



# Project Brief & RFQ– Waste Storage Area Yallambie

<b>Project Name:</b>	Waste Storage Area - Yallambie		
<b>Date:</b>	29/11/2017	<b>Release:</b>	Issue for Design Quotation
<b>Author:</b>	A.Clegg		
<b>Owner:</b>	A.Clegg		
<b>Container:</b>	TBA		

Revision Date	Previous Revision Date	Summary of Changes	Changes Marked
16/11/2017	V0	Draft	-
29/11/2017	V1	Draft for Comment & Stakeholder engagement	-
13/12/2017	V2	Issued for Design Quotation	-

## Project Definition:

The ARPANSA Yallambie Facility is located at 619 Lower Plenty Road, Yallambie, Vic 3085. It is proposed to create a Waste Storage Area at this site located in the rear ground floor s 47E - . Some minor construction works are required to increase the size and capacity of the proposed waste storage area. These works are broadly to extend the internal block wall of the Modular Room into the s 47E - operations .

## Request for Quotation (RFQ):

A quotation is required to provide a detailed design and documentation to allow sourcing of 3 quotations from builders to fulfil ARPANSA governance requirements. Quotation due 22 December 2017

The quotation should include the following design requirements:

- Production of Drawings (both .dwg and .pdf format) for tender/construction and as-built issues for s 47E - changes and also drum/pallet/racking layout drawings.
- Production of a Scope of works for builder
- Allowance for the Designer to liaise with Building Surveyor and arrange permit documentation for ARPANSA

- Design to comply with Commonwealth Requirements including safety in design.
- Confirmation that floor loadings would be adequate.
- Calculation and confirmation of maximum loadings of existing floor and also walls with racking. (This is to provide information of design limitations for any future changes of the area or capacity).
- Design issue date 30/01/2018
- Final inspection of construction with ARPANSA and assistance with defect listings.

## Project Functionality:

The proposed waste storage area in the s 47E - will be to house 210 drums of building material waste. Drums used for this storage are of the 44-gallon type drums. These will be transported to ARPANSA on "Chep Type" pallets. Each pallet will contain four drums. Each drum is rated at maximum of 220 kg and mass of contents will not exceed this. Of note is that whilst this is the maximum drum load and weight some drums may be significantly lighter than this due to contents being lighter weight (e.g. wood beams). A detailed drum manifesto (via ANSTO) will be available with drum referencing contents and weights. For the purposes of project design and construction, the maximum drum loading of 220 kg shall be assumed.

The waste storage area in the s 47E - will require removal of existing equipment, sealing of floors and wall penetrations and painting. The final arrangement will include installation of air flow, appropriate locking, local alarms and shelving to accommodate drums.

Drum configuration inside the proposed expanded s 47E - /new Waste Storage Room is for:

- A lower level of drums on pallets to be mounted on the concrete floor.
- A second, higher level, is proposed to be mounted on shelving directly above the lower level of drums. For design purposes it should be assumed that a third level of shelving is included so that the drums may be arranged three-high.
- Drum location and placement is to facilitate regular visual inspections, air circulation and accessibility for any future drum/pallet handling via a forklift (e.g. Crown model 25WRTL102 or similar unit).

## Building Changes:

### No Change:

Door from s 47E - operations (Existing electric "Kara" brand lock installed)

Courtyard

Basement Linac area

Plant Room Ramp

**Changes:**

Extend § 47E - [REDACTED] – Refer Attachment A.

Engineering consultant engagement and report for;

- core drilling,
- floor loadings, and
- wall strength for proposed drums and racking.

Core drilling for chiller unit pipe rerouting

Remove data and electrical cable trays.

New § 47E - [REDACTED] walls.

Internal roof above modulator room to be extended across new walls.

Seal wall and floor penetrations. (leaving space for data cable runs and draw wires). Suggested approach is inserting steel bridge to maintain cable route for future cable runs and caulk/seal with cement. Inspection recommended.

Ceiling, wall and floor caulk seal, prep and paint.

**Chiller:**

Existing Linac Chiller Unit MTA EVO 051 (located in § 47E - [REDACTED]):

- Relocation/recommissioning and Split system pipe rerouting. Location in cooling tower area (Level 1)
- Install 3 phase outdoor switched socket switchable for Chiller Unit (MTA EVO 051) 7.90kW
- Install basic galvanised iron / colour-bond roof in cooling tower area covering. Function is to cover Chiller Unit ( MTA EVO 051)
- Positioning – allocation to leave adequate space for a further new linac similar chiller unit to be install adjacent in separate project during April – June 2018.
- Supply/install of piping, Armaflex insulation associated with Chiller relocation

**Fire Systems:**

Fire Systems Upgrades where required for compliance (consolidation of alarms, out of date sprinkler head replacement, thermal and smoke detector replacement if necessary).

If necessary, upgrades of legacy for present day code compliance.

Building Certifier (including Fire Systems )

**Security:**

Security Systems – Mechanical or electric door combination locks. No other security is required.

**Monitoring Alarms:**

Install 3 wireless Radon detectors. Position to be discussed with ARPANSA (Corentium Pro Airthings units Detectors). Information available upon request.

**Electrical:**

Install - 3 Phase weather proof supply suitable for 7.9kW installed in L1 Cooling Tower area.

Retain existing GPOs in original s 47E - operations areas where possible. No further GPO's to be installed in s 47E - .

Replace s 47E - lighting with energy efficient LED lighting. One way switching if one door.

All circuits shall be labelled. All switches and GPO's shall be labelled with the source distribution board number and circuit number.( Eg "DBU1 – CB 23")

Wiring to be completed at AS3000 with a certificate of Electrical Safety for any works provided.

**Ventilation:**

No heating or cooling requirements – Air flow only.

Air Conditioning review and report on venting arrangements and airflow changes. Proposed to have design 6 air changes an hour with 5 l/s per sq m floor area to comply with AS/NZS 1668.

Air Supply fans supply/install. Two air supply units located on ground floor (two units specified for redundancy). Operation to be installed to existing Building Management System ( BMS ) with push local and SMS alarm notifications.

One exhaust vent only (no fan) located at ceiling level at opposite site of room. Exhaust fan final venting via roof and shall be weatherproof (i.e. flashing sealing around supply and exhaust penetrations).

**Fire Systems:**



To be configured to suit occupancy and should be consistent with previous stages and also building purpose e.g. exit lights, fire extinguishers, smoke detectors, sprinklers as appropriate.

## Data/Alarms:

Ventilation Alarm to the ARPANSA BMS as detailed in "Ventilation" section.

Reliable Controls BMS to be expanded for a mobile modem and programmed for the ability to send push sms notifications.

## Floor Coverings:

Sealed and painted concrete floor finish. Colour - Grey. Make good to existing surfaces.

## Doors

One door to remain into plant room ramp. Functionality – small forklift and personnel access. Forklift details available upon request.

To be confirmed as compliant with Building Code. If non-compliant designer to provide economic solution.

## Building Code

Builders to comply with the Australian Building and Construction Commission as per work for Commonwealth entities (see <https://www.abcc.gov.au/building-code/funding-entities>).

## Construction Access:

- Rear Basement double secure door via plant room ramp to § 47E - [REDACTED].
- Ramp to be a common or shared space for staff and maintenance contractor's space
- Construction zone anticipated to be from the door from plant room ramp to § 47E - [REDACTED].
- Appropriate signage/barrier/temporary hording is anticipated in the § 47E - [REDACTED] to zone off the construction area for safety..
- Work to be completed in business hours. 0700 – 1700 Monday to Friday.
- Note Shutdown period of 22/12/2017 to 4/01/2017

## Health & Safety Considerations

As is typical for this age of building asbestos is present in some areas. The ARPANSA asbestos register is included for inspection.

Most electrical circuits are well labelled. However all electrical circuits should be tested to confirm source and state. Please note that ARPANSA require any ceiling grid should be inspected and tested to ensure during construction works that this does not become electrically energised/live.

Fire and smoke detector isolations, augmentations and re-commissioning is via written approval from ARPANSA Facility Manager. 5 days notice is requested for large non routine works.

## Security:

Refer Attachment D: Construction Access & Security – Yallambie.

## Records:

ARPANSA Records - Hard Copy Facility drawings are available for inspection and a copy can be provided electronically. However this is by person and by arrangement.

Service Provider Records:

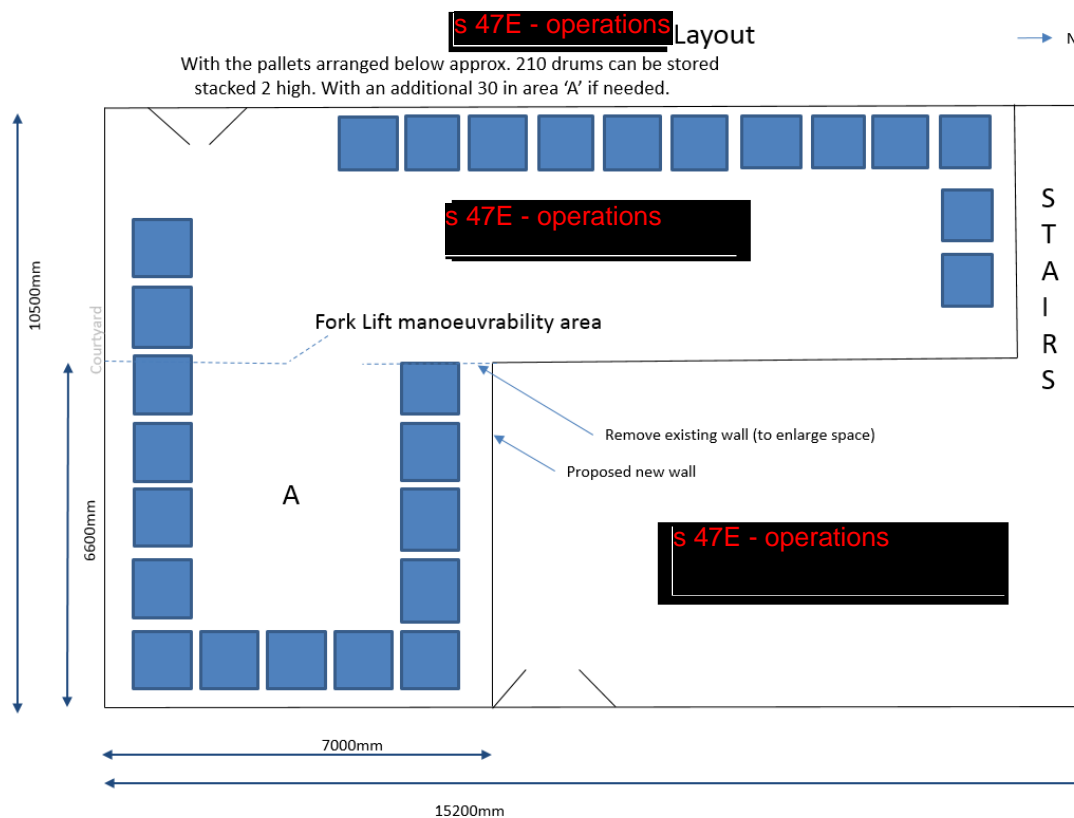
These remain the property of ARPANSA at all times (both .dwg and .pdf).

Electronic files in .dwg and .pdf file formats shall be provided to client ARPANSA at the following stages;

- (i) Tender/Quote
- (ii) Issued for Construction Stage, and
- (iii) As-Built Stage



