# Project Profile

## Project

Luxury condominiums Cambridge, MA

## **Consulting Engineer** Simpson Gumpertz & Heger Inc. Waltham, MA

Roofing and Waterproofing Contractor Greylock Roofing Company, Inc. Woburn, MA

## **Roofing and Waterproofing Systems**

Décor Roof System, using 60 mil, G410 membrane in patina green (sloped and barrel roofs), Adhered Roof System, using 60 mil, G410 EnergySmart Roof <sup>®</sup> membrane in white (flat section), and Loose Laid System, using 80 mil, G476 waterproofing membrane (patio sections)

## **Total Project Size** 17,300 square feet

Completed June 2006

## **Jika**®

## Luxury Condominium Trusts Sika Sarnafil Membrane Again. And Again.

They say the best indicator of customer satisfaction is repeat business. Using that measurement, the five-story, 100,000 square foot luxury condominium development in the revered Harvard Square section of Cambridge, Massachusetts must be very pleased with Sika Sarnafil's membranes, because it has used Sika Sarnafil roofing and waterproofing systems not once, not twice, but three times in the past decade. The most recent of these installations, completed in June of 2006, included the use of the Décor Roof System on the roof and the Loose Laid Waterproofing System under 12 patio sections.

"We first got involved with this building in 1998 when they were experiencing leaking problems below their 23,000 square-foot plaza deck, due to faulty flashing in the original waterproofing system," said Greg Doelp, principal at design and consulting engineering firm Simpson Gumpertz & Heger Inc. (SGH) of Waltham, MA. "We selected the Sika Sarnafil Waterproofing system to replace the failing waterproofing system because of its reliable heat-welded seams and the flashing system."

A few years later the condominium complex replaced a portion of its aging standing seam copper roof with the Sarnafil Décor Roof System. The Décor system mimics the appearance of a metal standing seam roof by using decorative battens or profiles hot-air welded to its membrane, which in this case was selected in patina green to match the existing copper roof. "The Décor system eliminated a lot of the complex details that are needed to make a copper roof waterproof," said Doelp. "The people at the condominium were very receptive to the Décor System because of that, and the roof has performed very well for them."

Peter Guza, project manager of Greylock Roofing Company, Inc. of Woburn, MA, which designed and installed both systems, agreed. "They were very happy with the performance of that roof, as well as with the waterproofing of the plaza," he said. Thus, it was no surprise when the condominium complex again turned to Sika Sarnafil for both their waterproofing and roofing needs in 2006.



### A Myriad of Roofing Challenges

The roofing project involved replacing the entire remaining standing seam copper roof with the Décor System, and a flat EPDM roof with the white EnergySmart membrane. Being able to use one supplier for both systems was a big plus, Guza said. "We could use the same deck sheet on both systems and both systems have heatwelded seams, making it more efficient to do both of these systems together," he explained.

The Décor system installation began with removing the standing seam roof and applying insulation and Dens Deck® prime roof board. The Décor membrane was then adhered to the substrate. "We used the feltback membrane on the sloped areas to hide the underlayment plates and board joints," Guza explained.

One of the biggest challenges of this project was the different configurations on the roof. "There were 11 sloped sections and 12 barrel portions, which made installation tricky at times," Guza stated. "These different sections had to be tied in together, and there were a lot of vent pipes and other details. The multiple valleys intersecting at odd angles would have been impossible to waterproof without Sarnafil."

"We worked closely with Greylock and Sika Sarnafil representatives on these details," said Peter Babaian, staff engineer at SGH. "Greylock did a good job developing the design and the details and deserves a lot of credit," he continued. "We also received great technical support from the people at Sika Sarnafil."

Greylock also had to make sure the tenants of the condominium were not inconvenienced during the roofing installation. "Many residents planned their vacations around our roofing timetable, so we had to keep to that schedule no matter what," Guza explained. "It rained a lot that summer, so we had to maximize our efficiency when we were on the roof."

There were also strict noise restrictions. "We weren't allowed to start work until 8 or 8:30 in the morning, instead of our usual



Luxury Condominiums patio deck, sloped and flat roof all utilize Sarnafil membranes.

start time of 7:00 a.m.," Guza stated. "We also had to go the extra mile to make sure things were tidy and orderly at the end of the work day, since cleanliness was another concern. The work was completed on budget and ahead of schedule."

Moving supplies on and off the roof was another challenge, due to the tight space and busy location of the building. "There was only one place where we could set up the crane, and all copper debris and roofing materials had to go to and from that one spot," Guza explained.

#### Weighty Waterproofing Concerns

Waterproofing the 12 patios was also difficult, because each patio had pavers measuring two feet by two feet and weighing 97 pounds. "Each patio is in a pit-type area, so moving the pavers off the patio would have been a logistical challenge," Guza said. "We ended up moving one half of the pavers to the other half of the patio, and then installed the waterproofing system to half a patio at a time. That can be tricky when the patio is only 15 feet by 15 feet."

When each area was ready, a layer of felt was put over the deck and the Sika Sarnafil waterproofing membrane was installed. This was followed by another layer of felt, a protection layer of Sarnafil HDPE, a drainage composite layer, then boards of extruded polystyrene insulation. The pavers were leveled when put back in place. It was this attention to detail that earned Greylock Third Place in the Sika Sarnafil 2006 Waterproofing Project of the Year competition.

### **A Content Repeat Customer**

To date, there have been no complaints of leaks on any Sika Sarnafil system from the condominium complex, according to Babaian. "Everything is performing well," he said.

"The client is obviously happy with Sika Sarnafil since it now has three different Sika Sarnafil systems on the building," Guza pointed out. "I would absolutely recommend Sika Sarnafil systems again, because their products are of the highest quality." Apparently, the condominium complex agrees.





To learn more:

## Sika Sarnafil Inc. 100 Dan Road Canton, MA 02021 Telephone 1-800-451-2504 Telefax 781-828-5365 Internet www.sikacorp.com

## Canada Office: **Sika Sarnafil, A Business Unit of Sika Canada Inc.** 6820 Davand Drive, Unit 2 Mississauga, Ontario L5T 1J5 Telephone 905-670-2222 Telefax 905-670-5278 Internet www.sika.ca