

Tuesday, September 13, 2022

Shire of Mingenew  
21 Victoria Street  
Mingenew WA 6522

Attention: Maurice Battilana

Dear Maurice,

**RE: PLANNING APPLICATION FOR THE MAIN CAMP ASSOCIATED WITH THE ENERGY RESOURCES LIMITED 2022-2024 EXPLORATION DRILLING PROGRAM**

Please find attached a planning application for the installation and operation of a main camp site that will be constructed to accommodate the personnel executing the drilling operations workscope as part of the Energy Resources Limited (ERL) 2022-2024 Exploration Drilling Program within Petroleum Licence EP368 managed under the *Petroleum and Geothermal Energy Resources Act 1967*. The drilling activities are expected to commence in October 2022 although may be delayed until November 2022 based on potential variations to the current rig schedule.

Once drilling activities have commenced, they will be conducted continuously on a 24-hour basis with two crews working back-to-back on 12-hour shifts. The main camp is proposed to accommodate an average of 52 personnel to support the drilling operations, with a maximum of 72 personnel at full camp occupancy to support other well operations in the area.

The drilling program is temporary in nature and planned to be completed over a period of up to two (2) years with intermittent requirement to utilize the main camp over this period to support drilling activities in the area.

The main camp site location map is provided as Attachment 1 and will be accessed via Moorriary Road (off Midlands Road). The installation and commissioning of this main camp site will be executed in the month prior to commencement of mobilization of the drilling rig to the first well in the drilling program. The main camp site accommodation and various facilities/equipment layout is provided as Attachment 2. The modular camp units will be transported to the site utilizing semi-trailers or winch trucks.

The main camp site location is not within close proximity to any residential dwellings with the distance to the nearest residential dwelling being several kilometres. There will be food preparation facilities at this main camp site contained to the main kitchen module as provided in Attachment 3.

The following information has been provided as attachments to the completed Development Application Form:

- ▶ Attachment 1: Site location showing the main camp site with regards to the proposed locations of the various exploration wells in the area.
- ▶ Attachment 2: A site layout schematic that provides an indication of where the accommodation units will be situated with regards to the camp facilities.

- ▶ Attachment 3: A compilation of information regarding the main camp site with plan views, dimensions and images associated with the temporary building structures.
- ▶ Attachment 4: The completed ATU application, information and manual associated with the ATU system(s).

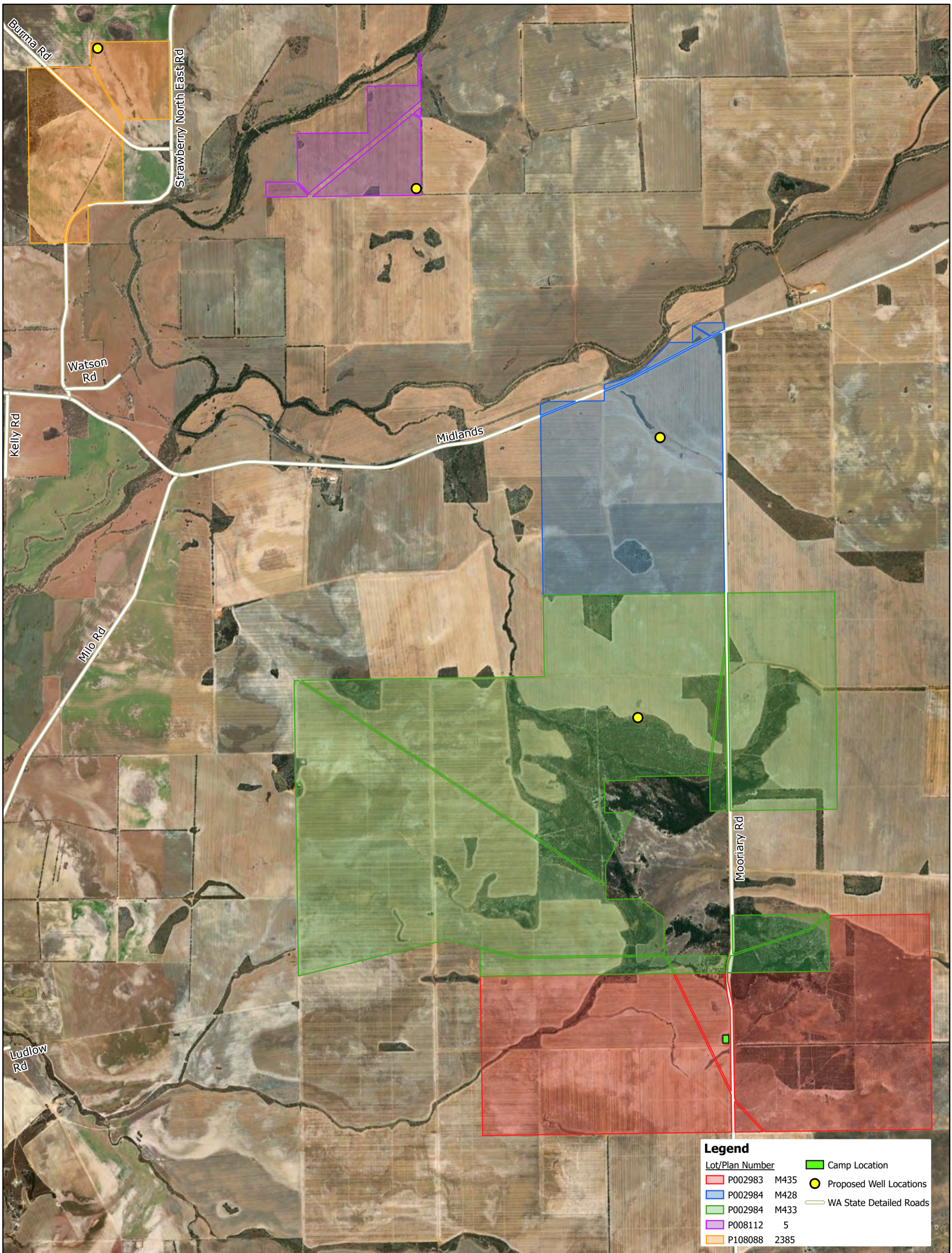
This information has been collated and submitted for and on behalf of Energy Resources Limited.

Yours sincerely,

**Darrell Girgenti**  
*Project Manager*

Energy Resources Limited

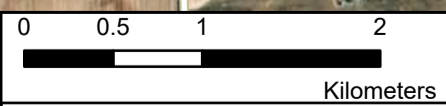




Legend	
Lot/Plan Number	Camp Location
<span style="color: red;">■</span> P002983 M435	<span style="color: yellow;">●</span> Proposed Well Locations
<span style="color: blue;">■</span> P002984 M428	<span style="color: grey;">—</span> WA State Detailed Roads
<span style="color: green;">■</span> P002984 M433	
<span style="color: purple;">■</span> P008112 5	
<span style="color: orange;">■</span> P108088 2385	



# SHIRE APPLICATION

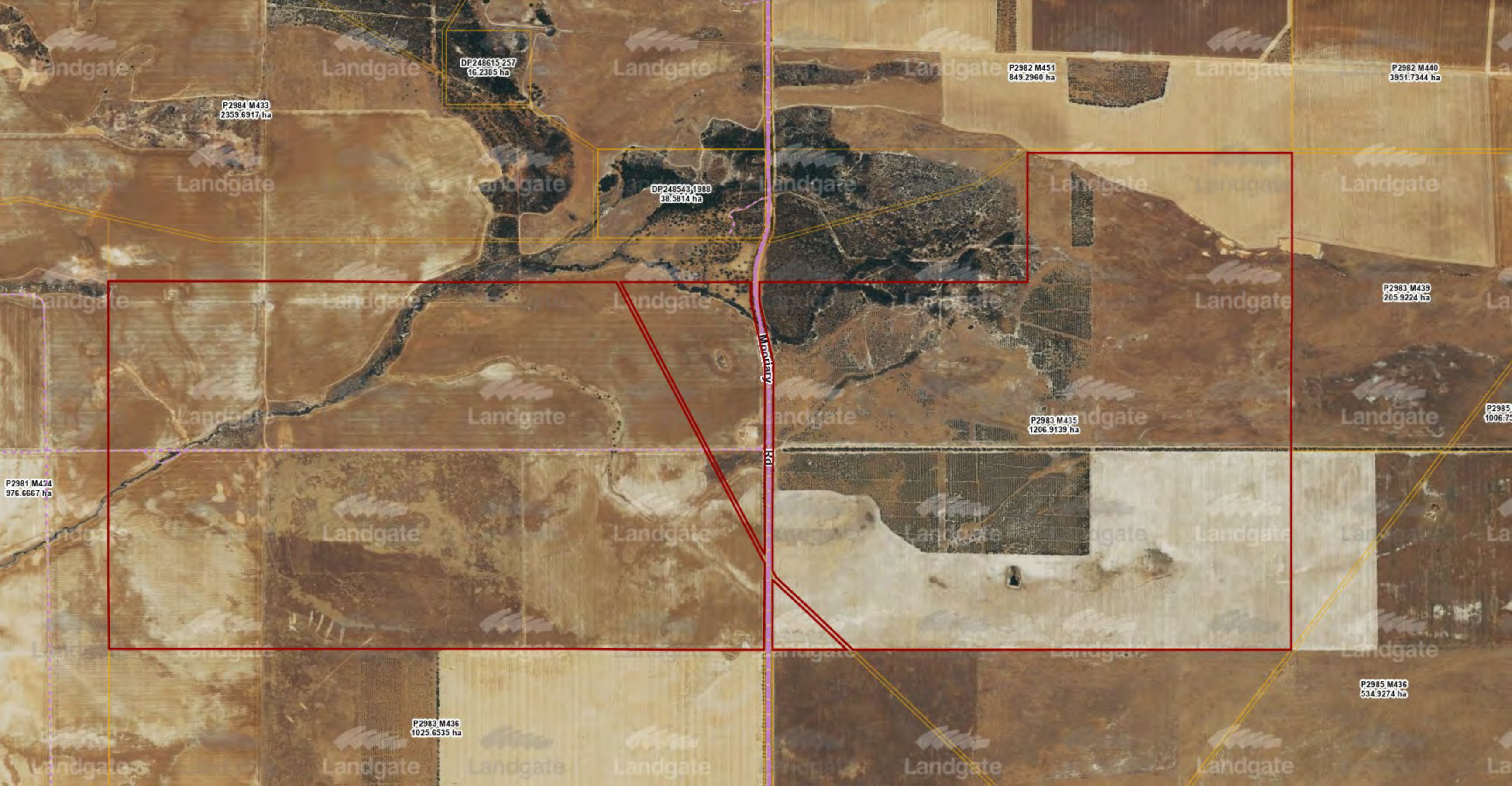


Projection/Datum:  
GDA 1994 MGA Zone 50

Map Date: 29/07/2022







P2984 M433  
2359.6917 ha

DP248615.257  
16.2385 ha

DP248543.1988  
38.5814 ha

P2982 M451  
849.2960 ha

P2982 M440  
3951.7344 ha

P2983 M439  
205.9224 ha

P2983 M435  
1206.9139 ha

P2985  
1006.75

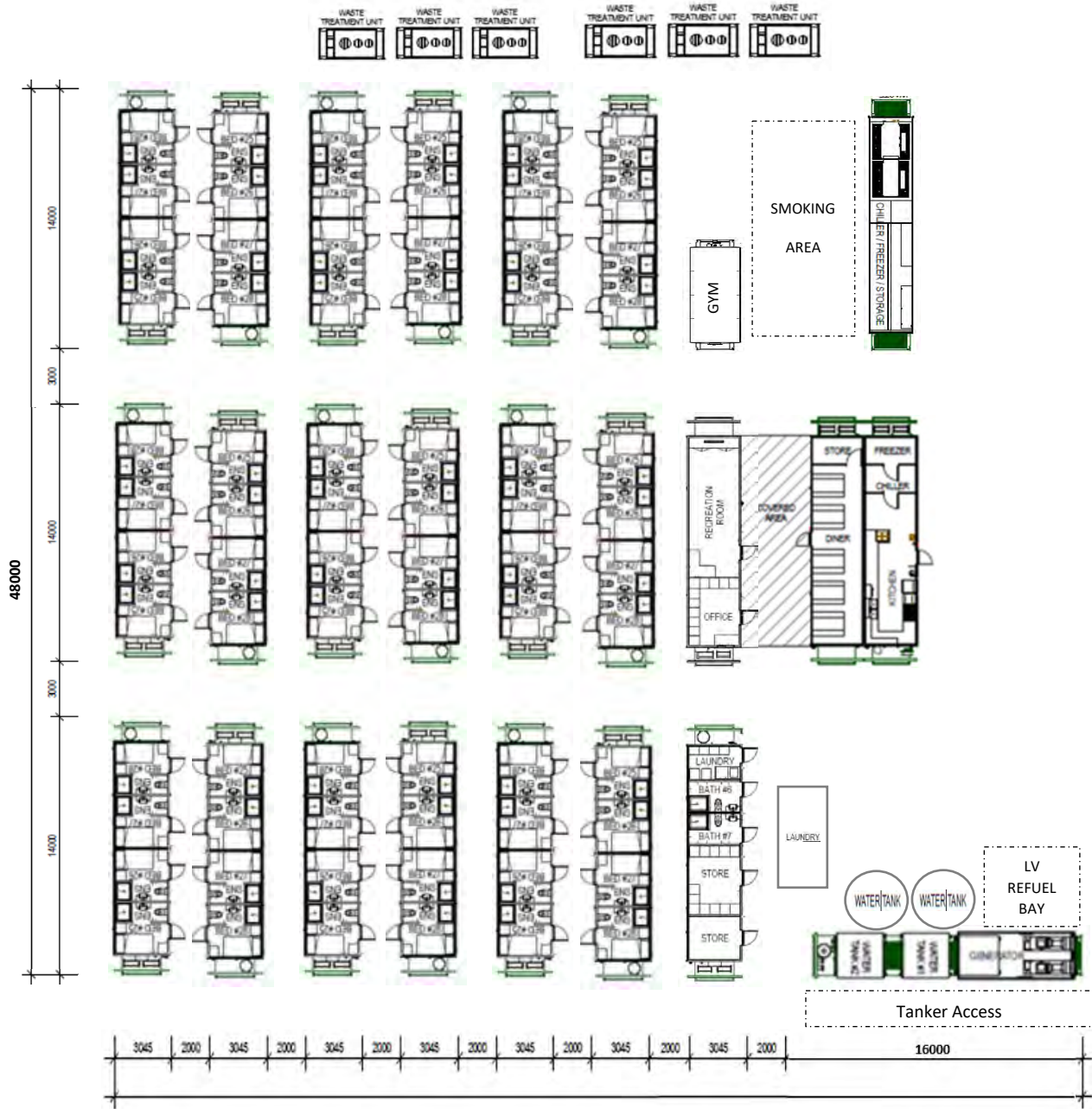
P2981 M434  
976.6667 ha

P2983 M436  
1025.6535 ha


P2985 M436  
534.9274 ha

Moody Rd



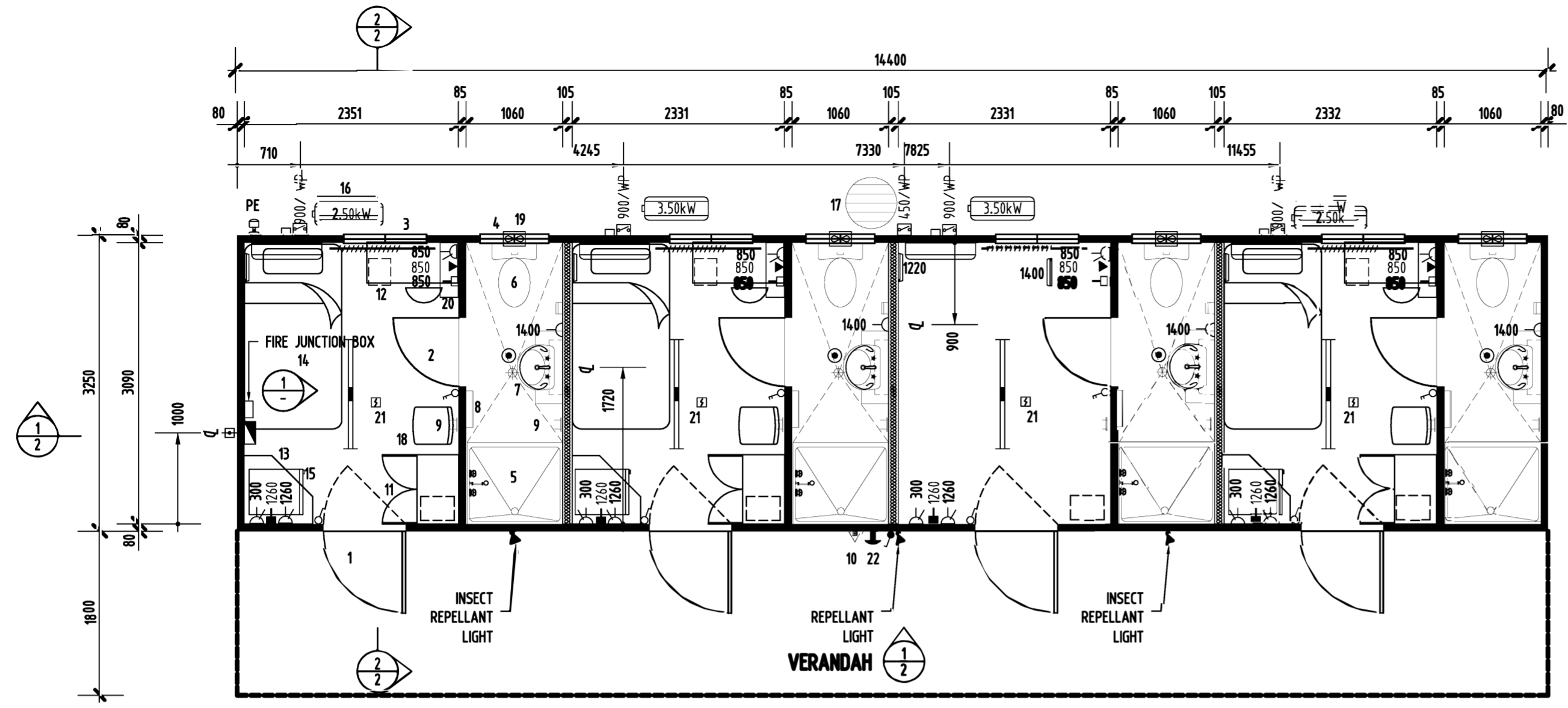


51315

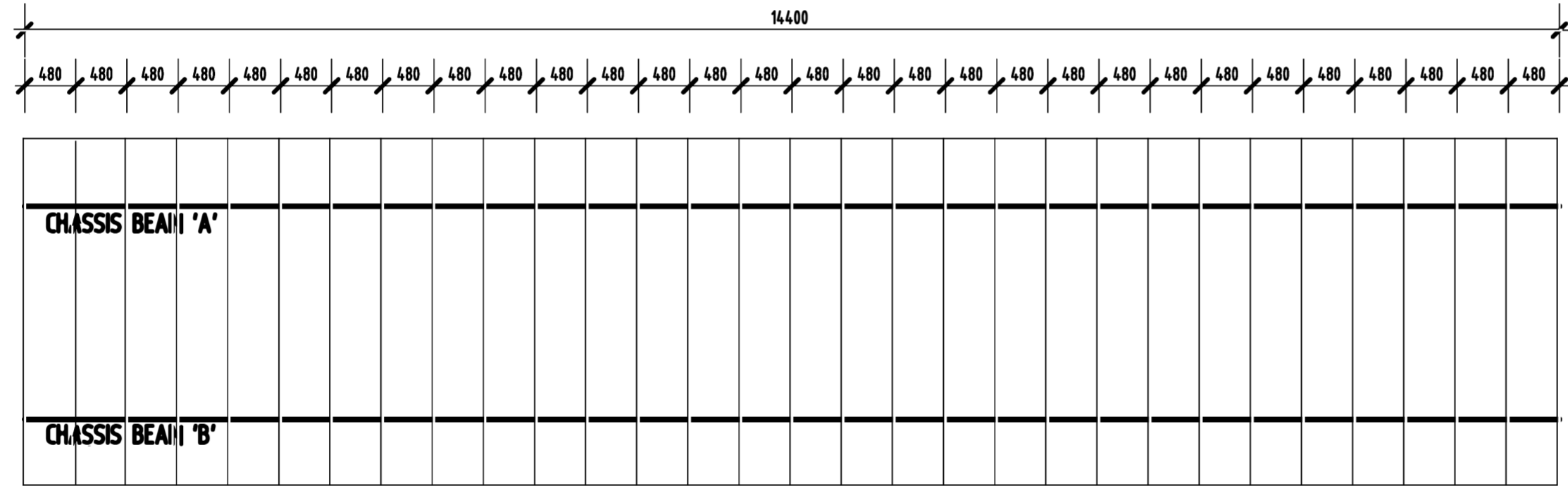
<b>ASCO</b>		<b>72 BED MOBILE REMOTE ACCOMODATION CAMP</b>	
		<b>SITE PLAN</b>	
		DRAWN	<b>CONSTRUCTION</b>
CHECKED	PROJECT N°	523	SHEET SIZE:
APPROVED	SCALE	As indicated	A3
DATE			SHEET N° 01