## Attachment A – Proposed Area



RELEASED BY ARPANSA UNDER FOI

*Attachment B – General Area:*

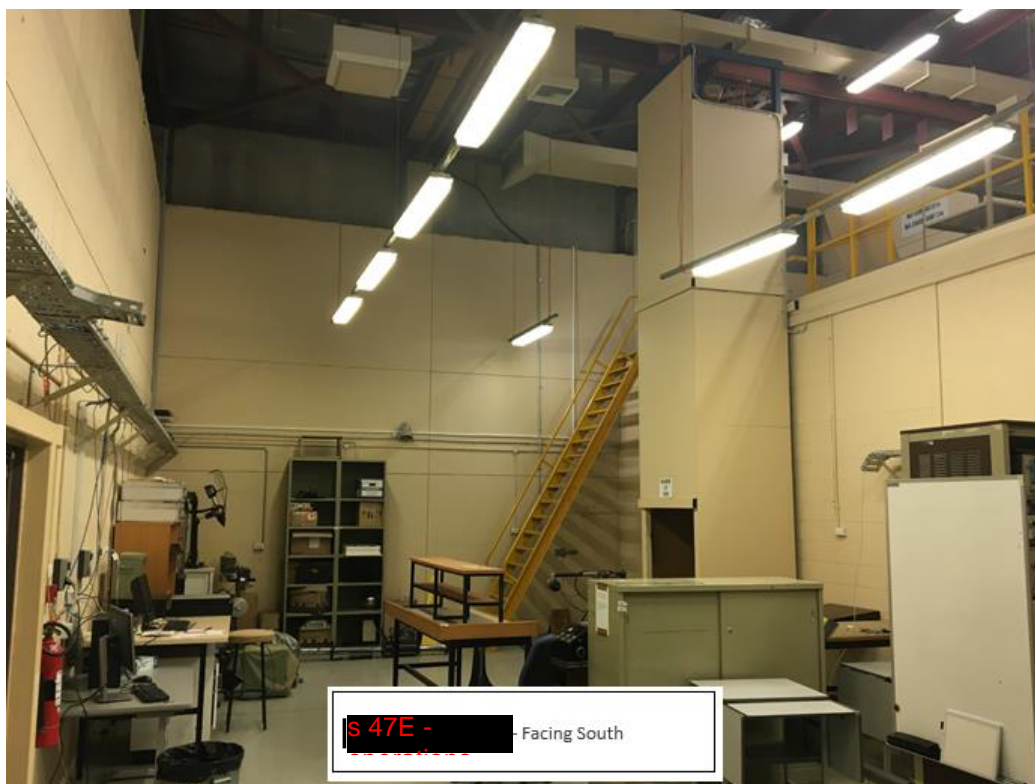


RELEASED BY ARPANSA UNDER FOI



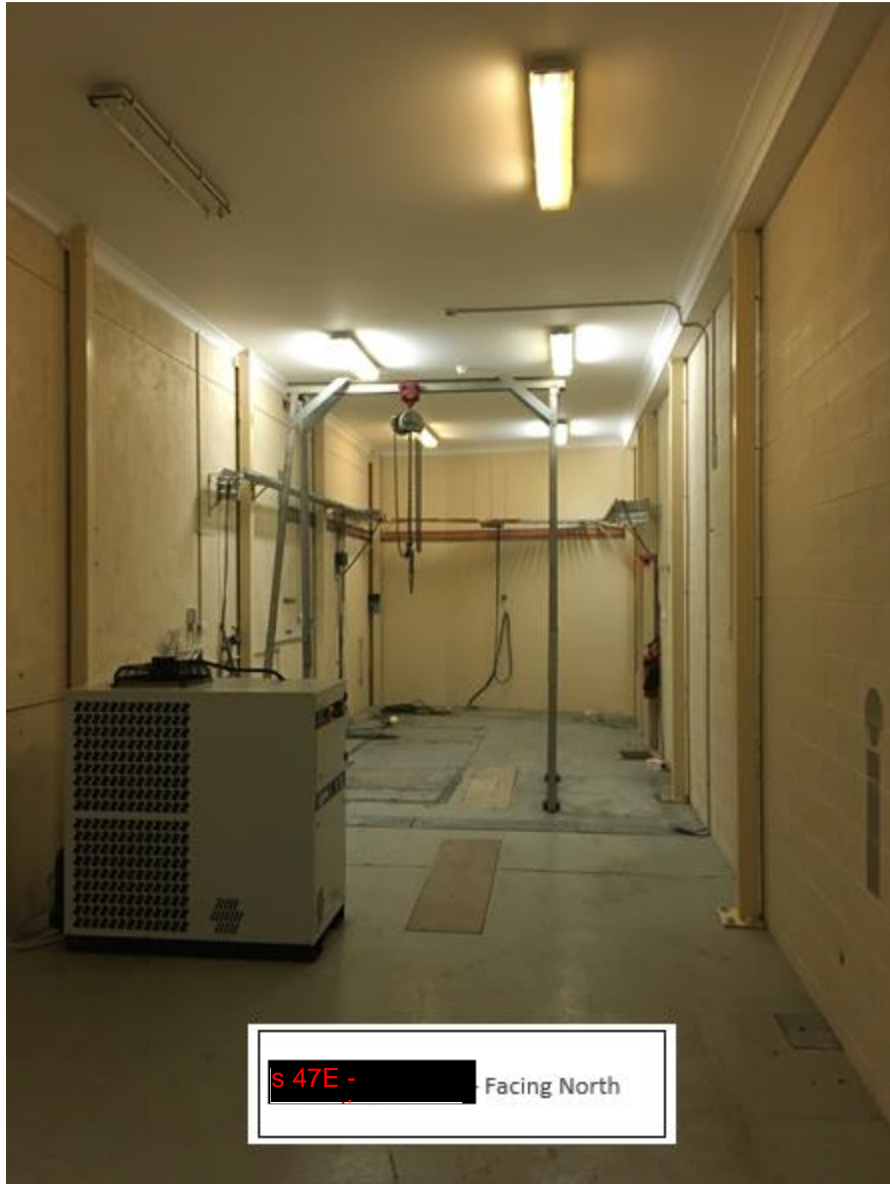
*Attachment C – Photographs:*

RELEASED BY ARPANSA UNDER FOI









RELEASED BY ARPANSA UNDER FOI

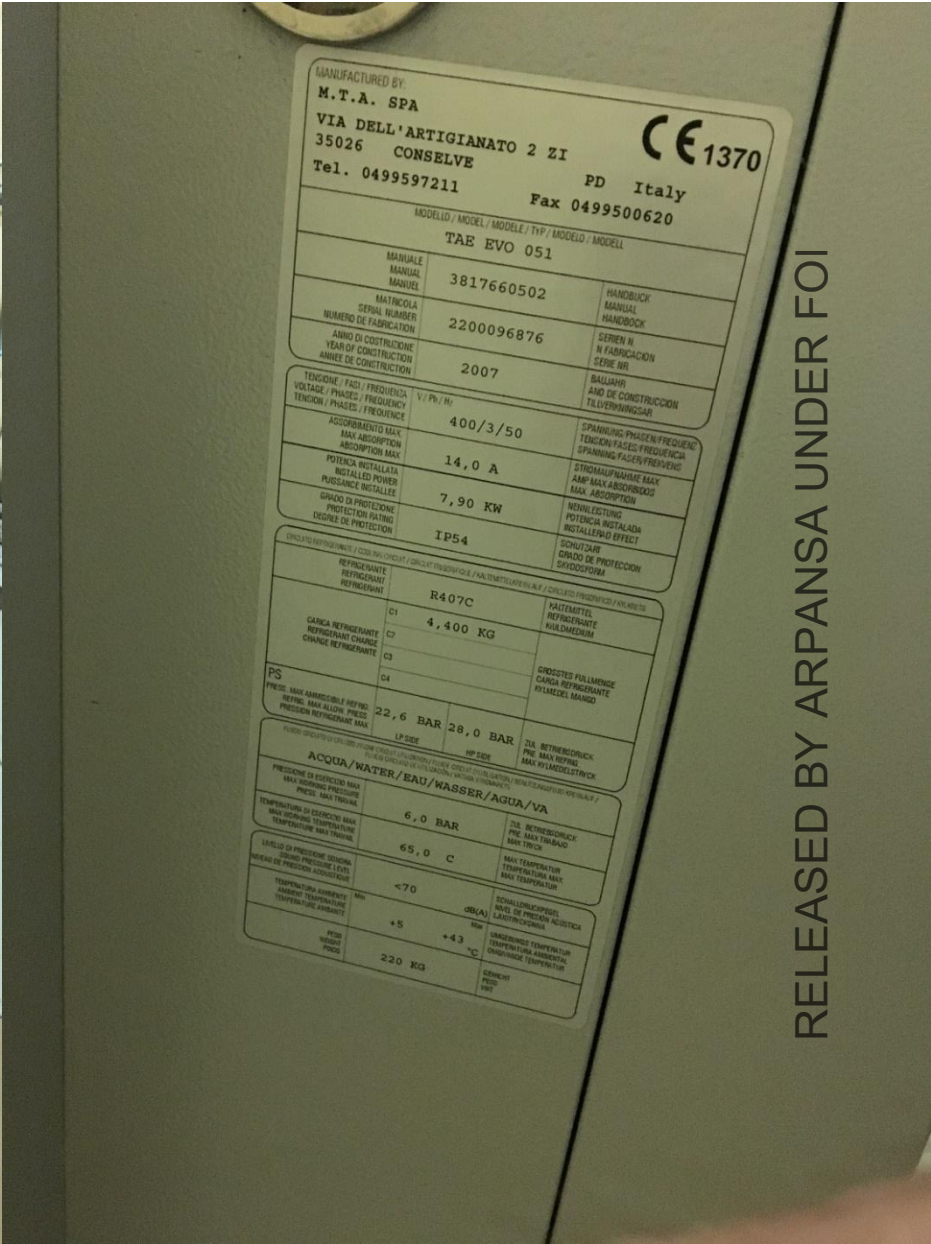


RELEASED BY ARPANSA UNDER FOI



RELEASED BY ARPANSA UNDER FOI





RELEASED BY ARPANSA UNDER FOI



New Position for Chiller Unit in Cooling  
Tower Area L1

RELEASED BY ARPANSA UNDER FOI





## Attachment D

### Construction Access & Security - Yallambie

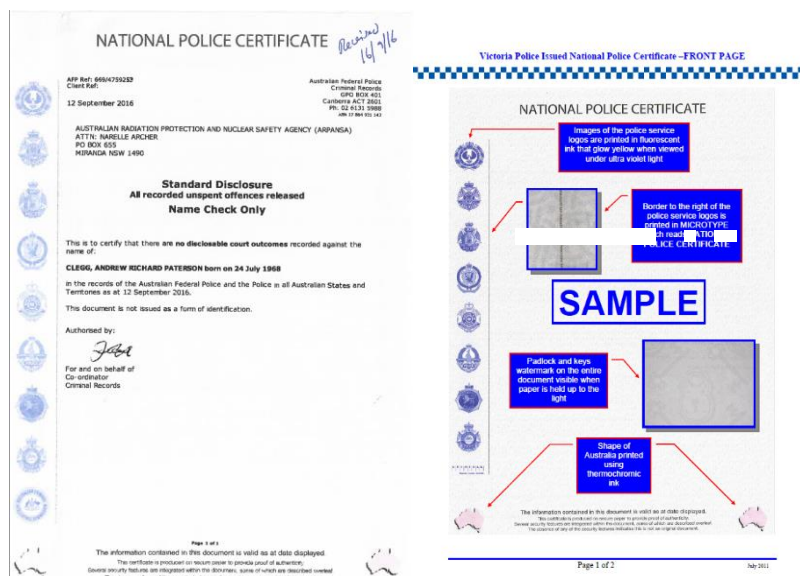
- Construction site to be labelled and have a clear demarcation zone starting from Level 1 adjacent to stairs.
- Demarcation zone between construction zone and office space.
- Basement area and lift space will be a shared space with construction staff and office staff
- Lift to have proactive protection lining and L 1 door frames installed to ensure no damage occurs.
- Contractors to have their nominated Site Manager on site at all time. (Or appointed delegate).

#### Site Manager and all other Construction personnel:

Includes main contractor staff and subcontractors.

- All to be nominated including subcontractors.
- Photo ID required to be presented prior to project start and sighted on attendance.
- Required to have a current *“Victoria Police Issued National Police Certificate”* (refer attachment A below).
- An alternative online Police History Check is acceptable (NCC/CV Check/Fit for Work) – however care needs to be exercised as these can expire.
  - (If the main contractor’s nominated subcontractor is substituted. ARPANSA is to be notified. In this case access for this person will be via an escort at all times by an employee of the same company).

Attachment A - *“Victoria Police Issued National Police Certificate”*.





## Executive Group

### Paper

**Title:** ARPANSA Waste Store Design Quotation and next steps.  
**Date:** 9 March 2018  
**Item no:** 2.7

#### Purpose:

For approval.

#### Issue

Approximately 210 drums of legacy low-level radioactive waste are to be transferred to the Yallambie site from Melbourne University (see *EG paper 2.5, 18 Jan 2018*). Approval is required to move forward with monetary spend for commissioning a designer at \$24,140+GST.

#### Background

Details on the project background and options considered were provided in *EG paper 2.5, 18 Jan 2018*.

#### Update

s 22 - Irrelevant

- A quotation from A.S. Building consultants to undertake work on design has been received (see Attachment 3).

s 22 - Irrelevant

## Request for Approval

We request that the EG approves the proposed direction of the project and agrees to the spending of \$24140.00+GST on the design for the waste store.

### *Sensitivity:*

Sensitivities that have been identified include media, the public (immediate neighbours) and staff.

### *Legislation*

No legislative amendments are required.

### *Financial Implications*

There will be several costs during this project. All costs estimated below are subject to change.

- Design –approximately \$27K
- Relocation of Linac Chiller – at least \$30K
- Building works – approx. \$200 – 250K (tbc)
- Transportation (each shipment) – approx. \$5K

The complete relocation of the Linac control room is of the order of \$50K (to be confirmed)

s 22 - Irrelevant

### *Timing/Handling:*

Transport of initial tranche of drums will be confirmed after initial meeting. It is expected that this will happen near Easter (1<sup>st</sup> April), or soon after (week of 15<sup>th</sup> April).

If proceeding with the design is confirmed (as requested above), it may be possible to go out to tender soon after Easter with the aim to engage a builder by mid-May.

## Communication

### *Consultation*

Consultations have been held with the Staff Consultative Forum (SCF), OCEO (on Communications), groups impacted by Linac downtime, Agency Security and ARPANSA WHS. A lengthy discussion was held at the SMC on Communication externally (see next paragraph).

These consultations are ongoing.

### *Communication activities*

There are no community awareness opportunities relating to this item.



Consultation with the OCEO Communications team and the SMC have determined that this activity can be considered to be 'business as usual'. As such, external communications are not recommended.

Communications with Staff have been held via ISAAC, with several staff taking the opportunity to discuss the project one-to-one. No staff have expressed discomfort with the proposal at this stage.

Staff communication is ongoing.

## Recommendations

That the EG **APPROVE**:

Recommendation No.	Recommendation	Chair comments
R1:	the spending <span style="background-color: black; color: red;">b.47G - business</span> +GST on the design for the waste store	

## Contact

Author details		Clearance Branch or Office Head details:	
Name:	Marcus Grzechnik	Name:	Gillian Hirth
Position:	Director MERS	Position:	Chief Radiation Health Scientist
Branch/Office	RHS	Branch/Office:	RHS

Option	Strengths	Weaknesses	Opportunities	Threats	Assessment
s 22 - Irrelevant					

s 47E - operations	<p>Consolidation of most of ARPANSA waste to one area within building footprint.</p> <p>ARPANSA controls &amp; manages waste in accordance with IBP</p> <p>Already a security controlled area (will be upgraded appropriately)</p> <p>Good ramp and height access for forklifts</p> <p>Ventilation can be managed</p>	<p>Some verification of area of existing building and further building (walls) required</p> <p>Facility works to meet WHS and Security standards required one off cost)</p> <p>Relocation of chiller required (but was required anyway)</p>	<p>Opportunity to reclaim unused space within the building footprint</p> <p>Large enough for some expansion and stacking of drums</p> <p>Potential to be a best practice storage facility</p> <p>Opportunity to re-packing and reduce volume of waste</p>	<p>Use s 47E - not deemed appropriate by operators/staff</p> <p>Floor or walls not strong enough to accommodate racks and waste</p> <p>Possible unreasonable costs</p> <p>Tight timescale means that design, quote and building may not be completed when ARPANSA takes control of waste</p> <p>Reputational risk with ARPANSA neighbours</p>	<p>Reputationally sound option that re-claims building footprint</p> <p><b>Quotes to be sought,</b> however the risk of time slippage is very real</p> <p><b>One of two preferred options</b></p>
--------------------	---	---	---	---	---

s 22 - Irrelevant

s 22 - Irrelevant

|

|

|

s 22 - Irrelevant



RELEASED BY ARPANS

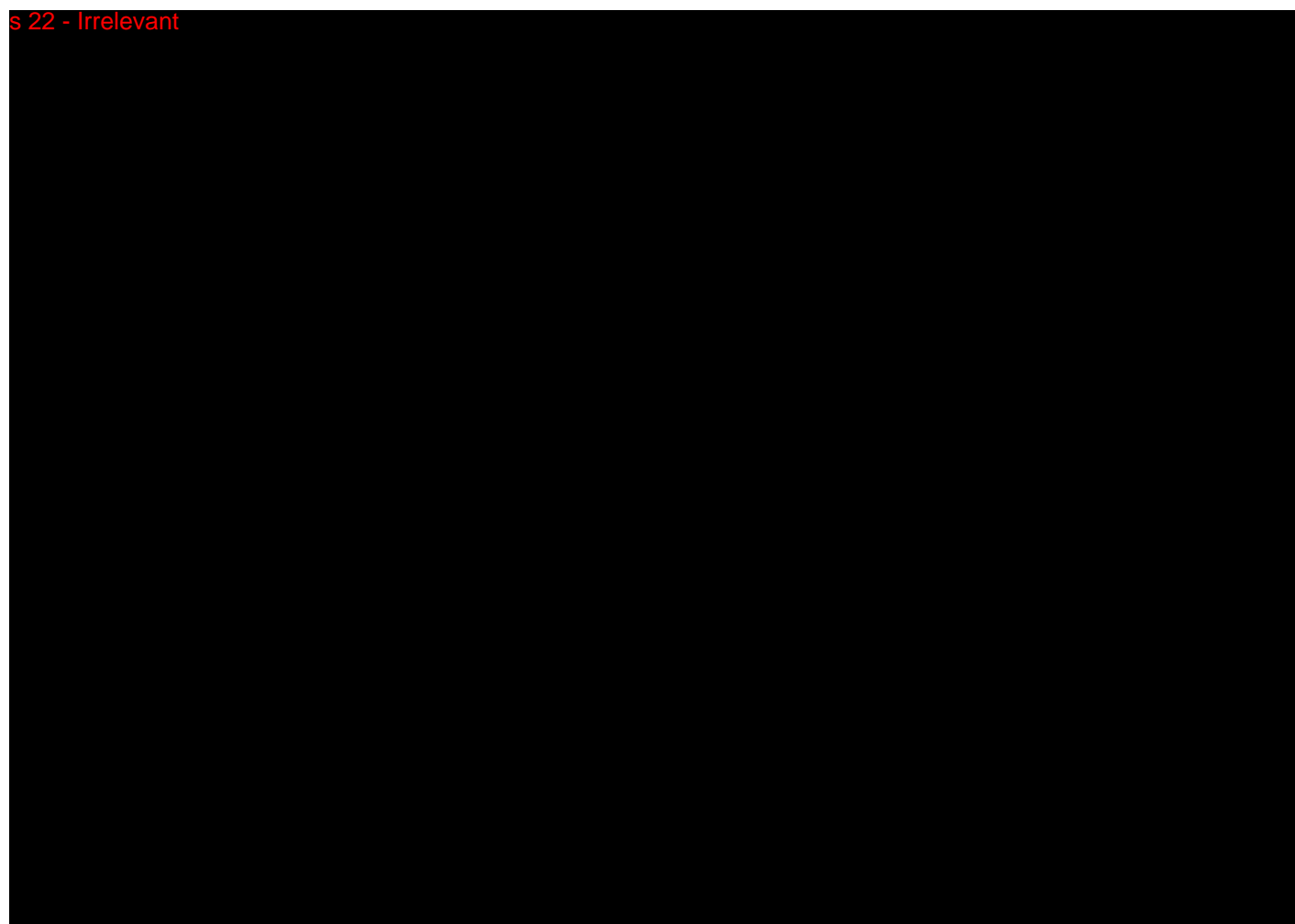


Australian Government  
Australian Radiation Protection  
and Nuclear Safety Agency



Ref No: D185599

s 22 - Irrelevant



RELEASED BY ARPANSA UNDER FOI

Yours sincerely,

Dr Gillian Hirth  
Chief Radiation Health Scientist





Australian Institute of Building Surveyors



**REGISTERED**  
Building Practitioner



building consultants

7 February 2018

Andrew Clegg  
Facilities Manager  
ARPANSA  
C/o 619 Lower Plenty Road  
VIEWBANK VICTORIA 3084

Dear Andrew

**Re: Alterations & additions to an existing waste storage area**  
**At: No. 619 Lower Plenty Road VIEWBANK/YALLAMBIE**

Thank you for the invitation to provide the fee proposal for our professional building surveying, building design, engineering and consultancy services.

I advise that our proposal is as follows:

1. **The service offered:**

Consultation;  
Liaise and consulted with client, Draftsperson, engineers and Local Authority (Banyule Council);  
Obtain the property information from Council;  
Arrange to engage a draftsperson to prepare the working drawings;  
Arrange to engage the necessary engineering plans together with Certificate of Compliance-Design  
Arrange to engage a suitable qualified Energy Rater, if required;  
Arrange to engage a geotechnical Engineer for a soil report, if required;  
Carrying out site inspections and attend to site meeting, if required;  
Checking of application for compliance with the Building Act 1993 and Building Regulations 2006, Building Code of Australia 2016 and the relevant Australian Standards;;  
Issuing a building permit for the proposed building works;  
Carry out the mandatory Inspections;  
Issuing of an Occupancy Permit and/or the Certificate of Final Inspection upon completion;  
Provide copies of all relevant permit documents to applicant and the Council;  
General administrations, photocopying, postage/miscellaneous;

2. **Fees:**

3. **Disbursements/Exclusions:**

s 47G - business

**IMPORTANT:**

PLEASE READ NOTES BELOW WHICH FORMS PART OF OUR PROFESSIONAL BUILDING CONSULTANCY SERVICES ENGAGEMENT.



**NOTES:**

- This quotation remains valid for a period of 30 days from the date of this letter.
- Fees exclude authority fees and charges that may arise due to liaison and obtaining reports/consents from such authorities.

s 47G - business



- No allowance has been made for attending to the Building Appeal Board, V.C.A.T., and Court.

s 47G - business



- **Please be advised that our building consultancy services will be commenced once this office receives an email and/or appointment letter with a full payment.**
- Staging of building work and variations to documentation during the course of or subsequent to Building Planning Permit issue which result in the need for re-checking and/or new Permits will be subject to an additional fee.

s 47G - business



We wish to assure you that we will make every endeavour to assist you with your obligations under the Building Act in a prompt, professional and efficient manner.

Thank you for your enquiry and I trust this estimate is satisfactory and I look forward to working with you on this and future projects. Should you wish to discuss this proposal further, please do not hesitate in contacting the undersigned.

Yours sincerely

s 47F - privacy



**Manager – A.S. Building Consultants**



# Project Proposal

## ARPANSA-PM-TMP-001

### General details

General	
Project number (if known):	PRO-0025
Idea/Project name:	Waste Storage Area – Yallambie
Proposer/Project Manager:	Andrew Clegg
Project Owner:	Gillian Hirth
Section:	Radiation Protection Services
Start date:	18 September 2017
End date:	31 December 2018
Duration:	3 months

### Description of the idea

ARPANSA is cooperating with the University of Melbourne to remediate low-level radioactive contamination at one of its former premises – the Commonwealth Radium Laboratory.

ARPANSA has the requirement to store at least 200 drums of low level radioactive waste that has been created as part of the legacy site remediation activity at the University of Melbourne.

### Other options considered – what is the perfect solution? what is the next best option? what would happen if we did nothing?

The perfect solution: We establish a new waste storage area within the Yallambie building footprint

s 22 - Irrelevant

Do nothing: Not an option

### Objectives – something towards which work is to be directed, a strategic position to be attained, a purpose to be achieved, a result to be obtained, a project to be produced, or a service to be performed

To have all of ARPANSA low-level radioactive waste stored in facilities that meet International Best Practice.

**Deliverables – a product, result or capability to perform a service that must proceed in order to complete a project**

s 22 - Irrelevant

- If Plan B, storage area is developed and area upgraded to accept waste (cost associated).
- Regulatory approvals for waste transfer are given
- Waste is transferred from Melbourne University to ARPANSA

Note – Price estimates are based on an initial design fee of s 47G - business to A.S. Building Consultants being a s 47G - business. Upon the project milestone of design completion an order of costs will be provided to ARPANSA via the building surveyor. This will provide a more accurate cost forecast prior to ARPANSA going to the market for pricing.

#### Estimated Financials – Project costing tool can be used at this point to assist with estimate

Revenue	\$ 0
less	\$
Labour	\$25,884
Suppliers	\$250,000 + GST Estimated
Surplus/(deficit)	\$224,116

<b>Capital</b>	<b>\$250,000 Estimated</b>
----------------	----------------------------

**External funding opportunities – is there a market for this product or service, is there an opportunity to submit a new policy proposal (NPP), would any other organisations be interested in collaborating with us?**

No

#### Strategic alignment

##### Outcome

1. Protect the public, workers and the environment from the harmful effects of radiation

How would this project deliver on the outcome selected? What are the benefits?
<p>Under strategy 1.3 Mitigate the health and environmental risks to public, workers and the environment of the RHS Branch Plan for 2017-18 the following activity</p> <p>‘Melbourne University legacy site remediated and waste managed appropriately’ is listed as a KRA.</p>

How would you measure progress against this outcome?
<p>Completion of the remediation activity and waste stored in a licensed storage facility that meets international best practice.</p>

**From:** Andrew Clegg  
**To:** [Marcus Grzechnik](#)  
**Subject:** RE: Design PO for ARPANSA Waste Store [SEC=UNCLASSIFIED]  
**Date:** Friday, 23 March 2018 11:04:00 AM

---

Hi Marcus,

s 47F will be coming back re timing to me Monday. Just as a FYI.

