



4 December 2020

## **OUTLINE SPECIFICATION**

Project : **FLAXBOURNE HERITAGE CENTRE**

At : **Cnr Ward & Duncan Streets, Ward**

For: **FLAXBOURNE HERITAGE TRUST**

### **DESCRIPTION**

A new small museum building will be built at Ward. The building will have a steel portal frame supported on reinforced concrete block foundations. The floor will be a concrete slab on compacted hardfill and the roof and wall cladding will be insulated composite panels.

### **SITE**

The site is unencumbered and falls about 0.6m to the east. A small church was removed from the site about 20 years ago.

The site has a conventional road frontage and is of an approximate area of 2,000sq.m.

The site is assumed to have firm clay sub-soils, and is assumed to be a very low-level flood and fire risk.

### **EXCAVATIONS**

Macrocarpa hedge removed by Others

Strip off 100mm topsoil and stock-pile on site.

Excavate for stepped footings 400mm minimum depth.

Import hardfill, spread in 150mm maximum layers and compact. Blind with 20mm sand.

### **FOUNDATIONS**

Footings shall be 400 x 300mm deep reinforced with two HD12 bars and HD12 ties at 400 centres. Footings shall be stepped to accommodate the fall of approx. 600mm from west to east across the site. See drawings.

Foundation wall shall be 190 blockwork with HD12 horizontal bars at 400mm centres and HD12 vertical bars at 600mm centres, all cells filled.

Piers (plinths) under portals shall be blockwork, 590 x 590, on 600 x 600 footing matching depths of typical footing

### **FLOOR SLAB**

Form up and pour 150mm concrete slab over reinforced polythene vapour barrier with SE72 mesh reinforcing (7mm diameter bars at 200 centres both ways).

Thicken slab to 300mm (x 600mm) in central part of building and between Gridlines 3 & 4.

### **RAMPS**

Form up and pour 150mm concrete foundation walls to similar depth as foundation of adjacent building. Backfill with compacted hardfill. Form up concrete slab over reinforced polythene

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vapour barrier with SE62 mesh reinforcing (6mm diameter bars at 200 centres both ways). Provide and fit stainless handrails one side of Entry (south) ramp (north ramp doesn't get handrails)

### **STRUCTURAL STEEL FRAME**

Fabricate 250UB46 frame with 16mm base-plates and stiffeners. Allow for roof and mezz beam splices, purlin & girt cleats, etc.

Cross brace with Reid RB25 bars and tensioners.

Wind Braces in gable-end walls shall be 150 x 9 SHS complete with girt cleats. One central windbrace in the middle of each gable end

Lateral ties at portal-knee level shall be 125 SHS.

Purlins shall be Dimond DHS 250 / 18 at 0.8m centres.

Girts shall be Dimond DHS 200 / 18 at 1.0m centres.

Allow 2 rows Dimond 'Fastbrace' to purlins & girts.

Internal gutter shall be supported by pair of 150 PFCs. PFCs shall be level betw Gridlines 3&4, and shall be sloping at 1:100 betw Gridlines 2&3 and 4&5.

### **WALL & ROOF CLADDING**

Composite Panels of 100mm minimum thickness with colorsteel bonded to PIR insulation Trapezoidal coloursteel external face (colour Manor Red), flat colorsteel internal face colour Black, Kingspan KS1000RW trapezoidal or similar

Install with back-flashings and expanding foam at ridge and verge to prevent dust and insects from entering the building or affecting the insulation. Back-flashings sealed to inner face of panels with 6 x 4mm butyl sealant.

Install with conventional ridge & verge over-flashings over bitumised plastic foam strips cut to profile. Bitumised plastic foam strips adhered to both panel and flashing with sealant / adhesive.

Fit galv ledger angle at bottom of wall panel fixed to conc fndn thru DPC.

High-level spoutings shall be 189 x 110mm extruded pvc, Marley 'Magnum', on brackets at 0.5m centres, fixed to colorsteel fascia (incorrectly shown as timber). Fascia shall be either proprietary or twice-folded coloursteel

Low-level spoutings shall be 133 x 76mm Marley 'Typhoon' as above.

Downpipes shall be 80mm diameter extruded pvc, connected to spouting with 100 / 80mm reducer.

