



global environmental solutions

ASBESTOS CONTAINING BUILDING MATERIALS MANAGEMENT PLAN

Rapid Creek Business Village

Trower Road

Rapid Creek NT 0820

Report Number 680.10137.0000001/AMP

23 January 2015

Rapid Creek Business Village

Po Box 1013

Nightcliff NT 0812

Version: Revision 0

ASBESTOS CONTAINING BUILDING MATERIALS MANAGEMENT PLAN

Rapid Creek Business Village

Trower Road

Rapid Creek NT 0820

PREPARED BY:

SLR Consulting Australia Pty Ltd
ABN 29 001 584 612
5 Foelsche Street Darwin NT 0800 Australia

(GPO Box 654 Darwin NT 0801 Australia)
T: 61 8 8998 0100 F: 61 2 9427 8200
E: darwin@slrconsulting.com www.slrconsulting.com

DOCUMENT CONTROL

Reference	Status	Date	Prepared	Checked	Authorised
680.10137.00000 01/AMP	Revision 0	23 January 2015	Paul Turyn	Paul Turyn	Paul Turyn

TABLE OF CONTENTS

1	EXECUTIVE SUMMARY.....	4
2	SCOPE	4
3	LIMITATIONS.....	4
4	BACKGROUND.....	5
5	HOW TO USE THIS DOCUMENT	5
6	ASBESTOS MATERIALS REGISTER.....	5
	6.1 Inaccessible Areas.....	5
	6.2 General Potential Occurrences.....	6
7	RISK ASSESSMENT CRITERIA	6
8	CONTROL OPTIONS.....	7
9	RESPONSIBILITIES	7
	9.1 Controller of Premises	7
	9.2 Employers	9
	9.3 Employees and Contractors.....	10
	9.4 Asbestos Removalists.....	10
10	AWARENESS AND TRAINING	10
11	REVIEW	11
12	LEGISLATION, CODES AND STANDARDS.....	12
	12.1 Asbestos	12
13	RECOMMENDATION DESCRIPTION TABLE	13
14	ASBESTOS MATERIALS MANAGEMENT PLAN	14
15	CLOSURE	19

TABLES

Table 1	Provisional Timetable for Review	12
Table 2	Recommendation Numbers	13

APPENDIX

Appendix A	General Information
------------	---------------------

1 EXECUTIVE SUMMARY

The extent of asbestos building materials on the site is considered to be medium. The risk associated with these asbestos materials is generally considered to be very low to low providing that appropriate precautions are taken and medium risk materials are managed in the short term.

The occurrences of asbestos building materials are listed in the Asbestos Materials Register for the site (refer to **Section 6**). Appropriate recommendations are given in tabular form in the Asbestos Materials Management Plans (**Sections 13 and 14**).

2 SCOPE

SLR Consulting Australia Pty Ltd (SLR) was requested by Costa Miaoudis of Rapid Creek Business Village to prepare an Asbestos Materials Management Plan (AMP) for the Rapid creek Business Village located on Trower Road in Rapid Creek NT 0812. The purpose of this Management Plan is to assist persons with control of the premises to comply with the prohibition of asbestos and prevent human exposure to asbestos while these building materials remain in the workplace.

This report is limited to addressing the asbestos building materials identified in the current Asbestos Materials Register (SLR Report No. 680.10137.00000/ASR dated 22 January 2015) and is subject to the limitations therein.

3 LIMITATIONS

All sections of this report should be read in conjunction with each other and the current Asbestos Materials Register for the site, identified as SLR Report No. 680.10137.00000/ASR dated 22 January 2015.

Work is conducted in a conscientious and professional manner. The nature of the task, however, and the likely disproportion between any damage or loss which might arise from the work or reports prepared as a result, and the cost of our services, is such that SLR cannot guarantee that all asbestos building materials have been identified and/or addressed.

Thus while we carry out the work to the best of our ability, we totally exclude any loss or damages which may arise from services we have provided to Rapid Creek Business Village and/or any other associated parties.

All work conducted and reports produced by SLR are prepared for a particular Client's objective and are based on a specific scope, conditions and limitations, as agreed upon between SLR and the Client. Information and/or report(s) prepared by SLR may therefore not be suitable for any use other than the intended objective. No parties other than the Client and the Client's asbestos materials Consultant should use any information and/or report(s) without first conferring with SLR. It is recommended that the Client's asbestos materials Consultant confer with SLR before using any information and/or reports produced by SLR.