AC

---

**From:** Andrew Clegg  
**Sent:** Monday, 19 March 2018 12:01 PM  
**To:** s 47F - privacy  
**Cc:** Marcus Grzechnik <Marcus.Grzechnik@arpansa.gov.au>  
**Subject:** Design PO for ARPANSA Waste Store [SEC=UNCLASSIFIED]

Hi s 47F

As discussed, please find the ARPANSA PO for the design documentation and drawings to enable ARPANSA to go to tender for the building/construction stage.

I will ring you later today to discuss timing for the final construction design drawings that works with your program. Ideally I would like to see them completed to the time frame below. Please review and lets chat.

Monday 19/03/2018	Design Start Date ( 1 mobilise + 3 week design window)
Friday 13/04/2018	Design Milestone 1 – Drawings/Documentation for Tender + the construction “Order of Costs” issued by Adam Soreli to ARPANSA
Monday 16/04/2018	Design to continuing with refinements for Construction Issue Drawings – by Adam Soreli ( 3 week window)
Monday 16/04/2018	ARPANSA issue for Tender (3 wks AusTender)
Monday 7/05/2018	ARPANSA Tender Close
Monday 7/05/2018	Design Milestone 2 – Submission of Drawings/Documentation for Construction
Monday 21/05/2018	ARPANSA Tender Recommendation and Letter of Intent to Builder to initiate works

Regards

**Andrew Clegg**

**Facilities Manager**

**Australian Radiation Protection and Nuclear Safety Agency**

619 Lower Plenty Road, Yallambie, VIC 3085, AUSTRALIA

**Mobile** 04 1864 5596

RELEASED BY ARPANSA UNDER FOI

**email** [andrew.clegg@arpansa.gov.au](mailto:andrew.clegg@arpansa.gov.au)

<http://www.arpansa.gov.au>

## Update on the waste storage project

5 April - [Gillian Hirth](#)

Late last year, it was announced to all staff that ARPANSA would take ownership of approximately 210 drums of low-level radioactive waste. At this time, it was expected that the initial delivery of 72 drums would be completed by March 2018, however less urgency in the timing of the project has meant that this is now expected in late April at the earliest.

To date, there have been a variety of communication pieces with staff, including an update on ISAAC and at the Staff Consultative Forum (SCF), consultations with the Office of the CEO, People and Culture, Agency Security and ARPANSA Work Health and Safety.

We are now at a stage where the Executive Group (EG) has approved our proposed direction, including location of a new waste store area within the Yallambie site to store the waste pending permanent disposal and to accept the initial delivery of 72 drums.

We will be holding a talkshop on 19th April to provide you with further information on the project. In the meantime, we have put together a set of frequently asked questions below for your information. We will continue to provide you with regular updates as the project progresses.

## Frequently Asked Questions

s 22 - Irrelevant



### What stage is the project currently at?

To date the EG has approved the:

- Proposed approach to waste management, including location of the new waste storage area.
- Transportation costs for initial tranche of 72 drums.
- Commissioning of the design of the new waste storage area.

Once the design is completed and tender bids are received and reviewed the EG will be asked to approve commencement of work on construction associated with the new waste storage area.

s 22 - Irrelevant



### What is next in the project?

A talkshop is planned for April 19th to update staff on the current status and allow the opportunity to ask questions before the first tranche of drums is delivered. Invitations will be issued shortly following the posting of this article.

A building designer has

been engaged and the design is to be completed by the end of April. The tender process is expected to be completed by end of May.

Further updates will be provided to staff as we progress through the process.

If you would like any further information or have any concerns, please attend the talkshop – there will be plenty of time for questions and comments. Feel free to come and have a chat with [Marcus Grzechnik](#) x2292.





# Business Case

## ARPANSA-PM-TMP-002

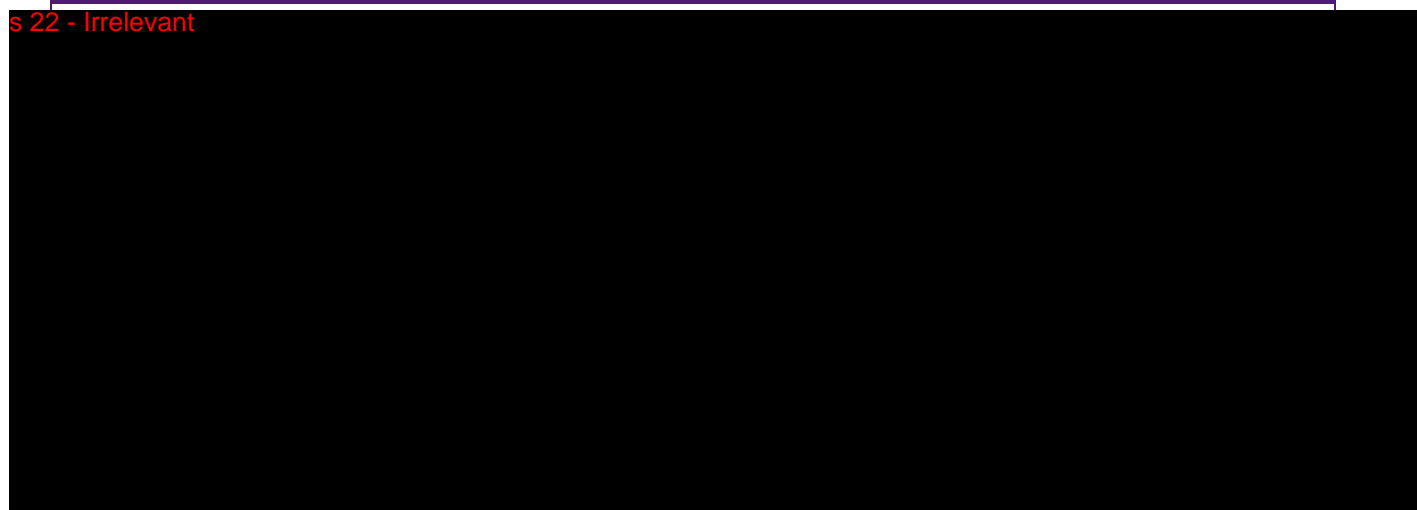
### General details

General	
Project number (if known):	PRO-0025
Idea/Project name:	Waste Storage Area
Proposer/Project Manager:	Marcus Grzechnik
Project Owner:	Gillian Hirth
Section:	MERS/RHS
Start date:	Already initiated
End date:	December 2018
Duration:	

### Executive summary

Summary of business case
--------------------------

s 22 - Irrelevant



Recommendations – what would you like the EG to approve?
<p>The EG previously approved;</p> <ul style="list-style-type: none"><li>- The proposed direction, including where the legacy waste should be located (within ARPANSA's facility)</li><li>- The transportation costs for the initial tranche of 72 drums (approximately \$5K)</li><li>- Commissioning of the design for the proposed storage area</li></ul>

s 47G - business

The EG will be asked to approve the budget for the building cost following design completion and receipt of the tender bids. Based on the design, we expect the costs to be circa \$250K.

## Background

Why are we doing this project? What problem are we trying to solve? What is the current state? Try to summarise in five dot points.

s 22 - Irrelevant

## Scope

The work that needs to be accomplished to deliver a product, service or result with the specified features and functions.

Work to deliver a safe and secure area for appropriate storage of the legacy radioactive waste includes:

- Design of storage area
- Tender process
- Building works
- Regulatory approvals

Transportation and storage of drums

## Timing

How long will each stage of the project take to complete?

Planning:	Complete
Execution:	The first tranche of 72 drums will arrive at Yallambie during April 2018. The Designer was engaged late-March. Design completion by mid-May. Tender process will mean a builder is engaged in June.
Closure:	It is expected that the project will be closed by end of 2018 at the latest.

## Funding

How much will the project cost – from costing tool, updated from project proposal phase if any new information is known

Design - s 47G - business  
Relocation of Linac Chiller - \$30K (aligns with Linac project)  
Building - \$250K  
Transportation – 2 shipments @ \$5K each.

**How will these costs be funded – does this project require additional funding from what has been approved in branch budgets?**

Funding for capital will come from RHS 2017/18 budget (up to \$250K).  
Smaller costs, such as drums, transport and design, have not been budgeted for in 2017/18 (spent under RSO cost centre).

## Work health & safety

**Are there WHS implications for our people of either doing or not doing this project? Discuss with WHS advisor.**

WH&S adviser has been consulted during this project.  
There are no radiological dose implications from the drums (zero dose rate), and radon will be managed in accordance with best-practice.  
Transportation will be undertaken with a registered and experienced transport company.

## Security

**Are there any security implications with this project? Discuss with Agency Security Adviser**

Security implications have been discussed and advice incorporated into design of the storage area.

## Risk

**What are the risks of doing or not doing the project?**

s 22 - Irrelevant

## Legislation

**Are there any legislative requirements to consider? If yes, please describe.**

The ARPANSA Act and Regulations must be met as regulatory requirements will need to be satisfied.

## People

### What is the change (define the difference between current and future state)?

The additional radioactive waste will initially be managed as a part of the Yallambie source licence (S0002). The newly constructed storage area will undergo appropriate regulatory scrutiny.

### What is the Change Impact (define the impact the change will have, noting there may be multiple impacts for each change)?

The radioactive waste will need to be managed while in storage at the Yallambie facility in accordance with regulatory requirements.

Communications have been coordinated in liaison with P&C (see below).

### Capability – do we have the capability required to deliver on this project? If not, what is the plan for obtaining it?

Yes

### Capacity – do we have the available capacity to deliver on this project? If not, what is the plan for obtaining it

Yes

## Engagement

### Communications plan

#### Consultation

Consultations have been held with the Staff Consultative Forum (SCF), OCEO (on Communications), groups impacted by Linac downtime, Agency Security and ARPANSA WHS. A lengthy discussion was held at the SMC on communication externally (see next paragraph). These consultations are ongoing.

#### Communication activities

There are no community awareness opportunities relating to this item.

Consultation with the OCEO Communications team and the SMC have determined that this activity can be considered to be 'business as usual'. As such, external communications are not recommended.

Communications with staff have been held via ISAAC, with several staff taking the opportunity to discuss the project one-to-one. No staff have expressed discomfort with the proposal at this stage.

Staff communication is ongoing, and has been coordinated in liaison with P&C.

A Talkshop will be given to update staff on the current status before the first tranche of drums is delivered.

### Behavioural change management plan

The storage area will be safe and secure and appropriately labelled for staff. No behavioural change will be required.

Management of the waste will be undertaken by the RSO consistent with current source licensing.

### Consultation/collaboration

**Have we consulted with all of the relevant people?**

See above (communication).

**Are there any opportunities to work with other parts of the agency?**

Collaboration has been undertaken with RHS (MERS & RPS) and the RSO.

### Interdependencies

**Pre-project completion interdependencies – are we waiting for another project to be completed before this project can begin?**

No.

Consideration needs to be given to the timing of the Linac project.

**Post-project completion interdependencies – does another project rely on the successful completion of this project?**

No.



# Expansion of ARPANSA's waste holdings – an update

Dr Marcus Grzechnik  
Dr Gillian Hirth

RELEASED BY ARPANSA UNDER FOI

# Lifelines



- EG/SMC & History – GH
- WH&S & RSO – PT
- Building – AC
- Regulatory – LC
- Radiation Management – SL (Maralinga)

# Outline



- History
- The Waste & Regulation
- Options Considered
- Current Status
- Timelines



## Q&A



# History

s 22 - Irrelevant

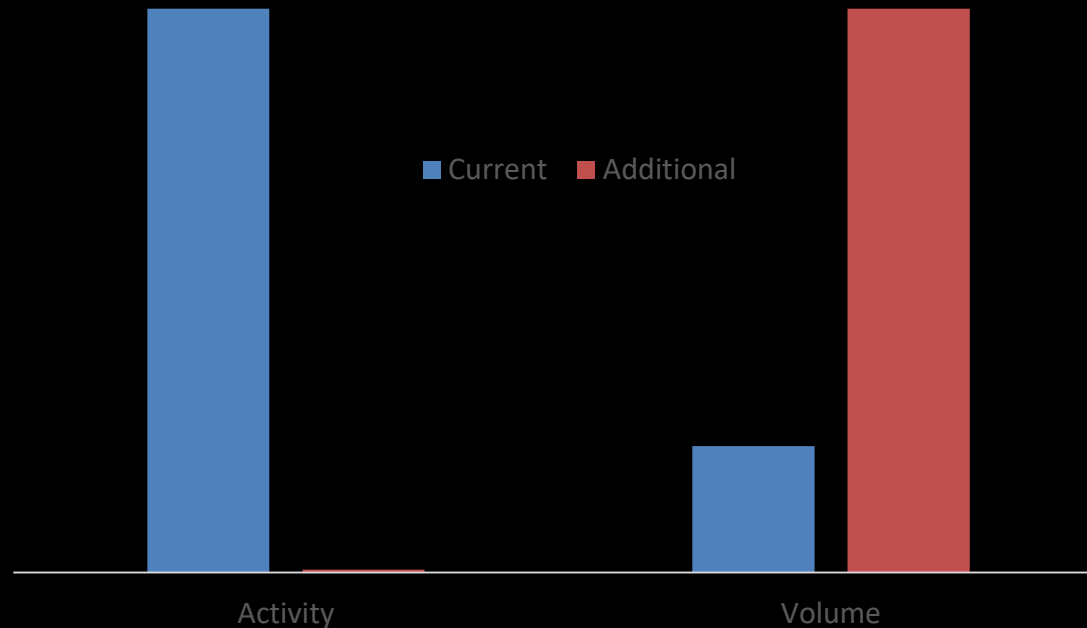






# How much & how dangerous?

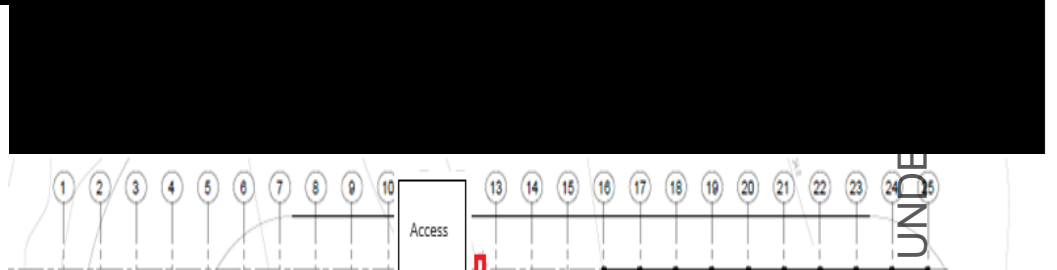
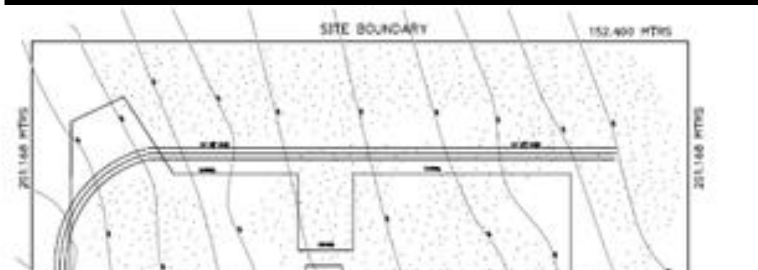
- Currently 160, projecting up to 210 drums
- Surface contaminated objects Ra-226
- Total activity <40MBq (Cat 4 source) – Low Level!



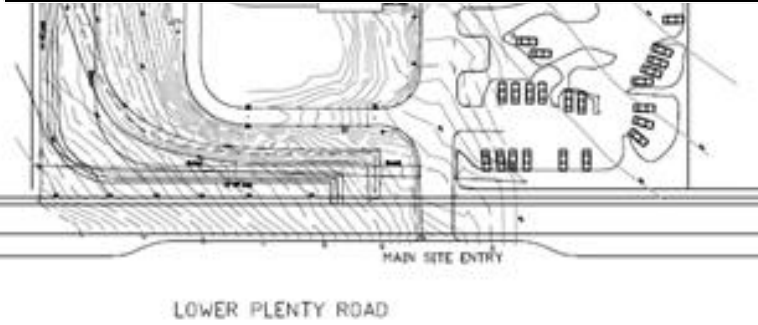
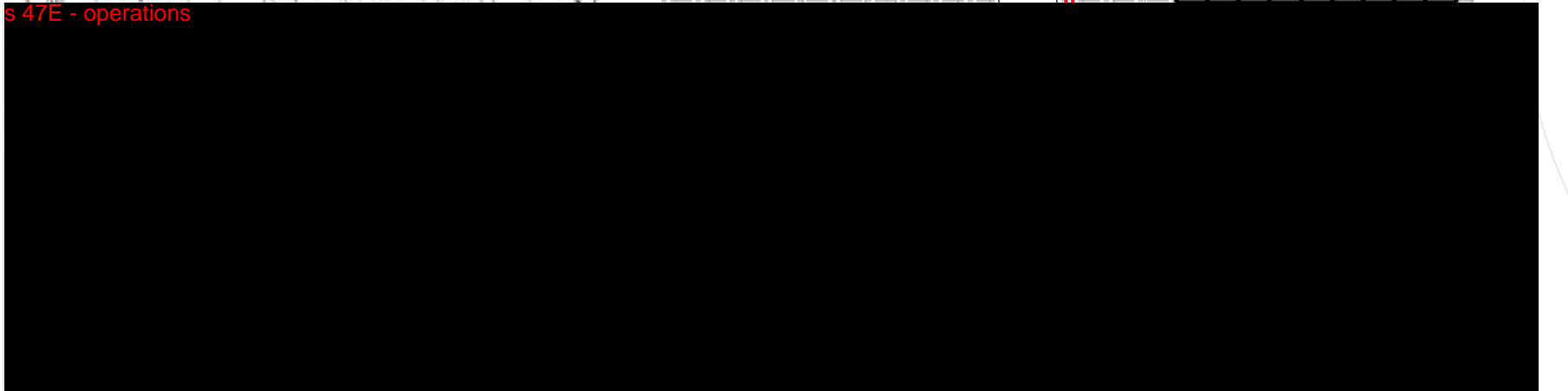
- Graded approach to regulation applied



