

# colin stewart architects

building 7 dairy road fyshwick act  
all correspondence to:  
po box 3469 manuka act 2603  
p 02 6228 1200 f 02 6281 1499  
e [csa@csarchitects.com.au](mailto:csa@csarchitects.com.au)

## Design Brief

The new southern car park for the Canberra hospital is currently under construction. The Hospital has requested that we prepare a feasibility study into the use of the top level as a temporary office area.

## Office Area

Our proposal contains the following breakdown of the available area:

Office area	2689 sqm
Reception	95 sqm
10 x Meeting rooms	339 sqm
Kitchen and meals area	201 sqm
Office supplies Area	144 sqm
general storage area (not for Compactus)	322 sqm
Toilets	80 sqm
Plant	108 sqm
Electrical	30 sqm
Server Room	37 sqm
Compulsory Circulation	540 sqm

The compulsory circulation has been included at this point in time as we do not have a fit out plan and we need to ensure that adequate area is supplied for egress from the office area in case of emergency. A more detail fit out plan can change these circulation requirements. The store area will not support Compactus loads, but can be used to store general items of furniture etc.

## Building Class

The car park as it stands is a class 7A structure. The addition of the office area is Class 5 building. The storage area is Class 7B. The overall office area GFA is approximately 3642 sqm, and the storage area is approximately 322 sqm. This makes the storage area less than 10% of the total floor area and as such it can be covered as Class 5 according to the BCA.

## Estimated Population

We have approximately 2689 sqm of designated office space. Under the BCA, we can allow 10 sqm per person for population of an office area. This will equate to approximately 270 people working in this office space. This would be subject to change once an office fit out has been designed.

## Toilets

Given The population of 270 persons, we will assume an equal split between the sexes. 135 male and 135 females.

This equates to:

7 toilet cubicles, 3 urinals and 5 wash basins for the male toilets.

9 cubicles and 5 wash basins for the females toilets.

We are also required to provide facilities for persons with disabilities, this is required to be a single unisex facility. This toilet can be deducted from each of the standard facilities but as we may have an increase in population under fit out design we are inclined to keep the extra toilet as leeway at this point in time.

## Insulation

The office space will require thermal insulation suited to the climate zone classification. The car park is in Canberra which has a BCA climate zone of 7. This means that the insulation requirements for the office building are as follows.

Walls require a total R value of 2.8. As the office area is of a temporary nature we propose to build light weight external walls. To this end we propose that the external walls be made up of fibre cement sheeting, with a paint finish, and gyprock to a double stud frame with R3 fibre glass or polyester batts to the cavity, along with sarking to the external faces.

Ceiling and Roof require a total R value of 3.7

## colin stewart architects

building 7 dairy road fyshwick act  
all correspondence to:  
po box 3469 manuka act 2603  
p 02 6228 1200 f 02 6281 1499  
e [csa@csarchitects.com.au](mailto:csa@csarchitects.com.au)

We propose the installation of a sheet metal roof over the office. To achieve the R3.7 that is required we will need to install R4.1 fibre glass or polyester batts to the ceiling space. Given the rules surrounding electrical light clearances it would be best if we try to install the batts between the roof sheet supporting structure, thus allowing the most flexibility to the lighting layout for the office and allowing maximum clearances for mechanical duct work. The installation of a higher r value batts will also help reduce the noise transfer to the office space during rain.

There is no requirement for floor insulation, but to stop people from getting cold legs and feet due to the exposure of the car park underneath we recommend that where the structure is less than 200mm thick we install 50mm solid insulation to the soffit to assist with reducing this problem.

### Acoustics

There are no BCA requirements for acoustic treatment of the office area, however we would recommend an achievable RW of 50 to external walls for the comfort of the users as the office will be above a car park. The proposed light weight external wall should handle the acoustic requirement due to the insulation requirements from the BCA. Any glazing would be best if we could use either a 10mm laminated glass or 6/12/8 double glazing to counter any noise from below.

Due to the location of the office on top of the car park it is not possible to isolate it from any noise transferred through the structure without significant cost penalties.

### Fire

We have set the roof back from the facade of the car park, with this we have set the external wall of the office back 1200mm from the edge of the slab. This allows to use the slab as a fire spandrel, making the removal of the office less costly and less complicated than if we tried to build the office into the facade. The use of the slab edge as a fire spandrel reduces the cost of building and demolishing a heavy fire resistant facade.

### Development Application

There will be a requirement to apply to ACTPLA for a development application. If we decide to proceed with this office space we recommend that the first thing we do is approach ACTPLA and try to ascertain the process they feel we need to go through. The best case scenario would be that ACTPLA accept that the office is a minor amendment and that there is no requirement for public notification. The worst case scenario would see the requirement to lodge a complete development application with full public notification. It all relates back to ACTPLA's interpretation of the building as it changes the car park from a car park to a multi use building, and it would be up to us to show that the changes would have minimal impact on the existing finished car park and the surrounding environment.

The office design should take into consideration the existing building, and look to be easily removed to allow the conversion of the office space to a covered parking area with a minimum of effort. Our current proposal has the building back from the facade so as not to impact of the existing proposal, to minimise the appearance of the office to the surrounding area and to reduce the requirements for fire protection. We have placed the majority of the general office close to the lift, for access and to the northern part of the car park floor plate to minimise perceived overlooking to mental health. The plant and storage areas have been placed to be farthest away from the future hospital development at the level 8 height, and to minimise sound travel to future buildings. The wet areas have been placed to ensure we have the closest run to existing hydraulics services outside the boundary of the car park. We can build a roof structure that will not be visible, apart from vents, from the public realm. We plan on removing some of the panels from the facade to allow vistas to be available from the office space, but with the set back from the facade and a dark colour to the office external walls, the proposed office space will have minimal visual impact on the surrounds.

We believe that the design can be done in such a manner as to not impact on the surrounds too greatly, and this will increase our chances with regard to ACTPLA allowing the design to proceed as an amendment rather than a complete development application.

**Canberra Hospital  
New Southern Carpark  
Level 8 – Office Fitout**

**STRUCTURAL FEASIBILITY REPORT**

V2 –4 May 2010 Prepared by Hughes Trueman

## STRUCTURAL REQUIREMENTS

### Contents

5.01	INTRODUCTION .....	3
5.02	STRUCTURAL CHANGES TO LEVEL 8 .....	3
5.02.01	DESIGN LOADING.....	3
5.02.02	FLOOR SLOPE AND SLAB FINISH .....	3
5.02.03	CONCRETE SIZES AND REINFORCEMENT .....	3
5.03	ADDITIONS TO THE STRUCTURE .....	4
5.03.01	CONCRETE COLUMNS .....	4
5.03.02	ROOF.....	4
5.03.03	FIRE SEPARATION .....	4
5.03.04	MECHANICAL EQUIPMENT SUPPORT .....	4
5.03.05	BCA AND ALTERNATIVE SOLUTION COMPLIANCE .....	4



## 5.0 STRUCTURAL DESIGN RESPONSE

### 5.01 INTRODUCTION

The structural scope of works will generally be as described in the following sections.

### 5.02 STRUCTURAL CHANGES TO LEVEL 8

#### 5.02.01 DESIGN LOADING

The floor structure is currently designed for carpark loading of 2.5kPa ( 250 kg/m<sup>2</sup> ). This will be increased to an office live load of 4.0kPa plus an allowance for partition walls etc of 1.0kPa. These loadings are typically used for government office projects.

It is NOT proposed to allow for compactus loadings or large scale storage zones.

The existing columns and footings can resist the additional office loads because the structure has been design to allow for a concrete roof.

#### 5.02.02 FLOOR SLOPE AND SLAB FINISH

Level 8 is currently designed with a slope to facilitate drainage of water from the slab. As the proposed office fitout will include a metal roof over the entire Level 8 slab this slope will no longer be required and the floor will be constructed level.

All levels of the carpark have been provided with perimeter rainwater outlets to drain windblown rainwater that may enter through the façade. The slabs have localized falls to these rainwater outlets and it is proposed to maintain this system on Level 8. This will need to be allowed for in the fitout.

It is proposed to keep the wood float / cove finish to the slab surface to allow it to be used as a carpark when the temporary office fitout is removed. This finish is more textured than the steel trowel finish that would normally be specified for an office situation and may require a better quality carpet underlay than would normally be used.

#### 5.02.03 CONCRETE SIZES AND REINFORCEMENT

Preliminary design indicates that the increased loading for the office fitout can be accommodated within the existing concrete sizes.

The beam depths are probably less than would be utilized for a permanent office structure and as such will have increased vibration. Occupants will also feel vibration from car movements on the lower levels.

If the life span of the fitout is short then occupants are more likely to be accepting of these vibrations. Increasing beam depths to limit vibrations will impact on clearances in the floor below and provide less space for reticulation of services under the slab bearing in mind that the typical floor to floor dimensions in the carpark are substantially less than for a typical office building.

The existing Level 8 design provides for a layer of SL82 mesh across the slab to increase its durability due to it being exposed to the elements. With the addition of a roof this mesh can be removed.

The amount of post tensioning is generally sufficient to resist the increased loads with the addition of reinforcing bar.

The Staifix dowels at slab joints will need to be increased due to the higher loads.

In summary the expected construction cost of modifying the current Level 8 exposed carpark deck to an enclosed office floor is not likely to be significant. The changes do require a redesign of the post tensioning and reinforcement layout.

### 5.03 ADDITIONS TO THE STRUCTURE

#### 5.03.01 CONCRETE COLUMNS

It is proposed to support the new metal deck roof by extending upwards the existing reinforced concrete columns. The feasibility budget should allow for all the columns to be extended. The final design may not require all the columns and it may be more economical to use structural steel columns on the ramp due to their increased height subject to Fire Engineering advice.

The addition of columns to Level 8 will reduce the overall number of car spaces that can be achieved but this has already been factored into the totals.

#### 5.03.02 ROOF

A conventional metal deck roof supported by steel purlins and rafters is proposed. The rafter spacing will be approximately 11m to suit the current building grid and this will require larger purlins than for a typical office span of 8.4m.

The roof design will allow for some mechanical equipment such as fan coil units to be suspended from the purlins. The weights and location would be agreed during detail design.

#### 5.03.03 FIRE SEPARATION

Fire walls will be required to separate the office space from the carparking below. It is expected that fire walls will extend around the ramp and there may be a need for a fire rated spandrel to the building perimeter. Typically the fire walls will be constructed from light weight materials as the floor beams do not have sufficient stiffness to support heavy brittle masonry walls.

The concrete elements in the Level 8 floor slab will have sufficient fire resistance. Fire rating to building joints around the stairs and lifts at Level 8 will probably need to be increased.

#### 5.03.04 MECHANICAL EQUIPMENT SUPPORT

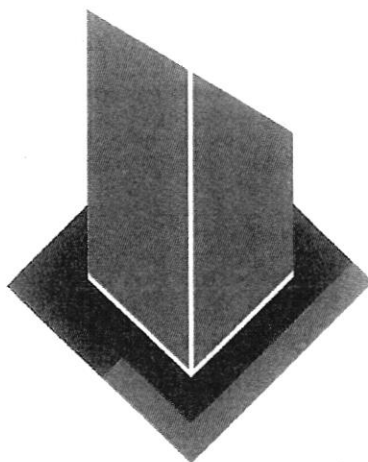
As discussed above fan coil units and duct work will be suspended from the roof.

Heavy equipment such as chillers will probably require steel beams on top of the concrete slab to support their weight between the floor beams.

It is understood that air handling equipment will be placed on a temporary steel structure constructed on top of the vehicle ramp extending up to Level 8. This platform would be dismantled and removed when the fitout was decommissioned.

#### 5.03.05 BCA AND ALTERNATIVE SOLUTION COMPLIANCE

The structure will provide for the upgraded requirements of the BCA Compliance and Alternative Solution reports as required.



# **Defire**

## **BCA fire safety design advice**

The Canberra Hospital

New south carpark level 8 office

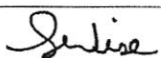

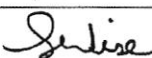
**Client** Hindmarsh Group

**Report number** CA100047

**Revision** FSDA1.0

**Report issued** May 10

## Amendment schedule

Version	Date	Information relating to report			
FSDA1.0	05/05/2010	Reason for issue	Report issued to Hindmarsh Group for review, comment and distribution.		
			Prepared by	Reviewed by	Approved by
		Name	Stephen Wise	Tim Shiu	Stephen Wise
		Signature			
		Reason for issue			
			Prepared by	Reviewed by	Approved by
		Name			
		Signature			
		Reason for issue			
			Prepared by	Reviewed by	Approved by
		Name			
		Signature			
		Reason for issue			
			Prepared by	Reviewed by	Approved by
		Name			
		Signature			

## Contents

Amendment schedule .....	2
Contents.....	3
1. Introduction .....	4
2. Legislative requirements .....	4
3. Description of the building .....	4
4. Scope, limitations and assumptions .....	5
4.1 Scope.....	5
4.2 Limitations.....	5
4.3 Assumptions .....	6
5. Summary of the assessment.....	6
5.1 Introduction .....	6
5.2 Design issues to be addressed.....	6
5.3 Proposed alternative solutions.....	7
6. Conclusion .....	8
Appendix A Drawings and information.....	9
Appendix B Type of construction required .....	10
Appendix C Fire hazard properties .....	12
Appendix D Population and exit width calculations.....	14

This report documents the findings of an assessment of the design of the proposed New south carpark level 8 office against the fire related deemed-to-satisfy (DTS) provisions of the Building Code of Australia 2010 (BCA)<sup>1</sup>. Defire undertook the assessment at the request of Hindmarsh Group.

