

Project Specification

Date of issue

18/10/2024

Site address:

Trevors Road, Ashburton

Legal description:

Lot:	19
DP:	22436

Project information:

Type:	New residential dwelling
Site area (m2):	539 M2
Territorial Authority	Ashburton District Council
District plan zone/s	Residential C
Wind Zone:	High
Exposure Zone:	B
EQ Zone:	1
Intended use:	Single residential building
Intended life:	Indefinite, but not less than 50 years

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10. Preliminaries & General

10.1. Compliance

Construct the building in accordance with sound trade practice, local body bylaws, relevant standard specifications and manufacturer's specifications, all as may be applicable.

All work must comply with all relevant New Zealand Standards and the Building Act 2004 and the Building Amendment Act 2013

All restricted building work must be carried out by a registered Licensed Building Practitioner (LBP) and a Memorandum of Work provided at completion of the restricted component.

- Design Category 1: Single household dwellings with low or medium risk envelope design
- Design Category 2: Single household dwellings with high-risk envelope design, or other buildings with a building height of 10m or less.
- Design Category 3: Building 10m or greater in building height, except single household dwellings.

Structural engineering must also be accompanied by a Design Memorandum

Provide Producer Statements in the required format for the Building Consent Authority for the following

- Truss design
- Wet area interior waterproofing
- Exterior envelope waterproofing membranes
- Aluminium joinery
- Glazing

Any site license LBP's shall have a minimum Site License in area of practice 1

- All carpentry: Carpentry: Including exterior claddings as installed by carpenter or subcontractor
- All foundation work: Foundations 1: Concrete foundation walls and concrete slab-on-ground
- All block & brick laying: Bricklaying and Blocklaying 1: Brick / masonry veneer
- Any Exterior plastering: External Plastering 1: Proprietary Plaster Cladding Systems
- All Roofing: Roofing 1: Profiled metal roof

A copy of NZS3604:2011 Timber Framed Buildings must be held on site

Any variation or substitution during construction from the plans and specifications must be pre-approved by the Owner and submitted to council with an Amendment to Consent Application for approval prior to the works commencing

10.2. Plans

The plans (and specifications) describe the detail of works.

The builder shall have total responsibility of this project with the client once started.

The builder is fully responsible for the work on site and other aspects of the project to ensure a good level of workmanship can be attained.

The builder shall notify the designer in writing in respect of any aspect of the project that is not clear prior to starting construction.

No inspections have been allowed for by Creative Co.

All inspections required are to be carried out by the BCA or their nominated contractors, missed or failed inspections may lead to a consent completion certificate (CCC) not being issued.

In the event of any discrepancy between the plans and specifications the plans will take precedence.

The cost of designing changes to the plans that are requested by the owner, executed or just investigated, after the Letter of Engagement is signed, shall be treated as a variation.

10.3. Variations

Definition of a variation: Any agreed change to a particular specified and/or planned and contracted goods and/or service.

Main contractor & their subcontractors shall not vary the work from this specification or the plans without a Variation Approval signed by the owner & Creative Co, the main contractor & authorised subcontractors & the owner.

It can be expensive, inefficient & significantly increase the chance of mistakes as well as extend estimated construction time, to action variations, once the building consent is lodged

Any variation as requested by the owner will be priced at an hourly rate.

Creative Co reserves the right to refuse any variations to the consented plans that they believe may negatively affect the quality, or durability of the project.

10.4. Substitutions

Substitutions are not permitted to any of the specified systems, components and associated products listed in that section without a notice to vary the works and an amendment to issued Building Consent

A substitution may be proposed where specified products are not reasonably available. A substitution may also be proposed by the Contractor where the Contractor considers a proposed substitution to be an alternative to the specified product. Except where a specified product is not available, the Contract administrator is not bound to accept any substitutions. Where branded work sections are included in this specification, substitution of those products or systems will not be allowed.

Notify proposed substitution of specified products. Notification to include but not be limited to:

- Product identification
- Manufacturer's name, address, telephone and facsimile numbers, website and email address
- Detailed comparison between the properties and characteristics of the specified product and the proposed substitution
- Statement of NZBC compliance including durability
- Details of manufacturer warranties

plus, an assessment of:

- Any changes required to the programme including any extension of time required
- Any consequential effects of the proposed substitution
- Allowance for time and cost for re-design and documentation (if applicable)

- Allowance for time and cost for obtaining an amendment to the Building Consent (if applicable)
- Any change in cost associated with the proposed substitution and if requested
- All current manufacturer's literature on the product
- Accreditations and appraisals available
- Reference standards
- Product limitations
- Samples
- List of existing installations in the vicinity of the project

10.5. Health and Safety

Main contractor & all subcontractors must adopt a Safety Policy & Procedures as part of the Hazardco site safety and control program

A site specific safety plan will set out the health & safety procedures for that site. These procedures will be implemented by all management, employees and contractors that work on that site. The main contractor will ensure that this plan and the other resources contained in the site safety pack are available to all employees and contractors to enable them to fulfil their individual H&S obligations

Particular attention is to be paid to preventing-falls-from-height-in-construction.

All visitors to site must sign on to the site and have read, understood and will comply with the Site Specific Safety Plan for this site

10.6. Scaffolding

The builder shall erect a scaffold for use by all applicable sub-trades.

All scaffolding used on site is to be, as a minimum standard, erected and maintained as per Work Safe NZ Best Practice Guideline for Scaffolding in New Zealand

Scaffolding to be inspected and re-tagged on a minimum of a weekly rotation.

No adjustments or changes to scaffolding are permitted by non-ticketed persons

10.7. Storage of materials

All materials shall be suitably stored and stacked clear of the ground and shall be in first class condition before building in

10.8. Site toilet

Main contractor shall supply a toilet on site or nearby. This is for the comfort of their employees, sub-contractors & owners only. This convenience must be respected & kept clean. It is not to be used as site storage shed

10.9. Rubbish removal & control

Main Contractor shall supply a site bin. All sub-contractors shall clean their own rubbish up & put it in the bin. If the bin is full all sub-contractors are authorised & required to phone direct for an empty.

10.10. National Environmental Standard

An environmental standard (under the Resource Management Act 1991) came into force on 1 January 2012. This standard means that if your land is, or has been, used for a hazardous activity or industry and you want to subdivide or change the use of the land, or disturb the soil, or remove or replace a fuel storage system, you will need to comply with the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES). Some councils qualify a change of use of land as the time that a building consent is applied for, rather than at the time the subdivision of land has taken place

Please note that this section is included for information only and unless noted otherwise in Section 11 of this Specification any costs associated with remedial action required to meet the guidelines of soil suitability are not included in this Contract

10.11. Surveying and building set out

The main contractor is responsible for setting out the site.

11. Site access and excavation

11.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following standards:

B1/AS1	Structure
B2/AS1	Durability
E1/AS1	Surface Water
E2/AS1	External Moisture
NZS3604 buildings	Section 3 Site Requirements and Section 7.5 Concrete slab on ground for timber
NZS4229	Section 3 Site Requirements, Section 6 Footings, and section 7 Foundation walls and Concrete Slab on Ground
NZS4431	Code of practice Earth Fill for residential Development

WorkSafe NZ Approved Code of Practice for Safety in Excavation and Shafts for Foundations

11.2. Site Preparation

Location of all underground services and connections to be clearly identified prior to works starting.

Refer 10.23 and 10.24

All sediment control to be in place prior to works starting.

