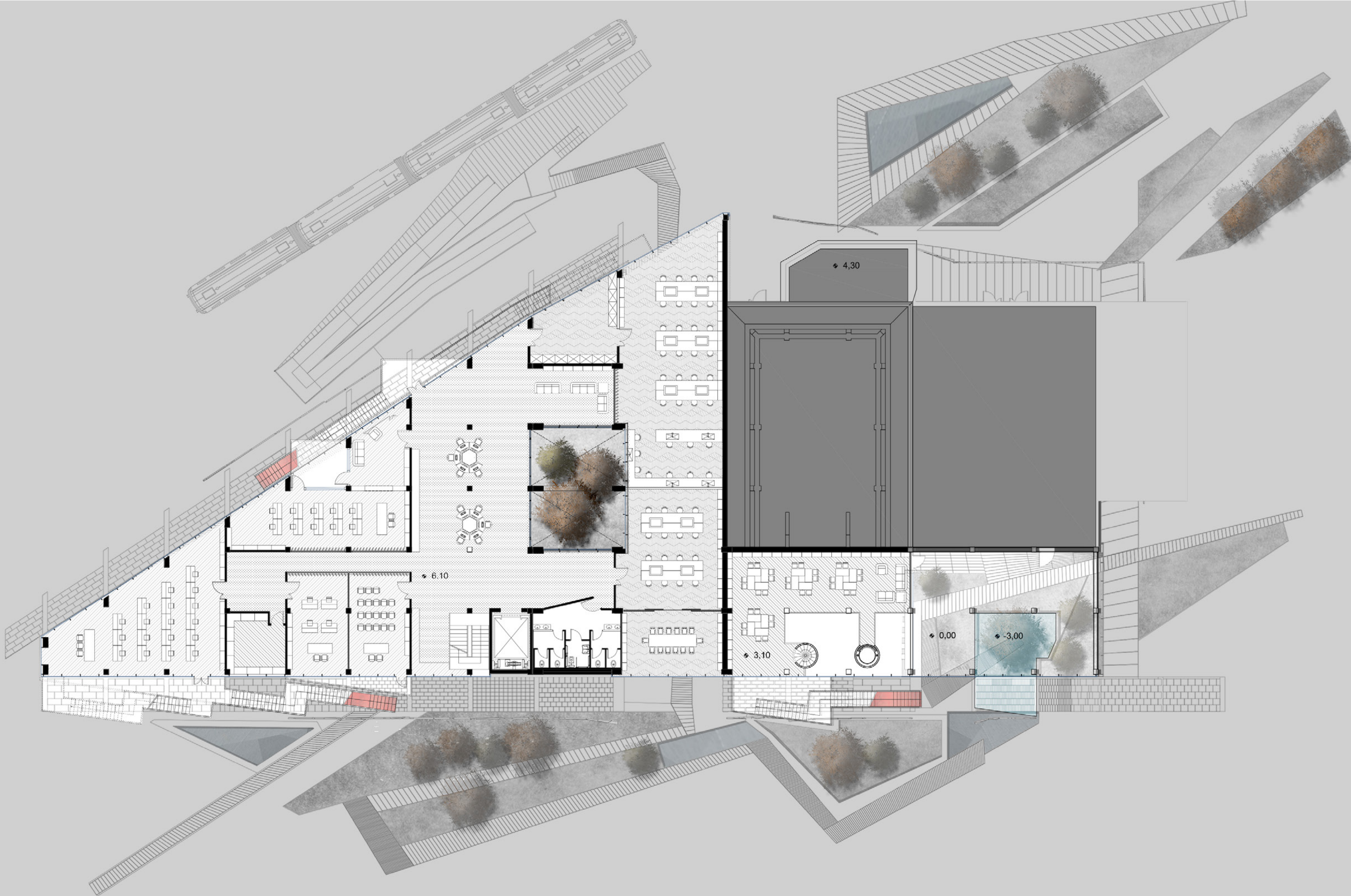
