



060511.

KAIPARA DISTRICT COUNCIL

RECEIVED

3 JUL 2006

PIM AND BUILDING CONSENT APPLICATION

(The Building Act 2004)

APPLICANT DETAILS:		BC NO:																
1 The Owner Name of Owner: <u>David & Margaret Morrison</u> Contact Person: <u>David & Margaret Morrison</u> Postal Address: <u>Bradley Landing East Road</u> <u>Arapahue RD4 Dargaville</u> Street Address/Registered Office: <u>292 Bradley Landing Road Dargaville</u> Phone No: <u>4395395</u> Fax No: <u></u> Mobile No: <u></u> Email: <u>pa.hill@extra.co.nz</u> The following evidence of ownership is attached to this application: (If property has been recently sold a copy of Sale and Purchase Agreement is required)		2 The Agent Name of Agent: <u></u> Contact Person: <u></u> Postal Address: <u></u> Street Address/Registered Office: <u></u> Phone No: <u></u> Fax No: <u></u> Mobile No: <u></u> Email: <u></u> Relationship to Owner: <u></u> First Point of Contact for Communications/Fees/Refunds to: ☒ The Owner ☐ The Agent																
3 THE PROJECT (What is the work to be done) Description of the building work: <u>Alterations & Additions to Dwelling</u> Will the work result in a change of use of the building: ☐ Yes ☒ No If YES please state new use and provide details: List Building Consents previously issued for this project (if any): <u></u> Floor area (proposed work - square metres) <table border="1"> <thead> <tr> <th></th> <th>Basement</th> <th>Ground Floor</th> <th>Other Floors</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Main Building</td> <td></td> <td></td> <td></td> <td><u>6m²</u></td> </tr> <tr> <td>Accessory Buildings</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Basement	Ground Floor	Other Floors	Total	Main Building				<u>6m²</u>	Accessory Buildings					4 BUILDING DETAILS: (Where work to be done) Street Address of Building: <u>292 Bradley Landing East Road Dargaville</u> Location of Building within site/block number (include nearest street access): <u></u> Building Name: <u></u> Number of Levels: <u></u> Level/Unit No: <u></u> Valuation Roll No: <u>01050-15401</u> Legal Description: <u>Lot 2 DP 16851 Lots 1+2</u> Certificate of Title No: <u>66A/671 DP 116263</u> Area of Site (m ² /ha): <u>83.8317 ha</u> Current, lawfully established use (if applicable): <u></u> Year first constructed (if applicable): <u>1985</u>	
	Basement	Ground Floor	Other Floors	Total														
Main Building				<u>6m²</u>														
Accessory Buildings																		
5 NATURE OF CONSENT ☐ New building - exclude domestic garages & domestic outbuildings ☐ Foundations only ☒ Alterations, repairs, extensions, conversions, resiting, installation of heating appliances ☐ Domestic garages and domestic outbuildings Intended Life: Indefinite, but not less than 50 yrs ☐ OR Specified asyrs Demolition ☐ Being stage of an intended stages		6 VALUE OF WORK AND FEES (GST Incl) Main buildings \$ <u>6000.00</u> Accessory buildings \$ <u></u> Plumbing & Drainage \$ <u>2000.00</u> Total Value of Work \$ <u>8000.00</u> Office Use Only PIM \$ <u>50.-</u> Building Consent \$ <u>246.-</u> BRANZ Levy \$ <u></u> DBH Levy \$ <u></u> TOTAL \$ <u>296.-</u> Receipt No: <u>497012</u> Date: <u>3/7/06</u>																

2131.03

PIM BC Application July 2005.doc



Tick box A to C below, as appropriate :

- ☐ **A** Application is for a Project Information Memorandum (PIM)
- ☐ **B** Application is for Building Consent (BC) only, in accordance with PIM No :
- ☒ **C** Application is for Building Consent (BC) and Project Information Memorandum (PIM)

7 Confidentiality (Plans and Specifications):

I/We require the following to be treated as confidential (proof of reasons for confidentiality will be required and will only be accepted if legally valid)

- ☐ Plans (please specify which plans i.e. Floor Plans etc.,) :
- ☐ Specifications
- ☐ I/We require that all details of this application remain confidential as required by a Council directive applied for, or already issued, in relation to a protection order currently in force under The Domestic Violence Act 1995.

8 Vehicle Crossing Required

Is this application linked to a vehicle crossing application?

YES/NO If 'YES', Application No :

(If 'YES' please include Vehicle Crossing Application)

9 Public Utility Connections Required

Is this application subject to a utility connection application? (Drainage, Water Connection or Water Meter Installation)

- ☐ YES - Application No:
- ☒ NO - Existing connections in place

10 Historic Places Trust

- ☐ The property is a registered historic place, historic area or wāhi tapu area
- ☐ A PIM has already been issued for this project - PIM No :

If your property has an archaeological or historic site, you need to consult with the Historic Places Trust in regards to your project for review and approval prior to your project commencing

11 Fire Service Design Unit (3 copies - 4 where fire report required, 1 set to be A3)

Section 47 of The Building Act 2004, requires certain projects as specified by notice in the NZ Gazette to be reviewed by the New Zealand Fire Service, which may require a Memorandum, setting out advice on issues such as 'means of escape from fire' and 'water supply for fire fighting'.

12 Compliance Schedule (where applicable - Complete Part E)

A Compliance Schedule is required for buildings with specified systems. This does **NOT** apply to single storey, residential property apart from when serviced by a cable car (lift).

I request that you issue a (please tick):

- ☒ Project Information Memorandum
- ☒ Building Consent

for the building work described in this application

Signed by / for and on behalf of / the owner

NOTE : If acting for and on behalf of, please read the following declaration prior to signing :

"I hereby declare that I am authorised to act as Agent of the Applicant"

Signature:

Name:

Date:

Please Note :

Council is unable to accept your application as being lodged until all details and relevant information are provided and the application is signed and the processing fee paid. Fees for your application will be assessed by the Customer Services Section on application. Further fees may be incurred after the Building Consent is issued.

Part B: Project Details

Property Information Memorandum (Complete this part only when applying for a PIM)

The project involves the following matters. Tick each applicable box and attach relevant information in triplicate for residential and four copies for Commercial Industrial or Multi-Storey. Always include one set A3 size.

- ☐ (a) Location, in relation to legal boundaries, and external dimensions of new, relocated, or altered buildings (Site Plan with elevations, Topography, drawn to scale).
- ☐ (b) Details of any known or potential erosion, avulsion, falling debris, filled ground, subsidence, slippage, alluvion, inundations, hazardous contaminants on or near the site, land contours.
- ☐ (c) Provisions to be made for vehicular access, including parking. (To be shown on site plan).
- ☐ (d) Provisions to be made in building over or adjacent to any road or public place.
- ☐ (e) Provisions to be made for disposing of stormwater and wastewater. (To be shown on site plan).
- ☐ (f) Precautions to be taken where building work is to take place over existing drains or sewers or in close proximity to wells or water mains.
- ☐ (g) New connections to public utilities i.e. water supply, stormwater system, wastewater system.
- ☐ (h) Provisions to be made in any demolition work for the protection of the public, suppression of dust, suppression of noise, disposal of debris and disconnection from public utilities.
- ☐ (i) Details of any cultural or heritage significance of the building or building site, including whether it is on a marae or wahi tapu.
- ☐ (j) Copy of/or reference to, any resource consent or planning approval (including subdivision) for this project.
- ☐ (k) Details of volume of proposed excavations; include volumes for site preparation, basement and driveway.

Part C: Building Details

Complete this part only when applying for a Building Consent

This application is accompanied by : (tick each applicable box, attach relevant documents in triplicate (one of which must be A3 size) for residential and four copies (one of which must be A3 size) for Commercial, Industrial or Multi-Storey).

- ☒ 1 The drawings, specifications and other documents according to which the building is proposed to be constructed to comply with the provisions of the New Zealand Building Code, with supporting documents, if any, including :
- ☐ 2 Building Certificates.
- ☐ 3 Producer Statements (including TP 58 Effluent Design), and any alternative solutions.
- ☐ 4 References to product certification issued by the Department of Building and Housing (DBH).
- ☐ 5 References to determinations issued by the Department of Building and Housing (DBH).

For details on drawings and specifications etc, see checklist form. If applying for PIM and Building Consent together, then plans for PART B (a) can be included in PART C (1).

If a PIM has already been applied for then include a copy of any relevant authorisations (eg Resource Consents) with this application.



Part D : Key Personnel

From 30 November 2009, the Building Act 2004 requires all restricted building work to be carried out or supervised by a Licensed Building Practitioner. After this date, applications for consent can only be accepted where a Licensed Building Practitioner has been engaged and the registration number shown in the appropriate area below.

Designer

Name : Brian Randall Reg No : Phone No: 439 099
 Address : Hokiang Road, Dargaville
 Mobile No : Email:

Builder (Licensed Building Practitioner From 30/11/2009)

Name : Brian Rope Reg No : Phone No:
 Address : Clinks Cully
 Mobile No : Email:

Registered Drainlayer

Name : Reg No : Phone No:
 Address :
 Mobile No : Email:

Registered Plumber

Name : Reg No : Phone No:
 Address :
 Mobile No : Email:

Registered Electrician

Name : Reg No : Phone No:
 Address :
 Mobile No : Email:

Registered Gas Fitter

Name : Reg No : Phone No:
 Address :
 Mobile No : Email:

Other

Name : Reg No : Phone No:
 Address :
 Mobile No : Email:

Other

Name : Reg No : Phone No:
 Address :
 Mobile No : Email:

Part E: Compliance Schedule Details

E1 : Systems Necessitating a Compliance Schedule :

The building will contain the following (tick each box and attach proposed inspection, maintenance and reporting procedures).

Note : The building consent cannot be issued unless all specified systems are included.

- ☐ Automatic sprinkler systems or other systems of automatic fire protection.
- ☐ Automatic doors which form part of any fire wall and which are designed to close shut and remain shut on an alarm of fire.
- ☐ Emergency warning systems for fire or other dangers.
- ☐ Emergency lighting systems.
- ☐ Riser mains for fire service use.
- ☐ Any automatic back-flow preventer connected to a potable water supply.
- ☐ Lifts, escalators, or travelators or other similar systems.
- ☐ Mechanical ventilation or air conditioning system serving all or a major part of the building.
- ☐ Any other mechanical units for providing access to the exterior and interior walls of buildings.
- ☐ Building maintenance units for providing access to the exterior and interior walls of buildings.
- ☐ Such signs as are required by the building code in respect of the above mentioned systems.
- ☐ None of the above.

E2 : Other Systems and Features to be Included in the Compliance Schedule :

The building will contain the following : (Tick each applicable box and attach proposed inspection, maintenance and reporting procedures).

- ☐ Means of escape from fire.
- ☐ Safety Barriers.
- ☐ Means of access and facilities for use by persons with disabilities which meet the requirements of Schedule 2 of the Building Act 2004.
- ☐ Hand held hoses for fire fighting.
- ☐ Such signs as are required by the New Zealand Building Code or Schedule 2 of the Building Act 2004.

Check List For Applications

- Return this checklist with your application
- Include all the information and documents requested
- Mark each checkbox as follows :

☒ Item Included	☐ X Item Not Included	☐ N/A Item Not Applicable	Office Use Only
Application Form			
☒ All items relevant to your application are to be completed on the application form. Include accurate 'Values of Work' to be undertaken (GST incl)			☐
☒ Correct legal description included (Obtained from your rates notice, Certificate of Title or from Council's Customer Services Section)			☐
☒ Name, address and phone numbers of all personnel relevant to your project, including person to receive invoices			☐
☐ Copy of a Certificate of Title (Lease agreement, Copy of Sale and Purchase Agreement or other proof)			☐
☐ Copy of Consent Notices and related Engineering Reports if shown on title			☐
Site Plan (3 copies - 4 where fire report required, 1 set to be A3)			
☒ Site Plan included			☐
☒ Floor area shown of proposed building project and of existing buildings to a minimum scale of 1:200, using metric measurements			
☐ Distance shown of proposed and existing buildings from all legal boundaries. These measurements are to be to the walls or nearest part of the building, any easements shown, overland flowpaths and/or any Council stormwater and drainage services			
☐ Layout of existing and proposed sanitary and stormwater drains and mains shown, septic tanks and stormwater disposal			
☐ Water supply source shown			
☐ Vehicle entrance shown			
☐ Site contours shown			
Floor Plan (3 copies - 4 where fire report required, 1 set to be A3)			
☒ Floor Plans included			☐
☐ Floor plan of each floor level to a minimum scale of 1:100. Plan to include floor layout and use of each section and show the location of all plumbing, gas and electrical fittings. Show all waste and vent pipes (can be on separate plans)			
Elevations (3 copies - 4 where fire report required, 1 set to be A3)			
☒ Elevations Plan included			☐
☐ An elevation of 1:100, each external wall showing heights and finished ground level at each external corner (see above for smaller scale allowances)			
☐ Location of wall and roof bracing to be shown on elevations			
☐ Scaled elevations indicating height from ground level to top of roofline			
Foundation Plan (3 copies - 4 where fire report required, 1 set to be A3)			
☒ Foundation Plan included			☐
☒ Timber floors show location of all piles and sub-floor timber braces, foundation perimeter walls and internal piling system. For concrete floors, a detailed cross-section is required			
☒ Wind zone calculations			
☒ Sub-floor bracing calculations			

Check List For Applications (cont)				Office Use Only
☒ Item Included	☐ Item Not Included	☐ N/A	☐ Item Not Applicable	
Cross Section Details (3 copies - 4 where fire report required, 1 set to be A3) ☒ Cross Section Plan included ☐ Sufficient cross sections through the building to show foundation details, floor systems, wall construction, roof construction, location of wall claddings and roof covering. ☐ Construction details of terraces, steps, balustrades, flashing detail in accordance with E2/AS1 plus any non-standard items at a scale of 1:20 shown ☐ Plans have been completed to a scale of 1:50 and 1:20 where applicable				☐
Wall and Floor Bracing Calculations (3 copies - 4 where fire report required, 1 set to be A3) ☒ Wall and Bracing Calculations included ☐ Submit wall and sub-floor bracing calculations and plans, detailing location of bracing elements ☐ Note : One room additions – Locate requirements and their respective values on the elevations				☐
Plumbing Design Plan (3 copies - 4 where fire report required, 1 set to be A3) ☐ Plumbing Design Plan included ☐ Plumbing Plan drawn to the AS/NZ Standards				☐
Effluent Design (TP 58 from Chartered Professional Engineer or Approved Designer) ☐ Effluent Design Plan included ☐ 3 Copies of proof of compliance with TP 58 and the Northern Regional Council Water and Soil Plan				☐
Specific Design (3 copies - 4 where fire report required, 1 set to be A3) To facilitate processing of specific design applications, provide the following information : ☐ Full engineering calculations and drawings ☐ Design Certificate/Producer Statement. ☐ Soil report or geotechnical report (where applicable, refer title consent notice) ☐ A written description of the building model and techniques used in construction. ☐ Name and address of Chartered Professional Engineer				☐
Please tick the boxes below where appropriate : ☐ Vehicle Crossing Application needed ☐ Historic Places review needed ☐ Fire Service design unit Memorandum needed ☐ Compliance Schedule application needed ☐ Risk Matrix Calculations needed				☐
☐ Vehicle Crossing Application Form				☐
☐ Risk Matrix Calculations				☐
☐ Compliance schedule, (detailed design)				☐
Application Fees : Please refer to the Fees and Charges Schedule				
<i>For assistance in completing this application please contact the Customer Services Centre on 0800 727 059 (Dargaville) or 09 431 2013 (Kaiwaka)</i>				



Kaipara te Orangahui • Two Oceans Two Harbours

Building Consent Progress Sheet

KAIPARA DISTRICT COUNCIL

Name:	D & M Morrison	BC No:	060511.
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Fees Assessment		Payment Details	
Value of Project	\$ 8,000.00		
Building Consent:	\$ 246.00	Rec No:	497012.
PIM:	\$ 50.00	Date:	3 July 06.
BRANZ Levy:	\$		
DBH Levy:	\$	Fees not paid/ Incorrect	
Total	\$ 296.00	Date invoice sent	

Further plans needed	Notes
☐ Site	Ready to Process.
☐ Drainage	
☐ Foundation	
☐ Cross Section	
☐ Elevation	
☐ Bracing Calculation	
☐ Floor Plan	
☐ Specifications	
☐ Fire Assessment	
☐ Engineering	
☐ Town Planning	

The applicant was advised of the further information required by:

☐ Telephone ☐ Fax ☐ Email ☐ Letter

Status updated by (initials) Louisa **Date** 3 July 06.

FI - Further information requested

IR - Information Received

Tax Invoice

D & M Morrison
Bradleys Landing East Rd
Arapohue, R D 4
Dargaville 0300

GST Reg No. 52-237-122
Date 3/07/06
Customer No: BC060511
Invoice Number 15471

060511 : BRADLEYS LANDING EAST ROAD, BRADLEYS LAN
Alterations and Additions to a Dwelling
Owner: D & M Morrison

Qty	Description	Rate	Amount
	Building Consent Fee		246.00 *
	PIM Fee		50.00 *
	(* Incl GST \$32.89)		
	Total incl. GST		\$296.00
	LESS DEPOSIT PAID		296.00CR
	Net Due		0.00

Remittance Advice

Please use this remittance when making your payment and make cheques payable to Kaipara District Council.

D & M Morrison
Bradleys Landing East Rd
Arapohue, R D 4
Dargaville 0300

Customer Number BC060511
Invoice Date 3/07/06
Invoice Number 15471
Amount Due 0.00



TAY IN SIDE RECEIPT (SET NO 52-237-12)
Received with thanks by 3/66

3-07-06 10:11 Receipt no. 457012

DR BC060511
INVOICE 15471 BUILDING C 296 00-
D & M Morrison: Bradleys Landing East R
CQ BNZ (RL
D & M Morrison 296.00



42 Hokianga Rd
Phone 09-439-7059
Email council@kaipara.govt.nz
www.kaipara.govt.nz

Private Bag 1001 Dargaville
Fax 09-439-6756
Freephone 0800 72 7059

**NORTHLAND
REGIONAL
COUNCIL**



Morrison David Max
Morrison Margaret Elizabeth & ors
Bradleys Landing Rd R D 4
Dargaville 0300

Valuation Number: 01050-15401
Area: 83.8317 ha
Land Value (Rateable) 270,000
Capital Value: 440,000
Property Location: BRADLEYS LANDING EAST ROAD,
Legal Description: LOT 2 DP 16851 LOTS 1 2 DP 116263

PAGE ONE OF TWO

RATES INVOICE

Instalment No. 6 of 6

Last Day for Payment 15 June 2006

Any portion of the current instalment remaining unpaid after 15 June 2006 will incur a 10% penalty of up to \$35.31

Amount to clear the total rates \$353.15

KDC is a collection agency only for the regional rates. Please direct enquires to NRC Freephone 0800 002 004

Rates Statement of Account

Tax Invoice / Credit Note GST Reg No. 52-237-122
Rating Year 1 July 2005 to 30 June 2006

	District Council	Regional Council	Total
Annual Rates (GST incl)	\$2,013.35	\$105.70	\$2,119.05

Rates Invoice / Statement

Balance Due at: 1 July 2005	\$32.55	\$1.95	\$34.50
Previous Instalments charged	\$1,677.80	\$88.10	\$1,765.90
Adjustments	\$0.00	\$0.00	\$0.00
Remissions	\$0.00	\$0.00	\$0.00
Penalties	\$3.25	\$0.20	\$3.45
Payments Received up to 07/05/06	\$1,713.60CR	\$90.25CR	\$1,803.85CR
Current Instalment No. 6 of 6 (includes \$39.24 GST)	\$335.55	\$17.60	\$353.15
Current Balance	<u>\$335.55</u>	<u>\$17.60</u>	<u>\$353.15</u>

TOTAL NOW DUE \$353.15

Last date for payment 15 June 2006

Handwritten signature/initials

Building Consent 060511

(Form 5) Section 51, Building Act 2004

D & M Morrison
Bradleys Landing East Rd
Arapohue, R D 4
Dargaville

Issue Date: 4/07/06
Application Date: 3/07/06
Overseer: Jim Vallance

THE PROJECT: (the following Building Work is authorised by this Building Consent)

Description: Alterations and Additions to a Dwelling
3100 - DWELLINGS - ALTERATIONS & ADDITIONS

Type of Work:

Estimated Value: \$8,000

Intended Use: Owners Use

Intended Life: Indefinite, but not less than 50 years

Stages: Being Stage 1 of an intended 1 Stages

THE BUILDING:

Street Address of Building: BRADLEYS LANDING EAST ROAD, BRADLEYS LAN

Valuation Number: 0105015401

Legal Description: LOT 2 DP 16851 LOTS 1 2 DP 116263

Building Name:

Location of Building within site/block number:

Level/Unit Number:

THE OWNER:

Owners Name: D & M Morrison

Owners Mailing Address: Bradleys Landing East Rd, Arapohue, R D 4, Dargaville 0300

Street Address/Registered Office:

Phone Landline: (09) 439 5395

Daytime:

After Hours:

Number Mobile:

Fax:

Email: pa.hill@xtra.co.nz

Website:

FIRST POINT OF CONTACT: (with the Council/Building Authority)

First Point of Contact:

Mailing Address: Bradleys Landing East Rd, Arapohue, R D 4, Dargaville

Phone Landline: (09) 439 5395

Daytime:

After Hours:

Number Mobile:

Fax:

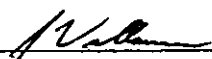
Email: pa.hill@xtra.co.nz

Website:

This building consent is issued under section 51 of the Building Act 2004. This building consent does not relieve the owner of the building (or proposed building) of any duty or responsibility under any other Act relating to or affecting the building (or proposed building).

This building consent also does not permit the construction, alteration, demolition, or removal of the building (or proposed building) if that construction, alteration, demolition, or removal would be in breach of any other Act.

