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GREEN CITIES FOR LIFE

Chan Chan Archaeological Site

Project Location

La Libertad, Peru

Atlantis Application

Permeable Surface

Project Overview

Chan Chan is an archaeological site located approximately 5 km west of Trujillo, Peru. Increased visitor traffic created a requirement to protect the site's original walkways while providing a controlled means of managing rainfall to reduce erosion within the archaeological complex.

The project incorporated Atlantis® Road Cell™ 53 mm across approximately 1,700 m² of the tourist circuit. The cellular system was installed over a waterproof membrane and filled with gravel, creating a stable pedestrian surface while providing a drainage layer for directing rainfall away from the archaeological site.

Technical Summary

Project	Chan Chan Archaeological Site
Location	La Libertad, Peru
Application	Permeable Surface
Completion	September 2017
Size	1,700 m²
Surface Use	Pedestrian / Tourist Access
Atlantis System	Road Cell®

Design Challenge

The tourist circuit required a surface treatment capable of accommodating increasing visitor traffic while protecting the underlying archaeological walkways. Rainfall also needed to be managed without allowing uncontrolled water movement to contribute to erosion within the site.

01 Protect the original archaeological walkway beneath the tourist circulation route.

02 Provide a stable pedestrian surface across the designated visitor circuit.

03 Manage rainfall within the walkway profile rather than allowing uncontrolled runoff across the archaeological site.

04 Direct collected water away from erosion-sensitive areas.

05 Incorporate the drainage and surface system above a waterproof membrane protecting the underlying walkway.

06 Improve visitor access, including access for people with disabilities, through a firm and stable gravel surface.

Solution

A waterproof membrane was installed over the existing walkway to form the underlying protective layer. Atlantis® Road Cell™ 53 mm modules were then positioned directly over the membrane and mechanically clipped together to create a continuous cellular layer.

The cells were filled with gravel to form the finished pedestrian surface. The cellular layer provided confinement for the gravel while simultaneously creating a drainage pathway above the waterproof membrane, allowing rainfall entering the walkway to be directed away from the archaeological site.

Approximately 1,700 m² of Road Cell™ 53 mm was installed across the project.

Solution

- Original archaeological walkway protected beneath the new surface system.
- Approximately 1,700 m² of cellular walkway installed.
- Gravel confined within the 53 mm cellular structure.
- Drainage incorporated within the walkway profile.
- Rainwater directed away from the archaeological site to reduce erosion.
- Firm, stable pedestrian surface provided across the tourist circuit.
- Improved accessibility for visitors, including people with disabilities.

Considerations

The documented installation used a layered configuration consisting of the existing walkway, a waterproof membrane, Road Cell™ 53 mm and gravel infill.

The waterproof membrane separated the new cellular pavement from the underlying archaeological walkway, while the Road Cell™ layer was installed above the membrane to provide both gravel confinement and drainage. The installation extended across almost the entire tourist circuit, excluding the funeral zone.

Project Outcomes

- Approximately 1,700 m² of Road Cell™ 53 mm installed.
- Cellular modules mechanically interconnected above a waterproof membrane.
- Road Cell™ filled with gravel to form the finished pedestrian surface.
- Existing archaeological walkway protected beneath the installed pavement system.
- Drainage incorporated above the waterproof membrane.
- Rainwater directed away from the archaeological site to reduce erosion.
- Stable pedestrian access provided across the tourist circuit.
- Installation covered almost the entire tourist circuit, excluding the funeral zone.

The project demonstrates a pavement configuration in which the cellular layer performed two functions within the same profile: stabilising the gravel pedestrian surface and providing a drainage pathway above the protected underlying walkway.

Did You Know?

At Chan Chan, the cellular pavement was installed above a waterproof membrane rather than directly over the existing walkway.

Road Cell™ 53 mm was clipped together over the membrane and filled with gravel. This configuration separated the new pedestrian surface from the original archaeological walkway while providing a drainage pathway for rainfall above the protected surface.













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Thank You For Your Attention



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