

“WANDA METROPOLITANO” PROJECT



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EXECUTIVE SUMMARY

Previous Stadium / Original Stadium – LA PEINETA

Atlético de Madrid Spanish club new stadium, is the result of the enlargement of the former Athletics stadium “la Peineta” located in Madrid and inaugurated in 1994 with the architectural firm Cruz y Ortiz.



The same architecture studio Cruz y Ortiz was responsible for the stadium’s expansion. According to the architects, the project’s main goal was to transform la Peineta into a big football stadium, but preserving their architectonic image, given its initial and particular shape of “Peineta” (comb shape) had turn into an icon structure for the neighborhood.

The stadium had stands only on the west side of the construction (solar).

La Peineta had a capacity of 20.000 people.

Vicente Calderón stadium had a capacity of 54.000 people.

THE WANDA METROPOLITANO

The new Wanda Metropolitano was unveiled on September 17, 2017 and has become one of the most emblematic football stadiums worldwide.

Its capacity of 67.000 spectators, its innovative architectonic design, long span lightweight roof, latest technologic development implementation, their food, beverage and catering service made the stadium a worthy winner of the World Best Football Summit Stadium 2018 and the achievement of being the venue for the Champions League Final 2019.



Materials used

The stadium, being partially underground, manages to achieve a horizontal outline, capable of generating least surroundings impact as possible.



The level 0 is 15 meters above the football field, which gives a feeling of entering an easily accessible stadium on both upper and lower level.

The concrete is the leading material, a solid and robust material that contrast with the lightness of the spectacular roof with an impressive structure composed of steel cables, covered with thin layers of translucent glass fiber strands.

Stadium distribution

Unlike other stadiums, the access to stands is always reached from the upper part and not through vomitorium. This solution allows that before arriving to their seat, people have a total overview of the football field.

The stadium is structured in 3 main heights:

- The lower stand, at the same level and next to the football field - which was completely restructured and lays 15 meters below the level 0.
- The medium stand, laying at the ground level and where the main access to the stadium are located.
- The upper stand.

It provides 5 different categories of VIP seating to enjoy the match:

Presidential box, Private Boxes, VIP Boxes, Clubs and individual VIP seating.

Compared to Vicente Calderón, the new Wanda Metropolitano reduces the distance between stands and football pitch by 5 meters: around 5,89 meters from the closest point and 9,95 meters from the furthest point of the north end.

The sides are located at a distance between 6,07 and 9,95 meters from the pitch. At Vicente Calderón, the closest seating were around 10,72 and 16,15 meters from the pitch.

General and VIP seating

All the seats from the new Atlético de Madrid's stadium have been manufactured with blown polypropylene over a steel bracket and are fire resistant and UV-resistant.

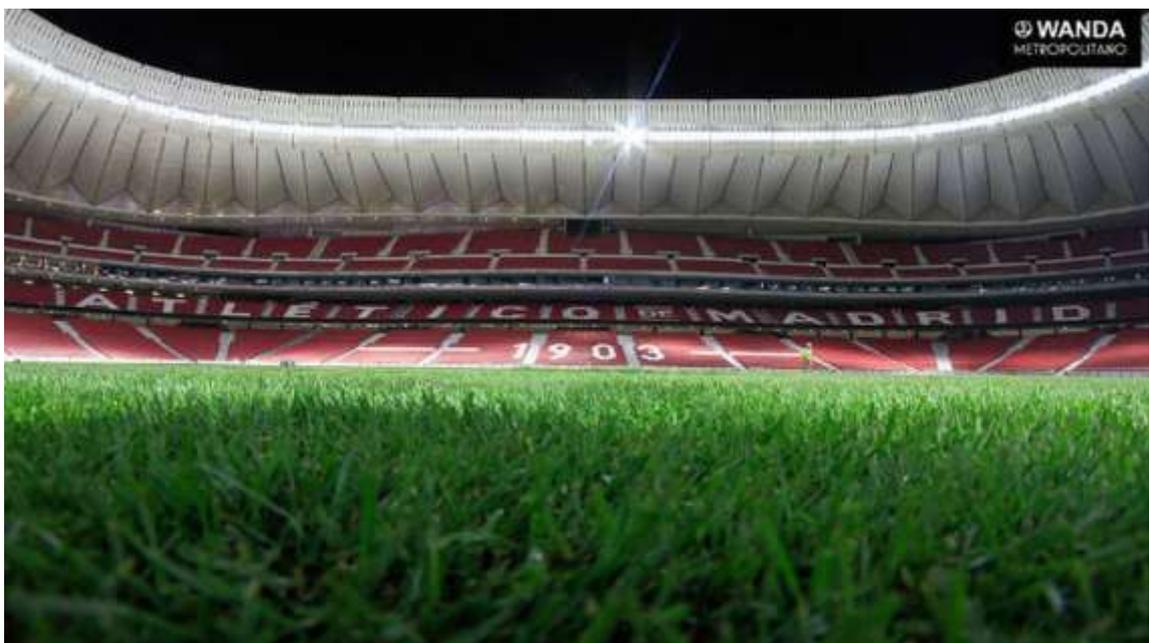
The German company Eheim Möbel GmbH, which has worked with many stadiums as Munich Allianz Arena or Maracanã, has been responsible for the design and manufacturing of all the seats. (GA & VIP)



