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South End School

Boiler Room Alterations

Prepared for:
South End School
275 High Street South
Carterton

P O Box 40-651 Upper Hutt 5140
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Tender Form

Tender For :

South End School

Boiler Room Alterations

I / we the undersigned do hereby tender and offer to construct, finish and maintain the above mentioned works in accordance with the Drawings, Specifications, and Conditions of Contract relating thereto for the sum of:

Tender price	\$.....
Contingency	\$.....5,000.00.....
GST	\$.....
Total Contract Price	\$..... =====

Tender Information

Tenderer:

Address:

Phone:

Mobile:

Fax:

Date:

Signature:

Tenderers Remarks:

South End School **Boiler Room Alterations**

Scope of Work

This contract is for the construction of a new LPG cylinder enclosure and alterations to the existing boiler room to suit the replacement of the existing boiler system at South End School, 275 High Street South, Carterton, as described below.

Please check all dimensions on site.

All work is to be carried out to the best of trade practise and in accordance with all relevant standards, manufacturer's instructions and the NZ Building Code.

Drawings and Extent of Work to be read in conjunction with the attached Vishnu Fire Safety Design Report.

Please check all dimensions on site.

Allow to complete the following items of work:

Demolition

- Disconnect services to allow for demolition work.
- Remove wing wall and concrete steps as indicated in drawings.
- Remove wall & ceiling linings throughout boiler plant room as indicated in drawings, (wall & ceiling linings in coal bunker to remain).
- Remove roller door, entry door and louver windows, existing timber frames to remain to allow for new insert doors & windows.
- Remove light fittings & fire call point.
- Remove boiler equipment, chimney, pipe work and all fittings in boiler room.
- Remove existing electrical distribution board.
- Dispose of all demolition material from site.

New Work - Boiler Plant Room & New Resource Room

- Construct new 100mm thick reinforced concrete slab, to create new floor levels in plant room and resource room as detailed in drawings, (new finished floor level in resource room to math FFL in adjacent classroom). concrete to be 20 mpa, use 0.25 micron high-density polythene DPM under slab protected by sand blinding, over compacted hardfill.
- Construct new timber framed interior wall, at location shown in drawings, using 90x45 H1.2 framing at 400crs. Fit additional dwangs as required for upstands, light fittings, hardware, and the like. Allow for new f/j pine architraves, scotias & skirtings to new work as indicated in drawings.
 - Line existing walls in resource room with 10mm standard Gib board.
 - Line new wall between plant room & resource room with 1 layer of 16mm Gib Fyrelite both sides. Gib Fyrelite to be continuous from floor to underside of roofing.
 - Supply & install Autex Composition Board over Gib in resource room.
 - (refer to Interior Elevation drawings for finishes).
 - Line ceiling in resource room with 13mm Gib Board.
- Supply & install new exterior aluminium door & window unit, (D1), complete with Holyoake DG52BFL door grills; aluminium entry door, (D2); interior solid core door, (D3); windows W1 and W2 at locations shown and a detailed in drawings.
- Provide a new glazed panel in resource room as shown in drawings.
- Supply & install R3.2 Batts ceiling insulation and R2.6 Batts wall insulation in resource room as described in drawings.

Electrical

- Disconnect and make good services for demolition.
- Supply & fit a new 5 ft fluorescent light fittings, with associated light switches and wiring to suit, as indicated in drawings.
- Supply & install new emergency light fittings in existing classrooms in Block B as indicated in the attached fire report; fittings to be Famco Pagoda IP65 24w PL.
- Allow to provide new data and power outlets in resource room as indicated in drawings.
- Run new wiring in wall cavities/ceilings before new linings are fitted.

Floor Finishes

- Supply and install new Shaw Range carpet tiles in resource room as shown in drawings, (colour to be advised).

Painting

- Paint ceiling, timber door & frame, timber window frames, and new timber trim in resource room.
- Allow to touch up exterior trim affected by demolition work.
- *Interior colour scheme to be advised.*

All rubbish and debris to be removed from site upon completion of work.

New Work - LPG Gas Cylinder Enclosure

- Construct new 100mm thick reinforced concrete slab as detailed in drawings. Concrete to be 20 mpa, use 0.25 micron high-density polythene DPM under slab protected by sand blinding, over compacted hardfill.
- Construct new timber framed walls, using 90x45 H3.2 framing at 400crs. Fit additional dwangs as required for upstands, hardware, and the like.
- Brace rear & side walls with Lumberlok Multi-brace strapping as indicated in drawings.
- Construct new timber framed roof using 140x45 H3.2 purlins at 900crs.
- Roof cladding to be .055 Steel & Tube Colorsteel Endura Custom Orb corrugated roofing over Themakraft Covertex 405 fire retardant roof underlay, over galvanised netting.
- Exterior wall cladding to rear & side wing walls of shed to be .55mm corrugated colour steel cladding, fixed vertically.
- Provide galvanised mesh to front & sides of enclosure as indicated in drawings.
- Enclosure door to be 1.0m wide, 40x40 RHS galv. steel frame with galv. mesh welded to frame.
- Provide 150x75mm concrete weed band to perimeter of enclosure as shown in drawings.
- Provide PVC spouting to enclosure and allow to connect down pipe to existing storm water drainage.