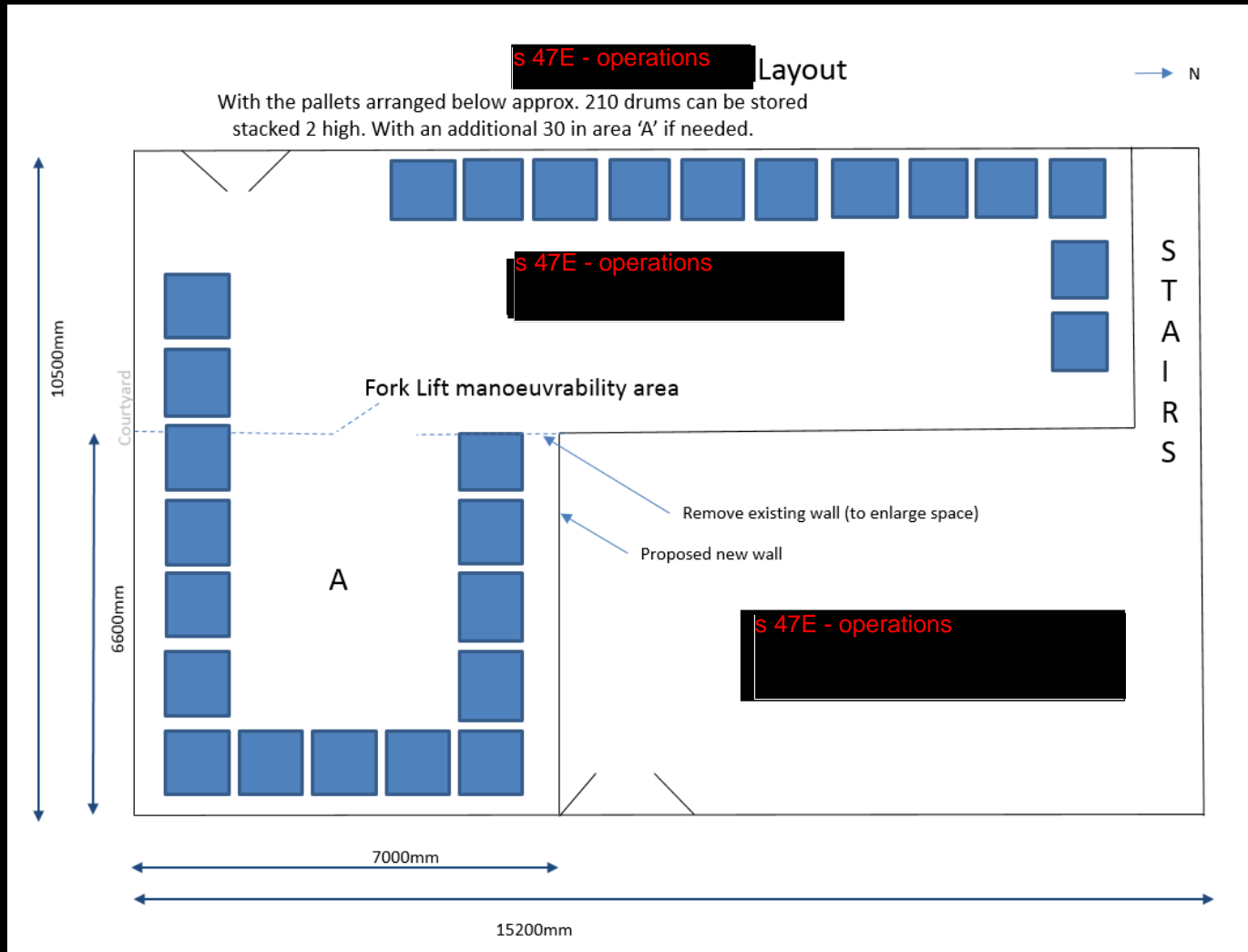
# Proposed Storage Area



s 47E - operations



# Proposed Storage Area



# Proposed Storage Area



Modulator Room - Facing South



s 47E - Facing North



s 47E - Facing South

RELEASED BY ARPANSA UNDER FOI

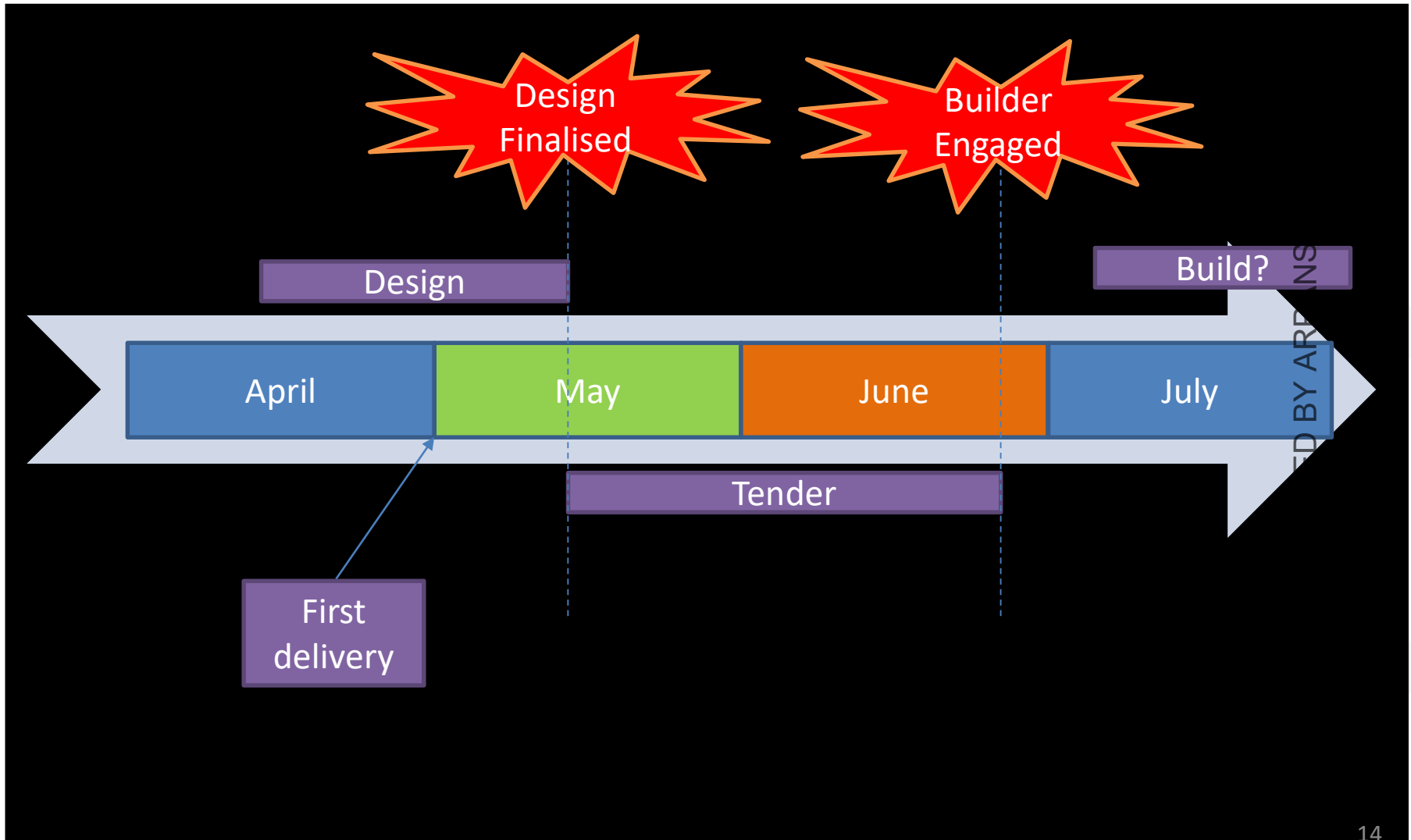


# Relocation of Chiller Unit





# Approximate Timelines



# Conclusions & Future

- Storage Project completed by end 2018. Ongoing management.
- Possible to reduce volume
- “Waste owners and producers are responsible for the appropriate management of their waste”
- Disposal in NRWMF



RELEASED BY ARPANSA UNDER FOI

## Australian Radioactive Waste Management Framework

April 2018

# Q&A





**Sent:** Tuesday, 17 April 2018 1:44 PM

**To:** Andrew Clegg <andrew.clegg@arpansa.gov.au>

**Subject:** Re: ARPANSA Waste Store - Design Kick Off Meeting Notes 09/04/2018  
[SEC=UNCLASSIFIED]

Hi Hi Andrew<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

I hope this email finds you well, following on our telephone conversation last

week, please find below our respond to the key dot point as discussed:

1. The tender will use "Construction" Version Drawings and documentation. **Agreed, the Final Plans will be use for the tender;**
2. 20/04/2018 - Initial Design Drawings of Layout and Section to be submitted for ARPANSA Review and Approval. **Agreed, the initial design drawings of layout and section will be submitted to ARPANSA for review and approval;**
3. Expect 1 week for ARPANSA to circulate and review. **Agreed;**
4. 11/05/2018 – Final Issue for Construction (IFC) Drawings/Documentation completed. (Include services and roof plan). **Agreed/noted;**
5. Sealing of area discussed including trenches with steel insert and draw wires. **Agreed/noted;**
6. Note paint finishes in notes. **Agreed/noted;**
7. Lightweight construction preferred as lower associated labour cost. Concrete block wall not required. **Agreed;**
8. Roof will be strong enough for lightweight storage. No racks. **Agreed, will be design to carry out the load for light weight storage facilities, required some clarification from ARPANSA prior to final plans;**
9. Yellow non-compliant stairs/ladder + goods lift to be removed. And disposed. **Agreed, by the ARPANSA;**
10. Building code fire egress and room distances only need 1 fire egress for both existing control room and also Waste Store. The fire egress from waste store would be to courtyard. **Agreed and correct;**
11. Building code only requires point and distributed loadings on floor. Wall strength is only structural. Not required as a fall arrest. **As the proposed racking are free standing and is not required to be fix into the wall, the proposed light weight construction will be suitable for the enclosure of the storage room;**
12. Ventilation – ARPANSA require only "movement of air". External ventilation system with mushroom lid flue that will penetrate the roof in two places. No structure required. Mechanical design for 6 air changes/hr to be included in design brief. Comrez **s 47F - [REDACTED]** will arrange installation. **Agreed, will be engaged a suitable qualified Mechanical Engineer to design the ventilation in accordance with the Australian Standards.**

Furthermore I have enclosed our first progress payment Tax Invoice for your approval, your prompt assistant in this matter will be sincerely appreciated.

As always happy to discuss and answer any questions.

Kind regards



s 47F - privacy

A. S. Building Consultants

----- Original Message -----

**From:**

"Andrew Clegg"

<[andrew.clegg@arpansa.gov.au](mailto:andrew.clegg@arpansa.gov.au)><[andrew.clegg@arpansa.gov.au](mailto:andrew.clegg@arpansa.gov.au)>

**To:**

s 47F - privacy

**Cc:**

**Sent:**

Tue, 10 Apr 2018 01:07:29 +0000

**Subject:**

ARPANSA Waste Store - Design Kick Off Meeting Notes 09/04/2018  
[SEC=UNCLASSIFIED]

Hi s 47F ,

Please find some of the key dot points we made in our discussion yesterday.  
Please read, digest and let me know if I have missed anything.

- The tender will use "Construction" Version Drawings and documentation.
- 20/04/2018 - Initial Design Drawings of Layout and Section to be submitted for ARPANSA Review and Approval
- Expect 1 week for ARPANSA to circulate and review.
- 11/05/2018 – Final Issue for Construction (IFC) Drawings/Documentation completed. ( Include services and roof plan)
- Sealing of area discussed including trenches with steel insert and draw wires.
- Note paint finishes in notes.

- Lightweight construction preferred as lower associated labour cost . Concrete block wall not required.
- Roof will be strong enough for lightweight storage. No racks.
- Yellow non-compliant stairs/ladder + goods lift to be removed. And disposed.
- Building code fire egress and room distances only need 1 fire egress for both existing control room and also Waste Store. The fire egress from waste store would be to courtyard.
- Building code only requires point and distributed loadings on floor. Wall strength is only structural. Not required as a fall arrest.
- Ventilation – ARPANSA require only “movement of air”. External ventilation system with mushroom lid flue that will penetrate the roof in two places. No structure required. Mechanical design for 6 air changes/hr to be included in design brief. Comrez ( Joe Horvat) will arrange installation.

Other information:

18/05/2018 – 25/05/2018 – Proposed window for ARPANSA to issue as tender ( based on timing discussed at onsite meeting yesterday)

Regards

**Andrew Clegg**

**Facilities Manager**

**Australian Radiation Protection and Nuclear Safety Agency**

619 Lower Plenty Road, Yallambie, VIC 3085, AUSTRALIA

Mobile 04 1864 5596

email [andrew.clegg@arpansa.gov.au](mailto:andrew.clegg@arpansa.gov.au)">[andrew.clegg@arpansa.gov.au](mailto:andrew.clegg@arpansa.gov.au)

<http://www.arpansa.gov.au/>">[http://www.arpansa.gov.au](http://www.arpansa.gov.au/)

\*\*\*\*\*

Important: This email (including any attachments) is intended only for the use of the addressee and may contain confidential and / or privileged information. If you are not the intended addressee, you are prohibited from relaying on, distributing, disclosing, copying or in any other way using any information in this email. If you have received this email in error, please notify the sender immediately and erase all copies.

Any opinions expressed in this email are not necessarily held or authorised by Australian Radiation Protection And Nuclear Safety Agency (ARPANSA). Whilst ARPANSA has taken all reasonable steps to ensure this is email is virus free, it accepts no responsibility and makes no warranty. The recipient should take its own steps to ensure there is no virus and bears full responsibility for any use.

Australian Radiation Protection And Nuclear Safety Agency

\*\*\*\*\*

Email sent using Optus Webmail

---

Email sent using Optus Webmail



## Construction RFQ– Waste Storage Area Yallambie

<b>Project Name:</b>	Waste Storage Area - Yallambie		
<b>Date:</b>	14/06/2018	<b>Release:</b>	Issue as RFQ
<b>Author:</b>	A.Clegg		
<b>Owner:</b>	A.Clegg		
<b>Container:</b>	2017/01479(08)		

Revision Date	Previous Revision Date	Summary of Changes	Changes Marked
14/06/2018	V0	Initial	-

### Project Overview:

The ARPANSA Yallambie Facility is located at 619 Lower Plenty Road, Yallambie, Vic 3085. It is proposed to create a Waste Storage Area at this site located in the rear ground floor s 47E - . Some minor construction works are required to increase the size and capacity of the proposed waste storage area. These works are broadly to extend the internal block wall of the s 47E - operations .

### Request for Quotation (RFQ):

A quotation is required to provide construction sourcing from builders to fulfil ARPANSA governance requirements.

**Quotation due 26 June 2018**

### Site availability for Inspection for Quoting:

Confirm prior with ARPANSA Facility Manager on 0418645596 for the following times:

- Tuesday 19/06/2018 between 08.30am – 09.00am
- Wednesday 20/06/2018 between 11.30am – 12 noon
- Monday 25/06/2018 between 08.30am – 09.00am

**Project documentation includes:**

## Design

- Architectural drawings/plans
- Engineering drawing/plans
- Mechanical drawings/plans

Asbestos Register

Police Check Information PowerPoint

**Project Timing:**

**Project Timing for completion /issue of Certificate of Occupancy by 30 August 2018**

**Project Considerations:**

No Planning Permit will be required

Building Permit will be arranged by s 47F - C/- AS Building Consultants

Suite1, 418-428 Bell Street Pascoe Vale Victoria 3044 Tel: 9078 9207 E-Mail: bpermit24hr@optusnet.com.au

Building Certifier (including Fire Systems ) will be s 47F - C/- AS Building Consultants

Certificate of Occupancy to be issued as appropriate by relevant Building Surveyor s 47F - C/- AS Building Consultants

Other projects and construction works will be undertaken around the facility during this time. These will include fault attendance and access and routine maintenance contractors .

Noisy works to be prior to 0900 weekdays.

**Project Functionality:**

The proposed waste storage area in the s 47E - will be to house 210 drums of building material waste. Drums used for this storage are of the 44-gallon type drums. These will be transported to ARPANSA on "Chep Type" pallets. Each pallet will contain four drums. Each drum is rated at maximum of 220 kg and mass of contents will not exceed this. Of note is that whilst this is the maximum drum load and weight some drums may be significantly lighter than this due to contents being lighter weight (e.g. wood beams). A detailed drum manifesto (via ANSTO) will be available with drum referencing contents and weights. For the purposes of project design and construction, the maximum drum loading of 220 kg shall be assumed.

The waste storage area in the s 47E - will require removal of existing equipment, sealing of floors and wall penetrations and painting. The final arrangement will include installation of air flow, appropriate locking, local alarms and shelving to accommodate drums.

Drum configuration inside the proposed expanded modulator room/new Waste Storage Room is for:

- A lower level of drums on pallets to be mounted on the concrete floor.
- A second, higher level, is proposed to be mounted on shelving directly above the lower level of drums. For design purposes it should be assumed that a third level of shelving is included so that the drums may be arranged three-high.
- Drum location and placement is to facilitate regular visual inspections, air circulation and accessibility for any future drum/pallet handling via a forklift (e.g. Crown model 25WRTL102 or similar unit).

## Building Changes:

### No Change:

Door from § 47E - operations (Existing electric “Kara” brand lock is installed and will remain)

Courtyard

Basement Linac area

Plant Room Ramp

### Changes:

Extend § 47E - – Refer Attachment A.

New § 47E - walls.

Internal roof above modulator room to be extended across new walls.

Seal wall and floor penetrations. (leaving space for data cable runs and draw wires). Suggested approach is inserting steel bridge to maintain cable route for future cable runs and caulk/seal with cement. Inspection recommended.

Ceiling, wall and floor caulk seal, prep and paint.

Make good to existing.

### **Demolition:**

Removal of small intenal goods lift

Removal of non compliant ladder

Remove data and electrical cable trays.

**Chiller:**

Existing Linac Chiller Unit MTA EVO 051 (located in s 47E - ) will be removed by others (Comrez) prior to site construction works.

**Fire Systems:**

Refer to design drawings and documentation.

**Security:**

Security Systems – Existing electric door combination locks is adequate and no change required.

**Radon Monitoring Alarms:**

Supply with project 3 wireless Radon detectors. (Corentium Pro Airthings units) Detectors). Information available upon request.

Unit information is available via the following link: <https://airthings.com/us/>

**Electrical:**

Retain existing GPOs in original s 47E - operations areas where possible. No further GPO's to be installed in Modulator Room.

- Replace s 47E - lighting with energy efficient LED lighting. Lighting shall be wired in two banks ( 2 switches) and controlled at one position with a neon indicator ).

All circuits shall be labelled. All switches and GPO's shall be labelled with the source distribution board number and circuit number.( Eg "DBU1 – CB 23")

Wiring to be completed at AS3000 with a certificate of Electrical Safety for any works provided.

**Ventilation:**

Refer to design drawings and documentation.

