER

at

CAUSEWAY ROAD, MANGAWHAI

In response to instructions conveyed to us by BT Consultants we have examined your property in Causeway Road Mangawhai which we understand you wish to subdivide into eighteen Lots, sixteen for new houses, one for communal effluent treatment and a remnant Lot with the existing hotel on it.

The purpose of our investigation was to
(a) confirm that a stable building site exists on each of the sixteen proposed new house Lots, and
(b) advise re stormwater management, and
(c) advise re on-site wastewater treatment/disposal for 4-bedroom houses on tank water supply, taking into account the nature of the soils and Regional Council requirements.

We are pleased to report as follows:-

Property Description

The property comprises almost level ground adjacent to Molesworth Drive, two properties back from Moir Point Road. The ground has been grazed for many years.

Level access is established from Molesworth Drive and no sight distance issues arise on Molesworth Drive itself.

Geological Setting

On the Geological Map of New Zealand 1: 250,000 (1961) the property is shown as "fixed dune sand". However, boreholes put down by us revealed 400mm to 700mm of soft peaty soil overlying hard sandstone.
The soft peaty soil comprises 100mm to 200mm of peaty black topsoil overlying a dirty grey fine sand. The sandstone encountered at 400mm to 700mm gave Scala penetrometer values per 50mm of travel of 6, 12, 15 and 17.

RECEIVED: 29 Oct 2009 SCANNED: 29 Oct 2009 BOX: 4 BATCH: 45864 DOC: KDCAAJEC

The uniformity of the geology and soils may be seen in the drainage ditches on the property particularly the one running northeast from Molesworth Drive along the northwestern side of the access roadway to the estuary via the drainage easement beside Lots 8 and 9. This drain is cut into the sandstone to depths increasing steadily to 2.4m at the estuary end.

Sand grains were visible in the peaty topsoil, so it would appear that sand has been (and is being) blown in from sand dunes to the East from time to time. The higher density of the sand grains would cause them to sink through the organic topsoil and accumulate on the sandstone beneath.
Alternatively (or additionally) sand may have been torn from the underlying sandstone and mixed with the soil during ploughing.

Previous Habitation

No signs of pre-European occupation were seen on the property.
No signs of European activities of historic significance were seen on the property.

Water Supply

Water supply would be by collection of rainwater from roofs.

Stormwater

Stormwater flows on the property will come from -
(i) surface runoff from the access road, and individual property driveways and parking areas,
(ii) overflows from roof water tanks on individual properties.

The existing open drain running beside the access driveway is of ample dimensions to take flows from both (i) and (ii).

Ponding occurs on the ground surface at present. The diversion by the access driveway of 6057/50,000 (= 12%) plus runoff from driveways (say 3%) of the rainfall falling on the area direct to the estuary, together with overflows from water tanks, will reduce the tendency for ponding to occur. Open ditches along the "back boundaries" of the new Lots would also tend to reduce ponding. The areas covered by the houses themselves (with the peaty soils replaced by hard fill, see below) will provide temporary storage volumes for groundwater during periods of wet weather.

Increases in ground surface infiltration rates by conversion from grazing to gardens and shrubs should also reduce the tendency for ponding of surface water.

Ponding is no longer an issue on the developed Lots between this subdivision and Moir Point Road. This suggests that the change in land use has a major effect on infiltration rates.

RECEIVED: 29 Oct 2009 SCANNED: 29 Oct 2009 BOX: 4 BATCH: 45864 DOC: KDCAAJEC

Foundations

The peaty soils and sands overlying the sandstone are too weak to serve for foundations of any kind. The sandstone is too hard for driven piles and bored piles would require to be concreted in place (to resist wind loadings) and would be expensive.

House foundations shall comprise concrete slabs designed in accordance with NZS 3604 placed on hard fill which in turn rests on the sandstone. On each house site all of the peaty soil and sands shall be excavated and replaced with hard fill before the concrete slabs are constructed.

House floor levels shall be at least 300mm above the surrounding ground to ensure an adequate margin above possible levels of local ponding.

On-site Wastewater Treatment/Disposal

A "communal system" comprising dual chamber septic tanks on each house Lot leading to a communal aerobic treatment area (Lot 17) has been prepared in this office. See separate.

Geotechnical Hazards

Slope Instability, Volcanism, Seismic Acceleration and Fault Line Displacement are not significant hazards on this property. Clay Dispersion will not occur in these soils. High Compressibility and Delayed Compressibility will not be of significance if foundations are designed as specified above.

Although ponding may occur on individual sites where surface infiltration rates have been reduced, the proximity of the open drains leading to the estuary will ensure that Flooding does not occur. House floor levels should be at least 300mm above the surrounding ground to provide a margin of safety against local ponding.

Conclusions

In view of the above I give it as my professional opinion that -

- The sixteen proposed new house Lots would not be subject to or likely to be subject to slope instability1 or any other geotechnical hazard, and the building of a house on any one (or more) of the Lots would not be likely to lead to instability of any ground on that Lot or of any other property, and

- provided the peaty soils on individual house plan areas are removed and replaced with hard fill placed directly on the underlying sandstone all sixteen house Lots may be regarded as good ground in the sense in which that term is used in NZS 3604, and

- sites located anywhere on all sixteen house Lots would be suitable for concrete slab house foundations placed on hard fill bearing on the sandstone as described above.

RECEIVED: 29 Oct 2009 SCANNED: 29 Oct 2009 BOX: 4 BATCH: 45864 DOC: KDCAAJEC

- Surface runoff from individual Lots, and the access driveway and overflows from water tanks should be led to the existing open drain beside the access driveway. Overflows from water tanks shall be taken in closed conduit to this open drain.

- Driveways and parking areas on individual properties shall be sealed and the runoff collected and led to the open drain beside the access driveway.

- A "communal system" for on-site wastewater treatment/disposal has been prepared in this office, see separate.

- Water Reduction fixtures such as reduced flush (6/3) toilets, and recycling of effluent to toilet header tanks are recommended. These two measures alone reduce daily (design) water usage from 140 to 90 litres/person/day according to the figures given in "Household Water Reduction and Design Allowances for On-site Wastewater Management" April 1997 by Dr Ian Gunn which has been accepted by the Auckland Regional Council in their undated w512-06 signed by Robert van Duivenboden, Water Quality Scientist.

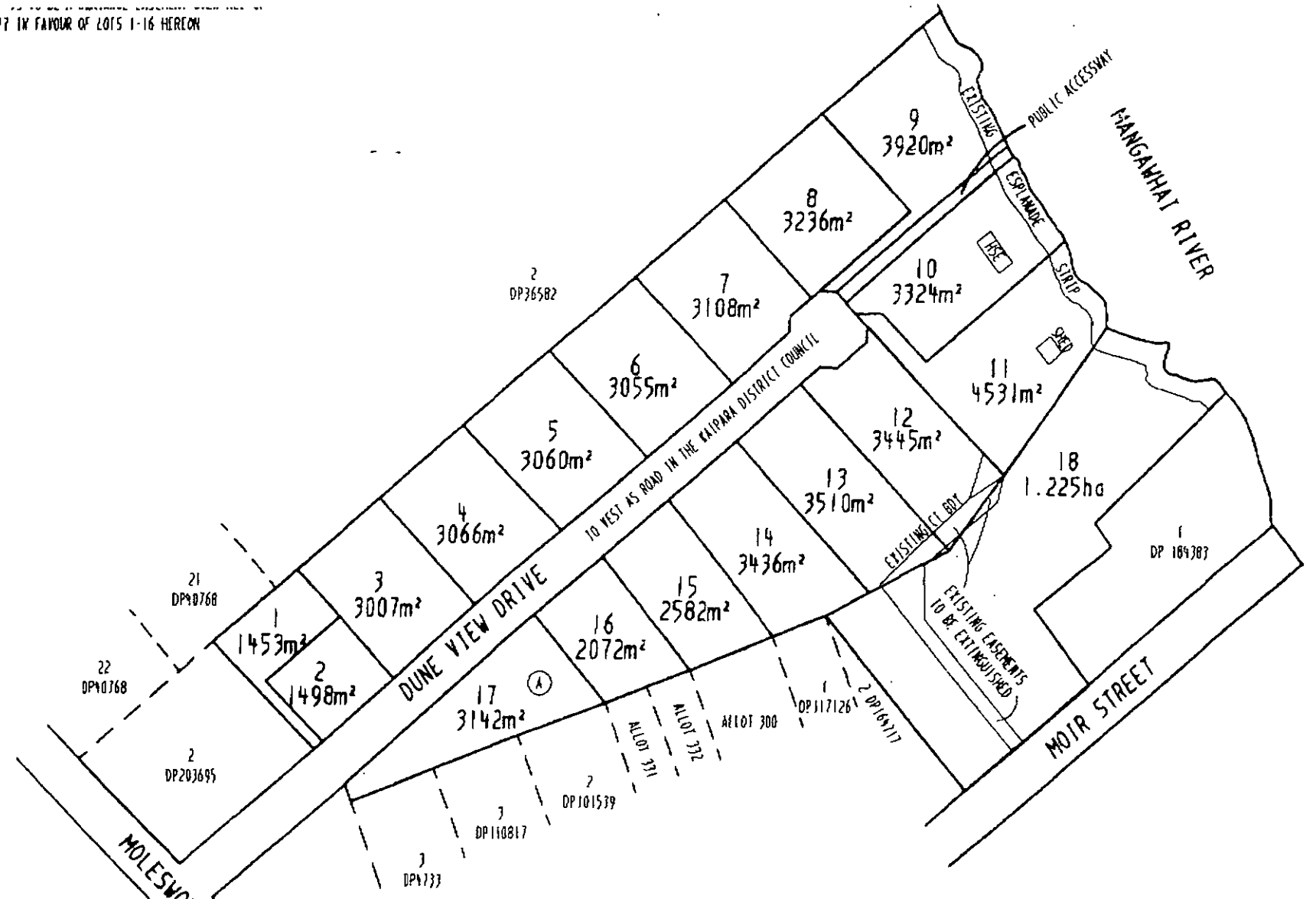
If you wish for clarification of any points raised above, or any other geotechnical matters, please do not hesitate to telephone or Fax me at the numbers given above.

Yours faithfully

J G Hawley
MA, BE, PhD, MIPENZ, Reg Eng.

RECEIVED: 29 Oct 2009 SCANNED: 29 Oct 2009 BOX: 4 BATCH: 45864 DOC: KDCAAJEC
Received: 22/ 5/03 17:44; -> Kaipara District Council ; Page 7
22/05/2003 17:34 094315398 THOMPSON AND FISH PAGE 07

LOT 22 IN FAVOUR OF LOTS 1-16 HEREON



PROPOSED SUBDIVISION OF LOT 3 DP 203695 AND LOTS 2 AND 5 DP 184383

BT CONSULTANTS LTD
RESOURCE MANAGEMENT, PROJECT MANAGEMENT, SURVEYING
30 MOIR ST, HANGAWHAI. PH.(09) 4315397, Fx.(09) 4315398

SCALE 1: 2500(A4), NOVEMBER 2002
MOLESWORTH DRIVE, HANGAWHAI
C'sT 115A/804, 115A/806, 131A/713

RECEIVED: 29 Oct 2009 SCANNED: 29 Oct 2009 BOX: 4 BATCH: 45864 DOC: KDCAAJEC

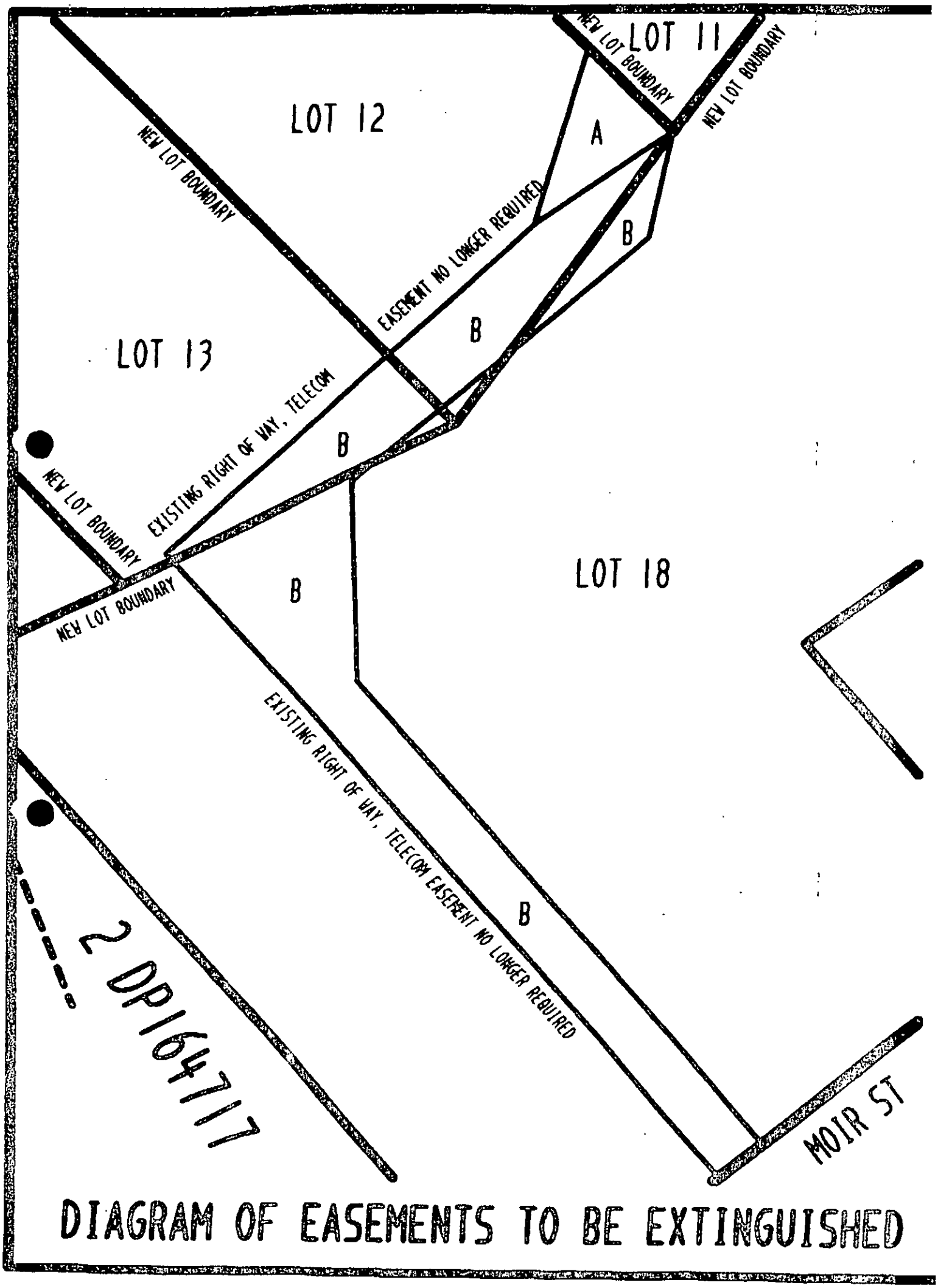


DIAGRAM OF EASEMENTS TO BE EXTINGUISHED

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY

Code Compliance Certificate 100216

Form 7, Section 95, Building Act 2004

C & K Windust
225 Pine Valley Road
RD 2
Silverdale 0992

Issue Date: 10/06/10
Overseer: Eastern

THE BUILDING:

Street Address of Building:	MOIR STREET, MANGAWHAI
Valuation Number:	0122188727
Legal Description:	LOT 18 DP 362172
Building Name:	
Location of Building within site/block number:	
Level/Unit Number:	
Current Lawfully Established Use:	Ancillary - Eco-Care Connections
Year First Constructed:	

THE PROJECT:

Description:	new stormwater and wastewater connections DWELLINGS - ALTERATIONS & ADDITIONS
Type of Work:	
Intended Use:	Ancillary - Eco-Care Connections
Intended Life:	Indefinite, but not less than 50 years
Stages:	Being Stage 1 of an intended 1 Stages

THE OWNER:

Owners Name:	C & K Windust				
Owners Mailing Address:	225 Pine Valley Road, RD 2, Silverdale 0992				
Street Address/Registered Office:					
Phone Number	**Landline:** 09 427 4488	**Daytime:**		**After Hours:**	
	Mobile:	**Fax:**	09 427 4488		
Email:		**Website:**			

FIRST POINT OF CONTACT:

First Point of Contact:	Full Name: C & K Windust Mailing Address: 46 Old Waipu Road, Mangawhai 0505 Phones:: 09 431 4138

BUILDING WORK:

Building Consent Number:	100216
Issued By:	Kaipara District Council

This Code Compliance Certificate is issued by the Kaipara District Council. As the Building Consent Authority it is satisfied, on reasonable grounds that :

- the building work complies with the Building Consent 100216

Signature **Date:** «IssueDate» **Position** Building Services Officer

On behalf of: Kaipara District Council

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

EWRB 55

ELECTRICAL WORKERS REGISTRATION BOARD
Safety + Competency

Electrical Certificate of Compliance

No. 3736599

for a low voltage installation if prescribed electrical work has been done on any part of it and the prescribed electrical work involved placing, replacing, or repositioning conductors or fittings attached to conductors.

No. of attachments

RECEIVED
23 MAY 2012
KAIWAKA
Kaipara District Council

To be completed whether or not an inspection is required.

Section 43 of the Electricity (Safety) Regulations 2010. Copies of the Regulations are available from Parliamentary Counsel Office, Wellington, freephone 0800 66 1000) for the purposes of the Electricity (Safety) Regulations 2010.

CUSTOMER INFORMATION - PLEASE PRINT CLEARLY

Name of customer T & G Answorth Phone: 027394251

Address of installation LOT 1 Dune View Drive Mangawhai (11)

Postal address of customer (if not as above) Same as above

DECLARATION OF CONFORMITY (Please tick (✓) appropriate boxes)

In accordance with Regulation 58 of the Electricity (Safety) Regulations 2010, the design of the installation or part of the installation to which this certificate applies

(a) complies with either Part 2 of AS/NZS 3000:2007 ☐ or Part 1 of AS/NZS3000:2007 and Regulation 59 ☑ and

(b) the supply system of the installation or part of the installation to which this certificate applies is 230V/400 V MEN ☑ or attached other system ☐

WORK DETAILS

38 No. of lighting outlets / No. of ranges

26 No. of socket outlets / No. of water heaters

Was any installation work carried out by the homeowner? Yes ✓ No

Please tick (✓) as appropriate where work includes:

✓ Mains ✓ Main earthing syste

✓ MEN Switchboard closest to point of supply ✓ Electric lines

Description of work carried out (If necessary attach any pages with work done) Wire & Install 16mm² 2C + Neutral From pillar to M/Box. Install RCD type Switchboard Install 38 x Lights 26 power-points, 1x Stove, 1x Hot. Earth peg below m/Box Test

CERTIFICATION OF WORK (Please tick (✓) appropriate boxes)

I certify that the completed installation or part of the installation to which this certificate applies

RCD#1 15.3m/s
RCD#2 66.1m/s
RCD#3 24.5 m/s
RCD#4 15.5 m/s

✓ has been installed in accordance with the design detailed in the Declaration of Conformity section above

✓ has had tests which are required by the Electricity (Safety) Regulations 2010 satisfactorily completed

✓ has an earthing system that is correctly rated

✓ contains fittings which are safe to connect to a power supply Ins. 200+mΩ

✓ is safe to connect to a power supply Loop Ω 0.21Ω

PFC 1.1KA

ELECTRICAL WORKER DETAILS

Name W. BRATTON Registration No. E11916

Company APOLLO ELECTRICAL Contact Ph No. 09 4885318

Signature W. Bratton Date 02/05/2012

INSPECTION DETAILS

Electrical work requiring inspection by a registered electrical inspector

☑ Mains work (mains, MEN switchboards closest to the point of supply, or main earthing systems) ☐ Attached other ☐ Work carried out in accordance with Part 1 of AS/NZS 3000:2007

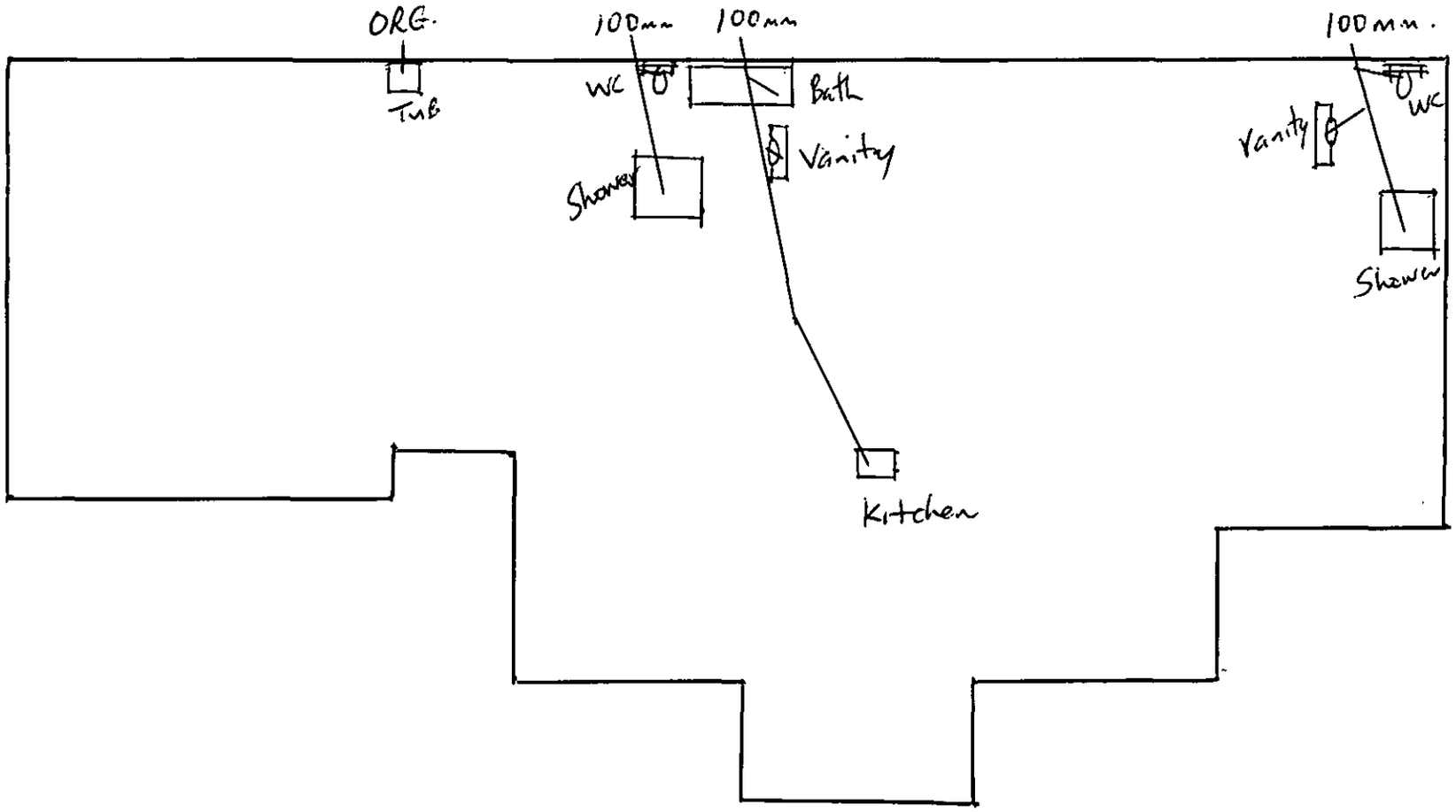
I certify that the items identified above are electrically safe and that the inspection has been carried out in accordance with the Electricity (Safety) Regulations 2010.

Name Ivan Wejenday Registration No. I243416

Signature I Wejenday Date 2-5-12

Contact Ph No. 0943018093

CUSTOMER COPY - THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED



NAME OF OWNER: I & G AINSWORTH

SITE ADDRESS: DUNE VIEW DRIVE, MANGAWHAI

CONSENT NO: 110498

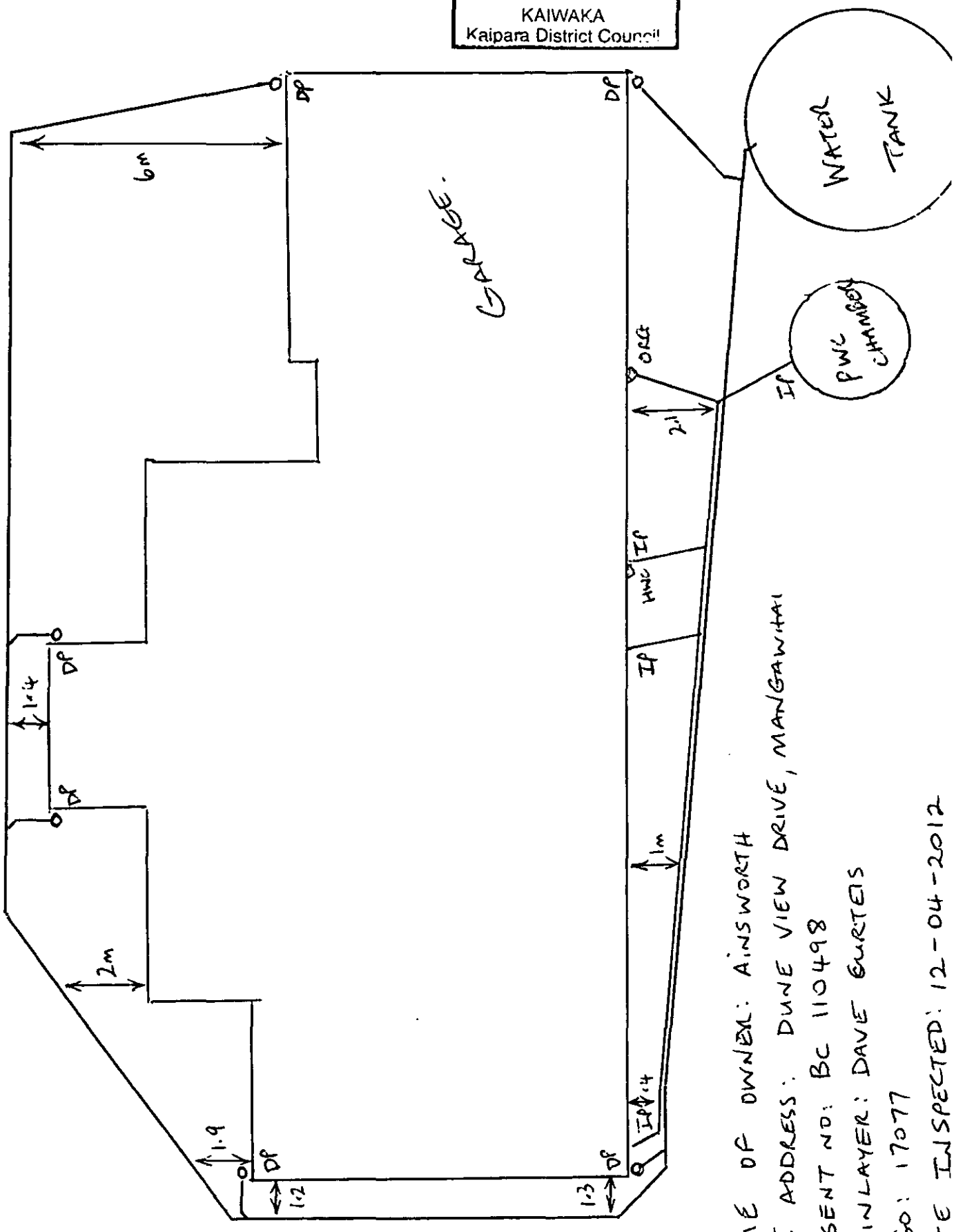
LOT NO: 1 DP: 431147

PLUMBER/DRAINLAYER: DAVE CURTIS REGO 17077 DATE: 31-01-12

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

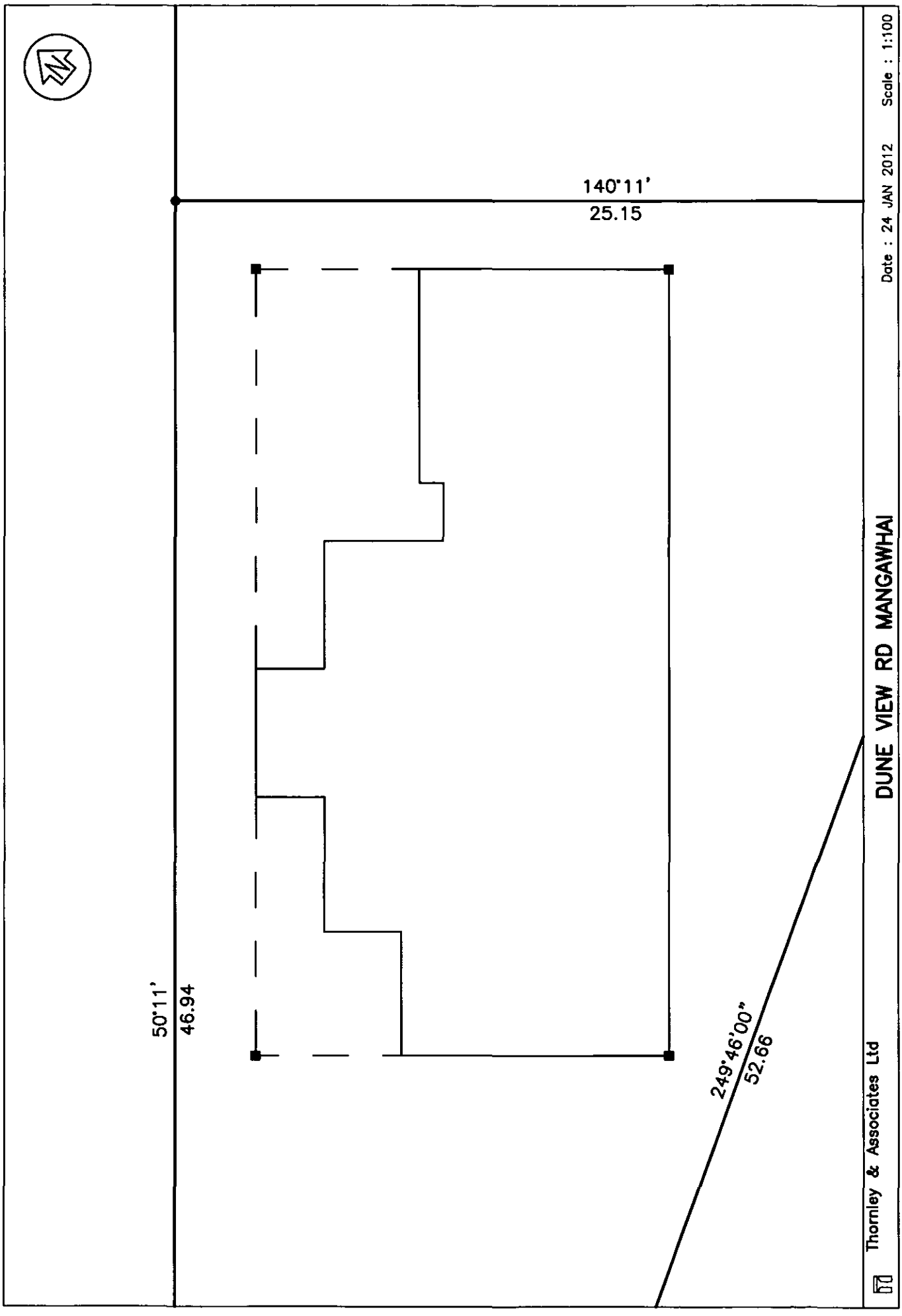
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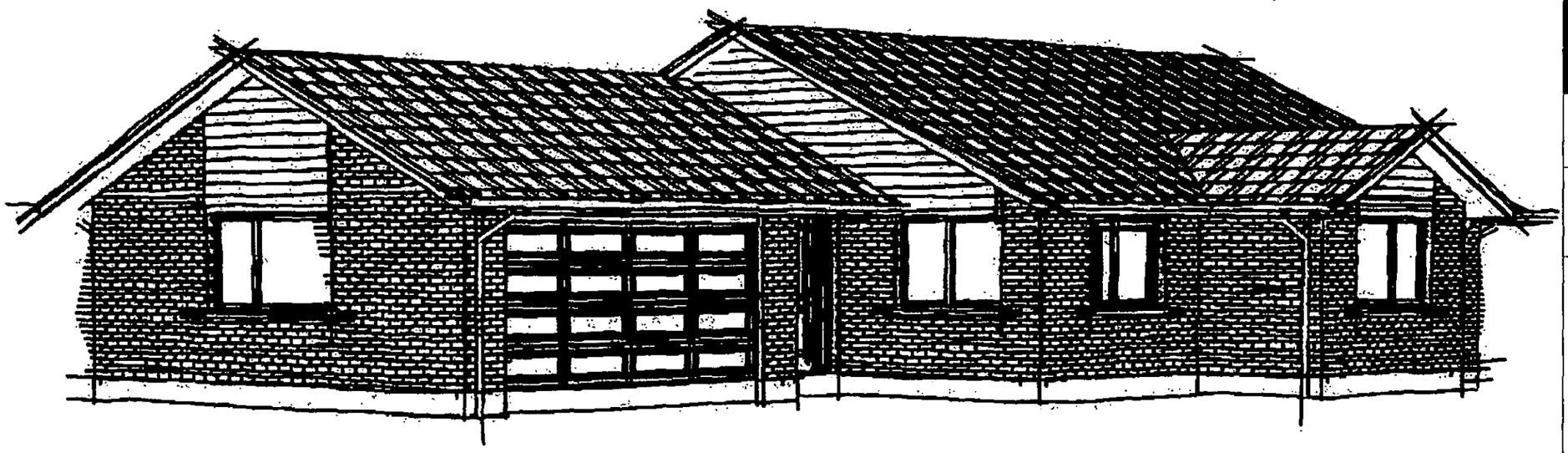


NAME OF OWNER: AINSWORTH
SITE ADDRESS: DUNE VIEW DRIVE, MANGAWHAI
CONSENT NO: BC 110498
DRAINLAYER: DAVE GURTEIS
REGO: 17077
DATE INSPECTED: 12-04-2012

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



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Page 5: *Foundation details*
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Page 7: *Elevations 1 & 2*
Page 8: *Elevations 3 & 4*
Page 9: *Cross Sections*
Page 10: *Load Bearing Walls // Lintels / BPA's*
Page 11: *Top Plate Details*
Page 12: *Lintels, Anchors, Nogs*
Page 13: *Bracing plan*
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Page 15: *Roof Frame Connection Reference*
Page 16: *Gable Details*
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Page 21: *Natural Light & Ventilation*
Page 22: *Ext Joinery Details*
Page 23: *Ext Joinery Details*
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Page 25: *Cladding details - Brick.1*
Page 26: *Cladding details - Brick.2*
Page 27: *Cladding details Linea*
Page 29: *Drainage Plan A*
Page 30: *Electrical plan*
Page 31: *Water Heater Details*
Page 32: *Insulation Requirements*
Page 33: *Watersplash Area Details*
Detailing - *6 Sheets*
Surveyor - *9 Sheets*

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: zog steel frames of the future today

PLAN NAME: Altered

MONDEO

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NOTES:

COUNCIL

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Contents

DRAWN: RCDC Ltd	BP101182 - Design 2
JOB No. 30160	CHECKED:
ZOG No. Z1099	DATE: 13/09/2011
SCALE:	SHEET No. 1 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

DESIGN SUMMARY

Project description

New single level 3 bedroom house with study and attached double garage. ZOG® framing on concrete raft slab with brick cladding and 25deg metal tile roof.

Project Information

- Agents name: Ainsworth Residence
- Contact details: ph 09 4780440
- Designers name: RCDC Limited, Tauranga
- Contact details: ph 07 574 2340
- Site address: Dune View Drive
- Site legal description: Lot No. 1, DP 431147

Site data

- Ground bearing: (NZS 3604 1999 section 3.5) Good ground. Class M Site (refer AS2870)
- Corrosion zone: designed for upto & including "Seaspray"
- Wind zone: designed for upto & including "High" (NZS3604, section 5)
- Earthquake zone: designed for upto & including "C" (NZS3604, figure 5.4)
- Climate zone: designed for upto & including "1" (NZS4218:2004)
- Rainfall zone: designed for upto & including 85mm/h (NZBC E1/AS1)

Building data

- Building category: IV / Domestic (NZS3604, table 1.1)
- Floor live loads: 1.5kPa (NZS3604, table 1.2)
- Overall height of building: 5.2m from ground floor

BUILDING COMPONENT, NOMINATED MEANS OF COMPLIANCE & LOCATION IN PLANS

Foundation	AS 2870. Concrete raft slab. **Foundation details (page 5), Foundation plan (page 4)**
Wall framing	ZOG® 0.75mm G550 Z275 steel framing: **Framing details (pages 10 - 12)**
Roof framing	ZOG® 0.75mm G550 Z275 steel trusses: **Roof framing details (pages 15 - 18)**
Roofing	E2/AS1: **Roof flashings (page 20)**
Cladding	E2/AS1: **Elevations & risk matrix (pages 7 & 8), Exterior Joinery Details (pages 22 & 23), Cladding Details (pages 25,26 & 27)**
Bracing	NZS 3604:1999: **Bracing plan (page 13), Bracing details (page 14)**
Insulation	NZBC-Clause H1, energy efficiency 3rd edition: **Insulation Requirements (page 32)**
Internal linings	E3/AS1, : **Cross Sections (page 9)**
Bathrooms	E3/AS1, Internal Moisture: **Waterplash Area Details (page 33)**
Showers	E3/AS1, Internal Moisture: **Waterplash Area Details (page 33)**
Water Heating	NZS4606 Electric HWC. **Water Heater Details (page 31)**
Drainage	AS/NZ3500.2 Foul water to Aerated Wastewater Treatment System, stormwater to water tanks. **Drainage plan (page 28)**
Laundry	G2/AS1, Clause 1, Table 1. Washing machine and prefabricated tub.
Kitchen	G3/AS1, Clause 1. Range hood, fridge/freezer, dishwasher and a bench of either stainless steel, acylic or laminate construction.
Smoke alarms	F7/AS1, **Electrical plan (page 30)**
Natural light	G7/AS1 **Natural Lighting & Ventilation (page 21)**
Ventilation	G4/AS1 **Natural Lighting & Ventilation (page 21)**
Access	D1/AS1, Figure 27(a)

KAIPARA DISTRICT COUNCIL
110498
BC
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

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NOTES:

ZOG® frames & trusses

- ZOG® frames & trusses are designed using ProCAD engineering & detailing software.
- ZOG® framing is 90x40x0.75mm rollformed from AXXIS® steel provided by NZ Steel Ltd.

