SPECIFICATION

For the work to be done and the materials to be used for the satisfactory erection and completion of the following building project:

HAMILTON CITY COUNCIL
APPROVED
SUBJECT TO CONDITIONS
TO BE KEPT ON SITE

PROPOSED NEW RESIDENCE FOR :

LOT 38

GROSVENOR PARK

HAMILTON

BY : GENERATION DEVELOPMENTS LTD

DESIGN AND DOCUMENTATION BY:

COLIN J. DAVIS and Associates
ADNZ NZCD (arch)
Architectural design and Draughting
PO Box 884 TAURANGA ph/fax 578 3792
email - cjdavis@xtra.co.nz

1.0 PRELIMINARY AND GENERAL

1.1 SCOPE

The contract shall be for the provision of all labour, materials, plant, scaffolding, formwork and completion of the following building project. Proposed new residence to lot 38, Grosvenor Park, Hamilton. In accordance with the true meaning of the drawings and this specification.

1.2 DRAWINGS

This specification shall be read with the accomparying drawings.
Job No. 03 / G-055 sheets 01 - 05.
Should any information in this specification vary from the drawings then the contractor shall take the drawings as being correct.
Use only figured dimensions, i.e. DO NOT SCALE OFF THE DRAWINGS.

1.3 FEES

The contractor shall obtain the building consent and pay all fees and charges legally damandable.

1.4 INSURANCE

Before commencing work the contractor shall take out and maintain for the duration of the building contract 'Builders All Risk Insurance' for the full value of the building contract, and Public Liability Insurance.

1.5 MATERIALS AND WORKMANSHIP

All materials and manufactured items shall be new and as specified here in. Workmanship shall be in accordance with best trade practice.

1.6 SUB-TRADES

This specification is sub divided into sun-trades for convenience only and each sub-trade is not an entire contract, sub-contractors shall be bound by all clauses of the specification that may be relevant to their performance. Each trade shall collaborate with and give all necessary assistance to the other trades.

1.7 CONSTRUCTION INSPECTION

The contractor is to construct the building in accordance with the certified plans, no changes, including materials, are to be allowed without written notification to the territorial authority.

Inspection of construction is to be carried out by the territorial authority and notice shall be given as required by the authority.

Inspection of construction is to be carried out by the territorial authority or the building certifier and notice shall be given as follows:

2 days notice as to the intended commencement of construction.

1 days notice of the covering up or closing of any :

1. Drainage & plumbing.
2. Foundation excavations & reinforcing steel.
3. Timber required to have a specified moisture content & all other work in respect of which such notice is required as a condition of the building consent.

1.8 CODE COMPLIANCE CERTIFICATE

Upon completion of the building the owner shall as soon as practicable, advise the territorial authority, on the prescribes form, that the building has been completed to the extent required by the building consent issued, in respect of that building work, for the issue of a code compliance certificate.
completed to the extent required by the building consent issued, in respect of that building work, for the issue of a code compliance certificate.

2.0 CONCRETE WORK

All concrete materials, mixing, placing, cover and reinforcing etc. shall comply with the requirements of NZSS 3109:1987.

2.2 CONCRETE

All concrete shall comply with NZSS 3104:1983 Concrete production and shall be 20 Mpa at 28 days with a 20 mm nom. maximum aggregate size and 80 mm slump. Reinforcing to comply with NZSS 3402:1989. and NZSS 3422 Reinforcement shall be clean, free from mill scale, dirt, loose rust, paint, oil or any other materials. Steel that has not lost its mill scale must be exposed to the weather or otherwise treated to improve its surface adhesion. All reinforcing greater than 10.5 mm dia shall be deformed bars. Laps shall be 40 dia for plain rods and 32 dia for deformed rods. Fit stirrups snugly around bars and bind with 1.6 mm soft iron wire. All reinforcing shall be grade 300 or grade 430 as specified. Max. covers to reinforcement shall be 75 mm exposed to earth and 50 mm protected by vapour barrier

2.4 FOOTINGS

Construct concrete footings as shqwn on the drawings. Reinforcing to be strictly as shown on the drawings and all footing are to be inspected by the Local Authority before pouring the concrete.

2.5 CONCRETE FLOOR SLABS

Floor slabs to be Firth Ribraft floor slab system to be as designed and specified by Firth Industries. Lay 0.25 mm polythene D PC over 15 mm sand blinding layer over 150mm minimum compacted pumice/sand hardfill base. Seal around all penetration's and take over all footing sides to the external face. Slab to be leveled to screed, cement dusted and finished with a powered float by experienced workmen to give dense even surface free from irregularities. Form recesses for external doors.