## 2. Legislative requirements

### 3. Description of the building

The site is bounded by hospital buildings on the same allotment to the north, Hospital Road to the east and Bateson Road to the south and west. The north-eastern external wall of the building is over parts of the existing Mental Health building.

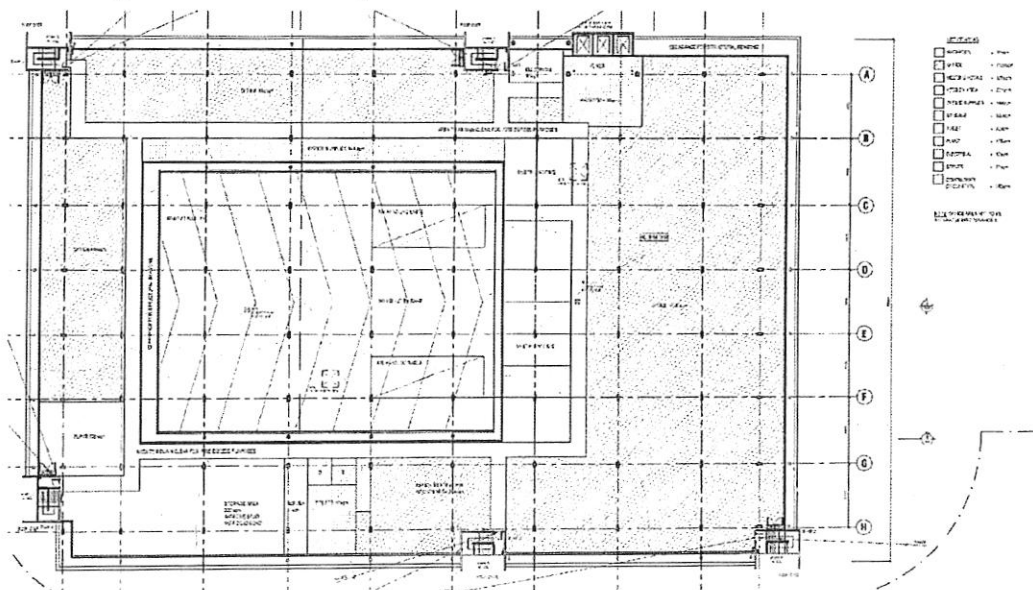


Figure 1 Level 8 office level

<sup>1</sup> Building Code of Australia 2010, Australian Building Codes Board, Australia, 2010.

A description of the main characteristics of the building for the purpose of determining compliance with the BCA is given in Table 1. The proposed use and classification of the building or part in accordance with clause A3.2 of the BCA is described in Table 2. The approximate floor areas within the proposed building are included in Table 3.

Characteristic	BCA clause	Description
Effective height	A1.1	Less than 25m
Type of construction required	C1.1	Type A
Rise in storeys	C1.2	Eight

**Table 1 Main building characteristics**

Part of building	Use	Classification (A3.2)
Levels 1 to 7	Carpark	7a
Level 8 (temporary office)	Offices	5

**Table 2 Use and classification**

Building part	Floor area (m <sup>2</sup> )
Level 8 (temporary office)	4,739

**Table 3 Floor areas**

## 4. Scope, limitations and assumptions

### 4.1 Scope

This advice provides a high level review of the current building in relation to sections C, D1, D2 and E. This is not a clause by clause assessment of the DTS provisions of the BCA. The high level review of the building design is intended to identify general fire safety requirements and issues that need resolution to comply with the performance requirements of the BCA. The advice includes the following:

- The type of construction required, fire compartment sizes and whether the large isolated provisions are applicable.
- The travel distance and aggregate exit width requirements.
- Review of fire hydrant and hose reel requirements.
- Identification of the smoke hazard management options available and other required fire safety systems.
- Whether we believe fire safety engineering may be utilised to develop performance based alternative solutions.

### 4.2 Limitations

- This report does not consider the following except where specifically mentioned:
  - The structural design and stability of the building.
  - Compliance with the Disability Discrimination Act 1992.
  - Health and amenity.
  - Ancillary provisions.

- If there are building alterations or additions, a change in use or changes to the fire safety systems in the future, a reassessment will be needed to verify consistency with the assessment in this report.
- The data, methodologies, calculations and conclusions documented within this report specifically relate to the building and must not be used for any other purpose.
- A number of issues within the BCA are recognised to be interpretive in nature. Where these issues are encountered, interpretations are made that are consistent with standard industry practice and / or Defire policy formulated in regard of each issue.
- The documentation that forms the basis for this report is listed within Appendix A.
- This report has been prepared based upon information provided by others. Defire has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated into this report as a result.
- This report does not provide fire safety engineering assessment to support any potential alternative solutions that may be identified.

### 4.3 Assumptions

- There are no special hazards assumed to be present in the building.

## 5. Summary of the assessment

### 5.1 Introduction

The assessment found issues which are required to be addressed by design changes or an alternative solution. The areas which either need to be confirmed as compliant or require design changes are described in section 5.2 and the proposed alternative solutions are identified in section 5.3.

### 5.2 Design issues to be addressed

We recommend that the issues described in Table 4 be brought into compliance with the DTS of the BCA.

No	Description of issue	DTS provision	Proposed solution
1.	Clause C1.1 of the BCA requires this building to be of type A construction. The FRL requirements of type A construction are attached in Appendix B. The floor area of the office fire compartment is within the limits of type A construction.	C1.1 and C2.2	Ensure the building achieves the requirements of type A construction unless otherwise addressed in an alternative solution – refer to Table 5 for specific areas proposed to be addressed in an alternative solution.
2.	The fire hazard properties of any material or assembly in a class 2 to 9 building must comply with: <ul style="list-style-type: none"> <li>• for floor materials, floor coverings, wall and ceiling lining materials, specification C1.10a; and</li> <li>• for other materials, specification C1.10.</li> </ul>	C1.10	The general requirements are attached as Appendix D. Please contact this office for any clarification of fire hazard property requirements.



No	Description of issue	DTS provision	Proposed solution
3.	The external walls of the office level appear to be set back from the external walls of the carpark by more than 450mm approximately 1200mm. The roof overhangs into this zone, but there is a 450mm separation. The external facade appear to extend above the level 8 floor, however this is likely to be considered as a screen rather than an external wall.	C2.6	Ensure that the current design is met such that there is no requirement for spandrel separation between levels.
4.	The distance of travel is more than 25m to a point of choice and 40m to the first available exit. It is also more than 60m between exits when measured through the point of choice.	D1.4 and D1.5	It is proposed that an allowance of up to 25m to a point of choice, 55m to the first alternative exit and 90m between alternative exits be allowed in an alternative solution – refer to Table 5.  A likely result of this assessment will be that an additional circulation route to the south-east stair will be required. The fitout design will also need to comply. Parts of the eastern side may not be able to meet this requirement and as such may need to be removed from the design.
5.	Table E2.2a of the BCA requires a class 5 building with a rise in storeys of 4 to be provided with a: <ul style="list-style-type: none"> <li>• Stairway pressurisation system in the fire-isolated stairways, or</li> <li>• A zone smoke control system if the building has more than one fire compartment, or</li> <li>• An automatic smoke detection and alarm system complying with specification E2.2a, or</li> <li>• A sprinkler system complying with specification E1.5.</li> </ul>	E2.2	It is proposed to install a smoke detection and alarm system throughout the office level. The installation will need to comply with clause 4 of BCA specification E2.2a and AS 1670.1-2004.  A fire indicator panel will be required. The location will need to be discussed and agreed with the ACT Fire Brigade.

Table 4 Issues to be confirmed or modified

### 5.3 Proposed alternative solutions

Compliance with the performance requirements of the BCA is achieved by either following the DTS provisions or by alternate solutions demonstrating compliance to the approval authority. We recommend that the issues described in Table 5 be addressed by alternative solutions. Table 5 describes the BCA requirements associated with the proposed alternative solutions.

It is important to note that any alternative solutions are required to be referred to the ACT Fire Brigade for their support in accordance with item 6 of Part 2.2, Schedule 2 of Building (General) Regulation 2008 made under the Building Act 2004.

No	Description of alternative solutions	DTS provision	Performance requirements (A0.10)
1.	It is proposed to delete the requirement to fire-rate the roof above the level 8 offices in contravention of clause 3.5 of specification C1.1. A likely requirement will be that the roof has a non-combustible cover only.	Clause 3.5 of specification C1.1	CP1 and CP2
2.	It is proposed to delete the requirement fire rating of the internal loadbearing columns in the level 8 offices that support only non-fire rated roof parts. A likely requirement of this assessment will be that the loadbearing elements in the external walls will require an FRL.	Clause C1.1 and specification C1.1	CP1 and CP2

No	Description of alternative solutions	DTS provision	Performance requirements (A0.10)
3.	It is proposed to delete the requirement for fire-rated lids in fire stairs in lieu of compliance with clause 2.7 of specification C1.1 of the BCA. The allowance for the glazed doors to fire stairs that were assessed in a previous Defire alternative solution report will need to be changed to fire doors	Clause 2.7 of specification C1.1	CP2 and DP5
4.	It is proposed to reduce the fire rating of the stair / lift shafts and any riser shafts on the top storey from a 120/120/120 to a 60/60/60 FRL.	Clause C1.1 and specification C1.1	CP1 and CP2
5.	The distance of travel is more than 20m to the first available exit and 40m to an exit. It is proposed that an allowance of up to 25m to the point of choice and 55m to the first alternative exit be allowed in an alternative solution. A likely result of this assessment will be that an additional circulation route to the south-east stair will be required. The fitout design will also need to meet this requirement.  It is also noted that parts of the eastern side may not be able to meet this requirement and as such may need to be removed from the design.  The distance between alternative exits is more than 60m. It is proposed to allow up to 90m when measured through the point of choice.	Clauses D1.4 and D1.5	DP4 and EP2.2
6.	It is proposed to provide fire hydrant coverage to all areas with the provision of two hose lengths in lieu of one.	Clause E1.3	EP1.3
7.	It is proposed to provide fire hose reel coverage to all areas with 50m hoses in lieu of 36m.	Clause E1.4	EP1.1
8.	The requirement for a fire control centre was deleted as part of the alternative solution report on the basis that there was no smoke hazard management required. Given that the office level would require an automatic smoke detection, this issue and requirement would need to be reassessed	Clause E1.8	EP1.6

Table 5 Issues proposed to be addressed via an alternative solution

## 6. Conclusion

The assessment of the building design against the fire related DTS provisions of the BCA found that it is capable of complying, subject to compliance with the recommendations contained within the report. In particular, the issues in section 5 must be addressed.

BCA fire safety assessment FSDA1.0  
New south carpark level 8 office

## Appendix A Drawings and information

Drawing title	Dwg no	Date	Drawn
Level 8 roof office	-	No date on plan but received 27/04/10	Colin Stewart Architects

## Appendix B Type of construction required

All eight storey buildings require type A construction. The general structural level of compliance of the building is outside the scope of this report. The required FRLs for buildings of type A construction are set out in section 3 of specification C1.1 of the BCA. The requirements of table 3 of that specification are shown in Table 6. The following general comments are made:

The office gains its own classification (class 5). The FRL requirements for class 5 in a type A construction is variations of a 120/120/120 fire rating. In particular:

- FRLs are measured upwards and sideways, so the carpark FRLs won't change, but the roof above the class 5 parts would need an FRL of 120/60/30. Note. This requirement is proposed to be deleted in an alternative solution report.
- The internal columns that support the roof would need an FRL of 60/60/60. Note. This requirement is proposed to be deleted in an alternative solution report.
- The external wall elements would need to be of non-combustible construction. Note. Compliance is required.
- The fire rating of the stair / lift and any riser shafts increases on the top storey from 60/60/60 minutes to 120 minutes. Note. It is proposed to allow a reduction to 60/60/60 in an alternative solution report.