This job has been reviewed & a PS1 provided by:

Graham Rundle BE M.IPENZ CPEng IntPE
Chartered Prof Engineer No.54001
Redco NZ Ltd
470 Otumoetai Road
Tauranga
Ph 07 571 7070

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Design Summary

DRAWN: RCDC Ltd	BP101182 - Design 2
JOB No. 30160	CHECKED:
ZOG No. Z1099	DATE: 13/09/2011
SCALE:	SHEET No. 2 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

NOTE: Information shown on the plan is indicative only and it is the builder's responsibility to check all levels, boundaries and measurements on site prior to construction and be solely responsible thereafter. When accuracy is critical, on site location and levels should be carried out. 'RCDC Ltd' is not liable for errors once construction has begun. Report any discrepancies to 'RCDC Ltd'.

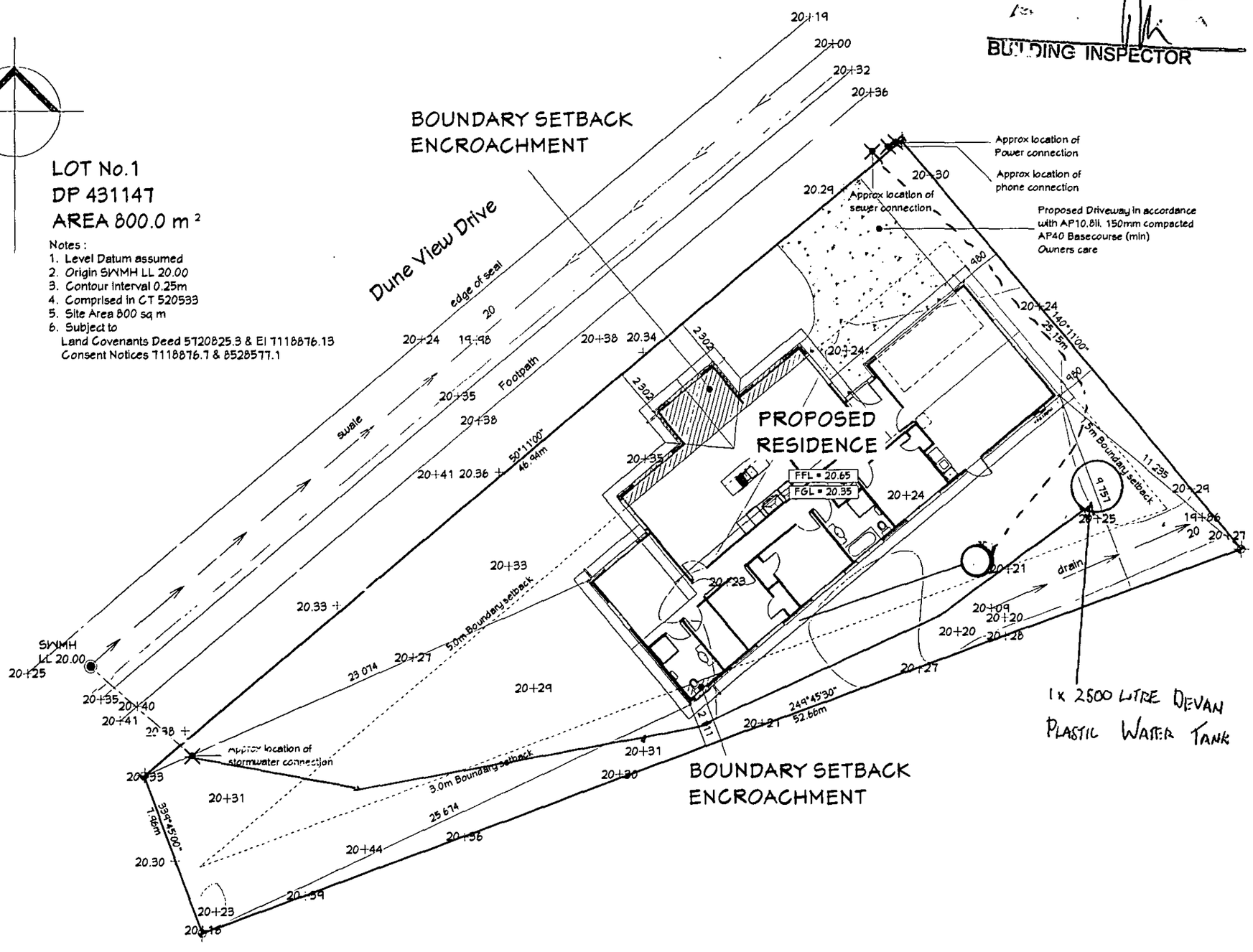
Site Coverage

	m²	% Coverage
Lot Area	= 800.0 m²	
Dwelling	= 200.8 m²	25.1
Driveway	= 43.5 m²	5.4

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

LOT No.1
DP 431147
AREA 800.0 m²

Notes :
1. Level Datum assumed
2. Origin SWMH LL 20.00
3. Contour Interval 0.25m
4. Comprised in CT 520533
5. Site Area 800 sq m
6. Subject to
Land Covenants Deed 5720825.3 & EI 7118876.13
Consent Notices 7118876.7 & 8528577.1



ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO — Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:
- All boundary bearings, lengths & peg locations are to be confirmed on site prior to commencing foundations. The house position is to be confirmed as correct and any discrepancies are to be reported to 'RCDC Ltd' immediately.
- Sewer & stormwater connections are to be confirmed on site prior to commencement of foundations.
- The building platform is to be flat with a soil bearing capacity of no less that 100kpa.
- Finished floor level in relation to height to boundary recession plane requirements are the responsibility of the floor layer, any discrepancies between the plan and physical site levels are the responsibility of the floor layer. 'RCDC Ltd' takes no responsibility for any error that may occur.

Public protection from onsite hazards
- All building sites to have O.S.H compliant warning signs erected.
- Any hazardous equipment or materials will be stored onsite only if secured, by portable building lock up or in the house being built (after lock-up stage)
- Sites to be assessed on a individual basis by construction managers for compliance with NZBC clause F5 and if specific hazards exist then a work-site barrier must be erected.

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Site Plan

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:200	SHEET No.	3 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

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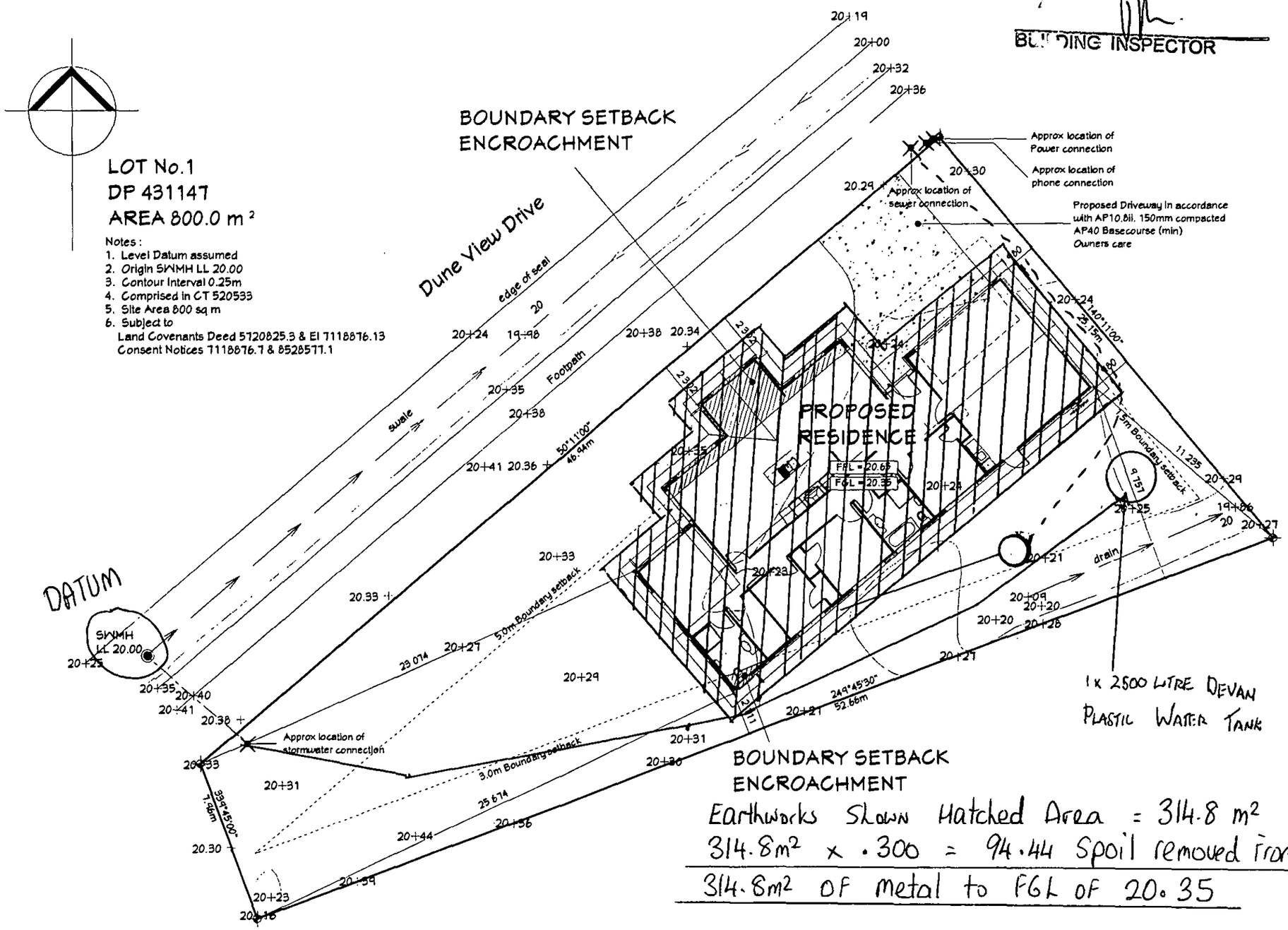
Site Coverage

	m²	% Coverage
Lot Area	= 800.0 m²	
Dwelling	= 200.8 m²	25.1
Driveway	= 43.5 m²	5.4

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

LOT No.1
DP 431147
AREA 800.0 m²

Notes :
1. Level Datum assumed
2. Origin SWMH LL 20.00
3. Contour Interval 0.25m
4. Comprised in CT 520533
5. Site Area 800 sq m
6. Subject to
   Land Covenants Deed 5720825.3 & EI 7118876.13
   Consent Notices 7118876.7 & 8528577.1



Earthworks Shown Hatched Area = 314.8 m²
314.8m² x .300 = 94.44 Spoil removed from Site.
314.8m² of metal to FGL of 20.35

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO — Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:
- All boundary bearings, lengths & peg locations are to be confirmed on site prior to commencing foundations. The house position is to be confirmed as correct and any discrepancies are to be reported to 'RCDC Ltd' immediately.
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- Sites to be assessed on a individual basis by construction managers for compliance with NZBC clause F5 and if specific hazards exist then a work-site barrier must be erected.

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Site Plan EARTHWORKS.

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:200	SHEET No.	3 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

NOTE: Information shown on the plan is indicative only and it is the builder's responsibility to check all levels, boundaries and measurements on site prior to construction and be solely responsible thereafter. When accuracy is critical, on site location and levels must be carried out. 'RCDC Ltd' is not liable for errors once construction has begun. Report any discrepancies to 'RCDC Ltd'.
The dimensions on this foundation plan are to be checked by all trades prior to commencement of any works as they are an indication only and have been shown to help verify each trades own calculation from the floor plan. "RCDC Ltd" takes no responsibility for any errors in the dimensions shown.
Do not start this foundation without the bracing plan. If pipes or services are placed within a bracing element, remedial work will be required. If interference is discovered then "RCDC Ltd" must be notified prior to commencement so that an alternative solution can be found.

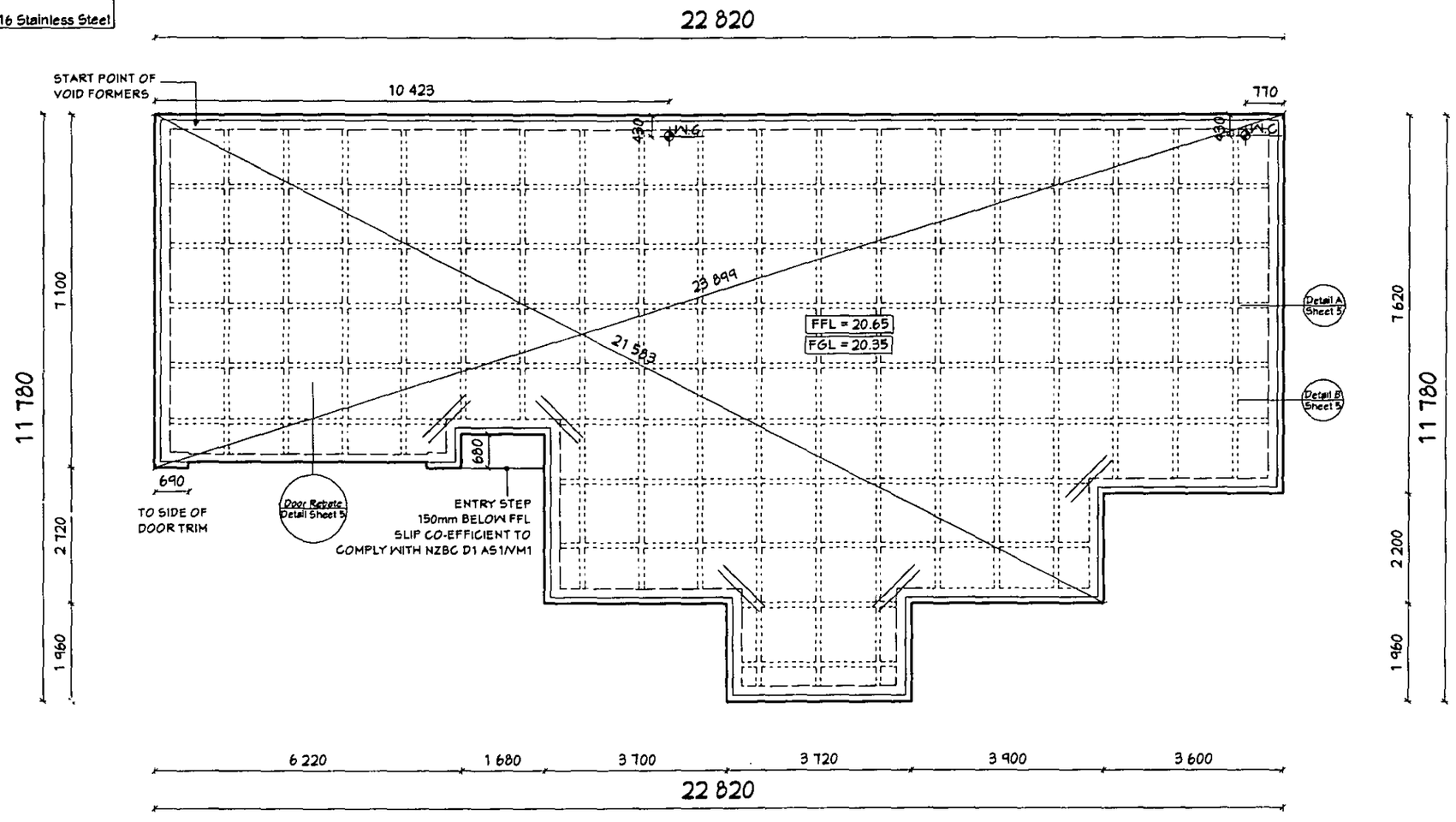
Independant Engineering Service by:
Civil
Bruce Cameron
NZCE (Civil) BE (Civil) CPEng
Date 1/9/11
Signature

ZANO Limited
Phone: (09) 478 0440

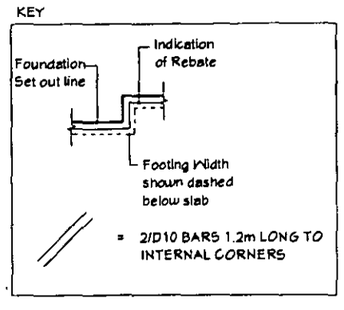
[redacted]

Frames by: ZOG
steel frames of the future today

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel



KEY



KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

PLAN NAME: MONDEO — Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

- Foundation to be on good ground soils with a consistent compaction in excess of 100kPa as confirmed by council inspection. If inspection fails, then all site works are to be carried out in accordance with a geotechnical soils investigation report in accordance with NZS.3604.1999 and related documents. Site classifications for such investigations to comply with the requirements of AS2870 and referenced documents.
- Raft slab has been designed by "Civil" engineering based on consistent 100kPa foundation conditions. If this changes due to council determination, then reassessment of the raft slab based on a geotechnical engineering report is to be undertaken by "Civil" engineering and variations to the design made to suit.
- No slab shrinkage saw cuts are to be made in this raft slab under any circumstances unless specifically asked for by "Civil" engineering. Any cuts to the raft slab will destroy the integrity of the floor (ref AS2870 Supplement 1-1996 C4.1 (a) second paragraph pg29)
- Slab concrete strength shall be 20MPa (or 25MPa in sea spray zones) at 28 days.
- All reinforcement to be supported @ 900c/c
- Minimum clearance for reinforcement unless shown otherwise:

Slab mesh : 30mm from top of slab
Foundation : 50mm from bottom of footing
50mm from sides of footing

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

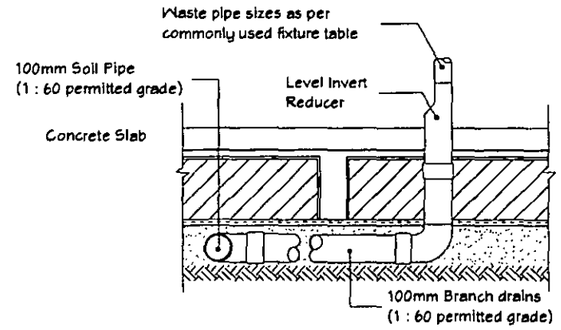
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Foundation plan

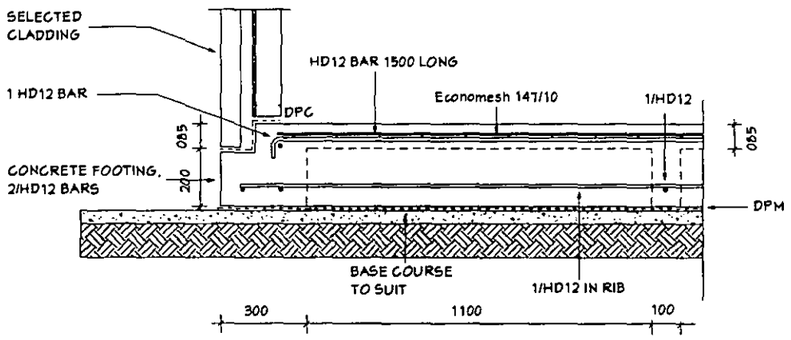
DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	4 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



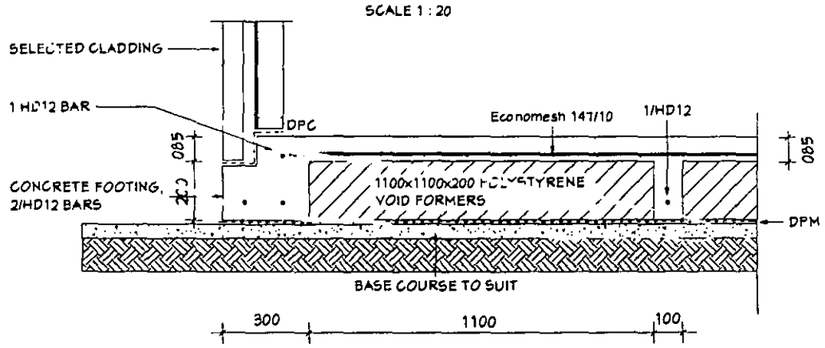
STANDARD SOIL PIPE LAYOUT

In accordance with AS.NZ.3500.2.2



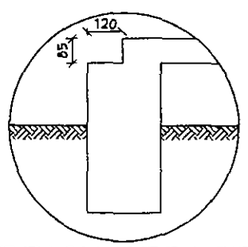
DETAIL A

SCALE 1 : 20



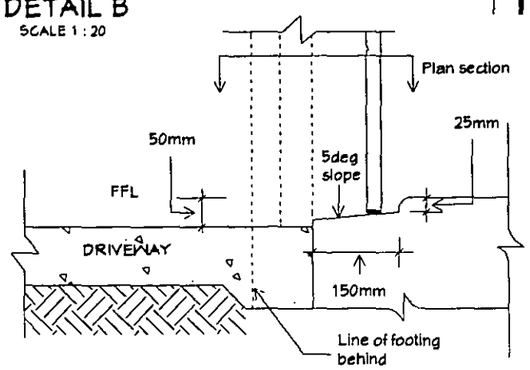
DETAIL B

SCALE 1 : 20

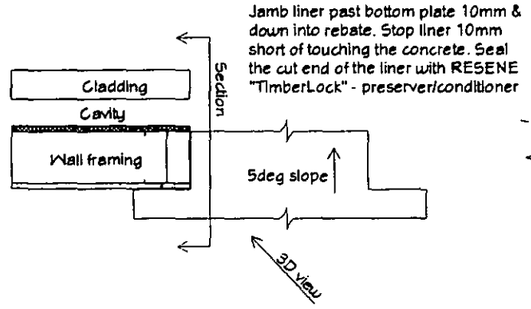


BRICK REBATE

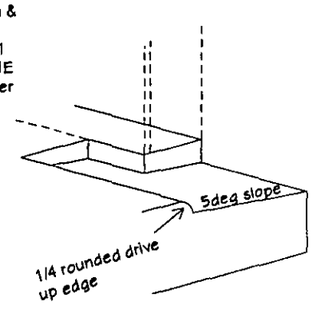
Required for T0 series brick



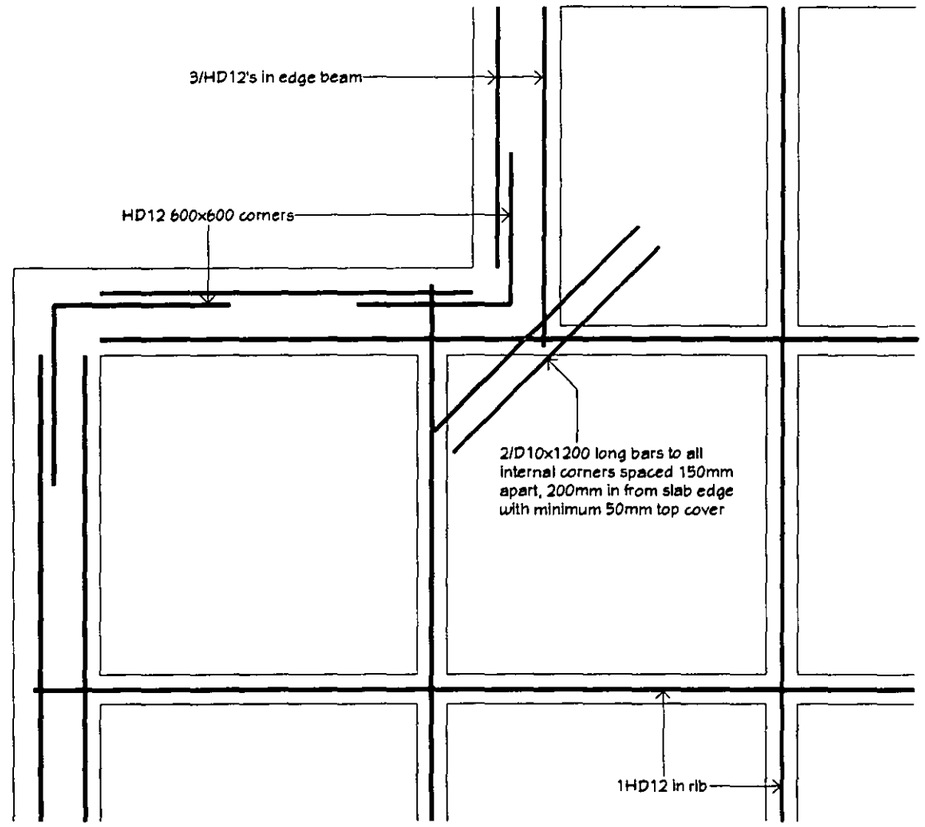
Garage Door Rebate Section



Garage Door Rebate Pla



Garage Door Rebate 3D



KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel

Independant Engineering Service by:
Civil
Bruce Cameron
NZCE (Civil) BE (Civil), CPEng
Date 16/8/11
Signature

ZANO Limited
Phone: (09) 478 0440

Frames by: 20g
steel frames of the future today

PLAN NAME: MONDEO — Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

- Foundation to be on good ground soils with a consistent compaction in excess of 100kPa as confirmed by council inspection. If inspection fails, then all site works are to be carried out in accordance with a geotechnical soils investigation report in accordance with NZS.3604.1999 and related documents. Site classifications for such investigations to comply with the requirements of AS2870 and referenced documents.
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- Slab concrete strength shall be 20MPa (or 25MPa in sea spray zones) at 28 days.
- All reinforcement to be supported @ 900c/c
- Minimum clearance for reinforcement unless shown otherwise:

Slab mesh : 30mm from top of slab
Foundation : 50mm from bottom of footing
50mm from sides of footing

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

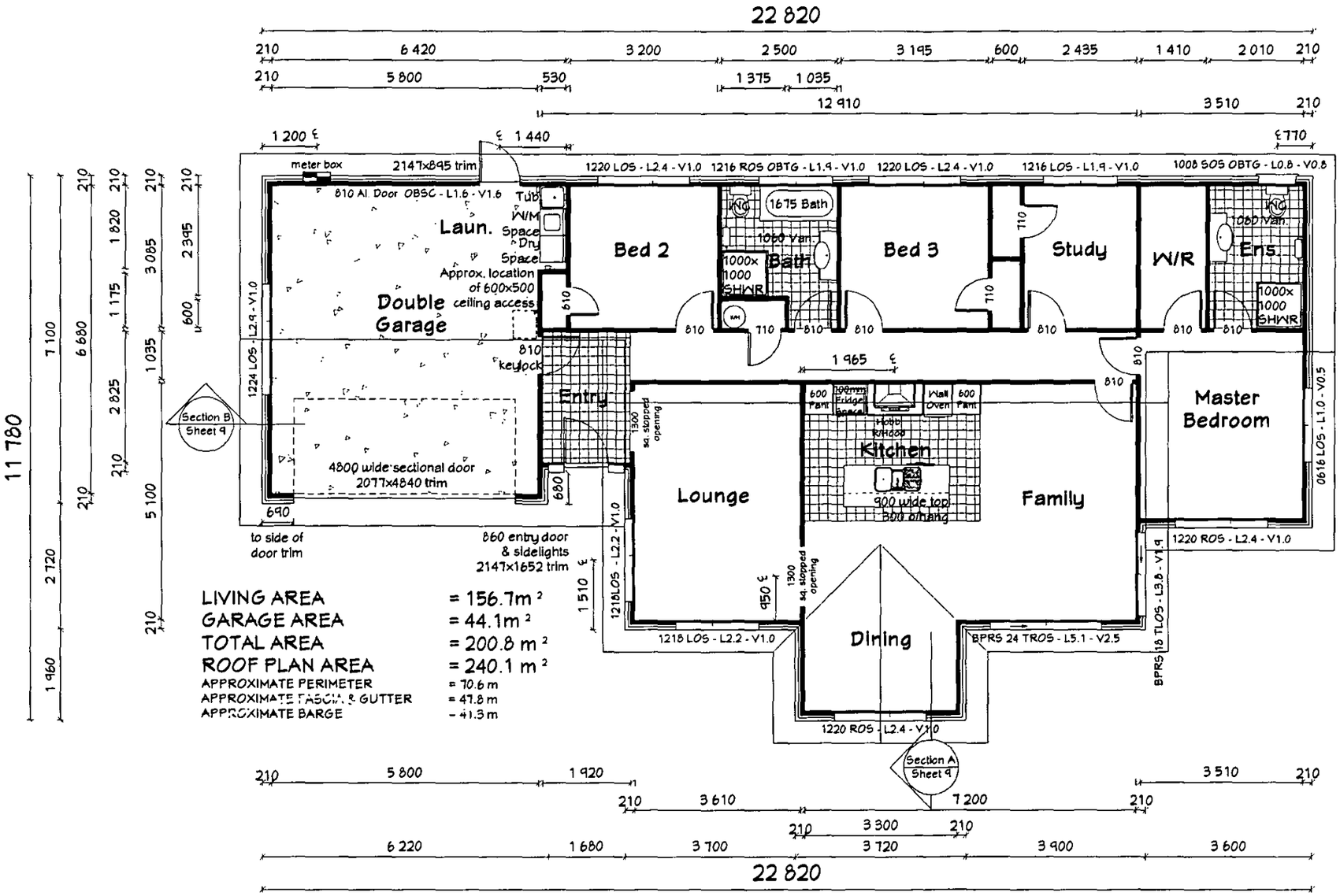
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Foundation details

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:20	SHEET No.	5 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

NOTE: Windows & doors are upto soffit, window and door sizes are to be confirmed on site prior to the manufacture of those units.



LIVING AREA	= 156.7m²
GARAGE AREA	= 44.1m²
TOTAL AREA	= 200.8 m²
ROOF PLAN AREA	= 240.1 m²
APPROXIMATE PERIMETER	= 70.6 m
APPROXIMATE FASCIA & GUTTER	= 47.8 m
APPROXIMATE BARGE	= 41.3 m

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

KEY	
	TILED AREAS
	CARPET AREAS
	CONCRETE AREAS

1. 2. 3. 4.
ELEVATION GUIDE

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered
MONDEO

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:
- ***Food preparation surfaces*** shall be easily maintained in a hygienic condition. Stainless steel, decorative high pressure laminate, & tiles are examples of suitable materials for these surfaces.
- Bathrooms, kitchens and laundering areas are to be regarded as water splash areas

Watersplash area floor & wall options (as per NZBC E3 clauses 3.1.1, 3.1.2 & D1 AS1/VM1)
Due to the finish variations required by the owner from time to time, the list below is provided as suitable options for floor coverings in watersplash areas.
- Tiled - Ceramic or stone tiles having 6% maximum water absorption, waterproof grouted joints, and bedded with an adhesive specified by the tile manufacturer as being suitable for the tiles, substrate material and the environment use.
- Cement based solid plaster or concrete having a steel trowel or polished finish, "semi-gloss" or "gloss" paint must be used if paint finish required.
- Timber/timber based products such as particleboard sealed with waterproof applied coatings.
- Sheet linings finished with vinyl coated wall paper, semi-gloss or gloss coating. (wall only)
- Integrally waterproof sheet material (e.g. polyvinylchloride "vinyl") with sealed joints. (wall only)
- Any other material that compiles with NZBC E3 clauses 3.1.1, 3.1.2 & D1 AS1/VM1

Contractors are to supply manufacturers specifications and details relating to the waterproofing system used along with a producer statement for attaching to the code of compliance application for any finishes in watersplash areas.

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Floor plan

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	6 OF 33

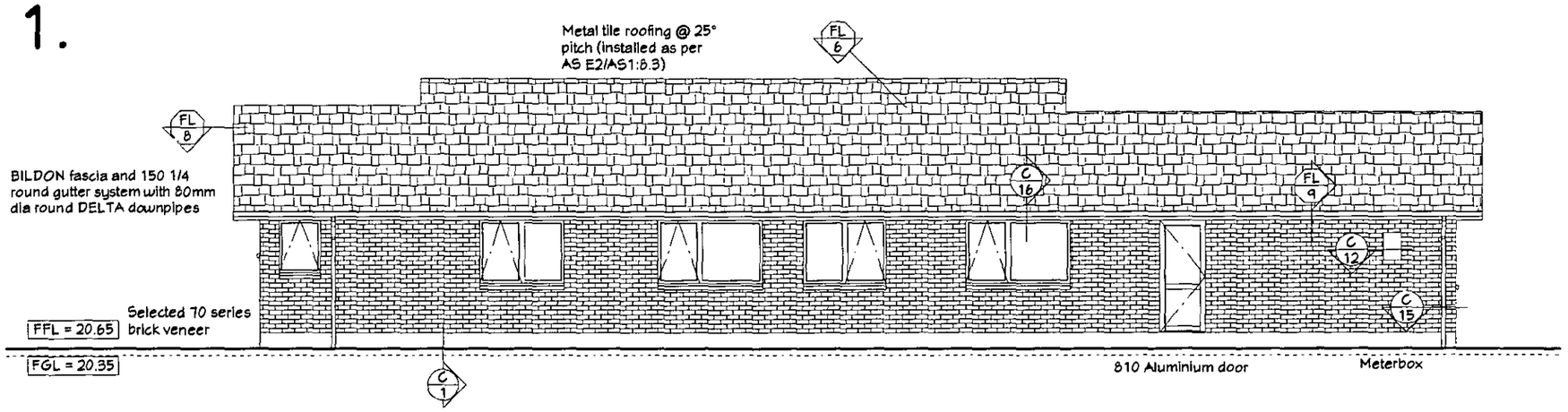
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

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NOTE: Windows & doors are upto soffit, window and door sizes are to be confirmed on site prior to the manufacture of those units.

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel

1.



2.

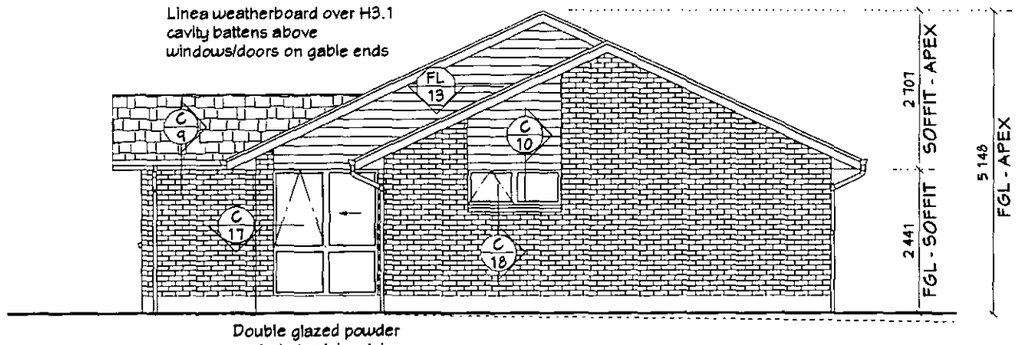


Table 2	Building envelope risk matrix Paragraph 3.1.2. Figure 1				
All Walls	Risk Severity				
Risk factor	Low	Med	High	Very High	Subtotals for each risk factor
Wind zone (per NZS 3604)	0	0	1	2	1
Number of storeys	0	1	2	4	0
Roof/wall intersection design	0	1	3	5	0
Eaves width	0	1	2	5	1
Envelope complexity	0	1	3	6	0
Deck Design	0	2	4	6	0
				Total Risk Score	2

KAIPARA DISTRICT COUNCIL
110498
BC
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered
MONDEO
© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:
- All groundlines are indicative only and must be confirmed on site prior to commencement of any site works
- Finished floor levels in relation to height to boundary recession plane requirements are the responsibility of the floor layer. Any discrepancies between the plan and the actual site levels are the responsibility of the floor layer and must be reported to "RCDC Ltd" immediately
- All glazing is to be in accordance with the NZ Building Code Handbook and NZS.4223, Parts 1, 2, & 3 Code of Practice for Glazing in Buildings.
- All full height &/or full width window and door sizes are to be confirmed on site prior to manufacturing.
- Refer to safety glazing page for safety glass requirements
- All claddings fixed as per manufacturers specifications
- Interior completion may commence prior to final exterior cladding as long as XPS sheet (rigid air barrier), building wrap and joinery has been installed.

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Elevations 1 & 2

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	1 OF 33

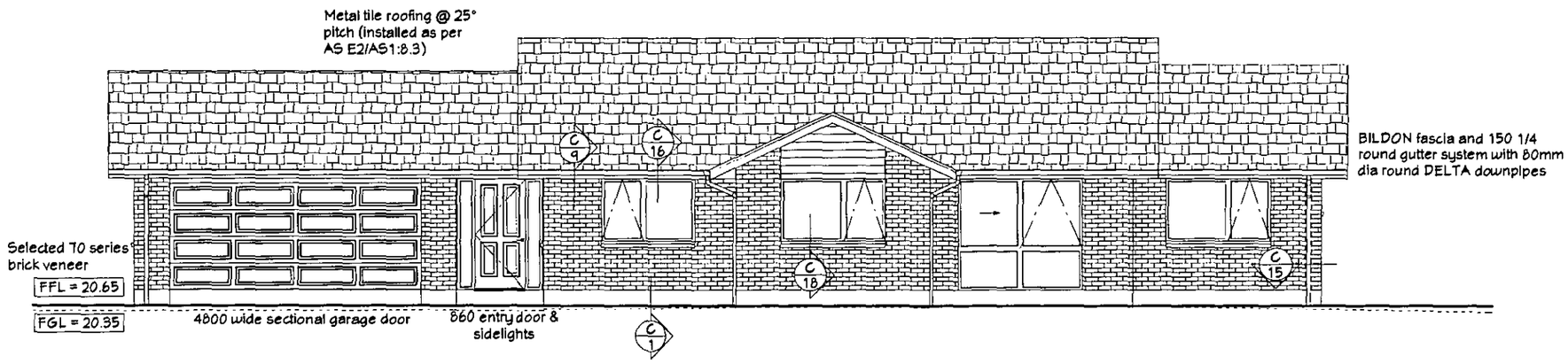
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

NOTE: Information shown on the plan is indicative only and it is the builder's responsibility to check all levels, boundaries and measurements on site prior to construction and be solely responsible thereafter. When accuracy is critical, on site location and levels must be carried out. 'RCDC Ltd' is not liable for errors once construction has begun. Report any discrepancies to 'RCDC Ltd'.

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DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel

3.



4.

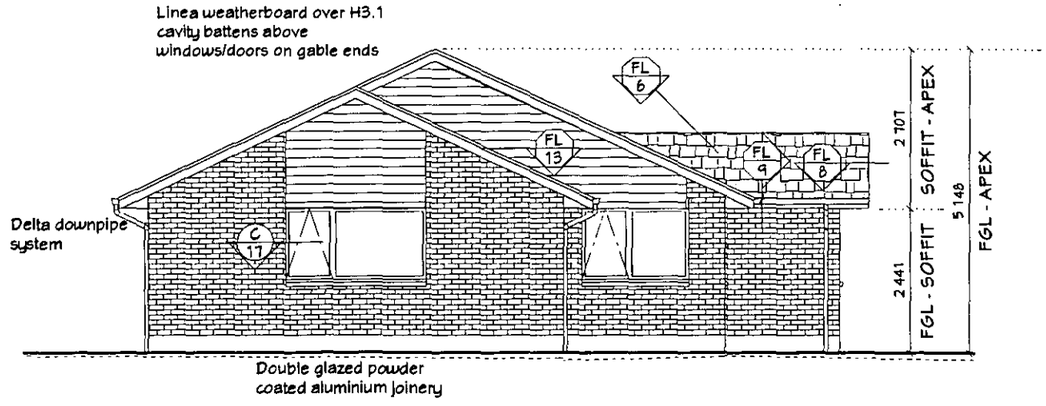


Table 2	Building envelope risk matrix Paragraph 3.1.2. Figure 1				
All Walls	Risk Severity				
Risk factor	Low	Med	High	Very High	Subtotals for each risk factor
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Number of storeys	0	1	2	4	0
Roof/wall intersection design	0	1	3	5	0
Eaves width	0	1	2	5	1
Envelope complexity	0	1	3	6	0
Deck Design	0	2	4	6	0
				Total Risk Score	2

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO — Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

- All groundlines are indicative only and must be confirmed on site prior to commencement of any site works
- Finished floor levels in relation to height to boundary recession plane requirements are the responsibility of the floor layer. Any discrepancies between the plan and the actual site levels are the responsibility of the floor layer and must be reported to "RCDC Ltd" immediately
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- All full height &/or full width window and door sizes are to be confirmed on site prior to manufacturing.
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- All claddings fixed as per manufacturers specifications
- Interior completion may commence prior to final exterior cladding as long as XPS sheet (rigid air barrier), building wrap and joinery has been installed.