All rubbish and debris to be removed from site upon completion of work.

Door Hardware

- a) Door Hinges Hang exterior doors on 100 mm broad butts with fixed pins; 4 butts to each door. Hang internal doors on 100 mm LP bronzed steel butts, 3 butts per door.

- b) Furniture All door furniture shall be Legge Pacific Alpha 500 with scp finish.

Preliminary and General

1) Extent of Work

Refer to the attached page(s).

2) General

The following documents shall form part of the Contract:

- a) The attached Ministry of Education Conditions of Contract.
- b) The accompanying Tender Forms.
- c) The accompanying Specification.
- d) The accompanying Drawings with any subsequent Drawings.
- e) Any written correspondence, instructions and variations issued subsequent to the signing of the contract.
- f) The letter of acceptance.
- g) Any written notice to tenderers recording adjustments to drawings and or specification prior to the signing of the contract.

3) Examine the Site

Tenderers shall examine the site and building before tendering. The submitting of a tender will be taken as an indication that the tenderer has visited the site and made himself familiar with any matters that might affect the fulfilment of his part of the contract and has made due allowance in his tender for these. No consideration shall be granted for any misunderstandings as to the work to be performed or the materials used.

4) Temporary Services

Water

The contractor may draw water from the employers existing reticulation.

Latrine

The contractor may use an existing toilet at the discretion of the employer, and must keep it in a clean and tidy condition.

Electric Power

The contractor may use the existing power supply during the course of the contract, unless special loadings are required, in which case the contractor shall make the necessary arrangements and pay all costs.

5) Work Programme

The successful contractor is to arrange with the school and supervisor, approved dates and times within the specified time when work can be actioned.

6) Insurances

As per the conditions of contract, the Contractor is to carry a General Public Liability Insurance policy with a minimum cover of \$2,000,000.00.

The contractor shall insure separately the Contractors Plant and Equipment.

7) Noise

No radio or other noise not strictly associated with the works shall be audible in any room outside the contractors working and storage area.

8) Scaffolding and Hoarding

The contractor shall provide for the erection of all necessary gantries, cranes, staging, ladders, moving sections, chutes and any other scaffolding to permit the proper and efficient erection of the work.

9) Dimensions and Setting Out

Check and confirm all building dimensions on site. The contractor shall accept full responsibility for the final dimensions. All work shall be set out accurately and in accordance with the plans. Any errors shall be made good at the contractors expense.

10) Existing Services

Any damage incurred to existing services shall be made good to the supervisors approval and at no cost to the employer.

11) Care of the Site

The contractor shall regularly remove all debris, rubbish, and surplus materials, including that of subcontractors as they accumulate. The site shall be as tidy as possible at all times.

Upon completion of the contract works, the contractor shall take down and remove all plant, gear, temporary work, rubbish, debris and surplus materials from the site, and make good.

At the conclusion of the contract, the contractor shall leave the site in such a condition, as new, and to the supervisors approval.

12) Workmanship

Workmanship shall be consistent with good trade practice to produce sound and well finished work, and to the requirements and standards demanded by the supervisor.

13) New Zealand Standards

It is the sole responsibility of the main contractor to ensure that the complete contract works are executed according to the relevant New Zealand standards, and local and national regulations.

14) Protection

The contractor shall be held responsible for the protection of persons or property in the immediate vicinity of, or liable to be affected by his operations. To that end, he shall provide a suitable temporary fence around the entire construction zone, at a minimum orange plastic safety mesh supported on tensioned wire over waratah stays and all necessary coverings, guards and the like, and display suitable and sufficient warning notices. The fences and signs shall be maintained throughout the contract.

15) Bylaws and Regulations

The whole of the operations shall be carried out in compliance with regulations of all public bodies having jurisdiction in the matter, and the contractor shall pay all and any fees which may be payable in respect thereof.

16) Labour and Materials

The contractor is to supply all labour, plant and sundry items as later detailed which are the best of their respective kinds.

Only first class tradesman are to be employed on this contract and any defective or improper workmanship shall be reinstated by the contractor in an approved manner at the contractors expense.

17) Damage

The Contractor shall be responsible for the loss or damage which may be caused to the property of the employer in his carrying out of this contract and the contractor shall make good such loss or damage at his own expense, to the satisfaction of the employer.

