

INTRODUCTION TO INDUSTRY

DCCI400

Assignment

Project Specification

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

INSERT YOUR NAME AND ID NUMBER HERE

masterspec

3820 CARPENTRY

1. GENERAL

This section relates to the supply and erection of timber framing, as a framed structure, or as partitioning. It includes prefabricated timber and engineered wood.

1.1 RELATED WORK

Refer to ~ for ~.

Refer to 4161 UNDERLAYS, FOIL AND DPC for underlays, foils and DPC.

1.2 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC B2/AS1	Durability
AS/NZS 1328.1	Glued laminated structural timber - Performance requirements and minimum production requirements
AS/NZS 1604.5	Specification for preservative treatment - Glue laminated timber products
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	Chemical preservation of round and sawn timber
AS/NZS 4357.0	Structural laminated veneer lumber - Specification
FTMA CoP	Frame and Truss Manufacturers Association Code of Practice

***A copy of [NZS 3604](#) Timber-framed buildings, must be held on site.**

1.3 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer's and supplier's documents relating to this part of the work:

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Manufacturer/supplier contact details

Company: ~

Web: ~

Email: ~

Telephone: ~

1.4 QUALIFICATIONS

Workers to be experienced, competent trades people familiar with the materials and techniques specified.

1.5 DIMENSIONS

All timber sizes except for battens are actual minimum dried sizes.

2. PRODUCTS

2.1 TIMBER FRAMING, TREATED

Species, grade and in service moisture content to [NZS 3602](#), [NZBC B2/AS1](#) and treatment to [NZS 3640](#), [NZBC B2/AS1](#). Structural grade (SG) to [NZS 3604](#), [NZS 3622](#) with properties to [NZS 3603](#).

2.2 TIMBER FRAMING, CHEMICAL FREE

Species, grade and moisture content in service as set out in [NZS 3602](#), [NZBC B2/AS1](#).

2.4 ENGINEERED WOOD

LVL members to [AS/NZS 4357.0](#), to required sizes and lengths and the manufacturer's design properties.

Treatment to [NZS 3640](#) and [AS/NZS 1604.4](#).

2.5 TIMBER TRUSSES

To [FTMA CoP](#). Moisture content 16% at supply.

2.6 TIMBER TRUSSES, CHEMICAL FREE

To [FTMA CoP](#). Moisture content 16% at supply.

2.7 EXTERIOR CAVITY WALL BATTENS - TIMBER - NON-STRUCTURAL

H3.1 or H3.2 Radiata pine battens, minimum 20mm thickness, width and height to match timber framing studs. Temporary fix battens before being fixed into the framing with the cladding fixings. To [NZS 3602](#), table 1, reference 1D.10, Requirements for wood-based building components to achieve a 50-year durability performance.

2.8 EXTERIOR CAVITY WALL BATTENS - PROPRIETARY - NON-STRUCTURAL

Extruded polypropylene battens, size approximately 45mm wide x 18mm thickness.

Temporary fix battens before being fixed into the framing with the cladding fixings. To the scope limitations of [NZBC E2/AS1](#), and [NZS 3604](#) Building Wind Zones up to, and including "Extra High".

Components

2.9 NAILS

Type to [NZS 3604](#), section 4, **Durability**, and of the size and number for each particular types of joint as laid down in the nailing schedules of [NZS 3604](#), sections 6-10.

2.10 BOLTS AND SCREWS

Bolts and screws of engineering and/or coach type complete with washers, to the requirements of [NZS 3604](#), section 4, **Durability**, and of the number and form required for each particular junction to [NZS 3604](#), sections 6-10.

2.11 NAIL PLATES

Comply with the requirements of [NZS 3604](#), section 4, **Durability**, and of the number and form required for each particular junction to [NZS 3604](#), sections 6-10. Plates to the plate manufacturer's design for the particular locations as shown on the drawings.

2.12 CONNECTORS

Comply with the requirements of [NZS 3604](#), section 4, **Durability**, and of the number and form required for each particular junction to [NZS 3604](#), sections 6-10. Connectors and structural brackets to the connector manufacturer's design for particular locations shown on drawings.