Football field

The Wanda Metropolitano football field is located 15 meters below level 0.

For the lawn installation, 440 grass rolls of 15 meters length and 1,2 width has been used. Each of them weight 1.500 kilograms and 20 trucks were needed for transportation. Royalverd company was in charge of installment.



The Roof



The roof is one of the most significant elements, and largely responsible of the stadium's image. It's also the element that protects spectators from the inclement weather and standardizes the building, as it merges the original part from la Peineta (the previous stadium) with the enlargement of the new stadium. It has a height of 45 and 57 meters in relation to the pitch.

It's composed of a light and taut structure with a waved shape, built by 2 big rings: an exterior ring and a perimetrical compression ring with 3d double truss shape that lays over the concrete structure and that will be responsible of joining and supporting through radial wires the main central traction ring.

The compression ring is built by 4.500 tons of steel. This structure is covered with long span lightweight roof, formed with thin layers of translucent glass and Teflon that gives a feeling as if it was floating over the stadium.

Its transparency contributes to the spectacularity of the light shows at Wanda Metropolitan.

The deck has approximate dimensions of 286 meters north-to-south and 248 meters east-west, approximately 46.500 square meters. Its design is included among the classification of taut structures.

Schlaich Bergerman Partner

The roof was designed by the independent consulting engineer firm Schlaich Bergermann Partner, specialists in the structural principles of Tensegrity (*).



Tensegrity, tensional integrity or floating compression is a structural principle based on the use of isolated components in compression inside a net of continuous tension, in such a way that the compressed members (usually bars or struts) do not touch each other and the prestressed tensioned members (usually cables or tendons) delineate the system spatially.

The term was coined by Buckminster Fuller in the 1960s as a portmanteau of "tensional integrity". The other denomination of tensegrity, floating compression, was used mainly by Kenneth Snelson.

Snelson's best known piece is his 18-meter-high Needle Tower of 1968.

Private Boxes and restaurant services

The private boxes are protected by a continuous glass curtain and are located between second and third stands. The access to this exclusive VIP area is through the interior private parking in the stadium. It provides more than 1.000 VIP parking spots and more than 11.000 square meters of VIP area to accommodate over 7.000 exclusive clients.

Besides, the stadium provides a sophisticated catering service operated by the well-known company SODEXO, who acquired American company Centerplate in December 2017. It's the only stadium in Spain that relies on his own chef José León Sanchez.

Wanda's complete gastronomic offer is prepared on their main kitchen, that runs along an area of over 1.000 square meters, with facilities and last generation equipment and a team made up from more than 500 professional, between waiters and chefs.



The gastronomic offer is varied, as well in match days as is non-match days. On match days it's possible to prepare over 7 tons of food, since 751 grams of food are prepared for each VIP customer.

In the VIP area, it's possible to access the gastronomic offer through mobile devices or approaching one of their multiple food and beverage counters, where famous bartenders are doing demonstrations shows or networking areas distributed over the many different lounges in the stadium.