11.3. Construction access.

Form construction access including any site storage and holding areas as shown on plans

Excavate topsoil approximately 150mm and stockpile as per plan

Spread between 100mm & 150mm thick by 3m wide with AP40 or larger as construction access only
Compact to a level to accept heavy traffic

Not intended as a finished drive

11.4. Site excavation

Scrape site to Cleared Ground Level (CGL) as shown on plans

Ensure that all exposed vertical cuts are safe with a slope of cut no greater than 4:1 (vertical to horizontal)

Cover all cut faces with polythene to protect from de-stabilising (drying out and/or getting to wet) until retaining and back fill is completed

11.5. Excess excavation spoil

Keep clays and topsoil's separate where practical

Stockpile topsoil on site in one place, as shown on plans

Stockpile clays on site in one place, as shown on plans

11.6. Foundations

Excavate foundations to the depth necessary to obtain solid bearing but in any case to a minimum depth below ground at all points as shown on plan.

Over excavation shall be made up with weak mix concrete

Ensure that all footings or trench excavations have a level base and the sides plumb and square

Note that if footings have to go deeper than 300mm there may be a variation to the contract

11.7. Under slab filling

Shall consist of graded metal no larger than AP60 compacted in 150mm layers with 10mm minimum to 25mm maximum of compacted grit or coarse sand levelled off over the top to create a protected surface for the polythene

11.8. Compaction Certificate

Any fill over 600 mm must have a compaction certificate from an engineer

12. Engineered Floor

12.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to meet the following building standards

B1/AS1	Structure
B2/AS1	Durability
E1/AS1	Surface Water
E2/AS1	External Moisture
AS/NZS 1748	Mechanically stress-graded timber
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 3402	Steel bars for the reinforcement of concrete
NZS 3422	Welded fabric of drawn steel wire for concrete reinforcement
NZS 3604	Timber framed buildings
NZS 4210	Masonry construction: materials and workmanship
AS/NZS 4671	Steel reinforcing materials

All delivery dockets for concrete must be kept and provided to territorial authority as proof of compliance

12.2. Allied Floor System

Allied is CodeMark certified for use in New Zealand: GM-CM30046-RevG

Refer manufacturer's recommendations and literature

12.3. Concrete

All concrete to engineered floor shall be 20 MPA minimum @ 28 days. All concrete shall be supplied from an approved Allied Floor Supplier

Retain all delivery dockets for council inspector to sight

No water is to be added to ready mixed concrete after batching

Power float the surface to a standard suitable for receiving carpet, tiles or vinyl's

12.4. Slab Siting

Slab shall be prepped on flat ground – ground to be made flat by building up with compacted AP40 or smaller and tested by engineer if deemed necessary.

Floor contractor to provide final level with sand blinding

Head Contractor to provide flat levelled site to +/- 20mm

12.5. Crack Control Joints

Wet cut for crack control as a preference, when possible and practical

To be cut as per the crack control plan

All cutting shall be done as soon as possible and in a straight line

12.6. Slab Cure

At the discretion of those on site, on the day, slab cure can be applied if thought a benefit to house slabs to aid curing

13. Frame, Closed in and Carpenters Materials

13.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

B1/AS1	Structure – General
B1/AS2	Structure – timber barriers
B2/AS1	Durability
E1/AS1	Surface Water
E2/AS1	External moisture
E3/AS1	Internal moisture
F2/AS1	Hazardous building materials
F4/AS1	Safety from falling
G12/AS1	Water supplies
AS/NZS 1328.1	Glued laminated structural timber - Performance requirements and minimum production requirements
AS/NZS 1748	Mechanically stress-graded timber
AS/NZS 1859	Reconstituted wood based panels
AS/NZS 2269	Plywood – Structural
AS 2754	Adhesives for timber and timber products
AS/NZS 2904	Damp-proof courses and flashings
AS/NZS 2918	Domestic solid fuel burning appliances - Installation
NZS 3602	Timber and wood-based products for use in building
NZS 3603	Timber structures standard
NZS 3604	Timber framed buildings
NZS 3622	Verification of timber properties
NZS 3640	Minimum requirements of the NZ Timber Preservation Council Inc.
AS/NZS 4364	Adhesives, phenolic and aminoplastic for load-bearing timber structures: Classification and performance requirements
FTMA CoP	Frame and Truss Manufacturers Association Code of Practice

13.2. Timber

All timber shall be of a suitable species and treatment for the use applied and shall conform to NZS 3640 Specifications

All framing-unless specified otherwise, shall be SG (stress graded) Kiln Dried H1.2 treated machine gauged as a minimum, and shall not be lined or insulated internally until a moisture content of 16 % or less has been achieved. Sizes and number shall be in accordance with the plans

Except framing on cantilevered decks shall be H3.2 wet in service

13.3. Framing

All framing to be constructed in accordance with NZS3604:2011 and its updates

Damp proof course to be used between all timbers that are not H5 treated in contact with concrete or masonry

Use ThermaKraft Supercourse 500 DPC – BRANZ Appraisal 329

Do not use bitumen based DPM on treated timber

13.4. Purlins

Fit 70 X 45 RAD SG8 H1.2 KD purlins as per plans.

Fixed as per note on plans for the appropriate wind zone.

Be aware of requirements for wind zones

13.5. Fixings, Brackets and Straps

All as per plan, requirements of NZS3604:2011, and alternative solutions provided by MiTek Structural Fixings Guide

13.6. Structural bracing units

Fit Eco ply 7mm ply to all exterior bracing units as shown on bracing plan

Prefixed by EP

Where treated ply is used stainless steel 50mm AG nails to be used as a minimum

13.7. TEKTON Weatherization System - BRANZ Appraisal No.621

Building wrap/paper to exterior walls

TEKTON House Wrap - BRANZ Appraisal No.548

Can be used on gables up to very high wind zone with a rigid air barrier.

Installation as per Manufacturers Specifications and the below:

- Be fixed to studs by carpenter to exterior walls
- Not be exposed to weather for more than 60 days.
- Be fixed horizontally & continuously always. Must go to top plate in one hit & if greater than 2.7 m high lap a minimum of 150mm.
- Be pulled as taut as possible
- Be neatly trim 10-15mm below bottom plate or supporting joists.
- Be cleaned of any dirt before installing claddings.
- Be fixed by hand compression staple gun. Hammer staple guns are not permitted as the staple tears too much & does not generally go in square.

SUPER-STICK Building Tape - CodeMark AQ-010116-CMNZ or BRANZ Appraisal No.846

Flashing Tape around wall penetrations

Carpenter to wrap around all exterior joinery, meters, infinity units, pipe work, vents & the like that pass through the exterior walls, behind the primary cladding & onto the building wrap.

In the case of parapet corners -the carpenter is to wrap over the cladding as a back-up system to the capping joint.

In the case of abutments or junctions- where possible, the carpenter is to use or similar - as a back-up system behind any flashings for protection to water ingress

13.8. Fascia

ColorSTEEL 180mm fascia

13.9. Soffits

Line soffit with 4.5mm Hardiflex sheet with NO PVC jointers, V Groove butt joins.

Use full sheets as preference

13.10. Exterior trim to garage door opening

Use H3.1 finger jointed pre primed timber fascia

Selected profile to be Ex 150mm x 40mm

Installed as per manufacturers specification

13.11. Ceiling Battens

Use Rondo ceiling battens @ 600mm crs. (140 x 35 to plate lines) Battens must run the one way in each room. Stagger all joints on trusses

At 600 centres to suit 13 mm Gib board ceiling linings

14. Interior- Carpenters Materials

14.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

B2/AS1	Durability
E3/AS1	Internal Moisture, Water splash
AS/NZS 1859	Reconstituted wood-based panels
AS/NZS 2269	Plywood – Structural
AS/NZS 2589	Gypsum linings in residential and light commercial construction application and finishing
AS/NZS 2589.1	Gypsum plasterboard
AS/NZS 2908	Cellulose-cement products
AS/NZS 2908.2	Flat sheets
NZS 3602	Timber and wood-based products for use in buildings
NZS 3604	Timber framed buildings
BRANZ Bulletin 328:	Selection and use of fasteners.

