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26 September 2022

Mace Group  
Level 16, 44 Market Street,  
Sydney NSW 2000

Attention: Joelle Jello

Dear Joelle,

**RE: NCC2019 Volume One Amendment 1 | Section J Energy Efficiency  
Part J1 Statement of Compliance**

**JOB NO.: 210067**

**REV. NO.: C**

**SUBJECT PREMISE: Rural Ambulance Infrastructure Reconfiguration (RAIR) | Innovation Way, Fairy Meadow NSW, 2519**

This NCC Section J Part J1 statement has been prepared to demonstrate design compliance for the proposed Rural Ambulance Infrastructure Reconfiguration development located at Innovation Way, Fairy Meadow NSW, 2519.

The proposed development is located in Climate **Zone 5** as defined by the NCC.

The table below shows the areas assessed, NCC building classification, and the method of compliance.

Building Area Description	NCC Classification	Method of Compliance
Office	5	DTS
Relief Room	3	

The assessment is based on the architectural drawings listed below.

Architectural Drawings      DJRD Architects  
Project no. 21 410  
Issued 16/09/2022

Building	Title	Drawing No	Revision
Rural Ambulance Infrastructure Reconfiguration (RAIR) – Fairy Meadow	Ground Floor Plan General Arrangement Plan	R23-AR-1101	F
	Roof Plan	R23-AR-1102	F
	Elevations	R23-AR-2001	F
	Sections	R23-AR-2501	F

As per the Deemed-to-Satisfy Provisions of **NCC 2019 Volume One Amendment 1**, design compliance with Part J1 can be met subject to the following specifications:

### Part J1 Building Fabric

Required **total R-value** including allowance for **thermal bridging**:

Elements		Total Construction R-value	Notes
All Roof		R3.7 (Downward)	1. It is a total system performance value and <b>NOT</b> the insulation.
Envelope Walls	Office	R1.4	2. The impact of <b>Thermal Bridging</b> must be included in the building envelope total system R-value calculations.
	Relief Room	R1.4	
Envelope Floors (including slab on Ground)		R2.0 (Downward)	3. Roof <b>Solar Absorptance</b> must be no more than <b>0.45</b> (lighter colour)

Required total system **U-value** and **SHGC**:

Location	Azimuth	Window Assembly (Glass & Frame)		Description
		U-value	SHGC	
Relief Room	West	7.0	0.42	Single Glazed Neutral or the like
Others	All orientations	7.0	0.65	Single Glazed Clear or the like

Please refer to Attachment A for the facade calculator demonstrating compliance, and Attachment B for the mark-ups of the building fabrics thermal construction requirements.

### Additional Section J Compliance Notes

Note project needs to adhere to the following NCC2019 Section J construction requirements as applicable:

- J1.2 (a-d) Thermal Construction – general installation requirements for insulations
- J1.2 (e) – The required total R-value and total system U-value, including thermal bridging calculation.

JHA recommend the following general construction requirements from Section J of the NCC 2019 be included in the architectural specification and drawings to ensure compliance.

### Part J3 – Building Sealing

- J3.2 Chimneys and flues
- J3.3 Roof lights
- J3.4 Windows and doors
- J3.5 Exhaust fans
- J3.6 Construction of ceilings, walls and floors
- J3.7 Evaporative coolers

Full Name of Designer: Jasmin Bayocot  
Qualifications: BSCE  
Address of Designer: JHA  
Level 23, 101 Miller Street,  
NORTH SYDNEY NSW 2060  
Business Telephone No: (02) 9437 1000  
Name of Employer: JHA

Yours sincerely,



Jasmin Bayocot  
ESD Consultant

#### Disclaimer

This statement is prepared for the nominated recipient only and relates to the specific scope of work and agreement between JHA and the client (the recipient). It is not to be used or relied upon by any third party for any purpose.

### Revision History

REV	DATE	Amendment
A	07/07/22	Updated Architectural Drawings
B	05/07/22	Issued for Tender
C	26/09/22	Issued for Construction

## **Attachment A – Facade Calculator:**

## Class 5 Areas

The total Solar Admittance value of the proposed building is 30.91 (less than 32.36) and total System U-value is 1.74 (less than max allowance of 2.00). Therefore, the proposed building façade complies with Part J1 via *Method 2*.

