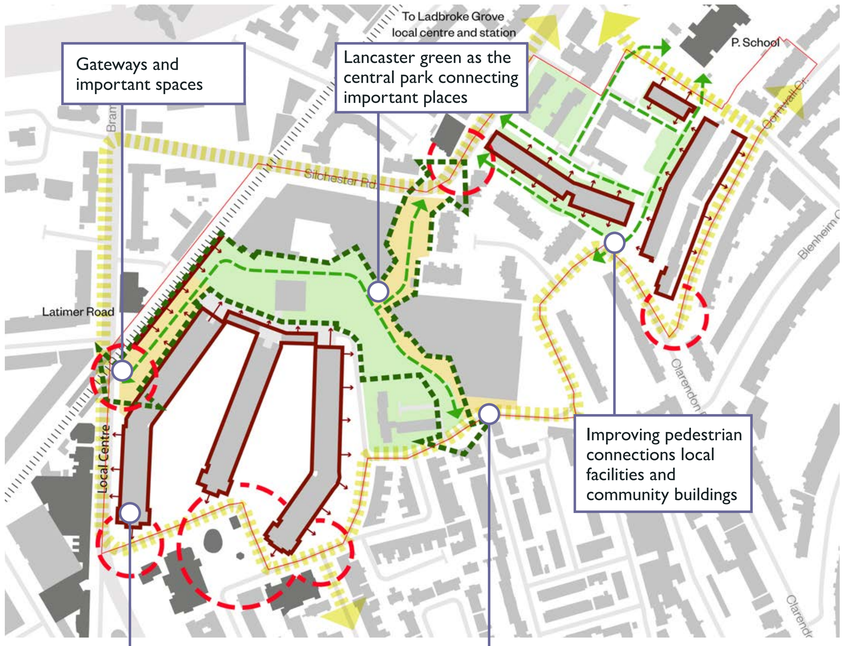
Improving your neighbourhood

Site Strategy




Strengthening gateways


Pedestrian and bicycle friendly streets


Thinking about places for play

Streets


Amenity space


Pedestrian friendly streets


Improved parking

What are your thoughts...

Landscape Strategy

Key landscape strategies:

1. Walkway Courtyards
2. Whitchurch Road
3. Clarendon Walk
4. Lower Clarendon Walk
5. Camelford Walk
6. Verity Close
7. Camelford Walk

Open Spaces

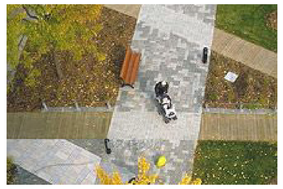
Clearer signage


Tree planting


More play spaces


Pedestrian priority streets


More lighting


Pedestrian routes


Cycle storage

What are your thoughts...

Energy and sustainability

Heating and zero carbon

Residents concerns

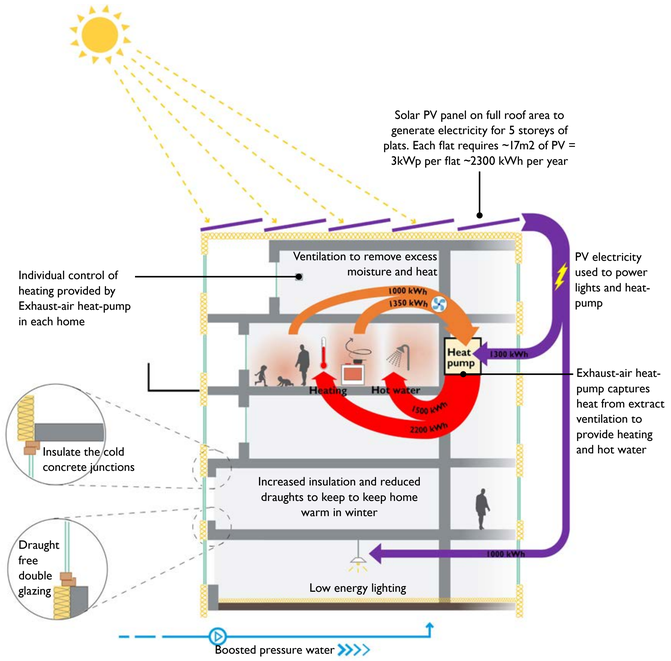
Residents' concerns include condensation, water leaks, draughts, lack of heating system control, insufficient water pressure, some summer overheating, energy bills, as well as rodent infestation along pipe routes and poor-quality services installations.

