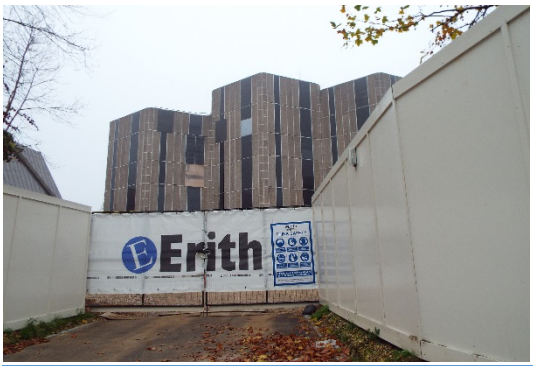
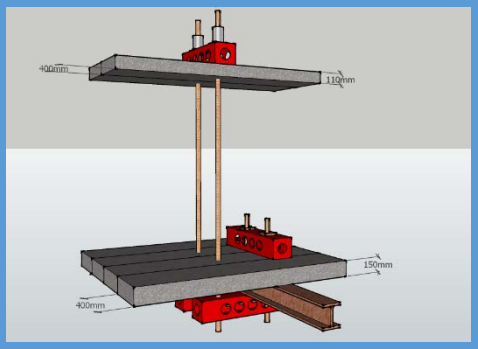
Case Study

Service: Floor Load Capacity Test
Location: Civic Center, Reading
Client: Erith





Swantest implemented one floor load test on the roof floor slab. The 15th floor slab was used as a restrain slab for this test (see test setup), clamping the steel beam with two RMD's.

Reading Civic Centre is a building in the town of Reading, itself in the English county of Berkshire. The Centre dates from the mid-1970s. The new civic offices opened in 1976, followed by the Hexagon in 1977.

It is a steel frame building with precast concrete wall panels and concrete slabs made from precast concrete planks.

As part of the demolition method the external precast wall panels will be lowered down onto the internal slab, before being removed out of the building my mechanical excavator. This test will check the load capacity of the exiting slab planks to check they can safely support the load from the wall panels.

Prior to testing, the floor slabs and soffits at each level were checked for any signs of existing cracking or distress. The heights from floor to ceiling at each level was also noted. At each increment of loading the heights from floor to ceiling were recorded again to note any deflection in the slabs. A visual inspection of each level was also carried out.

Due to site constrains we were only able to test in one location. There are asbestos removal works on numerous sections of the building preventing access. The best means of providing restraint is using the existing steel beam framework. There was really only one area we successfully utilize the steel frame to carry out a test.

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