Signature



Date: 4/07/06

Position Building Services Officer

On behalf of KAIPARA DISTRICT COUNCIL

ADDENDA TO THIS BUILDING CONSENT:

1. This building consent will lapse and be of no effect if the building work to which it relates does not commence within 12 months after the date of issue. The consent may be extended for any further period at the discretion of council.
2. No deviation or alteration from the original plans and specifications can be carried out without written approval of Council and no building may be converted to any other use other than that stated on the building consent.
3. NOTICE THAT BUILDING WORK IS READY FOR INSPECTION. For the purposes of Section 76 of the Building Act, and unless otherwise provided by the building consent, the owner or other person undertaking any building work shall give:
 4. b) at least 1 working days notice of the covering up of any
 5. i) drainage or plumbing
 6. ii) excavation for a foundation
 7. iv) timber required to have a specific moisture content
8. Council MUST be notified at the completion of building work on the attached form.
9. From 28 April 2003 all new dwellings, additions or alterations to dwellings must be provided with domestic smoke alarm(s) in order to comply with the Building Code.

COMPLIANCE SCHEDULE:

A compliance schedule is not required for the building.

ATTACHMENTS:

Copies of the following documents are attached to this building consent:

BUILDING CONSENT FEES:

Please note that further fees may be required to be paid before a Code Compliance Certificate is issued for this Building Consent. All fees must be paid before a Code Compliance Certificate will be issued.

Project Information Memorandum 060511

Section 31, Building Act 2004

D & M Morrison
Bradleys Landing East Rd
Arapohue, R D 4
Dargaville

Issue Date: 4/07/06
Application Date: 3/07/06
Overseer: Jim Vallance

THE PROJECT:

Description: Alterations and Additions to a Dwelling
3100 - DWELLINGS - ALTERATIONS & ADDITIONS

Type of Work:

Estimated Value: \$8,000

Intended Use: Owners Use

Intended Life: Indefinite, but not less than 50 years

Stages: Being Stage 1 of an intended 1 Stages

THE BUILDING:

Street Address of Building: BRADLEYS LANDING EAST ROAD, BRADLEYS LAN

Valuation Number: 0105015401

Legal Description: LOT 2 DP 16851 LOTS 1 2 DP 116263

Building Name:

Location of Building within site/block number:

Level/Unit Number:

This Project Information Memorandum is confirmation that the proposed building work may be undertaken, subject to the provisions of the Building Act 2004, and any requirements of the Building Consent.

This project information memorandum includes:

___ Information identifying special features of the land concerned

Signature



Date: 4/07/06

Position Building Services Officer

On behalf of: KAIPARA DISTRICT COUNCIL

KAIPARA DISTRICT COUNCIL

ATTACHMENT TO PROJECT INFORMATION MEMORANDUM NO 060511

INSPECTORATE

PLANNING

ENGINEERING

(A) Wind Zone rating for site Low Medium High ✓ Very High (B) Durability : Classification of Exposure Zones Sea Spray Zone Zone 1 ✓ Zone 2 (C) Provisions being made with regard to building over or adjacent to a road or public place are acceptable Hoardings) Gantries) N/A Temporary Support) (D) Provisions made for demolition are adequate Removal of materials from site) Dust Extraction) N/A (E) The site is known to be affected by hazardous contaminants which may impact on the proposed project Chemical Contamination) Underground Tanks) None Known Asbestos) (F) Licences required to operate, subject to Building Consent being granted Health Licences) Dangerous Goods Licence) N/A	(A) Proposed Project complies with District Plan Zoning Yes ✓ No (B) The bulk and location of the proposed project complies with the restrictions of the District Plan Yes ✓ No (C) Special planning restrictions known to affect the site which impact on the proposed project Protected Tree Restrictions) Historic Site Restrictions) None Known (D) Proposed vehicle access acceptable Gradient) Width) Existing Length) (E) Resource Consent Required – No Nature or required consent – NOTE: The Northland Regional Council Transitional Regional Rule for small domestic sewerage treatment systems, requires that there be a two meter separation between the lowest point of a septic tank effluent field and the highest ground water level. As this can only be determined by an examination of your site it is recommended that you seek professional advice on this point. If you cannot obtain the required separation it will be necessary to apply to the Northland Regional Council for a resource consent to discharge effluent.	(A) The site is known to have soil conditions which will have impact on the proposed project Fill) Erosion) None Known Slippage) Poor Bearing Capacity) (B) Site is known to be prone to flooding or lies within an overland flow path - No (C) Proposed methods for building over or near service pipes acceptable? - N/A (D) Proposed connection to services acceptable Stormwater Disposal) To Existing Foulwater Disposal) To Existing Water Connection) To Existing (E) Proposed location of vehicle access acceptable Location) Existing Traffic Implications) (F) Restrictions which may be imposed owing to potential impact on traffic Signs N/A
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24 August 2010

CMJ Ltd
C/- GI Banicevich
PO Box 437
Dargaville 0340

Dear CMJ Ltd

Building Consent Application 060511 Valuation Number 0105015401 Alterations and Additions to Dwelling. Bradleys Landing East Road.

A review of our records have identified that as yet, no final inspection has been called for in relation to Building Consent 060511, and therefore no Code Compliance Certificate issued.

Council would like to bring your attention to Section 93(2)(b) of the Building Act 2004:

93 Time in which building consent authority must decide whether to issue Code Compliance Certificate

(2)(b) if no application is made, the expiry of:

(i) 2 years after the date on which the building consent for the building work was granted.

Extensions of time may be allowed after due consideration of the factors involved and at Council's absolute discretion. Or, if your work is finished please **complete, sign and return** the Application for Code Compliance Certificate **and book your final inspection.**

If there are valid reasons for not progressing with the project, please advise with some urgency as we may be of assistance in agreeing to an extension of time.

Please be assured of our good intentions in assisting you with the best outcome possible.

Yours faithfully



Jim Vallance
Building Services Officer



BC # 060511

FIELD ADVICE NOTICE - 3 Pg 1

Date: 15-02-11

P O Box 26, Kaiwaka, Northland

Free Phone: 0800 100 388

Phone: (09) 431 2013

Fax: (09) 431 2023

www.kaipara.govt.nz

Applicant: D & M MORRISON

06957

Contractor: B ROPE

Site Address: 192 BRADLEYS LANDING

Inspection

Passed / Failed

VAL # EAST RD.

Reinspection Required:

Yes / No

Recommended to issue CCC:

Yes / No

Travelling Time:

Inspection Time:

Officer: JIM VALLANCE

Signature:

21 FINAL INSPECTION	OK	Not	N/A	Reason for the decision / Comments If further inspection needed please indicate
1 Peer Review required (over 5 yrs)				
2 Owners Application for CCC / Contractors List				
3 Consent Documents on Site				
4 Photos Taken				
20 FINAL FIREPLACES INSPECTION	OK	Not	N/A	SMALL 6m ² ADDITION TO KITCHEN WITH PORCH. DECK LESS THAN 1m HIGH
1 Smoke Alarms with Hush				
2 Hearth size and & secured				
3 Fire Place Clearances				
4 Fire Place secured				
5 Flue Shield				
6 Flashings / Flue Height				
7 Wet back circulators correct size and fall				
PLUMBING	OK	Not	N/A	
1 Waste pipe correct support & gradient				
2 Water filtration system installed				
3 Hot water pipe lagged				
4 1 metre minimum of copper outlet of HWC				
5 Hot water cylinder seismic restraint				
6 Hot water tempering value set at 45/55 degrees				
7 Hot water energy cut out switch to all valve vented systems				
8 Hot water drain OK (falls to outside of building)				
9 Filter, non return, stop, cold water expansion, pressure reducing & pressure relief valves				
10 Notches & holes in joists & bearers				
11 Waste pipes sizing / fall / support to gully trap				
12 Soil pipe sizing / fall / support				
13 Adequate support to water pipes				
14 Water supply tank / bore / supply				
15 Back flow prevention where required				
16 Other				
FINAL INTERNAL INSPECTION	OK	Not	N/A	
1 Smoke alarms with hush				
2 Sink insert secured correctly				
3 Service rooms impervious walls				
4 Service rooms impervious floors				
5 Producer statement membrane in wet areas				
6 Ceiling insulation (clear of downlights)				
7 Safety glass where required				
8 Ventilation				
9 Stairs gap / tread / rise / handrails				
10 Barrier Height 1.0m / 1.1m / Stairs 900mm				
11 Safety from falling eg. 100mm balustrade gaps				
12 Access for disabled (commercial only)				
13 Facilities for disabled (commercial only)				
14 All surfaces completed				

An Inspection of the above mentioned premises has been undertaken and the matters as listed must be completed within Days or otherwise stated

Action to be taken:

Issued by:

Designation: Building Officer

Next Inspection:

This notice Received By:

Owner / Agent / Contractor



FIELD ADVICE NOTICE - 3 Pg 2

P O Box 26, Kaiwaka, Northland
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06957

FINAL EXTERIOR INSPECTION		OK	Not	N/A	Reason for the decision / Comments If further inspection needed please indicate
1	Conditions on Resource / Building consent	✓			
1a	Landscaping Complete				
2	Joints in bearers supported			✓	
3	Ground clearance to u/side of floor	✓			
4	Subfloor ventilation	✓			
5	Subfloor bracing	✓			
6	U/floor insulation	✓			
7	Finished ground level	✓			
8	Cladding (joints, corner, scribes window flashing etc)	✓			
9	Cladding - painted / penetrations sealed	✓			
10	Brick veneer weep holes cleared			✓	
11	Roof & post fixings			✓	
12	Roof, ridging and flashings fixed correctly	✓			
13	Roof penetrations flashed correctly			✓	
14	Spouting fixed correctly	✓			
15	Down pipe clips at 1.2	✓			
16	Vent pipe clips at 1.2				
17	Vent Discharge / Vermin cage			✓	
18	Stairs gap / tread / rise / handrails			✓	
19	Barriers 1.0m / 1.1m / stairs 900mm			✓	
20	Safe from falling balustrades			✓	
21	RAMPS grade / slip resistance			✓	
22	Safety Glass (Glass Visible - commercial)			✓	
DRAINAGE		OK	Not	N/A	
1	As built drainage plan s/water and sewer				To EXISTING
2	Gully dish 25mm above sealed surface "A"				
3	Gully dish 75mm above unsealed surface "B"				
4	Relief gully installed				
5	Foulwater drain finished				
6	Ventilation to drains, e.g. TV & or valves				
7	Stormwater drain finished				
8	Retaining wall drainage connected into stormwater drain				
9	Overflow to water tank				
10	Access for septic tank maintenance				
11	Commissioning statements				
12	Effluent Completed Barking / Planting				
PRODUCER STATEMENTS		OK	Not	N/A	
1	Engineer / Licenced Building Practioneer				
2	Membranes / Roof				
FINAL POOL INSPECTION		OK	Not	N/A	
1	Pool fencing compliance (sheet completed)				
2	Back flow prevention where required				
ENERGY CERTIFICATES		OK	Not	N/A	
1	Electrical				
2	Gas				
ROAD DAMAGE		OK	Not	N/A	
1	Footpath & kerb damage				
2	Crossing installed				
COMMERCIAL		OK	Not	N/A	
1	Compliance Schedule				
2	Fire Design Compliance				
3	FPIS report				
4	Certificate of Public Use				
5	Fire Service -Evacuation Scheme				
6	Fire Service- Conditions meet				
7	Producer Statements - Fire Alarm, Ventilation etc				

An Inspection of the above mentioned premises has been undertaken and the matters as listed must be completed within Days or otherwise stated

Action to be taken:

Issued by:

Designation: Building Officer

Next Inspection:

This notice Received By:

Owner / Agent / Contractor



Kaipara te Orangahui • Two Oceans Two Harbours

Code Compliance Certificate Checklist

KAIPARA DISTRICT COUNCIL

Code Compliance Certificate Checklist

Address of Property		292 BRADLEYS LANDING EAST RD.			
Consent Number		060511	Date	15-02-11	
Staff Responsible		SIM VALLANCE	Building Category		1-2
Note: In some cases some of the following items may not need to be checked					
Number	Issue	Yes	No	N/A	
1 *	Change of owner or address	☒	No	N/A	MOVED AWAY
2 *	Request for CCC within 2 year timeframe	Yes	No	N/A	LETTER SENT
3 *	All inspections completed	☒	No	N/A	
4 *	Development contributions paid	Yes	No	☒	
5 *	Energy works certificate provided	Yes	No	N/A	NO
6 *	Inspections Extra inspections to be charged	Yes	No	☒	
7 *	All building consent conditions fulfilled	Yes	No	N/A	?
8 *	Ensure that conditions of geotechnical reports, engineers reports of producer statements are complied with	Yes	No	N/A	
9 *	Work complies with approved building consent documentation	☒	No	N/A	
10 *	Check that items are completed from Final Checklist (FAN)	☒	No	N/A	
11 *	Survey certificates – siting, height in relation to boundary, maximum height of building or minimum floor level	Yes	No	☒	
12 *	List of contractors	☒	No	N/A	
13 *	Amendments, variations and associated documentation properly completed	Yes	No	☒	
14 *	Document applies to building work for which a building consent has been issued before the date on which the compliance document came into force	Yes	No	☒	

15 *	Reference (if applicable) to acceptable solutions of verification methods	Yes	No	N/A	
16 *	File forwarded to Senior Building Services Officer to undertake a Peer Review (over 5 years old) and arrange issue of CCC	Yes	No	N/A	
17 *	If compliance schedule must be issued, co-ordinate issue with issue of CCC	Yes	No	N/A	
18 *	Photographs	Yes	No	N/A	
19 *	CCC Consent issued under the transitional provisions of Section 436 Building Act 2004 noted added to CCC	Yes	No	N/A	
20 *	Regulatory approvals, dispensations, waivers or modifications	Yes	No	N/A	

Issue CCC	☒ Yes	☐ No
Reason for Decision	I am satisfied on reasonable grounds that the: Building work complies with the building code at the time the Building Consent was granted (see number 19) Building work complies with the Building Consent issued; and The specified systems in the building are capable of performing to the performance standards set out in this building consent (Added to CCC and the compliance schedule as attachment) (compliance schedule statement issued)	
Signed		

"Yes" means Approved

"No" Means not Approved

"N/A" means Not Applicable

Code Compliance Certificate 060511

Form 7, Section 95, Building Act 2004

D & M Morrison
Bradleys Landing East Rd
Arapohue, R D 4
Dargaville 0300

Issue Date: 15/02/11
Overseer: Jim Vallance

THE BUILDING:

Street Address of Building:	BRADLEYS LANDING EAST ROAD, BRADLEYS LAN
Valuation Number:	0105015401
Legal Description:	LOT 2 DP 16851 LOTS 1 2 DP 116263
Building Name:	
Location of Building within site/block number:	
Level/Unit Number:	
Current Lawfully Established Use:	Rural Zone
Year First Constructed:	

THE PROJECT:

Description:	Alterations amd Additions to a Dwelling DWELLINGS - ALTERATIONS & ADDITIONS
Type of Work:	
Intended Use:	Owners Use
Intended Life:	Indefinite, but not less than 50 years
Stages:	Being Stage 1 of an intended 1 Stages

THE OWNER:

Owners Name:	D & M Morrison		
Owners Mailing Address:	Bradleys Landing East Rd, Arapohue, R D 4, Dargaville 0300		
Street Address/Registered Office:			
Phone	Landline: (09) 439 5395	Daytime:	After Hours:
Number	Mobile:	Fax:	
Email: pa.hill@xtra.co.nz	Website:		

FIRST POINT OF CONTACT:

First Point of Contact:	As above
-------------------------	----------

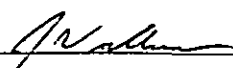
BUILDING WORK:

Building Consent Number:	060511
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 060511

Signature



Date: «IssueDate»

Position Building Services Officer

On behalf of: Kaipara District Council

SPECIFICATION

of work to be done and materials to be used in carrying
out the works shown on the accompanying drawings

ALTERATIONS AND ADDITIONS TO DWELLING FOR

D. & M. MORRISON

BRADLEYS LANDING EAST ROAD

ARAPOHUE

Date: JULY 2006

1. PRELIMINARIES AND GENERAL
2. SITE
3. STRUCTURE
4. ENCLOSURE
5. INTERIOR
6. FINISH
7. SERVICES

PREPARED BY

BRIAN RANDALL
B.ARCH., B.A.S., NZCE Civil
PH-FAX 094390099
DARGAVILLE

KAIPARA DISTRICT COUNCIL
APPROVED


BUILDING OFFICIAL

060511

1201 PRELIMINARIES AND GENERAL

1. THE PROJECT

1.1 THE WORKS

The works are as described in this specification and as shown on the drawings.

1.2 SITE

The site of the works, the site address and the legal description are shown on the drawings. Confine access and work to the area of site indicated on the drawings.

1.3 SITE ACCESS AND LIMITS

~

1.4 EXISTING SERVICES

~

1.5 EXISTING STRUCTURES AND FEATURES

~

2. DOCUMENTATION

2.1 SPECIFICATION STRUCTURE

The designation and numbering of individual specification sections follows the CBI (Co-ordinated Building Information) system for the co-ordination and classification of construction information. Sections are for reference and convenience only and do not profess to define subcontracts.

Read all sections together and read PRELIMINARIES AND GENERAL with all other sections.

2.2 INTERPRETATIONS

Required: Required by the documents, or by a statutory authority.
Proprietary: Identifiable by naming the manufacturer, supplier, installer, trade name, brand name, catalogue or reference number.
Approval: Approval in writing.
Direction: Direction in writing.
Provide and fix: "Provide" or "fix" or "supply" or "fix" if used separately mean provide and fix unless explicitly stated otherwise.
Notified: Notified in writing

2.3 ABBREVIATIONS

The following abbreviations are used throughout the specification sections:

AS Australian Standard
AS/NZS Joint Australian/New Zealand Standard
BRANZ Building Research Association of New Zealand
BS British Standard
HERA Heavy Engineering Research Association
NZBC New Zealand Building Code
NZMP New Zealand Miscellaneous Publication
NZS New Zealand Standard
NZS/AS Joint New Zealand/Australian Standard
OSH Occupational Safety and Health

2.4 DEFINED WORDS

Words defined in the conditions of contract, New Zealand Standards, or other reference documents have the same interpretation and meaning when used in their lower case, title case or upper case form in the specification text.

2.5 PERSONNEL

Owner: The person defined as "owner" in the New Zealand Building Code.

Contractor: The person contracted by the owner to carry out the contract.

2.6 SUBSTITUTIONS

A substitution may be proposed where specified products are not available, or if substitute products are brought to the attention of and are considered by the owner as equivalent or superior to those specified. Except where a specified product is not available, the owner is not bound to accept any substitutions.

Notify proposed substitution of specified products. Include sufficient information to allow the owner to confirm that the substitution is equivalent or superior to that specified.

Approval of substitutions: In writing.

2.7 MANUFACTURERS AND SUPPLIERS REQUIREMENTS

Manufacturers and suppliers requirements, instructions, specifications or details means those issued by them for their particular material, product or component and are the latest edition.

2.8 MANUFACTURERS AND SUPPLIERS DOCUMENTS

Refer to individual sections for a detailed list of manufacturers and suppliers documents relating to work on this project. Retain current copies of the documents listed, and other relevant manufacturers technical literature, on site. Make this information available to all personnel and ensure they are familiar with requirements for handling, storing, preparing for, fixing and finishing products before commencing work. Provide a copy of all manufacturers literature to the owner.

2.9 REFERENCED DOCUMENTS

Throughout this specification, reference is made to various New Zealand Building Code (NZBC) acceptable solutions and verification methods for criteria and/or methods used to establish compliance with the Building Act 1991.

Reference is also made to various Standards produced by Standards New Zealand (NZS, NZMP, AS/NZS, NZS/AS), , overseas standards (AS, BS,) and to listed Acts, Regulations and various industry codes of practice and practice guides. The latest edition (including amendments and provisional editions) at the date of this specification applies unless stated otherwise.

It is the responsibility of the contractor to be familiar with the materials and expert in the techniques quoted in these publications, and to ensure that all those engaged in construction of the works to be similarly informed.

Documents cited both directly and within other cited publications are deemed to form part of this specification.

2.10 PRECEDENCE OF REFERENCED DOCUMENTS

This specification takes precedence in the event of it being at variance with and requiring a higher standard than, the cited documents.

Resolution of any variance must be confirmed in writing and where building consent approval is affected, the change notified to the territorial authority prior to any further work proceeding.

2.11 DOCUMENTS REFERRED TO

Documents referred to in this preliminaries and general section are:

Building Act 1991

Health and Safety in Employment Act 1992

Smoke Free Environments Act 1990

2.12 BUILDING CONSENT COMPLIANCE

It is an offence under the Building Act 1991 to carry out any work not in accordance with the building consent. Refer the resolution of matters concerning compliance to the owner for a direction. Where building consent approval is affected refer any change to the territorial authority.

2.13 STATUTORY OBLIGATIONS

Comply with all statutory obligations and regulations of regulatory bodies controlling the execution of the works.

2.14 BUILDING CONSENT

Obtain the original or copies of the building consent form and documents from the owner and keep on site. Liaise with the territorial authority and/or the building certifier for all notices to be given and all inspections required during construction to ensure compliance. Return the consent form and documents to the owner on completion.

2.15 PRODUCER STATEMENTS

When producer statements verifying construction are required, provide copies to both the territorial authority and the owner. Producer statements to be in the form required by the Territorial Authority to comply with the Building Act.

2.16 MONETARY ALLOWANCES

Monetary allowances are listed in the: ~

Refer to individual work sections for particular requirements relating to monetary allowances.

2.17 SHOP DRAWINGS

Where specified in the work sections, provide shop drawings for review. Proposed shop drawings to be submitted in due time to ensure conformance with the contract programme. Allow 10 working days for review.

