Playground Safety Management System

System Based Approach

Playground maintenance is an important issue for the operation of all playspaces. When planning a playground, regardless of its size or location, it is essential to establish a playground safety management system. This system should include the following details:

- Allocated budget
- Playground inventory
- Maintenance routine
- Inspections - Types and frequency
- Checklists
- Risk and risk benefit assessment and management
- Documentation and certification (equipment and surfacing)
- Records of incidents and injury
- Records of installation and repairs

Maintenance Routine

A timeline outlines when individual components of a playground must be checked. This is necessary to ensure all aspects of the playground are maintained on a routine basis i.e. weekly, monthly, quarterly and annually. This will be determined based on individual playground requirements i.e. susceptibility to vandalism, components and surfacing materials, climate and the location of the playground and usage.

When purchasing new equipment the manufacturer is required to provide a documented recommended maintenance schedule. Playground owners must avoid making modifications to playground equipment as it may void the manufacturer’s warranty. Playground owners should contact the manufacturer for spare parts and/or necessary modifications. An example of a maintenance schedule is provided on page 3 of this information sheet.

Allocated Budget

A minimum 10% of the entire playground budget per year for playground maintenance. This allocation allows for older items deemed no longer suitable or unsafe, to be replaced within an appropriate timeframe rather than waiting for funds to become available. Resources also need to be allocated to enable regular playground inspections to occur. These can be either done internally or by trained staff or engaging the services of an independent playground inspection service. Contact Kidsafe for information on inspection services.

Playground Inventory

An inventory enables the playground provider to account for all items within the playspace (including equipment and components, shade, litter bins, water fountains etc.). As items are purchased or replaced the inventory should be updated allowing accurate expenditure to be attached to the playground fund. This allows effective maintenance of the playground in accordance with the budget allocation. The playground inventory provides a means to appropriately manage the playground as an asset.

Inspections

An accurate assessment of the entire playspace should be completed following installation of the playground and then on a regular basis. A checklist should be used to guide the inspector through every component of the playground. This should also act as the first step in the procedure to rectifying any issues that have been identified during the inspection. Once an issue has been highlighted it must be recorded and a procedure followed to ensure that the issue is addressed i.e. replacement part ordered. An example of a procedure list may include:

- Hazards identified
- Risk ratings
- Control or repair methods
- Those responsible to implement controls/repairs
- Dates for controls/repairs to be completed
- Sign off when controls/repairs implemented

Inspection Types and Frequency

AS 4685 Playground equipment and surfacing Part 0:2017 Development, installation, inspection, maintenance and operation requires routine maintenance checks to be conducted on a regular basis. These include the inspection of all timber, wear and tear on chains, condition of all play items (cracks, corrosion, graffiti, etc) and insect infestation. A guide to inspection type and frequency is provided below.

Routine (daily/weekly):
- Identify obvious hazards resulting from vandalism, wear and tear, or weather conditions, (e.g. Damaged parts, broken glass, springs, loss of playground surfacing).

Operational (1 to 3 monthly):
- Check the operation and stability of equipment, smooth running of components such as ball bearings, moving joints and attachments.

Comprehensive (Annually):
- To be conducted by a competent person.
- Check for compliance with Australian Standards for playground safety.
- Check the overall stability of the equipment, footings, surfacing, structural integrity, corrosion/rotting. Check for safety of any changes made due to repairs/replaced components.

Comprehensive Post Installation:
- To be conducted by a competent person.
- Verify compliance with Australian Standards for playground safety of newly installed playground.
- Check the installation, manufacturing faults, footings, structural integrity and surfacing.
- Drop testing unitary playground surfacing.

Records of Incidents and Injuries

To assist in the prevention of playground injuries, it is important to learn from the events of previous incidents/this includes near misses. This will allow corrective actions to be taken.

Risk Assessment and Management

Each hazard identified as part of the inspection regime needs to be considered in terms of the hazard presented and then prioritised for attention.

When a playspace hazard is identified there is a need to assess its risk of causing injury or damage. Risk assessment is simply a further analysis of the hazard by breaking it down into more specific component parts to evaluate the nature of the hazard. Assessing the risk and risk benefit associated with the hazard by specifically defining its nature will assist in determining:

- Probability or likelihood of causing injury or damage
- Consequence(s) or severity of outcome
- Benefits to children

Refer to information sheet A Risk Management Approach for help with prioritising identified risks.