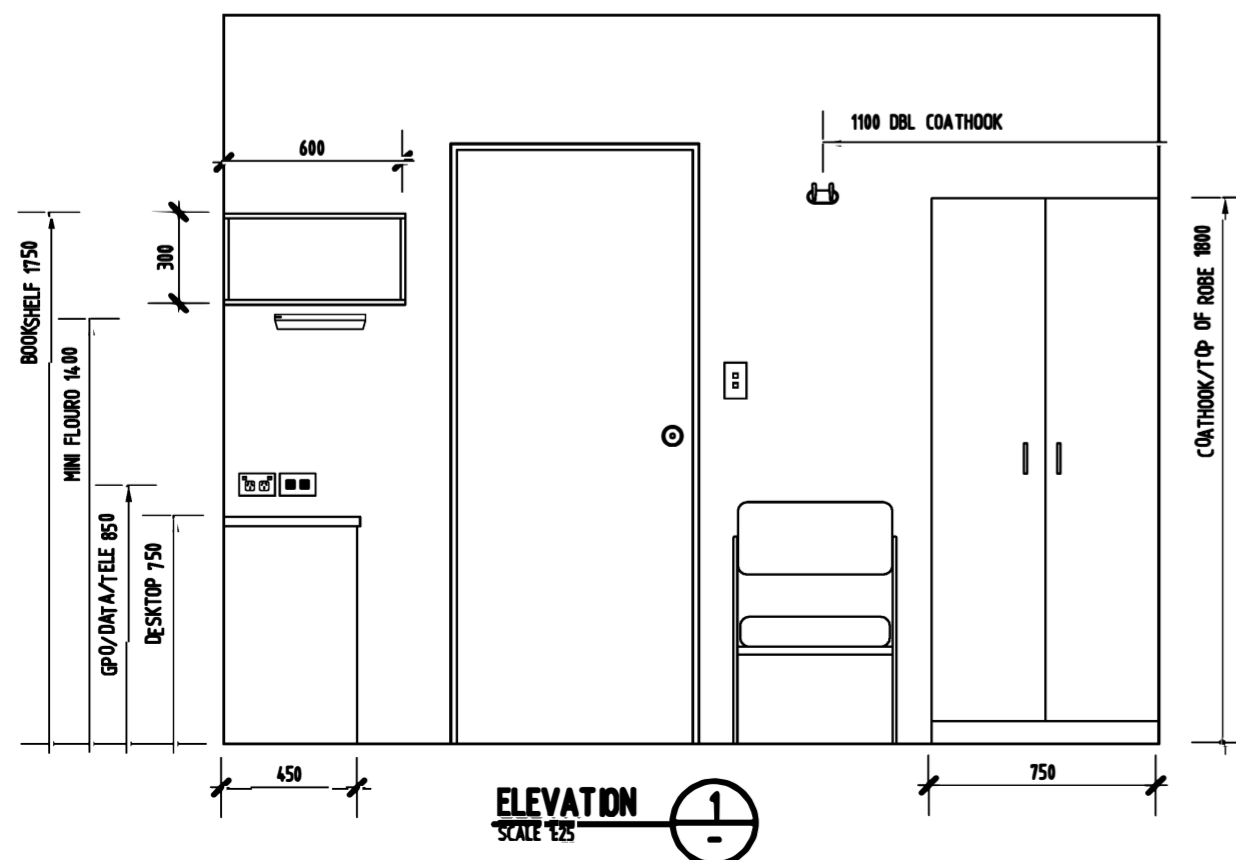
CONSTRUCTION DETAILS	
PROJECT NUMBER	-
BUILDING TYPE	- REGION D TC 2
CHASSIS	- CANTILEVER
CHASSIS COATING	- 1 COAT Zn Ph PRIMER - 2 COATS GLOSS ENAMEL
FLOOR JOISTS	- LIPPED C 75x45x1.2 G500 @ 480crs
END MEMBERS	- 75x75x4 SHS
LIFTING POINT	- RETRACTABLE
LIFTING MEMBER	- 125x75x4 SHS
FLOORING DRY	- 15mm T&G F11 PLYWOOD
FLOORING WET	- GRADED MDF OVER 15mm T&G F11 PLYWOOD
FLOOR COVERING DRY	- 2mm SEAMLESS VINYL (SOLAR BEIGE)
SKIRTING DRY	- 'D' MOLD BLACK
FLOOR COVERING WET	- 2.0mm SLIP RESISTANT VINYL (RAFFIA BEIGE)
SKIRTING WET	- 100mm COVERED SLIP RESIST VINYL
CEILING HEIGHT	- 2400mm
WALL STUDS (EXT & INT)	- LIPPED C 75x37.5x0.75 G550 @ 400crs
EXTERNAL LINING	- MESA COLORBOND (PAPERBARK) + ROUGHPLY SUBSHEATHING
INTERNAL LINING	- POLYPLY (BEIGE)
CORNICE	- 'D' MOLD BLACK
PARTY WALL LINING	- POLYPLY (BEIGE)
WALL INSULATION	- GLASSWOOL R2.0
PARTY WALL INSULATION	- ACCOUSTIC BATTS
ROOF SLOPE	- SIDE SLOPE (2° PITCH)
CEILING JOISTS	- LIPPED C 75x37.5x0.75 G550 @ 400crs
CEILING LINING	- POLYPLY (MIRAGE PEARL)
CEILING INSULATION	- GLASSWOOL R3.0
ROOF SHEETING	- TRIMDEK ZINCALUME
EXTERNAL TRIM	- FASCIA/BARGE
EXTERNAL DOOR	- PAPERBARK
EXTERNAL DOOR TRIM	- PAPERBARK
INTERNAL DOOR	- PAINTED (STONE BEIGE)
EXTERNAL WINDOW FRAME	- STONE BEIGE
INTERNAL REVEAL LINING	- STONE BEIGE
CURTAINS	- CASCADE WEDGEWOOD
SHOWER CURTAINS	- WHITE TAFFETA
CABINETRY TOPS	-
ARL CABINETRY UPRIGHTS	-
TREE CHAIRS	-
ELECTRICAL P.O.E	- JUNCTION BOX
REFERENCE DETAILS	-



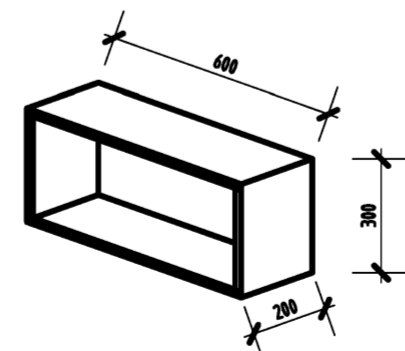
PLAN



PLUMBING NOTE:  
ALL PLUMBING TO BE HARNESSSED  
TO REAR OF BUILDING



ELEVATION  
SCALE 1:25



ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION
23	4	PLASTIC STACK CHAIR (PACKED IN BUILDING)	12	4	WRITING DESK, 1075 x 450 c/w PADDED CHAIR
22	1	ALARM BELL	11	4	ROBE, 1800 x 750 x 460 c/w HANGING RAIL, 6 PLASTIC COATED HANGERS & 3 DRAWER UNIT
21	4	SMOKE ALARM - LOW VOLTAGE WIRED TO JUNCTION BOX	10	1	FIRE EXTINGUISHER, 4.5kg DRY CHEMICAL WALL MOUNTED c/w SIGNAGE
20	4	BOOK SHELF - 2000 (0.6LM)	9	8	COAT HOOK, DOUBLE, SS
19	4	EXHAUST FAN ( WALL MOUNTED )	8	8	TOWEL RAIL, SS, 400mm LONG 1 @ 900 1 @ 1500
18	4	VISITORS CHAIR PLASTIC (PACKED IN BUILDING)	7	4	HANDBASIN, SEMI RECESSED VC H & C MIXER w/- 800W POLISHED MDF TOP c/w 350x500 VANITY CABINET OVER
17	1	ELECTRIC WATER HEATER, 160-LITRE 1x2.4kW (PACKED IN BUILDING)	6	4	TOILET SUITE c/w WALL MOUNTED DUAL FLUSH CISTERN & CHROME PLATED PAPER HOLDER
16	4	AIR CONDITIONER, SPLIT SYSTEM - 1.5HP REVERSE CYCLE	5	4	SHOWER CABINET, 1050 x 900 FIBREGLASS c/w CURTAIN & ROD
15	4	BAR FRIDGE, 120-LITRE (PACKED IN BUILDING)	4	4	WINDOW, OBSCURE GLAZED PERMANENT VENTED, 350 x 755 c/w INSECT SCREEN
14	4	KING SIZE SINGLE ENSEMBLE BED, 2020 x 1070 - ON CASTERS (PACKED IN BUILDING)	3	4	WINDOW, HORIZONTAL SLIDING, 1075 x 900 c/w CYCLONIC RATED GLASS, BLOCKOUT CURTAIN & INSECT SCREEN
13	4	TV SHELF, WALL MOUNTED, 750 x 750	2	4	DOOR, INTERNAL HOLLOW CORE, 2040 x 720
			1	4	DOOR, EXTERNAL PLAIN METAL, 2835 x 850 MASTER KEYED c/w INWARD OPENING INSECT SCREEN DOOR

**AUSCO**  
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FORM No CDWGPFB0

Issue	Date	Description
11	26/08/07	AS BUILT
10	08/05/07	ISSUED FOR SHRE APPROVAL
9	21/03/07	EXTERNAL LIGHTING/ITEM 10 REVISED AS CLOUDED
8	09/03/07	EXTERNAL LIGHTING REVISED AS CLOUDED
7	09/03/07	EXTERNAL LIGHTING REVISED AS CLOUDED
6	09/03/07	AMENDED AND PACKED IN BUILDING
5	06/03/07	GPO HEIGHT REVISED AS CLOUDED

**LEGEND**

○	2x30W FLUORO	□	SWITCH BOARD	○	LIGHT SWITCH
○	DIFFUSED FLUORO	□	P.O.E.	○	LIGHT SWITCH W/P
○	INCAND LIGHT	○	TV AERIAL POINT	○	LIGHT SW' 2 WAY
○	OSTER LIGHT	○	DATA POINT	○	LIGHT SW' DBL
○	EXTERIOR LIGHT	○	PHONE POINT	○	GPO 10amp
○	VANALUTE W/P	○	SMOKE ALARM	○	GPO 15amp
○	8 WATT FLURO	○	PE CELL	○	GPO 15amp
○	EMERGENCY LIGHT	○	EXIT EXIT LIGHT	○	SOA/ATOR

Drawn By: **ACR** Date: **31/07/08**  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
Scale: **1:50**  
**DIMENSIONS ARE IN MM DO NOT SCALE**

**FLOOR PLAN**  
Project: **14.4 x 3.25 4 PER SN ACCOMMODATION UNIT**  
Sheet: **11**  
Client: \_\_\_\_\_  
P/No: \_\_\_\_\_  
Order No: **4048551**  
P/No: **SM15094/P01**

QUOTE NUMBER: 404857



**PANEL BUILDING SHORT SPECIFICATION :**

- .. STEEL CHASSIS C/W GALV. JOISTS 75 x 40 x1.6mm @ MAX 400 CTRS
- .. 15mm PLYWOOD FLOORING
- .. 1.5mm VINYL FLOOR FINISH TO ROOMS
- .. 2.0mm SLIP RESISTANT VINYL FLOOR FINISH C/W 100 HIGH COVING TO ENSUITE
- .. WALLS EXT 75mm PANEL c/w 0.4mm C/BOND FACINGS
- .. WALLS INT 50mm PANEL c/w 0.4mm C/BOND FACINGS
- .. R1.8 POLYESTER INSULATION TO ROOF BETWEEN CEILING JOISTS
- .. GALV. STEEL CEILING / ROOF FRAME WITH SUPERDECK DECKING
- .. PRE-FINISHED PLYWOOD CEILINGS c/w ALUMIN. CORNICE
- .. COLORBOND ROOF FLASHINGS & CORNER TRIMS
- .. GALV. EXTERNAL DOOR FRAME - POWDERCOATED
- .. ALUMIN. INTERNAL DOOR FRAME - POWDERCOATED
- .. **CEILING HEIGHT ..2400..**

<b>COLOUR SCHEDULE :</b>	<b>VINYL LOGOS</b>	<b>- DESERT SAND</b>
ROOF SHEETS - ZINCALUME	LOGOS - YES	
EXTERNAL PANEL - PAPERBARK	CEILING - MIRAGE PEARL [WHITE]	
BARGE FLASHINGS - MANOR RED	CUPD TOP - BEIGE	
WINDOWS - MOONGLOW	CUPD DOORS - BEIGE	

**BUILDING DESIGN CRITERIA**  
 Wind Load - in Accordance with AS.1170.2:2002  
 REGION D, TERRAIN CATEGORY 2  
 Annual Probability of Exceedance 1:500  
 REGIONAL WIND SPEED - V500 = 88 m/s

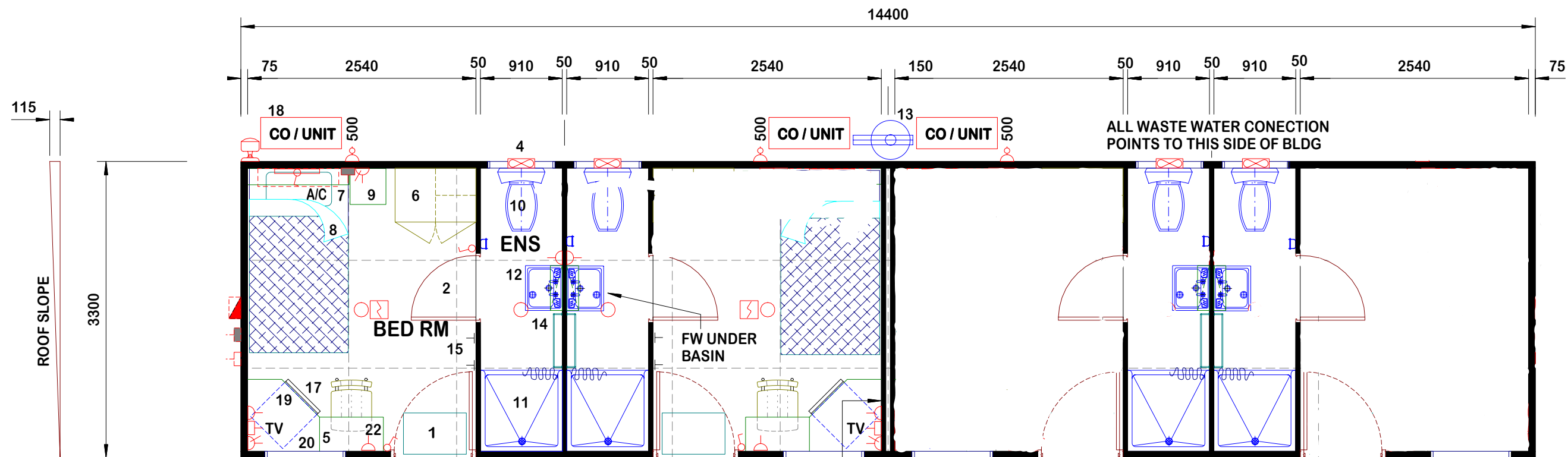
- EQUIPMENT LIST:**
- 1.. 2040 x 870 TIMBER SOLID CORE EXTERNAL DOOR C/W FLYSCREEN DOOR
  - 2.. 2040 x 720 INTERNAL HOLLOW PRE-FINISH CORE C/W FULL LENGTH MIRROR 1800H x 600 ON BED RM SIDE
  - 3.. 1050 x 900 HORIZONTAL SLIDING GLASS WINDOW C/W 100% BLOCKOUT CURTAIN TO BE 50mm EXTRA EA SIDE OF WINDOW JAMB
  - 4.. 350 x 750 FIXED VENTED WINDOW
  - 5.. WRITING DESK 710 x 380 C/W FRIDGE SURROUND 800 x 800 & STEEL FRAME PADDED CHAIR
  - 6.. 2100 x 550 x 900 TIMBER WARDROBE C/W 3 HALF SHELVES, 1 FULL WIDTH SHELF & HANGING SPACE
  - 7.. 180d x 1050 BOOKSHELF OVER C/W BACK & SIDES
  - 8.. KING SIZE SINGLE ENSEMBLE BED C/W LOCKABLE CASTORS & POSTUREPEDIC MATTRESS OR OF EQUAL QUALITY
  - 9.. THREE DRAWER BEDSIDE UNIT ON LOCKABLE CASTORS

10. STANDARD PAN C/W WALL MOUNTED DUAL FLUSH CISTERN & PAPER HOLDER
11. 900 x 900 FIBREGLASS SHOWER CUBICULE C/W CURTAIN & RAIL
12. WALL MOUNTED S.S.HAND BASIN C/W SHELF & AWARD MODULOR BATHROOM CABINET
13. 160 LITRE ELECTRIC HOT WATER SYSTEM
14. 600 LONG TOWEL RAIL
15. COAT HOOKS AT 300 CTRS
16. FIRE EXTINGUISHER ABE 4.5 kg c/w SIGNAGE
17. 140 LITRE BAR FRIDGE
18. REVERSE CYCLE SPLIT SYSTEM AIR CONDITIONER - KELVINATOR ESE12HRA - 3.2 kW COOLING CAPACITY
19. TV - 34 cm C/W REMOTE CONTROL
20. KETTLE - SUNBEAM KE3560 CORDLESS 1.7 L
21. RUBBER MAT TO EA RM - TOP FLOOR ECO WIPER OR EQUIVALENT 700 x 460 BLACK
22. DESK LAMP C/W MINI FLURO BULB

**ELECTRICAL LEGEND - SCALE 1:50**

	CIRCUIT BOARD : DB : [POINT OF ENTRY]
	SWITCH : LIGHT : SINGLE
	SWITCH ISOLATOR W/PROOF : HEIGHT AFL
	SWITCH : PHOTO-ELECTRIC : [PE CELL]
	LIGHT : OYSTER FITTING [BAYONET]
	LIGHT : EXTERNAL BULKHEAD : W/PROOF
	GPO : 10 AMP SINGLE : HEIGHT SHOWN
	GPO : 10 AMP DOUBLE : HEIGHT SHOWN
	FAN : EXHAUST : WALL MOUNTED
	PHONE POINT : DRAW WIRE ONLY
	COMPUTER POINT : WIRED TO J. BOX
	TELEVISION POINT : WIRED TO J. BOX
	FIRE : SMOKE DETECTOR : HARD WIRED
	FIRE : ALARM BELL

**NOTE : BLDGS WIRED FOR 3 Ø**



**Fleetwood**  
 PORTABLES

555 WATERLOO CNR RD, BURTON S.A. 5110 PH: 8280 5500 FAX: 8280 5511  
 LOT 1101 - 1102 MOOLIGUNN RD, KARRATHA W.A. 6714 PH: 9144 4400 FAX: 9144 4430

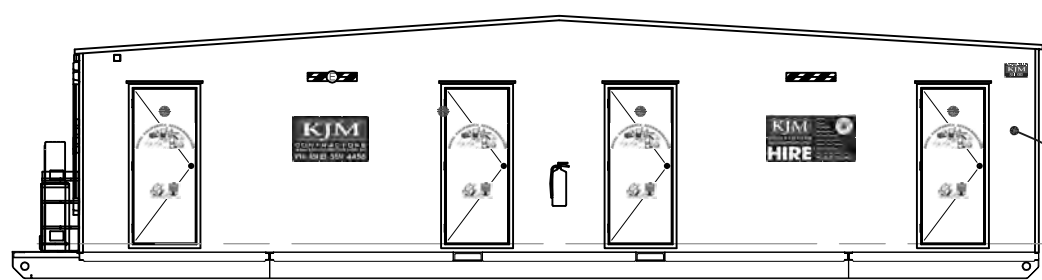
**HEAD OFFICE**  
 21 CASINO ST WELSHPOOL W.A 6105  
 PH: 9353 2822 FAX: 9353 3866

DALGETY RD ALICE SPRINGS N.T. 0870 PH: 8952 1699 FAX: 8952 1177  
 LOT 1690 MCKINNON RD, BERRIMAH, DARWIN N.T. 0820 PH: 8932 4900 FAX: 8932 4888

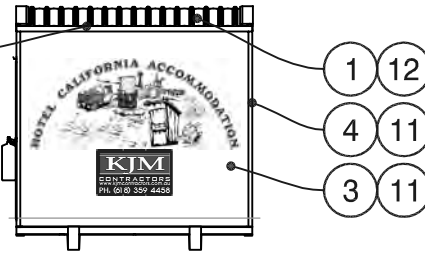
0	ISSUED TO PRODUCTION	29.04.05
A	ISSUED TO APPROVAL	27.04.05
REV	DESCRIPTION	INIT DATE

SALES ORDER NO:		SHEET: A3	DRAWN BY:	DATE: 27.04.05
CLIENT:		SCALE: 1:50	CHECKED BY:	DATE: 29.04.05
LOCATION:		DWG No:		REV: 0
TITLE: FLOOR PLAN	14.4 x 3.3m STAFF QUARTERS	NOTE: ..THESE DRAWING ARE PROTECTED BY COPYRIGHT LAWS... ..DO NOT SCALE DRAWINGS..REF TO DIMENSIONS ONLY.		

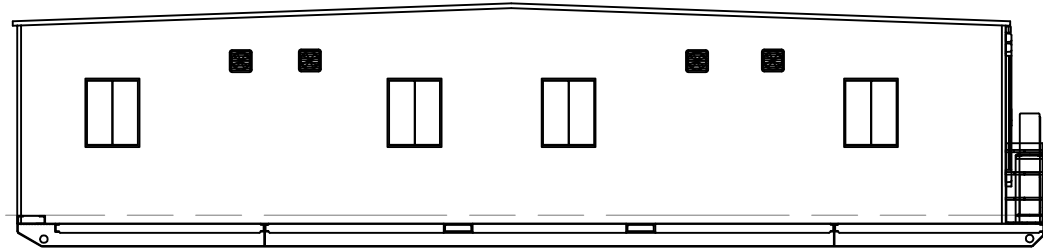




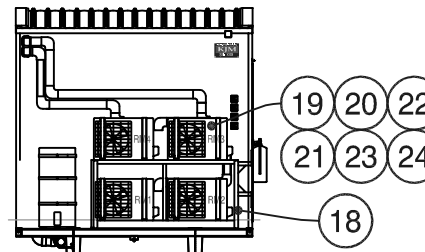
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SCALE 1:50



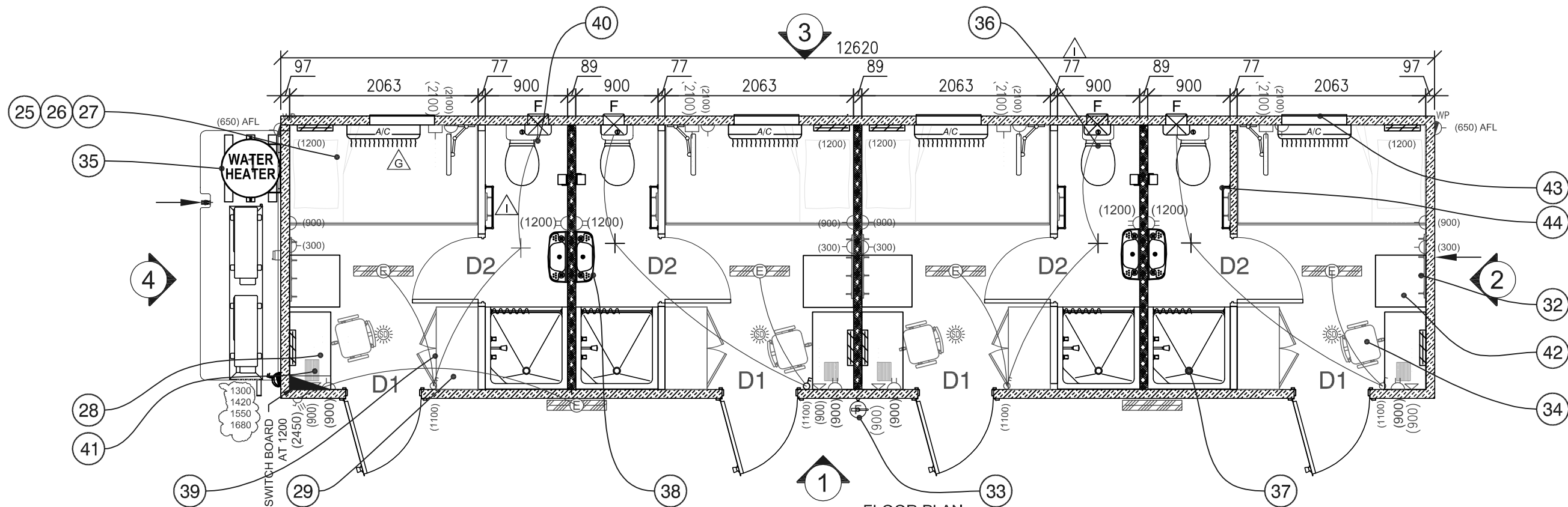
ELEVATION 2:  
SCALE 1:50



ELEVATION : 3  
SCALE 1:50



ELEVATION : 4  
SCALE 1:50



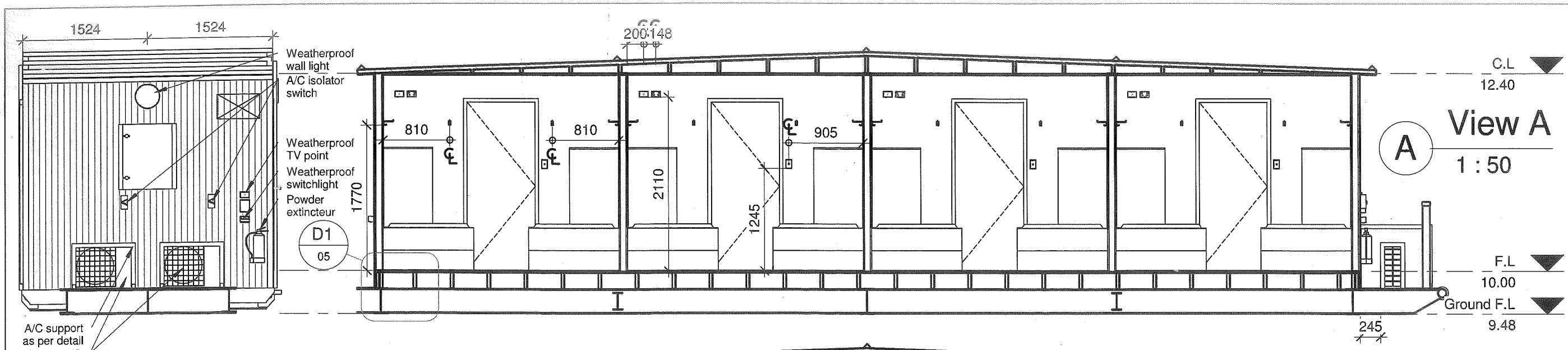
FLOOR PLAN:

I	TOWEL RAIL & HOOKS TO ENSUITE	DB		24APR12	 Lot 19 EW Pitt Ave, Cavan, SA 5094 T: +61 8 8359 4458 F: +61 8 8359 5450 W: www.kjmcontractors.com.au PO: Box 1505, Gawler, SA 5118	DRG. SCALE: 1:50	CLIENT:	PROJECT:	 SHEET: A3 REV: I	
H	BED SIDE LIGHT, SWITCH HEIGHT CHANGED. SWITCH BOARD ADDED	TH		18APR12		PROJECT CONTRACT No: -				
G	INSERTED WINDOW ABOVE BED, DBL STUDED EXT DOOR FRM	JJ		13 APR 12		DESIGNED BY: J JAISON	DISCIP. ENGR.:	PROJ. MGR.:		
F	TV POINT CHNGD, LIGHT ABV TABLE ADDED & BED POS CHNGD	JJ		23 JAN 12		DRAWN BY: J JAISON	CLIENT APPR.:	TITLE: 4 BED ROOM PERSONEL ENSUITE		
E	AIR CONDS AND PENETRATIONS MOVED TO BACK WALL	BD		30/9/11		DATE: 03/05/11	DATE: -	DATE: -		
REV	DESCRIPTION	DRN	CHK	APPR	DATE	DATE: 05/05/11	DATE: -	DATE: -	DWG No: KJM-B-114-000-000 CLIENT No: -	SHT 1 of 9

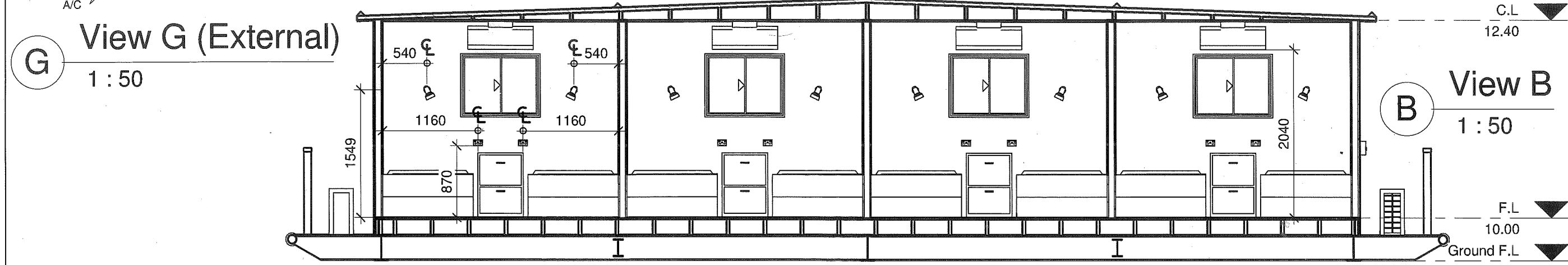






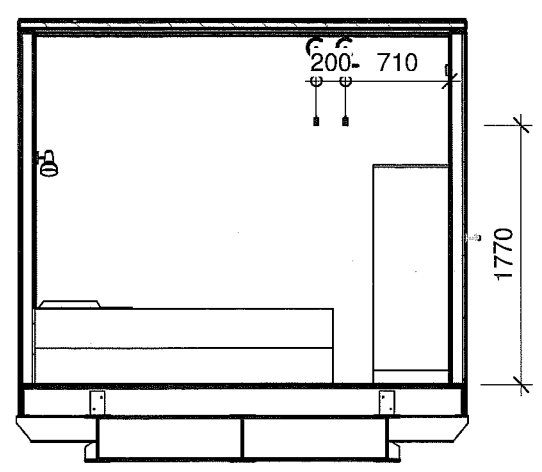


**A** View A  
1 : 50

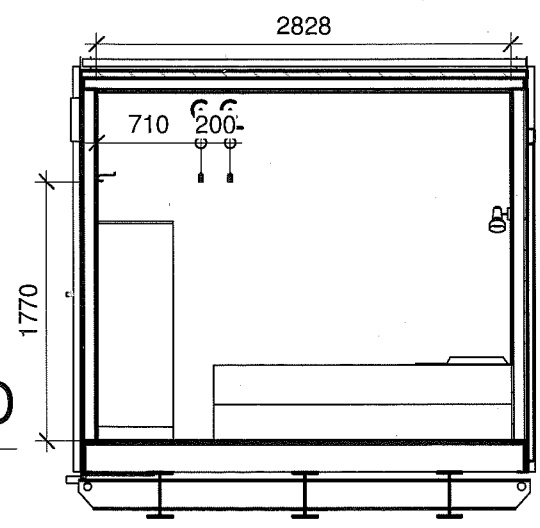


**B** View B  
1 : 50

**G** View G (External)  
1 : 50



**C** View C  
1 : 50



**D** View D  
1 : 50

**transform**  
building design and drafting  
rjmunckton@gmail.com  
Ph: (08) 9433 1921  
43 Wood St, Fremantle  
Mob: 0447 177 115

No.	Description	Date

ALBEC  
MODULE - ACCOMODATION  
ROOM  
1/10/2010 11:43:16 AM

Internal Walls		
PROJECT NO:	523	SHEET NO:
DATE:	1st October 2010	SIZE:
DRAWN BY:	Eric	DWG NO:
STATUS:	Construction	Scale
		1 : 50





**Bonnie Rock Transport Pty Ltd**  
1260 Abernethy Road HAZELMERE WA 6055

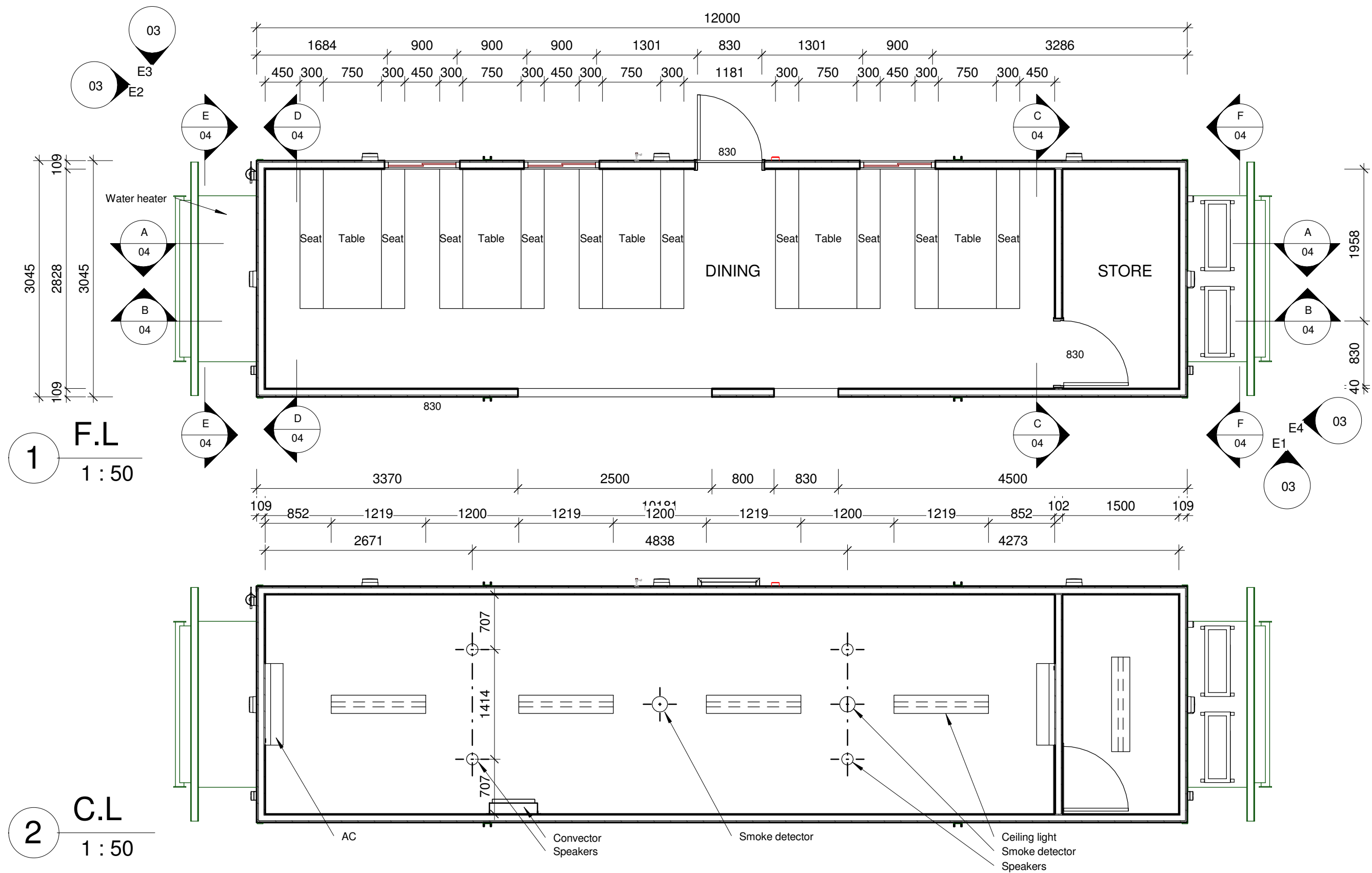



43 Wood Street  
Fremantle WA 6160  
Ph: (08) 9433 1921  
Mob: 0447 177 115  
email@transformdrafting.com

**MODULE - DINING & STORE**

**PERSPECTIVES**

DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: <b>A3</b>
CHECKED	MATHEW	PROJECT N° <b>523</b>	
APPROVED	ROGER	SCALE <b>1:1</b>	SHEET N° <b>01</b>
DATE	4/05/2011 11:49:48 AM	TB 00115 A	



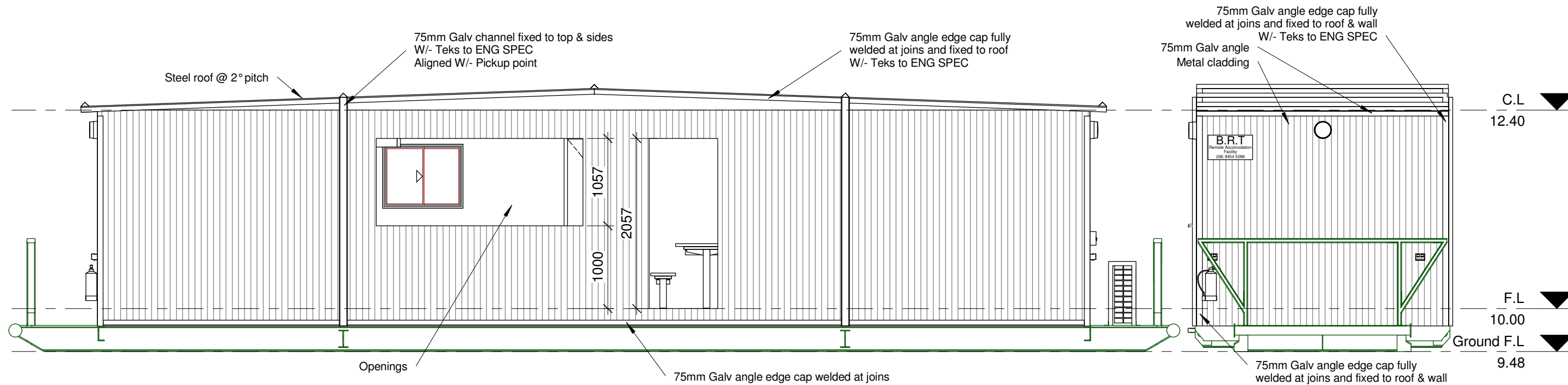
<b>Bonnie Rock Transport Pty Ltd</b> 1260 Abernethy Road HAZELMERE WA 6055		<b>MODULE - DINING &amp; STORE</b>	
		<b>FLOOR &amp; CEILING PLANS</b>	
DRAWN CHECKED APPROVED DATE	ERIC MATHEW ROGER 4/05/2011 11:49:49 AM	<b>CONSTRUCTION</b> PROJECT N° SCALE TB 00115 A	SHEET SIZE: <b>A3</b> 1:50 SHEET N° <b>02</b>

43 Wood Street  
 Fremantle WA 6160  
 Ph: (08) 9433 1921  
 Mob: 0447 177 115

email@transformdrafting.com

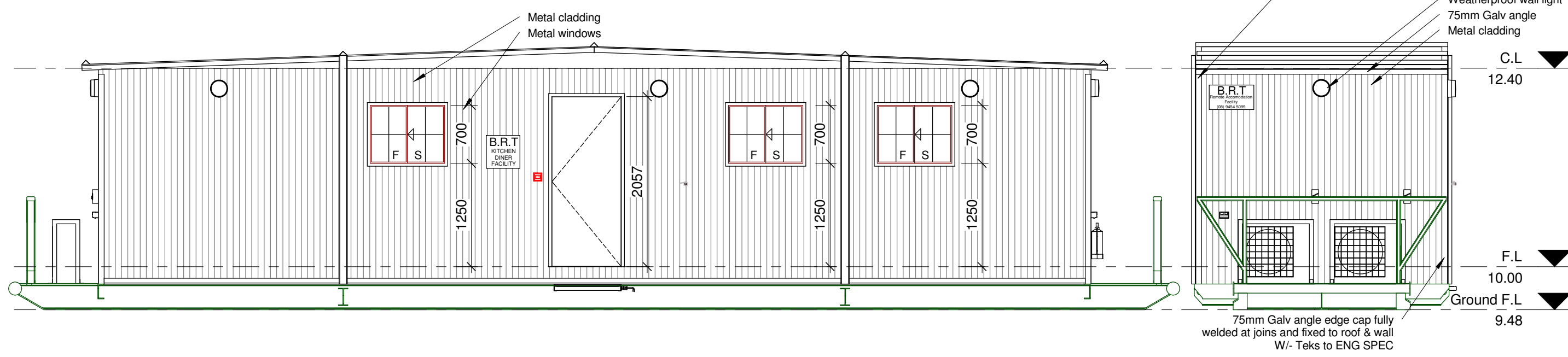
Transform  
 building design & drafting






**E1** ELEVATION 1  
1 : 50

**E2** ELEVATION 2  
1 : 50

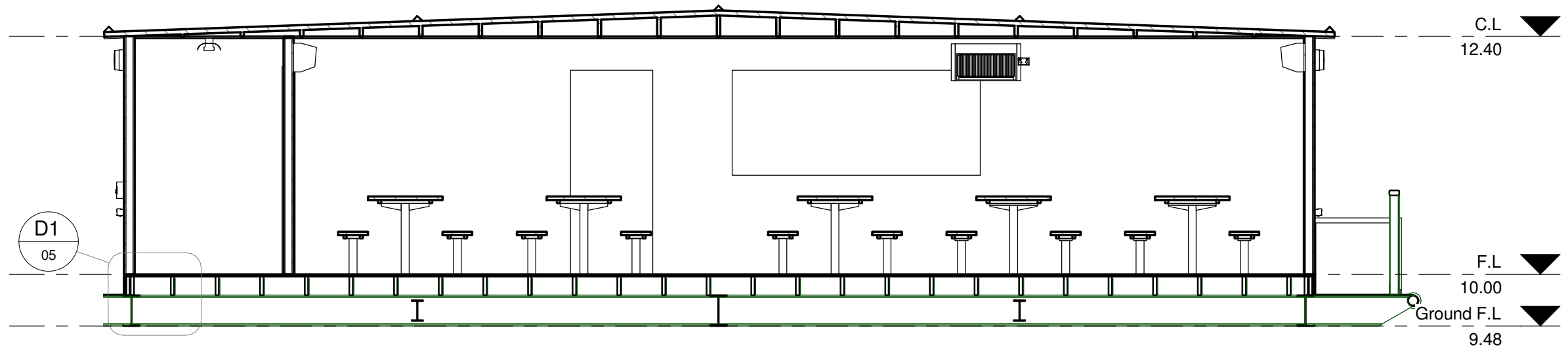


**E3** ELEVATION 3  
1 : 50

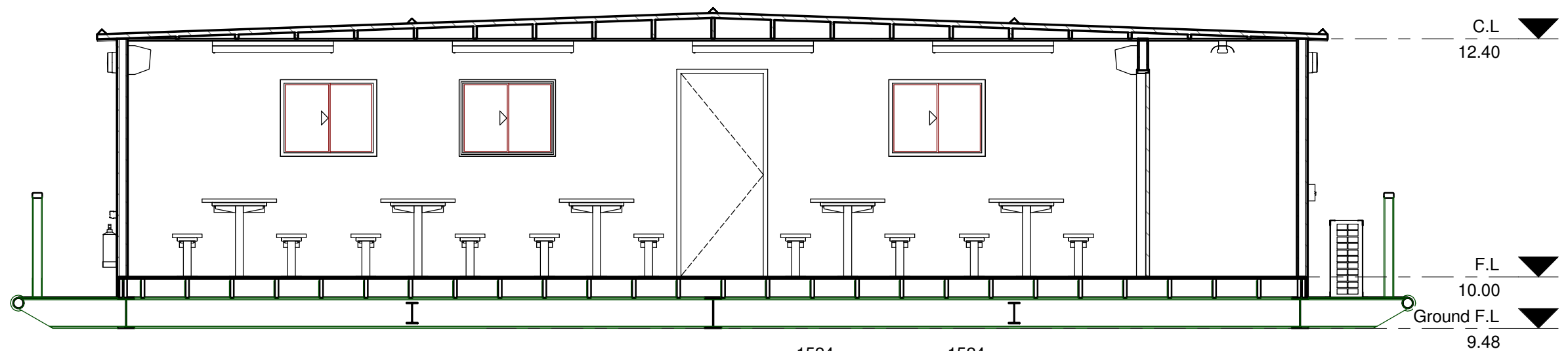
**E4** ELEVATION 4  
1 : 50

<b>Bonnie Rock Transport Pty Ltd</b> 1260 Abernethy Road HAZELMERE WA 6055		<b>MODULE - DINING &amp; STORE</b>	
		<b>ELEVATIONS</b>	
DRAWN ERIC	CHECKED MATHEW	<b>CONSTRUCTION</b> PROJECT N° 523	SHEET SIZE: A3
APPROVED ROGER	DATE 4/05/2011 11:49:50 AM	SCALE 1 : 50	
43 Wood Street Fremantle WA 6160 Ph: (08) 9433 1921 Mob: 0447 177 115 email@transformdrafting.com		TB 00115 A	SHEET N° 03

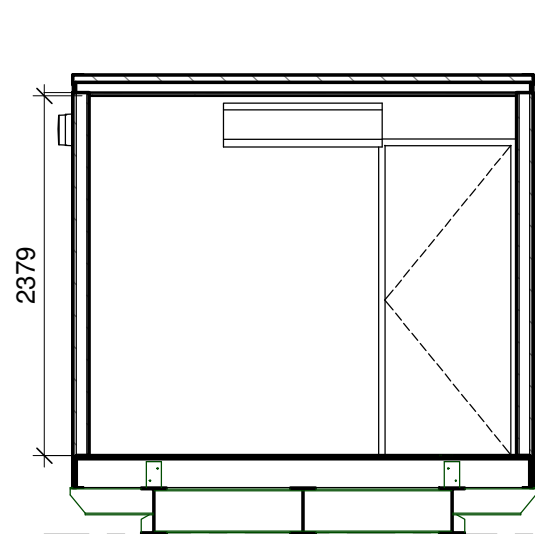
**A** VIEW A  
1 : 50



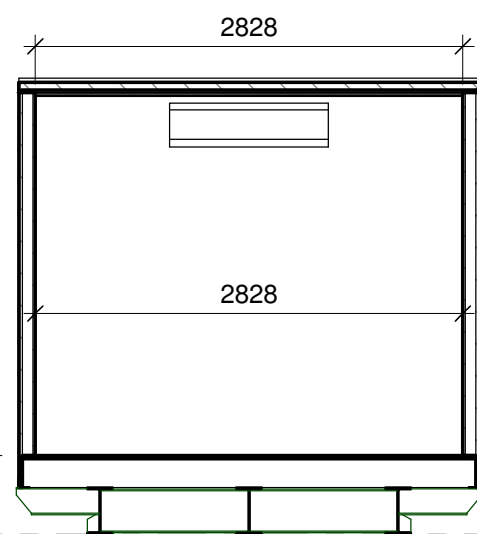
**B** VIEW B  
1 : 50



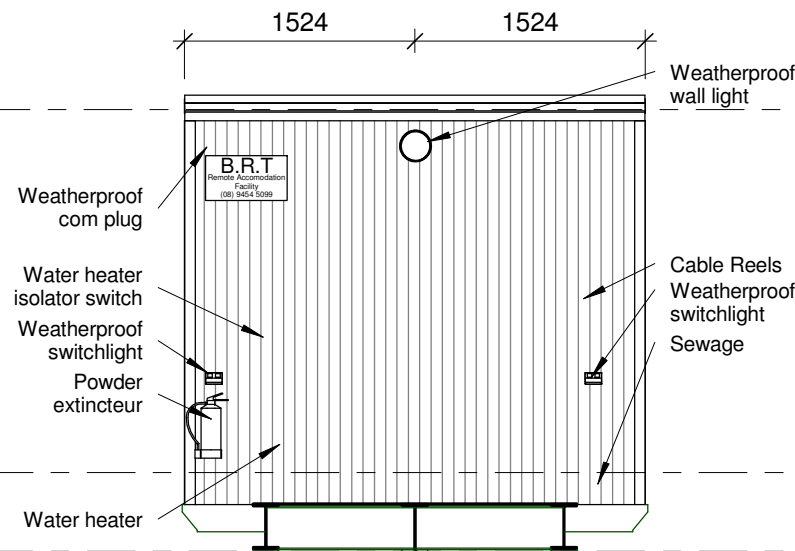
**C** VIEW C  
1 : 50



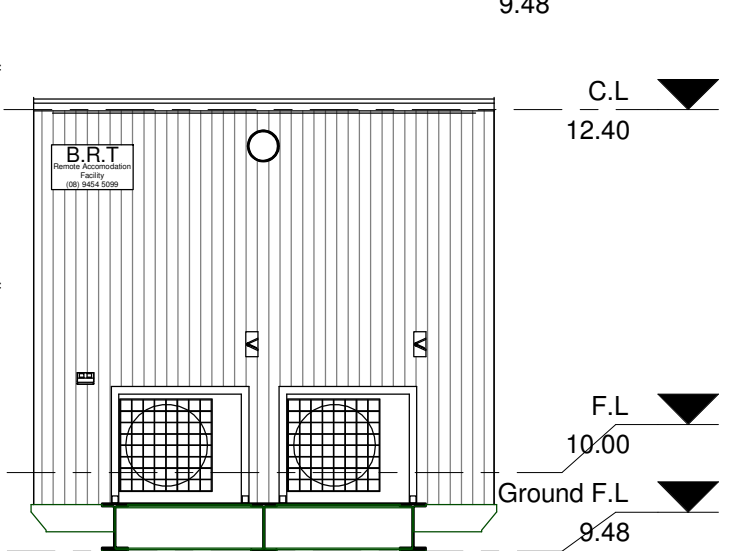
**D** VIEW D  
1 : 50




**E** VIEW E (External)  
1 : 50



**F** VIEW F (External)  
1 : 50



<b>Bonnie Rock Transport Pty Ltd</b> 1260 Abernethy Road HAZELMERE WA 6055		<b>MODULE - DINING &amp; STORE</b>	
		<b>INTERNAL WALLS</b>	
DRAWN ERIC	CHECKED MATHEW	<b>CONSTRUCTION</b> PROJECT N° 523	SHEET SIZE: A3
APPROVED ROGER	DATE 4/05/2011 11:49:51 AM	SCALE 1 : 50	
		TB 00115 A	SHEET N° 04