Shop drawing review indicates only that the supplied interpretation of the design concept has been reviewed without the need for further modification, other than the corrections indicated by the reviewer. Review of shop drawings does not relieve the contractor of responsibility for the correctness of the shop drawings, site dimensions, the overall design, or for ensuring the work is performed in compliance with the contract documents. Nor does it remove the need for the contractor to comply with the stated requirements, details and

specifications of the manufacturers and suppliers of individual components, materials and finishes. Neither can the review be construed as authorising departures from the contract documents.

2.20 WARRANTIES

Provide executed warranties in favour of the owner in respect of, but not limited to, materials, elements, service, application, installation and finishing called for in that specified section of work. The terms and conditions of the warranty in no case negate the minimum remedies available under common law as if no warranty had been offered.

Failure to provide the warranty does not reduce liability under the terms of the warranty called for in that specified section of work.

- Conform to the warranty agreement form included in this specification.
- Commence all warranties from the date of practical completion of the contract works.
- Maintain their effectiveness for the times stated.
- Deliver executed warranties to the owner at practical completion.

2.21 WEATHERTIGHTNESS AND WATERTIGHTNESS WARRANTY

Provide a warranty for a minimum period of 2 years, covering the weathertightness of the complete building envelope and the watertightness of all liquid supply and disposal systems and fittings. This general warranty is in addition to any specific warranties required.

2.22 TRADE GUARANTEES AND WARRANTIES

Where specific trade guarantees/warranties are offered covering materials and/or execution of proprietary products or complete installations, provide copies of all such guarantees/warranties to the owner.

2.23 FORM OF WARRANTY

Conform with the form of warranty agreement included in this specification. Commence all warranties from the date of practical completion. Maintain their effectiveness for the times stated.

2.24 LIST OF WARRANTIES

General warranties	Warranty period
~	~

2.25 SERVICES PLANS

Prepare services plans setting out the actual positions as constructed of all sewer, stormwater, sanitary plumbing, piped and ducted services, electrical and mechanical services. Except where specified otherwise, as-built plans may be marked up on copies of relevant project drawings. Provide 1 set of services plans to the owner. Provide services plans required by the building consent to the territorial authority.

2.26 OPERATING AND MAINTENANCE MANUALS

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3. ESTABLISHMENT

3.1 APPROVALS

Attend on territorial authority officers, statutory and network utility inspectors, as necessary to obtain approvals (in addition to building consent approval) for and the satisfactory completion of the works.

4. TEMPORARY WORKS AND SERVICES

4.2 SITE ACCOMMODATION

Provide, erect and maintain scaffolding, sheds, toilets, water, power, hoardings and access to the site. Allow for cartage, craneage, plant hire and storage. Arrange for temporary works and services necessary for the completion of the works. Pay fees and remove temporary works and services on completion of the works.

4.3 PROTECT

Protect parts of the work liable to damage, including adjoining public or private property, existing buildings, existing roads, footpaths, fences, site services, trees, landscaping and existing retained site features, until completion of the works. Take all precautions necessary to protect the works from damage by unauthorised entry or inclement weather. Brace and support all parts of the works against damage during construction.

Make good damage to existing property and site features arising from construction activities or failure to protect.

4.5 SPECIAL PROTECTION

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4.6 STORAGE

Provide temporary storage areas and protective covers and screens. Fillet stack and protect all framing and structural members from moisture and contamination. Completely protect finishing materials from the weather and damage and store in accordance with the manufacturer's requirements. Protect fabricated elements from the weather and damage, and store in accordance with suppliers' requirements.

4.7 ANTIQUITIES AND ITEMS OF VALUE AND INTEREST

Report immediately the finding of any fossils, antiquities, or objects of value. Ensure they remain undisturbed until direction is given for their removal.

5. PROJECT MANAGEMENT

5.1 SITE MEETINGS

Hold site meetings when required by the owner. The contractor's representative and site supervisor to attend such meetings. Inform subcontractors and others when their presence is required.

Meetings will normally be held: Fortnightly

5.2 MEANS OF COMMUNICATION

All directions and approvals to be in writing.

5.3 PROGRAMME

Provide within 2 weeks of award of the contract a programme for the contract works, including the work of separate contractors being carried out concurrent with this contract. Form of programme: A dated bar chart, identifying the contract work's critical path and all key dates for the provision of labour, materials and elements. Review and update the programme monthly. Supply a copy of the programme and all updates to the owner.

5.4 WORKING HOURS

Work on site is not restricted. Comply with territorial authority consent conditions and noise and nuisance controls.

5.5 WORKING HOURS RESTRICTIONS

Work on site is restricted to ~

Work outside these hours may be permitted, but 24 hours notice is required in writing to the owner before proceeding. Obtain any necessary permits and permission for such work.

5.6 HEALTH AND SAFETY

Refer to the requirements of the Health and Safety in Employment Act 1992. Comply with all relevant New Zealand safety legislation.

Take all practical steps to make the site and the contract works safe and to provide and maintain a safe working environment. Ensure that all those working on or visiting the site are aware of the rules governing site safety, are properly supervised and are not unnecessarily exposed to hazards.

Identify any significant hazards.

Maintain proper procedures for dealing with any emergencies that may arise. Immediately investigate accidents, identify their cause and maintain a register of accidents and serious harm. Provide a copy of any report which the contractor is required to make to a public authority on any accident which is associated with carrying out the contract works and results in serious harm to any person.

5.7 SMOKING

Do not smoke on site except in a designated location in accordance with the Smoke Free Environments Act 1990. Location determined by the contractor, with the approval of the owner.

5.8 RESTRICTIONS

Do not:

- bring dogs on to or near the site

6. CONSTRUCTION

6.1 QUALITY ASSURANCE

Carry out and record regular checks of material quality and accuracy, including:

- Concrete quality and finishes (refer to 3101 CONCRETE).
- Dimensional accuracy of structural columns (following completion of foundations).
- All perimeter columns and frames for plumb.
- Levels of all floors relative to the site datum.
- Framing timber moisture content (refer to 3801 CARPENTRY).

Where any material, quality or dimension exceeds specified or required tolerances, obtain written confirmation of remedial action from the owner. When building consent approval is affected, confirm with the territorial authority.

Provide all materials, equipment, plant, attendances, supervision, inspections and programming to ensure the required quality standards are met.

6.2 DAMAGE AND NUISANCE

Take all reasonable precautions to prevent damage and nuisance from water, fire, smoke, vehicles, dust, rubbish, noise and all other causes resulting from the contract works. Comply with the requirements of the territorial authority and relevant Acts and Standards.

6.3 SET OUT AND DATUM

Set out the works to conform with the drawings. Establish a permanent site datum to confirm the proposed building ground floor level and its relationship to all other existing and new building levels.

6.5 OWNER TO SIGHT SETOUT

While it remains the contractor's responsibility to set out the works accurately and correctly and to confirm any changes from the approved location with the territorial authority, obtain the owner's written confirmation that they have sighted the proposed building location, site datum and profiles, before commencing any further work.

6.6 EXECUTION

Conform to the requirements of this specification. Ensure work is level, plumb, and true to line and face. Employ only experienced workers familiar with the materials and techniques specified.

6.7 MATERIALS AND PRODUCTS

Use only new materials and products, unless stated otherwise, of the specified quality and complying with all cited documents.

Substitution of alternative materials, products, plant or equipment from those specified must first be confirmed by the owner in writing. If the building consent approval is affected, obtain the approval of the territorial authority for the substitution.

6.8 COMPATIBILITY

Ensure all parts of a construction or finish are compatible and their individual use approved by the manufacturers and suppliers of other parts of the system. Source all parts of a system from a single manufacturer or supplier.

6.9 COMPLETE ALL SERVICES

Ensure building services are operational, with temporary labelling removed, required labelling fixed and service instructions provided.

6.10 CLEAR AWAY

Regularly clear away trade debris, unused materials and elements from the site. On completion of the works leave the building clean and ready for occupancy, with all services operating and mechanical parts in good working order. Remove temporary markings, coverings and protective wrappings. Ensure that any maintenance requirements listed on temporary markings are conveyed to the owner.

6.11 CLEAN

Clean and wash down external surfaces to remove dirt, debris and marking. Clean interior surfaces including cabinetwork, joinery, sanitary and hardware items. Vacuum or polish floor surfaces. Clean and polish glass, both sides.

6.12 SPARES

Collect, protect and store safely spare materials required under the contract. Give the owner an inventory of spares.

2301 FOUNDATIONS

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZS 3109	Concrete construction
NZS 3602	Timber and wood-based products for use in buildings
NZS 3604	Timber framed buildings
NZS 3605	Timber piles and poles for use in buildings
NZS 3631	New Zealand national timber grading rules
NZMP 3640	Minimum requirements of the NZ Timber Preservation Council

Inc.

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

~

Copies of the above literature are available by phoning ~.

2. PRODUCTS

2.6 NAILS

Steel, stainless steel and galvanised steel of pattern to NZS 3604, table 6.8 and section 4 - Durability.

2.7 BOLTS AND SCREWS

Steel, stainless steel and galvanised steel to NZS 3604.

2.8 NAIL PLATES

Stainless steel and galvanised steel toothed or nailed steel plates to the plate manufacturer's design for the particular locations shown on the drawings.

2.9 CONCRETE

For piles and footings ordinary grade 17.5 MPa to NZS 3109, section 6 and NZS 3604, section 6.4.5.

2.10 DAMPPROOF COURSE

2-ply/3-ply kraft felt strip saturated and coated with bitumen.

2.11 SHEET DAMPPROOFING

Rubberised bitumen membrane specifically produced for waterproofing applications, possessing high resistance to water, water vapour and gas permeability and resistant to the attack of ground bacteria and ageing effects, joined using proprietary techniques and applied by the use of special adhesives. Thickness not less than 1.5 mm.

2.12 BRUSH ON LIQUID-APPLIED MEMBRANE

Fully stable, water-based colloidal bitumen emulsion.

3. EXECUTION

3.1 FOUNDATIONS GENERALLY

Comply with NZS 3602 and NZS 3604 except as varied by this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.2 EXCAVATIONS

Refer to 2201 PREPARATION AND GROUNDWORK.

3.7 SUB-FLOOR FRAMING

Frame up off foundation walls and piles, all fabricated, fastened and braced to NZS 3604, section 6.

3.8 CONCRETE WORK

Refer to 3101 CONCRETE for poured concrete footings, foundations, foundation walls and floor slabs.

3.9 CONCRETE MASONRY

Refer to 3302 CONCRETE MASONRY for concrete block foundation walls.

3.10 DAMPPROOFING WORK

Protect horizontal surfaces to be dampproofed with a 50 mm layer of 15 MPa site concrete. Ensure surfaces for dampproofing are free from voids, spalled areas, loose particles and sharp protrusions. Masonry joints struck flush. Apply primer, then install the rubberised bitumen membrane system, strictly in accordance with the dampproofing manufacturer's requirements. All work by applicators licensed by the dampproofing manufacturer. Protect vertical surfaces with polystyrene sheets glued to the membrane and taped over joints.

3.11 LIQUID-APPLIED MEMBRANE WORK

Three coats of water-based bitumen emulsion applied in accordance with the membrane manufacturer's requirements. First coat at the rate of 0.20 litres/m², with the second and third coats each at the rate of 0.75 litres/m². Protect vertical surfaces with polystyrene sheets before backfilling.

3101 CONCRETE

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZS 3104 Concrete production - High grade and special grade
NZS 3108 Concrete production - ordinary grade
NZS 3109 Concrete construction
NZS 3114 Concrete surface finishes
NZS 3124 Concrete construction for minor works
NZS 3422 Welded fabric of drawn steel wire for concrete reinforcement
NZS 3604 Timber framed buildings
AS/NZS 4671 Steel reinforcing materials

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

~

Copies of the above literature are available by phoning ~.

2. PRODUCTS

2.1 REINFORCEMENT

Bars to AS/NZS 4671. Grade 300 deformed, other than for ties, stirrups and spirals, unless shown otherwise on the drawings. Welded reinforcing mesh to NZS 3422.

2.2 TYING WIRE

Mild drawn steel wire not less than 1.2 mm diameter.

2.3 SPACERS AND CHAIRS

Precast concrete or purpose made moulded PVC to approval. Use concrete spacer blocks only where the concrete surface is not exposed in the finished work.

2.4 DAMPPROOF MEMBRANE

0.25 mm minimum polyethylene to NZS 3604, section 7.5.4.

2.5 READY-MIX CONCRETE

Ordinary grade 17.5 MPa, maximum aggregate size 19 mm to NZS 3104. Provide delivery dockets listing mix and despatch details.

2.6 SITE MIXED CONCRETE

To NZS 3124. Ordinary grade 17.5 MPa minimum strength, using either separate batching of sand and coarse aggregate to NZS 3108, or builder's mix.

2.7 SITE CONCRETE

To NZS 3124. 1:8 (cement : all-in aggregate) with minimum water for workability, all materials and batching to NZS 3108.

3. EXECUTION

3.1 HANDLE AND STORE

Handle and store reinforcing steel and accessories without damage or contamination. Store on timber fillets on hard ground in a secure area clear of any building operation. Lay steel fabric flat. Ensure reinforcement is clean and remains clean so that at the time of placing concrete it is free of all loose mill scale, loose rust and any other contamination that may reduce bonding capacity.

3.2 FALSEWORK AND FORMWORK

Use falsework and formwork of sufficient strength to retain and support the wet concrete to the required profiles and tolerances. Select formwork finish to produce the specified finished quality. Ensure timber or plywood used for formwork is non-staining to the set concrete.

Securely fix and brace formwork sufficiently to support loads and with joints and linings tight enough to prevent water loss. Do not use tie wires or rods unless approved in writing by the owner. Unless detailed otherwise, provide a 19 mm chamfer or fillet strip at all interior and exterior angles of beam and column forms. Mitre at intersections.

Water blast to clean formwork. Keep formwork wet before concrete is placed.

Unless detailed otherwise, set up soffit boxing for beams and slabs to provide a camber when forms are stripped, of 3 mm rise for every 3 metres of total clear span.

3.3 CUT AND BEND REINFORCEMENT

Cut and bend bars using proper bending tools to avoid notching and to the requirements of NZS 3109. Do not rebend bars without written approval.

3.4 SECURE REINFORCEMENT

Secure reinforcement adequately with tying wire and place, support and secure against displacement when concreting. Bend tying wire back well clear of the formwork. Spacing as dimensioned, or if not shown, to the clear distance minimums laid down in NZS 3109, clause 3.6.

3.5 LAPPED SPLICES

Set length of laps, where not dimensioned on the drawings, in accordance with NZS 3109, clause 3.7. Increase laps of plain round steel by 100%.

3.6 COVER

Minimum cover to all reinforcing bars, stirrups, ties and spirals, as shown on the drawings and to NZS 3109, clause 3.8. Fix chairs for top reinforcement in slabs at 1.0 metre centres or to ensure adequate support. Cover tolerances to NZS 3109, clause 3.9.

3.7 PRE-PLACEMENT INSPECTION

Do not place concrete until all excavations, boxing and reinforcing have been inspected and passed by the territorial authority inspector.

3.8 SURFACE FINISHES

To comply with NZS 3114, section 105, as scheduled or as denoted on the drawings.

3.9 EXPOSED CONCRETE

Formwork linings and surface finishes as nominated for both fair face and concealed or exposed surfaces. Unless detailed, obtain written confirmation of the type and pattern of all joints.

3.10 CONCRETE SURFACE TOLERANCES

To comply with NZS 3114, sections 104 and 105, with the suggested tolerances becoming the required tolerances.

3.11 INSTALL DAMPPROOF MEMBRANE

Apply polythene membrane to prepared basecourse with 150 mm laps between sheets. Tape seal laps and penetrations with 50 mm wide pressure sensitive plastic tape. Refer to drawings for perimeter details.

3.12 DAMPPROOFING

Refer to 2301 FOUNDATIONS.

3.13 CASTING IN

Build in all grounds, bolts and fixings for wall plates and bracing elements, holding down bolts, pipes, sleeves and fixings as required by all trades and as shown on the drawings, prior to pouring the concrete.

Do not use grounds exceeding 100 mm in length. Location and form of conduits to be approved in writing by the owner. Minimum cover 40 mm. Do not encase aluminium items in concrete. Do not paint steel embedded items more than 25 mm into the concrete encasement. Cut back form ties to specified cover and fill the cavities with mortar.

Form all pockets, chases and flashing grooves as required by all trades and as shown on the drawings.

Wrap all pipes embedded in concrete with tape to break the bond and to allow for expansion. Do not embed pipes for conveying liquids exceeding a temperature of 50 degrees C in concrete.

3.14 PUMPING CONCRETE

Set up and supervise pump operation, placing and compaction of the mix in accordance with NZS 3109. Advise the ready-mix supplier of the type of pump and the slump required, in addition to the concrete grade, strength and quantity.

3.15 COMPACTION

Use power operated vibrators on foundations, vertical constructions and beams.

3.16 RESIDENTIAL FLOOR SLABS

Construct in accordance with NZS 3604, section 7.5. Lay to true and straight surfaces, screeded, floated and steel (manual or power) trowelled finish. Tolerance on flatness: maximum 3 mm gradual deviation over a 3 metre straight-edge, to the requirements of NZS 3109.

3.17 CONSTRUCTION JOINTS

Locate and construct as shown on the drawings.

3.18 SAW CUTS

Cut slabs where indicated on the drawings and as required to control shrinkage cracking. Carry out cutting as soon as possible, without causing tear-out of aggregate and before shrinkage cracking has occurred, generally within 24 hours of pouring. Where saw cuts are made, cut out 100 mm of every

second wire of the mesh for a length of 50 mm each side of the saw cut position. Saw cuts: 1/3rd slab depth or 30 mm minimum.

3.19 SURFACE DEFECTS

Make good surface defects immediately after forms are stripped. Make good hollows or bony areas with 1:2 mortar or plaster, finished to the same tolerances as the parent concrete. Fill any tie rod holes with 1:2 mortar.

3.20 CURING OF CONCRETE

Keep damp for not less than seven days. Ensure curing of slabs commences as soon as possible after final finishing, by the use of continuous water sprays, or ponding. Alternately, apply a curing membrane. Ensure any membrane used will not affect subsequent applied finishes.

3.21 STRIKE FORMWORK

Strike formwork without damaging or overloading structure. Do not remove formwork before the following minimum periods:

Sides of beams, walls and columns:	12 hours
Slabs in beam and slab construction:	4 days
(leave props under slab spans over 2 metres)	
Props from under slab spans over 2 metres:	10 days
Beams, soffits and slab spans over 5 metres:	18 days

3.22 CLEAN OUT

Clean out saw cuts. Fill with cement grout where the floor will be covered with carpet or vinyl.

3.23 REMOVE

Remove all unused materials and all concrete and reinforcing debris from the site.

3801 CARPENTRY

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

AS/NZS 1748 Mechanically stress-graded timber
AS/NZS 1860 Particleboard flooring
1860.1: Specifications
AS/NZS 2269 Plywood - Structural
NZS 3602 Specifying timber and wood-based products for use in building
NZS 3604 Timber framed buildings
NZS 3606 Manufacture of glue-laminated timber NZS 3631 New
Zealand national timber grading rules NZMP 3640 Minimum requirements of
the NZ Timber Preservation Council Inc.

NZS 7421 Installation of solid fuel burning domestic appliances
BRANZ Bulletin 328: Selection and use of fasteners
BRANZ Bulletin 357: Thermal insulation of houses
BRANZ Bulletin 368: Preventing moisture problems in timber framed skillion
roofs

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section
are:

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Copies of the above literature are available by phoning ~.

2. PRODUCTS

2.1 BUILDING WRAP

Waterproof, breather type.

2.2 ALUMINIUM FOIL

Aluminium sheet, kraft paper fibre reinforced laminates.

2.3 TIMBER FRAMING GENERALLY

Species, grade and level of treatment as set out in NZS 3602. Grading to
NZS 3631 and treated to NZMP 3640. Mechanical stress grading acceptable as an
alternative to visual grading.

Moisture content at supply: ~%

2.5 TIMBER FRAMING DRY, TREATED

Species, grade and moisture content in service as set out in NZS 3602.
Treated H1.2, H3.1 or H3.2 to NZMP 3640, with an average moisture content at
supply of 16% or less. Either mechanically stress graded to AS/NZS 1748, or
visual grading to NZS 3631.

2.6 TIMBER FRAMING, TREATED FOR EXTERIOR EXPOSED USE

Pinex No.1 framing grade radiata pine to NZS 3631, H3.2 treated to
NZMP3640 with moisture content as scheduled/shown on the drawings.

2.7 CEILING BATTENS

Species, grade, moisture content in service and level of treatment as set
out in NZS 3602. Grading to NZS 3631 and treated to NZMP 3640.

Moisture content at supply: ~

2.9 TIMBER TRUSSES

Moisture content at supply: 16%

2.11 TIMBER STRIP FLOORING

Tongue and groove profile with species and grade to NZS 3602. H1.2 treated to NZMP 3640 unless durable heart wood. Moisture content 10-12% at laying.

2.17 DAMPPROOF COURSE

2-ply/3-ply kraft felt strip saturated and coated with bitumen.

2.18 NAILS

Steel, stainless steel and galvanised steel of pattern to suit the location and to BRANZ Bulletin 328 "Selection and use of fasteners".

2.19 BOLTS AND SCREWS

Steel, stainless steel and galvanised steel of pattern to suit the location and to BRANZ Bulletin 328 "Selection and use of fasteners".

2.20 NAIL PLATES

Stainless steel and/or galvanised steel toothed or nailed plates to the plate manufacturer's design for the particular locations as shown on the drawings.

2.21 CONNECTORS

Galvanised steel connectors and structural brackets to the connector manufacturer's design for particular locations shown on drawings.

3. EXECUTION

3.1 ATTENDANCE

Provide and fix blocks, nogs, openings and other items as required by other trades.

