

Stadia

Showcase 2020

incorporating **TURF**

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The Golden State Warriors' new Chase Center home

Architects predict the future of venue design

How new technologies are keeping major events safe



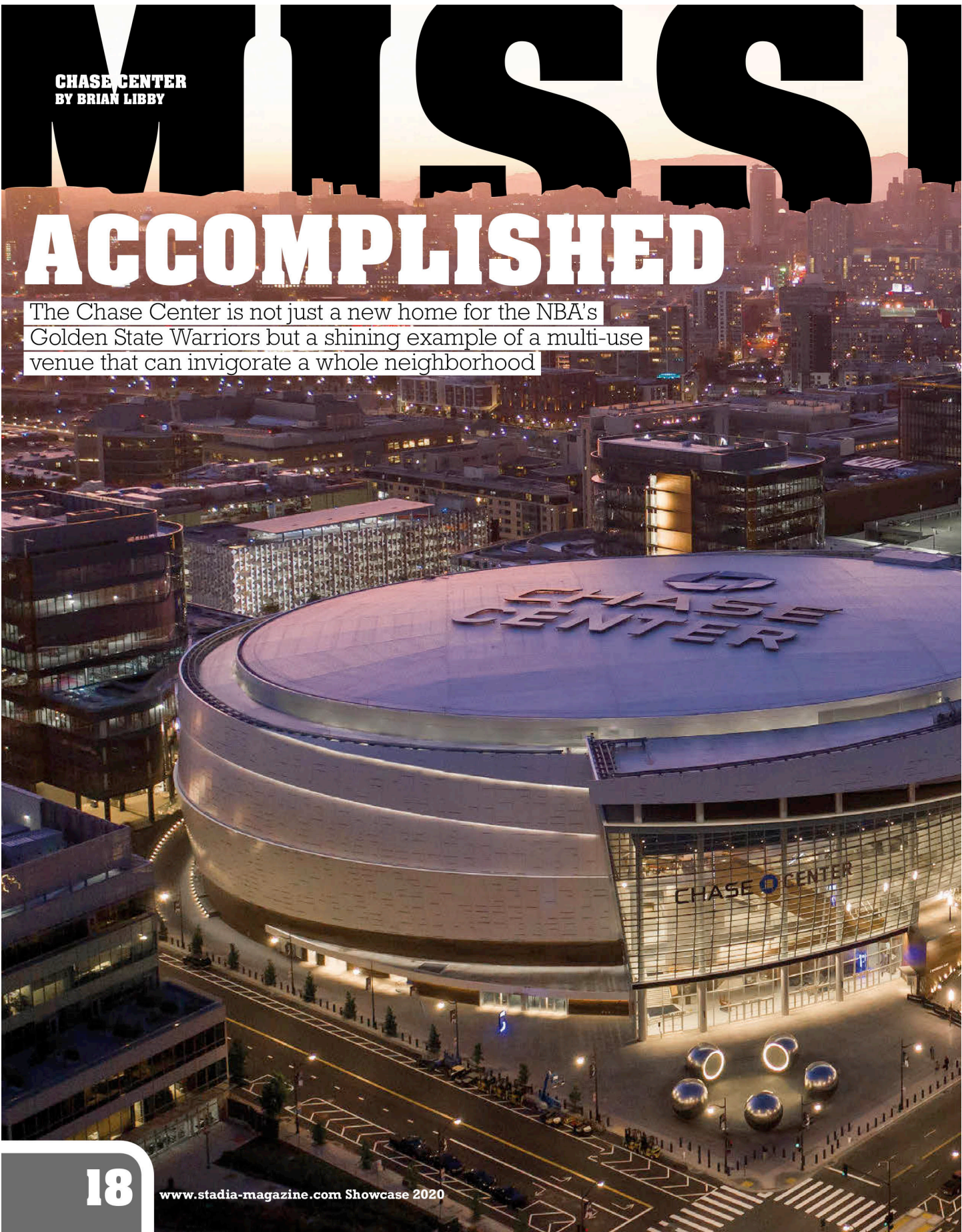
YEARS OF STADIA

A celebration of two decades of the most innovative and game-changing sports stadium projects

CHASE CENTER
BY BRIAN LIBBY

MISSING ACCOMPLISHED

The Chase Center is not just a new home for the NBA's Golden State Warriors but a shining example of a multi-use venue that can invigorate a whole neighborhood



IN

CHASE CENTER



Chase Center is a state-of-the-art sports venue but also a concert venue, theater, shopping center and community hub

CHASE CENTER

After 38 years in Oakland at the Oracle Arena, the NBA's Golden State Warriors' move across the Bay to the city of San Francisco was a long time in the making, but it has led to an impressive payoff.

