TOUGHEN YOUR TERRAIN

DIAMONDGRID™

FOR A SOLID SURFACE ANYWHERE

ENTER

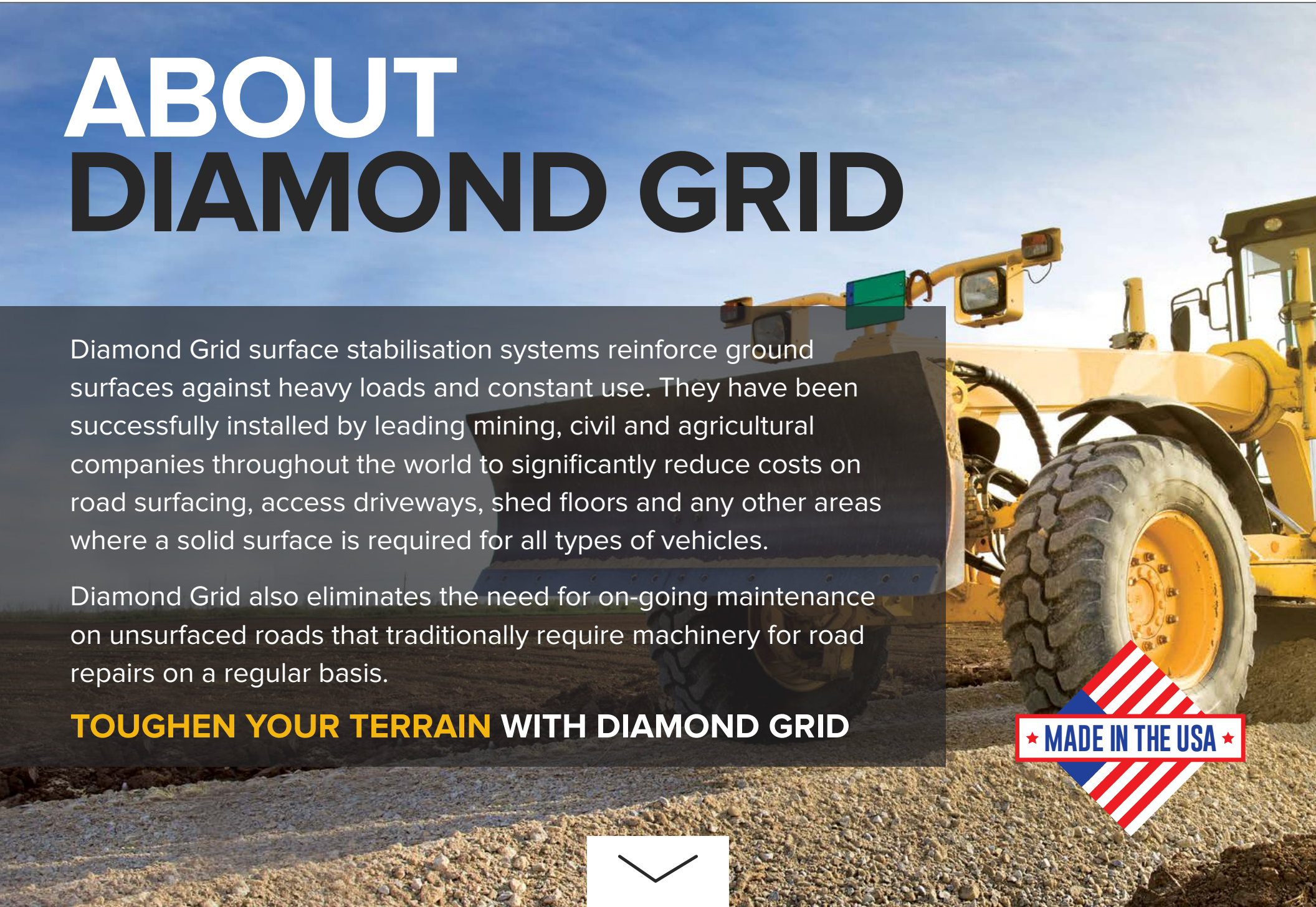
MADE IN THE USA

ABOUT DIAMOND GRID

Diamond Grid surface stabilisation systems reinforce ground surfaces against heavy loads and constant use. They have been successfully installed by leading mining, civil and agricultural companies throughout the world to significantly reduce costs on road surfacing, access driveways, shed floors and any other areas where a solid surface is required for all types of vehicles.

Diamond Grid also eliminates the need for on-going maintenance on unsurfaced roads that traditionally require machinery for road repairs on a regular basis.

TOUGHEN YOUR TERRAIN WITH DIAMOND GRID

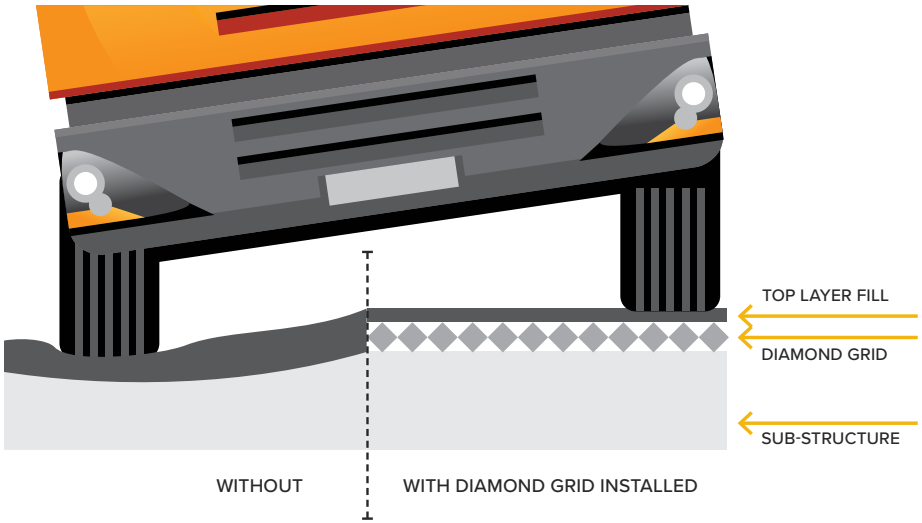


A NEW DIRECTION
IN SURFACE STABLISATION

Diamond Grid was originally designed for use on farms for solving problems with muddy areas on their properties, everything from muddy cattle yards to muddy driveways. The solution was easy, stabilise the ground and develop a drainage system, better still, design one product that does both!