Building element	Class of building—FRL: (in minutes)			
	Structural adequacy/Integrity/Insulation			
	2, 3 or 4 part	5, 7a or 9	6	7b or 8
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any fire-source feature to which it is exposed is—				
For loadbearing parts—				
less than 1.5m	90/ 90/ 90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/ 60/ 60	120/ 90/ 90	180/180/120	240/240/180
3 or more	90/ 60/ 30	120/ 60/ 30	180/120/ 90	240/180/ 90
For non-loadbearing parts—				
less than 1.5 m	- / 90/ 90	- /120/120	- /180/180	- /240/240
1.5 to less than 3 m	- / 60/ 60	- / 90/ 90	- /180/120	- /240/180
3 m or more	- / - / -	- / - / -	- / - / -	- / - / -
EXTERNAL COLUMN not incorporated in an external wall, where the distance from any fire-source feature to which it is exposed is—				
less than 3 m	90/ - / -	120/ - / -	180/ - / -	240/ - / -
3 m or more	- / - / -	- / - / -	- / - / -	- / - / -
COMMON WALLS and FIRE WALLS—	90/ 90/ 90	120/120/120	180/180/180	240/240/240
INTERNAL WALLS-				
Fire-resisting lift and stair shafts—				
Loadbearing	90/ 90/ 90	120/120/120	180/120/120	240/120/120
Non-loadbearing	- / 90/ 90	- /120/120	- /120/120	- /120/120
Bounding public corridors, public lobbies and the like—				
Loadbearing	90/ 90/ 90	120/ - / -	180/ - / -	240/ - / -
Non-loadbearing	- / 60/ 60	- / - / -	- / - / -	- / - / -

Between or bounding sole-occupancy units—				
Loadbearing	90/ 90/ 90	120/ - / -	180/ - / -	240/ - / -
Non-loadbearing	- / 60/ 60	- / - / -	- / - / -	- / - / -
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion—				
Loadbearing	90/ 90/ 90	120/ 90/ 90	180/120/120	240/120/120
Non-loadbearing	- / 90/ 90	- / 90/ 90	- /120/120	- /120/120
OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES				
and COLUMNS—	90/ - / -	120/ - / -	180/ - / -	240/ - / -
FLOORS	90/ 90/ 90	120/120/120	180/180/180	240/240/240
ROOFS	90/ 60/ 30	120/ 60/ 30	180/ 60/ 30	240/ 90/ 60

**Table 6 FRL requirements for type A construction**

## Appendix C Fire hazard properties

The fire hazard properties of any material or assembly in a class 2 to 9 building must comply with—

- i. for floor materials, floor coverings, wall and ceiling lining materials, specification C1.10a; and
- ii. for other materials, specification C1.10.

### Specification C1.10a

- The floor materials and floor coverings in the building including the lift cars will need to achieve a critical radiant flux level of not less than  $2.2\text{kW/m}^2$  and a maximum smoke development rate of 750 percent minutes.
- The walls and ceilings will need to achieve the requirements of table 2 of specification C1.10a which requires:
  - Group 1 for fire-isolated stairs
  - Group 1 or 2 for lift cars, public corridors and ceilings in office areas
  - Groups 1, 2 or 3 for all other areas
- A material used as a finish, surface, lining or attachment to a wall or ceiling for buildings not fitted with a sprinkler system must have-
  - a smoke growth rate index not more than 100; or
  - an average specific extinction area less than  $250\text{m}^2/\text{kg}$ .

### Specification C1.10

Clause 2. General requirements – elements other than materials, floor coverings, wall and ceiling lining materials:

- a. in the case of a sarking-type material, have a Flammability Index not more than 5; or
- b. in the case of other materials, have-
  - i. a Spread-of-Flame Index not more than 9; and
  - ii. a Smoke-Developed Index not more than 8 if the Spread-of-Flame Index is more than 5; or
- c. be completely covered on all faces by concrete or masonry not less than 50 mm thick; or
- d. in the case of a composite member or assembly, be constructed so that when assembled as proposed in a building:
  - i. any material which Does Not Comply with (a) or (b) is protected on all sides and edges from exposure to the air; and
  - ii. the member or assembly, when tested in accordance with specification A2.4, has a Smoke-Developed Index and a Spread-of-Flame Index not exceeding those prescribed in (b); and

The member or assembly retains the protection in position so that it prevents ignition of the material and continues to screen it from access to free air for a period of not less than 10 minutes.

### Clause 3 Fire-isolated exits

The constructional elements of the fire-isolated stairways must achieve the following:

- i. a Spread-of-Flame Index of 0; and
- ii. a Smoke-Developed Index not more than 2

- iii. If combustible, be attached to a non-combustible substrate and not exceed 1mm in finished thickness.

Note – Sarking materials must achieve a Flammability Index of 0.

Clause 8 Air-handling ductwork

- Rigid and flexible ductwork in a Class 2 to 9 building must comply with the fire hazard properties set out in AS 4254.

## Appendix D Population and exit width calculations

### D.1 Explanation of this section

The peak population in the level 8 office has been calculated in accordance with table D1.13 of the BCA to determine the aggregate exit width required. The calculations are provided in appendix E.2. The required exit width has then been compared to the exits currently provided to determine whether they are adequate. The exits provided are described in E.3.

### D.2 Calculation of populations and required exit width

The minimum exit widths required for the occupants within the building are summarised in Table 8. The estimated exit widths required for the building were calculated based on the following assumptions:

1. The population density within the respective areas of the building was calculated in accordance with table D1.13 of the BCA.
2. We have calculated the exits widths in accordance with clause D1.6 of the BCA which is calculated on the following basis:
  - 2m for the floors that accommodate 200 people
  - 60 persons / m for every 0.5m of exit where a stair or ramp forms part of the path of travel from the storey to road or open space.

Note. The peak population of 459 shown in Table 7 requires a minimum exit width of 4.5m. The exit width shown in Table 8 is 5m. As such, the exit width provided is sufficient for the population.

Level	Use	Approx floor area (m <sup>2</sup> )	Population density (m <sup>2</sup> /person)	Estimated population
Level 8 offices	Office/reception	2784	10	278
	Meeting	339	2	170
	Storage	322	30	11
<b>Total</b>				<b>459</b>

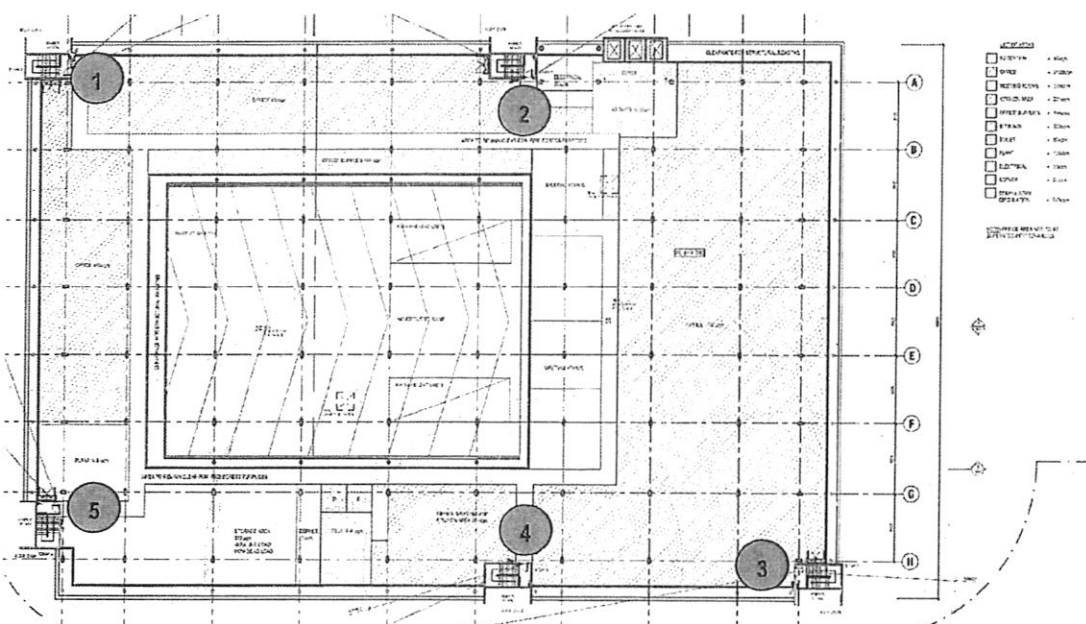
Table 7 Summary of floor areas and population

### D.3 Exits included in the current building design

The nominated required exits from the building are set out in Table 7. The exit locations are shown in Figure 1 to Figure 3.

No	Description	Comments	Unobstructed exit width (m)
<b>Level 8</b>			
1.	Fire-isolated stair	Single-leaf door to the eastern fire-isolated stairway.	1.00
2.	Fire-isolated stair	Single-leaf door to the eastern fire-isolated stairway.	1.00
3.	Fire-isolated stair	Single-leaf door to the eastern fire-isolated stairway.	1.00
4.	Fire-isolated stair	Single-leaf door to the eastern fire-isolated stairway.	1.00
5.	Fire-isolated stair	Single-leaf door to the eastern fire-isolated stairway.	1.00
<b>Total</b>			<b>5.00</b>



Table 8 Exit details

**Figure 2** Locations of level 8 exits

**Canberra Hospital**  
**New Southern Carpark**  
**Level 8 – Office Fitout**

**HYDRAULIC FEASIBILITY REPORT**

V1 – 27 April 2010 Prepared by Hughes Trueman

## HYDRAULICS REQUIREMENTS

### Contents

6.01	GENERAL REQUIREMENTS .....	3
6.02	SEWER DRAINAGE AND SANITARY PLUMBING.....	3
6.03	DOMESTIC COLD WATER .....	3
6.04	DOMESTIC HOT WATER .....	3
6.05	ROOFING, GUTTERS AND DOWNPIPES.....	4
6.06	FIRE HYDRANT AND FIRE HOSE REEL SYSTEMS .....	4
6.07	GAS SERVICE .....	4
6.08	FIXTURES AND FITTINGS.....	4
6.09	SUMMARY .....	4

## **6.0 HYDRAULIC DESIGN RESPONSE**

### **6.01 GENERAL REQUIREMENTS**

Following general requirements will be met.

- a) The roof stormwater plumbing shall be by an engineered siphonic plumbing design using HDPE pipework with fusion welds and connected to the siphonic downpipe droppers provided as part of the carpark structure;
- b) The sanitary plumbing and sanitary drainage pipework shall be constructed using HDPE pipework with fusion welds and connected to the sewer stacks provided as part of the carpark structure;
- c) Fire hydrant and fire hose reel services to be constructed to comply with the BCA, AS2441, AS2914 and Defire requirements;
- d) The domestic cold water supply shall be constructed using copper for the main risers and/or plastic (Rehau or equal) for the branch lines within the wet areas;
- e) The domestic hot water supply shall be constructed using copper for the flow and return loop and/or plastic (Rehau or equal) for the branch lines within the wet areas;
- f) All penetrations through the walls and floors shall be fire rated to the same fire rating as the adjacent wall or floor;

### **6.02 SEWER DRAINAGE AND SANITARY PLUMBING**

- a) All domestic sanitary plumbing fixtures, including water closet pans, basins, cleaners sinks, urinals shall connected to the sewer stacks provided as part of the carpark structure;
- b) All waste and vent pipes shall be concealed in ducts, cupboards, etc where ever possible. Exposed water supply pipes and fittings, waste traps, pipes and fittings shall be chrome plated;

### **6.03 DOMESTIC COLD WATER**

- a) The domestic cold water supply shall branch off the fire hose reel supply at stair 4 on level 8.
- b) A sub-water meter shall be installed metering all fixtures on level 8, located within the level 8 plant area.
- c) All level 8 toilets will be connected to rainwater from the stormwater retention tank;
- d) Every fixture is to have individual isolation valves installed. The connection of the isolation valves to the fixture is to be via braided stainless steel flexible lines; and
- e) A cold water supply line, meter and RPZD valve will be provided in the level 8 plantroom for mechanical plant.

### **6.04 DOMESTIC HOT WATER**

- a) The domestic hot water service and warm water service is to service all relevant fixtures and appliances and is to include for all piping, fittings, supports, insulation, hot water heaters, valves, circulating pumps and other sundry items of equipment required for the installation;
- b) The domestic hot water generation plant is to be located within the level 8 plantroom. The domestic hot water plant will require a plant area of approximately 6m<sup>2</sup>;
- c) Temperature control is to be by use of thermostatic mixing valves to limit the hot water temperature at the outlets to that required by the relevant Australian Standards;
- d) Every fixture is to have individual isolation valves installed. The connection of the isolation

valves to the fixture is to be via braided stainless steel flexible lines;

#### **6.05 ROOFING, GUTTERS AND DOWNPIPES**

- a) All roof stormwater collection is designed to allow adequate draining during a storm event with a rainfall intensity of:
  - 200mm/hr for a 5 minute period for box gutters;
- b) Roof gutter to be 525mm wide by 300mm deep with a grade of 1:150;
- c) Roof stormwater shall drain via a siphonic roof drainage system;
- d) Each rainwater outlet shall sit within a sump in accordance with the siphonic manufacturers details;
- e) Rainwater outlets shall be located at each grid point from points 1-10;
- f) All gutters shall have hail guards to prevent blockages of the siphonic system.
- g) Overflow provision shall be provided to prevent accidental flooding.