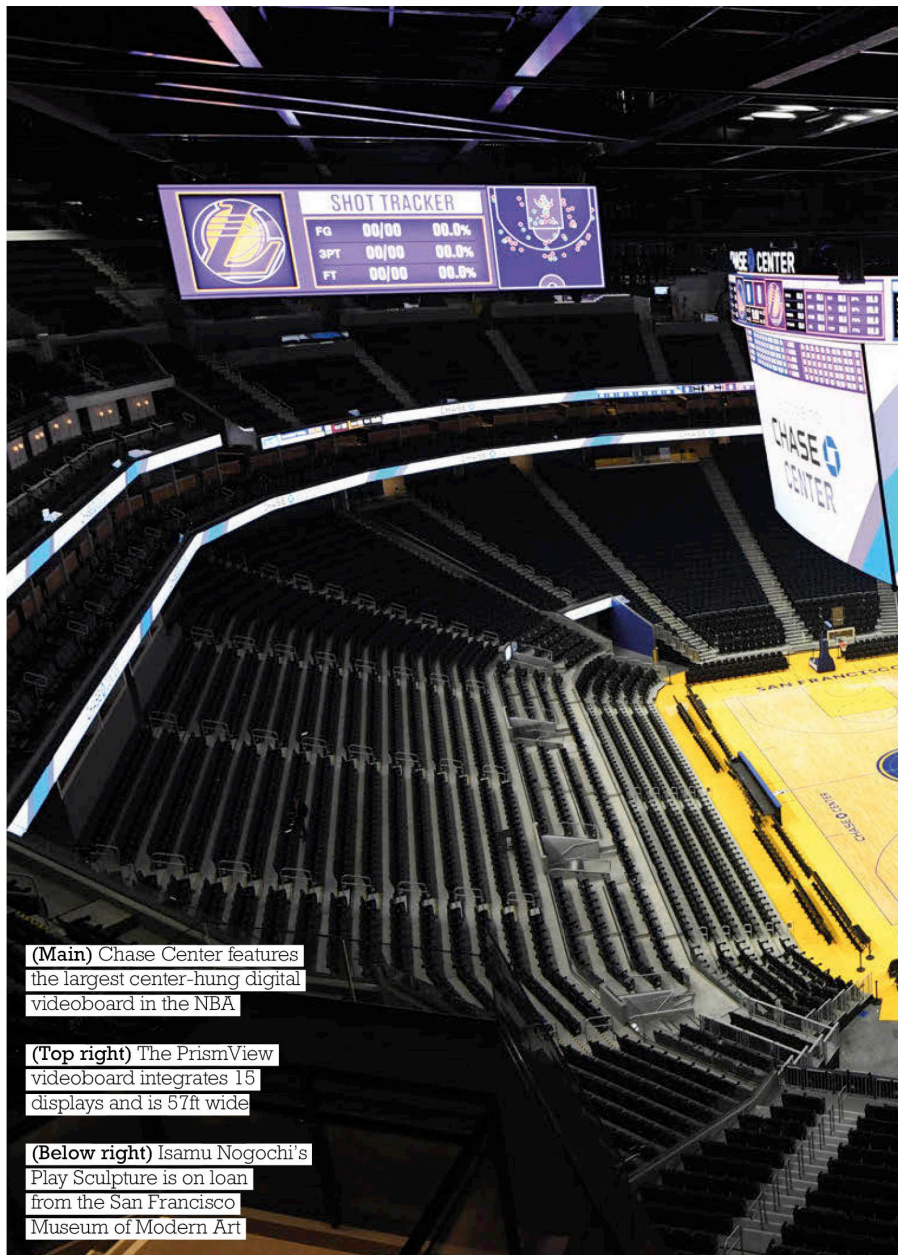
Chase Center is not just a new arena for the NBA's most successful team of the decade, it's an exemplary act of neighborhood placemaking, as well as a highly functional venue that can transform to stage concerts and theater with as much ability as it does basketball. "It's the latest example of a kind of future formula for stadia and arenas," says Rick Welts, the Golden State Warriors' president.

