

The benefits and challenges of remodeling sheltered housing and residential care homes to extra care housing

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The project, funder and timing

- Remodelling sheltered housing and residential care homes to extra care housing
- Funded by the Engineering and Physical Sciences Research Council (EPSRC – EP/C5329451)
- A multi-disciplinary project
- May 1 2005, for 2 years (extended to 31.7.07)

The research team

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- University College London

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Engineering

Concentrating here on the architectural findings, but we
acknowledge the contribution of the entire team

The importance of the subject: policies and practice

- Remodelling presents challenges over and above those relating to new build schemes
- Perceived problems with inadequate help for older people at home and in sheltered housing
- Criticism of residential care and lack of places
- Difficult to let sheltered housing
- Need for closer links between services (e.g. Single Assessment Process)
- Funding from DH to kick start the process
- Previous research on the value of extra care

Research design

- Only social housing – a sample of schemes which have been converted since 2000 to extra care
- Examining the building, care and AT changes and considering likely future needs
- Conducting and analysing interviews with the design professionals, i.e. architects, quantity surveyors, contractors and professional clients.
- Obtaining the views of older people and staff on the building and care services
- Costing the changes to the schemes, and
- Providing guidance based on the findings

Map of Case Study Distribution



Overview of Case Studies

| Housing Schemes | Housing Provider | Formerly | Total units before remodelling | Total units after remodelling | Care hours per week for admittance |
|-----------------|------------------|----------|--------------------------------|-------------------------------|------------------------------------|
| 1 | HA | SH | 51* | 51* | 7 |
| 2 | HA | SH/RCH | 54 | 42 | 3 bands: 2, 4 and 10 |
| 3 | HA | SH | 21 | 16 | 75% high dependency |
| 4 | (LA)HA | SH | 36* | 29 | Low/medium/high |
| 5 | (LA)HA | SH | 40* | 39 | Low/medium/high |
| 6 | LA | RCH | 18 | 16 | 4 |
| 7 | (LA)HA | SH | 32 | 30 | 10.5 (no hoisting) |
| 8 | HA | SH | 32* | 30 | 10.5 |
| 9 | LA | SH | 124* | 124* (16 ECH) | 4 |
| 10 | HA | SH | 33 | 32 | 10.5 |

* Includes the resident warden's flat

Some General Findings:

- The lack of an agreed definition of extra care
- General satisfaction by tenants with their flats (especially compared with residential care)
- Schemes have, in general, become more accessible compared with before remodelling, but not as good as in a new build
- Most flats for tenants are bigger and better, but not necessarily to wheelchair standards
- More amenities, but concentrating of the ‘functional’ improvements as opposed to the life-enhancing ones found in most new schemes
- Most facilities for staff have improved
- Often the grounds/gardens are better than before
- Problems over lifts in many schemes

Overview of accommodation

The architectural variety within our 10 schemes is immense – no 2 schemes are the same in how they have remodelled (all or just part of the scheme is upgraded to extra care, some schemes are conversions, some are extensions and some are both, some remodel the flats, others the communal facilities and some do both, etc.)

| Flat Types | Had this Before | Added | Don't have |
|------------------|-----------------|-------|------------|
| Bed-sit | 2 | 0 | 8 |
| One-bedroom | 9 | 1 | 0 |
| Two-bedroom | 3 | 3 | 4 |
| Respite | 0 | 2 | 8 |
| Scheme Manager's | 2 | 0 | 8 |

Overview of Staff Facilities

| Facilities | Had this Before | Added | Don't have |
|--------------------|-----------------|-------|------------|
| Manager's office | 5 | 5 | 0 |
| Commercial kitchen | 4 | 3 | 3 |
| Staff WC | 3 | 4 | 3 |
| Sleep-over area | 2 | 6 | 2 |
| Staff room | 2 | 6 | 2 |
| Carers' office | 1 | 8 | 1 |
| Sluice room | 0 | 3 | 7 |
| Staff laundry | 0 | 2 | 8 |

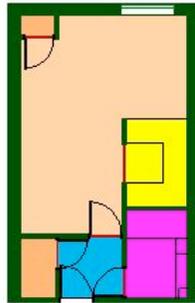
Overview of Communal Facilities

| Facilities | Had this Before | Added | Don't hav |
|-------------------|-----------------|-------|-----------|
| Laundry room | 9 | 1 | 0 |
| Main lounge | 9 | 1 | 0 |
| Communal WC | 8 | 2 | 0 |
| Storage areas | 7 | 2 | 1 |
| Lift | 7 | 3 | 0 |
| Smaller lounge(s) | 6 | 0 | 4 |
| Tea kitchen | 5 | 3 | 2 |
| Guestroom | 4 | 3 | 1 |
| Assisted bathroom | 2 | 7 | 1 |
| Dining area | 2 | 6 | 2 |
| Hairdresser's | 1 | 7 | 2 |
| Multipurpose area | 1 | 3 | 6 |
| Treatment room | 1 | 3 | 6 |
| Buggy store | 0 | 8 | 2 |
| IT area | 0 | 4 | 6 |
| Residents' shop | 0 | 2 | 8 |