### **MEMBRANE ROOFING**

1.5mm butyl rubber, colour grey, on Laminex StrandSarking 3.6m x 0.8mm x 16.3mm.

70 x 45 joists at 400 centres with solid blocking under sheet joints.

Joists fixed to 45mm timber packing with CPC40s

45mm timber packing fixed to the 150PFCs with 12mm bolts at 800mm centres. Packing shall be 45 x 90 betw Gridlines 2&3 and 4&5, and shall be tapered from 80 x 90 down to 45 x 90 betw Gridlines 3&4.

### **CARPENTRY**

Generally shall be timber framed in accordance with NZS 3604.

Dwangs shall be at 800 centres generally.

Inside face of external walls shall generally have 12mm grooved rough-sawn untreated plywood on 70 x 30 battens at 600mm centres, fixed to the inside face of the girts. Plywood shall be CHH 'Pinoli' U-groove, textured, pre-painted. Shiplap long edge joints; but-joint short edges, brad-fix.

Ceilings shall be grooved ply on 70 x 45 battens as above, fixed to the underside of the purlins.

**Veranda** posts shall be 112 x 112 H5 Prolam supporting pair 240 x 63 H3.2 beams. Allow Bowmac fixing brackets.

Verandah deck shall be 90 x 30 H3 pine on 140 x 45 joists at 450mm centres. Fix with pairs of stainless steel star-drive decking screws. Bearers shall be 140 x 90 H3.2 supported on 125 x 125 piles at 1.65m max centres.

Veranda roof shall be trapezoidal colorsteel to match colour and profile of main building walls and roof. Lay on roofing underlay on 12mm H3 ply on 70 x 45 purlins at 800 centres On 140 x 45 rafters at 900 centres. Line soffit with 12mm grooved ply.

#### **Misc**

- Pull-down ceiling access ladder in toilet lobby
- Step-ladder stairs in Plant room
- Propriety roof access hatch in flat roof - Gorter RHT

#### **INTERIOR**

Interior walls and linings shall generally be 90 x 45 timber-framed full-height. Allow for Gib fire-rated and sound-rated walls specified below.

**South** external walls shall be 2 hour fire-rated, 19mm Fyrelite both sides of 90 x 45 framing GBT 120b (some openings are acceptable). External walls need outside linings fixed to framing before being tilted up

**Archive** walls other than the south wall shall be 1 hour fire-rated, 13mm Fyrelite both sides of 90 x 45 framing GBTL 60. External walls need outside linings fixed to framing before being tilted up

**Theatre** north internal wall shall be sound-rated, double stud 90 x 45 framing with 2 layers 13mm 'Noiseline' plasterboard, plus 90mm batt, GBTLA 90d. Theatre east internal wall shall be as above, but with single stud framing and single layer 'Noiseline' 13mm plasterboard, GNT 134.

**Temporary Display** wall betw Grids 2 & 3 shall be 140 x 45 at 600 centres with 12mm grooved ply one side.

**Plant Room** shall be formed between grids 3 & 4 and B & C  
200 x 45 joists at 450 centres with 21mm particlebd over.

**Staff** ceiling shall be Pinoli grooved ply on 90 x 45 joists at 600 supported by perimeter walls and ceiling runner

**Theatre** ceiling shall be 13 plasterboard on 90 x 45 joists at 600 centres supported as above. Note coves on north & south walls.

Suspend acoustic absorbing tiles to underside of Theatre ceiling. Tiles shall be have acoustic panels fixed to the underside of both the flat and sloping parts of the ceiling. Acoustic panels shall be T&R C Max Absorb, 40mm thick (x 1200 x 600) in metal (Donn-type) grid with 100mm space above to gib ceiling.

Insulate whole building generally (in addition to the insulation in the cladding) with R2.6 batts to ceiling and R1.8 batts to walls.

#### **ALUMINIUM JOINERY**

Windows shall be powdercoated aluminium heavy duty domestic frames, double glazed. Reveals shall be ex 25mm clear pine.

External glazed hinged Entry doors shall be toughened double-glazed in 100mm shopfront frames, with hydraulic closers, narrow-stile deadlocks and 2m high tubular pulls.