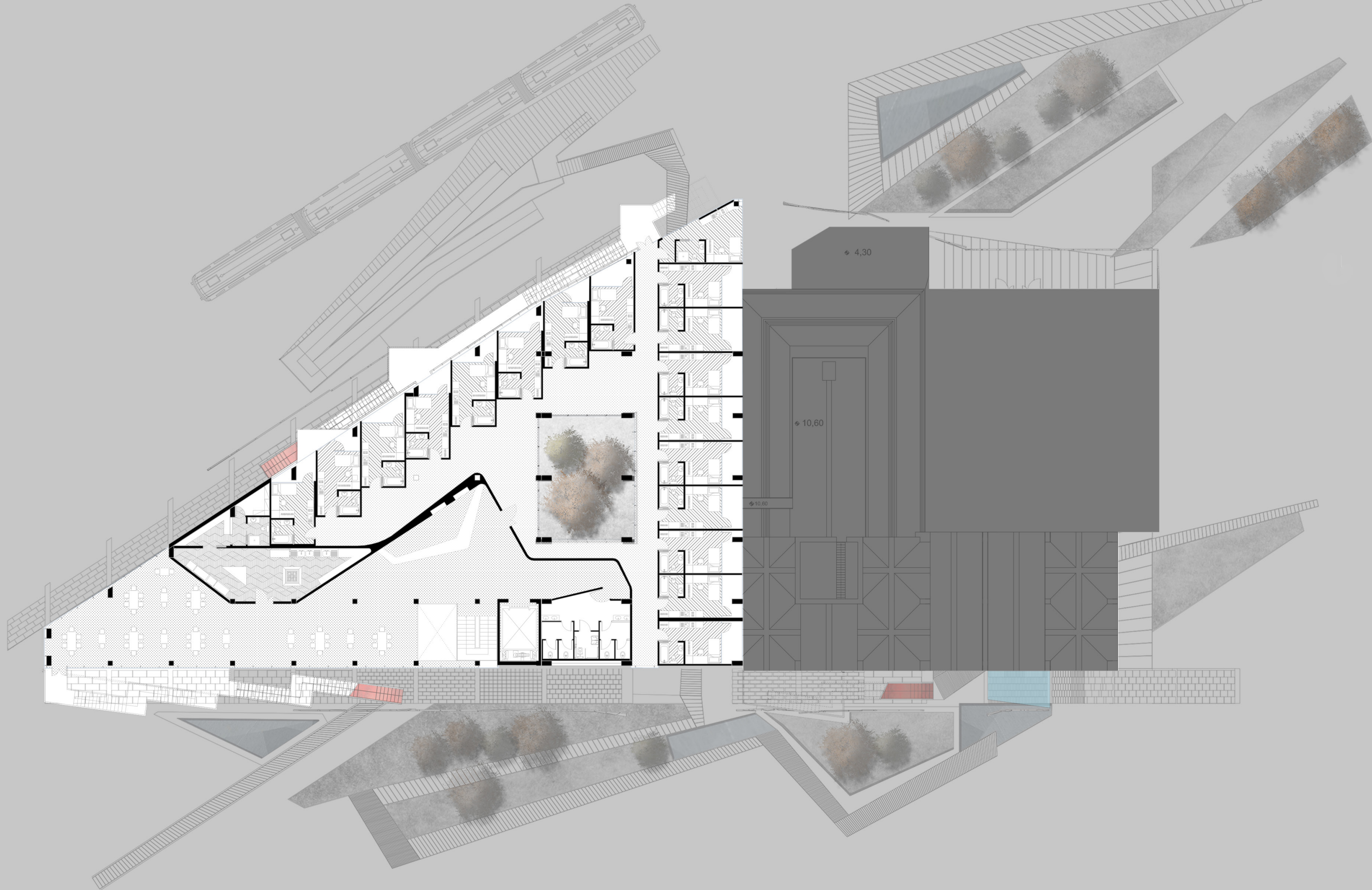
