

# Waterproofing Cal Poly Recreation Center Achieved with GCP Waterproofing for Shotcrete Foundations

The completion of the Cal Poly Recreation Center exceeds expectations after using PREPRUFE® SCS Waterproofing

---



|                    |  |
|--------------------|--|
| Client             | California Polytechnic State University, San Luis Obispo, CA |
| Project Architect  | Cannon Design, Los Angeles, CA                               |
| Applicator         | ALCAL Specialty Contracting, Inc., Fremont, CA               |
| General Contractor | Sundt Construction, Inc., San Luis Obispo office, CA         |
| GCP Solution       | PREPRUFE® SCS waterproofing                                  |

## The Overview

### The Project

At Cal Poly, recreation is seen as an important part of their students' education, and physical and intellectual well-being, while providing the opportunity for social interaction. But with Cal Poly's growing student population in San Luis Obispo, their existing recreation centre was no longer up to the task.

The University needed a cost-effective way to remodel and expand their recreation centre. The expanded 166,000 square foot (15,422 m<sup>2</sup>) facility would transform their recreation centre to create a more accommodating facility and help attract new students as well.

Designed to achieve green building Leadership in Energy and Environmental Design (LEED) certification, the new facility architecture included approximately 95,000 square feet (8825 m<sup>2</sup>) of existing area that was renovated or reconfigured and approximately 100,000 square feet (9290 m<sup>2</sup>) of new construction which included six racquetball courts, two basketball courts, a multipurpose court, pool, lobby and workout rooms.

The site for the new construction was tight. Part of the recreation centre building was adjacent to a higher-grade level and near roads that constrained the property line and would have made excavation beyond the perimeter of the building footprint a difficult task. Accordingly, the architecture design and construction team determined that using spray concrete foundation walls would provide a more cost-effective solution without requiring extensive excavation in that area of construction.

To waterproof the shotcrete walls would have posed some challenges, but the team brought on technical expertise from Blue360<sup>SM</sup> Design Advantage and specified a blindside waterproofing product specifically designed for shotcrete applications.

---

*"We got all the support we needed from GCP and the waterproofing installation went very well. It was completed over a year ago and we haven't seen any problems."*

---

Larry Taniguchi, Cannon Design

By using PREPRUFE<sup>®</sup>SCS blindside waterproofing in the architecture design, there was no need to modify a conventional waterproofing system to try to make it work for a shotcrete application. The innovative system is engineered for shotcrete foundation wall applications with a unique combination of waterproofing membranes and injection grout to prevent water leaks and minimise the potential for water damage.

The system's composite membrane, built to withstand the force of shotcrete, was attached to the soil retention system.

Then, the specially formulated hydrophilic grout was injected into the composite membrane to fill and seal the waterproofing system.

Throughout approximately 10,000 square feet (929 m<sup>2</sup>) of shotcrete foundation walls at the recreation centre, the system's components worked together to form a continuous and integral bond to the structure, to eliminate water migration between the membrane and shotcrete.

## The Results

"GCP's reps came out and were very helpful with the installation of the product", said Larry Taniguchi, the architect on the project from Cannon Design. "We have a sub-floor drainage system in place so we see water there when it rains, and we haven't seen any evidence of water coming through the waterproofed walls".

When installed by trained and approved applicators, PREPRUFE<sup>®</sup>SCS is designed to prevent water leaks, minimise the potential for water damage and reduce the time and cost for any needed repairs on foundation walls caused by water damage.

By using the right products with quality construction practices, the education project's design and construction team helped ensure the project's success—as a valuable asset to Cal Poly's students now, and classes for years to come.

Blue 360<sup>SM</sup> Field Advantage.

*Our team is your team.*

[gcpat.my](http://gcpat.my) | For technical information: [asia.enq@gcpat.com](mailto:asia.enq@gcpat.com)

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP Applied Technologies (Malaysia) Sdn. Bhd, 7 Lorong CJ 1/1A, Off Jalan Balakong, 43200 Cheras Jaya, Kuala Lumpur, Malaysia

This document is only current as of the last updated date stated below and is valid only for use in Malaysia. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on [www.gcpat.my](http://www.gcpat.my). Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2023-08-31

[gcpat.my/about/project-profiles/waterproofing-cal-poly-recreation-center-achieved-gcp-waterproofing](http://gcpat.my/about/project-profiles/waterproofing-cal-poly-recreation-center-achieved-gcp-waterproofing)