#### **6.06 FIRE HYDRANT AND FIRE HOSE REEL SYSTEMS**

- a) A fire hydrant system shall be in accordance with the BCA, SAA Code for Installation of Fire Hydrants - AS2419, the ACTFB requirements and Defire's 'Alternative Fire Engineered Solution' approved by the ACT Fire Brigade;
- b) A fire hose reel system shall be in accordance with the BCA, SAA Code for Installation of Fire Hose Reels - AS2441, the ACTFB requirements and Defire's 'Alternative Fire Engineered Solution' approved by the ACT Fire Brigade;

#### **6.07 GAS SERVICE**

- a) Currently, there is no provisional gas supply within the carpark.

#### **6.08 FIXTURES AND FITTINGS**

The fixtures are to have the following rating in accordance with AS/NZS 6400:2005:

- a) Sink taps to have a 4 star rating based on a flow rate of more than 6.0 litres/minute but not more than 7.5 litres/minute;
- b) Basin taps to have a 6 star rating based on a flow rate of not more than 4.5 litres/minute;
- c) General toilets to have a 4 star rating based on an average flush volume of more than 3.0 litres but not more than 3.5 litres/minute. This is based on using 4.5/3 litre full/half flush toilets; and
- d) Accessible toilets to have a 3 star rating based on an average flush volume of more than 3.5 litres but not more than 4.0 litres/minute. This is based on using 6/3 litre full/half flush toilets.

#### **6.09 IN SUMMARY**

Hydraulic construction costs modifying the current Level 8 exposed carpark deck to an enclosed office floor is estimated at \$90,000-\$120,000. This includes additional sewer drainage, fixtures and fittings, hot water plant, hot and cold water supply, and water temperature control.

This estimate does not include gas supply, additional fire hose reels and hydrants, roof guttering, overflow provisions or alterations to the open deck siphonic stormwater system.

---

**THE CANBERRA HOSPITAL SOUTHERN CARPARK  
ROOFTOP CONVERSION TO OFFICE ACCOMODATION  
FEASIBILITY STUDY**

---

**MECHANICAL & ELECTRICAL SERVICES  
REPORT**

---

Prepared by: **JOHN RAINERI & ASSOCIATES PTY. LTD.  
CONSULTING ENGINEERS**



**UNIT 17, 169 NEWCASTLE STREET, FYSHWICK ACT 2609  
P.O. BOX 3002 MANUKA, ACT 2603**

Tel No: (02) 6280 8333 Fax No: (02) 6280 8444

Client: Hindmarsh

Issue: one

Date: 30 April 2010

## Table of Contents

1.	EXECUTIVE SUMMARY .....	3
2.	ELECTRICAL SERVICES .....	4
2.1	EXISTING HV & LV SUPPLY: .....	4
2.2	OFFICE POWER RETICULATION .....	4
2.3	OFFICE LIGHTING .....	4
2.4	EMERGENCY & EXIT ILLUMINATION .....	4
2.5	COMMUNICATIONS .....	4
2.6	LIGHTNING PROTECTION .....	5
2.7	SECURITY SYSTEMS .....	5
3.	MECHANICAL SERVICES .....	5
3.1	PLANT DESCRIPTION .....	5
3.2	DESIGN CRITERIA .....	6
3.3	MEETING ROOMS .....	6
3.4	SUPPLEMENTARY AIR CONDITIONING UNITS .....	6
3.5	STAND ALONE REVERSE CYCLE HVAC .....	7
4.	FIRE DETECTION .....	7
5.	VERTICAL TRANSPORTATION .....	7
6.	ESTIMATES OF BUDGET COSTS .....	7
7.	DRAWINGS .....	8

## Amendments

Revision	Description	Date
One	Issued	30/4/10
		Signed on behalf of John Raineri & Associates <i>John Raineri</i>

---

## 1. EXECUTIVE SUMMARY

---

The purpose of this feasibility study is to determine if it is possible to transform Level 8 of the structure from open deck car parking to an enclosed office space.

Having made an assumption that this facility will remain in use for at least 4 to 5 years after the completion of the car park we have developed a services concept which will provide acceptable good quality office conditions for the duration of the project.

The development of the selected options also reflects the ongoing and increasing need to provide an efficient operation in relation to durability of systems and energy efficiency.

This report confirms that it is possible to convert the roof level of this structure to an office environment with minimal constraints thanks to the large plant space which affords us the opportunity of projecting air conditioning into the floor space horizontally via the use of a larger number of smaller air handling units.

However it will be necessary to carefully coordinate the perimeter zone services for at least 5 meters from the external walls.



## **2. ELECTRICAL SERVICES**

### **2.1 EXISTING HV & LV SUPPLY:**

The proposed new 4,000 m<sup>2</sup> office space to be located on Level 8 of the new Southern Carpark will have an anticipated maximum demand of 400KVA which equates to a current load of approximately 700 Amps in total.

This demand will be fed from a new 3 chamber indoor substation proposed to be constructed on a green field site opposite the Carpark.

We understand that this substation will be provided with an adequate electric supply to feed both the new office complex and the remaining 7 floors of car park structure.

In order to accommodate this increased demand we have already installed an increased number of underground conduits from the footpath in front of the Carpark to the Carpark new main switchboard.

In addition this new main switchboard has been redesigned to accommodate the additional power requirements and to provide separate metering facilities for the office space on level 8.

### **2.2 OFFICE POWER RETICULATION**

The main switchboard has been provided with dedicated power takeoffs for light and power and mechanical services.

The new office floor will also be provided with a main distribution switchboard which will further sub divide supply to a number of floor distribution switchboards - Approximately 1 DB for every 1,000 m<sup>2</sup> office space.

Sub-mains are to be installed on cable trays within the false ceiling space.

Final sub-circuits will be reticulated in 2.5 m<sup>2</sup> TPS cables for both light and power.

### **2.3 OFFICE LIGHTING**

Assuming that the ceiling will comprise 1200 x 600 acoustic drop in tiles as for a typical commercial office space then the typical 1 x 28 watt T5 single tube office lighting solution will suffice for the project. A system of light switches and movement detectors would be provided to provide optimal lighting control.

### **2.4 EMERGENCY & EXIT ILLUMINATION**

Emergency and exit illumination will be provided as per code requirements.

### **2.5 COMMUNICATIONS**

The floor has been split into 3 sections which contain patch rooms in order to deliver Cat 6 horizontal cabling to each workstation or required point within easy reach of the 90 meters maximum route length. Each cabinet would be connected back to the main server room via optical fibre ties.

The main optical fibre tie in would originate from the main InTACT room on ground floor.

It is anticipated that the office space will use VOIP communications via the optical fibre system so there has been no allowance for a copper backbone extension into this area.

Data reticulation would occur within the false ceiling space on dedicated data trays.

## 2.6 LIGHTNING PROTECTION

The existing car park design with no roof utilises 2 x Dynaspheres mounted on light pole extensions to provide full coverage of the building. With the introduction of a large office complex on Level 8 with a new roof we propose to replace the Dynasphere system with a more traditional finial and tape faraday cage system around the perimeter of the roof and across the top of the peak. The aluminium façade would need to be connected to the lightning system down conductors at level 1.

## 2.7 SECURITY SYSTEMS

The office area would be provided with an access control system interfaced with the lift system. Once within the secure lobby then access to the office space would be attained either via intercom to the appropriate person affording entry or via the presentation of a valid swipe card.

It is not proposed to provide volumetric detection or CCTV coverage within the office space.

---

# 3. MECHANICAL SERVICES

---

## 3.1 PLANT DESCRIPTION

The proposal of choice for the mechanical heating and cooling system comprises:-

Open air plantroom fitted out with an:-

- Air cooled chiller mounted on level 8 in an acoustically separated plantroom open to atmosphere and with a 50% opened air grill on the western side.
- A gas fired fan assisted boiler for heating hot water.

This plantroom may need to increase in size to accommodate the final selection and configuration of the chiller, boiler and pumps. For example if the client wants to have 2 x 75 % rated boilers and duty standby pumps then the room will need to expand.

There will be a number of air handling units located on a horizontal platform constructed at the eastern end of the ramp. This location is chosen so that there will be minimal impact on the cross flow ventilation of the Level 7 car park slab. It is envisaged that the plantroom floor would be established at the same floor level as the office floor and supported off the ramp via a steel structure provided by the builder.

We note that it may be a requirement of the fire engineer that this plant room enclosure is fire rated. Final details of this requirement will be provided by the fire engineer.

The units have been sized initially so that their maximum air quantity is 5,000 l/sec and all units would be fitted with full fresh air economy cycle. This has been done to ensure that the resultant ductwork is small enough to fit throughout the ceiling space.

### 3.2 DESIGN CRITERIA

Notional air quantities of 12 l/s for perimeter zones and 7 l/s for internal zones have been used for the sizing of the air systems.

Other criteria used are:-

▪	Population density	1:15 m <sup>2</sup>
▪	Lighting load of	9 W / m <sup>2</sup>
▪	Equipment load	15 W / m <sup>2</sup>
▪	Fresh air at a rate of	7.5 L/s / person
▪	People load	10 W / m <sup>2</sup>

The building criteria on which we have based our concept is as follows:-

- The roof space will be insulated to R 3.7 and lined to comply with the requirements of BCA 2010 and so that it can be used as a return air plenum.
- The plantroom will need to be fire rated from the rest of the office area
- The walls will have minimal fenestration and the external aluminium façade is retained to act as a sun shade.
- The underside of the Level 8 slab is insulated with R1.5 insulation.
- The walls have an appropriate insulation to provide an R2.8 insulation rating.

The air distribution is via a system of Variable Air Volume boxes organised in zones of varying areas as shown on the drawing. It will be necessary to locate the perimeter VAV boxes inboard from the perimeter due to the limited ceiling space near the perimeter of the space. Indeed careful coordination of ductwork, diffusers and lighting layout will be required within a distance of 5 meters from the edge of the building.

This level of coordination is not reflected in the mechanical single line concept drawing as development of structure and the like needs to be firstly finalised. Nevertheless as long as there is a clear 500mm ceiling space around the perimeter then we believe that the above ceiling services can be accommodated.

Outside air is limited to 7.5 l/sec per person and is controlled via CO<sub>2</sub> sensors.

Heating would be provided from a heating hot water boiler feeding primary heating coils in the AHU's for the central zones with VAV box mounted heating coils for the perimeter units.

A full BMS would provide the required control and operating functions for the plant.

A ducted mechanical toilet exhaust system would be provided for the toilet areas.

### 3.3 MEETING ROOMS

Meeting rooms may be serviced from appropriately sized and dedicated AHU with a VAV systems with potentially oversized fresh air supply if deemed appropriate during final design. Otherwise these areas would be treated by a more conventional supplementary units.

### 3.4 SUPPLEMENTARY AIR CONDITIONING UNITS

The purpose of this space is to provide a comfortable medium term decanting space for hospital personnel to allow for the redevelopment of the hospital to proceed.

As such it is not expected that there will be large percentage of churn in this space. Nevertheless a ring main of heating and cooling water can be provided to allow for tap off points for chilled or heating water for easy Fan Coil Unit installation to accommodate larger fitout loads. Fresh air can easily be sourced around the eaves or through the roof if necessary.

### **3.5 STAND ALONE REVERSE CYCLE HVAC**

It is proposed to provide split refrigerant based reverse cycle air conditioning systems to the following areas:-

- File server room
- Data cabinet rooms

These rooms will require temperature control on a 24/7 basis and therefore they are provided with separate air conditioning to the central plant.

---

## **4. FIRE DETECTION**

---

A fire detection system comprising of an addressable fire Indicator panel and smoke detectors will be provided throughout the Level 8 office and plantroom space in compliance with the requirements of :-

- AS 1670
- The Fire Engineered Solution (if there is to be one)

The Fire Indicator panel would be located on the ground floor in a location acceptable to the ACT Fire brigade.

