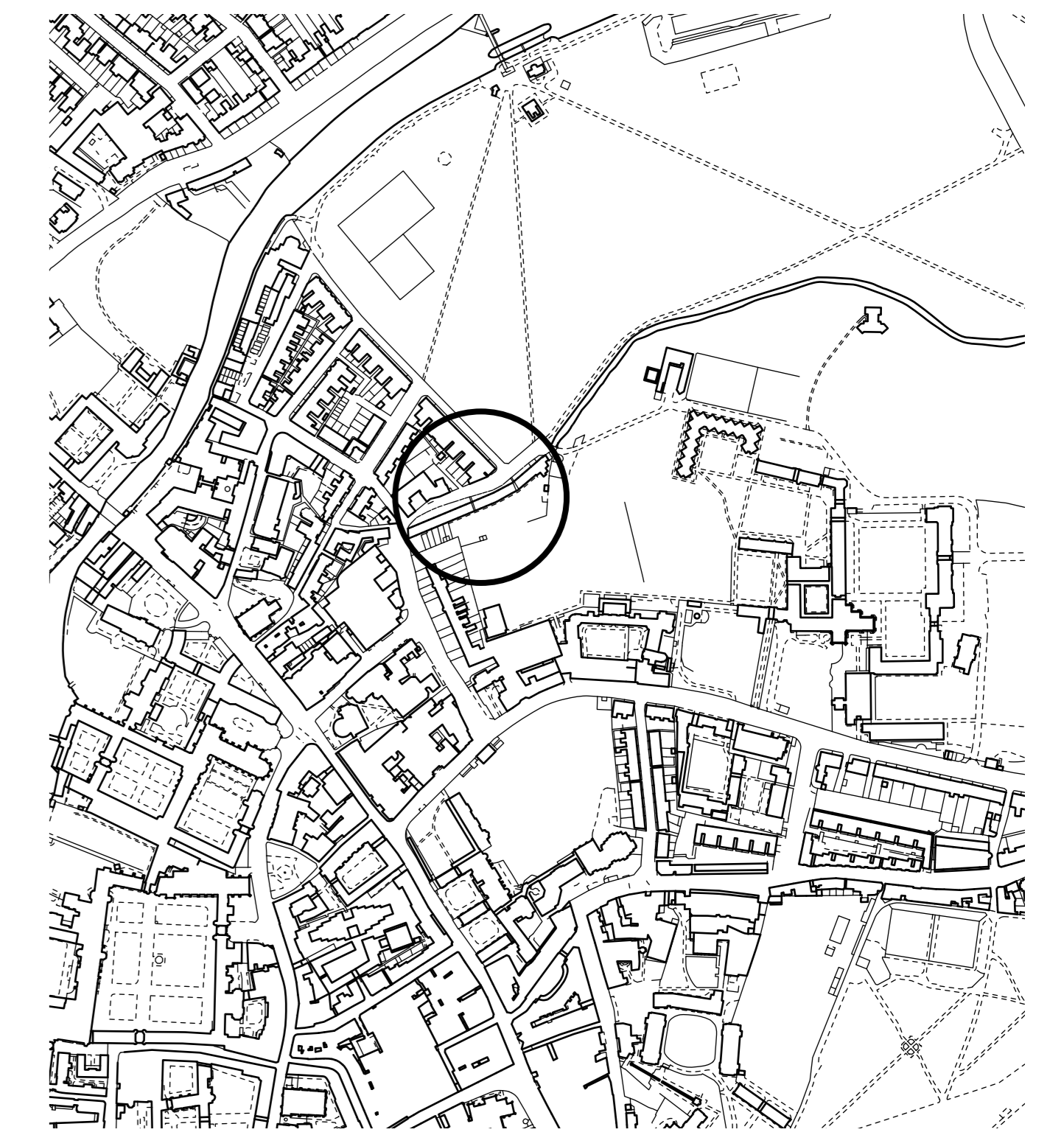