Sidelights shall be toughened double-glass in 100mm shopfronts

External hinged Theatre doors shall be toughened double-glazed in heavy duty aluminium frames. Sidelights shall be double glazed.

External hinged Display doors shall be solid core fiberglass-clad doors in heavy duty aluminium frames.

Internal double sliding doors and sidelights shall be 12mm frameless toughened glass. Doors shall be suspended in automatic gear with security locks, safety beams, key-locks etc.

### **INTERNAL JOINERY FITTINGS**

Kitchen shall be high quality domestic standard with white melamine board carcasses and coloured melamine board panels, cupboard doors, and drawer fronts. All exposed edges shall be clad with 2mm PVC clashings glued on. Kitchen sink bench shall be stainless steel with rolled edges, Overcupboards shall be melamine board as above.

### **INTERNAL DOORS**

**Theatre** (STC/Rw43 sound-rated) Pacific AD400 pair of 750 x 2000mm leafs with rebated meeting stiles hung in a single frame.  
200w x 600h vision panel in both leafs.  
Kickplates to both sides of both leafs.  
Closer to both leafs

**Archive** (-/60/60sm fire rated) Pacific VP60A pair of unequal-width leafs hung in a single frame.  
800mm x 2000mm leaf + 400mm x 2000mm leaf, both with rebated meeting stiles.  
200w x 600h vision panel in the large leaf.  
Kickplates to both sides of both leafs.  
Closer to large leaf  
Tower bolt to small leaf

**Staff** pair of unequal-width leafs hung in a single frame.  
800mm x 2000mm leaf + 400mm x 2000mm leaf, both with rebated meeting stiles.  
200w x 600h vision panel in the large leaf.  
Kickplates to both sides of both leafs.  
Closer and Lockwood locking latch to large leaf  
Tower bolt to small leaf

#### **Toilet Doors**

810mm x 2000mm leaf.  
Kickplates to both sides.  
Closer and Lockwood privacy latch

**Display (external doors)** External grade fibre-glass doors, pair of 800mm x 2000mm leafs, both with rebated meeting stiles, hung in a single timber frame.  
Tower bolts to one leaf top & bottom  
Lockwood type mortice lock

### **INTERNAL FITTINGS**

Supply and fit the following

- Black-out blinds to Theatre
- Grabrails etc for Accessible WC
- Mirrors roll-holders for WCs

### **PLUMBING**

Apply for and obtain new high-pressure water supply.

Provide and fit 2 external hose taps with lock shields.  
Provide and install water filtration unit comprising at least 2 in-line cartridge filters and UV sterilizer.  
Provide and fit a hot water cylinder. Hot water cylinder shall be 180 litres, mains pressure, located in the ceiling space above toilets.  
WC pans shall be wall-faced and shall have ceramic cisterns and shall be dual flush. One WC pan shall be Accessible  
Basins shall be ceramic with trap shrouds generally and with lever-operated mixer faucets.  
Kitchen sink shall have chrome plate single lever mixer.

**STORMWATER DRAINAGE** (not included in current estimate of cost)

Excavate for, lay and backfill 100mm stormwater pipes discharging to new soak-pits in 1 locations. Soak-pits shall be 2 metres diameter x 1.5metre deep, rock-filled and with filter cloth top, sides and bottom, covered with topsoil.

**SANITARY DRAINAGE** (not included in current estimate of cost)

Excavate for, lay and backfill 100mm foul water pipes discharging into 4500 litre septic tank.  
Excavate for and establish effluent disposal field 20 metre distant from north face of building.  
Effluent disposal field shall be 2x2.

**ELECTRICAL**

Obtain new 3 phase underground supply from pole on corner of Ward and Seddon Streets (not the closest pole)

Provide and fit meters and internal distribution board inside new building.

Note; there will be sufficient excess capacity for other uses and buildings, but any other new building will be required to be supplied from the FHC meters.

Provide and fit double switched socket outlets, 50 off.