Climate Zone	CZ 5
Class	Other

Exposure	Wall R-value	Window		Description
		U-Value	SHGC	
N	1.40	7.0	0.65	Single Glazed Clear or the like
E	1.40	7.0	0.65	Single Glazed Clear or the like
S	1.40	7.0	0.65	Single Glazed Clear or the like
W	1.40	7.0	0.65	Single Glazed Clear or the like

					Method 1		Method 2		U-value		R-value	
Exposure	Façade Area				Solar Admittance				Total System		Total System	
	Total [m²]	Wall [m²]	Window [m²]	Wall Glazing Ratio	Max SA	Achieved SA	Max Er	Achieved Er	Max. U-Value	Achieved U-Value	Min. R-Value	Achieved R-Value
N	37.4	26.3	11.1	70%	0.13	0.15	11.09	13.03	2.0	2.57	1.0	1.40
E	101.8	100.4	1.4	99%	0.13	0.01	0.00	0.00	2.0	0.80	1.4	1.40
S	22.1	18.1	4.1	82%	0.13	0.10	0.00	0.00	2.0	1.87	1.4	1.40
W	93.5	68.4	25.1	73%	0.13	0.11	21.27	17.88	2.0	2.40	1.0	1.40
						SUM	32.36	30.91	2.0	1.74		

Description	Level	Exposure	Window			P [m]	H [m]	P/H	G/H	Shading Multiplier	A*S*SHGC
			Height [m]	Width [m]	Area [m²]						
N1	GF	N	1.80	1.30	2.3	1.60	2.60	0.62	0.31	0.78	1.19
N2	GF	N	2.70	1.50	4.1	2.60	3.75	0.69	0.28	0.68	1.79
N3	GF	N	1.80	1.30	2.3	1.60	3.00	0.53	0.40	0.90	1.37
N4	GF	N	1.80	1.30	2.3	1.60	3.20	0.50	0.44	0.90	1.37
		Select			-			-	-	1.00	-
S1	GF	S	2.70	1.50	4.1	2.50	3.75	0.67	0.28	0.81	2.13
		Select			-			-	-	1.00	-
W1	GF	W	1.80	1.30	2.3	1.50	2.50	0.60	0.28	0.68	1.03
W2	GF	W	1.80	1.30	2.3	1.50	2.50	0.60	0.28	0.68	1.03
W3	GF	W	1.80	1.30	2.3	1.50	2.50	0.60	0.28	0.68	1.03
W4	GF	W	1.80	1.30	2.3	1.50	2.50	0.60	0.28	0.68	1.03
W5	GF	W	1.80	1.70	3.1	1.50	2.50	0.60	0.28	0.68	1.35
W6	GF	W	2.70	1.75	4.7	4.00	3.30	1.21	0.18	0.40	1.23
W7	GF	W	1.80	1.00	1.8	1.50	2.50	0.60	0.28	0.68	0.80
W8	GF	W	1.80	1.70	3.1	1.50	2.50	0.60	0.28	0.68	1.35
W13	GF	W	1.80	1.70	3.1	1.50	2.50	0.60	0.28	0.68	1.35
W9	GF	E	0.60	0.60	0.4	2.20	2.70	0.81	0.78	0.86	0.20
W10	GF	E	0.60	0.60	0.4	3.85	2.70	1.43	0.78	0.79	0.18
W11	GF	E	0.60	0.60	0.4	6.55	2.70	2.43	0.78	0.79	0.18
W12	GF	E	0.60	0.60	0.4	8.25	2.70	3.06	0.78	0.79	0.18

### Class 3 Areas

The total Solar Admittance value of the proposed building is 3.05 (less than 3.06) and total System U-value is 1.68 (less than max allowance of 2.0). Therefore, the proposed building façade complies with Part J1 via *Method 2*.

