

ARAKURA SCHOOL STAGE 2 CLASSROOM UPGRADE

209 Wellington Road
Wainuiomata

for
Arakura School Board of Trustees

DRAWINGS

<u>Page No</u>	<u>Description</u>	<u>Scale</u>
Page 1	Site Plan	1:500
Page 2	Block 1 Floor Plans	1:100
Page 3	Block 3 Floor Plans	1:100
Page 4	Toilet Floor Plan	1:30
Page 5	Window & Door Schedule	1:25
Page 6	Services Plan	1:50
Page 7	Blocks 1 & 3 Floor Coverings Plans	1:100
Page 8	Block 1; Classroom 1 Interior Elevations	1:50
Page 9	Block 1; Classroom 2 Interior Elevations	1:50
Page 10	Block 3; Classroom 4 Interior Elevations	1:50
Page 11	Block 3; Classroom 5 Interior Elevations	1:50
Page 12	Blocks 1 & 3 Withdrawal Room interior Elevations	1:50
Page 13	Whiteboard/Storage Unit Details	1:25
Page 14	Sink Bench & Cupboard Unit Details	1:25
Page 15	Cubbie Hole & Cloak Rail Details	as shown
Page 16	Window Flashing Details	1:3
Page 17	Hot Water Cylinder Restraint Information.	



IR Group Ltd
Design - Project Management - Planning

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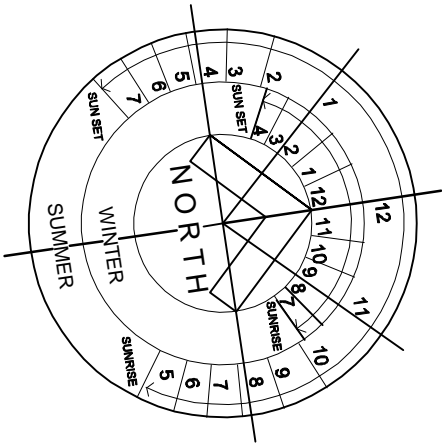
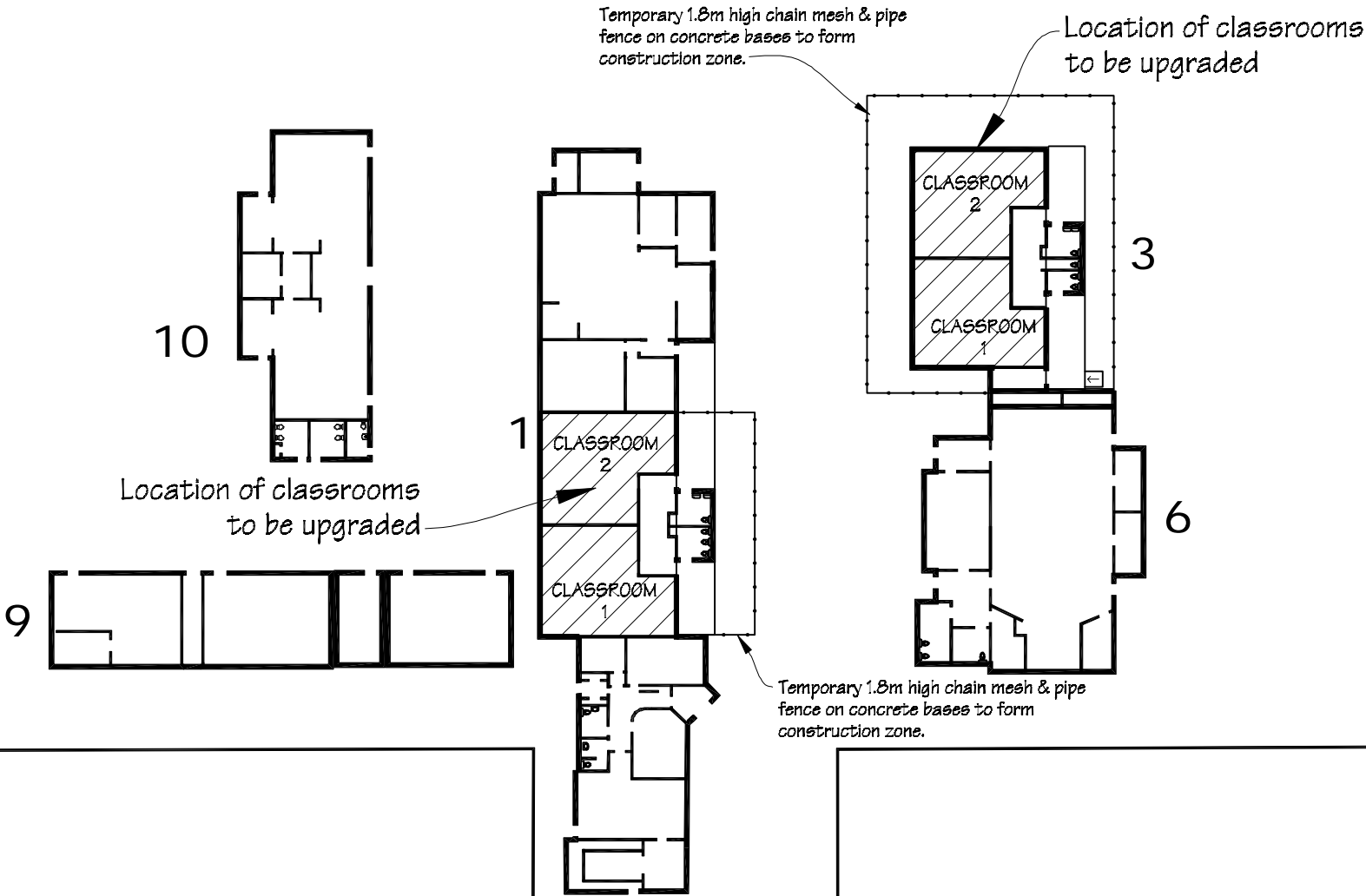
NOTES:
Drawings to be read in conjunction with the attached Morrison Design Structural Design Features Report & Details and the attached Holmes Fire Engineering Strategy Report.


All timber sections to be SG8 grade.

Updated drawing set
02-06-2017

**Pricing/Building
Consent
Drawings**

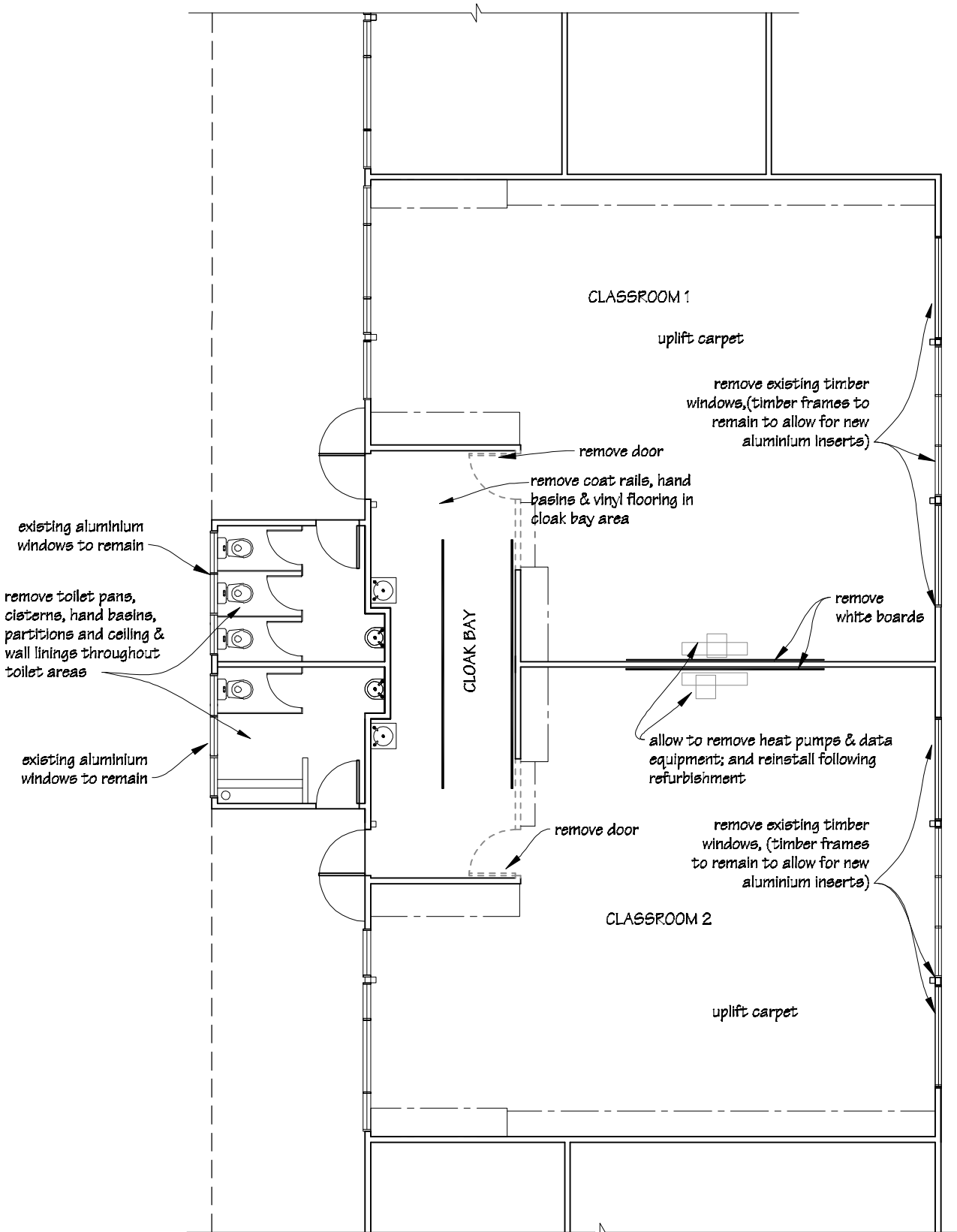
LEGAL INFORMATION	
Part Lot 9	
DP 19728	
ADDRESS	
Arakura School	
209 Wellington Road	
Wainuiomata	
SITE INFORMATION	
Exposure Zone C.	
Earthquake Zone 3.	
Wind Zone - Very High	



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	Mobile- Ian 021-427.347				<u>No</u> <u>Date</u> <u>Description</u>	Date 02/06/17	
	Mobile- Stephen 027-3355889					Original sheet size A5	
	Email- ian@irgroup.co.nz					Drawn S. T.	
	steve@irgroup.co.nz					Sheet No 1 of 17	
	www.irgroup.co.nz					Dwg Ref 1	
	Web-						

BLOCK 1

Existing Floor Plan



KEY

----- Walls to be removed.

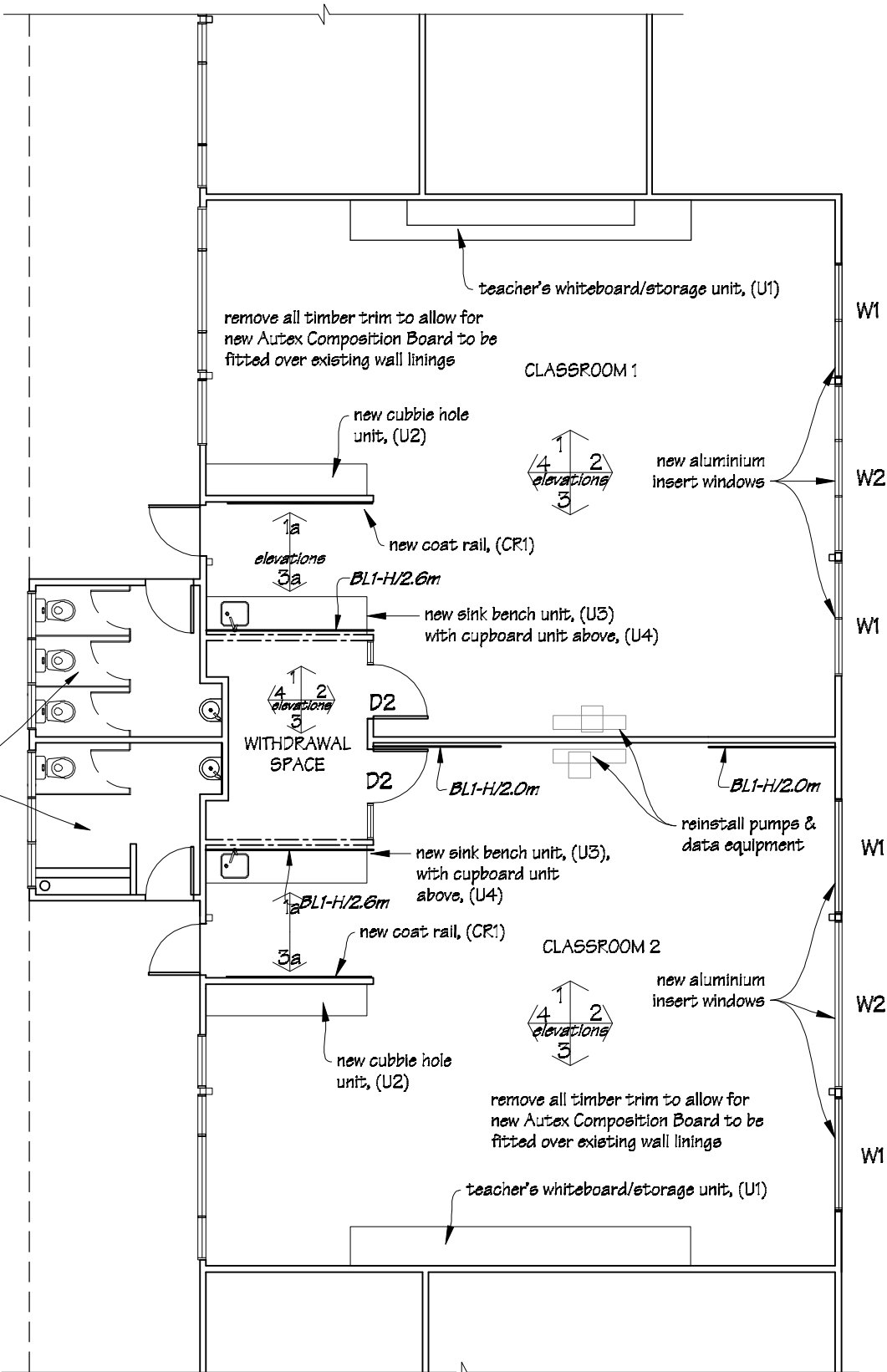
----- Fixtures to be removed.

NOTES:

Drawings to be read in conjunction with the attached Morrison Design Structural Design Features Report & Details and the attached Holmes Fire Engineering Strategy Report.


All timber sections to be SGB grade.