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

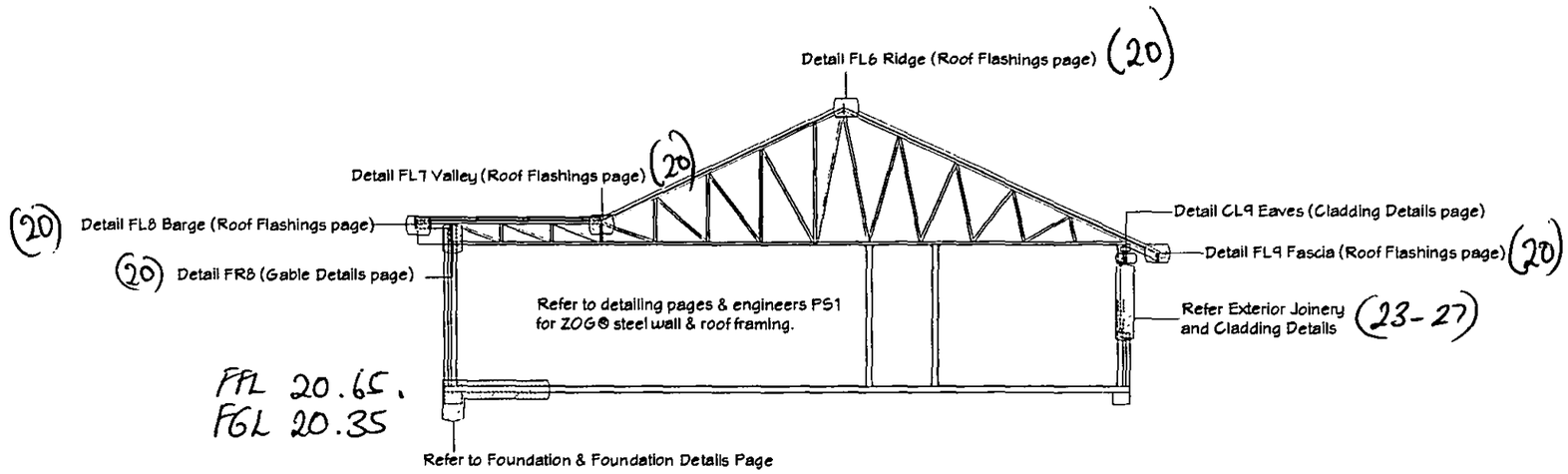
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Elevations 3 & 4

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	8 OF 33

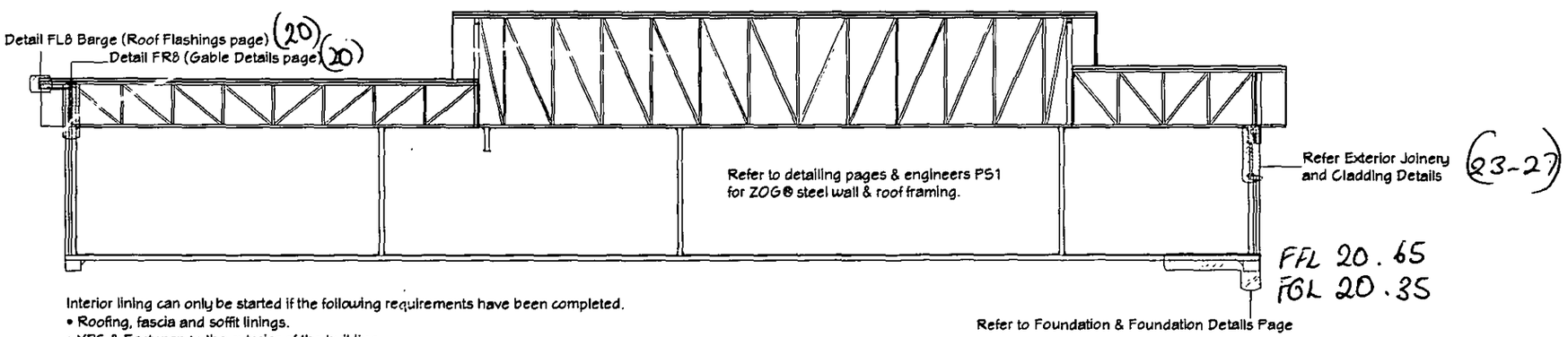
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel



Interior lining can only be started if the following requirements have been completed.
- Roofing, fascia and soffit linings.
- XPS & Fastwrap to the exterior of the building.
- Exterior openings have been installed & sealed as per Opening Details page.

Cross Section A



Interior lining can only be started if the following requirements have been completed.
- Roofing, fascia and soffit linings.
- XPS & Fastwrap to the exterior of the building.
- Exterior openings have been installed & sealed as per Opening Details page.

Cross Section B

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO — Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

Construction

Roof
Structure: ZOG® steel frames
Overhang: 600 from frame (unless specified on floor plan)
Cladding: Refer elevations
Underlay: Bitumac® 860
Purlins: 40mm Z275 G550 top hat
Fascia system: BILDON fascia and 150 1/4 round gutter system with 80mm dia round DELTA downpipes
Soffit: 4.5mm Hardisoffit® lining

Ceiling
Battens: ZOG® ceiling battens @600mm c/c
Insulation: R3.6 ceiling batts (blanknet)
Lining: 13mm Gib Ultraline Plus®

Walls
Structure: ZOG® steel frames
Stud height: 2420mm
Insulation: R2.2 wall batts
Int lining: Gib Ultraline® horizontal
Thermal break: 10mm XPS polystyrene (ESI®)
Building wrap: Fastwrap. Ref BRANZ Appraisal No.615 [2008]
Cladding: Refer elevations

Windows
Frames: Aluminium double glazed

Fixings
- All fixings to be as per the latest ZOG® steel frame manual and comply with Section 4, Durability, NZS:3604:1999
- Any treated timber in contact with the ZOG® steel frame must be LOSP treated ONLY to avoid corrosion. (Never CCA)

( ) Page No Referred to.

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

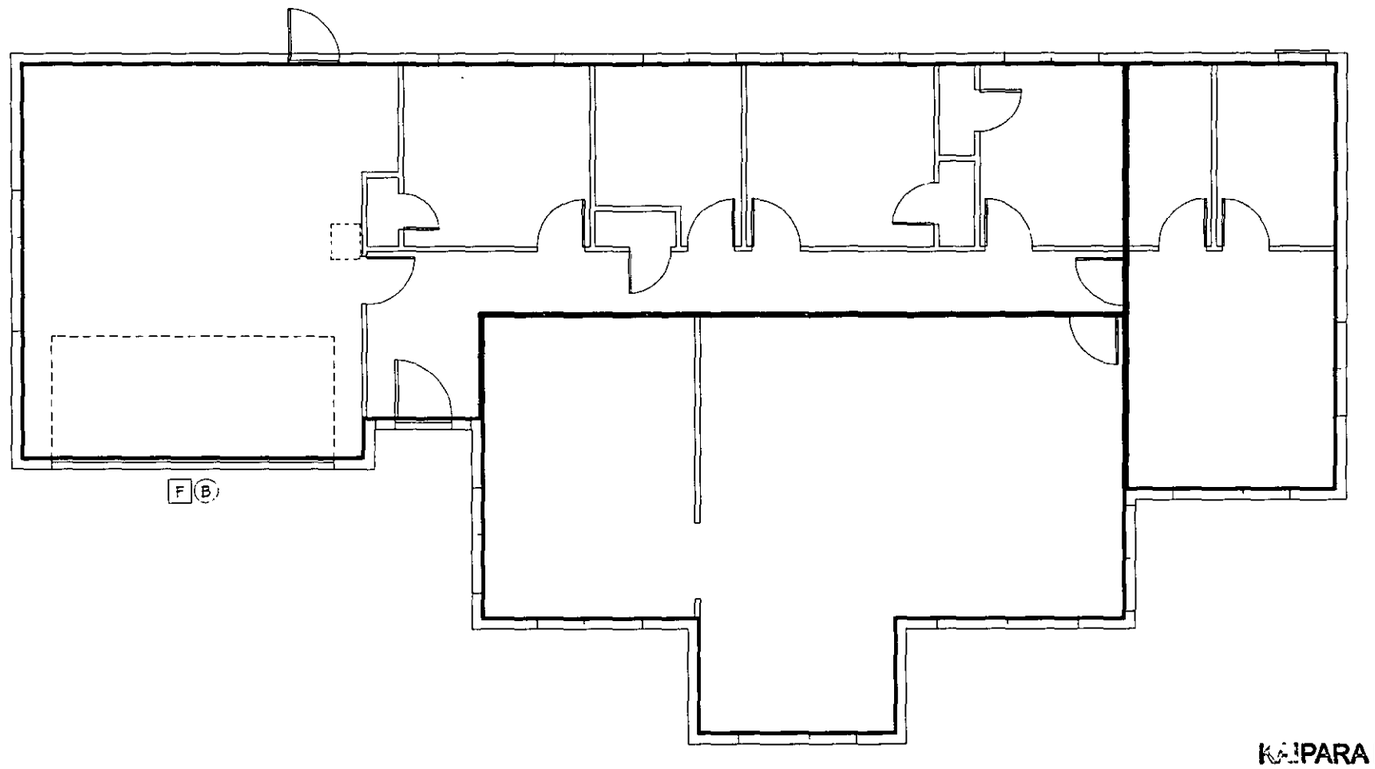
TERRITORIAL AUTHORITY:
Kaipara District Council

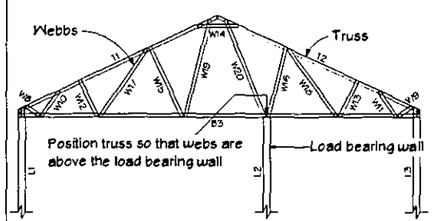
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including
Wind Zone: High
Earthquake Zone: C
Climate Zone: 1
Corrosion Zone: Seaspray
Snowload: 0.0 kPa

Cross sections

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	9 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC





Truss Positioning over Load Bearing Walls

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

OPENING LINTELS/HOLD DOWNS
All opening lintels & opening anchors to be types A4 & S respectively unless otherwise noted
A4 S

ZANO Limited
Phone: (09) 478 0440

Frames by: 20g steel frames of the future today

PLAN NAME: MONDEO Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

Opening Anchors

Type S	=	S
Type A	=	A
Type B	=	B
Type C	=	C

Opening Lintels

Type A2	=	A2
Type A4	=	A4
Type B	=	B
Type C	=	C
Type D	=	D
Type E	=	E
Type F	=	F

Walls

Loadbearing Walls ——

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

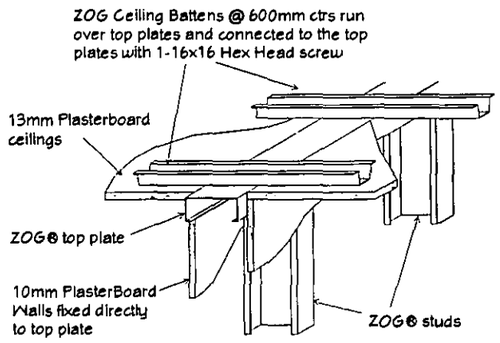
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

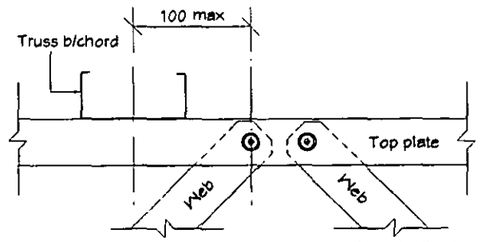
Load Bearing Walls Lintels / BPA's

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	10 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

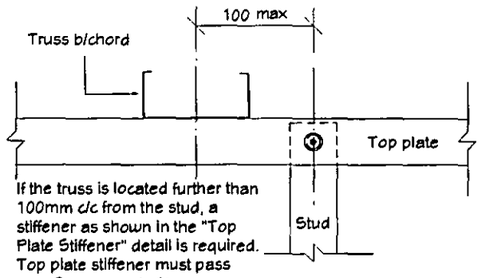


Non Load Bearing Top Plate



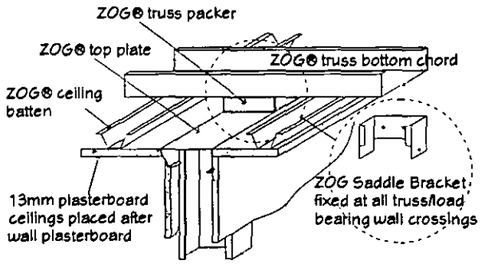
If the truss is located further than 100mm c/c from the lintel web, a stiffener as shown in the "Top Plate Stiffener" detail is required. The stiffener must pass over 2 or more webs.

Truss to Lintel Web Location

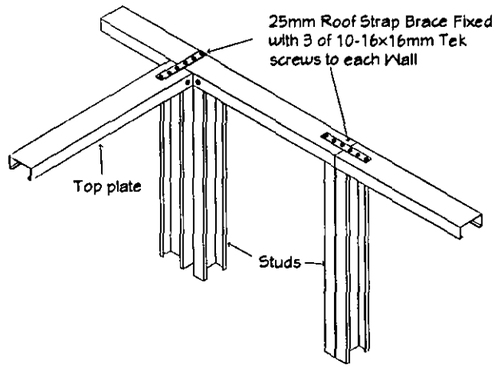


If the truss is located further than 100mm c/c from the stud, a stiffener as shown in the "Top Plate Stiffener" detail is required. Top plate stiffener must pass over 2 or more studs.

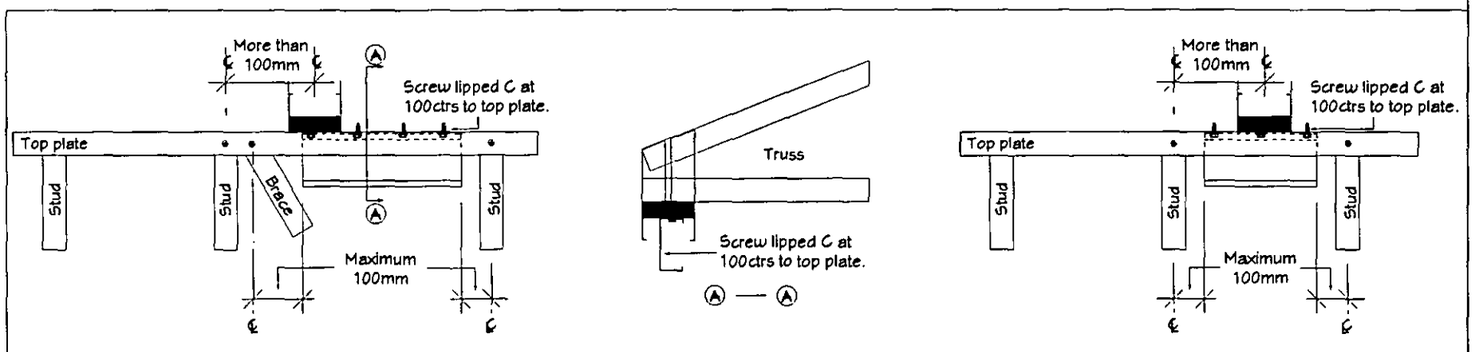
Truss to Stud Location



Load Bearing Top Plate



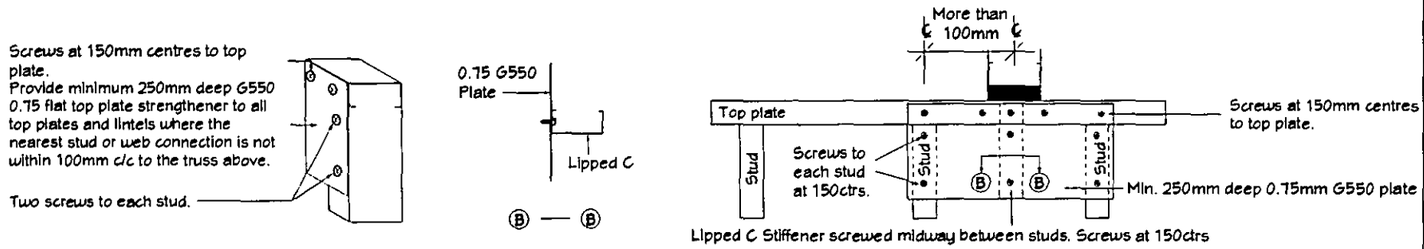
6kN Top Plate Connections



Top Plate Stiffener at Truss Loading Points Option A

TOP PLATE STIFFENER REQUIREMENTS

Top plate stiffeners are used to distribute the weight &/or uplift at each truss point to the nearesr stud, Top plate stiffeners not required where trusses are within 100mm c/c of the stud below.



Top Plate Stiffener at Truss Loading Points Option B

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

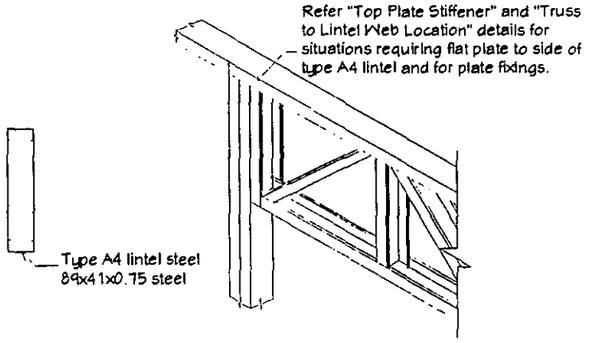
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Top Plate Details

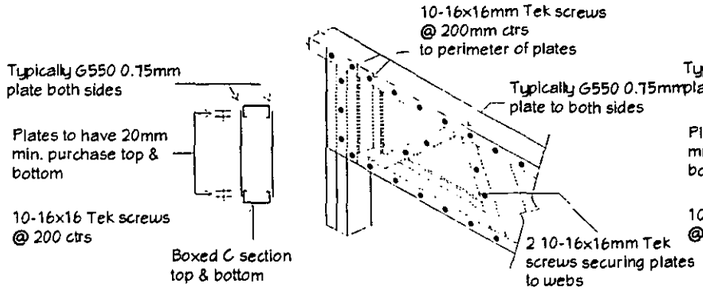
DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:		SHEET No.	11 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

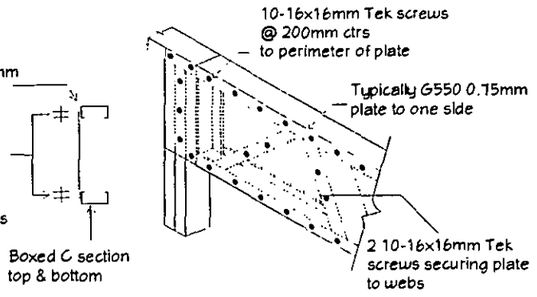


Note;
Top Plate Stiffeners are not required where trusses are within 100mm c/c of a lintel web.

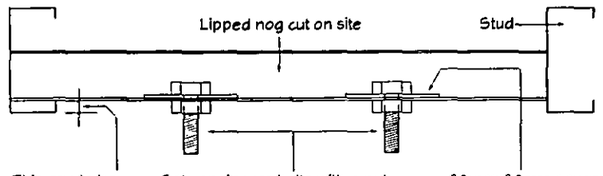
LINTEL TYPE A4

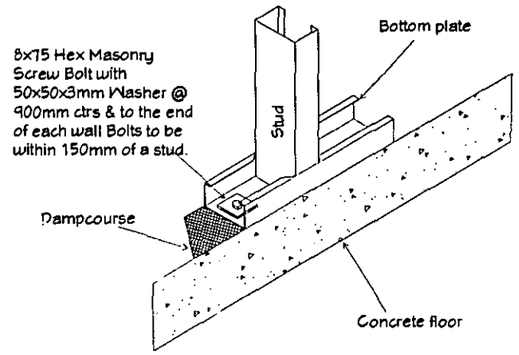


LINTEL TYPE F
site fixing of plates

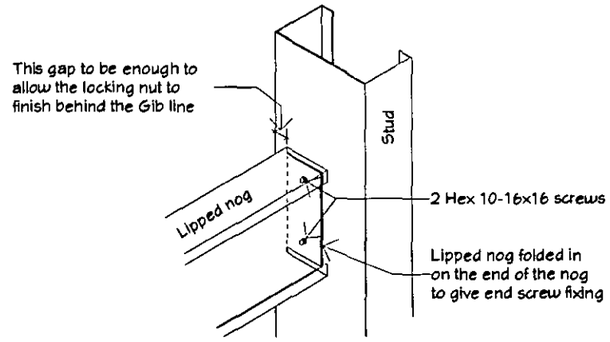


LINTEL TYPE E
site fixing of plate

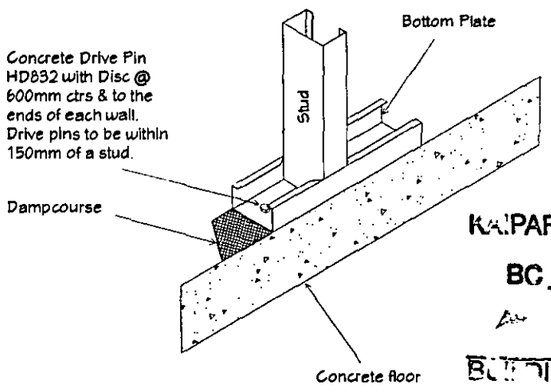




Bottom Plate Fixing Load Bearing Walls



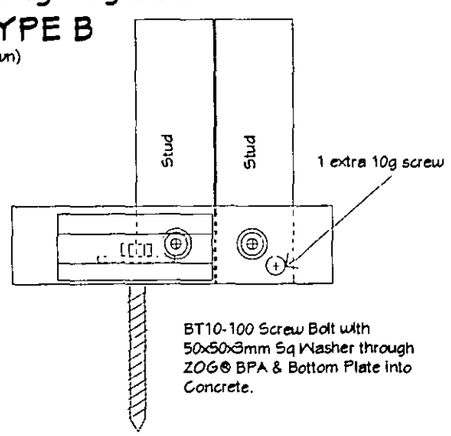
Vanity Nog Detail



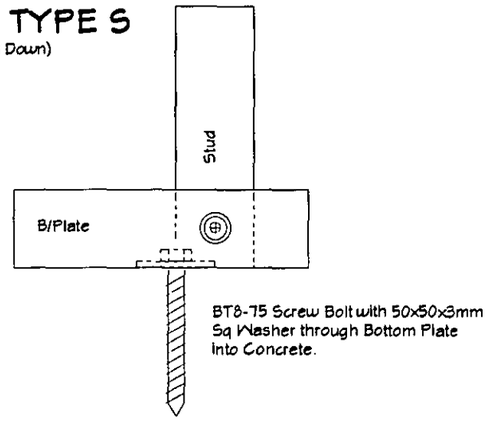
Bottom Plate Fixing Non-Load Bearing Walls

KAIPARA DISTRICT COUNCIL
BC 110498
B/Plate
BUILDING INSPECTOR

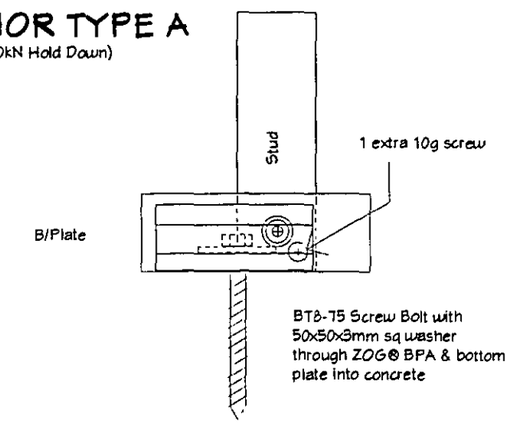
ANCHOR TYPE B
(15kN Hold Down)



ANCHOR TYPE S
(5kN Hold Down)



ANCHOR TYPE A
(10kN Hold Down)



Bottom Plate Hold Down Table

Type	Uplift (kN)	Description
S	7.50	BTG875 with 50x50x3 washer
A	9.67	BTG875 with ZOG BPA & 50x50x3 washer
B	14.83	BTG10100 with ZOG BPA & 50x50x3 washer
C	20.00	BTG16150 with ZOG BPA & 50x50x3 washer

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

ZOG® Lintels

- ZOG® lintels are designed using REDCO project 8292 span tables Rev - 1.3 dated 31 Aug 2010.

This job has been reviewed & a PS1 provided by:
Graham Rundle BE M.IPENZ CPEng IntPE
Chartered Prof Engineer No.54001
Redco NZ Ltd
470 Otumoetai Road
Tauranga
Ph 07 571 7070

HOLD DOWN CAPACITY

- 8x75mm screw bolt capacity = 11.52kN (capacity based on Power Fasteners BT875, 20mPa concrete, edge distance >80mm, 8mm fixture thickness)
- 10x100mm screw bolt capacity = 14.83kN (capacity based on Power Fasteners BT10100, 20mPa concrete, edge distance > 50mm, 10mm fixture thickness)
- Fasteners to be no closer than 100mm to any other hold down.

THIN CONCRETE

If concrete thickness is found to be less than 85mm, then use;

- 6kN = 1/M12 Epcon C6 anchor embedded at least 40mm with 50x50x3mm Washer
- 12kN = 2/M12 Epcon C6 anchors (no closer than 150mm apart) embedded at least 40mm with 50x50x3mm Washer
- 15kN = 2/M12 Epcon C6 anchors (no closer than 150mm apart) embedded at least 55mm with 50x50x3mm Washer

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

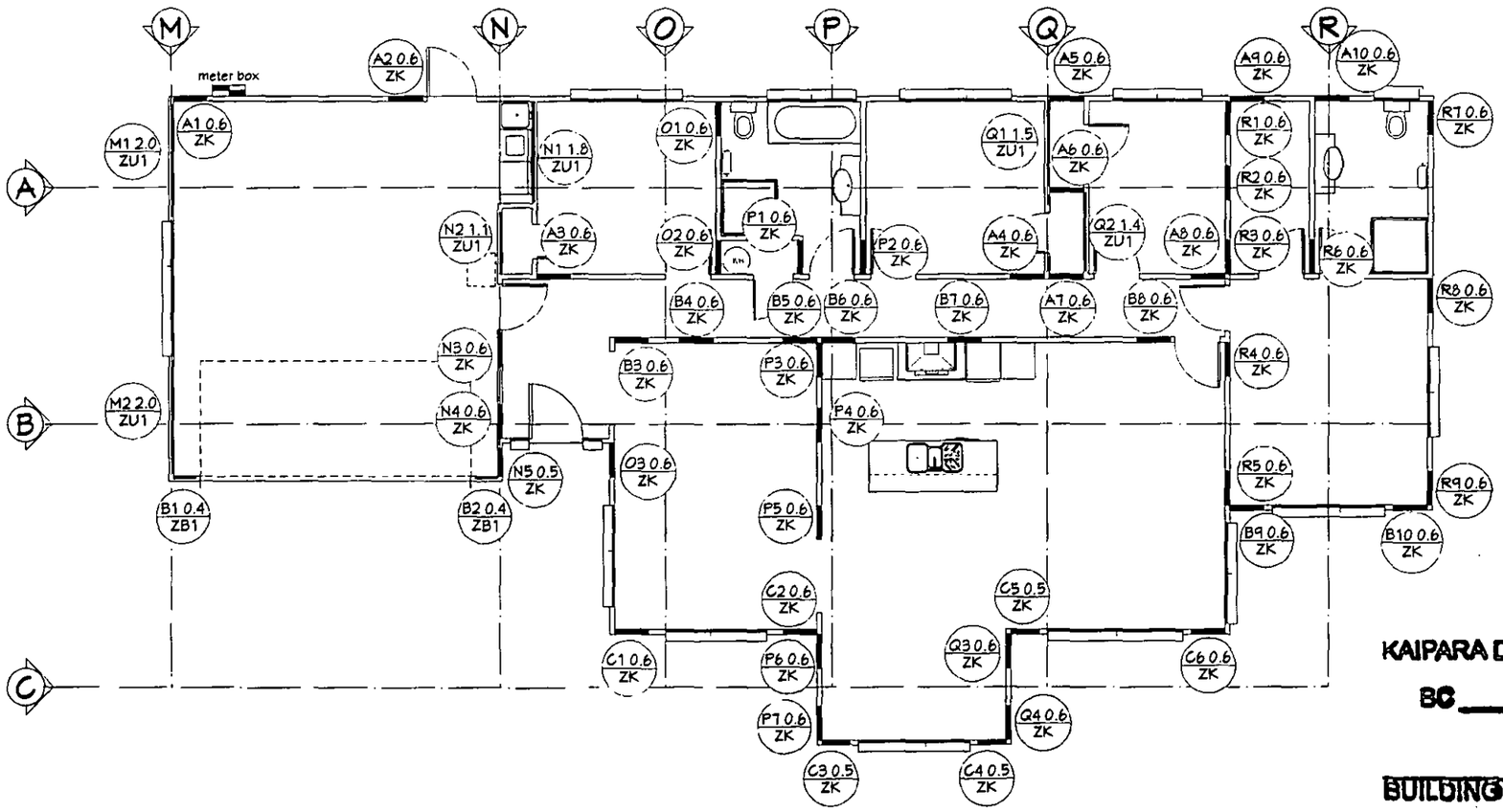
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Lintels, Anchors & Nogs

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	N.T.S	SHEET No.	12 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

NOTE: Bracing plan must be supplied to DRAINLAYER, PLUMBER, ELECTRICIAN, and FLOOR LAYER



KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered

MONDEO

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

Bracing Element A1 0.5 / ZK — Label & Length / Type

Bracing Element Lines ——

- Holes or intrusions into the ZOG® frame bracing elements may require engineers specific design for remedial work.
- ZOG®must be contacted for an alternative solution prior to any intrusions and/or modifications being made to bracing elements.

BRACING PLAN

- All bracing in accordance with the ZOG® manual & Winstones test results specific to ZOG® frames & trusses.
- Bracing grids to be maximum of 6.0m
- If a wall intersects a ZOG® frame brace, then a ZOG® type A 45x45x0.75mm angle is required to allow fixing of gib sheets in corners
- Bracing plan to be read in conjunction with bracing details located on the following sheet.

BRACING SOFTWARE

Bracing for Golden Homes is calculated using the latest version of "HBrace" by Visual windows software. This programe is developed in accordance with NZS:3604:1999.
Contact details;
www.visualwindows.co.nz
Email:support@visualwindows.co.nz

The bracing has been reviewed & a PS1 provided by:
Graham Rundle BE M.IPENZ CPEng IntPE
Chartered Prof Engineer No.54001

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

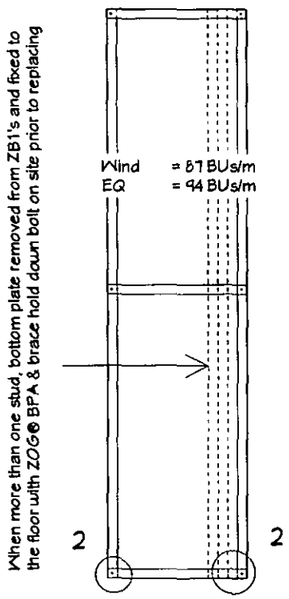
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Bracing plan

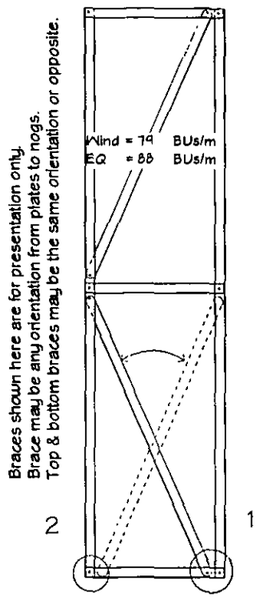
DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	13 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

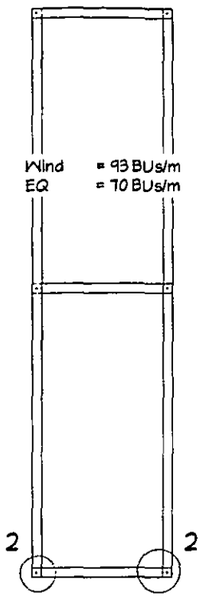
NOTE: Bracing plan must be supplied to DRAINLAYER, PLUMBER, ELECTRICIAN, and FLOOR LAYER



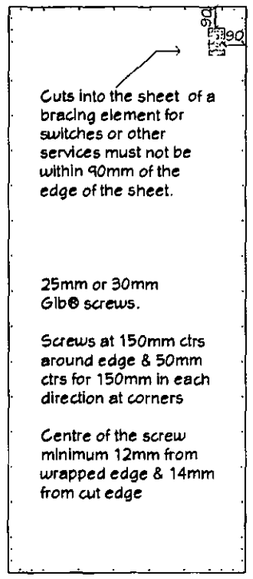
ZB1
400 - 600
Gib® Braceline 1 side
refer sheet screw layout



ZK
400 - 600
Unlined

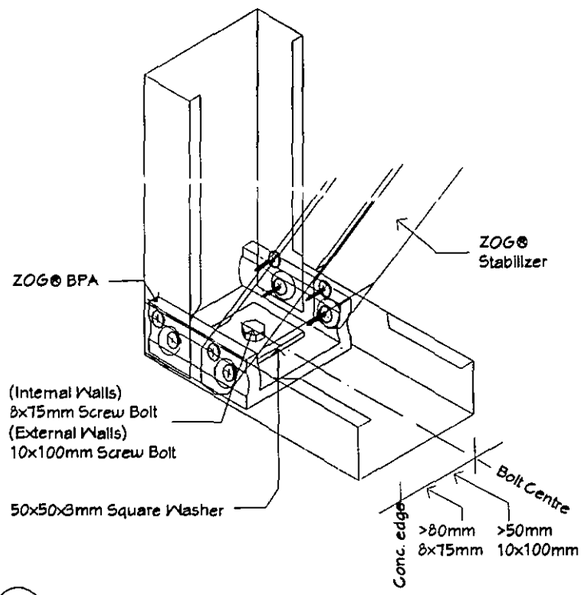


ZU1
600 - 4800
Gib® Ultraline 1 Side
refer sheet screw layout

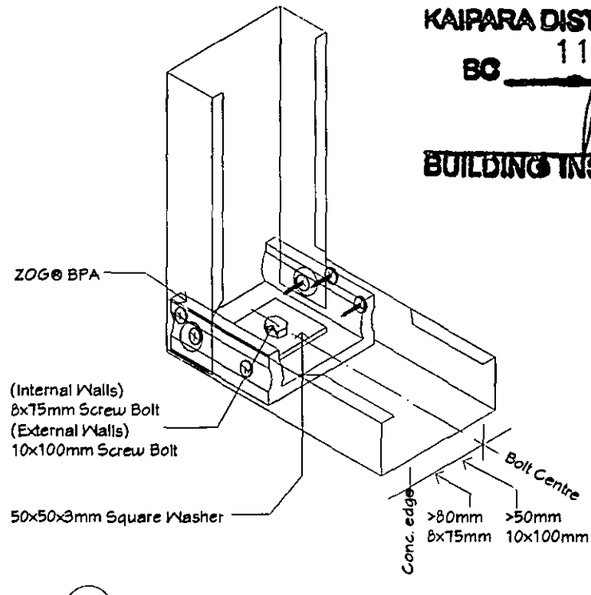


SHEET SCREW LAYOUT
(not req for ZX06 or ZX12)

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel



(1) HOLD DOWN STUD & STABILIZER



(2) HOLD DOWN STUD ONLY

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

All bracing in accordance with the ZOG® manual & Winstones test results specific to ZOG® frames & trusses.

HOLD DOWN CAPACITY
- 8x75mm screw bolt capacity = 11.52kN (capacity based on Power Fasteners BT875, 20mPa concrete, edge distance >80mm, 8mm fixture thickness)
- 10x100mm screw bolt capacity = 14.83kN (capacity based on Power Fasteners BT10100, 20mPa concrete, edge distance > 50mm, 10mm fixture thickness) .
- Fasteners to be no closer than 100mm to any other hold down.

