



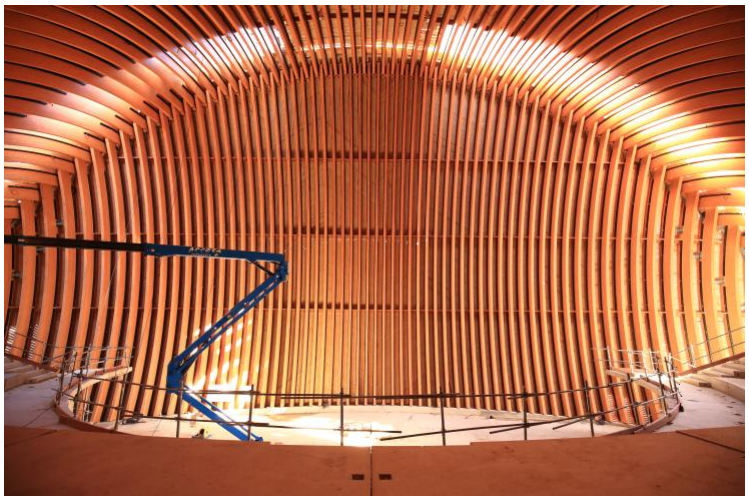

Créteil Cathedral

Location : Créteil

Architect : AS. Architecture-Studio

Client : Les Chantiers du Cardinal

Package : Main structure, Framework, Roofing, glass envelopes

Scope : Technical design and implementation monitoring

Date : 2013–2015

The projectis located on the site of the old historic cathedral built according to the plans of the architect Gustave Stoskopf, Grand Prix de Rome. The Cathedral unfolds along the line of the original building in the form of two spherical shells of distinct radius, over 20 meters high. This volume, centered on the Nave, increases the capacity of the Cathedral to 1,200 people by creating a mezzanine gallery made of metal framework.

The structure of the shells is made of glued laminated beams arranged in parallel planes. These beams are staggered by one frame between the two shells to retranscribe the symbolism of hands crossed during a prayer. Because of the presence of a basement, the steel structure of the stands overhangs the existing to lean on the concrete cores of the stairs access to the mezzanine. This structure supports the prefabricated concrete elements reconstituting the bleachers, and the South shell. The North shell rests on new foundations. The glued laminated beams are covered with a waterproofing complex and an over-roof made of Douglas fir laths laid in clerestory, allowing to retranscribe the image of wood outside. The signal of the Cathedral arranged near the hulls is constituted by a mast in metal frame of conical shape of 44 meters height dressed by wooden laths identical to those of the hulls.

The parallel orientation of the wooden beams in relation to the spherical surface requires different details depending on the area concerned. In order to simplify the construction of the over-roof, it is divided into prefabricated modules. For each over-roof module, there is a supporting structure for fixing and supporting the laths, but also as a template for the cold bending of the wood laths.

The deployment of the Cathedral of Créteil is the 2016 winner of the Trophées Bois Ile-de-France, category «Intervention on the existing». These trophies are organized by the National Center for the Development of Wood (CNDB).