No holes or chases other than those specified are to be made in the slab without the approval of the engineer. All concrete shall be mechanically vibrated and carefully worked around the reinforcement and into the corners of the formwork.

3.0 BRICKLAYING

3.1 MATERIALS

Brickwork to exterior walls to be selected 70 mm Monier bricks. All bricks to be delivered to site free from dirt and dust and stored in a dry position, any damaged or diacoloured bricks are not to be used.

3.2 MORTAR

Mortar shall be composed of cement, lime and sand. All lime other than hydrated lime shall be slaked. Mortar shall be mixed in the following proportions: Cement 1 : Sand 4 : Lime 1 with compressive strength of 12.5 Mpa at 28 days.

3.3 WORKMANSHIP

The whole of the job is to be carried out by skilled tradesmen. In accordance with NZS 4210:1989 and NZS 3604:1999 appendix.F. All corners to be plumbed both ways and the courses are to be level and straight. All joints are to be weather struck exposed faces. Sills are to be bricks on the edge protruding 25 MM

3.4 TIES

Veneer to be secured to wall framing with 'Bricklock' Duo 85 mm Hot dipped galvanised m.s ties at horizontally and 350 mm crs vertically. Wall ties shall be faced fixed to timber framing with Tapcon self threading timber screws. Fix so that the fixing nails pierce the building paper.

4.0 CARPENTRY

This section covers all timber framing, wall and ceiling linings, all finishing timbers, exterior linings, weatherboards, soffit linings, barge and fascia boards.

4.1 TIMBER

All timber shall be graded to sizes specified and be free from defects which render it unfit for its purpose. Timber shall come from seasoned stocks or kiln dried and stacked or as long possible before use. Framing timber shall have a maximum moisture content of 20%. All framing timber shall be Kiln dried stress graded treatment free. Exterior exposed timber shall be tanalised in accordance with the Timber Preservation Authority recommendations. All framing to comply with all sections of NZSS 3604:1999. and its ammendments.

4.2 FRAMING

All materials to be the best of their respective kinds and grades laid true to their various lines and levels and constructed in a proper tradesmanlike manner in accordance with the best trade practice and to comply with the local body bylaws.

4.3 DPC

Separate all exterior timber walls coming into contact with the concrete with one layer of 3 ply Malthoid DPC with a minimum lap of 75 mm.

4.4 TIMBER SCHEDULE

STRUCTURAL TIMBERS:

Top plates
Studs
Lintels
Rafters
Nogs
Ceiling joists / runners

FINISHING TIMBERS:
Pine -dressing A grade

EXTERIOR TIMBERS:

Beams
Pergola rafters
Sized as shown out of Noel framing
Sized as shown out of Tan Pine.

4.5 WALL FRAMING

All wall framing to be No 1 framing gauged 100 x 50 or 75 x 50 to non load bearing walls as shown on the drawings. Timber to be Timeframe grade F5 Kiln dried timber framing. Gauge all studs plates etc. to a uniform width. Plates to in long straight lengths and are to butt jointed with Pryda 4N1O nail plates. All holes for plumbing or wiring to be not more than 24 mm but can be increased to 35 mm where not more than 3 studs drilled.

4.6 BUILDING PAPER

Building paper shall be Green wrap breather type building paper. Fix paper securely with laps not less than 75 mm at all joints and edges.

4.7 WALL BRACING

Wall bracing to be strictly as shown on the bracing schedule and complying with NZSS 3604:1990. Type GIB 1 and GIB 2 bracing to be Pryda Teebrace galv steel brace checked into each stud and used in conjunction with 9.5 mm gib bd fixed with 30 x 2.5 Gib clouts at 150 mm crs to perimeter of sheets and at 400 mm crs to intermediate studs. Type BR4 bracing to be 9.5 mm Braceline Gib bd fixed with 30 x 2.5 mm galv Gib clouts with 15 mm galv washers at 150 mm crs to the perimeter of sheets and double nail (no washers) to intermediate studs and nogs at 300 mm crs. plus at the bottom of each sheet to both sides, additional fixing of a 25.0 x 1.Omm x 300 mm long fixed with 6- 30 x 2.5 nails to both stud and joist / plate. Type CP4 bracing to be 7.5 mm Plywood sheet brace used in conjunction with 9.5 mm Gib bd. Fix plywood to framing with 30 x 2.5 mm H.D galv. clouts at 150 mm crs. to perimeter and 300 mm crs. to intermediate studs. Additional fixing of 6Kn proprietary of stud to bottom plate at each end of brace.