Before the Chase Center opened in September this year, the project had to negotiate a series of hurdles. For example, the team had initially selected a waterfront site, known as Pier 30-32, only to see that plan collapse. It led to eventually finding an alternative site in San Francisco's developing Mission Bay district, also just off the water. While it's a prime location, being so close to the water of the Bay provided its share of challenges.

"We were dealing with going into the water table and having poor soil conditions, from the point of view of supporting the building loads and the seismic conditions," says Wyatt Henderson, senior associate at structural engineering company Magnusson Klemencic. "We have a complete bathtub – concrete basement walls, then concrete structural slab spanning between our column and wall locations, supported on concrete pile caps, which are then supported by auger shafts and piles extending all the way to bedrock."

With San Francisco situated in an area of seismic activity, there's also the issue of potential earthquakes to consider, so the engineering of the Chase Center has to be prepared to handle the worst-case scenario.

"The arena structure is the gravity framing system, primarily a construction of steel columns and beams



(Main) Chase Center features the largest center-hung digital videoboard in the NBA

(Top right) The PrismView videoboard integrates 15 displays and is 57ft wide

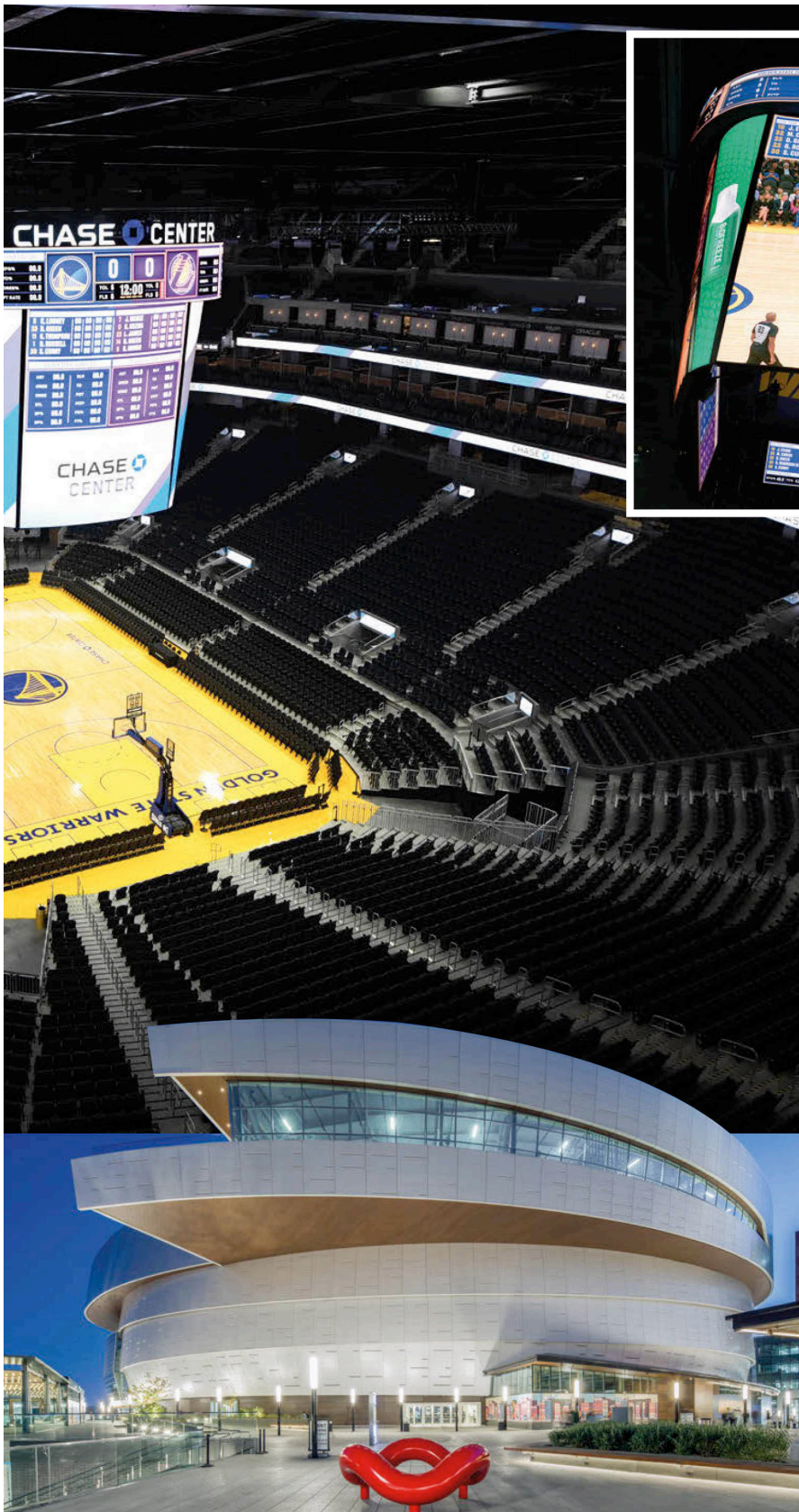
(Below right) Isamu Nogochi's Play Sculpture is on loan from the San Francisco Museum of Modern Art

