

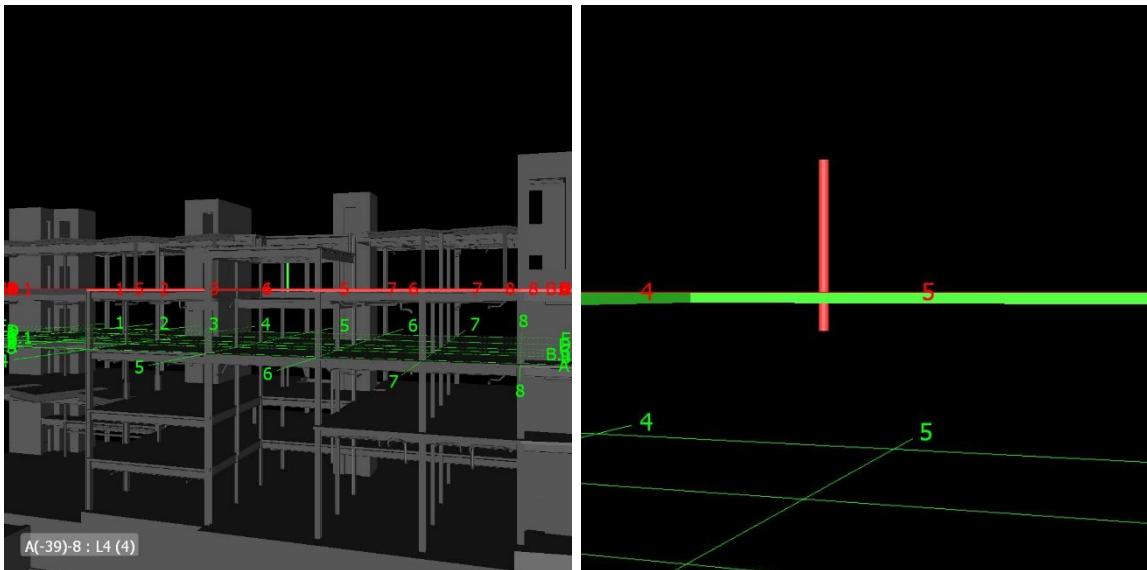
Clash Detection Report

We decided to do a clash test between the structural and the HVAC Model. This gave an initial value of 48 clashes. We have decided to solve the first three clashes, as indicated below:

Clash Name	Status	Result Status	Grid:Location	Object	Element ID	Layer	Item Name	Item Type	X Coordinate	Y Coordinate	Z Coordinate	Distance	Created Date
Clash1	new	New	D-5:-1:4	Object 1	24bcf5a8bXK0D2esDTyQx	L5			417614,156	78717,128	251,765	-0,652	2025-12-15 12:06
Clash1	new	New	D-5:-1:4	Object 2	LKgZC93H3n25x0tp1CcFr-N	L5			417614,156	78717,128	251,655	-0,652	2025-12-15 12:06
Clash2	new	New	D-5:-1:2	Object 1	OCW53yhHT5PmcctQhMedDyQ	L2			417614,296	78717,085	243,637	-0,341	2025-12-15 12:06
Clash2	new	New	D-5:-1:2	Object 2	OWwh5sQTH5JMyvbXcq4dJ	L3			417614,296	78717,085	243,637	-0,341	2025-12-15 12:06
Clash3	new	New	F-4:-1:1 - Block 35	Object 1	2y7XThm5P8693dx9Q8pyXn	Parking			417607,247	78719,644	236,588	0,283	2025-12-15 12:06
Clash3	new	New	F-4:-1:1 - Block 35	Object 2	2apjxd0l9MRHnxet47wsl	L1_37_Med			417607,247	78719,644	236,588	0,283	2025-12-15 12:06

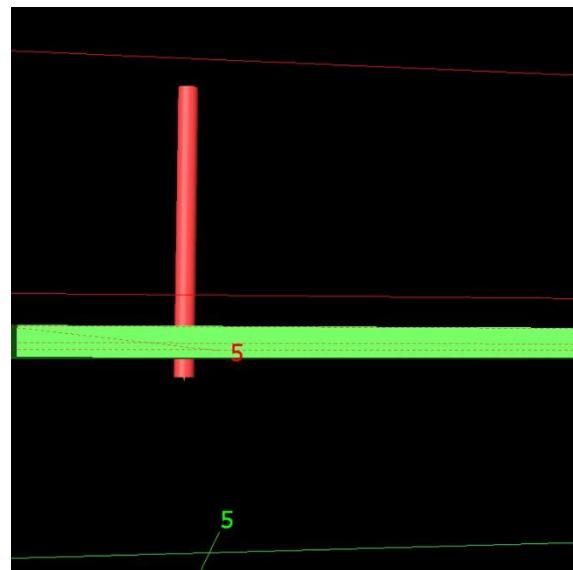
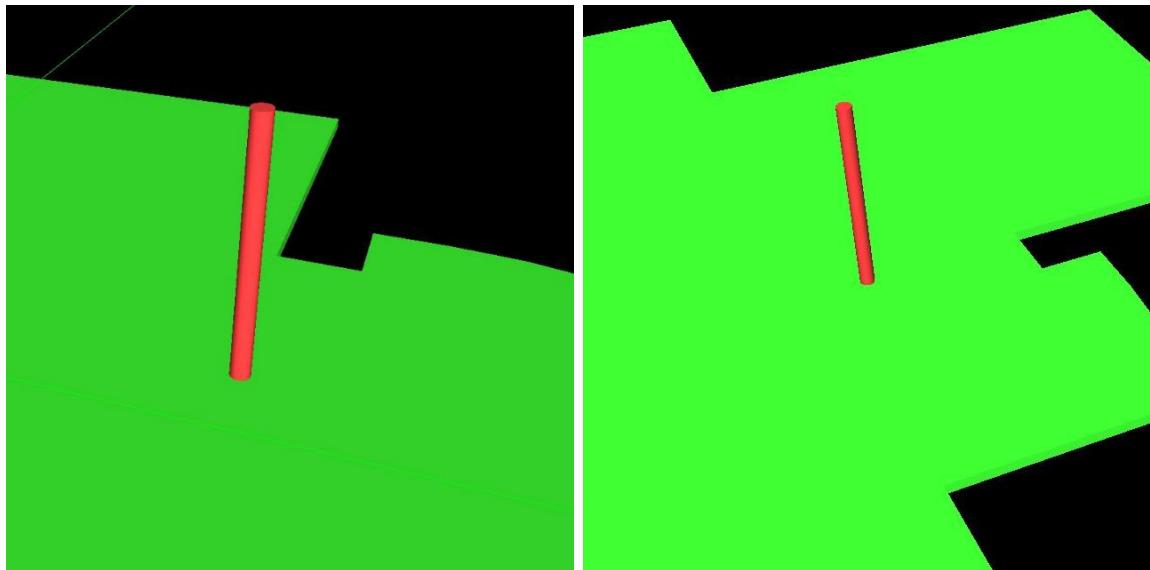
Clash 1

On grid D-5 at level L4, a round duct tee runs confidently through the ceiling zone, only to run straight into a concrete floor slab above. Both elements sit on layer L5, which means the duct and the NW concrete-on-metal-deck floor are competing for exactly the same vertical space. In practice, this reads as a mechanical service trying to pass through a structural floor without a proper opening or coordination.



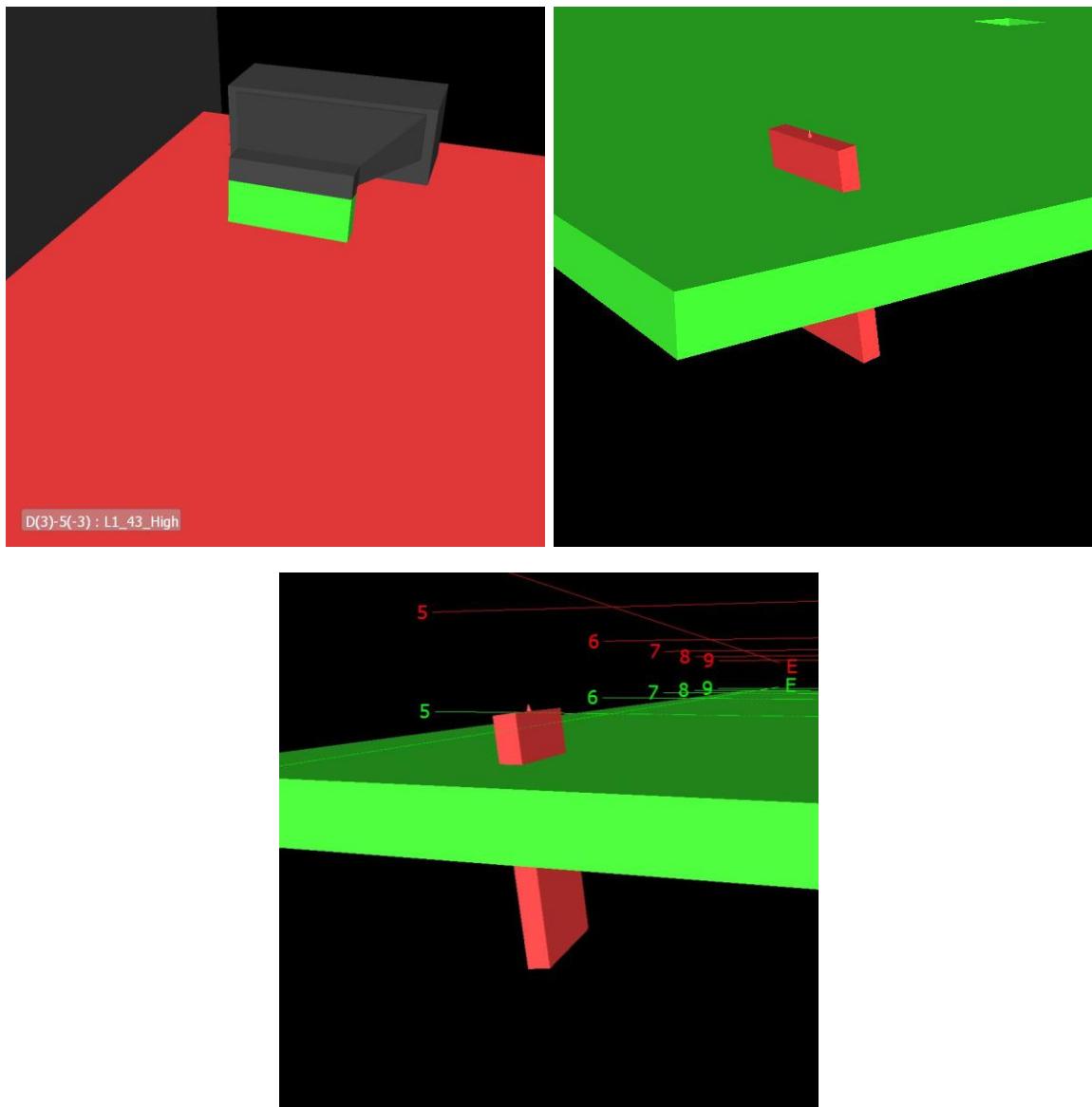
Clash 2

A little lower in the building, still at grid D-5 but on level L2, another round duct tee tries to thread its way through the structure. This time the duct sits on layer L2 while a concrete floor from level L3 drops into its path, so the Level 2 ductwork is pushing up into the underside of the Level 3 slab. The clash shows a vertical coordination issue between the mechanical distribution at L2 and the structural floor system above.



Clash 3

Over at grid E-4 on level L1 in Block 35, the conflict shifts into the parking area where a rectangular duct with mitered elbows attempts to navigate through a tight zone. The duct, assigned to the Parking layer, collides with a relatively thin “Concrete 10” floor on layer L1_37_Med, indicating that the parking ventilation route slices into the structural floor plane. This clash highlights a coordination problem between the parking ventilation strategy and the slab geometry at that block and level.



Clash resolution

We solved all the clashes in Revit, after this we tested again in Navisworks and some of the clashes were solved. In the initial models we had 48 clashes after this we start by solving each time one clash and after each test we checked if there was one less clash in the models. We solved three of the clashes by adjusting the structural model in Revit, as shown below:

The screenshot shows the Clash Detective software interface. At the top, there are tabs for Project, Select & Search, Visibility, Display, and Tools. Below the tabs, the title 'Clash Detective' is displayed, followed by a tree view node 'Start_test' with a warning icon. To the right of the node, it says 'Last Run: Monday, 15 December 2025 12:06:14' and 'Clashes - Total: 48 (Open: 48 Closed: 0)'. The main area is a table with the following data:

Name	Status	Priority	Default Assignee	Last Run	Clashes	New	Active	Reviewed	Approved	Resolved
Start_test	Old	▼		15/12/2025 12	48	48	0	0	0	0
Test_after_1clash	Old	▼		15/12/2025 12	47	47	0	0	0	0
Test_after_2clash	Done	▼		15/12/2025 12	46	46	0	0	0	0
Test_after_3clash	Done	▼		15/12/2025 12	45	45	0	0	0	0

At the bottom of the interface, there are buttons for Add Test, Reset All, Compact All, Delete All, Update All, Group Results, Set Default Assignee, and a refresh icon. There are also tabs for Filter, Details, Don't care, and Advanced.