New waterproofing and thermal insulation

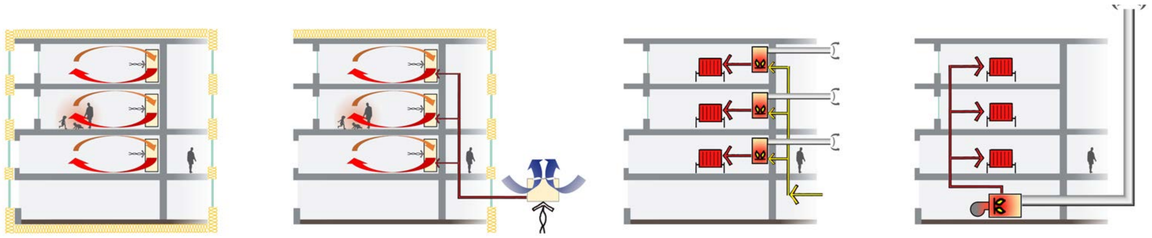
In response, and to make these homes fit for the next thirty years, the idea is to envelop the buildings with new waterproofing and thermal insulation with a choice of external brick or other finishes. New high-performance windows, draught proofing and solar PV renewable energy generating roofs are included. This approach draws on best practice retrofit from around the world - particularly the Dutch 'Energiesprong' where each home is upgraded in a matter of days.

Heating and cooling

For heating, recycling the waste heat from people, appliances and cooking within each home, using individual exhaust-air heat-pumps, delivers both heat and pressurised hot water - drawing on Danish best practice (see Option 1). By using renewable PV electricity from the roofs, the homes can become zero carbon. Total individual control is provided, as well as avoiding the need for fossil fuel gas-fired boilers and distribution pipework. In summer the same exhaust-air heat-pumps cool the ventilation as it creates hot water.



Heating options

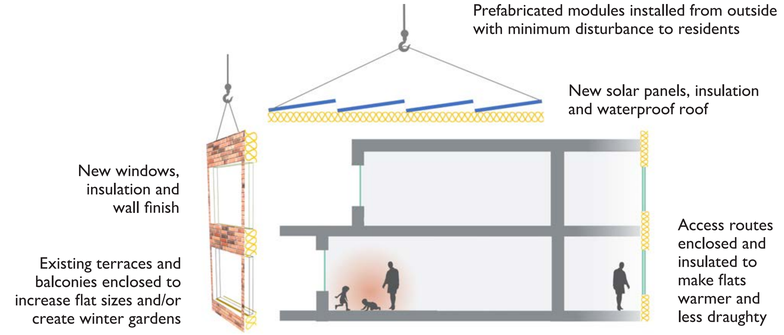


Option 1 (if high levels of insulation can be provided)	Option 2 (if limited insulation can be provided)	Option 3	Option 4
Exhaust-air Heat-pumps:	**Exhaust-air heat-pump + Communal heat-pump:**	**Boiler in each flat:**	**Communal boilers:**
☺ Recycles waste heat	☺ Recycles some waste heat	😐 Energy bills	☹ Energy bills
☺ Lower energy bills	😐 Energy bills	☺ Individual control	😐 Individual control
☺ Individual control	☺ Individual control	😐 Maintenance costs	☹ Maintenance costs
😐 Maintenance costs	☹ Maintenance costs	☹ Gas fuelled	☹ Gas fuelled
☺ Electricity powered	☺ Electricity powered	☹ Not zero carbon	☹ Not zero carbon
☺ Allows zero carbon	😐 Zero carbon needs additional off-site renewable energy	☹ Flues near windows	

Community energy

Buildings become 'Power Stations'

Solar panels are proposed on all roofs to produce renewable electricity to power flats. The community could operate and own the solar panels and use the income to reduce energy bills. Solar panels could also be added to empty space on the Leisure Centre roof for additional energy.



Solar panels

External insulation and prefabricated building elements

Prefabricated elements to reduce disruption and improve performance

Buildings as 'Power Stations' - solar panels on all roofs