

3.1.5 TENNIS COURT MAINTENANCE

Maintenance varies between surface types, however works should be scheduled and recorded in a maintenance plan, from daily to annual activities. This is important for the following reasons

- Planning – preparing responsibilities for tasks, inspections, scheduling contractors, communication to users
- Reporting – monitoring performance, managing risk and OHS, identifying trends, tracking maintenance tasks
- Evidencing – proving appropriate maintenance has taken place if there are surface issues, business cases for funding, demonstrating accountability for assets

Acrylic Hard Courts

Generally acrylic surfaces require the least regular maintenance of all court surfaces. To ensure the performance and longevity of the acrylic surface, it is recommended a regular maintenance regime is undertaken and includes the following:

- Regular surface cleaning
- Removal debris and foreign matter
- Removal of standing water
- Repairing of surface cracks.



The following advice is generic and should be verified by the acrylic manufacturer / installer.

Regular Surface Clean

An acrylic court should be power washed at least once per year, depending on the site location. The water blaster should be at around 2500-3000psi and held approximately 300mm from the surface. It is recommended that this be undertaken by an experienced professional.

The washing process should start at the high point of the court continuing back and forth along the width of the court until the wash terminates at the low point.

If tree sap or bird excrements are left on the court surface they can cause delamination to the acrylic.

Removal of debris / foreign matter

Removal of debris and foreign matter from the court surface should occur to remove risk from abrasive wear or gouging and to manage playability and maintain true ball bounce.

Removal of standing water

Standing water on acrylic surface can accumulate dirt and debris resulting in stains across the surface. Standing water should be removed as often as possible.

Repairing surface cracks

Repairing cracks in acrylic to prevent moisture migration under acrylic surface, which may lead to delamination. It must be noted that surface cracks are never permanently repaired without base / pavement reconstruction or rectification works are undertaken.

Resurfacing

A regular maintenance regime for tennis courts may include court resurfacing every 8 – 12 years. Depending on the initial design and construction of the pavement, an acrylic tennis court may be resurfaced several times before base reconstruction is required.

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Non-cushioned surfaces can be resurfaced with only the top wearing surface needing to be replaced.

Cushion surfaces may require the rubber cushioning should be topped up when the acrylic surface is being resurfaced (e.g. every alternative resurface).

Clay / Red Porous courts

Generally, clay / red porous courts require a higher level of maintenance than other court surfaces. Maintenance is necessary to ensure the consistency of play, maintaining permeability of the surface, aesthetically pleasing and achieve a longer lifecycle. Maintenance of a clay / red porous courts should include:

- Removal of debris and rubbish
- Watering (regularly including overnights, before, during and after play)
- Bagging between sets
- Rolling
- Topping up high wear areas.



Maintenance requirements may vary between clay court surfaces. The following advice is generic and should be verified by the clay installer.