THIN CONCRETE
If concrete thickness is found to be less than 85mm, then use;
- 6kN = 1/M12 Epcon C6 anchor embedded at least 40mm with 50x50x3mm Washer
- 12kN = 2/M12 Epcon C6 anchors (no closer than 150mm apart) embedded at least 40mm with 50x50x3mm Washer
- 15kN = 2/M12 Epcon C6 anchors (no closer than 150mm apart) embedded at least 55mm with 50x50x3mm Washer

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

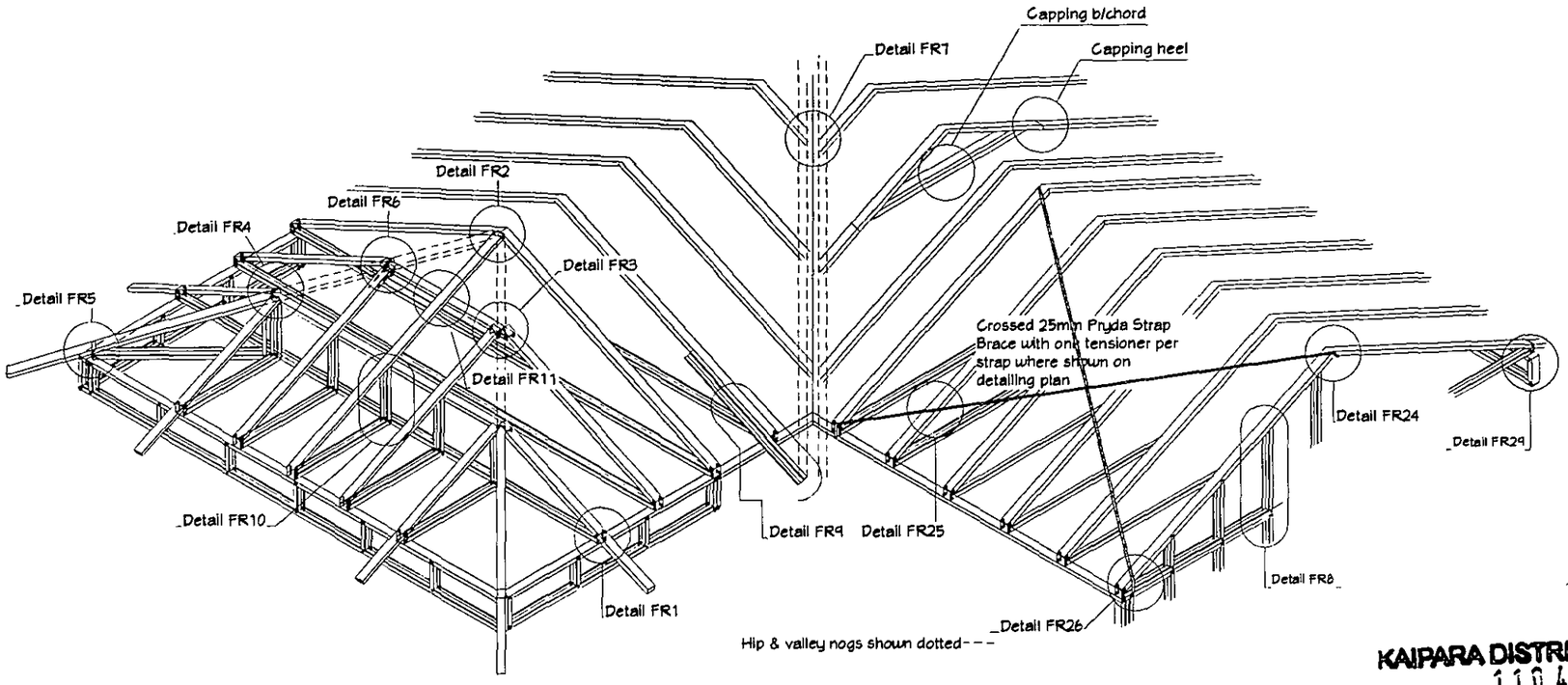
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Bracing details

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	N.T.S	SHEET No.	14 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

Soffit Drop for 25° - 600mm Overhang (from frame)
Underside of Truss BC to Underside
of Soffit Frame. ZOG Steel Purlins

Bildon Fascia System
Metal Tile = 279mm
Longrun Iron = 279mm
Concrete Tile = 245mm

Dimond 185
Metal Tile = 315mm
Longrun Iron = 315mm
Concrete Tile = 281mm

Dimond 147
Metal Tile = 279mm
Longrun Iron = 279mm
Concrete Tile = 250mm

dimensions shown to be checked against builders own calculations

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered
MONDEO

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

ZOG® frames & trusses
- ZOG® frames & trusses are designed using ProCad engineering & detailing software.
- ZOG® framing is 90x40x0.75mm rollformed from AXXIS® steel provided by NZ Steel Ltd.
- Drawings should be read in conjunction with the latest ZOG® Manual

Frames & trusses have been reviewed & a PS1 provided by:
Graham Rundle BE M.IPENZ CPEng IntPE
Chartered Prof Engineer No.54001
Redco NZ Ltd
470 Otumoetai Road
Tauranga
Ph 07 571 7070

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

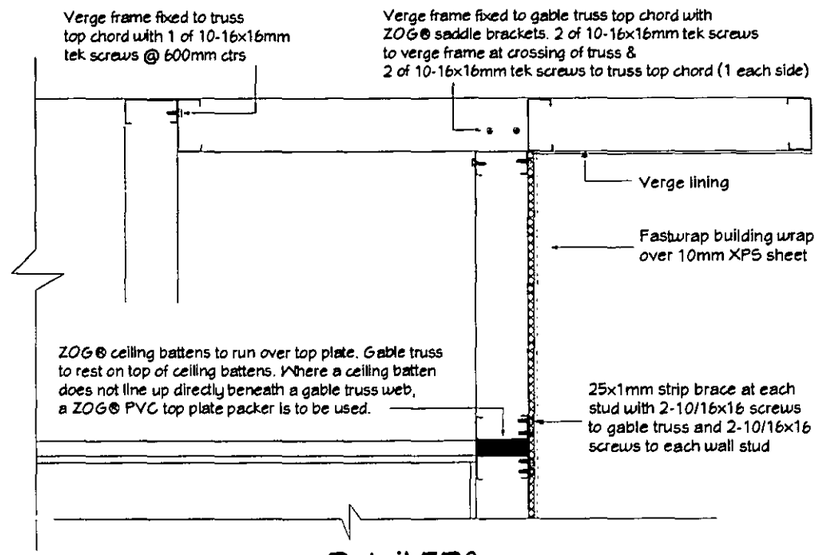
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Roof Frame Connection Reference

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	As Shown	SHEET No.	15 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel



Detail FR8
Gable/Verge Frame
scale 1:10

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered
MONDEO

© GOLDEN HOMES HOLDINGS LTD. 2011

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Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

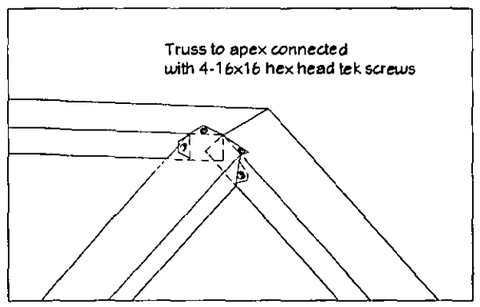
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

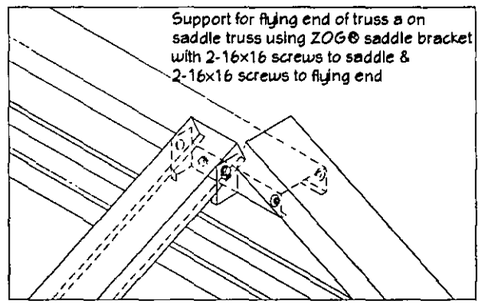
Gable Frame Details

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	As Shown	SHEET No.	16 OF 33

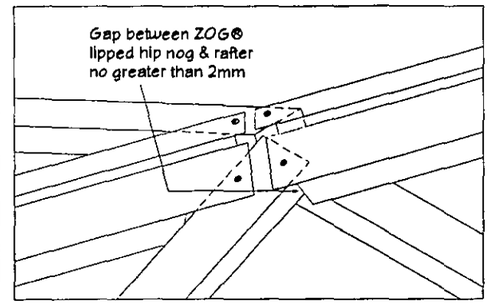
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



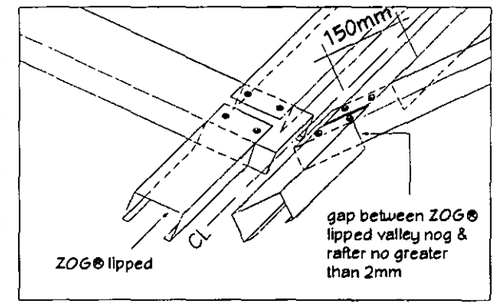
Detail FR2
Truss to Apex
scale 1:10



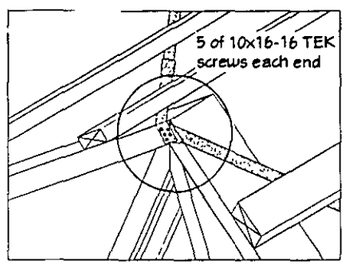
Detail FR3
Jack Truss over Truncated
scale 1:10



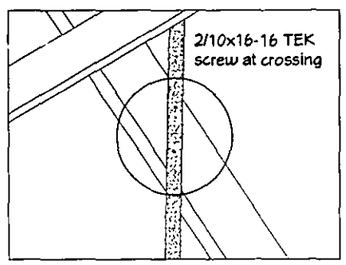
Detail FR6
Hip Nogs
scale 1:10



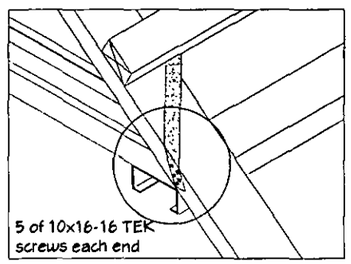
Detail FR7
Valley Nogs
scale 1:10



Detail FR24
Strap Brace to Ridge
scale 1:10



Detail FR25
Strap Brace Crossing
scale 1:10



Detail FR26
Strap Brace at Top Plate
scale 1:10

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

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NOTES:

ZOG® frames & trusses
- ZOG® frames & trusses are designed using FramecadPRO engineering & detailing software.
- ZOG® framing is 90x40x0.75mm rollformed from AXXIS® steel provided by NZ Steel Ltd.
- Drawings should be read in conjunction with the latest ZOG® Manual

Frames & trusses have been reviewed & a PS1 provided by:
Graham Rundle BE M.IPENZ CPEng IntPE
Chartered Prof Engineer No.54001
Redco NZ Ltd
470 Otumoetai Road
Tauranga
Ph 07 571 7070

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

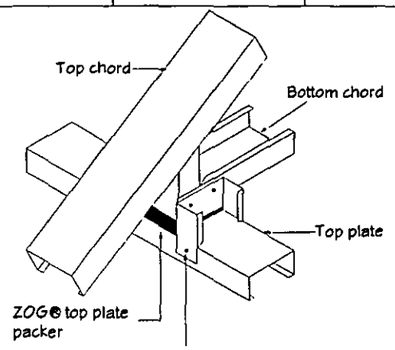
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Roof Frame Connection Details

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	As Shown	SHEET No.	11 OF 33

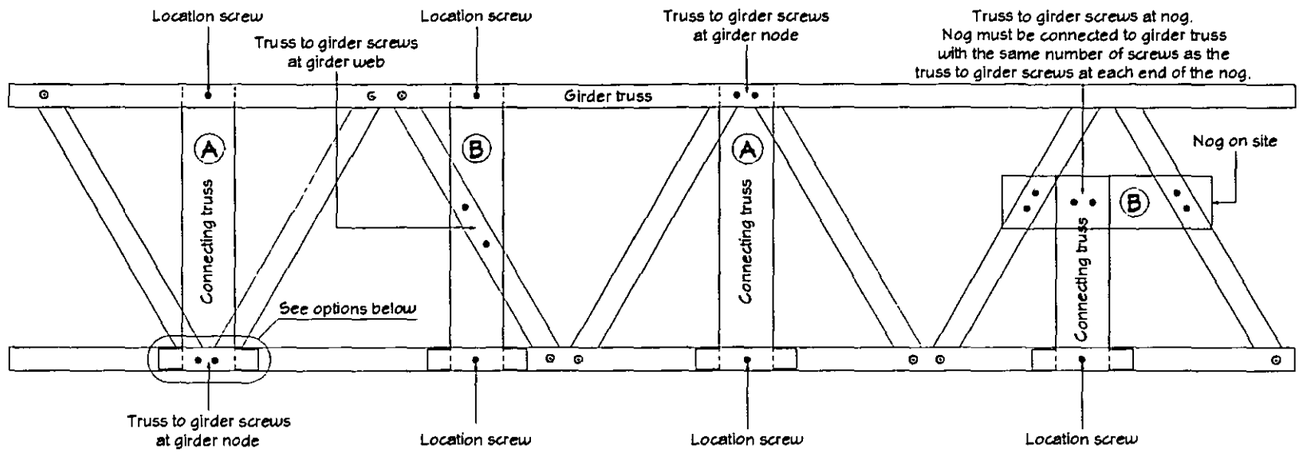
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	ZOG Saddle Brackets to Truss Chord or Top Plate				
Label	Screw Quantity per Face	1 ZOG Saddle Bracket		2 ZOG Saddle Brackets	
		10-16x16	12-14x20	10-16x16	12-14x20
A	2	5.00	7.00	10.00	14.00
B	3	7.50	10.50	15.00	21.00
C	4	10.00	14.00	20.00	28.00



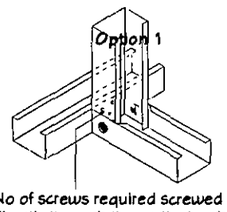
ZOG® Saddle Bracket. Refer to ZOG® Detailers Truss Uplift Plan for screw numbers

Detail FR1
Truss-Top plate Connection
All Calculations to AS/NZS 4600:1996

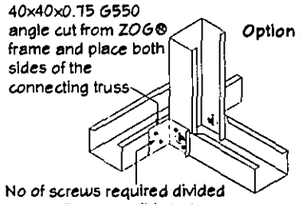


(A) Jack truss connects at girder truss node

(B) No girder truss node at jack truss connection



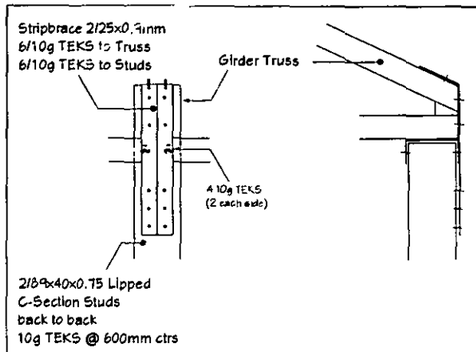
No of screws required screwed directly through the vertical web into the girder bottom chord

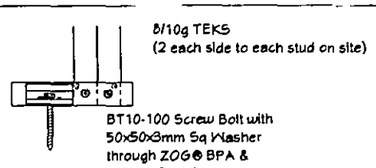


No of screws required divided as equally as possible between the angles either side

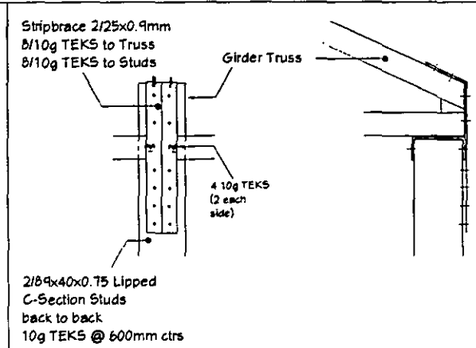
Note:
Location screws are not structural and are not a requirement. They have been shown as options only and can be placed in any portion of the truss if needed for stablizing while under construction.

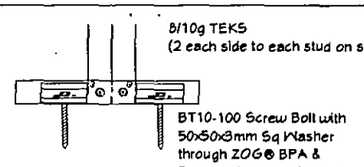
Detail FR10
Truss to Girder Truss Connection
All calculations to: AS/NZS4600 1996





Alternative to ZOG® saddle bracket for 15kN Hold Down





Alternative to ZOG® saddle bracket for 20kN Hold Down

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel

ZANO Limited
Phone: (09) 478 0440

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

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NOTES:

KAIPARA DISTRICT COUNCIL
110498
BC
BUILDING INSPECTOR

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

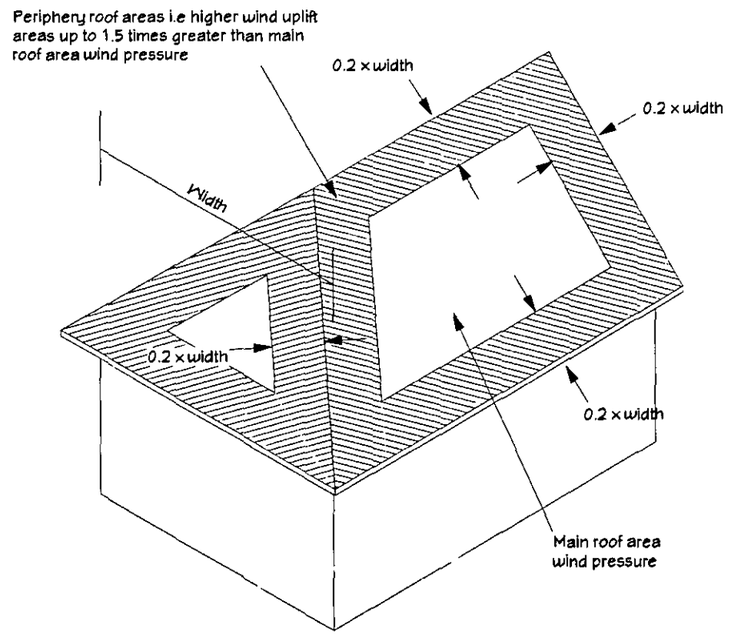
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Roof Frame Hold Down Details

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:10	SHEET No.	18 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



General Gable/Hip Roof Showing Higher Wind Uplift Areas Requiring Extra Purlin Fixings

As per NZS 3604:1999 Section 10
1.5kN fixing required for main roof purlin fixing &
2.2kN fixing required for periphery roof purlin fixing

10-16x16mm Hex Head TEK Screw provides 1.9kN

Therefore:
1/10-16x16 required in the main roof &
2/10-16x16's required in the periphery roof

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

KAIPARA DISTRICT COUNCIL
BC
BUILDING I.

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered

MONDEO

© GOLDEN HOMES HOLDINGS LTD. 2011

NOTES:

ZOG® frames & trusses

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- Drawings should be read in conjunction with the latest ZOG® Manual

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

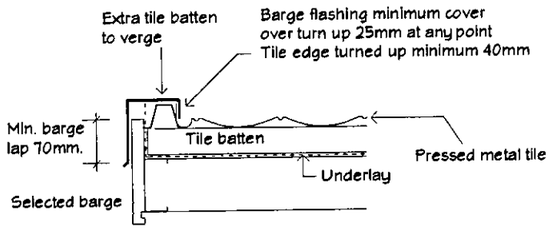
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Roof Purlin Fixings

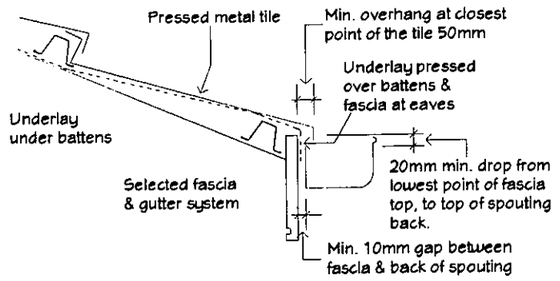
DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	N.T.S	SHEET No.	19 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

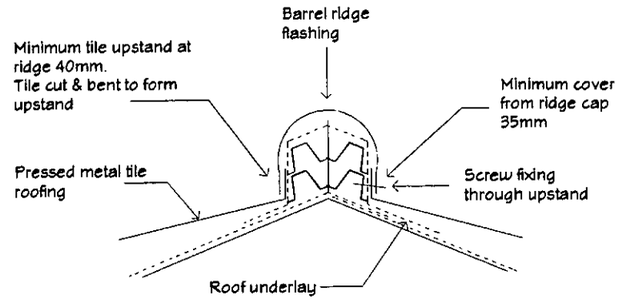
DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel



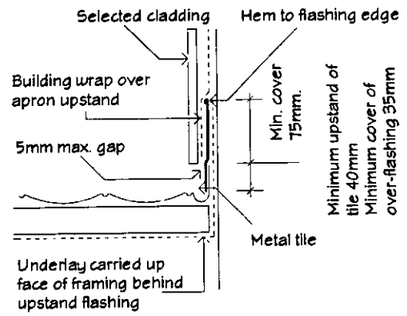
Detail FL8 Barge Flashing
as per E2/AS1 table 7: upto & including situation 2



Detail FL9 Fascia Flashing
as per E2/AS1 table 7: upto & including situation 2
AS/NZS3500 3.2 overflow measure for eaves gutters Example 2

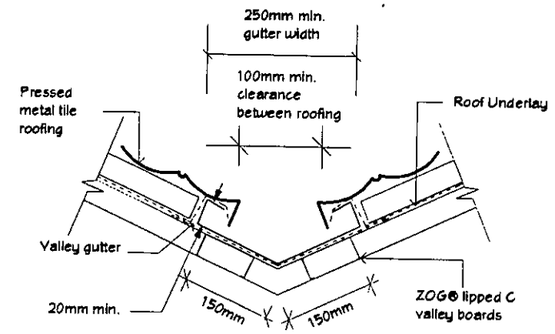


Detail FL6 Ridge
as per Figure 34, NZ Building Code, Clause E2, External Moiture

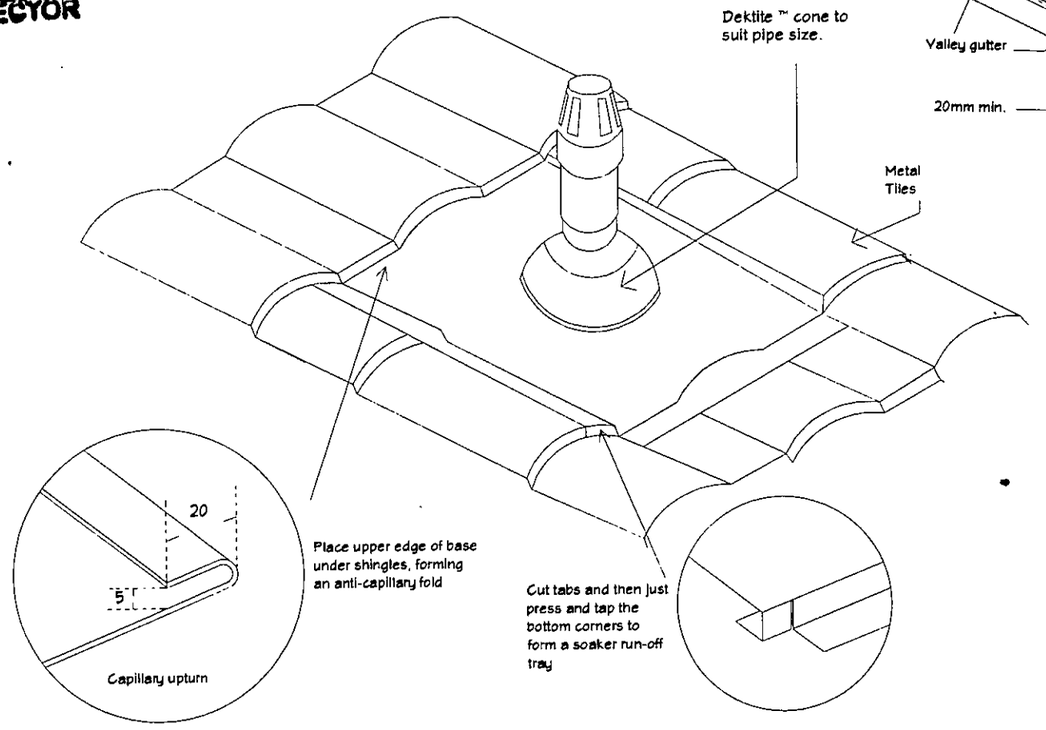


Detail FL13 Apron Flashing Parallel
as per E2/AS1 table 7: upto & including situation 2

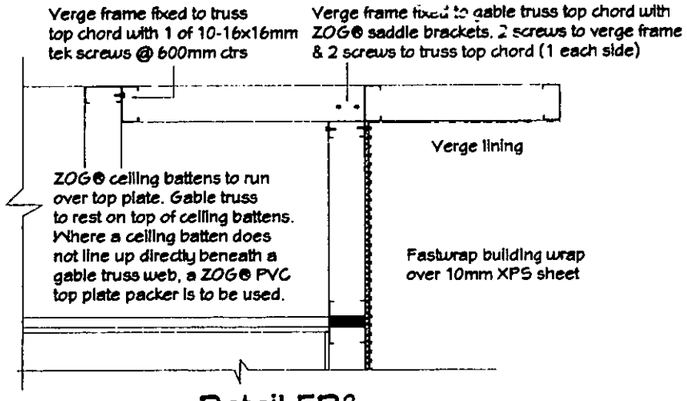
KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR



Detail FL7 Valley



Detail FL11 Pipe penetration of metal tile roofing
install manufacture specification



Detail FR8
Gable/Verge Frame
scale 1:15

ZANO Limited
Phone: (09) 478 0440

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered
MONDEO

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NOTES:
- Any metal flashing to be as per NZS:3604:1999, Section 4, Durability
- Details in accordance with NZ Building Code, Clause E2
- Any treated timber in contact with the ZOG® steel frame must be LOSP treated ONLY to avoid corrosion. (Never CCA)

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

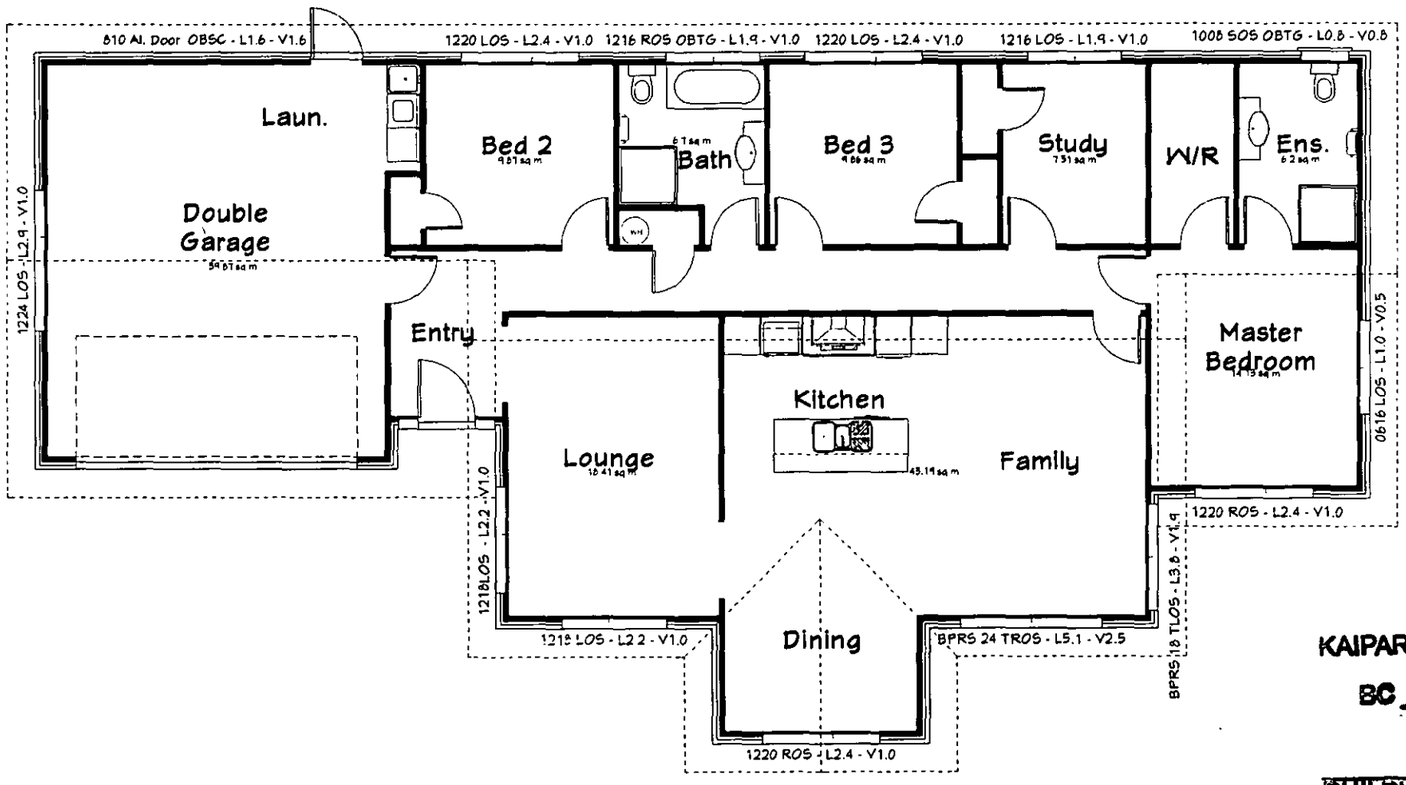
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Roof flashings

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:10	SHEET No.	20 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



KAIPARA DISTRICT COUNCIL
110498
BC
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: 20g steel frames of the future today

PLAN NAME: Altered

MONDEO

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NOTES:

- Natural lighting is provided via glazing to 10% of floor areas for individual rooms. Ref:G7/AS1, Clause 1.0 Natural light
- Natural ventilation is provided via exterior openings of no less than 5% of floor area for individual rooms. Ref:G4/AS1, Clause 1.2 Natural ventilation

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

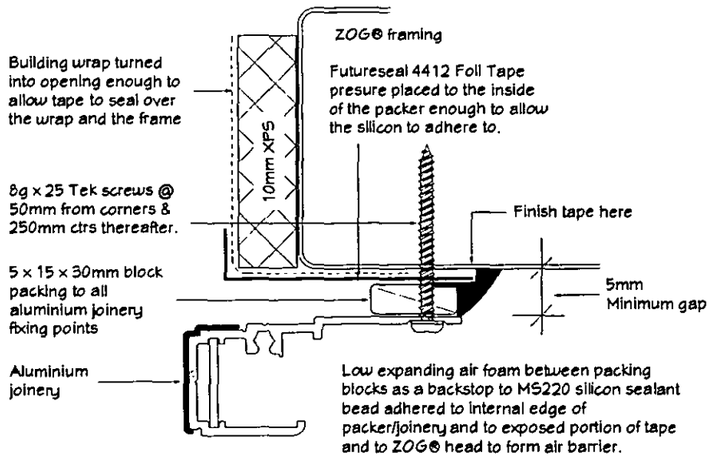
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

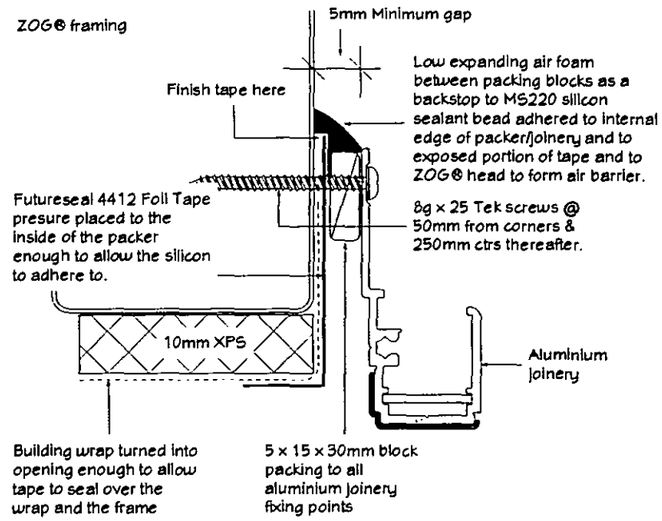
Natural Lighting & Ventilation

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	21 OF 33

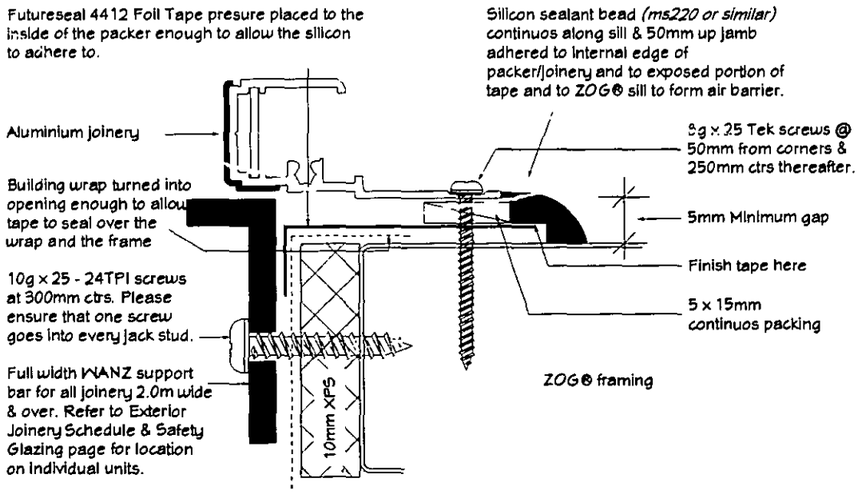
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



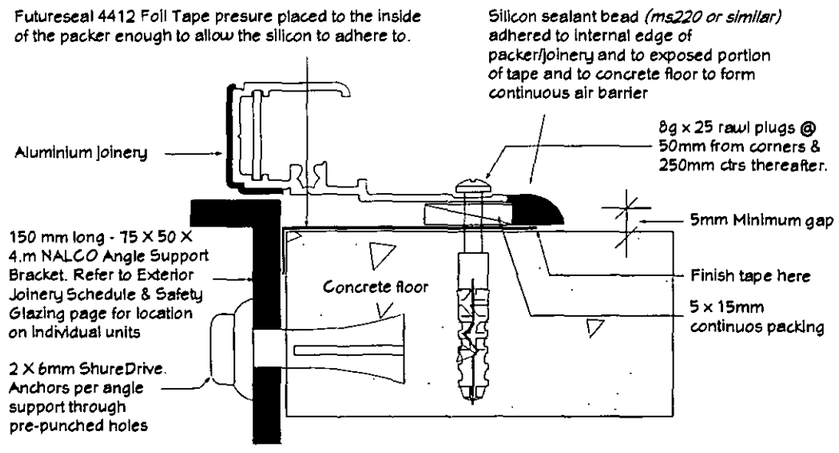
Head



Jamb



Sill at ZOG® Frame



Sill at Concrete Floor

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered

MONDEO

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NOTES:
- NALCO angle support and/or NANZ bar is not required on all exterior joinery units. Refer to Ext Joinery Schedule & Safety Glazing page for NALCO angle support requirements & locations relative to each individual unit.
- Refer to NALCO/Bradnams Golden Homes Window & Interior Door Installation Procedure manual dated 27/07/2010 and associated test documents for information regarding sill support.

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

CLIENT:
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Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

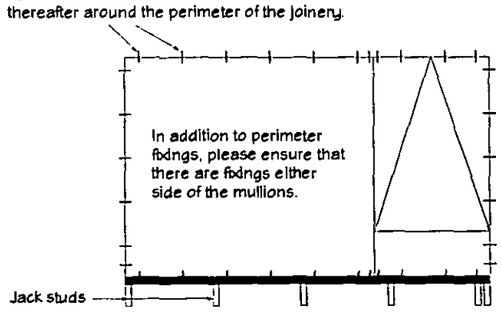
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Exterior Joinery Details Packing, Sealing, Fixing

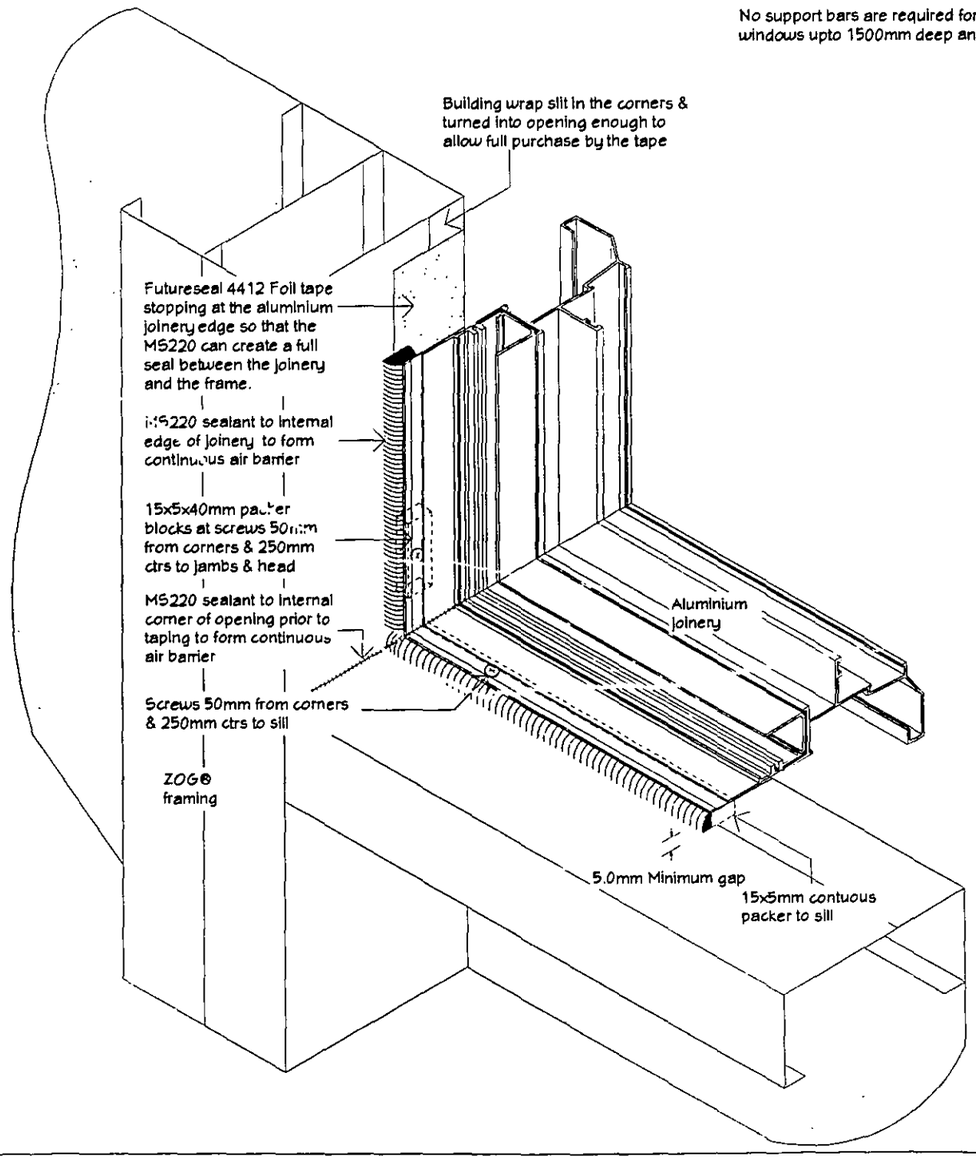
DRAWN: RCDC Ltd	BP101182 - Design 2
JOB No. 30160	CHECKED:
ZOG No. Z1099	DATE: 13/09/2011
SCALE: 1:1	SHEET No. 22 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

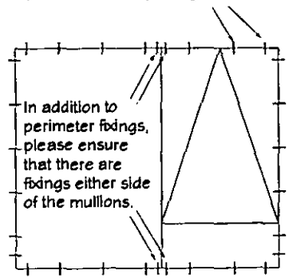
Use 8 x 25 TEK screws supplied by NALCO at 50mm from the corners & 250mm ctrs thereafter around the perimeter of the joinery.



Full width WANZ bar on all windows 2.0m or wider that are not full height. WANZ bar supports are to be fixed at 300mm ctrs using 10 x 25mm 24TPI screws supplied by NALCO. Ensure one screw is fixed through support bar into every jack studs.

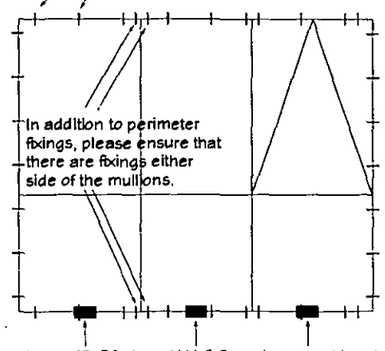


Use 8 x 25 TEK screws supplied by NALCO at 50mm from the corners & 250mm ctrs thereafter around the perimeter of the joinery.