Builder to provide of a set of "No Volt" contacts on the exhaust fan motor to allow others to connect monitoring of the associated fan motor. ( Other parties to provide this monitoring and integration with the internal BMS system).



## Fire Systems:

Refer to design drawings and documentation.

## Data/Alarms:

Refer to design drawings and documentation.

## Floor:

Refer to design drawings and documentation.

## Doors

Refer to design drawings and documentation.

## Building Code

Builders to comply with the Australian Building and Construction Commission as per work for Commonwealth entities and associated contract clauses (see <https://www.abcc.gov.au/building-code/funding-entities>).

## Construction Access / Misc:

- Rear Basement double secure door via plant room ramp to s 47E - [REDACTED].
- Ramp to be a common or shared space for staff and maintenance contractor's space
- Construction zone anticipated to be from the door from plant room ramp to s 47E - [REDACTED].
- Appropriate signage/barrier/temporary hording is anticipated in the linac control room & also the internal courtyard to zone off the construction area for safety.
- Generally access inside building will be limited to construction zone,
- Work to be completed during business hours. 0700 – 1700 Monday to Friday.
- Weekend work generally to be avoided.
- Please note rear of building will have the presence of other contractors maintenance and other projects.
- Builders to provide their own amenities.

## Health & Safety Considerations

As is typical for this age of building asbestos is present in some areas.

The ARPANSA asbestos register is included for inspection.

Most electrical circuits are well labelled. However all electrical circuits should be tested to confirm source and state. Please note that ARPANSA require any ceiling grid should be inspected and tested to ensure during construction works that this does not become electrically energised/live.

Fire and smoke detector isolations, augmentations and re-commissioning is via written approval from ARPANSA Facility Manager. 5 days notice is requested for large non routine works and should be via an impairment notice.

## Security:

Refer Attachment D: Construction Access & Security – Yallambie.

## Records:

ARPANSA Records - Hard Copy Facility drawings are available for inspection and a copy can be provided electronically. However, this is by person and by arrangement.

Service Provider Records:

These remain the property of ARPANSA at all times (both .dwg and .pdf).

Electronic files in .dwg and .pdf file formats shall be provided to client ARPANSA at the following stage;

- (i) As-Built Stage

## Incumbent Suppliers

The follow list includes incumbent suppliers that may be contacted & utilised if the builder wishes. These parties hold site experience, inductions and valid police checks.

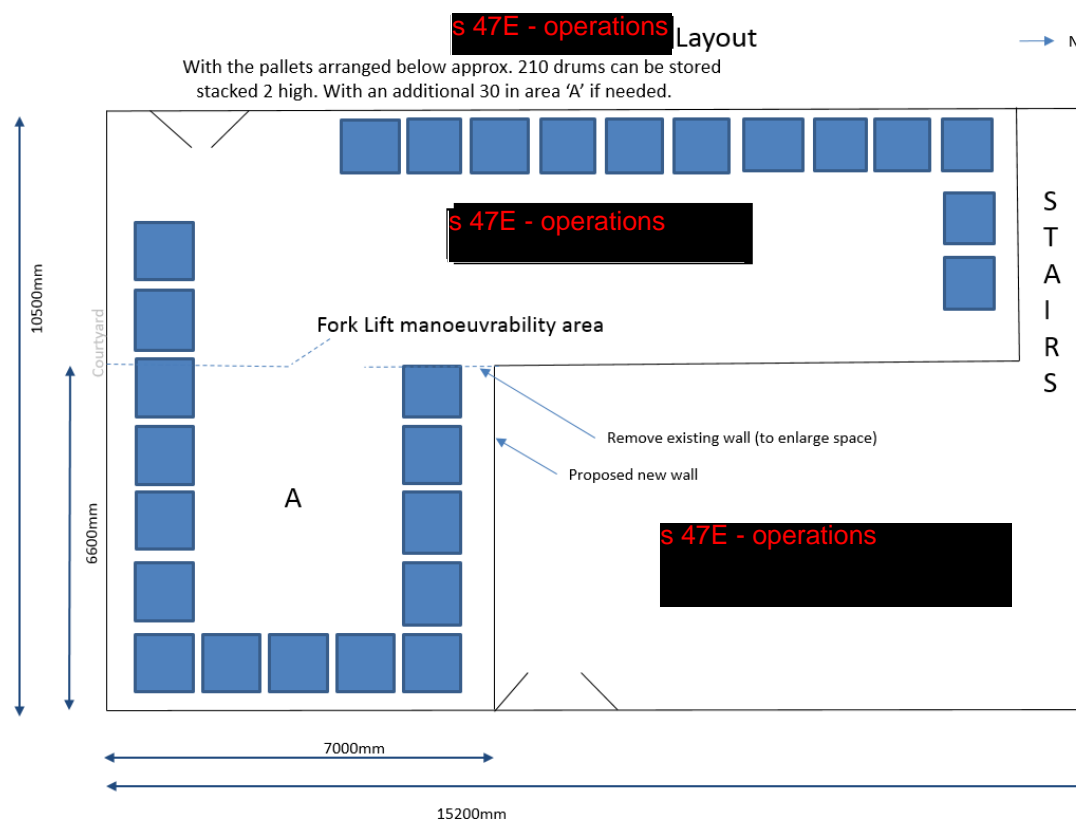
- Mechanical/General Property – Comrez – s 47F - privacy
- Electrical – KBP Electrical – s 47F - privacy
- Fire Systems – Fire Security Services – s 47F - privacy
- Plumbing – Viney Plumbing – s 47F - privacy

## RFQ Response:

Template to be completed by invited parties please refer Attachment E: RFQ Response Template.

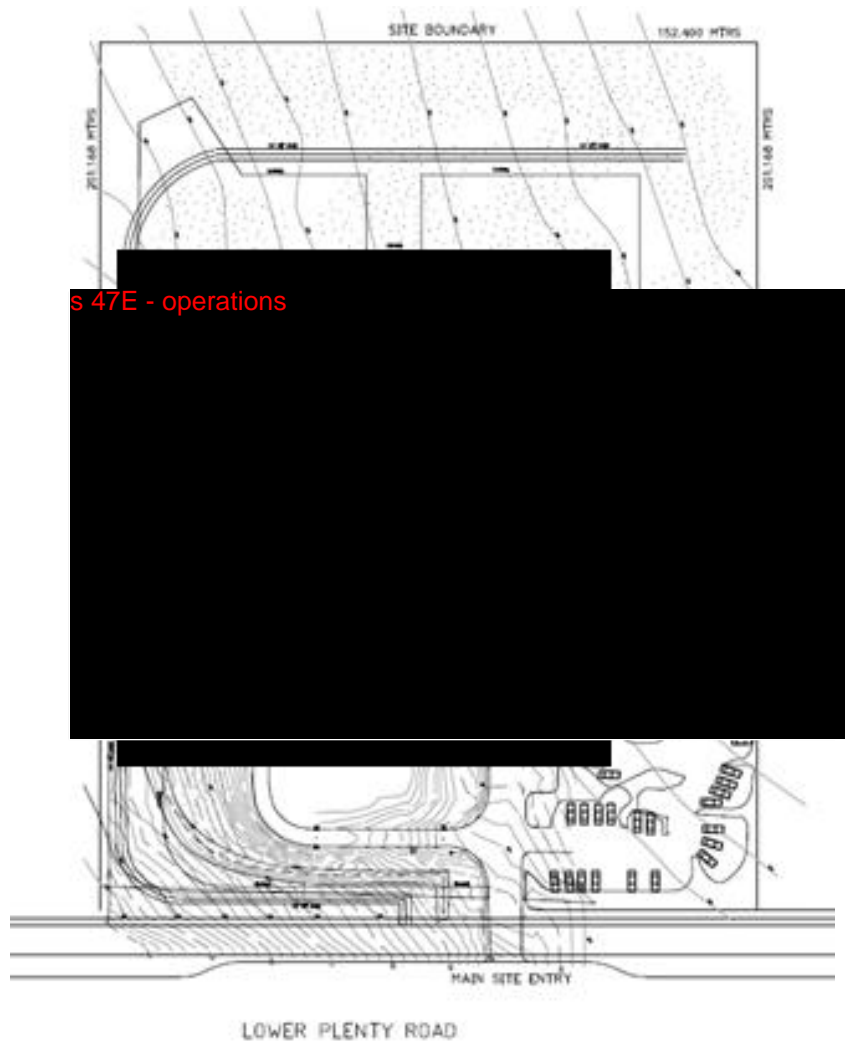


## Attachment A – Proposed Area

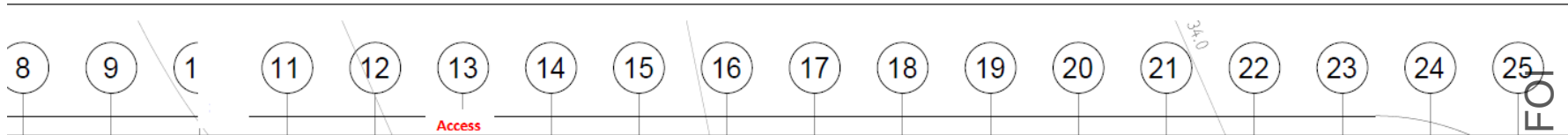


RELEASED BY ARPANSA UNDER FOI

*Attachment B – General Area:*



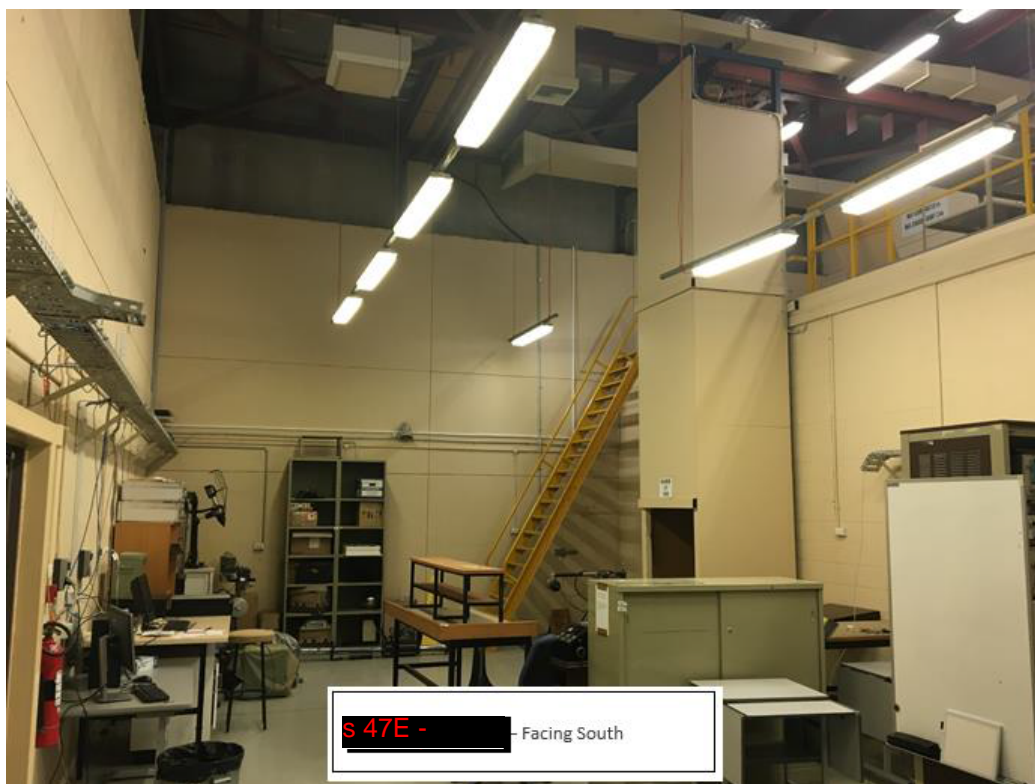
RELEASED BY ARPANSA UNDER FOI



s 47E - operations

*Attachment C – Photographs:*

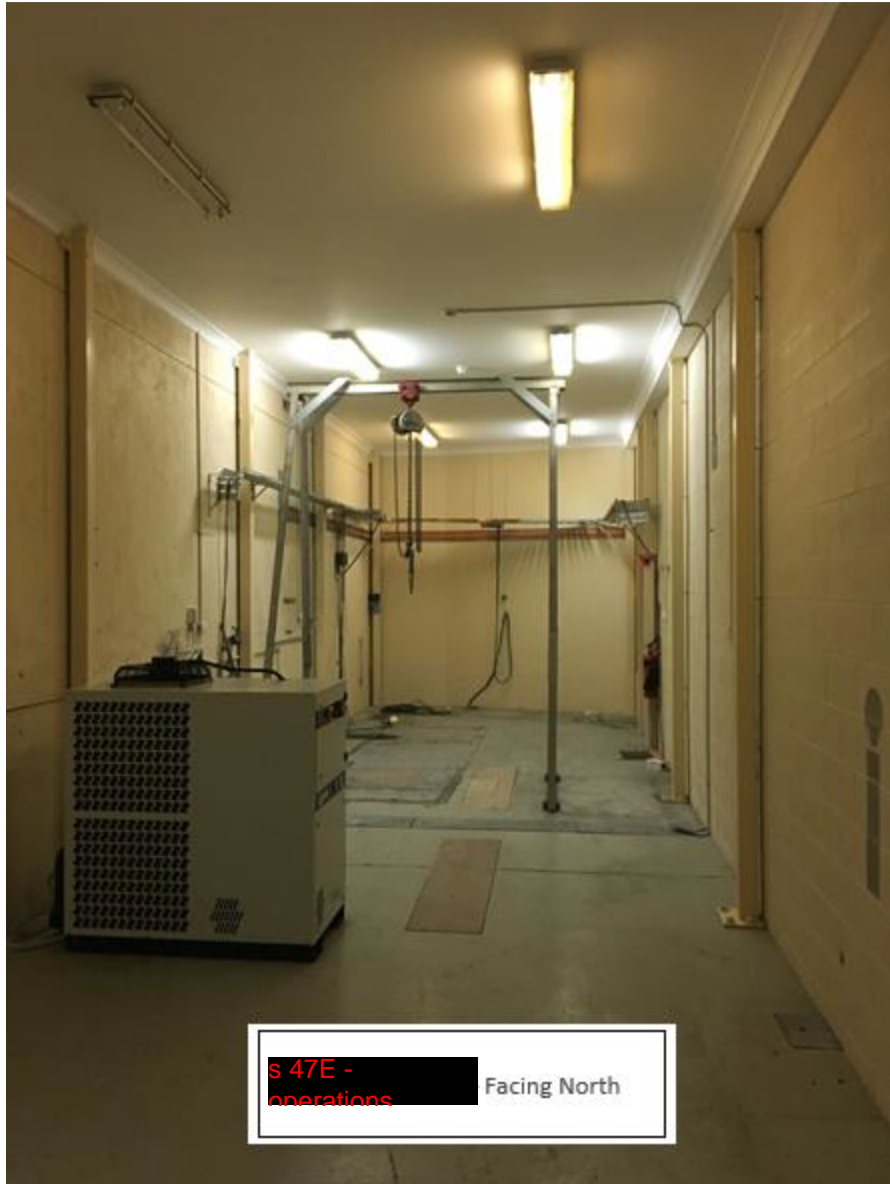
RELEASED BY ARPANSA UNDER FOI











RELEASED BY ARPANSA UNDER FOI



RELEASED BY ARPANSA UNDER FOI



RELEASED BY ARPANSA UNDER FOI



## Attachment D

### Construction Access & Security - Yallambie

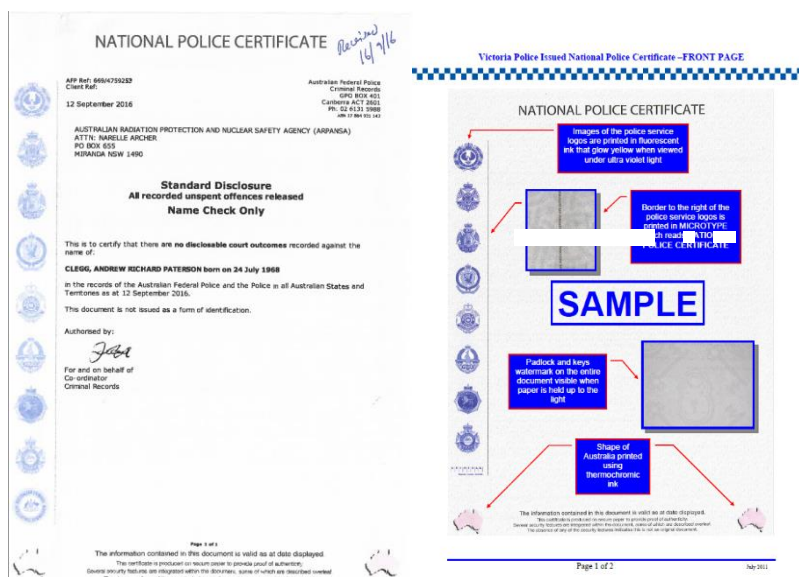
- Construction site to be labelled and have a clear demarcation zone starting from Level 1 adjacent to stairs.
- Demarcation zone between construction zone and office space.
- Contractors to have their nominated Site Manager on site at all time. (Or appointed delegate).

#### Site Manager and all other Construction personnel:

Includes main contractor staff and subcontractors.

- All to be nominated including subcontractors.
- Photo ID required to be presented prior to project start and sighted on attendance.
- Required to have a current *“Victoria Police Issued National Police Certificate”* (refer attachment A below).
- An alternative online Police History Check is acceptable (NCC/CV Check/Fit for Work) – however care needs to be exercised as these can expire.
  - (If the main contractor’s nominated subcontractor is substituted. ARPANSA is to be notified. In this case access for this person will be via an escort at all times by an employee of the same company).
  - Further Information is described in the ARPANSA document : *NPC and Police Check Information Sheet.ppt*

- *“Victoria Police Issued National Police Certificate”*.





