



SoFi Stadium

INGLEWOOD, CA

NFL's first indoor-outdoor stadium, home to the NFL LA Rams and LA Chargers.

The \$5 billion SoFi Stadium at Hollywood Park covers over 2.8 million square feet in Inglewood, California. Home to the LA Rams and LA Chargers, the NFL's first indoor-outdoor stadium features a massive video display board and a sprawling roof canopy. The Rosendin-Meadows Joint Venture (RMJV) scope required approximately 1.9 million IBEW labor hours over four years to complete the project. The men and women of IBEW Local 11 reached stunning numbers, installing the following:

- 797 miles of branch raceway,
- 317 miles of feeder raceway,
- 1,729 miles of branch wire,
- 605 miles of feeder wire,
- 40 miles of HV/Med Cable,
- 5 miles of grounding cable
- 63,192 light fixtures.

One of the RMJV Team's most significant achievements in the construction of this stadium is the team's safety record and community impact. The team received the Golden Gate Partnership Award from the Cal/OSHA Consultation Services Branch of the State of California Department of Industrial Relations. With a peak of 500 craft workers on site, the RMJV team is proud to have hired 176 local hires totaling 404,451 hours, among the City of Inglewood, Lennox, and adjacent areas. In the long term, SoFi Stadium will continue providing community jobs. However, employing local

CLIENT	STADCO LA LLC
GC	Turner AECOM - Hunt NFL, JV
ARCHITECT	HKS Architects, Inc.
DURATION	43 Months
BUDGET	\$300,000,000+
SIZE	2,800,000 SF

citizens and providing a safe work environment for them, particularly during a pandemic, provided an immediate positive economic and community impact.

From a construction and design perspective, the pure complexity of the building is impressive. The roof structure and canopy extend over two additional independent structures: American Airlines Plaza and a 6,000-seat performance venue. Under the LAX flight path, three venues under one roof required the construction team to dig down a hundred feet to lower the stadium bowl, which presented a project challenge that the RMJV team was more than ready to accommodate.

SoFi Stadium is also a seismic feat, as it features three structures: a moat wall, a roof structure, and a bowl. In the event of an earthquake, the bowl will move independently of the site and independently of the roof, lessening the effects of the earthquake on the adjacent structures. Certain blade columns have bearings that can also absorb the shock of an earthquake, and an extensive seismic monitoring system is installed.

Arguably, the centerpiece of SoFi Stadium is the Oculus video board. Coming in at 2.2 million pounds and featuring 70,000 square feet of LED screens, it is the largest video board ever and is the only dual-sided, center-hung video board ever created.

The canopy that stretches over the stadium and beyond has led to the Rams billing SoFi Stadium as the NFL's first indoor-outdoor stadium. The design protects attendees from the heat and allows Southern California breezes to drift throughout the structure. Made of ethylene tetrafluoroethylene (ETFE), a lightweight and transparent plastic, the canopy sits over 200' above the field level, consisting of 46 operable panels that, when retracted, create (16) 60' X 60' openings and (14) 30' X 30' edge panel openings. Twenty-four thousand programable LED lights provide a spectacular nighttime light show. The RMJV team installed the electrical systems that power the drivers supplying power to the lights and the operations section of the roof. Another significant challenge in constructing the 875,000 SF roof is that the image on the roof is the same if the roof is open or closed. The way this works is that when the panel is closed, the strings are off. When the panel opens, the strings turn on and replace the image of the closed operable panel. When the operable panel opens, it covers a section of the roof. The operable panel covers the stationary section; when this happens, it turns off, and the operable panel shifts its image to replace the stationary section. That is how the desired projected image is maintained. The RMJV team installed the LED on the stringers under the operable panel.

The challenge of installing the roof canopy offered an opportunity for the RMJV team to collaborate closely with the other partners on the roof team. The acceptable date for design completion of the roof LED lights (to not affect the construction schedule) was May 2019. However, the scope was approved in September 2019, with the final design not receiving approval until April 2020, one year after the original date and two months after the coronavirus pandemic began to impact California.

This was planned to be a day-two system, meaning it would not be complete by the original occupancy date. However, the RMJV team was informed in May 2020 that both systems would need to be fully functional by the first game on August 14, 2020, since the operable roof system was in the original contract and both systems must be installed at the same time, or the LED lights would not be functional until a later date due to the testing and commissioning requirements. The RMJV team coordinated with all trades, revised the installation sequence to complete the roof in quadrants, and started the commissioning early. Together, the team had the LEDs working one week before opening day.

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