3.2 MOISTURE CONTENT

Maximum allowable equilibrium moisture content (EMC) for non air-conditioned or centrally heated buildings to NZS 3602, for framing to which linings are attached.

- Framing at erection: 24% maximum
- Framing at enclosure: 20% maximum
- Framing at lining: 16% maximum
- Timber strip flooring 10% (at time of laying)

3.3 EXECUTION GENERALLY

To NZS 3603 and NZS 3604 except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

3.4 DIMENSIONS

All timber sizes are nominal sizes.

3.5 SET OUT

Set out framing in accordance with the requirements of NZS 3604 and as required to support sheet linings and claddings.

3.8 FRAMING WALLS

Frame to required loading and bracing complete with lintels, sills and nogs, all fabricated and fastened to NZS 3604, section 8.

3.9 FRAMING ROOFS

Frame to required loading and bracing complete with valley boards, ridge boards and purlins. Design and fit roof trusses complete with anchorage. All fabricated and fastened to NZS 3604, section 9 and 10.

3.11 INSTALLING CEILING BATTENS

Fabricate and fasten in accordance with NZS 3604, section 13.

3.14 INSTALLING INSULATION

Lay and fit insulation as detailed, to the insulation manufacturer's requirements, and to the requirements of BRANZ Bulletin 357 "Thermal insulation of houses".

3.22 INSTALL PROPRIETARY FIREPLACE

Prepare for the installation as detailed and as required by the manufacturer. Install strictly in accordance with NZS 7421 and the manufacturer's stated and detailed requirements.

4301 PROFILED METAL ROOFING

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC E2/AS1 External moisture
1.0 Roofs
AS 1397 Steel sheet and strip - hot-dipped, zinc-coated, or
aluminium/zinc-coated
NZS 3403 Hot-dipped galvanised corrugated steel sheet for building
purposes
NZS 3602 Timber and wood-base products for use in building
NZS 3604 Timber framed buildings
NZMP 3640 Minimum requirements of the NZ Timber Preservation Council
Inc.
NZS 4222 Materials for the thermal insulation of buildings
New Zealand Metal Roofing and Cladding Manufacturers' Association Inc:
Profiled metal roofing design and installation handbook

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section
are:

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Copies of the above literature are available by phoning ~.

1.3 QUALIFICATIONS

Carry out roofing work using experienced, competent roofers familiar with
the materials and techniques specified.

1.4 WIND AND EARTHQUAKE LOADINGS

Use fixings and methods capable of sustaining the loads appropriate to the
area as set out in NZS 3604, section 5.

1.5 COORDINATE

Coordinate to ensure substrate and preparatory work is complete and other
work programmed in the order required for access and completion of the roof.

1.6 PERFORMANCE

Accept responsibility for the weather-tight performance of the completed
roofing system, including all penetrations through the roof and junctions with
walls and parapets.

2. PRODUCTS

2.1 PROFILED METAL ROOFING

Steel sheet galvanised to NZS 3403, aluminium/zinc coated to AS 1397.
Finish as specified. Accessories, cappings, flashings and fixings to match and
to the roofing manufacturer's requirements.

2.2 WIRE NETTING

Galvanised hexagonal 75 mm mesh from 1 mm galvanised steel wire.

2.3 UNDERLAY

Breather type, waterproof.

2.4 NAILS, SCREWS AND FASTENINGS

Metal, size and pattern, to roofing manufacturer's requirements and complying with the relevant aspects of NZS 3604, section 4: Durability.

3. EXECUTION

3.1 STORAGE

Stack roofing and accessories on clean, level areas of the site and protect from damage and from weather until ready to fix in place. Avoid overloading roof structure when roofing materials are placed on the roof area prior to installation.

3.2 SET OUT

Set out the planned layout before fixing commences, to ensure true lines and the correct relationship to module, grid and roof features.

3.3 LAY ROOF UNDERLAY

Lay and fix to NZBC acceptable solution E2/AS1, NZS 3604, section 11.2.2 and the roofing manufacturer's requirements.

3.4 LAY ROOFING, GENERALLY

Take care to avoid damaging pre-finished roofing both during and after fixing. Wear only soft-soled shoes on the finished surface.

3.5 CUT PROFILED METAL ROOFING

Cut profiled metal roofing only with tools recommended by the roofing manufacturer. Fold ends and seal cut edges to the roofing manufacturer's requirements.

3.6 INSTALL PROFILED METAL ROOFING

Install profiled metal roofing and fix complete with all matching accessories, flashed to all roof features and penetrations; and in accordance with the requirements in the New Zealand Metal Roofing and Cladding Manufacturers' Association Inc. publication "Profiled metal roofing design and installation handbook."

3.7 FIXINGS

Refer to the roofing manufacturer's literature for fixing details and to NZS 3604 for fixings durability requirements.

3.8 INSTALL COVERS AND FLASHINGS

Install and fix as detailed and to the roofing manufacturer's details and to comply with NZBC acceptable solution E2/AS1, 1.0.

3.9 PENETRATIONS

Flash and overflash all penetrations through the roof.

3.10 PENETRATIONS AND JUNCTIONS

Check that adjoining walls and parapets are prepared ready for the installation of the roofing. Confirm that openings have been prepared ready for the installation of skylights and other penetrations through the roof. Required work includes the following:

- underlay turned up at wall and parapet lines
- underlay finished and dressed off to all openings, ready for the installation of skylights and other penetrations
- roofing installation neatly finished to all sides of openings and to all wall and parapet junctions
- installation of flashings (those required to be installed prior to installation of penetrating elements and/or wall linings).

3.11 USE OF SEALANTS

Select and use sealants only as recommended by the roofing manufacturer.

3.12 COMPLETE

Ensure the work is complete with all flashings, undercloaks, valleys, ridges and hips properly installed so the finished roof is completely weathertight.

3.13 REMOVE FILINGS

Remove metal filings from roofing surfaces at least daily.

3.14 CLEAR

Clear trade rubbish and unused materials from the roof and surrounds regularly during the work and at completion. Sweep down the completed roof and flush out spoutings, gutters and rainwater pipes, ensuring that metal filings, metal scraps and loose fixings are removed.

3.15 REPLACE

Replace damaged or marked elements. Remove unused materials from the site.

1.6 QUALIFICATIONS

Fabrication by a member of the Window Association of New Zealand.

1.7 PERFORMANCE

The structural and weather-tight performance of the completed window installation, the glazing and infill panels is the responsibility of the window manufacturer.

2. PRODUCTS

2.1 WINDOW AND DOOR SECTIONS

Form all aluminium members from extruded sections. Folded sections are restricted to flashings and concealed members only.

2.2 FLASHINGS GENERALLY

Material, grade and colour of head flashings to match the window frames. Ensure that materials used for head, jamb and sill flashings are compatible with the window frame materials and fixings and cladding materials.

Glass

2.3 GLASS - PROCESSED

To AS/NZS 4667, thickness to NZS 4223, part 1

Clear float glass: Clear transparent float glass

Patterned glass: Translucent, annealed, rolled glass with a decorative pattern on one surface.

Wired glass: With 13 mm square welded, treated steel wire mesh in the centre.

Laminated glass: Grade A safety glazing material to AS/NZS 2208 with PVB or CIP resin interlayer.

Toughened glass: Grade A safety glazing material to AS/NZS 2208.

Solar float glass: Body tinted float glass

2.4 GLASS - SPECIAL

Solar control float glass: Reflective coated glass and low E glass

Insulating glass units: To AS/NZS 4666

Components

2.5 FABRICATION SEALANT

To the window manufacturer's requirements.

2.6 GLAZING TAPE AND GASKETS

To the window manufacturer's requirements.

2.7 FIXINGS

Ensure all fixings and bracketing are compatible with aluminium. Do not use electroplated zinc fasteners or brass fastenings.

Finishes

2.8 ORGANIC POWDER COATING FINISH

To AS 3715 and the Window Association of New Zealand's "Specification for powder coatings on architectural aluminium products". All finished surfaces to show uniformity of gloss and colour (to match approved sample) free of all coating defects.

2.9 ANODISING

To BRANZ Bulletin 349 "Finishes for aluminium".

3. EXECUTION

3.1 CONFIRM

Confirm all framing openings on site for dimension, plumb and straightness prior to fabrication or ordering of aluminium joinery.

3.2 EXECUTION GENERALLY

Execute all fabrication and installation work in accordance with the requirements of NZS 4211 and the Window Association of New Zealand's "Aluminium window handbook" and "Installation code for aluminium joinery products".

3.3 HANDLING

Avoid distortion of elements during transit, handling and storage. Prevent pre-finished surfaces from rubbing together. Prevent contact with mud, plaster and cement. Do not deliver to site any elements which cannot be immediately unloaded into suitable conditions of storage.

3.4 CORROSION PROTECTION

Seal or suitably coat cut ends and holes drilled in aluminium before the frames are installed. Before fixing, apply bituminous coatings, slips or underlays between dissimilar metals in contact, or aluminium in contact with concrete.

3.5 CONFIRM PREPARATION OF WALL OPENINGS

Confirm that wall openings have been prepared ready for the installation of all window and door frames. Do not proceed with the window and door installation until required preparatory work has been completed.

Required preparatory work includes the following:

- wall cladding underlay/building wrap to openings finished and dressed off ready for the installation of window and door frames
- claddings neatly finished off to all sides of openings
- interior linings neatly trimmed ready for installation of jamb liners and completion of air seals to all sides of openings
- installation of flashings (those which are required to be installed prior to frames).

3.6 FIX FRAMES

Fix frames rigidly in place without distortion, to the window manufacturer's and the Window Association of New Zealand's "Aluminium window handbook" requirements, plumb, true to line and face, weathertight and with all openings operating freely.

3.7 DRAINAGE

Provide anti-condensation channels to all sills. Sills to sashes and fixed lights to incorporate positive drainage to the exterior.

Flashings and air seals

3.8 INSTALL FLASHINGS

Install flashings to heads, jambs and sills of frames as supplied and required by the window manufacturer and as detailed on the drawings. Finish head flashings to match window finish.

Place all flashings so that the head flashing weathers the jamb flashings, which in turn weathers over the upstand of the sill flashing. Ensure that sill flashings drains to the outside air.

Except where window/door frames are recessed, ensure that head flashings over-sail jamb facings by 15 mm at each end.

3.9 COMPLETE AIR SEAL

Form an air-tight seal by means of proprietary expanding foam, compressible foam strips, or sealants used with backing rods, applied deep within the reveal to completely fill the gap between joinery and structural framing. Ensure that in combination with the internal linings a complete air seal is created.

Glass

3.10 INSTALL GLASS

All glass held in aluminium beads and black PVC gaskets.

3.11 INSTALL SAFETY GLASS

Use in doors, sidelight panels, low level windows and all other locations to NZS 4223, part 3, as modified by NZBC acceptable solution F2/AS1.

3.12 INSTALL INSULATING GLASS UNITS

Install to AS/NZS 4666.

Completion items

3.13 SEAL FRAMES ON SITE

Seal frames to each other and to adjoining structure and finishes, all as required by the window manufacturer and to make the installation weathertight.

3.14 PROTECTIVE COVERINGS

Retain protective coverings and coatings and keep in place during the fixing process. Provide protective coverings and coatings where required to prevent marking of surfaces visible in the completed work and to protect aluminium joinery from following trades. Remove protection on completion.

3.15 SAFETY

Indicate the presence of transparent glasses for the remainder of the contract period, with whiting, tape or signs compatible with the glass type. Indicators other than whiting must not be applied to the glass surface. Masking tape must not be used for this purpose.

3.16 MANIFESTATIONS

To NZS 4223, part 3, 303.1.

3.17 TRADE CLEAN

Clean off or remove safety indicators at completion of the building.

3.18 CLEAN FRAMES

On completion clean down both sides of window and door frames using the methods required by the window and door manufacturer.

3.19 CONFIRM

Confirm the proper operation of hardware and operating systems on completion of the installation and again at completion of the contract works.

4502 ALUMINIUM WINDOWS AND DOORS

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC F2/AS1 Hazardous building materials
1.0 Glazing

AS/NZS 2208 Safety glazing materials in buildings

NZS 3604 Timber framed buildings

AS 3715 Metal finishing - Thermoset powder coatings for architectural applications

NZS 4211 Performance of windows

NZS 4223 Code of practice for glazing in buildings

Part 1: The selection and installation of glass in buildings

Part 3: Human impact safety requirements

Part 4: Dead, wind and snow loadings

AS/NZS 4666 Insulating glass units

AS/NZS 4667 Quality requirements for cut-to-size and processed glass

Window Association of New Zealand:

Aluminium Window Handbook

Specification for powder coatings on architectural aluminium products

Installation code for aluminium joinery products

BRANZ Bulletin 349: Finishes for aluminium

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

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Copies of the above literature are available by phoning ~.

1.3 SUBMIT SAMPLE SECTIONS

Submit full size section samples, with the selected finish of all profiles offered.

1.4 SHOP DRAWINGS

Shop drawings to show, but not be limited to:

- Fully dimensioned elevations of all elements (minimum scale 1:20)
- Dimensions of all typical elements and of any special sizes and shapes
- Glazing specification and details

Provide a copy of shop drawings revised to include required modifications, before proceeding with any fabrication or erection.

1.5 CERTIFICATION

Provide a certificate from a laboratory accredited by International Accreditation of New Zealand that the windows and doors offered comply with the performance requirements of NZS 4211.

5101G PLASTERBOARD LININGS

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

AS/NZS 2589 Gypsum linings in residential and light commercial construction - Application and finishing
Part 1: Gypsum plasterboard
ISO 6308 Gypsum plasterboard
ASTM C630.78 Water resistant backing board
BRANZ technical paper P21: A wall bracing test and evaluation procedure
BRANZ Appraisal Certificate No. 289 (2001): GIB Fire Rated Systems
GIB Living Solutions Site Guide (June 2000)
GIB Bracing Systems (March 2002)
GIB Rondo Metal Ceiling Batten Systems
GIB-Cove
GIB Goldline Tape-on Trims

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents which refer to work in this section are:

General: GIB Living Solutions Technical Guide (August 2000)
GIB Living Solutions Site Guide (June 2000)
Sound: GIB Noise Control Systems (July 2000)
Wet area: GIB Aqualine Wet Area Systems (February 2002)
Fire rated systems: GIB Fire Rated Systems (August 2001)
Bracing: GIB Bracing Systems (March 2002)
Ceilings: GIB Rondo Metal Ceiling Batten Systems
Accessories: GIB-Cove
GIB Goldline Tape-on Trims

Copies of the above literature are available by phoning 0800 100 442.

1.3 QUALIFICATIONS

Carry out this work with competent workers experienced in GIB drywall lining techniques. Submit evidence of experience on request.

1.4 QUALITY CONTROL

Inspect the finished surface of the installed plasterboard:
- before applying sealer and
- before applying finish coatings or decorative papers,
so that after assessment of the type and/or angle of illumination and its effect on the completed decorative treatment, group approval and acceptance of the surface can be given.

1.5 NOISE CONTROL REQUIREMENTS

If noise control is required, refer to GIB Living Solutions Technical Guide: Quiet Zone Solution (August 2000) or GIB Noise Control Systems (July 2000). Provide sound rated wall and floor/ceiling systems as listed in 4. SCHEDULES.

2. PRODUCTS

2.1 NO SUBSTITUTIONS

No substitutions to be made to any specified GIB plasterboard sheets, or associated products, components or accessories.

2.2 GIB PLASTERBOARD

Gypsum plaster core encased in a durable face and backing paper formed for standard use to ISO 6308, for water resistance use to ASTM C630-78 and for fire-rated use in accordance with BRANZ Appraisal Certificate No. 289 (2001): GIB Fire Rated Systems.

Standard:	10 mm GIB Standard
	13 mm GIB Standard
Ultraline:	10 mm GIB Ultraline premium quality board
	13 mm GIB Ultraline premium quality board
Fyrelime:	10 mm GIB Fyrelime fire resistant board
	13 mm GIB Fyrelime fire resistant board
	16 mm GIB Fyrelime fire resistant board
	19 mm GIB Fyrelime fire resistant board
Braceline:	10 mm GIB Braceline wall bracing board
Aqualine:	10 mm GIB Aqualine wet area board
	13 mm GIB Aqualine wet area board
Toughline:	10 mm GIB Toughline high density reinforced board
	13 mm GIB Toughline high density reinforced board
Noiseline:	10 mm GIB Noiseline high density sound control board
	13 mm GIB Noiseline high density sound control board

2.3 GIB-COVE

55 mm GIB-Cove
75 mm GIB-Cove
90 mm GIB-Cove
75 mm GIB-Decracove
90 mm GIB-Decracove

2.4 CEILING BATTENS

GIB Rondo galvanised steel ceiling battens and perimeter channel and GIB Direct Fix Clip.

2.5 SCREWS

GIB Grabber drywall screws.

2.6 NAILS

GIB Nails (gold passivated).

Size: 30 mm, 40 mm, 50 mm

2.7 METAL ANGLE TRIMS

GIB galvanised steel slim angle trims.

2.8 CONTROL JOINTS

Recommends: GIB Rondo P35 Control Joint

2.9 TAPE ON TRIMS AND EDGES

GIB? Goldline? tape-on paper tape and galvanised steel trims and edges.

2.10 ADHESIVE

Timber frame: GIBFix Wood Bond wallboard adhesive.

2.11 CHEMICAL SETTING JOINTING COMPOUNDS

GIB Bedding and GIB Tradeset.

2.12 AIR DRYING JOINTING COMPOUNDS

GIB Plus 4, GIB ProMix, GIB ProMix Lite, GIB ProMix Taping and GIB APJC, GIB Top Coat.

2.13 JOINTING TAPE

GIB paper jointing tape.

2.14 ACOUSTIC SEALANT

GIB Soundseal.

2.15 SKIMCOAT PLASTER

Resene Broadwall Surface Preparation.

2.16 SEALER

GIBSealer, water based surface sealer.

3. EXECUTION

3.1 HANDLING AND STORAGE

Handle and store sheets and accessories in dry conditions stored indoors out of direct sunlight in neat, flat stacks clear of the floor with no sagging and avoiding damage to ends, edges and surfaces. Reject all damaged material.

3.2 CHECK SUBSTRATE

Do not commence work until the substrate is plumb, level and to the standard required by the sheet manufacturer's requirements. Moisture levels not to exceed 16% at the time of lining.

3.3 PROTECT

Protect all surfaces, cabinetwork, fittings, equipment and finishes already in place from the possibility of water staining and stopping damage.

3.4 LEVELS OF FINISH

Provide the scheduled plasterboard surfaces to the levels of finish specified in AS/NZS 2589.1.

3.5 LEVELS OF FINISH ACCEPTANCE

Before commencing work, agree in writing upon the expectation for the final quality of finish. The specified level of finish for each area should be appropriate for the type of decoration and the type and angle of the primary source of illumination specified in that area.

3.6 INSTALL CEILING BATTENS

Install in accordance with GIB Rondo Metal Ceiling Batten Systems.

3.7 LINING WALLS AND CEILINGS GENERALLY

Form in accordance with the GIB Living Solutions Site Guide (June 2000).

3.8 QUIET ZONE SOLUTIONS

If noise control required, refer to GIB Noise Control Systems (July 2000) or GIB Solutions Technical Guide: Quiet Zone Solution (August 2000).

3.9 DRY ZONE SOLUTIONS

Form in accordance with GIB Solutions Technical Guide: Dry Zone Solutions (August 2000) or GIB Aqualine Wet Area Systems (February 2002)

3.10 BRACING

Form in accordance with GIB Bracing Systems (March 2002).

3.11 COVE

Install in accordance with GIB-Cove.

3.12 TAPE-ON TRIMS

Install in accordance with GIB Goldline Tape-on trims.

3.13 STANDARD OF FINISH

In accordance with the GIB Living Solutions Site Guide (June 2000) and AS/NZS 2589.1.

3.14 REPLACE

Replace all damaged boards or elements.

3.15 CLEAN DOWN

Clean down completed surfaces to remove all irregularities and finally sand down with fine paper to the sheet manufacturer's requirements, to leave completely smooth and clean to the standard required for all following trades.

3.16 REMOVE

Remove all debris, unused materials and elements from the site.

6701 PAINTING AND PAPERHANGING

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

OSH publication: Guidelines for the management and removal of asbestos
Health and Safety in Employment Act 1992
BRANZ Bulletin 314: Removing paint coatings from houses

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

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Copies of the above literature are available by phoning ~.

1.3 QUALIFICATIONS

Carry out work using competent and experienced painters and paperhangers.

1.4 HEALTH AND SAFETY

Refer to the requirements of the Health and Safety in Employment Act 1992 and if elimination or isolation is not possible, then minimise the hazards in this work.

Refer to BRANZ Bulletin 314 "Removing paint coatings from houses" for the required procedures and precautions when:

- Treating or removing lead based paint.
- Burning off paint.
- Sanding off paint.
- Using solvent based paint removers.

2. PRODUCTS

2.1 PAINT

To the paint manufacturer's standards for exterior and/or interior primers, undercoats, sealers, stains, clear coatings, solvent-borne and water-borne paints.

2.2 GAP FILLERS

Linseed oil, putty, plastic wood, wood filler or plastic filler, to suit and to match the surface being prepared.

3. EXECUTION

3.1 INSPECT

Inspect surfaces for painting and report to the owner any that will not, after the preparatory work laid down by the paint manufacturer, allow work of the required standard. Confirm that all areas have adequate lighting and are sufficiently free of other construction activities to enable painting and/or paperhanging work to proceed.

3.2 PROTECT

Cover up adjoining surfaces and areas liable to damage or over-painting.

3.3 REMOVE HARDWARE

Remove hardware and door/window furniture and replace on completion. Do not paint over permanently attached hinges, or any hardware items which cannot be removed.

3.4 PRIMING AND SEALING

Ensure that priming and sealing work needed before or during construction is carried out when required.