14.2. Moisture

Do not fix any interior linings to timber until it is moisture tested & has a moisture content of 16 % or less

14.3. Air Seals Around windows

Loctite Pro-Foam II expanding foam (used as air seal)

Carpenter to install right around all exterior windows & doors over a PERF backing rod

14.4. GIB board Linings

All selected and fixed as per [GIB Site Guide](#)

No walking on finish side of GIB.

Do not screw or nail through glue

- Control joints in ceilings

Placed as per the plans, generally at 9m centres

These are required in long hallways and where large ceilings areas go through to a smaller ceiling area creating stress points, to the use & placement of control joints

- Fixing Ceilings

Fixed perpendicular to battens.

Minimise butt joints. Butt joints between battens and back blocking by carpenter using [GIBCove Bond 90](#)

Backblock all joints as per manufactures recommendations

Screw fix to sides & to centre of sheet on each batten.

Two evenly spaced daubs of GIB accredited adhesive to each side if centre

Use [GIBFIX One](#)

Use [GIBfix ALLBOND](#)

Where there are more than 3 long edge (tapered) sheet joints back blocking is required to the long edge joint

Use [GIBCove Bond 90](#)

These are to be between the battens

In the case of coved/pitched ceilings all joints at change of direction are to have a 32 x 32 x 0.55mm galvanised internal corner angle behind joint fixed direct at 150mm centres

- Fixing Walls Fixed horizontally.

No butt joints if at all possible. None at all over openings

No horizontal joints on joists in stairwells

Screw fixed to sides & [GIBFIX One](#) daubs @ 300 centres to studs through centre of sheet

Do not mechanically (screw or nail) fix to nogs/dwangs

Square edge to ceiling & floor

Tight wardrobes can be vertically fixed

- Dry Zone GIB Linings

10 mm GIB Aqualine to Walls of bathroom and ensuite

13 mm GIB Aqualine to Ceiling of bathroom and ensuite

Install 32 x 32 x 0.55mm galvanised internal corner angle to a minimum high if 1.8m in shower area-direct to studs-fixed at 150mm centres

- Rest of Wall & Ceiling GIB linings

13 mm Ultraline GIB to all ceilings.

10mm Standard GIB to rest of walls excluding tiled walls in bathrooms and garage.

15. Frames & Trusses

15.1. Preliminaries

Comply with the preliminaries as set out in Section 10 and Section 20

15.2. Wall Framing

The framing shall be assembled all in accordance with NZS 3604 and the Frame and Truss Manufacturers Association Code of Practice

The framing shall be pre-nailed, kiln dried SG8 H 1.2 (stress graded) as a minimum unless noted otherwise in the plans, delivered to the site complete with all metal angle bracings fitted

Studs - Exterior and interior studs shall be @ 90 x 45 @ 400 centres- Unless noted otherwise

Nogs - To all walls shall be at @ 600 centres

15.3. Plywood bracing units

Fit 7mm Eco Ply to all Ply bracing units as shown on bracing plan.

Where CCA treated ply is used stainless steel 50mm AG nails to be used as a minimum

15.4. Roof Framing

Truss manufacturer to provide design certificate and producer statement

Fit kiln dried SG8 H 1.2 proprietary trusses at 900 centres over the whole of the roof area

All manufactured in accordance with NZS 3604 and the Frame and Truss Manufacturers Association Code of Practice

All fixings as per Lintel Fixings Schedule, Stud Fixing to Top Plate Schedule Plus valley & ridge boards are to be supplied with pre-cut

Truss manufacturer to ensure truss design & set out does not conflict with any flue or inflexible roof penetrations

16. Spouting, downpipes and pre-formed metal fascia

16.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards:

E2/AS1 External Moisture

AS/NZS1170.2 Structural design actions - Wind actions

AS 1397 Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium

NZS 3403 Hot-dipped galvanised corrugated steel sheet for building purposes.

AS 3566 Self-drilling screws for the building and construction industries

NZS 3602 Timber and wood-base products for use in building NZS 3604 Timber-framed buildings

NZS 3604 Timber-framed buildings

ISO 9223 Corrosion of metals and alloys - Corrosivity of atmosphere - Classification determination and estimation

NZMRM CoP NZ Metal Roof and Wall Cladding - Code of Practice

Do not leave swarf, broken rivets, screws, nails, or waste metal on roof, or in gutters or spouting.

Warning note to Owner – it is very important to check your gutters to see if they need cleaning out every 2 months for the first 6 months or so to pick up the pattern of how regularly they need cleaning out. Blocked &

overflowing gutters can cause water to get inside the house. This is especially important with concealed & internal gutters

16.2. Fascia

ColorSTEEL 180mm continuous fascia

Installed as per manufacturers recommendations by an authorised installer

16.3. Spouting

ColorSTEEL Quarter Round guttering

16.4. Downpipes

ColorSTEEL 80mm down pipes

All Storm Water Risers to be left level with base of cladding. This ensures consistency around the dwelling

17.Roofing

17.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards:

E2/AS1	External Moisture
NZBC E2/AS1	External Moisture
AS/NZS1170.2	Structural design actions - Wind actions
AS 1397	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
NZS 2295	Pliable, permeable building underlays
AS 3566	Self-drilling screws for the building and construction industries
NZS 3403	Hot-dipped galvanised corrugated steel sheet for building purposes.
AS 3566	Self-drilling screws for the building and construction industries
NZS 3602	Timber and wood-base products for use in building NZS 3604 Timber-framed buildings
NZS 3604	Timber-framed buildings
ISO 9223	Corrosion of metals and alloys - Corrosivity of atmosphere - Classification determination and estimation
NZMRM CoP NZ Metal Roof and Wall Cladding - Code of Practice	

17.2. Colorsteel longrun profiled roofing

Profile as selected – Corrugated

Base metal thickness of 0.40mm

Supplied and installed in accordance with ColorSTEEL requirements

Over breathing type building paper to NZS 2295, fixed with matching colour screws

Lay horizontally if pitch is less than 8 degrees. Can be run vertically if greater than 8 degrees & more practical. All joints lapped to a minimum of 150mm

Lay strip under valleys

Lap over ridges

Trim neatly 20-25mm over fascia

Remove all swarf at completion of works

17.3. Roof flashings

All Roof flashings to be in ColorSTEEL 0.55 Gauge Base Metal thickness including - Barge, capping & apron flashings

Minimum laps/cover as per E2/AS1 Table 7 as noted on plans

Under flashings - Generally in self-supporting underlay or Butyl. They shall go between surfaces at critical junctions as a backup system where ridges & hips meet.

17.4. Stop end flashings

To be installed to meet the requirements of E2/AS1

18. Flashings – General

Comply with the preliminaries as set out in Sections 10, 14, 20, 37, 38, 44, 48, and 50

All as per plan or required for weather protection in suitably compatible materials.

