

# Kogarah War Memorial Pool Waste Management Plan

A Submission to Willow Frank

11<sup>th</sup> September 2020



## Prepared by

MRA Consulting Group (MRA)  
Registered as Mike Ritchie & Associates Pty Ltd  
ABN 13 143 273 812

Suite 408 Henry Lawson Building  
19 Roseby Street  
Drummoyne NSW 2047

+61 2 8541 6169  
[info@mraconsulting.com.au](mailto:info@mraconsulting.com.au)  
[mraconsulting.com.au](http://mraconsulting.com.au)

## Version History

Ver	Date	Status	Author	Approver	Signature
0.1	14/08/2020	Draft	James Cosgrove	Esther Hughes	-
0.2	18/08/2020	Review	Esther Hughes	-	-
1	11/09/2020	Final	James Cosgrove	Esther Hughes	<i>Esther Hughes</i>

## Disclaimer

This report has been prepared by MRA Consulting Group for Willow Frank. MRA (ABN 13 143 273 812) does not accept responsibility for any use of, or reliance on, the contents of this document by any third party.

All intellectual property rights, including copyright, in documents created by MRA Consulting Group remain the property of that company. Other than as permitted by the Copyright Act and as outlined in the terms of agreement, no part of this report and associated drawings may be reproduced or used in any form, copied or transmitted in any current or future unknown form without the prior written permission of MRA Consulting Group.

## Table of contents

Glossary .....	3
1 Introduction.....	4
2 Background .....	5
2.1 Description of Proposed Development.....	5
2.2 Zoning and Land Use.....	5
2.3 Strategies .....	5
2.4 Assumptions .....	6
3 Demolition and Remediation Waste Management .....	7
3.1 Expected Waste Generation .....	7
3.2 Waste Contractors and Facilities.....	11
3.3 Site documentation .....	11
4 Waste Management Systems .....	12
4.1 Waste Storage, Handling, Transport, and Disposal.....	12
4.2 Management Measures .....	14
4.3 Signage .....	15
4.4 Prevention of pollution and litter reduction .....	15
5 Conclusions.....	16
Appendix A Site Plans.....	17
Appendix B Standard Signage .....	19

## List of Tables

Table 1: Demolition and Construction Waste and Recycling Management Plan .....	8
Table 2: Hazardous Building Materials (HBM) Profile .....	10
Table 3: Waste service contractors and facilities .....	11
Table 4: Expected waste streams during C&D activities related to preliminary infrastructure works .....	12

## List of Figures

Figure 1: The Site (highlighted in blue) in context with surrounding land use and roadways.....	5
Figure 2: Site Survey Plan.....	17
Figure 3: Tree Removal Plan.....	18

# Glossary

Terminology	Definition
AS	Australian Standard
C&D	Construction and Demolition
GRC	Georges River Council
KDCP	Kogarah Development Control Plan 2013
KLEP	Kogarah Local Environmental Plan 2012
DCP	Development Control Plan
ENM	Excavated Natural Material
EPA	Environment Protection Authority
LGA	Local Government Area
MGB	Mobile Garbage Bin
MSW	Municipal Solid Waste
VENM	Virgin Excavated Natural Material
WMP	Waste Management Plan
WSP	Waste Service Provider
WSRA	Waste Storage and Recycling Area

# 1 Introduction

MRA Consulting Group (MRA) was engaged by Willow Frank on behalf of Georges River Council (GRC), to prepare a Waste Management Plan (WMP) for the proposed demolition and remediation of the Kogarah War Memorial Swimming Pool (Carss Park Pool) located at 78 Carwar Ave, Carss Park in Sydney's South. The site, situated in the Georges River Local Government Area (LGA) is understood that the pool has become a safety and security concern for Council and as such, a resolution at the 25 May 2020 Georges River Council meeting was made to:

*“Undertake the immediate demolition of the Kogarah War Memorial Pool complex, decontaminate and undertake remediation of the site to eliminate the current safety risks to the community.”*

Works to remediate the site are in response to ongoing issues identified through geotechnical and structural assessment of the site, including:

- Structural instability of the site;
- Concentrations of heavy metals, asbestos and microbiological/pathogen impacted soils;
- Application of the uncontrolled filling to form/level the site; and
- The presence of subsurface voids due to water egress and historic land reclamation.

Proposed works at the site will include the demolition of various existing structures associated with the existing pool facility, clearing of land and remediation of the site. Specific features of the proposed works are outlined as follows:

- Demolition of swimming pool buildings and structures, including:
  - Olympic swimming pool and kids pool,
  - Main building containing:
    - Administration and reception,
    - Canteen, and
    - Gym.
  - Amenities block,
  - Two concrete recycled water tanks;
  - Pump room (including associated underground pipes and tanks); and
  - Pool stands and seating.
- Removal of interspersed trees and vegetation; and
- Earthworks and remediation of the site (including contaminated soils).