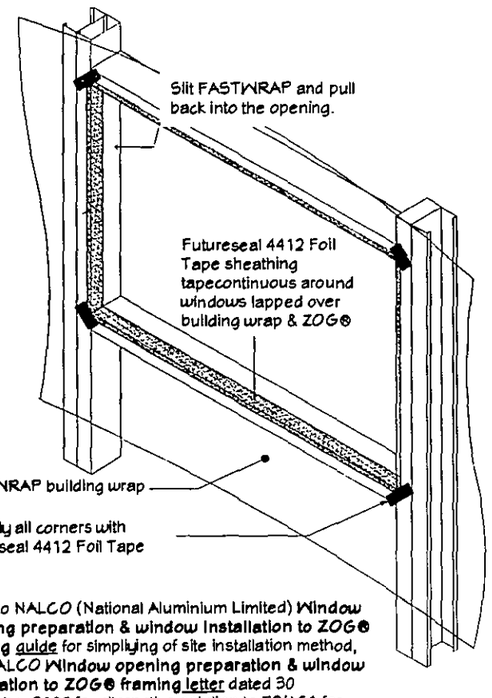


No support bars are required for NALCO/Golden windows upto 1500mm deep and under 2000mm wide.

Use 8 x 25 TEK screws supplied by NALCO at 50mm from the corners & 250mm ctrs thereafter around the perimeter of the joinery.



150mm long - 75x50x4mm NALCO angle support brackets fixed to concrete floor with 2 x SureDrive anchors 6mm dia. Place angle support brackets under all window support blocks.



Refer to NALCO (National Aluminium Limited) **Window opening preparation & window installation to ZOG® framing** guide for simplifying of site installation method, and NALCO **Window opening preparation & window installation to ZOG® framing** letter dated 30 November 2009 for alternative solution to E2/AS1 for window taping system.

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered

MONDEO

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NOTES:

- NALCO angle support and/or WANZ bar is not required on all exterior joinery units. Refer to Ext Joinery Schedule & Safety Glazing page for NALCO angle support requirements & locations relative to each individual unit.
- Refer to NALCO/Bradnams Golden Homes Window & Interior Door Installation Procedure manual dated 27/07/2010
- Refer to NALCO Window Sill Support Deflection Testing documentation dated 30/07/2010 and support letter dated 03/08/2010

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

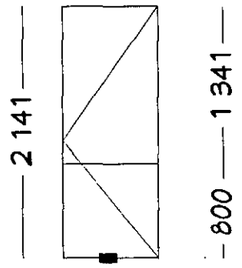
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Exterior Joinery Details Packing, Sealing, Fixing

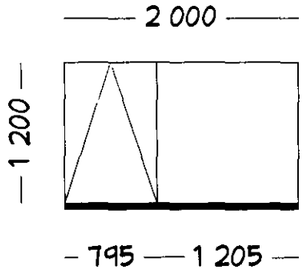
DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	N.T.S	SHEET No.	23 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

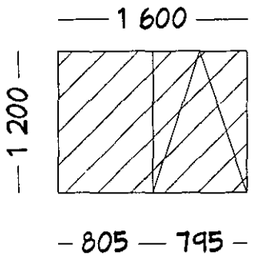
NOTE: Windows & doors are upto soffit, window and door sizes are to be confirmed on site prior to the manufacture of those units.



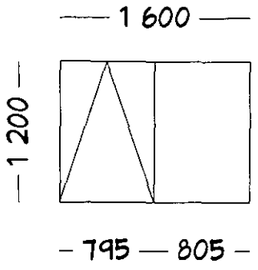
Label 810 Al. Door OBSC - L1.6 - V1.6



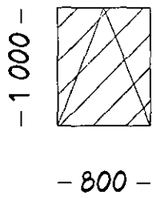
Label 1220 LOS - L2.4 - V1.0



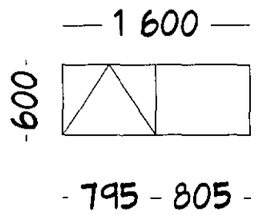
Label 1216 ROS OBTG - L1.9 - V1.0



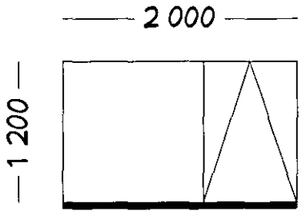
Label 1216 LOS - L1.9 - V1.0



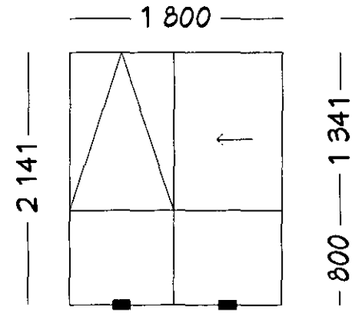
Label 1008 SOS OBTG - L0.8 - V0.8



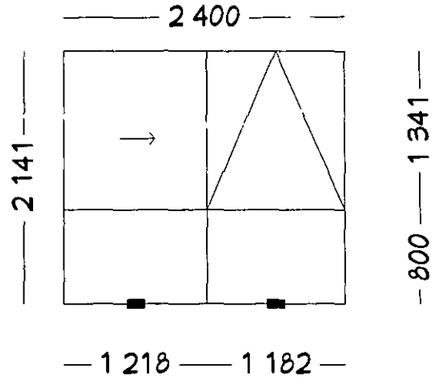
Label 0616 LOS - L1.0 - V0.5



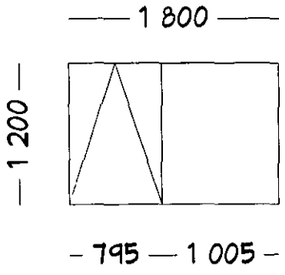
Label 1220 ROS - L2.4 - V1.0



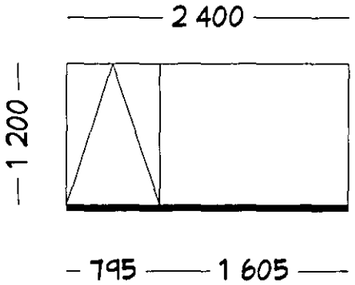
Label BPRS 18 TLOS - L3.8 - V1.9



Label BPRS 24 TROS - L5.1 - V2.5



Label 1218 LOS - L2.2 - V1.0



Label 1224 LOS - L2.9 - V1.0

ZANO Limited
Phone: (09) 478 0440

[redacted]

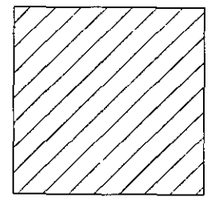
Frames by: ZOG steel frames of the future today

PLAN NAME: Altered

MONDEO

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NOTES:
- All glazing is to be in accordance with the NZ Building Code Hand Book & NZS 4223 parts 1,2 & 3 Code of Practice for glazing in buildings



GRADE A SAFETY GLASS

Approx positioning of 75x50x150mm NALCO angle support

Positioning of WANZ support bar

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

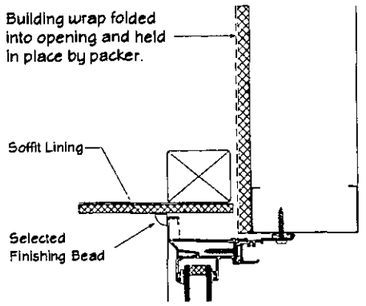
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

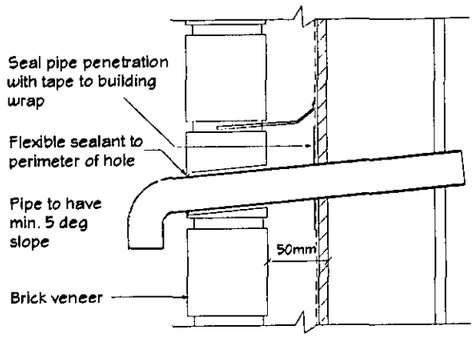
Ext. Joinery Schedule & Safety glazing

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:50	SHEET No.	24 OF 33

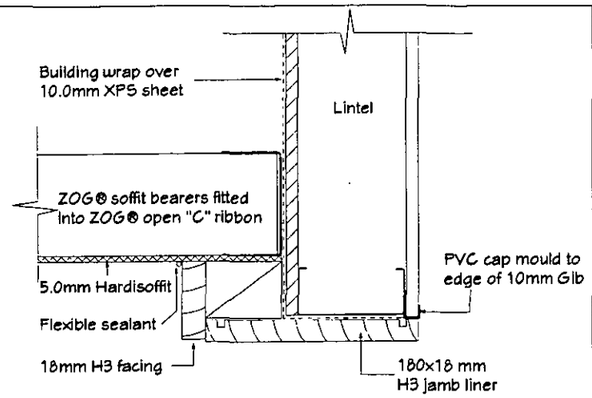
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



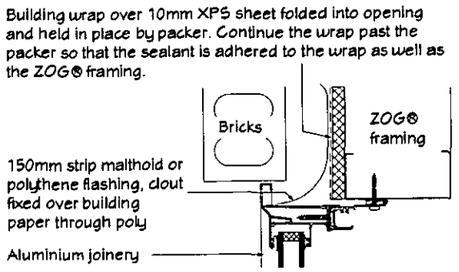
Detail C16
Head up to Soffit
scale 1:5



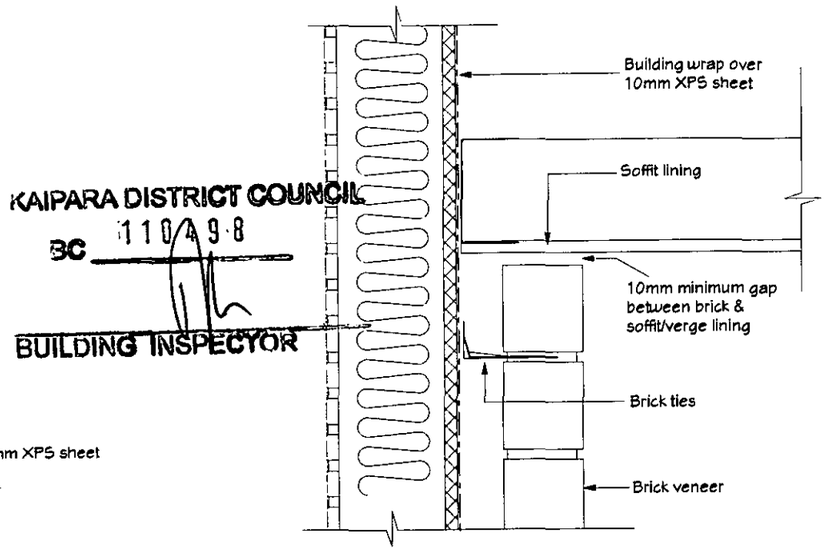
Detail C11
Pipe Penetration
scale 1:5



Detail C16
Garage Door Head
scale 1:5

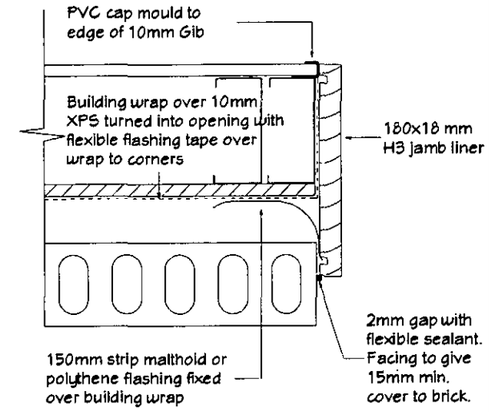


Detail C17
Brick Jamb
scale 1:5

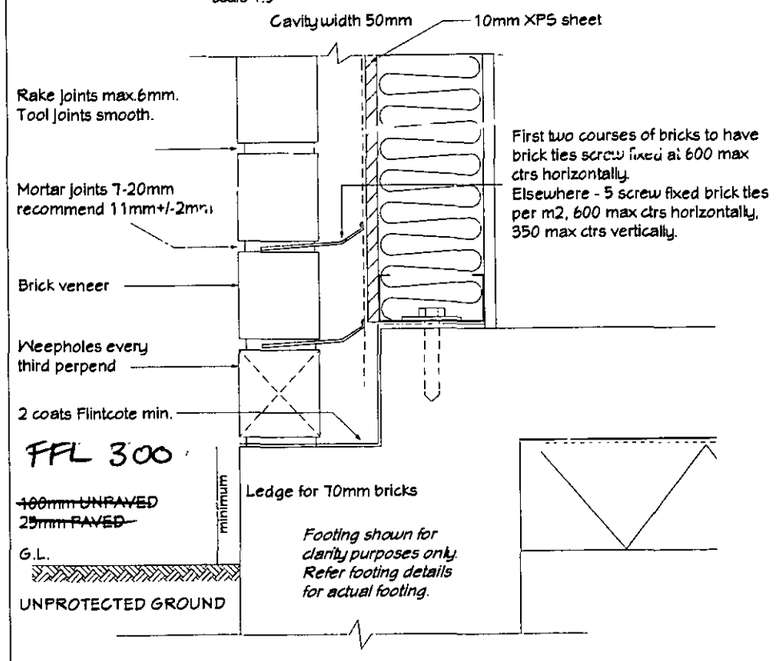


KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

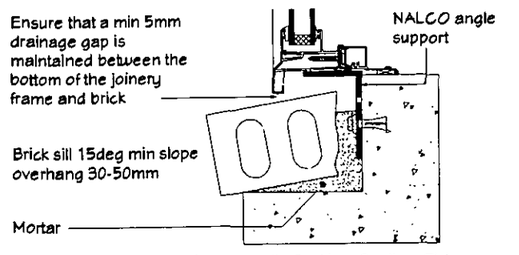
Detail C9
Brick Soffit
scale 1:5



Detail C17
Garage Door Jamb
scale 1:5

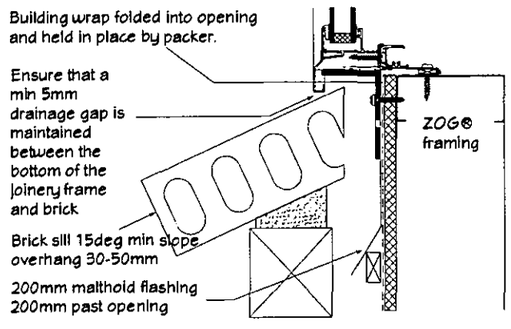


Detail C1 - Brick Base
scale 1:5



Refer also to: Exterior Joinery Details Packing, Sealing, Fixing. page

Detail C18
Sill at Concrete Floor
scale 1:5



Detail C18
Sill at Frame
scale 1:5

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered

MONDEO

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NOTES:

Cladding

Brick general
- Any metal lintels and flashings to be as per Section 4, Durability, NZS:3604:1999

Brick ties
- Maximum spacing of 600mm horizontally, 350mm vertically.
- Two rows of fixings in the first two courses of veneer panels resting on DPC
- One row of horizontal fixings within 300mm or two courses of the top and bottom edges of any opening
- One row of vertical fixings with 300mm of the edge of open end veneer panels

Further Information

Refer also to: Exterior Joinery Details packing, Sealing, Fixing page.

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Cladding details
Brick.1

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:5	SHEET No.	25 OF 33

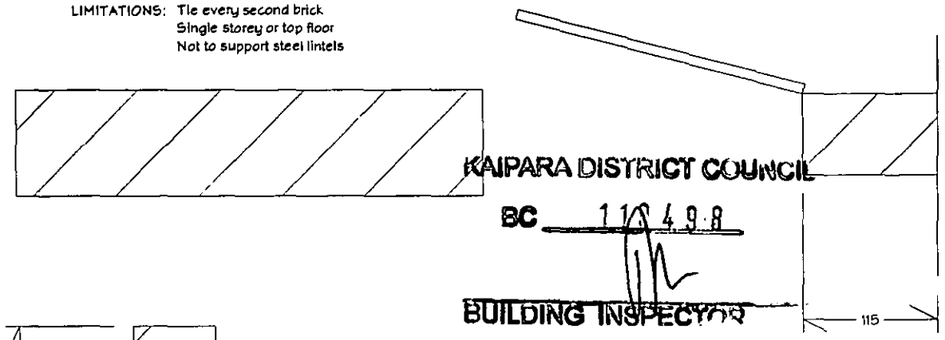
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

PIERS & RETURNS - Brick Veneer Openings & Arches

PLAN VIEW

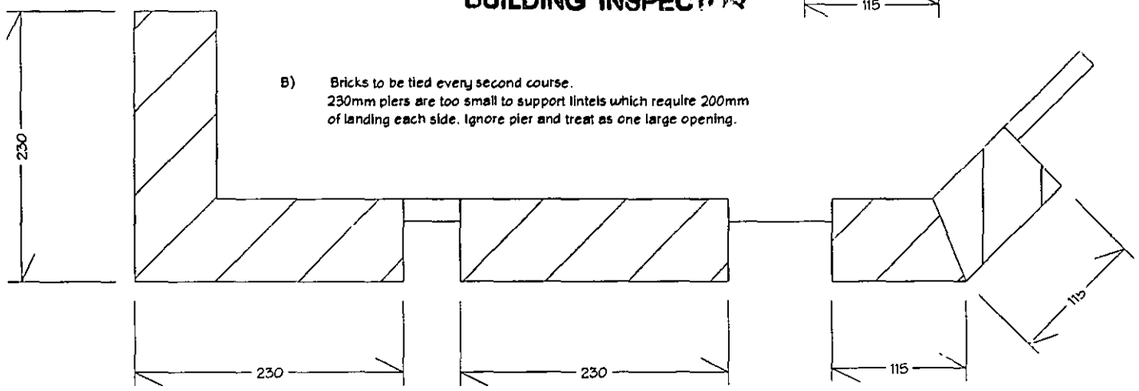
A) Alternative Solution for BCA's when Piers are less than 230mm wide

LIMITATIONS: Tie every second brick
Single storey or top floor
Not to support steel lintels

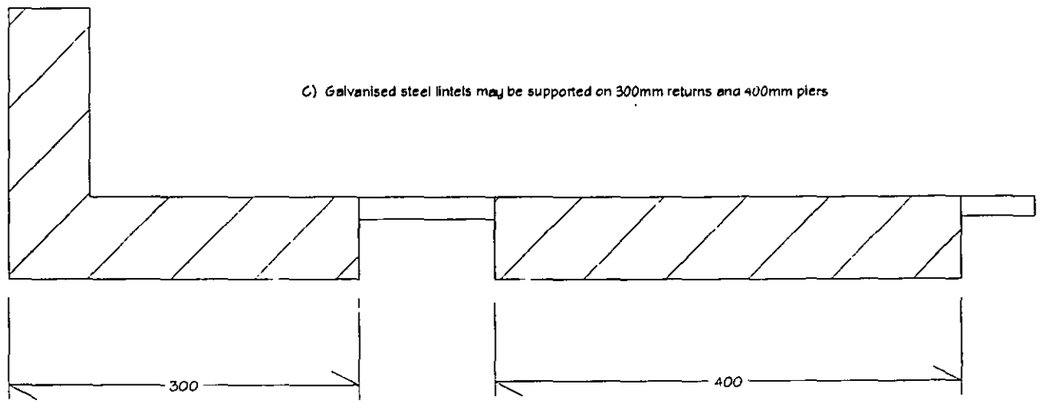


KAIPARA DISTRICT COUNCIL
BC 11549.8
BUILDING INSPECTOR

B) Bricks to be tied every second course.
230mm piers are too small to support lintels which require 200mm of landing each side. Ignore pier and treat as one large opening.



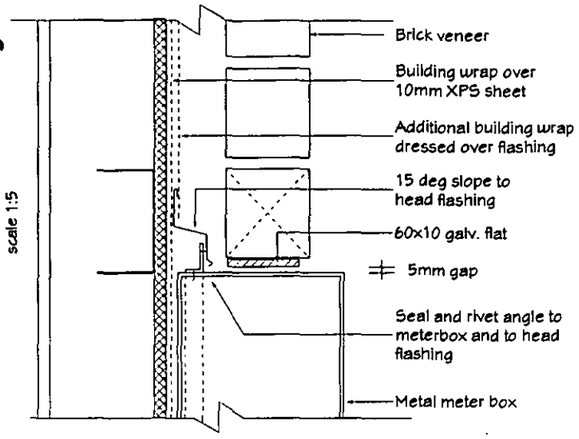
C) Galvanised steel lintels may be supported on 300mm returns and 400mm piers



Note: In most cases where brick veneer is tied to a timber or steel frame, it is in a non-structural situation and the width of the pier is not critical unless it is carrying a lintel load.
Where the dimension of the end support is in question, the load may be transferred to the structural frame using Shelf Angles provided a structural engineer is engaged for a specific design.
General Comment on Concrete Reinforced Arches
Avoid placing reinforced concrete (unless in concrete block form) between two skins of brick veneer to form arches. This may result in long term salt problems on the surface of the bricks due to salts in the concrete. Consult a structural engineer as specific design is required.

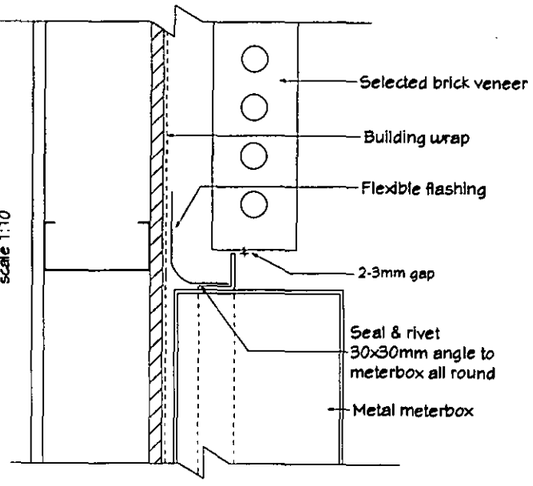
Detail C12 Meter Box Head Flashing

scale 1:5



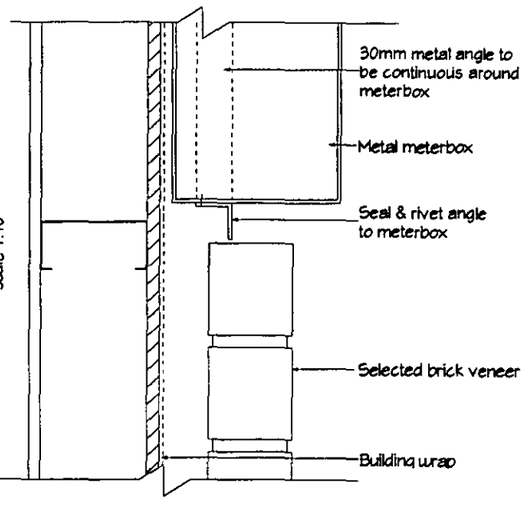
Detail C12 Meter Box Jamb Detail

scale 1:10



Detail C12 Meter Box Sill Detail

scale 1:10



ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

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NOTES:

Cladding

Brick general
- Any metal lintels and flashings to be as per Section 4, Durability, NZS:3604:1999

Brick ties
- Maximum spacing of 600mm horizontally, 350mm vertically.
- Two rows of fixings in the first two courses of venner panels resting on DPC
- One row of horizontal fixings within 300mm or two courses of the top and bottom edges of any opening
- One row of vertical fixings with 300mm of the edge of open end veneer panels

Further Information

Refer also to: Exterior Joinery Details packing, Sealing, Fixing page.

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

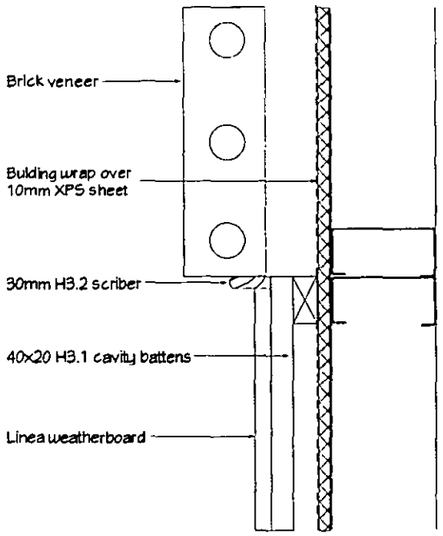
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

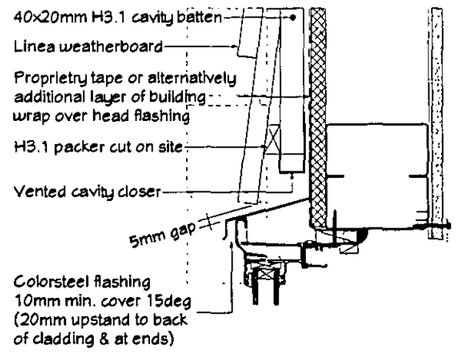
Cladding details
Brick.2

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	As shown	SHEET No.	26 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

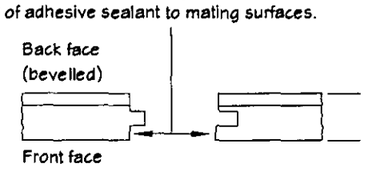


Detail C6
Linea to Brick Abutment
scale 1:5

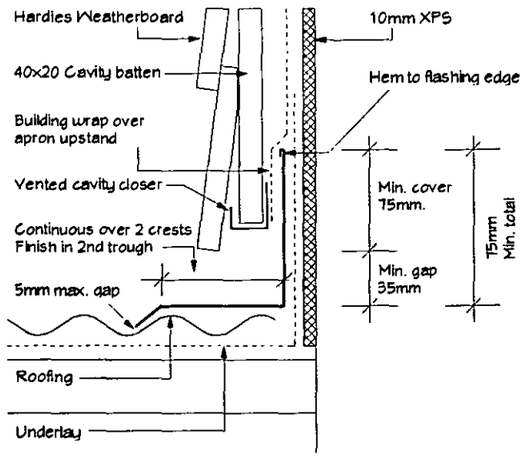


Detail C16
Linea Window Head Between Brick
scale 1:5

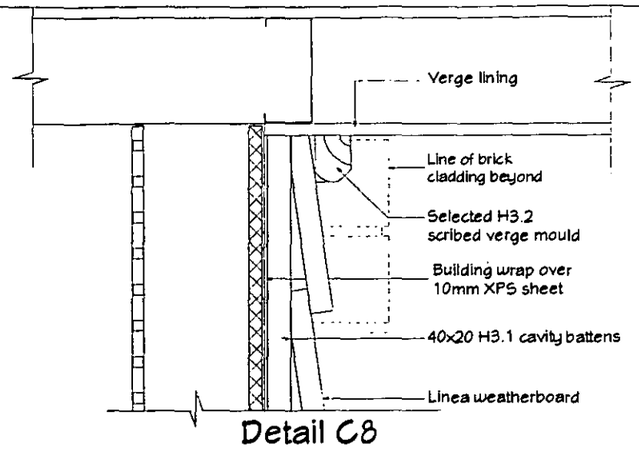
Before pushing end joint together apply a skim coat of adhesive sealant to mating surfaces.



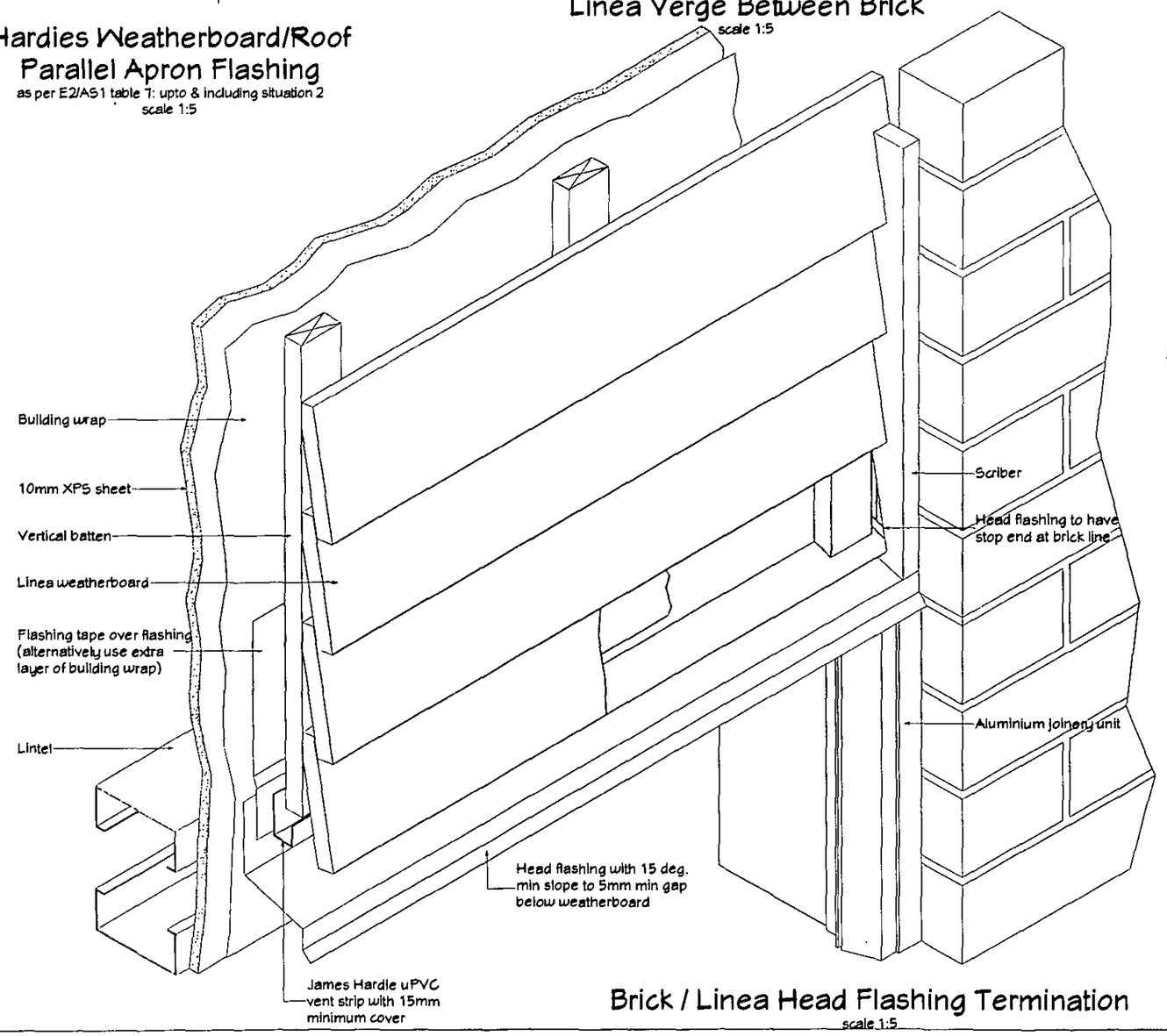
Scale 1:2



Hardies Weatherboard/Roof Parallel Apron Flashing
as per E2/AS1 table 7: upto & including situation 2
scale 1:5



Detail C8
Linea Verge Between Brick
scale 1:5



Brick / Linea Head Flashing Termination
scale 1:5

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered
MONDEO
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NOTES:

Cladding

Linea Weatherboard
- Linea weatherboards installed as per James hardie technical manual & fixed using 10-24x65 Tek screws as per latest ZOG® steel frame manual
- All fixings to be as per the latest ZOG® steel frame manual and comply with Section 4, Durability, NZS:3604:1999

Further Information

Refer also to: Exterior Joinery Details packing, Sealing, Fixing page.

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

DURABILITY
All Brackets and Bolts to be Type 304 Stainless Steel
Brick ties to be type 316 Stainless Steel

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

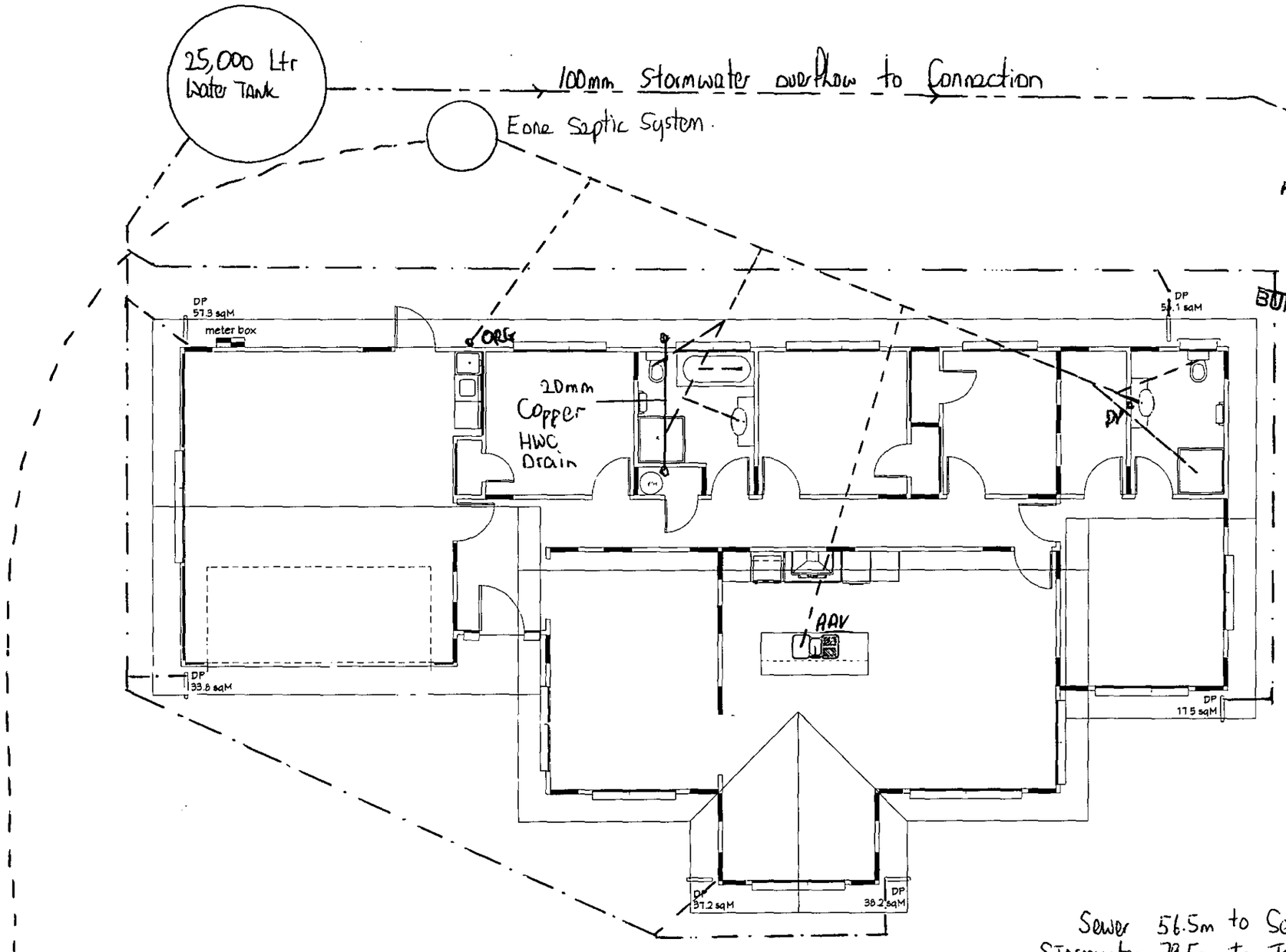
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Cladding details
Linea

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	As shown	SHEET No.	27 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

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NOTES:

This Drainage As-Built page is for the drainlayer to complete and supply for code of compliance if the method/layout of the drainage work has been finalised in a different manner to that shown on the Drainage Plan provided by RCDC limited. In all cases, any variation to the original drawings must comply with the relevant building code and reference to that code stated by the drainlayer.

——— **Bracing Element Lines**

- Holes or intrusions into the ZOG® frame bracing elements may require engineers specific design for remedial work.
- ZOG®must be contacted for an alternative solution prior to any intrusions and/or modifications being made to bracing elements.
- Sewer & stormwater connections are to be confirmed on site prior to commencement of foundations.
- The sewer and stormwater disposal design is the responsibility of the plumber. "RCDC Ltd" takes no responsibility for any errors that may occur. Compliance with all applicable codes are required at all times.
- Drain layer to confirm downpipe locations prior to commencement of construction.
- Maximum roof runoff area per 80mm downpipe must not exceed (85m2 for <26°) (70m2 for >25°)

CLIENT:
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Dune View Drive
Mangawhai

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Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

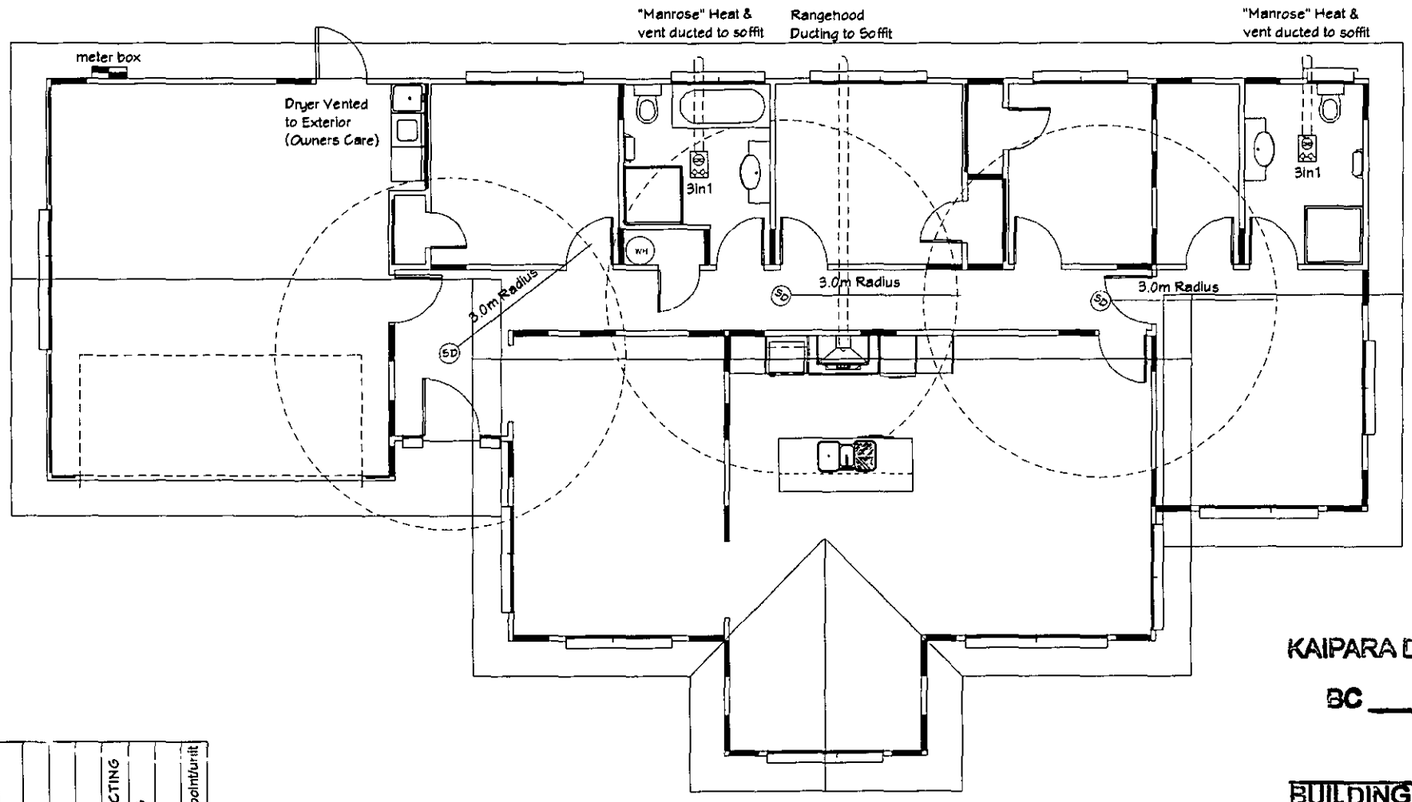
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Drainage plan

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	29 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

NOTE: Avoid placing electrical supply within bracing panels. Holes or intrusions into the ZOG® bracing elements may require engineers specific design for remedial work.