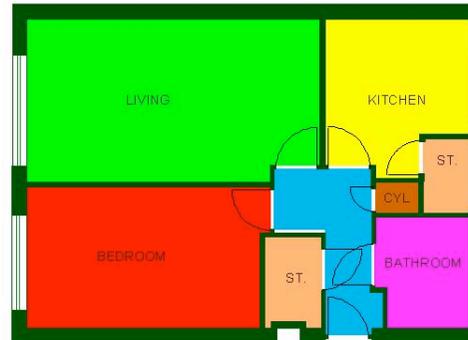
Some averages:

| Flat Types | Before | | Remodelled | |
|---------------|--------------|---------------------------|--------------|---------------------------|
| | Total Number | Average | Total Number | Average |
| Bed-sit | 176 | 25.6 m ² | 21 | 29.5 m ² |
| One-bedroom | 247 | 39.7 m ² | 362 | 43.6 m ² |
| Two-bedroom | 9 | 52.8 m ² | 23 | 70.0 m ² |
| Three-bedroom | 2 | 78.1 m ² | 0 | 0 m ² |
| Total | 434 | 34.4 m² | 406 | 44.4 m² |

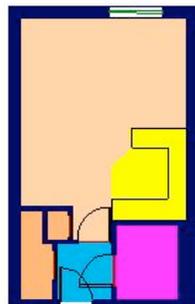
Remodelled within the existing envelope



Existing Area = 29.7 m²



Existing Area = 48.6 m²

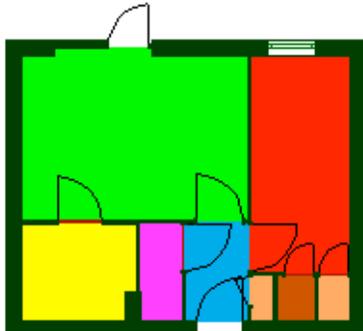


Remodelled Area = 29.7 m²

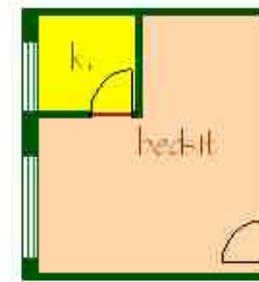


Remodelled Area = 48.6 m²

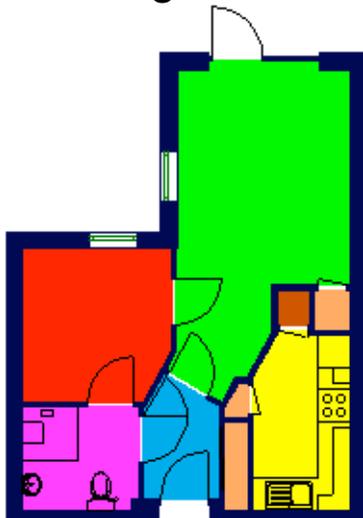
Remodelled with extensions



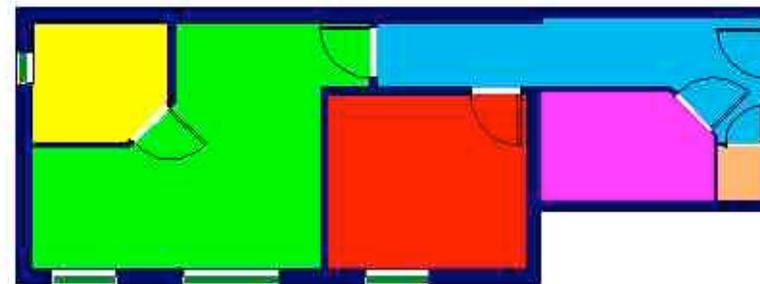
Existing Area = 29.3 m²



Existing Area = 19.7 m²



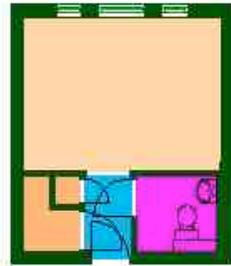
Remodelled Area = 39.2 m²



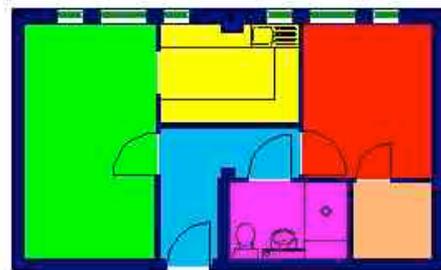
Remodelled Area = 55.8 m²

Remodelled combining two units

Residential care home

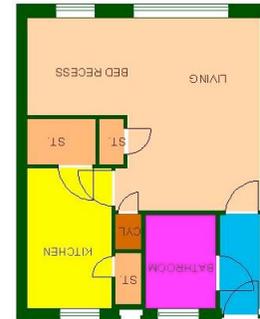


Existing Area = 20.7 m²

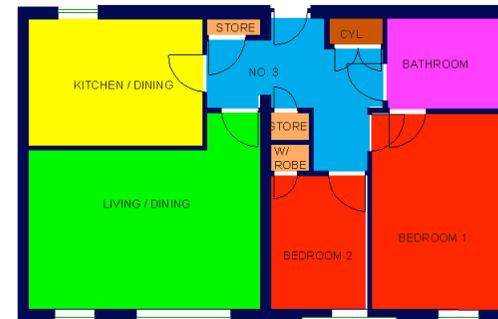


Remodelled Area = 42.8 m²

Sheltered housing



Existing Area = 33.0 m²

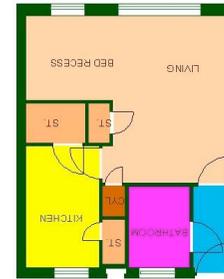


Existing Area = 66.7 m²

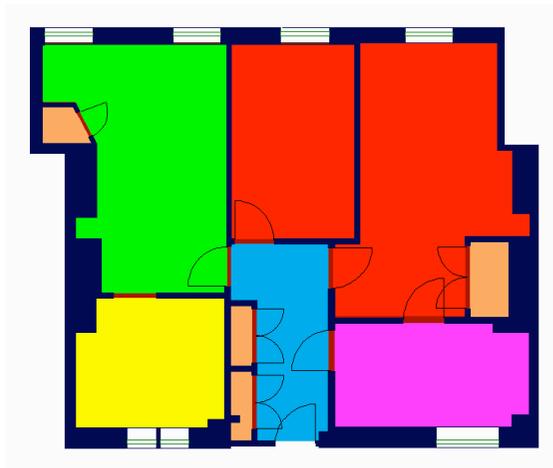
Some unusual solutions



Existing Area = $40.1\text{m}^2 + 36.1\text{m}^2 + \text{stair space}$



Existing Area = 33.0 m^2



Remodelled Area = 91.1 m^2



Existing Area = 33.0 m^2

Unequal accommodation within the same scheme

Seven out of 10 schemes display a large disparity (more than 10 m²) amongst their one and two bedroom flat sizes, so that neighbours in the same type of accommodation have widely differing space standards.

| Case s | One-bedroom flats | | Two-bedroom flats |
|--------|-------------------|------|-------------------|
| 1 | 50.1 | 40.0 | |
| 2 | 47.7 | 32.7 | 53.2 |
| 3 | 48.6 | 32.9 | 66.7 |
| 4 | 56.4 | 43.2 | |
| 5 | 46.5 | 39.2 | 57.6 |
| 6 | 56.5 | 34.6 | |
| 7 | 65.5 | 40.9 | 67.7 62.5 |
| 8 | 41.22 | | |
| 9 | 61.4 | 50.1 | 91.1 65.8 |
| 10 | 56.1 | 41.6 | 71.1 71.8 |

Average costs:

| Housing Schemes | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|-------|-------|-----|-------|-------|-----|-------|-------|-------|-------|