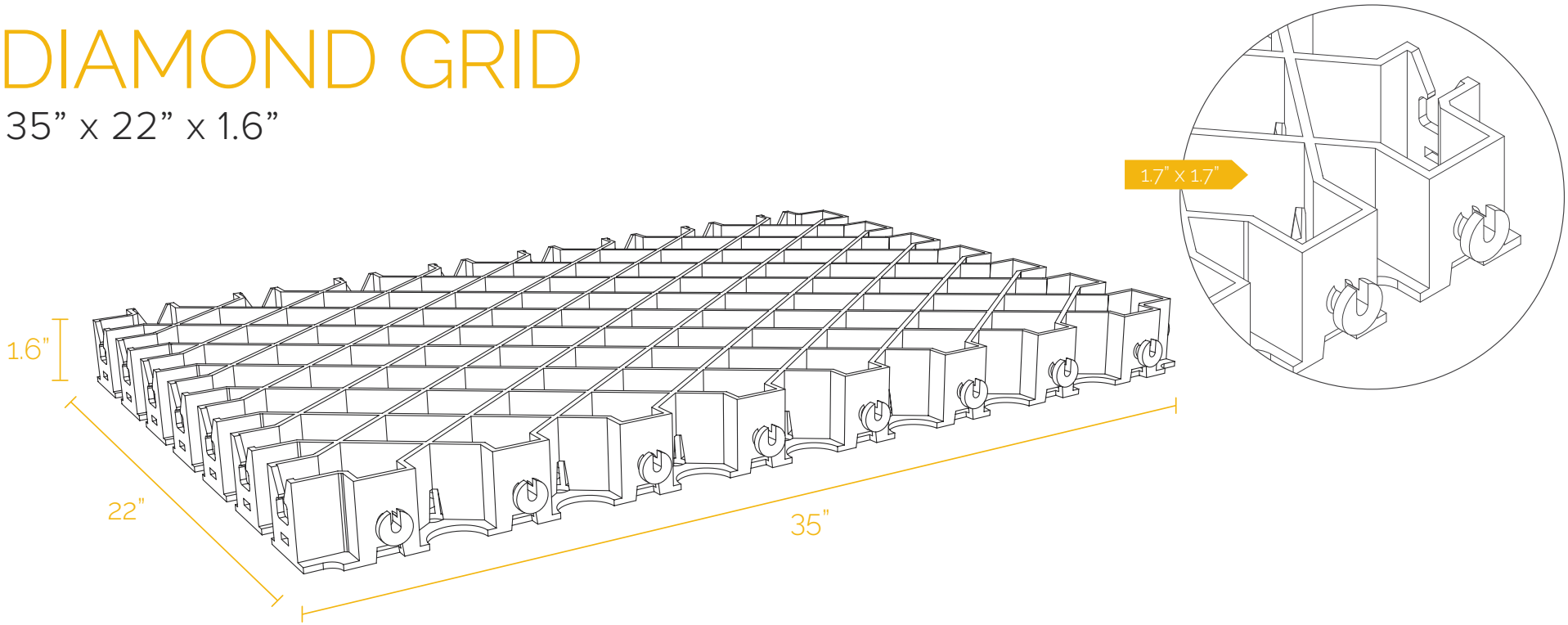
After three years in the Australian market more and more applications for the product became apparent, not only in the rural industry but also in Mining, Civil and Landscaping. Our commitment to deliver a high quality product and service will remain in the future with all areas of our company performance being closely monitored by our management.

With our current client list including the three largest mining companies in Australia, leading construction companies, Government Departments, Olympic Equestrian Studs, leading racehorse trainers, some of the largest rural retail and hardware stores in Australia and the USA, we are proud to be able to receive repeat business from these clients due to the quality and demand for our product and service.



DIAMOND GRID

35” x 22” x 1.6”



FEATURES

- Interlocking system
- 100% recycled Polypropylene (PP)
- UV stabilised
- Relocatable
- DIY

SPECIFICATIONS

Crush resistance (filled with gravel/ road base) – 1000+ tonne/Yd2*

Crush resistance (empty grids) – 300 tonne/Yd2*

Dimensions – 35” x 22” x 1.6”

Weight per grid – 7 lbs

Permeability – 96%

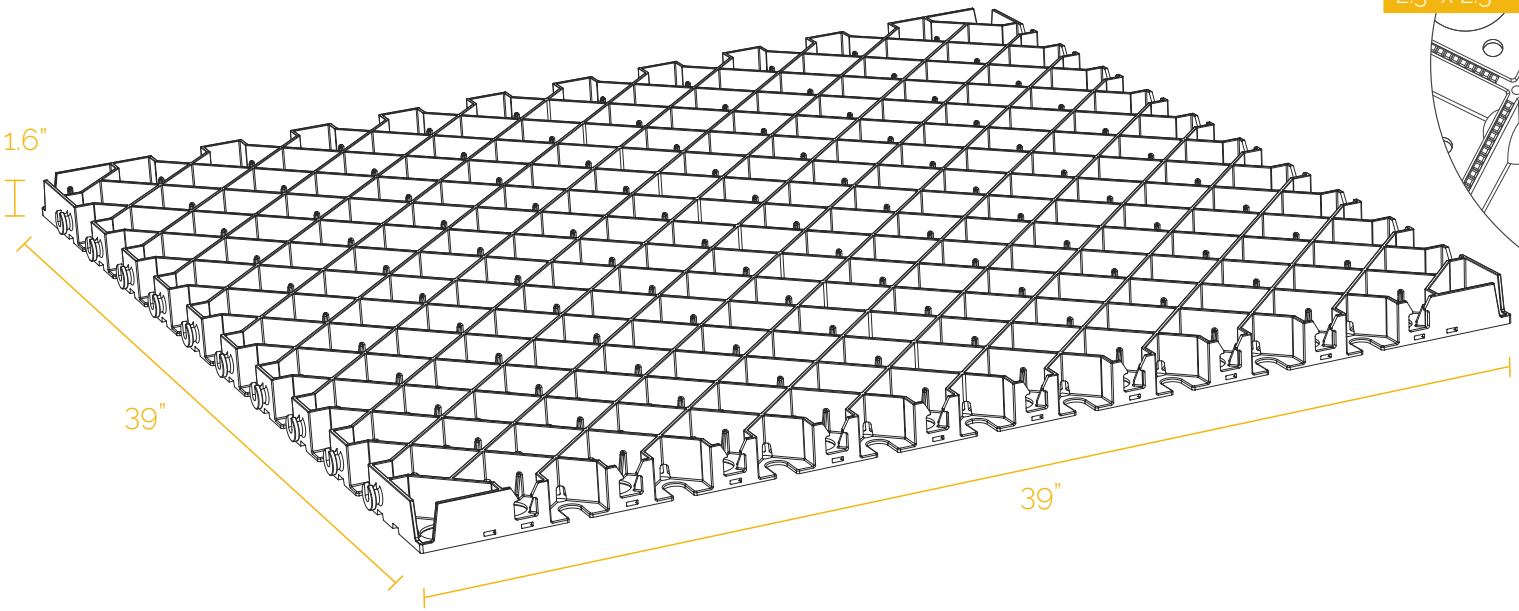
UNIVERSITY OF SOUTHERN QUEENSLAND

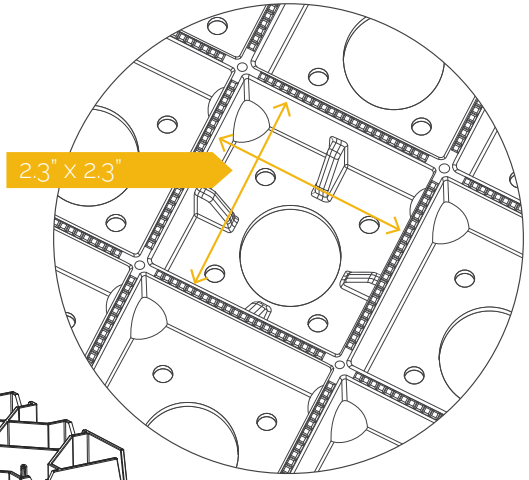
ceefc

* Tested by: Faculty of Engineering and Surveying Centre of Excellence in Engineered Fibre Composites, University of Southern Queensland.
ǂ Patent pending.