3.5 ENVIRONMENTAL CONDITIONS

Carry out work within acceptable temperature and humidity limits, with timber dry, all to the requirements of the paint manufacturer.

3.6 SELECTIONS

Confirm all selections, colours and finishes for both paint and wallpaper with the owner, before commencing work.

3.7 LEAD

Lead-based paint: treat as set out in BRANZ Bulletin 314 "Removing paint coatings from houses".

3.8 ASBESTOS

Removal of coatings containing asbestos: conform with the requirements set out in the OSH publication: "Guidelines for the management and removal of asbestos".

Preparation and painting of surface materials containing asbestos: conform with the recommendations and requirements of the paint manufacturer.

3.9 SHARP EDGES, CRACKS AND HOLES

Repair as required by the paint manufacturer.

3.10 PREPARE SURFACES

Prepare surfaces to be coated as required by the paint manufacturer. Make good all damage and defects.

3.11 PAINT APPLICATION

Apply paint by brush and/or roller to suit the location of the coating and to the paint manufacturer's requirements. Do not spray on site without express permission.

3.12 MANUFACTURER'S MANUALS

Refer to the paint manufacturer's manuals and follow their preparation, sequence and application requirements applying to each system. Ensure all paint coats in any system are supplied by the same manufacturer.

3.13 DEFECTIVE WORK

Correct defective work immediately. Recoating to follow the selected paint system's requirements.

3.14 SCUFF BETWEEN COATS

Scuff between all coats to remove any dust pick-up, protruding fibres and coarse particles.

3.15 FINISHED PAINT SURFACES

Finished paint surfaces to show uniformity of gloss and colour, with the correct thickness for each coat, and freedom from painting defects. Ensure finished work is clean and free of any disfigurement.

3.16 CONFIRM WALLPAPER

Confirm that all rolls of each pattern are from the same batch.

3.17 WALLPAPER INSTALLATION

Seal or size walls. Use only full length drops, completely glued, pattern matched and hung vertically without bubbles or visible butt joints. Scribe cut paper onto surrounding trim.

3.18 CLEAN

Clean adjoining surfaces, glass and fittings of any paint contamination.

3.19 REPLACE

Replace hardware without damage to the hardware or the adjoining surfaces.

3.20 TAKE AWAY

Take away from the site unused painting materials and equipment.

7101 HOT AND COLD WATER SYSTEM

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC G12/AS1 Water supplies
AS/NZS 2642 Polybutylene pipe fittings
2642.2: Polybutylene (PB) pipe for hot and cold water applications
2642.3: Mechanical jointing fittings for use with polybutylene (PB) pipes for hot and cold water applications
NZS 3501 Specification for copper tubes for water, gas and sanitation
NZS 4602 Low pressure copper thermal storage electric water heaters
NZS 4603 Installation of low pressure thermal storage electric water heaters with copper cylinders (open-vented systems)
NZS 4606 Storage water heaters
4606.3: Specific requirements for water heaters with composite shells
NZS 4607 Installation of thermal storage electric water heaters: valve-vented systems
DIN 8077 Polypropylene (PP) Pipe dimensions
DIN 8078 Polypropylene (PP) Pipes Types 1, 2 & 3, General Quality Requirements and Testing.
Plumbers, Gasfitters and Drainlayers Act 1976

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

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Copies of the above literature are available by phoning ~.

1.3 QUALIFICATIONS

Plumbers to be experienced competent craftsman plumbers, or registered plumbers working under the direction of a craftsman plumber, familiar with the materials and techniques specified.

2. PRODUCTS

2.1 WATER MAIN POLYETHYLENE

High density polyethylene 32 mm OD (minimum 25 mm internal diameter) pipe complete with rubber ring compression type fittings.

2.2 COPPER WATER PIPE

To NZS 3501.

2.3 POLYBUTYLENE WATER PIPE

Polybutylene tubing to AS/NZS 2642.2 and AS/NZS 2642.3 complete with fittings and accessories brand-matched.

2.4 POLYETHYLENE WATER PIPE

Proprietary high-density cross-linked polyethylene composite pipe and fittings to BS 7291.3.

2.5 POLYPROPYLENE WATER PIPE

Polypropylene pipes to DIN 8077 and DIN 8078 complete with fusion welded fittings and accessories brand-matched.

2.6 EXPOSED PIPES

Chrome plated copper pipe with chrome plated brass nuts and fittings.
Faucet hoses covered with stainless steel braid and fitted with stainless steel nuts.

White polyethylene composite pipe with white nuts and accessories.

Selected pipework finish to include escutcheon plates and bends and elbows protruding from walls or fittings.

2.7 GATE VALVES

De-zincified brass with screwed ends.

2.8 ELECTRIC HOT WATER CYLINDER, MAINS PRESSURE

To NZS 4606.3, ceramic-coated steel thermal storage cylinder, insulated and complete with fittings required for installation by the manufacturer.

2.9 ELECTRIC HOT WATER CYLINDER, LOW PRESSURE

To NZS 4602, copper thermal storage cylinder insulated and complete with pressure reducing valve and fittings required for installation by the manufacturer.

2.10 ELECTRIC HOT WATER CYLINDER, UNDER-SINK, LOW PRESSURE

To NZS 4602, copper thermal storage cylinder insulated and complete with fittings required for installation by the manufacturer.

2.12 GAS HOT WATER HEATER, STORAGE TYPE

Insulated cylinder with an integral gas burner and flue.

2.13 GAS HOT WATER HEATER, CONTINUOUS FLOW TYPE

Continuous flow unit with an integral gas burner and flue.

3. EXECUTION

3.1 ELECTROLYTIC ACTION

Avoid electrolytic action by eliminating contact or continuity of water between dissimilar metals.

3.2 EXECUTION GENERALLY

Generally carry out the whole of this work and tests to NZBC acceptable solution G12/AS1.

3.3 EXCAVATE

Excavate for the water main to a firm, even trench base in straight runs.
Allow to backfill.

3.4 WATER MAIN

Lay a minimum of 500 mm below ground level (600 mm under driveways) from the utility network operator's supply through a gate valve and meter to box to the building. Lay marker tape above the water main in backfill.

3.5 COPPER WATER SUPPLY

Size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Run pipes in straight runs, firmly fixed to falls, with long radius bends and jointed by brazing or with crox fittings, to NZBC acceptable solution G12/AS1. Conceal piping, insulate all hot water pipework and pressure test before the wall linings are fixed.

3.6 POLYBUTYLENE/POLYETHYLENE WATER SUPPLY

Size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Run pipes complete with all fittings, support and fixing, and jointed to the pipe manufacturer's specifications, all to NZBC acceptable solution G12/AS1. Conceal pipework and pressure test before the wall linings are fixed.

3.7 POLYPROPYLENE WATER SUPPLY

Size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Run pipes complete with all fittings, support and fixing, fusion weld joints and install to manufacturers specifications, all to NZBC acceptable solution G12/AS1. Conceal pipework and pressure test before the wall linings are fixed.

3.8 OUTLET LOCATIONS

Ensure wall outlets for exposed pipes are level and centred on the fixture to ensure the neat installation of exposed pipework.

3.9 INSTALLING HOT WATER PIPE INSULATION

Insulate all hot water pipes in accordance with the insulation manufacturer's instructions. Cut insulation sections tight between timber framing and tight between the webs of steel studs. Where hair felt is used, wrap around pipes in two layers in opposite directions and secure with galvanised steel wire ties.

3.10 INSTALL ELECTRIC HOT WATER CYLINDERS AND BOILING CYLINDERS

Install where shown complete with all the necessary fittings to the cylinder manufacturer's requirements and in accordance with NZBC acceptable solution G12/AS1 6.10. Low pressure, open-vented systems to NZS 4603. Valve-vented systems to NZS 4607.

3.14 PENETRATIONS

Provide and fit collars and escutcheon plates to match the pipework at all penetrations through constructions.

3.15 INSTALL TAPS AND FAUCETS

Install taps and faucets in accordance with the tap manufacturer's requirements. Flush out on completion. Check that washers or ceramic discs are operating correctly.

3.16 LEAVE

Leave water services in proper working order. Pressure test to ensure no leakage and leave in proper working order.

3.17 CLEAN

Clean tapware and fittings. Remove unused materials from the site.

7401 RAINWATER SYSTEMS

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

AS 1397 Steel sheet and strip - hot-dipped, zinc-coated or aluminium/zinc-coated

BRANZ Bulletin 304: Flashing design.

BRANZ Bulletin 305: Domestic flashing installation.

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

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Copies of the above literature are available by phoning ~.

1.3 QUALIFICATIONS

Workers to be either competent craftsman plumbers, or registered plumbers working under the direction of a craftsman plumber, or roofers, familiar with the materials and techniques specified.

2. PRODUCTS

UPVC

2.1 UPVC SPOUTING

Profile, jointing, brackets and fittings brand matched and complete to the spouting manufacturer's specifications.

2.2 UPVC DOWNPIPES

Tubes, stand-off brackets and fittings brand matched and complete to the manufacturers specifications.

Galvanised steel

2.3 GALVANISED SHEET STEEL

0.55 mm sheet steel galvanised to AS 1397.

Aluminium/zinc alloy coated steel

2.6 ALUMINIUM/ZINC ALLOY COATED SHEET STEEL

0.55 mm sheet steel coated to AS 1397.

Aluminium/zinc alloy coated pre-painted steel

2.9 ALUMINIUM/ZINC ALLOY PRE-PAINTED SHEET STEEL

0.55 mm sheet steel coated to AS 1397, pre-painted.

Copper

2.12 COPPER SHEET

0.50 mm copper sheet.

2.13 COPPER SPOUTING

Quarter-round 125 mm.

2.14 COPPER DOWNPIPES

Seam jointed and complete with stand-off copper brackets and brass screws.

General

2.15 RAINWATER HEADS, DROPPERS, OVERFLOWS

Fabricate and install as detailed.

2.16 FLASHINGS GENERALLY

0.55 mm sheet steel galvanised to AS 1397, aluminium/zinc coated to AS 1397, 1.8 mm (20 kg/m²) copperised pure lead, 0.5 mm half hard copper sheet, or proprietary rubberised perforated aluminium strip, all to location, compatibility and design requirements of BRANZ Bulletin 304 Flashing design.

2.17 DOMES

Wire mesh in round form with legs to clip inside the outlet opening to the downpipe.

3. EXECUTION

3.1 ELECTROLYTIC ACTION

Avoid electrolytic action by eliminating contact or continuity of water between dissimilar metals.

Check compatibility of metals used for rainwater goods, against the materials used for roofing and flashings. Notify any incompatibility to the owner and obtain written approval for amendments to selections.

3.2 LIAISON

Ensure liaison with associated installations to confirm material selections are compatible and required flashing work is completed.

3.3 INSTALLATION GENERALLY

Install and fix spouting and downpipes to the manufacturers requirements. Install system to properly drain water from the roof area and so that water will not enter the building under overflow conditions.

uPVC

3.4 FIT UPVC SPOUTING

Fit brackets at maximum 500 mm centres and fix with galvanised screw. Set to fall to outlets. Ensure solvent welded or rubber ring jointed spouting sections are complete with all fittings to the spouting manufacturer's requirements. Allow for expansion.

3.5 FIT UPVC DOWNPIPES

Fit stand-off brackets or clips at maximum 1 metre centres and fix with round head galvanised screws. Set pipes plumb and clear of the wall. Solvent weld joints. Discharge into stormwater drain.

Copper

3.12 FIT COPPER SPOUTING

Fit brackets at maximum 800 mm centres and fix with brass screws. Set to fall to outlets. Solder joints to finish with a neat solder line. Allow for expansion.

3.13 FIT COPPER DOWNPIPES

Fit stand-off brackets at maximum 1200 mm centres and fix with brass screws. Set pipes plumb and clear of the wall. Solder joints to finish with a neat solder line. Discharge into stormwater drain.

General

3.14 FLASHINGS

Scribe fit, fold, lap, seam, or run solder as required by the metal, to flash all roof penetrations, roofing and exterior joinery to prevent weather penetration. Except at expansion joints, allow for 2 rows of rivets to overlapping sheet joints. Install and fix flashings and flashing joints to the criteria stated in BRANZ Bulletins 304 Flashing design and 305 Domestic flashing installation.

3.15 INSTALL DOMES

Install wire mesh domes at the top of downpipes.

3.16 INSTALL SPOUTING MESH

Install mesh into spoutings, strictly in accordance with the mesh manufacturer's requirements.

3.17 FLASH ROOF LIGHTS

Flash to roofing to the manufacturer's specifications.

3.18 LEAVE

Leave rainwater services in proper working order and all flashing work completed to keep the building weathertight.

3.19 CLEAN UP

wash out gutter daily and on completion to remove swarf. Take away from the site unused materials and elements.

7701 ELECTRICAL

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC F6/AS1 Lighting for emergency
 NZBC F8/AS1 Signs
 AS/NZS 2293 Emergency evacuation lighting for buildings
 NZS 3000 Electrical regulations - Buildings, structures and premises
 AS/NZS 3008 Electrical installations - Selection of cables
 3008.1.2: Typical New Zealand installation conditions
 NZS 6401 PVC-insulated cables for electric power and lighting
 Electricity Regulations 1997
 New Zealand electrical codes of practice (ECP)

1.2 COMPLY

Comply with the Electricity Regulations 1997, NZS 3000, AS/NZS 3008.1.2 and the New Zealand electrical codes of practice for listed and prescribed work and with the utility network operator's requirements. Apply for the service connection. Arrange for the required inspections of listed work. Pay all fees.

1.3 QUALIFICATIONS

Carry out work by or under the direct supervision of a holder of a practising certificate under the Electricity Regulations 1997.

1.4 CERTIFICATE OF COMPLIANCE

Supply a certificate of compliance to the owner, as required by the Electricity Regulations 1997, and in particular, clauses 16, 34 and 35. Allow the network utility operator to view before the meter installation, listed work inspection, polarity check and livening of supply.

2. PRODUCTS

2.1 MAINS SUPPLY, SINGLE PHASE

Tough plastic sheathed neutral screened cable to NZS 6401 and AS/NZS 3008.1.2, with a minimum rating of 60 amps per phase. Include pilot cable where required by network utility company.

2.2 CABLES

Tough plastic sheathed copper conductors to NZS 6401, stranded above 1.0 mm², and to AS/NZS 3008.1.2. Minimum sizes as below. Increase sizes if the method of installation, thermal insulation, cable length or load will reduce the cable rating below that of the connected load, or produce an excessive voltage drop.

Lighting circuits - domestic: 1.0 mm² on 10 amp MCBs,

Lighting circuits - commercial: 1.5 mm² on 16 amp MCBs

Power circuits: 1.5 mm² on 16 amp MCBs for domestic and unenclosed or unfilled cavity construction

2.5 mm² on 16 amp MCBs for domestic insulated construction, or filled cavity

2.5 mm² on 20 amp MCBs for unenclosed or unfilled cavity construction

2.5 mm² on 16 amp MCBs for insulated construction, or filled cavity, or lengths over 30 metres

Range circuits - single phase: 6 mm² on 32 amp MCBs

Heat resistant cable for final connections to all heated appliances, and high temperature cable in ambient conditions may be above 35 degrees C.

2.3 METER BOX

Proprietary manufactured, zinc plated powder coated metal case, or ABS plastic, with glazed panel door, weatherproof if mounted outdoors, and complete with meter mounting, main switch and fuse.

2.4 DISTRIBUTION BOARD

Proprietary manufactured, zinc plated powder coated, or heavy duty plastic, fire resistant enclosed construction, complete with neutral and earth busbars, MCB's and 60 amp main switch, complete with 20% spare capacity. Include 2 spare MCB's labelled as "spare". All protective devices: 6kA MCB's of the appropriate rating.

2.5 WALL BOXES

Standard size in plastic, with 2 or more gang size in metal, all screw fixed.

2.6 SWITCH UNITS

16 amp minimum rated, 230 volt polycarbonate flushplate units. Refer to drawings/schedules for number of switches per unit, dimmer units, neon (indicator or toggle) units, locator units and 2 way units.

2.7 HOT WATER SYSTEM SWITCH

One way 20 amp switch complete with cable clamp for flexible PVC conduit to element enclosure.

2.8 SWITCHED SOCKET UNITS

10 amp, 230 volt polycarbonate flushplate 3 pin flat NZS combination switch units, single or multi gang as detailed.

2.9 SHAVER AND EARTH LEAKAGE PROTECTED SOCKET OUTLETS

110/230 volt shaver socket outlets with integral isolating transformer. Earth leakage, residual current protected socket outlets in wet/damp/outdoor locations. RCCB tripping at 30 mA, mounted on distribution board.

2.10 CEILING ROSES

White plastic mounting base with screwed cover. Terminal type.

2.11 BATTEN HOLDERS

Standard white plastic bayonet cap, with cap angled where wall mounted. Brass liners.

2.13 TV AERIAL

Antenna, co-axial cable and outlets, suitable for both VHF and UHF reception of all local free-to-air broadcast channels.

2.14 GARAGE DOOR CONTROLLERS

Refer to 4503 COMPOSITE WINDOWS, DOORS AND SKYLIGHTS.

2.15 LIGHT FITTINGS

Fluorescent and High Intensity Discharge fittings with low loss control gear and power factor corrected to 0.85 minimum. Control gear suitable for dimming if this is required. All fittings complete with lamps; Incandescent GLS lamps pearl, coiled-coil 240v rated, bayonet cap; Fluorescent triphosphor 2700K; ELV 12v dichroic reflector with cover glass unless detailed otherwise.

2.16 SELECTIONS

Confirm selections of all outlet fittings and hardware with the owner in writing before ordering.

3. EXECUTION

3.1 MAIN SUPPLY

Lay underground mains to the network utility operator's requirements. Excavate trench, install cable and marker tape and backfill.

3.2 METER BOX

Fit to meter box manufacturer's and network utility operator's requirements where detailed. Recess into external wall and flash to weatherproof. Arrange for meter installation and connection.

3.3 DISTRIBUTION BOARD

Fit to board manufacturer's requirements where detailed. Recess into wall and ensure fire containment properties of the enclosure is maintained.

3.4 SET OUT

Unless specifically detailed, the position of outlets and equipment shown on drawings is indicative of requirements. Study documents and site conditions to ensure no conflict with other services or features will arise. Resolve conflicts and discrepancies before proceeding with work affected. Confirm on site the exact location, disposition and mounting heights of all outlets, fittings, equipment, penetrations, and use of exposed wiring. Fix outlet items level, plumb and in line.

3.5 CABLING

Install with a maximum of 8 light outlet units or 4 switched socket units on any circuit. Minimum 2 lighting circuits per installation. Separate circuits for all electric heating appliances. All cabling run concealed. No TPS cable laid directly in concrete. Locate holes in timber framing for the passage of cables at the centre line of the timber member. Install cable in conduits where required to pass through concrete or underground.

3.6 WALL BOXES

Flush mounted in cavity construction.

3.7 SWITCH AND SOCKET UNITS

Fit all single and double switch units and socket at the following heights (to the centre of the unit) unless shown otherwise on the drawings.

Switch Units:	1000 mm
Socket Units:	150 mm above work benches
	400 mm elsewhere

Mount switches vertically and socket units horizontally. Label all switch units that control electrical equipment by colour filled engraving on the switch plate.

3.8 LIGHT FITTINGS

Install light fittings in locations and at heights detailed, and in accordance with the fitting manufacturer's requirements.

3.9 EXTRA LOW VOLTAGE LIGHTING

Where remote transformers are used for ELV lamps, connect from transformer to lamp with minimum 2.5 mm² conductor, to ensure voltage drop in transformer and conductor does not exceed 0.8 volts. Connect lamps 50 watt or greater matched to no more than one per transformer, located as close as practicable to the lamp. Ensure transformers and rear of light fittings are adequately ventilated and clear of any thermal insulation.

3.10 EMERGENCY AND EXIT LIGHT FITTINGS

Install fittings in the locations and heights shown on the drawings and in accordance with NZBC acceptable solutions F6/AS1 and F8/AS1, AS/NZS 2293, including test facilities.

3.11 ELECTRIC HOT WATER SYSTEM

Wire as a separate circuit through a wall-mounted isolating switch, with the cable from switch to element encased in flexible PVC conduit, clamp fixed at each end. Hot water cylinders, thermostats and 3000 watt element supplied and fitted under 7101 HOT AND COLD WATER SYSTEM.

3.12 EARTH BONDS

Bond together and to earth all plumbing fittings not adequately isolated, to the Electricity Regulations 1997 and to the fitting manufacturer's requirements.

3.13 TELEPHONE WIRING

Install telephone cable to telephone outlet positions shown on the drawings. Install in conduit for outlets on masonry surface. Fix and connect BT jack point outlets to NZ Telecom requirements and terminate wiring at incoming terminal block.

3.14 TELEPHONE DRAW WIRES

Supply draw wires from accessible positions for the telephone outlets shown on the drawings. Install in conduit for outlets on masonry surface.

3.15 TV AERIAL

Fit antenna, run cabling concealed below the roof and fit outlets where shown on the electrical drawings. Ensure the system is suitable for high quality reception of all VHF and UHF channels - Sky TV installation practices minimum.

3.16 SPACE HEATERS

Install to the heater manufacturer's requirements, fitted neatly and without damage to surrounding finishes. Ensure control thermostats are fitted to appliance or otherwise connect to a remote thermostat.

3.17 CENTRAL VACUUM SYSTEM

Install central system, ducting and outlets to the system manufacturer's requirements, with room outlets fitted neatly and without damaging surrounding finishes. Connect and terminate controls to mains wiring standards.

3.18 SECURITY SYSTEM

Install to the system manufacturer's requirements, with control panel, detectors and associated equipment fitted neatly and without damage to surrounding finishes.

3.19 MANUAL FIRE ALARM SYSTEM

Install to the system manufacturer's requirements, with outlets fitted neatly and without damage to surrounding finishes.

3.20 SMOKE DETECTORS

Install detectors to the detector manufacturer's requirements, fitted neatly and without damage to the surrounding finish.