2.13 CORROSION RISKS

For interior timber, treated with copper-based timber preservatives (H3.2 or higher), use a minimum of hot-dipped galvanized steel fixings and fasteners.

For exterior timber, timber in damp areas and timber subject to occasional wetting, use only stainless steel (or equivalent) fixings and connectors, when the timber is treated with; Copper Azole (CuAz, Preservative code 58), Alkaline Copper Quaternary (ACQ, Preservative code 90), Micronise Copper Azole (code 88) or Micronised Copper Quaternary (code 89).

2.14 DPC

Refer to 4161 UNDERLAYS, FOIL AND DPC section

3. EXECUTION

3.1 EXECUTION GENERALLY

To [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).

3.2 SEPARATION

Separate all timber framing timbers from concrete, masonry and brick by: -

- a full length bituminous damp-proof membrane overlapping timber by at least 6mm;
- or

- a 12mm minimum free draining air space

3.3 ATTENDANCE

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

3.4 MOISTURE CONTENT

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

Framing at erection: 24% maximum

Framing at enclosure: 20% maximum

Framing at lining: 16% maximum

3.5 SET-OUT

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

3.6 FRAMING SUB-FLOOR

Frame up off foundation walls and piles, all fabricated, fastened and braced to [NZS 3604](#), section 6.10, **Framed subfloor walls**.

3.7 FRAMING FLOORS

Framed and fastened to [NZS 3604](#), section 7, **Floors**.

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, **Walls**.

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, **Posts** and 10, **Roof framing**.

3.10 FRAMING CEILINGS

Frame to required loading and bracing complete with runners and battens set out to support ceiling lining. All fabricated and fastened to [NZS 3604](#), section 13, **Ceilings**. Trim for openings in ceilings and hatches to [NZS 3604](#) section 13.3, **Openings in ceilings**. Provide blocking for water tanks located in the ceiling space to [NZS 3604](#), section 13.4, **Water tanks in roof space**.

3.11 INSTALLING WALL UNDERLAYS

Refer to 4161 UNDERLAYS, FOIL AND DPC section

3.12 FIT JAMB BATTENS

For walls with direct fix cladding, fit 20mm (nominal) jamb battens over the wall underlay, to the jambs of window and door rough openings, to [NZBC E2/AS1](#), fig 72A. Cut around sill flashings. Fix with 60 x 2.8 flat head galvanized nails at 300mm centres.

3.13 FIT CAVITY BATTENS

Fit and fix 20mm cavity battens over wall underlay or rigid air barrier, fully nail to timber studs to the requirements of the manufacturer or to [NZS 3604](#). Fit and fix related flashings. Fit and fix cavity closers to base of walls, open horizontal (or raking) junctions and over openings (windows, meters etc.).

3.14 DPC TO LOSP TREATED TIMBER

Refer to 4161 UNDERLAYS, FOIL AND DPC section.

3.15 DPC TO TIMBER

Refer to 4161 UNDERLAYS, FOIL AND DPC section.

4. SELECTIONS

4.1 SUB-FLOOR FRAMING - RADIATA PINE

Member	Species	Grade	Treatment
Bearers (protected):	Radiata pine	SG8	H1.2
Ground floor joists:	Radiata pine	SG8	H1.2

4.2 SUB-FLOOR FRAMING - DOUGLAS FIR

Member	Species	Grade	Treatment
Bearers (protected):	Douglas fir	SG8	H1.2
Ground floor joists:	Douglas fir	SG8	H1.2

4.3 FLOOR FRAMING - RADIATA PINE

Member	Species	Grade	Treatment
Mid floor joists:	Radiata pine	SG8	H1.2
Boundary joists:	Radiata pine	SG8	H1.2

4.4 FLOOR FRAMING - DOUGLAS FIR

Member	Species	Grade	Treatment
Mid floor joists:	Douglas fir	SG8	H1.2
Boundary joists:	Douglas fir	SG8	H1.2