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	RECESSED LIGHTS	2-WAY LIGHT CIRCUIT	DOUBLE PIPOINT	SINGLE PIPOINT	TV OUTLET	TELEPHONE JACK	WALL HEATER	RCD POINT	HEATED TOWEL RAIL	EXTRACTOR FAN & DUCTING	RANGEHOOD DUCTING	SMOKE DETECTORS	AUTO GARAGE DOOR point/unit
FRONT DOOR	1												
REAR DOOR	1												
ENTRY HALL	1											1	
KITCHEN	2		2	3		1					1		
DINING	1		1										
LOUNGE	2		2		2								
FAMILY	2		2										
PASSAGE	3	1	1									2	
WI-ROBE (one only)	1												
MASTER BED	1		2			1							
BEDROOMS	1		1										
STUDY	1		1										
BATHROOMS							1	1	1	1			
TOILET (separate)	1												
VANITY ROOM	1									1			
LAUNDRY	1		1										
GARAGE	1												1

ELECTRICAL ALLOWANCES BY ROOM

Electrical plan is indicative only – refer to specifications for quantities and liaise with electrician to confirm layout on walk through. Allowances to be made for NZBC regulations

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO Altered

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NOTES:

——— Bracing Element Lines

- Holes or intrusions into the ZOG® frame bracing elements may require engineers specific design for remedial work.
- ZOG®must be contacted for an alternative solution prior to any intrusions and/or modifications being made to bracing elements.
- Any switch mounted into plasterboard used as a component in the bracing element must be a minimum of 150mm from the element edge.

Electrical notes

- R/hood & Extractors vented to soffit (or wall if required)
- All recessed lights to be CA-Rated to comply with NZBC clause H1 and installed in accordance with NZECP-54 and manufacturers specifications
- Positions of ventilation ducting is approximate only and to be confirmed by the installer.
- All sizes, locations and installations are to be as per manufacturers specifications, installer to confirm prior to commencement of construction.
- All bathrooms without openable window must have an adequate exhaust fan installed.
- Electrical plan to be read in conjunction with electric details located on the following sheet.

CLIENT:
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Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

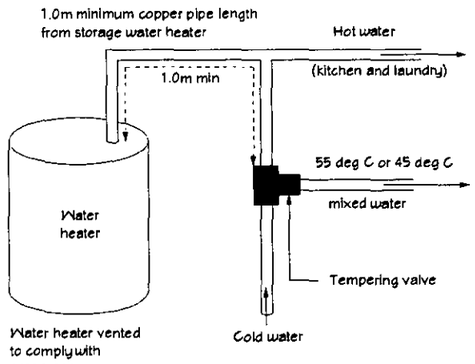
Electrical plan

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	30 OF 33

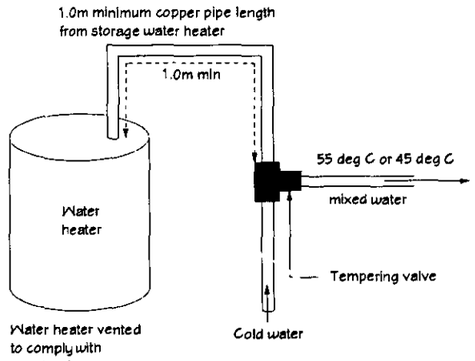
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

TEMPERING VALVE INSTALLATION

REFER TO NZ BUILDING CODE G12 AS1
WATER SUPPLIES SECOND EDITION
Paragrah 6:14.2 a)



(a) With untempered water to laundry and kitchen fixtures and appliances

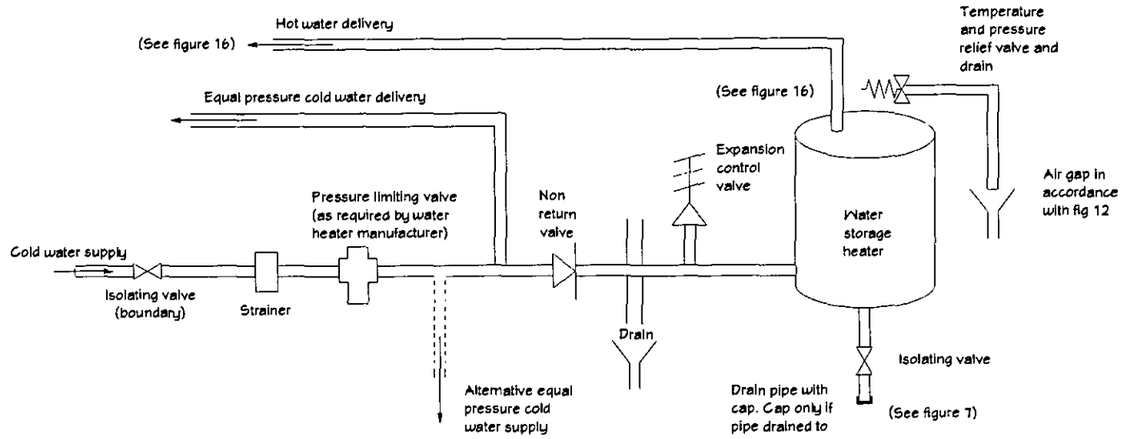


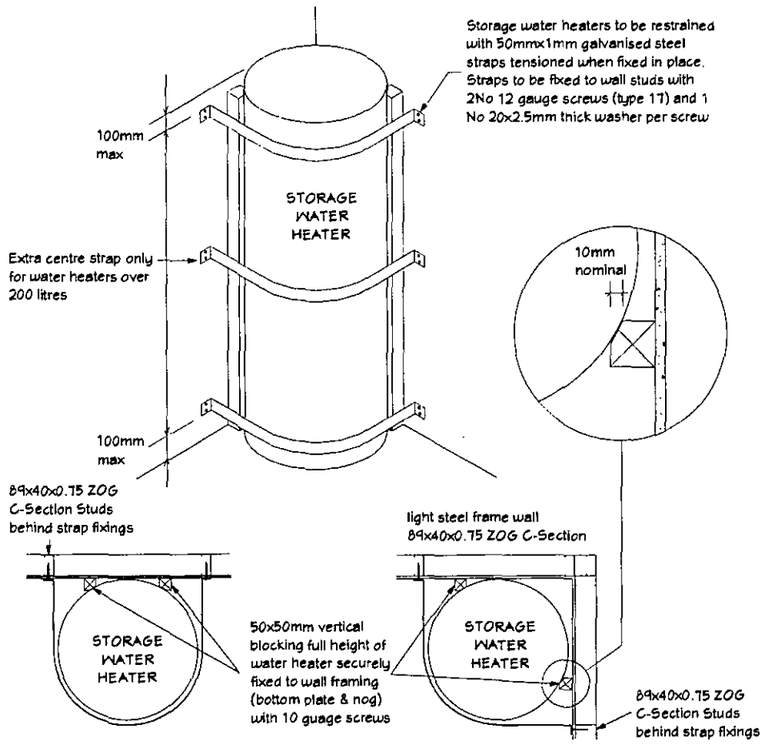
(b) Where all hot water is tempered

Note:
1. For optimum system efficiency the tempering valve, for other than a mains pressure system, may be located as low as practicable to achieve the manufacturer's recommended head, at the tempering valve
2. 1.0m minimum copper pipe length from storage water heater.

MAINS PRESSURE STORAGE WATER HEATER SYSTEM (unvented)

REFER TO NZ BUILDING CODE G12 AS1
WATER SUPPLIES SECOND EDITION
Paragrah 6.1.2 aND 6.2.1 b)

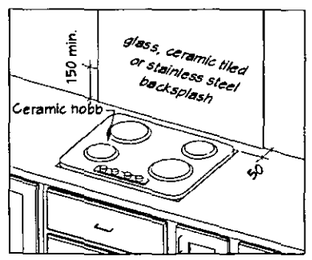




ZOG WATER HEATER SEISMIC CONSTRAINT
90 - 360 litres

To comply with both H1 and G12, a 15mm pipe at 12m max developed pipe length from the HWC to the kitchen sink meets the requirements of the acceptable solutions. As an alternative solution, an increase of up to 50% (Total 18m) can be approved, provided the pipe is insulated over its full length from the HWC with preformed closed cell foam with 13mm wall thickness.
This generic alternative solution is considered to meet the requirements of both G12 and H1"

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BC 110498
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ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: Altered
MONDEO

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NOTES:
- Water heating systems to be installed as per manufacturers specifications
- Tempering Valve to be installed as per NZBC G12 Water Supplies 2nd Edition, refer figure 16. This is an acceptable method of limiting hot water temperature delivered from storage water heaters is to install a mixing device between the outlet of the water heater and the sanitary fixture

CLIENT:
Ainsworth Residence
Lot No. 1, DP 431147
Dune View Drive
Mangawhai

TERRITORIAL AUTHORITY:
Kaipara District Council

GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Water Heater Details

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	1:100	SHEET No.	31 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

INSULATION CALCULATION (Steel frame)

Climate zone : upto and including climate zone 3
as per NZBC - Clause H1, Energy Efficiency - third edition
and NZS:4218 2009, Energy Efficiency – small building envelope

BUILDING DESCRIPTION

All measurements are as per NZS 4218:2009 Appendix A

Building Thermal Envelope					
FLOORS	Total Area	Total Perimeter	Ratio	Total Thermal Floor Area	Actual R-value
Concrete floor	200.80	70.60	2.84	145.73	1.30
Suspended	0.00	0.00	0.00	0.00	0.00
WALLS	Perimeter	Stud height	Total area (incl. glazing)	Glazed area	
Interior wall (garage	5.40	2.42	13.07	0.00	1.60
AAC Panels	0.00	0.00	0.00	0.00	2.19
Brick	50.34	2.42	121.82	29.93	2.07
Weatherboard(16mm Fibre-cement)	0.00	0.00	0.00	0.00	2.12
Weatherboard(7.5mm Fibre-cement)	0.00	0.00	0.00	0.00	2.08
ROOFS	Area				
Trussed (excl. skylight area)	145.73				3.33
Raftered (excl. skylight area)	0.00				0.00
GLAZING	Actual glazing	Max glazing @ 30%	Glazing over 30%		
Glazing	29.93	40.47	0.00		0.26
Sky Lights	0.00				0.26

CALCULATION FOR - Average roof insulation R-value

	Total Area	Area %		Actual R-value
Area of full height batts (a	140.64	96.5%	Actual system R-value (Ar) =	3.36
Area of chamfered batts (b	5.09	3.5%	Actual system R-value (Br) =	2.73
Total thermal roof area	145.73	100.0%	Average system R-value =	3.33

Example calculation: Average R-value = 1/((a%/Ar)+(b%/Br))

REFERENCE BUILDING HEAT LOSS

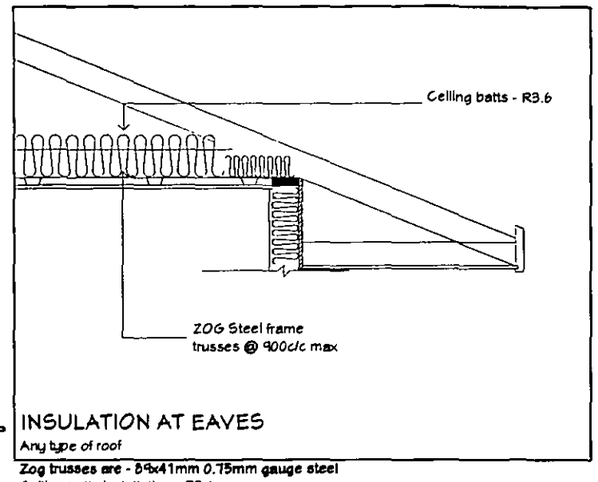
R-values as per NZS:4218 2009

Building Thermal Envelope	Area(sqM)	R-Value(min)	Heat loss(area/r-value)
Roof	145.73	3.30	44.2
Wall	94.42	2.00	47.2
Floor	145.73	1.30	112.1
Glazing ≤ 30%	40.47	0.26	155.6
Glazing > 30%	0.00	0.40	0.0
Sky Lights	0.00	3.30	0.0
Total Heat Loss of the Reference Building			359.1

PROPOSED BUILDING HEAT LOSS

R-values as per BRANZ INSULATION GUIDE - forth edition & REDCO calculations

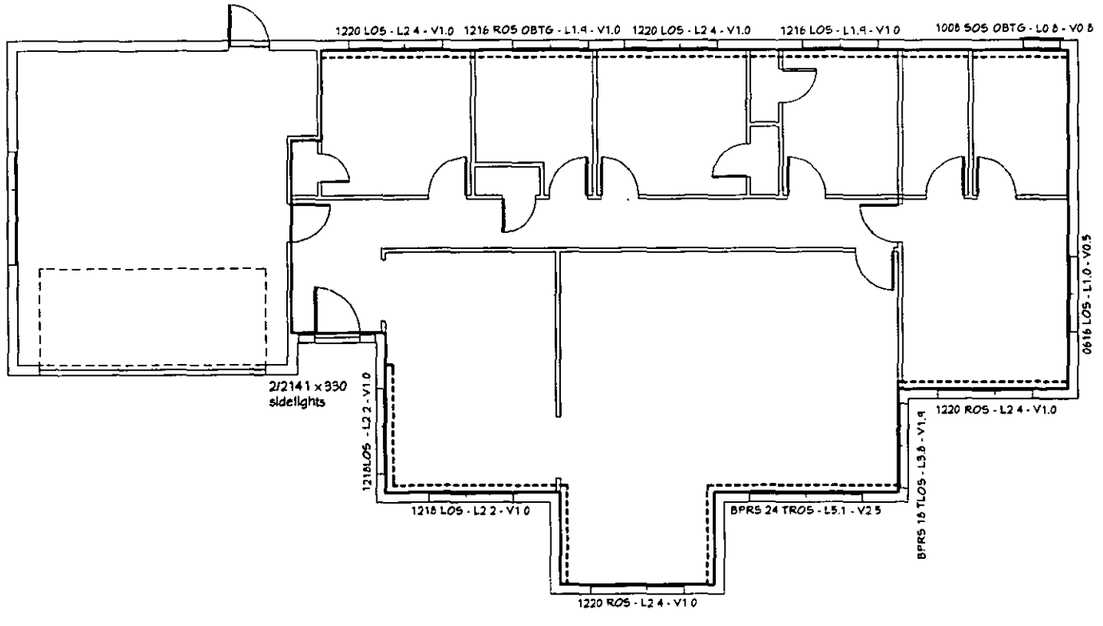
Building Thermal Envelope	Area (sqM)	R-Value	Heat loss (area/r-value)
Trussed (excl. skylight area)	145.73	3.33	43.7
Raftered (excl. skylight area)	0.00	0.00	0.0
Interior wall (garage)	13.07	1.60	8.2
AAC Panels	0.00	2.19	0.0
Brick	91.89	2.07	44.4
Weatherboard(16mm Fibre-cement)	0.00	2.12	0.0
Weatherboard(7.5mm Fibre-cement)	0.00	2.08	0.0
Concrete floor	145.73	1.30	112.1
Suspended	0.00	0.00	0.0
Glazing ≤ 30% *(double)*	29.93	0.26	115.1
Glazing > 30% *(double)*	0.00	0.26	0.0
Sky Lights	0.00	0.26	0.0
Total Heat Loss of the Proposed Building *(Must be less than or equal to the Reference Building)*			315.3



INSULATION AT EAVES
Any type of roof

Zog trusses are - 89x41mm 0.75mm gauge steel
Ceiling batts installation - R3.6
- Batts are to cover the bottom chord of the trusses
- Batts are to be installed in & around truss webs
- At the perimeter of the roof 155mm thick batts are to be chamfered
Batts chamfered from 155mm to 90mm min to roof perimeter to maintain 25mm air gap

KAIPARA DISTRICT COUNCIL
BC 110488
BUILDING INSPECTOR



COMPLYING CONSTRUCTION

ROOF	= Metal tiles, Trusses @ 900c/c, R 3.6 BATTS & 13mm Glb board	= R3.33 total rating
WALL	=70mm Brick w/drained cavity, 89x41mm Steel framing @600c/c, R 2.2 BATTS & 9.5mm Glb board	= R2.07 total rating
FLOOR	= Perimeter footing & 100mm Concrete slab	= R1.30 total rating
GLAZING	= Double glazed aluminum unit, no thermal break	= R0.26 total rating

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG steel frames of the future today

PLAN NAME: MONDEO — Altered

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NOTES:
——— Edge of thermal roof area
------- Start of chamfered edge

REFERENCE DOCUMENTS:
- R-value calculations by Redco
- NZBC - Clause H1, Energy efficiency, third edition
- NZS:4218, 2009
- Branz insulation guide, third edition
- NASH N-10 version 1.2 Thermal break and cavity construction

THERMAL BREAKS:
External walls:
Thermal break is achieved by first installing a 25mm HD EPS block under all connections between truss & wall top plates (ref NASH N-10 V1.2 pg14) and secondly by sheathing the external perimeter with 10mm XPS polystyrene under the building wrap.
Roof:
Thermal break is achieved by installing the insulation as a blanket type, over the bottom chords and in & around the truss webs. (ref NASH N-10 V1.2 Appendix B pg50)
Lights:
All recessed lights to be CA-Rated

CLIENT:
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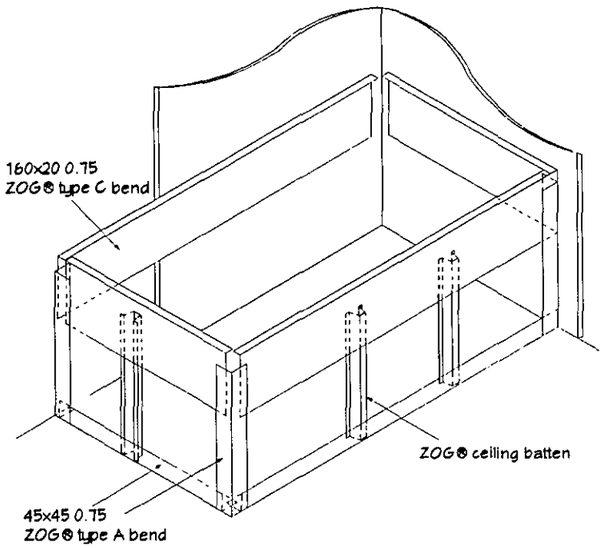
GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

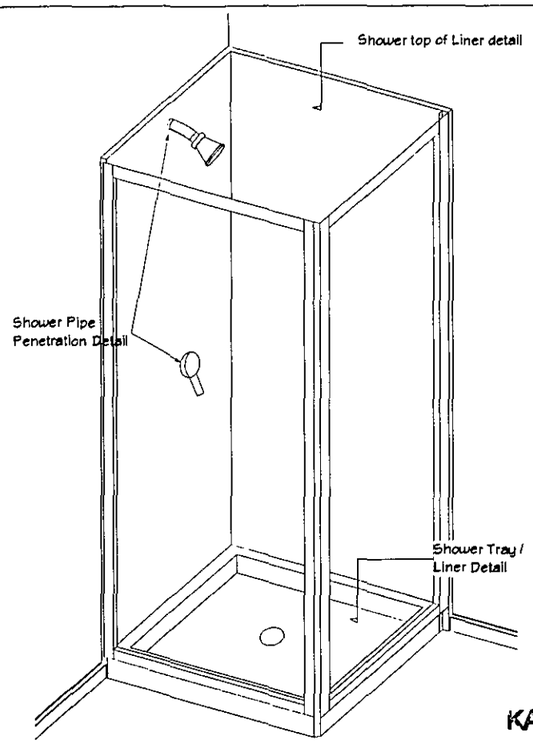
Insulation Requirements

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	N.T.S	SHEET No.	32 OF 33

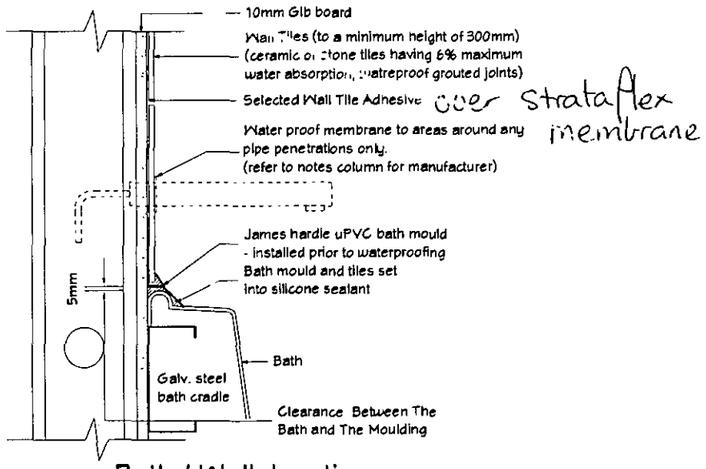
RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



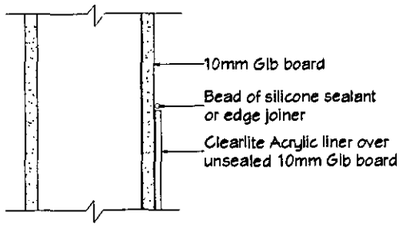
Bath Framing Detail



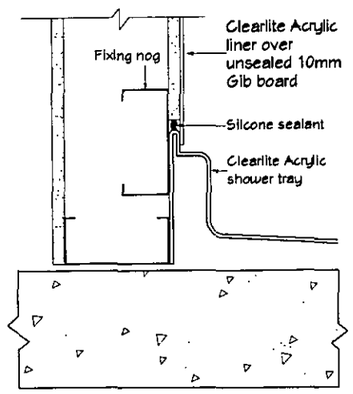
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BC 110498
BUILDING INSPECTOR



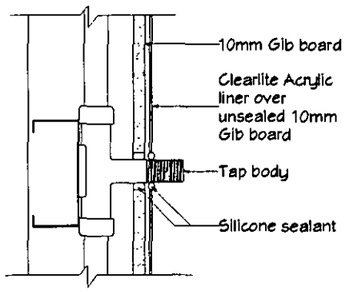
Bath / Wall Junction



Shower Top of Liner



Shower Tray / Liner
(no sealant should be visible inside shower)



Note: Where impact noise from pipes is an issue fix all pipes on resilient brackets.

Shower Liner
Penetration Detail

ZANO Limited
Phone: (09) 478 0440

[redacted]

Frames by: ZOG
steel frames of the future today

PLAN NAME: Altered

MONDEO

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NOTES:

Shower Liner

- Details in accordance with acrylic shower tray and liner specifications.
- All fixings to be as per the latest ZOG® steel frame manual and comply with Section 4, Durability, NZS:3604:1999
- If shower liner finishes less than 300mm above shower spout, then finish sheet linings above liner with vinyl coated, or semi-gloss or gloss coating. Ref: E3/AS1 3.1.2 f)

Watersplash Area Floor Options as per NZBC E3 clauses 3.1.1 &D1 AS1/VM1

Due to the finish variations required by the owner from time to time, the list below is provided as suitable options for floor coverings in watersplash areas.

- Tiled - Ceramic or stone tiles having 6% maximum water absorption, waterproof grouted joints, and bedded with an adhesive specified by the tile manufacturer as being suitable for the tiles, substrate material and the environment use.
- Integrally waterproof sheet material (e.g. polyvinylchloride "viny") with sealed joints.
- Cement based solid plaster or concrete having a steel trowel or polished finish, ("semi-gloss" or "gloss" paint must be used if paint finish required).

Contractors are to supply manufacturers specifications and details relating to the system used along with a producer statement for attaching to the code of compliance application for any finishes in watersplash areas.

CLIENT:
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GEOGRAPHICAL ZONES:
Suitable for Zones upto & including

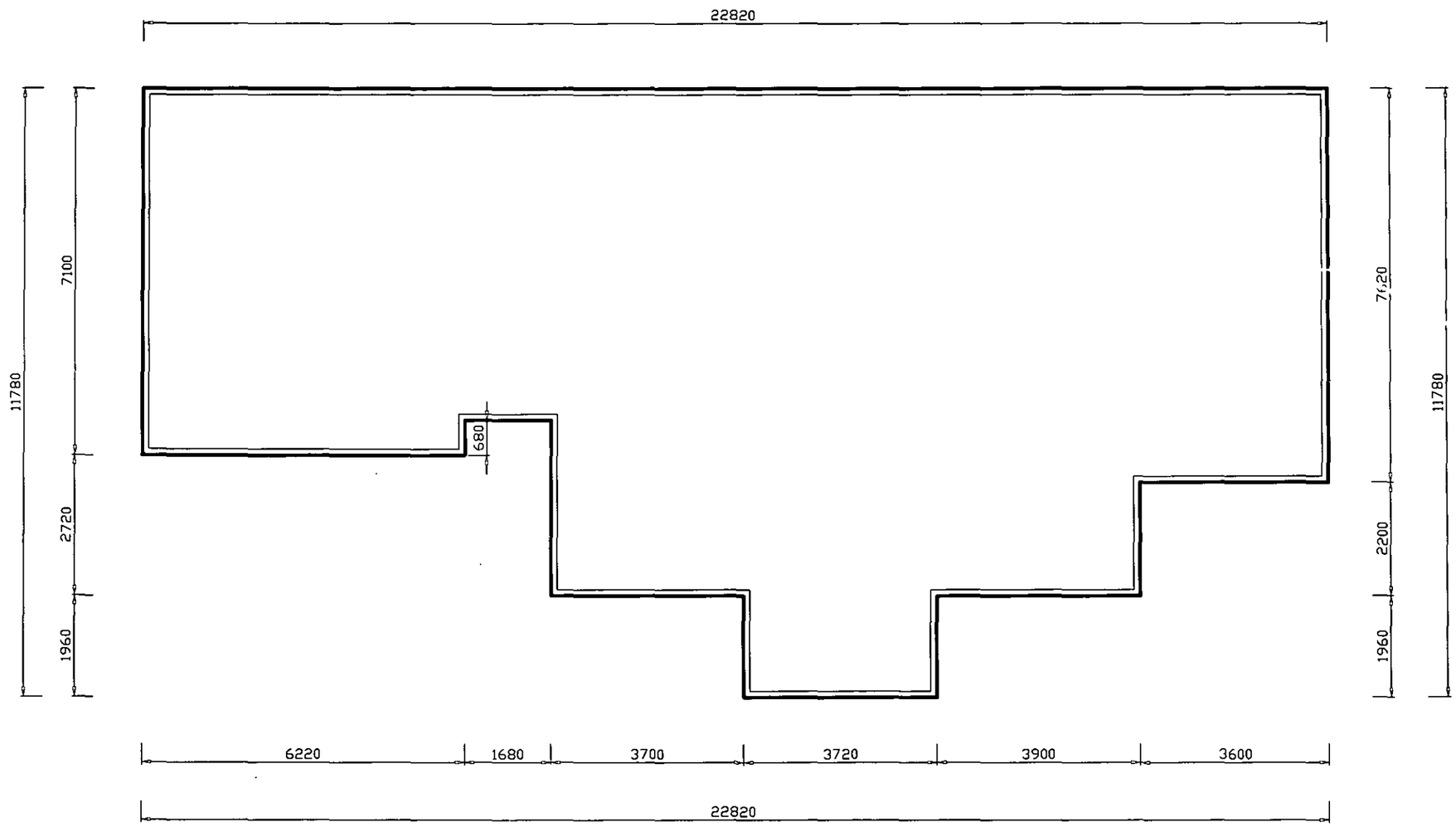
Wind Zone:	High
Earthquake Zone:	C
Climate Zone:	1
Corrosion Zone:	Seaspray
Snowload:	0.0 kPa

Watersplash Area Details

DRAWN:	RCDC Ltd	BP101182 - Design 2	
JOB No.	30160	CHECKED:	
ZOG No.	Z1099	DATE:	13/09/2011
SCALE:	As shown	SHEET No.	33 OF 33

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

COUNCIL



KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

Building Outline

DATE DRAWN 12-09-2011	DRAWN DANE	VIEW NAME 1 of 6	JOB DETAILS AINSWORTH RESIDENCE DUNE VIEW DRIVE MANGAWHAI
DWG FILE Drawing2	CHECKED JDE	SCALE 1:100	

NOTES
THIS PAGE IS FOR DETAILING USE ONLY.

NO MODIFICATIONS TO WALL FRAMES OR ROOF TRUSSES ARE TO BE UNDERTAKEN WITHOUT OBTAINING WRITTEN INSTRUCTION FROM "ZOG" MANUFACTURING

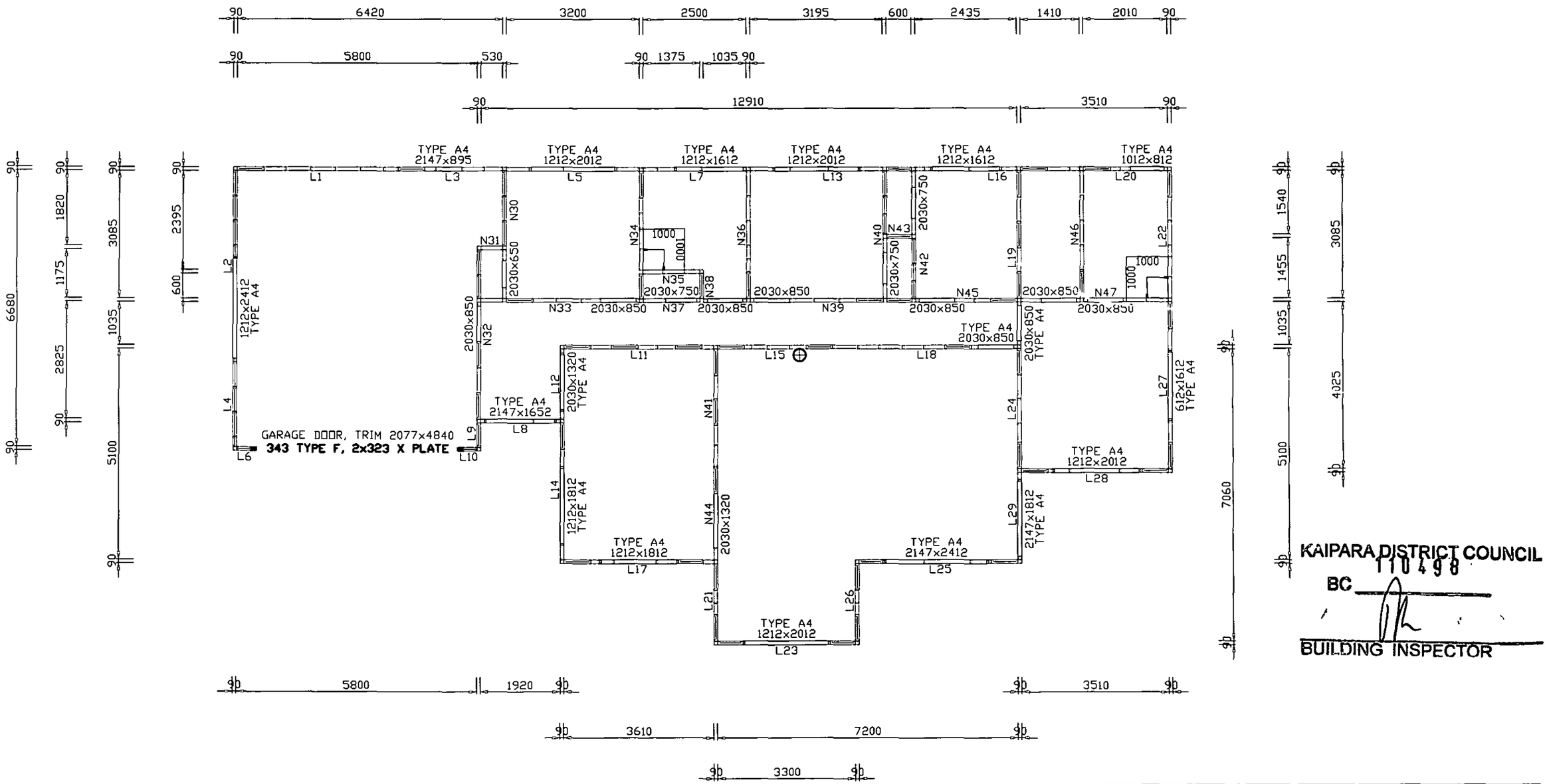
JOB REFERENCE
Z1099 / 30160

steel frames of the future today

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

stem Types Found		SFS-Master-ZOG
nd Load Found (m/s)		W44
ad Types Found		Sheet
oor Types Found		Concrete
Wall Summary		
ad Bearing Walls	29	84290
n Load Bearing Walls	18	47405

NOTE: ALUMINIUM LINERS TO DOORS AND WINDOWS



KAIPARA DISTRICT COUNCIL
T10498
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BUILDING INSPECTOR

NOTES
LOAD BEARING WALLS ARE LABLED WITH AN 'L'
NON LOAD BEARING WALLS ARE LABLED WITH AN 'N'
THIS LAYOUT IS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL PLANS
ANY DISCREPANCIES TO BE REPORTED IMMEDIATELY TO ZOG MANUFACTURING

ZOG C SECTION STUDS @ 600c/c MAX

REPAIRS TO DAMAGED COMPONENTS MAY BE UNDERTAKEN IN THE METHODS SHOWN IN THE LATEST ZOG MANUAL

Floor Framing Layout

steel frames of the future today

DATE DRAWN	DRAWN	VIEW NAME
12-09-2011	DANE	2 of 6
DWG FILE	CHECKED	SCALE
Drawing2	JDF	1:100

JOB DETAILS
AINSWORTH RESIDENCE
DUNE VIEW DRIVE
MANGAWHAI

NO MODIFICATIONS TO WALL FRAMES OR ROOF TRUSSES ARE TO BE UNDERTAKEN WITHOUT OBTAINING WRITTEN INSTRUCTION FROM "ZOG" MANUFACTURING

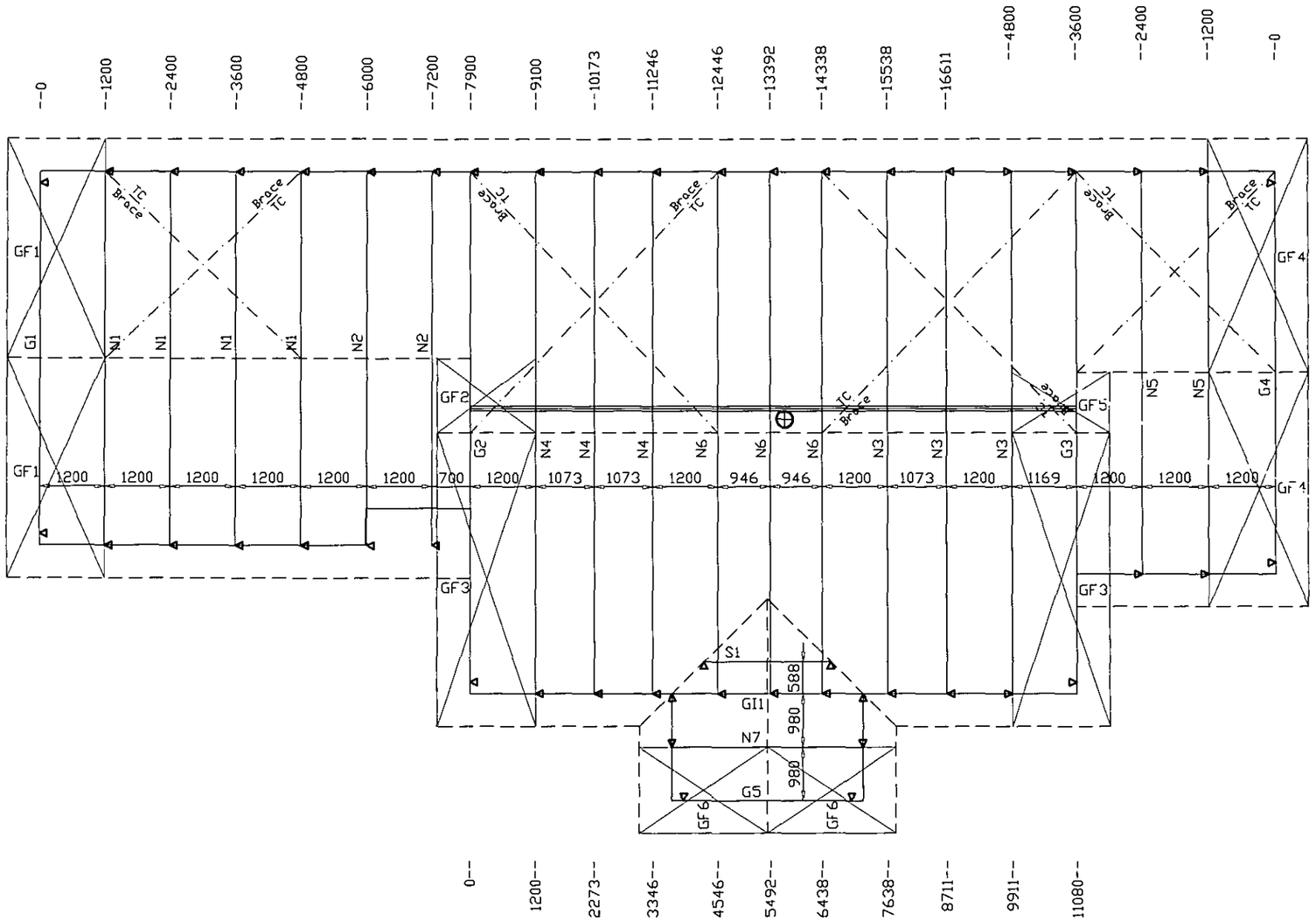
JOB REFERENCE
Z1099 / 30160

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

·stem	SFS-P90-GH
rid Load (m/s)	W44
ıof Load (kPa)	SHEET
TC Dead Load	0.120
TC Live Load	0.250
BC Dead Load	0.140
BC Live Load	0.000
·uss Pitch	25.000
ıd Batten Spacing	900
t Batten Spacing	1200
ıttom Chord Restraints	600

Truss Summary

ıble Truss	5	34750
tandard Truss	18	145620
ıddle Truss	1	1626
rder Truss	1	3480
ıble Frame	10	17560



KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

LUMBERLOK STRIP BRACE WITH TENSIONERS
as per
NASH 3405:2006 Section 10.4.

