ASBESTOS AND HAZARDOUS BUILDING MATERIALS

MANAGEMENT SUB PLAN

PROJECT NAME

THE FOREST HIGH SCHOOL
SCHOOLS INFRASTRUCTURE NSW
SINSW0376/22

PROJECT NO.

3634

ADCO

Plan Control and Amendment

The current approved Master Version of this Management Sub Plan is available electronically for all project personnel to access on the ADCO Intranet The Hub. The date and latest revision of the Master Document is outlined in the footer below. For clarity, the footer must not be amended by the User to ensure traceability to the relevant Master Version.

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The Document Owner is responsible for maintenance, review, updates, approval and distribution of this Master Version o

f this Plan. All changes to this Plan to suit Project Site specific needs are recorded by the Project Manager, or nominated ADCO representative, in the Project Version History table below. The first Project Version History issued will be recorded as v2.1 followed by v2.2.

The Project Manager, or nominated representative, must review the Asbestos and Hazardous Building Materials Management Sub Plan at maximum six (6) month intervals; or if significant change occurs in the scope of works affecting management; or if a significant incident occurs related to asbestos or hazardous building materials management.

Project related minor revisions to this Management Sub Plan, can be independently issued, but must be approved by the Project Manager, or a nominated ADCO representative.

Project Version History

Revision	Date	Description / Updates	Reviewed By	Approved by
V1.1	08/09/23	Preliminary Issue	KGS/DL	KGS/DL
V1.2	4/10/23	Updated Scope of works	AC	AC
V2.1	29.01.2024	Review and implementation of new developed template	Antony Petkovic	David Lock
V2.2	11.03.2024	Review and addition of personnel.	AP	DL
V2.3	24.05.2024	3 monthly review	AP	DL
V2.4	26.09.2024	Review and additional of personnel	SP	DL
V2.5	17.03.2025	Periodic review	AP, AC	DL
V2.6	20.05.2025	Periodic review	AP, AC	DL

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1. SCOPE OF PROJECT AND SUB PLAN

Project Details	
Scope of the Sub Plan	This Asbestos and Hazardous Building Materials Management Sub Plan is an integral part of the ADCO Health Safety Environment & Quality Management System implemented at the Project Site. This Plan identifies and details control measures for works where asbestos or other hazardous building materials that are present or identified during the Construction Delivery Phase. It defines mitigation measures to be implemented during relevant construction activities, a monitoring program that enables assessment of the impacts of construction activities on potentially affected areas, and contingency measures that may be implemented if exceedances are measured. Refer to Section 1.1 and 3.1.1 of the ADCO Project Health & Safety Management Plan and the ADCO Environmental Management Plan for how the Management Sub Plan forms part of the ADCO HSEQ Management System.
Background	For all Construction, refurbishment, maintenance, or demolition works to be carried out on an existing building or structure built before 31 December 2003, a Hazardous Materials Survey and related report must be carried out by an independent specialist to identify and record the presence of any hazardous materials, regardless of any existing register or asbestos management plan provided by the owner or occupier of the building or structure. A hazardous materials survey/asbestos register can be provided by a Client but must be not more than 12 months old, to ensure it is current. Refer ADCO Health & Safety Alert S-016 issued 2022
Objectives of the Sub Plan	• To provide a process for the identification of asbestos or hazardous building materials in site buildings or structures. • To ensure the proper removal of any asbestos or hazardous building materials identified in site buildings or structures. • To ensure that asbestos and hazardous building materials are properly stored, transported and disposed of to an approved, licensed waste facility. • To prevent any impact to air quality or site work areas and adjoining properties via inappropriate handling, removal or disposal of asbestos or other hazardous building materials.
Scope of Works	This Management Sub Plan has been prepared based on consideration of the following scope of works: • Site establishment including in-ground works; • Clearing of known ACM and placement into containment cell • excavation and stockpiling of ACM • piling To all construction • construction of school facilities
Key Issues and Risks	Asbestos is commonly used as an acoustic insulator and can be found in brake pads (i.e., lifts), thermal insulation (i.e., pipes and cables), fire proofing (i.e., steel beams) and in building materials such as ceiling tiles, wall panels, pipes, floor tiles, linoleum and mastic and electrical installations such as backing boards. Asbestos is made up of microscopic bundles of fibres that may become airborne when distributed. These fibres may become inhaled into the lungs with significant potential risks to human health.