4.8 INSULATION

Ceiling R 2.2 Fiberglass insulation .

Walls R 1.8 Fiberglass insulation

4.9 TRUSSES

Trusses to be specifically designed in accordance with NZ$ 3603 and shall be fabricated in controlled factory conditions. Trusses shall be erected in accordance with the truss drawings and to be plumb and properly aligned at 900 CRS max. Anchor over top plates with no less than 2 /100 mm x 3.75 mm skew nails plus 2 / 4.9mm Pride Z nails.

4.10 CEILING FRAMING

Frame for ceiling lining using continuous lengths of rolled formed CB35 metal battens or 75 x 40 timber fixed to underside of the trusses. Fix with 2/75 x 3.15 nails to bottom chord of truss.

4.11 ROOF BRACING

Brace roof with a diagonally opposing pair of continuous steel strips each having a capacity of 8 KN. in tension, fix over the top of each rafter or truss top chord. Provide one pair per 35 mn/2 of roof plane area.

4.12 WALL LININGS

10 mm Gibraltar board to all walls. Fix sheets horizontally and nail the sheet edges with 30 x 2.5 mm gib clouts at 300 mm CRS 12 mm from the edge and at 150 mm CRS to gib bd linings fixed over a wall brace and double nail at 300 mm CRS to all intermediate studs and nogs. All joints to be filled with Jib bedding compound, joints taped with Gib reinforcing tape and finished with finishing compound for a level 4 finish to wallpapered walls and a level 5 finish for painted walls.

4.13 CEILING LININGS

13 mm Gibralter board to all ceilings. Fix sheets by screws and adhesive. Apply daubs of adhesive at the 200 mm and 400 mm point from the sheet edges, position sheets hard up to the timber framing and double screw at the centre line of the sheet and to the sheet edges, 12 mm from the edge. Use type '8' Gypsum 32 mm x 6 gauge screws. All joints to be filled with Gib bedding compound, joints taped with Gib reinforcing tape and finished with finishing compound.

4.14 SHELVING

All shelving to cupboards to be Clarrison pre- finished metal shelving. and wardrobes

4.15 MOULDINGS

Skirting 60 x 10 pine
Jambs ex 25 mm pine
Cornice 50 mm Gib Cove - 40 x 10 to cupboards

4.16 SOFFIT LINING

4.5 mm flat Hardiflex with 40 x 2.5 galvanised flat head nails at 150 mm centers to perimeter and intermediate nogs, PVC jointers to sheet edges.

5.0 JOINERY

5.1 WORKMANSHIP

Workmanship to be to best of trade practice. Exterior timber joinery shall have meeting faces and joints primed during assembly and shall be primed on all faces before installation.

5.2 INTERNAL DOORS

Internal door frames to be out of ex 150 x 30 pine finger jointed to have architraves fitted. Doors to be flush panel paint quality M.D.F. doors or Regency panelled as shown.

5.3 HARDWARE

Contractor is to fit all door hardware, latchsets and locks as required to enable operation of all doors. see addendumfor specification of Hardware.

6.0 ALUMINIUM JOINERY

Provide and install aluminium joinery as specified herein and approved for use and to comply with NZSS 4211:1985 and NZSS 3504:1979.

6.1 FINISH

All aluminium to be polyester powder coated 'Cordalux' powder coating colours. To architectural aluminium association specification for stoved organic finishes to 40 microns min

6.2 DIMENSIONS

Sizes as shown on the drawing to be adhered to and are nominal only allowances to be made for clearance trim only.

6.3 SASHES

All sashes shall be awning or casement hung - see elevations. Use vinyl or neoprene seals to perimeters of all sashes and glazing.

6.4 JOINTS

All joints in sashes or frames shall be mitre cut sealed and fastened with 18/8 stainless steel screws.

6.5 REVEALS

All reveals to be out of ex 25 mm pine - paint finish, groove for linings.

6.6 GLAZING

All glazing to be sized as per NZS 4223:1999 parts I II and III and to be grey tinted, glazed except for wc., ensuite and bathroom which is to have selected obscure glazing.

7.0 CONCRETE ROOF TILES

7.1 SCOPE

To entire roof area of house supply and fix Monier glazed concrete roof tiles with colour and profile as selected.