Proposed Floor Plan



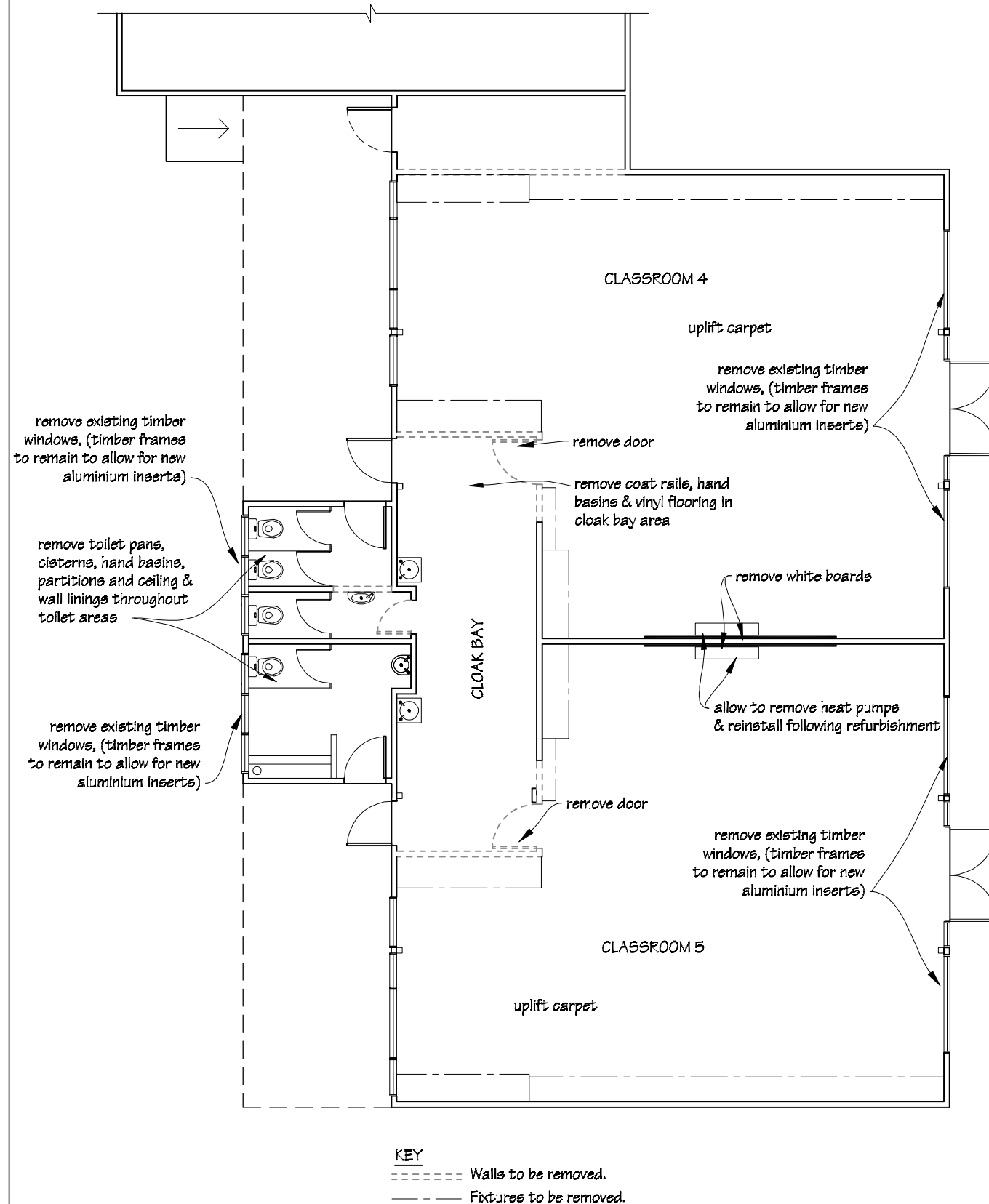
KEY

===== New timber framed walls.

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BLOCK 3

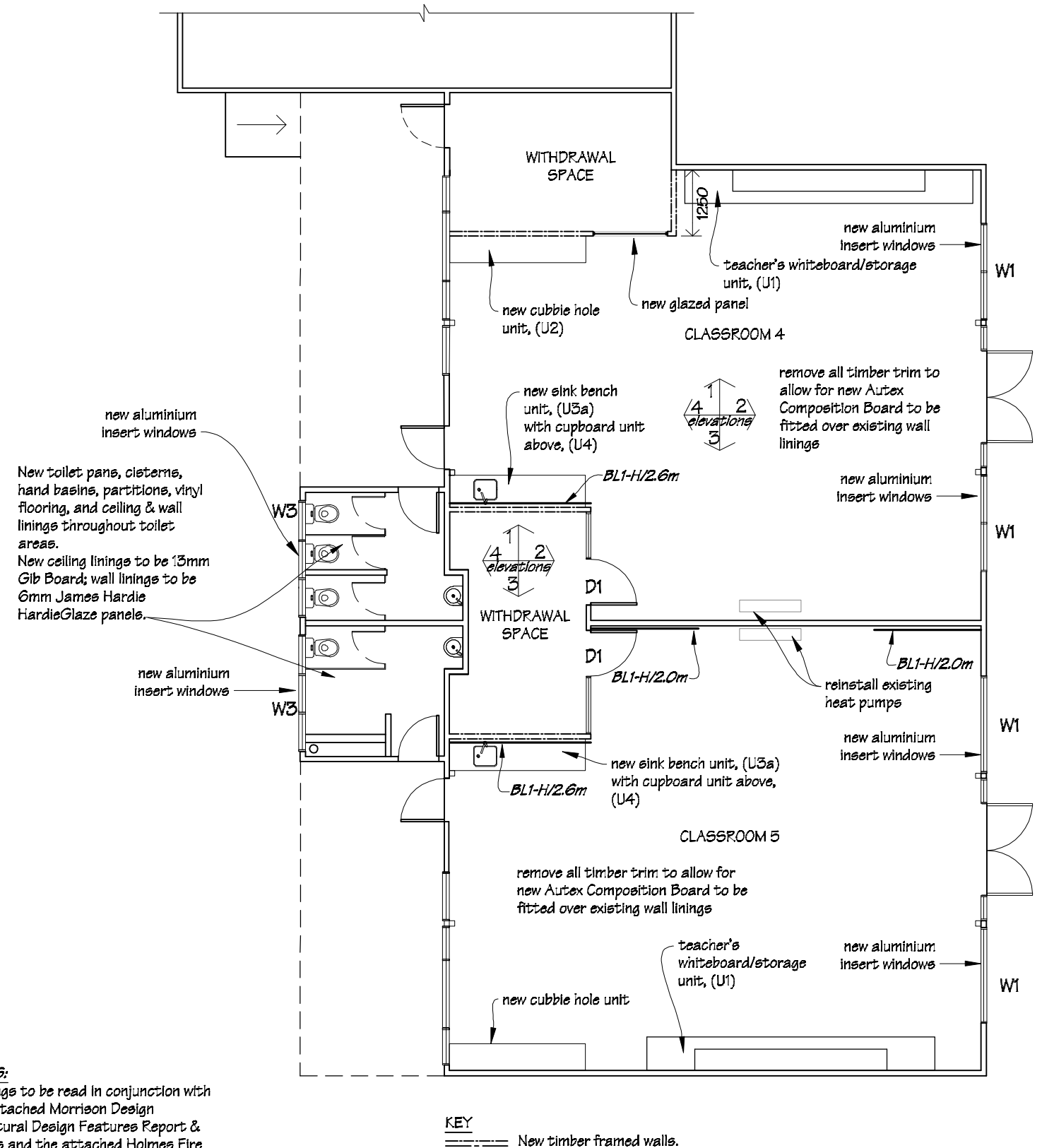
Existing Floor Plan




NOTES:
Drawings to be read in conjunction with the attached Morrison Design Structural Design Features Report & Details and the attached Holmes Fire Engineering Strategy Report.

All timber sections to be SGB grade.

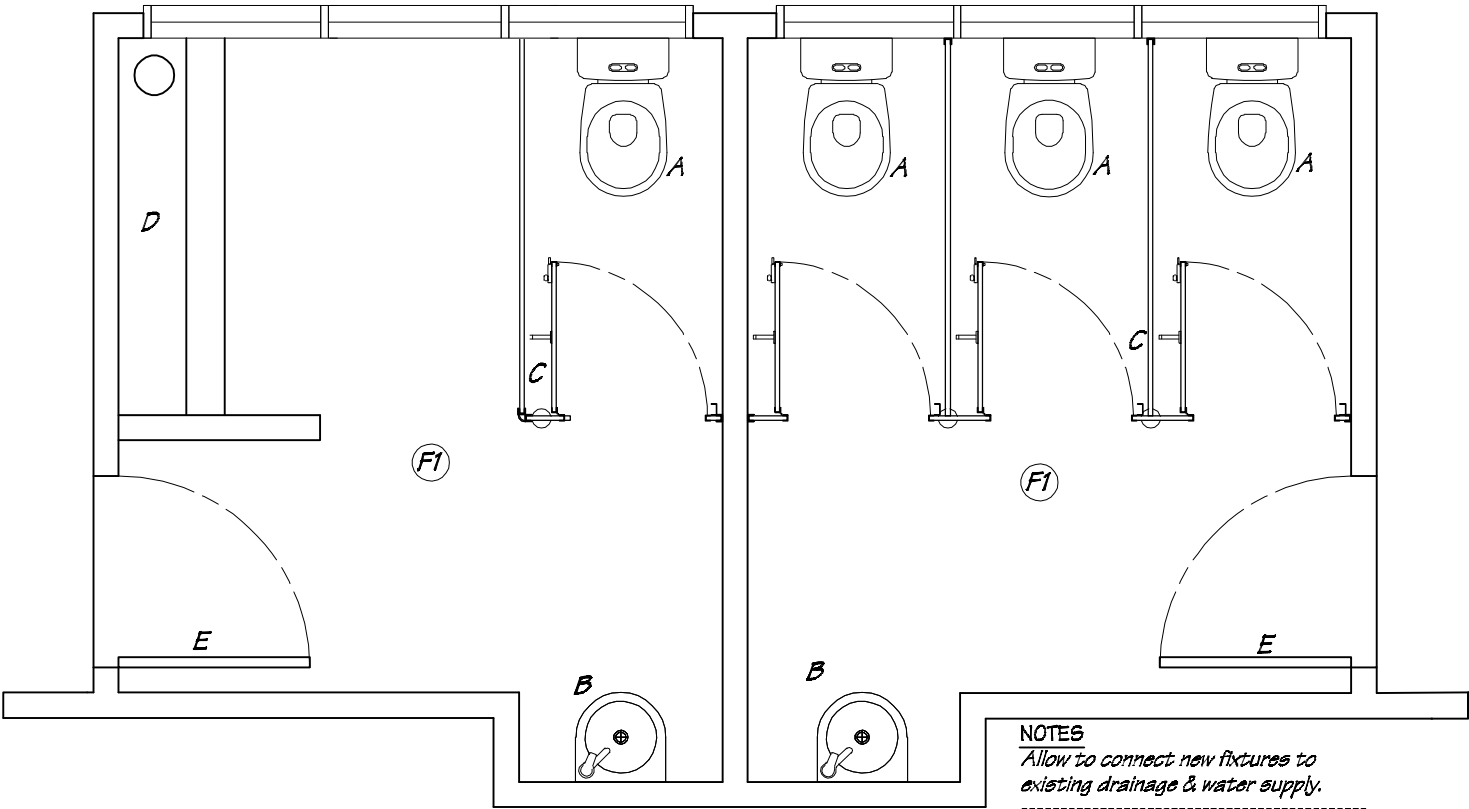
Proposed Floor Plan



 IR Group Ltd <small>Design - Project Management - Planning</small>	Phone- Office 04 526-7711	Arakura School 209 Wellington Road Wainuiomata	PROJECT Stage 2 Classroom Upgrade	DRAWING TITLE Block 3 Floor Plans	<table><tr><th colspan="3">REVISIONS</th></tr><tr><th>No</th><th>Date</th><th>Description</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>	REVISIONS			No	Date	Description																Scale 1:100	Pricing/Building Consent Drawings <i>Do not scale from drawings.</i> <i>Check all dimensions on site.</i>
	REVISIONS																											
	No					Date	Description																					
Mobile- Ian 021-427.347	Date 02/06/17																											
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Email- ian@irgroup.co.nz	Drawn S.T.																											
Web- steve@irgroup.co.nz	Sheet No 3 of 17																											
www.irgroup.co.nz	Dwg Ref 3																											

Toilet Floor Plan

DEMOLITION NOTES
 Allow to remove existing toilet pans, cisterns, hand basins, partitions, and ceiling & wall linings and timber trim throughout toilet areas.



NOTES
 Allow to connect new fixtures to existing drainage & water supply.

- LEGEND**
- A New Dux Delomite toilet pan-pac.
 - B New Burns & Ferrall WB3 stainless steel hand basins with Methven Futura basin mixers.
 - C Hales Stratos HPL partitions & doors.
 - D Existing urinal.
 - E Existing doors.

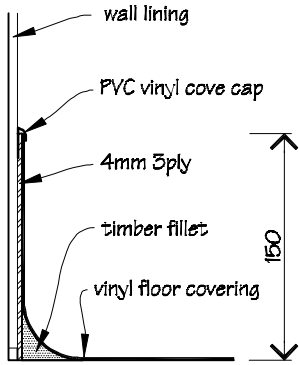
FLOOR FINISHES
 (F1) New Tarkett Granit vinyl flooring, coved to 150mm.


LININGS
 New ceiling to be 13mm Gib Board.
 All new Gib Board to be stopped to F4 finish.
 New wall linings to be 6mm James Hardie HardieGlaze panels.

PAINTING
 Paint ceiling, walls, timber door & frames, timber window frames, architraves & scotias.

