

## COVER STORY

### Crescent City jewel

*Superdome emerges from Katrina with eye on first home game*

*By Angelle Bergeron*

When the New Orleans Saints kicked off the 1975 NFL season in the Louisiana Superdome, the building was heralded as the largest fixed domed structure in the world.

With an interior space of 125 million ft. and a maximum football seating capacity of 72,003, the Superdome has also been labeled the "crown jewel of the New Orleans skyline."

However, the Superdome became an icon of a darker sort when the roof was peeled back by the winds of Hurricane Katrina and its interior declared a "probable bio-hazard" after thousands of people using it as a shelter of last resort trashed the structure.

Looming above the devastated city with its roof decking exposed, the Superdome no longer seemed to be a construction marvel.

Rather, its grim countenance and vacuous interior seemed to embody all that went wrong with systems and governments during the worst natural disaster in American history.

Many are hoping to dispel those negative images when the Superdome hosts the New Orleans Saints' first home opener against the Atlanta Falcons on Sept. 25, one year after Katrina struck. For those working to prepare the Superdome for its grand re-introduction to a national audience, the opportunity is once in a lifetime.

"I've lived here my whole life and never worked on the Superdome, and to finally get the opportunity to do that at a strategic point in its history is pretty amazing," said Roy Mouledous, project executive for Broadmoor, the local contractor with a roughly \$75 million contract for all of the interior work. "It's kind of the focal point of bringing the downtown back, the spirit of New Orleans and the Saints."

Total repair costs are \$134 million, which represents the Broadmoor contract; a \$32.4 million contract to Brazos Urethane Inc. of Texas City, Texas, for roof repairs; and the remainder for



soft costs, including architectural, engineering, testing and construction management fees, said Doug Thornton, vice president of SMG, the management company that operates the Dome for the state.

A \$3.5 million contract for remediation was paid for by the Federal Emergency Management Agency, as was a \$1.5 million contract for temporary roof repairs.

"There are also improvement costs over and above repair that are roughly \$51 million," Thornton said.

Most everything about this project is unique -- the structure itself, the historic events surrounding the restoration and their symbolism.

Undoubtedly, the most visible work is the roof repairs being performed by Brazos. Like Broadmoor's Mouldous, Brazos' project manager Tom Keller said he appreciates the unique opportunity to work on such a high-profile contract.

"I've been wanting to play on that roof since I was 18, but you know what they say about being careful what you wish for," Keller said.

Brazos is demolishing, re-decking, and finishing the 9.8-acre roof with a monolithic foam covering and a urethane seal, and it's doing the job in less than five months. The contractor received the notice to proceed in April and is scheduled for completion September 1.

"It's a whole lot of roof," Keller said. "It's Mount Everest."

To tackle the monster, Brazos divided the roof into pie-shaped sections and is working with four demo crews that tear off the old roof and haul the debris through holes in the roof on hydraulic hoists 300 ft. below to the Superdome floor.

"We've got eight hoists - three are for taking materials from the top to the floor and the others are for bringing the new deck and materials up," Keller said. The corrugated decking is screwed down into the existing structural steel of the dome. Then it is sprayed with 2.5 in. of polyurethane foam and topped off with six coats of urethane coating. The old roof was insulation board with rubber stripping.

"This will be monolithic, with no seams, and is guaranteed not to blow off," Keller said.

The 18-gauge decking was badly rusted and would not have met current codes.

"We thought that it was a mistake removing the deck until we started taking it off," Keller said. "Every piece we have removed has been rusted."

Brazos brought in most of its 125-man crew from out of state, so housing has been a big expense for the contractor. "This is a job where you need people used to working on ropes and steep structures and are comfortable doing it," Keller said.

The humidity plays a key factor in whether the urethanes set right, so the contractor has set up a weather station on the roof of the Superdome to monitor the dew point at all times. Ironically, the weather has been Brazos' biggest ally, since much of the first half of 2006 was dry.

"When we started, we thought there is no way anybody can do this in six months, but we surprised Broadmoor, the state . . . we even surprised ourselves."

By July, Brazos had completed 85-90 percent of the deck replacement.

"The pie is almost cooked," Keller said. The contractor also replaced some smoke vents on the roof and some of the rubber roof system that circles the perimeter of the roof.

The Superdome was originally scheduled to reopen in November, but after the Saints management said they wanted to come "home" earlier, the state decided to hire a construction management team to identify work, develop bid packages and facilitate construction, Mouledous said.

Broadmoor is overseeing all of the interior work, including new seating, video and score boards, turf and concession stands.

"The roof blew off and a lot of water got into the building, ruining the sheetrock, carpet, air conditioning and phone systems," Mouledous said.

Gallo Mechanical of New Orleans is replacing the gladiator plenum, the huge ring that circles the interior of the Superdome and houses the instrumentation and air conditioning vent for the cooling system.

"It is basically the same system, but the upgrade is to the plenum itself, which was originally sheetrock," Mouledous said. "This one is galvanized sheet metal with layers of insulation in the middle."

The first-floor telephone switchboard was flooded and will be moved to the second floor and upgraded with the latest in fiber-optic telecommunications by High Tech Electric of Harahan, La. The 425,000 sq. ft. of pedestrian ramps, will be covered with a durable, non-slip epoxy in lieu of carpet. Daktronics Inc. is installing the new enhanced video and score boards.

American Seating is handling repairs and Hussey Seating Co. is installing the replacement seating for the stuff that couldn't be salvaged.

Instead of letting a bid package for 500,000 sq. ft. of drywall, Broadmoor opted to let the contracts in floors, from the top down.

"We decided to do that so the work gets spread over several different contractors," Mouledous said. "If you have five contractors it's easier for them to keep their workforce."

Broadmoor is orchestrating the efforts of 30 different subcontractors in order to put a best foot forward on Sept. 25.

Although the Superdome will be game ready on that date, Broadmoor's contract runs through September 2007 because additional enhancements have been added.

"The new stadium will have larger club areas with upgraded food, bars and lounges," Mouldous said. The 200 Club Level, the Superdome's premiere seating area, will be brought up to the current NFL standards.

"We'll use the old conference space for this and will open up the outside wall to bring in the city skyline at night and natural light during the day," Mouldous said.

The 400 and 300 Level suites have been stripped to bare studs and will be totally upgraded with upscale architectural elements like granite countertops and fine-line ceiling grids.

"After the season in January, we'll come back and put in the millwork and carpet," Mouldous said. "We're changing more than 600,000 sq. ft. of ceiling tile and 800,000 sq. ft. of sheetrock."

Football fans need not fear. The beer will be cold for that first Monday night game, regardless of whatever other details are left undone.

"All the beer lines have been changed out 100 percent and we now have a state-of-the-art cooling systems," Mouldous said. And although Broadmoor wasn't contractually bound to have all of the 44 concession stands ready by September, those on the 600 Level have already been completed.

Sept. 25 is likely to be an exciting night for the City of New Orleans, Mouldous said.

"People want to come back. They want to come downtown and get back to normal."

### **Useful Source:**

For regular updates on the Superdome's progress, go to:

<http://www.superdome.com/site.php?pageID=4>