Other hazardous building products that may be encountered on a project site could include fluorescent light fittings with capacitors containing Polychlorinated biphenyls (PCBs) and building materials coated with lead-based paints. These materials pose potential risks to the environment and human health if removed, handled, or disposed of incorrectly.

The works will require the disturbance, handling, and containment of building components that contain:

- Asbestos Containing Material

The activities expected to have the greatest potential to impact on the local environment, site workers and community are:

- Site clearing and establishment;
- Excavation and the removal of redundant services;
- Temporary storage of materials;
- Loading of materials and transport;
- Waste disposal.

The impacts of these works may include:

- Direct exposure of workers and the community to hazardous materials;
- Dust migration off site affecting project neighbours;
- Runoff of sediment containing contaminants;
- Pollution or contamination of land, air, water on and/or off-site due to poor handling and/or storage;
- Inappropriate disposal of materials resulting in contamination or pollution.

The implementation of the control measures identified in the ADCO Health & Safety Management Plan or ADCO Environmental Management Plan and Asbestos and Hazardous Building Materials Management Sub Plan are intended to prevent or mitigate these impacts.

Legislation, Approvals, and Guidelines

Federal / National:

List applicable legislation (refer to appendix 2 of the health & safety management plan: key WHS / OHS legislation and Project Risk Register for codes)

- Model Code of Practice: How to Safely Remove Asbestos (Safe Work Australia July 2020)
- Model Code of Practice: How to manage and control asbestos in the workplace (Safe Work Australia July 2020)
- AS 4964-2004: Method for the qualitative identification of asbestos in bulk samples
- NOHSC Publication: Guidance Note for the Assessment of Health Risks arising from the use of Hazardous Substances in the Workplace (1994)
- NOHSC Publication: Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)
- NOHSC Publication: Guidance Note on the Membrane Filter Method for the Estimation of Airborne Synthetic Mineral Fibres [NOHSC:3006 (1989)
- NOHSC Publication: List of Designated Hazardous Substances [NOHSC:10005 (1999)
- Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

State:

List relevant State Government Health & Safety Codes for the Project Site location:

- How to Manage and Control Asbestos in the Workplace: Code of Practice December 2022 SafeWork NSW

Project approval:
SSD-26876801

Local:

N/A

Summary of Site Controls

Works must be planned and implemented in accordance with the ADCO HSEQ Management System the Project Health & Safety Management Plan, this Management Sub Plan and the ADCO Procedure Health Management and ADCO Procedure Asbestos Management. These documents detail the ADCO approach and commitment to pro-active and responsible site management.

Site specific controls, monitoring, reporting and performance measurements have been identified in this Management Sub Plan to protect the environment, workers, and community. These include but are not limited to:

- Conducting a Hazardous Materials Building Survey (if deemed necessary) prior to any demolition or disturbance commencing;
- Preparing an Asbestos and Hazardous Building Materials Environmental Management Diagram (EMD) prior to any site activities commencing including clearing and demolition;
- Compiling a Hazardous Building Materials Register (including SDSs) to document the location and type of hazardous materials present (in ground or buildings);
- Erecting barricades, signage, encapsulation, or other controls and applying hazard identification tags on structures; and
- Implementing the following unexpected find protocol if suspected toxic or hazardous materials are discovered/exposed during demolition/construction activities in an area of the site believed to be free of hazardous materials.

Asbestos and hazardous building materials handling and disposal requirements must be included in relevant specifications, contract agreements, quality assurance documents, and subcontractor safe work method statements.

Site inspections, monitoring and reporting will be undertaken by ADCO, and the specialist Subcontractor Company(s) as detailed in the ADCO Health & Safety Management Plan and the following implementation Table.

Unexpected Find Protocol

1. Cease work and evacuate the area of work immediately.
2. Contact a ADCO representative (HSE Advisor, General Foreman, Project Manager/Site Manager).
3. Erect barricades to isolate the immediate areas providing at least 10 metres between the suspect material and the erected barrier if possible.
4. Notify the appropriate regulatory authorities as soon as possible if applicable.
5. Prevent access to the barricaded area unless express permission has been given by the qualified environmental specialist, e.g., Occupational Hygienist. A Clearance Certificate or Approval should be given in writing prior to entry.