Solid plaster claddings

In the case of solid plaster claddings - to cavity as base & above windows install 0.75 mm galvanised flashings as per plan

Other flashings as per plan

19. Exterior Cladding

19.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards:

B2/AS1	Durability
E2/AS1	External moisture
E3/AS1	Internal Moisture
NZS 3604	Timber framed buildings
BRANZ Bulletin284:	Sealed joints in external claddings – 2. Sealants
BRANZ Bulletin 304:	Flashing design
BRANZ Bulletin 305:	Domestic flashing installation
BRANZ Bulletin 407:	Walls on exposed sites
NZS 3117	Specification for pigments for Portland cement and Portland cement products
NZS 3604	Timber framed buildings
AS/NZS2908.2	Flat sheets

19.2. The Plans

The plans describe the detail of work & flashings

Warning note to Owner – colours with a LRV (light reflective value) of less than 40% (darker colours) on some cladding options will not meet the Building Code as acceptable and in most cases will void the manufacturer's Warranty.

19.3. Masonry brick veneer

To be same production run, or batch, to avoid colour variation

Brickwork must be completed before insulation and interior wall linings to the exterior walls is installed

Bricklayer to install 150mm wide DPC fixed down each side of exterior windows & doors. Tucked behind the window face & rolled around onto the frame & over the building wrap

Sills – all as per plans

Mortar – 10mm raked sponged pointed

Carpenter to apply two coats of Sika Blackseal Elastic to brick rebate in foundation

To extend up to floor level as a minimum

19.4. James Hardies Linea weatherboard

CodeMark CMNZ30018

Linea 180mm weatherboard

Fixed horizontally as per manufacturers Horizontal Installation Technical Specification May 2020

BRANZ Appraisal 446

Installed over timber cavity battens as per plans and E2/AS1

20. Exterior windows and doors

20.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

B1/AS1	Structure – General
B2/AS1	Durability
D1/AS1	Access Routes
E2/AS1	External Moisture
E3/AS1	Internal Moisture
F4/AS1	Safety from Falling
H1/AS1	Energy Efficiency
AS/NZS 1905	Components for the protection of openings in fire-resistant walls
NZS 4211	Performance of windows
AS/NZS 1734	Aluminium and aluminium alloys - Flat sheet, coiled sheet and plate
AS/NZS 1866	Aluminium and aluminium alloys - Extruded rod, bar, solid and hollow shapes
AS/NZS 2208	Safety glazing materials in buildings
AS 3715	Metal finishing – Thermoset powder coatings for architectural applications
NZS 4211	Performance of windows
NZS 4218	Thermal insulation - Housing and Small Buildings
NZS4223	Code of practice for glazing in buildings

NZS 4223.3	Glazing in buildings – Human impact safety requirements
AS/NZS4666	Insulating glass units
AS/NZS 4667	Quality requirements for cut-to-size and processed glass
BRANZ BU 337	Protecting window glass from damage

20.2. Aluminium windows and door fabricator

Supply to site all units as set out in the plans complete with aluminium flashings as required by plans
Site measure and check all openings before commencing work

The structural and weather-tight performance of the completed joinery, the glazing and infill panels is the responsibility of the window fabricator

Must provide a Producer Statement on completion that joinery units as fabricated comply with all relevant Building Code requirements

20.3. Carpenter

To install all units on site

Air seals and WANZ bars installed and fitted by carpenter all as per E2/AS1 requirements

Where units are fitted directly to floor apply a continuous bead [Sikaflex AT Facade](#) between joinery unit and floor

Solid blocking between jam/reveal and studs where fixings are installed

All units fitted flush with GIB face finish to take architraves

20.4. Flashings

Extruded aluminium head and sill flashings as supplied by fabricator and colour matched to windows and doors

Jamb flashings as required

Ensure that materials used for head, jamb and sill flashings are compatible with the window frame materials and fixings and cladding materials

20.5. Supports to joinery units

Supply support WANZ bars to support all sills as required to E2/AS1 to suit cladding types and joinery width

Carpenter to install on site

20.6. Joinery rebated to cladding

Note that joinery is rebated back from face of cladding the thickness of the cladding

20.7. Parliament hinges

Where required to achieve full fold back of door or window opening as per plans and window schedule fit parliament or stand-off hinges to joinery units

These are to be colour coded to match unless stated otherwise

20.8. Glazing

All safety glass to bathrooms to be AS NZS 2208 safety glass & labelled as such.

All units double glazed unless noted otherwise

21. Garage doors

21.1. Preliminaries

Comply with the preliminaries as set out in Section 10

All construction to comply with the following building standards

AS/NZS 1170	Structural design actions
NZS 3604	Timber-framed buildings
AS/NZS 4505	Garage doors and other large access doors

Garage doors complete with hinges, roller assemblies and fasteners to comply with wind and seismic load performance requirements to NZS 3604, table 5.4, AS/NZS 1170

22. Drainage

22.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

B1/AS1	Structure
E1/AS1	Surface water
G12/AS1	Water Supplies
G12/VM1	Water supplies
G13:AS2	Foul Water
NZBC G13/AS3	Plumbing and Drainage
AS/NZS 1254	PVC-U pipes and fittings for Stormwater and Surface Water applications
AS/NZS 1260	PVC-U pipes and fittings for drain, waste and vent applications
AS/NZS 2032	Installation of PVC pipe systems
AS 2439.1	Perforated Plastics Drainage and Effluent Pipes and Fittings - Perforated drainage pipe and associated fittings
AS/NZS 2566.1	Buried Flexible Pipelines - Structural Design
AS/NZS 2566.2	Buried Flexible Pipelines - Installation
NZS 3104	Specification for concrete production
NZS 3402	Steel bars for the reinforcement of concrete
AS/NZS 3500.2	Plumbing and drainage - Sanitary plumbing and drainage
AS/NZS 3500.3	Plumbing and drainage - Stormwater drainage
NZS 3604	Timber-framed buildings
AS/NZS 4671	Steel reinforcing materials
	Plumbers, Gasfitters and Drainlayers Act 2006

22.2. General

The work shall be carried out by a licensed Drainlayer and comply with the NZ Building Act 2004

All drains shall be laid at least to the minimum falls required

22.3. Excavation and trenching

All pipes must be, if at all possible; a minimum of 300 mm from finished ground level to the top of the pipes

Except where pipes are covered by hard landscaping

Plumber to arrange excavation of trench for telephone/internet and power supply whilst they are trenching for drainage

Electrician to lay cables on same day so drainlayer can backfill with other trenching

To be arranged for same day as drainage being completed

Telecom and electrician need 5 working days' minimum notice before date required

Do not excavate to depths greater than 3:1 or 18 degrees from bottom of house footings to bottom of trench or excavations

Note that under no circumstances are drains permitted to be excavated to depths greater than 1 in 1 or 45 degrees from bottom of house footings to bottom of trench

Any excavation required over this depth requires specific engineers design to foundations and should be identified by the drainlayer prior to construction starting

22.4. Stormwater

Lay 100mm U-PVC storm water pipe or as indicated as required on plans and run to street channel, soak hole or connection at road boundary as necessary

Reduce to 90mm U-PVC pipe for stormwater risers where visible above finished ground level

This reduces the gap and leaves a tidy finish where downpipes are connected stormwater system

All surface water drainage to be carried out in accordance with E1/AS1

Rise against house wall to all down pipe positions ready to receive downpipes

All Storm Water Risers to be left level with base of cladding. This ensures consistency around the dwelling

22.5. Soakhole or soaker trench

Connect stormwater system to discharge into soak hole as per calculations and design on plans and associated engineering documentation to meet territorial authority controls

22.6. Testing

Field or pressure test all systems as required to the satisfaction of the territorial authority inspector

22.7. Reinstatement and back filling

All as per E1/AS1 Section 3.9

Encase all drainage pipes in minimum 300mm of granular material

Use 7-10mm clean gravel or crushed stone

Back fill with AP 60 or smaller under foundation and floor prep and all hard landscaping areas (driveway, patios and paths) as shown on plans