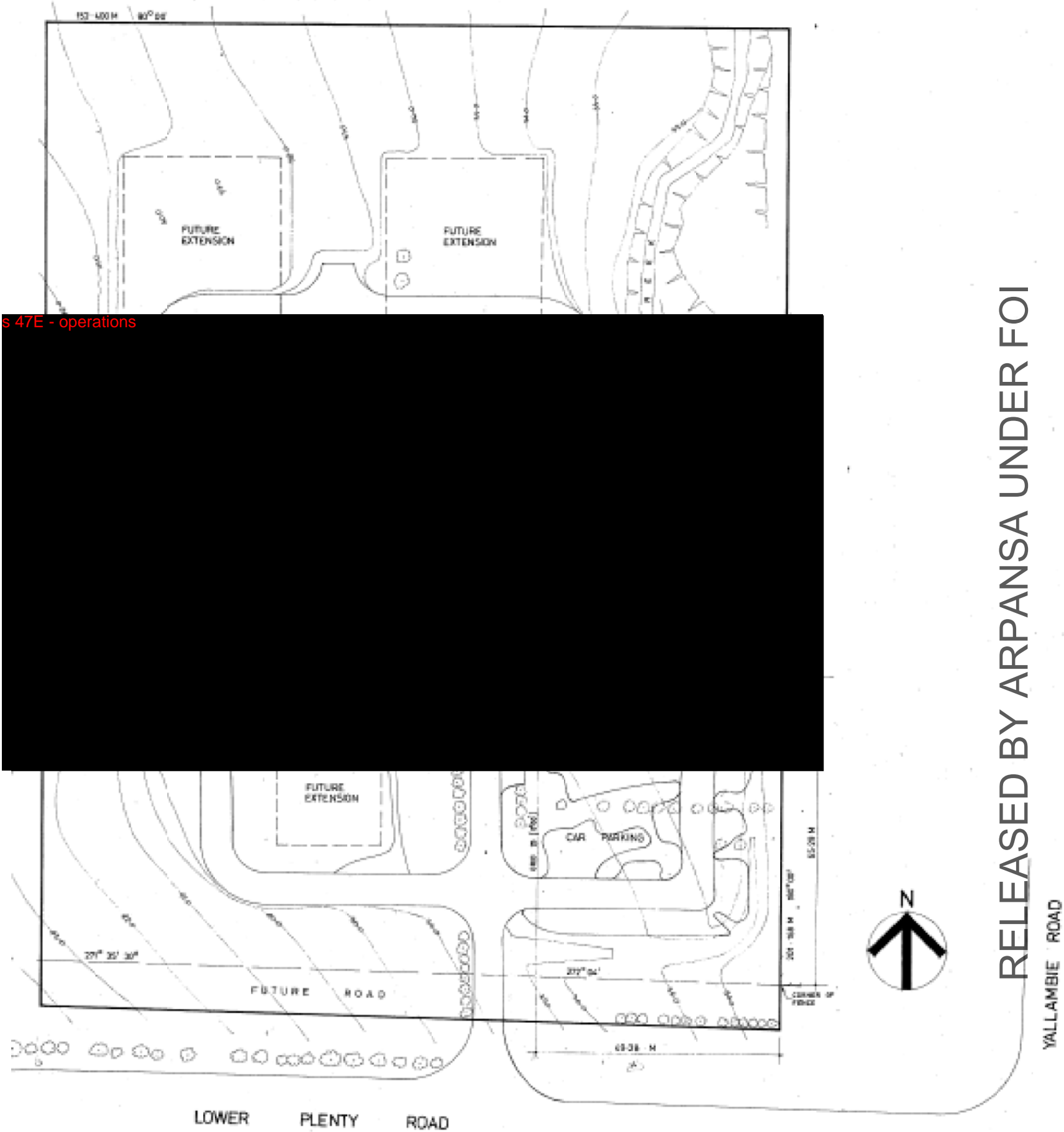
## Attachment E

### RFQ Response Template

Quoted Cost		
Labour	\$	
Materials	\$	
Total Cost ( ex GST)	\$	
Total Cost ( Incl GST)	\$	
Copies of certificates of currency for public liability (\$20 million minimum) and WorkCover insurance	Please attach	
WH&S Credential to be listed	Please attach	
Confirmation that the business has had zero charges or prosecutions associated with WorkSafe Victoria in last 10 years	Y/N	
Acknowledgement that works will be completed to ABCC requirements in the contract clauses	Y/N	
Construction delivery date based on Contract establishment and PO Generated by 30 June 2018	Complete dd/mm/yyyy	
Technical Referee for a recent Victorian Construction Commercial Project	Name/Title/Role:	Phone Number/ Email Address:
Confirm pricing is in accordance to supplied:  Architectural drawings/plans  Engineering drawing/plans	Y/N	

Mechanical drawings/plans		
Advise any non-conformance	List Below	





RELEASED BY ARPANSA UNDER FOI

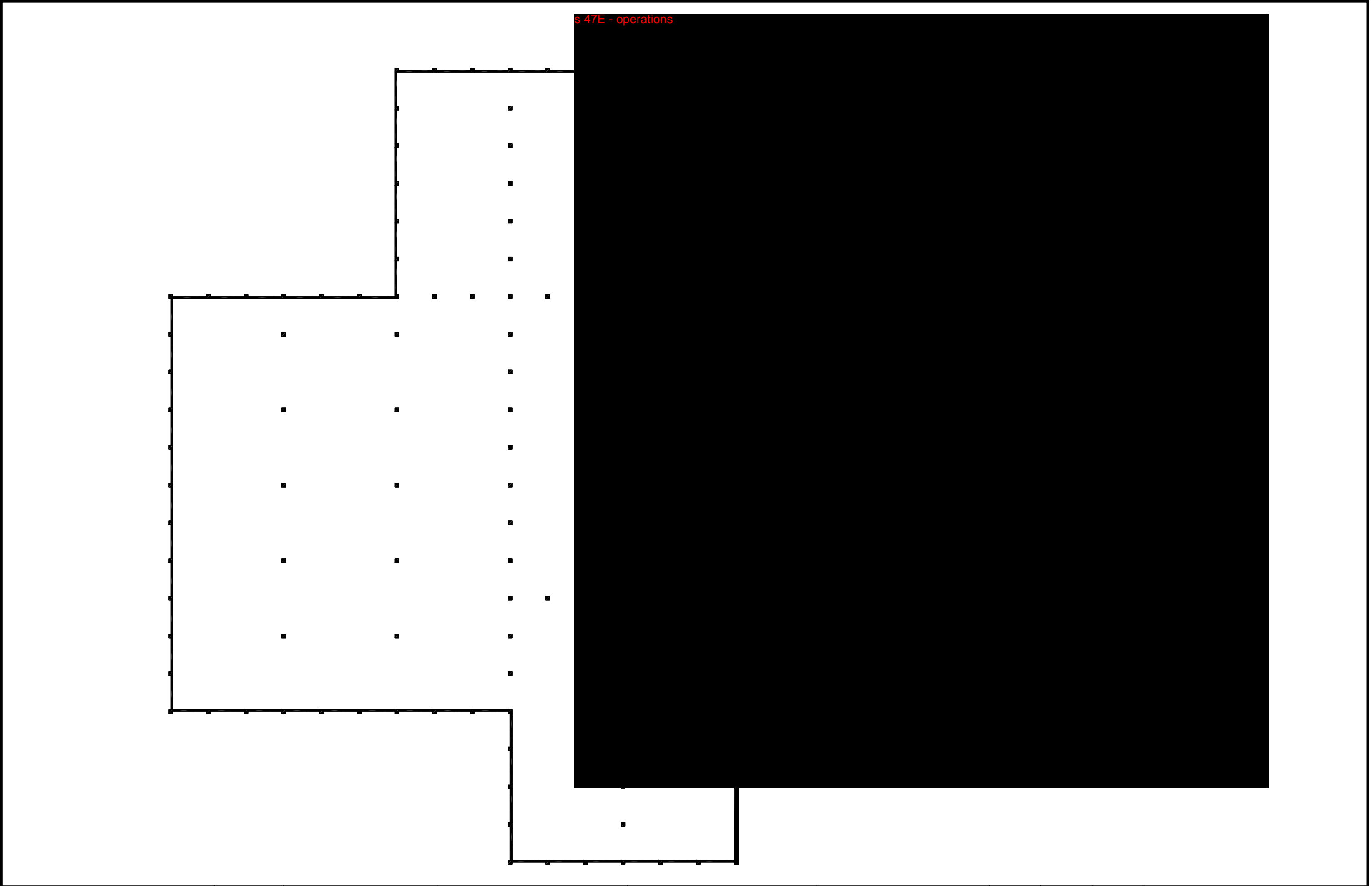
THIS WORK IS EXCLUSIVELY OWNED BY SDS DEVELOPMENTS PTY LTD AND CANNOT BE REPRODUCED OR COPIED, EITHER WHOLE OR IN PART, IN ANY FORM (GRAPHIC, ELECTRONIC OR MECHANICAL INCLUDING PHOTOCOPYING) WITHOUT THE WRITTEN PERMISSION OF SDS DEVELOPMENTS PTY LTD.

DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE. CONFIRM ALL LEVELS AND DIMENSIONS ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS.

© COPYRIGHT 2015

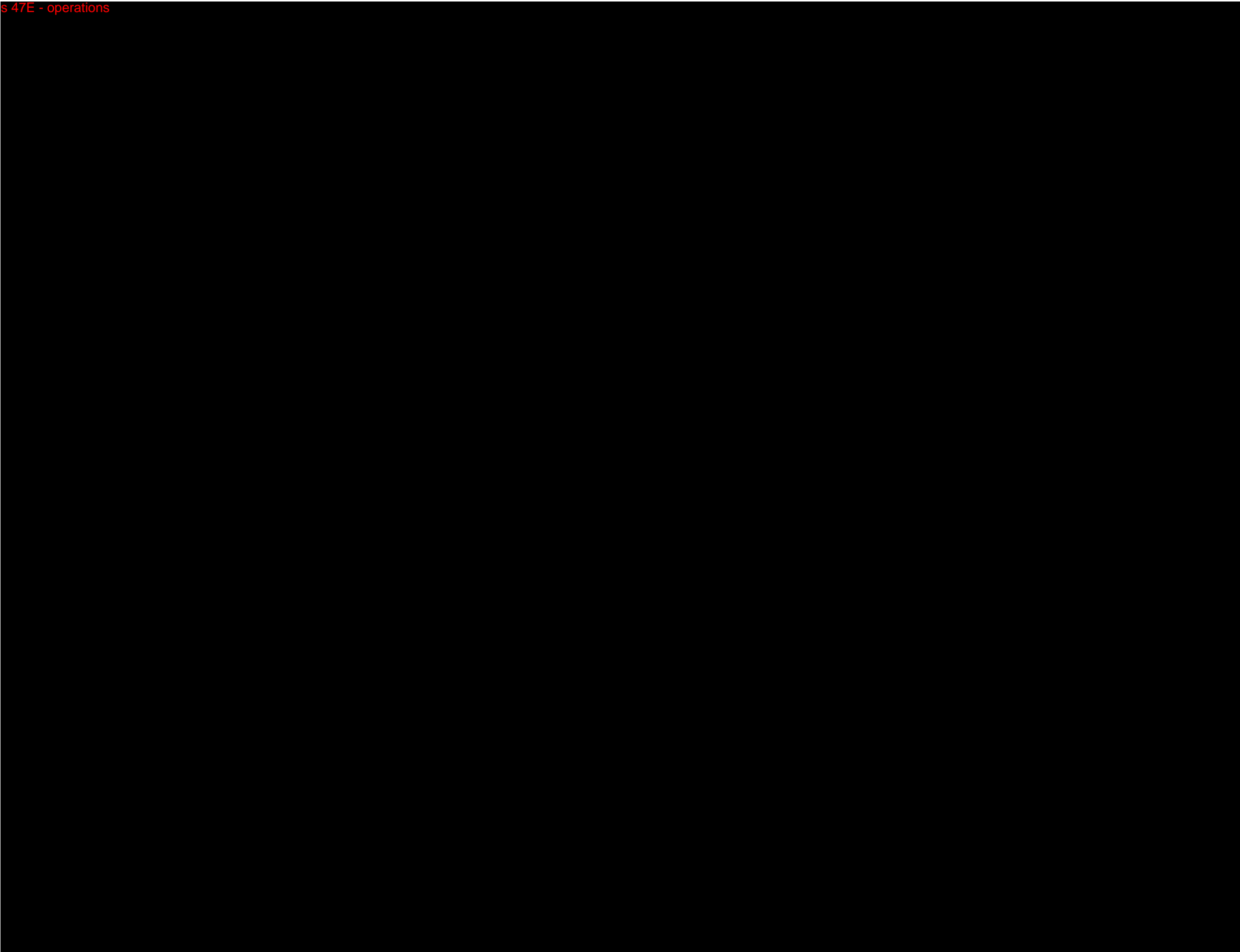
CLIENT	DATE	REVISION	No.	PROJECT TITLE	DRAWING TITLE	ISSUE DATE	JOB No.	DRAWN	TOWN PLANNING
ARPANSA				STORAGE FACILITY	SITE PLAN	07.05.2018	201808	RW	SDS developments pty ltd
				PROJECT ADDRESS		SCALE	DRAWING No.	REVISION	PO BOX 1194 ST KILDA STH VIC 3182
				619 LOWER PLENTY RD, YALLAMBIE, VIC 3085		1:200 (A3)	01 OF 06	A	p. 0421 138 013 w. skylinedesignstudio.com.au





THIS WORK IS EXCLUSIVELY OWNED BY SDS DEVELOPMENTS PTY LTD AND CANNOT BE REPRODUCED OR COPIED, EITHER WHOLE OR IN PART, IN ANY FORM (GRAPHIC, ELECTRONIC OR MECHANICAL INCLUDING PHOTOCOPYING) WITHOUT THE WRITTEN PERMISSION OF SDS DEVELOPMENTS PTY LTD.  DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE. CONFIRM ALL LEVELS AND DIMENSIONS ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS. © COPYRIGHT 2015		CLIENT	DATE	REVISION	No.	PROJECT TITLE	DRAWING TITLE	ISSUE DATE	JOB No.	DRAWN	TOWN PLANNING
		ARPANSA	-	-	-	STORAGE FACILITY	SITE PLAN - LOWER GROUND FLOOR	07.05.2018	201808	RW	SDS developments pty ltd
								SCALE	DRAWING No.	REVISION	PO BOX 1194 ST KILDA STH VIC 3182
						PROJECT ADDRESS		1:200 (A3)	02 OF	A	p. 0421 138 013 w. skylinedesignstudio.com.au
						619 LOWER PLENTY RD, YALLAMBIE, VIC 3085			06		

s 47E - operations



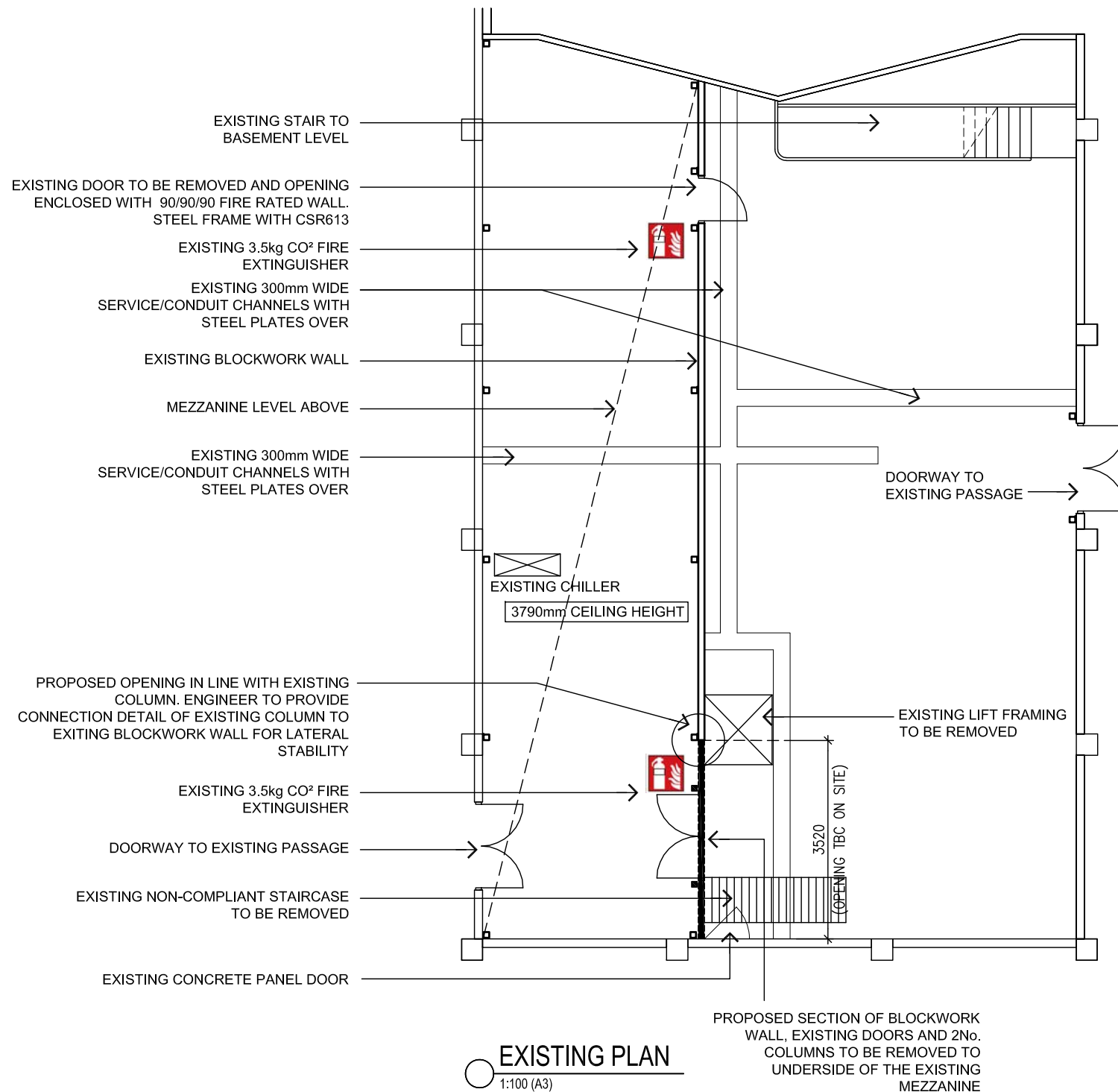
THIS WORK IS EXCLUSIVELY OWNED BY SDS DEVELOPMENTS PTY LTD AND CANNOT BE REPRODUCED OR COPIED, EITHER WHOLE OR IN PART, IN ANY FORM (GRAPHIC, ELECTRONIC OR MECHANICAL INCLUDING PHOTOCOPYING) WITHOUT THE WRITTEN PERMISSION OF SDS DEVELOPMENTS PTY LTD.

DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE. CONFIRM ALL LEVELS AND DIMENSIONS ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS.