This WMP addresses demolition, excavation, and remediation works and the waste associated with site works. The WMP will be used to inform best practice waste management for the site and promote sustainable outcomes. The Kogarah Development Control Plan (KDCP, 2013) is the main governing document for waste management in new developments for the LGA. The KDCP outlines the following objectives to achieve sustainable waste management:

## **Objectives:**

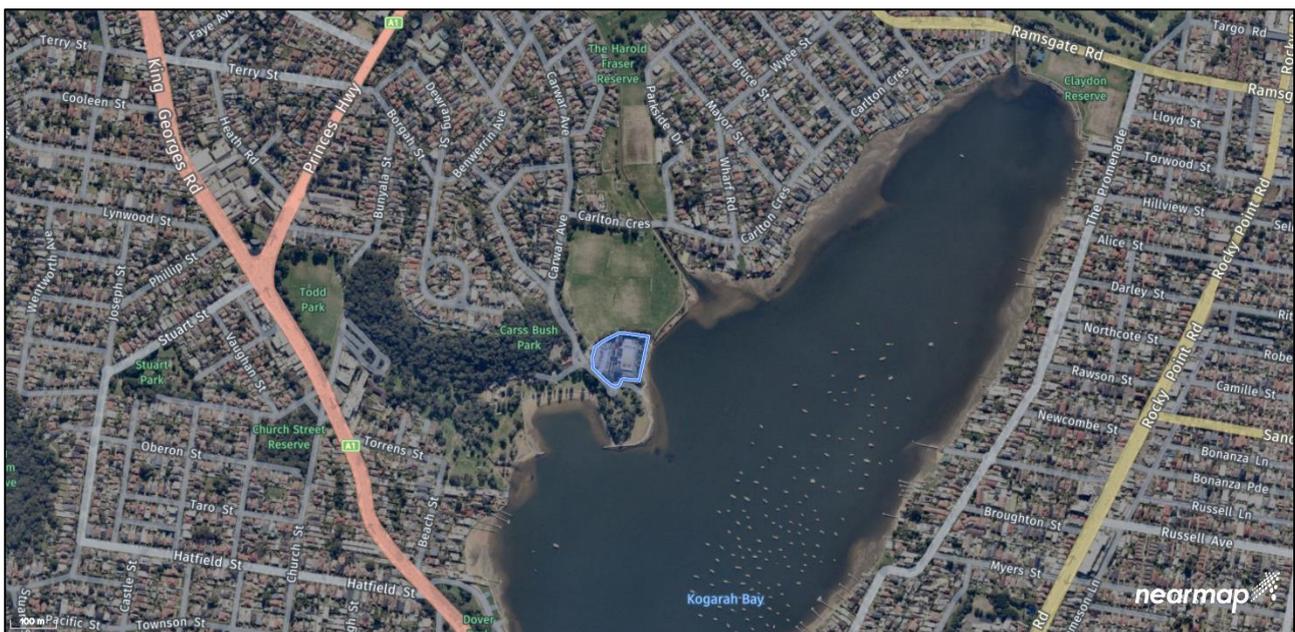
- (a) Encourage best practice in waste management that minimises waste generation, facilitates waste separation and maximises reuse and recycling.
- (b) Ensure quality design of waste management facilities that complement the building design and minimise noise, odour and visual impacts on adjacent uses and the public domain.
- (c) Ensure suitable and efficient waste storage, recycling, and collection in all development.

## 2 Background

### 2.1 Description of Proposed Development

The site is situated on Kogarah Bay in the Southern-Sydney suburb of Carss Park (see Figure 1).

**Figure 1: The Site (highlighted in blue) in context with surrounding land use and roadways**



Source: Nearthmap, 2020.

### 2.2 Zoning and Land Use

The site is zoned RE1 (Public Recreation) according to the Kogarah Local Environmental Plan (KLEP, 2012). The objectives of this zone are:

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.

### 2.3 Strategies

Waste management for the site considers better practice, necessary equipment, and integration with other guidance documents including the NSW Waste and Avoidance and Resource Recovery (WARR) Strategy (NSW EPA 2014), and National Waste Policy: Less Waste, More Resources (EPHC 2009). The key policy aims that are considered are:

- Avoidance (to prevent the generation of waste);
- Reduce the amount of waste (including hazardous waste) for disposal;
- Manage waste as a resource; and

- Ensure that waste treatment, disposal, recovery and re-use are undertaken in a safe, scientific and environmentally sound manner.

Management of waste generated onsite according to directives of the WARR Strategy 2014-2021 will assist in achieving the target of 80% diversion from landfill in the C&D sector.

