

## NEW SOLANO COUNTY GOVERNMENT CENTER ROOF TITLE 24-COMPLIANT AND ENERGY STAR- AND LEED-RATED

### Solano County Roofing Selects Johns Manville Built-Up Roofing System for High-Profile Project

**FAIRFIELD, CA.** (April 15, 2005) — Solano County officials knew what they wanted for their new government center. According to Darby Hayes, assistant county administrator and project administrator, the Solano County Government Center was to be designed, constructed and equipped with energy efficient and sustainable design measures, materials, and devices that were feasible, proven and cost-effective.

In keeping with this goal, they retained the services of Johnson Fair Partners, an architectural and engineering consultant/master architect and URS Corporation, project/construction manager to assist in developing and implementing a design-build process. The County awarded a design build contract to complete the design and construction to Clark Design/Build of California, Inc., composed of Clark Construction and Kaplan McLaughlin Diaz Architects. Clark Design's proposal, based on a stipulated sum, was to provide all design and construction work, along with specific "design and/or performance enhancements."

The \$100 million project, which spans three city blocks, includes an administration center that consolidates 15 county departments, a 43,000 square-foot probation building, a five-level parking center, and a public plaza and courtyard. The configuration includes a total of 64,000 square feet of roofing surface in a variety of configurations.

"One of the important things for the county was to have a cool roof," said Kanon Artiche, Solano County architect and project director. "The philosophy of the project was to have an environmentally responsible project that was within budget. We selected products that not only would provide cost savings, but also would provide lasting value. So we needed a roof with long-term performance that would contribute to energy savings."



Jay Almstrom, vice president with Solano County Roofing, the sub-contractor to Clark Design/Build and Johns Manville used a project account plan method to determine which roof system would best meet the County's needs. They selected a hot-applied Johns Manville four-ply, built up roof system that would be both ENERGY STAR® and Title 24 compliant.

Almstrom, with the assistance of Leo Richardson, Johns Manville Tapered Design Center, designed the most economical insulation system to provide maximum insulation value and positive drainage. First Tapered ENRGY 3™ insulation with half-inch Tapered ENRGY 3 crickets were installed with a ½" Retro-Fit® Board over both concrete and metal decks. Then, three plies of GlasPly® Premier Type VI with a white mineral surface GlasKap® cap sheet were installed. The cap sheet was coated with TopGard® 5000 and TopGard® Base coat to give it the ENERGY STAR and Title 24 ratings. This roof system also qualifies for points toward Leadership in Energy and Environmental Design (LEED) certification, a performance enhancement offered by Clark Design/Build to the owner.

At seven stories, it was necessary to hoist materials onto the roof and pump the asphalt. A crane was used to fly up the tapered insulation.

“Solano County Roofing is a very good contractor,” said David Bozeat, senior project manager for Clark Design/Build. “They performed according to schedule and application specifications. We asked them to roof a portion at a time so workmen could be moved in and out of the area. At the end of each day, all of the plies were sealed to protect against rain. The onsite inspector was Larry Franco with Northwest Consulting. Steve Johnston with Johnston Roofing spray-applied the TopGard® coating.”

Everyone on the team was committed to a watertight roof and took additional measures to ensure the roof’s integrity. For example, large pads designed to accommodate the air-conditioning units were exposed to the elements until the units could be set. Clark Construction built temporary roofs over the air-conditioning curbs to keep the roof watertight. Pitch pockets were eliminated from the roofing system to ensure the roof’s integrity.

According to Larry Franco of Northwest Consulting & Inspections Inc., one of the biggest challenges on the job was to create a positive slope to drain.

“The drainage system was the most important because of the size of the roof and the complexity of the inside and outside corners,” Franco said. “Fortunately Solano County Roofing had a lot of experience with creating slopes in the field and did an outstanding job.”

Bozeat explained that the project was governed by a binding partner agreement, which required meetings every six months of the teams involved in construction. This included representatives from the county, Clark Design and all sub-contractors. He believes this also contributed to the success of the job.

Solano County Roofing also had high praise for Clark’s team. “Clark’s field people were excellent,” said Gary Steele, field superintendent for Solano County Roofing. “Cliff Watkins, project superintendent and Monique Hawn, safety coordinator for Clark worked well with us and made sure we have everything we needed. Also Ford Wholesale of Oakland did a good job of delivering materials on time.”

Wolfgang Folk is president and owner of Solano County Roofing. Solano County Roofing is a signatory contractor of Roofers Local Union 81 and Carpenters Union Local 180. His father, Richard Folk founded the company of 60 employees in 1980. The foreman on this project was Jesus Valencia and the crew included a mixture of journeymen and apprentice roofers.

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