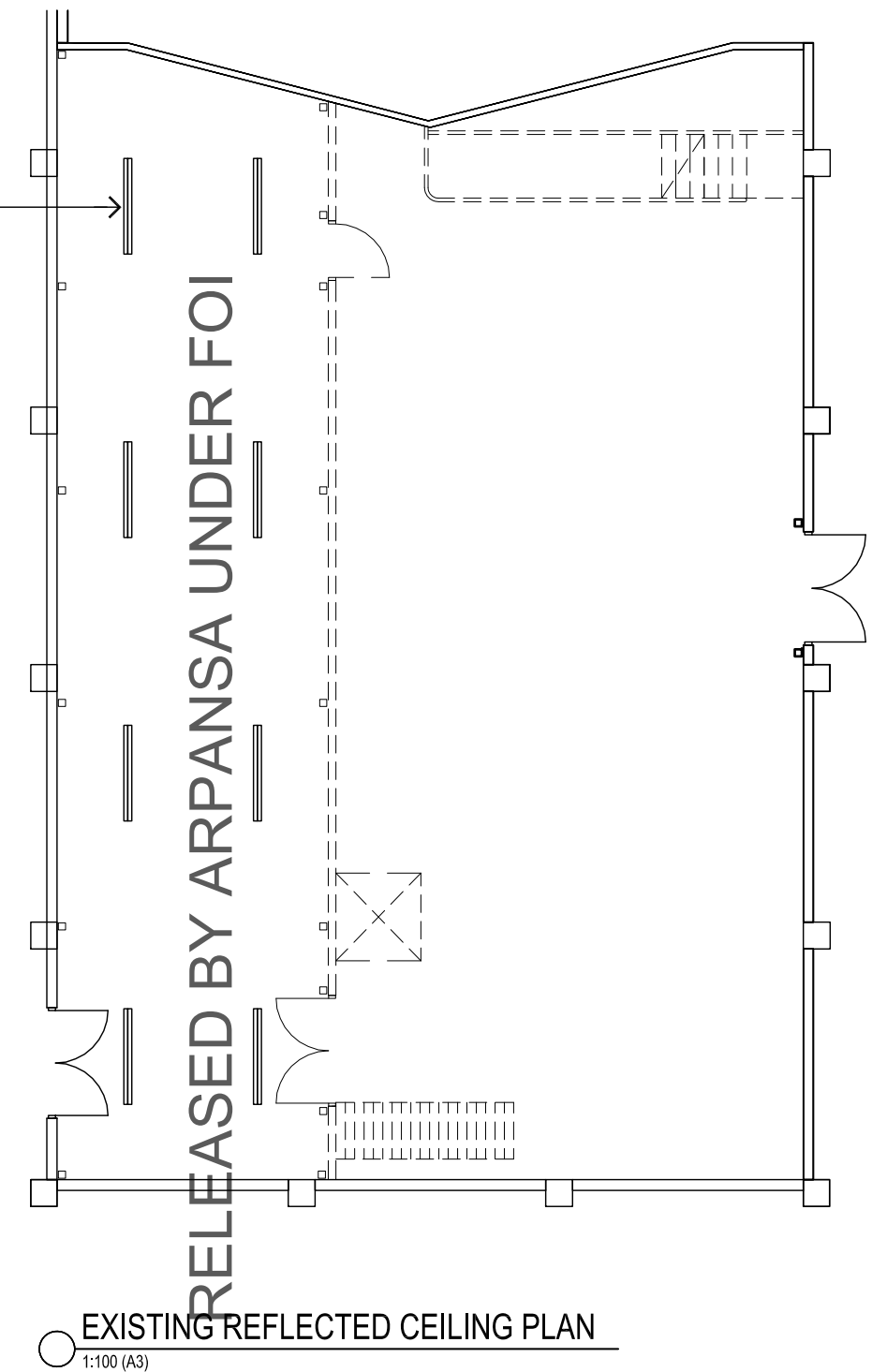
© COPYRIGHT 2015

	CLIENT	DATE	REVISION	No.	PROJECT TITLE	DRAWING TITLE	ISSUE DATE	JOB No.	DRAWN	TOWN PLANNING
	ARPANSA	-	-	-	STORAGE FACILITY	SITE PLAN - GROUND FLOOR	07.05.2018	201808	RW	SDS developments pty ltd
							SCALE	DRAWING No.	REVISION	
					PROJECT ADDRESS		1:200 (A3)	03 OF	A	PO BOX 1194 ST KILDA STH VIC 3182
					619 LOWER PLENTY RD, YALLAMBIE, VIC 3085			06		
										p. 0421 139 013 w. skylinedesignstudio.com.au

ALL EXISTING FLOOR AND WALL PENETRATIONS TO BE COMPLETELY SEALED AND PAINTED BY CONTRACTORS



REPLACE EXISTING SURFACE  
MOUNTED DOUBLE FLURO LIGHTS  
WITH NEW LOW ENERGY LED FLURO  
LIGHT FITTINGS

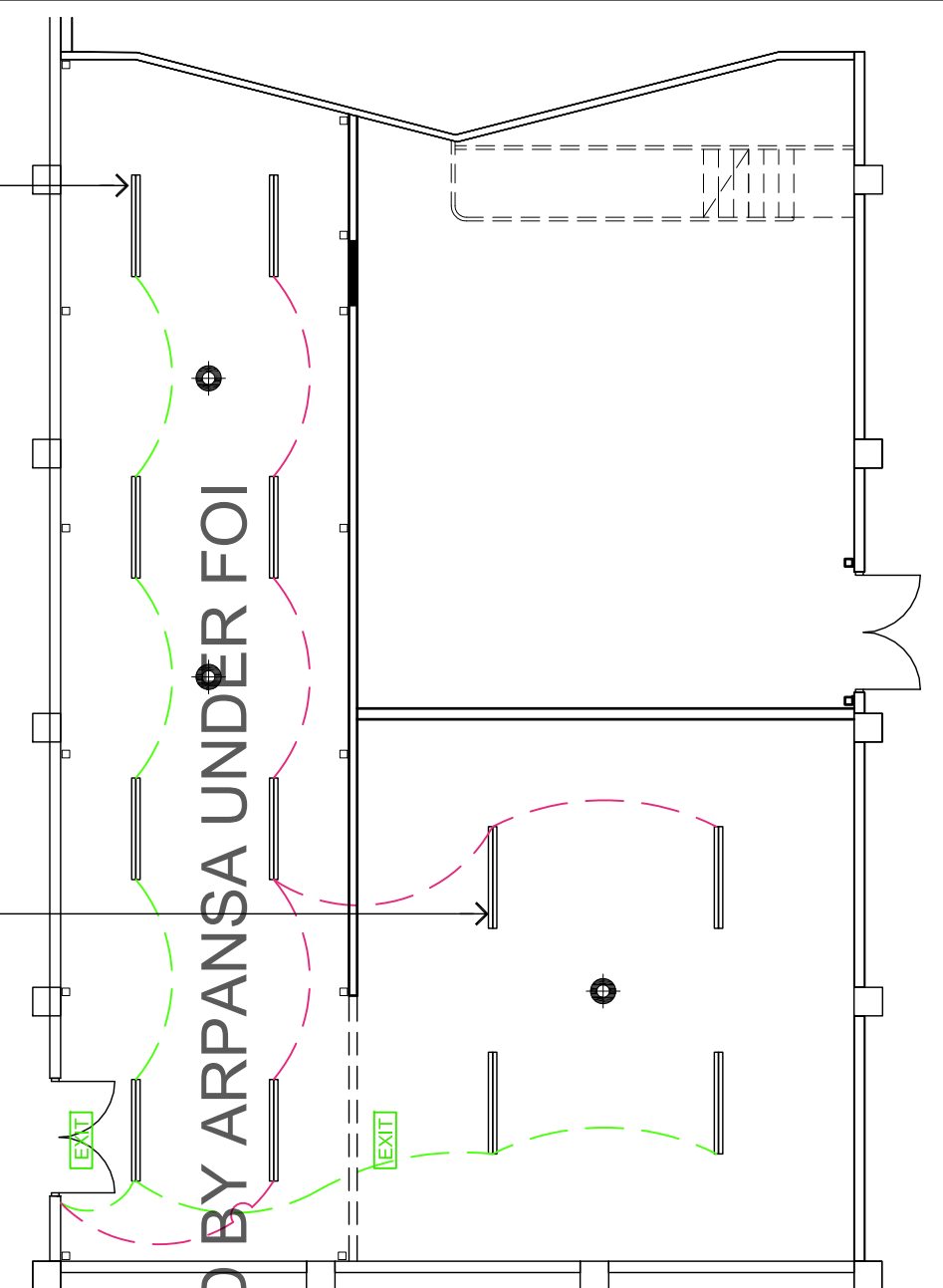
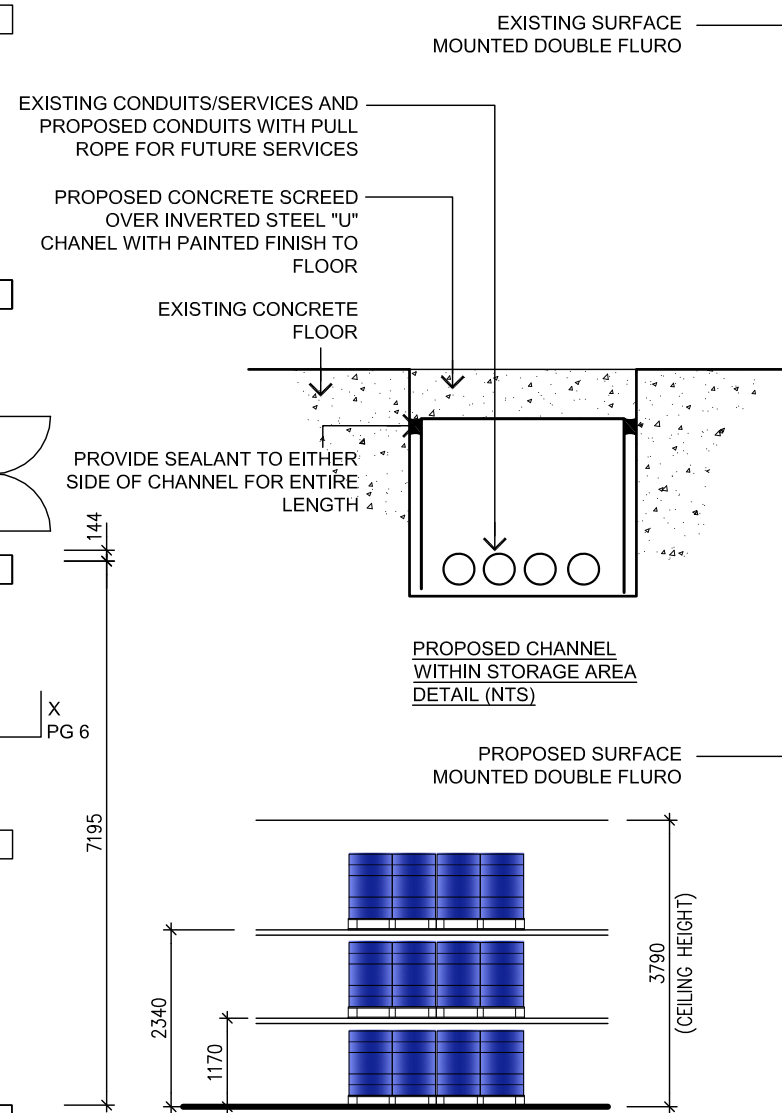
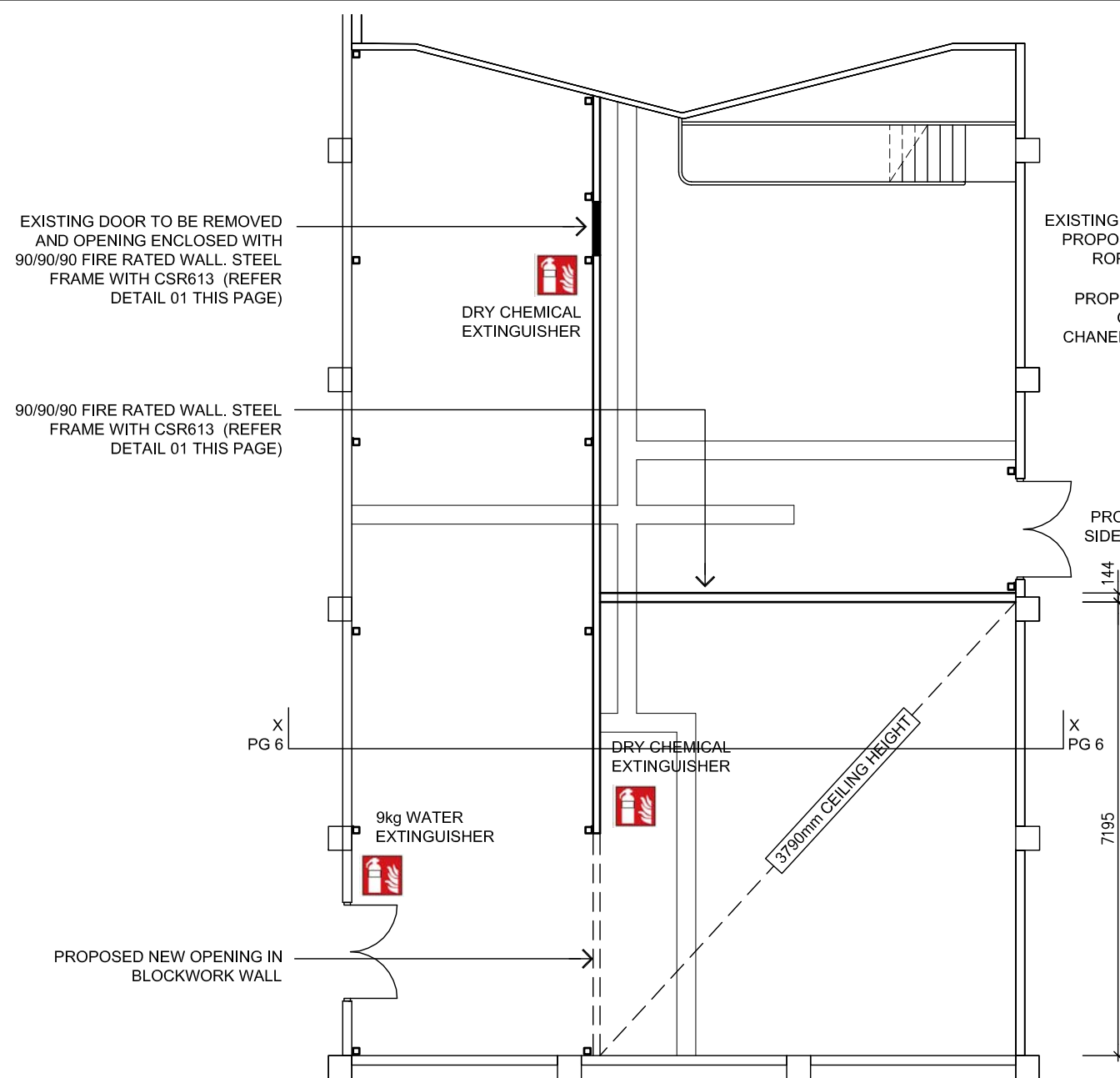


NOTE: EXISTING 'A' FRAME TO BE  
REMOVED BY OTHERS PRIOR TO THE  
COMMENCEMENT OF WORKS

NOTE: EXISTING CHILLER TO BE  
REMOVED BY OTHERS PRIOR TO THE  
COMMENCEMENT OF WORKS

NOTE: CONTRACTOR TO REMOVE ALL  
FIXTURES AND FITTING UNLESS  
NOTED OTHERWISE

[illegible]



## PROPOSED PLAN

1:100 (A3)

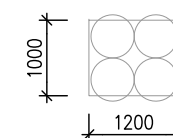
## PROPOSED STACKING HEIGHTS

1:100 (A3)

### PROPOSED REFLECTED CEILING PLAN

1:100 (A3)

FAR2357			WALL THICKNESS mm	103	116	128	144	202	
– /120/120 90/90/90  FAR2357	<b>CSR 613</b> 	<i>BOTH SIDES (ANY ORDER)</i> <ul style="list-style-type: none"><li>• 1 x 9mm CeminSeal™ Wallboard.</li><li>• 1 x 16mm GYPROCK FYRCHek plasterboard.</li></ul>	(a) Nil (b) 50 GW Partition 11kg (c) 75 GW Partition 11kg (d) TSB3/ASB3 Polyester (e) 60 Soundscreen™ 1.6	45/38 50/41 – 50/43 –	47/41 52/44 54/46 51/45 53/44	48/42 53/45 54/46 52/46 54/45	49/43 54/46 55/47 53/47 55/46	51/45 55/47 56/48 54/48 56/47	
	<b>CSR 080</b>			WALL THICKNESS mm	101	114	126	142	200
			(a) Nil	43/36	45/39	46/40	47/41	49/43	



### PROPOSED PALLETT DIMENSIONS

NOTE: PRINT IN COLOUR

- CIRCUIT 1 - TIME DELAY 45 MINUTES
- CIRCUIT 2 0 TIME DELAY 30 MINUTES

KEY OVERRIDE TO BOTH CIRCUITS

### LEGEND



**EXIT** EXIT SIGNAGE

THIS WORK IS EXCLUSIVELY OWNED BY SDS DEVELOPMENTS PTY LTD AND CANNOT BE REPRODUCED OR COPIED, EITHER WHOLE OR IN PART, IN ANY FORM (GRAPHIC, ELECTRONIC OR MECHANICAL INCLUDING PHOTOCOPYING) WITHOUT THE WRITTEN PERMISSION OF SDS DEVELOPMENTS PTY LTD.

DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE  
PRECEDENCE. CONFIRM ALL LEVELS AND DIMENSIONS ON SITE  
BEFORE THE COMMENCEMENT OF ANY WORKS.

CLIENT
ARPANSA

DATE	REVISION	No.
------	----------	-----

PROJECT TITLE	
---------------	--

	STORAGE FACILITY
--	------------------

PROJECT ADDRESS

619 LOWER PLENTY RD. YALLAMBIE. VIC 3085

DRAWING TITLE
---------------

## PROPOSED WORKS

	ISSUE DATE
--	------------

07.05.2018

	JOB No.
--	---------

201808

	DRAWN
--	-------

RW

DRAWING No.

	05
	06

DRAWING No.