Before passing on to a third party any information and/or report(s) prepared by SLR, the Client is to inform fully the third party of the objective and scope, and all limitations and conditions, including any other relevant information which applies to the information and/or report(s) prepared by SLR.

It is the responsibility of third parties to investigate fully to their satisfaction if any information and/or report(s) prepared by SLR is suitable for a specific objective.

The report(s) and/or information produced by SLR should not be reproduced and/or presented/reviewed except in full.

4 BACKGROUND

The information in this report is based on SLR previous involvement with the site (refer to SLR Report No. 680.10137.00000/ASR dated 22 January 2015).

The site is located on the south side of Trower Road between Pearce Place and Rapid Creek Road. For the purpose of this report, Trower Road is taken to run in an east west direction, directly adjacent to the site

No access was available to some areas at the time of the inspection. Inaccessible areas are outlined in Section 6.1 of this report.

5 HOW TO USE THIS DOCUMENT

This document is an Asbestos Materials Management Plan (AMP) for the Rapid Creek Business Village as outlined in the scope of this report. It covers the management of asbestos building materials which have been identified in a previous inspection by SLR (refer to SLR Report No. 680.10137.00000/ASR dated 22 January 2015). This AMP should be read in conjunction with the above mentioned Asbestos Building Materials Survey Report.

The purpose of this AMP is to assist Rapid Creek Business Village in compliance of the prohibition of asbestos and prevent human exposure to the identified asbestos building materials while these remain in the workplace. The ultimate goal is for the workplace to be free of asbestos materials.

The Centre Manager responsible for the buildings and shops surveyed should hold this document on site. It is to be made available to any persons having a legitimate interest in it. It is a requirement that each time action is taken on one of the asbestos materials listed in the Asbestos Materials Management Plan that the action is recorded and signed off (refer to **Sections 13 and 14** of this report). It is recommended that SLR be consulted prior to any asbestos materials management works being undertaken in order to ensure that the works are completed to a satisfactory standard in accordance with relevant codes, standards and guidelines.

Any queries regarding the interpretation and/or implementation of this AMP should be directed to SLR before work is undertaken.

6 ASBESTOS MATERIALS REGISTER

SLR Asbestos Building Materials Survey Report No. 680.10137.00000/ASR dated 22 January 2015 constitutes the current Asbestos Materials Register for the site.

6.1 Inaccessible Areas

The following areas of the building surveyed were inaccessible at the time of the inspection. If any asbestos containing/potentially asbestos containing building materials are found during further renovation and/or demolition of the building, the material should be sent for identification and expert advice sought.

- No access was available to the following locked areas at the time of the inspection:
 - Electrical Substation located on the eastern side, Building Exterior.

Additionally, and unless specifically noted, the survey did not cover:

- Wall/ceiling panelling behind laminations/coverings.
- Concealed floor coverings beneath carpet or superficial floor coverings.
- Fuses within 'live' electrical panelling. Fuses of a certain age may contain asbestos containing flashguards.
- Hidden and/or inaccessible locations such as in or under concrete slabs, in or under vinyl/linoleum/carpet, wall cavities, hidden storage areas and the like. If the vinyl or linoleum is tested, this does not necessarily mean that the resin/glue is included in the analysis.
- Lift wells and inaccessible/unidentified shafts, cavities and the like.
- Air conditioning, heating, mechanical, electrical or other equipment.
- General exterior ground surfaces and subsurface areas e.g. asbestos in fill/soil.
- Materials dumped, hidden, or otherwise placed in locations which one could not reasonably anticipate.
- Materials other than normal building fabric, materials in laboratories or special purpose facilities and building materials that cannot be reasonably and safely assessed without assistance.

No access was available to within the Ceiling Cavity Areas, Risers, Building roofs and Plant Room Areas at height due to the concentration of services, limited safe walking paths (where applicable) and lighting.

Materials other than asbestos are generally outside the scope as identification can require specialised analysis/inspection techniques.

Settled dust is generally not sampled or commented on. Settled dust may contain asbestos, particularly if it is in the vicinity of ACMs or areas where ACMs have been removed.

6.2 General Potential Occurrences

In addition to the specific asbestos containing material occurrences identified in the Asbestos Materials Register the following potential occurrences are also noted:

- Fibrous cement sheeting (FCS) may be present under ceramic tile floors. If present, the FCS may contain asbestos. It is not possible to investigate this without removing tiles.
- Heater banks (if present) in the air handling equipment of the air conditioning systems may contain asbestos millboard, unless a more detailed inspection and/or sample analysis confirms otherwise.
- Old air conditioning systems (eg those present in recessed cupboards) may contain asbestos materials, unless a more detailed inspection and/or sample analysis confirms otherwise.