DIAMOND GRID **HEAVY DUTY**ǂ

39” x 39” x 1.6”





FEATURES

- Interlocking system
- 100% recycled Polypropylene (PP)
- UV stabilised
- Relocatable
- DIY

SPECIFICATIONS

Crush resistance (filled with gravel/ road base) – 1000+ tonne/Yd2*

Crush resistance (empty grids) – 300 tonne/Yd2*

Dimensions – 39” x 39” x 1.6”

Weight per grid –13.45 lbs

Permeability – 96%

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* Tested by: Faculty of Engineering and Surveying Centre of Excellence in Engineered Fibre Composites, University of Southern Queensland.
ǂ Patent pending.


APPLICATIONS

MINING AND CIVIL

Reduce infrastructure costs and eliminate on-going maintenance expenses

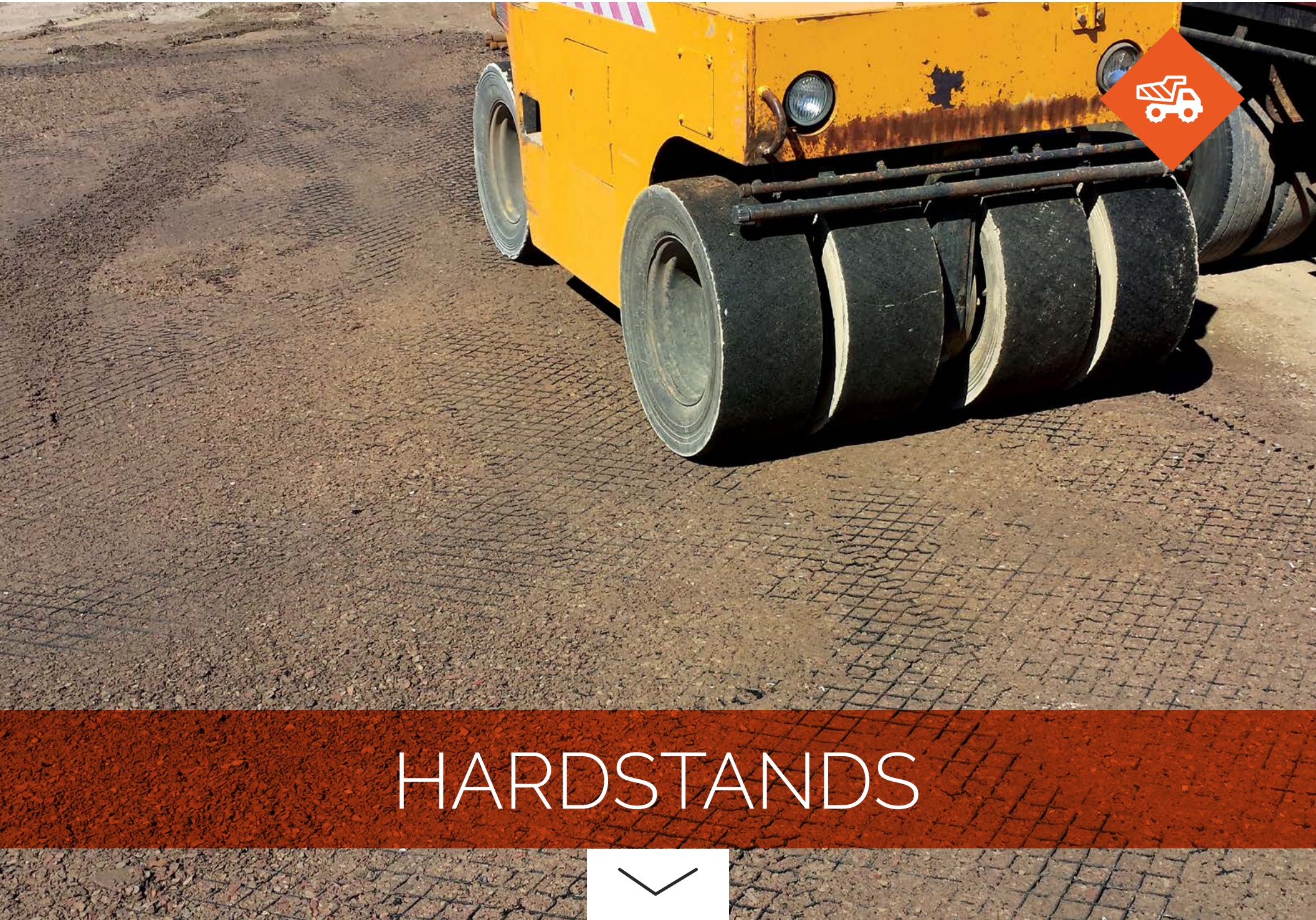
Diamond Grid surface stabilisation systems are successfully used by leading Mining companies throughout the world to cut costs on surfacing roads, shed floors and any other areas where a solid surface is required for all types of vehicles.

Diamond Grids also eliminate the need for on-going maintenance on unsurfaced roads that traditionally require machinery for road repairs on a regular basis.