CURTAIN RAISER

Many arenas use curtains to create smaller-theater configurations that can host more modest concerts and events. Chase Center takes this an extra step.

"We will essentially be able to cut the building down so that it only plays to one side," explains William Hon, director at David Manica Architecture. "Walls will deploy from the ceiling, and the stage proscenium will lower from the gantry, where it permanently lives. It is really unlike anything anyone has ever done before from a technical, visual and quality standpoint, which as you know is usually just done with blackout curtains. The Warriors ownership's desire was to have something that really felt like a whole new building."





with a composite slab on the deck, and a roof system of long spanning steel trusses,” says Henderson. “The lateral seismic system is four concrete core walls or shear walls, that extend from the foundation all the way to the roof structure. Concrete shear walls are configured in a core arrangement and are wrapped around the main egress stairs.

“You have these four elements buttressing and bracing the other elements of the arena instead of brace frames distributed throughout the arena. It allowed for a lot of the openness in the concourses and more open free flow around the building by having those located as discreet cores around the egress stairs. The other aspects tie into those four elements and it’s those four cores that are doing the work and bracing the rest of the structure in the case of a seismic event.”

Unlike other cities seeking to lure professional sports franchises with a shiny new stadium, there was no public money available. To add to the struggle, a real estate boom meant that land prices and construction costs were continually rising.

“The financing of this kind of project is complicated because, being a standalone venue, it’s very difficult to justify the level of investment you have to make,” Welts says. “Public money has long been a big component of the financing of these arenas and stadia. We just happen to be in an area where that’s a non-starter. We had to figure out a way to do it and we couldn’t have done it without this development.”

The Warriors’ ownership administrators, who include long-time Hollywood studio executive and movie producer Peter Gruber, have decades of experience in the entertainment industry as well as sports. They knew that to succeed, both financially and as a business venture, the development had to attract people not only for events but also on non-event days.

Double take

The designers from David Manica Architecture and Gensler were under pressure to make sure Chase Center was a state-of-the-art venue that could better the atmosphere of the Oracle Arena. In addition, they also had to improve in every other way the premium seats and general admission. This included a brief

MANICA



LEAD DESIGN ARCHITECT OF THE CHASE CENTER

manicaarchitecture.com

photo by: jasonorear.com



CHASE CENTER

GATHERING SPACE

The district surrounding Chase Center is called Thrive City, and features a community gathering space, plus 100,000ft² (93,000m²) of leasable restaurant and retail space.