	05
	06

REVISION

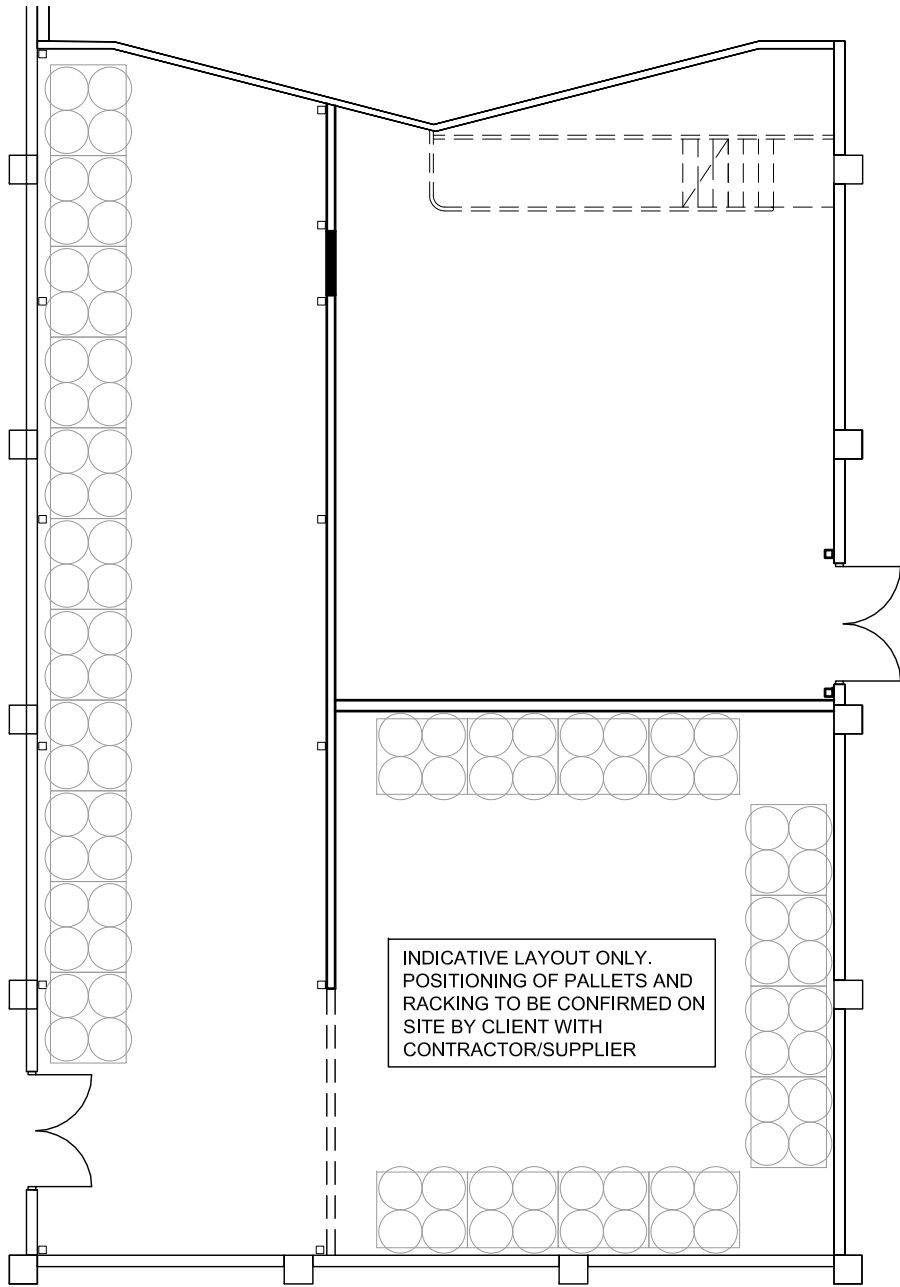
F	A
---	---

	TOWN PLANNING
--	---------------

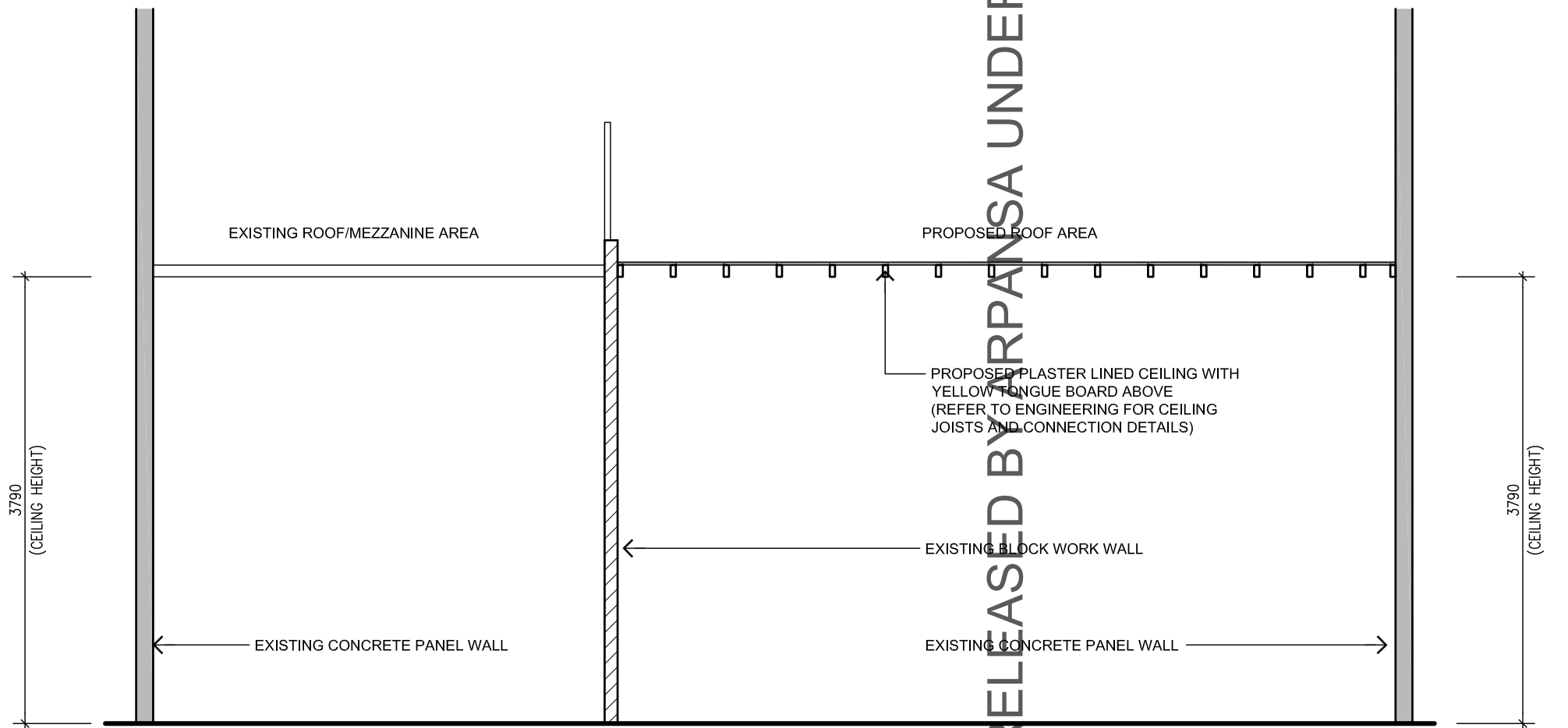
SDS developments pty ltd

PO BOX 1194  
ST KILDA STH VIC 3182

p. 0421 139 013  
w. [skylinedesignstudio.com.au](http://skylinedesignstudio.com.au)

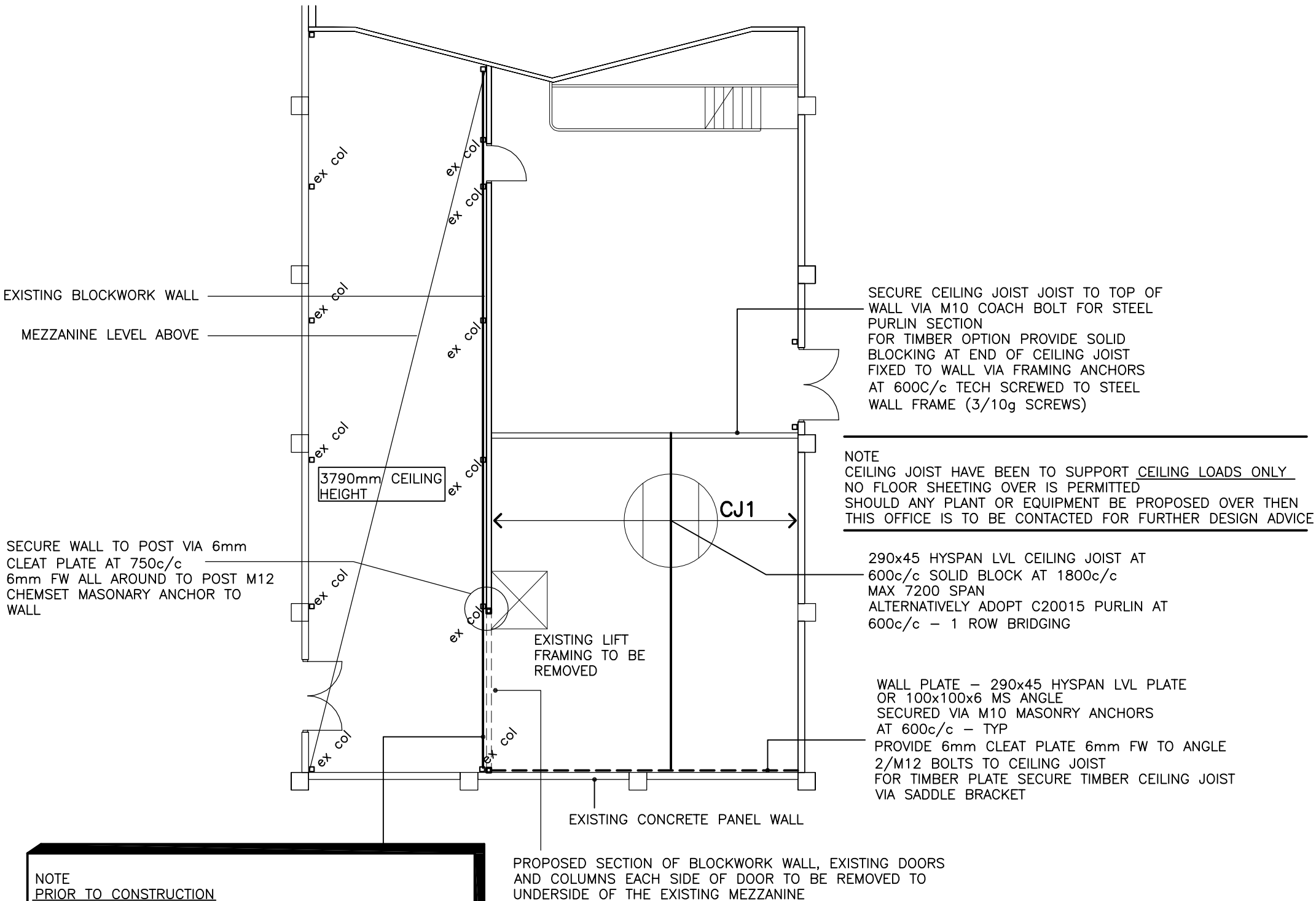


PROPOSED PALLET LAYOUT PLAN  
1:100 (A3)



SECTION X:X  
1:50 (A3)

THIS WORK IS EXCLUSIVELY OWNED BY SDS DEVELOPMENTS PTY LTD AND CANNOT BE REPRODUCED OR COPIED, EITHER WHOLE OR IN PART, IN ANY FORM (GRAPHIC, ELECTRONIC OR MECHANICAL INCLUDING PHOTOCOPYING) WITHOUT THE WRITTEN PERMISSION OF SDS DEVELOPMENTS PTY LTD.  DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE. CONFIRM ALL LEVELS AND DIMENSIONS ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS. © COPYRIGHT 2015		CLIENT  ARPANSA	DATE	REVISION	No.	PROJECT TITLE  STORAGE FACILITY  PROJECT ADDRESS  619 LOWER PLENTY RD, YALLAMBIE, VIC 3085	DRAWING TITLE  PROPOSED WORKS	ISSUE DATE	JOB No.	DRAWN	TOWN PLANNING  SDS developments pty ltd  PO BOX 1194 ST KILDA STH VIC 3182  p. 0421 139 013 w. skylinedesignstudio.com.au
			-	-				07.05.2018	201808	RW	
								SCALE	DRAWING No.	REVISION	
								AS NOTED	06 06	OF A	



STRUCTURAL PLAN

GENERAL

1.These drawings to be read in conjunction with all architectural and other consultants drawings and with such other written instructions as may be issued during the course of the contract. Any discrepancy shall be referred to the engineer or Architect before proceeding with the work.

2.Material and workmanship are to be obtained from the Architects drawing or from site. Engineers drawings must not be scaled.

3.During construction the Contractor shall be responsible for maintaining the structure in a stable condition and ensuring no part shall be overstressed under construction activities.

STRUCTURAL STEEL

1.All steelwork shall be carried out in accordance with the AS4100-1990 Steel Structures Code.

2.Connections shall be provided to carry the reactions shown unless otherwise noted.

3.Welds to be 6mm continuous fillet laid down with approved covered electrode in accordance with AS 1554 Welding Code. Bolts 16mm diam. black in 2mm clearance holes. Gusset plates 8mm unless otherwise noted.

4.All cleats and drillings for fixing of timber members,etc to be provided by the fabricator.

5.Camber to structural steel roof beams, trusses,etc,to be 3mm for every 1000mm of span unless otherwise noted.

6.All welding to be SP(Structural Purpose)grade, refer AS4100.

STRUCTURAL TIMBER

1.All structural timber shall conform to the requirements of AS1720 Timber Engineering Code and AS1684 Light Timber Framing Code.

2.Provide double studs (2/90x45 F5) to ends of all heavily loaded beams and lintols.

3.All beams built up from two or more members to be stitch bolted.

4.Provide double joists below all parallel load bearing walls.

PROPOSED OPENING  
619 LOWER PLENTY RD  
YARRAVILLE

JOHN KOTOWSKYJ & ASSOC  
CONSULTING ENGINEERS

SUITE 4 2ND FL 902 MT ALEXANDER RD  
ESSENDON 3040  
TEL 9370 0511 FAX 9375 4463  
EMAIL johnk@netsol.net.au

DATE	21/05/18
REV	A
SHEET	S1
FILE	18036

FAN SCHEDULE

Designation	GEF-1	FAF-1
Location	CEILING SPACE	CEILING SPACE
Area Served:	STORAGE AREA	STORAGE AREA
Make:	CFM	CFM
Model:	MUA305-4E - 30 DEG	MUA305-4E-20 DEG
Type	Axial - Duct Mounted	Axial - Duct Mounted
Air Quantity	600	480
Estim. Static (Pa)	80	80
Mounting:	Duct Mounted	Duct Mounted
SPEED (RPM)	1440	1440
Motor (kW)	0.18	0.18
FLA (Amp)	0.8	0.8
Phase	1 PH	1 PH
COMMENT	POWERED FROM LOCAL ON/OFF SWITCH	INTERLOCKED WITH GEF-1

FILTER EQUIPMENT - SCHEDULE

FILTER No.	F-FAF - 1
MAKE	AIREPURE
TYPE/MEDIA	AIREPAK FILTER MULTI-POCKET/F5
W [mm]	610 mm
H [mm]	610 mm
D [mm]	380 mm
No Off	1
Total Air	480 l/s
Initial	40 Pa
Final	60 Pa

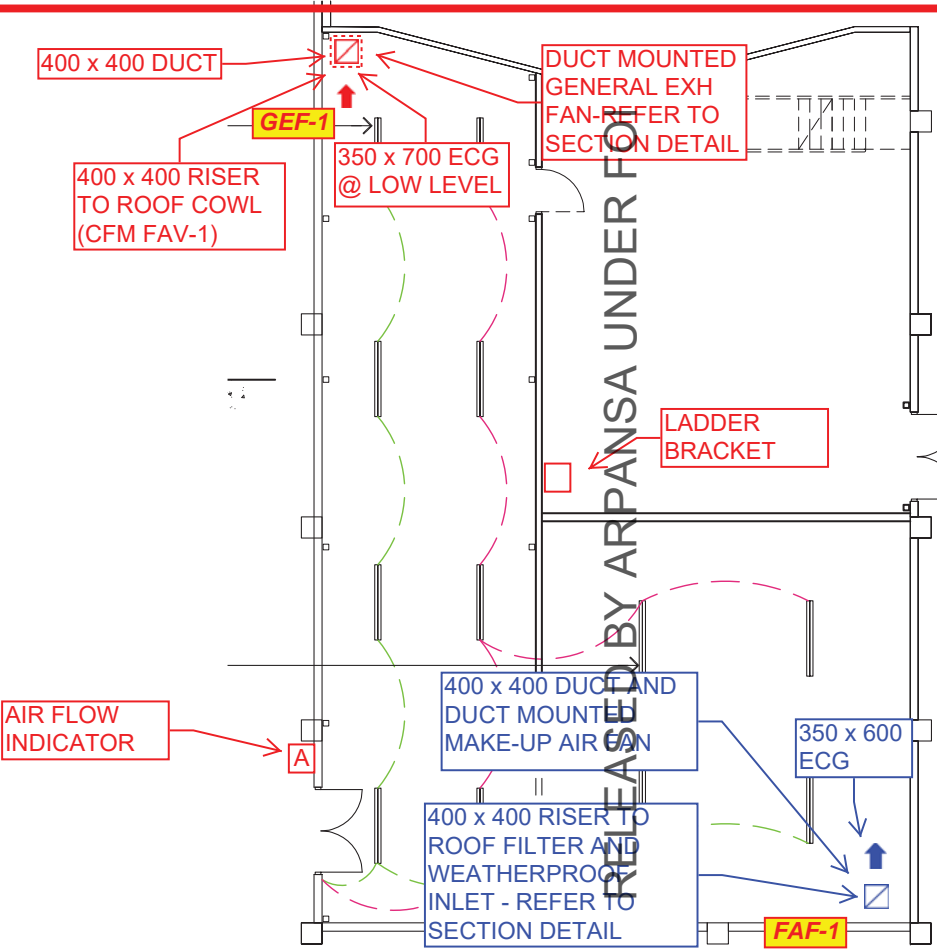
NOTE: STATIC DIFFERENTIAL DEVICE ATTACHED TO FRESH AIR FILTER AND CONNECTED TO WALL MOUNTED FLOW INDICATOR DEVICE.

BUILDING SERVICES  
ENGINEERING AND  
DESIGN  
1310 Portarlington Road  
Curlewis 3222  
0423 279 170

ARPANSA  
619 LOWER  
PLENTY ROAD  
YALLAMBIE 3085

SHEET TITLE:  
STORAGE FACILITY  
VENTILATION  
SERVICES

June 2018  
Scale: NTS  
Drawing No.  
SKM-1\_R1



400 x 400 RISER  
TO ROOF COWL  
(CFM FAV-1)

EXTERNAL ROOF

WEATHERPROOF  
45° CHAMFER C/W  
BIRWIRE MESH

600 x 600 DEEP  
FILTER

GEF-1

DUCT MOUNTED  
GENERAL EXH  
FAN

DUCT MOUNTED  
MAKE-UP AIR  
FAN

FAF-1

400 x 400

400 x 400

350 x 700 ECG

400 x 550  
ECG

INTERNAL ROOF/  
MEZZANINE  
FLOOR

BUILDING SERVICES  
ENGINEERING AND  
DESIGN  
1310 Portarlington Road  
Curlewis 3222  
0423 279 170

ARPANSA  
619 LOWER  
PLENTY ROAD  
YALLAMBIE 3085

SHEET TITLE:  
STORAGE FACILITY  
SECTION DETAIL

June 2018  
Scale: NTS  
Drawing No.  
SKM-2

RELEASED BY ARPANSA UNDER FOI