## 2.4 Assumptions

This report is a WMP, forming part of the mixed-use development documentation and assumes:

- Drawings and information that have been used in waste management planning for this WMP are the current plan set for the demolition and remediation plan prepared by the project Surveyor (Maps & Survey) dated 24<sup>th</sup> July 2020 and town planner (SJB); and
- Expected waste generation volumes for the site are based industry building materials of existing structures, Council guidelines and industry knowledge. Waste management equipment and infrastructure recommendations have been made according to estimated waste generation and KDCP waste guideline requirements.

## 3 Demolition and Remediation Waste Management

Demolition and excavation activities at the site will generate a range of wastes. Throughout the process, all materials will be reused and recycled where possible, minimising the disposal (landfilling) of materials other than those that are contaminated or unsuitable for reuse, recycling or decontamination processes. This is in line with the Sydney development control principles and the NSW WARR Strategy 2014-2021, to reduce landfilling and achieve a resource recovery target of 80% for all construction and demolition related works.

Waste generated throughout demolition and remediation activities are expected to contain a range of waste materials defined as General Solid Waste (Table 1), as classified under the Protection of the Environment Operations (PoEO) Act 1997. With reference to the Hazardous Building Materials (HBM) Survey prepared by Douglas Partners, buildings at the site are constructed with materials or materials containing a range of potentially hazardous and hazardous materials (see Table 2).

Waste storage during demolition operations will involve stockpiling of excavated and reusable material, as well as placement of skip (Marrel) bins for the separation of construction materials for recycling. A separate skip bin for residual waste and/or contaminated material will also be made available at the site for disposal where necessary. The active waste management area(s) may require alternative placement throughout operations, as areas are cleared, and existing buildings are demolished. This will facilitate the safe and efficient storage of materials and will be retained within property boundaries to avoid illegal dumping. Waste storage areas for demolition and excavation waste are outlined in Section 4.1.1 and will be managed by the demolition and remediation works contractor to ensure good waste management practice is maintained at the site during works.

Site waste storage areas will be kept clear to maintain vehicular access and shall also be kept tidy to encourage separation of waste materials and for WHS reasons. The waste management principles and facilities in use on the site shall be included as part of the site induction for all personnel working on the site. It is noted that actual quantities of C&D waste may differ based on actual material use and practice.

### 3.1 Expected Waste Generation

Table 1 below outlines expected waste materials and quantities, including reuse, recycling and disposal methods.

**Table 1: Demolition and Construction Waste and Recycling Management Plan**

Type of Material	Demolition: Estimated volumes (m <sup>3</sup> )	Re-use on-site	Recycle (Off-site)	Landfill	% landfill Diversion	Methods for re-use, recycling or disposal
Excavated Material	7,560	✓	✓	Unknown	Unknown	<p>Recovery levels will depend on any contaminants in excavated material.</p> <p>Non contaminated material would be separated and stored for reuse on or offsite (in accordance with relevant resource recovery orders/exemptions).</p> <p>Contaminated excavated material would be stockpiled separately and aerated to remove contaminants if they do not present a risk to local waterways. Any hazardous contaminated material would be removed from site for treatment or disposal at an approved/licenced facility.</p>
Garden Organics	300-400	✓	✓	<5%	>95%	<p>Onsite: Organic material can be woodchipped and reused onsite as mulch for landscaping. Weeds or invasive species should not be mulched and reapplied to land to avoid regrowth of these species.</p> <p>Offsite: removal to an appropriately licenced organics processing facility for processing into mulch or compost product.</p>
Bricks	50	✓	✓	5%	95%	<p>Onsite: Separated wherever possible and reused or crushed for landscaping and driveways.</p> <p>Offsite: Removed to C&amp;D facility for crushing and recycling for recovered products.</p>

Concrete & asphalt	500-600	✓	✓	<20%	>80%	Onsite: Separated wherever possible and reused or crushed for filling, levelling or road base. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Tiles	<20	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Timber	30-40	-	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Removed to C&D facility for recovery.
Plasterboard	30-40	-	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Removed to C&D or plasterboard recovery facility for recovery where possible.
Glass	<20	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Metals (ferrous and non-ferrous)	30-40	-	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Removed to C&D facility for recovery and recycling.
Carpet	20	-	✓	50%	50%	Should be removed in bulk and sent to carpet recycler or C&D facility for recovery where possible.
Residual waste	50-100	-	✓	100%	-	Resource recovery dependant on facility destination capability.