7 RISK ASSESSMENT CRITERIA

It is a legal requirement to identify hazards in the workplace. An assessment of the potential risk of harm to health and safety arising from the identified hazards must also be undertaken. Such a risk assessment assists in identifying and selecting appropriate management options.

Risk levels associated with the identified asbestos building materials have been assessed using the following criteria:

- Product type;
- Extent of damage or deterioration;
- Surface treatment; and
- Asbestos type.

The results of the risk assessment are documented in **Sections 13** and **14** of this Asbestos Materials Management Plan. Appropriate management options have been selected on the basis of the level of risk determined for each asbestos material identified.

8 CONTROL OPTIONS

The following hierarchy of controls should be consulted when implementing control measures to eliminate the risks arising from asbestos materials.

- Elimination/removal;
- Isolation/enclosure/sealing;
- Engineering Controls;
- Safe Work Practices (administrative controls); and
- Personal Protective Equipment.

A combination of these controls may be required in order to manage asbestos materials. The documents outlined in **Section 12** of this report should be consulted whenever developing/implementing a control measure.

Since the ultimate goal is for the workplace to be free of all asbestos materials, preferential consideration should be given to removing asbestos materials during renovation, refurbishment and maintenance activities etc where removal is practicable.

Notwithstanding the above, asbestos materials and any areas of a workplace that contain asbestos materials including plant, equipment and components should be signposted with appropriate warning signs to ensure that asbestos materials are not unknowingly disturbed without the correct precautions being taken. These signs should be placed at all of the main entrances to the work areas where asbestos materials are present and should conform with Australian Standard 1319-1994 *Safety Signs for the Occupational Environment*. The number of labels and the location of signage are to be determined by a competent person.

9 RESPONSIBILITIES

Responsibilities of parties involved in the management of asbestos materials are outlined below. It should be noted that this is not an exhaustive list and reference should be made to the legislation, codes and standards identified in **Section 12**.

9.1 Controller of Premises

Under the *Work Health and Safety Regulations 2011*, management responsibilities and workplace obligations fall upon the following three groups of people:

- Person in Control of Business or Undertaking (PCUB).

- Person with Management or Control (PWMC).
- Person Carrying out Demolition or Refurbishment Work.

Under the *Work Health and Safety Regulations 2011* the above mentioned persons must:

- Identify any foreseeable hazard arising from the premises that has the potential to harm the health or safety of any person accessing, using or egressing from the premises.
- Identify hazards arising from the layout and condition of the premises and the presence of materials containing asbestos.
- Ensure that hazards are identified during any design of the premises and before the premises are provided for use as a place of work.
- Assess the risk of harm to the health or safety of any person arising from a hazard.
- Eliminate or control any risk to the health or safety of any persons accessing, using or egressing the premises that arise from the premises.
- Ensure all measures adopted to eliminate or control risks are properly used and maintained.
- Review risk assessments (refer to **Section 11**).
- Provide other persons with the information necessary to fulfil their responsibilities in identifying hazards and assessing, eliminating and controlling the associated risks.
- Provide employers with information on foreseeable hazards, assessments of risks that have not been eliminated by the controller, risk control measures and any measures an employer may need to adopt to control risk.

Under the Code of Practice *How to Manage and Control Asbestos in the Workplace 2011* persons with control of premises used as a workplace have a duty of care to:

- Develop, implement and maintain an Asbestos Management Plan.
- Investigate the premises for the presence/possible presence of asbestos containing materials. This responsibility may not be abdicated to the Contractor.
- Develop and maintain a register of identified asbestos containing materials, including details of the location and condition of asbestos materials, risk assessments and control measures.
- Assess the condition of any asbestos containing materials that are found and the associated asbestos risks.
- Develop measures to remove asbestos materials or minimise the risks and prevent exposure.
- Ensure control measures are implemented as soon as possible and are maintained as long as asbestos materials remain in the workplace.
- Consult with any person who may be affected by the presence of asbestos materials (eg building occupants, neighbours and/or all relevant contractors).