**Bonnie Rock Transport Pty Ltd**  
1260 Abernethy Road HAZELMERE WA 6055

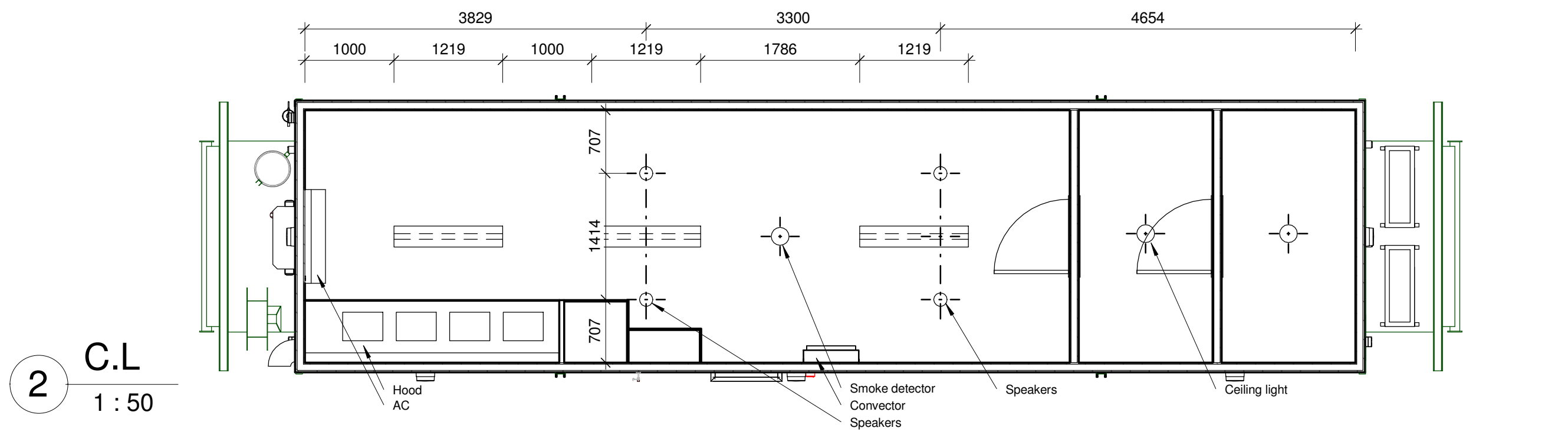
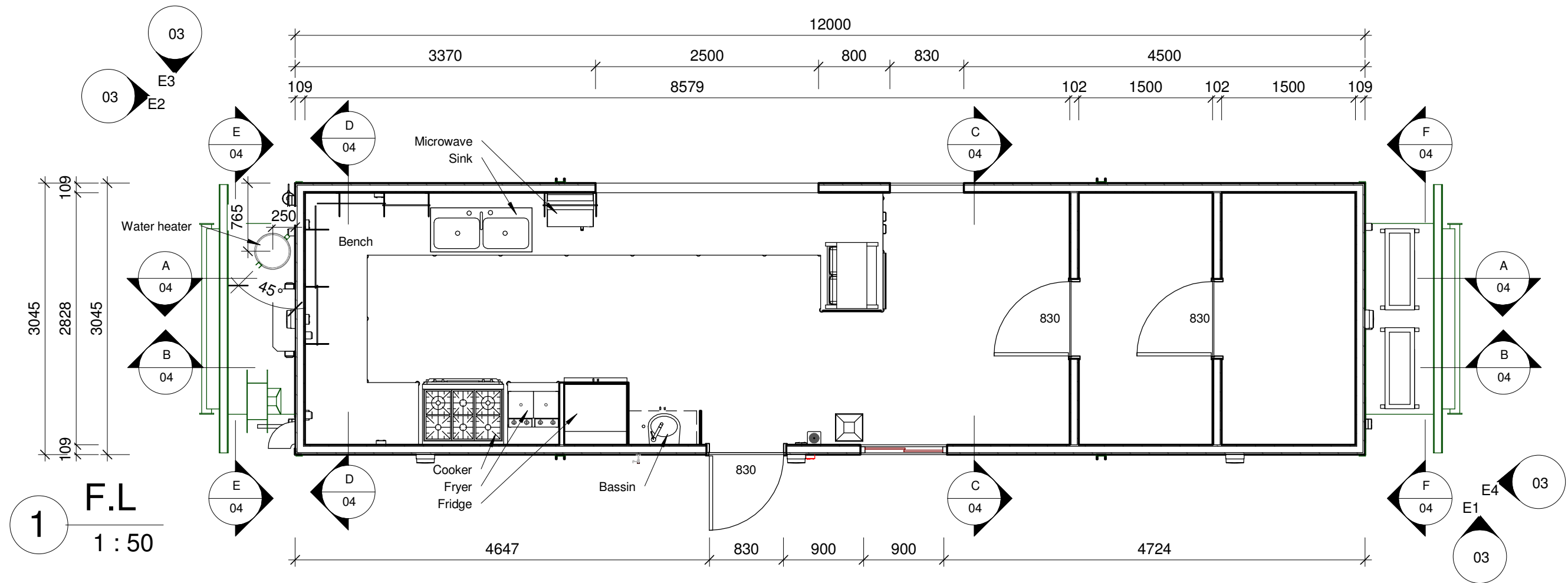



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**MODULE - KITCHEN, CHILLER & FREEZER**

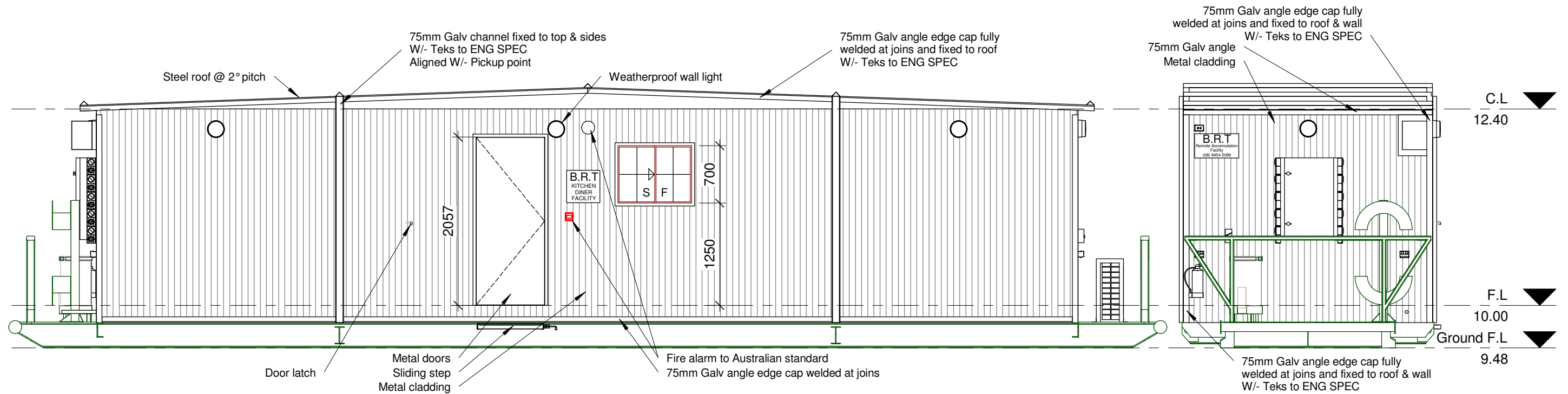
**PERSPECTIVES**

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CHECKED	MATHEW	PROJECT N° <b>523</b>	
APPROVED	ROGER	SCALE <b>1:1</b>	SHEET N° <b>01</b>
DATE	4/05/2011 11:52:46 AM	TB 00114 A	



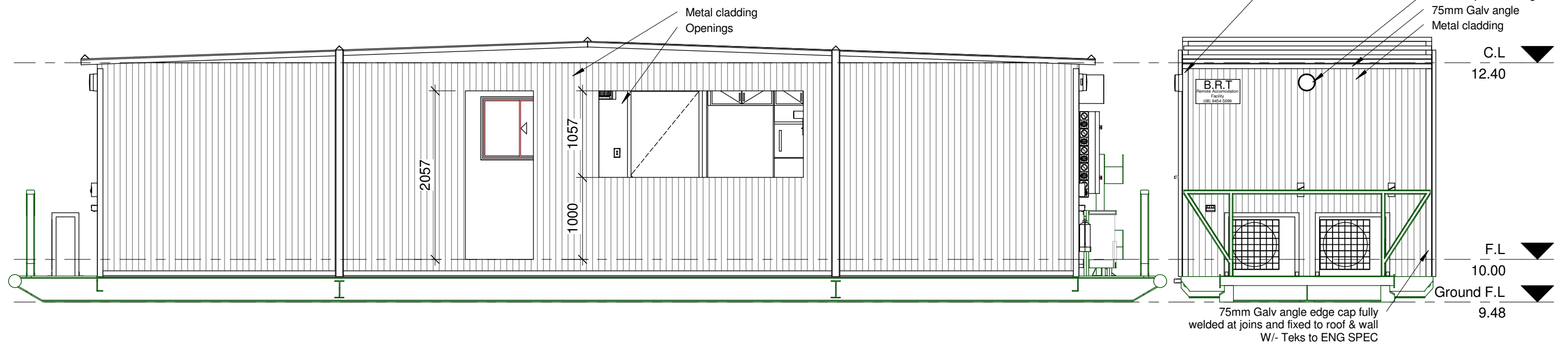
<b>Bonnie Rock Transport Pty Ltd</b> 1260 Abernethy Road HAZELMERE WA 6055		<b>MODULE - KITCHEN, CHILLER &amp; FREEZER</b>	
		<b>FLOOR &amp; CEILING PLANS</b>	
DRAWN CHECKED APPROVED DATE	ERIC MATHEW ROGER 4/05/2011 11:52:48 AM	<b>CONSTRUCTION</b> PROJECT N° SCALE TB 00114 A	SHEET SIZE: <b>A3</b> 1 : 50 SHEET N° <b>02</b>





**E1** ELEVATION 1  
1 : 50

**E2** ELEVATION 2  
1 : 50



**E3** ELEVATION 3  
1 : 50

**E4** ELEVATION 4  
1 : 50

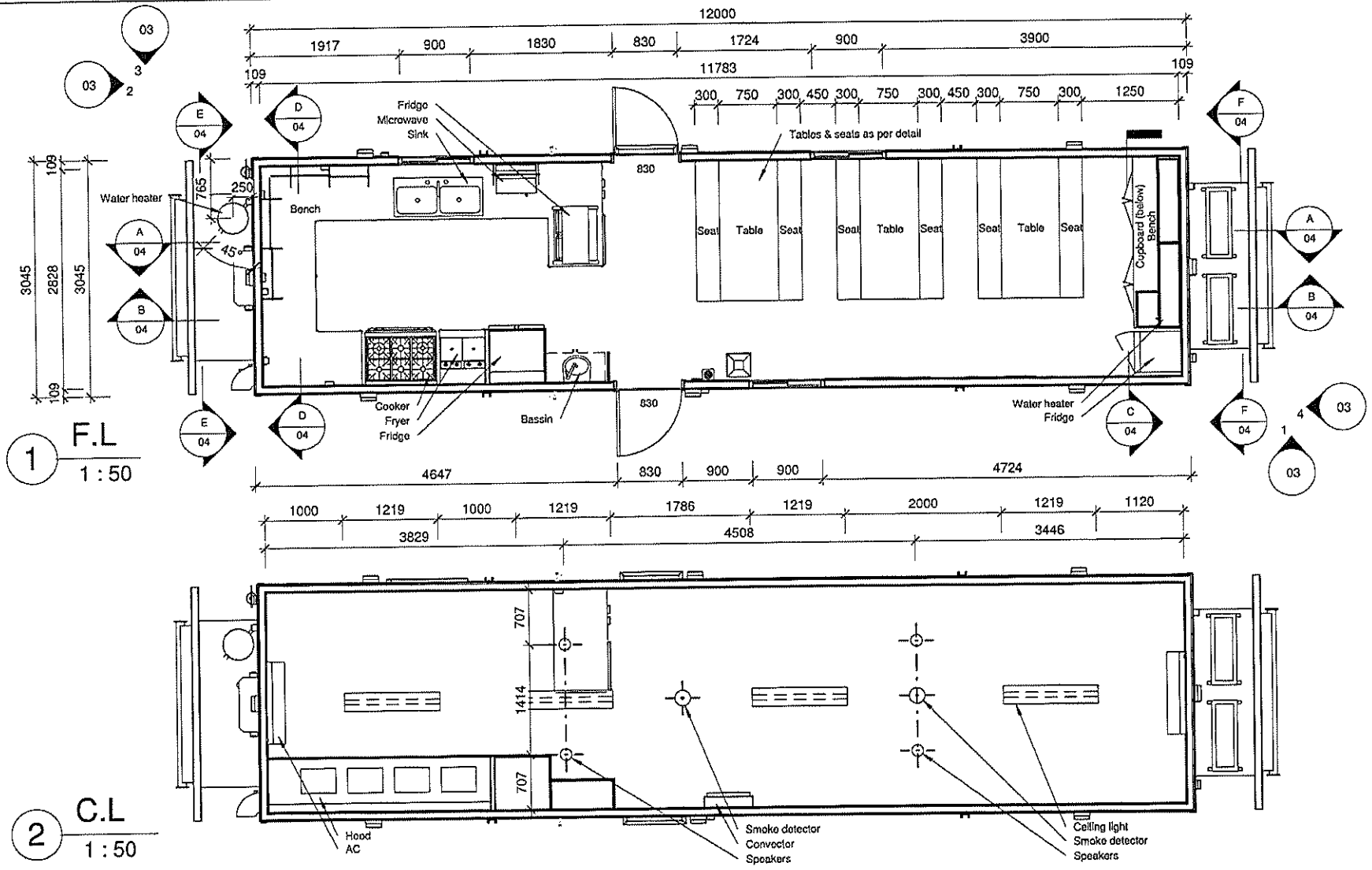
**Bonnie Rock Transport Pty Ltd**  
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Fremantle WA 6160  
Ph: (08) 9433 1921  
Mob: 0447 177 115  
email@transformdrafting.com

**MODULE - KITCHEN, CHILLER & FREEZER**

**ELEVATIONS**

DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: <b>A3</b>
CHECKED	MATHEW	PROJECT N° <b>523</b>	
APPROVED	ROGER	SCALE 1 : 50	SHEET N° <b>03</b>
DATE	4/05/2011 11:52:50 AM	TB 00114 A	



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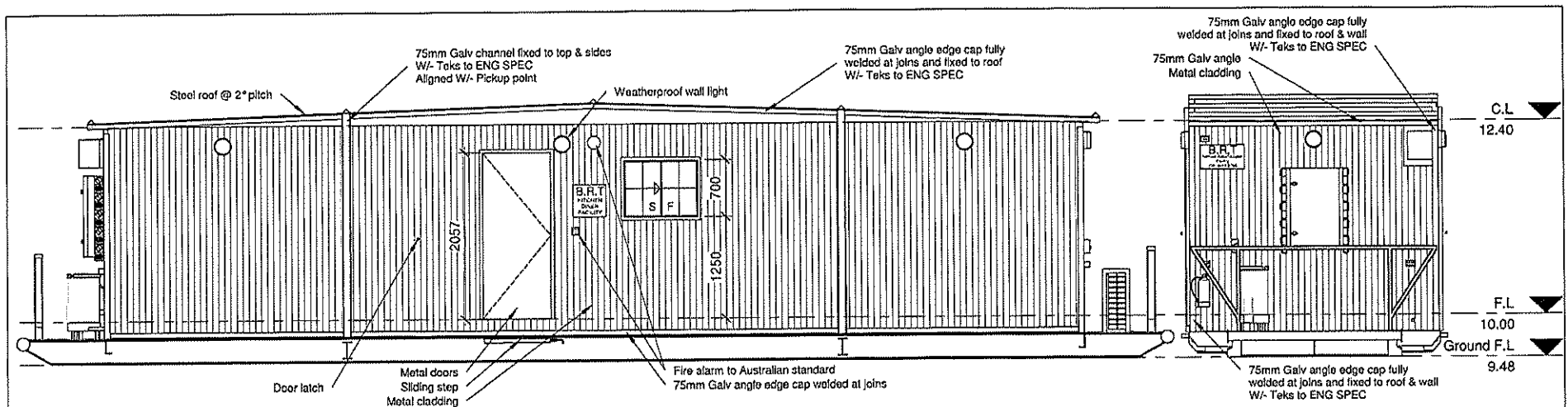
No.	Description	Date

ALBEC  
 MODULE - KITCHEN DINER FACILITY

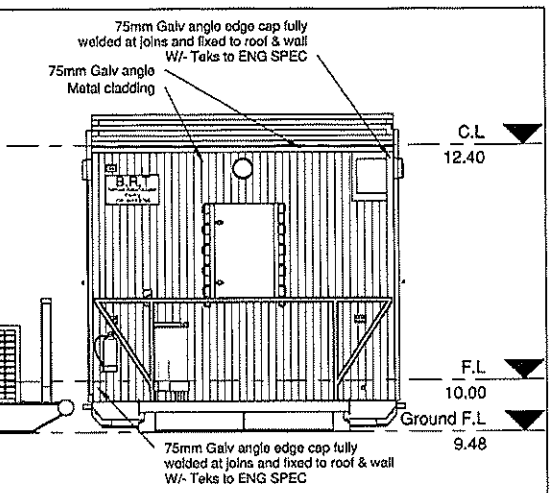
Floor & Ceiling Plans		
PROJECT NO:	523	SHEET NO:
DATE:	20th October 2010	SIZE:
DRAWN BY:	Eric	DWG NO:
STATUS:	Construction	Scale
		1:50

20/10/2010 12:56:28 PM

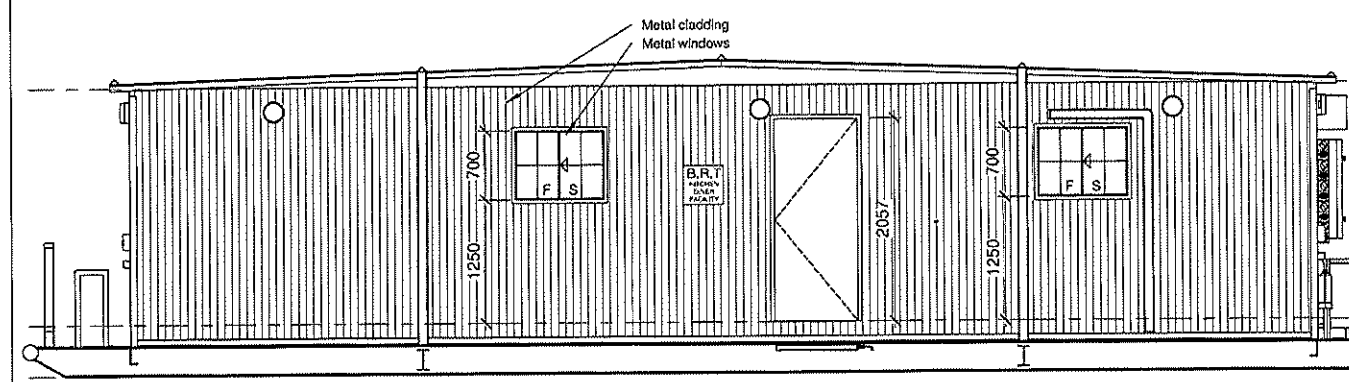




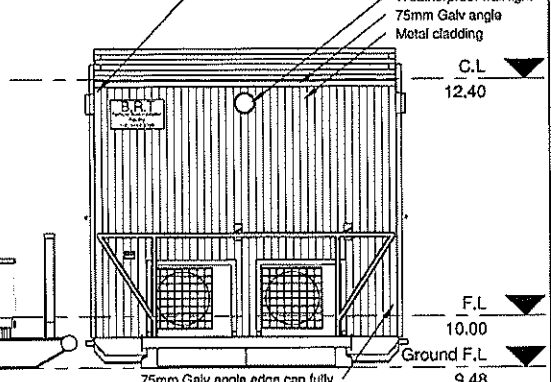
1 Elevation 1  
1 : 50



2 Elevation 2  
1 : 50



3 Elevation 3  
1 : 50



4 Elevation 4  
1 : 50



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No.	Description	Date

ALBEC  
MODULE - KITCHEN DINER FACILITY  
20/10/2010 12:57:07 PM

Elevations			
PROJECT NO:	523	SHEET NO:	03
DATE:	20th October 2010	SIZE:	A3
DRAWN BY:	Eric	STATUS:	Scale
	Construction		1 : 50



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**MODULE - CHILLER / FREEZER / STORAGE**