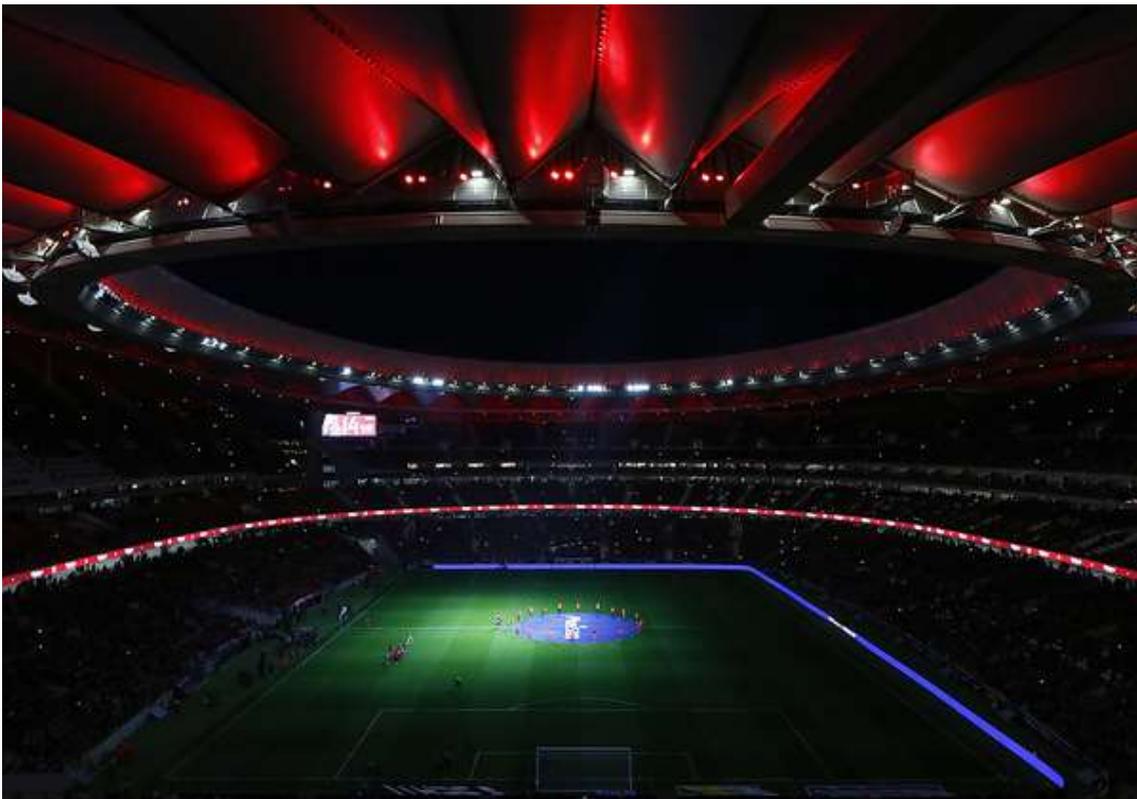
Partnerships with technologic brands

The WANDA Metropolitano is a technologic integration role model where elements stand out, as lighting, display and connectivity.

The Lighting Project is in charge of SIGNIFY Philips Lighting.

It's world's first stadium with LED lights in all its facilities (main façade, roof, football field, and inside of stadium).

The football field lighting, with its **336 projectors**, has the “latest technology in the market” according to SIGNIFY.



LG manages the complete image display technology.

More than 900 large format IPTV screens were distributed along the stadium, a 360° ribbon board – a ring made of screens that runs along the field between the lower and the medium bleachers made by over 530 square meters of LED panels. It also composed by 3 giant scoreboards, two located in the ends with 84 square meters each, and one in the side with 56 square meters. All this technology improves the experience of watching the game from inside the stadium.

Cellnex Telecom provides the stadium with mobile wide broadband coverage multi-operator in the whole venue. It will be Spain's first stadium that will offer a “real mobile wide broadband coverage experience” to the 67.000 spectators, according to the company. The infrastructure will be reached through a single network with **250 antennas**.

STEELMAN SPORTS

Our team of highly qualified professionals and partners has worked closely with ATLÉTICO DE MADRID Club defining the operating model of the new WANDA METROPOLITANO, as well in its development, marketing and effective profitability.

We have actively participated in the development of the strategic agreements in lighting areas with SIGNIFY-PHILIPS, multimedia and audiovisual with LG, climate control with DAIKIN, technologic with MOVISTAR, catering and marketing of VIP areas with CENTERPLATE, as well as identifying potential candidates for the name of the new WANDA METROPOLITANO.

We want to thank ATLÉTICO DE MADRID Club for the confidence they placed in us through all these years of close collaboration.

TECHNICAL FACT SHEET

General specifications

Typology: Sport & Leisure

Location: Luis Aragonés Avenue. 28022 Madrid, España

Technical staff

Architects: Cruz y Ortiz Arquitectos

Lighting: Philips

Structural Engineering: MC2 Tyspa, Schlaich Bergermann and Partner

Environment Engineering: JG Ingenieros

Acoustics: Grupo Dinac

Partner companies: Signify-Philips Movistar LG Huawei

Construction firm: FCC

Surfaces

Solar: 88.150m²

Spectators: 67.000 (7.000 VIP)

Main building: 147.398m²

Offices: 6.088m²

Commercial: 6.870m²

Parking: 34.284m² – 4.000 parking spots (1.000 interior – 3.000 exterior)

Total: 194.640m²

Year of construction: 2007-2017