| Work includes new building? | Yes | No | No | Yes | Yes | No | Yes | No | Yes | Yes |
| Number of flats provided? | 50 | 42 | 16 | 29 | 39 | 16 | 30 | 121 | 30 | 32 |
| Total net area of the flats (m ²) | 1,938 | 1,630 | 766 | 1,450 | 1,603 | 696 | 1,562 | 5,011 | 1,833 | 1,539 |
| Average sizes of the flats (m ²) | 39 | 39 | 48 | 50 | 41 | 44 | 52 | 41 | 61 | 48 |
| Average cost per flat (£ thousands) | | | 51 | 53 | 40 | 55 | | 19 | 130 | 87 |

Calculated by dividing the total net area of the scheme by the number of flats provided.

The data for the schemes highlighted in yellow have not been processed yet.

These costings are very provisional and raw and take no account of the different features and amenities of the 10 schemes, the scope of the remodelling or the sizes of the individual flats.

Least expensive cost/flat, £19K, most expensive £130K, average excluding these outliers is about £57K.

Table of interviews:

| Schemes | Interviews | | | |
|--------------|-----------------|------------|-----------|-------------------|
| | Project Manager | Contractor | Architect | Quantity Surveyor |
| 1 | X | - | X | X |
| 2 | X | X | X | - |
| 3 | X | X | X | X |
| 4 | X | X | X | Same as PM |
| 5 | X | X | - | X |
| 6 | - | - | X | X |
| 7 | X | X | X | X |
| 8 | - | - | X | - |
| 9 | X | X | X | X |
| 10 | X | X | X | X |
| Total | 8 | 7 | 9 | 7 |

Emerging Issues: interviews with professionals involved in the remodelling process

- Delays, design process and on site
- Dealing with the constraints of the site
- ‘Decanting’ the existing residents within the scheme during the remodelling process versus moving them all out of the building for the duration of the build
- ‘Cutting and carving’ the building
- Ensuring that the new scheme is accessible and inclusively designed
- Dealing with the unknown
- Sustainability
- Long term costs: ‘Are care costs building neutral?’

Next steps

- An architect, social scientist, OT and a rehabilitation engineer will examine each of the schemes at the end of the project to decide (on agreed criteria) what additional structural, engineering and innovatory AT changes will be necessary to house the tenants that become progressively disabled
- Guidance will be provided for local authorities and housing associations on the pros and cons of remodelling to extra care housing