

REA

Structural &
Civil Engineering

REA

Architectural Design &
Surveying



About Us

Established in 1987, R Elliott Associates Ltd has served the New Forest, Hampshire, Dorset, and further afield for over 35 years. With over 75 years of combined experience in structural and civil engineering, and architectural & surveying services, R Elliott Associates Ltd owes its success to the hard work and dedication of our team.

We aim to offer the highest quality of service available today, and since 1987, we have worked on over 10,000 projects as we help clients in achieving their goals.

Our years of experience and commitment to excellence have earned us a reputation for our services with many satisfied clients coming back again for further assistance on subsequent projects. We offer a turnkey service, providing clients with a combined architectural and engineering package under one roof.

Architecture & Surveying:

- Planning
- Extensions & Alterations
- Building Surveys
- Historic Buildings
- New Developments
- Building Regulations

Civil & Structural Engineering:

- Steel Design
- Timber Frame & SIPS Design
- Reinforced Concrete Design
- Structural Inspections
- Civil Engineering
- Domestic & Commercial

REA Ltd. holds full membership to the 'Institution of Structural Engineers' which is the leading professional body for qualifications and standards in structural engineering.

The Institution of StructuralEngineers

We are also proud to be a chartered practice with the Chartered Institute of Architectural Technologists, which recognises professionals who are qualified to offer design and associated architectural services.

CIAT
CHARTERED PRACTICE

Planning & Architectural Design

We take ideas from concept to completion, starting with an initial consultation to discuss your ideas and the feasibility of these.

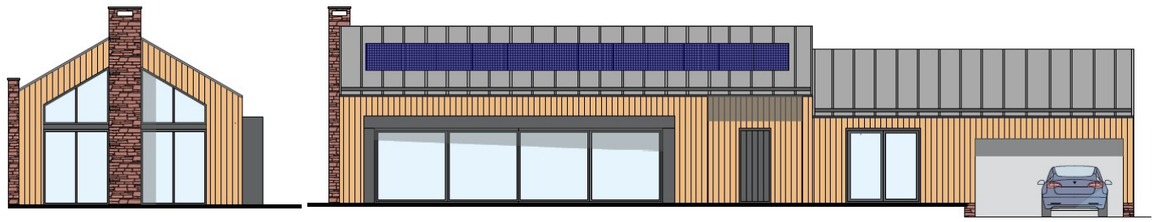
Next, a measured survey of the property is completed to generate existing floor plans and elevations. After this we will combine your ideas and our expertise to create proposed plans that bring your ideas to life.

We also offer 3D illustrations that take this stage further with images created to suit your requirements.

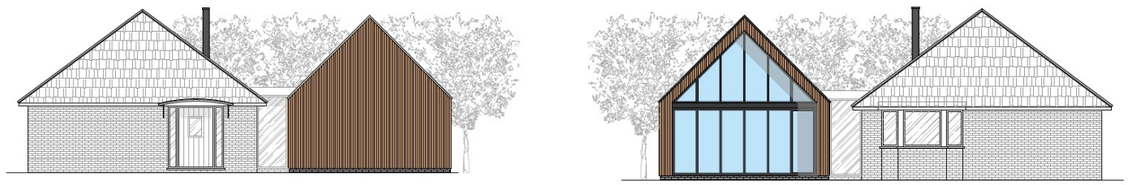
Once the plans have been refined, we will complete the paperwork and forms that need to be submitted with the planning application. We liaise with planning and building control offices to ensure that the necessary approvals are obtained before construction starts.



