

## **Richard Crookes Constructions**

### **Unexpected Finds Procedure**

Lang Walker AO Medical Research Building  
100 Parkside Crescent, Campbelltown, NSW 2560

27 October 2023



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# Unexpected Finds Procedure

Prepared for  
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# 1. Identification of potential unexpected finds

## 1.1. Background

The Lane Walker AO Medical Research Building (LWMR) is a multi-faceted research facility that forms part of an integrated hospital and research precinct delivering world-class research and improved health outcomes for the Macarthur region and wider community. The development is located on 100 Parkside Crescent, Campbelltown, NSW 2560.

The building will comprise five core research themes including: Diabetes and Obesity, Mental Health, Paediatrics and Adolescents, Indigenous Health, and Addiction Medicine.

The LWMR will have split-level design with level access to LL02 via Parkside Crescent on the west and level access to ground (LL00) via the east with link bridges connecting to the Existing Hospital Building D and Macarthur Clinical School on LL00.

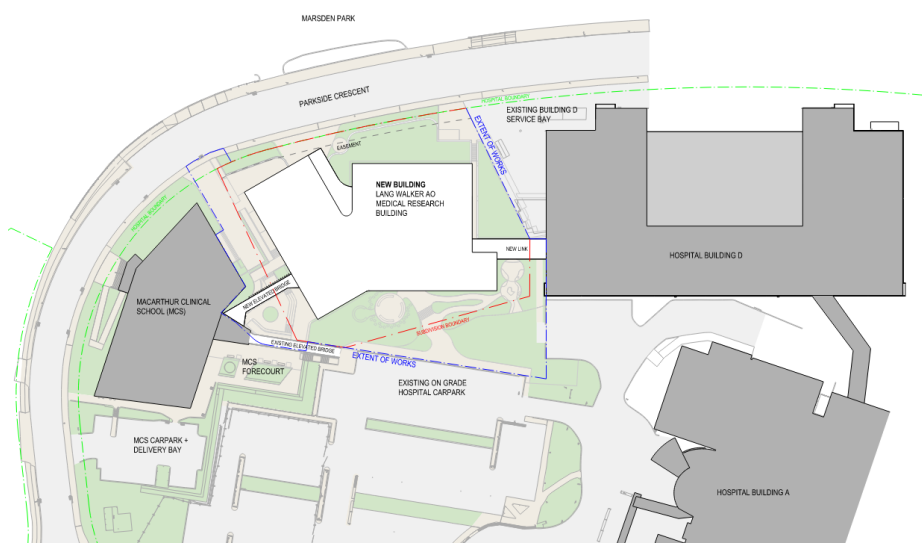
The Department of Planning and Environment (DoPE) requires an Unexpected Finds Procedure (UFP) to manage finds of unexpected contamination which may arise during earthworks and to satisfy the Development Consent associated with the LWMR development.

This report has been generated to satisfy SDDA Condition B14 - Construction Environmental Management Plan:

- (b) an unexpected finds protocol for contamination and associated communications procedure to ensure that potentially contaminated material is appropriately managed;
- (c) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure.

The objective of this unexpected finds procedure is to enable previously unidentified areas of contamination within the LWMR site to be dealt with appropriately to mitigate potential health and / or environmental risks. The procedure provides information on expected conditions and provides examples of unexpected finds along with control measures appropriately addressing the finds.

Figure 1 Locality Map for LWMR Site



## 1.2. Responsibility

RCC, as Principal Contractor, is responsible for implementing this Unexpected Finds Procedure (UFP) and requiring its subcontractors engaged in excavation to adopt this UFP, so that unexpected contamination finds can be appropriately managed.

The UFP is to be implemented by contractors during any construction works where the ground surface may be disturbed (earthworks). The UFP provides a procedure to be followed in the event of an unexpected find of contamination during earthworks.

This UFP applies for the period of earthworks being carried out at the LWMR site, including re-mediation works described in the Remedial Action Plan (RAP). A copy of the UFP is included in Appendix A to the RAP.

After earthworks are completed, this UFP does not provide procedures for on-going management of residual contamination. On-going management will be addressed as part of site validation under the RAP.

## 1.3. Expected subsurface conditions

Refer to Detail Site Investigation (Contamination) Report prepared by Douglas Partners dated August 2021.