18) Behaviour Generally

Any behaviour by workers on the site that could be considered sexist, racist, obscene or beyond the limits of normal, acceptable behaviour will not be tolerated.

The supervisor reserves the right to exclude any such offending persons from the site area.

Wherever possible, contact between workers and school children should be kept to an absolute minimum. If the contractor finds that the school children are being a nuisance within the building site area, he is to notify the supervisor and the principal immediately in order that steps be taken to remedy the situation.

Under no circumstances whatsoever is the contractor and or employees thereof, permitted to have physical contact with, admonish or discipline any children that may from time to time enter the site area and or act in a manner that is a nuisance to the contractor and his staff. Report any such incidence to the principal immediately.

19) Smoking

Smoking is not permitted on any school site unless in a designated area as indicated by each individual school.

20) Foreman

The contractor shall provide at all times an efficient foreman who shall have the power to receive and carry out the instructions of the supervisor or his agent.

21) Compliance Certificate

The contractor shall complete the enclosed compliance certificate, stating that the all work carried out in the execution of the contract works by all contractors involved in such work, has been carried out in accordance with the contract documentation. This certificate shall be delivered to the employer or his agent before the issuing of the completion certificate.

22) Health & Safety In Employment Act

The contractor shall confirm in writing to the employer or his agent that all practical steps have been taken to ensure the requirements of the Health & Safety in Employment Act are complied with, in particular the contractor is required to:

- a) Provide and maintain a safe working environment.
- b) Provide and maintain facilities for the safety and health of employees at work.
- c) Ensure that machinery and equipment in the work place is designed, made, set up, and maintained to be safe.
- d) Ensure that employees are not exposed to hazards in the course of performing their work.
- e) Develop procedures for dealing with emergencies that may arise while employees are at work.

A copy of the Contractors Health and Safety Policy shall be kept on site in a prominent position at all times.

The Contractor is required to seek a copy of the owners health and safety policy and make himself aware of any hazards that may be present on the site.

23) Defects Liability Period

The defects liability period is 12 months.

Complete all defects liability and remedial work identified by the supervisor within the time period stated.

A Maintenance retention of 5% of the contract sum may be held by the employer to cover the work required over this period. The retention will be released upon final completion at the end of the maintenance period.

24) Building Consent Fees

The building consent shall be uplifted and paid for by the employer prior to the awarding of this contract. **Tenderers do not need to allow for building consent fees in their tender price.**

25) Liaison with the Territorial Authority During the Contract

It shall be the responsibility of the main contractor to liaise fully with the local Territorial Authority (TA) on all matters that require the involvement of the TA during the execution of this contract. This shall include for example, notifying the TA when the following work is ready for inspection:

- Foundations
- Pre-lining
- Plumbing and drainage
- Completions.

The main contractor is also to inform the TA any variations that may have arisen during the contract. The main contractor is to inform the supervisor when the TA inspections are to be carried out.

It shall be the responsibility of the main contractor to secure a Code Compliance Certificate from the TA upon completion of the work.

26) Asbestos

The contractor is required to immediately notify the supervisor, if the presence of asbestos is suspected or detected during construction.

27) Contractors Animals

Due to a number of problems having been experienced in the past in relation to contractors pets, particularly dogs, on site during the course of the project, The Ministry of Education Central South Office requests that all contractors and related persons refrain from bringing animals on to the school site at all times during the contract.

28) Police Vetting

As a result of an amendment to The Education Act 1989, Boards of Trustees are now required to obtain a police vet from the NZ Teachers Council on all persons working on a school site that are not registered teachers.

This requirement applies to all contractors and their employees who will be on site regularly, as well as your subcontractors and their employees.

You will be required to furnish a list of all workers that will be on site throughout the execution of the work, and distribute Police vet forms to these persons and return the forms to the school to enable the vetting process to be completed.

Any person who turns up on site to work and is not on the list will not be allowed on site.

All information received by the school will be treated in the strictest confidence and will be held in a secure file by the school.

Carpentry

1) References

Refer to the general conditions of contract and the preliminary and general sections of the contract documents which are equally binding on this trade section.

Read this trade section of the specification with all other contract documents.

2) Scope of Work

Refer to the extent of work section of this specification.

3) General

- 1) Supply all gear and materials necessary to carry out the Works.
- 2) Use all new materials the best of their respective kinds. Make no substitutions for materials specified with out the supervisors approval.
- 3) Set out the Works symmetrically unless stated otherwise.

4) Workmanship

Use workmanship and materials in accordance with the best trade practice by competent tradesman conforming with the relevant New Zealand Standards. Carry out all work in accordance with The New Zealand Building Code, Acceptable Solutions E2/AS1 & E3/AS1, and any relevant manufacturers instructions.