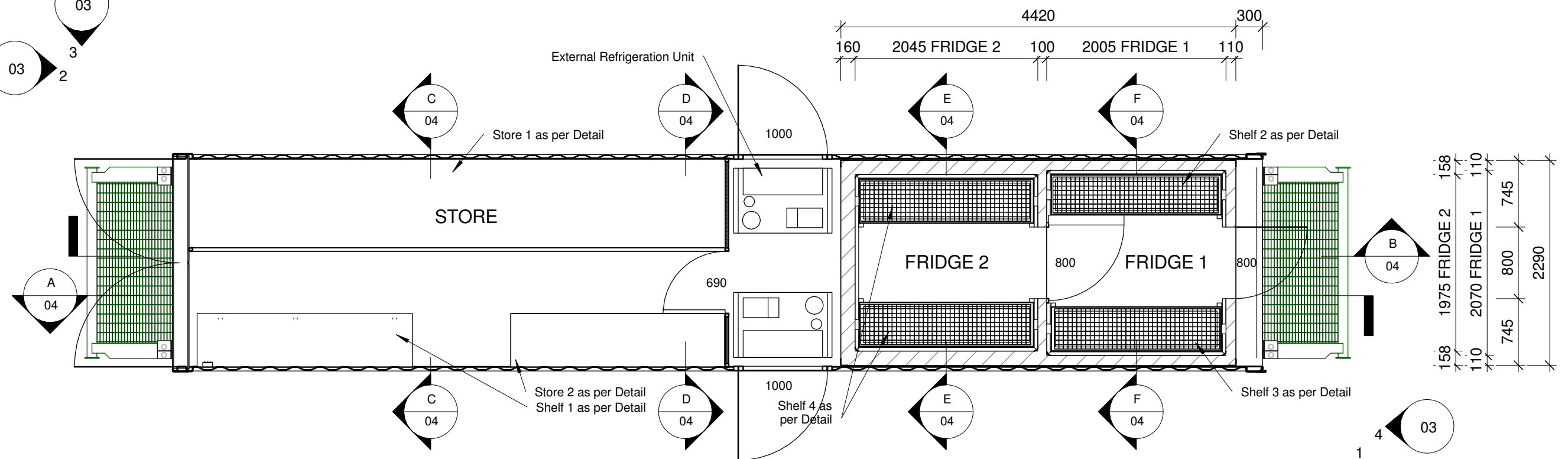
**Perspectives**

DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: <b>A3</b>
CHECKED	MATHEW	PROJECT N° <b>523</b>	
APPROVED	ROGER	SCALE <b>1:1</b>	SHEET N° <b>01</b>
DATE	24/01/2011 4:16:43 PM	TB 00012 A	

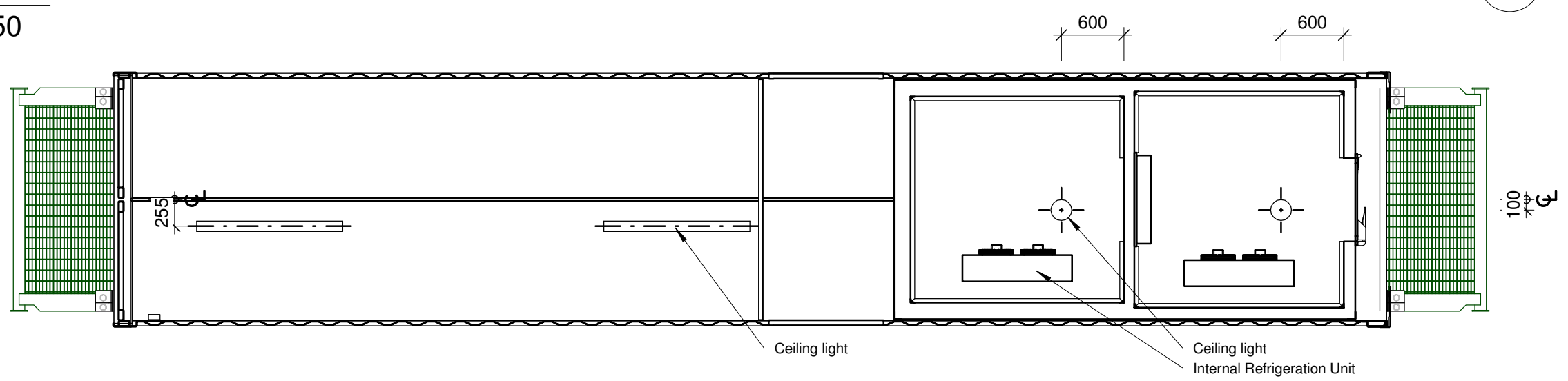


1 F.L  
1 : 50

03  
3  
2



2 C.L  
1 : 50

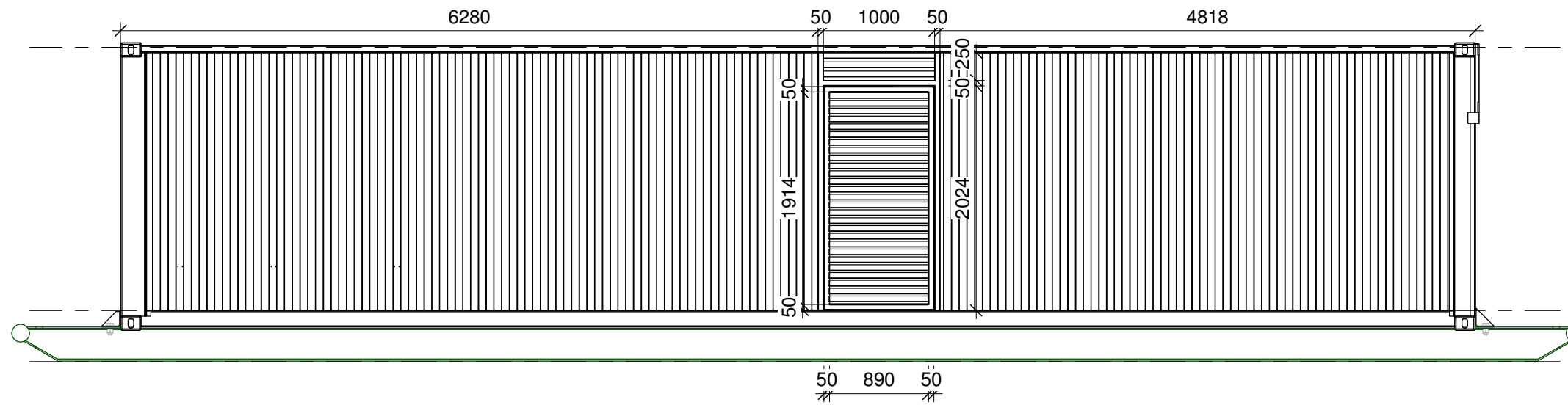


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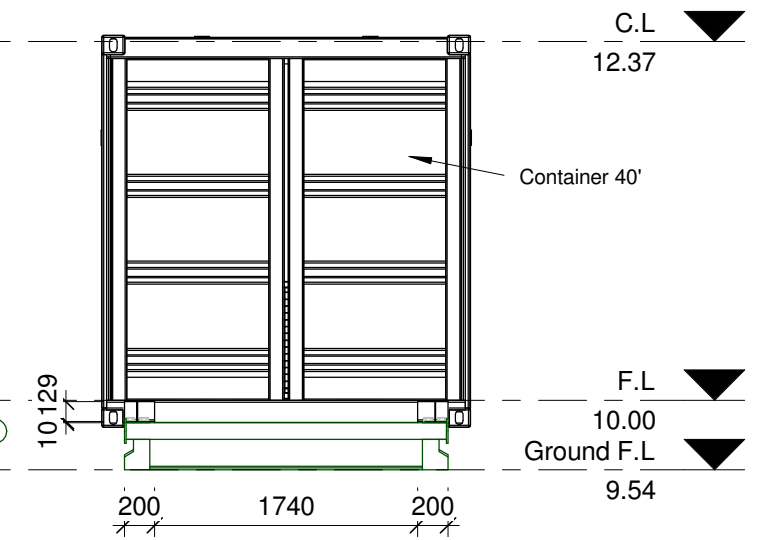
43 Wood Street  
Fremantle WA 6160  
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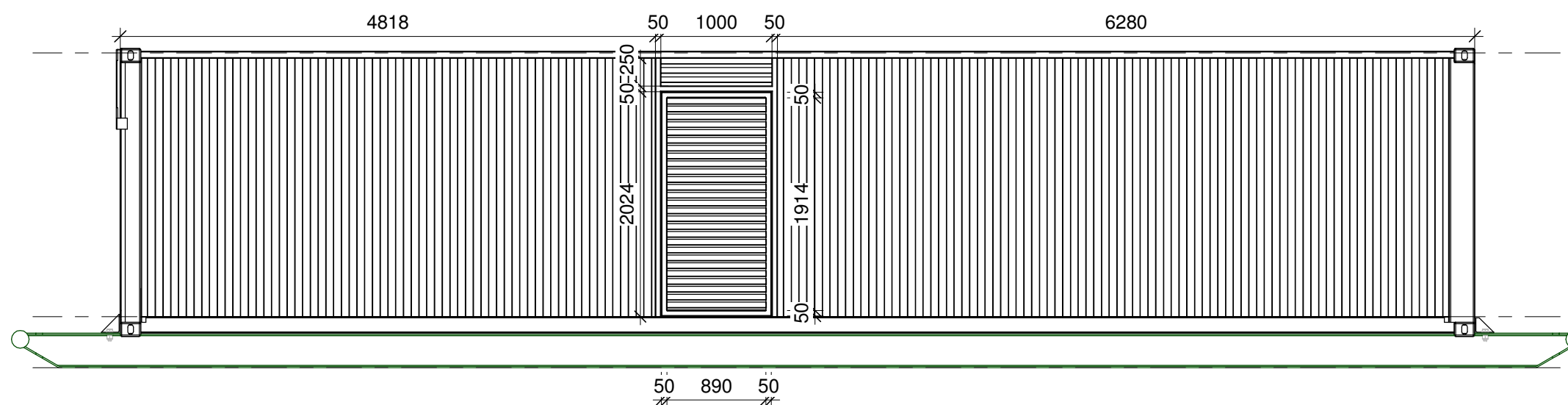
<b>MODULE - CHILLER / FREEZER / STORAGE</b>				
<b>Floor &amp; Ceiling Plans</b>				
DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: <b>A3</b>	
CHECKED	MATHEW	PROJECT N°		523
APPROVED	ROGER	SCALE	1 : 50	
DATE	24/01/2011 4:16:51 PM	TB 00012 A	SHEET N°	02



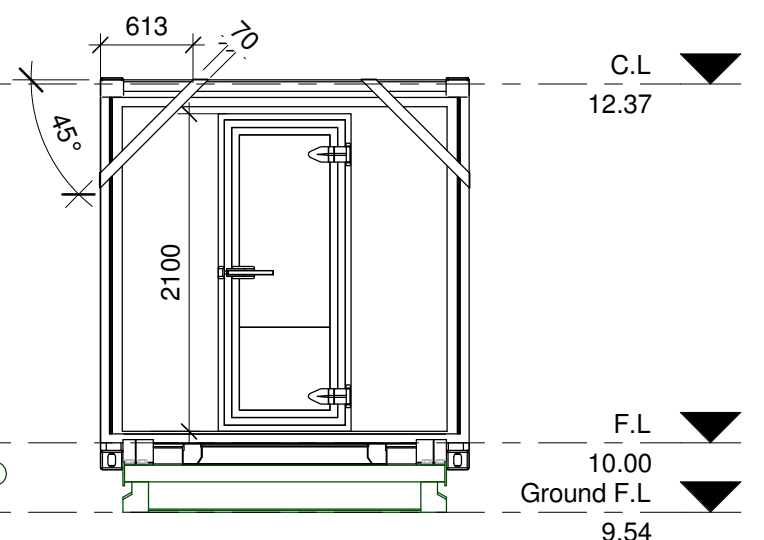
1 Elevation 1  
1 : 50




2 Elevation 2  
1 : 50



3 Elevation 3  
1 : 50

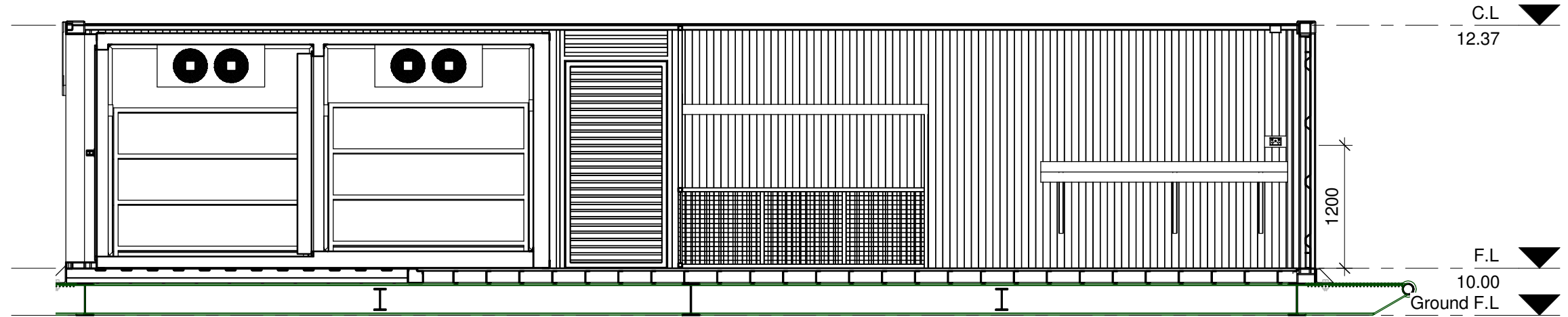


4 Elevation 4  
1 : 50

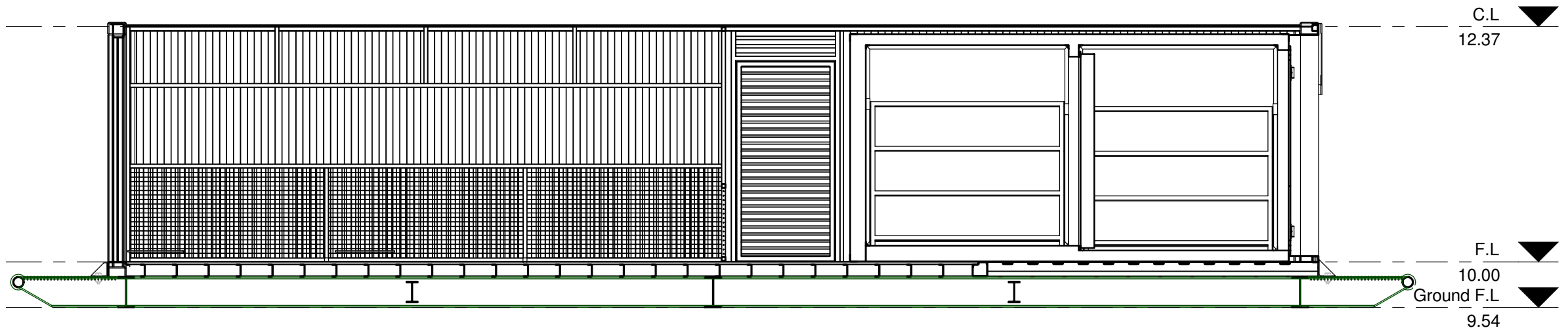
<b>Bonnie Rock Transport Pty Ltd</b> 1260 Abernethy Road HAZELMERE WA 6055		<b>MODULE - CHILLER / FREEZER / STORAGE</b>	
		<b>Elevations</b>	
DRAWN ERIC	CHECKED MATHEW	<b>CONSTRUCTION</b> PROJECT N° 523	SHEET SIZE: A3
APPROVED ROGER	DATE 24/01/2011 4:16:57 PM	SCALE 1 : 50	
43 Wood Street Fremantle WA 6160 Ph: (08) 9433 1921 Mob: 0447 177 115 email@transformdrafting.com		TB 00012 A	SHEET N° 03



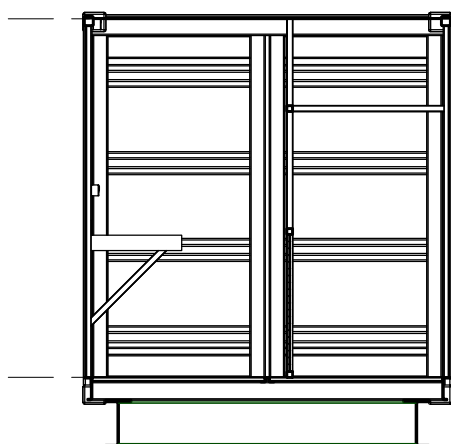
**A** View A  
1 : 50



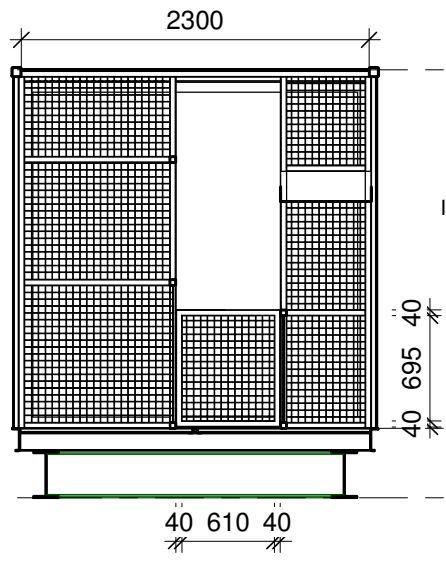
**B** View B  
1 : 50



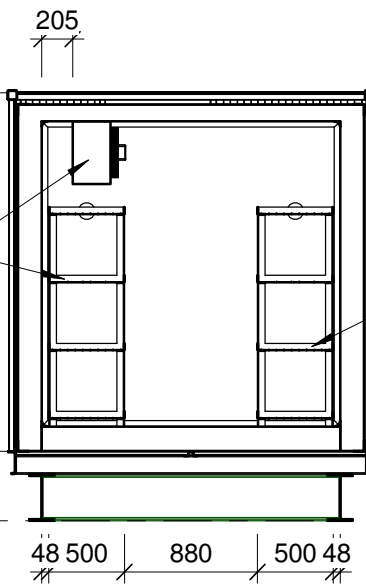
**C** View C  
1 : 50



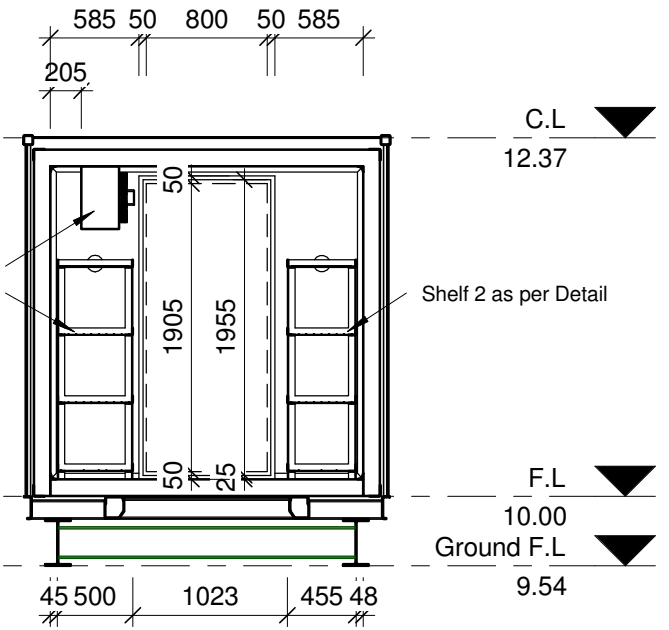
**D** View D  
1 : 50



**E** View E  
1 : 50



**F** View F  
1 : 50



Internal Refrigeration Unit  
Shelf 4 as per Detail

Internal Refrigeration Unit  
Shelf 3 as per Detail  
Shelf 4 as per Detail

Shelf 2 as per Detail

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**MODULE - CHILLER / FREEZER / STORAGE**

<b>Internal Walls</b>		<b>CONSTRUCTION</b>		SHEET SIZE: <b>A3</b>
DRAWN	ERIC	PROJECT N°	523	
CHECKED	MATHEW	SCALE	1 : 50	SHEET N° <b>04</b>
APPROVED	ROGER	DATE	24/01/2011 4:17:11 PM	
		TB 00012 A		

## Gym Building

1 x 6m x 2.5 m fully insulated containerised building mounted on oilfield skid and with fork pockets.

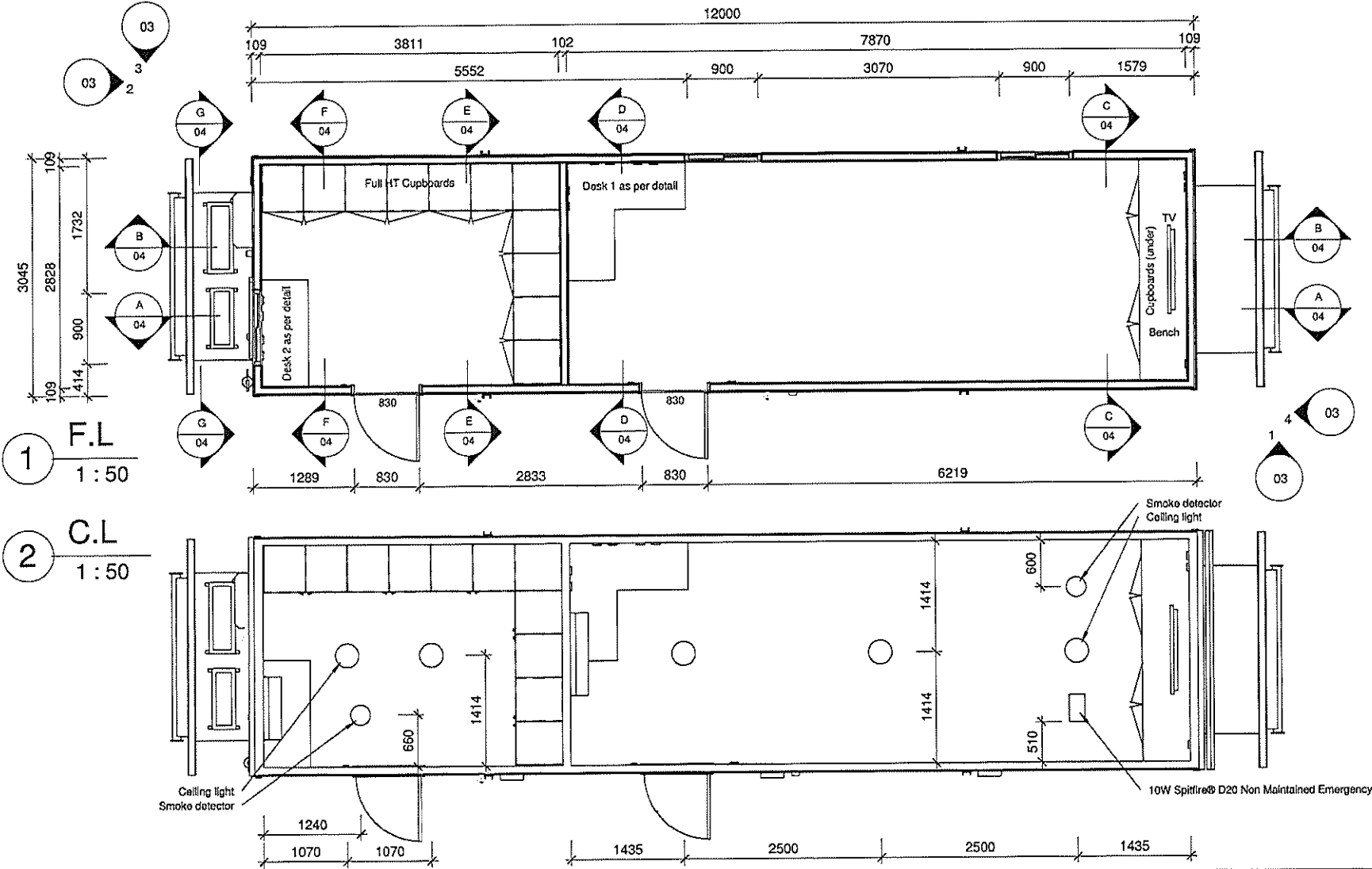
Consists of:

- Full opening end doors
- Side entry slide doors /flicscreened
- Air conditioned/spit system
- External mount weights storage/ lockup box
- Gym Equipment
- 1 x Proform 400ZLE Elliptical Cross-trainer
- 1 x Obb 770m - Bench c/e with bars and weights
- 1 x Powerline BSG 10X Powerline strength training machine
- 1 x Set Free weights
- 1 x Set Dumbbells
- 1 x Punch Bag (mounted externally)
- 1 x assorted gloves