Hazardous/ special waste (e.g. Asbestos, Contaminated soil and waste) (See Table 2)	Unknown	-	✓	Unknown	Unknown	Material management in accordance with the site HBM Survey and Remedial Action Plan (RAP). Management by a licensed asbestos and site hygienist should hazardous or special waste be found at the site. Contaminated and hazardous material may have some recovery potential if able to be decontaminated. Some material will require disposal or require alternative methods of treatment material may be recoverable following decontamination.
--	---------	---	---	---------	---------	---

**Table 2: Hazardous Building Materials (HBM) Profile**

Building / Area	Non-Friable Asbestos	Friable Asbestos	Synthetic Mineral Fibre	Lead Paint	Lead Dust	Polychlorinated Biphenyls
Main Building	✓	x	✓	✓	✓	✓
Pump House	x	✓	✓	x	x	x
General Grounds	✓	x	✓	x	x	✓

Source: Hazardous Building Material Survey - Douglas Partners, 2020.

### 3.2 Waste Contractors and Facilities

To ensure best practice waste management, appropriate contractors and facilities have been proposed based on their location and service offerings (Table 3).

Table 3: Waste service contractors and facilities

Role	Details
<b>Recommended Waste Collection Contractor</b>	<p>The following are local skip bin operators for consideration in the management of C&amp;D waste for the site:</p> <ul style="list-style-type: none"> <li>• Aussie Bins;</li> <li>• Combined Skip Bins;</li> <li>• St George Skip Bins; and</li> <li>• Bingo Bins.</li> </ul> <p>Or otherwise elected by the building contractor.</p>
<b>Principal Off-Site Recycler</b>	<p>The following are local facilities capable of recycling C&amp;D waste generated at the site:</p> <ul style="list-style-type: none"> <li>• Breen Kurnell;</li> <li>• Bingo Recycling Centre Banksmeadow; and</li> <li>• DADI Genesis facility.</li> </ul> <p>Or other appropriate facility elected by the waste management contractor.</p>
<b>Principal Licensed Landfill Site</b>	<p>Dial a Dump Genesis Xero (Eastern Creek);</p> <p>Or other appropriate facility elected by the waste management contractor.</p>

### 3.3 Site documentation

This WMP will be retained on-site during the demolition and remediation phases of the development, along with other waste management documentation (e.g. contracts with waste service providers).

Responsibility for the WMP, waste documentation and processes during demolition and remediation works will be with the site or demolition manager.

A logbook that records waste management and collection will be maintained on site, with entries including:

- Time and date;
- Description of waste and quantity;
- Waste/processing facility that will receive the waste; and
- Vehicle registration and company name.

Waste management documentation, the logbook and associated dockets and receipts must be made available for inspection by an authorised Council Officer at any time during site works.

## 4 Waste Management Systems

### 4.1 Waste Storage, Handling, Transport, and Disposal

#### 4.1.1 Storage

Considering the nature of the proposed works, waste management infrastructure should include retention of several skip bins (marrel or RORO) for the storage of separated demolition and excavation material. Waste should be placed in designated bins and collected on a regular schedule, as bins become full.

Recyclable materials would be source-separated onsite where possible in labelled bins according to the type of material (e.g. masonry, metals, paper and plastics) to enable improved recovery rates.

All problem and hazardous wastes would be stored in separate areas or bins as they may require special treatment. Asbestos must be stored in a separate container and wrapped in thick plastic. Any flammable liquids would be stored in a bunded area; however, this is not likely to be necessary at the site.

Separate site Mobile Garbage Bins (MGBs) would be retained on site to collect general waste and recycling associated with use of the site by demolition personnel.

#### 4.1.2 Handling

The handling of waste would be dependent on waste type.

- Inert waste would be collected for recycling or disposal, as appropriate.
- Any soils that are tested and deemed to be contaminated would be sent to an appropriate facility for management and disposal.
- VENM and ENM may be reapplied to land onsite. VENM may be applied to land offsite without a resource recovery order and exemption. ENM requires a resource recovery order and exemption to be applied to land offsite.
- Asbestos can only be disposed of to landfills which are licensed to receive it. It must be handled and transported in a specific manner as outlined in the management measures below.
- Problem wastes include tyres, paint, car batteries, gas bottles, oils and chemicals would be disposed of at facilities which are able to receive these materials.

The Business Recycling website [businessrecycling.com.au](http://businessrecycling.com.au) provides a directory of locations where wastes can be recycled or safely disposed of.

All material generated would be separated where possible, to maximise resource recovery potential and reduce the need for disposal of residual materials to landfill. Any material deemed unsuitable for reuse or recovery would be disposed of to an appropriately licensed landfill. Reuse and recovery potential for expected waste product includes (but is not limited to) the methods outlined in Table 4.

#### 4.1.3 Recycling of Materials

The following materials may be expected through the course of demolition and remediation works for the site (see Table 4).

**Table 4: Expected waste streams during C&D activities related to preliminary infrastructure works**

Waste Material	Reuse or recovery Potential
Brick, Rubble, Stone, Ceramic, Tile, etc.	Sent to C&D processing facility for crushing and reuse as fill material.