5) Timber Grading

- 1) Timber to grades in accordance with NZS 3604: 2011 and NZS 3631:1988
- 2) Use dry timber with the following equilibrium moisture content:

a)	External	Sawn Timber	20% average max 22% at 17.5 deg c.
		Machine gauged	19% average max 22% at 17.5 deg c.
b)	Internal	Sawn	18% average max 20% at 17.5 deg c.
		Dressed	12% average

max 15% at 17.5 deg c.

6) Timber framing

- 1) Unless otherwise detailed, timber framing to comply with NZS 3604:2011. Generally all framing to be H1.2 SG8 grade Pinus Radiata. Studs for walls up to 2.4 m high: 90 x 45 studs @ 600 centres.
- 2) Dpc to be fitted between all concrete and timber.
- 3) Dwangs to be provided @ 800 crs max to all timber framed walls. Fit additional dwangs as required for upstands, joinery units, light fittings, hardware, and the like.
- 4) Provide all lintels, trimmers and blocking in accordance with NZS 3604:3011

7) Exterior Timber

- 1) Use H3.2 SG8 grade framing grade pinus radiata for all exposed exterior timber.
- 2) Use H5 SG8 grade framing grade pinus radiata for all timber in contact with the ground.

8) Exterior Finishing Timber

Use finger jointed or clear H3.1 SG8 grade pinus radiata for all exterior finishing timbers. Profiles to match existing where necessary.

9) Interior Finishing Timber

- 1) Finishing timber to match existing except where noted otherwise.
- 2) Use selected or Dressing A Rimu for all clear finished interior trim unless noted otherwise.
- 3) Use selected, clear or finger jointed pinus radiata or MDF for all painted interior trim.

10) Fixings

- 1) Nail fix timber work in accordance with NZS 3604:2011.
- 2) Punch all finishing nail fixings and leave ready for stopping.

- 3) Use non ferrous or galvanised fixings for exposed external timber work.
- 4) All hardware is to fixed with appropriate fixings of matching finish to the item being fixed. Use non ferrous screws in external situations.
- 5) Use galvanised fixings where fitting into concrete.

11) Priming

Preprime all surfaces of exterior painted timberwork prior to fixing. Prime all cuts and joints as necessary.

12) Building paper

Fix fire resistant breather type building paper complying with NZS 2295:2006 over exterior framed surfaces in accordance with NZS 3604:2011

13) Exterior Cladding

As per extent of work or to match existing as required, supply, store and fix in accordance with the manufacturers instructions.

14) Interior Linings

As per extent of work or to match existing as required, supply, store and fix in accordance with manufacturers instructions.

Concrete & Reinforcing Steel

1) References

Refer to the general conditions of contract and the preliminary and general sections of the contract documents which are equally binding on this trade section.

Read this trade section of the specification with all other contract documents.

2) Scope of Work

Refer to the extent of work section of this specification.

3) General

- 1) Supply all gear and materials necessary to carry out the Works.
- 2) Use all new materials the best of their respective kinds. Make no substitutions for materials specified with out the supervisors approval.
- 3) Set out the Works symmetrically unless stated otherwise.

4) Workmanship

Use workmanship and materials in accordance with the best trade practice by competent tradesman conforming with the relevant New Zealand Standards. Carry out all work in accordance with The New Zealand Building Code, and any relevant manufacturers instructions.

5) Concrete & Reinforcing Steel

- 5.1 All concrete construction shall comply with NZS 3109:1997
- 5.2 Concrete shall be special grade in accordance with NZS 3604:2011, having a compressive strength at 28 days using standard cured 300 x 150mm diameter cylinders.
- 5.3 All concrete shall be water cured for a minimum period of seven days
- 5.4 All concrete shall be vibrated using an immersion type mechanical vibrator to fully consolidate the concrete and to release all entrapped air. Do not over vibrate the concrete.
- 5.5 Concrete surface finishes shall comply with NZS3114:1987 and shall be:

Foundations	concealed	F1
	revealed	F3

- 5.6 The contractor shall allow to accurately position, level and secure all bolts, weld plates, inserts, pipes etc, before pouring concrete.
- 5.7 Use an approved release agent for all formwork.
- 5.8 Reinforcing steel shall be round and deformed Grade 300 MPa mild steel (R or D) or Grade 430MPa high yield steel bars (HD) complying with NZS 4671:2011
- 5.9 All bends, laps and covers to the reinforcing steel and mesh shall comply with NZS 3101.1 & 2:2006.
- 5.10 Reinforcing steel shall be tied at each intersection with black sort mild steel wire, with the ends turned away from the concrete surface.
- 5.11 Reinforcing steel shall be supported on plastic chairs or formed concrete chairs at spacings appropriate to the bar size to maintain the specified concrete cover.