Compact all back-fill in max 150mm layers

In lawn & garden back fill with excavated material and reinstate the topsoil

Firmly compacted to limit future slumping of replaced material

On completion remove excess unwanted metal & stockpile excess clay

Do not mix the good topsoil with Clay & metal

Leave site clear and tidy

23. Hot and Cold water – Plumbing

23.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

B1/AS1	Structure
B2/AS1	Durability
E3/AS1	Internal moisture
G1/AS1	Personal Hygiene
G12/AS1	Water Supplies
G12/VM1	Water supplies
G13:AS1	Foul water
NZBC H1/AS1	Energy Efficiency
AS/NZS 1730	Washbasins
AS/NZS 2023	Baths for ablutionary purposes
AS/NZ 3500	Sanitary Plumbing
AS/NZS 3500.1	Plumbing and drainage - water services
AS/NZS 3500.2	Plumbing and drainage - sanitary plumbing and drainage
AS/NZS 3500.4	Plumbing and drainage - Heated water services
AS/NZS 3500.5	Plumbing and drainage - Housing installations
AS 1432	Copper tubes for plumbing, gasfitting and drainage applications
AS/NZS 1730	Washbasins
AS/NZS 2492	Cross Linked Polyethylene (PE-X) pipe for pressure applications
AS/NZS 2537.2	Mechanical joining fittings for use with crosslinked Polyethylene (PE-X) for pressure applications - Plastics piping systems for hot and cold water installations - Crosslinked Polyethylene (PE-X) - Fittings
AS/NZS 2845.1	Water supply - Backflow prevention devices - Materials, design and performance requirements
AS 2845.3	Water supply
AS 2642	Polybutylene pipe fittings
NZS 3501	Specification for copper tubes for water, gas and sanitation
NZS 3662	Performance of showers for bathing
NZS 4606	Storage water heaters
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.

23.2. General

A licensed plumber shall carry out the work

[Dux Secura PB-1](#) polybutylene piping shall be used in conjunction with approved [Dux Secura Gold](#) crimped fittings

All supplied and installed as per manufacturers [technical manual](#)

All pipes, wastes, vents, etc. shall be of a diameter suited to their purpose and as per plan. Concealed unless unavoidable

They shall be straight and plumb, or straight to falls

All bends shall be kept to a minimum and easy bends shall be used wherever possible

Adequately strap all pipework as required

23.3. Services in concrete floor

All foul water drainage to be carried out in accordance with [G13/AS1](#) or [AS3500.2](#)

Lay 110mm uPVC sewer lines in straight runs and to correct gradients as required to complete with all required

Layout and dimensioned off plate lines to suit toilet, shower and vanity selection

Refer section 82 for toilets as selected

Where pipework comes through a bottom plate ensure that location is clear of studs in framing layout

All pipe work that is in contact with concrete must be separated with a sleeved slip joint by using a larger diameter pipe as penetration boxing

Mark location of shower and bath wastes in preparation for flooring contractor to box-out

Minimum of 300mm square boxed off clear space around location of waste connections that are to be below floor level

Run a duct in 90mm minimum uPVC for water and power supply to island bench location as indicated on the plans and any updated kitchen plan.

All pipework must be capped and flush with finished floor level prior to floor pour

Test soil and waste disposal systems to ensure no leakage exists and leave in proper working order

23.4. Sanitary services within dwelling

Install all sanitary pipework within building in accordance with selected NZBC as per plans and connect waste outlets to sanitary drainage

Run waste pipes and back vents concealed

Discharge wastes into the drainage system stack, soil pipe, or gully trap as shown

Bird proof covers to all roof vents and vermin proof mesh to all un-trapped waste pipes

Test soil and waste disposal systems to ensure no leakage exists and leave in proper working order

23.5. Pressure limiting isolation valve

Fit 3 in 1 valve (isolation, filter and non-return valve) and pressure limiting valve set to **500 KPA**

To be confirmed on warranty information from tapware suppliers

Installed in the wall in the garage preferably

Carpenter to provide access through wall linings and install Closet Wall Access Panel

23.6. Water supply pipework

All hot & cold water pipes shall be overhead & down through the frames where possible

Except in the case of island sinks or dishwashers where it shall be under the concrete slab and shall be sleeved all the way under the slab and through the concrete slab

Any copper pipework to be earthed by electrician

Dux Secura PB-1 polybutylene piping shall be used in conjunction with approved Dux Secura Gold crimped fittings

All supplied and installed as per manufacturers technical manual

Showers prioritise both hot and cold water system

20mm direct feeds to the showers with 15mm feeds taken off this to other applications

Test all to NZBC as specified in Section 50.1 with potable water to 1500Kpa for a period of not less than specified in selected NZBC Standard (15 minutes for G12 and 30 minutes for AS/NZ 3500)

Any pipe runs that go through timber members must comply with NZS 3604 or by:

Acceptable alternative solution is to be strengthened with a Lumberlok Top Plate Stiffener or in the case of pipework larger than 60mm a Lumberlok Floor Joist Stiffener or similar must be used

Diameter of drill holes must comply with the appropriate manufacturers specification for selected joist or stud/top plate stiffener

Studs can be notched to accept pipework only as per NZS 3604 without the use of a joist stiffener as above

Top plates may not be notched under any circumstance

23.7. Water heater

Supply mains pressure electrical hot water cylinder of approved make and type and install with restraints as detailed below. Also, the cylinder shall be fitted with an anti-scold device as clause 6:14:1-2 & fig 16 of G12 water supply for mains pressure.

Provide a safe tray under the HWC with a 40mm diameter drain to an externally visible location

Pipes and service penetrations shall be made weather tight by using flashings and where necessary, sealant. Acceptable Solution E2/AS1 method shown in figure 68.

In the case where the HWC is over a habitable space a galvanised tray with 80mm high sides shall be installed under the HWC with a 40mm over flow

23.8. Hose taps

Install house taps as indicated on plan

23.9. ColorSTEEL spouting and downpipes by plumbing contractor

Supply and install:

Colorsteel 80mm downpipes

Supply and install as per manufacturers recommendations

23.10. Penetrations

Provide and fit collars and escutcheon plates to match the pipework at all penetrations through wall cladding

23.11. Flashings

Provide and install flashings as required for any penetrations through roof

Vent pipes

24. Septic and water

24.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

B1/AS1	Structure
B2/AS1	Durability
E1/AS1	Surface water
G12/AS1	Water Supplies
G12/VM1	Water supplies
AS.NZ:3500	Foul Water
NZBC G13/AS3	Plumbing and Drainage
AS/NZS 1254	PVC-U pipes and fittings for Stormwater and Surface Water applications
AS/NZS 1260	PVC-U pipes and fittings for drain, waste and vent applications
AS/NZS 2032	Installation of PVC pipe systems
AS/NZS 2439.1	Perforated Plastics Drainage and Effluent Pipes and Fittings - Perforated drainage pipe and associated fittings
AS/NZS 2492	Cross Linked Polyethylene (PE-X) pipe for pressure applications
AS/NZS 2537.2	Mechanical joining fittings for use with crosslinked Polyethylene (PE-X) for pressure applications - Plastics piping systems for hot and cold water installations - Crosslinked Polyethylene (PE-X) - Fittings
AS/NZS 2566.1	Buried Flexible Pipelines - Structural Design
AS/NZS 2566.2	Buried Flexible Pipelines – Installation
AS/NZS 2845.1	Water supply - Backflow prevention devices - Materials, design and performance requirements
AS 2845.3	Water supply
AS 2642	Polybutylene pipe fittings
AS/NZS 3500.1	Plumbing and drainage - water services
AS/NZS 3500.2	Plumbing and drainage - Sanitary plumbing and drainage
AS/NZS 3500.3	Plumbing and drainage - Stormwater drainage
NZS 7641	Unplasticized PVC waste and ventilating pipe, fittings and accessories,
Plumbers, Gasfitters and Drainlayers Act 1976	

24.2. Sewer

Lay 110mm U-PVC sewer lines in straight runs and to correct gradients as required to complete with all required fittings, inspections, gullies, vents, risers etc.