Extensions and Renovation - Existing & Proposed Front Elevations



New Dwelling - Proposed Floor Plan, Front & Side Elevations



Side Extension - Proposed Front & Rear Elevations



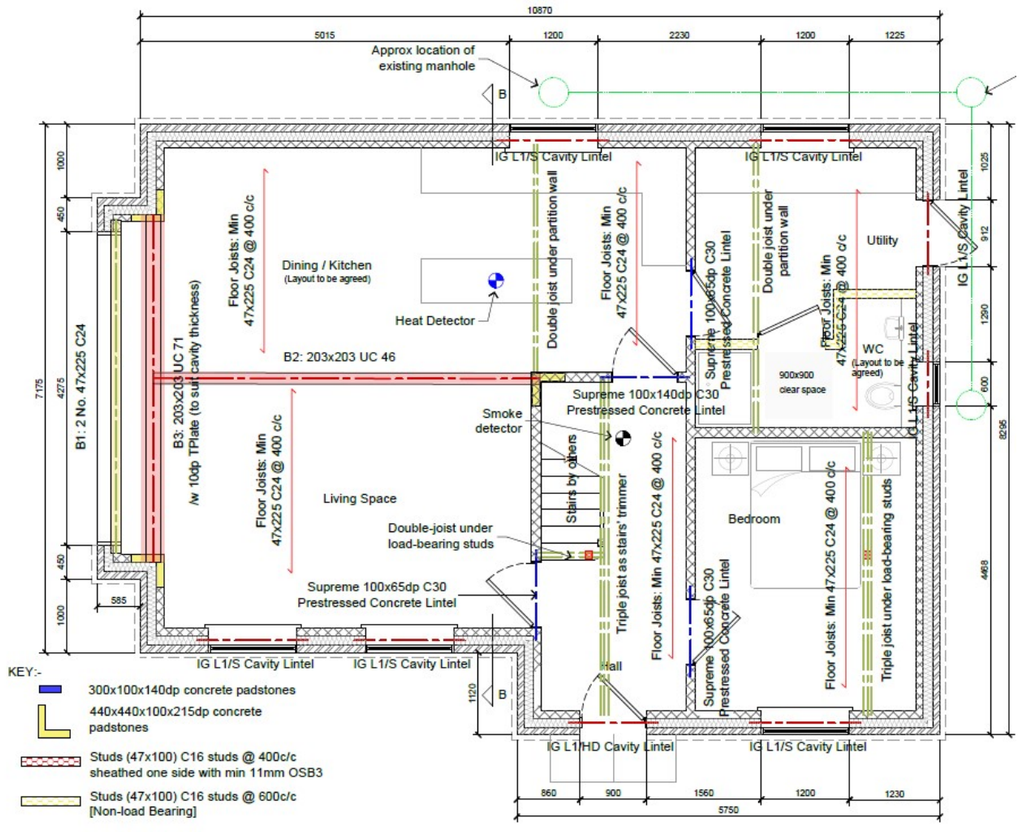
Rear & Side Extensions & Loft Conversion - Proposed Floor Plan, Front & Rear Elevations