1 F.L  
1 : 50

2 C.L  
1 : 50

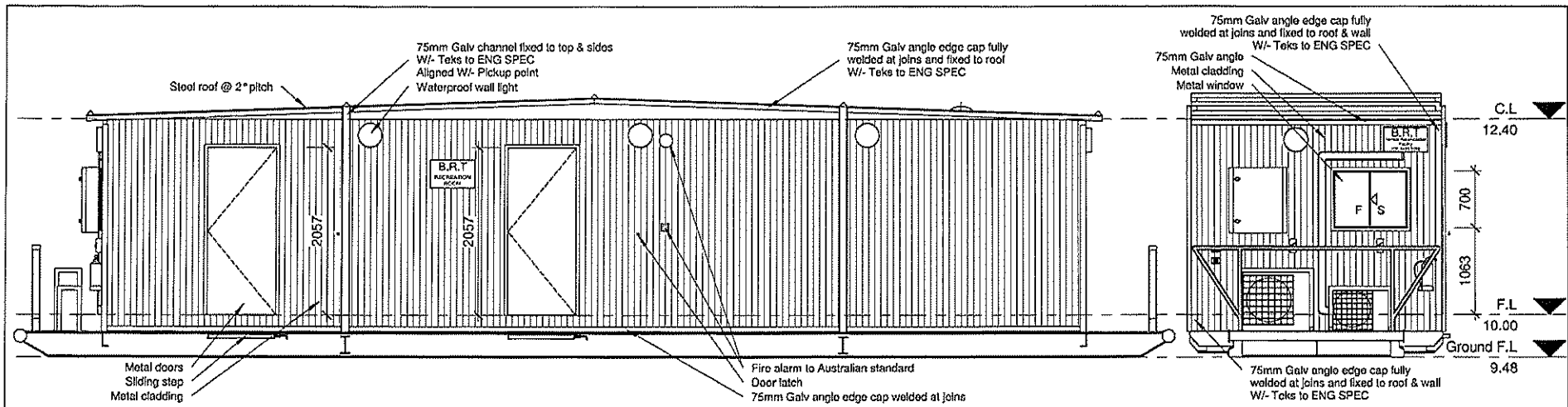


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Ph: (08) 9433 1921 Mob: 0447 177 115

No.	Description	Date

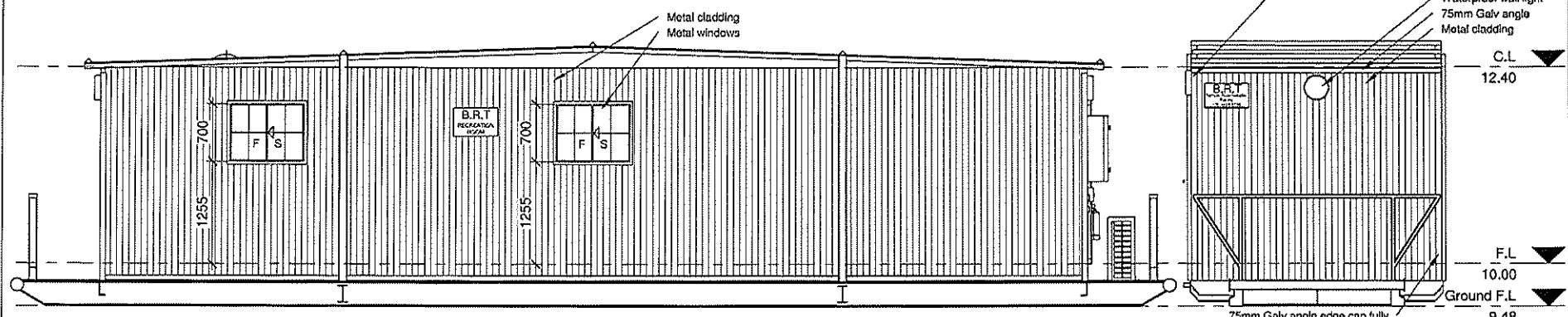
ALBEC  
20/09/2010 12:22:46 PM  
MODULE - RECREATION ROOM

Floor & Ceiling Plans		
PROJECT NO:	523	SHEET NO:
DATE:	20th September 2010	SIZE:
DRAWN BY:	Eric	DWG NO:
STATUS:	Construction	Scale
		1 : 50



**1** Elevation 1  
1 : 50

**2** Elevation 2  
1 : 50



**3** Elevation 3  
1 : 50

**4** Elevation 4  
1 : 50



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Ph: (08) 9433 1921 Mob: 0447 177 115

No.	Description	Date

ALBEC  
MODULE - RECREATION ROOM  
20/09/2010 12:22:55 PM

Elevations		
PROJECT NO:	523	SHEET NO:
DATE:	20th September 2010	SIZE:
DRAWN BY:	Erie	03
STATUS:	Construction	Scale
		1 : 50





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1260 Abernethy Road HAZELMERE WA 6055



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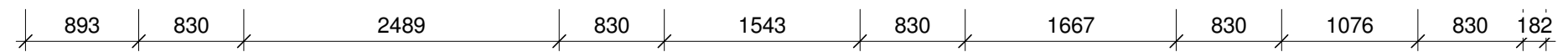
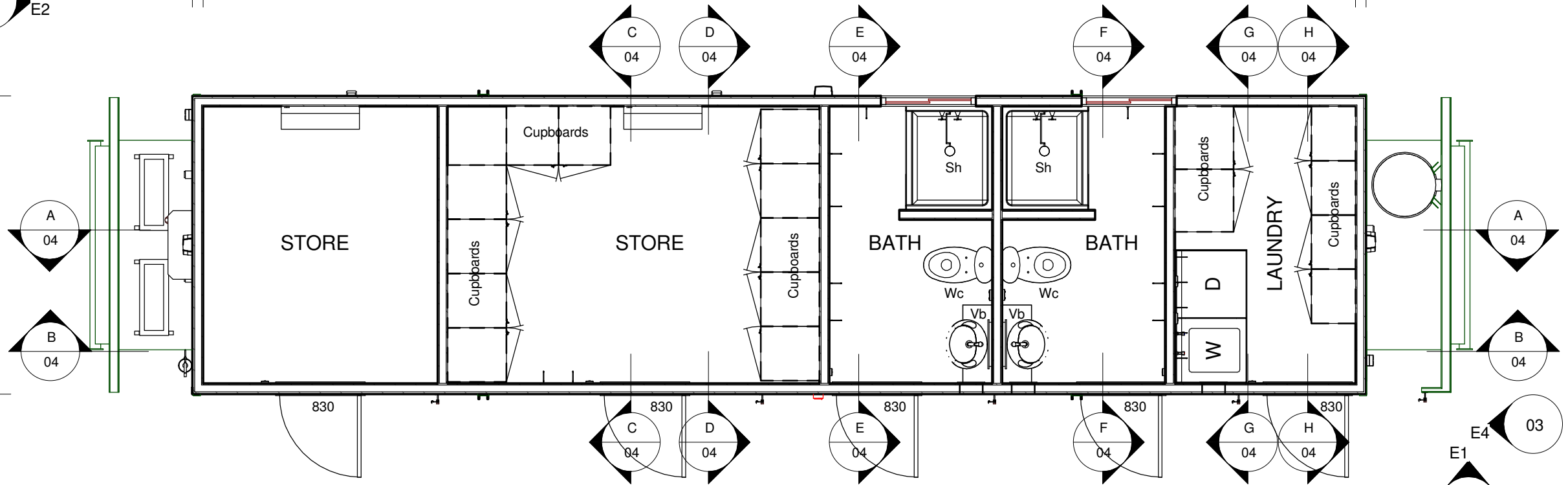
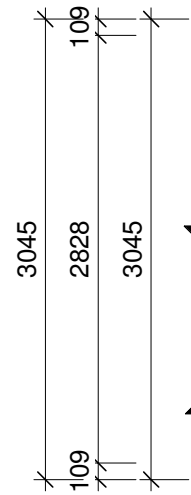
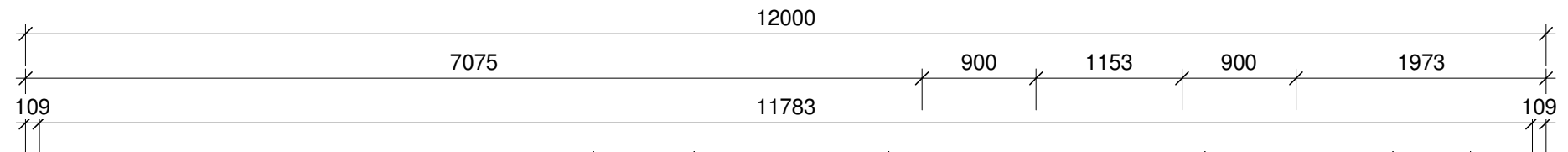
email@transformdrafting.com

## MODULE - STORES / ABLUTIONS

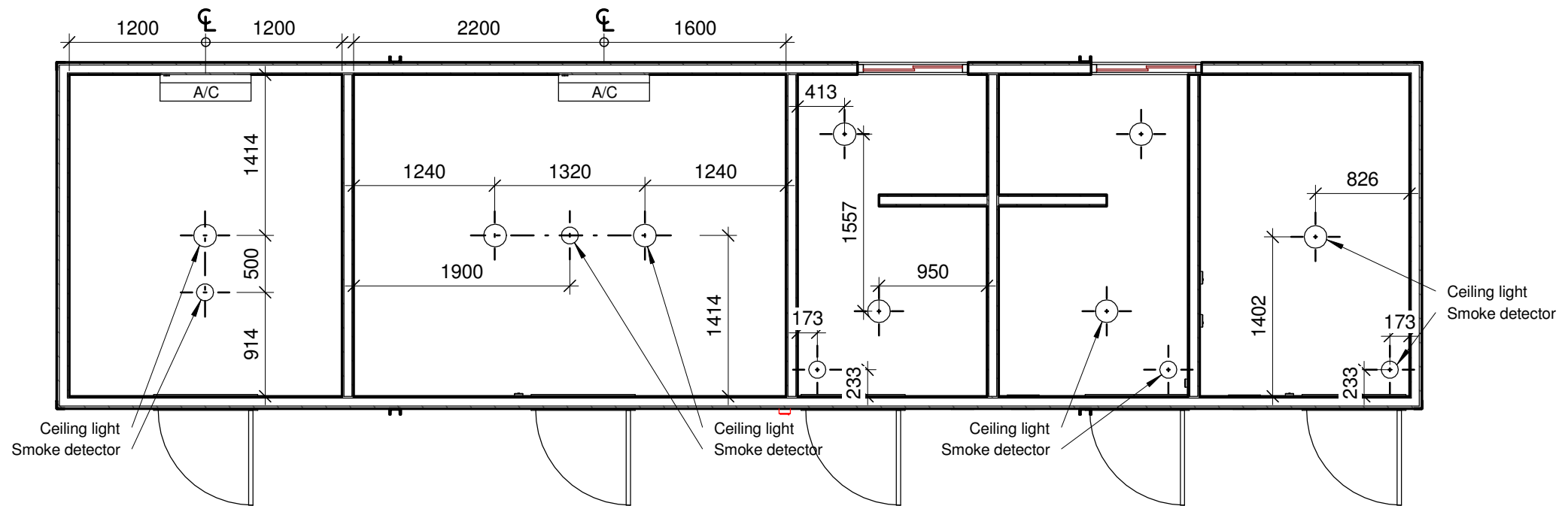
### PERSPECTIVES

DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: A3
CHECKED	MATHEW	PROJECT N° 523	
APPROVED	ROGER	SCALE 1:1	SHEET N° 01
DATE	25/03/2011 12:26:30 PM	TB 00086 A	

1 F.L  
1 : 50



2 C.L  
1 : 50



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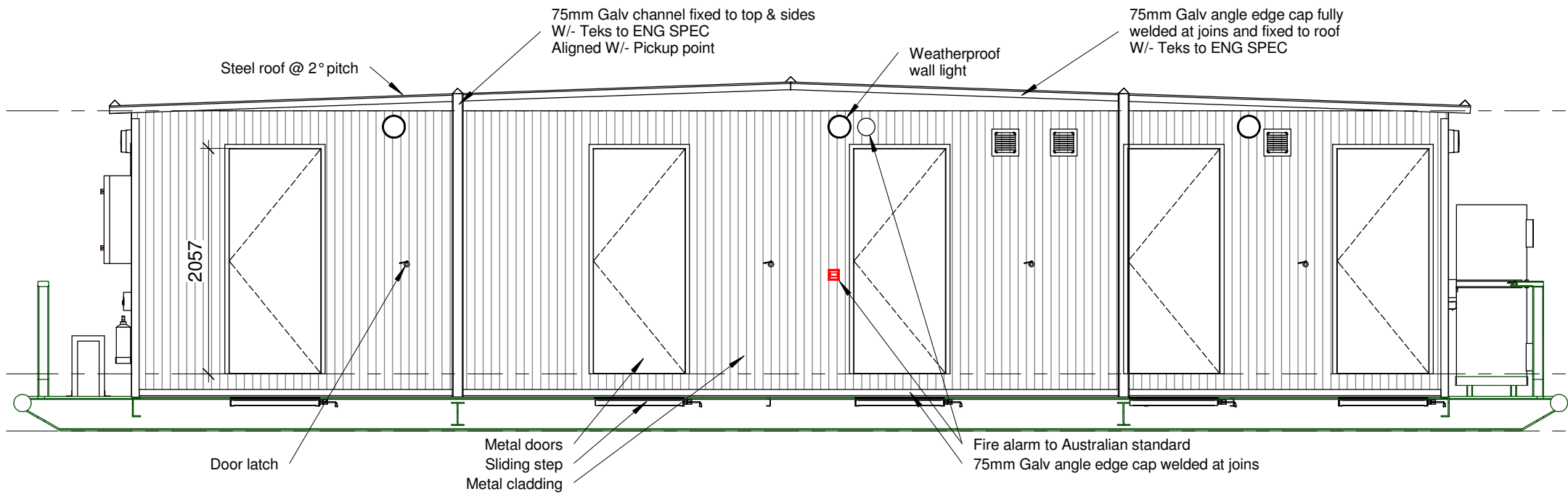
**MODULE - STORES / ABLUTIONS**

**FLOOR & CEILING PLANS**

DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: <b>A3</b>
CHECKED	MATHEW	PROJECT N°	
APPROVED	ROGER	SCALE	1 : 50
DATE	25/03/2011 12:26:31 PM	TB 00086 A	SHEET N° <b>02</b>

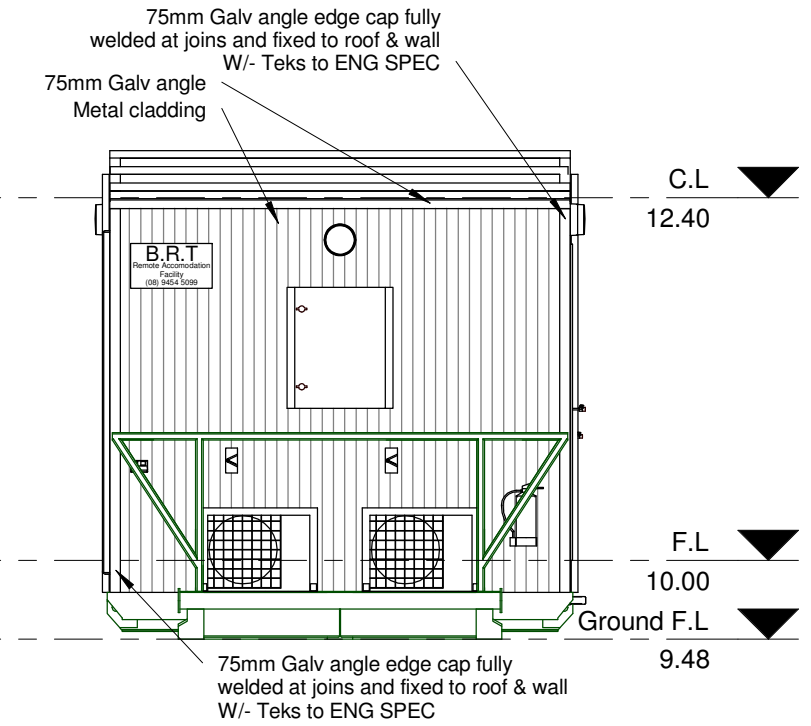
# E1 ELEVATION 1

1 : 50



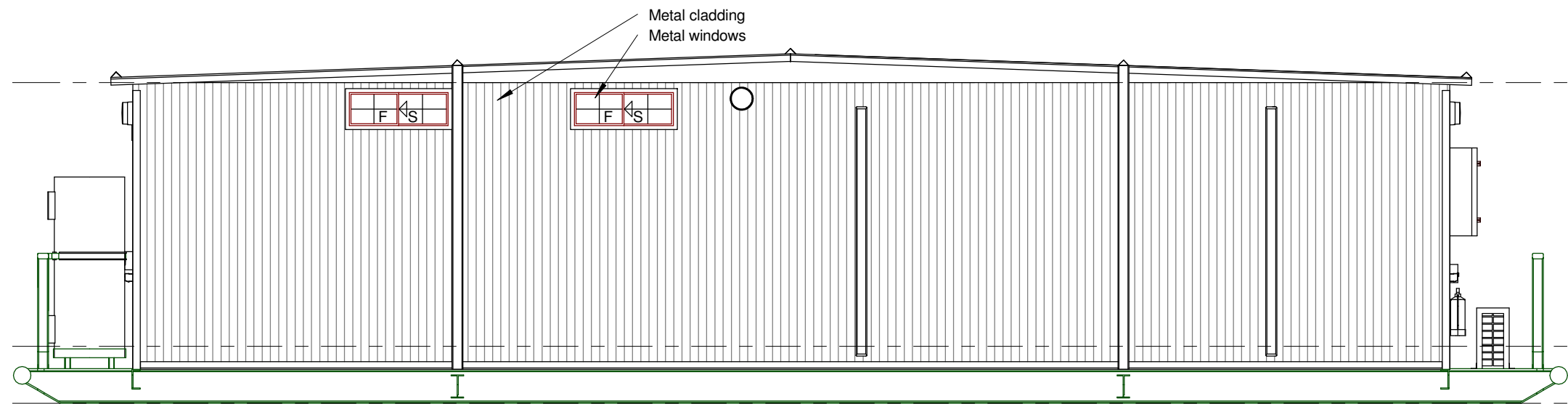
# E2 ELEVATION 2

1 : 50



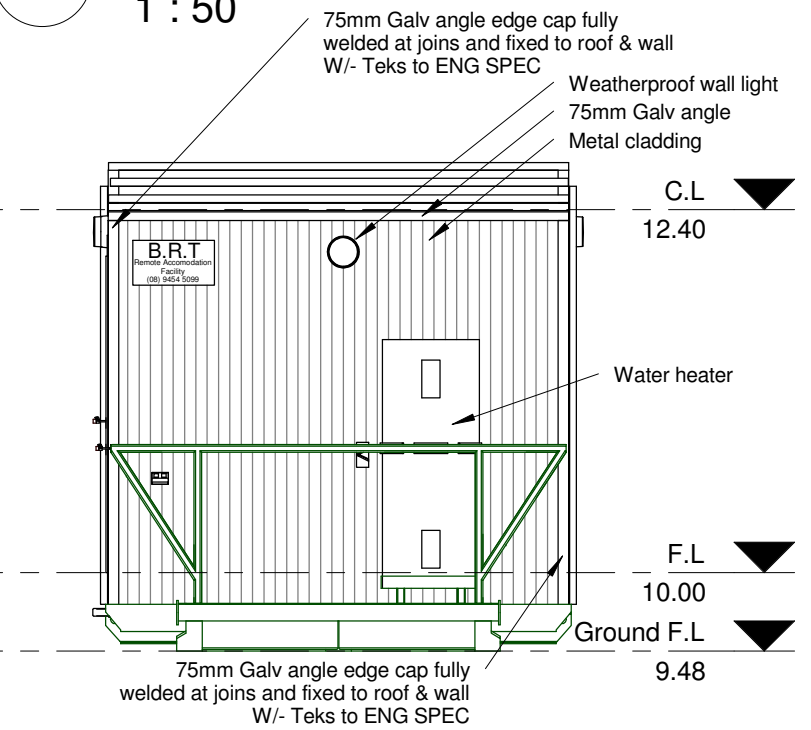
# E3 ELEVATION 3

1 : 50



# E4 ELEVATION 4

1 : 50



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## MODULE - STORES / ABLUTIONS

### ELEVATIONS

DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: <b>A3</b>
CHECKED	MATHEW	PROJECT N° <b>523</b>	
APPROVED	ROGER	SCALE 1 : 50	SHEET N° <b>03</b>
DATE	25/03/2011 12:26:33 PM	TB 00086 A	





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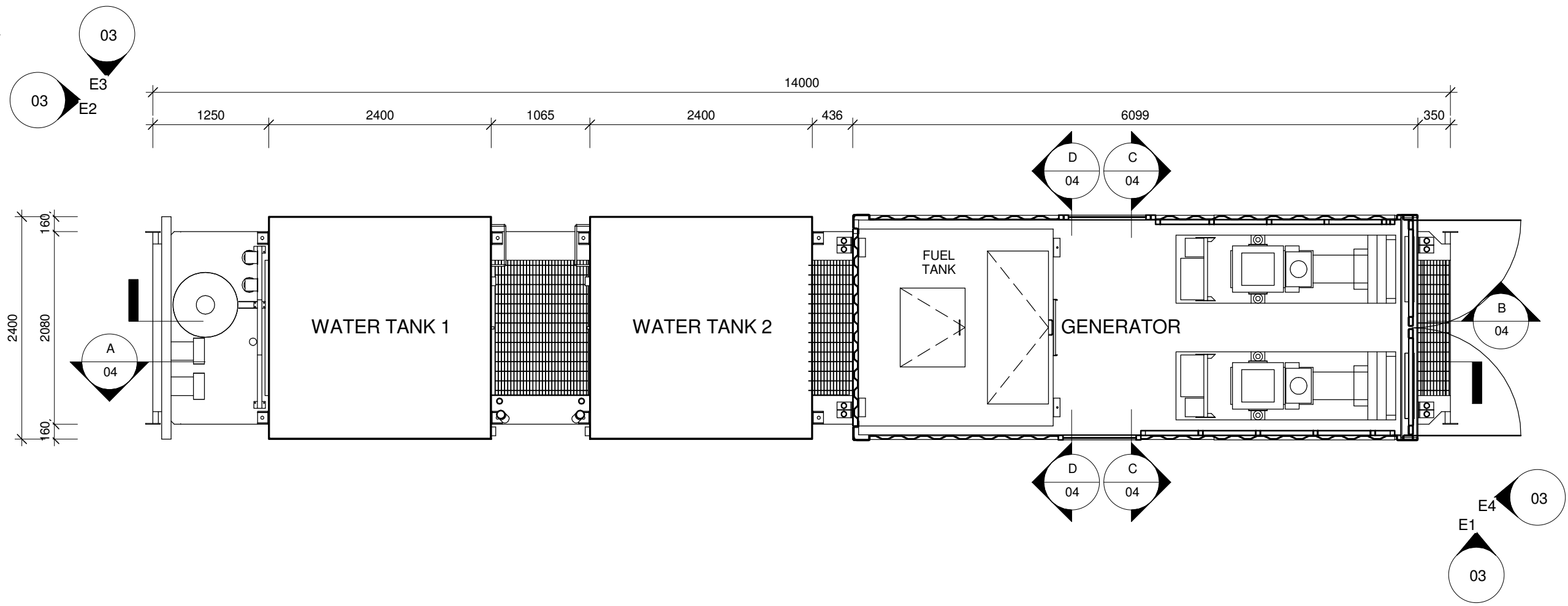
43 Wood Street  
Fremantle WA 6160  
Ph: (08) 9433 1921  
Mob: 0447 177 115  
email@transformdrafting.com