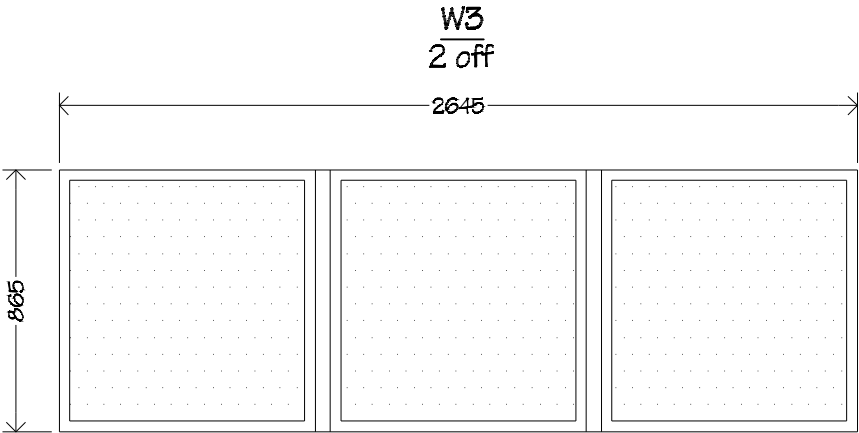
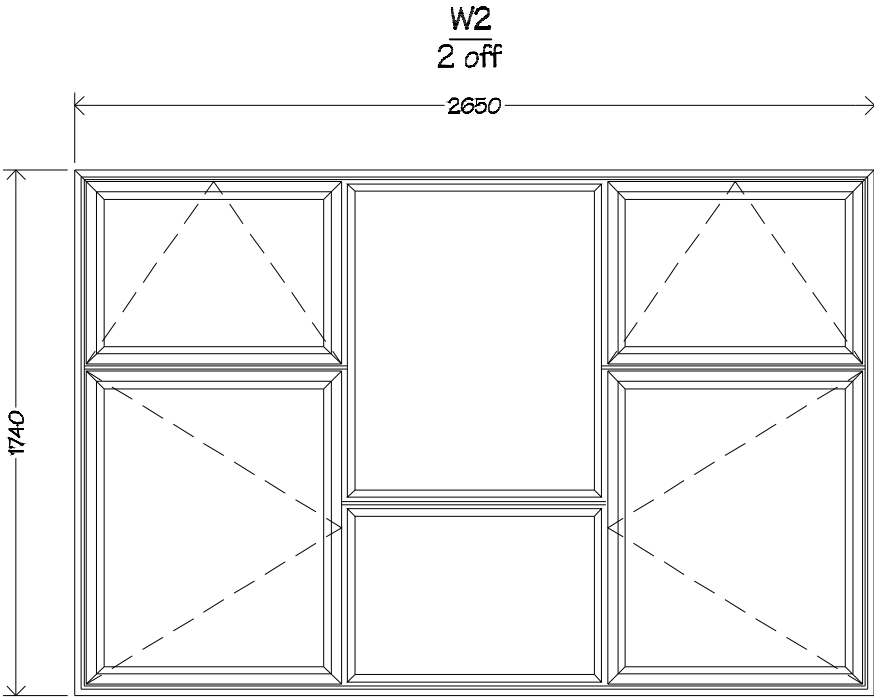
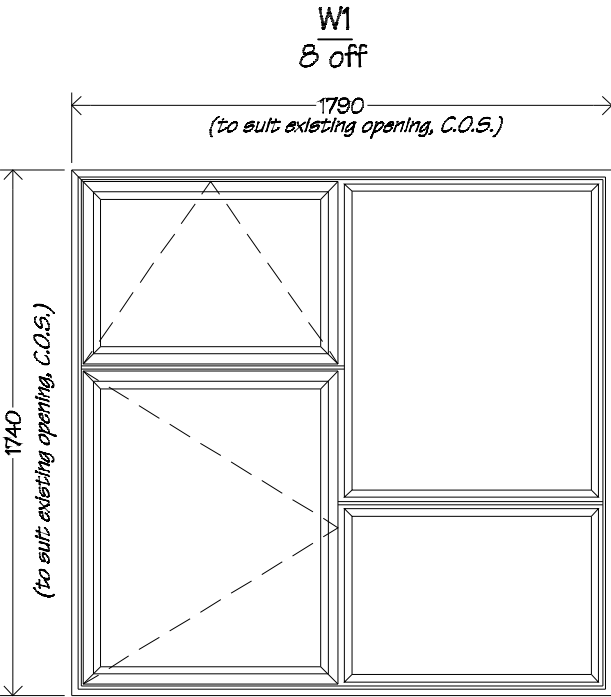
Floor plan is typical of both toilets in in Blocks 1 & 3, details & set out vary between areas.
 Check all details & dimensions on site.

Vinyl Flooring Cove Detail
 Scale 1:5



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	Mobile- Ian 021-427.347				<u>No</u> <u>Date</u> <u>Description</u>	Date 02/06/17	
	Mobile- Stephen 027-3355889					Original sheet size A3	
	Email- ian@irgroup.co.nz					Drawn S.T.	
	steve@irgroup.co.nz					Sheet No 4 of 17	
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	Web-						

Window Schedule



Windows, W1, W2 & W3, to be p.c. 40mm Commercial suite aluminium insert windows to suit existing timber frames.

Glazing to W1 & W2 windows to be double glazed Grade A safety glass.

Windows W3 to have obscure Grade A safety glass. Joinery & glazing to matched that of Block 1, (C.O.S.)

Hang sashes on suitably sized friction stays.

Awning sashes to be fixed with:
2 interlok 'restrictor' stays and
2 interlok avon non-locking fasteners per sash

Window set out details to match existing windows, C.O.S.

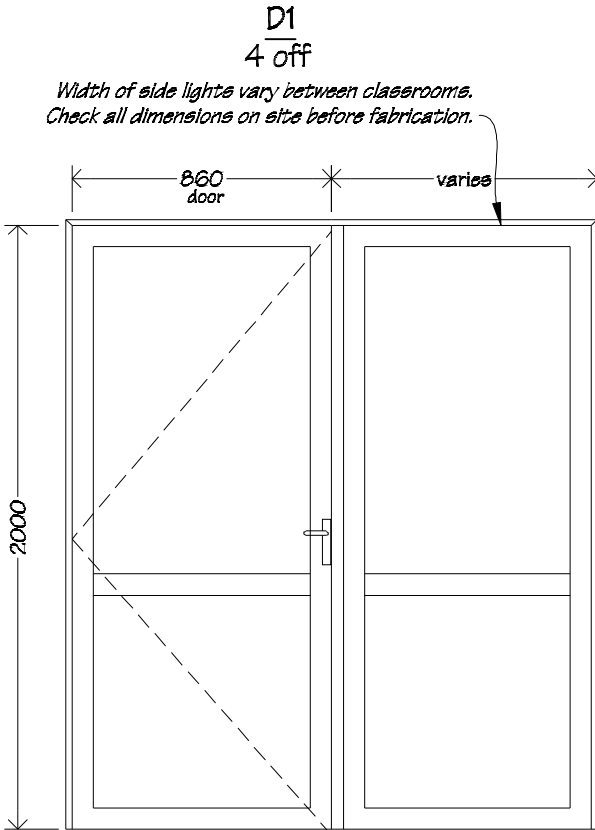
Measure all openings on site before ordering fabrication of new aluminium joinery. All existing openings need to be checked and may need to be adjusted to allow integration of new flashing systems with new aluminium joinery units.

The Ministry of Education also require a minimum of a 10mm gap between new/existing timber framing and liners.

Air seals to all joinery are to comprise of: Thermakraft Window-Worm PEF air seal backing rod with ADOS MS sealant. Flexible flashing tape to be Thermakraft Aluband.

Note that sealants are not compatible with bitumen based products, in this case where bitumen base flashing tape is used, apply 4412 Heavy Duty pure aluminium foil tape over exposed bitumen.

NOTES
All aluminium joinery to comply with NZS 4211.
All glazing to comply with NZS 4223.




Doors D2 to be single glazed interior aluminium door with side light.
Door and frame to be powder coated aluminium.

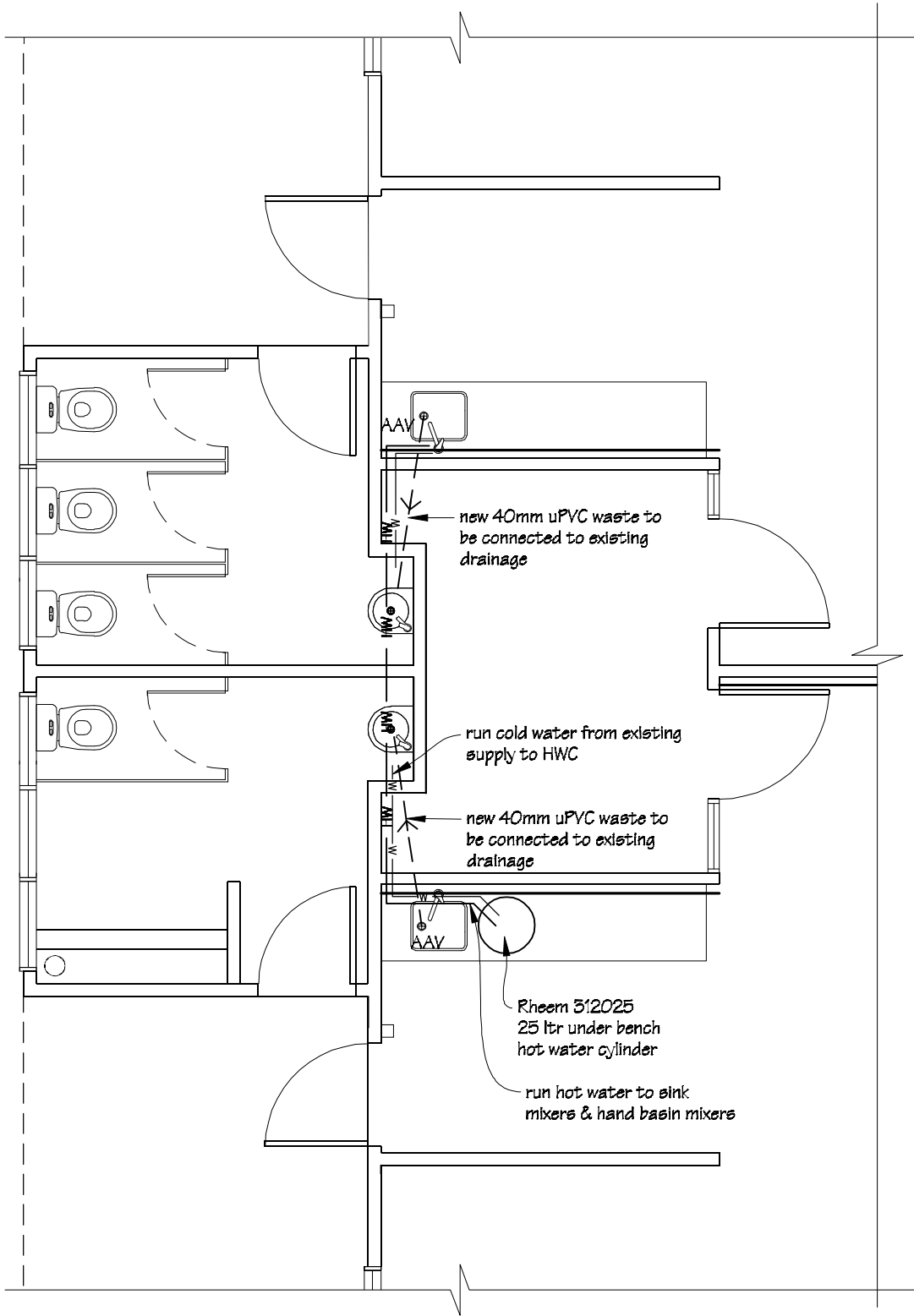
Glazing to be single glaze Grade A safety glass.

Refer to specification for door hardware.

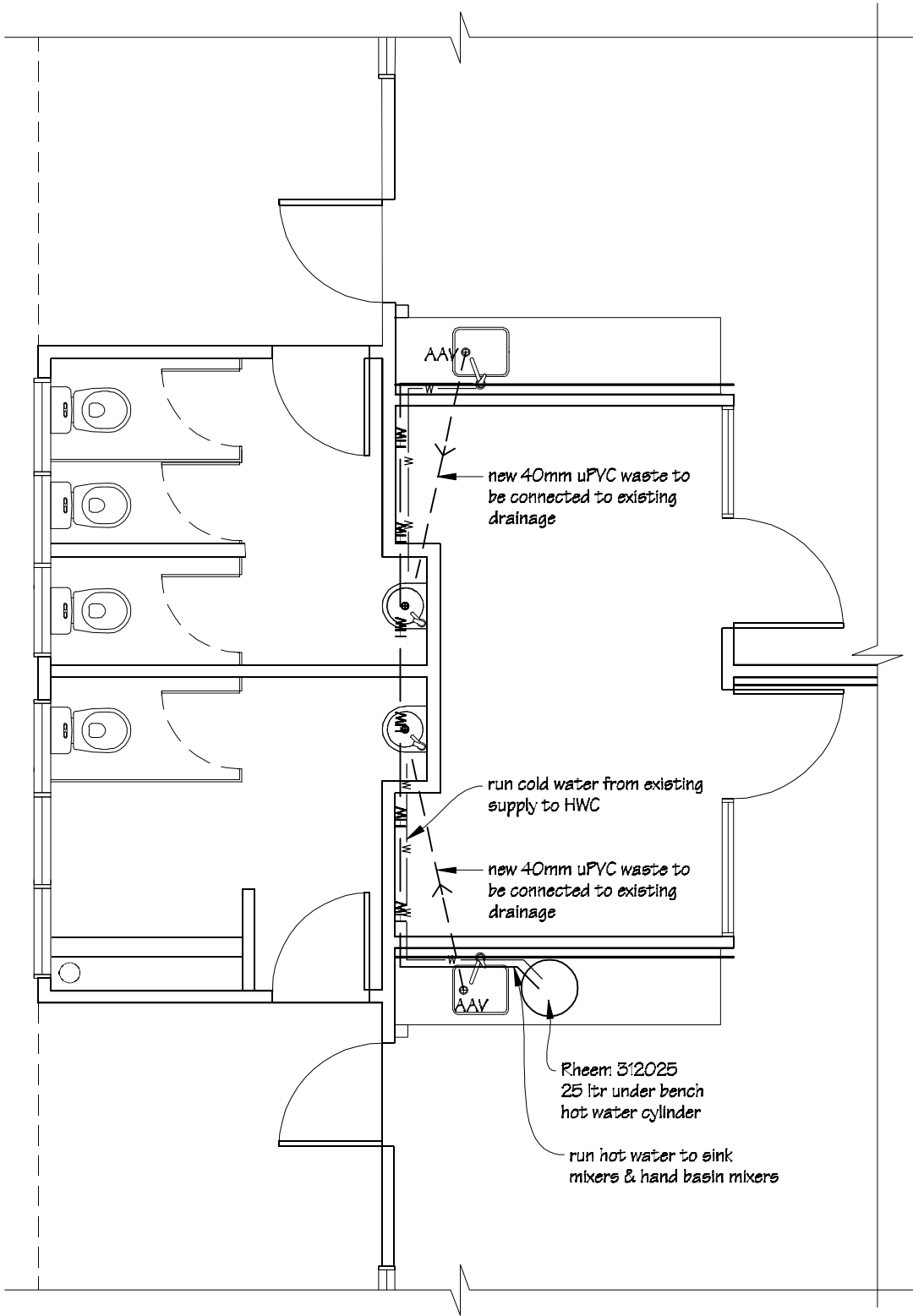
Refer to floor plans for handing and overall size.
Check dimensions on site.