Removal of debris and rubbish

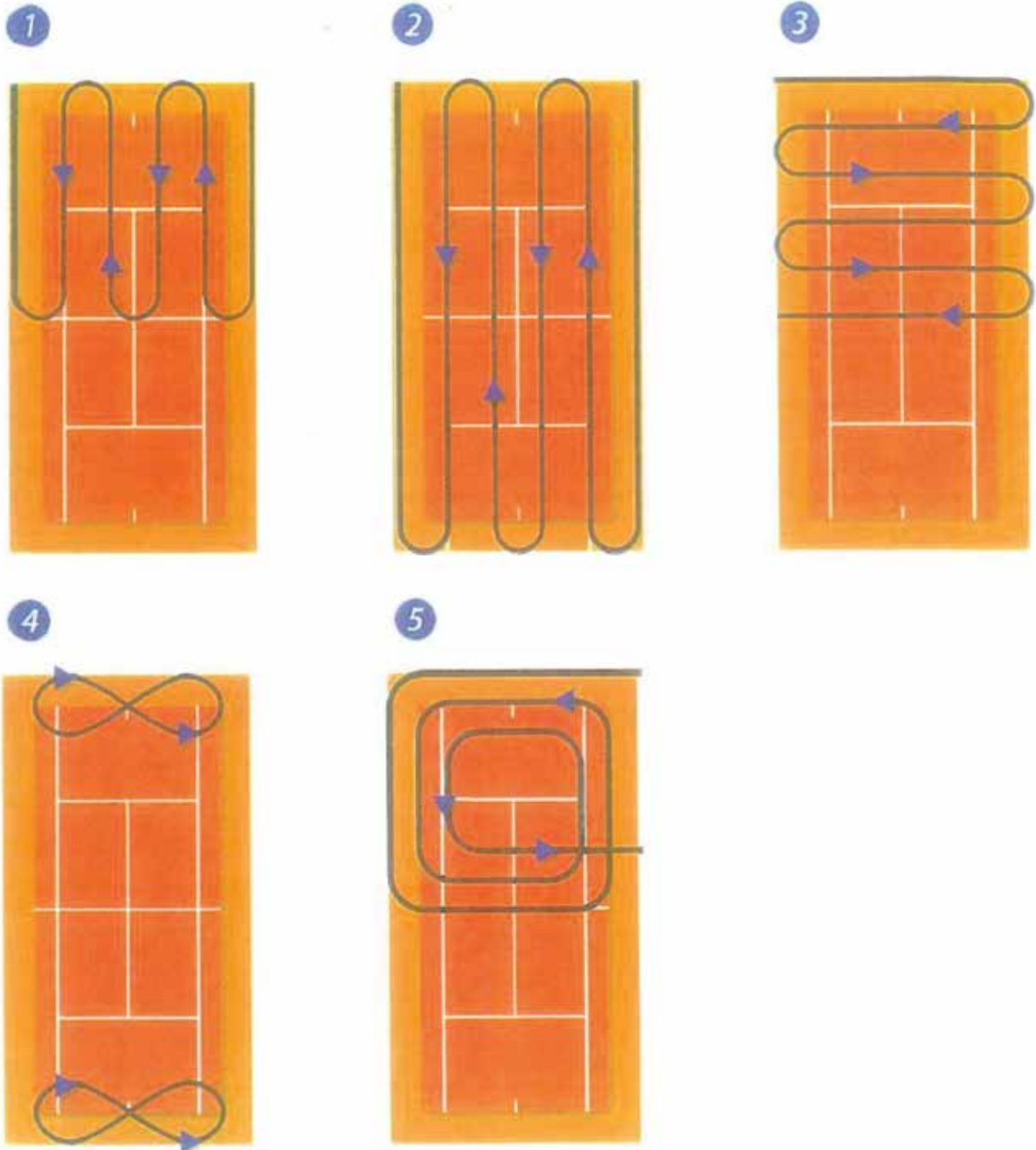
Removal of debris and foreign matter from the court surface shall occur to remove risk from abrasive wear or gouging.

Bagging and line sweeping

Regular bagging of the courts in varying directions is required (**see Figure 3.1.22 Court Bagging Methods**).

Line sweeping should also be incorporated into the bagging maintenance regime.

Figure 3.1.22
Court bagging methods



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Watering

A continuous and reliable water supply is required to keep moisture levels at the required level on a clay court. This is essential to maintain playing performance and promoting a long-lasting product.

The main intention of watering a clay court is to:

- Maintain the presence of clay fines on the court surface as helps prevent the clay from blowing away
- Keep the court firm and stable
- Ensure proper traction.

Rolling

Rolling a court will ensure the court surface is firm and fast, whilst also preventing it from losing top dressing material to wind. It is recommended that rolling does not occur when the courts are wet because the roller may make the surface uneven and may also pick up the fine clay layer on top of the surface

Topping up high wear areas

Continual topping up of high wear areas will prevent low points holding water and provide a safer playing surface. This ongoing maintenance of the surface levels will assist the longevity of the surface.

Algae and Moss Prevention

To prevent the establishment of moss and algae on the court surface, a moss killer algacide should be applied to the court surface.

Prior to applying chemicals to the clay, consultation with the clay supplier is recommended to ensure the suitability of the product.

Natural Grass Courts

Maintenance of a natural grass tennis court is required all year round to ensure:

- Firm surface that provides good traction for players
- Consistent bounce of good height
- Even density and colour
- Surface is free of disease, weeds and pests.

Natural grass court maintenance regimes will vary depending on the level of play, however tasks required for courts would involve the following (described in further detail below):

- Mowing
- Rolling
- Irrigation
- Fertilising
- Top dressing
- Spraying for pests and diseases
- Repairs to high wear areas
- Dethatching and aeration
- Renovations.

Mowing

It is recommended that mowing occurs every second day, however in some Australian locations mowing may need to occur more or less frequently.

The cutting height will be between 4 – 8mm depending on use and competition.