---

## **5. VERTICAL TRANSPORTATION**

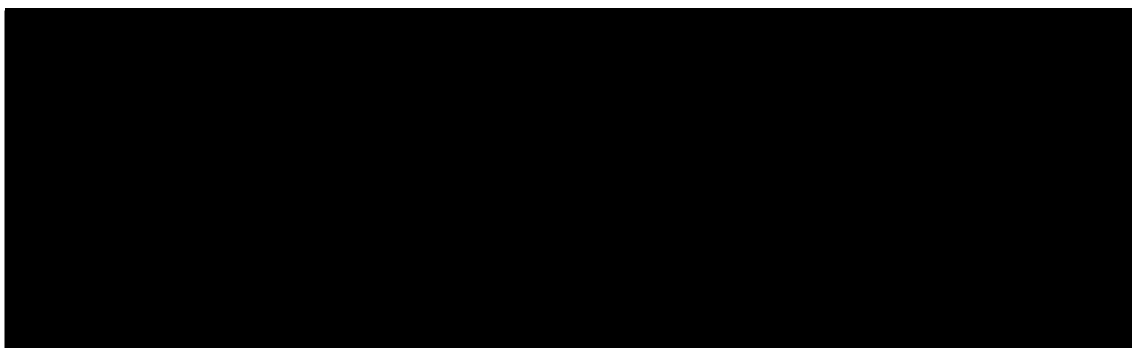
---

The existing lifts would be retained and it is expected that their overall performance would be effected during peak up time periods. A full lift study has not been completed to determine what effect this would have on trip times.

---

## **6. ESTIMATES OF BUDGET COSTS**

---



---

## 7. DRAWINGS

---

The following drawings are attached for reference.

Mechanical Services M101005-1 Rev P

Electrical services E101005-1 Rev P

***TCH New Southern Carpark***

71 Constitution Avenue  
Campbell ACT 2612  
Tel: 02 62474999 Fax: 02 62480751  
ABN 15 126 578 176

**Attachment C**

- Architectural Plan – Roof Office
- Architectural Section – Roof Office
- John Raineri – Electrical Services Power & Data indicative Reticulation
- John Raineri – Mechanical Services Concept Layout

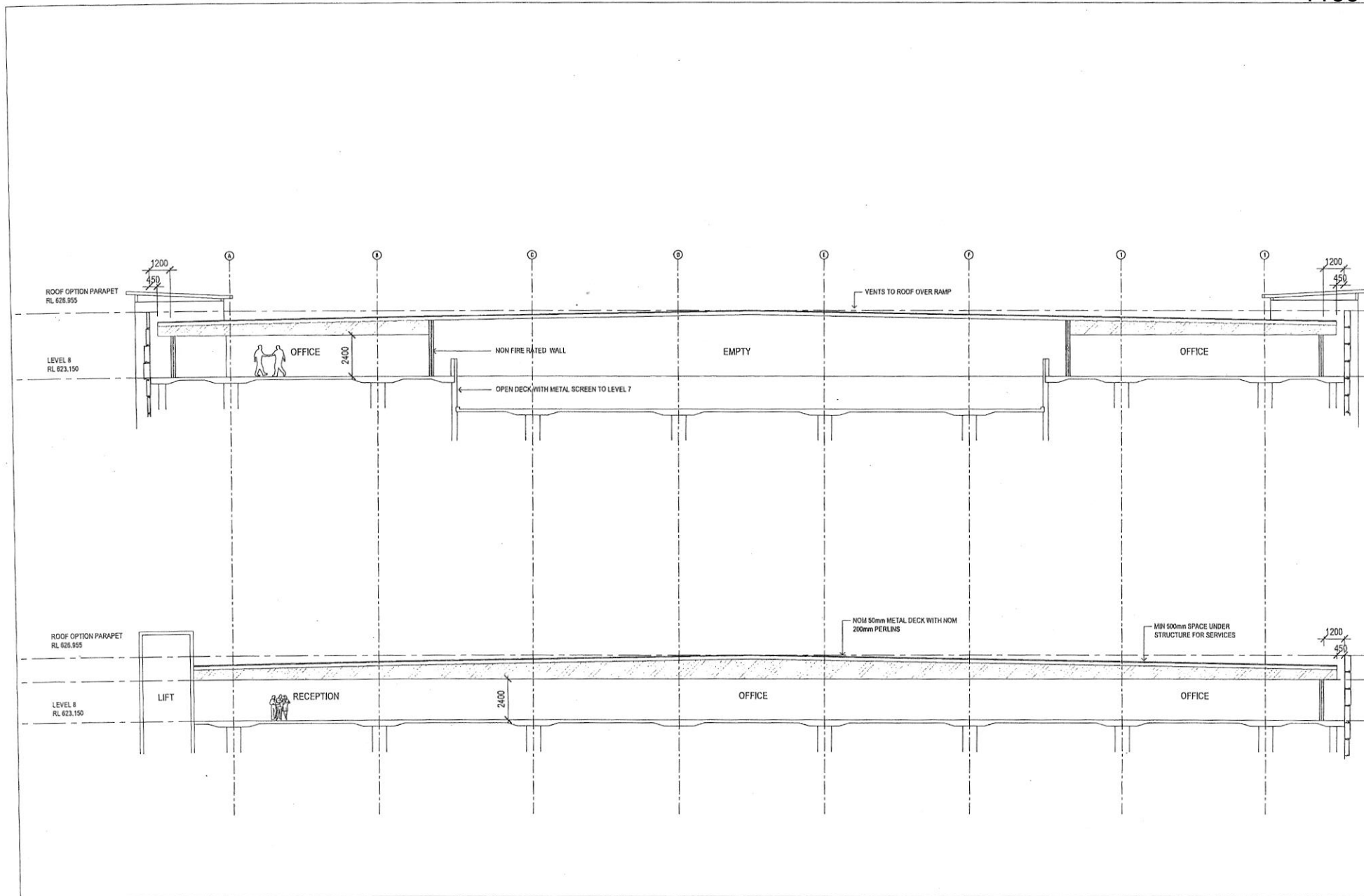


PROJECT	NEW SOUTHERN CARPARK BLOCK 1 SECTION 58
PROJECT NUMBER	1021

REV	DESCRIPTION	DATE
-----	-------------	------

DRAWING SCALE DATE DWG NUMBER

www.elsevier.com/locate/jmb  
 J. Mol. Biol. 363 (2006) 231–241  
 doi:10.1016/j.jmb.2006.03.030



A horizontal number line with four vertical tick marks. Below the first tick mark is the number '0'. Below the second tick mark is the number '4'. Below the third tick mark is the number '10'. Below the fourth tick mark is the number '20m'.

# THE CANBERRA HOSPITAL

## SKETCH PLANS

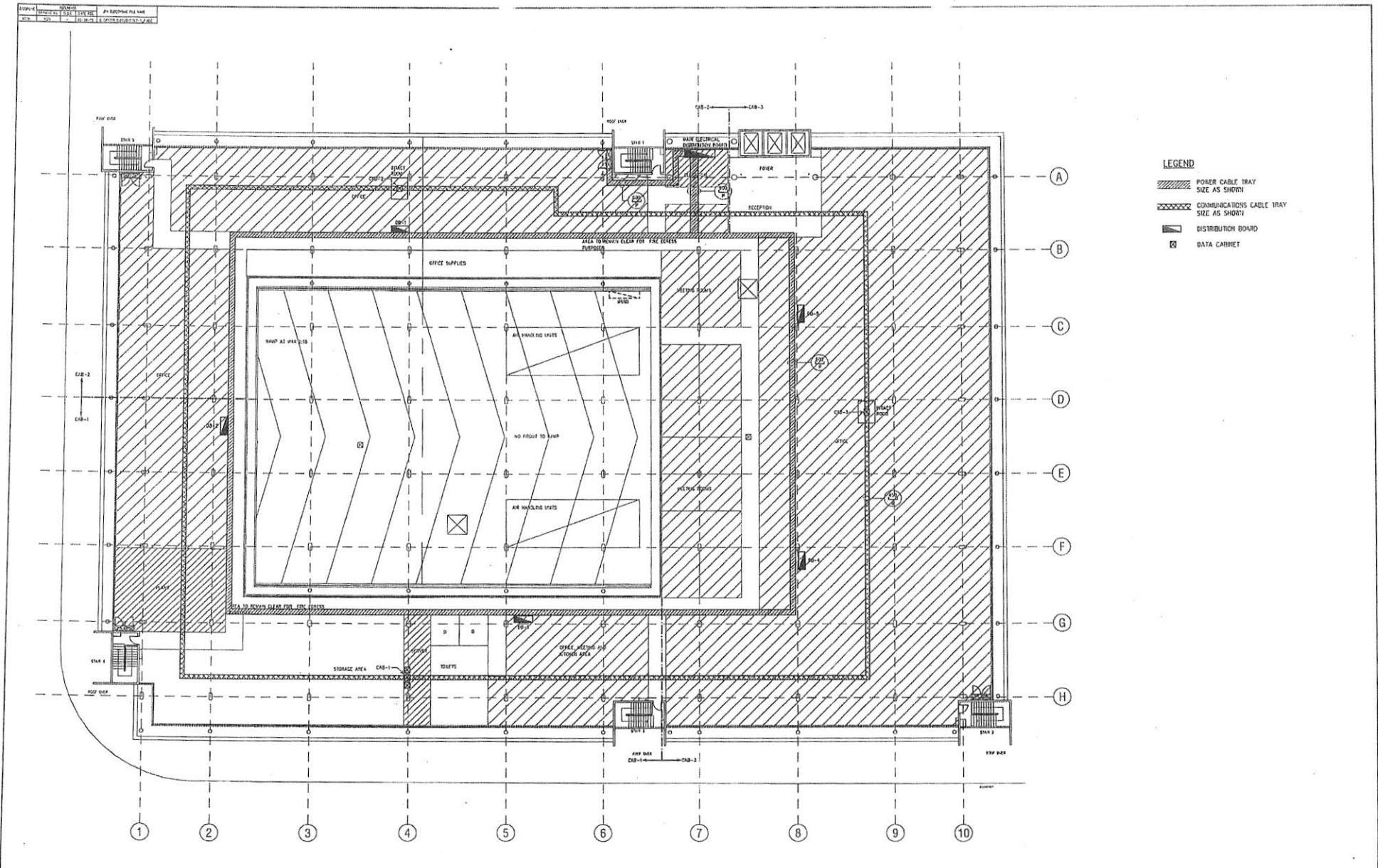
PROJECT	NEW SOUTHERN CARPARK BLOCK 1 SECTION 5B
PROJECT NUMBER	1021




REV	DESCRIPTION	DATE
-----	-------------	------

DRAWING SCALE DATE DWG NUMBER SECTION: ROOF OFFICE 1:100 APR 2010

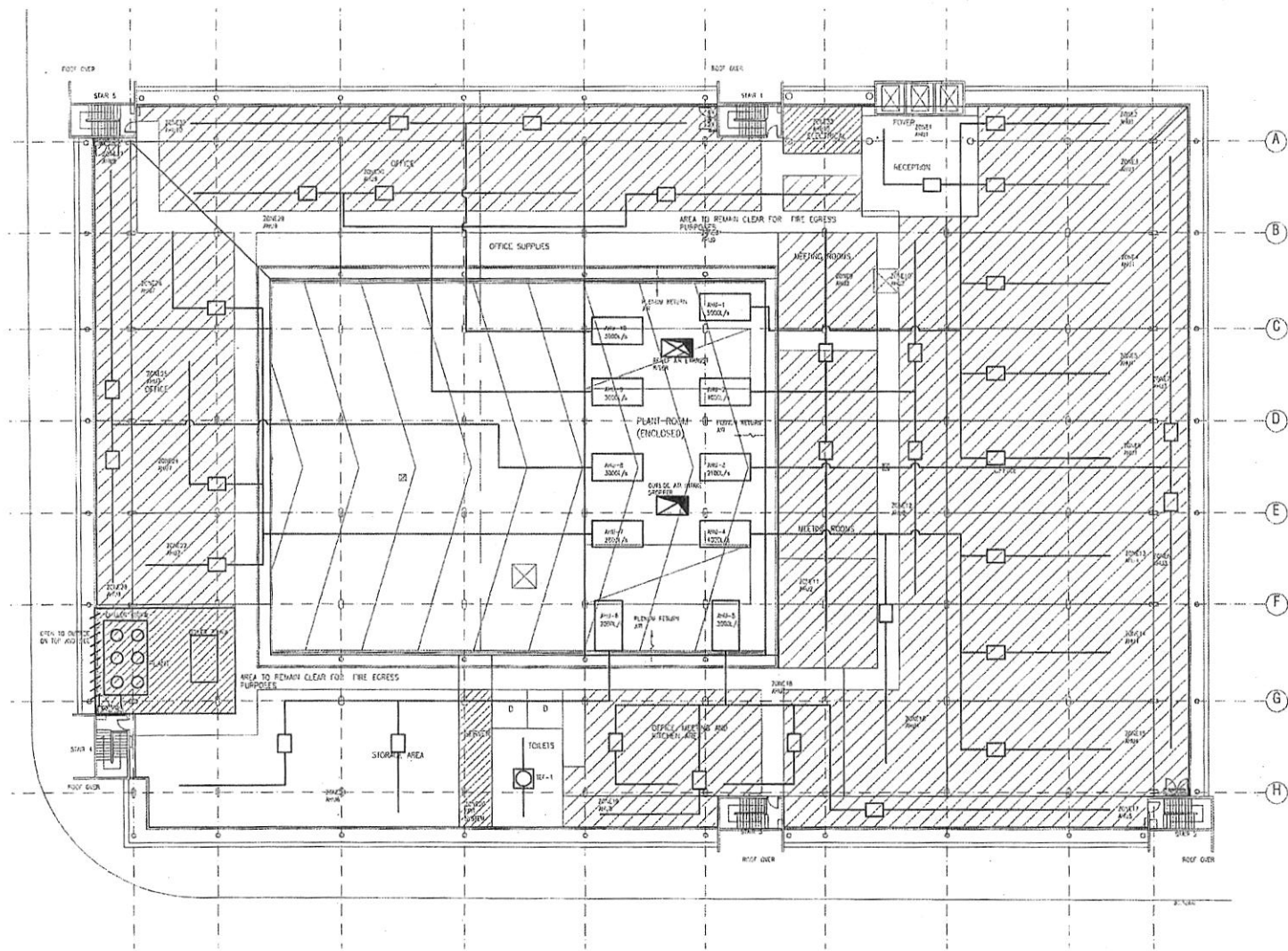
**colin stewart architects**  
wetlands house daily road lytham l. 2601  
portra 3166 moncha act 2803  
p 02 6218 1200 f 02 6228 1699





