

International COOPERATION

BY SELÇUK AVCI



▲ Concrete was ruled out in favor of steel for the Congo Kintele Congress Centre, as steel met the project's schedule, financial and sustainability goals.



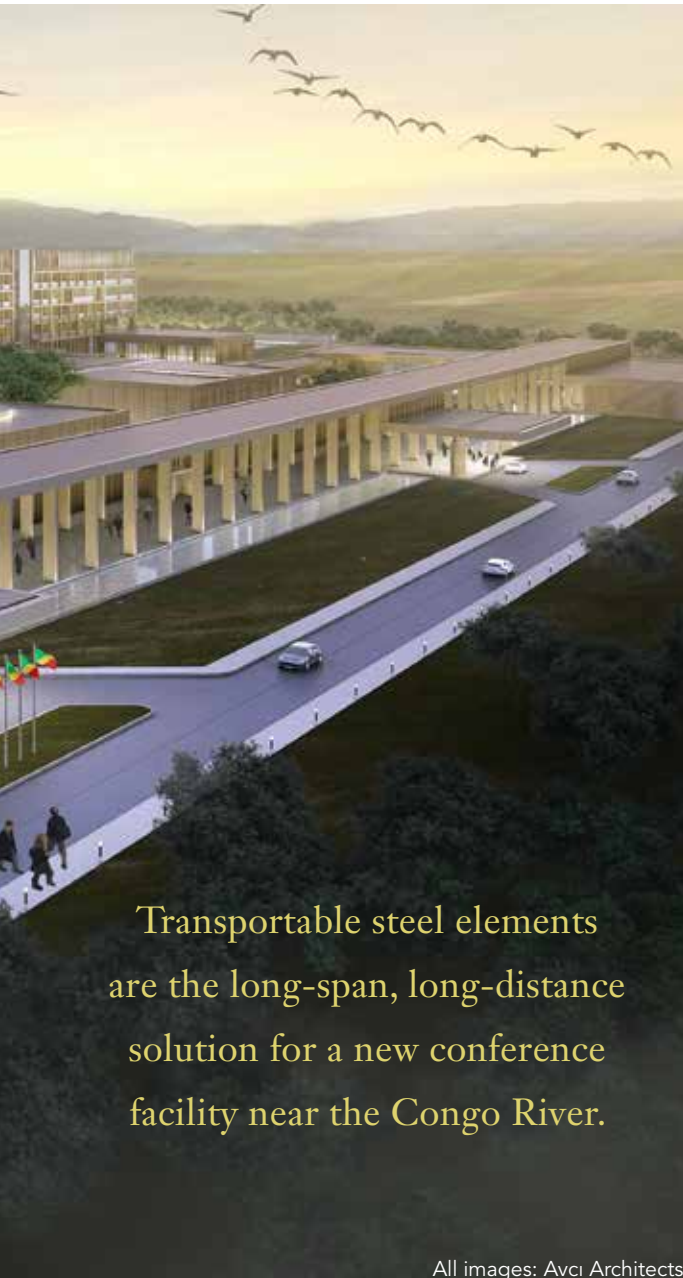
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THE NEWEST CONGREGATION FACILITY FOR the African Union was, rather fittingly, designed to exist in harmony with its surroundings.

Located in a newly developing Kintele area of the Republic of the Congo's capital city of Brazzaville, the steel-framed Congo Kintele Congress Centre has panoramic views of the Congo River to the south and a forested landscape to the north. The positioning of the buildings is largely dictated by the site's topography—a valley carved by the Congo River—and the buildings sit parallel to the contours of the valley.

Designed by Istanbul-based Avcı Architects and structural engineer Emir Mühendislik, with Summa as the general contractor, the facility was built to host summits of the African Union and includes the adjacent 200-room Kintele Resort Hotel.

The 1,500-seat congress hall, 300-person presidential hall, 1,000-seat banquet hall and public piazza are positioned in a linear sequence interrupted by courtyards, and all are linked by a 350-m (1,148-ft) sheltered colonnade, framed with encased steel, that links these elements. The hotel is



Transportable steel elements are the long-span, long-distance solution for a new conference facility near the Congo River.

All images: Avci Architects



- ▲ The Piazza, retail space and restaurant.
- ▼ The west entrance, congress hall and press hall.



- ▼ The courtyard area, which encourages gathering between meetings.



positioned 5 m (16 ft) above this general public promenade, both to give it better views to the river and to create a separation of functions on the site. The colonnade also acts as a linear public space in and of itself, sheltering people from the rain that prevails for a significant portion of the year in this part of the world. The two ends of the colonnade act as public gates to the complex, which also includes a press hall, museum, shops and a restaurant.

Framing materials for the project were largely dictated by speed of construction, availability, ease of transport and financial requirements, thus concrete was ruled out in favor of steel. Funded by Turkey's Exim Bank, which required at least 70% of the project's construction value to be sourced from Turkey, the project had to be finished in 12 months.

Choosing steel so early in the process also expedited framing design decisions, fabrication and delivery, because constructability concerns had to be integrated as early as possi-

ble. As such, final construction-level thinking had to be adopted at the outset of the project rather than following design. (Our experience in Turkey is that a project often jumps from conceptual design to permit drawings to bid documents with little time for assessing the impact of design decisions—decisions that create situations that must be resolved during construction. But in this case, again, constructability was considered from the start, resulting in very few surprises during construction.)

The project included multiple areas where long, column-free spans were required, another reason why steel proved to be the best solution. A key framing decision was to use space frames for larger spans in the banquet hall and the presidential meeting hall, which provided flexibility in installing mechanical and electrical systems. While this resulted in a deeper structure than we initially preferred, the steel components were smaller and lighter—and easier to ship from Turkey. The



- ▲ Building spacing was dictated by the site's topography.
- ▼ Structural steel being erected.



congress hall required a shallower system to maximize ceiling heights, so steel trusses crossed the shorter span of the hall.

Steel construction also allowed the contractor to quickly erect a weathertight enclosure—again, in an exceedingly rainy region—so that interior work could begin while facade work continued. This was crucial, as the project had to be finished on time for several prebooked events.



◀ Erection of roofing assemblies.

▲ The museum.



◀ The presidential hall.

Not only did this endeavor result in an attractive, important structure in a naturally beautiful environment, but it also gave us valuable experience with steel design—all in a fast-paced project located far from home. As the construction market becomes more global, we anticipate that investors will increasingly choose steel framing to take advantage of its economical, efficient and architecturally pleasing characteristics, all of



▼ The hotel and pool.



▲ The congress hall will host meetings of the African Union.
 ▼ The foyer of the presidential hall.



► Framing for the west entrance.



which are especially important for multifaceted, high-profile projects. And as architects, we look forward to creating more buildings that leverage these characteristics in our designs. ■