<b>Virgin Excavated Natural Material</b>	Reuse as fill material.
<b>Excavated Natural Material</b>	Reuse as fill material. Compliance with ENM order and exemption is required for offsite application.
<b>Timber (treated and non-treated)</b>	Sent to organics processor or C&D processing facility for mulching for reuse.
<b>Metals (ferrous &amp; non-ferrous)</b>	Fixtures and fittings returned to manufacturer for reuse (if applicable) or recycling at materials recycling facility.
<b>Plastic</b>	Recycling at materials recycling facility.
<b>Paper &amp; cardboard</b>	Recycling at materials recycling facility.
<b>Eligible residual or non-recoverable material</b>	Processing at appropriately licensed energy from waste (EfW) as technology becomes readily available.
<b>Tyres</b>	Recycling at a tyre reprocessor.
<b>Asbestos</b>	Disposal at a facility licensed to receive asbestos.
<b>Hazardous and problem waste streams</b>	Disposal/recycling at a facility which is able to accept the particular type of waste.

#### 4.1.3.1 Asbestos

The handling of asbestos requires special precautions due to the hazardous nature of the materials. Any handling of asbestos waste must be performed in accordance with Clause 42 of the PoEO Act, 1997.

Before commencing any work, a risk assessment should be carried out. Safe work procedures would be devised that minimise exposure.

Handling requirements include:

1. Keep asbestos damp but prevent excess runoff water.
2. Asbestos should be collected, labelled and sealed using plastic or leak-proof containers.
3. Storage would be at a secure site in labelled, lined bins or a leak-proof container.
4. Asbestos containing materials should be removed from the site as soon as practicable and/or collected and stored in a manner approved by the EPA or an appropriate disposal authority.
5. Transport would be in a covered leak-proof vehicle or a manner approved by the OEH.
6. Disposal in a manner and at a site approved by OEH or an appropriate disposal authority.
7. Vehicles must be cleaned before leaving the landfill site.

#### 4.1.4 Transport

Section 143 of the *Protection of the Environment Operations Act 1997* requires that waste is transported to a place that can lawfully accept it. Both the owner of the waste and the transporter are legally responsible for proving the waste was transported to a lawful place.

To show that waste has been lawfully disposed of records should be kept of the following:

1. All demolition and construction waste dockets must be kept which show which facility received the material for recycling or disposal.
2. Who transported the waste (company name, ABN, vehicle registration and driver details, date and time of transport, description of waste).
3. Copies of waste dockets/receipts from the waste facility (date and time of delivery, name and address of the facility, its ABN, contact person).
4. Transport of waste materials is managed by a licensed operator.

Audits may be conducted by Council to verify that docketts have been kept and waste recycled and disposed of as described within the Waste Management Plan.

#### 4.1.5 Disposal

The disposal of waste is recommended after recycling options have been implemented. Materials may only be disposed of materials to a facility which is licensed to take the particular type of waste.

1. The majority of waste onsite is inert, dry, non-putrescible waste which may be taken to any licensed landfill.
2. Stabilised asbestos in a bonded matrix may be taken to an inert waste Class 1 landfill or a solid waste landfill class 1 or 2.
3. The Planet Ark Business Recycling directory or “Recycling Near You” websites can be consulted to find facilities that accepts a particular type of waste for recycling or disposal.
4. The EPA website “Facilities that accept household asbestos” has a list of facilities that will accept asbestos. It is recommended to contact the facility first.

## 4.2 Management Measures

### 4.2.1 General Measures

The following general site management measures are recommended for preliminary site works:

- Uncontaminated soils may be reused onsite to even out cut and fill;
- It is recommended that organic waste from clearing of trees would be chipped and reapplied as mulch or delivered to an organics processor;
- No vegetation would be pushed into or applied to ecologically sensitive areas;
- Materials would be reused or recycled wherever possible;
- Separate bins would be provided for source separation of waste types where possible;
- Residual waste would be disposed of to a licensed landfill;
- Litter on the site would be managed daily to maintain a tidy environment;
- The disposal of nightsoil from portable toilets would be managed by a licenced contractor;
- Transport of waste would be managed by a licenced operator;
- Records would be kept of transport and disposal of materials;
- A Waste Management Plan would be prepared in accordance with the Sydney DCP, which includes:
  - How materials will be managed to prioritise avoidance, reuse, and recycling over disposal,
  - details of each type of waste that will be generated, and the management action proposed for each type of waste,
  - procedures that ensure the waste is transported to a lawful place,
  - locations of on- site storage for materials that are going to be reused, recycled and disposed,
  - vehicle access for collection, and
  - the management of asbestos onsite.

