

The Fourth "R"

A New Roof for Leaky Southern California School

by Fred Sitter, marketing director, Duro-Last Roofing, Inc.

In late 2009, during a time when Southern California had received more rain than over the previous four years, the roof on St. Mary's and All Angels School in Aliso Viejo began to fail. The school was forced to deal with ongoing leaks into classrooms, and days intended for instruction on "reading, writing, and arithmetic" were regularly interrupted when it rained.

Joe Daniels, owner of D7 Consulting, Inc., Newport Beach, Calif., and who has a son attending St. Mary's, was asked to advise the school on a course of action. The staff at D7 has over a hundred years of combined experience in the roofing and waterproofing industry.

D7 reviewed the condition of the roof and determined that a new roof system was in order. The original two-ply and gravel built-up system had leaks in the flashings and field that persisted even after attempts at repairs were made. D7 determined that the existing roofing system had outlived its useful life. In addition to the leaky roof itself, the St. Mary's project presented other challenges that the roofing contractor would need to deal with.

One important issue was timing. The leak problem had reached this critical stage just a few weeks prior to the school's Christmas break. The leadership at St. Mary's would have to make a decision on the new roof quickly, and choose a system that could be delivered prior to, then installed during the short break. The roof would need to be installed quickly, and incorporate a number of flashings for HVAC curbs and other penetrations. The installation would take place during the rainy season and would need to be kept dry to prevent damage to the interior of the building.

Another issue was that most manufacturers would require a tear-off of the existing built-up roof. Not only would this disrupt normal building operations, but would also add to the cost of the project and possibly delay its completion.

Because St. Mary's is a private school that is dependent on tuition for its operating budget, every reroofing option would be scrutinized for its cost as well as its ability to address the leak problem. Daniels provided roofing system options and potential costs to the head of St. Mary's building and grounds committee, Larry Schuler, and headmaster John O'Brien. Daniels also gave them the names of several local roofing contractors to request bids on the 27,000-square-foot project.

Among the contractors on Daniels' list was Bligh Pacific Roof Company, Sante Fe Springs, Calif. D7 and Bligh have worked together on projects since the mid-1980s, often with Duro-Last Roofing, Inc. sales representative Scott Franklin. An authorized Duro-Last contractor since February of 2009, Bligh Pacific has also installed the Duro-Last roofing system on the Trader Joe's distribution center in Ontario, Calif., and the AutoZone in Beverly Hills.

The proposal for the Duro-Last roofing system that was presented to St. Mary's was accepted, and for several reasons, turned out to be the best option for the project. First, Bligh was able to install the roofing system during the school's Christmas break window. This is because the Duro-Last roof for St. Mary's was prefabricated in Duro-Last's Grants Pass, Oregon, location and included not only the deck membrane sheets, but flashings for several HVAC curbs and over 100 other penetrations. The potential installation time was reduced by several days. In fact, the St. Mary's project was started and completed in just 18 days, ahead of schedule, and inspected by a Duro-Last technical representative before students returned to school after their Christmas break.

“The operative word here was speed,” said Bligh Pacific owner Jay Bligh. “Speed of delivery and speed of installation. Duro-Last was able to put the roof order together really quickly and have it delivered to the jobsite in a matter of a couple days.

“With respect to the installation itself, other roofing products would have required us to do a lot of on-site workmanship to create all the flashings from rolled membrane materials,” Bligh continued. “Because the Duro-Last flashings were made to order at the factory, we could get through those job details really quickly and reduce the total number of construction days that would be necessary. The prefabricated deck sheets and flashings also helped ensure that those areas of the roof will remain watertight for years to come.”

Also, the Duro-Last solution did not involve a complete tear-off of the existing roof, as required by other systems, saving St. Mary’s on the overall cost of the project. The gravel surface was vacuumed off, and the Duro-Last system installed over the old built-up roof. The 40-mil Duro-Last membrane used on the project weighs less than a quarter pound per square foot.

Another benefit for St. Mary’s will be energy-cost savings. The white Duro-Last membrane exceeds California’s Title 24 building code requirements for roofing system reflectivity and emissivity, which will help the school reduce its energy consumption.

Duro-Last’s standard 15-year No Dollar Limit warranty, which includes coverage for consequential damages and is not voided for ponding water on the rooftop, gave the school the assurance they needed to go forward with the project, secure in the knowledge that Duro-Last would stand behind the installation.

Of the relationship between D7, Bligh Pacific, and Scott Franklin on the St. Mary’s project, Daniels said, “One thing that has made this successful is the high degree of confidence we have in each other’s ability to deliver

successful roofing solutions for our clients. I believe it is critical to have a relationship between the entire team so that we are all committed to working toward the same goal of providing the building owner the best value we can for their investment.”

The staff and students of St. Mary’s might put it a different way. Because of Bligh Pacific’s ability to install the Duro-Last roofing system so quickly, a new interpretation of the “three Rs” may become part of the curriculum: Rapid Roof Recover.

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Captions for story-page photos:

1. (For photo of gravel roof) The gravel surface of the existing roof was vacuumed off, leaving the two-ply BUR membrane underneath in place.
2. (For photo of single worker installing the skylight curb) A Bligh Pacific technician completes the installation of a Duro-Last custom-fabricated flashing for a St. Mary’s skylight.
3. (For photo of 2 workers) Two workers install a Duro-Last custom-made parapet flashing.
4. (For roof-level photo of completed project) Duro-Last’s precision-fabricated deck sheets and flashings helped Bligh Pacific Roof Company install the St. Mary’s project in just 18 days.