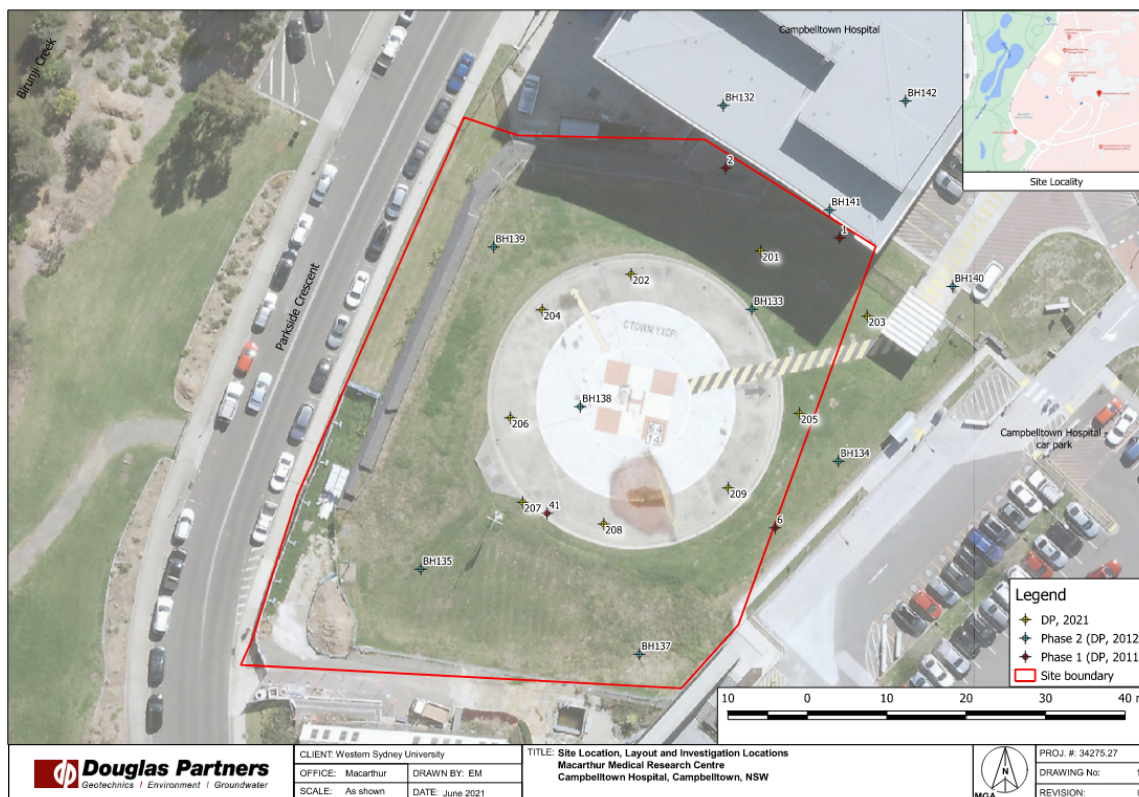
Table 1: Expected Subsurface Conditions

Material / Origin	Description
Topsoil	Brown clayey silty with rootlets and trace of fine grained ironstone gravel above silty clay.
	Concrete Hardstand: In TP208 and TP209m to depths of between 0.23m and 0.25m below ground level (bgl).
	Fill: Silty clay with siltstone gravel, was observed in test pit 201/1-1.45, 203/0.5-0.95, 207/1-1.45 to depths of 5.2m, 4.8m and 6.7m bgl respectively.
	Fill: Gravelly clay with siltstone, gravel, trace brick fragments, sandstone gravels in TP 205-0-0.1 and TP208/2.5-2.95 to depths of 1.45m and 5.5m bgl respectively.
	Fill: Sandy gravel with igneous gravel was observed in TP209/0.3-0.4 to depth of 0.4m bgl.

The location of the test pits and bore-holes on the site is indicated in Figure 2.

Subsurface conditions departing substantially from those described above may constitute an unexpected find and can be managed through the implementation of the actions outlined in Section 1.5.

Figure 2 Area of Test Pits and Bore-Holes on the LWMR Site



## 1.4. Unexpected finds

Unexpected finds of potential contamination on site may be identified by visual (appearance) and/or olfactory (odour) observations during earthworks.

Based on previous investigation results, unexpected finds are likely to be in two categories, non-specific and specific. Non-specific unexpected finds refers to any possible occurrence within any area of the site not investigated. The second category refers to areas of the site where, for example, contamination was identified yet the source or the extent was not confirmed.

