



**INNOVATIVE
SUSTAINABLE
PAVEMENT
SOLUTION
SPECIALISTS**



EXCELLENCE FROM THE GROUND UP

Hiway Group has been delivering sustainable, innovative ground improvement solutions since 1986.

Our reputation for quality performance has been built upon our drive and commitment to safe work practices, innovation, environmental sustainability, leadership and excellence.

It is our commitment to innovation, environmental sustainability and industry leadership that has seen us introduce cutting edge technologies into Australia and develop our own advanced methodologies and stabilising products.

With a proven track record of ensuring high quality, lasting outcomes – even in challenging conditions – our in-house design and contracting teams are industry experts.



Hiway Stabilizers provides specialist pavement construction services and advanced stabilisation solutions. Our proven solutions increase strength and durability, and conserve diminishing resources.



SAT Civil deliver uncompromising road maintenance and construction services. Our innovation has introduced several construction methods in, HIPAR and accurate dustless applications.





DESIGN & PROJECT MANAGEMENT SERVICES

Hiway Group is the only specialist stabilising contractor in Australia to provide extensive in-house design services.

From concept design to delivery, our in-house team provides a 'one-stop-shop' for design of roading, foamed bitumen, stabilising, rehabilitation and overlay pavement solutions, but we also work seamlessly with Consultants, Project Teams, Consortia and Network Alliances.

Working with laboratory partners, we offer a range of services that can assist clients and consultants including pavement investigation and subgrade analysis, pavement design optimisation and mix design.

Our track record covers a variety of pavement types, from heavy duty pavements for port and airport applications to high level structural and modified rail and highway pavements to specialist networks such as windfarm, forestry and private roads.



STABILISED MATERIALS

Hiway Stabilizers aims to be the leaders in earthworks and pavement construction and rehabilitation using advanced technology and innovative processes to provide the highest quality of long-term solutions to permanent rejuvenation, Australia-wide and internationally.

Hiway Stabilizers have been pioneering the use of stabilisation and the beneficial enhancement of the engineering properties of soils and aggregates. This process provides a cost-effective solution for the construction, rehabilitation, and maintenance of new composite and existing pavements.

The solutions provide structurally sound pavements increasing strength of materials, substantially reducing imported aggregate requirements and providing best value whole of life outcomes.

WINDFARM INFRASTRUCTURE CONSTRUCTION

Windfarms are often in remote and difficult to access locations. Constructing suitable all-weather access for the windfarm construction and delivery of over dimensional loads requires strong subgrades and pavements for the construction and commissioning phases. Once completed the windfarm roads are generally accessed by smaller maintenance vehicles.

Hiways has used stabilisation techniques to improve the engineering properties of insitu materials on windfarm projects in Australia and New Zealand. Stabilisation is a sustainable solution as it minimises the need to import more expensive materials. A strong subgrade also minimises the depth of granular pavement required to support construction traffic and keep the subgrade dry.

The use of stabilisation techniques not only has cost benefits but they are fast and efficient processes that minimise construction time and exposure to weather risk.

Stabilised materials use a minimal quantity of a designed additive to improve engineering properties and performance of materials.

APPLICATIONS

- ▶ Subgrade improvements.
- ▶ Access road construction.
- ▶ Windmill foundation pads and substation yards.

BENEFITS

- ▶ Minimises imported materials
- ▶ Speed of construction
- ▶ Reduced cost
- ▶ Reduced weather risk exposure



PAVEMENT & STABILISATION MIX DESIGN

Hiway Stabilizers has substantial pavement and subgrade design experience with a technical design team and our laboratory partners. Our aim is to achieve the most effective design that meets the design criteria but incorporates the enhanced modified characteristics of all materials and uses the optimum quantity of additives.

PAVEMENT DESIGN

In situ materials will vary along the route traversed by access roads with geology and with varying depths of earthworks.

Working collaboratively with the client and their design consultants, the Hiways team can assist to design location specific treatments that optimise the use of local materials. This value-added approach by Hiways will reduce cost and improve constructability.

Our design team use Circlay to model the pavements based on engineering properties, the desired life cycle and proposed vehicle axle loadings. Unlike normal road pavements, windfarm access roads need to accommodate extreme loadings over a short period of time during the construction phase before reverting to light vehicle maintenance access.

The mix design is based on testing of the materials to be treated and this informs the types of additive that will best achieve the design criteria. An iterative approach is used with several different pavement make-ups to find an optimal treatment that meets the design criteria.

CONSTRUCTION

As the earthworks progress and reach the correct shape the stabilisation process can commence to create a stable all weather layer. The speed of stabilisation means that subgrade materials are protected from the weather and rapidly increase in strength and load carrying capacity.

The stabilised materials are then compacted with conventional compaction equipment to the specified density.

The completed layer should be cured by keeping moist until the next layer of pavement material is applied. This layer may also be a locally won granular material that may also be stabilised to optimise its performance.



Stabilised pavement materials are produced with minimal additives required to achieve the design criteria - making this a sustainable and efficient process.





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