

CONCRETE FLOOR ASSESSMENT OF A CONVERTED INDUSTRIAL BUILDING

GPR SURVEY METHOD

Site: restoration of a warehouse (Novara, 2010)

The purpose of the survey: The survey was conducted to assess the characteristics of the pavement of an old industrial building to converted in a storage warehouse. More in detail, we detected the potential weakness zones, which may cause differential settlement or structural collapses due to concentrated loads.

Design Survey: The survey methodology was conducted with GPR (400 MHz antenna) on the whole area of the building (2000 m²): The operation required the use of two technicians for about half a day of site acquisition.

Results: The investigation showed the presence of several underground old pipes (concrete and fiber-concrete), 15 hidden metal plates (basement of industrial machines) and the mapping of the reinforced concrete pavement.