6. Undertake sampling of the suspect material (to be conducted by an appropriately qualified environmental specialist, usually a consultant) as advised by the ADCO Project Manager.
7. Determine, in consultation with the nominated environmental specialist and in liaison with ADCO site personnel or relevant authorities, if further remedial actions are necessary based on the sample test results. Identify appropriate treatment/handling or disposal options and procedures.
8. Obtain any required authority to work permits to conduct remedial work prior to the commencement of any new works. The nominated environmental specialist must provide written clearance approval for entry to the area with the suspect material.
9. Remove the barricade to allow work activities to resume under the direction of the ADCO Project Manager/Site Manager.

2. IMPLEMENTATION OF THE SUB PLAN

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
2.1 Planning and Identification					
Undertake a Hazardous Building Materials Survey.	60 days prior to demolition works commencing	Survey be conducted by a qualified specialist consultant. Identify hazardous materials building.	PM	Survey prepared and reviewed. Register included. Findings incorporated into site documents.	All Hazardous Building Materials listed in Register. All Hazardous Building Materials tagged. Appropriate Safety Data Sheet present in file or on HammerTech.
Prepare or update any Hazardous Building Material Register.	Prior to demolition works commencing	Establish or update a Register based on Survey. Communicate details to workers and subcontractors. Outline details in the Project Risk Register.	PM/SM	Details included in subcontractor SWMS. Inspections prior, during and after material removal.	HBM Register current. Project Risk Register current.
Include information in the Site Induction about the risks and potential impacts of asbestos and hazardous building materials handling.	Prior to works commencing and ongoing	Revise ADCO standard induction package to include site specific information. Deliver induction material.	PM SM HSE Advisor	SWMS prepared by subcontractors to address health and safety risks and environmental impacts.	Site induction delivered to all workers on site.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
Prepare an Asbestos and Hazardous Building Materials Environmental Management Diagram (EMD) showing the location of affected infrastructure, buildings, and site areas.	At site establishment and prior to works commencing	Review Environmental Management Diagram (EMD Appendix 1). Prepare diagram showing details of affected structures/ areas.	PM SM	EMD reviewed. Diagram prepared prior to works commencing. Diagram updated every 6 weeks.	Diagram prepared containing all relevant details and communicated. Diagram updated to reflect changes in site conditions. Controls implemented in accordance with the EMD.
Install barriers, fencing, tags, signage, or other markers around/on affected structures/areas as per the EMD.	Prior to works commencing	Undertake a site inspection to verify the correct location of controls. Install controls in accordance with EMD, design / engineer's documentation.	SM	Daily surveillance to assess effectiveness and condition. Weekly/monthly inspection checklist.	Controls modified or new controls installed as required.
Develop health and environmental monitoring programs (as required).	Prior to works commencing	Engage a specialist consultant to develop and advise on monitoring requirements.	PM	Daily surveillance. Real-time assessment of results.	Monitoring implemented as required.
Identify handling, loading and temporary storage areas.	Prior to works commencing. Maintain at all times	Retain existing hard surfaces where possible. Establish secure storage areas with appropriate signage, dust and runoff controls. Construct stable site entry/exit points and roadways using appropriate materials.	SM Foreman	Daily surveillance and maintenance. Weekly/monthly inspection checklist.	No tracking onto public roads or dust. Tracking of all waste materials removed from site. No runoff or loss of materials.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
2.2 Demolition/Refurbishment Works					
Engage licenced contractors to undertake the removal of: • Asbestos and related building materials. • PCBs in light fittings. • Timber / metal / brick structures containing lead based paints or other hazardous chemicals or substances.	At all times	Include removal, handling and disposal procedures and controls in subcontractor SWMS. Implement monitoring program/s.	CM SM	Daily surveillance. Weekly / monthly inspection checklist. Clearance Certificate from Occupational Hygienist.	SWMS requirements met. No asbestos dust particulates detected during monitoring. Appropriate personal protective equipment supplied and worn by workers.
Maintain barriers, tags, signage, dust and runoff controls in an operable condition, until works are completed and validated.	At all times and after rain events	Install new controls as new work areas open. Check the condition of controls. Undertake maintenance as required.	SM Foreman	Daily surveillance. Weekly / monthly inspection checklist.	No breach of environmental and / or health and safety requirements.