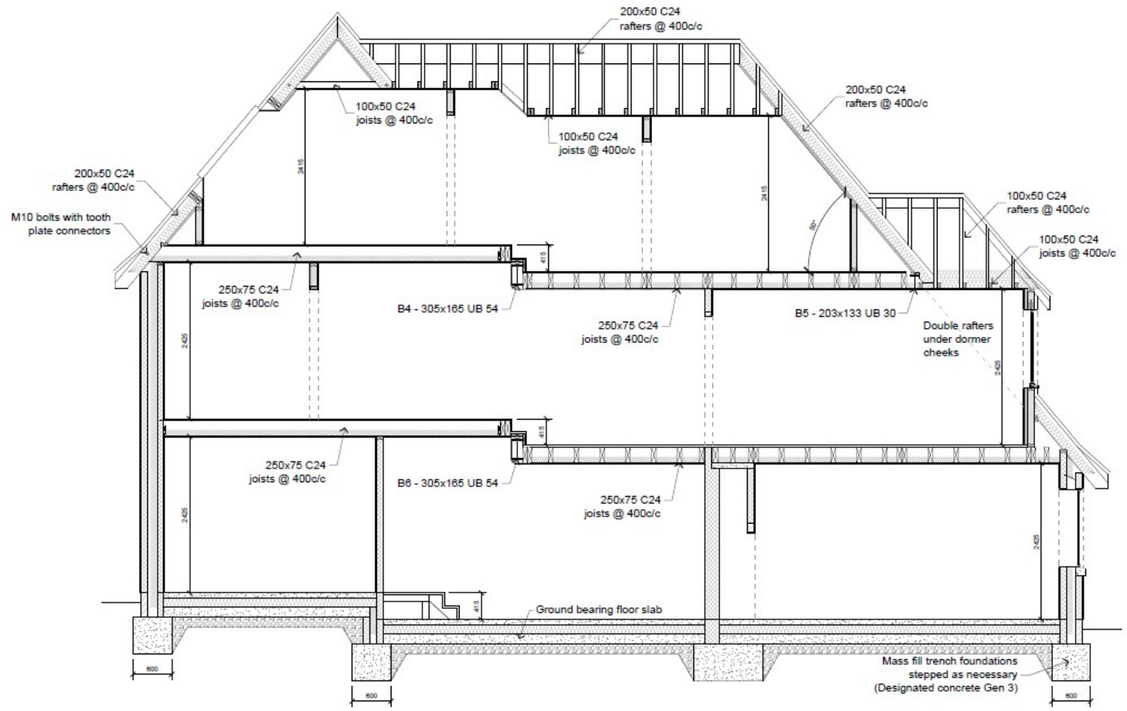
Replacement Dwelling - Existing & Proposed Side and Front Elevations

Building Regulations

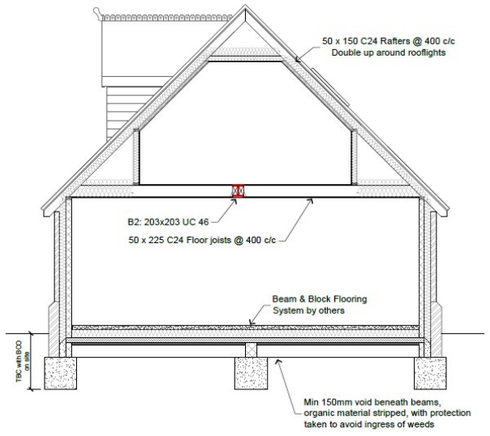
The Building Regulations are mandatory rules for any new build or alterations to buildings to ensure they are constructed to a set standard mainly structural safety, accessibility and to help reduce the impact on the environment. We provide suitable drawings listing all the relevant information that is required to gain Building Regulations approval. This information can then be used by the builder to help guide the construction.



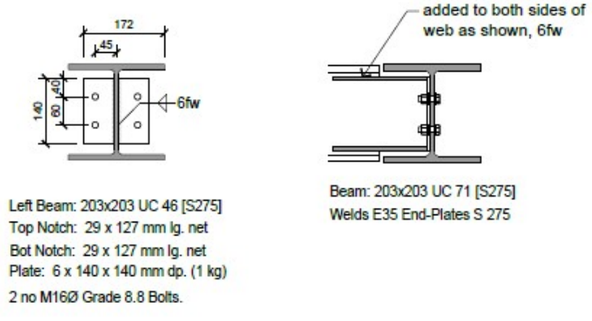
Proposed Building Regulations floor plan



