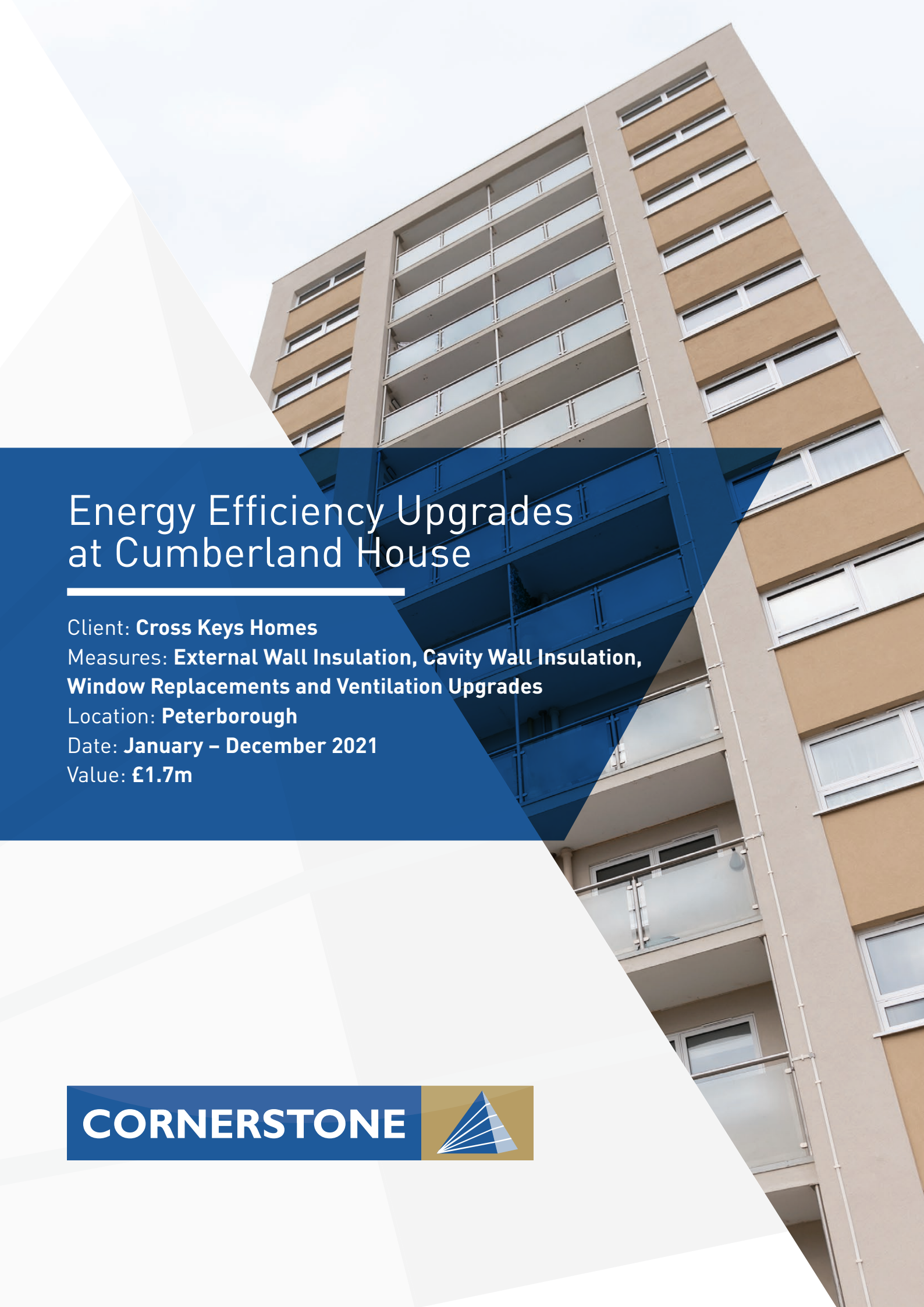
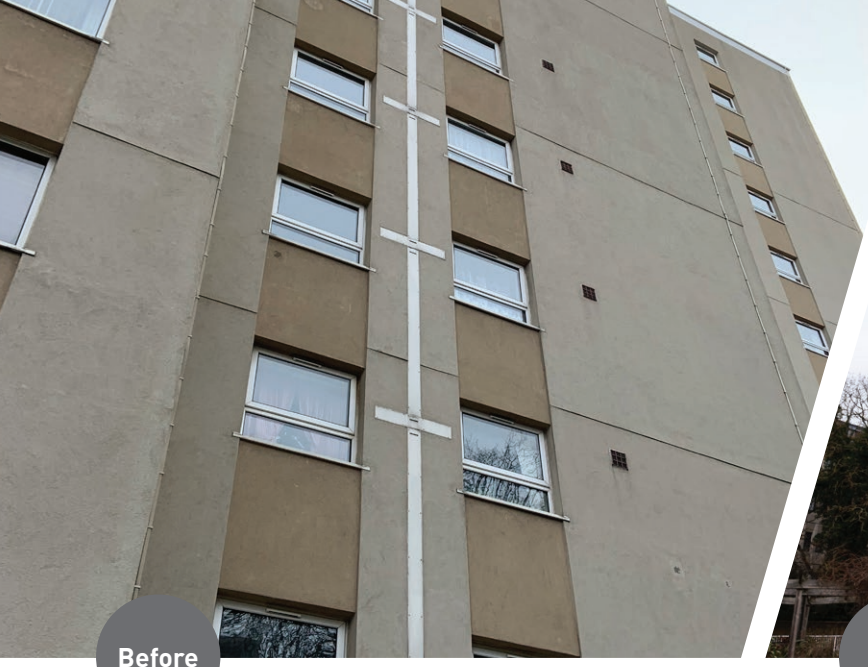