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						Date	02/06/17	
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						Drawn	S. T.	
						Sheet No	5 of 17	
						Dwg Ref	5	

Block 1
Services Plan

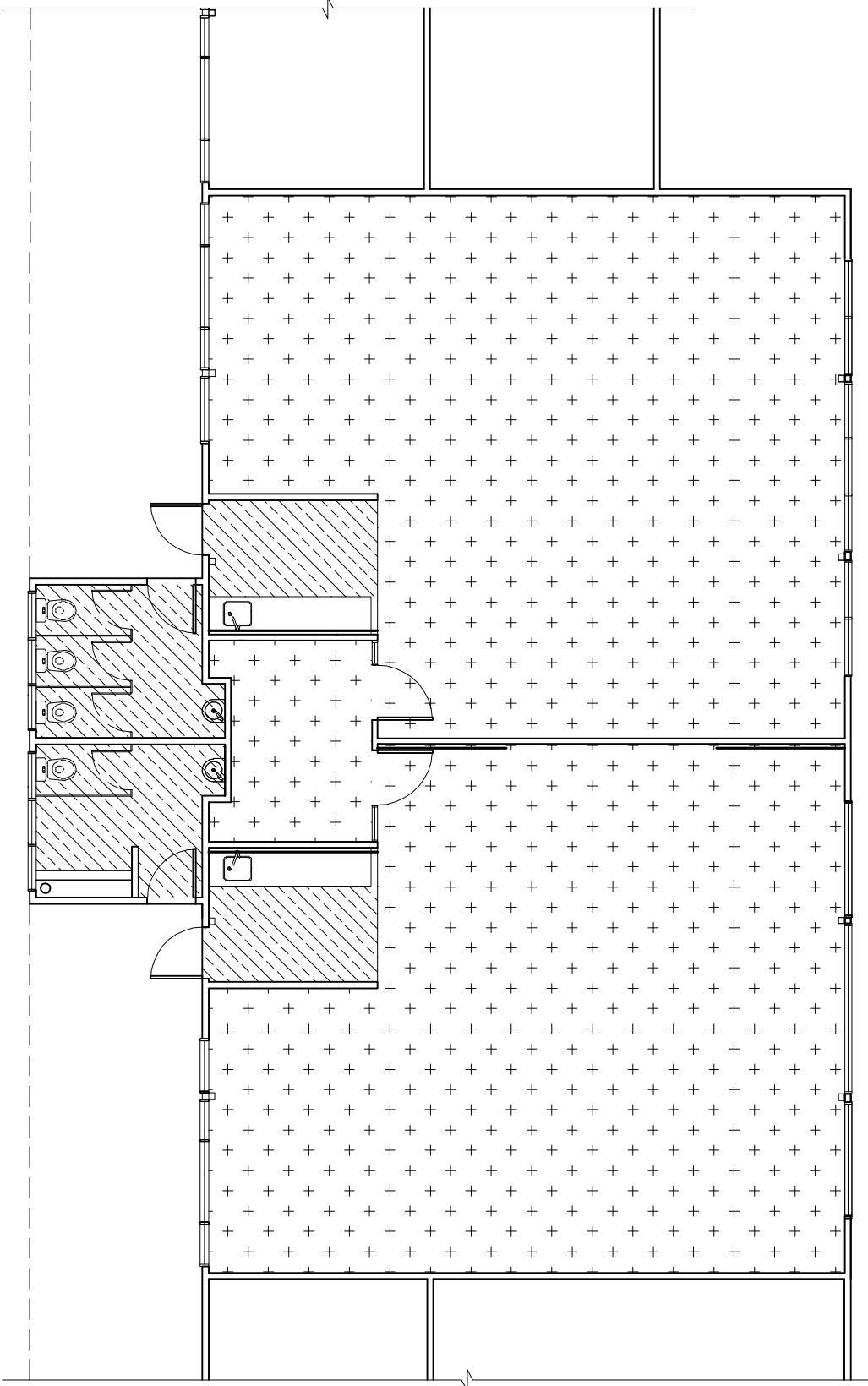


Block 3
Services Plan

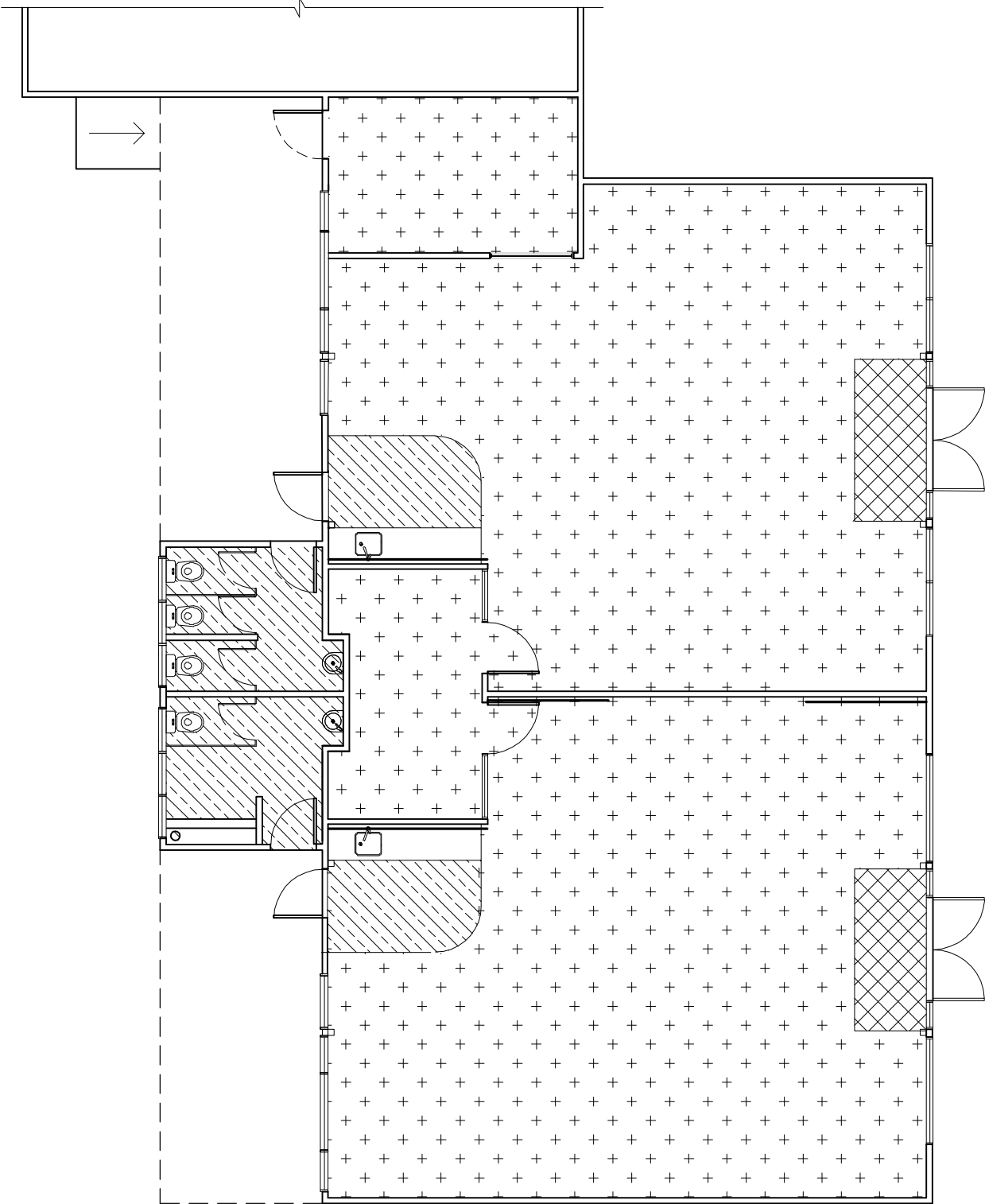


 IR Group Ltd <small>Design - Project Management - Planning</small>	Phone- Office 04 526-7711	Arakura School 209 Wellington Road Wainuiomata	PROJECT Stage 2 Classroom Upgrade	DRAWING TITLE Services Plan	REVISIONS	Scale 1:50	Pricing/Building Consent Drawings
	Mobile- Ian 021-427.347				No Date Description	Date 02/06/17	
	Mobile- Stephen 027-3355889					Original sheet size A3	
	Email- ian@irgroup.co.nz					Drawn S.T.	
	Web- steve@irgroup.co.nz					Sheet No 6 of 17	
	www.irgroup.co.nz				Dwg Ref 6	Do not scale from drawings. Check all dimensions on site.	

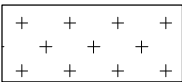
Block 1 Floor Coverings Plan



Block 3 Floor Coverings Plan



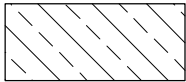
Floor Covering Key




New Tandus Imagery
Stark carpet tiles.



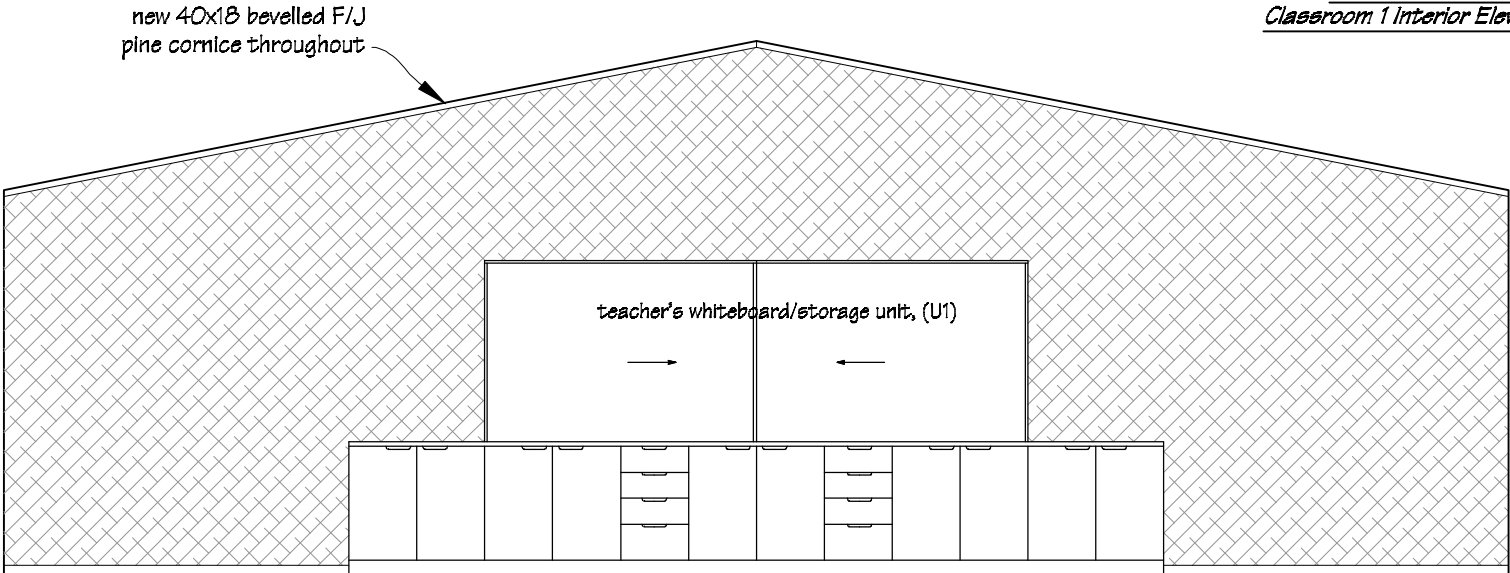
New Autex
Widetrack carpet.



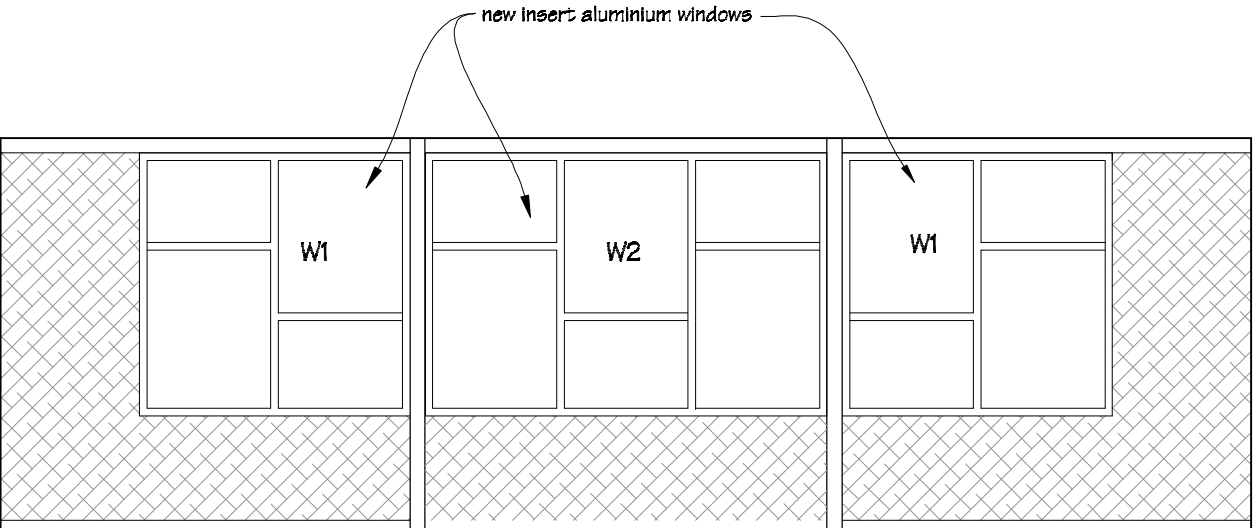
New Tarkett Granit
vinyl flooring.

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	Mobile- Ian 021-427.347				<i>No Date Description</i>	Date 02/06/17	
	Mobile- Stephen 027-3355889					Original sheet size A3	
	Email- ian@irgroup.co.nz					Drawn S.T.	
	steve@irgroup.co.nz					Sheet No 7 of 7	
	Web- www.irgroup.co.nz					Dwg Ref 7	

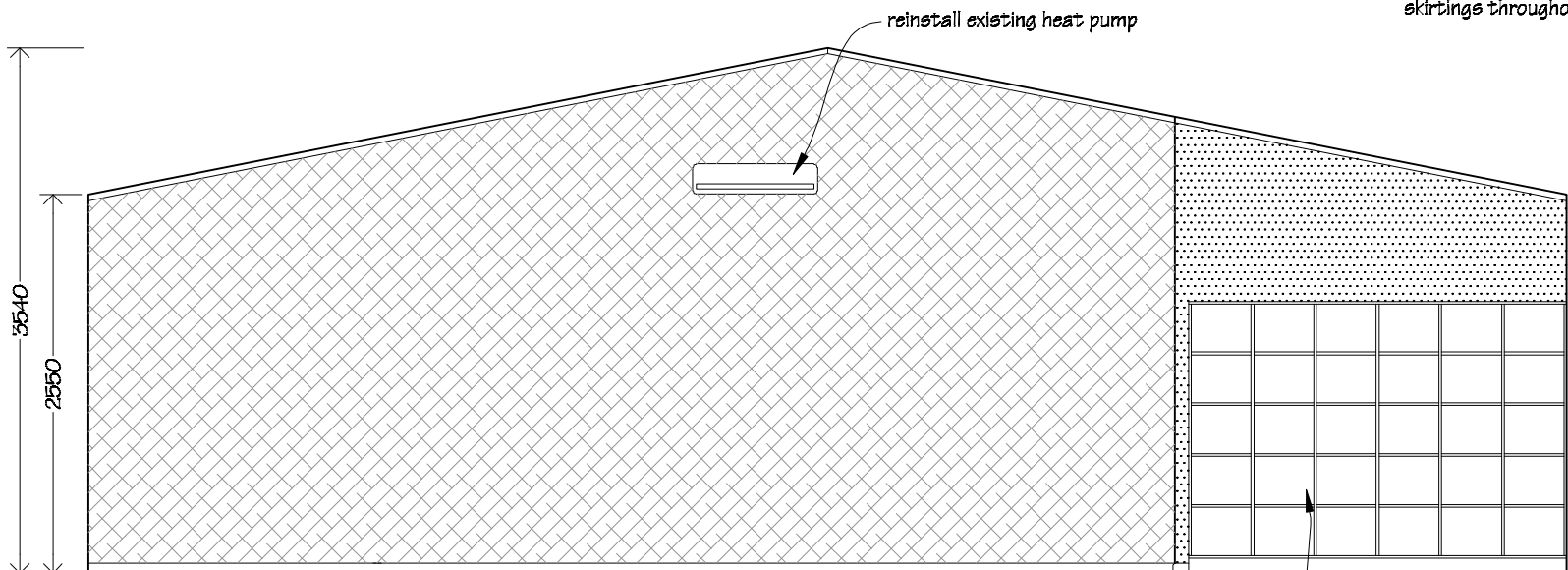
Classroom Block 1
Classroom 1 Interior Elevations