#### 4.2.2 Hazardous Waste Management

Hazardous and potentially hazardous building materials should be managed in accordance with the Hazardous Building Materials (HBM) Survey prepared by Douglas Partners, and with the NSW Work Health and Safety Act 2011 and Regulation 2017. In general, any material identified as hazardous or potentially hazardous should be managed/handled in the following manner:

- Hazardous and problem wastes would be stored separately onsite and disposed of or treated at a facility licensed to receive and manage the material or substance;
- If contaminated soils are present at the site, they would be disposed of to a licensed landfill or otherwise remediated for beneficial reuse. For example:
  - Soils determined to contain contaminants may be remediated on site through piling and aeration over time if suitable; or
  - Contaminated soils can be taken to a specialist soil wash plant capable of removing contaminants such as hydrocarbons through flocculation and other processes, therefore creating a reusable product.
- If asbestos is found onsite it would be disposed of in the following manner:
  - A risk assessment would be conducted to determine appropriate management measures,
  - Asbestos waste would be disposed of in a landfill which is licensed to receive asbestos waste,
  - Asbestos waste would be wetted, wrapped in 200um thick plastic, and sealed with tape before it is transported,
  - It would be clearly labelled as “asbestos waste”,
  - It would be transported in a covered, leak-proof vehicle,
  - Copies of receipts from landfills where asbestos was taken would be retained, and
  - If the amount of asbestos is more than 10m<sup>2</sup>, a qualified asbestos removalist would be engaged.

#### 4.3 Signage

Signage that promotes resource recovery, waste minimisation, safety and amenity follows the Australian Standard for safety signs for the occupational environment (Standards Australia 1994). Illustrative graphics must form a minimum 50% of the area of the signage. Signage is to be prominently posted in each waste storage area or where waste materials will be separated at the source. At a minimum, signage should indicate:

- Details regarding acceptable recyclables;
- *No standing* and *danger* warnings apply to the area surrounding waste storage areas;
- Contact details of the waste contractor; and
- The area is to be kept tidy.

Standard signage requirements and guidance for application apply (see **Appendix B**).

#### 4.4 Prevention of pollution and litter reduction

To minimise dispersion of litter and prevent pollution (to water and land via contamination of runoff, dust and hazardous materials), building management and the waste caretaker will also be responsible for:

- Maintenance of open and stockpile areas;
- Ensuring waste storage areas are well maintained and kept clean;
- Securing the waste storage area from vandalism and the escape of litter;

- Identification and appropriate disposal of goods with hazardous material content;
- Taking action to prevent dumping and unauthorised use of waste areas; and
- Requiring contractors to clean up any spillage that may occur during waste servicing or accessing the site.

## 5 Conclusions

The full demolition and remediation of the Kogarah War Memorial Pool would not result in a quantity of material that would exceed the capacity of existing waste and resource recovery facilities. Material may include a range of potentially hazardous or contaminated material which will be managed by a suitably qualified contractor and facility.

The requirements of the *Waste Classification Guidelines*, the *Environmental Guidelines: Assessment Classification and Management of Non-Liquid and Liquid Waste* and the *WARR strategy 2014-21* have been considered in this report to avoid disposal to landfill and implement measures to avoid consumption, reuse or recycle materials where possible. Management measures outlined in this WMP will be implemented to increase recycling and avoid disposal where possible.