The *Work Health and Safety Regulations 2011* and Safe Work Australia Codes of Practice require full consultation, information-sharing and involvement by everyone in the workplace (including employers, workers, contractors and others) throughout the process of identifying asbestos materials, developing an Asbestos Materials Management Plan, assessing risks and developing and implementing control measures.

Under the Code of Practice *How to Safely Remove Asbestos 2011* any person with control who commissions asbestos removal is responsible for the following:

- Ensuring an asbestos removalist carries out the removal of asbestos containing materials.
- Nominating person(s) to liaise with the asbestos removalist.

- Requesting asbestos removal licence details from the asbestos removalist if such a licence is required for the removal being undertaken.
- Establishing an Asbestos Register before asbestos removal commences.
- Providing the asbestos removalist with a copy of the site Asbestos Register before removal commences.

If asbestos containing materials are to be removed, the Code of Practice *How to Safely Remove Asbestos 2011* requires full consultation, information sharing and involvement by everyone in the workplace, including employers, workers and contractors at each step of the removal process using established consultative mechanisms. Persons in adjoining properties that might also be affected by the removal must also be consulted.

9.2 Employers

Under the *Work Health and Safety Regulations 2011* employers must take reasonable care to identify any foreseeable hazard that may arise from the conduct of the employers undertaking and that has the potential to harm the health or safety of an employee or any other person legally at the employers place of work. In particular the employer must take reasonable care to identify hazards arising from, but not limited to, work practices and work systems, repair, maintenance, dismantling and disposal of plant, hazardous substances and the presence of asbestos installed in a place of work, the condition of a place of work and the physical working environment including exposure to a contaminated atmosphere.

An employer must ensure that effective procedures are in place and implemented to identify hazards including, but not limited to, those present immediately prior to using the premises for the first time as a place of work, before and during the installation, erection, commissioning or alteration of plant in a place of work and whilst work is being carried out.

An employer must assess the risk of harm to the health or safety of an employee of the employer, or any other person legally at the employer's place of work, arising from any hazard identified.

An employer must eliminate any reasonably foreseeable risk to the health or safety of an employee of the employer, or any other person legally at the employer's place of work, that arises from the conduct of the employers undertaking. If it is not reasonably practicable to eliminate the risk, the employer must control the risk.

An employer must ensure that all measures (including procedures and equipment) that are adopted to eliminate or control risks to health and safety are properly used and maintained.

An employer must regularly review risk assessments as outlined in **Section 11** of this report.

An employer must ensure that each new employee receives induction training that covers, but is not limited to, workplace arrangements for management of occupational health and safety, health and safety procedures relevant to the employee including the use and maintenance of risk control measures, and accessing health and safety information required under the *Work Health and Safety Regulations 2011*.

Particular provisions also apply to construction processes where asbestos exposure may occur (refer to the *Work Health and Safety Regulations 2011*).

9.3 Employees and Contractors

Under the *Work Health and Safety Regulations 2011* an employee must, while at work, take reasonable care for the health and safety of people who are at the employee's place of work and who may be affected by the employee's acts or omissions at work. An employee must also, while at work, cooperate with his or her employer or other person so far as is necessary to enable compliance with any requirement under the *Work Health and Safety Act 2011* or *Regulations* imposed in the interests of health, safety and welfare on the employer or any other person.

Employees and contractors should not carry out any work that may disturb asbestos materials without adequately referring to the site Asbestos Materials Register and Asbestos Materials Management Plan and liaising with management.

9.4 Asbestos Removalists

The asbestos removalist must hold an appropriate asbestos removal license before being permitted to remove asbestos containing material. A Class A (friable) license is required for friable asbestos removal and a Class B (non-friable) license is required for non-friable asbestos removals >10 m². The removalist must provide their license details to their clients. Other requirements include:

- For friable asbestos removal, and removal of >10 m² of non-friable asbestos, permission to proceed with removal must be obtained from WorkSafe NT prior to any work commencing.
- Asbestos removal operatives to complete appropriate Risk Assessments and Safe Work Method Statements prior to work commencing.
- The asbestos removalist to develop a site specific asbestos removal control plan in consultation with their client before commencing any asbestos removal work. The client should receive a final copy of this plan.
- The asbestos removalist to ensure the removal is adequately supervised and carried out by competent persons in a safe manner.

10 AWARENESS AND TRAINING

All workers, contractors and any other persons on site who may be exposed to asbestos materials as a result of being on the premises must be provided with full information on the occupational health and safety consequences of exposure to these asbestos materials and appropriate control measures. The provision of this information should be recorded.