Standard Specification for Roofing in Trough Section Coloursteel

1) Site

All tenderers shall visit the site of the proposed works before submitting their tenders as no extra payment will be authorised on the grounds of insufficient knowledge of existing buildings and services.

2) Access

The contractor shall restrict access by his own, his subcontractors and his suppliers vehicles to the main site entrance, unless otherwise notified by the employer.

3) Order of work

The work shall be carried out in stages so that a minimum of roof is exposed to the weather at any one time.

4) Building Paper

Prior to fixing the new roofing materials, cover the timber roof structure with new standard weight building paper, laid horizontally with a minimum lap of 150mm well tacked down.

5) Coil Coated Steel Roofing

Provide and fix new Steel & Tube Plumbdek Endura Coloursteel Endura trapezoidal and Dimondek 400 trough section Coloursteel Endura, (or as directed in the Extent of Work attached), continuous coated steel roofing in accordance with the manufacturer's instructions.

Alternative brands may be considered with prior approval of the employer.

a) Material

Endura Coloursteel shall be .55mm BMT grade G250 steel with Zincalume galvanised coating.

b) Fixing

Trough section roofing is to be clip fastened by 50mm nails or 10g x 45mm Timbertite wafer head screws.
Profile roofing is to be fixed with Class 4 or 5 galvanised fixings.

The 'colorsteel' shall be inspected when it arrives on site by the contractor and the supervisor, damaged or unsatisfactory sheets will not be accepted.

6) Skylight Roofing

- a) ~~Materials shall be as per the Extent of Works attached.~~
- b) ~~As above except instead of nails use HPC 60mm hot dipped galv. hex. head type 17 roofing screws with neoprene washers. Screws are to be driven with a clutch operated drill as recommended by the manufacturer. Note: Screw the surrounding iron sheets adjacent to the skylight sheets to allow for skylight replacement.~~

7) Workmanship

a) General

All work shall be carried out by tradesman experienced in sheet metal work, more particularly in the handling, fixing and flashing of the materials specified. The workman should be equipped with adequate tools and equipment to ensure a first class job.

Fix all roofing and accessories strictly in accordance with the manufacturers instructions. Where such instructions conflict with this specification seek clarification with the supervisor before proceeding.

b) Handling

Care is to be taken when handling colorsteel.

Products are to be lifted directly into position and must not be dragged or slid over rough surfaces or other colorsteel products.

All workers employed on roofing jobs must wear suitable rubber soled footwear and all tools and ladders must be suitably protected from damaging the painted surfaces.

Long lengths of roofing iron are to be lifted by crane directly on to the roof. The use of a lifting boom is recommended.

Any damage to the 'colorsteel' caused by failure to follow these procedures shall be replaced at the contractors expense.

c) Storage

Products delivered to the site must be stored off the ground in sheltered positions. Where undercover storage is not practical or where products are lifted in bundles directly on to the roof, they must be covered with a loose fitting tarpaulin until ready for use. Plastic covers must not be used.

If for any reason the products become wet, they must be separated to allow drainage and air circulation. Timber fillets must be kiln dried seasoned timber. Treated timber must not be used

Contact with wet cement is to be avoided.

d) Sealants

Under no circumstances shall 'colorsteel' be joined by soldering, welding or brazing.

Joints shall be made using an approved type of blind rivet and sealant.

Sealant shall be approved transparent, neutral curing silicone rubber type.

Surfaces must be clean, dry and free from oil.

The sparing use of a solvent such as Toluol or xylol is recommended, sealant should be applied the same day the surface is cleaned.

Sealants should be laid in a continuous 3mm wide line covering the fastening holes and finished as soon as possible after application.

Excess sealant is to be removed before it cures. Remove all rivet shanks and drillings following the completion of the work.

Refer to the colorsteel technical bulletin No. 5.

e) Cutting and Drilling

Colorsteel products shall be cut or drilled with the colour side down where ever possible. Products should be cut using sharp tin snips or a power saw fitted with a friction blade.

f) Flashings and Roof Penetrations

All flashings and roof penetrations shall be manufactured from coil coated materials and in long lengths where available.

On roof penetrations 'aquaseal' type flashings shall be used. Aluminium shall be painted to match the roofing.

For both roofing products specified the pans shall be turned up at the top and turned down at the bottom of each sheet length.

8) Cleaning Up

To prevent Staining or the surface it is essential that all metal off cuts, filings, fastener shanks etc, are removed from the work area as work progresses. A soft broom may be used, followed by hosing down at the end of each day. Removal of particles from gutters is also important to prevent premature corrosion.

9) Completion

On completion of new roofing etc, fit all new flashings required to make the roofs completely watertight.

10) Guarantee

The contractor shall furnish a written guarantee in the form required by the employer that the roofing will remain weatherproof for a period of five years after the expiry date of the maintenance period. This guarantee shall cover the making good of any defects which may appear and rectifying any damage to the interior or exterior of the building due to defective materials or workmanship.