# Appendix A Site Plans

Figure 2: Site Survey Plan

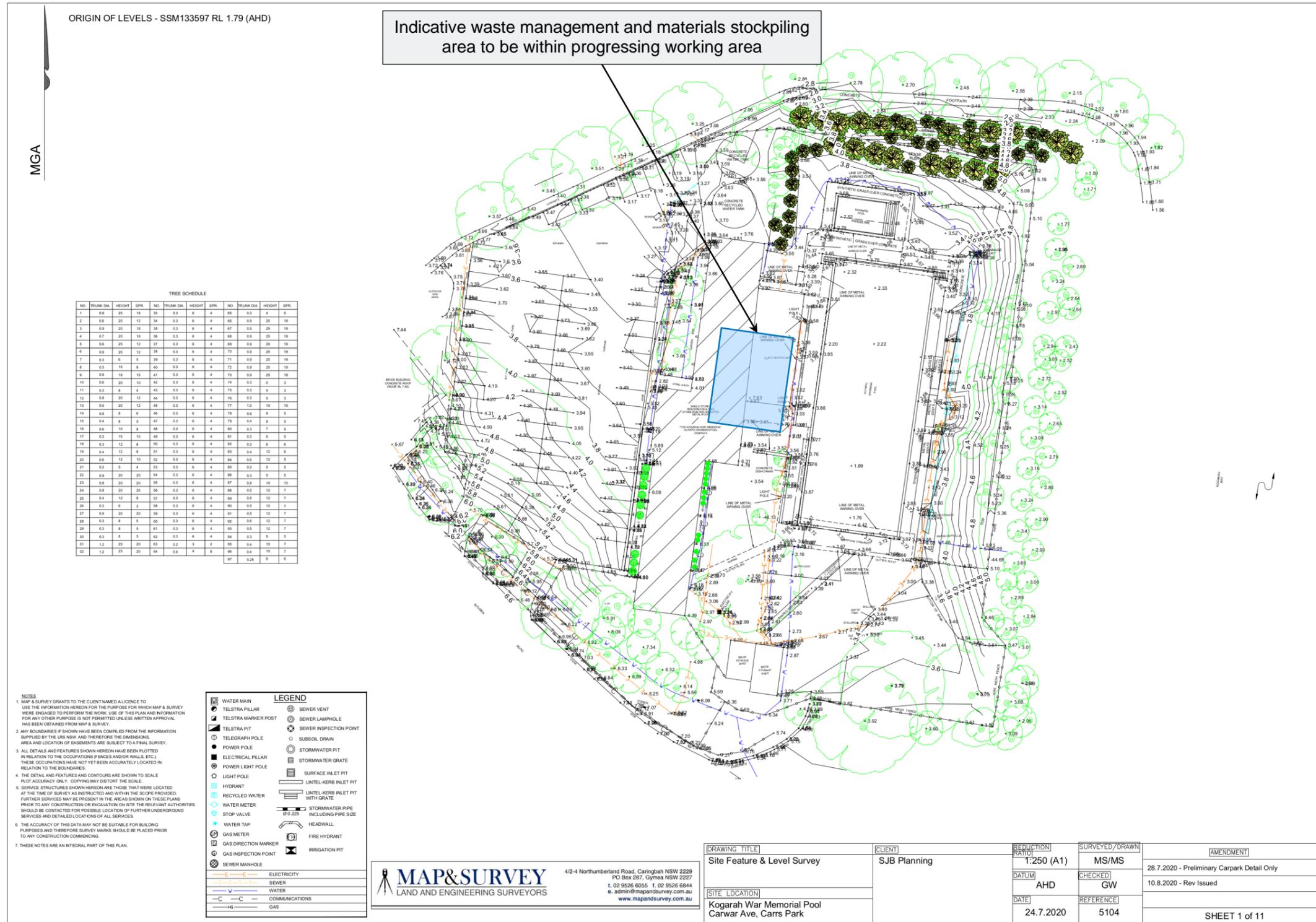
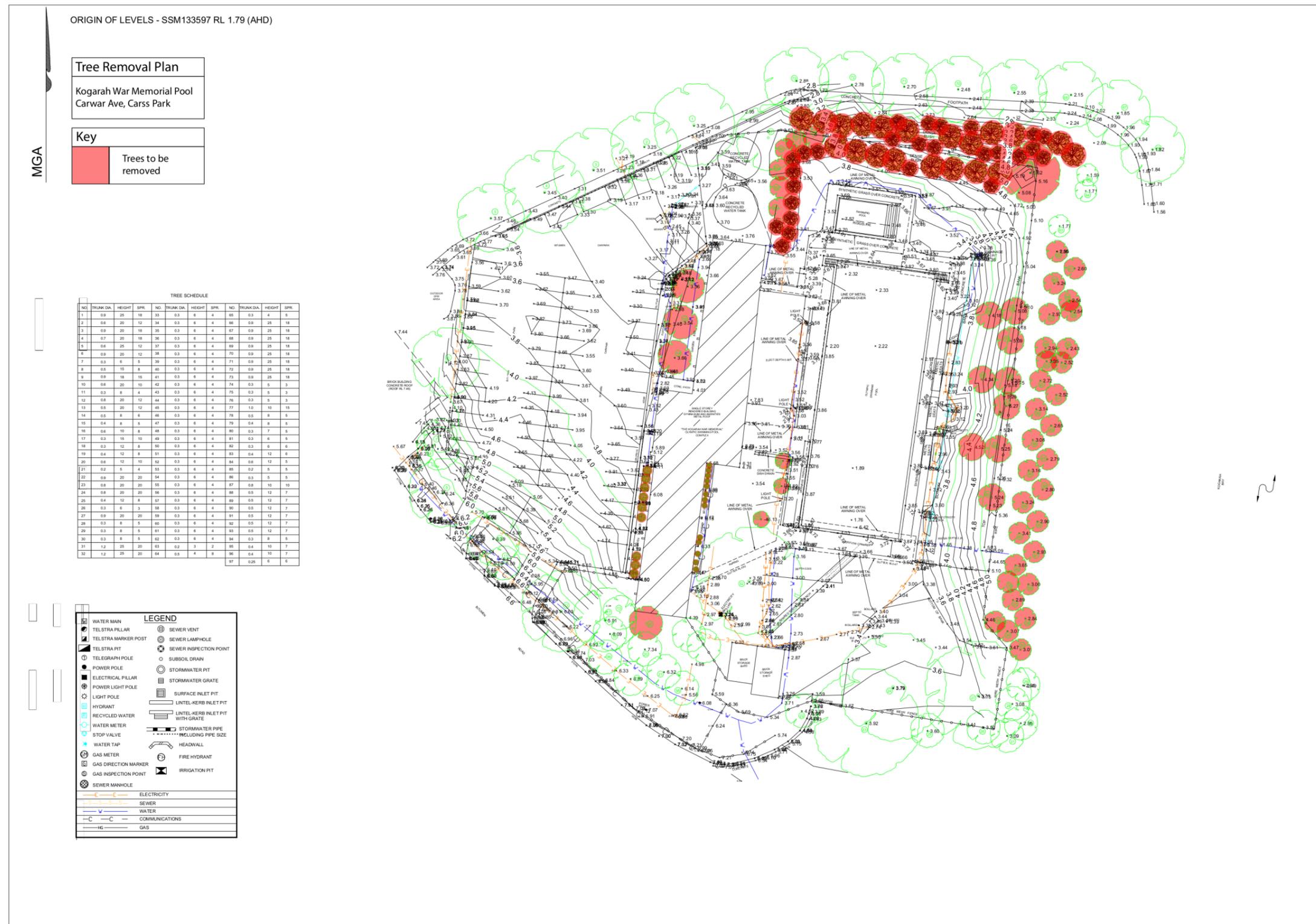