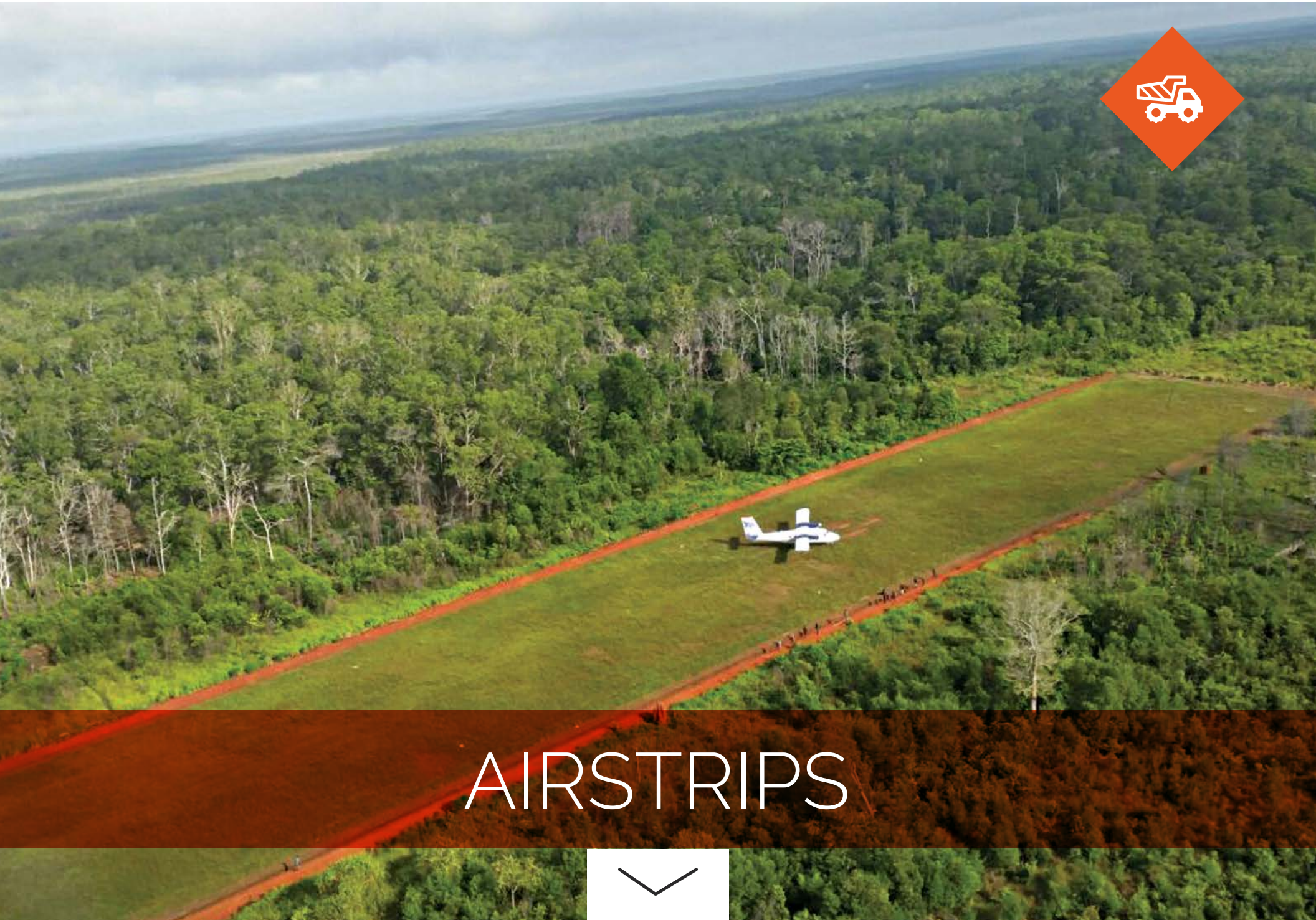
1,000
T/Yd2 FILLED
CRUSH RESISTANCE

300
T/Yd2 EMPTY
CRUSH RESISTANCE

100
PERCENT
PERMEABILITY



HARDSTANDS



AIRSTRIPS

WORKSHOP FLOORS

HAUL ROADS

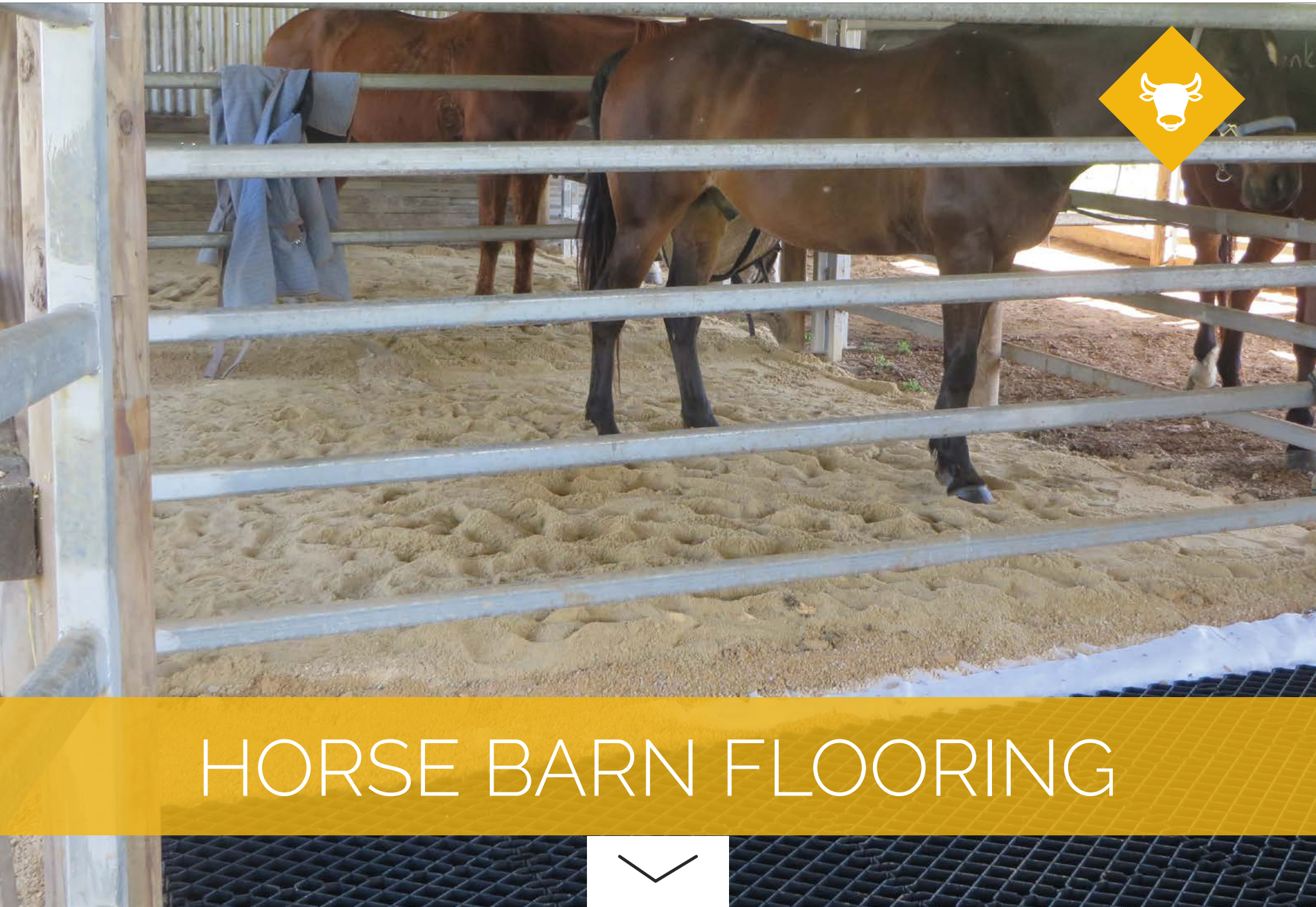
CAMP PATHS

MINE ACCESS ROADS

Reduce infrastructure costs and eliminate on-going maintenance expenses.