### 1.4.1. Non-specific unexpected finds

Based on the findings referenced in Detail Site Investigation (Contamination) Report prepared by Douglas Partners dated August 2021, it is considered that the site is suitable for the proposed LWMR development. No further investigation is currently necessary.



## **1.4.2. Specific unexpected finds**

In regards to a underground petroleum storage system tanks (UPSS) to the north of the site as indicated in the Douglas Partners report, review of previous reports established that the likelihood of UPSS impacting the current site is low considering the locations of both UPSS are not within the current site, with the nearest located more than 50m north east of the current site. However, the condition of the UPSS may have changed since the previous reports were prepared. As such, if suspected petroleum hydrocarbon type odours and staining are observed during development near or below the groundwater table, the UFP should be followed including seeking advice from a suitably qualified (with reference to NEPC, 2013) environmental consultant.

## **1.5. Management of unexpected finds of contamination**

### **1.5.1. Training and induction of personnel and limitations**

All personnel involved in earthworks on site are to be inducted for awareness of potential unexpected finds. The induction can be undertaken at the time of general site induction and refreshed during toolbox meetings.

Personnel involved in earthworks are required to implement the initial parts of this Procedure during earthworks.

It is not practical to cover all types of possible unexpected finds. If the ground condition or consistency appears impacted, then the unexpected finds procedure should be implemented as a precaution.

Additionally, it is noted that some forms of potential contamination may not be evident visually or through odour. The unexpected finds procedure does not provide protect against potential health risks from such contaminants.

### **1.5.2. Procedure in the event of an unexpected find**

If an unexpected find of potential contamination is encountered during earthworks, then the procedure should be followed:

1. Stop work in the area as soon as it is safe to do so and move to a meeting point, preferably up-wind of the find.
2. Contact the Safety Supervisor for the site and advise of the hazard and request assistance to assess the hazard. For heritage; isolate area, contact heritage consultant and follow advice.
3. Have a suitably qualified person, or the Safety Supervisor, assess the potential risk to human health posed by the unexpected find and assess if evacuation or emergency services need to be called.
4. Establish an exclusion zone around the affected area using fencing and/or appropriate barriers and signage. Additional control measures are required for:
  - a. Odours and/or volatile compounds: odours suppression and no smoking signage.
  - b. Potential asbestos containing materials: if area is small cover with weighted plastic sheeting or geofabric. For larger areas, ensure material remains damp to prevent dust generation.



5. Contact the appointed environmental consultant for advice and request a site visit to undertake an assessment of the unexpected find.
6. The environmental consultant will assess the unexpected find and provide advice as follows:
  - a. Preliminary assessment of the contamination and need for immediate management controls (if any);
  - b. What further assessment and/or remediation works are required and how such works are to be undertaken in accordance with contaminated site regulations and guidelines;
  - c. Notify the Planning Secretary / Principal of the unexpected find of contamination;
  - d. In the case of asbestos, adopt appropriate management protocols and identify requirements for controlled removal;
  - e. Prepare an addendum to the Remedial Action Plan (RAP) (if necessary) or provide clean up advice;
  - f. Remediation works required (where applicable);
  - g. Validation works required following remediation works (if applicable).
7. Works are not to recommence in the affected area until appropriate advice has been obtained from the environmental consultant, the site auditor has been made aware of the changed conditions and the environmental consultant has recommended that works resume.
8. If it is deemed safe to do so, the environmental consultant will provide clearance for works to resume in the affected area. We note that following removal of asbestos impacted materials, WHS regulations require issue of a Clearance Certificate by a Licensed Asbestos Assessor if asbestos is friable or is more than 10m<sup>2</sup> of bonded asbestos cement material. The environmental consultant may seek an opinion from the site auditor before providing clearance. If it is not considered to be safe, earthworks in the area must remain on hold until appropriate assessment, remediation and/or validation measures have been actioned.

Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist.

If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying Heritage NSW and Aboriginal stakeholders.

If any suspected human remains are discovered during any activity, RCC will:

1. Immediately cease all work at that location and not further move or disturb the remains.
2. Notify the NSW Police and Heritage NSW Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location.
3. Not recommence work at that location unless authorised in writing by Heritage NSW.

The proponent should continue to inform RAP groups about the management of Aboriginal cultural heritage sites within the study area throughout the life of the project.

Below is a summary version of the **Unexpected Finds Procedure** and can be used as a handout:



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