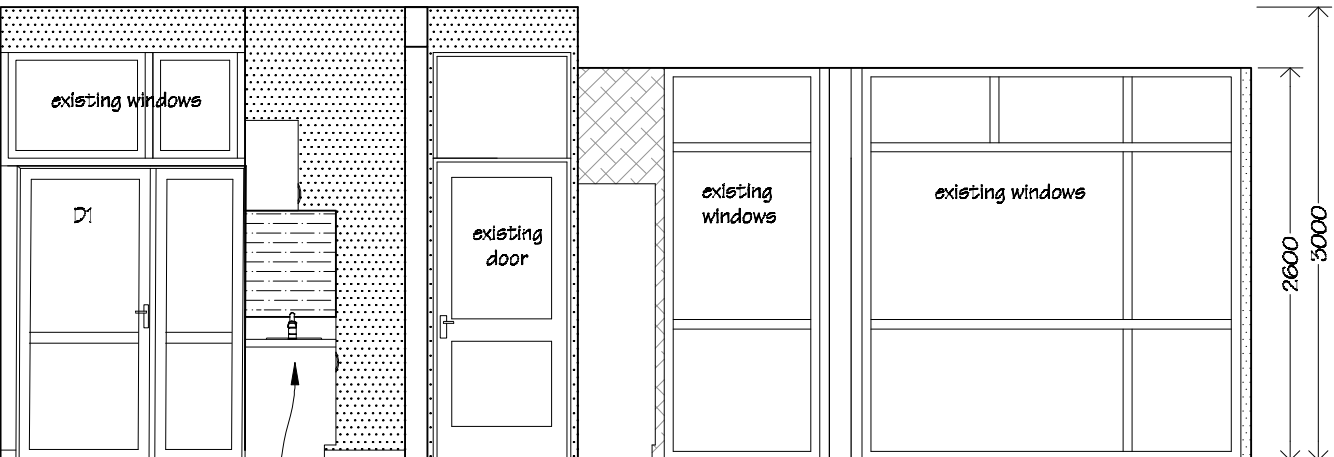
Elevation 1



Elevation 2



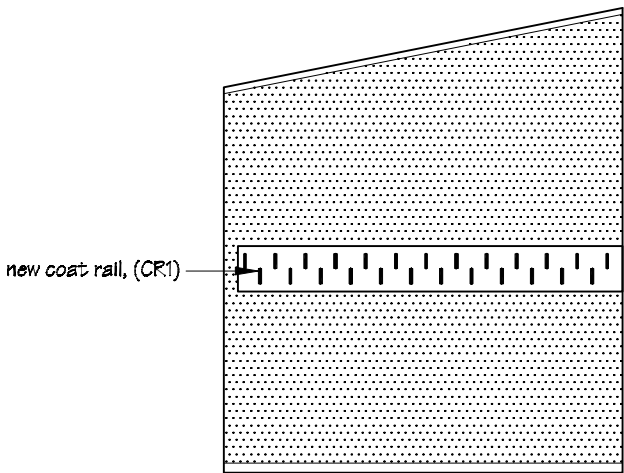
Elevation 3



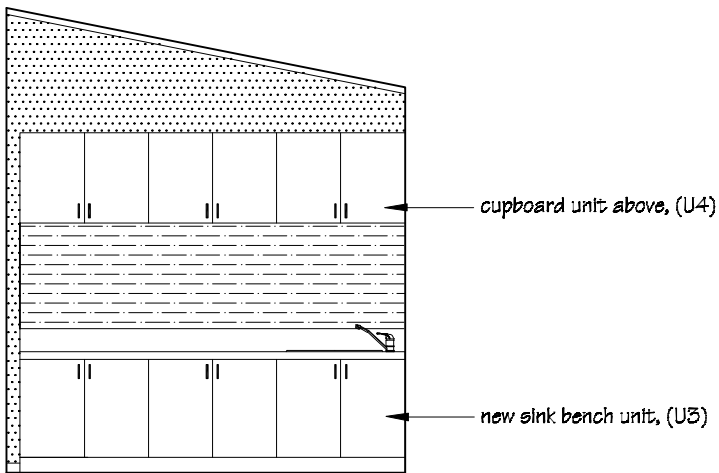
Elevation 4

NOTES:
Check floor plan drawing for handing.
Check all dimensions on site.

PAINTING:
Allow to paint ceilings, walls not covered on Autex Composition board, steel portal beams, timber window & doors frames & sills, cornice, skirtings and all miscellaneous timber trim.



Elevation 1a




Elevation 3a

Wall Coverings Legend

	Autex Composition Board.		Painted areas.		4.5mm HardieGlaze Smooth wall lining.
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						Date 02/06/17 Original sheet size A3 Drawn S.T. Sheet No 8 of 17 Dwg Ref B	

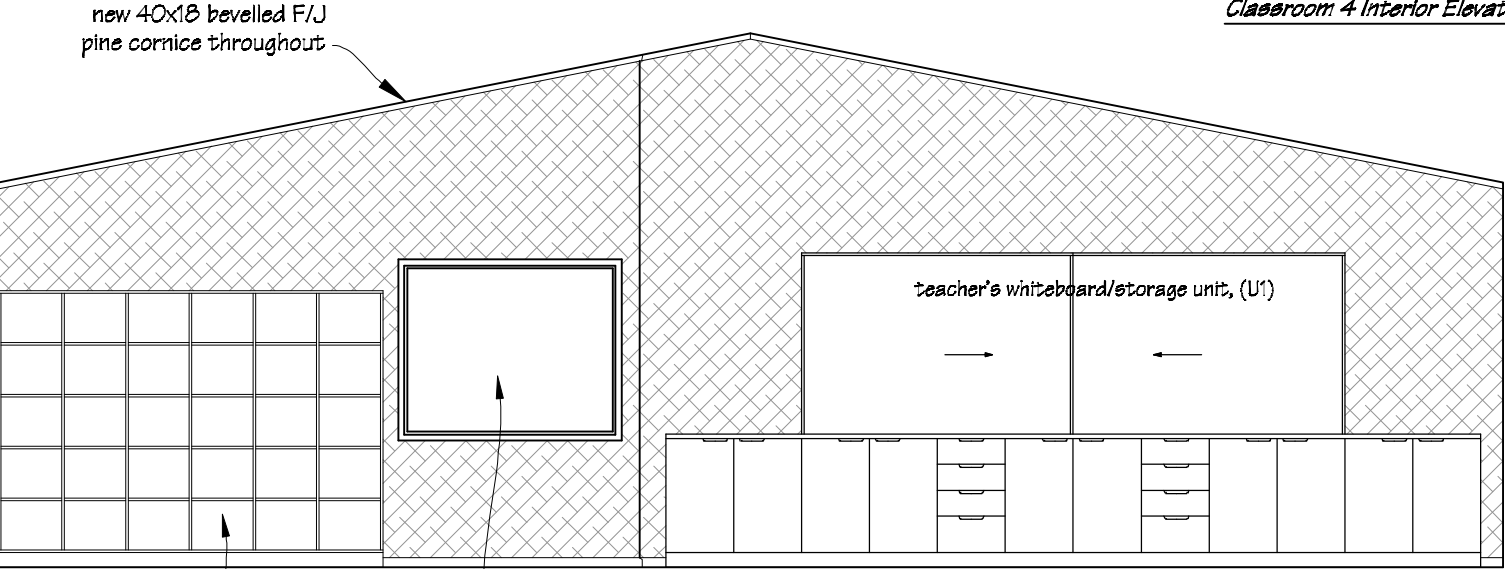
Classroom 2 Interior Elevations

[illegible]

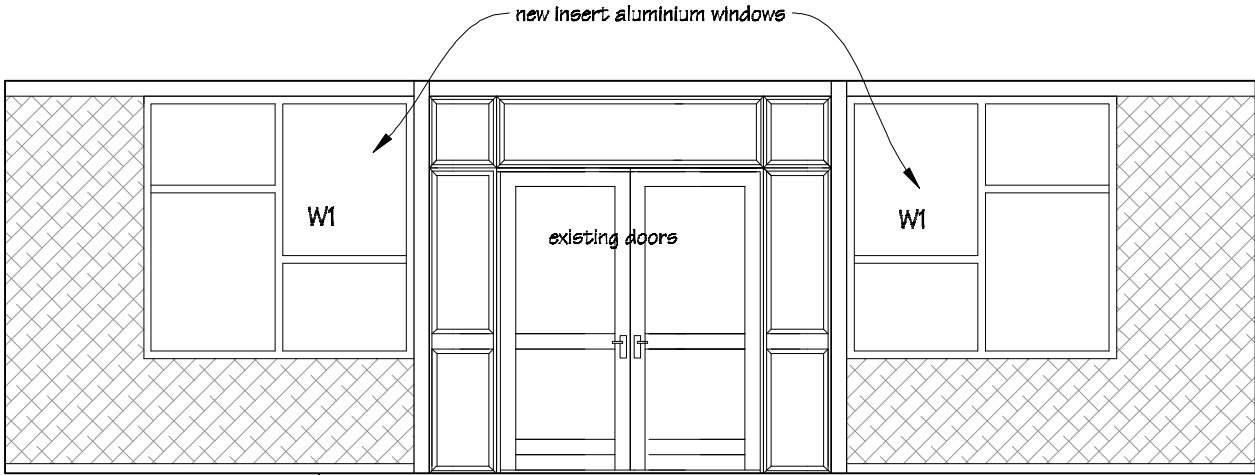
PAINTING:
Allow to paint ceilings, walls not covered on Autex Composition board, steel portal beams, timber window & doors frames & sills, cornices, skirtings and all miscellaneous timber trim.

Scale	1:50	Pricing/Building Consent Drawings
Date	02/06/17	
Original sheet size	A3	Do not scale from drawings. Check all dimensions on site.
Drawn	G. T.	
Sheet No	9 of 17	
Dwa Ref	9	

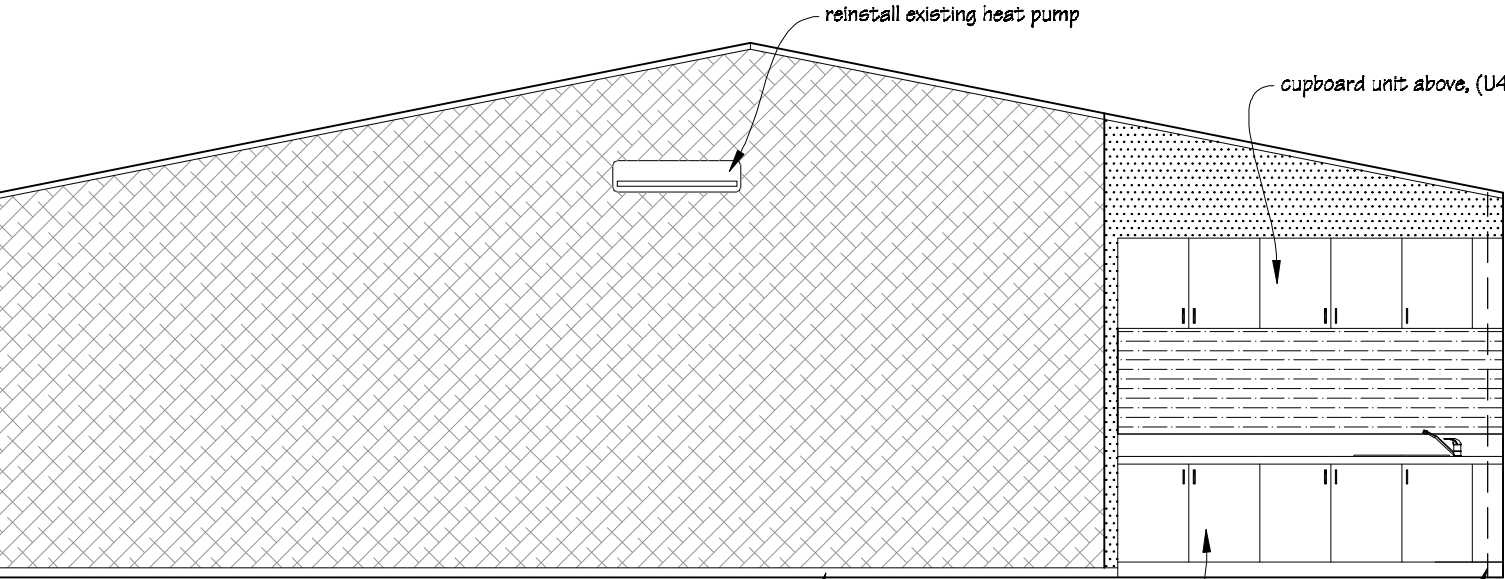
Classroom Block 3
Classroom 4 Interior Elevations



Elevation 1



Elevation 2



Elevation 3




Elevation 4

NOTES:
Interior elevations are typical of both classrooms in Block 3, details & set out vary between rooms.
Check floor plan drawing for handling.
Check all dimensions on site.