- Cost saving vs alternative products like concrete/bitumen, etc.
- Resolves problems with muddy areas on farms that potentially slow down productivity.
- Provides up to 60% saving on concrete for sheds floors, hardstands, car parks and driveways.
- DIY installation allows quick install without having to rely on contractors.
- Used throughout Australia and the USA by leading thoroughbred studs, cattle stations/ ranches, National Parks, commercial thoroughbred racecourses, export cattle yards, hobby farmers, commercial equestrian centres and more.

FEED BUNKER PADS



HORSE BARN FLOORING

CATTLE YARDS

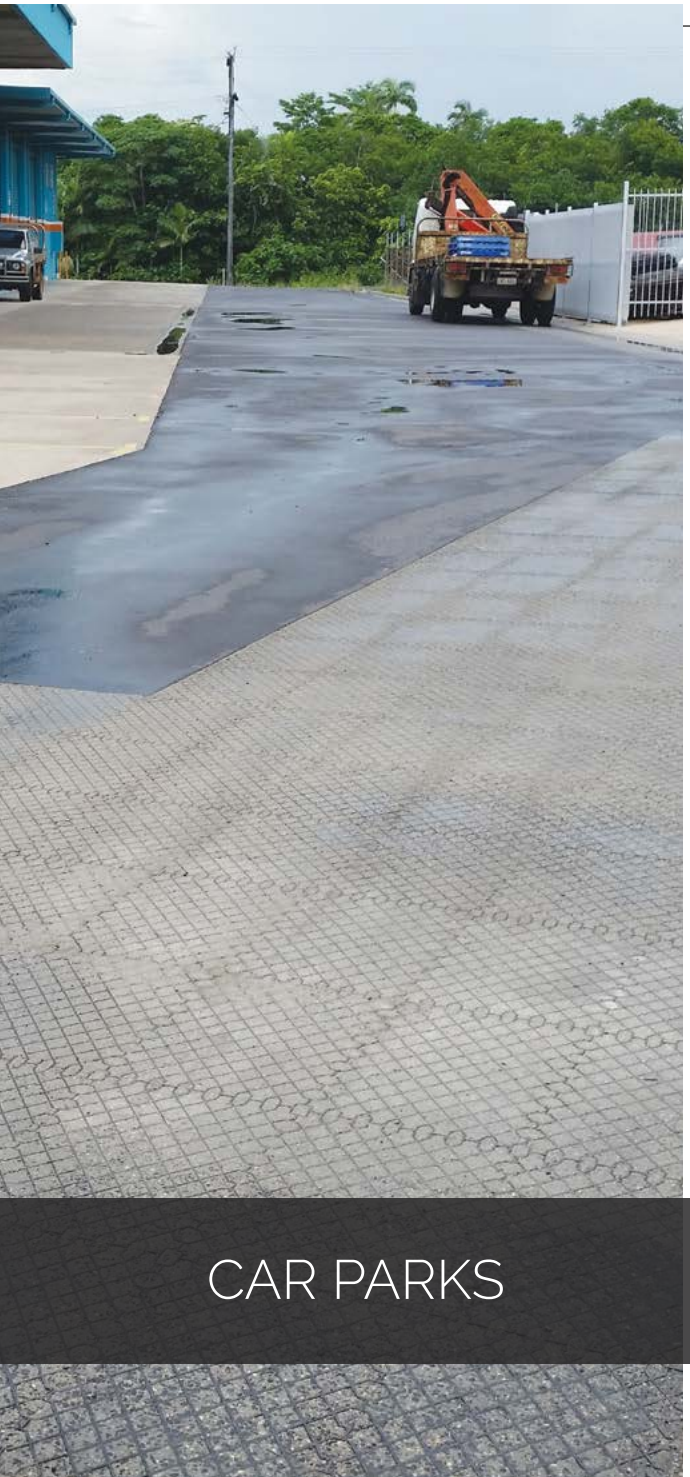
DRIVEWAYS

HORSE YARDS

CREEK CROSSINGS

MINE PLANT PATHS

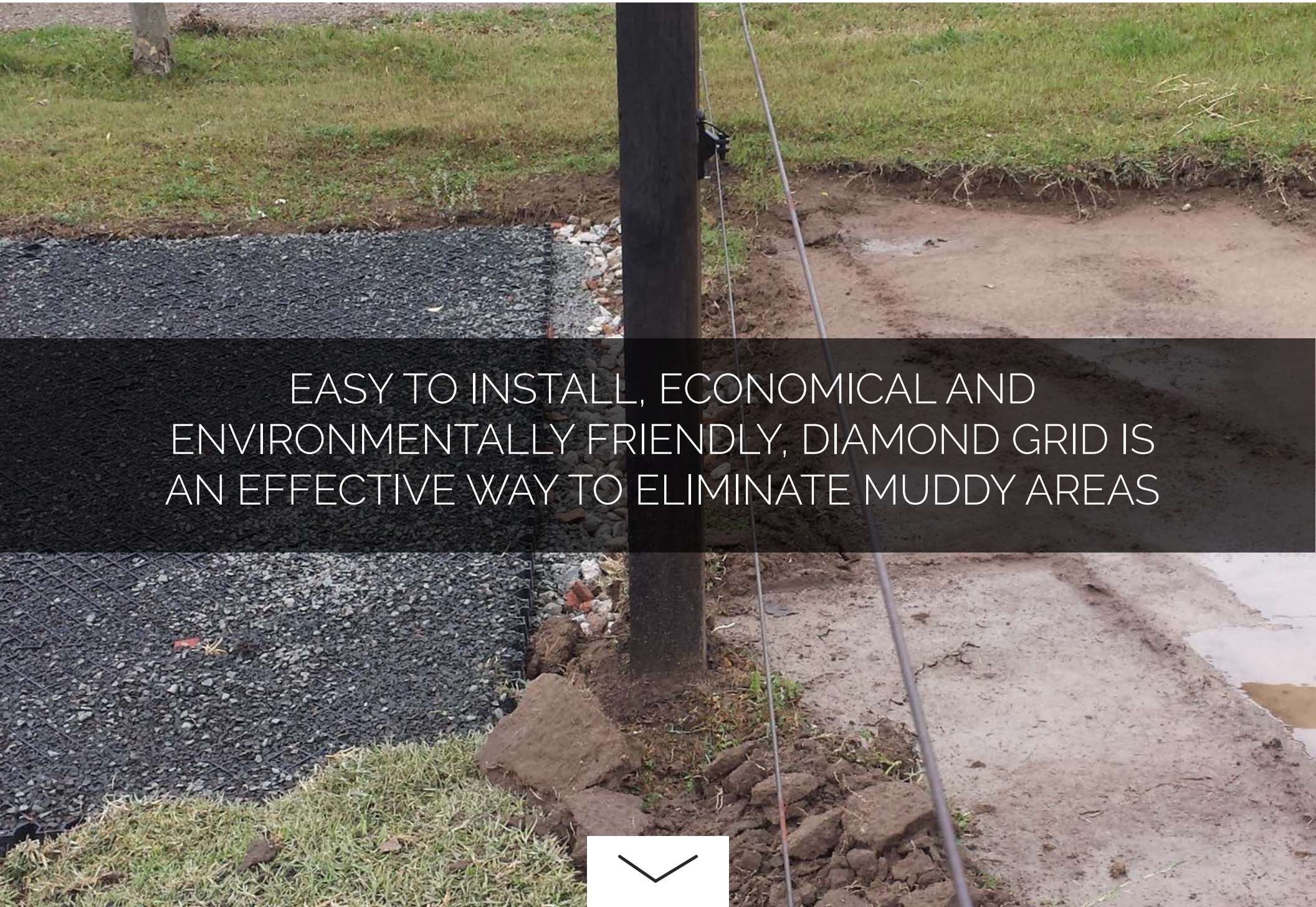
BITUMEN REINFORCEMENT



CAR PARKS

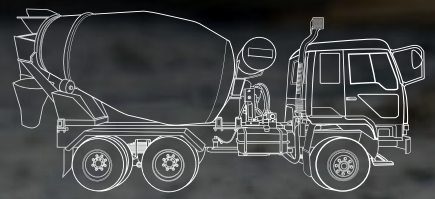
FIRE TRAILS

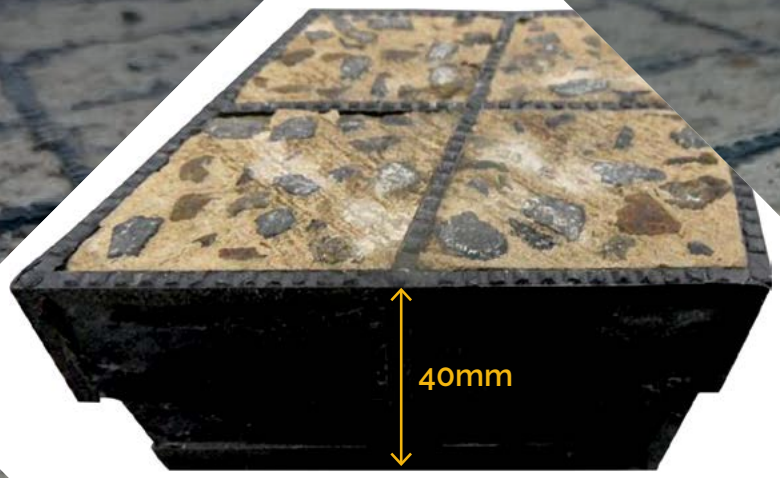
CONCRETE REINFORCEMENT



EASY TO INSTALL, ECONOMICAL AND ENVIRONMENTALLY FRIENDLY, DIAMOND GRID IS AN EFFECTIVE WAY TO ELIMINATE MUDDY AREAS

CONCRETE REINFORCEMENT