Information and training must be provided to persons who may come into contact with asbestos materials in the workplace including workers, contractors and others. The training may include the following:

- The purpose of the training.
- The health risks associated with the asbestos material.
- Types, uses and likely occurrence of asbestos material in workplace buildings/plant, etc.
- Roles and responsibilities of the trainee under the AMP.
- Location, access and use of the site Asbestos Materials Register.
- Timetable for removal/remediation of asbestos materials.
- Process and procedures required to eliminate exposure.
- Maintenance and control measures, personal protective equipment and work methods required to minimise asbestos material risk including potential contamination of other areas.

- Control levels and exposure standards for asbestos materials.
- The purpose of any air monitoring or health surveillance undertaken.

11 REVIEW

This AMP should be reviewed whenever the Asbestos Materials Register is reviewed. These reviews should critically assess all asbestos material management processes and their effectiveness.

The site Asbestos Materials Register, including any risk assessments, should be reviewed every 5 years or earlier where a risk assessment indicates the need for reassessment or asbestos materials have been removed and/or disturbed. Visual inspection of asbestos materials should be included in any review of the Asbestos Materials Register.

Risk assessments should be reviewed regularly in accordance with Australian Government and State Legislation and whenever:

- There is evidence a risk assessment is no longer valid.
- There is evidence that any control measures are not effective.
- A significant change is proposed for the workplace or work practices/procedures relevant to the risk assessment.
- There is a change in the condition of the asbestos material.
- The hazardous material has been removed, enclosed or sealed.

Only competent persons should perform and revise risk assessments.

A provisional timetable for review of risk assessments, the site Asbestos Materials Register and AMP is outlined in **Table 1**.

Table 1 Provisional Timetable for Review

	Risk Assessments	Asbestos Materials Register	Asbestos Materials Management Plan
Last updated	January 2015	January 2015	January 2015
Review required before	January 2020	January 2020	Upon review of the Asbestos Materials Register

12 LEGISLATION, CODES AND STANDARDS

Occupation health and safety in NT is regulated under the *Work Health and Safety Act 2011* and the *Work Health and Safety Regulations 2011*. There are also a range of related Codes of Practice, Standards and guidelines to be adhered to when managing asbestos materials as outlined below.

12.1 Asbestos

Safe Work Australia has developed the following codes of practice for asbestos:

- Code of Practice for How to Manage and Control Asbestos in the Workplace 2011.
- Code of Practice for How to Safely Remove Asbestos 2011.

The National Occupational Health and Safety Commission (NOHSC) have developed the following Guidance Notes for asbestos:

- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)].

13 RECOMMENDATION DESCRIPTION TABLE

The Recommendation Numbers provided in **Table 2** relate to the Recommendation Description Table in **Section 14** of this report.

Table 2 Recommendation Numbers

Recommendation Number	Recommended Action	Action Priority
1	<p>Very low risk material in good condition</p> <p>Manage <i>in-situ</i></p> <p>Minimal risk if left undisturbed, leave in place unless works are likely to cause disturbance or significant damage occurs.</p> <p>Label material where no labels are in place, or where current labelling is deemed insufficient. Ensure that labels are replaced if damaged, worn or removed.</p> <p>Re-inspect conditions every 5 years, or sooner if deemed necessary, in accordance with current Regulations and Guidance</p> <p>Remove in accordance with current Regulations and Guidance prior to any works in the area that may disturb the material</p>	<p>Very low 5 years</p>
2	<p>Minor damage to low risk material.</p> <p>Seal obvious damage with a suitable paint, or otherwise encapsulate damaged areas to prevent fibre release</p> <p>Manage <i>in-situ</i></p> <p>Minimal risk if left undisturbed, leave in place unless works are likely to cause disturbance or significant damage occurs.</p> <p>Label material where no labels are in place, or where current labelling is deemed insufficient. Ensure that labels are replaced if damaged, worn or removed.</p> <p>Re-inspect conditions within 12-36 months, in accordance with current Regulations and Guidance</p> <p>Remove in accordance with current Regulations and Guidance prior to any works in the area that may disturb the material</p>	<p>Low 1 – 3 years</p>
3	<p>Medium risk material in fair-poor condition</p> <p>Remove/remediate in accordance with current Regulations and Guidance as soon as practicable</p> <p>Obtain a clearance certificate from an licenced asbestos assessor following removal/remediation of materials</p> <p>Update asbestos register and management plan to record removal/replacement of material</p>	<p>Medium <1 year</p>

14 ASBESTOS MATERIALS MANAGEMENT PLAN

Where recommendations are made to re-inspect the condition of materials (eg every 5 years), the period until the next re-inspection commences immediately (eg re-inspection is to be undertaken within 5 years of the issuing of this report).