All foul water drainage to be carried out in accordance with G13/AS2 or AS3500.2

Connect to network utility at the front boundary

25. Electrical and phone

25.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

E2/AS1	External moisture
F7/AS1	Warning Systems

G4/AS1	Ventilation
G8/AS1	Artificial Light
G9/AS1	Electricity
H1/AS1	Thermal Efficiency
AS/NZS 1125	Conductors in insulated electric cables and flexible cord
AS/NZS 3000	Electrical regulations – Buildings, structures and premises
AS/NZS 3008.1.2	Electrical installations - Selection of cables - Cables for alternating voltages up to and including 0.6/1 kV - Typical New Zealand installation conditions
AS/NZS 3100	Approval and test specification-general requirements for electrical equipment
AS/NZS 3112	Approval and test specification - Plugs and socket-outlets
AS/NZS 3113	Approval and test specification - Ceiling roses
AS/NZS 3190	Approval and test specification - Residual current devices (current-operated earth-leakage devices)
AS/NZS 3350.1	Safety of household and similar electrical appliances - General requirements
AS 3786	Smoke alarms
AS/NZS 5000.2	Electric cables - Polymeric insulated - for working voltages up to and including 450/750v
NZS 6401	PVC insulated cables for electric power and lighting Electricity Regulations 1997
AS/NZS 60598.2.2	Luminaires - Particular requirements - Recessed luminaires
IEC 61643	Components for low voltage surge protection devices
	New Zealand electrical codes of practice (ECP).

Electricity (Safety) Regulations 2010

TCF Premises Wiring Code of Practice 2011

Please note under regulations a maximum of 3 circuit breakers is allowed per RCD in the switch board

25.2. Electrical Schedule

When the framing is up the electrician is to contact the owner to arrange a suitable time to meet on site to advise and discuss positioning and requirements

Electrician to do the electrical layout plan as they go

25.3. Phone and internet connection

Electrician shall install ducted cable in trench to house

Electrician to arrange directly with network utility operator via communications service provider

The connection to the house will be made under the electricity meter box on the exterior wall of the house

25.4. Meter board

Location of main meter board as shown on plans

Adequately earth board and internal board and any non-isolated plumbing fixtures and sinks

Supply to Carpenter for installation and flashing with external envelope one metal pre-painted meter board cabinet size 600 high x 400 wide and it is to contain meters only, complete with earthing connection

In the case of the meter board being installed in Brick the wires/cables that come through the top must be sealed around to prevent water getting into switchboard. It must be mounted over the building wrap & care taken to minimise penetration of this wrap

25.5. Switch board

Location of internal switchboard as shown on the plans

Separate inside switchboard with main switch & circuit breakers

Flush surface mount boards manufactured to AS/NZS 3439.3 and installed in accordance with AS/NZS 3000. Manufactured from engineering grade resin with a glow wire rating of 850°C, complete with neutral

and earth busbars, and insulated comb phase bar. Distribution boards to have 20% spare capacity for future additions and alterations

Main switch to be 63A or 100A

Residual current protection 30mA, ensure RCCBs' meet Type A and comply with AS/NZS 3190. MCBs to 4.5kA or 6kA rated

Surge protection provided for with IEC 61643 Class II surge protection devices fitted to the switchboard

Hot water system switch to be one way 20 amp switch complete with cable clamp for flexible PVC conduit to element enclosure

25.6. Services in floor

Install in footing or formwork prior to any concrete being poured conduit of sufficient size to allow for mains cable and telephone/fibre to come up through floor and have no cabling attached to outside of house or foundation

No cabling run directly in concrete. All to be sleeved with solid conduit piping of minimum 32mm

25.7. Power points

10 amp, 230 volt flat 3 pin socket outlets fitted with safety shutters

All fitted to flush mount type plastic in-wall boxes attached to solid blocking

Stand off to side of doorways and windows by minimum of 90mm – add additional blocking if required to ensure all are clear of architraves as selected

Placed at a height to floor no lower than 400mm to floor or 150mm above work benches

Placed in accordance with all clearance zones for gas, water egress and safety of user

All exterior points are to be the appropriate rated fittings for power control and power supply

Weather protected switches to IP56, and sockets to IP53 as a minimum

All install to manufacturer's specifications using recommended fittings and sealants to maintain the products integrity

Earth leakage protection to be provided for in areas where there is increased risk to human safety in the form of either RCDs at the distribution board, or socket outlet

25.8. Light switching

All fitted to flush mount type plastic in-wall boxes attached to solid blocking

Stand off to side of doorways and windows by minimum of 90mm – add additional blocking if required to ensure all are clear of architraves as selected

Fit all single and double switch units to the 1.000m above floor (to the centre of the unit) unless shown otherwise on the drawings

Mount light switches and switch socket outlets vertically

25.9. Light fixtures

Unless specified in the schedule or any updated and approved variation of the schedule they shall be fixed to walls or ceiling on a batten holder

If the owner supplies their own light fittings the electrician shall install these if requested in Lieu of the cost of batten holders

Recessed downlights shall be a CA rated type to AS/NZS 60598.2.2; CA 80, CA 135, IC and IC = F

CA rated means that they are an enclosed fitting with heat sink protection to avoid overheating as to comply with electrical regulations

All wires for lights or fittings that pass through the exterior linings to be sealed so they are watertight

25.10. Smoke alarms

As selected by owner in the schedule or any updated and approved variation of the schedule

In the instance where the smoke alarms are hard wired into a monitored alarm system refer Section 60

Install Type 1 domestic smoke alarm system to NZBC F7/AS1 3.0 Domestic smoke alarms and to the alarm manufacturer's requirements

25.11. Extractor units and fans

Install, commission and test all extract fans as per the plans and schedule

Note that any internal room that is used for bathing, sanitary or food preparation requires mechanical ventilation

26. Insulation

26.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

NZBC H1/AS1	Energy efficiency
AS/NZS 3000	Electrical installations
NZS 4218:2004	Energy Efficiency - Small building envelope
NZS 4220	Code of practice for energy conservation in non-residential buildings
NZS 4222	Materials for the thermal insulation of buildings
NZS 4246	Energy efficiency - Installing insulation in residential buildings
AS/NZS 60598	Luminaires- Particular Requirements - Recessed luminaires
AS/NZS 60695	Fire hazard testing - Test flames - Needle-flame test method - Apparatus, conformity test arrangement and guidance
BRANZ	Bulletin 357: Thermal insulation of houses

26.2. Ceilings and roof envelope

This encompasses the habitable space and includes the garage ceilings

Supply and install Pink Batts Classic R3.6 Ceiling 180mm to all habitable area ceilings

All as per Pink Batts roof installation instructions

Pink Batts insulation BRANZ Appraisal 238

Ensure that the product is installed dry; if wet replace before installation. If cutting is required, cut oversize by 5mm-10mm to ensure a friction fit.