**MODULE - GENERATOR / WATER TANKS**

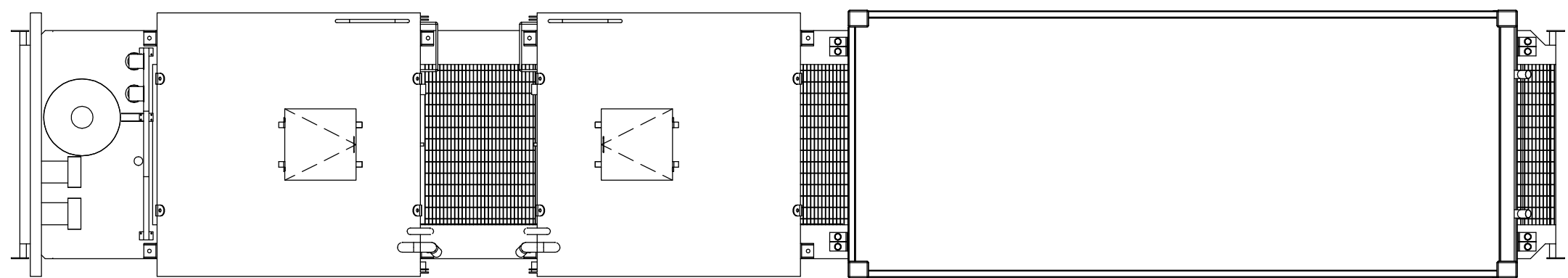
**PERSPECTIVES**


DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: A3
CHECKED	MATHEW	PROJECT N° 523	
APPROVED	ROGER	SCALE 1:1	SHEET N° 01
DATE	29/04/2011 3:58:36 PM	TB 00012 A	

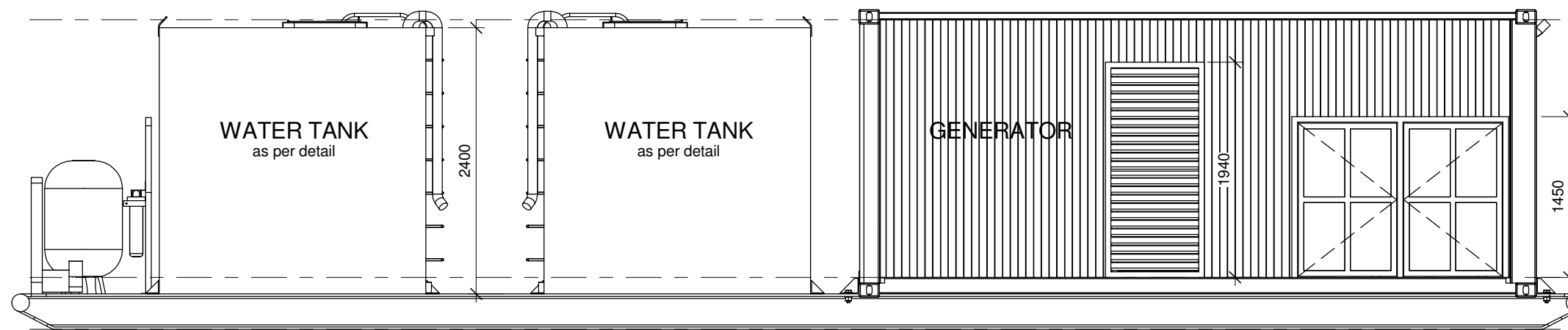
1 F.L  
1 : 50



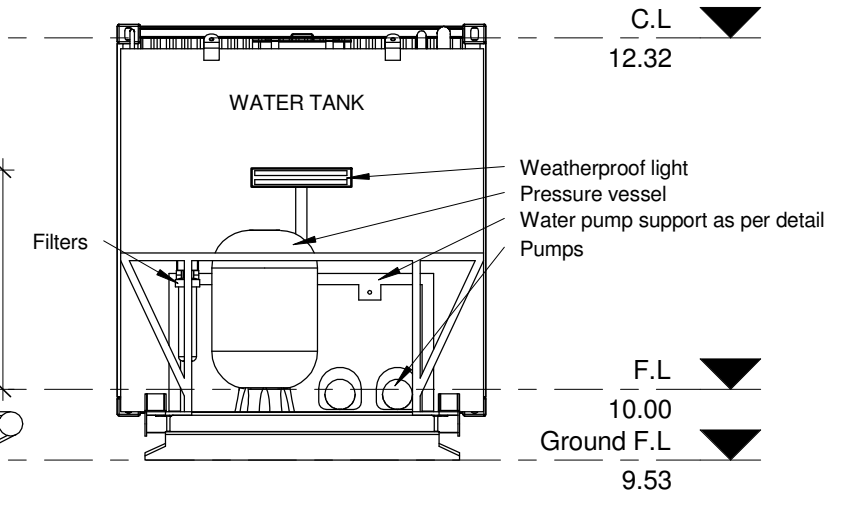
2 C.L  
1 : 50



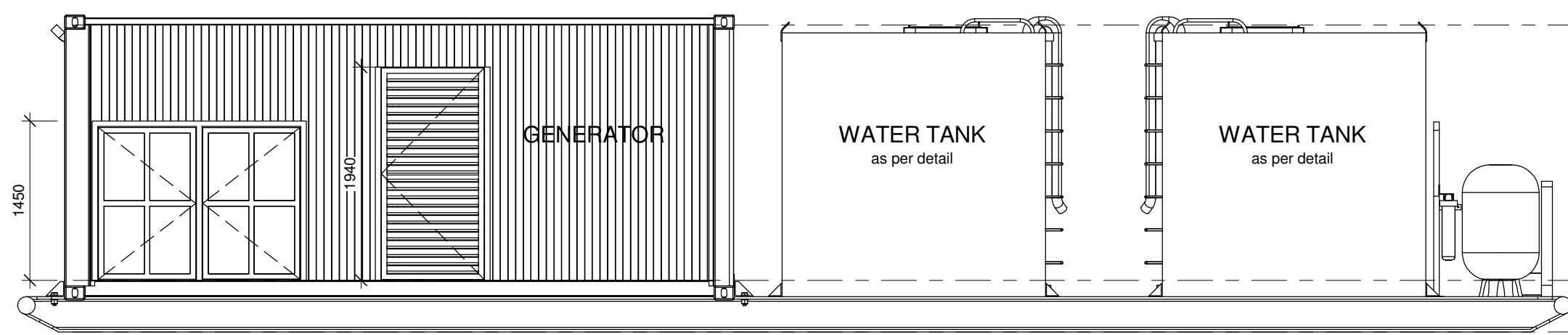
<b>Bonnie Rock Transport Pty Ltd</b> 1260 Abernethy Road HAZELMERE WA 6055		<b>MODULE - GENERATOR / WATER TANKS</b>	
		<b>FLOOR &amp; CEILING PLANS</b>	
DRAWN CHECKED APPROVED DATE	ERIC MATHEW ROGER 29/04/2011 3:58:37 PM	<b>CONSTRUCTION</b> PROJECT N° SCALE TB 00012 A	SHEET SIZE: <b>A3</b> 1 : 50 SHEET N° <b>02</b>



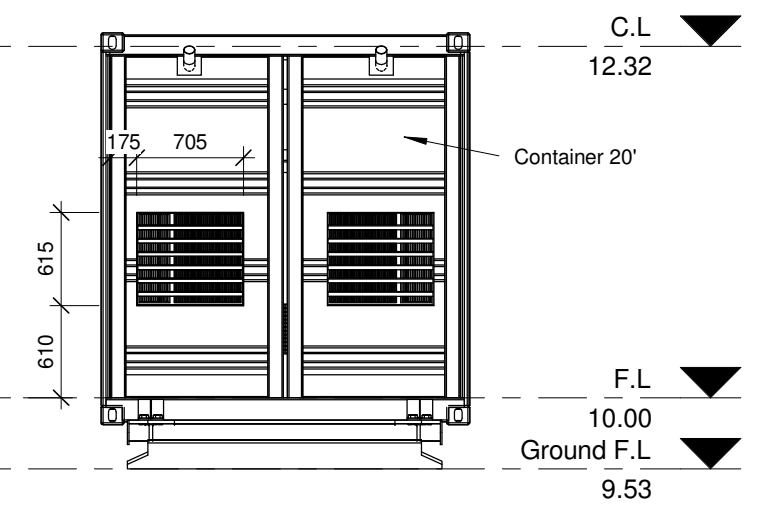
**E1** ELEVATION 1  
1 : 50



**E2** ELEVATION 2  
1 : 50



**E3** ELEVATION 3  
1 : 50



**E4** ELEVATION 4  
1 : 50

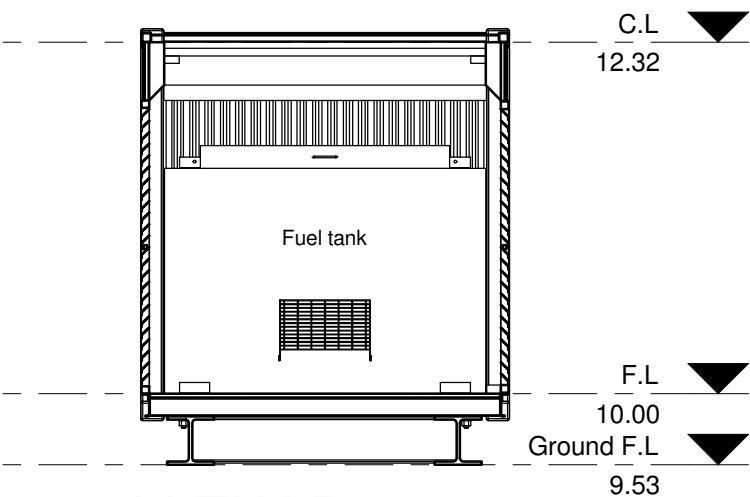
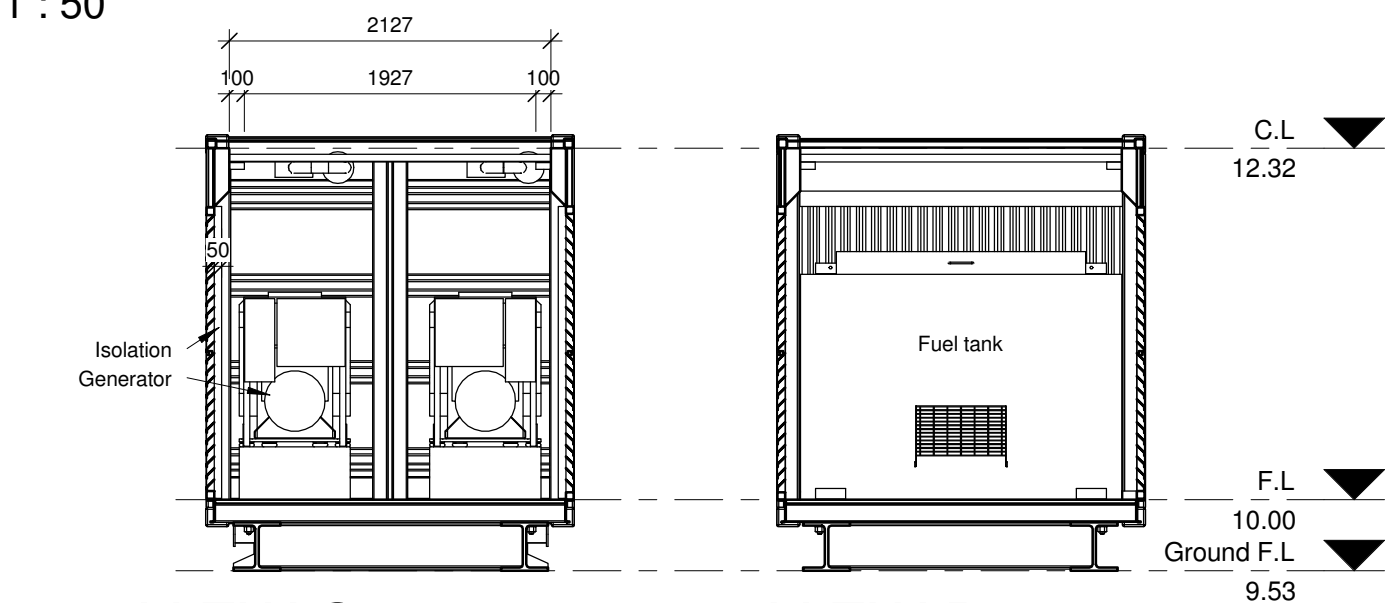
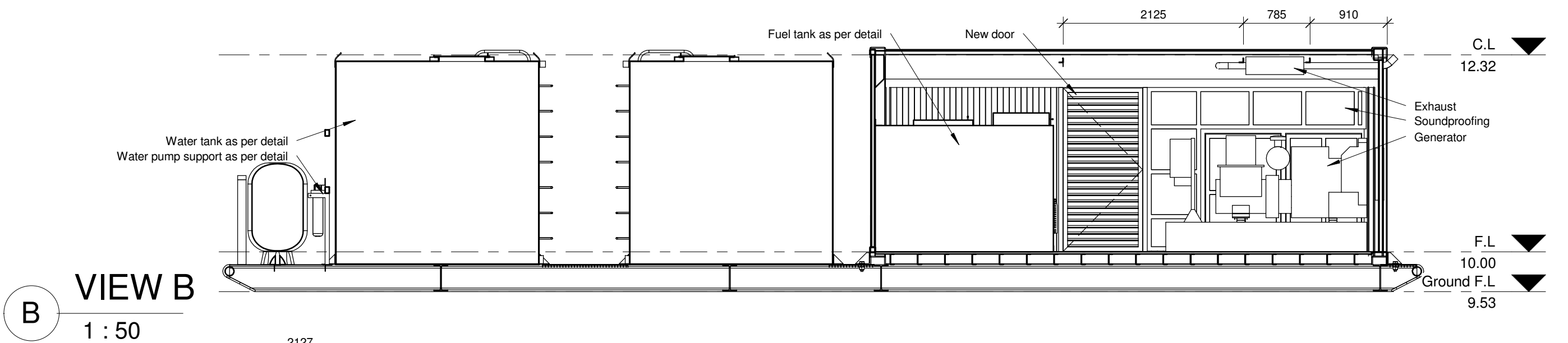
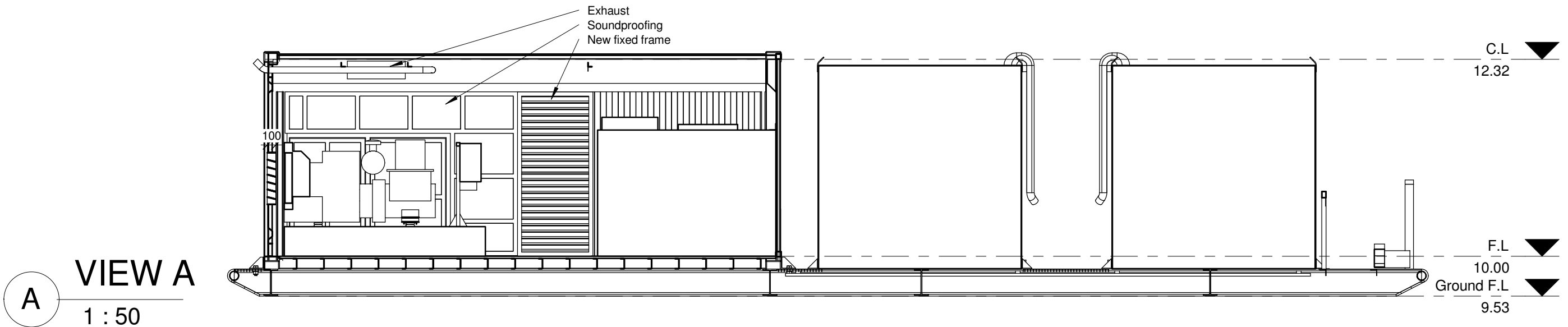
**Bonnie Rock Transport Pty Ltd**  
1260 Abernethy Road HAZELMERE WA 6055

43 Wood Street  
Fremantle WA 6160  
Ph: (08) 9433 1921  
Mob: 0447 177 115  
email@transformdrafting.com

**MODULE - GENERATOR / WATER TANKS**

ELEVATIONS				SHEET SIZE: A3
DRAWN	ERIC	<b>CONSTRUCTION</b>		
CHECKED	MATHEW	PROJECT N°	523	
APPROVED	ROGER	SCALE	1 : 50	
DATE	29/04/2011 3:58:40 PM	TB 00012 A	SHEET N°	03





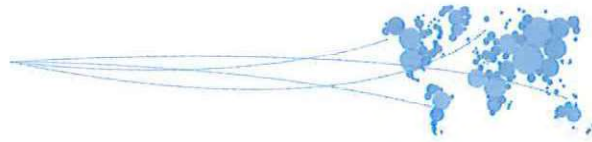
**Bonnie Rock Transport Pty Ltd**  
1260 Abernethy Road HAZELMERE WA 6055

43 Wood Street  
Fremantle WA 6160  
Ph: (08) 9433 1921  
Mob: 0447 177 115  
email@transformdrafting.com

**MODULE - GENERATOR / WATER TANKS**

**INTERNALS WALLS**

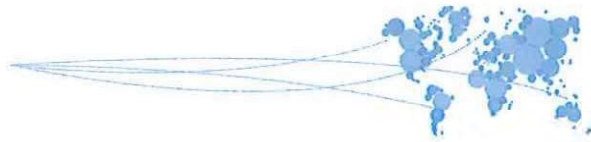
DRAWN	ERIC	<b>CONSTRUCTION</b>	SHEET SIZE: <b>A3</b>
CHECKED	MATHEW	PROJECT N° 523	
APPROVED	ROGER	SCALE 1 : 50	SHEET N° 04
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# **WASTE TREATMENT MANAGEMENT**

## **TEMPORARY REMOTE CAMPS**

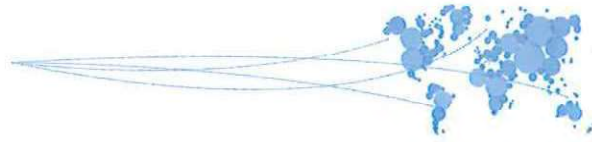
### **AEROBIC TREATMENT UNIT INFORMATION**



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• Rig Site Camp - Waste Treatment Management Schematic	1p
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• Installation / Service / Maintenance Sheet	1p





## **FUJI CLEAN CE SYSTEMS BACKGROUND**

## **Fujiclean CE Systems in WA.**

Fujiclean Japan have been in operation for over 50 years and are now one of the world leaders in providing wastewater recycling systems.

Fujiclean have now been manufacturing their range of CE systems in Australia for the last 4 years and have over 250 systems installed in WA.

**Fujiclean CE System**



The Fujiclean CE System is a compact, robust and technologically advanced system using Fujicleans tried and tested proprietary contact filter bed media treatment technology.

This Fujiclean technology has been refined over 50 years and is now been used in all CE Systems.

This treatment method eliminates the need for additional mechanical components which great reduces any potential failure within the system.

The CE treatment method and technology produces high quality treated effluent suitable for spray irrigation in Garden beds and drip irrigation in gardens or under lawns.

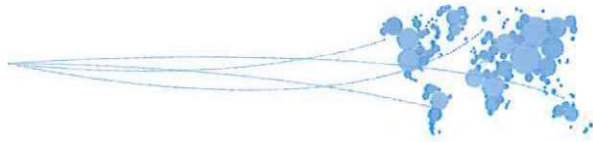
The CE System is also capable of reducing nutrients and test results have shown a reduction down to <20mg/L of Total Nitrogen and <2mg/L of total phosphorus.

## **Fujiclean Development in WA**

Fujiclean has a range of CE Systems available in Australia for both domestic and commercial applications and the systems provide a compact, robust, reliable solution producing a high quality treated effluent suitable for reuse on Gardens and lawn.

EcowaterWA has been working in conjunction with certified installers and service technicians to provide wastewater recycling solutions for Architects, Engineers, Hydraulic consultants, Builders and home owners throughout WA.

EcowaterWA can provide water recycling systems for residential properties, commercial buildings, Mining camps, Caravan Parks, Remote accommodation facilities and any project that requires onsite wastewater treatment up to 60kL/day.



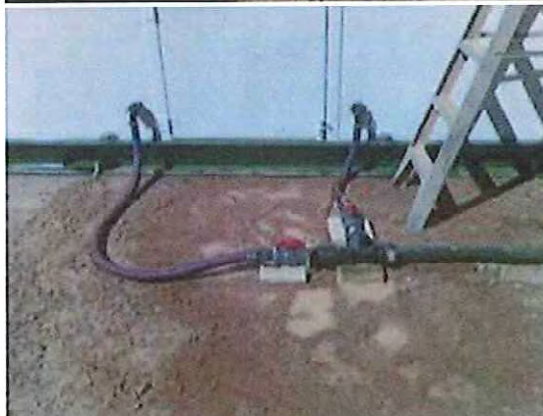
**ECOWATER / FUJI CLEAN / BRT MOBILE SKID BASED UNIT**

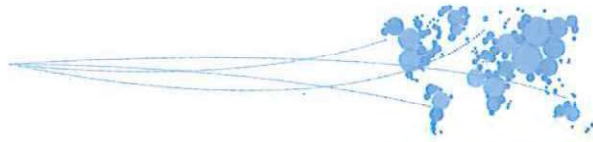


Client            Bonnie Rock Transport  
Application      Mining exploration camp.  
Location        Mobile  
System          Fujiclean CE 3000 Skid.

EcowaterWA and Bonnie Rock transport have worked together to design and implement a Fujiclean CE 3000 Skid mounted system for their mining exploration camps.

The system is plug and play and can be simply commissioned and decommissioned when they relocate the Fly camp.





## **CE-1500EX FEATURES / INFORMATION**

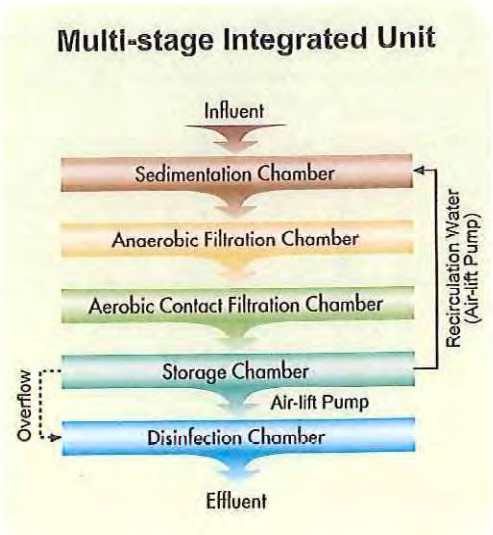


# CE-1500EX

Keeping Australia clean

## Advanced Secondary Wastewater Treatment System

Hydraulic loading - 1500L / day (10ep)



## FEATURES

### Reliable High Performance

Although the **CE-1500EX** is one of our standard models and is small and compact, its performance is extremely efficient and reliable

**CE-1500EX** has a Peak-cut System which can effectively cope with shock loadings. The water level in the system varies according to the presence of any inflow or not.