4.5 EXTERIOR WALL FRAMING - RADIATA PINE

Member	Species	Grade	Treatment
Exterior walls:	Radiata pine	SG8	H1.2
Parapets:	Radiata pine	SG8	H1.2
Enclosed decks and balconies:	Radiata pine	SG8	H1.2
Cantilevered joists enclosed decks and balconies:	Radiata pine	SG8	H3.2
Wall battens (not cavity):	Radiata pine	Merch	H1.2
Jamb battens:	Radiata Pine	Merch	H3.1

4.6 EXTERIOR WALL FRAMING - DOUGLAS FIR

Member	Species	Grade	Treatment
Exterior walls:	Douglas fir	SG8	H1.2
Parapets:	Douglas fir	SG8	H1.2
Enclosed decks and balconies:	Douglas fir	SG8	H1.2
Cantilevered joists enclosed decks and balconies:	Douglas fir	SG8	H3.2
Wall battens (not cavity):	Douglas fir	Merch	H1.2
Jamb battens:	Douglas fir	Merch	H3.1

4.7 CAVITY BATTENS

Cavity battens	Species	Grade	Treatment
Timber - Non Structural:	Radiata pine	Merchantable	H3.1
Proprietary - non structural:	Manufacturer ~	Type ~	Reference ~
Cavity closer:	Manufacturer ~	Type ~	Reference ~

4.8 ROOF FRAMING - RADIATA PINE

Member	Species	Grade	Treatment
Rafters:	Radiata pine	SG8	H1.2
Trusses:	Radiata pine	SG8	H1.2
Purlins:	Radiata pine	SG8	H1.2
Ceiling joists and battens:	Radiata pine	SG8	H1.2
Valley boards:	Radiata pine	Merchantable	H1.2
Sarking:	Radiata pine	Merchantable	H1.2
Skillion roof framing:	Radiata pine	SG8	H1.2
Enclosed flat roof framing:	Radiata pine	SG8	H1.2

4.9 ROOF FRAMING - DOUGLAS FIR

Member	Species	Grade	Treatment
Rafters:	Douglas fir	SG8	H1.2
Trusses:	Douglas fir	SG8	H1.2
Purlins:	Douglas fir	SG8	H1.2
Ceiling joists and battens:	Douglas fir	SG8	H1.2
Valley boards:	Douglas fir	Merchantable	H1.2
Sarking:	Douglas fir	Merchantable	H1.2
Enclosed flat roof framing:	Douglas fir	SG8	H1.2

4.10 INTERIOR FRAMING - RADIATA PINE

Member	Species	Grade	Treatment
Non structural walls:	Radiata pine	SG8	H1.2
Structural and braced walls:	Radiata pine	SG8	H1.2

4.11 INTERIOR FRAMING - DOUGLAS FIR

Member	Species	Grade	Treatment
Non structural walls:	Douglas fir	SG8	H1.2
Structural and braced walls:	Douglas fir	SG8	H1.2

4.12 SPECIAL FRAMING ELEMENTS

Member	Species	Grade	Treatment
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4.13 LAMINATED TIMBER

Member	Timber/grade/treatment	Finish
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4.14 LAMINATED VENEER LUMBER (LVL)

Member	Brand/type	Treatment
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4.15 ENGINEERED WOOD PRODUCTS (EWP)

Member	Brand/type	Treatment

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4.16 EXTERIOR EXPOSED TIMBERS

Member	Species	Grade	Treatment
Posts:	Radiata pine	SG8	H3.2 CCA
Joists:	Radiata pine	SG8	H3.2 CCA
Exterior stairs and steps:	Radiata pine	SG8	H3.2 CCA
Pergola:	Radiata pine	SG8	H3.2 CCA
Ground contact members	Radiata pine	SG8	H5 CCA

Note all CCA to be preservative code 01 or 02

4.17 NAILS

Location	Type	Material	Finish
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4.18 BOLTS AND SCREWS

Location	Type	Material	Finish
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4.19 NAIL PLATES

Location	Type	Material	Finish
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4.20 CONNECTORS

Location	Type	Material	Finish
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