Climate Zone	CZ 5
Class	3

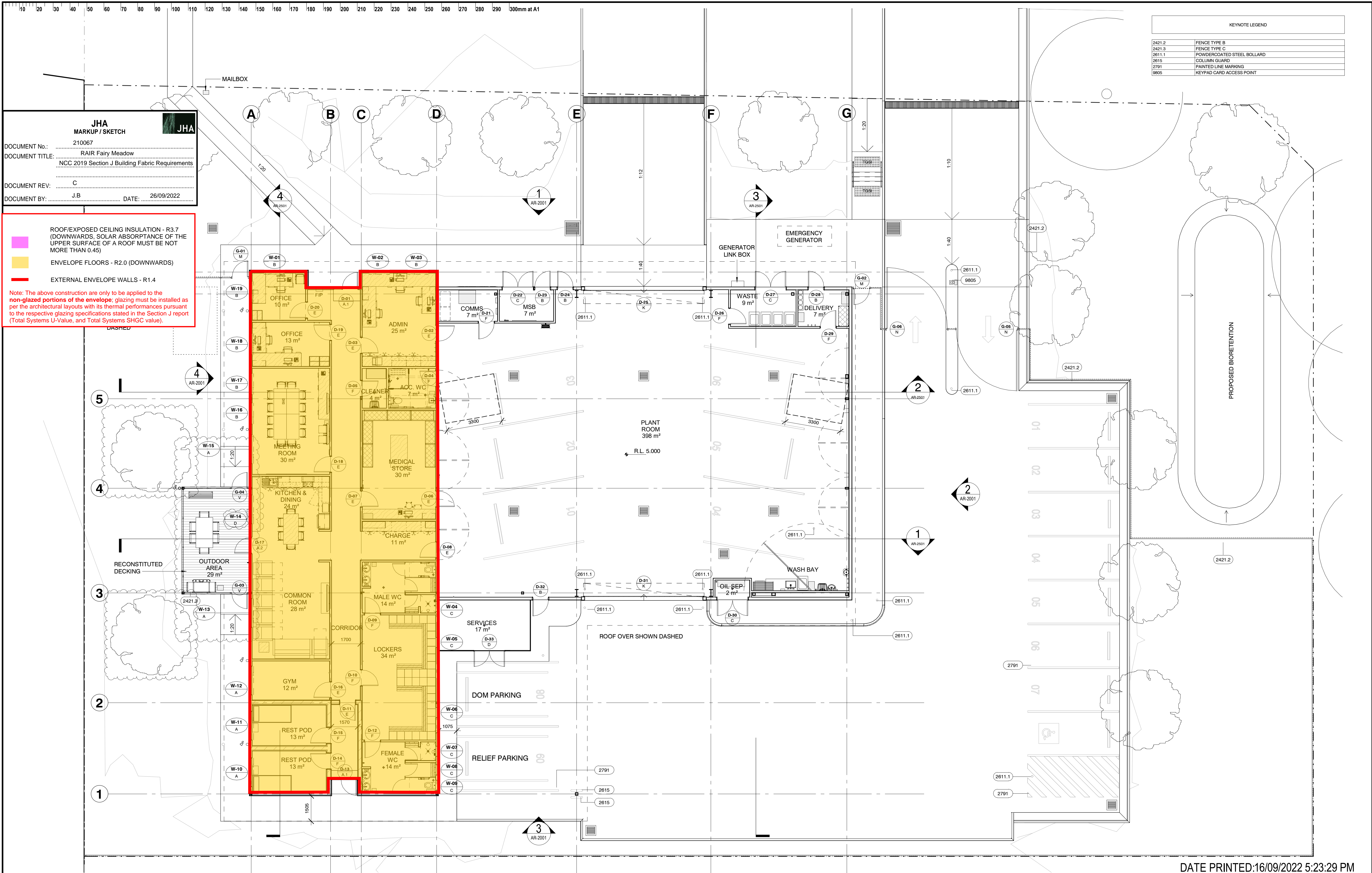
Exposure	Wall R-value	Window		Description
		U-Value	SHGC	
N	1.40			
E	1.40			
S	1.40			
W	1.40	7.0	0.42	Single Glazed Neutral or the like

					Method 1		Method 2		U-value		R-value	
Exposure	Façade Area				Solar Admittance				Total System		Total System	
	Total [m²]	Wall [m²]	Window [m²]	Wall Glazing Ratio	Max SA	Achieved SA	Max Er	Achieved Er	Max. U-Value	Achieved U-Value	Min. R-Value	Achieved R-Value
N	0.0	0.0	0.0	100%	0.10	-	0.00		2.0		1.4	1.40
E	3.2	3.2	0.0	100%	0.10	0.00	0.00	0.00	2.0	0.71	1.4	1.40
S	16.6	16.6	0.0	100%	0.10	0.00	0.00	0.00	2.0	0.71	1.4	1.40
W	20.2	14.0	6.1	70%	0.10	0.10	3.06	3.05	2.0	2.62	1.0	1.40
						SUM	3.06	3.05	2.0	1.68		

Description	Level	Exposure	Window			P [m]	H [m]	P/H	G/H	Shading Multiplier	A*S*SHGC
			Height [m]	Width [m]	Area [m]						
W9	GF	W	1.80	1.70	3.1	1.60	2.60	0.62	0.31	0.78	1.00
		Select			-			-	-	1.00	-
W10	GF	W	1.80	1.70	3.1	1.60	2.60	0.62	0.31	0.78	1.00