Provide cables and isolators for:

- Hot water cylinder
- Outdoor units HVAC (east side of building)
- Indoor units HVAC (air handlers above toilets)
- Toilet Extract (above toilets)

Provide, install, and wire up complete with switching:

- Under-Veranda downlights @ \$80 - 10 off
- Internal downlights @ \$80 - 21 off
- Internal spotlights @ \$120 - 13 off
- Internal lineal batten lights @ \$180 - 9 off
- Over-mirror lights @ \$300 - 2 off
- Inground external floodlights @ \$700 - 2 off

Lighting in Display not part of this Contract (it's in the 'Exhibition' budget)

**DATA / STRUCTURED CABLE NETWORK**

Provide and fit structured cable net / Telecom wiring

Provide and fit 10 jackpoints dispersed about the building, each wired back to a corresponding jackpoint on a new patch panel. All telecom wiring shall be computer network grade, Category 6.

**FIRE ALARM**

Fire Alarm shall be a monitored smoke alarm, Type 4 in terms of NZS 4516

**SECURITY**

Security system shall detect intruders in all rooms and interference with external doors.

Security systems shall also control automatic door locks and air conditioning.

## **AIR CONDITIONING**

Being designed by Nick Meeten of Applied Energy.

Comprises:

- Ducted system in Theatre
- Ducted system in Display
- Hi-wall unit in Archive with fresh-air ventilation
- Extract in toilets

## **PAINTING**

External walls, roof, doors and windows shall be pre-finished generally.  
pre-finished.

Spoutings & downpipes, shall be finished with 2 coats acrylic latex.

Verandah posts, beams & soffits shall be finished with Dulux Intergrain 'Natural Stain', 3 coats

Paint internally generally shall be low sheen latex paint.

Note grooved ply linings are pre-primed

Exposed steel portals shall be semi-gloss enamel

Doors and frames and window reveals and skirting trim shall be semigloss enamel.

## **FLOORCOVERINGS**

**Carpet** shall be high-quality loop-pile woollen carpet on rubber foam underlay: Godfrey Hirst 'Highland' 100% wool carpet, 4m wide.

Vinyl: commercial 2mm vinyl coved up walls 100mm to Toilets, Kitchen and Entry. Also floor area betw Grids A & B and 1 & 3 and 4 & 5

Timber: re-cycled ex 150 x 25 rimu flooring, glued to concrete floor slab. Available from Musgroves in Chch, 130mm cover, @ \$15/m. Sand with 120grit paper and finish with 3 coats Bona 'Traffic HD' available from Look Flooring Solutions 09 525 0652. Note timber flooring in Entry and betw Grids A & B and 3 & 4.

Mat shall be Jacobsens 'Shaw Steppin Out'

## **SITEWORKS**

Landscaping is generally excluded, except for ramps specified above:

**Mowing strip** 300 x 100 all around the building, widened to 1m in part of east wall to accommodate air-con compressors

## **SIGNAGE**

Provisional Sum of \$5,000:

- Profile-cut letters on metal stand-off brackets on west wall say 400mm high
- General fire exit and accessibility signage

## **CONTINGENCY**

5%

Please turn over for exclusions, inclusions and for professional fees.

**Exclusions:**

- Removal of macrocarpa hedges
- Removal of Marl Lines power pole and lines from the road frontage
- Exhibition: conception, presentation, interpretation & lighting (separate budget from Sally Papps)
- Loose furniture
- Desks, tables & chairs
- Seating for Theatre
- Landscaping
- GST

**Inclusions**

- Building structure and enclosing fabric
- Veranda
- Toilets, Office, etc
- Acoustic treatment to Theatre
- Full air conditioning
- Fire and security alarms
- Water and Electric power connections
- Humidity monitor
- Floor-coverings
- Blackout blinds for Theatre
- Signage
- The building work will be insured during construction, and this has been estimated at Blenheim rates. No allowance has been made for any additional East Coast insurance costs
- South wall of building fire-rated because of proximity to internal boundary

**Yet-to-be-resolved:**

- Effluent Treatment and Disposal (septic tank & disposal field)
- Stormwater disposal (soak-pits)

**Professional fees**

- Architectural & Project Management (\$72,000)
- Structural Engineering (\$12,000 approx)
- Environmental Engineering (\$4,000 approx)
- Surveying (\$1,469)
- Electrical Engineering (\$1,000)
- Mechanical (Air-Con) Engineering (\$3,600)
- Fire Engineering (\$1,100 approx)
- QS (\$3,000)
- RMA Consultancy (\$2,000 approx)