Rev. Description	By	Date	Project Partner	Consultant	Architect	Client	Project	Job No.	Sheet	1/200 & B1		
1. PRELIMINARY	JR	10-04-10	 <b>HINDMARSH</b> Leadership at work.	 <b>JOHN RAINIERI &amp; ASSOCIATES</b> Pty. Ltd.	 <b>colin stewart architects</b>	 <b>THE CARPARK TRUST</b>	<b>TCH CARPARK ROOFTOP OFFICES</b>	2009/5	Drawn	APRIL 2010		
			 <b>ezipark</b>	CONSULTING ENGINEERS Electrical - Mechanical - Fire - Building Services Unit 17, 109 Macquarie St, Sydney, NSW 2009 P.O. Box 3002 Windra ACT 2023 Tel: 08 5252 5333 Fax: 08 5252 5334 Email: jra@johnrainierigroup.com.au	100/101 ST. MARKS ROAD, ST. MARKS ACT 2019 08 52 52 5333 08 52 52 5334 08 52 52 5333 08 52 52 5334		<b>BLOCK 1 SECTION 58 CARRAN ACT</b>	Approved	JR	Rev	P	
							Design: JR		Drawing Number	E101005-1	North	
							<b>ELECTRICAL SERVICES</b> <b>POWER AND DATA - INDICATIVE RETICULATION</b> <b>LEGEND</b>					

20 MECHANICAL  
TCH CARPARK ROOFTOP OFFICES



- LEGEND
- Variable Air Handling (VAV) Box
  - Supply Air Diffuser
  - Air Handling Unit & Static Pressure/Supply Air
  - Toilet Exhaust System

Rev. Description		By	Date
P	PRELIMINARY	AT	30-4-10

Project Manager	Client
<b>HINDMARSH</b> Leadership at work.	<b>colin stewart architects</b>
<b>expark</b>	

Consultant	Architect
<b>JRA</b> JOHN RANIERI & ASSOCIATES Pty. Ltd. CONSULTING ENGINEERS Excluded - Mechanical - Fire - Building Services Unit 17, 40 Seaview Ct, Hurstville NSW 1505 PO Box 550 Hurstville NSW 1505 Tel: 62 1240 1371 Fax: 62 4283 8444 Email: jra@jra.com.au	

Project	Drawn	Checked	Scale
TCH CARPARK ROOFTOP OFFICES BLOCK 1 SECTION 5B GARRAN ACT	PT	AT	1:500 @ A1
Drawing Name	Approved	Rev	
MECHANICAL SERVICES SINGLE LINE CONCEPT LAYOUT	AT		
Drawing Number	Notes		
M101005-1			
© COPYRIGHT AND DESIGN RIGHTS RESERVED			

**Attwood, Courtney (Health)**

---

**From:** Doran, Karen (Health)  
**Sent:** Friday, 1 February 2019 8:20 AM  
**To:** Culver, Jakob (Health)  
**Cc:** Burch, Brad (Health)  
**Subject:** RE: Proof of Concept Nominations - SPIRE [SEC=UNCLASSIFIED]

UNCLASSIFIED

Jake/Brad

That's fine on the Clinical side.

I did talk to Brad yesterday about considering the now direct role of Facility planning, and that Carolyn Bartholemew would probably be relieved from these meetings.

Ta

Karen

**From:** Culver, Jakob (Health)  
**Sent:** Thursday, 31 January 2019 12:12 PM  
**To:** Doran, Karen (Health) <Karen.Doran@act.gov.au>  
**Cc:** Burch, Brad (Health) <Brad.Burch@act.gov.au>; Lindemann, Monica (Health) <Monica.Lindemann@act.gov.au>; DDGCorporate <DDGCorporate@act.gov.au>; Building Health Services Program <BuildingHealthServicesProgram@act.gov.au>  
**Subject:** RE: Proof of Concept Nominations - SPIRE [SEC=UNCLASSIFIED]

Hi Karen

Just following up on this one (see below).

Are you happy for IFCW to begin scheduling workshops for SPIRE PoC Design, based on the attendee list attached (Excel doc). CHS reps have been advised by Colm. The workshops will be based on the program STH talked to at the meeting last Friday.

Suggest that if we need to add to or modify attendees at the workshops we can do this as we progress through PoC design over the coming weeks/months, but we need to begin to scheduling the workshops in people's diaries (particularly the key clinical/CHS stakeholders).

Any questions or concerns, as always please let me know.

Thanks

Jake

**From:** Culver, Jakob (Health)  
**Sent:** Friday, 25 January 2019 7:58 AM  
**To:** Doran, Karen (Health) <Karen.Doran@act.gov.au>  
**Cc:** Burch, Brad (Health) <Brad.Burch@act.gov.au>; Lindemann, Monica (Health) <Monica.Lindemann@act.gov.au>  
**Subject:** FW: Proof of Concept Nominations - SPIRE [SEC=UNCLASSIFIED]

Hi Karen

Attached (excel doc) is a list of user group nominations for SPIRE Proof of Concept design – which will commence shortly once we have settled the 'program' with STH.

The list for CHS has been provided by Colm (in a separate word doc – also attached) in mid-December and early January, which I have consolidated into the excel list with ACT Health Directorate nominations.

Once the 'program' with STH is settled (which hopefully today's project meeting at 11am will go a long way to resolving), IFCW will work with STH to schedule user groups for the Proof of Concept.

As always, please let me know if you have any questions or concerns.

Thanks

Jake

**From:** Culver, Jakob (Health)

**Sent:** Friday, 18 January 2019 1:37 PM

**To:** Burch, Brad (Health) <[Brad.Burch@act.gov.au](mailto:Brad.Burch@act.gov.au)>; Bartholomew, Carolyn (Health) <[Carolyn.Bartholomew@act.gov.au](mailto:Carolyn.Bartholomew@act.gov.au)>

**Subject:** Proof of Concept Nominations - SPIRE [SEC=UNCLASSIFIED]

Brad / Carolyn

Attached is a quick list of PoC design user group nominations for SPIRE PoC. The list for CHS has been provided by Colm (in a separate word doc – also attached) in mid-December and early January.

I have added in nominations from the Directorate's end as well. Can you let me know if there is anyone further from your perspectives?

Once we have ACTHD list sorted between the three of us, I will send up to Karen for her endorsement of the list across both CHS and ACTHD.

Need to get back to IFCW as soon as possible (latest first thing Monday). Program from STH for PoC is imminent.

Thanks

Jakob

**Lowes, Shannon (Health)**

---

**From:** Evans, Kate (Health)  
**Sent:** Friday, 1 February 2019 8:55 AM  
**To:** Culver, Jakob (Health); Burch, Brad (Health)  
**Cc:** JasonSmith, Rhona (Health)  
**Subject:** RE: Brief review [SEC=UNCLASSIFIED, DLM=Sensitive]  
**Attachments:** 20190131 Master SPIRE SOA.xlsx

UNCLASSIFIED Sensitive

Good morning Brad,

I have reviewed and updated the surgical IPU to reflect the 60/40 split. I have worked under the assumption the 60/40 split is based on beds not on rooms.

The Master SoA has been updated accordingly. I have attached the current file to this email.

Can I please clarify if you would like me to embed the revised SoA into the HPU or are we waiting for STH to provide further instruction?

Kind regards

*Kate Evans NP*

**Kathleen Evans | Clinical Liaison SPIRE | Senior Project Officer**

Phone: (02) 5124 9668 Email: [kate.evans@act.gov.au](mailto:kate.evans@act.gov.au)

**Strategic Infrastructure | Strategic Infrastructure & Procurement | ACT Health Directorate | ACT Government**

2-6 Bowes Street, Phillip, ACT 2606 | GPO Box 825, Canberra, ACT 2601 | [www.health.act.gov.au](http://www.health.act.gov.au)

**From:** Culver, Jakob (Health)

**Sent:** Wednesday, 30 January 2019 12:10 PM

**To:** Burch, Brad (Health) <[Brad.Burch@act.gov.au](mailto:Brad.Burch@act.gov.au)>

**Cc:** Evans, Kate (Health) <[Kate.Evans@act.gov.au](mailto:Kate.Evans@act.gov.au)>; JasonSmith, Rhona (Health) <[Rhona.JasonSmith@act.gov.au](mailto:Rhona.JasonSmith@act.gov.au)>

**Subject:** FW: Brief review [SEC=UNCLASSIFIED, DLM=Sensitive]

Hi Brad

See below from Kate.

The master SoA for SPIRE (attached Excel) doc is in broad alignment with the PDF high-level summary SoA that we provided to STH as part of the RFQ (there are some minor discrepancies).

In terms of the HPU briefs, these were finalised in regards to the updated scope from the BHSP SSC in early October 2018, however the master SOA had updates following this as a result of updates for new AusHFG – this informed the attached PDF that we provided as part of the RFQ (late October). The HPU Briefs do not reflect the updates to circulation as per the new AusHFG, as the briefs were finalised in early October. The quantum of impact in the aggregate is [REDACTED]

Kate – I note that there is some minor discrepancies between the numbers in the attached master SoA (excel doc – which appears to be November 2018 dating) and the PDF SoA provided to STH. In this regard, can we check that the schedule as per the Excel doc is the latest and correct to continue with moving forward (in particular if there are any impacts above the circulation line).

Brad – Suggest way forward:

- Check that the latest master SoA (excel doc) is correct version to move forward with.
- Seek confirmation to provide this to STH as soon as possible.
- [REDACTED]
- Provide updated HPU Brief to STH

Suggest that we need to cover all this off by early next week. We are also waiting on STH's SoA that informed their initial concept, so we can understand the basis of their figures.

Hope this make sense, please let me know if you have any questions or queries and if you are happy with the above approach.

Thanks

Jake

**From:** Evans, Kate (Health)

**Sent:** Wednesday, 30 January 2019 10:57 AM

**To:** Culver, Jakob (Health) <[Jakob.J.Culver@act.gov.au](mailto:Jakob.J.Culver@act.gov.au)>

**Cc:** JasonSmith, Rhona (Health) <[Rhona.JasonSmith@act.gov.au](mailto:Rhona.JasonSmith@act.gov.au)>

**Subject:** Brief review

UNCLASSIFIED Sensitive

Hi Jake,

I have spent a few hours reviewing the Master SoA. Plant and travel were included in the summary page, which showed a total of [REDACTED] I am not sure how STH reached the number they quoted in the meeting last week – I can only assume they may have included SDU/sexual health/CARHU? It may be worth clarifying if they received these HPU briefs in the package of documents.

There is discrepancies between the numbers in the HPU and the numbers in the Master SoA, with the Master showing greater numbers. I believe this can be attributed to the updated circulation areas as per the new AusHFGs, which were released post submission of the brief to STH. Amanda Slater was updating the SoA to align with the new AusHFGs.

I am assuming the HPU briefs will need updating with the new SoA, to reflect the new AusHFGs. I can continue to work on this and get that to you tomorrow or Friday.

Happy to discuss further. I can be contacted on my mobile.