“It’s really designed to feel like you’re going for a walk in an urban park,” says landscape architect Rene Bihan of SWA Group. “As you walk around that site, it’s a series of experiences.”

Its centerpiece is the 36,000ft² plaza outside the arena, where a large video screen affixed to the façade creates a gathering place for fans to cheer on the Warriors during road games. “We look at that plaza as an original venue of its own,” Welts says. “We want it to stay active with events all throughout the year.”

with better and more plentiful food and drink options, a variety of seating types and the largest center-hung digital videoboard in the NBA.

Instead of having to consider the design to accommodate multiple sports, the architects configured the bowl specifically for basketball, with seats lining the court but also with an ideal rake to view the action. They were also willing to incorporate a decrease in capacity, down to 18,000 seats from 19,500 at Oracle Arena.

“We wanted it to be for basketball first, but concerts a close second,” says architect David Manica. “We can compress the long axis and optimize it for basketball. The loudness of space directly correlates to the intimacy, excitement and loudness of the crowd. The Oracle Arena is very small, and the roof dips down into the bowl environment. We couldn’t do that here for reasons related to industry standards for basketball

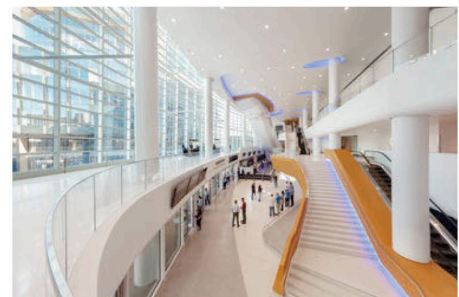
(Above) Thrive City features community space, restaurant and retail sites and big screens where supporters can watch the Warriors on the road

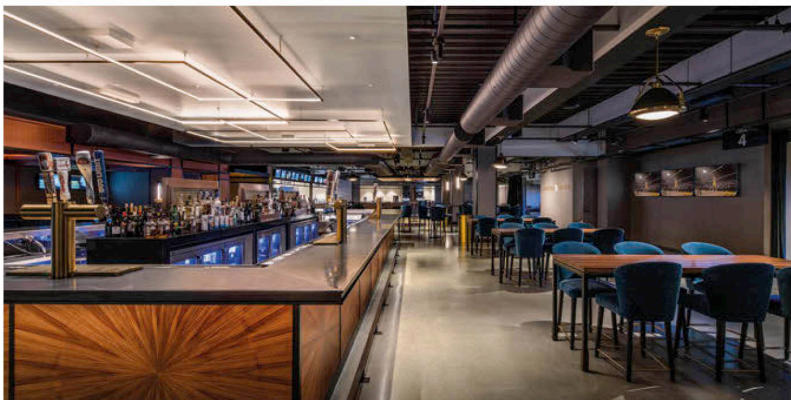
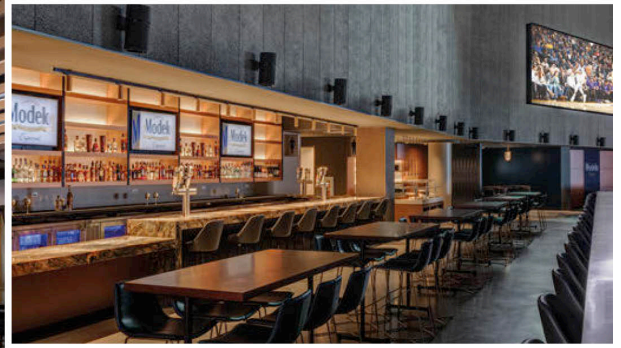
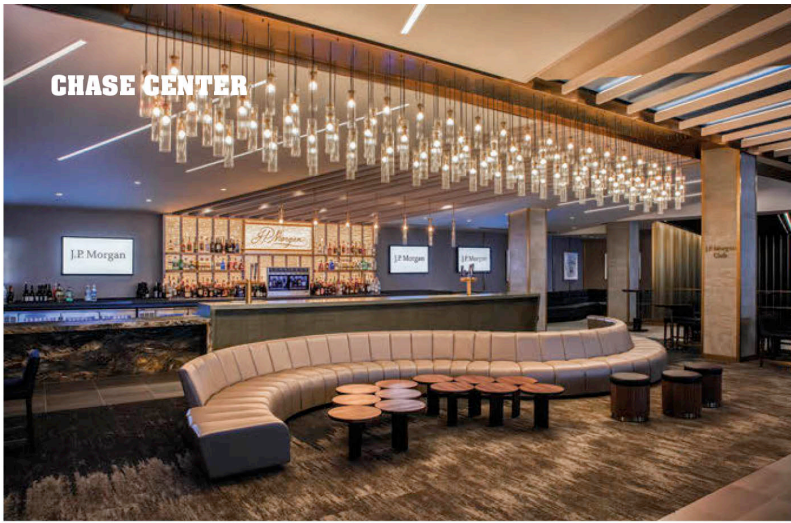
(Right) The West Entrance lobby is spacious and stylish

