

Reconstruction of Darwin's Marrara Stadium



on smaller jobs. Indeed, it is well suited to small equipment such as that used in Darwin, where weight limitation over the drainage system was a vital contractual issue.

"The penny is starting to drop with contractors," says BMS LaserSat's Paul Short, "That hiring a BladePro 3D system for only a few weeks on a

specific project will deliver savings in time and survey costs that can be many times greater than the rental cost."

On the Darwin job, Spectra dealer Paul Dornbusch explains, the original surface was stripped and excavated to a depth of 450mm. The drainage and

Continued on Page 11...

When you tune in to the AFL game from Darwin's Marrara Stadium in February, Carlton v. the Aboriginal All Stars, it'll be another case of Spectra having been there first.

Darwin's premier oval has just been through a major reconstruction, under the supervision of the NT Department of Transport & Works, with design by Sinclair Knight Merz.

Accuracy of the finished surface was essential, so Paul Short of BMS LaserSat, national distributors of BladePro 3D, sent the "A" team up to Darwin in the person of Ray Volker. Ray is widely recognised as one of the most experienced machine control technicians in the industry.

BMS LaserSat has the runs on the board, having used BladePro 3D to successfully direct final trim on a similar, very complex, surface at the oval of Brisbane Boys College.

BladePro 3D Performs Equally Well on Small Machines

Ray Volker worked with local Spectra dealer, Paul Dornbusch of Laser Technics, to set up a small scraper built by Murray Valley Lasers.

Towed behind a light tractor, this was similar to the rig employed on the reconstruction of the track at Randwick RaceCourse, which we covered in an earlier article.

Once again, it illustrates that BladePro 3D is not simply a tool for large projects, but can supply high accuracy and substantial cost savings



Paul Dornbusch (left) and Matt Bentley of Laser Technics, Darwin, with the light scraper built by Colin O'Brien of Murray Valley Lasers.



From Page 9...

Ray Volker of BMS LaserSat, national distributor of Spectra's BladePro 3D, arrives in Darwin to install the system on a small scraper towed behind a light tractor. High accuracy was achieved in creating a surface of complex slopes.

irrigation systems were installed, followed by 200mm of fine crushed rock placed and graded to design level.

The 'as constructed' survey of the first half of the oval showed an average variance of zero millimetres from the design, says Paul, a very satisfying outcome. A 250mm layer of specially graded coarse sand was then trimmed to design level, ready for the turf.

System Executes Complex Shapes

BladePro 3D is particularly suited to this job, because the design is an ellipse with convex slopes.

The surface has a nominal 1% slope from the centre to the outside edge, which is fixed. Since the shape is oval, it follows that the distance from the centre to the edge constantly varies, and the slope varies accordingly from marginally less than 1% at the ends to marginally more than 1% on the shorter sides.

Many contractors, from past experience, associate the use of laser with the production of flat planes, and if conventional pegging is used on jobs such as the construction of sporting ovals, that's exactly the result that's obtained—a multitude of flat planes.

"The essential principle to be grasped," says BMS LaserSat's Ray Volker, "is that BladePro 3D is driven from a computer design that may incorporate complex curves, and will deliver those curved shapes—not flat planes." Of course, it will deliver flat planes, too, of great accuracy, if that's what you want. But it's the ability to produce three-dimensional shapes that distinguishes it from a conventional laser system. The complex banking of turns in the Randwick RaceCourse was a perfect example. That's why it's called '3D'.

The Darwin project benefited from the watchful eye of the MCG curator, Tony Ware, who supervised the

rebuilding of that hallowed ground a few years ago. Darwin's rainfall may not be so depressingly persistent as Melbourne's, but is a good deal more vigorous, and it was essential that the drainage system cope. So great emphasis was placed on the specs of the sub-base and coarse sand layer, keeping them as free as possible of fines.

Test Wicket to MCG Standards

Tony is preparing a wicket to Test Match standards, which will be dropped in to the centre in July when the Territory hosts its first Test between Australia and Bangladesh.

As we go to press, refrigerated trucks are rolling into Darwin with loads of Jimboomba turf. That's right—turf in refrigerated trucks from southeast Queensland to Darwin! Can you imagine how many truckloads to cover a large oval? These guys are serious about getting a good result!