Kind regards

*Kate Evans NP*

**Kathleen Evans | Clinical Liaison SPIRE | Senior Project Officer**

Phone: (02) 5124 9668 Email: [kate.evans@act.gov.au](mailto:kate.evans@act.gov.au)

**Strategic Infrastructure | Strategic Infrastructure & Procurement | ACT Health Directorate | ACT Government**

2-6 Bowes Street, Phillip, ACT 2606 | GPO Box 825, Canberra, ACT 2601 | [www.health.act.gov.au](http://www.health.act.gov.au)

SPIRE	Total Room Allowance m2	Circulation Allowance m2	Total m2
Acute Cardiac Care Unit and Interventional Cardiac Laboratories			
Perioperative & Interventional Centre			
Surgical Inpatient Unit			
ICU - Adult/HDU/PICU			
ICU Clinical Admin			
Emergency Department			
Emergency Department - Clinical Admin			
Helipad/Retrieval Services			
Procedure Rooms			
Sterilising Services			
Receiving/Dispatch Loading Dock			
<b>Subtotal SPIRE</b>			
<b>Services and Support</b>			
Retail/Entry			
Education and Admin			
IT/Server Room			
<b>Subtotal</b>			
<b>Subtotal</b>			
Plant and Travel Allowance			
<b>Total</b>			
<b>Campus Pressures</b>	<b>Total Room Allowance m2</b>		
B5 West Wing - Staff Development Unit, ANU			
CARHU			
ACT Pathology			
Sexual Health			
<b>Subtotal</b>			
Plant and Travel Allowance			
<b>Total</b>			

20181011 Master SPIRE SOA Summary.xls

59,085 V1

































































































**Pond, Aleks (Health)**

---

**From:** JasonSmith, Rhona (Health)  
**Sent:** Friday, 1 February 2019 8:57 AM  
**To:** Evans, Kate (Health)  
**Subject:** FW: SIRE Staging & Decanting Mapping B24,5  
**Attachments:** B24 Staff & FFE Mapping 20190121.xlsx; Mapping Staff & FFE B5 20190125.xlsx

UNCLASSIFIED

FYI

**From:** JasonSmith, Rhona (Health)  
**Sent:** Friday, 1 February 2019 8:54 AM  
**To:** Culver, Jakob (Health) <Jakob.J.Culver@act.gov.au>; Catanzariti, John <John.Catanzariti@act.gov.au>  
**Cc:** Burch, Brad (Health) <Brad.Burch@act.gov.au>  
**Subject:** SIRE Staging & Decanting Mapping B24,5

UNCLASSIFIED

Morning Jake and John,

Please find attached the updated mapping documents for Buildings 5 & 24.

I am anticipating that I will have access to the Building Health Services Program folder by COB today.

Please let me know if you require further information.

Rhona

**Rhona JasonSmith**  
P: 02 5124 9667  
[rhona.jasonsmith@act.gov.au](mailto:rhona.jasonsmith@act.gov.au)

Senior Project Officer  
Territory-wide Health Service Planning | ACT Health Directorate | ACT Government  
Level 5, 2-6 Bowes Street  
WODEN ACT 2606



**ACT**  
Government

**ACT Health**

## SPIRE Staging and Decanting Canberra Hospital Building 24

STAFFING				
Client Group / Unit:		Building 24 Level 1		
Client Contact Officer:				
Client Contact Officer backup:				
Current Location				
Building	Level	Workpoint / Room No.	Position	Surname
24	1	24.1.10	Exec Branch Manager Office of Research	
24	1	24.1.08	Exec Group Manager Office of Research	
24	1	24.1.09	Operations Manager Office of Research	
24	1	WS-11	EA to Office of Research	
24	1		Emergency Management Coordinator	
24	1		Business Continuity Manger	
24	1		Quality Officer Cricital Care & Clinical Support	
24	1		Quality Officer Medicine	
24	1		Consumer Participation Officer	
24	1		Quality Improvement Program Director	
24	1		Quality Officer Surgical Services	
24	1		Clinical Insights & Outcomes	
24	2	WS-6	Interprofessional Learning Coordinator	
24	2	24.2.04	Prof Allied Health Research	
24	2	WS-9	EA to Dir Allied Health	
24	2	Office D4	Dir Allied Health	
24	2	24.2.09	Dir Nursing and Midwifery CHS	
24	2	WS-17	EO to ED Div Medicine	
24	2		EO Medical Services	
24	2		ED Clinical Support	
24	2		EA Clinical Support	
24	2		EO Clinical Support	
24	2		EO Clinical Support	
24	2		Project Officer Collaboration Partnership	
24	2		Inter-professional Learning Coordinator (Allied Health)	
24	2		EA DON Nursing & Midwifery	
24	2	24.2.07	Consumer Feedback Coordinator	
24	2	24.2.07	Consumer Feedback Coordinator	
24	2		Consumer Feedback Coordinator	
24	2		Consumer Feedback Coordinator	
24	2	24.2.16	Chief Executive Officer	
24	2	WS-51	EA to Deputy Director General	
24	2		Deputy Director General	
24	2		Exec Dir Div Medicine	
24	2	WS-49	EA to ED Medicine	
24	2	WS-47	Exec Officer to DDG	
24	2	24.2.15	Executive Director Surgery	
24	2	WS-44	EA to ED Surgical	
24	2	WS-21	Business Manager to CEO	
24	2	WS-22	Exec Officer to CEO	
24	2	WS-23	EA to CEO	
24	2	WS-24	Business Manager to DDG	
24	2	WS-25	PA to ED Div Medicine	
24	2		Dir Medical Services	
24	2		ADON Medical Inpts Div Medicine	
24	2	24.2.41	ADON Ambulatory Services Div Medicine	

UNCLASSIFIED

## SPIRE Staging and Decanting Canberra Hospital Building 24

STAFFING				
Client Group / Unit:		Building 24 Level 1		
Client Contact Officer:				
Client Contact Officer backup:				
Current Location				
Building	Level	Workpoint / Room No.	Position	Surname
24	2	24.2.43	DON Surgical	
24	2	WS-29	Operational Manager Div Medicine	
24	2	WS-30	Admin Manager Div Medicine	
24	2	WS-31	PA to DON Medicine	
24	2		DON Div Medicine	
24	2	24.2.46	ADON Clinical Support Services	
24	2	24.2.47	ADON Surgical Wards	
24	2	24.2.48	DON Div Surgery	
24	2	24.2.42	Admin Manager Div Surgery	
24	2		EO to Div Surgery & Critical Care	
24	2		Op Manager Div Surgery	
24	2		PA Clinical Support Services	
24	2		PA DON Surgical	
24	2	WS-37	EA to ED Critical Care	
24	2		ED Critical Care	
1	8A		ADON Renal Services	

## SPIRE Staging and Decanting Canberra Hospital Building 24

<b>AVR Number:</b>			
<b>Phone:</b>			
<b>Phone:</b>			
<b>Staff Details</b>		<b>New Location</b>	<b>Comments</b>
<b>First Name</b>	<b>Phone</b>	<b>Destination Number (Refer to Plan)</b>	
	51244288		
	51244288		
	51244288		
	51245324		
	62051076		
	51241729		
	62051263		
	62073884		
	51243489		
	62050893		
	62050893		
	62050893		
	51242147		
	51243596		Relocate with Div Medicine Exec
	51245221		
	51248020		
	62050606		
	51245812		
	51243489		
	51242147		
	51243013		
	51242447		
	51244700		
	51242728		
	51242728		
	51243603		
	51243603		
	51245804		
	51243515		
	51243515		
	51244702		
	51245804		
	51244700		
	51242169		
	51243596		
	51243596		
	51242702		

UNCLASSIFIED

## SPIRE Staging and Decanting Canberra Hospital Building 24

AVR Number:			
Phone:			
Phone:			
Staff Details		New Location	Comments
First Name	Phone	Destination Number (Refer to Plan)	
	51248583		
	51243659		Relocate with Div Medicine Exec
	51248199		
	51242619		
	51245161		
	51247130		Division disbanded
	51242318		
	51243275		
	51245467		
	51245801		
	51247061		
	51248583		
	51243843		
	51243125		
	51245801		
			Div to submit AVR

## FURNITURE/FITTINGS/EQUIPMENT/STORAGE REQUIREMENTS

UNCLASSIFIED

FURNITURE/FITTINGS/EQUIPMENT						
Client Group / Unit:			AVR Number:			
Client Contact Officer:			Phone:			
Client Contact Officer backup:			Phone:			
Current Location					Destination	
Building	Level	Room No	Description	Description of other Furniture / Equipment	Storage Requirements	Comments
<b>Staff Development (rooms used 6 days week)</b>						
5	2		Store room			
<b>Clinical Skills Unit</b>						
5	1	5.1.18	Teaching Room	Monitor, whiteboard, Tables, etc		ANU Rm 9
5	1	5.1.12	Kitchenette			
5	1	5.1.19	Foyer	Sign-in table		
5	1	5.1.22	Teaching Room	Examination Couch, Wall-mounted monitor,		ANU Rm 8 Dividing wall with Rm 7
5	1	5.1.23	Teaching Room	Projector and screen, examination couch		ANU Rm 7
5	1	5.1.24	Teaching Room	Examination Couch, Wall-mounted monitor,		ANU Rm 6, Dividing wall with Rm 5
5	1	5.1.25	Teaching Room	Projector and screen, examination couch		ANU Rm 5
5	1	5.1.27	Teaching Room	Examination Couch, Wall-mounted monitor, infant resus trolley		? ANU Rm 4,
5	1	5.1.28	Teaching Room	Wall-mounted monitor, scrub sink, examination couch, one way mirror with		? ANU Rm 3, scrub sink, One way mirror with 5.1.29
5	1	5.1.01	Teaching Room	Examination Couch, Wall-mounted monitor,		ANU Rm 2 Dividing wall, Check if monitor or projector
5	1		Teaching Room	Projector and screen, examination couch		ANU Rm 1, Dividing wall, Check if monitor or projector
5	1	5.1.289	Clinical Skills Mock Resus Room	hospital bed, infant resus, resus trolley, wall-mounted monitor,	Wall of bench height storage, Wall of full height shelving	space for lifting device,
5	1	5.1.03	Teaching fridge	temperature monitored		
5	1	5.1.03	Storage	5 x full height double door additional depth lockable cupboards	Accommodates storage for ALS suitcases	
5	1	5.1.02	Wash-up Area	Training arms drying racks x 3 double, dishwasher, double sink,		Wall space for training arms drying x 3 double, 1 wall full height shelving, 1 wall above bench open storage, wall length working bench, under bench cupboards, +++ bench height drying space, wall mounted
<b>Tissue Viability Unit</b>						
5	1	5.1.68	provides education, training		Full height double storage cupboard, lockable filing cabinets	. Requires security access to tissue viability clinical products
<b>Sexual Health</b>						
5	1	5.1.30	Reception	Wall mounted information brochures ++, condom distribution	Full height lockable cupboards	Confidential registration required, storage condoms, Full height lockable cupboard



## SPIRE: STAGING AND DECANTING CANBERRA HOSPITAL BUILDING 5

## FURNITURE/FITTINGS/EQUIPMENT

Client Group / Unit:				AVR Number:		
Client Contact Officer:				Phone:		
Client Contact Officer backup:				Phone:		
Current Location					Destination	
Building	Level	Room No	Description	Description of other Furniture / Equipment	Storage Requirements	Comments
5	1	5.1.31	Administration	MFD, fax,		clinic switch board, filing cabinets multiple
5	1	5.1.32	Corridor Over flow storage		Full height double doors	
5	1	5.1.33/34	Nurses Station/Clean Utility	Clean utility as per AusHFG, Bench height storage		requires sperate relocation of clean utility from office area as per AusHFG
5	1	5.1.35	Consult Room	Gynae examination table		
5	1	5.1.36	Consult room	Gynae examination table		
5	1	5.1.37	Consult room	Gynae examination table		
5	1	5.1.56	Consult room	Gynae examination table		Barriatric clinic room- additional door width
5	1	5.1.57	Consult room	Gynae examination table		Pemtamadine clinic room - dual egress
5	1	5.1.13/8	Consult Room/treatment + disabled ensuite + family conference seating x 6	Gynae examination table, family conference seating		Forensic examination- dual egress
5	1	5.1.14	Resus Trolley			
5	1	5.1.16	Education Room	workstation, projector, 12 tables		seating lecture style 60
5	1	5.1.23	Breakout room /hot office			
5	1	5.1.24	Outreach Manager		equipment storage	Setup for SULIRP
5	1		Blood collection Room	blood collection chair		Does not meet AusHFG
5	1	5.1.50	Waiting room	TV, service display boards, condom dispensing,		Seating x 30
5	1		Sub Wait (corridor) for toilets	seating x 4		
5	1	5.1.51	Patient toilets (clinical care) x 2	Unisex		single stall, one way sample box links with Wet Lab,
5	1	5.1.52	Wet Laboratory	Vaccine fridge (monitored & alarmed), sample fridge (monitored), microscopes x 2, Microscopy sink, extraction fan		Workbench, handbasin
5	1	5.1.43/44/41/53	File room		compactors, open x 24, locked compactor storage x 2	Key pad locked entry, confirm number
5	1	5.1.46	Storage room		Outreach equipment, consumer information, Schools program	
5	1	5.1.32	Corridor Over flow storage			
CARHU (24/7 service)						
5	1	5.1.110	Reception	MFD, fax,	lockable filing cabinet, sealed, non perishable food storage for clients	Entrance secure, hard copy filing
5	1	5.1.150/149	Waiting Room	TV, child play area,		(20) open for observation, cuddle space
5	1	5.1.116	Clinical Director			1 x full height bookcase 1/2 size bookcase,
5	1	5.1.118/200	RN & Reg Office			Audio visual link for court processes
5	1	5.1.144	Client toilet			1 adult size, 1 child size toilet, nappie change

