

# SuDS Permeable Paving

## Crane Hardstandings , Truckcell, Wadlow Wind Farm, Cambridgeshire, UK



Case Study

### Project Description

In line with Cambridge County Council's Renewable Energy Development Programme RES received consent to build the 13-turbine Wadlow Wind Farm. The infrastructure, bases columns and turbines were built and commissioned in 14 months. The 26MW wind farm is capable of generating sufficient renewable electricity to meet the annual requirements of nearly 17,000 UK homes - which for comparison is equivalent to more than a quarter of all the houses in the South Cambridgeshire District.

### The Challenge

The site is in a sensitive ecological and archaeological location. During excavation of the crane hardstandings, archaeologists kept a watching brief and a number of flint and other artefacts were found. It was, therefore, very important that the design and construction of the crane hardstandings was sympathetic to the local environment but without compromising the ability of each pad to achieve a minimum bearing capacity of 200kPa.

A Sustainable Drainage System (SuDS) had to be designed which was able to operate over the entire site. This meant that the surface should achieve infiltration rates equivalent to a green field site and included swales, check dams and infiltration basins based on a soakaway principle in the chalk strata.

The 13No 40m x 20m hardstandings had to be as visually unobtrusive as possible without compromising their effectiveness.

### Project Information

Client	Renewable Energy Systems (RES)
Contractor	Forkers Renewable Energy
Consultant	McCloy Consulting/JNP Group
Products	Truckcell recycled plastic blocks
Quantity	5,200m <sup>2</sup>
Benefits	<ul style="list-style-type: none"><li>• Rapid Installation</li><li>• Ease of handling on site</li><li>• Greater volume and quality of grass establishment</li><li>• SuDS solution returning stormwater to the natural water table</li><li>• Manufactured from 100% recycled and recyclable plastic</li></ul>



ABG Truckcell with stone and grass finish

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### The Solution

Forkers Renewable Energy chose the **ABG Truckcell** porous plastic paving system, supported by a free draining sub base. The **Truckcell** cells were then filled with Type 1 stone for 50% of the area for the most trafficked areas the other 50% were filled with topsoil and seeded with indigenous grass seed mix to blend with the local environment.

It soon became clear that **Truckcell**, with its environmental credentials, rapid installation time, competitive cost and ability not only to cope with rigorous loading, but also to provide a grassed appearance, ticked all the boxes for the Wadlow scheme.

### The ABG Service

ABG are able to provide a full surface and subsurface design to ensure an environmentally sound, workable and cost effective solution.



Truckcell provides a stable working surface for cranes to operate



Hardstandings with blended “soft” looking edge detail



Access for site visitors to the finished site

Contact ABG today to discuss your project specific requirements and discover how ABG past experience and innovative products can help on your project.