3.21 ELECTRIC POWERED FITTINGS AND EQUIPMENT

Install and wire fittings and equipment to individual fittings and equipment manufacturer's requirements. Refer to the drawings for required layouts and locations for equipment.

3.22 EXTERIOR SERVICES

Provide circuits and connections for exterior installations, including ELV 12 volt path lighting and electronic irrigation systems. Refer to drawings for connection points. Where underground, connect mains voltage outlets with cable enclosed in conduit, or with 2 core neutral screen cable with heavy duty grade 3.2 mm PVC sheath, with the neutral screen conductors terminated in a soldered or compression cable lug, PVC sleeved, and connected as the earth continuity conductor.

Connect to all ELV outlets with 230v rated cable with minimum 2.5 mm² conductor, and to ensure voltage drop to lamp does not exceed 0.8 volts. Connect lamps 50 watt or greater matched to no more than one per transformer, located as close as practicable to the lamp. Ensure transformers and light fittings are adequately cooled and watertight if liable to immersion.

3.23 MAIN EARTH

Provide a plastic toby box or UPVC tube to contain and protect the earth pin. Fix the connecting earth wiring closely and securely against wall surfaces.

3.24 LABELLING

Complete all labelling in clear machine printed permanent manner. Include label under each controller, switch and circuit breaker on distribution boards. Include a warning notice if light dimmers are used in the installation. List the rating of each circuit.

3.25 COMPLETION

Leave work operating correctly, with equipment clean and all lamps operational.

7403 DRAINAGE

1. GENERAL

1.1 DOCUMENTS

Documents referred to in this section are:

NZBC B1/AS1 Structure - general
6.0 Drains
NZBC E1/AS1 Surface water
3.0 Drainage system materials and construction
NZBC G13/AS2 Foul Water - drainage

AS/NZS 1254 PVC pipes and fittings for storm and surface water applications

AS/NZS 1260 PVC pipes and fittings for drain, waste and vent applications

AS/NZS 1546.1 Septic tanks

AS/NZS 1547 On site domestic wastewater management

AS/NZS 4130 Polyethylene pressure pipes (PE)

AS/NZS 4671 Steel reinforcing materials

NZS 3107 Precast concrete drainage and pressure pipes

NZS 3108 Concrete production - ordinary grade

AS/NZS 3500 National plumbing and drainage code

3500.2: Sanitary plumbing and drainage

3500.2.2: Acceptable solutions

3500.3: Stormwater drainage

3500.3.2: Acceptable solutions

NZS 7643 Installation of unplasticised PVC pipe systems

Plumbers, Gasfitters and Drainlayers Act 1976

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

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Copies of the above literature are available by phoning ~.

1.3 AS-BUILT DRAWINGS

Supply a 1:100 scale as-built drawing of drains and fittings to the territorial authority and to the owner on completion.

1.4 QUALIFICATIONS

Drainlayers to hold a current licence within the terms of the Plumbers Gasfitters & Drainlayers Act 1976 and be experienced, competent and familiar with the materials and techniques specified.

2. PRODUCTS

2.1 CONCRETE

17.5 MPa ordinary grade to NZS 3108.

2.2 REINFORCEMENT

Plain round and/or deformed steel bars, Grade 300 to AS/NZS 4671

2.3 UPVC PIPES

UPVC pipes bends, junctions, fittings and joints to AS/NZS 1254 and AS/NZS 1260.

2.4 FIELD DRAINS

Plastic piping for field drains perforated (straight sections or coiled) with filter fabric to prevent silting of the pipe.

2.5 GULLY TRAPS

To NZBC acceptable solution G13/AS2, section 3.3, complete with grating.

2.6 SURFACE WATER SUMP GRATINGS

Cast iron frame with lift-up grating.

2.7 STRIP DRAIN CHANNEL

Proprietary, modular, variable invert, PVC or precast concrete drainage channel sections and drainage sump, embedded in site concrete and fitted with selected metal gratings.

2.8 INSPECTION COVERS

Cast iron frame with screw-down cover.

2.9 DRAINAGE AND FILLING MATERIALS

Granular: Clean gravel or crushed stone or a blend of these. Particle size from minimum 7 mm to maximum 20 mm.

Selected: Fine grain soil or granular material suitable for bedding; excluding topsoil.

Ordinary: Top soil or other excavated materials.

2.10 SEPTIC TANKS

Cylindrical or rectangular septic tanks to AS/NZS 1546.1 made of pre-cast concrete 30 Mpa with steel bar reinforcement, or cylindrical septic tanks to AS/NZS 1546.1 made of pre-cast concrete 35 Mpa with steel fibre reinforcement, or cylindrical septic tanks, material to approval, all other requirements to AS/NZS 1546.1 made of ribbed polyethylene.

3. EXECUTION

3.1 EXCAVATE

Excavate for drains to a firm even base with correct gradients set in straight runs.

3.2 MANUFACTURER'S REQUIREMENTS

All drainage installations to the pipe and fitting manufacturer's requirements.

3.3 DRAINAGE GENERALLY

Carry out drainage work and tests to AS/NZS 3500.2.2 (foul water) AS/NZS 3500.3.2 (stormwater) as modified by NZBC acceptable solution B1/AS1, 6.0. Lay UPVC pipe systems to relevant sections of NZS 7643.

3.4 LAY FOUL WATER DRAINS

Lay drains in straight runs to correct gradients, to discharge into the network utility operators sewer. Set inspection fittings on a concrete base.

3.5 INSTALL GULLY TRAPS

Set on concrete 50 mm above the surrounding ground or paving and brought up to protect the top of the fitting. Trowel off.

3.6 LAY STORMWATER DRAINS

Confirm the required location of downpipes and finished ground levels before commencing pipework. Set downpipe bends in concrete with the concrete brought up to protect the top of the bend from damage. Lay drains in straight runs to correct gradients to discharge into the network utility operator's stormwater system.

3.7 LAY SUBSOIL DRAINS

Lay perforated piping firmly in a granular bed in straight runs to correct gradients, discharging into a sump. Carry the granular bed up over the pipes without disturbing them, to a total depth of 300 mm and cover with geotextile fabric; all to the pipe manufacturer's requirements.

3.8 INSTALL STRIP DRAIN CHANNEL

Excavate trench and form site concrete base to fall. Set interlocking channel sections, sumps and accessories in place, all in accordance with the channel manufacturer's requirements. Check falls and install gratings and covers.

3.9 INSTALL SURFACE WATER SUMP

To NZBC acceptable solution E1/AS1, complete with ceramic half-siphon pipe and cast iron frame with a lift out grating.

3.12 SOAKHOLES OR TRENCHES

Dispose of stormwater on site as shown on the drawings, by soakage, to suit local geology and soil structure; all as directed by the territorial authority.

3.13 CONCRETE ENCASEMENT

Concrete encase shallow drains and drains under driveways, on a 100 mm deep 17.5 MPa concrete bed reinforced with three 10 mm mild steel bars. Surround pipes with a polythene membrane to allow movement and encase in 100 mm 17.5 MPa concrete.

3.14 FIELD TEST

Field test drains for watertightness (UPVC to NZS 7643 section 11) to the satisfaction of the territorial authority inspector.

3.15 BACKFILL

Backfill drain lines in 150 mm layers, well tamped but without disturbing the drains. Finish off with 150 mm of topsoil, slightly mounded above the finished ground line.

3.16 INSTALL SEPTIC TANK SYSTEM

Install to manufacturer's instructions.

3.17 INSTALL AERATED WASTEWATER TREATMENT SYSTEM

Install to AS/NZS 1547 and manufacturers instructions.

DESIGN DETAILS

DECK JUNCTION DETAIL	D1
LINTEL BEAM DETAIL	D2
BEAM DETAIL	D3
WINDOW FLASHING DETAILS	D4
BUILDING ENVELOPE RISK MATRIX	
LUMBERLOK WALL FIXING CHART	
HYCHORD BEAM DESIGN CERTIFICATE	

ALTERATIONS AND ADDITIONS TO DWELLING FOR D & M MORRISON BRADLEYS LANDING EAST ROAD ARAPOHUE

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PH-FAX 09 4390099
DARGAVILLE

CAIPARA DISTRICT COUNCIL
APPROVED

BUILDING OFFICIAL
060511

20mm HDPB FLOORING OVER PERFORATED FOIL
INSULATION

10mm 61B WALL LINING

100 X 50 H1.2 MS68 FRAMING. STUDS @ 600 CTS, NOGS
@ 800 CTS

R1.8 WALL INSULATION

HARDIPLANK 245 WEATHERBOARDS TO MATCH
EXISTING OVER ABSORBENT AND BREATHABLE
BUILDING CLADDING UNDERLAY

90 X 35 H3.2 DECK TREAD DECKING

150 X 50 H3.2 MS66 DECK AND FLOOR
JOISTS

2/150 X 50 H3.2 MS66 BEARERS ON DPC
12kN CONNECTORS TO ANCHOR PILES

6mm HARDIFLEX CLADDING WITH VENTS

125 X 125 H5 PILES

FL 10.000

DL 9.950

50

D1
02

DECK JUNCTION DETAIL

CHECK ALL MEASUREMENTS ON SITE

ALTERATIONS AND ADDITIONS TO DWELLING FOR
D & M MORRISON
BRADLEYS LANDING EAST ROAD _____ ARAPOHUE

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DARGAVILLE

SCALE

1:5

SHEET

D1

0.4mm LONGRUN CORRUGATED IRON ROOFING OVER
BREATHABLE AND ABSORBENT ROOF CLADDING
UNDERLAY AND NETTING

R2.2 CEILING INSULATION

100 X 50 H3.2 MS66 RAFTERS @ 600 CTS FIXED TO
LINTEL AND BLOCKING WITH MULTIGRIPS EACH END

75 X 50 H3.2 MS66 PURLINS @ 900 MAX CTS

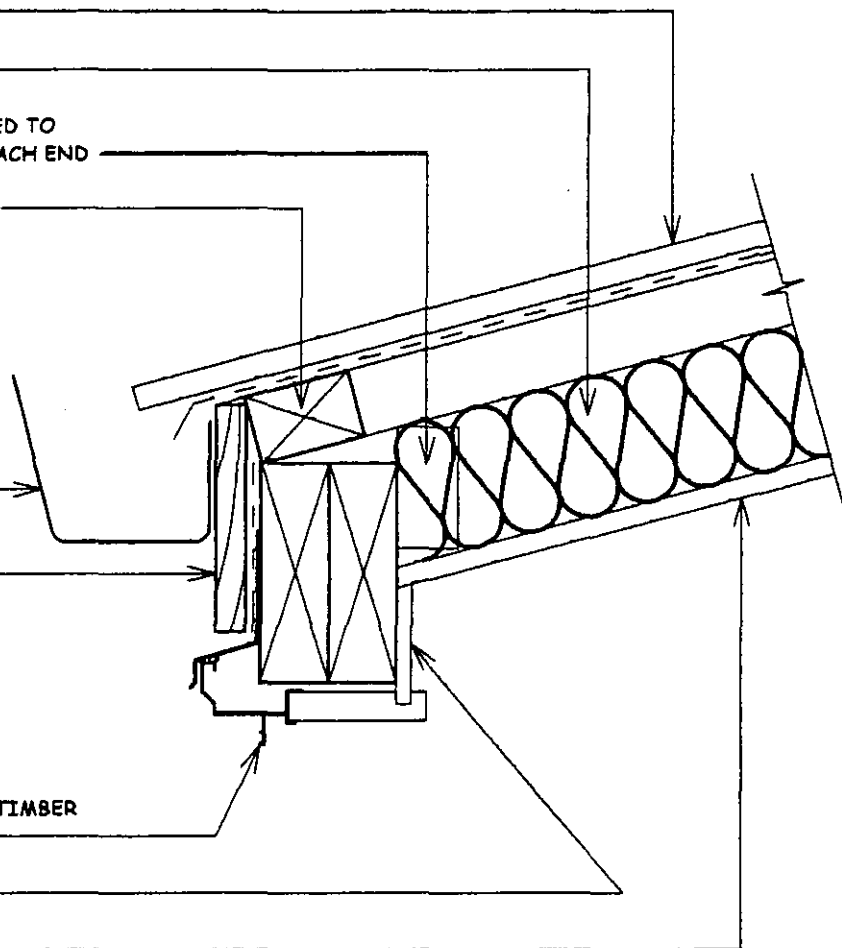
PVC SPOUTING TO MATCH EXISTING
CONNECT INTO EXISTING RAINWATER
COLLECTION SYSTEM

150 X 20 H3.2 SPOUT BD

SELECTED ALUMINIUM JOINERY WITH H3.2 TIMBER
REVEALS

10mm GIB WALL LININGS

13mm GIB CEILING



D2
05

LINTEL BEAM DETAIL

CHECK ALL MEASUREMENTS ON SITE

ALTERATIONS AND ADDITIONS TO DWELLING FOR
D & M MORRISON
BRADLEYS LANDING EAST ROAD _____ ARAPOHUE

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DARGAVILLE

SCALE
1:5

SHEET
D2

0.4mm LONGRUN CORRUGATED IRON ROOFING OVER
BREATHABLE AND ABSORBENT ROOF CLADDING
UNDERLAY AND NETTING. PROVIDE WEATHERTIGHT
SEAL WITH EXISTING ROOFING

75 X 50 H3.2 MS66 PURLINS @ 900 MAX CTS

100 X 50 H3.2 MS66 RAFTERS @ 600 CTS FIXED TO
LINTEL AND BLOCKING WITH MULTIGRIPS EACH END

R2.2 CEILING INSULATION

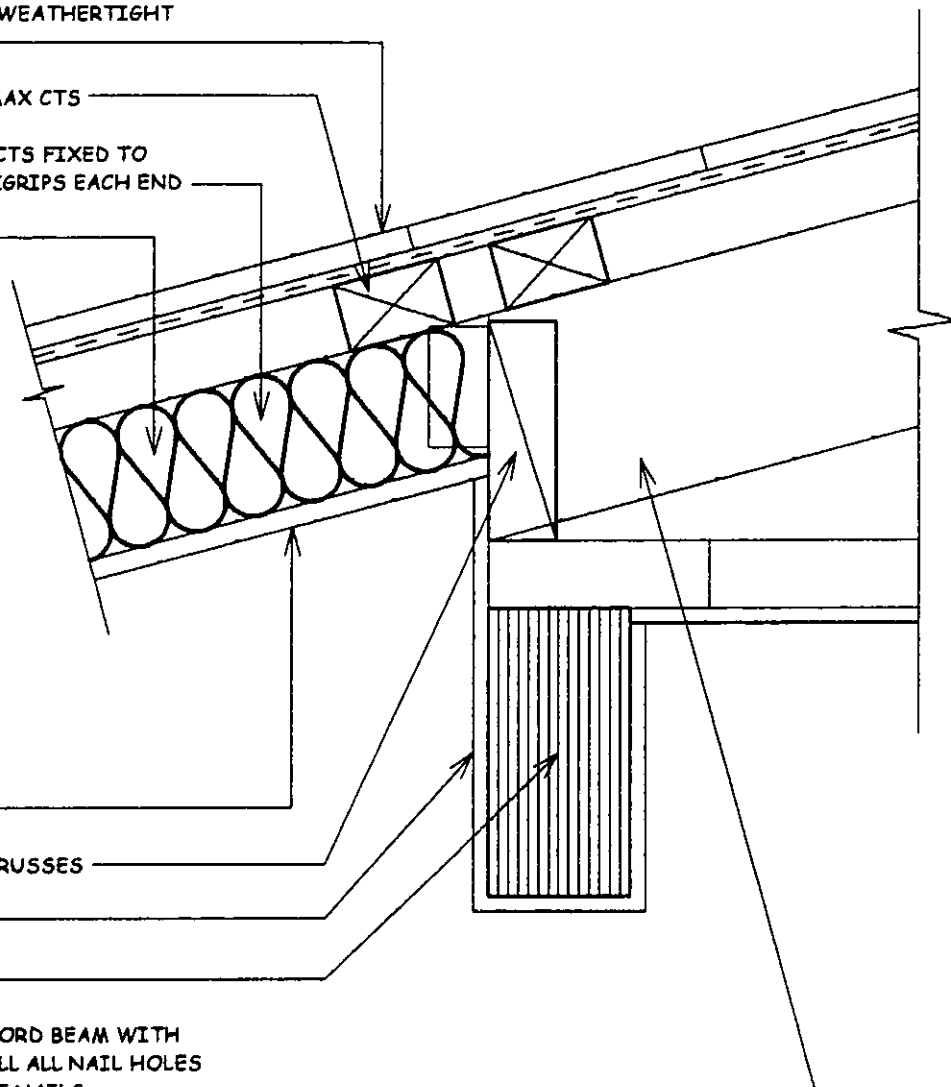
13mm GIB CEILING

150 X 50 H3.2 BLOCKING BETWEEN TRUSSES

10mm GIB WALL LININGS

2/190 X 45 hyCHORD BEAM

CONNECT EACH TRUSS END TO hyCHORD BEAM WITH
2/CT200 LUMBERLOK FASTENERS. FILL ALL NAIL HOLES
WITH 30 X 3.15 LUMBERLOK PRODUCT NAILS



D3
05

BEAM DETAIL

CHECK ALL MEASUREMENTS ON SITE

ALTERATIONS AND ADDITIONS TO DWELLING FOR
D & M MORRISON
BRADLEYS LANDING EAST ROAD _____ ARAPOHUE

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DARGAVILLE

SCALE
1:5

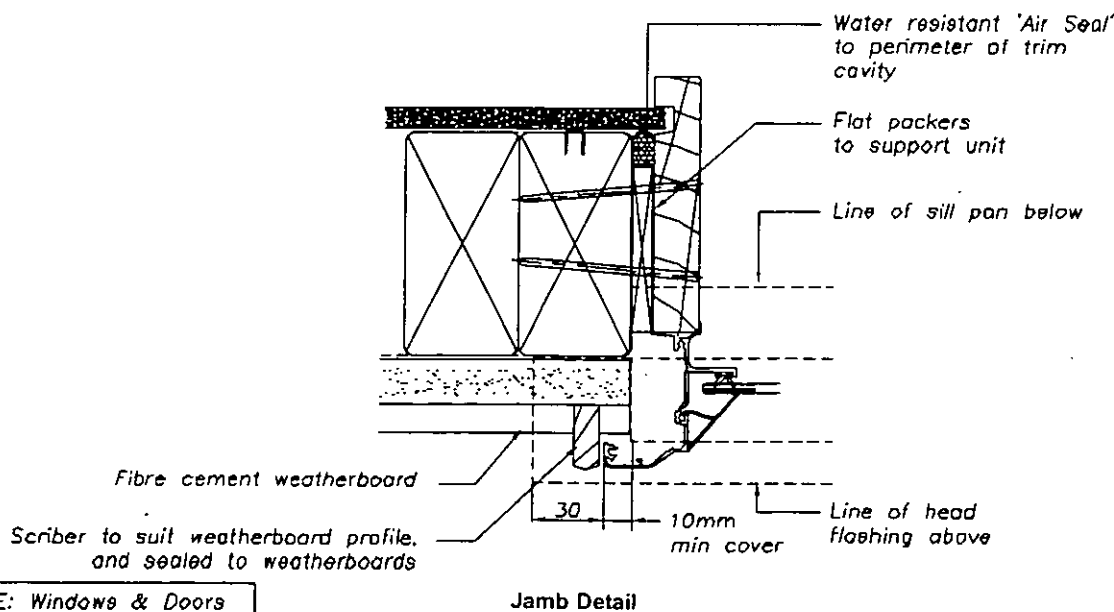
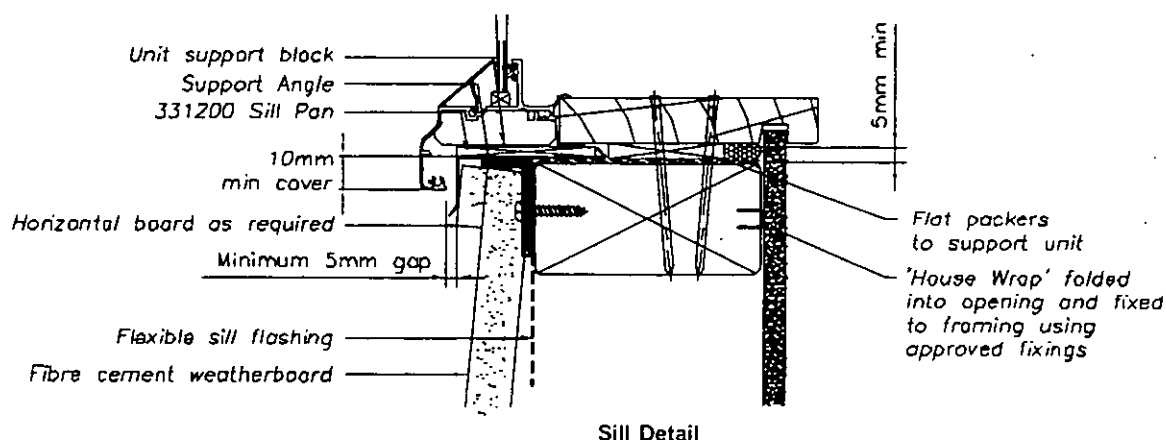
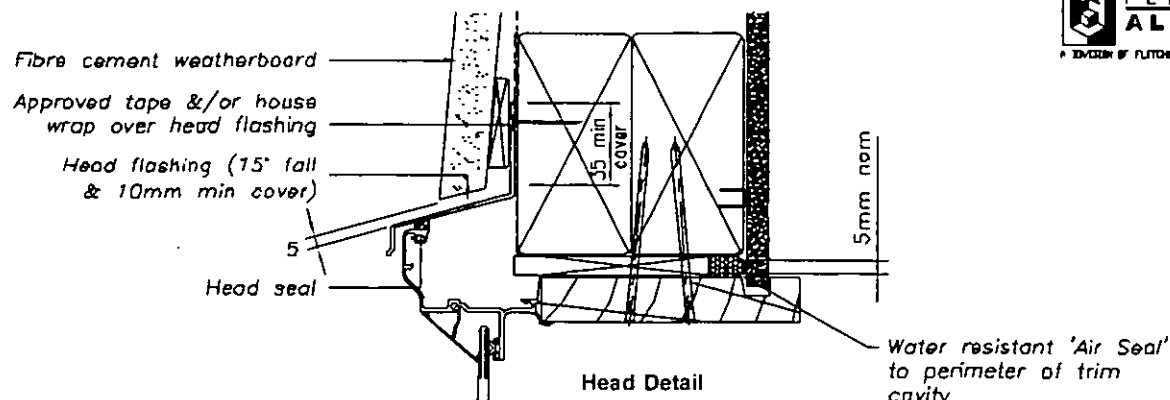
SHEET
D3