Item Location & Material Type	Condition	Risk Assessment Rating*	Recommendation Number	Action Taken and Date	Site Manager Name and Signature
Shop 1 – Happy Foodland					
Internal/FCS/AC ceiling tiles throughout	Minimal damage, Sealed	Low	2		
Internal/VFT/Wynyl floor tiles throughout	Minimal damage, Sealed	Low	2		
Shop 3 – Ken Vowles MLA					
Internal / FCS / AC sheeting to riser in kitchen	Good condition, sealed	Very Low	1		
Internal / FCS / AC sheeting to riser in boardroom	Good condition, sealed	Very Low	1		
Shop 4 – Renee's Pizzeria					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Shop 5 - Vacant					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Shop 6 - Everest Groceries					
Internal / FCS / AC ceiling tiles throughout	Moderate damage	Low	2		
Shop 7 – H&R Block					
Internal / FCS / AC ceiling tiles to front office area	Good condition, sealed	Very Low	1		
Internal / FCS / AC ceiling tiles to rear office area	Good condition, sealed	Very Low	1		
Internal/FCS/Wall linings to toilet	Good condition, sealed	Very Low	1		
Internal/FCS/Wall linings to northern and western walls of kitchen	Good condition, sealed	Very Low	1		
Internal/FCS/Backing boards to electrical boxes	Good condition, sealed	Very Low	1		
Shop 8 – Noc Massage					
Internal / FCS / AC ceiling tiles throughout	Minimal damage, Sealed	Low	2		

Item Location & Material Type	Condition	Risk Assessment Rating*	Recommendation Number	Action Taken and Date	Site Manager Name and Signature
Internal/FCS/Wall linings to lower walls in Laundry – northern and eastern elevations	Minimal damage, some sections require repair	Low	2		
Shop 10 – Jean Kute					
Internal / FCS / AC ceiling tiles throughout	Minimal damage, some sections require repair	Low	2		
Internal / FCS / AC sheeting to riser at left hand side of front entrance	Minimal damage, some sections require repair	Low	2		
Shop 11 – Life Without Barriers					
Internal / FCS / AC ceiling tiles throughout	Minimal damage, Sealed	Low	2		
Internal / FCS / AC sheeting to riser in kitchen	Good condition, sealed	Very Low	1		
Shops 12, 13 and 14 - Greenies Real Food					
Internal / FCS / AC ceiling tiles throughout	Minimal damage, Sealed	Low	2		
Shop 15 - Down Syndrome					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Wall linings to toilet	Good condition, sealed	Very Low	1		
Shop 16 - Down Syndrome Association of the NT					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
Shop 17 - Parents Choice					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
Shop 18 - Arthritis and Osteoporosis NT					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
Shop 19 - Sids & Kids NT					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		

Item Location & Material Type	Condition	Risk Assessment Rating*	Recommendation Number	Action Taken and Date	Site Manager Name and Signature
Internal/FCS/Bulk head to air conditioning ducting	Good condition, sealed	Very Low	1		
Shop 20 - Sids & Kids NT					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
Internal/FCS/Bulk head to air conditioning ducting	Good condition, sealed	Very Low	1		
Shop 21 - Vacant					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
Internal/FCS/Wall linings to toilet	Good condition, sealed	Very Low	1		
Shop 22 - Darwin Fish Market					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
Shop 23 - Panuku					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Textured AC sheeting to upper walls in rear office area	Good condition, sealed	Very Low	1		
Internal/FCS/Textured AC sheeting to upper walls in kitchen (west and north walls)	Good condition, sealed	Very Low	1		
Internal/FCS/Textured AC sheeting to office area (west wall)	Good condition, sealed	Very Low	1		
Shops 24 and 25 - Asian Sari-Sari					
Internal / FCS / AC ceiling tiles throughout	Minimal damage, Sealed	Low	2		
Shop 26 - Vacant					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Textured AC sheeting to northern wall and approximately half the length of the eastern wall	Good condition, sealed	Very Low	1		