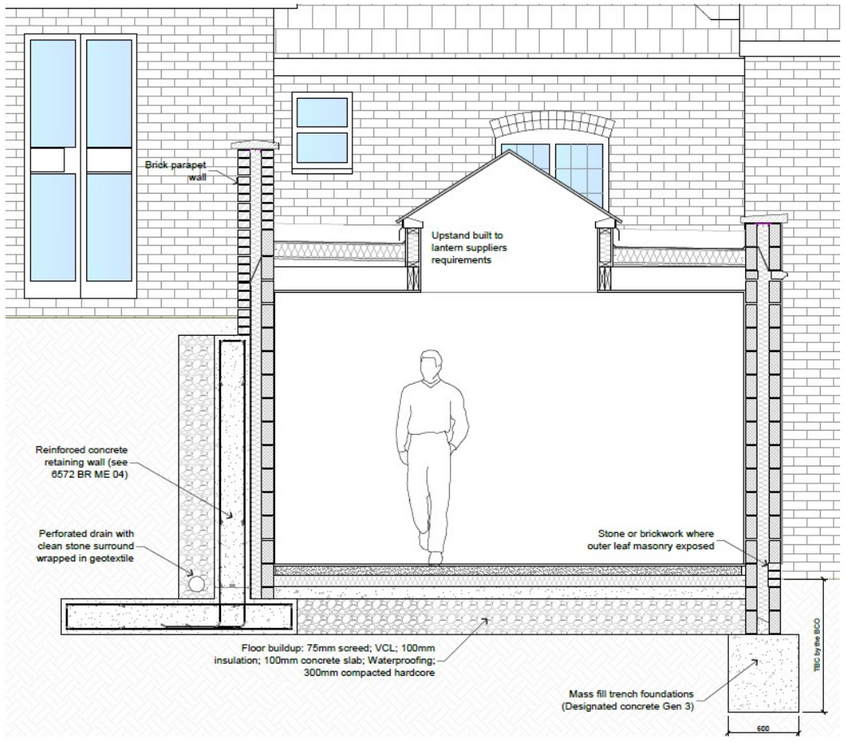
Building Regulations section through new three storey property



Section for new build chalet bungalow property



Structural Details for Building Regulations application



Building Regulations section through basement extension

Planning & Building Regulations Process

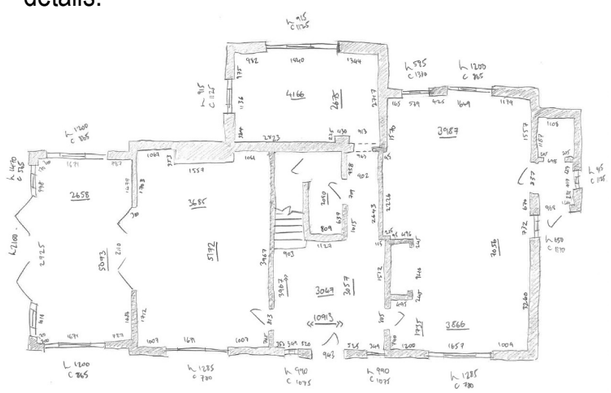
1. Site Visit:

- Inspection and advise on feasibility.
- Advise on alternative designs.
- Advise on statutory obligations.
- Discuss timeframes.
- Guidance on how to navigate the project.
- Confirm the key points in writing.



2. Dimensional Survey:

We carry out a dimensional survey of the relevant parts of your property which is then drawn up accurately on computer. On site we sketch the relevant floor plans by hand and utilise various devices to precisely capture the information we need. We will also take photographs for reference to help with the finer details.



3. Scheme Design:

Having produced accurate drawings of your property, we then begin the design stage. Whilst developing various ideas to suit your brief we discuss them with you so to get to the final design you want. We can also produce detailed visualizations to help describe and show the proposal which can be helpful when making decisions.



Existing Rear Elevation

4. Planning Permission:

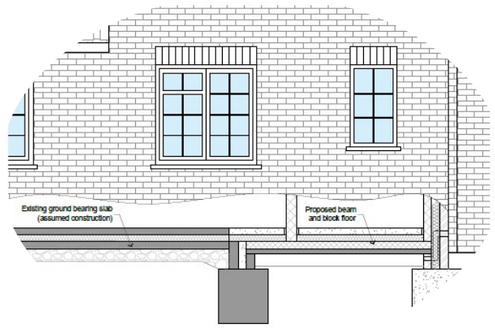
Once the final scheme is complete it may require planning permission. If so, we can prepare all the necessary documents and drawings, and liaise with other consultants (e.g. for tree or bat reports) if required. We will then submit the application on your behalf and monitor it through the final decision. Obtaining planning permission can sometimes be tricky, especially in areas such as the New Forest. However, at REA we have a good working communication with the various planning authorities to ensure we have the best chance of gaining consent for the scheme you want.