### Proven Design

With 45 years experience, Fuji Clean Co. Ltd. is the leading manufacturer of high efficiency wastewater systems in Japan, manufacturing and installing in excess of 40,000 units per annum.

### Easy Maintenance

The "Contact Filter bed process" is the unique treatment method developed by Fuji Clean.

The aeration pipes can be cleaned by inserting a brush under air or water flow. This makes for easy maintenance of the unit.

### Lower Operational Costs

The Air Blower used in the **CE-1500EX** is the most energy efficient in its class. It uses just 54 watts compared to 80 watts of other blowers. This results in much lower ongoing operational costs and makes the unit more environmentally friendly.

### Manufacturers Warranty

15 years for tank, 2 years for electrical components.

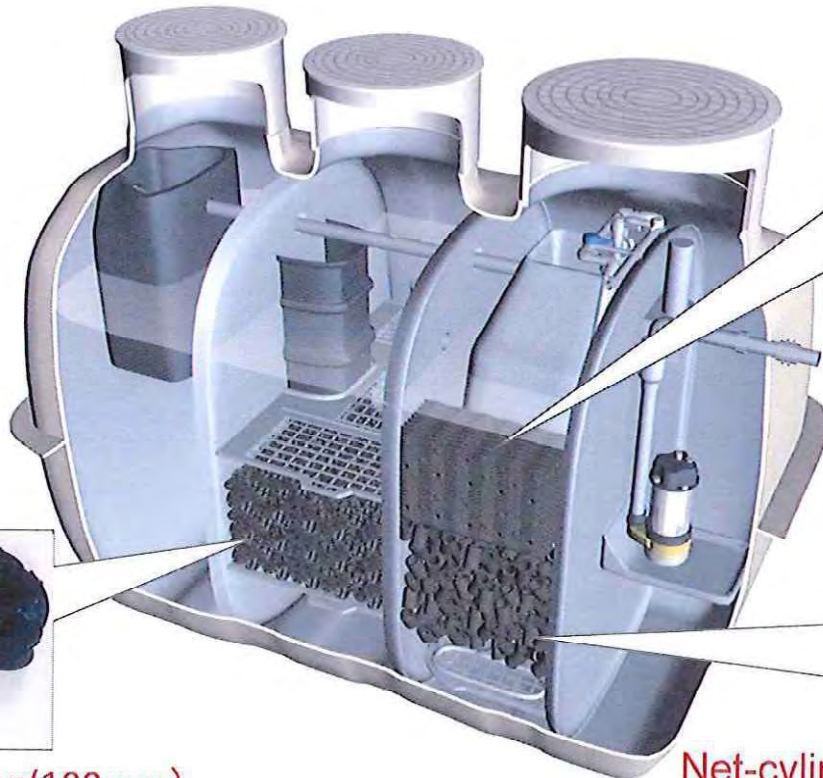




Equivalent Person	10
Designed Hydraulic Loading	1500L / day
Treatment method	Contact Filter Bed Process
Designed effluent quality	$BOD \leq 10\text{mg/L}$ $SS \leq 10\text{mg/L}$ $(T-N \leq 10\text{mg/L})$
Classification	<b>Advanced Secondary</b>



# Media



Board type



Spherical Skeleton(100mm)

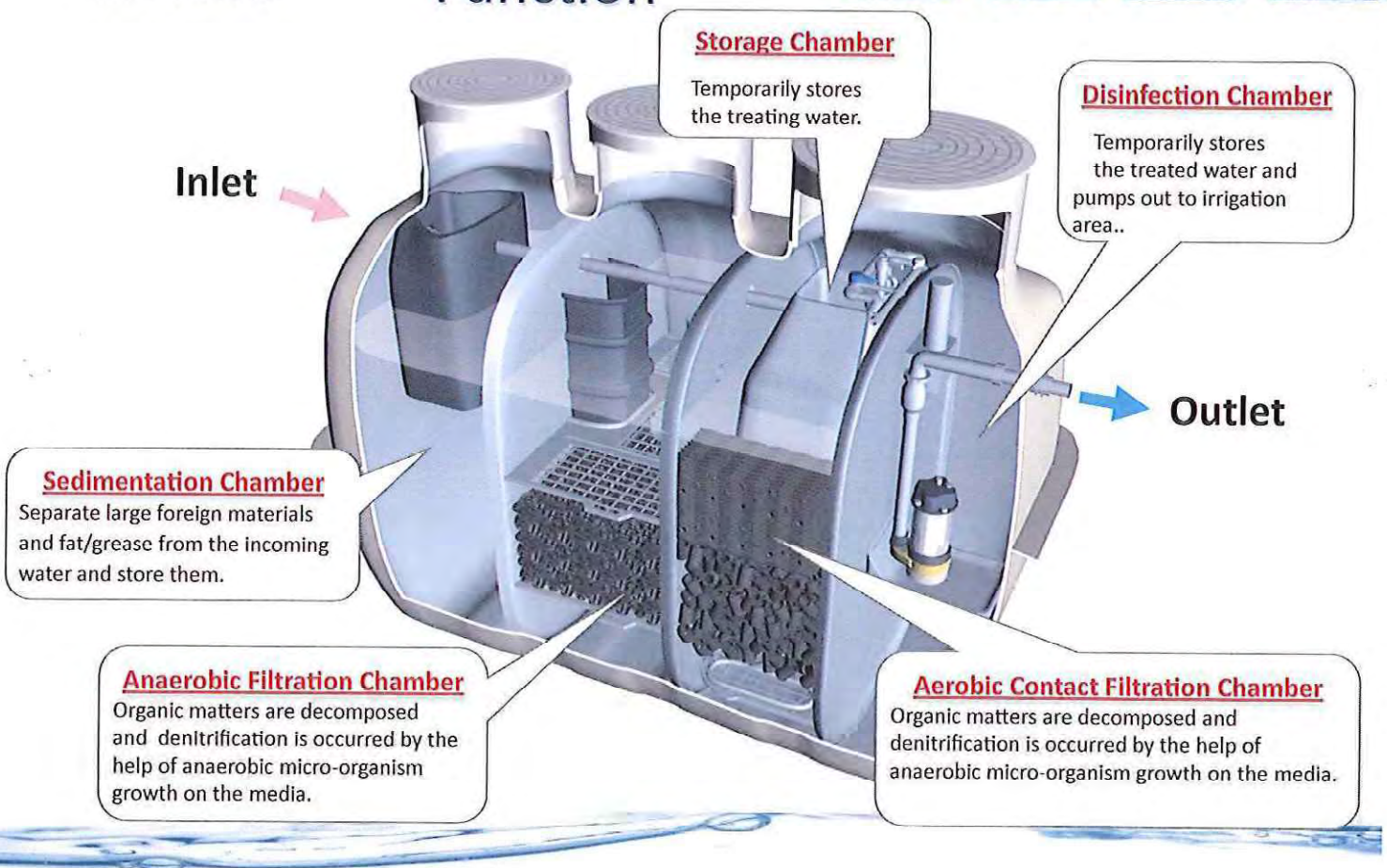


Net-cylindrical(100mm)

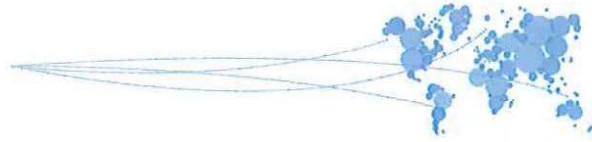




## Chamber & Function







**GOVERNMENT OF WESTERN AUSTRALIA DEPARTMENT OF HEALTH  
APPROVALS**

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Government of Western Australia  
Department of Health

Our ref EHB-02328  
Enquiries Clemencia Rodriguez (9388 4812)

Mr Toshiro Otowa  
Director  
Fuji Clean Australia Pty Ltd  
5/520 Mulgrave Road  
Earlville QLD 4870

Dear Mr Otowa

**APPROVAL OF THE FUJI CLEAN AEROBIC TREATMENT UNIT MODEL  
CE1500EX**

I am pleased to advise that approval has been granted for use of the Fuji Clean CE1500EX ATU in Western Australia under:

- Brand name: Fuji Clean
- Model name: CE1500EX

Approval is granted in accordance with the attached conditions of approval and the approved plans.

The above documents all bear the official approval stamp of the Western Australian Department of Health (DOH). These documents may not be altered in any manner without the prior approval of the Executive Director Public Health.

All local governments will be advised of this approval and shall be provided with full copies of the approval documentation.

Please note that Fuji Clean CE1500EX ATU can only be installed and maintained by Fuji Clean Australia Pty Ltd authorised agents. Fuji Clean Australia Pty Ltd shall formally advise the DOH of the nominated installation and service agents for the Fuji Clean CE1500EX in Western Australia.

If you have any questions regarding this approval, please contact Clemencia Rodriguez or the Water Unit on (08) 9388 4999.

Yours sincerely

Richard Theobald  
delegate of  
**EXECUTIVE DIRECTOR  
PUBLIC HEALTH**  
4 March 2010

S:\EHD\Water Unit\WASTE\Product Approvals\Scanned Approval\ATU's\Fuji Clean\Fuji Clean CE1500EX\Ra0201\Fuji Clean Letter.doc

All Correspondence: PO Box 8172 Perth Business Centre Western Australia 6849  
Grace Vaughan House 227 Stubbs Terrace Shenton Park WA 6008  
Telephone (08) 9388 4999 Fax (08) 9388 4955  
wa.gov.au  
ABN 28 684 750 332



Delivering a Healthy WA

## Fiji Clean Aerobic Treatment Unit

Approval Number: EHB - 02328

### CONDITIONS OF APPROVAL

This is to certify that the Fuji Clean ATU Serving Single Dwellings

Model Designation: CE1500EX

Manufactured by: **Fuji Clean Australia Pty Ltd**  
**5/520 Mulgrave Road**  
**Earlville, Cairns QLD 4870**

is approved by the Executive Director, Public Health under the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974* for use within Western Australia in accordance with the conditions specified in Schedule 1.

Date of Issue: 3<sup>rd</sup> March 2010

This approval is valid for a period of five (5) years from the date of this approval or until withdrawn by the Executive Director, Public Health

**Richard Theobald**  
delegate of  
**EXECUTIVE DIRECTOR**  
**PUBLIC HEALTH**





## SCHEDULE 1: GENERAL DESCRIPTION

The Fuji Clean model "CE1500EX" system is designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The Fuji Clean model "CE1500EX" system is contained in a single horizontal axis type cylindrical fibreglass reinforced plastic with a design capacity of s 4.359 m<sup>3</sup>

### Specification Summary for CE1500EX

#### Dimensions of the treatment unit:

Construction	Fiberglass Reinforced Plastic (FRP)
Width (mm)	1,440
Length (mm)	2,510
Height (mm)	1,870
Thickness of wall (mm)	6 – 9
Total Volume (m <sup>3</sup> )	4.359

#### Designated capacity:

Normal operating conditions	3,265 m <sup>3</sup>
Peak design capacity	3,374 m <sup>3</sup>

#### Loading:

Hydraulic loading is 1500L/day (150L/person/day). Biological loading is 70 g/person/day BOD; 70 g/person/day SS; 15g/person/day TN and 2.5g/person/day TP.

#### Effluent Quality

Parameter	Units	Concentration
BOD	g/m <sup>3</sup>	<20
SS	g/m <sup>3</sup>	30
E Coli	Cfu/100mL	100
Chlorine concentration	mg/L	0.5 to 2

#### Aerator:

Linear model aerator, Model MAC80N, air flow 80 L/min at 15 kPa, power consumption 54 watts.

#### Disinfection:

Disinfection is carried out continuously by solid chlorine tablets contacting water. Disinfectant cylinder, polyethylene, can control the dissolved amount of the chlorine tablets by adjusting the cylinder operating area. Up to 240 storage days of chlorine tablets.

#### Disinfection and Emergency Storage tank:

It is included in the main treatment tank. Upper part of the chamber (more than 100 L) is kept empty as an emergency storage space.



All pipe work is PCV, FRP or polypropylene, designed for water transferring. All joints are fixed with PCV adhesive and water-tight.  
Additional volume for disinfection is 300 L

Pumps (where applicable):

There is one pump using in disinfection/ reserve tank as an effluent pump, submersible pump 240 volt AC with float switches.

Alarms:

Audible and visible alarms to comply with the regulations. The system has a function to mute the audible alarm, which is reset after 24 hours.

### **Treatment Process Specifications**

#### Primary Treatment

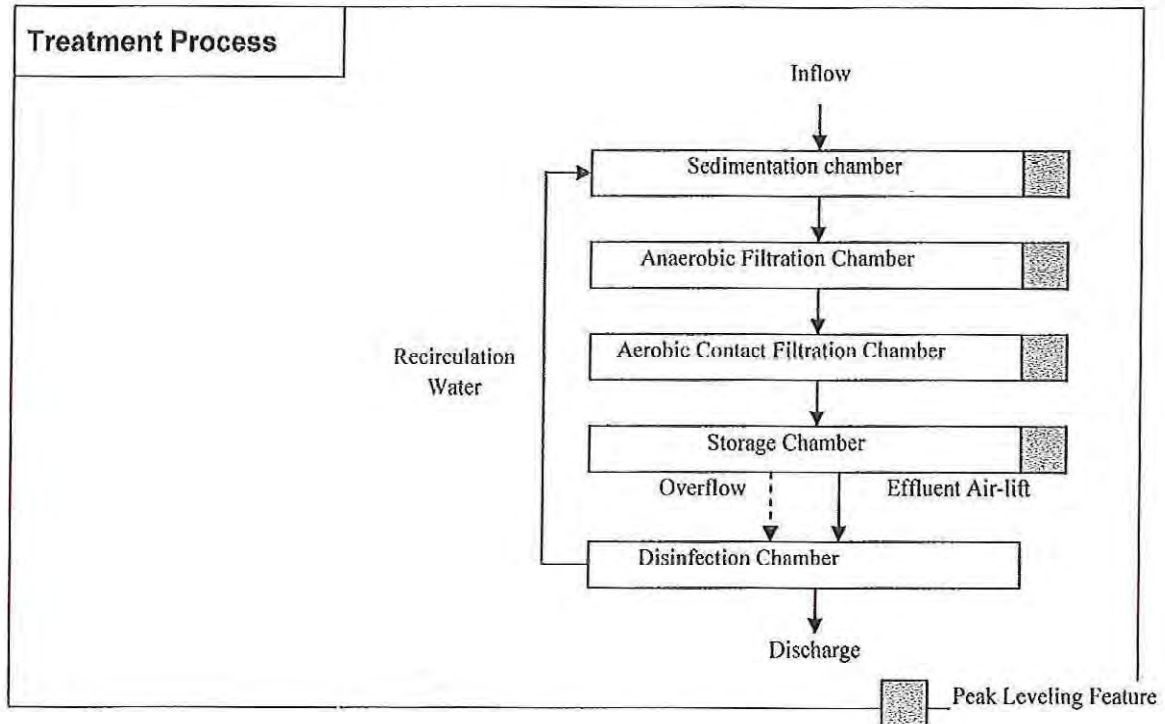
- 1 Sedimentation Chamber: The chamber is designed to separate, physically, large foreign material and fat/grease from the incoming water. Effective volume is approximately 1/2 of the one in Primary Treatment.
- 2 Anaerobic Filtration Chamber: The chamber is filled with spherical-skeleton type of filter media with packing ratio of 31-36% of effective volume in the chamber. By the help of micro-organism/ bacteria grown on the surface of the filter media, the biological anaerobic treatment takes place and at the same time suspended solid is captured. Furthermore, the micro-organism/bacteria in the chamber treats Nitrogen Oxides in the recirculation water as denitrification by consuming BOD. The gases generated by the treatment are being vented out of the system. Effective volume is approximately 1/2 of the one in Primary Treatment.

#### Secondary Treatment

- 3 Aerobic Contact Filtration Chamber: Upper section of the chamber is filled with board type of contact media with packing ratio of 14-17% of effective volume in the chamber. Lower section of the chamber is filled with net-hollow-cylindrical filter media with packing ratio of 52-57% of effective volume in the chamber. Aeration goes on all the time over whole medias properly by the air diffuser located at the bottom of the chamber and the biological aeration treatment takes place with the help of the micro-organism/bacteria grown on the media surface. Effective volume is approximately 0.580 m<sup>3</sup>.
- 4 Storage Chamber: The chamber is designed to store, temporarily the treated water coming out of Aerobic Contact Filtration Chamber. Effective volume is approximately 0.281 m<sup>3</sup>.
- 5 Disinfection Chamber: The treated water makes the contact with the solid chlorine tablets stored and dissolves the tablets for the disinfection. . Effective volume is approximately 0.308 m<sup>3</sup>.



- 6 Disinfection and Emergency Storage Chamber: The treated water is stored in the chamber (300 litres) after contacting with the solid chlorine to assure the disinfection, followed by pumping through a submersible pump. Upper part of the chamber is kept empty as an emergency storage space. Effective volume is approximately  $0.308 \text{ m}^3$



## SCHEDULE 2: CONDITIONS OF APPROVAL

### 1. General

- 1.1 The "Fuji Clean CE1500EX" is approved to serve single dwelling units up to 10 person capacity (or non-residential developments with a combined wastewater flow of up to 1500L per day).
- 1.2 No alteration to the design or specification of the "Fuji Clean CE1500EX" ATU shall occur without prior approval of the Executive Director, Public Health.
- 1.3 Any changes to the design or the construction of the "Fuji Clean CE1500EX" shall be submitted for assessment and approval to the Department of Health before being made commercially available in Western Australia.
- 1.4 Conditions of approval may be varied or withdrawn at the discretion of the Executive Director, Public Health.

- 1.5 Each "Fuji Clean CE1500EX" shall be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:
- The brand name of the system;
  - The manufacturer's name or registered trademark;
  - The month and year of manufacture.
- 1.6 The manufacturer shall provide the following information to each Local Government where it is intended to install an ATU in their area once Departmental Approval has been obtained:
- Statement of warranty
  - Statement of service life
  - Quality Assurance Certification
  - Installation Manual
  - Service Manual
  - Owner's Manual
  - Service Report Form
  - Engineering Drawings on A3 format
  - Detailed Specifications
  - A4 Plans
  - Approval documentation from Department of Health WA.

## 2 Installation and Commissioning

- 2.1 For each installation, an application for approval to install shall be in the form of an application to install an apparatus as required under the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974*. Each application for installation shall be made to the Local Government and include full plans and specifications, a completed *Application to Construct or Install an Apparatus for the Treatment of Sewage* form, and pay all fees as prescribed.
- 2.2 Installation of each "Fuji Clean CE1500EX" shall be carried out only by installers authorised by Fuji Clean Australia Pty Ltd.
- 2.3 The installation of each "Fuji Clean CE1500EX" shall comply with Part 2 of the Department of Health *"Code of Practice for the Design, Manufacture, Installation and Operation of ATUs Serving Single Dwellings, November 2001"*.
- 2.4 The Local Government should require that on completion of the installation of the "Fuji Clean CE1500EX", the system is inspected and checked by the manufacturer or the manufacturer's agent. The manufacturer or the agent is to certify that the system has been installed in accordance with Part 2 of the Department of Health *"Code of Practice for the Design, Manufacture, Installation and Operation of ATUs Serving Single Dwellings, November 2001"* and commissioned in accordance



with its design, conditions of Approval and any additional requirements of the Local Government”.

- 2.5 All necessary measures shall be taken by “Fuji Clean CE1500EX” (or their authorised agents) as directed by the Executive Director Public Health to rectify any “Fuji Clean CE1500EX” installation should it be demonstrated to fail in meeting condition (2.4) above.
- 2.6 The Local Government should require that all electrical work must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.
- 2.7 The “Fuji Clean CE1500EX” shall be supplied, constructed and installed in accordance with the design as submitted and accredited by the Department of Health WA.
- 2.8 The manufacturer shall supply with each “Fuji Clean CE1500EX” an owner's manual, which sets out the care, operation, and maintenance and on-going management requirements of the system.

### **3 Maintenance and Servicing**

- 3.1 The Local Government shall require the owner/occupier of a premise to enter into a 3 monthly service contract with a representative of Fuji Clean Australia Pty Ltd.
- 3.2 The “Fuji Clean CE1500EX” shall be serviced at three monthly intervals in accordance with the details set out in the owner's and service manual.
- 3.3 Each three monthly service shall include a check on all mechanical, electrical and functioning parts of the system including:
  - Pumps and air blower,
  - The control panel and alarm system,
  - Slime growth on the filter media,
  - The operation of the chlorine disinfection unit,
  - The operation of the sludge return system,,
  - Sludge built up in the sedimentation Chamber
  - On-site testing for free residual chlorine, pH and dissolved oxygen
  - The effluent irrigation area.
- 3.4 The Local Government should require that a service report sheet, in triplicate, is completed for each service. The original shall be given to the owner, the duplicate forwarded to the Local Government and the triplicate retained by the service contractor.



## 4 On-going Management

- 4.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the "Fuji Clean CE1500EX" The plan shall include details of:
- the treatment process,
  - procedures to be followed in the event of a system failure,
  - emergency contact numbers,
  - maintenance requirements,
  - inspection and sampling procedures to be followed as part of the on-going monitoring program developed by the Local Government.
- 4.2 At each anniversary of the Approval date the manufacturer shall submit to Department of Health WA a list of all "Fuji Clean CE1500EX" installed in WA during the previous twelve months. Department of Health WA will randomly select up to 10% of the installed "Fuji Clean CE1500EX" from each year of installation. The manufacturer, at its own cost, shall arrange for the selected "Fuji Clean CE1500EX" to be inspected and sampled. Sampling is to be organised by an independent JAS/ANZ accredited agency. Samples for BOD<sub>5</sub>, SS, Thermotolerant coliforms are to be determined by a NATA registered laboratory, and samples for disinfectant concentration, if applicable, are to be determined on site. The results are to be reported to Department of Health WA by:
- address of premises,
  - date inspected and sampled,
  - sample identification number,
  - BOD<sub>5</sub>,
  - SS,
  - Thermotolerant coliforms,
  - disinfectant concentration (if applicable), and
  - service history (if available)
- 4.3 Effluent from the "Fuji Clean CE1500EX" taken in any random grab sample shall comply with the following standard:
- BOD<sub>5</sub> less than 20 mg/L
  - SS less than 30 mg/L
  - Thermotolerant coliforms less than 100 cfu/100 ml
  - Free residual chlorine (greater than 0.5 and less than 2.0 mg/L)

## 5 Permitted uses

- 5.1 The "Fuji Clean CE1500EX" is approved for above ground spray irrigation; or surface drip irrigation covered by mulch; or sub-surface drip irrigation installed at around 100 mm depth. in accordance with Part 2 of the Department of Health *"Code of Practice for the Design, Manufacture, Installation and Operation of ATUs Serving Single Dwellings, November 2001"* or AS/NZS 1547:2000.

Each of the three forms of irrigation is subject to the approval of the Local Government.

## 6 Reduction in nutrient levels

- 6.1 The "Fuji Clean CE1500EX" is not approved as a phosphorus removal system. The manufacturer Fuji Clean Australia Pty Ltd did not include nitrogen and phosphorus reduction of the "Fuji Clean CE1500EX" in the assessment report product certificate of registration from Sci-Qual International Pty Ltd



**Richard Theobald**  
delegate of  
**EXECUTIVE DIRECTOR**  
**PUBLIC HEALTH**  
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