Roof Truss Layout

DATE DRAWN 12-09-2011	DRAWN DANE	VIEW NAME 3 of 6	JOB DETAILS AINSWORTH RESIDENCE DUNE VIEW DRIVE MANGAWHAI
DWG FILE Drawing2	CHECKED JDF	SCALE 1:100	

NO MODIFICATIONS TO WALL FRAMES OR ROOF TRUSSES ARE TO BE UNDERTAKEN WITHOUT OBTAINING WRITTEN INSTRUCTION FROM "ZOG" MANUFACTURING

JOB REFERENCE Z1099 / 30160

steel frames of the future today

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

FOR ALL FIXINGS ABOVE TYPE 'S' PLEASE ADD
'10 GAUGE SCREWS TO THE NEAREST STUD,
2 EACH SIDE OF THE STUD TO TOP PLATE
AND STUD TO BOTTOM PLATE CONNECTION.

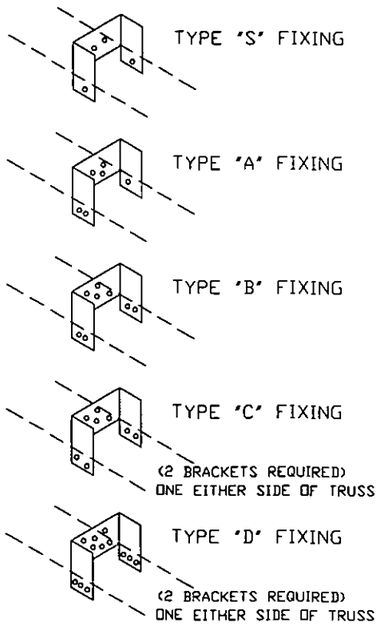
ANCHOR BOLTS ARE REQUIRED WITHIN 100MM
OF THE NEAREST STUD CENTRE. ANCHOR TYPES
ARE NOTED IN THE CHAT ABOVE. REFER TO THE
LATEST ZOG MANUAL FOR BOLT & WASHER DETAILS

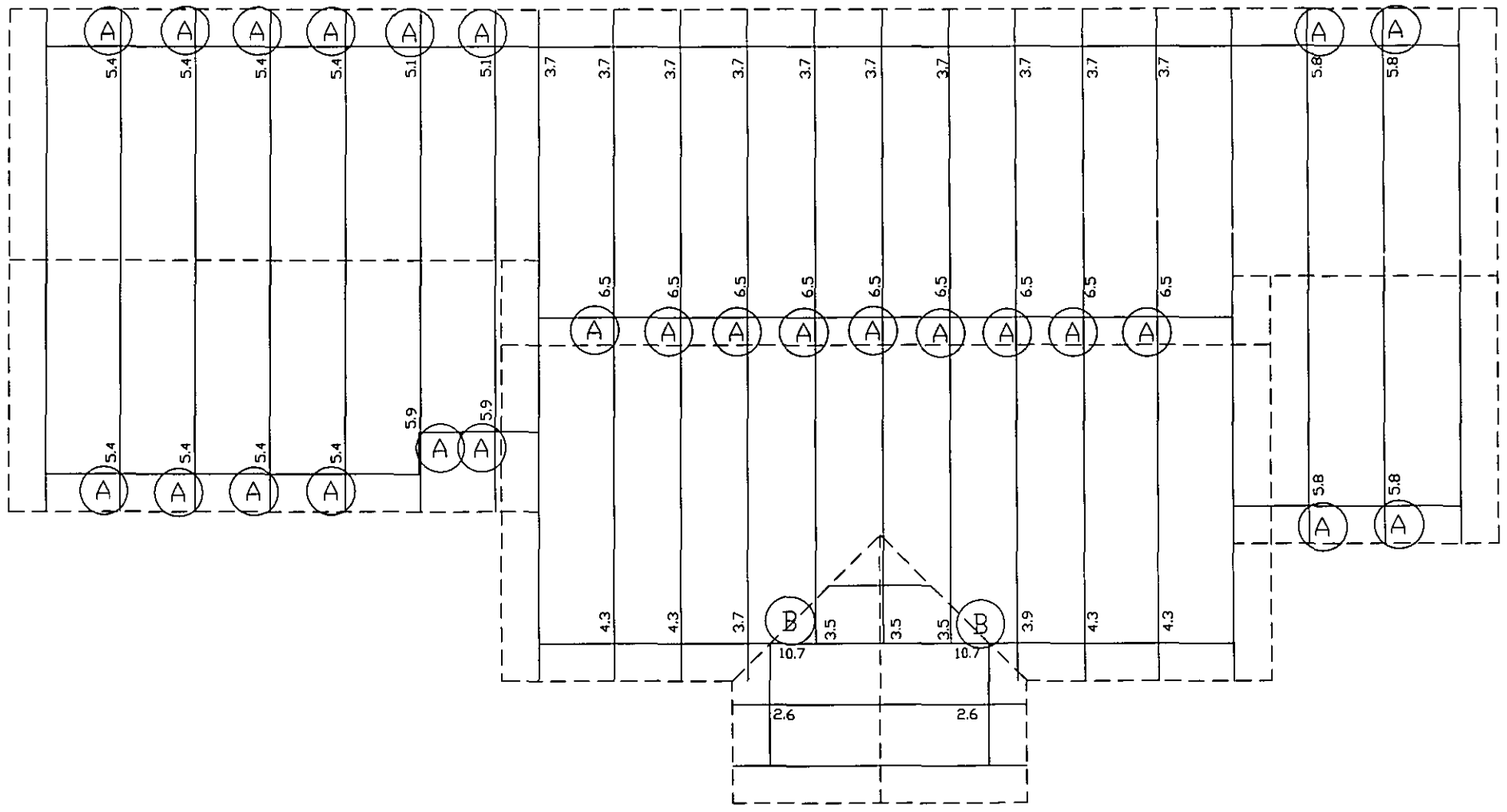
TYPE	S	A	B	C	D
TOTAL SCREWS	2	4	6	8	12
FIXING RATING	5.00KN	10.00KN	15.00KN	20.00KN	30.00KN

ALL FIXINGS ARE TYPE 'S' UNLESS NOTED OTHERWISE
SCREWS MUST BE FIXED IN SHEAR FOR CORRECT KN

INTERNAL POINT LOADING PADS ARE REQUIRED UNDER
STUDS SUPPORTING GREATER THAN 35.0m2 OF ROOF

REFER TO ZOG MANUAL FOR ALTERNATE HOLD-DOWNS





KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

Truss Connection Plan

zog® steel frames of the future today

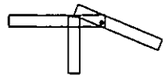
DATE DRAWN	DRAWN	VIEW NAME
12-09-2011	DANE	4 of 6
DWG FILE	CHECKED	SCALE
Drawing3	JDE	1:100

JOB DETAILS
AINSWORTH RESIDENCE
DUNE VIEW DRIVE
MANGAWHAI

NO MODIFICATIONS TO WALL FRAMES OR ROOF TRUSSES ARE TO BE UNDERTAKEN WITHOUT OBTAINING WRITTEN INSTRUCTION FROM "ZOG" MANUFACTURING

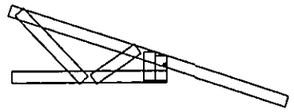
JOB REFERENCE
Z1099 / 30160

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC



ADDITIONAL 2 of 10g TEKS TO TOP CHORD INTERSECTION

TO TRUNCATED TRUSSES



ADDITIONAL 2 of 10g TEKS TO STRENGTHEN EXTENSIONS

TO TRUSS EXTENSIONS

L26	L8	L12	L6	L10
L25		N36		
L16		N34		
N39		N30		
L7	N45		N44	
L27		L5		
N46	L15		N35	

L19		L22		
L29	L4	L21	N38	N43
N33		L28		
L18		L24		
L13		L23		
N40	N42		L9	N31
L2		N41		
N37	L3		L20	
L11		L17		
N32		L14		
L1		N47		

KAIPARA DISTRICT COUNCIL
BC 110498
BUILDING INSPECTOR

Panel Stacking

steel frames of the future today

DATE DRAWN 12-09-2011	DRAWN DANE	VIEW NAME 5 of 6	JOB DETAILS AINSWORTH RESIDENCE DUNE VIEW DRIVE MANGAWHAI
DWG FILE Drawing2	CHECKED JDE	SCALE 1:100	

NOTES
THIS PAGE IS FOR FACTORY USE ONLY.

NO MODIFICATIONS TO WALL FRAMES OR ROOF TRUSSES ARE TO BE UNDERTAKEN WITHOUT OBTAINING WRITTEN INSTRUCTION FROM "ZOG" MANUFACTURING

JOB REFERENCE
Z1099 / 30160

RECEIVED: 31 Aug 2012 SCANNED: 31 Aug 2012 BOX: 2 BATCH: 95241 DOC: KDCAAPQC

Code Compliance Certificate 110498

Form 7, Section 95, Building Act 2004

J & G Ainsworth
C/- Zano Ltd
PO Box 301-275
Albany 0725

Issue Date: 24/05/12
Overseer: Eastern

THE BUILDING:

Street Address of Building:	DUNE VIEW DRIVE, MANGAWHAI
Valuation Number:	0122188727
Legal Description:	LOT 1 DP 431147
Building Name:	
Location of Building within site/block number:	
Level/Unit Number:	
Current Lawfully Established Use:	Housing Detached - New Dwelling with attached garage
Year First Constructed:	

THE PROJECT:

Description:	New dwelling with attached garage NEW (& PREBUILT) HOUSE, UNIT, BACH, CRIB, TOWN HOUSE
Type of Work:	
Intended Use:	Housing detached - New Dwelling with attached garage
Intended Life:	Indefinite, but not less than 50 years
Stages:	Being Stage 1 of an intended 1 Stages

THE OWNER:

Owners Name:	J & G Ainsworth			
Owners Mailing Address:	9 Limerick Place, Botany Downs			
Street Address/Registered Office:				
Phone Number	**Landline:** 09 273 4251	**Daytime:**		**After Hours:**
	Mobile:	**Fax:**		
Email:	jainsworth@slingshot.co.nz		**Website:**	

FIRST POINT OF CONTACT:

First Point of Contact:	Full Name: J & G Ainsworth Mailing Address: C/- Zano Ltd, PO Box 301-275, Albany 0725 Phones:: 09 478 0440 Fax: 09 475 9058 Email: pete.clouston@goldenhomes.co.nz

BUILDING WORK:

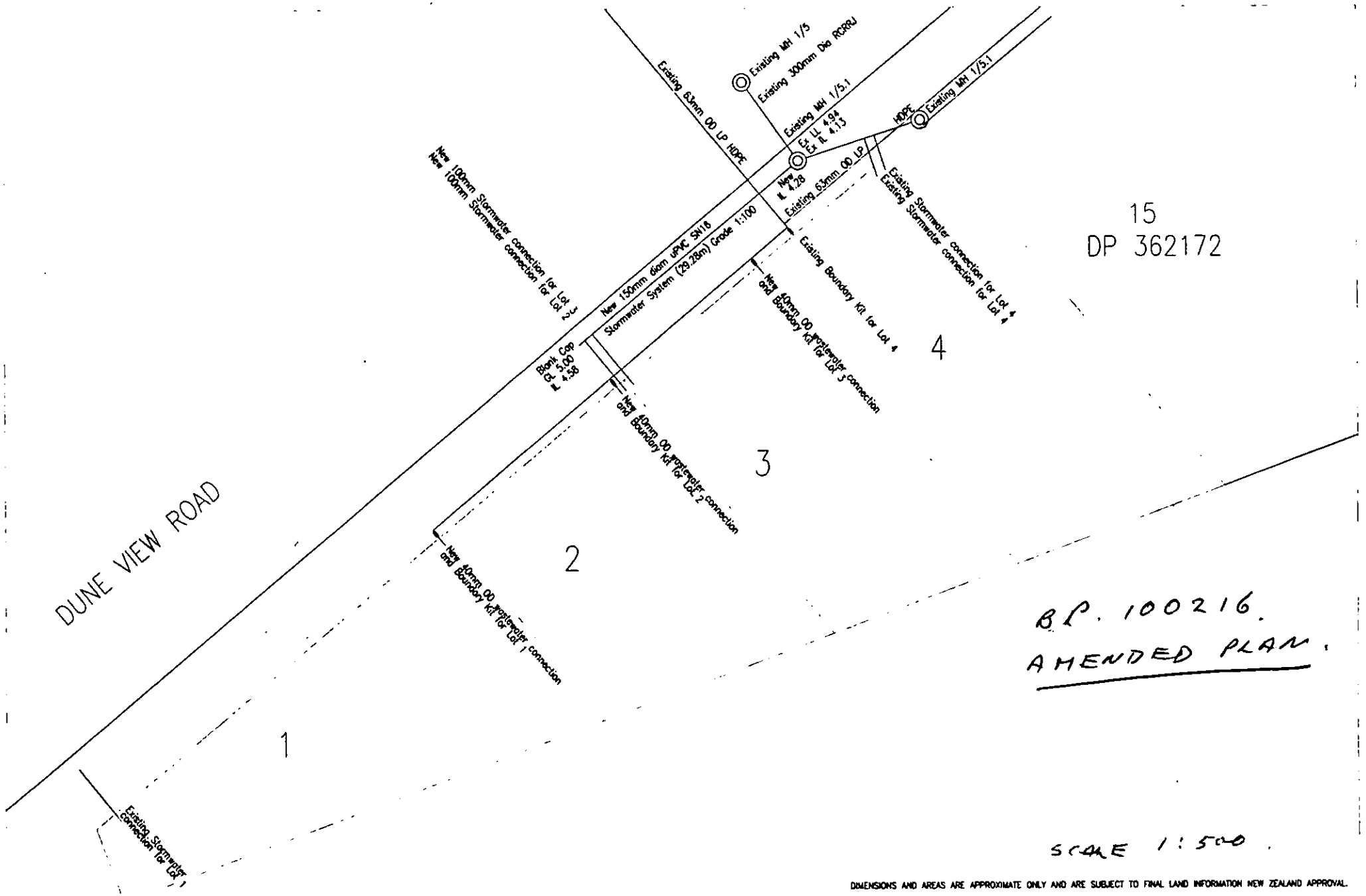
Building Consent Number:	110498
Issued By:	Kaipara District Council

This Code Compliance Certificate is issued by the Kaipara District Council. As the Building Consent Authority it is satisfied, on reasonable grounds that :

- the building work complies with the Building Consent 110498

Signature Derek Free **Date:** 24/05/12 **Position** Building Services Officer

On behalf of: Kaipara District Council



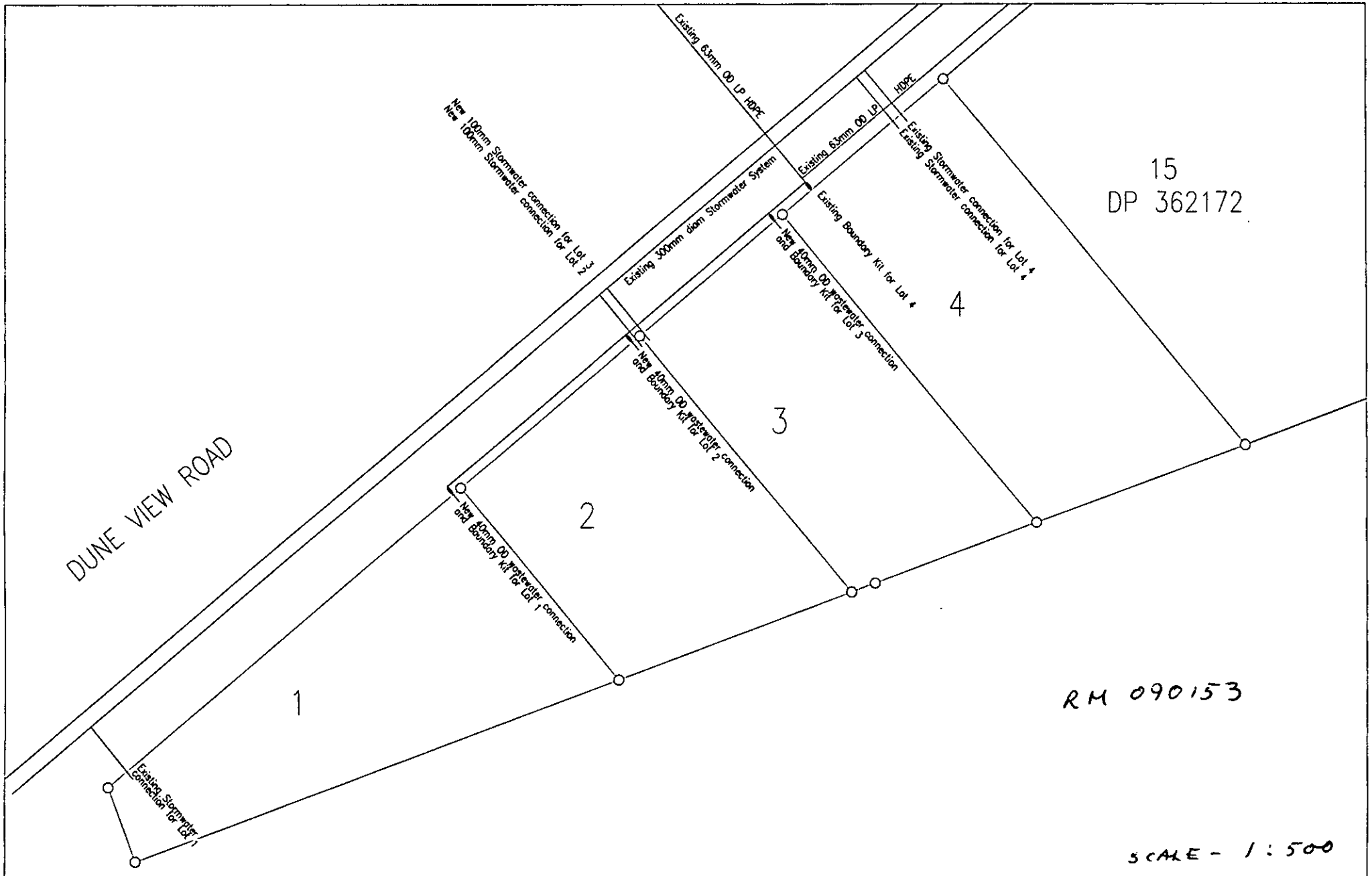
DIMENSIONS AND AREAS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL LAND INFORMATION NEW ZEALAND APPROVAL.

Plan Showing Existing & Proposed Sanitary Sewer and Stormwater Connections - RM[illegible]

Porter Irgton Holdings Ltd
REGISTERED SURVEYORS
PHONE - (09) ~~435-6990~~ 43,4138

DATE - March 2010
SCALE - 1: 250(A2)
JOB - 2010

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY



Plan Showing Existing & Proposed Sanitary Sewer and Stormwater Connections – RM090153	Portarlington Holdings Ltd REGISTERED SURVEYORS PHONE - (09) 425 5990	DATE - March 2010 SCALE - 1: 250(A2) JOB - 2010

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY

NOTES

All work to be carried out in accordance with the Kaipara District Council Engineering Standards 2009

STORMWATER

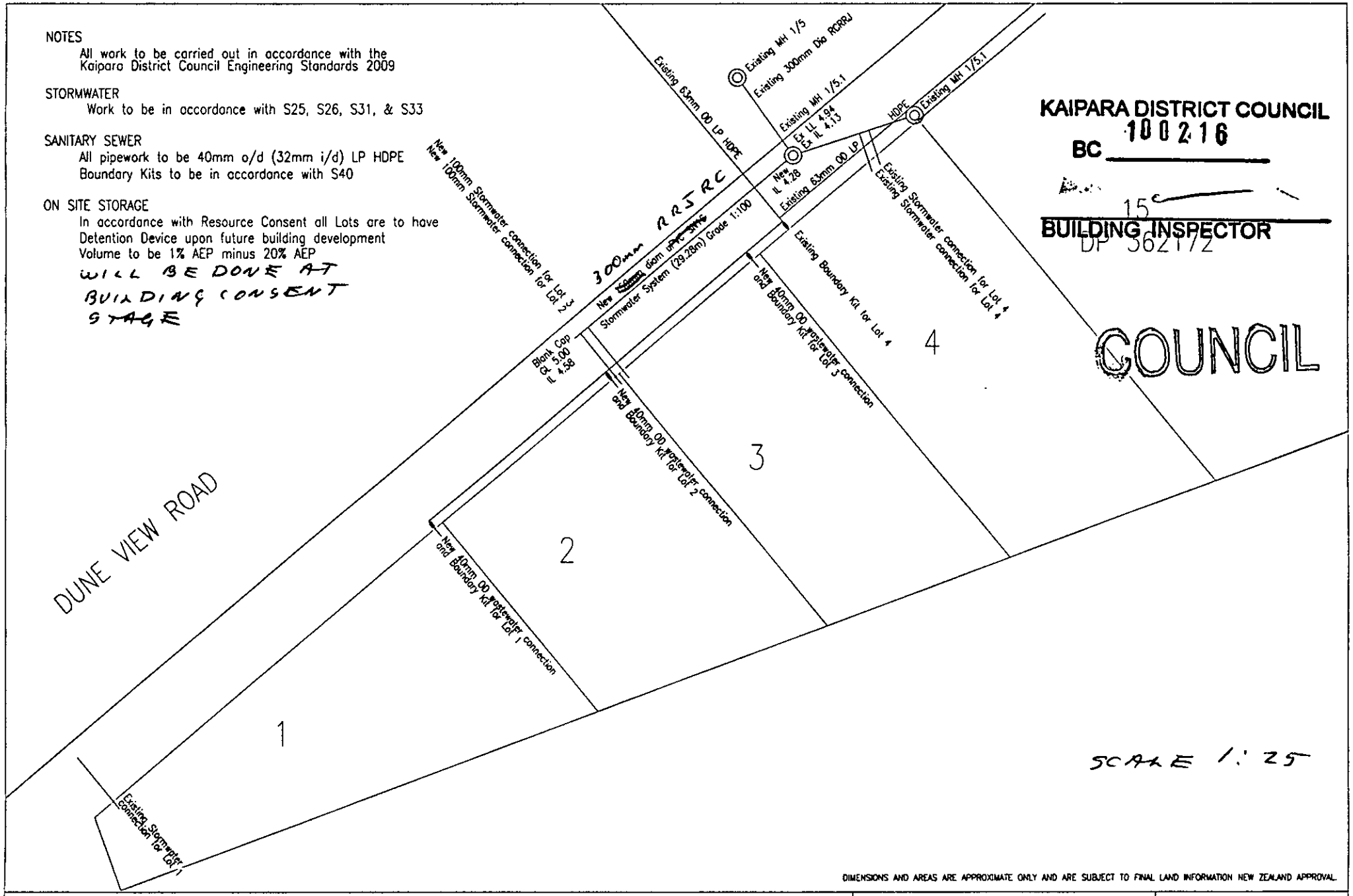
Work to be in accordance with S25, S26, S31, & S33

SANITARY SEWER

All pipework to be 40mm o/d (32mm i/d) LP HDPE
Boundary Kits to be in accordance with S40

ON SITE STORAGE

In accordance with Resource Consent all Lots are to have Detention Device upon future building development
Volume to be 1% AEP minus 20% AEP
WILL BE DONE AT BUILDING CONSENT STAGE



KAIPARA DISTRICT COUNCIL
BC 100216
15
BUILDING INSPECTOR
DP 362172

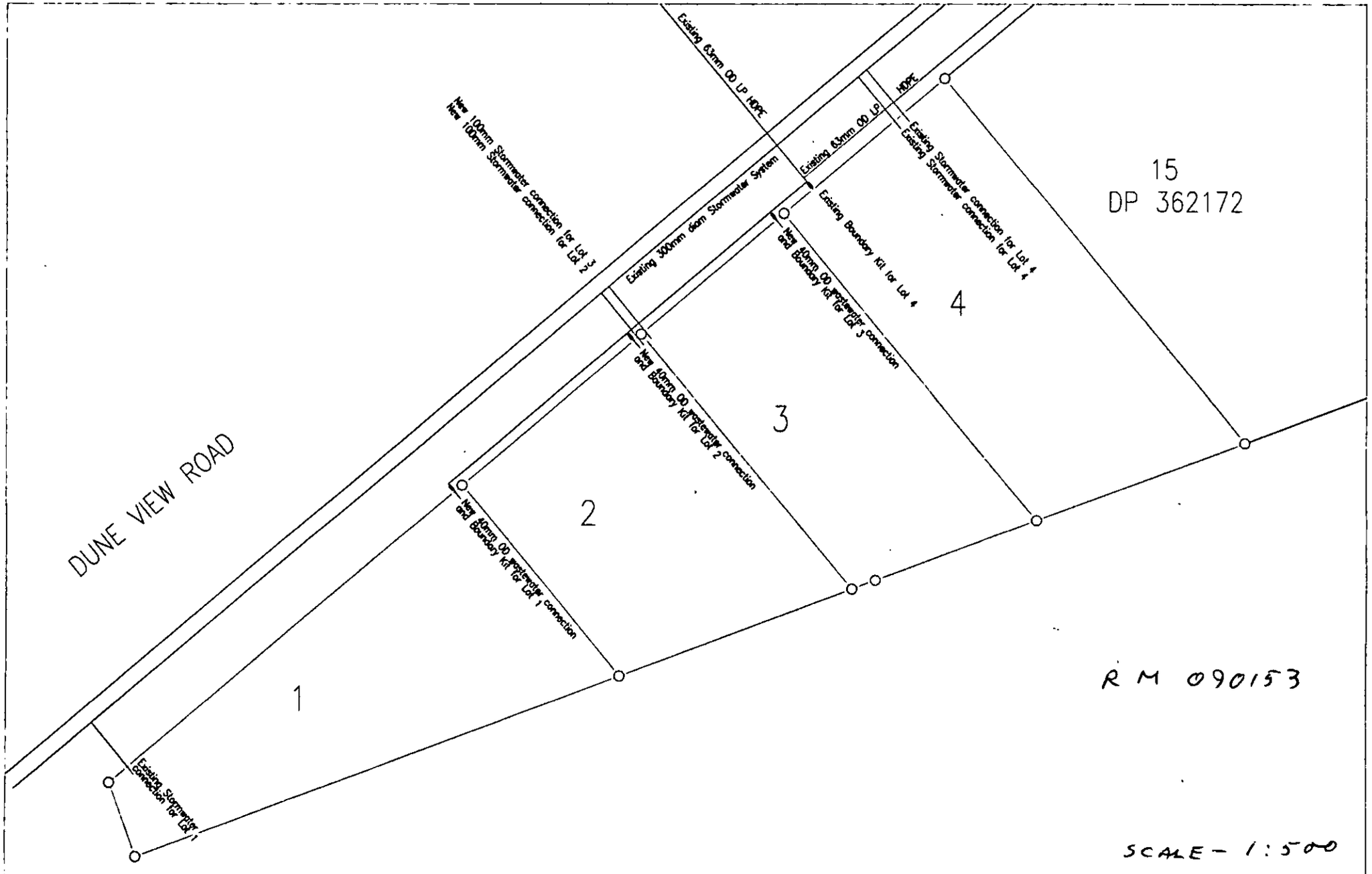
COUNCIL

SCALE 1:25

DIMENSIONS AND AREAS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL LAND INFORMATION NEW ZEALAND APPROVAL.

Plan Showing Existing & Proposed Sanitary Sewer and Stormwater Connections – RM090153	Portarlington Holdings Ltd REGISTERED SURVEYORS PHONE - (09) 425 5990	DATE – March 2010 SCALE – 1: 250(A2) JOB – 2010

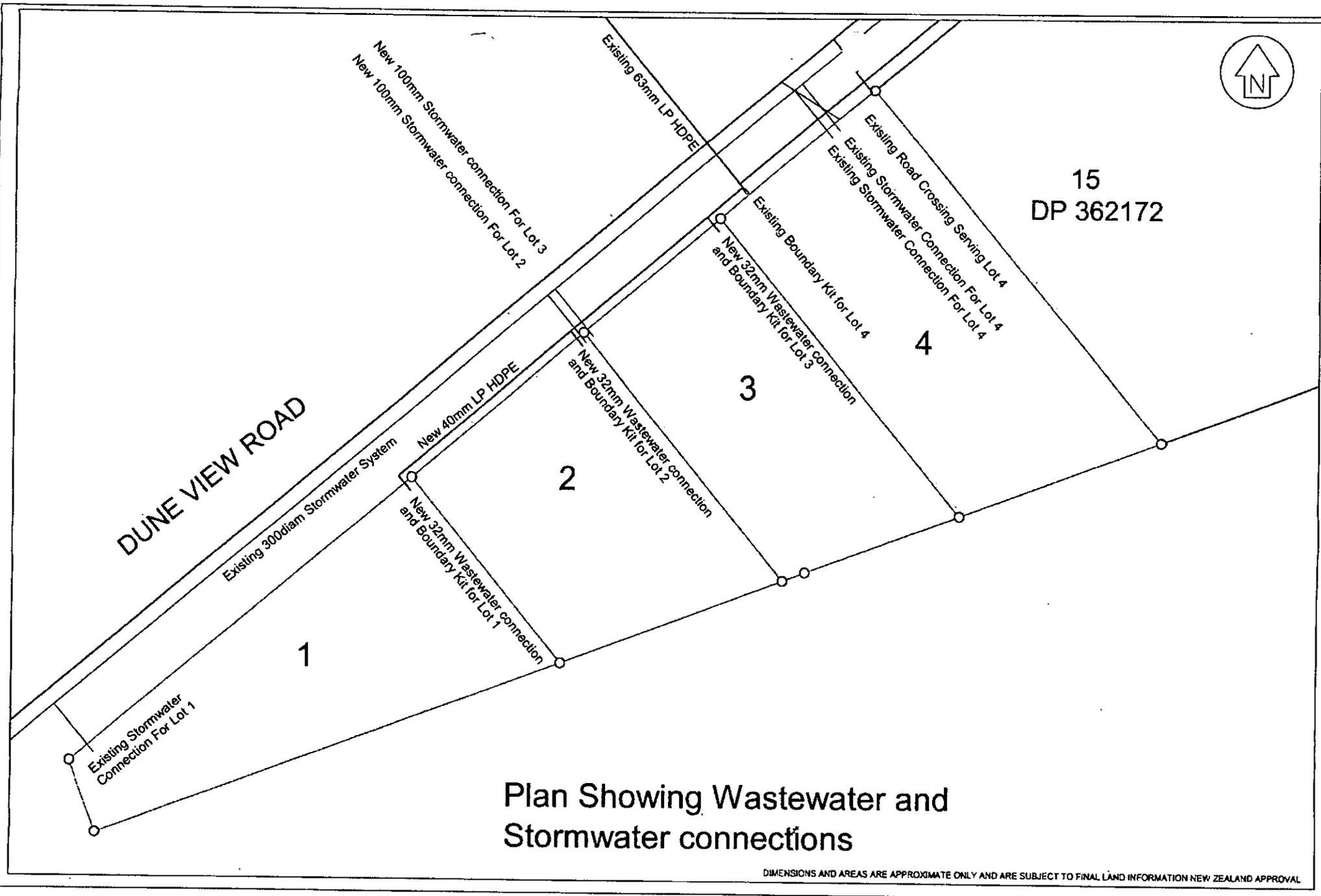
RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY



DIMENSIONS AND AREAS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL LAND INFORMATION NEW ZEALAND APPROVAL

Plan Showing Existing & Proposed Sanitary Sewer and Stormwater Connections - RM090153	Portarlington Holdings Ltd REGISTERED SURVEYORS PHONE - (09) 425 5990	DATE - March 2010 SCALE - 1: 250(A2) JOB - 2010

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY



Plan Showing Wastewater and Stormwater connections

DIMENSIONS AND AREAS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL LAND INFORMATION NEW ZEALAND APPROVAL

Scheme Plan of Lots 1 - 4 Being a Subdivision of Lot 18 DP 362172

PREPARED BY -
Portarlington Holdings Ltd
REGISTERED SURVEYORS
PHONE - (09) 425 5090

DATE -November 2009
SCALE - 1: 500(A4)
JOB - 2009

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY

CONCRETE PIPES
(SUITABLE FOR ALL SITUATIONS)

PIPE SIZE (mm)	CLASS	MIN. COVER (mm)	MAX. COVER (m)
225	3 (Y)	300	3.0
	2 (X)	500	2.4
300	4 (Z)	300	-
	3 (Y)	400	3.0
	2 (X)	700	2.0
375	4 (Z)	300	-
	3 (Y)	400	3.0
	2 (X)	700	1.8
450	4 (Z)	300	-
	3 (Y)	400	3.0
	2 (X)	700	1.8
525	4 (Z)	300	-
	3 (Y)	400	3.0
	2 (X)	700	1.8
600	4 (Z)	300	-
	3 (Y)	400	3.0
	2 (X)	500	2.0
750	3 (Y)	300	3.0
	2 (X)	500	2.0
900	3 (Y)	-	3.0
1050	2 (X)	300	2.0
1200			

Note: Information obtained from Concrete Pipe Association of Australasia

ALUMINIUM PIPES
(ENTRANCE CROSSINGS - PRIVATE ROAD CULVERTS ONLY)

PIPE SIZE (mm)	MIN. COVER (mm)	MAX. COVER (m)
300	300	3.0
375	300	
450	300	
600	300	
750	375	
900	450	
1050	525	
1200	600	

Note: Information obtained from C.S.P Pacific

uPVC PIPES (ENTRANCE CROSSINGS - PRIVATE ROAD CULVERTS ONLY)
IPLEX TRANSIT - SPEC. CULVERTS

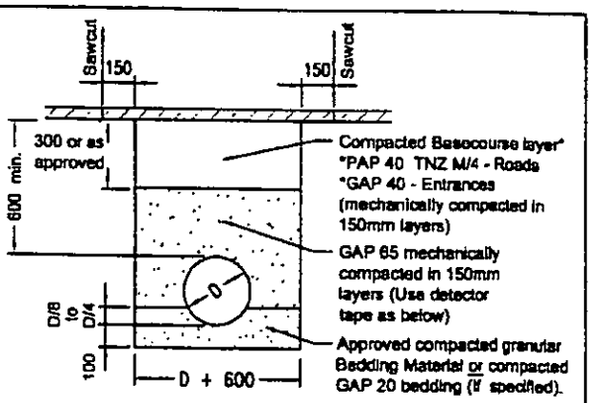
PIPE SIZE (mm)	MIN. COVER (mm)	MAX. COVER (m)
225 - 475	300	3.0

Note: Information obtained from IPLEX

ALI-TUFF PIPES (1.6mm Gauge)

PIPE SIZE (mm)	MIN. COVER (mm)	MAX. COVER (m)
300 - 1200	600	Manufacturers Specification

Note: Information obtained from Richardson Pacific (NZ) Ltd



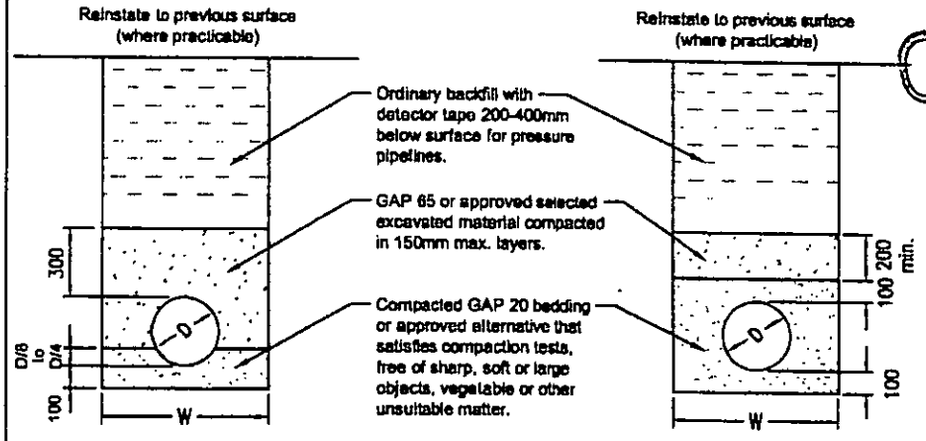
ADDITIONAL BACKFILL REQUIREMENTS UNDER CARRIAGEWAYS

All types of pipe except concrete (refer to concrete pipe chart)

BEDDING MATERIAL

Crushed aggregate with the following requirements:
Crushing resistance 110KN
Weathering resistance: AA, AB, AC, BA, BB, CA, CB
Clay index: B
Sand equivalent: 15

Grading: Sieve Size (mm)	19.0	2.36	0.60	0.30	0.15	0.075
% Mass Passing	100	100-50	90-20	60-10	25-0	10-0



ALUMINIUM, CONCRETE GALVANISED STEEL OR VITRIFIED CLAY PIPE
(Where specifically approved)

PVC & PE PIPE
(PVC not approved for water supply)

PE pipe bedding aggregate shall not exceed 5% of the Nominal pipe dia.

W	TYPE OF PIPE
D + 600	Aluminium
D + 600	Galvanised Steel
D + 450	Concrete
D + 450	Vitrified Clay
D + 400	uPVC & PE

Variations in W require additional design compensation.

COUNCIL
100216

NOTES

1. Concrete pipes to be RCRRJ "Class X" (or stronger) installed to Manufacturers requirements.
2. Aluminium pipes to be "Alufio" or "Highflo" type design (or similar).
3. Ordinary backfill shall be free from stones or rocks greater than 150mm nominal diameter & compacted in 300mm layers.
4. Replace topsoil to original depth as necessary.
5. Existing sealed roadway excavations are to be resurfaced with 50mm of asphaltic concrete.
6. Privateway basecourse metalling within pipe trenches may be in accordance with the Privateway Standards.
7. Unsatisfactory trench material is to be undercut and replaced with compacted hardfill.
   In poor soils such as swamp/peat material and in rock the minimum depth of granular bedding material below the invert is to be 200mm or Specific design as necessary.
8. Trench width shall not exceed W at the pipe crown level.
9. Pipelines at 1:8 gradient or steeper shall have cement stabilised bedding and/or surrounds.
10. Pipelines at 1:3 gradient or steeper shall have 'weak mix' concrete bedding (10MPa). Large pipes will require Specific pipe design.
11. Concrete bedding shall be allowed to cure for 48 hours prior to backfilling.
12. Backfilling under carriageways may be with 'flowable fill' (low strength fly-ash concrete).
13. Granular bedding is to satisfy N.Z.S 7643 - Appendix B.
14. Minimum cover over pipes (unless specifically designed or protected in accordance with KDC S26), to the highest point or bell, of the outside of the pipe (or collar) in any area shall be :
    a) 300mm - if not subjected to traffic loading
    b) Ref. to above charts - under carriageways and trafficked areas.

