

Coring, Boring & Concrete Cutting | Mirvac Minimum Requirements

1. Purpose & Scope

The purpose of this document is to eliminate or minimise the risk of injury when drilling, coring, boring or concrete cutting in a structure or building, so far as is reasonably practicable.

This document applies to all workplaces under the management or control of a Mirvac entity.

2. Minimum Requirements

Mirvac personnel and Service Providers must have processes in place to ensure compliance with:

- the Critical Controls (refer Section 3);
- relevant Forms (refer Section 4);
- all relevant Legislation, Codes of Practice and Standards (refer Section 7); and
- product guidelines for installation, use or maintenance from the Original Equipment Manufacturer.

3. Critical Controls

- **Risk Assessment:** All risks associated with drilling, coring, boring, nail guns or concrete cutting in a structure or building must be identified, assessed and controlled in accordance with the hierarchy of controls. A risk assessment must be conducted and where applicable, as minimum consider the following controls.
- **Identification of Services and post tension / prestressed cables:** Prior to drilling, coring, boring or concrete cutting in a structure or building there is a compulsory hold point where services and post tension / prestressed cables are located, verified and physically marked prior to any penetration. All services are to be considered live unless specifically determined otherwise.

Utilities or services, including redundant or disused services at the intended worksite must be identified using:

- As Executed drawings;
- Dial before you Dig
- Information from the relevant authorities or site owners;
- Site surveys;
- Use of cable detectors - (not recommended if steel present)
- Check at switchboard locations or underside of floors to determine if conduits and / or cables enter / exit the structure / slab etc.

All services must be marked-up using a non-water soluble fluoro marker plus on the site plan before work starts. High voltage cables must also be sign posted with their location.

For any work involving cutting, nailing, coring or drilling where work is within 3m of a known electrical, gas, water or telecommunications service the [Coring Chasing Concrete Cutting Permit](#) must be completed. A Permit must also be completed where the depth of the penetration is >40 mm or is determined by risk assessment to require one.

Services drawings must be attached to the permit and where the cut or penetration is into a structural member an engineering certificate is to also be attached to the Permit.

Services that may need to be cut through must be disconnected using the [Isolation Lockout Tagout MMR](#).

Do not use a hand-held saw for inverted cutting. Do not use electric powered water-cooled saws for inverted cutting unless it is specifically designed for the purpose.

- **Suspended slab removal:** Horizontal concrete slab areas to be cut away must have a work method that ensures the slab to be cut can be supported from beneath by scaffolding / prevented from moving and adequate propping is tied into the remaining slab.

Barricading is to be erected around areas to be cut to ensure only those involved have access. The slab must be cut into block sizes that can be lifted by a crane or a lifting device approved by a competent engineer.

A bund dam must be placed beneath the cut area to contain coolant water and slurry until it can be removed by a wet and dry vacuum cleaner or contained in a slurry bin.

- **Respirable Dust/Fibre:** Wherever practicable, substances which give rise to harmful atmospheric contaminants must be substituted with a harmless or less harmful substance. Where it is not practicable to do so; controls must be used to limit exposure to respirable dust / fibres to $<2 \text{ mg/m}^3$ Time Weighted Average (TWA). i.e.
 - Mechanical ventilation
 - Wet cutting
 - Job rotation / time limits

When chasing/cutting concrete or bitumen using brick cutters, water must be used to suppress dust and respiratory protection must be worn.

Respiratory protective equipment may be necessary when exposure is of an emergency nature or is of short duration or intermittent; however, it is considered supplementary to the above controls and not to be used where there is ongoing exposure to contaminants. Respiratory protective equipment are selected and used according to the requirements of AS/NZS 1715: *Selection, use and maintenance of respiratory protective equipment*.

Walls, work surfaces and floors must be cleaned regularly using either wet methods or vacuum cleaners with High Efficiency Air Filters (HEPA). Sweeping or blowing is unacceptable.

4. Mirvac Forms

Checklists and Permits are to be completed and then authorised by Mirvac representative prior to work

[Coring Chasing Concrete Cutting Permit](#) – for coring, boring or chasing activities where the planned cut is penetrating structures or buildings within 3m of a known service (e.g. electrical, water, gas or telecommunications).

5. Roles and Responsibilities

The Mirvac Workplace Manager of each workplace over which Mirvac has control is responsible to ensure workers at the site are aware of and adhere to the performance requirements of this document and responsible to ensure workers are equipped with adequate tools, training, competency and licensing to undertake the work.

6. Training and Competency

Minimum Training Requirements for Coring, Boring & Concrete Cutting

Type of Activity	Required Training
Issuing Permits	Mirvac Permit Training (Internal)
Coring, boring, concrete cutting	Trained in the OEM Operation Manual and relevant trade qualification

7. Relevant Legislation, Codes of Practice and Standards

Document Title
NSW: Work Health and Safety Act 2011 (NSW) Work Health and Safety Regulation 2017 (NSW)
Vic: Occupational Health and Safety Act 2004 (Vic) Occupational Health and Safety Regulations 2017 (Vic)
Qld: Work Health and Safety Act 2011 (Qld) Work Health and Safety Regulation 2011 (Qld)
SA: Work Health and Safety Act 2012 (SA) Work Health and Safety Regulations 2012 (SA)
ACT: Work Health and Safety Act 2011 (ACT) Work Health and Safety Regulation 2011 (ACT)
WA: Occupational Safety and Health Act 1984 (WA) Occupational Safety and Health Regulations 1996 (WA)
AS/NZS 1715 Selection, use and maintenance of respiratory protective equipment
Safe Work NSW - Cutting and drilling and other masonry products
Work Safe Vic - Safe concrete cutting and drilling: Industry Standard
Work Safe WA - Concrete and masonry cutting and drilling: Code of practice

8. Additional Information

[Excavation and Trenching - MMR](#)
[Isolation Lockout Tagout MMR](#)
[Working with Services MMR](#)

9. Hierarchy of Controls Triangle – Coring, Boring & Concrete Cutting

