An Ames Icon: a new building and expansion to Iowa State Center

M. Monica Gillen
The indoor practice facility at Iowa State University is a recruiting asset for the athletic program and a change to the neighborhood landscape.

The Bergstrom Indoor Training Facility in Ames, Iowa, has changed the rules of the practice game and how that game is played by Iowa State University athletics.

The charge for RDG Planning & Design was to build a state-of-the-art facility that would accommodate an entire football field for athletes and coaches representing a variety of sports—one where there would be no regrets once the last of the dozens of lightning rods was in place.

The initial building solution was a glorified Butler building and the site was a given—with inherent constraints, given its proximity to the Jacobson Athletic Building. However, through the design process, numerous building systems were changed.

Outwardly, this building is a structural feat. The interior space had to be uninterrupted, for obvious reasons. This was accomplished using a 420-foot mono-truss, which was located over the roof system. The three linear pieces of the mono-truss are comprised of half-inch thick, two-foot diameter gas pipe. The inside height at the north end is 30 feet above grade while the south end is 75 feet. This vertical clearance allows for practicing field goal kicks.

The resultant roof loads are transferred to grade via cast-in-place concrete abutments. As these vertical support elements were installed, they seemed complex as shapes, however its formal overture had more to do with load-distribution than stylistic intent.

The east and west walls of the building are comprised...
of an insulated concrete precast panel system with clerestory lighting. This day-lighting system is located at the top of the concrete wall just beneath the roof edge. Additional interior lighting is provided by an indirect system, which bounces light off the roof deck and back onto the field, thus providing uniform color and reducing glare so the players don’t lose track of the ball.

The walls at the north and south ends are made up of a corrugated metal panel system. The space is heated and actively ventilated but not air-conditioned. Air is circulated using nine-foot diameter through-wall fans at the north and south ends. These fans are located near grade and ventilation takes place down low so the athletes can feel the air movement on the field.

An artificial turf material makes up the 100-yard field surface. Its resiliency makes it more like natural turf and requires some care, such as raking, but always looks like a freshly mowed lawn. Laid down like carpet, it is scattered with thousands of pounds of sand and ground rubber to help absorb shock, adding another element of safety for the athletes.

Successful implementation can be measured in large part if the user’s needs are met. Drills and practices can now be scheduled without regard for weather. And those who commissioned the project are satisfied.

“It is a state-of-the-art training facility and I’ve not seen a better facility in college or the NFL,” Iowa State head football coach Dan MacCarney said. MacCarney said the space was built right the first time with flexibility.

"M. Monica Gillen lives and works in Ames."