26.3. Walls living envelope

This encompasses the habitable space and includes the garage external walls

Garage to house internal wall is to be insulated as per the below

Supply and install Pink Batts R2.6 Wall 90mm to exterior walls of habitable area

All as per Pink Batts Wall installation instructions

Pink Batts Wall insulation BRANZ Appraisal

Pink Batts insulation BRANZ Appraisal 238

Ensure the product is installed dry; if wet replace before installation

If cutting is required, cut oversize by 5-10mm to ensure a friction fit

Fill gaps around windows and doors with off-cuts. Insulate around vents (not over them) to allow unhindered ventilation

Fit wall insulation behind electrical wiring and plumbing

Ensure there are no gaps, folds or undesirable compression at edges

27. GIB stopping

27.1. Preliminaries

Comply with the preliminaries as set out in Section 10

Comply with the preliminaries as set out in Section 29

E2/AS1 External moisture

E3/AS1 Internal moisture

AS/NZS 2588 Gypsum plasterboard

AS/NZS 2589 Gypsum linings - Application and finishing

NZS 3604 Timber-framed buildings

BRANZ technical paper P21: A wall bracing test and evaluation procedure

GIB Site Guide

GIB Aqualine Wet Area Systems

GIB Ezybrace Systems

GIB Goldline Platinum Tape-on Trims

GIB UltraFlex high impact corner mould

BRANZ Appraisal 294 - GIB® Ezybrac Systems

BRANZ Appraisal 427 - GIB Aqualine Wet Area Systems

Substitutions are not permitted to any specified GIB systems, GIB system components, GIB plasterboard, associated GIB products or GIB accessories

27.2. Level of finish

Walls & ceilings stopped to level 4 finish (suitable for painting)

All walls that receive acute sun angles to be level 5. As this often won't be known until plastering stage, any upgrade to level 5 shall be treated as a Variation

27.3. Back blocking

By carpenter at fixing stage

To be done with Gib Cove Bond 90

27.4. Square stop

To all of house excluding garage & wardrobes.

Walk in wardrobes, pantries and the likes to be Box stopped

27.5. External corners to wall junctions

Gib Slim Angle – Pencil Radius (square corner)

27.6. Completion

Clean down completed surfaces to remove irregularities and finally sand down with fine paper to the sheet manufacturer's requirements, to leave completely smooth and clean

Remove debris, unused materials and elements from the site

28.Painter

To include insecticide in ceiling paint to living areas

28.1. Preliminaries

Comply with the preliminaries as set out in Section 10

AS/NZS 2311 Guide to the painting of buildings

AS/NZS 2312 Guide to the protection of structural steel against exterior atmospheric corrosion by the use of protective coatings

ISO9001 Quality management systems - Requirements

OSH Guidelines for the provision of facilities and general safety in the construction industry

OSH Guidelines for the management of lead-based paint

MPNZA Specification manual

MPNZA Painters hazard handbook

This Section should be read in conjunction with the manufacturers recommendations contained in the relevant technical data sheets

28.2. Warranty

The Painting Contractor guarantees this work under normal conditions of use against failure of

The Painting Contractor is to guarantee their work against all defects that may occur within three months from the completion of the contract and will be required to make good such defects at their own cost. Such defects specifically exclude damage, or consequential damage, caused by third parties which are the responsibility of the main contractor

28.3. Workmanship

Apply paints in accordance with good trade practice & in accordance with the manufacturer recommendations

Prime all bare external timbers; stop all nail holes

Sand down between coats as may be required

All doors to be sealed to all edges

28.4. Colours

Will be selected by the owner

28.5. James Hardies fibrous cement sheet soffits

Use Resene Sonyx 101

Note: New fibre cement soffits should be installed as per the board manufacturers specifications. Where gaps between boards require filling Villastop, or a similar exterior grade plaster should be used in accordance with manufacturers directions to achieve a uniform surface for painting over

Note: Any filler used on James Hardies compressed sheet products must not be sanded with a grit rating higher (smoother) than 80

In the case of soffits lined with 6mm Hardiflex sheet with negative detail to joints

Fixed with villa drive screws, flush fill with hardies approved filler

PREPARATION FOR PAINTING

Thoroughly wet scrub down with a stiff brush to remove all loosely bound material and any contaminants.
Allow to dry

Any cement based stopping should be sealed as soon as possible using Resene Limelock
Data Sheet D809

Ensure all nail heads are flush with the surface. Spot prime nail heads with Resene Galvo Prime
Data Sheet D402

PAINTING

Apply a full coat of Resene Quick Dry Acrylic Primer Undercoat at the spreading rate of 12 square metres per litre

Data Sheet D45

Apply a full coat of Resene Sonyx 101 at the spreading rate of 12 square metres per litre
Data Sheet D30

Apply a finishing coat of Resene Sonyx 101 at the spreading rate of 12 square metres per litre

28.6. GIB linings

Note: The painting contractor should confirm the Level of Finish achieved prior to painting and the Level of Finish expected at completion. Resene recommends a Level 5 finish in all areas of critical lighting and for feature walls.

Non service areas

Sealer/undercoat – use Resene Broadwall Acrylic Wallboard Sealer

Top coat ceiling – use Resene Ceiling Paint

Top coat wall – use Resene Zylone Sheen

PREPARATION FOR PAINTING

Thoroughly sand down to a smooth surface and wipe with a damp cloth to remove dust.

SEALER COAT

Apply a full sealer coat of Resene Broadwall Acrylic Wallboard Sealer at the spreading rate of 12 square metres per litre. A PAL No 1 roller sleeve is recommended

Data Sheet D403

Note: Any areas requiring filling at this stage must be resealed. This process may compromise the Level of Finish

PAINTING ceilings only

Apply a full coat of Resene Ceiling Paint at the spreading rate of 10 square metres per litre. A PAL No 1 roller sleeve is recommended

Data Sheet D305

Apply a second full coat of Resene Ceiling Paint at the spreading rate of 10 square metres per litre

PAINTING walls only

Apply a full coat of Resene Zylone Sheen at the spreading rate of 14 square metres per litre. A PAL No 1 roller sleeve is recommended

Data Sheet D302

Apply a finishing coat of Resene Zylone Sheen at the spreading rate of 14 square metres per litre

Service areas – bathrooms and laundry

Sealer/undercoat – use Resene Sureseal

Top coat ceiling – use Resene Spacecoat

Top coat wall – use Resene Spacecoat

PREPARATION FOR PAINTING

Thoroughly sand down to a smooth surface and wipe with a damp cloth to remove dust.

SEALER COAT

Apply a full coat of Resene Sureseal at the spreading rate of 16 square metres per litre. Allow to dry for 12 hours

Data Sheet D42

Note: Any areas requiring filling at this stage must be resealed. This process may compromise the Level of Finish

PAINTING

Apply a full coat of Resene Spacecoat at the spreading rate of 12 square metres per litre. A PAL No 1 roller sleeve is recommended

Data Sheet D311

Apply a finishing coat of Resene Spacecoat at the spreading rate of 12 square metres per litre

Note: To ensure proper curing of Spacecoat in small rooms such as bathrooms we strongly recommend the use of strong fans or fan heaters after the coating has been applied

Ensure all surfaces are dry before removing ventilation

Dirty marks to walls when cleaned off can leave a cleaning mark. Which may mean you will want to clean the whole wall so it looks consistent? Do not scrub paint finish or it will leave a shiny mark. Just spray with suitable cleaner & gently wipe clean.