WANZ WIS
WANZ WINDOW INSTALLATION SYSTEM
 Direct Fix – Fibre Cement Weatherboard

Date
 1 July 2005

Scale
 NTS



NOTE: Windows & Doors
 to comply with NZS 4211

D4
04 **WINDOW FLASHING DETAILS**

CHECK ALL MEASUREMENTS ON SITE

ALTERATIONS AND ADDITIONS TO DWELLING FOR
D & M MORRISON
BRADLEYS LANDING EAST ROAD _____ ARAPOHUE

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SCALE
1:5

SHEET
D4

Building Envelope Risk Matrix

Alterations and Additions to dwelling for
D & M Morrison
Bradleys Landing East Road
Arapohue

Elevation – East Elevation (worst case)

Risk Factor	Risk Severity
Wind Zone (High)	1
Number of Storeys (1)	0
Roof/Wall Intersection Design	1
Eaves Width	2
Envelope Complexity	0
Deck Design	0
Total	4

Suitable Wall Cladding- Fibre Cement weather boards direct fixed to framing

LUMBERLOK® WALL FIXING CHART

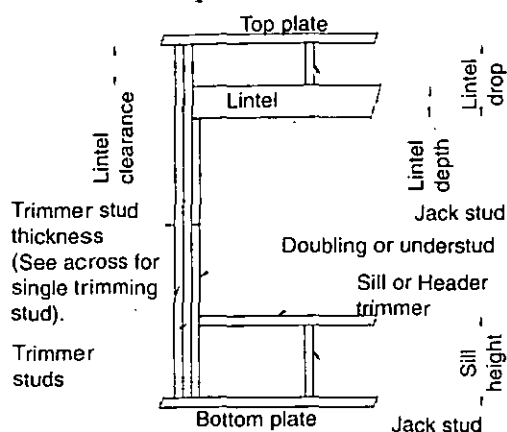
01/10

LINTEL FIXING SCHEDULE

(ALTERNATIVE TO NZS 3604:1999 TABLE 8.14 & FIGURE 8.12)

DEFINITIONS

Lintel span dimension point



SELECTION CHART FOR LINTEL FIXING

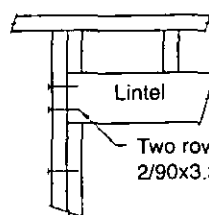
Lintel Span	Loaded Dimension *See reverse side	Light Roof Wind Zone				Heavy Roof Wind Zone			
		L	M	H	VH	L	M	H	VH
1.5	2.0	A	A	B	B	A	A	B	B
	3.0	A	B	B	B	A	A	B	B
	4.0	A	B	C	C	A	A	B	C
	5.0	B	B	C	C	A	A	C	C
	6.0	B	B	C	D	A	A	C	C
2.0	2.0	A	B	B	C	A	A	B	B
	3.0	A	B	C	C	A	A	B	C
	4.0	B	B	C	C	A	A	C	C
	5.0	B	C	C	D	A	A	C	C
	6.0	B	C	C	D	A	B	C	D
2.4	2.0	A	B	B	C	A	A	B	B
	3.0	B	B	C	C	A	A	C	C
	4.0	B	C	C	D	A	A	C	C
	5.0	B	C	C	D	A	B	C	D
	6.0	B	C	D	D	A	B	C	D
3.0	2.0	A	B	C	C	A	A	B	C
	3.0	B	B	C	D	A	A	C	C
	4.0	B	C	C	D	A	B	C	D
	5.0	B	C	D	D	A	B	C	D
	6.0	C	C	D	-	A	B	D	D
3.6	2.0	B	B	C	C	A	A	B	C
	3.0	B	C	C	D	A	B	C	C
	4.0	B	C	D	D	A	B	C	D
	5.0	C	C	D	-	A	B	D	D
	6.0	C	D	D	-	A	B	D	-
4.2	2.0	B	B	C	C	A	A	C	C
	3.0	B	C	D	D	A	B	C	D
	4.0	C	C	D	-	A	B	D	D
	5.0	C	D	D	-	A	B	D	-
	6.0	C	D	-	-	A	C	D	-
4.8	2.0	B	C	C	D	A	A	C	C
	3.0	B	C	D	D	A	B	C	D
	4.0	C	C	D	-	A	B	D	D
	5.0	C	D	-	-	A	B	D	-
	6.0	C	D	-	-	A	C	D	-

NOTES:

- * Lintels accepting Girder trusses for ALL load cases use:
Fixing type C where contributory area = 10m²
Fixing type D where contributory area = 20m²
- * All cases outside this require specific design

LINTEL FIXING TYPES

TYPE A 1.4kN

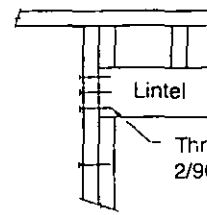


Two rows of 2/90x3.3 nails.

Three sets of 2/90x3.33 nails. Trimmer stud to understud.

"All other nailing as Table 8.19"

TYPE B 4.0kN



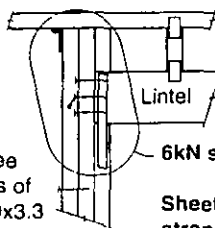
Three rows of 2/90x3.3 nails.

Three sets of 2/90x3.33 nails. Trimmer stud to understud.

Two TYLOK 2T4s one side of stud.

"All other nailing as Table 8.19"

TYPE C 7.5kN

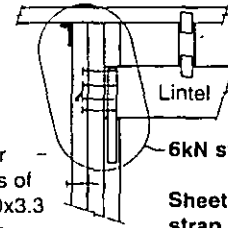


Three rows of 2/90x3.3 nails.

6kN stud anchor OR Sheet brace strap 400 one face of stud & lintel, 6/30x3.15 nails each end OR TYLOK Stud tie.

"All other nailing as Table 8.19"

TYPE D 13.5kN

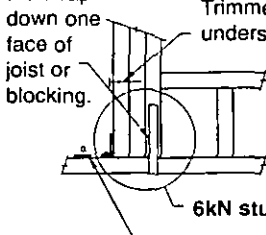


Four rows of 2/90x3.3 nails.

6kN stud anchor OR Sheet brace strap 400 one face of stud & lintel, 6/30x3.15 nails each end OR TYLOK Stud tie.

"All other nailing as Table 8.19"

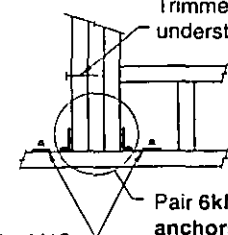
For timber floors run the strap down one face of joist or blocking.



Min. M12 bolt with 50x50x3 washer to concrete floor.

Three sets of 2/90x3.33 nails. Trimmer stud to understud.

6kN stud anchor OR Sheet brace strap 400 wrap around bottom plate: 6/30x3.15 nails each end OR TYLOK Stud tie.



Min. M12 bolt with 50x50x3 washer to concrete floor.

Three sets of 2/90x3.33 nails. Trimmer stud to understud.

Pair 6kN stud anchors.

MiTek
MiTek

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MiTek New Zealand Ltd.

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www.mitek.nz.co.nz

HOME OF GANG-NAIL® BUILDING SYSTEMS

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LUMBERLOK® WALL FIXING CHART

01/10

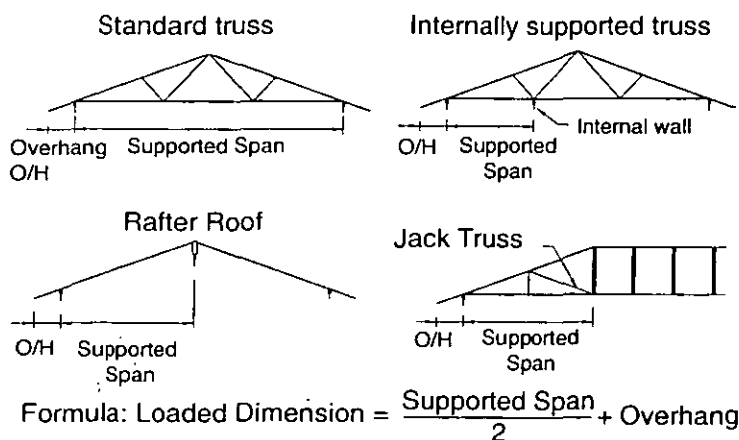
STUD TO TOP PLATE FIXING SCHEDULE

(ALTERNATIVE TO NZS 3604:1999 TABLE 8.18)

NOTE:

- ★ All fixings are designed for vertical loads only. Dead loads include the roof weight and standard ceiling weight of 0.20kPa. Refer to table 8.19, NZS3604:1999 for nailing schedule to resist horizontal loads.
- ★ These fixings assume the correct choice of rafter/truss to top plate connections have been made. Refer to the LUMBERLOK® Truss Fixing Chart.
- ★ Gable end wall top plate/stud connections require only 2x90x3.33 nails driven vertically into stud through top plate.
- ★ All Fixings assume top plate thickness of 45mm maximum.
- ★ Wall framing arrangements under girder trusses are not covered in this schedule.

LOADED DIMENSION DEFINITION



SELECTION CHART FOR FIXING LOADS - TOP PLATE TO STUD

Loaded Dimension	Light Roof Wind Zone				Heavy Roof Wind Zone			
	L	M	H	VH	L	M	H	VH
1.5	A	A	B	B	A	A	B	B
2.0	A	B	B	C	A	A	B	B
2.5	A	B	C	C	A	A	B	C
3.0	B	B	C	D	A	A	B	C
3.5	B	B	C	D	A	A	B	D
4.0	B	C	D	D	A	A	C	D
4.5	B	C	D	D	A	B	C	D
5.0	B	C	D	D	A	B	C	D
5.5	B	C	D	D	A	B	C	D
6.0	B	C	D	-	A	B	D	D

- All studs at 600 crs.
- For studs at 400 crs decrease loaded dimension by 33%.
- All trusses at 900 crs.
- For trusses at 1200 crs increase loaded dimension by 33%.

FIXING OPTIONS

FIXING TYPE A
0.7kN

2/90x3.33 plain steel wire nails driven vertically into stud.

FIXING TYPE B
1.7kN

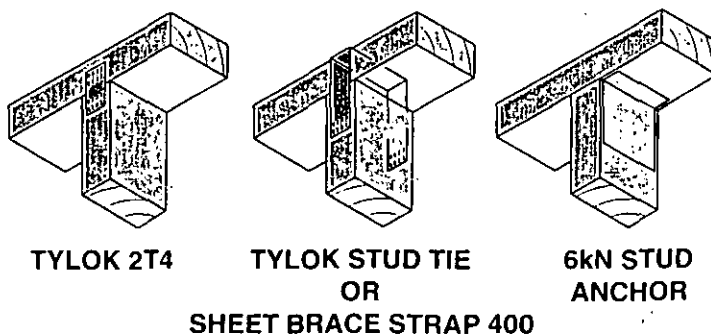
2/90x3.33 plain steel wire nails driven vertically into stud, plus single TYLOK 2T4 plate.

FIXING TYPE C
2.7kN

2/90x3.33 plain steel wire nails driven vertically into stud, plus pair TYLOK 2T4 plates.

FIXING TYPE D
6.0kN

2/90x3.33 plain steel wire nails driven vertically into stud, plus TYLOK Stud tie.
OR
Sheet brace strap 400 with 6/30x3.15 nails each stud face.
OR
2/90x3.33 plain steel wire nails driven vertically into stud, plus 6kN Stud Anchor.



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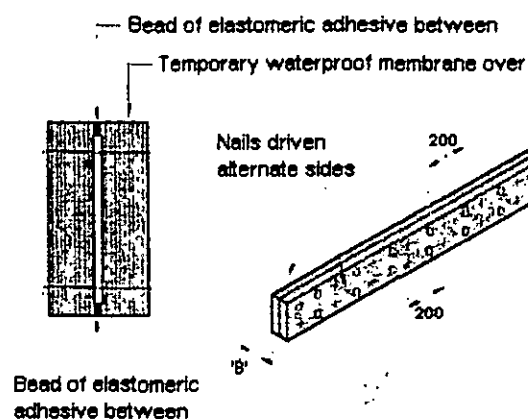
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Installation notes

Vertical lamination detail



Section Size "B"	Minimum nail dia.	Minimum nail length
38	3.06 mm	75 mm
45	3.30 mm	90 mm
63	3.30 mm	100 mm

DETAIL H1

The above detail is intended to both limit the entry of moisture between the laminates and to provide adequate shear transfer.

2) Design inputs

Span	3.2 m
Roof load width 'RLW'	5.5 m
Roof type and mass	Light roof & ceiling - 40 kg/m ²
Serviceability criteria	AS 1684.1-1999

3) Member specification

Size, stress grade/product	Use 2/190 x 45 hyCHORD
Material type	Structural Laminated Veneer Lumber to AS/NZS 4357

4) Installation requirements

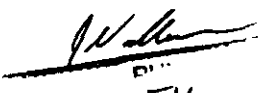
Provide at least 30 mm bearing at end supports
Nail lamination required as per Detail H1 or as detailed in AS 1684.

ARCHITECTURAL DRAWINGS

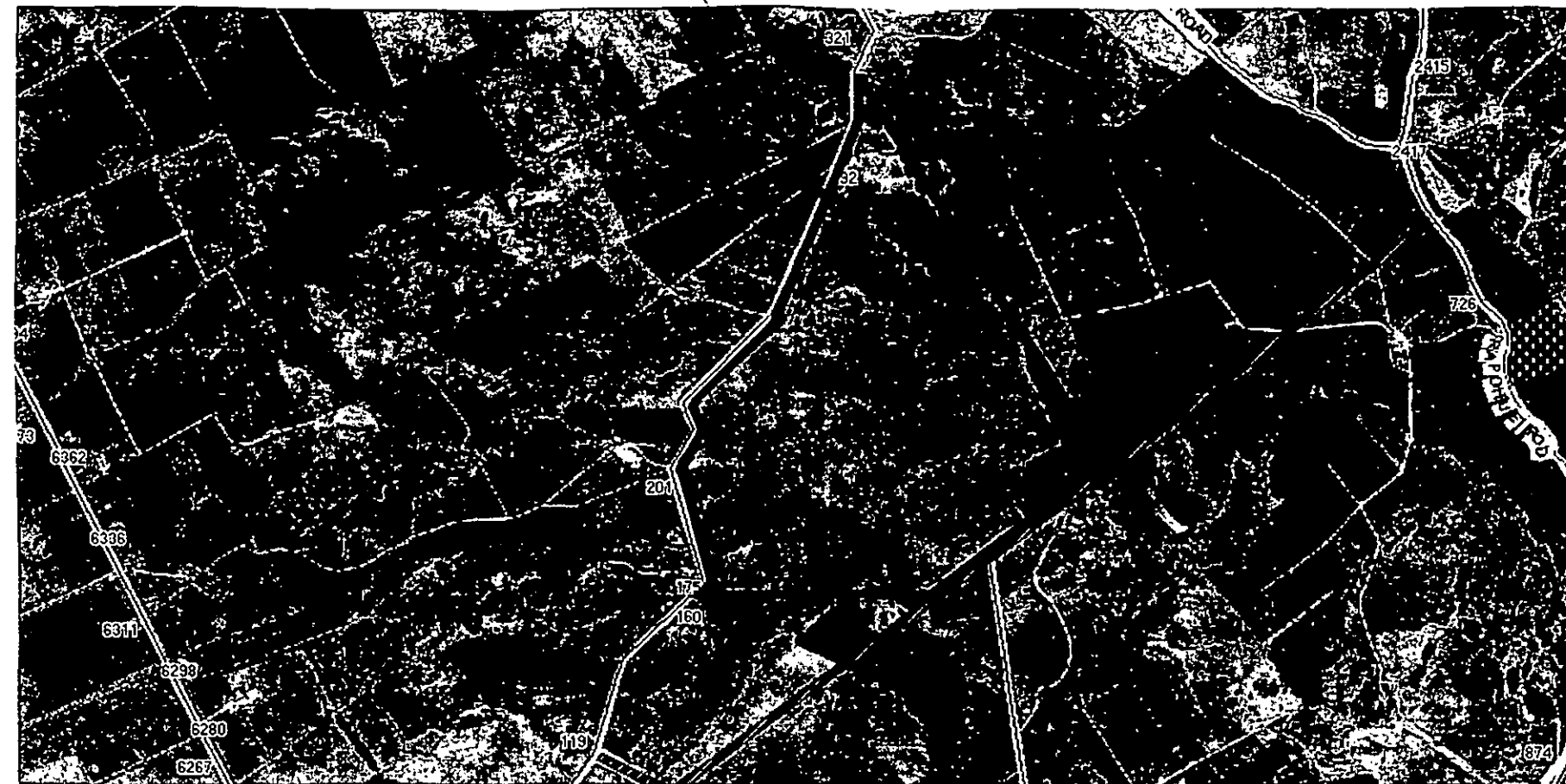
SITE PLAN	01
FOUNDATION PLAN	02
FLOOR PLAN	03
EAST ELEVATION	04
CROSS SECTION A-A	05
BRACING PLAN	06