## **Attachment B – Building Fabric Requirements**





ISSUE DATE SUBJECT		AUTHORISED		PROJECT MANAGER		PROJECT		CLIENT		ARCHITECT		DATE PRINTED:16/09/2022 5:23:29 PM	
A	17.06.22	BASE ARCHITECTURE SET	MR	RAIR		RURAL AMBULANCE INFRASTRUCTURE PROGRAM (RAIR)		NSW GOVERNMENT Health Infrastructure NSW Ambulance		djrd architects		DRAWN BY SCALE AT A1	
B	01.07.22	REF ISSUE	MR	RAIR		FAIRY MEADOW		PROJECT ADDRESS		63 Myrtle Street Chippendale NSW 2008 Sydney Australia djrd.com.au		AF 1:100	
C	29.07.22	FOR COORDINATION	MR	RAIR		STRUCTURE & CIVIL		PROJECT ADDRESS		63 Myrtle Street Chippendale NSW 2008 Sydney Australia djrd.com.au		DESCRIPTION	
D	05.08.22	TENDER	MR	RAIR		STRUCTURE & CIVIL		PROJECT ADDRESS		63 Myrtle Street Chippendale NSW 2008 Sydney Australia djrd.com.au		GROUND FLOOR GENERAL ARRANGEMENT PLAN	
E	02.09.22	FOR COORDINATION	GF	RAIR		STRUCTURE & CIVIL		PROJECT ADDRESS		63 Myrtle Street Chippendale NSW 2008 Sydney Australia djrd.com.au		PROJECT No DRAWING No REVISION	
F	16.09.22	DRAFT CONTRACT ISSUE	GF	RAIR		STRUCTURE & CIVIL		PROJECT ADDRESS		63 Myrtle Street Chippendale NSW 2008 Sydney Australia djrd.com.au		21 410 R23-AR-1101 F	



JHA

MARKUP / SKETCH

DOCUMENT No.: 210067

DOCUMENT TITLE: RAIR Fairy Meadow  
NCC 2019 Section J Building Fabric Requirements

DOCUMENT REV: C

DOCUMENT BY: J.B DATE: 26/09/2022

- ROOF/EXPOSED CEILING INSULATION - R3.7  
(DOWNWARDS, SOLAR ABSORPTANCE OF THE  
UPPER SURFACE OF A ROOF MUST BE NOT  
MORE THAN 0.45)
- ENVELOPE FLOORS - R2.0 (DOWNWARDS)
- EXTERNAL ENVELOPE WALLS - R1.4

Note: The above construction are only to be applied to the non-glazed portions of the envelope; glazing must be installed as per the architectural layouts with its thermal performances pursuant to the respective glazing specifications stated in the Section J report (Total Systems U-Value, and Total Systems SHGC value).

KEYNOTE LEGEND	
4213	ROOF BACK FLASHING
4230.1	ROOF SHEETING TYPE 1
4290	HALF ROUND EAVES GUTTER
7002	ROOF VENTILATOR



01  
02  
03  
04  
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07

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ISSUE	DATE	SUBJECT	AUTHORISED
A	17.06.22	BASE ARCHITECTURE SET	MR
B	01.07.22	REF ISSUE	MR
C	29.07.22	FOR COORDINATION	MR
D	05.08.22	TENDER	MR
E	02.09.22	FOR COORDINATION	GF
F	16.09.22	DRAFT CONTRACT ISSUE	GF

Rural Ambulance Infrastructure Reconfiguration  
Building the future response for our state

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This drawing should be read in conjunction with all relevant contracts, specifications and drawings. Dimensions are in millimetres. Levels are metres. Do not scale off drawings. Use figured dimensions only. Check dimensions on Site. Report discrepancies immediately.

TRUE NORTH

PROJECT NORTH

1:100

0 1 2 3 4 5 10

PROJECT

RURAL AMBULANCE  
INFRASTRUCTURE PROGRAM (RAIR)  
FAIRY MEADOW

CLIENT

Health  
Infrastructure

PROJECT ADDRESS

INNOVATION WAY, FAIRY MEADOW, NSW, 2519

ARCHITECT

63 Myrtle Street  
Chippendale NSW 2008  
Sydney Australia  
djrd.com.au

DRAWN BY	SCALE AT A1	
AF	1: 100	
DESCRIPTION		
ROOF PLAN		
PROJECT No	DRAWING No	REVISION
21 410	R23- AR-1102	F