## FURNITURE/FITTINGS/EQUIPMENT

Client Group / Unit:			AVR Number:				
Client Contact Officer:			Phone:				
Client Contact Officer backup:			Phone:				
Current Location						Destination	
Building	Level	Room No	Description	Description of other Furniture / Equipment	Storage Requirements		Comments
5	1	5.1.125	Store Room		toys, library, therapeutic equipment		
5	1	5.1.128	Consult Room/treatment + family conference seating x 6	Out of Home Care	Double sized storage		non clinical, non threatening
5	1	5.1.129/30	Consult Room/treatment + family conference seating x 6	baby scales, colposcope, video camera, medication & forensic trolley			family conference seating for 6, full height, double lockable cupboard Requirement for DNA decontamination & collection
5	1	5.1.131	Therapy consult low stimulus	Low stimulus table, trolley	Tambour		18% grey wall colour critical, 2 way mirror
5	1	5.1.132	Therapy room	Therapy toys	Storage for therapy toys		
5	1		Outdoor play	Outdoor play equipment various			Externally secure
5	1	5.1.148	Storage		Linen & clothing		
5	1	5.1.137	File room	Compactors lockable x 17, secure-chain-of-evidence fridge (alarmed), Key cabinet			secure as per agreement with AFP
5	1	5.1.138	Working File Store	Key pad entry			
5	1	5.1.139	Equipment store				
5	1	5.1.141	Patient shower				adjacent to forensic examination room
5	1	5.1.146	Developmental Room				Viewing Room
5	1		Developmental Viewing Room/Store	Workstation, video recording			Does not meet AusHFG for clean Utility
Staff Development							
5	2	5.2.146	Store room	Cannulation arms, equipment, Resus Annies, Full sized Male mannikin and trolley, airway management mannikins	5 x full height double door lockable cupboards		washing facility for mannikins etc
5	2	5.2.144	Training room (20)				Diving wall with 5.2.155, beverage bay
5	2	5.2.155	Training room (60)		Bench height and above bench cupboards		Beverage bay
5	2	5.2.156/7	Manual Handling Training Room	2 x hospital beds, mobile patient lifters, monitor, Workstation, white board, manual handling equipment various	Shelving Bench height		Clinical flooring
5	2	5.2.160	Computer Training Room (9 stations)	projector, power & data points +++			
5	2	5.2.161	Computer Training Room (8 stations)				
ANU							
5	2	5.2.162	Video Conferencing	TBC			ANU managed
5	2	5.2.163	Australian Child & Adolescent Training Loss & Grief Network				ANU managed
5	2	5.2.168/172	Patient Recruitment Office	video conferencing			

Client Group / Unit:			AVR Number:		
Client Contact Officer:			Phone:		
Client Contact Officer backup:			Phone:		

[illegible]

**Pond, Aleks (Health)**

---

**From:** Kinghorne, Sally-Anne (Health)  
**Sent:** Friday, 1 February 2019 10:30 AM  
**To:** Evans, Kate (Health)  
**Subject:** FW: REQUEST FOR INFORMATION: Helipad activity. [DLM=For-Official-Use-Only]  
**Attachments:** TCH\_Rotary Missions\_01Jul13 to 31Aug17.xlsx

Here you go!  
 2013- 2017  
 All activity in and out of CH.  
 sak

**From:** Sharpe, Liz (Health)  
**Sent:** Friday, 29 September 2017 12:05 PM  
**To:** Kinghorne, Sally-Anne (Health) <Sally-Anne.Kinghorne@act.gov.au>  
**Subject:** FW: REQUEST FOR INFORMATION: Helipad activity. [DLM=For-Official-Use-Only]

HI SAK

I haven't yet done anything with this and as such am going to need to catch up with you and go through how we assess this data.

I don't think it has the NETs in and out activity attached.

Kind Regards

Liz Sharpe

Director Health Services Planning & Strategic Projects | ACT Health | ACT Government  
 Phone (02) 62079865 | Mobile [REDACTED]

Care ▲ Excellence ▲ Collaboration ▲ Integrity

This message, and any attachments to it, contains information that is confidential. If you are not the intended recipient of this message, you must not review, copy, disseminate or disclose its contents to any other party or take action in reliance of any material contained within it. If you have received this message in error, please notify the sender immediately by return email informing them of the mistake and delete all copies of the message from your computer system.

**From:** Grove, Kelvin (Health)  
**Sent:** Thursday, 14 September 2017 3:32 PM  
**To:** Dykgraaf, Mark (Health); Sharpe, Liz (Health)  
**Cc:** Noble, Maddison (Health)  
**Subject:** RE: REQUEST FOR INFORMATION: Helipad activity. [DLM=For-Official-Use-Only]

Hi Mark/Liz

Here is what data I was able to get:

Over four years, total 1788 helo missions either in or out of TCH.

Referring = 161  
 Receiving = 1627  
 Total = 1788  
 Source = Ambflight  
 Date Range = 01Jul13 to 31Aug17

Raw data also attached.

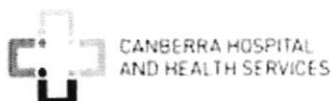
Regards

Kelvin

**Dr Kelvin Grove**

BSc, BHB, MBChB, FACEM, FJFICM, FCICM  
 Clinical Director, Capital Region Retrieval Service  
 Senior Specialist, Intensive Care Unit  
 Building 2, Level3  
 Canberra Hospital  
 Yamba Drive,  
 Garran ACT 2605  
 Phone: 02 61745278  
 Fax: 02 62052157  
 Mobile: [REDACTED]  
 E-mail: [kelvin.grove@act.gov.au](mailto:kelvin.grove@act.gov.au)

Care | Excellence | Collaboration | Integrity



**From:** Dykgraaf, Mark (Health)  
**Sent:** Sunday, 10 September 2017 12:24 PM  
**To:** Grove, Kelvin (Health); Sharpe, Liz (Health)  
**Cc:** Noble, Maddison (Health)  
**Subject:** FW: REQUEST FOR INFORMATION: Helipad activity. [DLM=For-Official-Use-Only]

Hi Kelvin,

The below request from Liz Sharpe relates to the work we are doing around SPIRE. Could I ask that you have Maddison pull this data for Liz please,

Thanks,

Mark

**From:** Sharpe, Liz (Health)  
**Sent:** Wednesday, 6 September 2017 9:24 AM  
**To:** Dykgraaf, Mark (Health) <[Mark.Dykgraaf@act.gov.au](mailto:Mark.Dykgraaf@act.gov.au)>  
**Subject:** REQUEST FOR INFORMATION: Helipad activity.

Dear Mark

Following on the helicopter discussion, can I please get the details of the numbers of helicopters in and out over the past 4 years and if possible the demographics of the patient ie age range, or DRGs etc?

I you approve can you advise please to whom I would touch base with on this?

Kind Regards

Liz Sharpe

Director Health Services Planning & Strategic Projects | ACT Health | ACT Government  
 Phone (02) 62079865 | Mobile [REDACTED]

Care ▲ Excellence ▲ Collaboration ▲ Integrity

This message, and any attachments to it, contains information that is confidential. If you are not the intended recipient of this message, you must not review, copy, disseminate or disclose its contents to any other party or take action in reliance of any material contained within it. If you have received this message in error, please notify the sender immediately by return email informing them of the mistake and delete all copies of the message from your computer system.

Row Labels	Count of dbo_Booking.Id
WODEN	161
ACT CANBERRA HOS	38
CANBERRA HOS	123
<b>Grand Total</b>	<b>161</b>

**Attwood, Courtney (Health)**

---

**From:** Doran, Karen (Health)  
**Sent:** Monday, 4 February 2019 8:30 AM  
**To:** Burch, Brad (Health)  
**Subject:** FW: [External] RE: PD for SPIRE

UNCLASSIFIED For-Official-Use-Only

Hi Brad

To discuss please at our next catchup.

Ta  
 Karen

---

**From:** Edghill, Duncan  
**Sent:** Friday, 1 February 2019 9:18 PM  
**To:** Doran, Karen (Health) <Karen.Doran@act.gov.au>  
**Subject:** RE: [External] RE: PD for SPIRE

UNCLASSIFIED For-Official-Use-Only

Karen,

Thanks – I signed the selection report today so hopefully it's now back with your office.

Very happy to meet. Ty Abel is my EA if your office wanted to arrange a time with her.

If you'd find it useful for me to send the RFQ to people we know, by all means please feel free to send me the link – I'd be happy to draw people's attention to it.

Many thanks.

Duncan

---

**From:** Doran, Karen (Health)  
**Sent:** Friday, 1 February 2019 1:03 PM  
**To:** Edghill, Duncan <Duncan.Edghill@act.gov.au>  
**Subject:** RE: [External] RE: PD for SPIRE

UNCLASSIFIED For-Official-Use-Only

Hi Duncan

Thanks so much for this and sorry I have not responded earlier. As always, get distracted on other issues.

We have the RFQ out now for a Program Director, and these suggestions will be useful in that context. Also I am still keen for further discussions around opportunities to work with TCCS – I will look to get a meeting set up in the week of 11 Feb.

On the EGM position – I have sent through a selection report and would appreciate if you have a chance to review and sign today. This will allow commencement of successful applicant on 11 Feb (and hence available for the proposed meeting.)

Cheers Karen

---

**From:** Edghill, Duncan  
**Sent:** Wednesday, 30 January 2019 4:37 PM  
**To:** Doran, Karen (Health) <[Karen.Doran@act.gov.au](mailto:Karen.Doran@act.gov.au)>  
**Subject:** FW: [External] RE: PD for SPIRE

UNCLASSIFIED For-Official-Use-Only

Karen,

A few other thoughts on your project director for SPIRE – I'm getting details of a local person who sounds very interesting. [REDACTED]  
been bought [REDACTED]

Also have some other names below. Unfortunately no details around them, but could be useful names for your team to do a little research against.

Thanks  
Duncan

---

**From:** [REDACTED]  
**Sent:** Wednesday, 30 January 2019 7:27 AM  
**To:** Edghill, Duncan <[Duncan.Edghill@act.gov.au](mailto:Duncan.Edghill@act.gov.au)>  
**Cc:** [REDACTED]  
**Subject:** Re: [External] RE: PD for SPIRE

Good morning. No - they are not Arup ..... our best relevant people are booked out for some time to come.

We still wish to assist with some recommendations though.

Sent from my iPhone  
[REDACTED]

On 29 Jan 2019, at 10:25 pm, Edghill, Duncan <[Duncan.Edghill@act.gov.au](mailto:Duncan.Edghill@act.gov.au)> wrote:

UNCLASSIFIED

[REDACTED]

Many thanks for sending these through. Are they Arup employees? If they are, any info about them you may have to hand would be very useful please.

Thank you again.

Kind Regards  
Duncan



**Duncan Edghill** | Deputy Director-General - Transport Canberra

<image001.jpg>

T 02 6205 3842 | M [REDACTED] | E [duncan.edghill@act.gov.au](mailto:duncan.edghill@act.gov.au)

GPO Box 158, Canberra ACT 2601

<image002.png> Please consider the environment before printing this e-mail.

**From:** [REDACTED]  
**Sent:** Tuesday, 29 January 2019 3:22 PM  
**To:** Edghill, Duncan <[Duncan.Edghill@act.gov.au](mailto:Duncan.Edghill@act.gov.au)>  
**Cc:** [REDACTED]  
**Subject:** PD for SPIRE

Good afternoon Duncan,

We have had a chat around our relevant contacts and provide the following tip-ins for a suitable Program / Project Director for SPIRE.

- [REDACTED]
- [REDACTED]
- [REDACTED]

Trust this might provide the ACT Govt some support. Shall keep thinking .....

Yours,

[REDACTED]  
 Associate Principal  
 Infrastructure | Water  
 PhD MEngSc BSc FIEAust CPEng EngExec NER APEC Engineer IntPE(Aus) RPEQ GAICD

Arup  
 Level 4 10 Moore Street Canberra ACT 2600  
 [REDACTED]  
[www.arup.com](http://www.arup.com)

Connect with Arup on [LinkedIn](#)  
 Follow [@ArupGroup](#)  
 Connect with me on <https://au.linkedin.com/pub/dr-therese-flapper/26/6b7/910>

---

Electronic mail messages entering and leaving Arup business systems are scanned for viruses and acceptability of content.

---

This email, and any attachments, may be confidential and also privileged. If you are not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.

---