



Owner:

Green Bay Packers

Architect:

Elkus-Manfredi

Engineer:

Affiliated Engineers

General Contractor:

Miron Construction

Lambeau Field South End Zone

Green Bay, WI

Although Green Bay is the smallest city in professional sports by far, its stadium now has the third-largest seating capacity in the NFL. The Packers will play home games in front of capacity crowds of 80,750. The south end zone expansion, completed for the 2013/2014 season features the addition of about 7000 new seats with a snow melt system, new concession and club areas, six new viewing levels, a nine story vertical transportation tower, and a new 70 foot-tall by 220 foot score board.

Site Challenges

Because the facility is an oval shape the piping and sheet metal were difficult to install because nothing was straight or at right angles. The piping installation required scaffolding and special lifts to install. Because the Packers did not want any of the piping exposed to the public we created a way to hide the heat-radiant manifolds within the structure. We hid much of the exposed piping in the I-beams where we fabricated enclosures.

Plumbing Challenges

This expansion is a complex facility which includes several diverse usable areas. The Plumbing requirements were stringent due to the many different drains and plumbing fixture requirements in diverse areas of the facility.

The waste water and fresh water requirements were extensive:

- Over 1800 floor and wall penetrations
- 258 floor drains
- 262 deck drains
- 65 roof drains
- 96 trench drains in concourses
- Several thousand feet of plumbing piping

In addition, we utilized and built the Building Information Modeling for all MEP functions of the project. The 3D modeling coordinated with all other trades and the BIM process proved to be extremely successful.

Overall the plumbing system consists of over 270 new bathroom units, several high capacity hot water heaters, plumbing fixtures for the 21 new concessions areas and 11 new bars. All piping assemblies, carrier banks and restroom blocks were fabricated in Tweet/Garot's Green Bay fabrication shop.

HVAC Challenges

11 new sealed combustion hi-efficiency condensing boilers were installed that feed three different systems:

- End-zone inside and concourse areas
- Outside snow melt in seating areas
- Underground field heating

Overall the HVAC system consists of indoor air handing units, 11 high efficiency hot water condensing boilers, two additional high efficiency 350 ton air cooled chillers, hot water VAV's misc. wet heat and DDC controls. All piping and VAV boxes were custom fabricated in Tweet/Garot's Green Bay fabrication shop. All ducting was fabricated on Tweet/Garot's automated coil duct machine.

Success

Tweet/Garot provided value engineering and off site pre-fabrication of mechanical systems in order to lessen costs wherever possible. This project represented one of the largest commercial construction projects in Northeast Wisconsin, and one that is consistently in the National Spotlight. The resounding success of the South End Zone expansion was yet another in a string of successful partnerships between Tweet/Garot and the Green Bay Packers and has cemented our position as the Official Mechanical Contractor of Lambeau Field.