28.7. Roof penetrations

These are not painted due to Health and Safety requirements for access

29. Carpentry

29.1. Preliminaries

Comply with the preliminaries as set out in Section 10

All work to comply with as a minimum

Building Act 2004	Section 88
B2/AS1	Durability
E2/AS1	External moisture
E3/AS1	Internal Moisture
NZS 3604	Timber framed buildings

And the preliminaries as set out in each Section of this Specification and all Sections and sub-Sections as required for completion of this project

29.2. Restricted Building Work and Licensed Building Practitioner

This project includes Restricted Building Work and a Memorandum of Work from a current Licensed Building Practitioner must be provided to Design Builders at completion of the works and prior to Code Compliance Certificate final building inspection by the territorial authority

Refer Section 88 of the Building Act 2004 and its amendments if any

29.3. Scope of Carpenters duties

The carpenter will act as site supervisor for the duration of the works

The carpenter will establish the site, any and all Health and Safety signage and site information

The carpenter will check all site boundaries for pegs and accurately mark out or profile the building

The carpenter will clearly identify the datum points, record and maintain their position

Re-establish or replace any damaged or disturbed marks

The carpenter will be in attendance for any and all earthworks

Have any rubbish or site debris bin exchanged when required

29.4. Site and construction checks

Check all dimensions both on drawings and site, particularly the correlation between components and work in place

Take all dimensions on drawings to be between structural elements before linings or finishes, unless clearly stated otherwise

Check all measurements for excavation including site levels and cut height

Check all profiles and boxing measurements against the set-out plan if a flooring contractor is used

Check all block foundation measurements against the set-out plan before the block foundation receives any block fill

29.5. Product and materials

Materials and products to be new unless stated otherwise

Ensure all parts of a construction module or component are compatible and approved by the manufacturer or supplier for use with each other

Take delivery of and store products, materials and components in accordance with codes of practice and the product manufacturer's or supplier's stated requirements

Handle all products as per manufacturers recommendations

Ensure substrate conditions are within the manufacturers recommendations

Install in accordance with the manufacturers or supplier's technical literature

Condition of all materials to be in perfect condition when incorporated into the work.

Separate incompatible materials and metals with separation layers, sleeves or gaskets of plastic film, bituminous felt or mastic or paint coatings, installed so that none are visible on exposed surfaces

Replace any damaged materials as necessary

29.6. Construction

All walls to be left plumb, level, square and true

All finishes to be maintained to a minimum of the manufacturers or supplier's technical literature

29.7. Weather

Ensure all products and materials are protected from the weather until they receive their final finish

30. Kitchen and All Custom cabinetry

30.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

Refer to joiner's plan & specification full details

Joiners final plans and specification to be distributed to the carpenter, the plumber, the electrician, the tilier and any other trades affected by the kitchen installation

30.2. Site measure

The joiner is to confirm all dimensions on site

Template the walls at bench height for the bench tops at the framing stage

30.3. Fabrication

All cabinetry and bench tops to be constructed to best trade practices as a minimum

All fixings are concealed unless specifically detailed as a feature

Ensure all work accurate, square and true to face line

30.4. Appliances

Sink to be installed by joiner or benchtop contractor

All appliances to be installed by electrician or appliance installation contractor

All tapware to be installed by plumber including dishwasher and plumbed-in fridge

In-built appliances to be installed by the joiner – such as concealed fridge, or power-pack rangehood

30.5. Installation

The joiner is to install the joinery after all stopping in the immediate area is complete and prior to painting contractor starting

Ensure all work accurate, square and true to face line

On completion of installation cover with clear plastic to protect

Carpenter to ensure covering is protective and place signage on benchtops instructing not to use surfaces

The joiner shall install the range hood with 150mm smooth ducting

Plumber or roofing contractor to complete flashing and sealing on roof or wall to meet E2/AS1

30.6. Completion

Seal all edges to walls and floor as required to meet E3/AS1 Internal Moisture

Seal all edges to walls and floor regardless to ensure a tidy finish

Use colour matched sealant

Remove all debris and leave area tidy

31. Fashion plumbing

31.1. Install and fit-off

Install and connect all sanitary fixtures, tapware sanitary accessories

Fit all tapware as per manufacturers requirements and to meet NZBC as specified in Section 50.1

All exposed pipework must be flanged to the wall for a tidy finish

All sinks and tubs to be installed to manufacturers requirements and to meet NZBC as specified in Section 50.1

All pipework must be flanged to the wall for a tidy finish

Connect to sanitary drainage using waste as specified in Addendum iv

Sealed against wall to top and sides of unit to comply with E3/AS1

Electrician to attached earthing point to all stainless steel sinks and tubs

All vitreous china fixture to be installed to manufacturers requirements and to meet NZBC as specified in Section 50.1

Toilets must be fitted flush with wall, plumb and level with no stressing of attachment points

Cisterns must be fitted flush with wall, plumb and level and the seal to the pan tested adequately to ensure water retention in the cistern

All pipework must be flanged to the wall for a tidy finish

Vanities must be installed flush with wall, plumb and level to manufacturers requirements and to meet NZBC

Connect to sanitary drainage using waste as specified

Sealed against wall to top and sides of unit to comply with E3/AS1 – leave bottom breathable

All pipework must be flanged to the wall for a tidy finish

Showers to be installed in conjunction with carpenter as per manufacturers specification and to meet NZBC

Sealed against wall to top and sides of unit to comply with E3/AS1

31.2. Completion

Seal all edges to walls and floor as required to meet E3/AS1 Internal Moisture

Seal all edges to walls and floor regardless to ensure a tidy finish

Use colour matched sealant

Remove all debris and leave area tidy

32. Carpet & timber flooring

32.1. Preliminaries

Comply with the preliminaries as set out in Section 10.

All construction to comply with the following building standards

E3/AS1 Internal Moisture

33. Drive and Patios

1. Preliminaries

Comply with the preliminaries as set out in Section 10.

Comply with the preliminaries as set out in Section 11

Comply with the preliminaries as set out in Section 14

Comply with the preliminaries as set out in Section 16

Comply with the preliminaries as set out in Section 18

Comply with the preliminaries as set out in Section 20

B2/AS1 Durability

E2/AS1 External moisture

2. General

Drive to finish 50mm below garage floor level at garage door & slope away.

Rest of paving must finish 150mm below floor level and drain away from the house

All concrete must be a minimum of 100mm from finished base of cladding

Unless specifically noted on the plan all paving is 100mm thick & 20mpa as a minimum

Crack control – bolstered V joints done when concrete is placed at centres to match decorative cutting plan or were thought necessary to reduce uncontrolled cracking

Crack control shall be at 4m centres or 16m² maximum

Crack control cuts shall be 25-30mm deep

The base material is to be compacted & watered if dry before pouring to reduce moisture removal

This aids in crack control

No water is to be added to ready mixed concrete after batching without determining the slump, then contacting the batch plant who will advise on how much, if any, water can be added.

Warning note to owner – while every practical effort is made for crack control in concrete work, uncontrolled cracking can still happen. As it is not structural it cannot be deemed a fault.

All forms of concrete are going to be a little patchy in colour & texture. This is a natural outcome of this product & cannot be deemed a fault.

All concrete is likely to vary from samples shown as it is hand done, batching materials can vary, were at the mercy of varying weather conditions & subcontractor/staff changes.

Any concrete that requires a sealer can cause problem with completion in damp weather as it cannot be sealed unless it is dry.

Please note that if suspect ground conditions are found we may recommend, if not included below, that mesh goes in and the soft ground is dug out and replaced with compacted metal. If so it will result in a variation.

Mesh in concrete paving can help marginally, to reduce uncontrolled cracking in concrete.

Mesh does reduce the risk of a slab lifting or dropping at cracks, controlled or uncontrolled

This usually only happens in cases when there is settling in the ground or fill

It only increases the strength significantly in cases when there is settling in the ground or fill

Owner – as all the above is verbally pointed out as well we are trying to get you to understand what we are capable and confident of achieving and the limitations of this product

As by your request to us by you to use this product you must understand its limitations & accept them as inherent and a natural outcome