



# Northbridge Oval Northbridge NSW Case study



## Project Overview:

Victorian based sports field civil construction company Turf One was awarded the contract by Willoughby City Council to design and construct a dual purpose artificial turf football (soccer) pitch to FIFA 1 Star standards, and cricket oval to Cricket NSW standards to replace the existing natural turf oval.

FieldTurf DURASPINE PRO 70, a recyclable artificial turf playing surface, was laid on a specially designed and engineered base. The turf is filled with washed silica sand and recycled crumb rubber from more than 25,000 car tyres. The patented FieldTurf grass and infill system ensures a safe environment whilst also providing a superior surface for developing players' skills and overall enjoyment in the game.

A specially designed vertically draining base consisting of approximately 5,000 tonnes of recycled concrete aggregates ensures any rainfall rapidly and efficiently flows through the base and into dams for storage and re-use on an adjacent golf course. This feature saves the Council more than 5 million litres annually and collects over 7 million litres whilst also maximising the utilisation of the oval. A wet and muddy field will now be a thing of the past.

A key feature is the cricket pitch. It can be raised and lowered hydraulically to sit flush with the outfield in order to eliminate the perennial trip hazard problem associated with temporary pitch covers.

## Key Points:

**Location:** Northbridge Oval, Sailors Bay Rd, Northbridge. NSW.

**Sport:** Football (soccer); and Cricket.

**Users:** Northbridge Football Club, Northbridge Cricket Club, and the local community as public open space.

**Size:** Total surfaced area: 11,000m<sup>2</sup>  
Football pitch: 94.5m x 68.0m = 6,426m<sup>2</sup>; with three metre minimum run-off from both goal and touch lines. The pitch conforms to FIFA Standards.  
Cricket field: 120 metres in diameter.

**Surface:** The first field in Australia surfaced with FieldTurf DURASPINE PRO 70 a spined monofilament polyethylene synthetic turf; and a 9mm polypropylene synthetic turf cricket pitch measuring 30m x 3.05m.

**Infill:** 470 tonnes of specially sized washed silica sand and recycled rubber was installed in a patented process to provide a safe, low maintenance, high performance playing surface. The unique infill blend tests to both the critical fall height and the performance standards set by FIFA, IRB, and Cricket NSW.

**Shock pad:** Not required.

**Base:** Over 5,000 tonnes (170 truck and trailer loads) of blended recycled concrete aggregates was used in the construction of a porous base. The open graded rock is laid in a unique wedged profile over an impervious membrane installed to stabilise the moisture content and thereby minimising differential movement of the sub-grade.

**Drainage:** The deep layer aggregates provide a more efficient evacuation of rainwater from the surface than afforded by the network of agricultural pipes commonly employed for such fields. The increasing depth of railway ballast sized rock under the lower side of the oval not only flattens the playing surface, but provides more void space allowing for both retention and efficient transmission of water to the collector drains.

**Sustainability/water harvesting:**

All components of the FieldTurf surfacing system are able to be recycled using equipment developed by FieldTurf specifically for this purpose.

Turf One in conjunction with consulting engineers designed and constructed a drainage system to harvest an estimated 7 million litres of stormwater from the entire area annually and to convey it to storage dams located on the adjoining golf course for irrigation of the greens and fairways.

Fencing: No new fencing was required.

Cricket pitch:

Turf One developed an ingenious solution for the cricket pitch which allows it to be raised and lowered hydraulically in order that the oval can cater for the playing of both cricket and soccer at elite level. This unique system, which is subject to patent, allows the entire 30x3m pitch to be covered with soccer turf during the football season and raised for cricket when the overlay is removed so that the surface of the pitch is level with the outfield providing a safe transition between the two surfaces.

In one step Turf One has solved a perennial problem by eliminating the potential trip hazard and thus ensuring player welfare and minimising risk exposure.

Commenced: November 2010

Completion: April 2011

Duration: 26 weeks.

Maintenance: Turf One Pty Ltd

Cost: \$1.3 million.

Contractor:

Turf One Pty Ltd.  
61 High St, Wallan, Victoria, 3756.  
Tel (03) 5734 1900  
info@turfone.com.au

Venue Manager and Owner:

Willoughby City Council.  
31 Victor St, Chatswood, NSW, 2067.  
Tel (02) 9777 7751  
Steven Head. Director Infrastructure Services.

Other:

- First synthetic field in the City of Willoughby.
- Pitch to be certified to FIFA 1 STAR standard.
- Capacity to be used during all weather conditions including its use for intensive training sessions during the week, whilst providing a high-performance facility for weekend competition.
- Removable soccer goals custom made for the synthetic surface and clip-on nets.
- Goals and line markings are permanent for soccer.
- In-ground socket sleeves fitted for pitch corner flags.
- Supply and installation of a new lighting system consisting of five towers providing a uniform 100 Lux illumination of the soccer pitch and practice areas.

## Testimonial:

Sunday 17th April 2011, 10.42pm

To: Steven Head, Julie Whitfield

Subject: Northbridge Oval

*Hi Steven, Julie*

*Well Northbridge Oval has lived up to ....and exceeded our expectations.*

*Friday night and Saturday was the ultimate demonstration of the benefits to everyone of the installation of the synthetic surface – every field on the Northshore closed ..... except Northbridge. I especially liked David Puckeridges revised text message = all “turf” ovals closed.*

*There was a downpour at about 8am Sat morning which must have dropped half an inch in half an hour - absolutely zero ponding – the water just disappears.*

*I had to laugh when the referee turned up in his socks and sandals for the 1st game on Saturday morning. He looked very concerned and was quite worried the surface would get cut up! He was trying to convince the TurfOne project manager that this was going to be a big problem for the field.*

*Interestingly, our German coaches think it is a superior grass to anything they have seen or played on in Europe. Also, the St George team we played on Sunday think it a much superior surface to that used at Pagewood.*

*Also, everyone kept asking whether they would ever play cricket here again – until we pointed out there was a cricket wicket still in the middle of the field.*

*Finally, as everyone is also realising – the oval will be green today, green tomorrow, green in 6 months time, green in 6 years time.....*

*I am sure there will be lots more to talk about over the coming days and weeks but congratulations to you both from Northbridge Football Club.*

*Best regards*

*Rory Grace*

*Roderick (Rory) Grace*

*President Northbridge FC*



Turf One Pty Ltd

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