Energy Efficiency Upgrades at Cumberland House

Client: **Cross Keys Homes**
Measures: **External Wall Insulation, Cavity Wall Insulation, Window Replacements and Ventilation Upgrades**
Location: **Peterborough**
Date: **January – December 2021**
Value: **£1.7m**

CORNERSTONE



Before

After

The Challenge

Cross Keys Homes is a Peterborough-based housing association that manages over 11,000 homes across the East of England. In 2020, Cross Keys Homes engaged us to deliver a package of upgrades to Cumberland House – their only high rise building, situated in the centre of Peterborough. Cumberland House is 12 storeys high and contains 70 individual flats.

A responsible landlord, Cross Keys Homes was keen to upgrade the existing EPS insulation on the block to Rockwool mineral wool insulation, integrating these works with a range of additional improvements in order to maximise efficiency and minimise cost.

Cornerstone was appointed as the main contractor, based upon our significant experience as a main contractor on social housing projects and high rise works, and our expertise in installing EWI systems.

Our role was to oversee a variety of co-dependent trades as well as directly removing the existing external wall insulation and installing the new system. The additional works included the installation of cavity wall insulation to part of the building, window replacements, installation of a new ventilation system.

The objective of the project was to enhance the appearance and safety of the block as well as extending its viable life span; in addition, the works would improve the wellbeing and quality of life of Cumberland House's residents and reduce their energy bills.

Facts & Figures

A total of 70 households will benefit from the energy efficient upgrades

Our Solution

Cornerstone was responsible for the end to end management of the works, from the coordination of eight specialist subcontractors as well as resident liaison and client reporting. We employed a highly experienced full time Site Manager specifically for this project, as well as a full time Resident Liaison Officer; a supervisory team was also put in place to oversee day to day activity, supported by company experts in surveying, compliance and health and safety.

The sequence of works included:

- Scaffold erection and hand over, one elevation at a time
- Stripping of the EPS EWI system
- Filling of the existing cavity wall
- Fitting of the new windows, one elevation at a time
- Installation of the new EWI system
- Parapet installed at halfway point
- Lightening conduction system fitted at various stages
- New ventilation systems, including decorative casement, fitted on all 70 flats throughout the works

By programming the works one elevation at a time, we were able to keep the works moving at a consistent pace, employing each trade simultaneously to minimise downtime and meet agreed timescales.

The EWI system installed comprised 110mm of Rockwool with a 1.5mm aggregate Willow topcoat finish. The recess areas underneath the new windows were insulated with 100mm of Rockwool with a 1.5mm aggregate Earth topcoat – achieving a clean and attractive finish and excellent thermal efficiency.

The Result

The project was delivered to schedule and to the full satisfaction of our client. We also maintained a scrupulous health and safety record due to our relentless focus on procedural compliance and safe systems awareness, as part of the 'zero harm' approach we take to all projects.

Considerable thermal benefits were achieved, with the external walls of the building now achieving an improved U-value of 0.21 W/M2k. This improved thermal efficiency is supported by the installation of new windows with an improved energy rating and the ventilation system which delivers optimal air flow around the building and individual homes. Residents now enjoy more consistently comfortable and healthier living conditions.

At its peak, the contract provided employment for 38 people, the majority of which were locally based. Four new full time skilled roles were created within our own business for local people, each of which have been maintained since scheme completion – demonstrating our commitment to providing socio-economic benefits to the communities in which we work.

"Cornerstone provided a fantastic service, readily overcoming challenges such as; difficult site constraints, working within live & occupied properties and the uncertainty of labour & materials generated by the COVID pandemic. From design stage through to handover, Cornerstone took a proactive attitude to all aspects of the project, even advising on and assisting in securing grant funding streams to assist the financing of the project. Site management, resident liaison and overall project management of the project was exemplary, with a well thought out approach to each stage of the works and tenants expressing satisfaction over the standard of service received and the final finished aesthetic of the building. I would have no hesitation in recommending Cornerstone."

– Alex Spittal, Project Surveyor, Cross Keys Homes.