11) Lead and Zinc alum Coatings

Avoid using lead flashings in contact with zinc alum products as excessive corrosion will occur. Use an alternative product such as "flashgard" or fully encapsulate the lead in an approved paint system.

Electrical

1) References

Refer to the general conditions of contract and the preliminary and general sections of the contract documents which are equally binding on this trade section.

Read this trade section of the specification with all other contract documents.

2) Scope of Work

Refer to the extent of work section of the specification.

3) General

- 1) Supply all gear and materials necessary to carry out the Works.
- 2) Use all new materials the best of their respective kinds. Make no substitutions for materials specified with out the supervisors approval.

4) Existing Services

The existing services are poorly recorded. Exercise extreme care during excavations and work to existing buildings . Any underground or internal services broken or damaged during excavation and or other work shall be rectified at this subcontractors expense.

5) Earthing

Earth continuity conductors shall be installed with the wiring to all outlets.

6) Workmanship and Regulations

a) The electrician shall visit the site in order to understand the nature and scope of the work. No claims will be allowed on the grounds of insufficient knowledge of existing conditions.

b) The electrical installation shall be carried out in strict accordance with the New Zealand Electrical Regulations and Codes of Practice 1993, and interpretations and amendments thereto, the rules of the Fire Underwriters Association, notwithstanding any omissions herein, and to the complete satisfaction of the local power board's inspector and the supervisor.

c) All wiring shall be concealed, unless otherwise stated, and only new, first class materials and workmanship will be allowed.

d) The electrician shall obtain all necessary permits for the work and allow to pay all associated charges.

e) The electrician shall visit the site and accurately assess the size of the existing main, submains, and all other cables required to complete the wiring in accordance with this specification and to comply with the local body and national regulations.

f) The complete electrical system shall be checked by the local authority power supplier on completion of the contract. Any wiring not accepted and passed shall be replaced by the electrician at no extra cost.

g) The electrician shall carry out all necessary cutting away, drilling etc. When cutting into timber only sufficient to permit the bare entry of the wiring is to be removed. No joists are to be cut away for cables **more than 100mm out from a support**, except with the approval of the supervisor.

h) All stainless steel bench tops are to be earthed.

7) Wiring

Wiring of sub-circuits shall be TPS insulated cables. All cables shall be concealed in wall, ceiling and floor cavities.

Wire to plug sockets	- 3x 2.5mm ² and earthed.
Wire to lights	- 3x 1.5mm ² and earthed.
Wire to electric heaters	- 3x 2.5mm ² and earthed.

8) School Class Change / Evacuation System

Allow to reticulate the existing school class change / evacuation bell system to the new reloc classrooms. Allow to fit two external bells on site where directed.

Standard Specification

Floor Finishes

1. General

All floor finishes specified in the extent of work shall be applied only by flooring contractors skilled in the particular Finish concerned. Allow to apply these finishes to the areas shown in the drawings or as scheduled below.

Prior to commencing flooring work ensure that all surfaces to which floor coverings or finishes are being applied are made smooth, clean and suitable prepared to receive the floor finish.

Carry out all associated sanding, stopping and filling as necessary

2. Protection and Damage

Protect the finished floors against damage due to any of the contract work operations and protect against all floor traffic. Any damage to the finished floor surface shall be made good to the supervisor's satisfaction at the contractor's expense.

3. Guarantees

The contractor shall furnish to the client a written guarantee for each type of floor finish covering workmanship and materials. Material guarantees shall be a minimum of five (5) years from the date of completion. The workmanship guarantee shall be for a minimum period of three years from the date of completion.

4. Floor Sanding

Machine sand floors to a smooth even surface.

5. Adhesive

The adhesives shall be only those as recommended by the Flooring Manufacturer.

6. Coving

Provide a PVC cove bead for vinyl flooring, any carpet coving may be cut and a separate piece used for wall upstands.

7. Clean Up

Clean up all floor surfaces on completion of the contract. Remove all adhesive marks off adjacent surfaces, such as walls, skirtings, fittings etc. Where sanding has taken place thoroughly vacuum all surfaces in the room to remove any dust caused by the sanding process.

8. PVC Flooring

PVC flooring shall be as detailed in the extent of work. Lay in accordance with the manufacturer instructions. Vinyl in the same area should be from the same batch. Check vinyl rolls before installation. Seam weld all joints with a hot air gun and matching welding rod. On completion clean down and machine scour, spray with a light water / detergent mixture then buff to a high polish.

9. Carpet Flooring

Carpets shall be direct stuck & laid in accordance with manufacturers instructions, using approved adhesive.