7.2 LAYING

Fix 50 x 50 tile battens at centers to suit the tiles. Secure all perimeter tiles and not less than 50% of the main roof tiles with mechanical fixing by either 2.15 mm galv. nails or by screws.

7.3 VALLEYS

All valleys shall be either 0.55 mm colour steel G2 or 1.0 mm Butynol fixed over 12.5 mm plywood valley bd in a straight and continuous line. Tiles shall be fixed either side of the valley and neatly cut with a tile cutter. Any gaps that occur through the cutting shall be made bird proof with galv. ms mesh.

7.4 HIPS AND RIDGES

The hips and ridges shall be covered with concrete ridge tiles and shall be bedded and pointed with weep holes provided at the pan of each tile. The end ridge and hip tiles shall be secured. Bedding mortar shall be coloured struck off to give a smooth face.

7.5 GUARANTEE

A written guarantee shall be provided at the completion of the job covering workmanship and materials to a term as specified by manufacturer.

8.0 PLUMBING

8.1 GENERAL

The whole of the work shall be carried out in strict accordance with the drawings. The work is to be carried out by registered plumber.

8.2 WATER SUPPLY

Lay on cold water supply from existing main in 19 mm Dia PVC tubing. Provide and fix stop cock in suitable position. Take 19 mm Dia copper tube branches to HWC and 12 mm Dia copper branches to each new shower, basin, bath, WC, tub and washing machine.All sanitary fittings shall be installed to prevent backflow into the water supply by providing an air gap of 25 mm min. between every potable water supply outlet and the overflow pipe or flood level of the fixture to which it discharges.

8.3 HOT WATER SUPPLY

All piping in connection with. tne hot water supply shall be copper to NZS 3501 with all jointing to BS 1723. Provide and fix 1 Rheem 180 Litre mains pressure hot water cylinder thermostacilly controlled manufactured to AG 102 1989 and fitted with a pressure and temperature relief valve. The cylinder shall be restrained from damage by earthquakes. Take 15 mm Dia copper branches to all fittings. The thermostat is to be set to not less than 60oC and is to deliver hot water at a maximum of 55oC to fittings, a tempering valve is to be fitted to acheive this. All hot water supply pipes pipes to be insulated with lagging. All hot and cold water copper pipes to be in wall and ceiling framing, no pipes to be laid under concrete floor. See materials specification addendum for all fittings.

8.5 WASTE PIPES

All waste pipes to as sized on the drawings and to out of UPVC to NZS 3501, all jointing to as per NZS 7643. Pipes to be supported at 500 mm crs. At supports and at floor and wall penetrations fit pipe sleeves or flexible lagging. All fittings to have a water trap to prevent foul air from entering the building, the depth of the trap shall be not less than 40 mm and located as close as possible to the fitting. All fittings to discharge directly over a gully trap.

8.6 GUTTERS & DOWNPIPES

Continuous spouting - Colorsteel fascia / gutter system to be used, discharge into 100 x 50 UPVC M.S. downpipes in positions shown on drawings.

9.0 DRAINLAYING

9.1 GENERAL

The Drainage contractor is to provide and supply, and do everything necessary to complete the drainage in accordance with the drawings. The Drainage contractor must execute all work that is shown on the drainage plan and as required to comply with the NZ building code.

9.2 EXCAVATION

Excavate for trenches, gully traps, drains etc. for laying of sanitary and stormwater drains.

Soil drains to be 100 mm dia UPVC.

Stormwater drains to be 100 mm dia UPVC.

All UPVC pipes to be to NZS 7649

9.3 LAYING

To depth required. Start from the outfall and as work proceeds lay and solidly bed all drains to sizes and gradients required. The trench width shall be no less than 300 mm and the width of the trench at the top of the pipe shall be no more than 600 mm unless covered in concrete. Bedding materials shall be a minimum of 100 mm of clean granular non-cohesive material with a maximum particle size of 20 mm. Backfilling shall be granular bedding and selected fill placed in layers of 100 mm loose thickness and compacted. All joints shall be flexible and to comply with pipe manufacturers specifications with the invert perfectly true and concentric with the proceeding pipe. The layout is to be laid only in straight lines between bends and all junctions shall be no greater than 60°.

Soil drains to connect into territorial authority sewer connection.

Stormwater drains to discharge into territorial authority stormwater connection.