CULVERT, BEDDING AND BACKFILL DETAILS

No	Revisions	Date
Designed	M WINCH	09/08
Approved		09/08
Drawing Status	IMPLEMENTATION	
Office Location	CPG, WHANGAREI	

KAIPARA DISTRICT

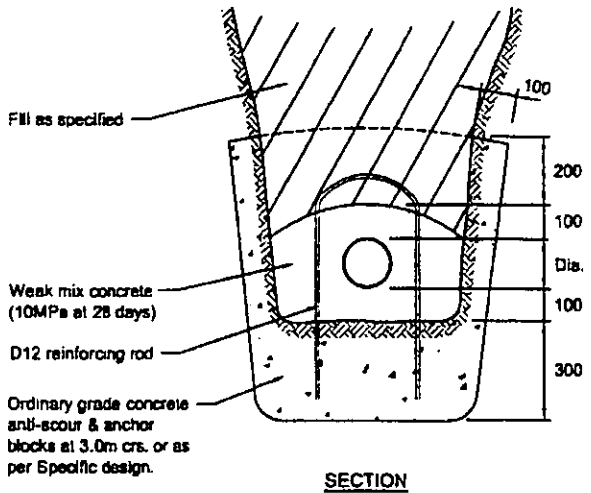
KAIPARA DISTRICT COUNCIL
ENGINEERING STANDARDS 2009

Drawing: S25
Revision: 0
Scale: N.T.S.

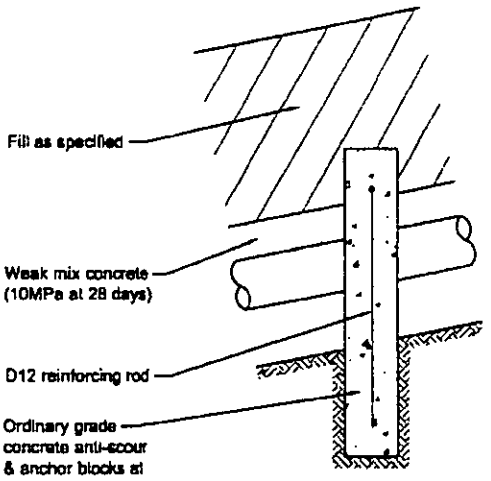
ORIGINAL SIZE mm A4

T:_020000\020239 KDC\04 Resource Consents\KDC Eng Standards 2009_Final Eng Std 2009\Drawings\S25.dwg , Plotted By Anniversario Peapol at 29/09/2009 9:25:39 a.m. Scale 1:46.67

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY



SECTION



ELEVATION

STEEP PIPE DETAILS

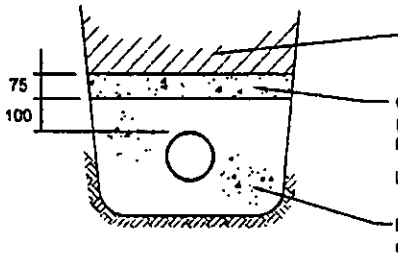
(For pipeline gradients 1:3 or steeper)

100216

COUNCIL

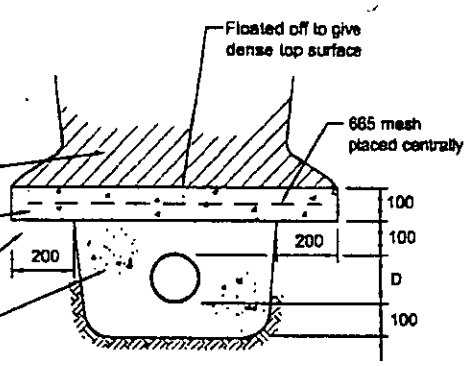
NOTES

1) Some variation is possible using aluminium plate cut off walls bolted to larger diameter pipes.
2) Larger diameter pipes will require Specific pier design to counter the downward component of water and pipe weight.



UNREINFORCED CONCRETE

SLAB PROTECTION



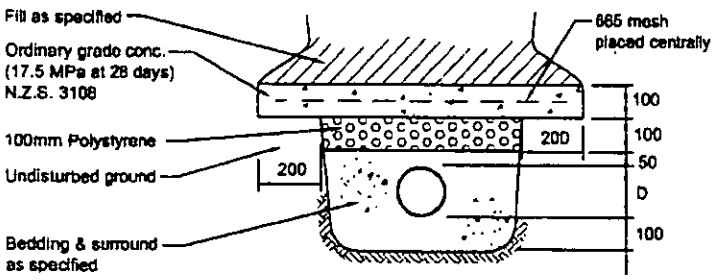
REINFORCED CONCRETE

SLAB PROTECTION

(Where additional loading or other requirements necessitate)

GENERAL NOTES

1. Weak mix concrete:
   - 1 part cement to 6 parts aggregate.
2. Cement stabilised bedding and back fill:
   - 1 part cement to 20 parts aggregate.
3. Allow 48 hours curing prior to back-filling for any concrete or stabilised material.



REINFORCED CONCRETE SLAB PROTECTION

FOR WATER PIPELINES

PIPE PROTECTION AND BULKHEAD DETAILS

Designed	M WINCH	08/08
Approved		08/08
Drawing Status	IMPLEMENTATION	
Office Location	OPC, WHANGAREI	

KAIPARA DISTRICT

KAIPARA DISTRICT COUNCIL
ENGINEERING STANDARDS 2009

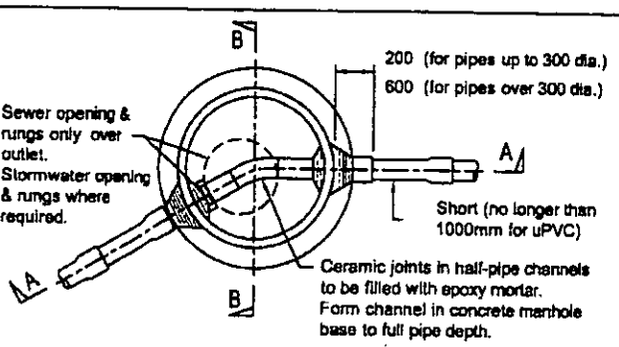
Drawing S26

Revision 0

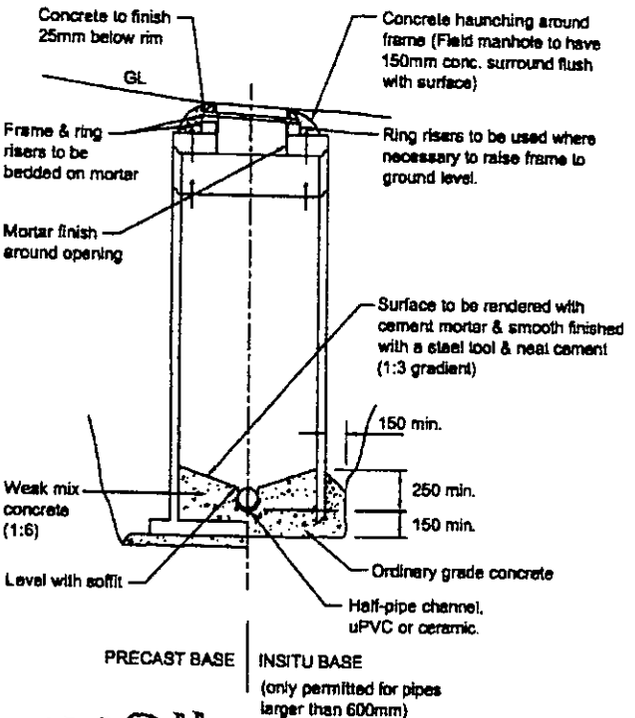
Scale N.T.S.

T:_020000\020239 KDC\04 Resource Consents\KDC Eng Standards 2009_Final Eng Std 2009\Drawings\S26.dwg , Plotted By Annemieke Propst at 28/09/2009 9:25:24 a.m. Scale 1:1

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY



SECTION C - C

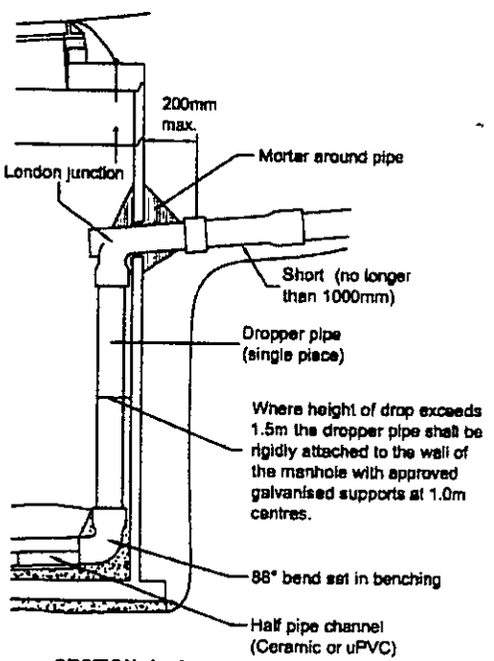


SECTION B - B

NOTES:

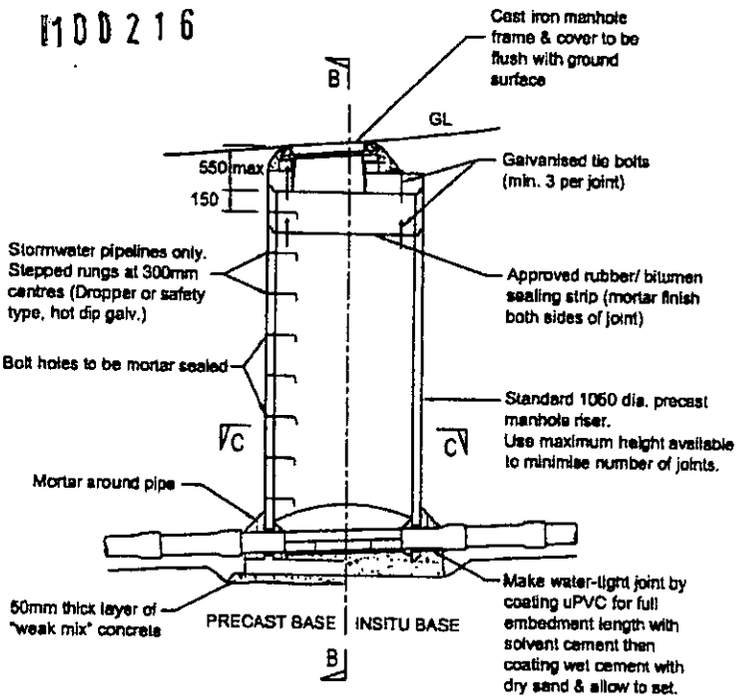
1. This detail is applicable for pipe diameters up to 600mm & for manhole depths up to 5.0m.
2. All steel fittings to be hot dip galvanised. Zinc coatings to be not less than 700g/m.
3. 150mm thick concrete lids with heavy-duty cast iron frames & covers to be used in driveways, carriageways & berms. 100mm thick concrete lids with light-duty cast iron frames & covers may be used elsewhere.
4. Precast manhole bases shall be used in all instances with minimum sized holes cut for pipe entry.
5. No additional thin plastering of benching or inverts is permitted.
6. All manhole covers are to be painted blue for stormwater & red for sewer.
7. All concrete to be 20MPa at 28 days unless specified as "weak mix".

COUNCIL
100216



SECTION A - A
INTERNAL DROP

(This detail is applicable for pipe diameters up to 250mm & for manhole depths up to 5.0m)



SECTION A - A

STANDARD PRECAST MANHOLE
(SEWER & STORMWATER)

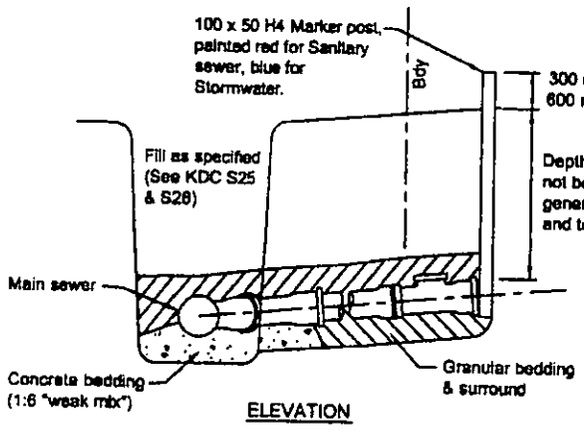
		KAIPARA DISTRICT	KAIPARA DISTRICT COUNCIL ENVIRONMENTAL ENGINEERING STANDARDS 2009
Rev.	Revisions	Date	Drawing S31
Designed	M WINCH	08/08	Revision 0
Approved		09/09	Scale N.T.S.
Drawing Status	IMPLEMENTATION		
Office Location	CPG, WHANGAREI		

DRAWING SIZE A1

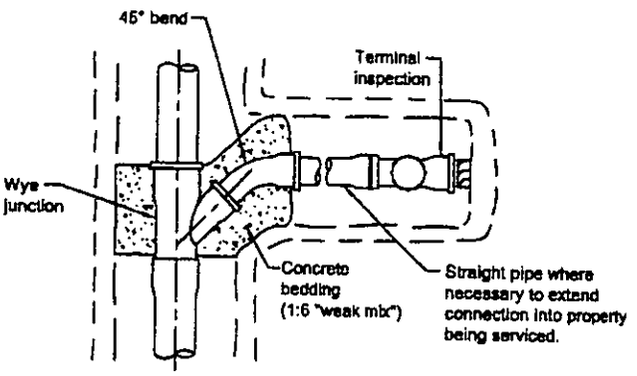
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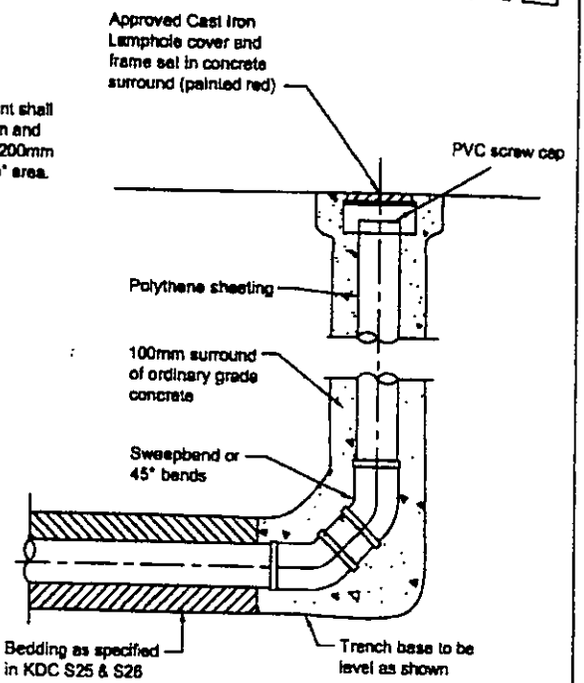
100216
COUNCIL



ELEVATION



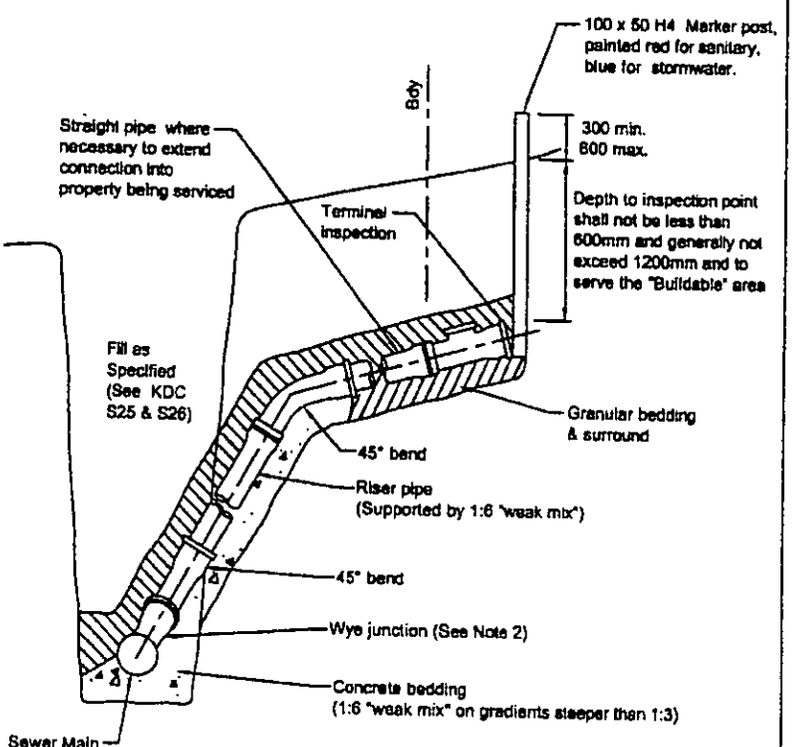
PLAN
STANDARD CONNECTION



LAMPHOLE
(For Branch lines less than 50m long)

NOTES

1. The Terminal inspection shall be located not less than 300mm inside the property being serviced and be free of obstructions
2. For stormwater connections, junctions to be (in order of preference):
   a. Prefabricated standard Wye junctions
   b. Prefabricated factory special connection
   c. Field fabricated epoxy mortared Saddled flange connection with appropriate insert adaptor.
3. Terminal blank end required for Stormwater connections.
4. Pipes and fittings are to be Sewer grade uPVC, vitrified clay, concrete or ceramic to the relevant NZ Standard.
5. Pipelines that are likely to carry commercial or industrial waste are to satisfy the manufacturers requirements.
6. Specific design may be required in potentially unstable areas.
7. Joint flexibility is to be maintained where pipelines are in contact with concrete.
   Pipes shall be separated from concrete using DPC.
8. AS-BUILT plans are required for all connections.



RAMPED RISER CONNECTION
(Requires specific approval)

LAMPHOLES, STORMWATER AND SEWER CONNECTIONS

No.	Revisions	Date
Designed	M WINCH	08/08
Approved		08/08
Drawing Status	IMPLEMENTATION	
Office Location	OPO, WHANGAREI	

KAIPARA DISTRICT

KAIPARA DISTRICT COUNCIL
ENGINEERING STANDARDS 2009

Drawing S33
Revision 0
Scale N.T.S.

ORIGINAL SIZE A1

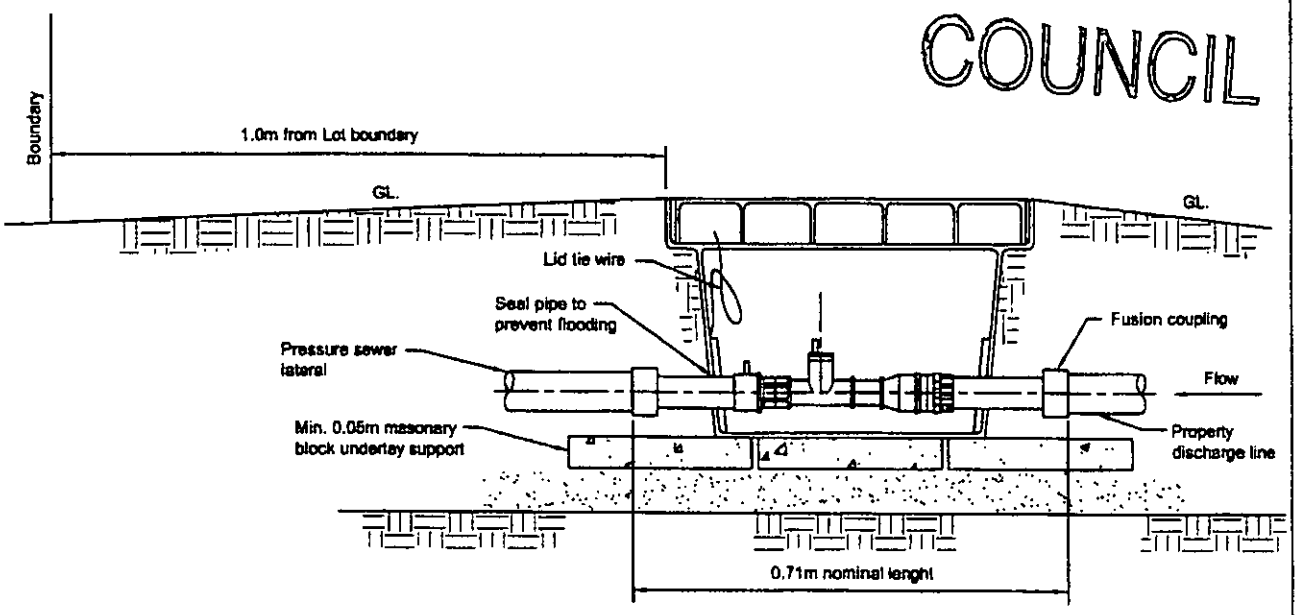
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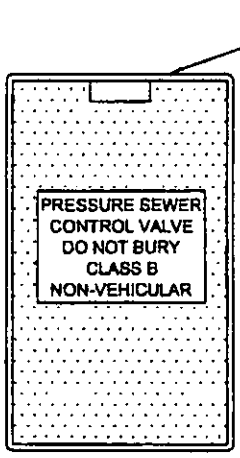
1. All dimensions in meters unless otherwise specified
2. Use only approved components
3. Ensure that the lid of surface box is marked as shown. Where the warning/name plate is not cast or moulded into the lid, affix an engraved SS name plate using SS fasteners
4. Prepare bedding metal under box to specification
5. Install surface box slightly proud of surface so the GL. can be graded away from the lid
6. Test assembly and connecting pressure sewers hydrostatically after installation in accordance with the KDC code
7. All pressure pipework items to be PN 16

COUNCIL

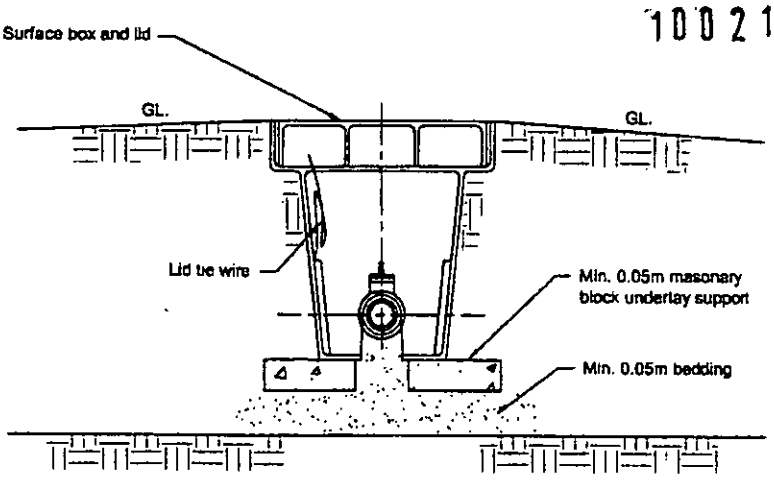


SIDE ELEVATION

100216



PLAN



END ELEVATION

BOUNDARY CONNECTION KIT

Issue / Revisions		Date
Designed	M.WINCH	08/08
Approved		08/09
Drawing Status	IMPLEMENTATION	
Office Location	CPG, WHANGAREI	

KAIPARA DISTRICT

KAIPARA DISTRICT COUNCIL
ENGINEERING STANDARDS 2009

Drawing: S40
Revision: 0
Scale: N.T.S.

ORIGINAL SIZE A1

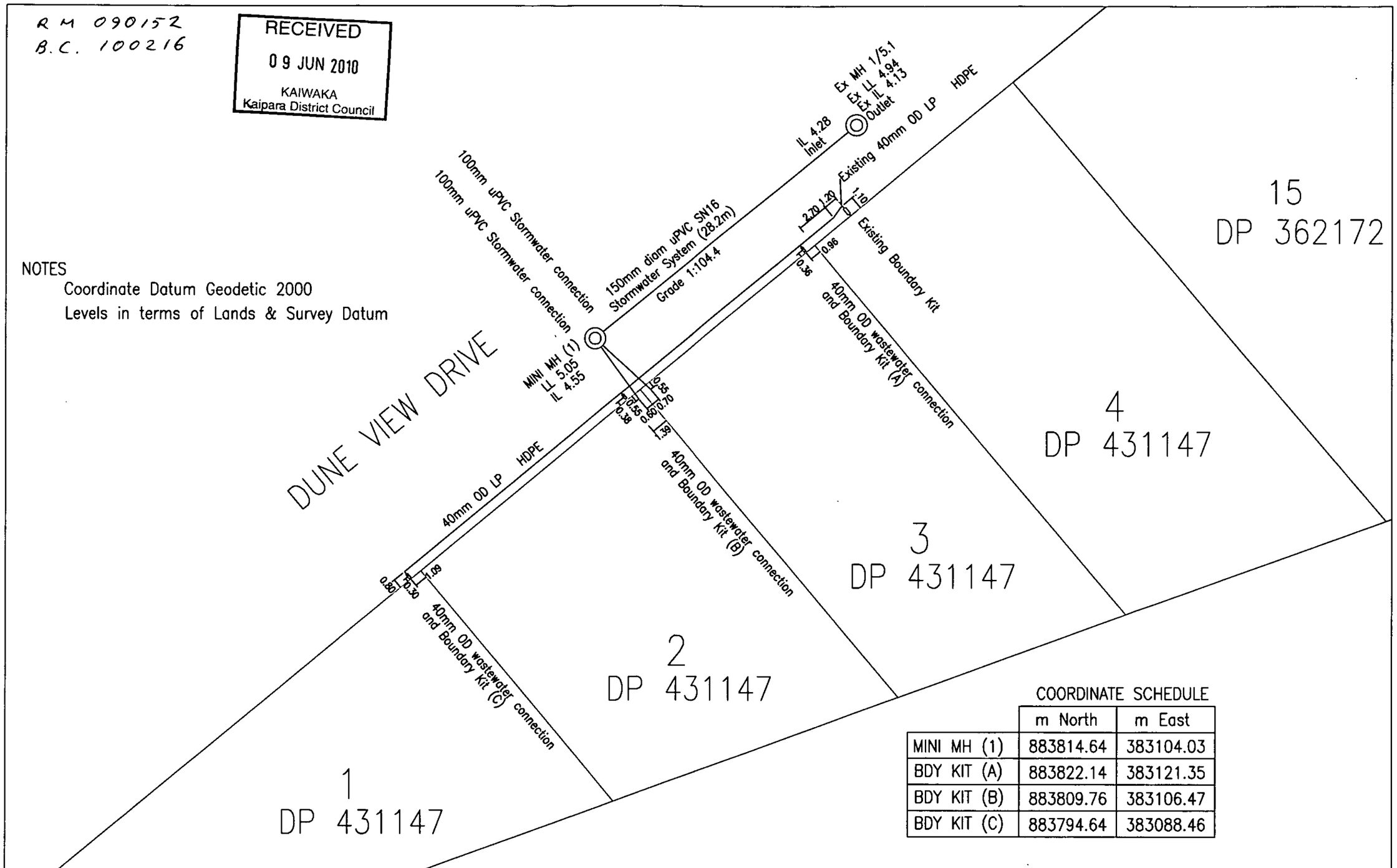
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RM 090152
B.C. 100216

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09 JUN 2010
KAIWAKA
Kaipara District Council

NOTES
Coordinate Datum Geodetic 2000
Levels in terms of Lands & Survey Datum



COORDINATE SCHEDULE

	m North	m East
MINI MH (1)	883814.64	383104.03
BDY KIT (A)	883822.14	383121.35
BDY KIT (B)	883809.76	383106.47
BDY KIT (C)	883794.64	383088.46

AS BUILT PLAN SHOWING SERVICES FOR
LOTS 1-4 DP 431147

PREPARED BY -
Portarlington Holdings Ltd
Registered Surveyor
PHONE - 09 4314138 MOB 021 627941

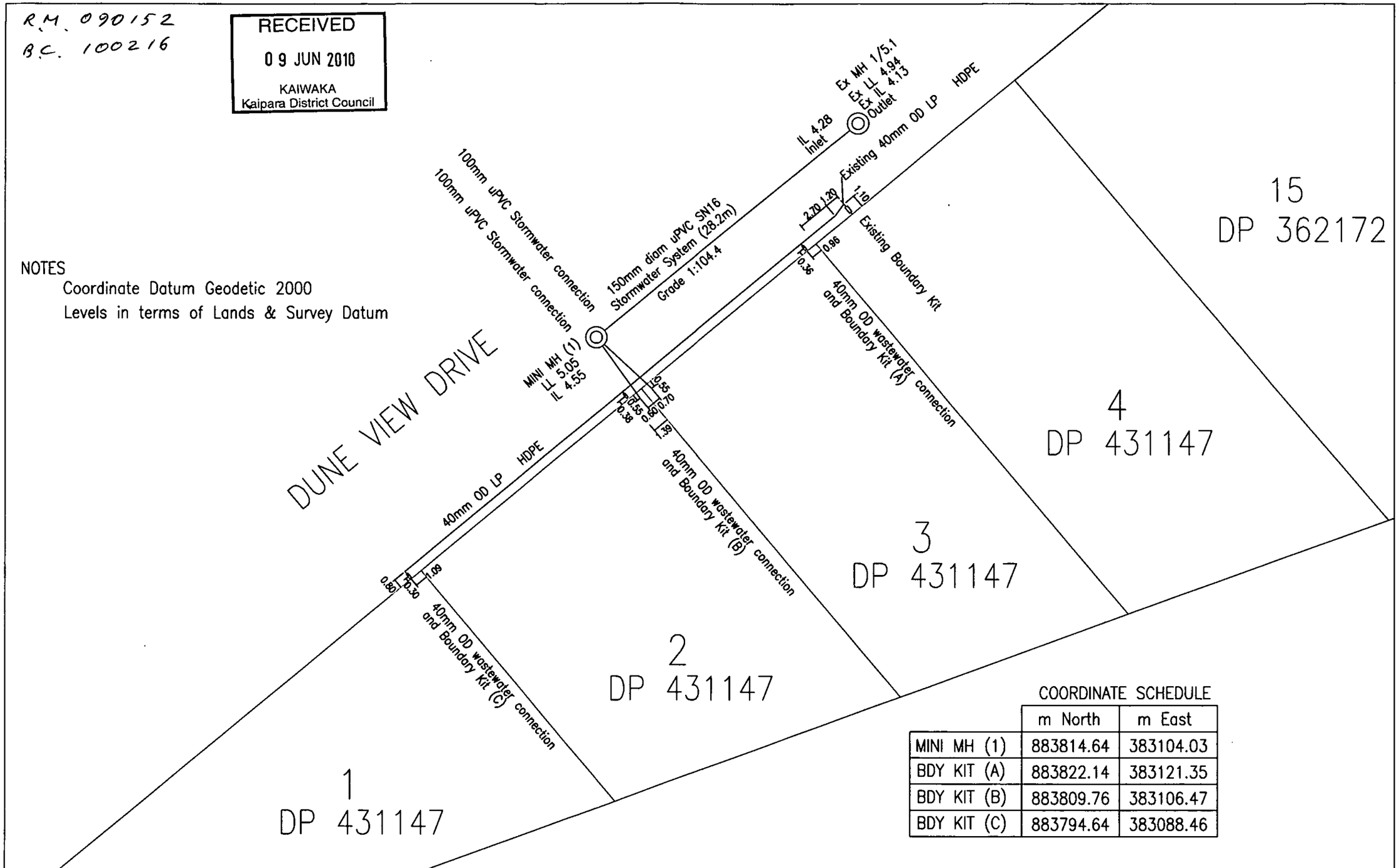
DATE - JUNE 2010
SCALE - 1:300
JOB No. L18 DV

RECEIVED: 24 Nov 2010 SCANNED: 24 Nov 2010 BOX: 7 BATCH: 65061 DOC: KDCAALRY

RM 090152
BC 100216

RECEIVED
09 JUN 2010
KAIWAKA
Kaipara District Council

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AS BUILT PLAN SHOWING SERVICES FOR
LOTS 1-4 DP 431147

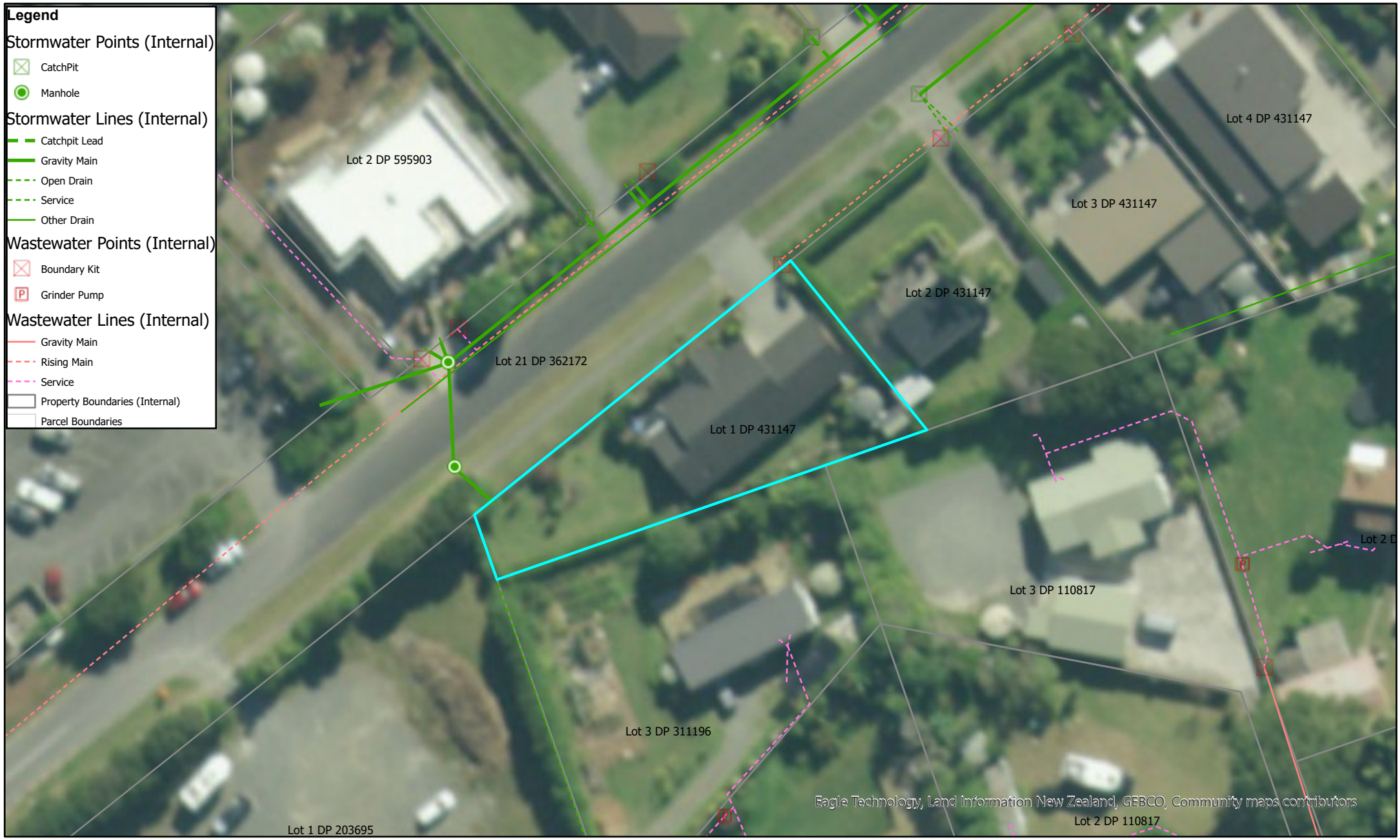
PREPARED BY -
Portarlington Holdings Ltd
Registered Surveyor
PHONE - 09 425 5990

DATE - JUNE 2010
SCALE - 1:300
JOB No. L18 DV

Print Date: 8/29/2025
Print Time: 1:56 PM

Asset Map 0122188727

KAIPARA DISTRICT
Kaipara te Oranganui • Two Oceans Two Harbours



Scale: 1:564
Original Sheet Size: A4

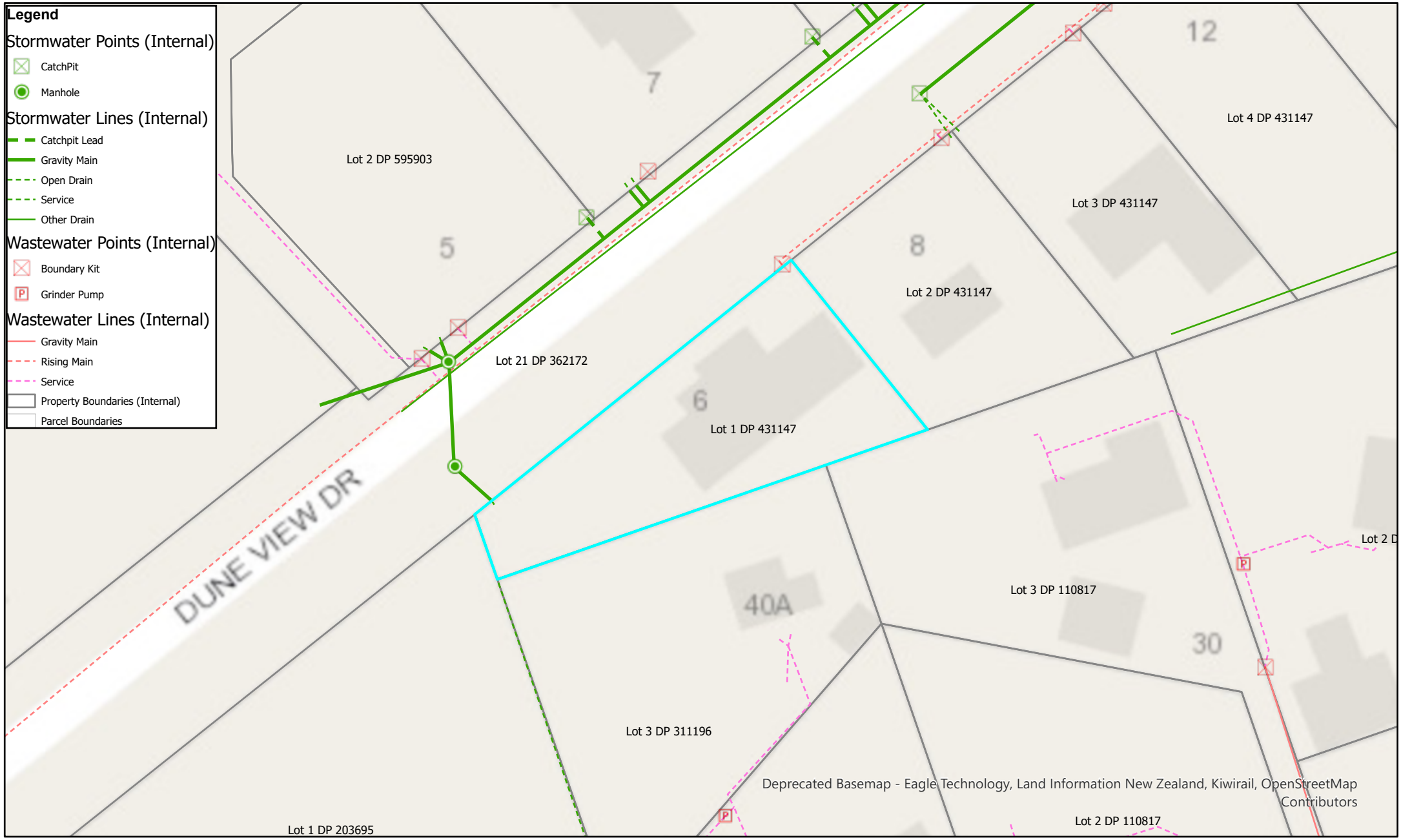
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Print Time: 1:56 PM

Asset Map 0122188727

KAIPARA DISTRICT
Kaipara te Oranganui • Two Oceans Two Harbours



Scale: 1:564
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