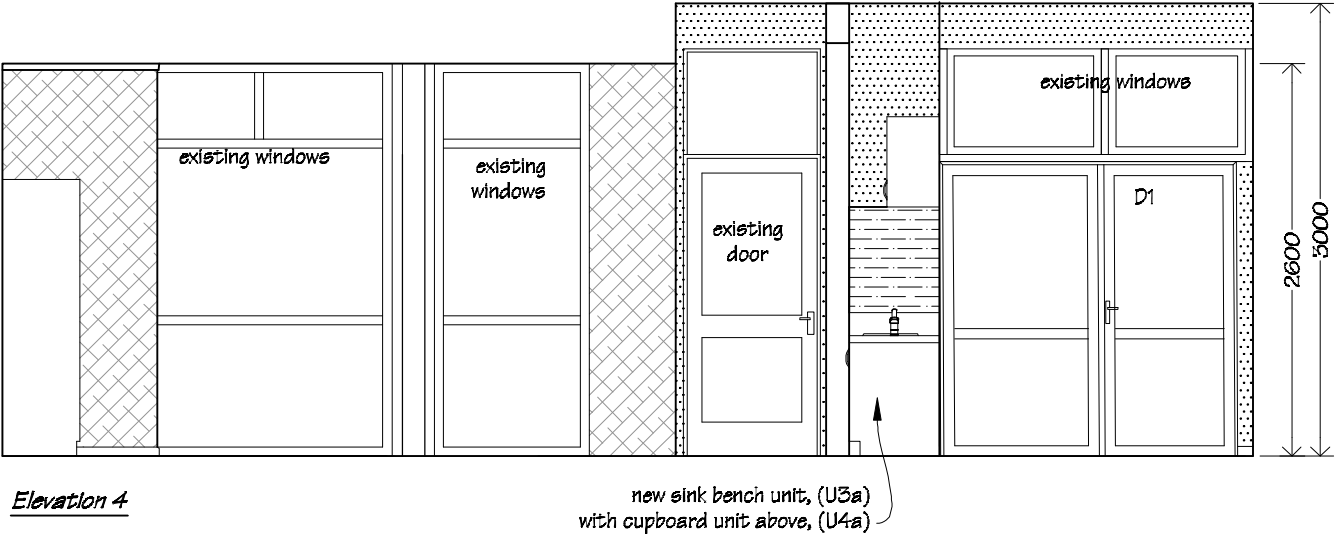
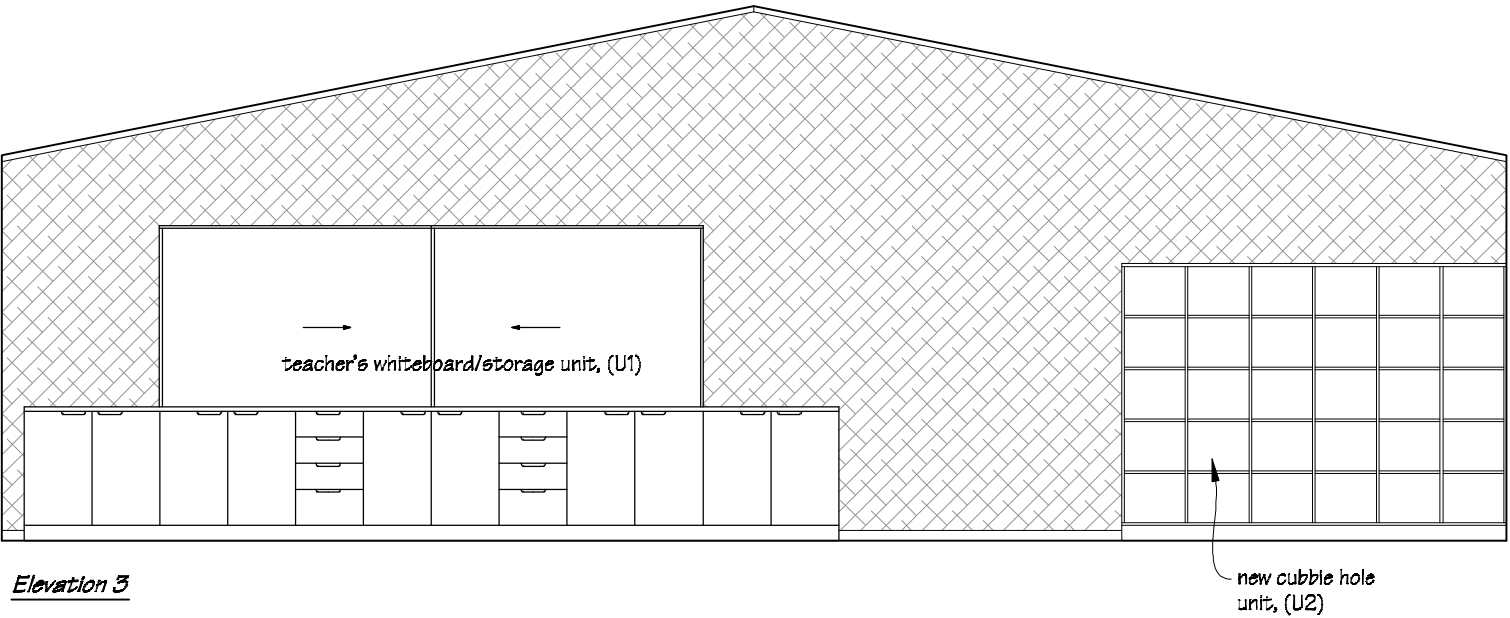
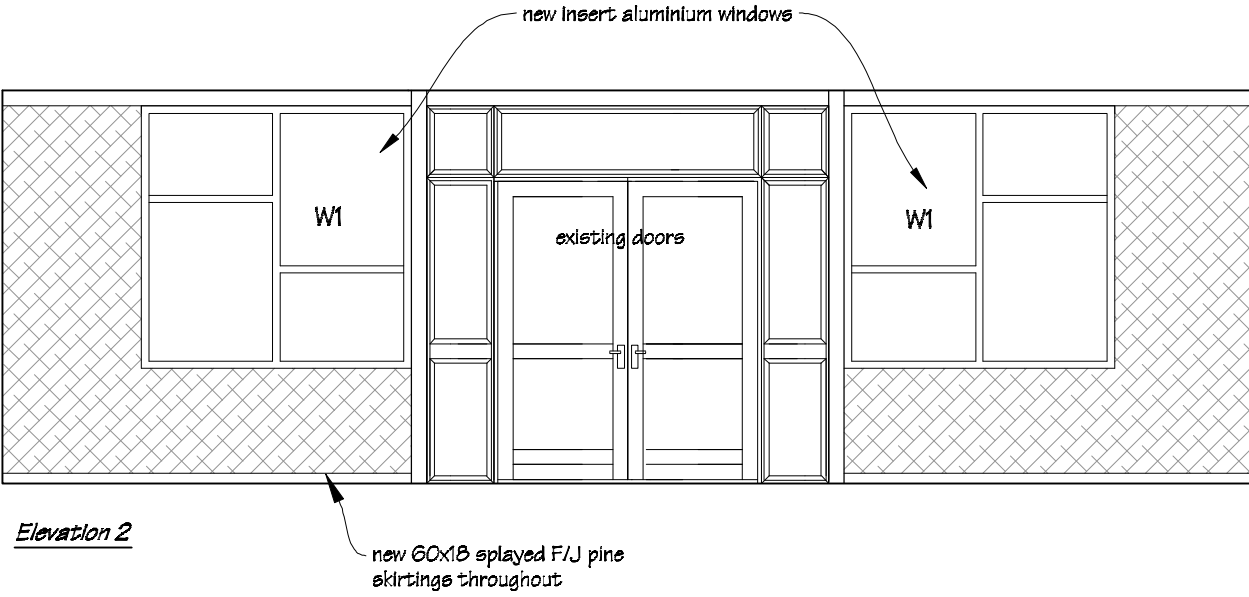
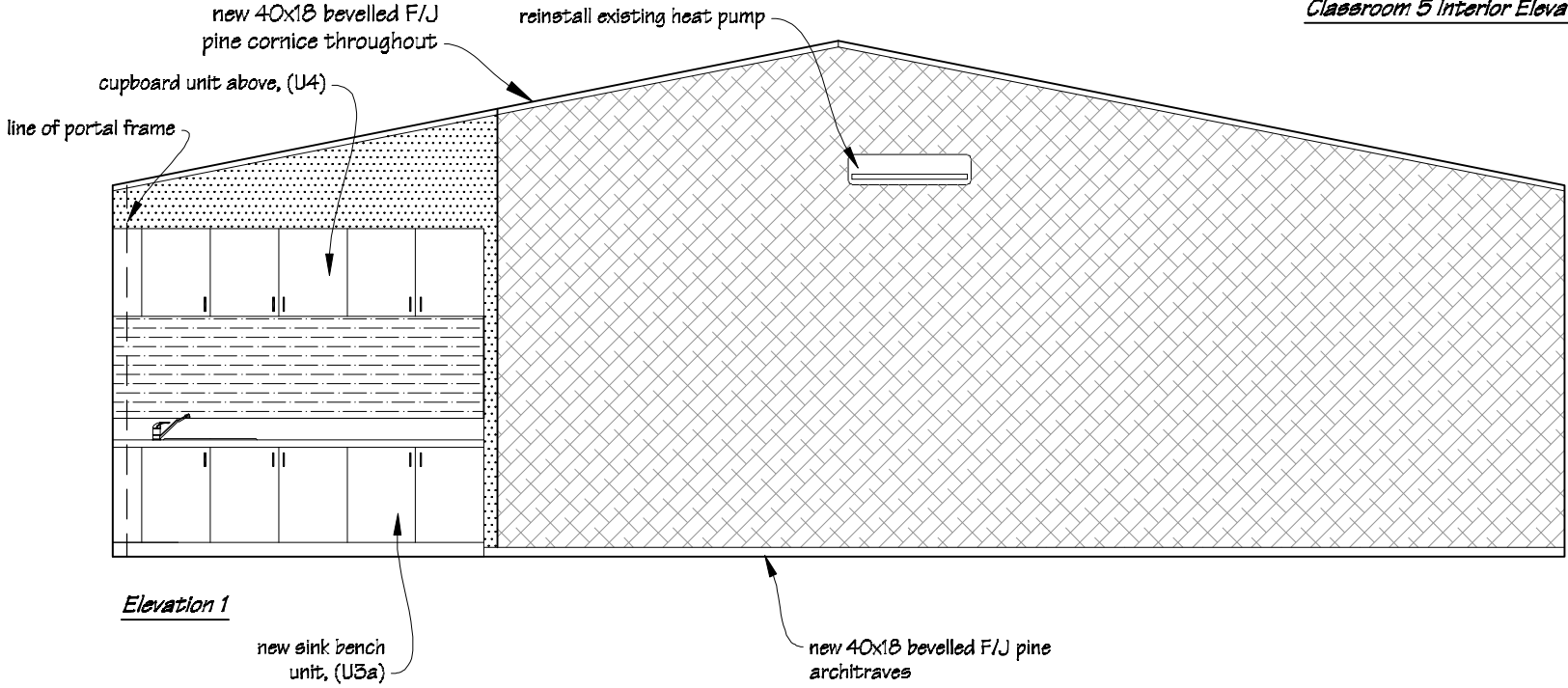
PAINTING:
Allow to paint ceilings, walls not covered on Autex Composition board, steel portal beams, timber window & doors frames & sills, cornice, skirtings and all miscellaneous timber trim.

Wall Coverings Legend

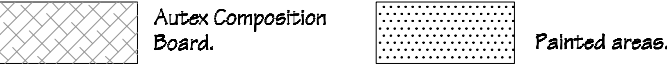


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						Date	02/06/17	
						Original sheet size	A3	
						Drawn	S. T.	
						Sheet No	10 of 17	
						Dwg Ref	10	

Classroom Block 3
Classroom 5 Interior Elevations




Wall Coverings Legend



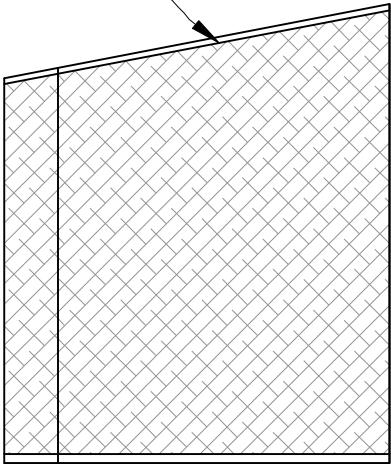
NOTES:
Check floor plan drawing for handing.
Check all dimensions on site.

PAINTING:
Allow to paint ceilings, walls not covered on Autex Composition board, steel portal beams, timber window & doors frames & sills, cornice, skirtings and all miscellaneous timber trim.

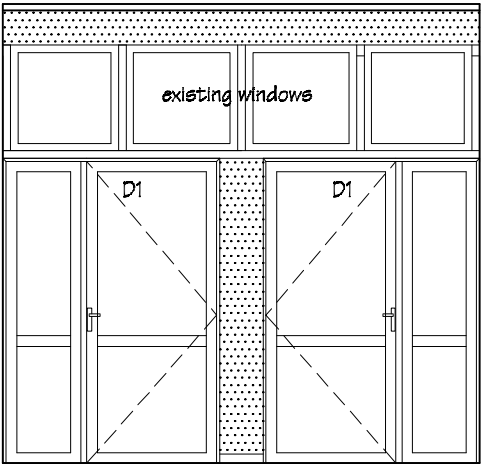
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						Date	02/06/17	
						Original sheet size	A3	Do not scale from drawings. Check all dimensions on site.
						Drawn	S. T.	
						Sheet No	11 of 17	
						Dwg Ref	11	

Classroom Block 1
Withdrawal Room Interior Elevations

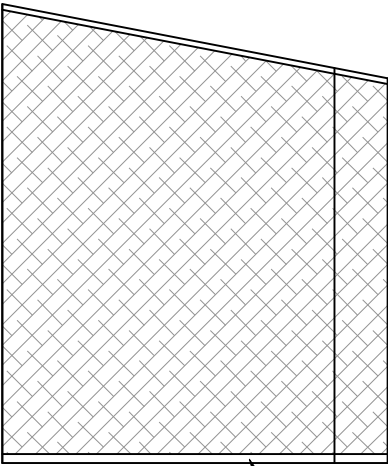
new 40x18 bevelled F/J
pine cornice throughout



Elevation 1

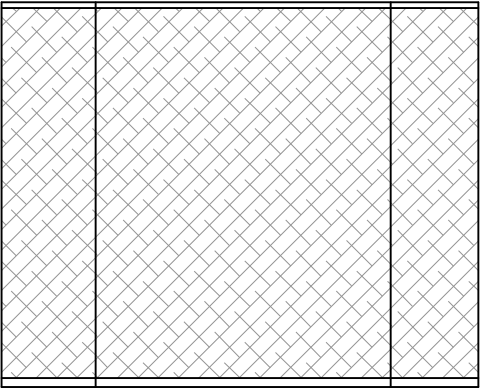


Elevation 2



Elevation 3

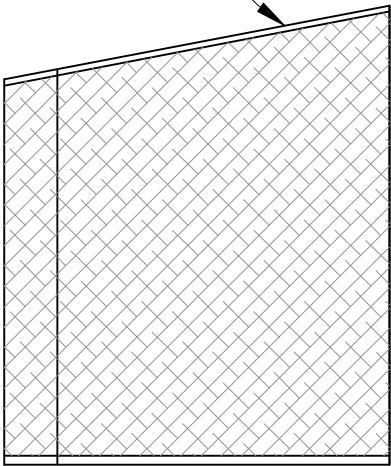
60x18 splayed F/J pine
skirtings throughout



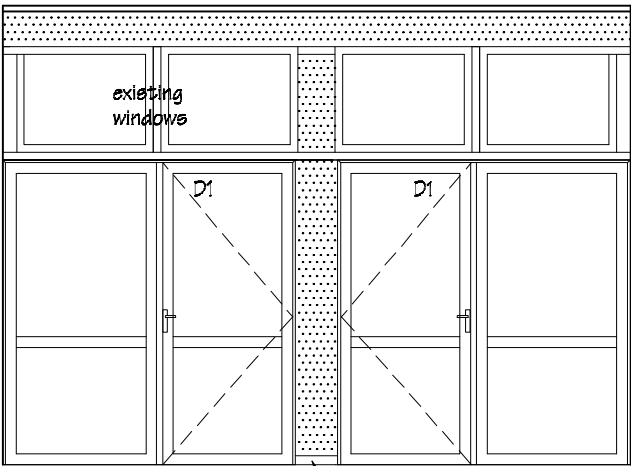
Elevation 4

Classroom Block 3
Withdrawal Room Interior Elevations

new 40x18 bevelled F/J
pine cornice throughout

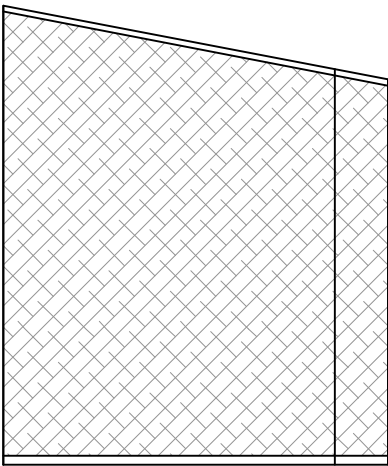


Elevation 1

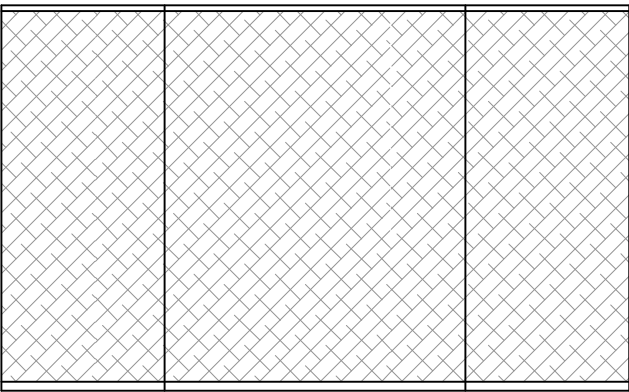


Elevation 2

60x18 splayed F/J pine
skirtings throughout



Elevation 3

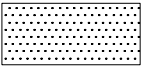


Elevation 4

Wall Coverings Legend




Autex Composition
Board.