CONCRETE COSTS CAN BE REDUCED BY **UP TO 60 PERCENT** WHEN USING DIAMOND GRIDS AS THE REINFORCEMENT STRUCTURE, AS CONCRETE DEPTH REQUIRED IS **ONLY 40MM**, CONSIDERABLE SAVINGS CAN BE MADE ON CONCRETE REQUIREMENTS AND LABOUR.

COMPRESSIVE STRENGTH TESTING*

AVERAGE COMPRESSIVE STRENGTH OF ONLY 4 GRID CELLS – 25 MPa

SAVE UP TO 60% ON THE COST OF CONCRETE SLABS

* Testing carried out by Australian Laboratory Services


CASE STUDIES

ANVIL ANGUS FEED TROUGH PADS

"WE'VE FOUND DIAMOND GRID TO BE GREAT UNDERFOOT FOR THE BULLS IN THE FEED PADS. WE FOUND THE BULLS DIDN'T GET SORE FEET AND IT IS BETTER UNDERFOOT THAN CONCRETE, EASY TO INSTALL AND VERY COST EFFICIENT."

ANVIL ANGUS

THE PROBLEM

In the past Anvil Angus have installed Feed Troughs without any pads and have spent a lot of time and money carting in soil and gravel every few months so that the calves can reach the troughs. Each time they have had to go through this process cost them 50% of the price that installing Diamond Grids as a permanent solution costs, meaning that they pay for themselves within 6 months.

THE SOLUTION

- The area was levelled
- Diamond Grids were laid over the area
- The grids were filled to the top surface of the grid with 10mm Gravel.