Item Location & Material Type	Condition	Risk Assessment Rating*	Recommendation Number	Action Taken and Date	Site Manager Name and Signature
Shop 27 - Reference African Supermarket					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Shop 27A - Vacant					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/AC lining to riser in service cupboard	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
Shop 28 - 3D fitness studios					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
Shop 28A - Centre Management					
Internal / FCS / AC ceiling tiles stored behind AC ducting (north eastern corner of upper plant room)	Good condition, sealed	Very Low	1		
Shop 29 - Vacant					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Shop 29B - Team Health – Day to Day Living					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal/FCS/Backing board to electrical box	Good condition, sealed	Very Low	1		
External/FCS/AC sheeting to fascia of awning x 2	Fair condition, material beginning to laminate, sealed	Low	2		
Shop 32 - Vacant					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Shop 33 - Vacant					
Internal / FCS / AC ceiling tiles throughout	Good condition, sealed	Very Low	1		
Internal / FCS / AC sheeting to upper walls	Good condition, sealed	Very Low	1		
Shop 34 - Vacant					
Internal / FCS / AC ceiling tiles throughout	Minor damage to some tiles	Low	2		

Item Location & Material Type	Condition	Risk Assessment Rating*	Recommendation Number	Action Taken and Date	Site Manager Name and Signature
Walkway between Shop 34 and 35 -					
External / FCS / AC ceiling tiles throughout	Minor damage to some tiles	Low	2		
Shop 35 – H&R Block					
Internal / FCS / AC ceiling tiles throughout	Minor damage to some tiles	Low	2		
Public Toilets					
Internal / FCS / AC sheet ceiling lining to Male toilets	Good condition, sealed	Very Low	1		
Internal / FCS / AC sheet ceiling lining to Cleaners room	Good condition, sealed	Very Low	1		
Internal / FCS / AC sheet ceiling lining to Female toilets	Good condition, sealed	Very Low	1		
Tenant Toilets					
Internal / FCS / AC sheet ceiling lining and bulk head to Male toilets	Good condition, sealed	Very Low	1		
Internal / FCS / AC sheet ceiling lining to Power Room 2	Poor condition, requires removal/remediation	Medium	3		
Internal / FCS / AC sheet debris to Power Room 2 floor	Debris on ground, requires removal/remediation	Medium	3		
Internal / FCS / AC sheet ceiling lining to Female toilets	Good condition, sealed	Very Low	1		

* The Risk Assessment Rating is based upon the Material Assessment Algorithm in SLR Report No. 680.10137.00000/ASR dated 22 January 2015.

15 CLOSURE

This report has been prepared by SLR Consulting Australia Pty Ltd with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Rapid Creek Business Village. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

GENERAL INFORMATION

ASBESTOS**Asbestos: Description, Properties and Uses**

Asbestos is the generic term given to a group of naturally occurring fibrous minerals, based on hydrated silicates, which are found in various rock formations. Differing ratios of oxygen, hydrogen, sodium, iron, magnesium and calcium elements account for several different types of asbestos minerals, the most common varieties being Amosite (brown asbestos), Chrysotile (white asbestos), Crocidolite (blue asbestos). Other types include Anthophyllite, Actinolite and Tremolite.

The immense popularity of asbestos as a building material is attributed to its near unique properties of fire resistance, high abrasion resistance and superb acoustical characteristics coupled with its relatively low cost. Prior to 1973, asbestos was the material of choice for fire proofing, thermal insulation, sound insulation and abrasion resistance. It was used as a spray-on insulation of ceilings and steel girders; as a thermal insulation of boilers, pipes, ducts, air conditioning units, etc; as an abrasion resistant filler in floor tiles, vinyl sheet floor coverings, roofing and siding shingles; as a flexible, though resistant joining compound and filler of textured paints and gaskets; as the bulking material with the best wear characteristics for automobile brake shoes and in countless domestic appliances such as toasters, grills, dishwashers, refrigerators, ovens, clothes dryers, electric blankets, hair dryers, etc.

Asbestos: Health Effects

Many asbestos bearing materials or products are of no significant health risk whatsoever when used in the normal course of events. A health risk exists when asbestos fibres are released into the air and when that air is inhaled into the lungs. Even then, it appears that most people exposed to relatively small amounts of asbestos do not develop any related health problems. There is however no "safe" level of asbestos exposure since the risk is dependent on numerous factors including the time since exposure, exposure duration and concentration, asbestos type, the attributes of the particular individual and environmental factors such as exposure to cigarette smoke and other airborne pollutants.