Carpet in a room must be from the same dye batch and roll. Lay carpet with pile in continuous direction following arrows printed on the underside of the carpet. Overlay each seam by 40mm and cut through both layers of carpet to ensure perfect seaming. Roll with a hand roller to ensure bonding of adhesive.

All work shall be free of bulges, lifting edges, staining, damage and other defects.

Finish junctions with other flooring with naplock pinless binder bars. Thoroughly vacuum after laying is completed.

10. Removal of Existing Floor Coverings and Floor Preparation

The contractor is responsible for the removal of all existing floor coverings where applicable and disposal of said covering off site.

Where new coverings are going over old T&G flooring the contractor is to ensure that all existing floors are sound and free from loose, springy or squeaky boards. Generally inspect all flooring and punch, screw, stop and sand any surface irregularities and prepare to receive new flooring.

For vinyl flooring laid over T&G flooring provide 4.75 standard hardboard underlay stapled with 25mm plated staples at 100mm to the edge of the sheets and 150mm centres elsewhere. Staples should be at least 12mm from sheet edges. Allow a 2mm gap between sheets and 3mm gap around at room perimeter. Sand all joints level.

PAINTING

1) General

Refer to all the general and specific conditions, the tender drawings and preliminaries section of this specification, all of which shall apply to this section of the works.

2) Extent of works

Refer to the extent of work section of the specification.

3) Colours

Colours will be selected during the contract, generally to match the existing School colour scheme.

4) Workmanship and materials

All painting shall be in accordance with good sound trade practice, in accordance with NZS 2311:2009, and only premium grade paint systems are permitted. The only paint products approved for this contract are for paints manufactured by **Resene** and **ICI Dulux**. Unless prior dispensation is given for an alternative manufacturers product, all tenderers must price this work using paints supplied by either Resene or Dulux.

Only first class premium paints may be used on these contract works and all paint brought on to the site must be in the original manufacturers tins and must be available for inspection by the supervisor at all times during the contract. The supervisor reserves the right to take samples for testing. Any materials which do not conform to the manufacturer's formulae or the requirements of this specification will be rejected.

Unless specified otherwise all paint materials shall be lead free. An exception may be for galvanised steel priming, unless specified lead free for roof water collection areas.

All paint materials in thermal areas shall be of a suitable formula.

a) Paint systems

It is intended that, unless specified otherwise a "paint system" is used on all works involved in this contract. That is, only the same manufacturer's primer, undercoat and finishing coats are to be used in any given situation. Use the correct type of each as recommended by the manufacturer for the materials to be

painted and their situation. The painting for this contract shall require the application of a complete "paint system"

b) Cutting In

Only first class cutting in work will be accepted on this contract. The requirement for, and the importance of, a top class cutting in job cannot be stressed enough. It is therefore brought to the attention of all tenderer in this specific clause and reiterated that any poor cutting in work will be completely rejected by the supervisor and the work will be required to be completely redone.

c) Protection of work

Take adequate precautions during and after painting operations to protect your own work, and the work of other trades and adjacent existing surfaces, from damage or disfigurement, The Contractor must ensure adequate protection for all grassed, concrete or sealed areas during preparation, mixing and application, including cleaning and washing of brushes and applicators.

The contractor must ensure that all brick veneer work is adequately protected from the possibility of paint damage.

Provide pans or trays in which to keep materials and carry out all necessary floor and wall protection, for both new and existing areas.

External work shall not be done during frosty or inclement weather and in the likelihood of frost, work in shaded positions shall cease at least four hours before sunset.

Protect factory finishes from paint disfiguration.

Protect floor finishes from paint spillage or disfiguration. Any paint damaged by frost, rain, and dust or through inadequate protection shall be rubbed down and recoated at the painter's expense.

Any damage done to persons or property by the painting contractor or his workmen during the progress of the contract is to be made good at the expense of this contractor.

d) Conditions when paint is not to be applied

Paint is not to be applied when any one of the following conditions exist:

- The surface is less than 5 degrees Celsius above dew point.
- The ambient air temperature is below 5 degrees Celsius, or 10 degrees Celsius in the case of water based paints.
- The relative humidity exceeds 85%.
- There is moisture or ice on the substrate.
- If any of the above are likely to occur before the paint dries.
- Any condition stipulated by the paint manufacturer more restrictive than above.

5) **Colours**

The colour scheme will be chosen before the contract starts and forwarded to all tenderers.

Tenderers are to note that all work to be painted **white**, will require:

- **three** finishing coats over the undercoat.

6) **Preparation of surfaces**

It shall be the responsibility of the painter to ensure that all surfaces, including surfaces of each successive coat, are in a suitable condition to produce a first class job. Apply "Moss & Mould Killer" to areas where required, wash down and apply such sealers, neutralisers, etc., as are necessary and in accordance with sound trade practice, Similarly wash or brush down prepared surfaces immediately before painting to effectively remove dust, deposits or loose material. Such preparatory work being deemed to form part of this contract.