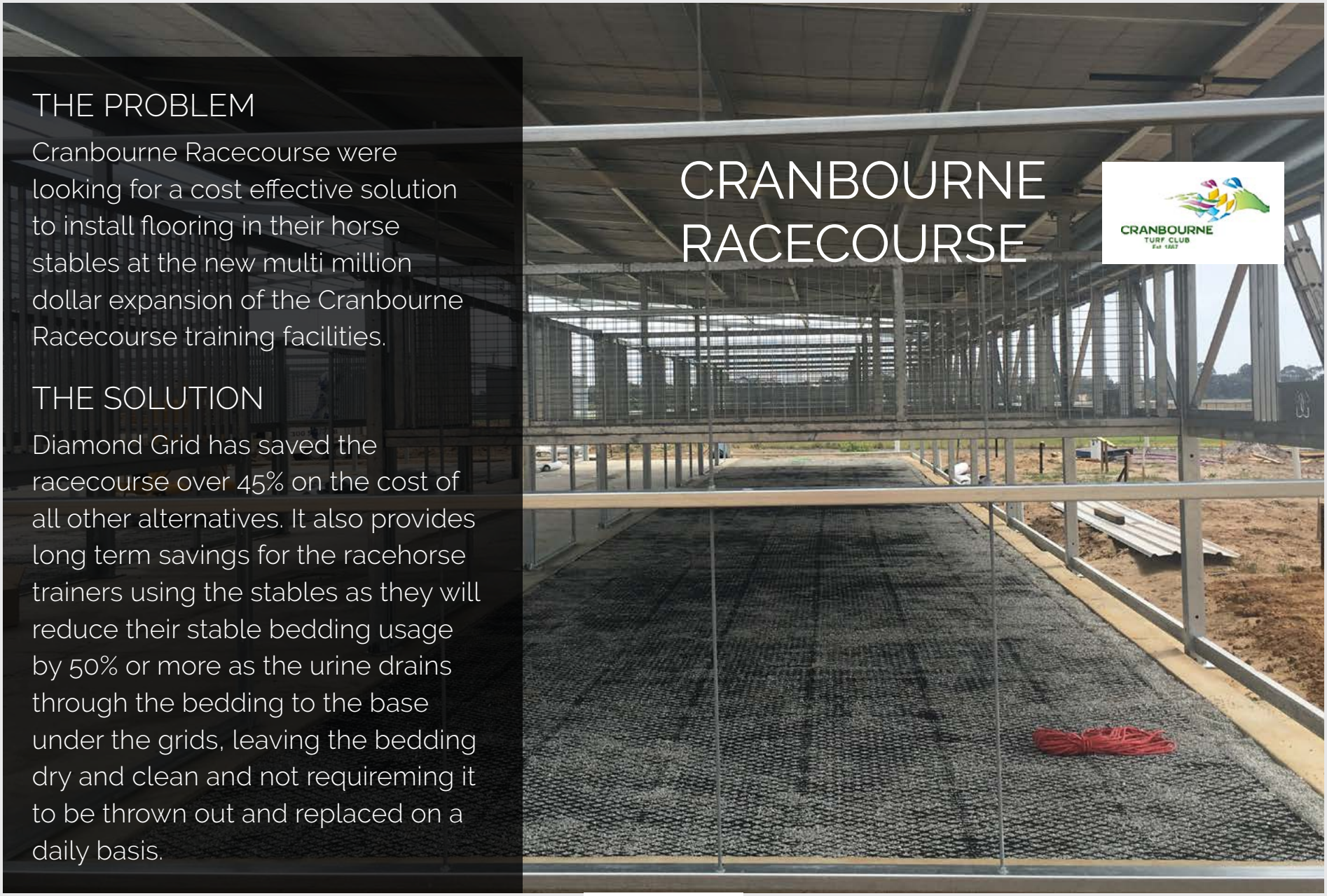
CRANBOURNE RACECOURSE

THE PROBLEM

Cranbourne Racecourse were looking for a cost effective solution to install flooring in their horse stables at the new multi million dollar expansion of the Cranbourne Racecourse training facilities.

THE SOLUTION

Diamond Grid has saved the racecourse over 45% on the cost of all other alternatives. It also provides long term savings for the racehorse trainers using the stables as they will reduce their stable bedding usage by 50% or more as the urine drains through the bedding to the base under the grids, leaving the bedding dry and clean and not requireming it to be thrown out and replaced on a daily basis.



ROSEHILL VETERINARY CLINIC DAY YARDS

THE PROBLEM

Rosehill Veterinary Clinic had major issue with muddy day yards off their stables. The yards were used for horses post operation and it was important to provide them with a dry, clean surface for recovery.

THE SOLUTION

Diamond Grids were installed to provide a draining surface where rain and urine would filter through the 10mm gravel and drain away, leaving the top surface clean. The surface is also able to be hosed, disinfected and flushed to keep it clean and disease free.

ZOCAR HAY FARM SHED FLOOR

THE PROBLEM

Zocar Hay Farm was having issues with their hay and other horse feed getting wet from water rising up through the ground.

THE SOLUTION

- Floor levelled and compacted
- Diamond Grid laid
- Filled with 10mm drainage gravel
- Sprayed with bitumen emulsion to provide a solid, draining surface.

DRIVEWAYS

THE PROBLEM

This driveway was prone to severe erosion due to the steep slopes and sharp turns. The client required a cost effective permanent surface that wouldn't crack or erode.

THE SOLUTION

Diamond Grid has provided a surface that is a fraction of the cost of concrete or asphalt, it cannot crack like concrete and asphalt and best of all the client was able to install himself, saving further money on install costs.

AIRSTRIP IN PAPUA NEW GUINEA

THE PROBLEM

This airstrip had a very high water table and during the wet season it was not possible for aircraft to land on the airstrip due to the softness of the surface.

THE SOLUTION

Diamond Grid was installed on the airstrip and filled with local material, grass was then allowed to grow through the grids to reinforce the surface further and create an all weather airstrip.

THE PROBLEM

BHP had issues with access roads becoming unpassable during wet weather and in the period after the wet weather due to the road base surface always washing away. This was creating direct costs of on-going maintenance and costs associated with not being able to access their exploration sites until the roads are repaired again.

THE SOLUTION

- The existing base was levelled
- Geofabric was laid over the base area where the grids were going to be laid, creating a barrier between the base and the top layer
- Diamond Grid was laid on the Geofabric
- Crushed Sandstone was spread
- The crushed sandstone was then spread into the grids and compacted with a roller.