Figure 3: Tree Removal Plan

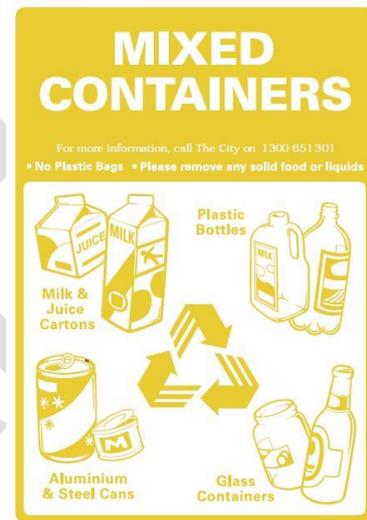
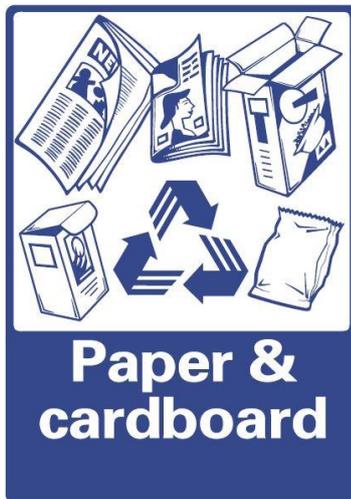


## Appendix B Standard Signage

### Waste Signage

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the NSW Office of Environment and Heritage (NSW OEH 2008b) and as stated in the DCP.

Standard symbols for use in signage, bin facade and educational materials are promoted through the NSW Environment Protection Authority. They are available for download from the NSW EPA website (NSW EPA 2016b), in black and white and colour versions. The Australian Standard series AS 4123 (Part 7) details colours for mobile waste containers (Standards Australia 2008).



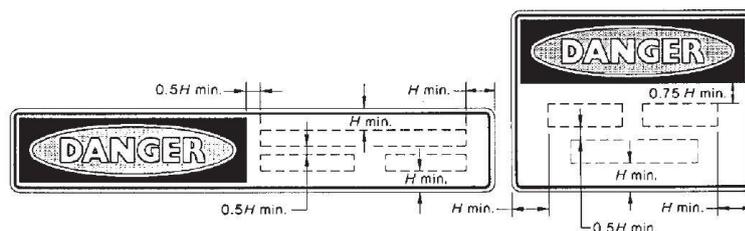
### Safety Signs

The design and use of safety signs for waste and recycling rooms and enclosures should comply with AS 1319 (Standards Australia 1994). Safety signs should be used to regulate, and control safety related to behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Clear and easy to read 'NO STANDING' and 'DANGER' warning signs must be fixed to the external face of each waste and recycling room where appropriate.



(d) Horizontal

FIGURE D5 TYPICAL ARRANGEMENTS OF DANGER SIGNS



## MRA Consulting Group

Suite 408 Henry Lawson Building  
19 Roseby Street  
Drummoyne NSW 2047

+61 2 8541 6169  
info@mraconsulting.com.au  
mraconsulting.com.au