No paint shall be applied to damp surfaces. All timbers exposed to view or contact by the hand shall be smooth finished and the painter shall not apply to such surfaces if still rough.

It shall be the responsibility of this sub-contractor to make good, to the supervisor's satisfaction, any paint failures or blemishes caused by insufficient or incorrect preparation of surfaces to be painted.

Where appropriate all existing wallpaper shall be stripped off in preparation for the new wallpaper. Prepare the existing wall surface to recommended trade practice.

7) Cleaning down of existing surfaces

Where existing surfaces require re-painting in this contract, the following conditions shall also apply:

a) Generally

Rigid attention must be paid to the "PREPARATION OF SURFACES" clause as above. Existing surfaces shall be repaired as called for and the painter must allow for filling as required.

Remove sufficient to provide a good key for new paint. Prime any existing bare timber or steel shown up by old paint removal.

b) Removal of moss and mould infestation

This must be applied to any porous surface, the contractor must ensure that all moss and mould is removed prior to the application of any paint system.

Treat all infested areas with Resene, or equal approved, Moss and Mould Killer, at a rate of 100 grams to 1 litre of clean water, or as required by the alternative manufacturer. Leave for 48 hours to achieve a full kill, then wash down the affected surfaces.

c) Sanding

The use of disk sanding equipment is not permitted on this contract.

8) Priming

a) Generally

Prime all faces, edges backs, joints and abutting surfaces of all exterior finishing timbers.

b) Galvanised steel

Thoroughly degrease all surfaces before priming. Apply "Galvo One" or equal approved, steel primer.

c) Other priming

Shall be as recommended by the manufacturer of the finishing paint.

9) Undercoats

Undercoats shall be the same brand as the finishing coats and shall be as recommended by the manufacturer of the finishing paints for use with his paint in the situations specified. **Tint the undercoats to closely match the colour of the finishing coats to give additional covering power to paint.** Undercoats on exterior, exposed more than 8 weeks to weather, shall be sanded down and recoated without extra charge. The minimum number of paint coats required in each particular case is specified in later clauses, but not withstanding this, undercoats shall be sufficient to provide a full bodied, even colouration to the finished job.

10) Application of paint

a) Exterior Painting

Shall be applied by BRUSH ONLY. Airless spraying is **NOT** permitted.

b) Interior Painting

The undercoat shall be applied by BRUSH ONLY. The finishing coat may be applied by brush or roller.

11) Painting schedule

a) Timber Doors

NOTE: Both the tops and bottoms of all doors are to be painted.

Prime (if new):	One coat of pigmented sealer
Undercoat:	One coat of alkyd undercoat
Paint:	Two coats of satin enamel

b) Door and Window Frames and/or Liners

Prime:	One coat of pigmented sealer
Undercoat:	One coat of alkyd undercoat
Paint:	Three coats of gloss enamel (white)

c) Exterior Sheathing and Concrete Blocks and C P Plaster Finishes

Prime: One coat of exterior acrylic primer
Paint: Two coats of exterior acrylic "Lumbersider"

d) Existing Galvanised Steel Roofs, Flashings, Spouting, Downpipes & Metalwork

Refer to previous clauses for the preparation of existing surfaces. Ensure all rust, blisters and loose or perished paint has been removed. Recoat in zinc rich paint any ungalvanised metal exposed during preparation.

Prime: One coat of galvanised steel primer
Paint: Two coats of exterior full gloss acrylic or enamel

e) Painted Metalwork

Prime: One coat of galvanised steel primer
Paint: Two coats of exterior full gloss enamel
(3 coats if white)

f) Exterior Trim, Facings etc.

Prime: One coat of exterior acrylic primer
Undercoat: One coat of exterior acrylic undercoat
Paint: Two coats of exterior acrylic paint

g) Gibraltar Board

Sealer: One coat of Gib Sealer
Undercoat: One coat of acrylic undercoat
Paint: Two coats of acrylic (satin)
Three coats for white ceilings (matt)

h) Particle Board Linings

Undercoat: One coat of sealer
Paint: Three coats of clear polyurethane

k) All Interior Finishing Trim and Hardboard Linings

Prime: One coat of acrylic primer (satin)
Paint: Two coats of acrylic (satin)

12) Left over paint

All cans of partially used paint left over at the completion of the contract shall become the property of the Board of Trustees. The contractor shall clearly label each can with the paint colour and the block on which the paint was used.

Hand all left over paint to the school caretaker at the completion of the contract. This paint shall be available for use by the contractor at the conclusion of the maintenance period if it is required.

13) Completion

Clean all glass, flooring, fittings etc. of any paint spots and leave the site in a clean and tidy condition.