CTBUH Research Manager and Building Design Team Toured the Recently Finished Allianz Project in Citylife Milan

MILAN – CTBUH Research Manager Dario Trabucco visited the recently completed Allianz Tower in Milan on May 10, 2015. The tower rises within the new business and shopping district known as CityLife and was designed by Arata Isozaki with ECDS as the structural engineering firm. The building is 207 meters tall with a 24- by 60-meter rectangular footprint. The structural system consists of two concrete cores coupled by two belt trusses. One truss, located at mid-height, is steel, while the second truss, consisting of prestressed concrete elements, is at the top of the structure.

The stability of the whole system is augmented with two couples of steel buttresses located a quarter of the way up the building on the long sides of the tower. The presence of a viscous damper at the base of each buttress is the most innovative aspect of the project. These dampers work to increase comfort performance affected by wind vibrations. This solution proved to dramatically reduce the wind-induced horizontal accelerations in the building.

The tower tour gave CTBUH the opportunity to inspect each feature of the building in detail.

Allianz Tower is a potential candidate for new CTBUH research entitled “A Study on the Damping Technologies Available for Tall Buildings: Comfort and Safety.” Its use of viscous dampers to enhance comfort and the fact that the dampers and their buttresses are used as an architectural feature of the building—thus creating awareness of their presence and finding an elegant balance between form and function—make it an excellent candidate for further research.