

MSJ Design Ltd
Consulting Civil and Structural Engineers
Temporary Structural Works

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MSJ's was set up as a structural engineering consultancy in 1994, to deliver structural engineering design solutions for private and commercial sector on small and medium building projects, up to £5m in value. This includes the design of permanent structures, the design of temporary structures as well as consultancy on demolition of existing structures.

For Temporary Works designs, we design and size up all the temporary structural supports, including for their tying, propping and stabilising. Then we provide a sequence of events and operations to guide you through the construction process. The process is similar but reversed for demolition consultancy. Providing you follow our specifications to the letter and not deviate, your works will be safe.

Currently led by a RIBA Chartered Architect and MIStructE MICE Chartered Structural Engineer, our practice offers a multi-disciplinary expertise under one roof, specialising in all aspects of design, alterations and defect remediation of a building fabric, "the envelope".

With more than 30 years of experience in providing Structural Engineering and Architectural solutions and more than 20 years of experience in providing Party Wall Advisory Service, we are a best placed practice to assist you if your construction project is faced with a problem that is stopping the works on a project or leading towards excessive costs, as a result of reliance on suboptimal technical specifications or adverse party wall constraints.



Regarding the temporary works, this can take a shape of the traditional beam and needle arrangement, or in the case of lighter structures what is customarily known as a strong boy.



Sometimes these temporary works are requested to be carried out from one side of the subject will only, so not to damage the internally finished surfaces. An example is shown on the photo below.



Temporary works are in many respects even more complex than design of permanent structures. The reason being is that temporary works include construction operations, and it is therefore essential for the safety of everybody involved in the process, to make sure the structure is stable and secure every step of the way during construction process. Something that we at MSJ do as a matter of course is to utilize the permanent structures for temporary works purposes as much as possible and as soon as they are built, in order to provide greater redundancy of structures and therefore greater Health and Safety assurance to everybody involved.

Usually MSJ are asked to design temporary structures to support dead loads of immobile buildings, but every so often we get asked to resolve a completely different problem.

For example we recently designed an access and egress bridge for purposes of a building contractor who wanted to drive his excavators and piling rigs from the street, over the ground floor extension roof and into the rear garden of a property in Notting Hill.



Example 1

In some instances the temporary works demand a greater scale of involvement, for example full retention of a facade. On a recent project in central London, MSJ were hired to produce the scheme for retention of a facade behind so to enable demolition of internal structures of a terrace of five houses, all four stories high.



When the work started and the existing building behind the facade was demolished, the main contractor then required further space for his temporary storage of material as well as workmen welfare facilities. MSJs instruction was quickly expanded so to create a further temporary structure on the roadside of the by now retained facade, and which was then created as a set of steel frames connected to the already built facade retention wall beams.



Once both temporary structures were built and tied together, they then remained as a stable support for the rest of the reconstruction project for the further 15 months.