



# Project Profile

## **Project**

Tucson Mall  
Tucson, AZ

## **Owner**

General Growth Properties

## **Roofing Contractor**

Clark's Quality Roofing, Inc.  
Salt Lake City, UT

## **Roofing System**

Mechanically Attached Roof  
System, using white, 48 mil S327  
EnergySmart Roof® membrane

## **Project Size**

450,000 square feet

## **Completed**

December 2006

## **Tucson Mall Developer Chooses Clark's Quality Roofing and Sika Sarnafil for One-Stop Shopping**

It seems fitting that a shopping mall would select a roofing contractor because of its one-stop shopping, which is precisely what General Growth Properties, Inc. of Chicago did when it selected Clark's Quality Roofing to install a Sika Sarnafil roof on the Tucson Mall.

"We had established a program with a local company, JP Realty, where we provided one-stop service for roof repairs, monitoring, and maintenance work," said Carl Clark, president of Clark's Quality Roofing, Inc. of Salt Lake City. When General Growth Properties (GGP), Inc. of Chicago purchased JP Realty in 2001, the GGP executives heard about Clark's Quality Roofing's program and wanted to learn more. "We gave them a presentation and they were very impressed," Clark stated. "They mentioned they had a problem with a roof in Tucson, and soon we were awarded a multi-million dollar project for the Tucson Mall roof."

## **A Cost Effective, Long-Lasting Solution**

The original roof on the Tucson Mall was a

ballasted EPDM roof, which was just "worn out," according to Clark. Clark suggested they replace it with a Sika Sarnafil white, EnergySmart Roof® — a roof Clark's Quality Roofing is very familiar with. Clark's Quality Roofing is a Sika Sarnafil Elite Applicator and completed 128 Sika Sarnafil projects in 2006 alone.

"Sika Sarnafil's roofing systems have proven to be very cost-effective, long-lasting roofing solutions, which we can apply in almost any kind of roofing application," Clark explained. "Our customers rely on us to do what's right. The company's products perform better than other products we've installed, and last twice as long. That's one reason we've had a very good partnership with Sika Sarnafil for more than 20 years."

## **Reflective, Lightweight Roof Offers Substantial Savings**

In addition to proven performance and durability, the EnergySmart roofing membrane also offers two other cost-effective benefits that have played a role in GGP's decision to use it — not just on the Tucson Mall roof, but on other shopping malls as well, Clark said. One benefit is

**Sika**®

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that the single-ply membrane does not weigh as much as many other types of roofing systems (typically two pounds per square foot compared to up to 14 pounds per square foot for a ballasted system), and so can often be applied over an existing roof, eliminating the cost of removing the old roof. The second benefit is energy savings due to the reflectivity of the white membrane, which reduces the amount of solar heat being absorbed by the building.

“After the first section of the new Tucson Mall roof was installed and during the installation of the second section, GGP noticed that one of the two chillers in the mall kept turning itself off quite a bit — even during peak hours of the day,” Clark pointed out. “Normally both of those chillers would be running constantly in the heat of summer.”

Clark said that they tested the surface temperatures of the mall’s old and new roofs during the installation, and found quite a difference between the two roofing systems. With an ambient temperature of 99 degrees, the temperature on the old, ballasted EPDM registered 175 degrees, while the new Sika Sarnafil roofing membrane was only 125 degrees.

Clark expects that the Tucson Mall will enjoy energy savings similar to those experienced by the Altamonte Mall in Florida. This mall, which is also a GGP property with a Sika Sarnafil roof, has noticed a 14 percent savings in their energy usage since Clark’s Quality Roofing installed the roof.

#### **A Phased Installation**

Because of the large size of the 450,000 square foot roof on the Tucson Mall, the installation of the new roof was done in three different phases from 2003 - 2006. The most challenging was the first phase, during which 180,000 square feet was installed.

Clark explained that the first phase entailed all of the upper levels of the mall, which meant that the roofing crew had to move across the old roof in order to access the new roofing area. Since the old roof wasn’t going to be replaced until phase two in the



Pictured is the Tucson Mall. In 2007, Clark’s Quality Roofing was awarded the Sika Sarnafil Century Award — signifying 100 Sika Sarnafil installations within a calendar year — for the fourth consecutive year.

following year, the crew had to be careful not to damage the old roof. “To limit traffic on the older roof, a series of conveyors was set up to transport the old roofing material to the edge of the roof,” Clark stated. “The rock was dumped through a chute into a waiting truck, which was taken to a local landscaping company, thereby enabling us to recycle 1,800 tons of rock.”

Another challenge was placing a 170-ton crane so it could reach the center roof deck to load materials onto the roof. “The crane had to reach 166 feet from the edge of the roof and we had to map out the water lines under the parking lot so the crane didn’t break them,” Clark said.

Once equipment and materials were in place, the crew removed the ballast and membrane from the old roof, installed DensDeck® Prime Roof board, and then mechanically attached the membrane to the roof. Insulation from the original roof was reused.

“Everything pretty much went without a hitch,” Clark stated. He added that his crew often fixed leaks in the old roof that were caused by storms during the installation period at no additional cost. “The operations manager was very impressed with that and said we were the best contractor he had ever worked with,” Clark said.

#### **Another Solid Partnership**

According to Clark, GGP is “ecstatic” with how the Tucson Mall roof is performing. “They have monsoon-like weather in late summer that dump two to four inches of rain in one storm, and they haven’t had a single problem with the roof,” Clark explained.

The performance of the Sika Sarnafil roof, combined with the skill and professionalism of Clark’s Quality Roofing, has played a large role in the long, solid partnership Clark’s Quality Roofing enjoys with General Growth Properties.

“Since that first installation at the Tucson Mall our relationship with them has expanded greatly,” Clark stated. “We’ve even opened up offices in places like Denver, Sacramento, Dallas and Jackson to service GGP, although we now also have other sophisticated clients in those areas. Like GGP, these clients are interested in the life cycle cost and investment in the roof. That’s why 90 percent of the work we do is with Sika Sarnafil — they let us give the customers the value they deserve.”

Value, quality installations, and cost-effective service — and all without having to “shop around.”

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The Sika logo, featuring the word "Sika" in a stylized, bold, yellow font with a registered trademark symbol (®) to the right, set against a red triangular background.

The Sarnafil logo, featuring the word "Sarnafil" in a bold, blue, sans-serif font with a registered trademark symbol (®) to the right.