

Jay R. Smith Crafts Speedy Solution for J.W. McClenahan's Drainage Dilemma

Faced with new, more stringent building requirements mid-project, J.W. McClenahan Co. got a boost from the engineers at Jay R. Smith Mfg. Co.,[®] who rapidly designed new trench drains and had them verified by a third party to satisfy city inspectors—all in just four months.

McClenahan is the design/build plumbing contractor on the Transbay Block 8 mixed-use development project, located just two blocks from the Transbay Transit Center in San Francisco, CA. While San Francisco's building code stipulates placement of a trench drain that can accommodate a 100-gallons-per-minute (gpm) flow of the automatic fire sprinklers in remote areas outside the fire service access elevator lobbies, the city has become more stringent in evaluating drains. McClenahan learned that city building inspectors and the fire marshal were now requiring full documentation for the drains at Transbay Block 8. (Elevator lobby trench drains prevent water from infiltrating the shaft enclosure and keep the elevator lobby area free of water to allow firefighters to do their jobs safely.)

Smith had a standard drain available that met the requirements, but the architects for Block 8 specified lengths that were not yet available anywhere. Rick Kelly, a superintendent at McClenahan, said that one of the problems was that the architects had included different-size door openings into the elevator lobbies.

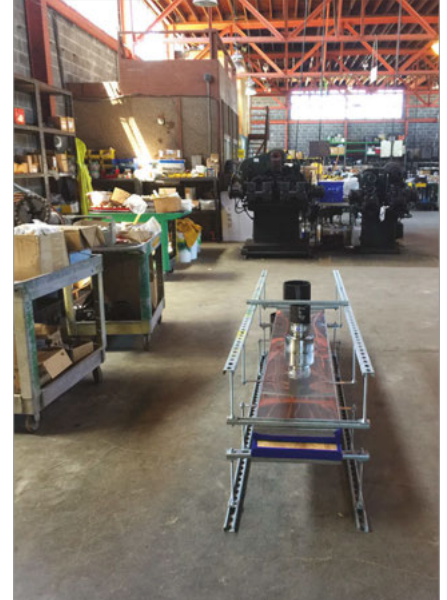
The other issue encountered was the depth of the trench drain due to structural restraints. McClenahan wanted to put the

outlets at the ends of the drain instead of the center, which would affect the flow rate.

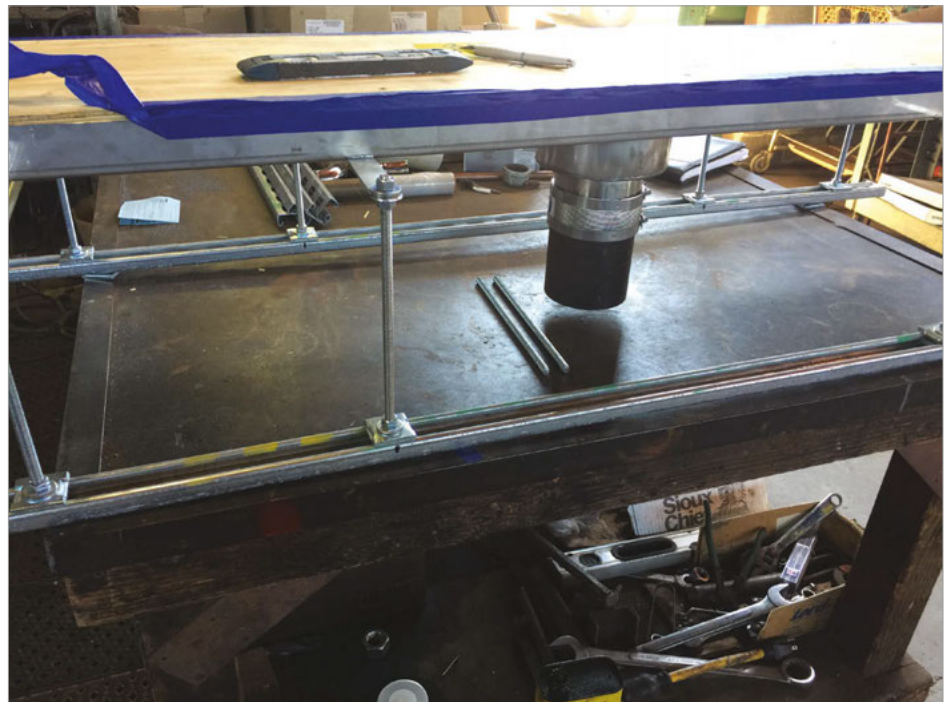
McClenahan had two choices. Go back to the architects and have them revise the design to specify the lengths and depths available or find a manufacturer who could come up with a solution that satisfied the design and met the code at the lengths required. McClenahan approached Smith, where engineers got to work right away to design drains that would accommodate the lengths required and the 1 3/4" drain for the shallow application.

Smith engineers created and tested lengths from 42" to 123" with outlets in three different positions to ensure water would not overflow the threshold drain and spill into

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McClenahan prepared the customized trench drains from Jay R. Smith in their prefabrication shop. The drains helped them stay on track when unexpected building requirements required a quick pivot.



Engineers at Jay R. Smith Mfg. Co. custom-designed and tested a stainless steel threshold drain—and had it certified by a third party—in just four months, allowing J.W. McClenahan Co. to meet stringent new evaluation requirements for its San Francisco building project.

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the elevator lobby and hoistway. To meet the San Francisco Fire Department's requirements, the drains were promptly sent out for third-party testing and verification. The whole process, including the much-needed third-party certification, took less than four months. With that certification in hand, McClenahan had proof of the efficacy of the drains that the city inspectors and fire marshal needed.

While McClenahan's main concern was that the drains met the

required flow rate, the architects were also concerned with the aesthetics. Fortunately, the Smith low-profile threshold drains lived up to those demands as well. The drains use 1/4" grate spacing, which complies with ADA requirements, and they are heel-proof to help prevent falls and injuries.

McClenahan's Kelly confirmed that Smith was the right choice for the job. "We received the [stainless steel threshold drains] on time, and they are easy to work with," he said.

Transbay Block 8 includes a 56-story residential tower will have 118 condominiums, 279 luxury apartments, and 70 below-market-rate apartments. The ground floor will feature 17,000 square feet of retail space set around an open public paseo. The project is scheduled to be completed in March of 2020.

For more information, visit www.jrsmith.com.