2.3 Excavation of Contaminated Material (mechanical means)					
Engage a licensed contractor to undertake and supervise the works.	At all times	Document removal procedures in contractor SWMS (e.g., misting / sprays to stabilise paints or dust). Implement dust monitoring (as required).	SM Foreman	Daily inspections	SWMS followed. No non-compliance detected by the asbestos licensed removal contractor.
Ensure:	At all times	Document removal procedure documented in contractor SWMS	SM	Daily inspections	SWMS followed.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
• Excavator (plant) has an enclosed cabin for the operator; and • Operator remains inside the cab for the duration of works with air conditioning running.		(e.g., misting / sprays to stabilise paints or dust). Implement dust monitoring (as required).	Foreman		
Implement dust, erosion and sediment controls prior to works commencing (particularly on highly erodible soils).	At all times	Ensure a reliable source of water is available for dust suppression. Implement erosion and sediment controls to capture potentially contaminated sediment. Document removal procedures in contractor SWMS. Implement dust monitoring (as required).	SM Foreman	Daily inspections	SWMS followed.
Prepare and implement specific procedures for the transport of excavated, asbestos impacted soil to approved locations.	At all times	Load asbestos impacted soil into a truck or bin with 200µm thick polythene liner. Truck / bin to be securely covered and sealed. Dispose of material in accordance with authority requirements. Keep dockets / tracking details of waste disposal.	SM Foreman	Daily inspections	SWMS followed. Waste tracking of trucks / bins leaving site and dockets from licensed landfill approved for this waste classification.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
2.4 Excavation of Contaminated Material (non-mechanical means)					
Engage a licensed contractor to undertake and supervise the works.	At all times	Document removal procedures in contractor SWMS (e.g., misting / sprays to stabilise paints or dust). Implement dust monitoring (as required).	SM Foreman	Daily inspections	SWMS followed. No non-compliance detected by the asbestos licensed removal contractor.
Establish defined 'contamination zones' where asbestos material is located on exposed or excavated surfaces.	At all times	Remove asbestos debris using a combination of 'emu pick' and raking and place material into a 200µm thick polythene bag until it is no more than 50% full. When at 50% capacity, the bag should be double bagged and sealed air-tight with industrial tape and labelled.	SM Foreman	Daily inspections	SWMS followed. Bags stored in approved location away from mechanical damage. No non-compliance detected by the asbestos licensed removal contractor.
Obtain a Clearance Certificate.	As required	Engage an Occupational Hygienist to inspect the surfaces of the excavated area including ground surfaces to confirm there is no visually identifiable asbestos remaining on site.	SM Occupational Hygienist	Inspections to all areas as required	Issue of a Clearance Certificate following a satisfactory inspection result.
Backfill excavations in asbestos impacted soils (including new service trenches) with certified clean fill.	At all times as required	Install a geo-textile fabric layer along the walls and base of the trench as well as over ground surfaces to provide delineation	SM	Inspections to all areas as required	SWMS followed. Certified documentation for Clean (imported) Fill obtained.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
		between the clean fill and Asbestos impacted soils. Use Certified Clean (imported) Fill such as crushed concrete or a pebble layer at the base of the trench for the new services to sit on. Use clean, validated fill material to backfill and encapsulate the trench. Engage the Occupational Hygienist to inspect surfaces of the backfilled trench including the ground surface, to confirm the encapsulation of the asbestos impacted soils with geo-fabric.			
2.5 Temporary Storage, Transport and Disposal					
Undertake sampling and analysis of the soil/material to determine its waste classification.	At all times	Engage a specialised environmental consultant to undertake sampling and provide a waste classification report. Identify a suitably licensed facility to accept the waste.	PM SM	Waste classification report.	Acceptance by licensed waste facility
Provide dedicated and clearly identified bins for the temporary on-site storage of asbestos, PCBs, lead-based paints or	At all times	Provide dedicated and clearly marked / delineated waste bins.	SM	Daily inspections	Waste correctly stored in marked bins.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
other hazardous building materials – where storage is required.		Bins must be lined and sealed prior to removal for disposal.			No cross contamination of wastes.