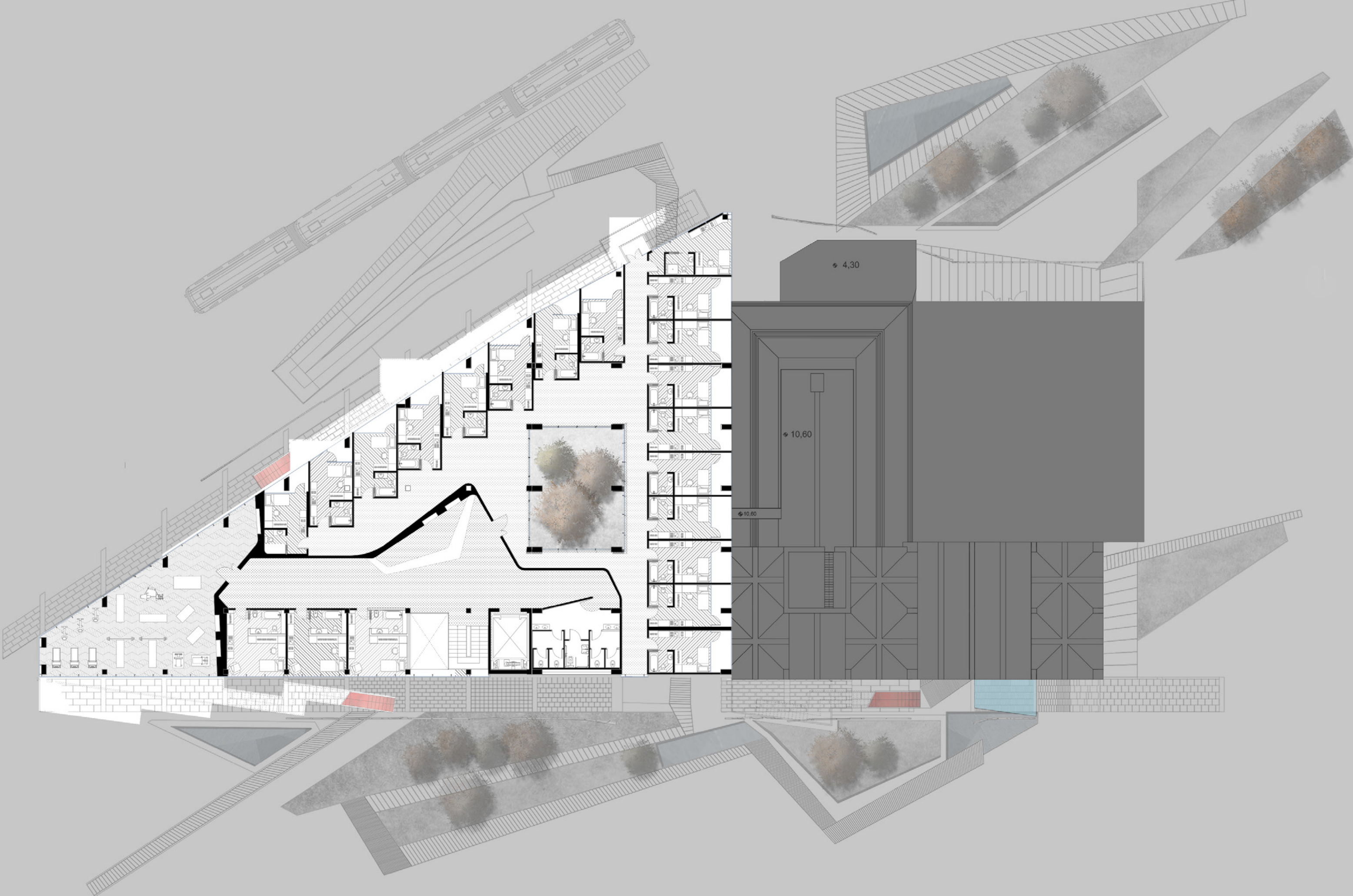