ALTERATIONS AND ADDITIONS TO DWELLING FOR
D & M MORRISON
BRADLEYS LANDING EAST ROAD_____ARAPOHUE

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DARGAVILLE

ARAPAHUA DISTRICT
APPROVED

060511

DWELLING



LOT 1
D.P.
58.76 Ha

ALTERATIONS AND ADDITIONS TO DWELLING FOR
D. & M. MORRISON
BRADLEYS LANDING EAST RD _____ ARAPOHUE

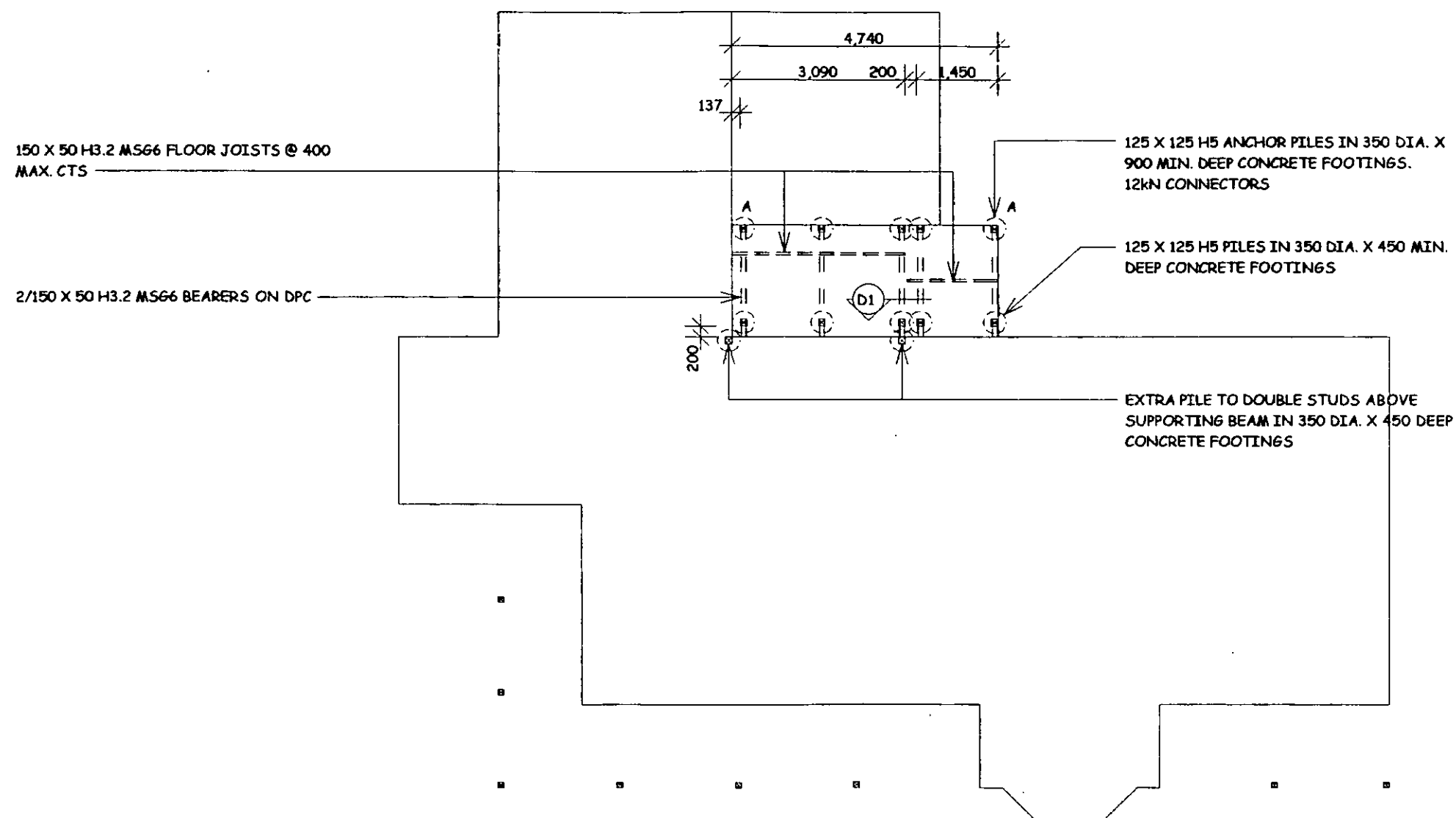
NOTES
CHECK ALL DIMENSIONS ON SITE

SITE PLAN

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DARGAVILLE

SCALE
NTS

SHEET NO.
01



ALTERATIONS AND ADDITIONS TO DWELLING FOR
D. & M. MORRISON
BRADLEYS LANDING EAST RD _____ ARAPOHUE

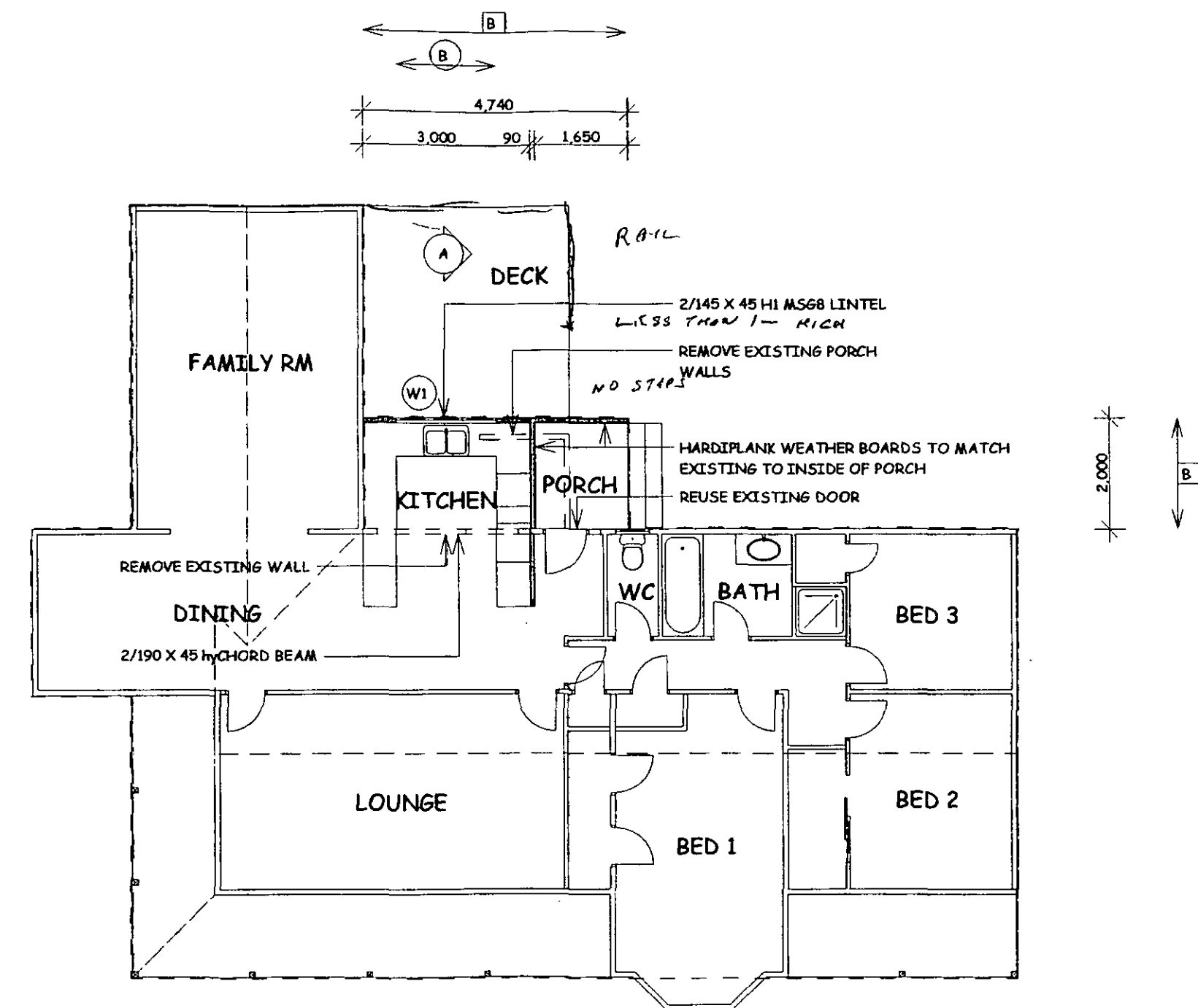
NOTES
CHECK ALL DIMENSIONS ON SITE

FOUNDATION PLAN

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DARGAVILLE

SCALE
1:100

SHEET NO.
02



NOTE

- [B] STUD TO TOP PLATE FIXING - USE LUMBERLOK FIXING TYPE B - 1.7kN
2/90 X 3.33 PLAIN STEEL WIRE NAILS DRIVEN VERTICALLY INTO
STUD, PLUS SINGLE TYLOK 2T4 PLATE.
- (B) LINTEL FIXING - USE LUMBERLOK LINTEL FIXING TYPE B - 4.0kN

AREA OF ADDITION 9.48m²

ALTERATIONS AND ADDITIONS TO DWELLING FOR
D. & M. MORRISON
BRADLEYS LANDING EAST RD _____ ARAPOHUE

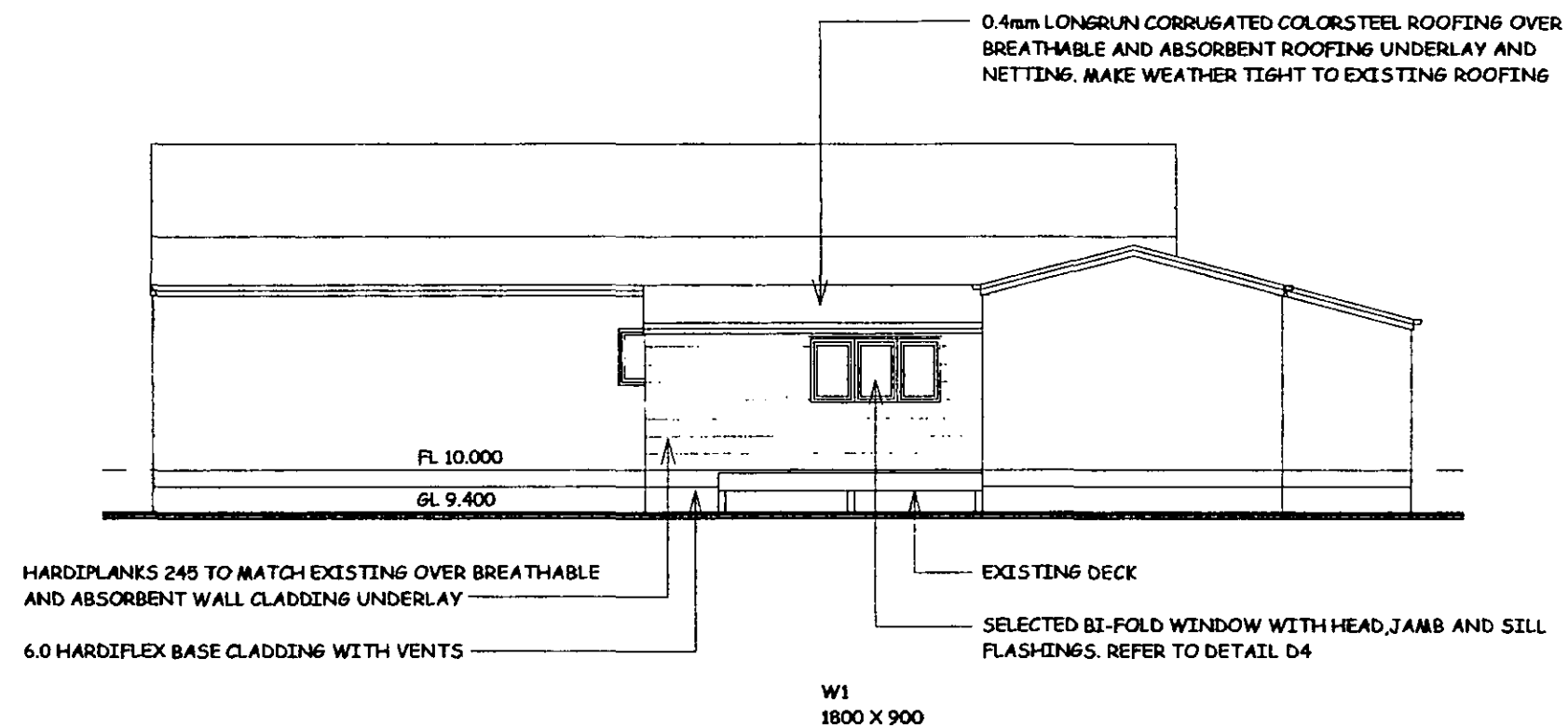
NOTES
CHECK ALL DIMENSIONS ON SITE

FLOOR PLAN

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SCALE
1:100

SHEET NO.
03



EAST ELEVATION

ALTERATIONS AND ADDITIONS TO DWELLING FOR
D. & M. MORRISON
BRADLEYS LANDING EAST RD _____ ARAPOHUE

NOTES
CHECK ALL DIMENSIONS ON SITE

EAST ELEVATION

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DARGAVILLE

SCALE
1:100

SHEET NO.
04

ATTACH EACH TRUSS TO hyCHORD BEAM WITH 2x
CT200 LUMBERLOK PLATES. FILL ALL NAIL HOLES
WITH 30 X 3.15 LUMBERLOK PRODUCT NAILS

0.4mm LONGRUN CORRUGATED IRON ROOFING OVER
ABSORBENT AND BREATHABLE ROOF CLADDING
UNDERLAY ON NETTING. PROVIDE WEATHERTIGHT
JOIN WITH EXISTING ROOFING

75 X 50 H3.2 MSG6 PURLINS @ 900 MAX CTS

100 X 50 H3.2 MSG6 RAFTERS @ 600 CTS. FIX TO
LINTEL AND BLOCKING WITH MULTIGRIPS EACH
END

R2.2 CEILING INSULATION

SELECTED ALUMINIUM JOINERY WITH HEAD, JAMB
AND SILL FLASHINGS

13mm GIB CEILING LINING

2/190 X 45 hyCHORD BEAM

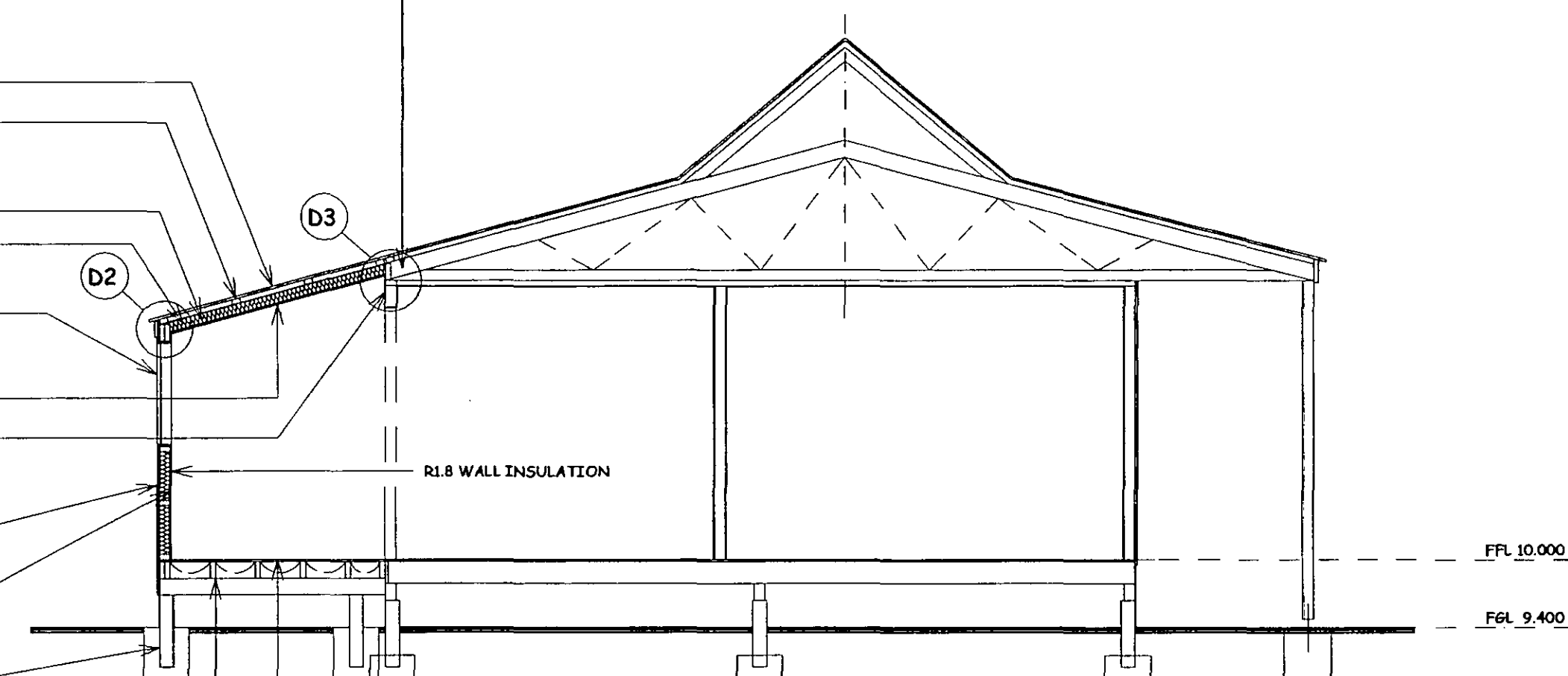
HARDIPLANK 245 WEATHERBOARDS TO MATCH
EXISTING OVER ABSORBENT AND BREATHABLE
WALL CLADDING UNDERLAY

100 X 50 H1.2 FRAMING STUDS @ 600 CTS, NOGS @
800 CTS

2/150 X 50 H3.2 MSG6 BEARERS ON DPC ON 125
X 125 H5 PILES IN 350 DIA X 450 MIN. DEEP
FOOTINGS.

150 X 50 H3.2 MSG6 FLOOR JOISTS @ 400 CTS

20mm HDPB FLOORING OVER PERFORATED FOIL
INSULATION



SECTION A-A

ALTERATIONS AND ADDITIONSTO DWELLING FOR
D & M MORRISON
BRADLEYS LANDING EAST RD ARAPOHUE

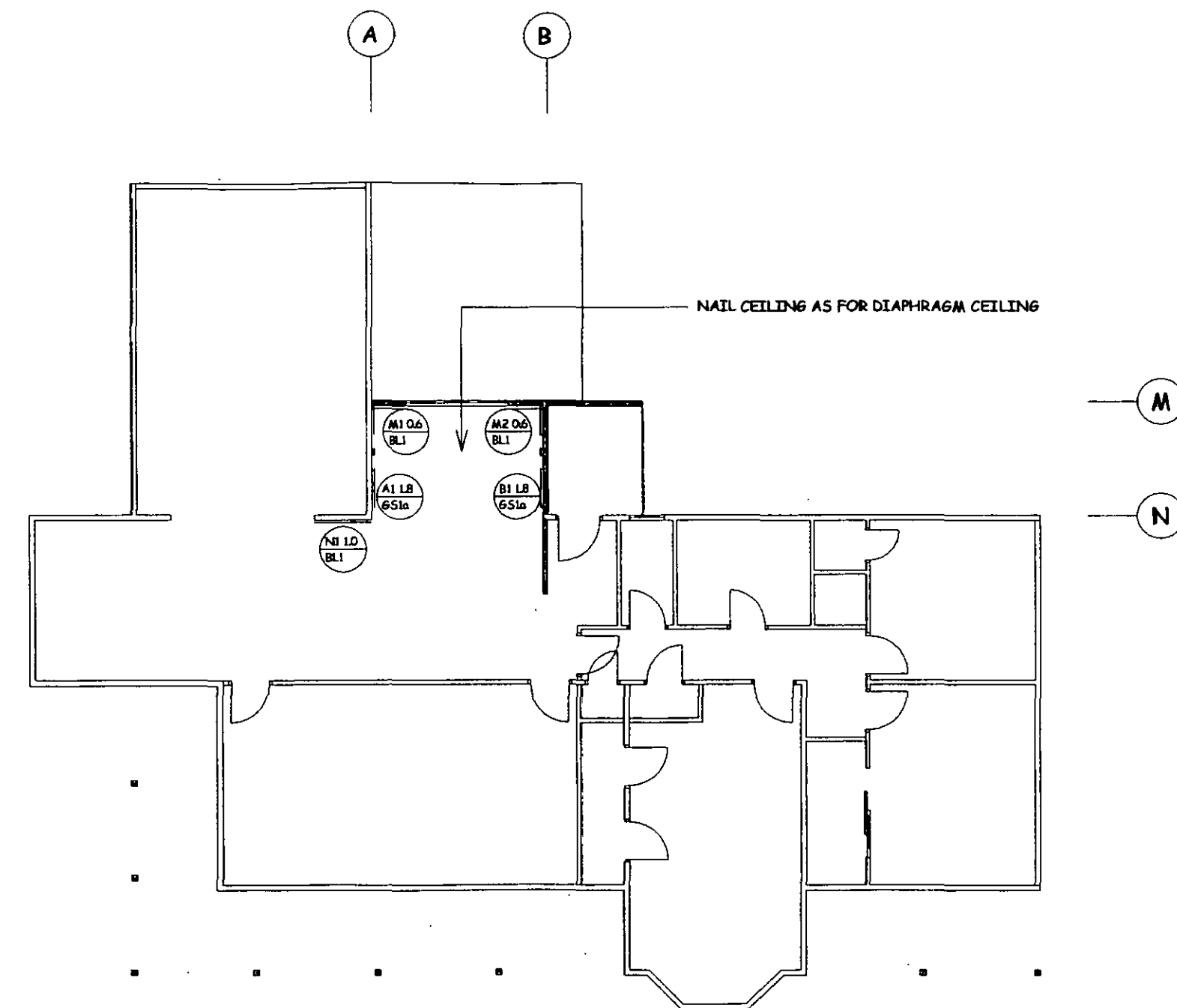
NOTES
CHECK ALL DIMENSIONS ON SITE

SECTION A-A

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DARGAVILLE

SCALE
1 : 50

SHEET NO.
05



ALTERATIONS AND ADDITIONS TO DWELLING FOR
D. & M. MORRISON
BRADLEYS LANDING EAST RD _____ ARAPOHUE

NOTES
CHECK ALL DIMENSIONS ON SITE
HIGH WIND ZONE
EARTHQUAKE ZONE C

BRACING PLAN

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DARGAVILLE

SCALE
1:100

SHEET NO.
06

GIB® BRACING SYSTEMS – DESIGN

GIB	Wall Bracing Calculation Sheet A	MARCH 2006

Job Details

box 1

Please Photocopy

Name I & M MORRISON

Street and Number BRAZLEY'S LANDING EAST RD

Lot and DP Number ---

City/Town/District AKRON, OH

Location of Storey: single/upper of two/lower of two Floor load: 2kPa/3kPa

Building height to apex 5.0 m Roof weight light/heavy

Roof height above eaves 1.0 m Cladding weights: ---

Stud height 0.4 m Subfloor --- light/medium/heavy

Average roof pitch --- Lower Storey --- light/medium/heavy

Upper Storey --- light/medium/heavy

Room in Roof Space --- Yes / No

Building length BL = 5 m Gross Building

Building width BW = 2 m Plan Area, GPA = 10 m²

Note: When the average roof pitch is over 25 degrees, use the eaves length and width to determine BL and BW.

Wind Zone

box 2

Region: R1 0 --- Terrain: Inland 0 1 Exposure: Sheltered 0 --- Topography: Gentle 0 1

R2 1 1 Coastal 1 --- Exposed 1 1 Moderate 1 --- Extreme 3 ---

Total points 2

Wind Zone: --- Low (0) --- Very high (3) ---

1 Medium (1) --- Specific Design (4) ---

1 High (2) ---

Earthquake Zone

box 3

From figure EQ1 select Earthquake Zone: A B C

BUs required Wind

box 4

From Table W1A/W1B

W along = 25 BUs/m

W across = 50 BUs/m

Total wind load,

W ALONG:

W along x BW = 175 BUs

W ACROSS

W across x BL = 100 BUs

BUs required Earthquake

box 5

From Table EQ1/EQ2/EQ3/EQ4/EQ5/EQ6

E = 33 BUs/m²

Note: For a room in the roof space use E + 3

Total earthquake load,

EQ ALONG and EQ ACROSS

E x GPA BUs = 330 BUs

GIB® BRACING SYSTEMS – DESIGN

GIB	Wall Bracing Calculation Sheet B	MARCH 2006

Along

Please Photocopy

WALL OR BRACING LINE		BRACING ELEMENTS PROVIDED			WIND		EARTHQUAKE	
1	2	3	4	5	6 W	7 W	6 E	7 E
Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m) L	Rating BU/m W	BUs Achieved (BU/m x L) W	Rating BU/m E	BUs Achieved (BU/m x L) E
A		4	SS	1.8	25	117		
B		4	SS	1.8	25	117		
C								
D								
E								
Totals Achieved					W	230	E	
From Sheet A Totals Required 175					W		E	
Wreq/Ereq =								

* If Wreq/Ereq is 1 or less complete E column only
If Wreq/Ereq is 1.2 or more complete W column only
Otherwise complete both W and E

Across

WALL OR BRACING LINE		BRACING ELEMENTS PROVIDED			WIND		EARTHQUAKE	
1	2	3	4	5	6 W	7 W	6 E	7 E
Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m) L	Rating BU/m W	BUs Achieved (BU/m x L) W	Rating BU/m E	BUs Achieved (BU/m x L) E
M		11	BC	0.6	125	75		
N		11	BC	1.0	125	125		
O								
P								
Q								
Totals Achieved					W	275	E	
From Sheet A Totals Required 175					W		E	
Wreq/Ereq =								