The method of risk control selected and implemented will need to be monitored and reviewed periodically to ensure that its effectiveness for control is maintained. Playground providers will ensure controls are suitable and make plans for improvements as per the control method, if necessary.

Documentation

Quality documentation is an important part of the Playground Safety Management System. Most importantly, it allows errors to be isolated and successes to be replicated. Documentation ensures there is a record of what has happened in the playspace.

Documentation to be archived may include:
- Policies and procedures
- Supervision plans
- Risk management plan/strategy
- Reports eg. accident/injury (see below)
- Inventory/Equipment register (refer to page 4 of this information sheet)
- Inspection checklists
- Work orders
- Maintenance actions
- Certification records eg. equipment, surfacing
- Manufacturer’s warranty details
- Manufacturer’s installation, inspection and maintenance instructions
- Operating Instructions (if applicable)

An analysis of the incidents (including near misses) and injuries that have occurred in the playground can be undertaken to identify injury trends and causes of injury. The information gained can be used to inform risk assessments and risk control development aimed at minimising those causes.
### MAINTENANCE TIMETABLE

**An example timetable for inspecting and maintaining playground equipment and playground surfacing materials**

### Daily/Weekly

- **Remove loose objects from playspace**
  - eg. small chairs, buckets, ropes, hoses etc.
- **Remove litter, glass, sharp objects, unhygienic matter; clean surfacing as required**
- **Remove nesting insects and spiders**
- **Remove poisonous plants/ weeds eg fungi**
- **Rake and redistribute loose fill playground surfacing**
- **Close off broken/ vandalised equipment items until replacement parts available and fitted**

### Monthly /Quarterly

- **Ensure playground surfacing is free of damage and trip hazards**
- **Ensure foundations and structures are stable; check smooth operation of moving parts; grease/oil as required**
- **Monitor wear and tear on chains, cabling, connectors; replace as required**
- **Monitor condition of timber items eg. splitting, splintering; treat as required to ensure smooth surfaces**
- **Remove nesting insects and spiders**
- **Clean equipment to remove stains, mould, dirt; make hygienic**
- **Clear all access paths of vegetation; check for protrusions; check loose-fill surfacing is an adequate depth;**

### Annually

- **Ensure playground surfacing is free of surface wear, correct depth (loose-fill); sub grade deterioration, damage, trip hazards**
- **Treat surface rust in metal components of equipment; clean surfacing, rasp back, treat with rust inhibitor, repaint as required**
- **Touch up/refresh painted surfaces as required (incl. highlighting for visual awareness at step edges)**
- **Replace failed plantings as required**
- **Mulch all garden beds**
- **Top up or replace sand in sandpit if required**

### Every 3 years: Playground surfacing drop test on unitary surfaces

#### Drop Testing

Drop testing is required for playground surfacing of unitary materials such as rubber and synthetic grass - post installation then every three years to ensure the impact attenuating surface is performing to the requirements of AS 4422:2016

For information on inspection services provided by Kidsafe NSW, contact the office on 02 9845 0893

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### PLAYGROUND EQUIPMENT AND SURFACING

#### Sample INVENTORY CHECKLIST

**Location**

**Surrounding Sites and Use(s)**

**Cleaning/Mowing Schedule**

**Annual Maintenance Budget**

**Warranties and expected lifespan of equipment and surfacing**

**Equipment Inventory**

<table>
<thead>
<tr>
<th>Item of Equipment</th>
<th>Manufacturer/Supplier</th>
<th>Installation Date &amp; Installer</th>
<th>Maintenance Schedule received from manufacturer/supplier?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg. Platform #1; Platform #2; Barrier #1; etc.</td>
<td>Identification of manufacturer shown?</td>
<td>Contractor or Day Labourer</td>
<td>File appropriately</td>
</tr>
<tr>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>5.</td>
<td>6.</td>
<td></td>
</tr>
</tbody>
</table>

**Surfacing Inventory**

<table>
<thead>
<tr>
<th>Type of Surfacing</th>
<th>Manufacturer/Supplier</th>
<th>Installation Date &amp; Installer</th>
<th>Maintenance Schedule received from manufacturer/supplier?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg. loose fill mulch, sand, wet pour rubber, synthetic grass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>

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