



# RESIDENTIAL EXTENSION DOUBLE EXTENSION



## Brief

Riddwood Consulting Engineers were engaged to provide the Structural Design for two extensions; one on both sides of an existing property. We were also asked to assist in some Structural Alterations to the interior. The design remit expressly asked for detailed Structural Plans to allow Contractors of varying sizes to implement the design.

## Client Feedback

Riddwood delivered a cost-effective solution, submitting the calculations and plans in line with our timescales.

**The Homeowner**

# Engineering ideas into reality.

**RIDDWOOD**  
CONSULTING ENGINEERS



## Design Process

At an initial site meeting between design team, we discovered the existing property was built on sloping terrain and contained an existing basement meaning the foundations of the proposed extensions would impact on the existing structure. We were able to achieve a compliant design without the need for widespread builder's works to the existing dwelling. This was achieved through a collaborative approach and constant communication between the Architect and the Homeowner. We added some extra detailing to our standard Structural Plans, for this we got positive feedback and have since rolled out this level of detailing on all subsequent projects.

## Design Codes Used

- BS6399:Part 1:1996 & Part 3:1998 Loadings for Buildings
- BS5950-1:2001 Structural use of Steelwork in Building
- BS5628-1:2005 Code of Practice for the use of Masonry
- BS5268-2:2002 Structural Use of Timber
- BS8110-1:1997 Structural Use of Concrete