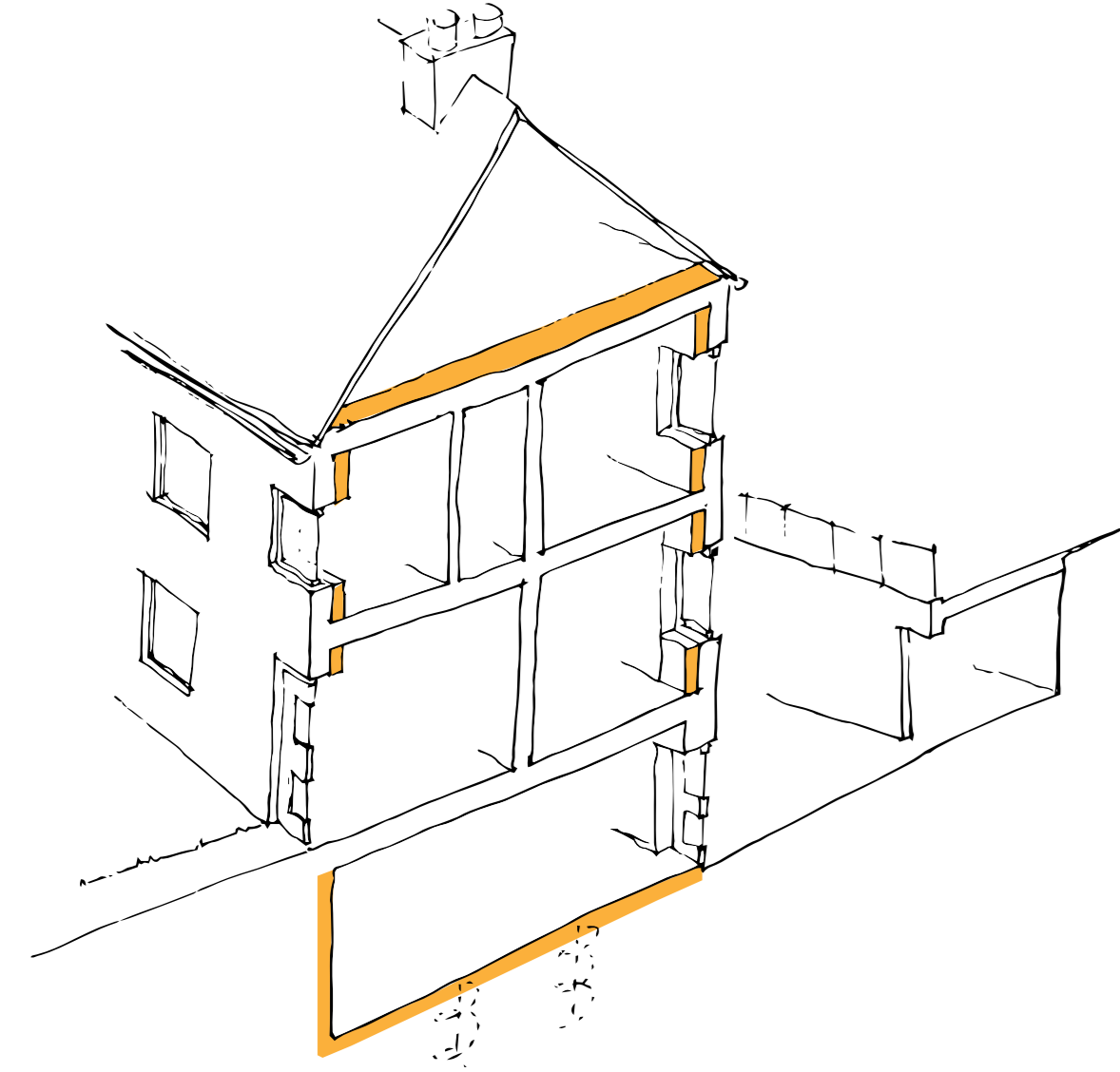