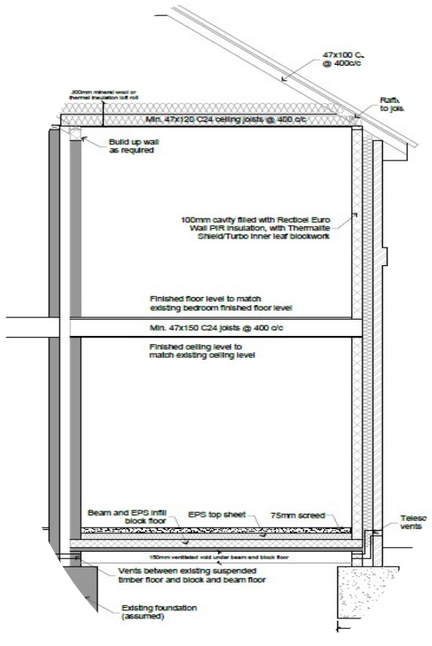
Proposed Rear Elevation

5. Building Regulations:

Your scheme will almost certainly require building regulations approval. Again, we will prepare all the necessary drawings and structural design, and work with other consultants as required (e.g. SAP reports) to produce a full set of documents that will accompany the application. We can submit the application on your behalf and monitor it through to the final approval.



Your scheme may also be the subject of other matters (e.g. Party Wall Act). Again we can assist you in all these matters and will help you through the process.



6. Completion:

Most domestic projects require planning permission and approval under the building regulations. Having obtained these, clients will then usually seek quotes from builders or do these in advance once they receive the drawings and then continue the project without our assistance at this stage.

We are happy to give advice and opinions during construction if you have any concerns or changes, although our role typically concludes at the point of building regulations approval. If ongoing involvement is required we are happy to discuss this further with you.



Click HERE to send in a query now or go to

www.rea-ltd.co.uk/contact

NEW FOREST NATIONAL PARK

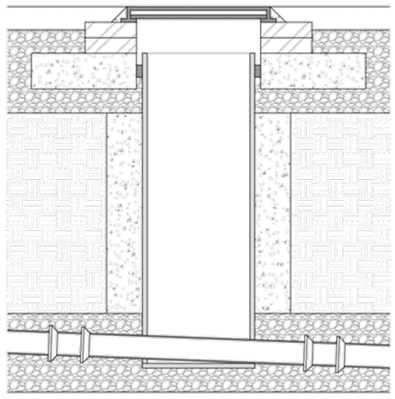
BCP Council

New Forest DISTRICT COUNCIL

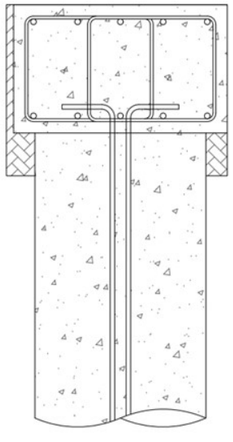
Civil & Structural Engineering

REA Ltd. offer a variety of structural and civil engineering services to meet your project requirements. These include:

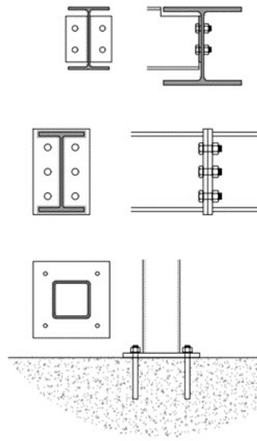
- **Internal alterations** e.g. wall removals, chimney removals, stair repositioning
- **Extensions** e.g. single and two-storey extensions, orangeries, porches
- **Loft conversions** e.g. new roofs, dormer roofs, upgraded floor specifications
- **New builds** – full structural design of new units/dwellings
- **Retaining structures** for basements, swimming pools, landscaping
- **Drainage** diversion/build-over specifications (accepted by developer services e.g. Southern Water etc.)
- **Structural Surveys** e.g. specific inspections
- **Steel Design**
  - Steel beams and columns
  - Steel frame buildings
  - Connections/Splices
  - Platforms and Mezzanine floors
- **Timber Design**
  - Pitched and flat roofs (e.g. rafters ridges/ purlins, valleys/hips, joists and binders
  - Floor joists
  - Load bearing stud walls (including SIP's)
  - Timber beams and columns (regular, glulam and flitch members)
- **Concrete Design**
  - Traditional trench/strip foundations
  - Ground bearing or suspended floor slabs
  - Pad foundations
  - Concrete beams and columns
  - Raft foundations
  - Piled ground beams/piled raft foundations
  - Concrete retaining walls



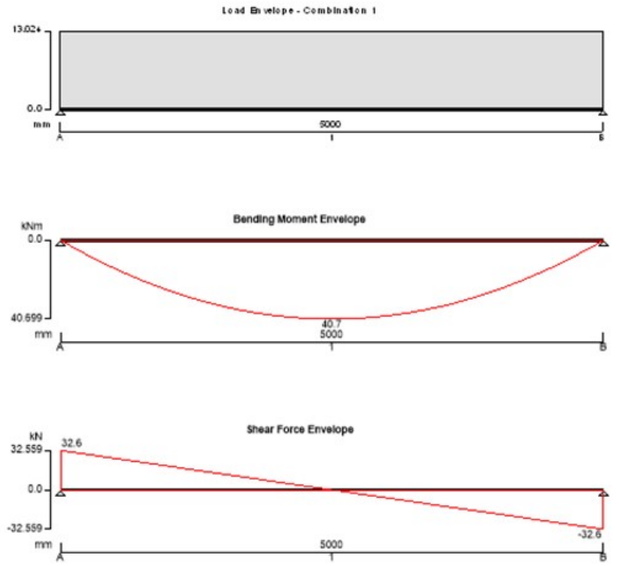
A longitudinal section through a sewage inspection chamber to supplement a sewer diversion application prepared for one of our clients.



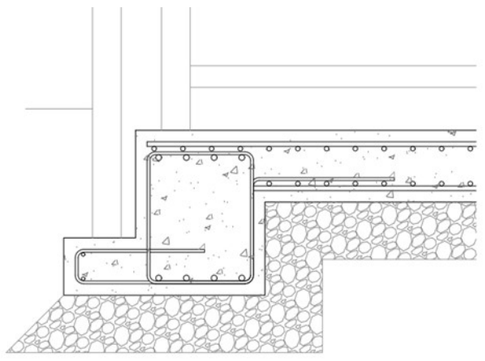
When traditional foundations are not an option, we can provide alternatives including piled ground beam designs.



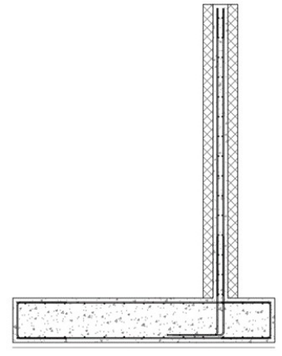
We can produce a range of standard splice and connection details