There are three main diseases associated with airborne asbestos fibres:

- **Asbestosis** - A fibrosis (or scarring) of the lung associated with relatively massive exposure to asbestos.
- **Lung Cancer** - Indistinguishable from that caused by smoking and a common cause of death. The risk of lung cancer is much higher when there is exposure to both cigarette smoking and to airborne asbestos.
- **Mesothelioma** - A cancer of the chest and abdominal lining, it is specific to asbestos exposure.

A feature of these diseases is that symptoms take a long time to appear, generally 5 to 40 years. Once symptoms are evident the disease progresses rapidly.

There is some evidence that Chrysotile asbestos is less carcinogenic than Amosite, and that Amosite is less carcinogenic than Crocidolite in causing mesothelioma, but the evidence is less clear for lung cancer.

Measurement of Airborne Asbestos Fibres

The *Work Health and Safety Regulations 2011* and the *Safe Work Australia Asbestos Codes of Practice & Guidance Note* set the maximum allowable time weighted average for all forms of asbestos at 0.1 fibre/mL of air.

Air monitoring is used to determine airborne fibre levels. SLR is NATA certified for Asbestos Fibre Counting and Volume Measurement to carry out such monitoring.

GENERAL INFORMATION

The Safe Work Australia Code of Practice *How to Safely Remove Asbestos 2011* states that air monitoring should be performed whenever Asbestos Containing Materials (ACMs) are being removed, to ensure the control measures are effective.

The onus to provide a safe environment rests with persons in control of a business or undertaking, persons with management or control and persons carrying out demolition or refurbishment work. To meet these obligations it is recommended that SLR be engaged by the site controller, or their representative, and not an asbestos removal contractor as there could be a conflict of interest in the latter arrangement.

Asbestos Survey

Asbestos surveys are undertaken to identify any asbestos materials/hazards and assess the risk associated with the material/hazard.

Surveys are conducted through visual inspection by experienced personnel. During the inspection material samples are taken as appropriate for analysis.

Limitations

Due to the nature of the task all asbestos surveys are limited. Since asbestos can occur in so many forms and in so many locations, and as there is no instrument to detect asbestos, it is never possible to guarantee all asbestos has been identified. Access is usually restricted, and there may be asbestos hidden behind walls or other structures. Building plans are of great assistance to consultants undertaking surveys.

Asbestos Register

An asbestos register is a record of the location, type and condition of all asbestos containing products identified in a building. Under the Codes of Practice and legislation, any place of work constructed after 31 December 2003 must have an Asbestos Register. A SLR Asbestos Survey Report includes an asbestos register.

Registers must be maintained and changes in the condition or extent of any asbestos present should be recorded. Registers should also detail the next review date, at present annually since the condition of asbestos materials, legislation, guidelines and standards change.

Management Plan

An asbestos management plan is required where asbestos materials have been identified and are to remain on site. The plan would normally be a component in the overall Hazard Management Plan for the site.

Control Options

Asbestos judged to constitute a health risk should be removed, enclosed or encapsulated by an approved asbestos contractor.

Enclosure

This involves the installation of a permanent, solid, non-porous, impervious barrier between the asbestos material and the surrounding environment. Examples include building boxes around steam pipes etc. A suspended ceiling is not permanent and, since occasional access is necessary above a suspended ceiling, enclosure is negated. Furthermore, many suspended ceilings act as return air plenums so enclosure is impossible.

GENERAL INFORMATION***Encapsulation***

Encapsulation involves coating the material with a sealant. Good sealants penetrate through the asbestos material to the substrate. The encapsulating substance then hardens and binds all the asbestos fibres into a solid matrix. This is usually a short to medium term management option.

Removal

Removal is not without hazards to the occupants of the building. If not strictly controlled, the removal process can result in increased fibre counts in other areas. Technical competence, experience and integrity are of prime importance in evaluating asbestos removal plans.

We advise clients to work within the usual practised time frames of the experienced asbestos removal companies under strict supervision by a qualified person. Pressing for quicker turnaround times may result in low quality workmanship and unnecessary asbestos risk. Building owners may be in part responsible for risks created by the removal Contractor due to carelessness or negligence.

An independent consultant such as SLR, experienced in the supervision of asbestos removal, should be retained to act on the client's behalf.

Clearance Inspection

A clearance inspection must be conducted at the completion of asbestos removal works. The clearance inspection may include airborne asbestos monitoring and/or sampling/analysis of materials and should be completed by a suitably qualified and experienced consultant, such as SLR.