19-44 Lower Park Street



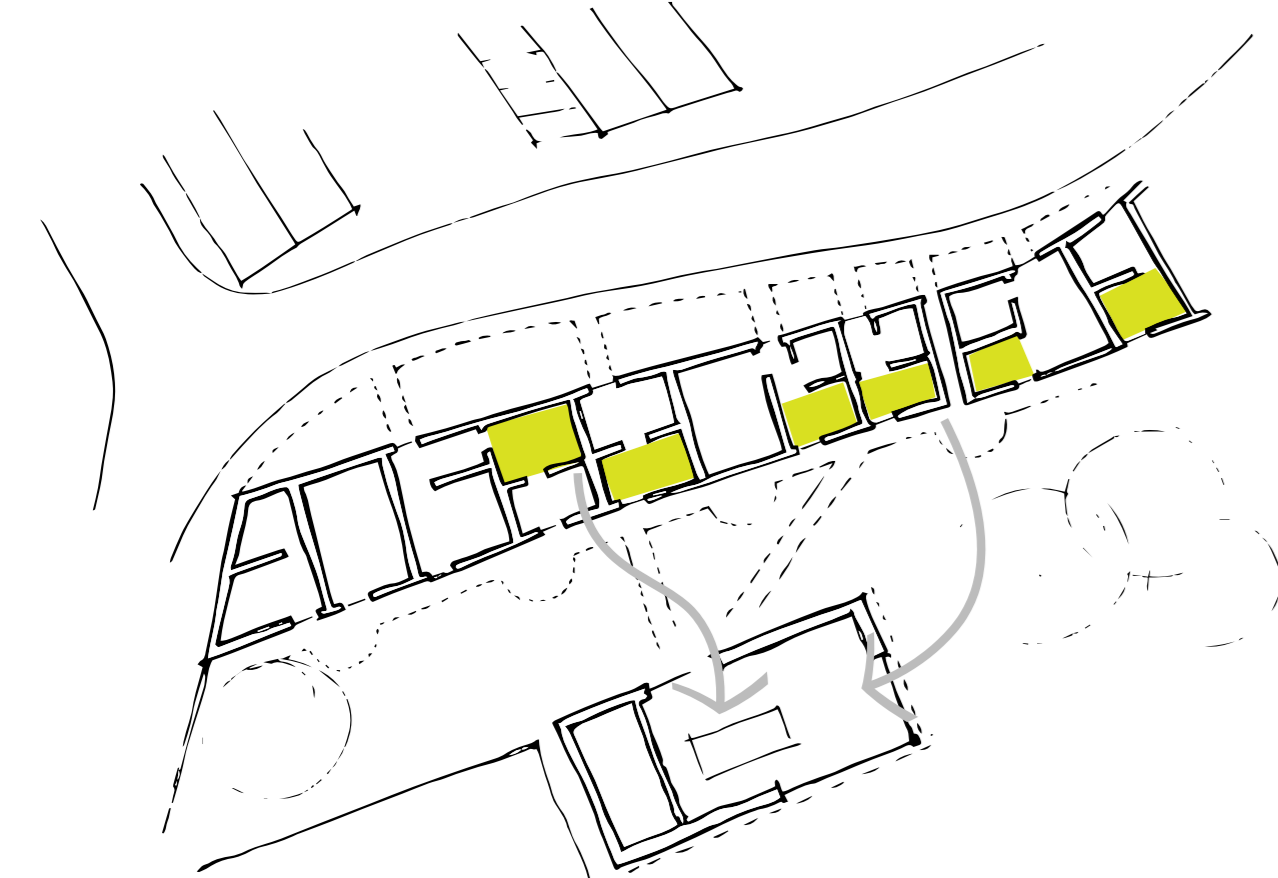
The properties of 19-44 Lower Park St are let out for postgraduate family accommodation. A grade 2 listed terrace, dating from the early 19th century, the houses are small and inherently poor performing with regards to energy, but add to the value of Cambridge's central conservation area through their form and materiality. There are a number of ways in which the energy performance can be addressed whilst respecting the historic character of the buildings and accomplishing additional goals of Jesus College's sustainability initiative. Here we set out a couple of suggested starting points, taking into consideration four key issues:

Thermal Upgrade + Basement



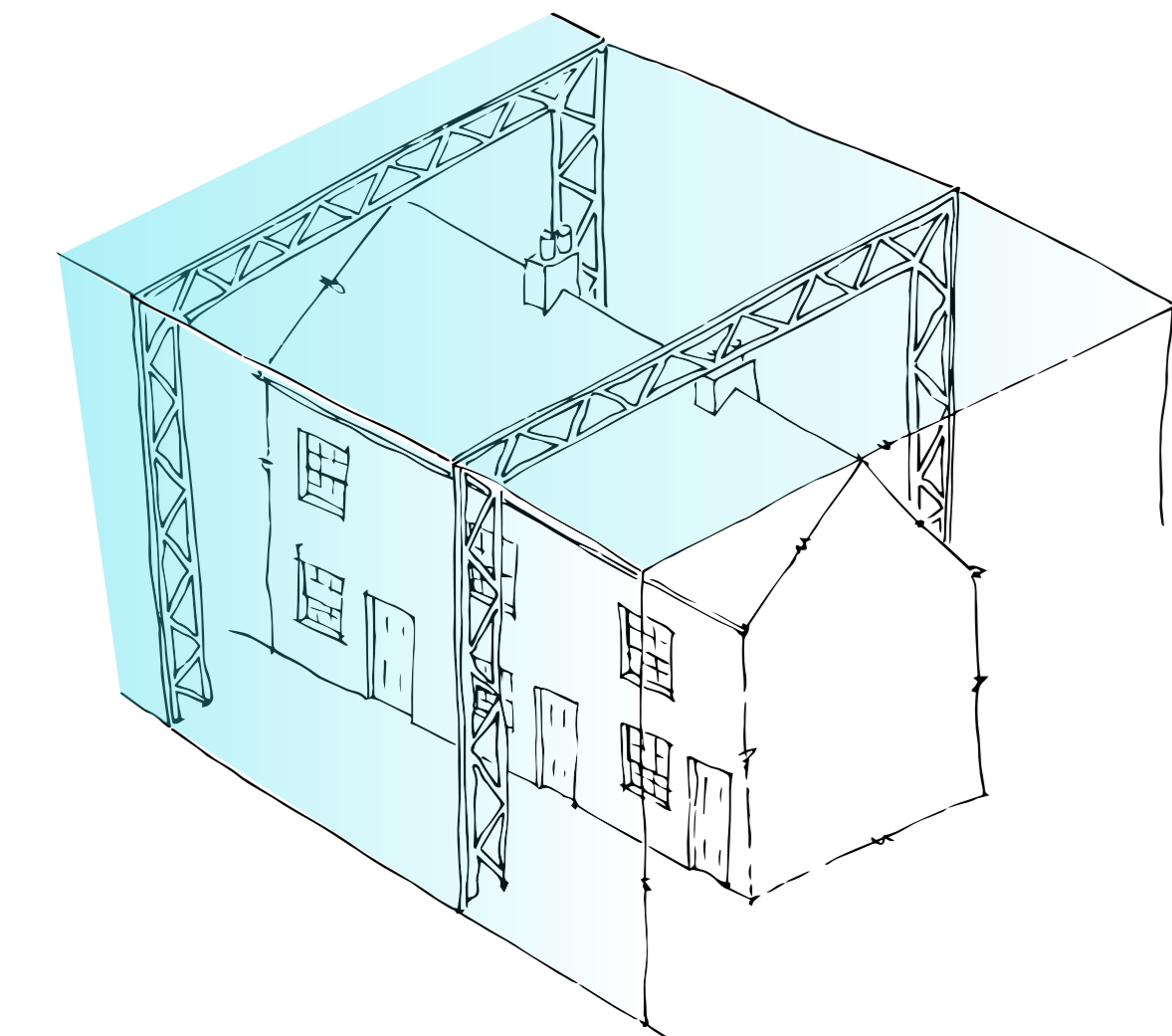
A follow-on from improving insulation, doors, and windows; the option to create a basement beneath the existing houses brings additional opportunity to introduce **ground source heating**, provide extra living space, and create a new **outdoor courtyard** and **allotment** area.

New Kitchen & Living Space



The kitchen is an energy- and service-intensive area; by **centralising the kitchens** from the shared-occupancy houses into a **Passivhaus** standard new-build it **reduces the energy demand** on the historic buildings and promotes SDGs 12 (Responsible Consumption and Production) through an emphasis on **community**

Glass Case Enclosure



Taking a radical approach to conservation; encapsulating the terrace in a **glass case** allows a **fully tempered climate**, removing the need for further fabric upgrades to the buildings and **protecting** them from ongoing climatic deterioration. The case can be installed with **minimal disruption** to the current residents.



Energy Performance



The existing buildings lose a large portion of heat energy through the roof, solid masonry walls, and poor-fitting doors and windows. Addressing these fabric-issues presents a 'quick win' of energy performance, before looking at upgrading systems.

Deliverability



The properties are occupied all year round. As a result, any interventions need to be programmed so as to minimise disruption to the residents, or to be completed within a short timeframe to minimise loss of rental income.

Liveability



Space is at a premium in these houses. The proposals look for 'added value' in creating additional space to compensate for that lost to additional insulation, and to encourage more communal living amongst the residents.

Sustainable Development Goals



The schemes promote the following SDGs: 7 (affordable and clean energy), 9 (Industry, Innovation, and Infrastructure), 11 (Sustainable Cities and Communities), 12 (Responsible Consumption and Production), 13 (Climate Action).