9.4 GULLY TRAPS

Gully traps to be positioned so that the top of the gully dish is no less than 50 mm below the overflow level of the lowest sanitary fixture. The construction shall be to prevent the ingress of surface water and shall the top of the gully dish 100 mm above the ground or if there is paving 25mm, and it shall have a grating, a minimum pipe size of 80 mm and a water seal depth of 65 mm. Waste pipes discharging over the gully shall be arranged to permit easy cleaning and located at least 20 mm over the water seal. The top of the water seal is to be no more than 600mm below the top of the gully trap.

9.5 VENTILATION

80mm terminal vent to be used for ventilation.

9.6 MAINTENANCE

Drains shall be provided with access points as shown on drawings.

9.7 COMPLETION OF WORK

The drainage contractor will ensure that all drains are free from rubbish timber etc. before the sealing of inspection openings is carried. All drains to be inspected by the territorial authority or building certifier prior to backfilling of drains. He will be responsible for the clearance of any subsequent blockage which can be attributed to any material so left in the drains.

10.0 ELECTRICAL

Th electrician shall supply and install all items necessary for the electrical wiring system complete. The whole of the work shall be carried out in accordance with the Electricity regulations 1993 and the New Zealand electrical code of practice for electrical wiring work in domestic premises NZEC 51: 1993 and the electrical contractor is to obtain all permits and pay all fees required from the supply authority, and arrange for all inspections required.

10.1 MAIN SUPPLY

The electrician is to arrange for the mains building, check conditions before tendering.

10.2 METERBOARD

Provide and set up where directed a meterboard and case with necessary equipment therein neatly labeled

10.3 WIRING

All cables shall be 250 volts complying with the BSS 7 rubber insulated and PVC cable and flexible cords for the electric power and lighting. All plastic material for switches, flush plates, light sockets and socket outlets shall be white or as directed by the owners. All wiring is to be concealed in the wall framing or in plastic conduits.

10 .4 FITTINGS

Provide all socket outlets and wall switches in positions as shown on the drawings, the fittings shall PDL Clipsal 2000 series in white. Socket outlets to be 201SVs with extra switch. The electrician is not to start placing any socket outlets, wall switches or lights without consulting with the owners the exact location of each fitting.

Allow to wire and install for the following fittings:

electric hot water cylinders.

Wall oven / hob

Range hood

Dishwasher

Waste disposer

All light fittings

Heated towel rails

Ceiling fans

11.0 PAINTER

11.1 MATERIALS

The materials shall be premium quality delivered in unopened complete containers with makers name bearing brand name. Materials shall be applied strictly in accordance manufacturers specifications.

11.2 WORKMANSHIP

All work to be of the highest standard performed by skilled tradesmen only and finished to the satisfaction of the owner and designer. No paint containing oil to be applied to damp surfaces and no external painting is to be done during frost or unsuitable weather. Between each coat rough patches etc. shall be sanded down to obtain a smooth surface. Any work damaged by dust or other cause is to be rubbed down and recoated. Each coat of paint is to be finished with one coat over all surfaces and allowed to dry thoroughly before a further coat is applied.

11.3 TINTS

The designer will supply the painting contractor with a colour schedule and colours are to be strictly adhered to. Any variations made from the instructions given are to be rectified at the expense of the painting contractor.

11.4 PROTECTION OF WORK

The painting contractor is to take adequate precautions during and after painting both inside and out to protect his work from dust, dirt or any other disfigurement whatsoever. He shall provide and carry out all necessary protection to the floor and walls.

11.5 HARDWARE

The locks and fasteners must be removed while painting work is in progress and refixed on completion.

11.6 PAINTING SCHEDULE

11.6:1 CEILINGS

lst coat	Sealer/ Undercoat
2nd coat	Acrylic latex matt finish
3rd coat	Acrylic latex matt finish

11.6:2 WALLS

Selected wallpaper. Vinyl to all rooms with sanitary fittings

11.6:3 WALLS - GARAGE

1st coat	Gib sealer
2nd coat	Acrylic laxtex satin finish
3rd coat	Acrylic laxtex satin finish

11.6:4 SKIRTINGS / ARCHITRAVES / DOORS & JAMBS

1st coat	Interior wood primer
2nd coat	Alkyd undercoat
3rd coat	Alkyd satin finish enamel

11.6.5 SOFFIT

3 coats of semi-gloss acrylic latex

11.6.6 HARDITEX CLADDING

3 coats of 100% full gloss acrylic latex

11.6.7 CONCRETE BLOCK FOUNDATION

3 coats of 100% full gloss acrylic latex

11.6.8 GARAGE FLOOR

3 coats Resene Sidewalk paving paint