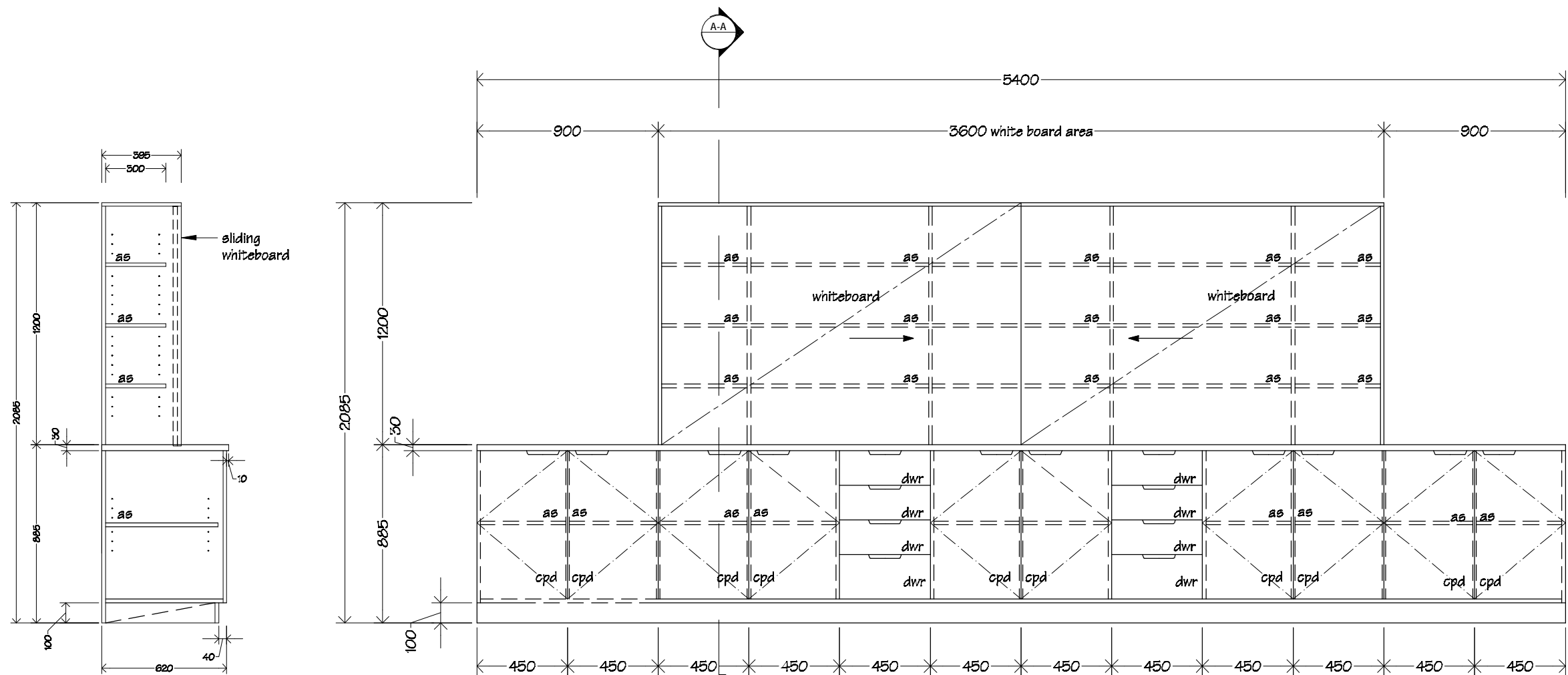
Painted areas.

PAINTING:
Allow to paint ceilings, walls not
covered on Autex Composition
board, steel portal beams, timber
window & doors frames & sills,
cornice, skirtings and all
miscellaneous timber trim.

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						Date	02/06/17	
						Original sheet size	A3	
						Drawn	S. T.	
						Sheet No	12 of 17	
						Dwg Ref	12	

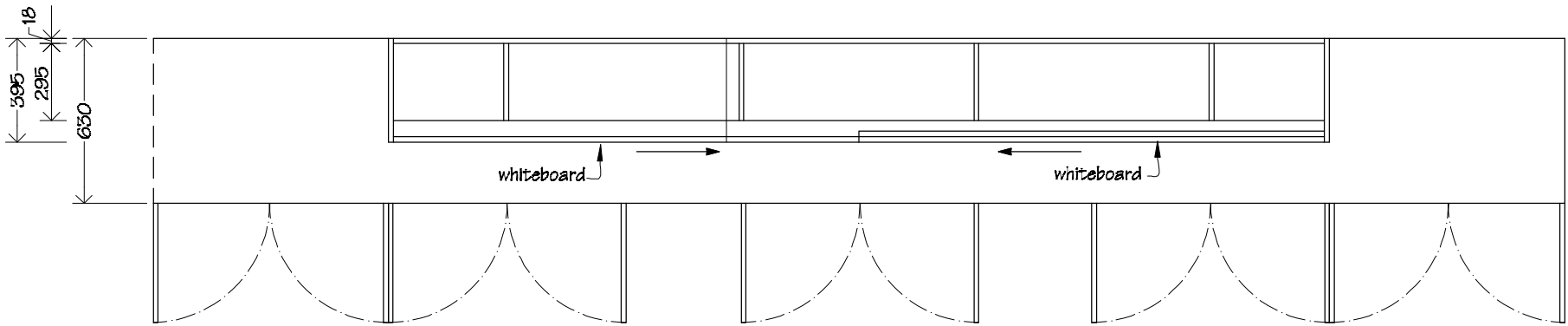
Teacher's White Board Storage Unit, U1

4 off



Cross Section A-A

KEY	
dwr	drawer
cpd	cupboard
as	adjustable shelf




NOTES:
Whiteboards to be Boyd Visuals cabinet slider;
2x sliding whiteboards with TT180 headguide
channel & TT182 and TT183 base track.

Unit carcass, shelving & doors to be 18mm
double sided Melteca with 3mm PVC edging,
back to be 12mm single sided Melteca, top to
be 30mm single sided Melteca.

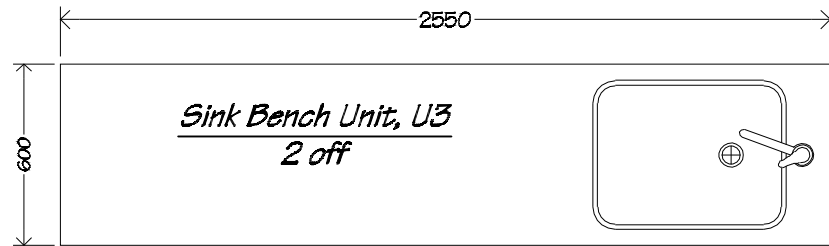
Doors to be fitted with one pair of concealed
"Grass", or similar, self closing hinges.

Joinery colours to be advised.

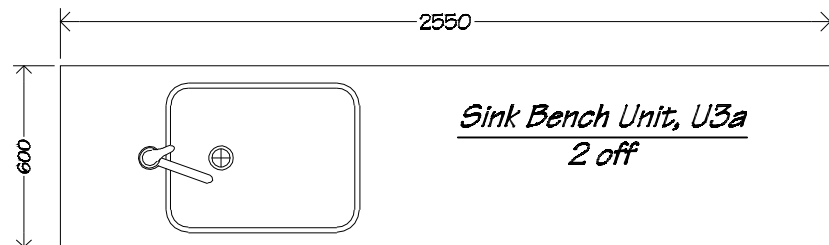
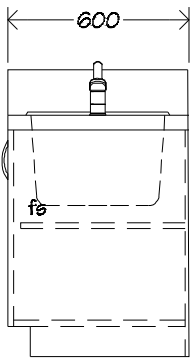
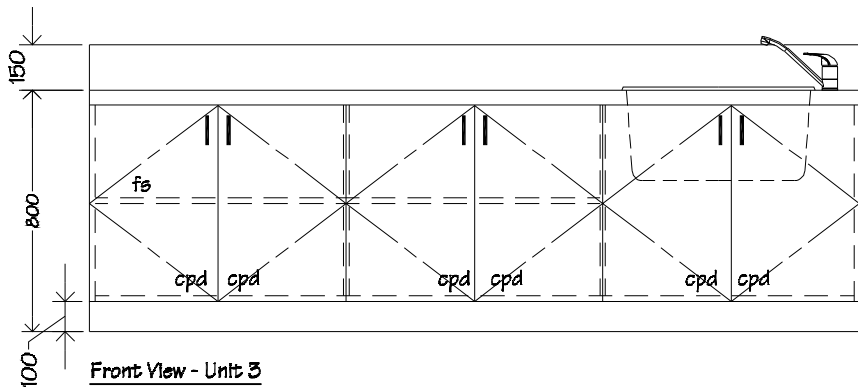
 IR Group Ltd Design - Project Management - Planning	Phone- Office 04 526-7711 Mobile- Ian 021-427.347 Mobile- Stephen 027-3355889 Email- ian@irgroup.co.nz steve@irgroup.co.nz Web- www.irgroup.co.nz	Arakura School 209 Wellington Road Wainuiomata	PROJECT Stage 2 Classroom Upgrade	DRAWING TITLE Whiteboard/Storage Unit Details	REVISIONS No Description	Scale 1:25	Pricing/Building Consent Drawings Do not scale from drawings. Check all dimensions on site.
						Date 02/06/17	
						Original sheet size A3	
						Drawn S.T.	
						Sheet No 13 of 17	
						Dwg Ref 13	

Sink Bench Unit Details

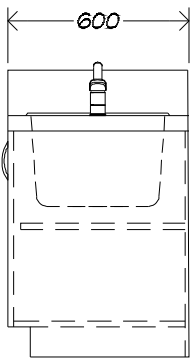
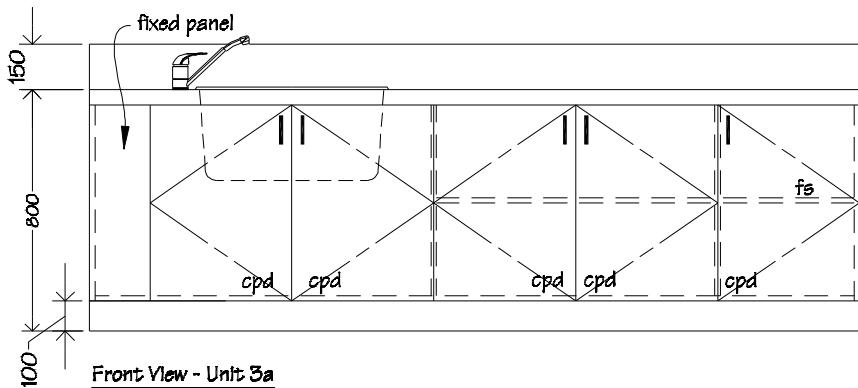
scale 1:25



Plan - Unit 3



Plan - Unit 3a



KEY

cpd cupboard
fs fixed shelf

NOTES:

Sink bench unit, (U3 m& U3a), carcass, shelving & doors to be 18mm double sided Melteca with 3mm PVC edging, back to be 12mm single sided Melteca.

Bench top to be Formica with 150mm upstand and Burns & Ferrall Regency single bowl B7PFT50WK stainless steel sink, complete with Methven Celeste, or similar, single lever sink mixer; (sink size 610x465x300 deep).

Doors to be fitted with one pair of concealed "Grass", or similar, self closing hinges.

Provide new satin finish bow handles to all doors & drawers.

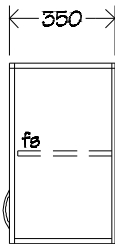
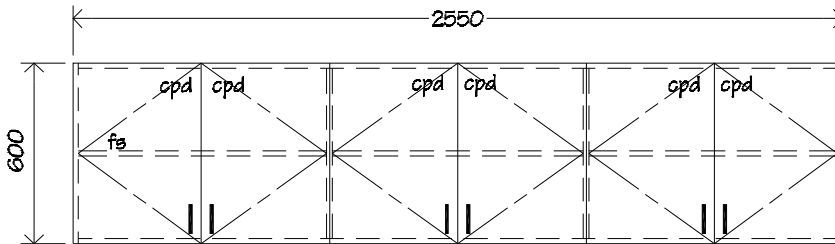
Refer to floor plan for handing.

Shelving Unit

U4

2 off

scale 1:25

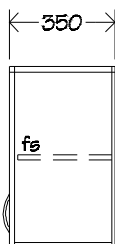
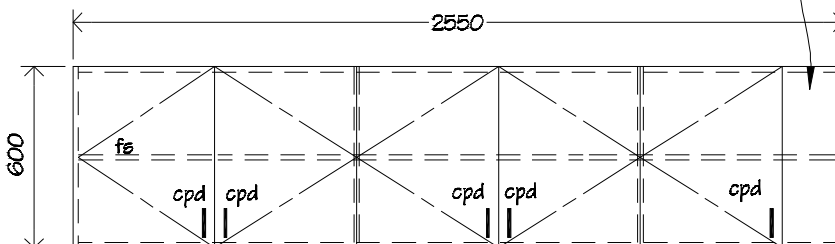


Shelving Unit

U4a

2 off

scale 1:25



NOTES:

Shelving unit, (U4 & U4a), carcass, shelving & doors to be 18mm double sided Melteca with 3mm PVC edging, back to be 12mm single sided Melteca.

Doors to be fitted with one pair of concealed "Grass", or similar, self closing hinges.

Provide new satin finish bow handles to all doors.

Refer to floor plan for handing.

