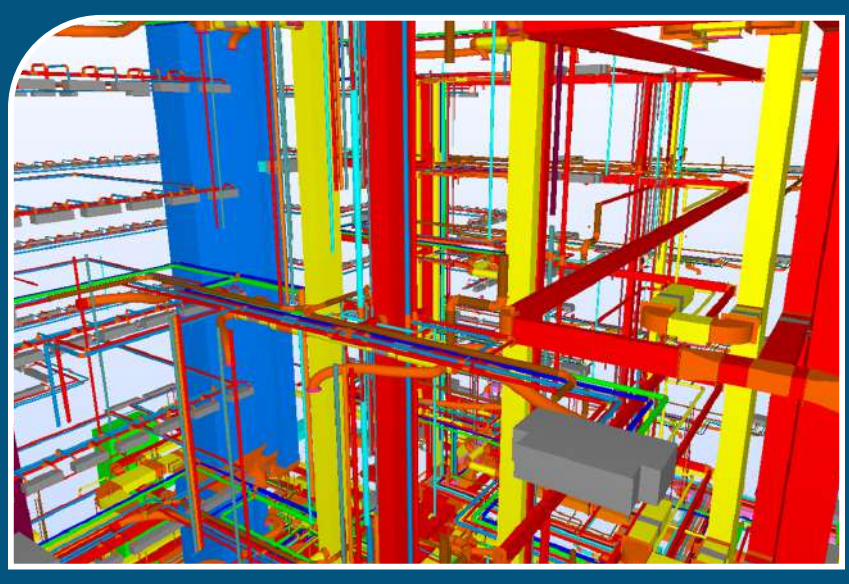
3 Types of BIM Clash Detection

1 HARD Clash



- Two inter-disciplinary building elements exists at the same place in design models
- Results in heavy reworks, delayed timelines, construction waste, and losses
- Resolution based on semantic and rule-based detection algorithms in Federated BIM models

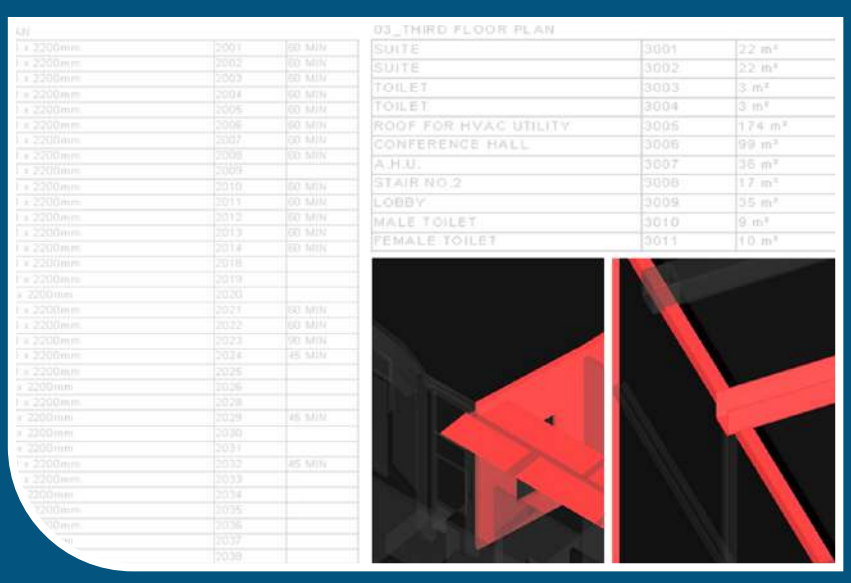
Example: A beam designed passing right through an HVAC duct

2 SOFT Clash / CLEARANCE Clash

- Common in MEP discipline occurring as insufficient spatial tolerance between two elements
- Causes issues in operations and maintenance of the facility as well as safety risks
- Resolved though collaboration of 3D models from all discipline in Navisworks

Example: A live electrical wire line placed very close to plumbing fit-outs

3 4D / WORKFLOW Clash



- Workflow or scheduling clashes are two activities coinciding at the same place on the site
- Results in low on-site construction efficiency and brings a standstill stage
- Navisworks and Timeliner tool will help schedule a fix start and end data to avoid 4D clashes

Example: Mismatch of materials delivery dates and scheduled construction activity

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info@hitechcaddservices.com