EXPLORATION SITE MINE ACCESS ROAD

bhpbilliton

FMG Fortescue
The New Force in Iron Ore

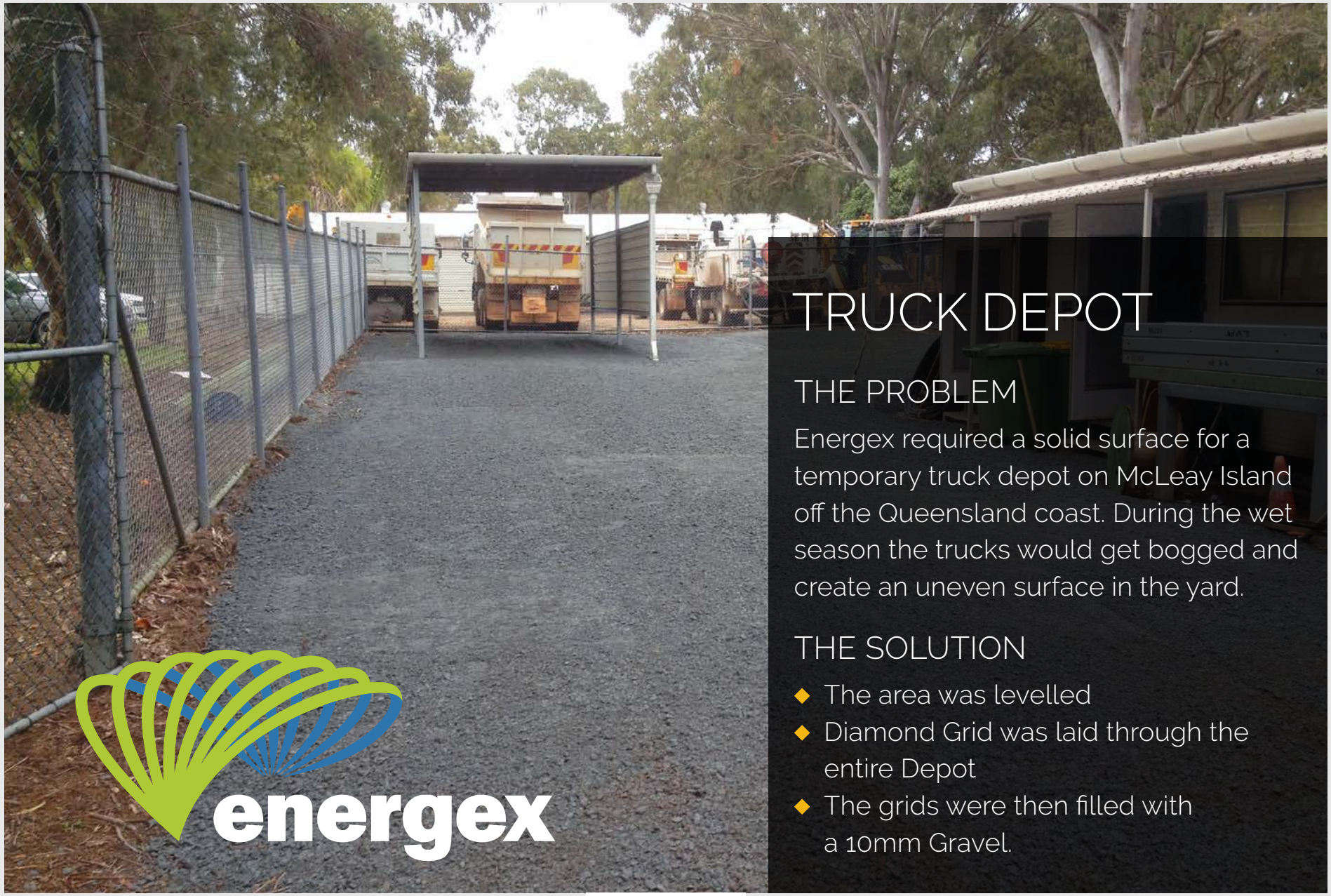
HARDSTAND AREA USED BY FORKLIFTS

THE PROBLEM

Fortescue Metals Groups had issues with their forklifts getting bogged in the mud on their hardstand areas. This slowed down production, created safety issues in the work place and created more work repairing the damage made to the surface due to it being ripped up by the vehicles tyres.

THE SOLUTION

- The area was levelled and compacted with a small roller
- Diamond Grids were laid over the area
- Decomposed Granite was tipped on top of the grids and spread with a Bobcat and spreader bar
- The area was then rolled again to compact the granite into the Grids.



TRUCK DEPOT

THE PROBLEM

Energex required a solid surface for a temporary truck depot on McLeay Island off the Queensland coast. During the wet season the trucks would get bogged and create an uneven surface in the yard.

THE SOLUTION

- The area was levelled
- Diamond Grid was laid through the entire Depot
- The grids were then filled with a 10mm Gravel.

"AFTER INITIALLY PURCHASING DIAMOND GRID TO SOLVE A PROBLEM WITH A SINGLE MUDDY PATHWAY, WE HAVE SINCE KEPT DIAMOND GRID IN OUR STORES TO DEAL WITH ANY PATHS OR ROAD WAY ISSUES THAT ARISE. DIAMOND GRID HAS BECOME A CRITICAL PART OF ALL OUR INFRASTRUCTURE PROJECTS".

MANDALAY RESOURCES

PATHWAYS

THE PROBLEM

Mandalay Resources had issues with their pathways being slippery, muddy and unsafe during the wet weather. Some sections of the pathways were on very steep slopes, making concreting expensive and time consuming.

THE SOLUTION

- The area was levelled
- Diamond Grid laid
- Wheelbarrows of fill were carted onto the grids and spread into the grid cells.

EXCAVATOR YARD

THE PROBLEM

Loadex have anywhere up to 30 Excavators, Graders, Rollers and other heavy machinery in their hire yard at any one time, weighing up to 50 tonne. They required a surface that would stop the machines ripping the ground up and creating an uneven, muddy surface.

THE SOLUTION

- The area was levelled and compacted
- Diamond Grids were laid over the area
- Road Base was spread into the grids with a bobcat
- Road base was then compacted with a vibrating plate
- A 10mm road base surface was laid over the tip of the grids for the Excavators to screw on.

"WE RECENTLY INSTALLED DIAMOND GRID AND HAVE FOUND THAT EVEN WITH MACHINERY EXCEEDING 50 TONNE, TRACKING AND TURNING HAS NOT AFFECTED THE DURABILITY OR RELIABILITY OF THIS PRODUCT. MORE IMPORTANTLY – NO MUD PIT."

LOADEX HIRE

BASIC INSTALL GUIDE

MINIMAL BASE PREP

1. USING A GRADER OR A BOBCAT AND SPREADER BAR, LEVEL THE SITE IN READINESS TO LAY YOUR DIAMOND GRID
2. LAY GEO FABRIC OVER THE LEVELLED AREA
3. IF THE SITE IS STILL UNEVEN, 10MM OF CRUSHED 5MM MINUS ROCK AND FINES CAN BE SPREAD AS A BEDDING.
4. LAY THE DIAMOND GRIDS STARTING IN ONE CORNER WITH THE MALE LUGS FACING OUTWARDS ON BOTH MALE SIDES.
5. FILL THE DIAMOND GRID WITH A BOBCAT AND SPREADER BAR OR SOMETHING SIMILAR AND YOUR CHOICE OF MATERIAL*.

MEDIUM BASE PREP

1. LAY GEO FABRIC OVER THE AREA WHERE THE GRIDS ARE GOING TO BE LAID
2. COVER THE GEO FABRIC WITH ROAD BASE AND COMPACT TO A LEVEL 40MM BELOW FINISH HEIGHT
3. COMPACT ROAD BASE WITH ROLLER OR VIBRATING PLATE
4. USING A GRADER OR A BOBCAT AND SPREADER BAR, LEVEL THE SITE IN READINESS TO LAY YOUR DIAMOND GRID
5. IF THE SITE IS STILL UNEVEN, 10MM OF CRUSHED 5MM MINUS ROCK AND FINES CAN BE SPREAD AS A BEDDING.
6. LAY THE DIAMOND GRIDS STARTING IN ONE CORNER WITH THE MALE LUGS FACING OUTWARDS ON BOTH MALE SIDES.
7. FILL THE DIAMOND GRID WITH A BOBCAT AND SPREADER BAR OR SOMETHING SIMILAR AND YOUR CHOICE OF MATERIAL*.

EXCAVATION AND MAJOR BASE PREP

1. EXCAVATE SITE TO A DEPTH OF 200-350MM DEPENDING ON THE CONSISTENCY OF THE SUB GRADE
2. LAY GEO FABRIC OVER THE AREA WHERE THE GRIDS ARE GOING TO BE LAID
3. COVER THE GEO FABRIC WITH ROAD BASE AND COMPACT TO A LEVEL 40MM BELOW FINISH HEIGHT
4. COMPACT ROAD BASE WITH ROLLER OR VIBRATING PLATE
5. USING A GRADER OR A BOBCAT AND SPREADER BAR, LEVEL THE SITE IN READINESS TO LAY YOUR DIAMOND GRID
6. IF THE SITE IS STILL UNEVEN, 10MM OF CRUSHED 5MM MINUS ROCK AND FINES CAN BE SPREAD AS A BEDDING.
7. LAY THE DIAMOND GRIDS STARTING IN ONE CORNER WITH THE MALE LUGS FACING OUTWARDS ON BOTH MALE SIDES.
8. FILL THE DIAMOND GRID WITH A BOBCAT AND SPREADER BAR OR SOMETHING SIMILAR AND YOUR CHOICE OF MATERIAL*.

* Galahad Geosystems makes no representations or warranties in respect of the suitability of the Diamond Grid product to any customers individual applications. The information in this guide is general only and customers should seek advice prior to commencing installation to ensure that the conditions of their project are catered to.

Galahad Geosystems accepts no liability where damage is caused to the Diamond Grid due to a failure to seek appropriate installation advice prior to commencing the project.

WANT TO KNOW MORE?

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BACK TO HOME