Advanced architecture and complex building installations put high demands on the need for interdisciplinary coordination. Through clash and consistency checking, Ramboll can ensure that a final project is well-coordinated without critical clashes and that the design incorporates the needed separation distances for installation, operation and maintenance.

**BIM as an everyday tool**

For more than 10 years, Ramboll has used 3D tools for project designs in architecture, structures and building services. The use of BIM tools has become a natural part of the projects. 3D models including metadata are essential in delivering well-coordinated projects to our clients. The models are also needed for ongoing clash detection and consistency checking during the project’s life-cycle.

**Clash and consistency checking**

The basis for effective interdisciplinary clash detection should always be well-checked discipline models. Ramboll aims at including clash detection as an essential item in the overall timetables for projects. Ramboll uses market-leading tools such as Solibri Model Checker and Autodesk Navisworks. At Ramboll we have developed our own code of practice for clash detection and consistency checking.

**Experience**

Clash detection has become an integrated part of our projects for the last 10 years. Our experience shows that starting clash detection during the early phases ensures a final project with fewer errors on site. Ramboll’s standard code of practice provides overall high quality across projects. Building owners as well as operation and maintenance organisations can be involved earlier and take part in the design process.

**Systematic use of clash detection and consistency checking**

Systematic use of clash detection and consistency checking gives a faster and more effective building process and is beneficial for both contractors and building owners.

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