and concerts. We had to raise that ceiling back up. But we shrunk that volume of space as much as we could.” Yet ultimately, the architects and their Warriors clients selected a horseshoe-shaped configuration for the arena because that’s what best suits a concert venue. When a stage is set up on one side, there aren’t seats behind it being wasted.

Chase Center’s concert and theater configuration isn’t just about the shape of the bowl. Perhaps the arena’s most dramatic feature is how the super-sized videoboard from Samsung’s PrismView subsidiary, which integrates 15 displays and measures 57ft (17m) wide by 34ft (10m) high, hoists into the roof.

The 41ft (12.5m) deep roof trusses were configured in a doughnut shape around space for the scoreboard and were made deeper than usual to compensate it structurally. “There was a lot of talk about this early on in the project, so we could develop a roof system layout that achieved those goals, where we could





(Above) Chase Center's array of dining areas include (clockwise from top left) the JP Morgan Club, Modelo Cantina, Chase Club and United Airlines Club

create that hole in the center of the roof to house the scoreboard but also have significant structural elements running alongside it. That actually created a really efficient structural depth for the roof as well," says Magnusson Klemencic's Henderson. When the scoreboard is fully enveloped into the roof, gantry grids slide across the opening and concert rigging can easily be hung from them.

"The idea that a video board can retract into the roof is not entirely new. But no other board can fully retract like this with rigging available underneath," says project manager William Hon of David Manica Architecture.

Premium options

The Chase Center follows two growing trends in stadium premium seating, where there is an increasing variety of spaces and added emphasis on combining private suites with adjacent clubs. Here, there are traditional suites, but also a mix of offerings that combine court proximity with private and shared spaces. Premium spaces were given extra attention to compensate for the higher than average land and arena cost. "We have been able to secure more than US\$1bn in income from suite leases," says Welts. "Those numbers are unprecedented in the industry for a new stadium or arena."

At the same time, the seating design is set up to offer more than just a single seat, with club

and other viewing options beyond on offer at a wide range of price points.

"We have 15 different products in the building for an 18,000-seat venue. The diversity of experience is probably above and beyond anything that's ever been done," says Jonathan Emmett, a principal with Gensler, which partnered with Manica Architecture to work on the stadium's interior. "No matter what the seating type, whether general admission or premium, it was important to craft a unique experience so it really does offer something for everybody."

Within premium seating particularly, Emmett adds that "courtside lounges and suites, and the theater boxes create social spaces. You also have box seats that come with a dining table in a shared lounge space. Communal experience is the trend these days."

While the site also houses the team's practice facilities, as well as its administrative offices, to help pay for the site and add density sought by San Francisco planning officials, there are two office buildings on-site and adjacent to the arena. Both buildings are now to be occupied by Uber, the ride-hailing app. This, in turn, helps support the added retail that is woven into the whole site.

"Having food and beverage really opens up to the street, and these esplanade spaces that invite the neighborhood in is a big part of the success of knitting into the fabric of the city," Emmett says. "Obviously, these shops are a big part of the gameday experience, but many of these arenas and stadia create a very dark, closed-off condition when there's not an event going on. Wrapping the entire building in retail allows that street condition to be activated." ■

Photos: Jason O'Rear and Chase Center