KEY

cpd cupboard
fs fixed shelf



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Arakura School
209 Wellington Road
Wainuiomata

PROJECT
Stage 2
Classroom Upgrade

DRAWING TITLE
Sinks Bench & Cupboard
Unit Details

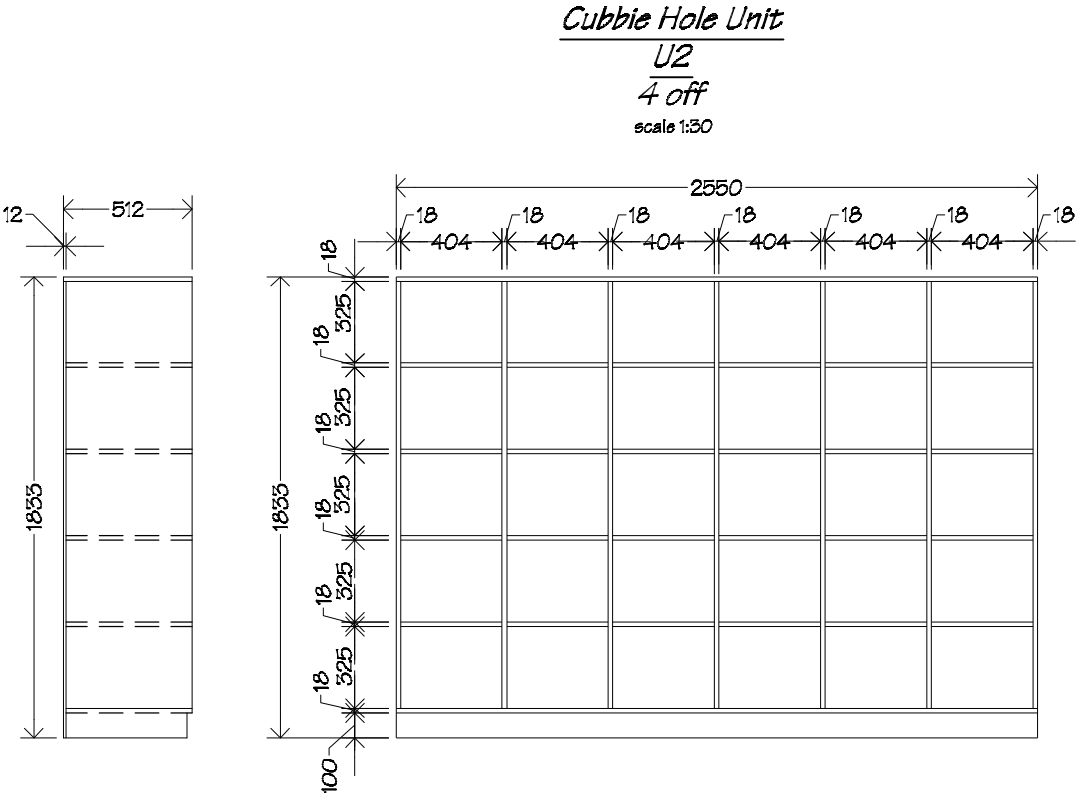
REVISIONS

No Date Description

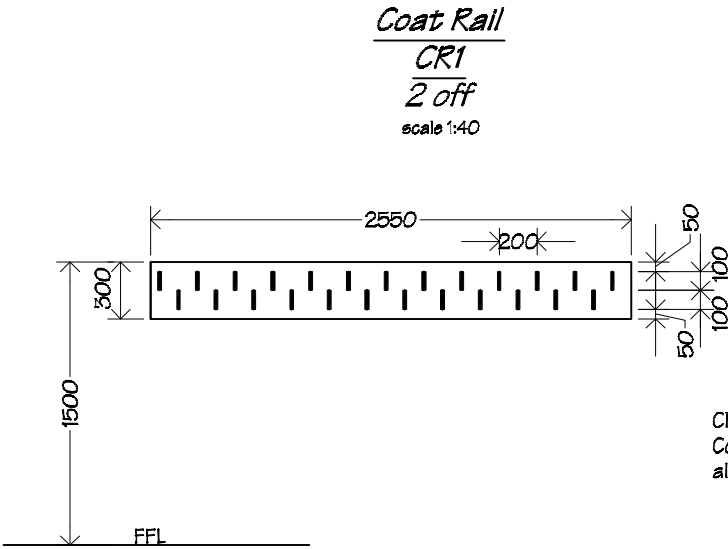
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Date 02/06/17
Original sheet size A3
Drawn S.T.
Sheet No 14 of 17
Dwg Ref 14

Pricing/Building Consent
Drawings


Do not scale from drawings.
Check all dimensions on site.



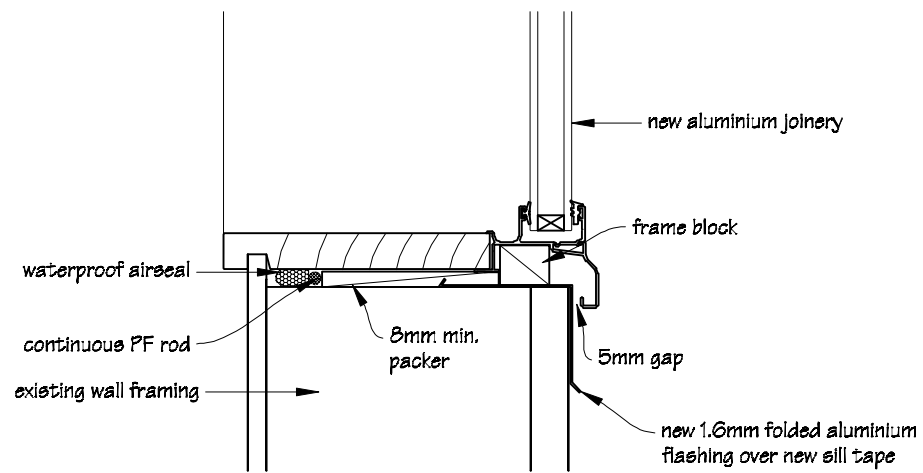
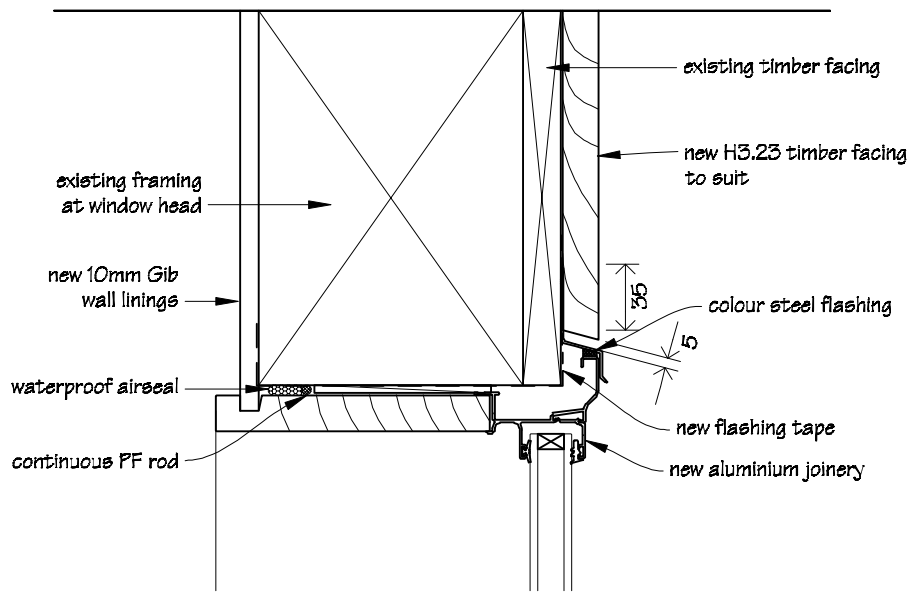
NOTES:
Cubby hole unit to be 18mm
double sided Melteca panel with
Melteca Edge tape to all visible
edges, back to be 12mm single sided
Melteca.



Cloak rails to be 18mm Melamine with 3mm PVC edging.
Coat hooks to be Miles Nelson 275 satin silver anodised
aluminium.

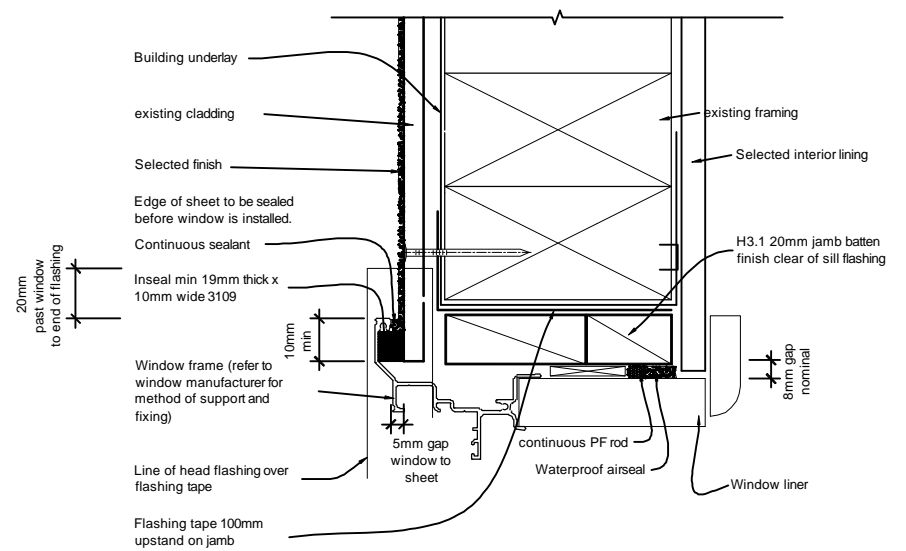
 IR Group Ltd <small>Design - Project Management - Planning</small>	Phone- Office 04 526-7711	Arakura School 209 Wellington Road Wainuiomata	PROJECT Stage 2 Classroom Upgrade	DRAWING TITLE Cubbie Hole & Cloak Rail Details	REVISIONS	Scale	as shown	Pricing/Building Consent Drawings
	Mobile- Ian 021-427.347				No Date Description	Date	02/06/17	
	Mobile- Stephen 027-3355889					Original sheet size	A3	Do not scale from drawings. Check all dimensions on site.
	Email- ian@irgroup.co.nz					Drawn	S.T.	
	steve@irgroup.co.nz					Sheet No	15 of 17	
	Web- www.irgroup.co.nz					Dwg Ref	15	

Cross Section
New Insert Window Head Detail
scale 1:4



Cross Section
New Insert Window Sill Detail
scale 1:4

Cross Section
Typical Jamb Detail
scale 1:3





HOT WATER CYLINDER RESTRAINTS

The recent earthquakes in Canterbury have highlighted the need to secure items that may be critical to occupants' survival after an earthquake. One such item is the hot water cylinder.

By Graeme Beattie, BRANZ Principal Engineer

Hot water cylinders are a very valuable source of freshwater when the town supply is cut off, as happened after the earthquake in some parts of Christchurch for several weeks.

The hot water cylinder represents a large inertial mass – a 135 litre cylinder weighs approximately 170 kg when full. Without restraint, these can be flung around by the force of the earthquake and damage other items, or the pipe connections can be fractured (see Figure 1).

Block base and restrain top

Timber blocking may be installed to prevent sliding of the base of the cylinder on its supporting structure (see Figure 2). A minimum of three blocks should be used, spaced as evenly as possible around the perimeter. Each block needs to be fixed down with two Type 17 screws 75 mm long and not less than 12 g or two 100 mm long nails. However, this is only half of the answer.

The hot water cylinder is also liable to topple if it is not restrained at or near the top. Very often, there is only a single wall to which the restraint can be attached. The simplest solution is to install a metal strap commonly available from a builders' merchant (see Figures 2 and 3).



Figure 1: Damage to wall linings from unrestrained hot water cylinder.

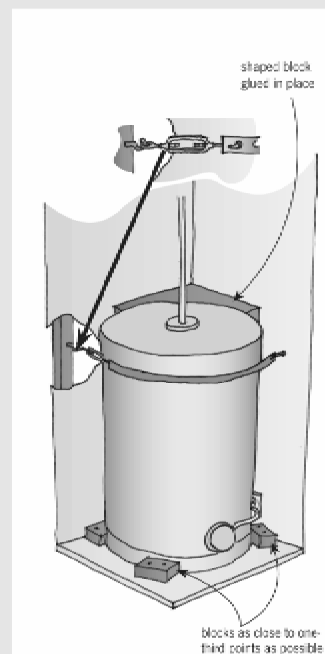


Figure 2: Recommended restraints for hot water cylinder in corner.

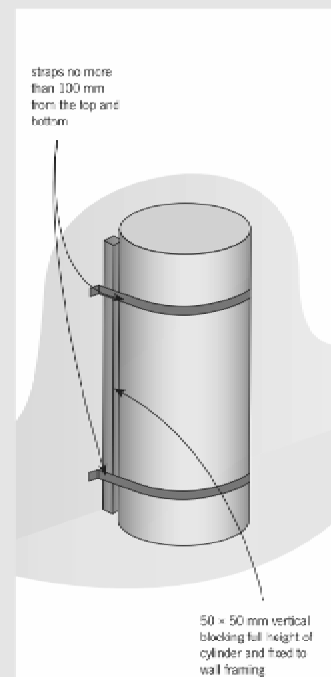


Figure 3: Hot water cylinder restraints on a flat wall (alternative to base blocks and strap at top).

It is important to have a solid substrate to which the restraint strap is attached, and studs or nogs should be located before fixing the strap.

Blocking needed at top as well

Wrapping the strap around the cylinder and fixing it to the wall on each side is not an adequate solution because the cylinder can still rock parallel to the wall during an earthquake.

It is important to fit timber blocking in conjunction with the metal strap (see Figures 2 and 3). This will allow the cylinder to be snugly restrained. As with the base restraint, adequate fixing strength is important to ensure satisfactory performance in an earthquake. Type 17 screws at least 50 mm long are recommended with a 30 x 2 mm square washer to sandwich the strap. Alternatively, a heavy duty hook may be fitted to the stud or nog and a

turnbuckle included in the strap for tensioning. A similar system may be installed near the base of the cylinder if there is no opportunity to fit the timber blocks on the supporting structure beneath.

Similar system for cylinders in corners

Where the cylinder can be restrained in a corner between two walls, a similar restraint system may be used. Again, it is important to pack the space between the cylinder and the walls to ensure that it is firmly sandwiched between the strap and the walls.

Retrofit possible

The restraint systems described can be installed on existing hot water cylinders, but it is simpler to have the restraint fitted during installation.

This allows good access to the back of the hot water cylinder to fit packing.

Curved timber packing blocks ensure an even bearing on the cylinder outer casing for restraint.

Heat pump water heaters

Heat pump water heaters are now becoming more common. These usually stand outside the house against the wall with rigid plumbing to the house.

Appropriate packing and blocking can be fitted in place before heat pumps are installed. This will ensure a satisfactory seismic restraint from the outset.

The method is essentially the same as for hot water cylinders, with the aim of preventing movement away from the wall or along the wall, so that the plumbing connections remain sound during an earthquake. ■



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Wainuiomata

PROJECT
Stage 2
Classroom Upgrade

DRAWING TITLE
Hot Water Cylinder
Restraint Detail

REVISIONS
No Date Description

Scale	N.T.S.
Date	02/06/17
Original sheet size	A3
Drawn	S.T.
Sheet No	17 of 17
Dwg Ref	17

Pricing/Building Consent
Drawings
*Do not scale from drawings.
Check all dimensions on site.*