Track details for all materials excavated from the site and transported for disposal (i.e., cradle to grave).	At all times	Document detailed and specific procedures for the transport and disposal of asbestos, PCBs, lead based paint and other hazardous materials. Identify suitable licensed waste transporters and facilities. Transport asbestos impacted fill and/or hazardous building materials off-site in leak proof, covered vehicles and dispose of at a licensed facility (based on waste classification). Record the following for trucks leaving site: Origin of material; Material type; Approximate volume; and Truck registration number.	PM SM HSE Advisor	SWMS prepared by subcontractor. Daily inspections. Tracking register of trucks or bins leaving site. Periodic inspections of transport vehicles/containers. Periodic inspection of waste disposal documentation.	No non-conformances from inspections. All transport vehicles covered and showing appropriate signage and permits. No rejection of loads from licensed facility. Weighbridge dockets identify no overloading of the truck beyond its gross vehicle mass limits.
Dispose of all asbestos affected/ exposed materials to a licensed facility.	At all times	Bag, double wrap and seal bags of polythene, coveralls, geo-fabric and rags used during the operation for disposal as asbestos contaminated waste.	SM	Tracking of materials and/or bins leaving site. Check license / approval of facility to receive waste.	No non-conformances from inspections. No rejection of loads from licensed facility.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
		Transport affected/hazardous materials to an appropriately licensed waste facility.			Landfill waste dockets correspond to removed waste volumes/types. Weighbridge dockets identify no overloading of the truck beyond its gross vehicle mass limits
2.6 Environmental Monitoring (air) and Clearance					
Engage an Occupational Hygienist (OH) to implement monitoring and undertake inspections of the work.	Prior to work commencing. Ongoing – as determined by the OH. At completion of removal work	Request that the OH conduct a full visual inspection of the work area prior to the commencement of asbestos/ hazardous materials removal works to ensure containment measures are satisfactory. Request that the OH conduct perimeter, personal (including excavator operator) and clearance air monitoring* and inspections. (*continuous asbestos fibre monitoring must be conducted by a NATA accredited OH) Request that the OH conduct a full inspection of the work area and transit route at the completion of hazardous material removal works.	CM SM OH	Daily inspection and checks during works to check monitoring equipment and identify dust. Continuous fibre monitoring.	Monitoring results. Certificates and inspection reports provided by OH. Satisfactory clearance inspection and issued certificate.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
		If removal works are not to the satisfaction of the OH, removal contractors will be required to re-enter the work area to rectify any issues arising from the inspection.			
2.7 Personal and Plant Decontamination					
Establish a process and personal decontamination facilities within the asbestos affected area in a location where re-contamination cannot occur.	At all times	Ensure personal decontamination occurs each time workers leave an asbestos affected work area AND at the completion of the asbestos removal work. When leaving the work area all site personnel must make their way to the nominated decontamination area, remove their coveralls and clean their masks and boots using the wet rags. Respirator must remain on during decontamination and must only be removed on completion of decontamination. All equipment and waste removed from the asbestos affected work area must be decontaminated using wet rags. At the completion of works, all asbestos related materials including polythene, coveralls, geo-fabric and rags must be double wrapped and sealed for disposal as asbestos contaminated waste.	SM	As detailed in the SWMS prepared by subcontractor. Daily inspections of decontamination area, process and controls.	Occupational Hygienist inspection reports and clearance.

Control Measure	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measurement
Establish a process and an area for the decontamination of plant used in the removal of asbestos or other hazardous materials.	At competition of works or if plant moved within or off site.	Park excavators/trucks or other mobile plant within a designated washing area at the conclusion of works. Remove all soil from the tracks, body and bucket as far as reasonably practicable. Collect, remove and deposit soil and sediment from the cleaning process in a truck parked outside of the asbestos affected area. Classify and dispose of waste (including soil/sediment) in accordance with relevant State Government requirements.	SM	As detailed in the SWMS prepared by sub-contractor. Daily inspections of the decontamination area, process and controls.	Landfill waste dockets provided. Landfill dockets match waste volumes/types removed.

APPENDIX

A-1 ENVIRONMENTAL MANAGEMENT DIAGRAM