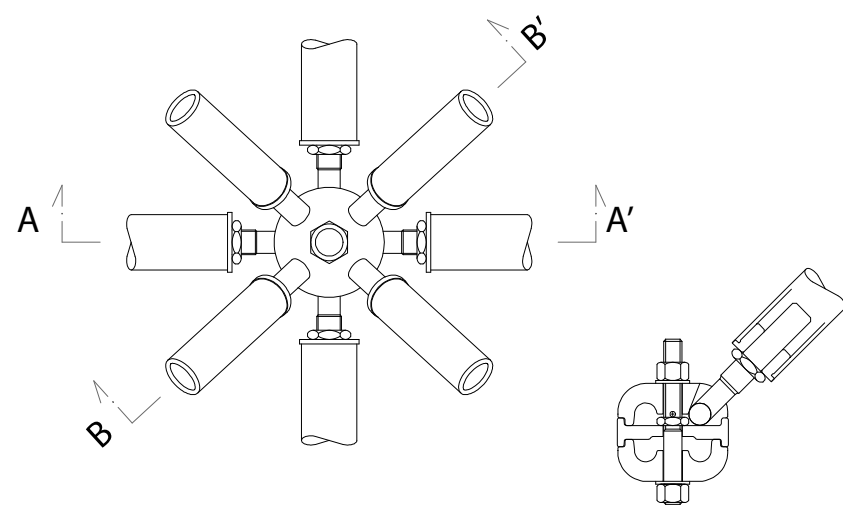
First floor plan - Classrooms and laboratories



