

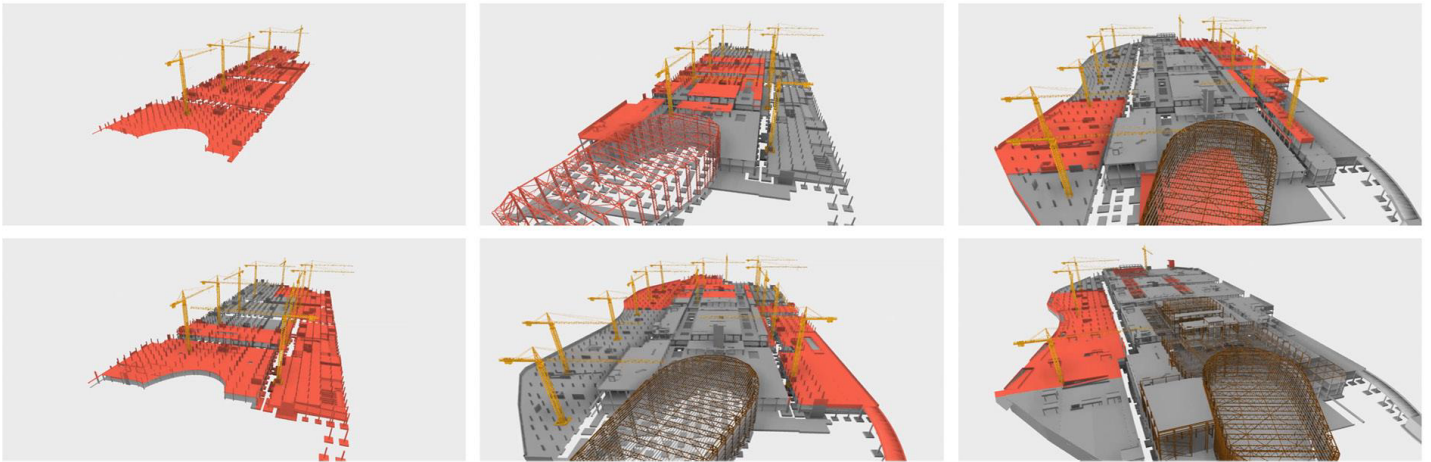


Mall at Bawshar

Muscat, Oman / 2016

Client
Constructor
Scope

TAV
TAV
construction support



One of the works that enable us to ensure the suitability of the Construction projects is the Structural Design Review. In addition, Value Engineering Reports allow us optimizing the solution focused from economic, functional, esthetic and environmental point of view. In this particular project, these works were complemented with the Construction Methodology study, supported in a complex model in BIM technology.

In addition to the Works related with the review and Value Engineering of the Construction Project of the mall, the constructor TAV ordered to develop the construction sequence to study the works of the large Mall in Oman. The total constructed area is 420.221 m², divided in 3 stories in a lot with an area of 144.708 m² with cinema, hypermarket, 5200 parking spaces and snow park. To improve the understanding of the works it was developed a 4D BIM model that stemmed from a global model in Revit 2016 consisting of the import of IFC files with the digital representation of the project.

The edition possibilities of the model, that Revit provides working with imported IFC files, is very restricted such a way that was not possible to divide the larger elements directly, like slabs and walls, neither to manage the different phases with the Revit tools.

To achieve the sequence of the phases of the works it was designed an alternative strategy based on the development of an application that allowed exporting more than 450 partial submodels from Revit to Navisworks.

Finally, the resulting models were grouped in 12 bimonthly phases and were associated to the work timetable through the timeliner of Navisworks.

In addition, the assembly and disassembly of the tower cranes were included in the model, as well as the required passing places and needed areas for the construction of the building.



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