

PRESS SITE UNDER CONSTRUCTION

Novel steel fabrication method helps NAC save time, costs

By Alan Rindlisbacher
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Newspaper Agency Corp's new production facility in suburban Salt Lake City is immense, even against the backdrop of the towering Wasatch mountain range.

All of the building's structural steel is erected, and a flurry of finish work is under way inside the facility to prepare the press hall for installation of the TKS (USA) Color Top 5000 presses.

Work also continues in the support areas of the facility, including the prepress reelroom, post-production and distribution areas and administrative offices.

Needed a twist

The size and scope of the steel beams used to construct the press hall required some imaginative and complex engineering.

Without presses, the cavernous space of the press hall is an awesome sight. Because there are no lateral engineering supports in the building, the size of steel members used to construct the press hall is striking.

Consider this: A comparable office building, sporting internal lateral connections of floors and columns, which equals the height and dimension that of the press hall would normally require 12-inch steel columns weighing 120 pounds per linear foot.

By contrast, NAC's press hall boasts 36-inch columns that weigh 340 pounds per linear foot, three times larger than the average engineered design.

Using that much steel is expensive and, absent a fresh approach from NAC's project designers and engineers, could have added months to the project.

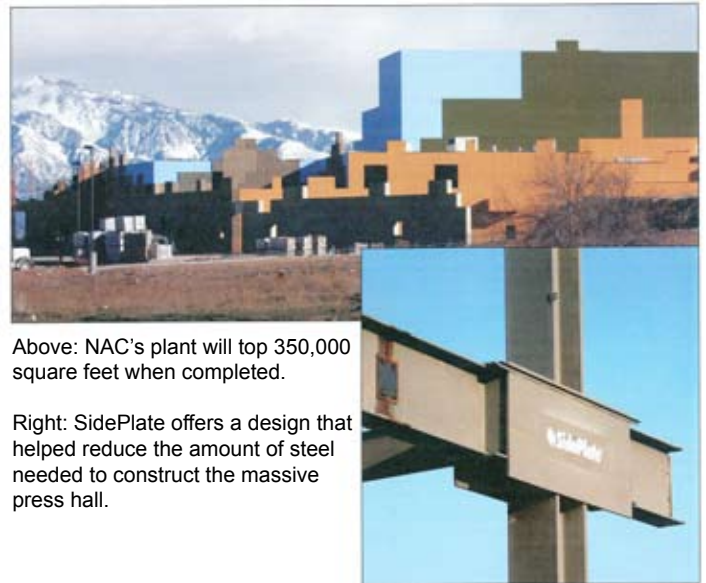
Tapped alternative

To that end, the NAC project team, comprised of Dario Designs Inc. (architect), Speight Marshall & Francis (engineer) and Layton Construction Co. (contractor), tapped a steel technique called the SidePlate Moment Connection System, developed by Laguna Hills, Calif., firm SidePlate Systems Inc.

SidePlate uses a proprietary method to bond horizontal steel beams to vertical columns, in the process helping NAC construction engineers reduce the amount of steel and time needed to fortify the press hall.

SidePlate was primarily designed for earthquake-prone areas and had, in fact, evolved from studies conducted after the damaging Northridge, Calif., tremor in 1994.

The technology has received "accreditation" or "approved" status from federal, state, and municipal agencies—including



Above: NAC's plant will top 350,000 square feet when completed.

Right: SidePlate offers a design that helped reduce the amount of steel needed to construct the massive press hall.

the city of Los Angeles' Department of Building Safety and Research section and other California regulators—which allows project engineers to OK use of the system without further detailed engineering review.

It's also been blessed by the International Code Council Evaluation Service arm of the International Code Council Authority, the governing body that oversees the International Building Code.

Fast permitting

Utah engineering code enforcement agencies, recognizing international and California agency approvals, likewise endorsed the use of SidePlate at NAC's production facility.

Permits were thus granted more expeditiously, allowing the project to move much faster through the engineering approval process.

SidePlate yielded other benefits as well. The design helped eliminate 25% of the steel that would have been required in traditional moment frame connection engineering. And NAC's already oversized steel supports couldn't be made any larger without running afoul of existing engineering and fabrication standards.

Layton project managers said SidePlate performed as advertised, helped the project move forward more quickly and shaved construction costs as it ensured that NAC's production facility would be in operation as scheduled. ■