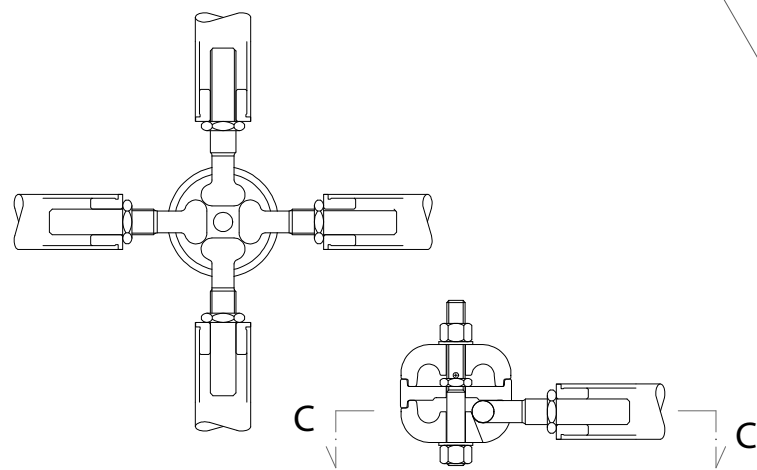
Second floor plan - Dormitories and cafeteria



Third floor plan - Dormitories and gym

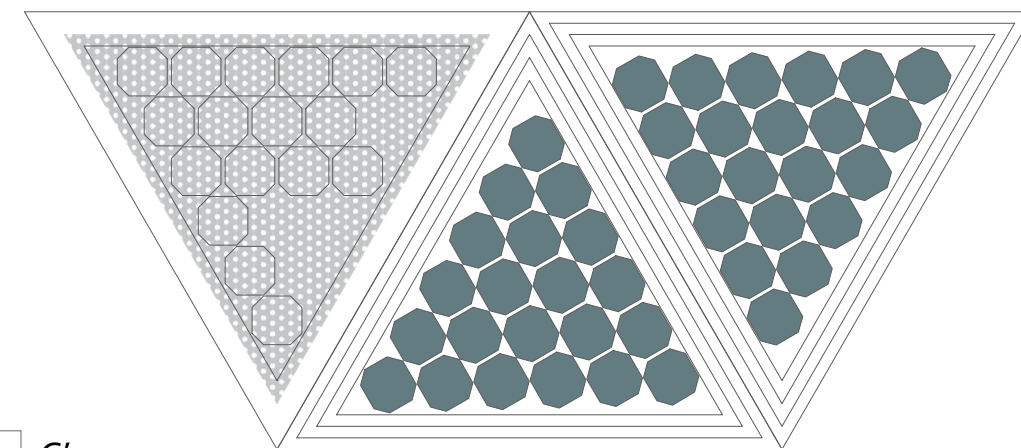


Structural knot: Vestrut 160

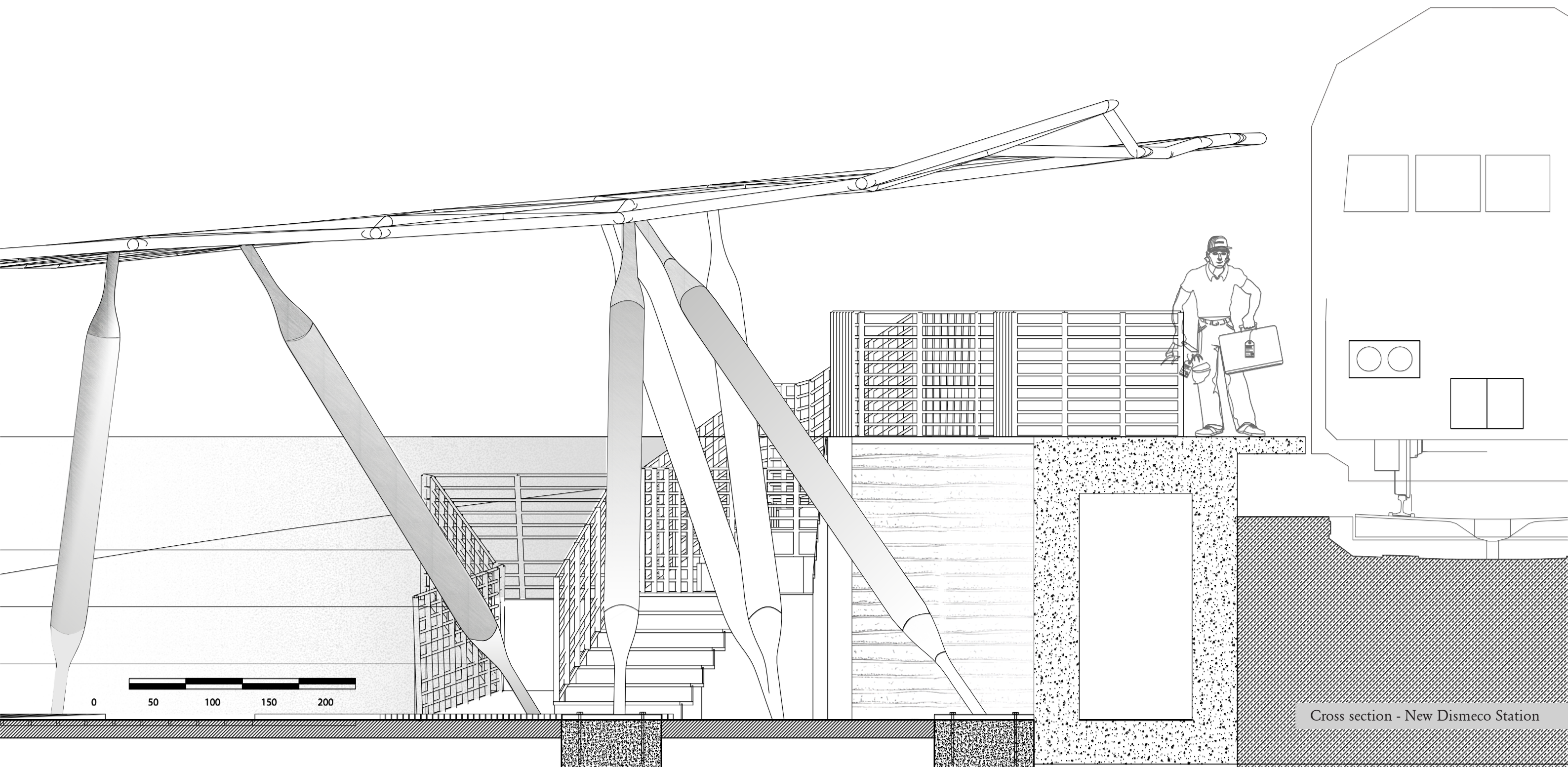


B-B

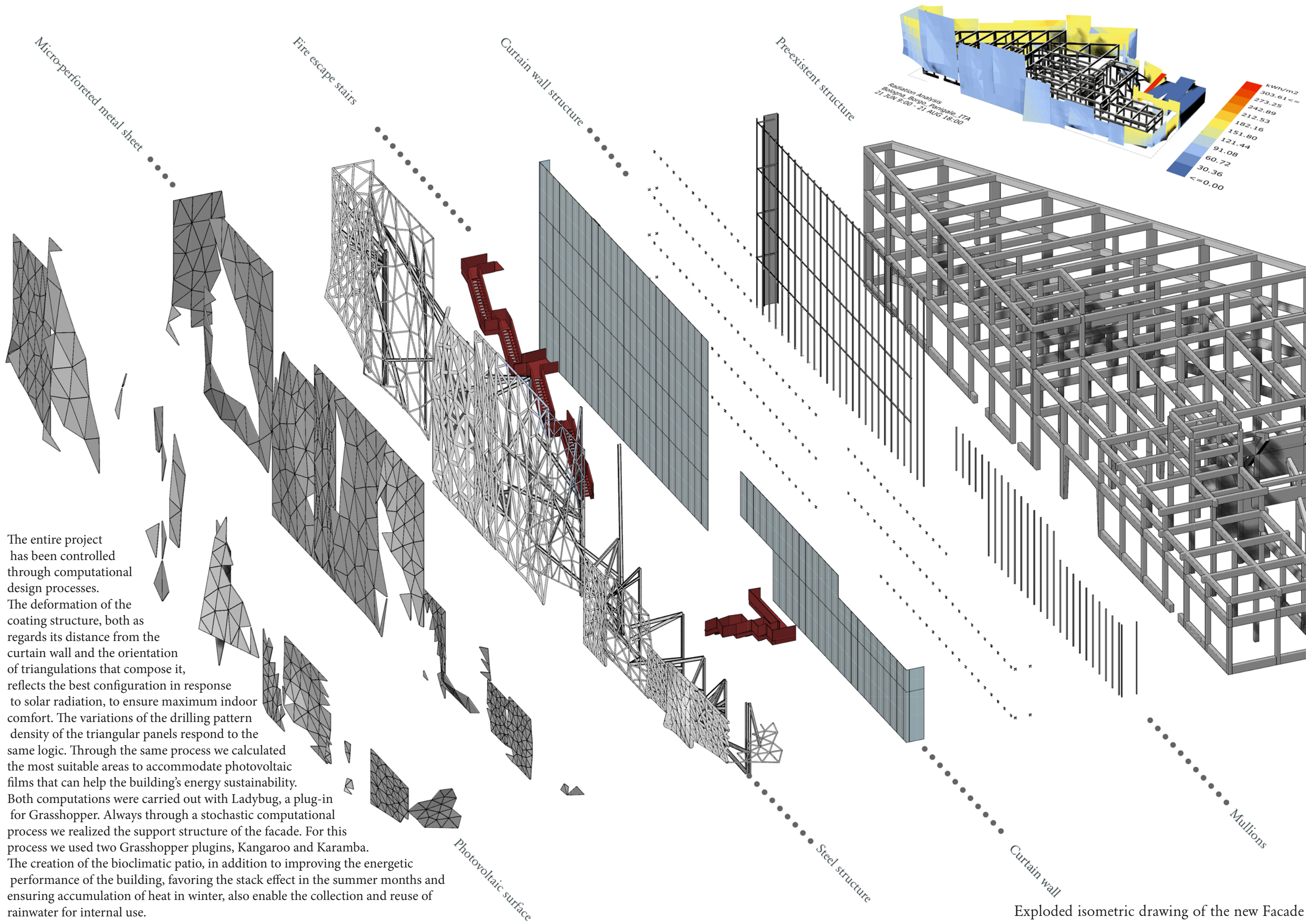
C-C



Photovoltaic surface



Cross section - New Dismeco Station



The entire project has been controlled through computational design processes. The deformation of the coating structure, both as regards its distance from the curtain wall and the orientation of triangulations that compose it, reflects the best configuration in response to solar radiation, to ensure maximum indoor comfort. The variations of the drilling pattern density of the triangular panels respond to the same logic. Through the same process we calculated the most suitable areas to accommodate photovoltaic films that can help the building's energy sustainability. Both computations were carried out with Ladybug, a plug-in for Grasshopper. Always through a stochastic computational process we realized the support structure of the facade. For this process we used two Grasshopper plugins, Kangaroo and Karamba. The creation of the bioclimatic patio, in addition to improving the energetic performance of the building, favoring the stack effect in the summer months and ensuring accumulation of heat in winter, also enable the collection and reuse of rainwater for internal use.

Exploded isometric drawing of the new Facade