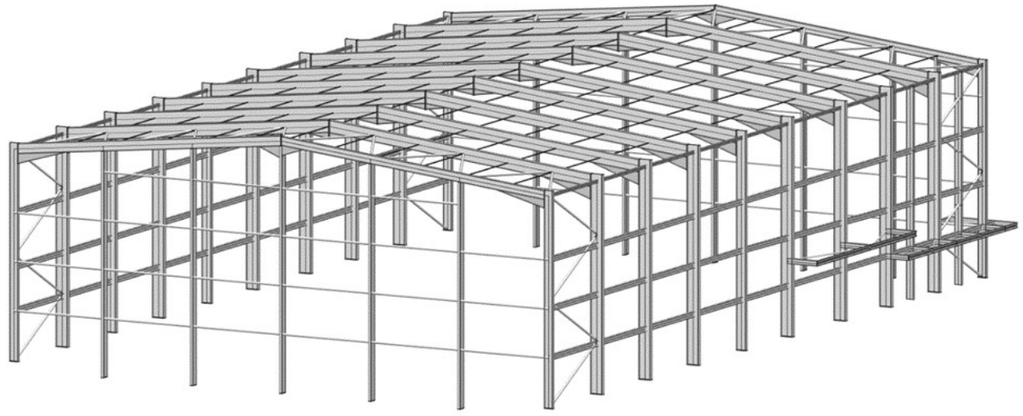
Simple beam analysis. We design structural members to strict BS/EN codes of practice, ensuring adequate shear and moment capacity, whilst keeping the overall deflection as low as is practically possible, to help prevent cracking to existing structures.



For soils with high clay content, we typically recommend raft foundations. We fully design the RC structure to ensure adequate strength, and provide bar bending schedules to aid the contractor with tendering and ordering the correct quantity of rebar.



A typical retaining wall section



A portal frame designed for a new storage warehouse in Worcester.

Historic/Listed Buildings

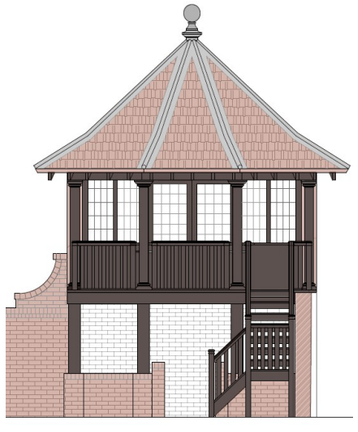
REA Ltd work regularly with historic buildings of different construction such as brick, stone and cob, as seen in the diverse range of buildings in the New Forest area and beyond. Our IHBC and RICS conservation accredited staff would be pleased to advise on extensions and alterations, as well as defects and repairs, and can guide your project through the appropriate stages such as Listed Building Consent.

Replacement of Crittall windows with timber windows, heat pump installation, proposed first floor bathroom - photo taken after window works completed









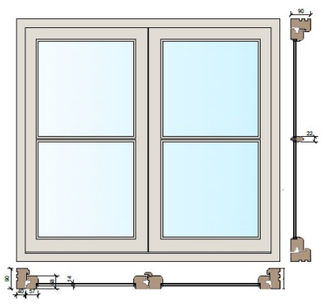
Reinstatement of original staircase - 1920's photos, existing staircase, & proposed front elevation





Remedial works to chimney on a 17th Century timber frame cottage following removal of a 1960's extension that incorporated this area.



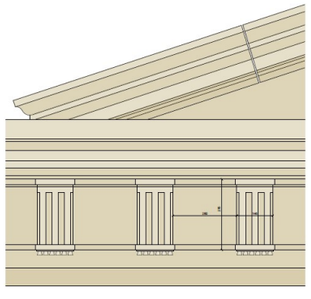




Investigations and repair works to overloaded roof that had resulted in snapped purlin.

















Replacement garage in bespoke red brick with custom doors

Hordle - Single storey rear extension, modern flat roof with skylight





Christchurch - Single storey rear extension lean-to





Bashley - Two storey rear extension





Friars Cliff, Christchurch - Two storey rear extension







Hordle - Multiple extensions & complete renovation of existing dwelling.









Marchwood - New build commoners dwelling







Sway - 3 New build dwellings



Brockenhurst - Replacement dwelling



Keyhaven - Rear & side extension & loft conversion









R Elliott Associates Ltd.

01590683176 | info@rea-ltd.co.uk | www.rea-ltd.co.uk

Dennett House, Brighton Road, Sway, Hampshire SO41 6EB