Raising the cutting height will provide better protection of the surface from excessive wear, however it may reduce performance.

Rolling

Rolling of the court should be undertaken to firm the surface. It is important to consider the condition of the soil prior to rolling.

Irrigation

The depth and frequency of irrigation will be dependent of turf species and local weather conditions

Fertilising

Regular fertilising will:

- Ensure good recovery from wear
- Produce lateral growth
- Maintain colour and speed of court.

Soil testing should be conducted twice per year to gauge soil and plant requirements, and determine the appropriate fertilisers for the turf.

Topdressing

Application of the same growing medium (e.g. physical and chemical characteristics) as the playing surface is required periodically to assist with wear recovery and keep surface levels even.

Spraying

Spraying for pests and disease is necessary to control potential outbreaks of fungicide, pests and diseases.

A person with an appropriate chemical license should undertake spraying.

Repairs to high wear

Should the turf be damaged beyond repair, new turf should be laid with sufficient time provided for establishment.

Dethatching and aerations

A regular dethatching (e.g. removal of built up organic layer) program should be undertaken to limit thatch build up, which will result in a slower court and 'spongy' surface.

Aerate (e.g. decompact) the playing surface profile with 8mm tynes to promote a healthier and better performing surface.

Frequency of dethatching and aerating should be determined by the curator.

Renovations

At the end of the playing season natural grass courts should be renovated. The renovation should involve the following:

- Undertake soil testing to determine any nutrient deficiencies
- Scarifying to remove thatch build up
- Coring the surface to allow air entry
- Topdressing using the same profile material
- Laser levelling (if required)
- Top dressing
- Fertilising based on soil test results
- Applying chemicals to control pests/ diseases.

Synthetic Filled Surfaces

Regular maintenance of synthetic filled surfaces (sand filled artificial grass (SFAG) and synthetic clay) is important to achieve consistent and safe playing characteristics, prevent wearing of synthetic fibres and maintain the systems permeability.

Maintenance of synthetic filled court surface should include:

- Inspection of seam lines
- Removal of leaves, twigs and other debris
- Regular grooming (e.g. brushing) to maintain infill levels and keep fibres upright
- Regular treatment for moss and algae prevention
- Repairing of tears.



The following advice is generic and needs to be verified by the synthetic surface manufacturer.

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Inspect high wear areas and seam lines

Seam lines should be inspected regularly to identify any minor separation, particularly in high wear areas. Separation can be a result of climatic conditions and should be rectified as per manufacturer's recommendations.

Rubbish removal

Regular removal of any plant debris and other rubbish on the court surface to prevent premature loss of pile and deterioration of surface permeability.

Grooming

- Regular brushing or grooming should be carried out using appropriate brooms or grooming machines, as recommended by the surface manufacturer. It is recommended that this occur when the court is dry for maximum effectiveness and that:
- Grooming should be undertaken in the opposite direction to which the rolls were laid, this will aid in pushing the fibres upright
- Regular brushing of the surface also aids in distribution of the sand
- The frequency of brushing is dependent on the level of use.

Synthetic clays surface may require additional bagging between sets, period watering and sand top ups than SFAG.

Algae and Moss Prevention

To prevent the establishment of moss and algae on the court surface, a moss killer algaecide should be applied to the court surface.

Prior to applying chemicals to the synthetic grass, consultation with the surface manufacturer is recommended to ensure the suitability of the product.

Repair tears

Tears shall be repaired as soon as possible to prevent greater deterioration. Depending on extent of tear, typical repair works options include:

Cleaning of the tear by peeling back and applying joint backing tape.

Cutting of square / rectangular shapes around torn areas and replacing with new synthetic using backing tape and adhesives.

Resurfacing

Resurfacing of the artificial grass surface will be required when the product reaches the end of its lifespan, typically 8 - 12 years. The artificial grass generally can be resurfaced multiple times before rectification of the underlying pavement is required.

3.1.6 SUPPORTING INFRASTRUCTURE

This section provides an overview of the supporting infrastructure required for tennis courts including:

- Drainage
- Irrigation
- Lighting
- Tennis Nets (posts and winding mechanisms)
- Fencing.

For furniture, fixtures or other equipment refer to Section 3.5 Equipment and Accessories.

Drainage

Drainage systems are a vital component of all tennis courts. A lack of effective drainage infrastructure can cause premature failure of the court pavement and premature degradation of court surface and surrounding areas.

There are two key components of a drainage design: