

FLEXI-FLATS SELF-BUILD ON A SHOESTRING IN THE CITY

Our proposals for a new collective housing community in the city aim to illustrate how new homes can be delivered for low budgets using simple construction techniques and sustainable design.

- Passive solar design with large glazed openings to the south and smaller windows to the north
- Using up-cycled materials in construction to give a unique quality to the buildings
- High levels of insulation to achieve good thermal performance
- Repeating units & standard components to avoid crossing party walls and complex junctions
- Regular structural grid which keeps construction and layouts simple
- A varied streetscape which respects local context and enlivens the neighbourhood
- Access to private and shared gardens, balconies and terraces

The scheme is formed of four, 4-storey blocks which are interspersed with two double height 'flexi-spaces' with garden decks above. As well forming a shared entrance to the upper level dwellings, these spaces act as slack in the plan allowing for the future introduction of a variety of uses to support a growing community.

flexi-spaces could be ...

A place to keep things

Somewhere to have a party

Shared workspace

Guest room

Cafe/Bar

Cinema

Playspace

Gallery

Shared Lounge

Communal garden

PARK

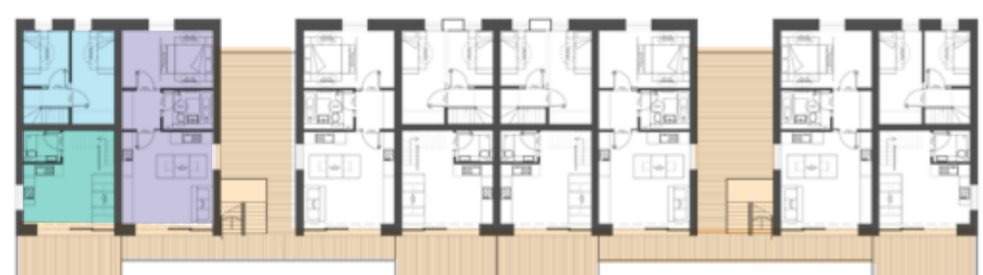
Main entrances

Parking

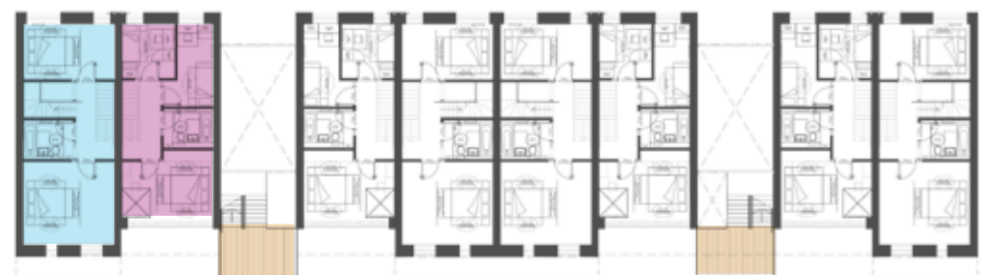
ROAD



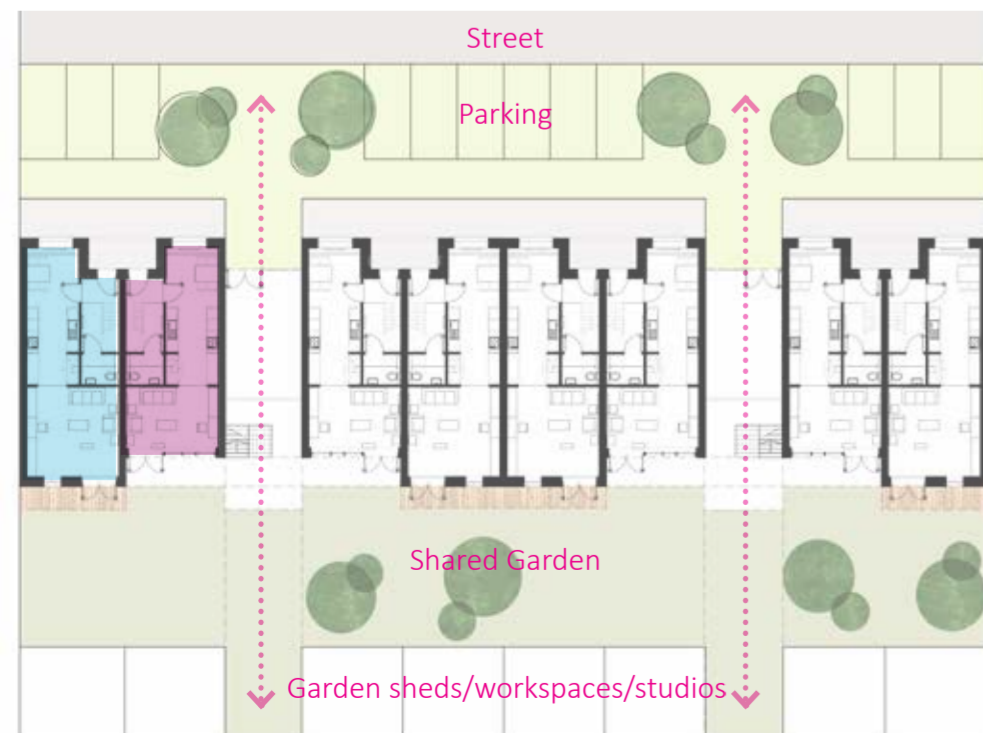
Third Floor Plan



Second Floor Plan



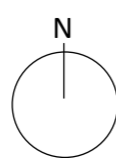
First Floor Plan



Ground Floor Plan

Key

- 4 bed, 6 person house
- 2 bed, 2 person flat
- 3 bed, 4 person house
- 1 bed, 1 person studio
- 2 bed, 3 or 4 person duplex
- Amenity/balconies



Sectional perspective cutting through block showing aspect to front and rear

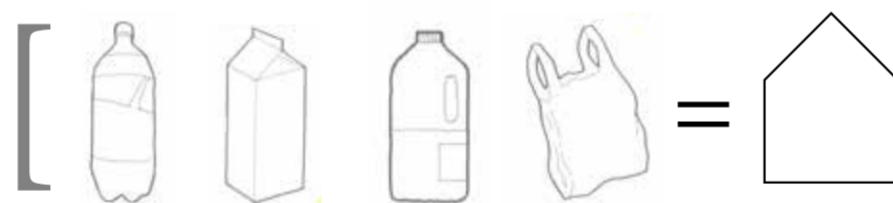
4 bedroom house with street entrance and 2 bed duplex above



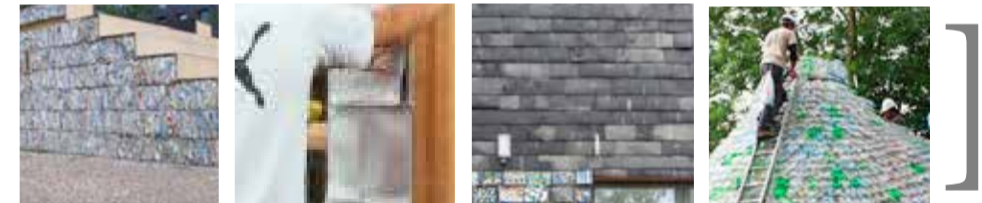
View from park showing south facing balconies and glazing

Typical housing block containing 5 homes

Something for nothing? External cladding is constructed using re-purposed waste from the city formed into shingle tiles. Examples could include: Milk Bottles, plastic bags, tetra packs, timber, plastic drinks bottles



The UK uses over 5 million tonnes of plastic each year of which only 24% is currently being recovered or recycled.



Construction Sequence (showing 1 housing block - 5 dwellings). Blocks can be added sequentially or built concurrently

- 1 Site setup, Foundations and groundworks. Construction of site welfare and offices
- 2 Ground floor slab and DPC. Crane required to lift precast concrete floor beams
- 3 Trussed timber main frame construction connected using floor as safe working plane
- 4 Floors laid using timber I beams, frames bolted together and braced internally
- 5 Topping out of main structure. Secondary timber structure completes walls
- 6 Roof and window openings constructed, scaffold erected for lining out externally
- 7 Sheathing boards +insulation fixed externally. Extra insulation added to walls from inside
- 8 Weather-tight layer completed with breather membrane and window fitting
- 9 External cladding using found/salvaged materials made into shingles. Balconies added.

FLEXI-FLATS

SELF-BUILD ON A SHOESTRING IN THE CITY



Sectional perspective cutting through block showing aspect to front and rear

Cost Summary

| Works Package | Construction Element | Materials | Labour | Total |
|--|---|--------------------|------------|---------------------|
| <i>For Works Packages 1-18 please provide figures for the total construction cost of just the 20 homes provided in your design</i> | | | | |
| Works Package 1 | Set up, Clearance, Demolitions.... | £ 6,588.00 | £ - | £ 6,588.00 |
| Works Package 2 | Foundations (up to DPC) | £ 50,599.04 | £ - | £ 50,599.04 |
| Works Package 3 | Ground Floor Slab or Suspended Floor (including insulation) | £ 31,985.96 | £ - | £ 31,985.96 |
| Works Package 4 | Drainage & Service Trenchwork | £ 42,000.00 | £ - | £ 42,000.00 |
| Works Package 5 | Specialist Building System (eg timber frame, SIPs, etc if applicable) | £ 26,670.40 | £ - | £ 26,670.40 |
| Works Package 6 | External & Internal Walls (including insulation) | £110,363.78 | £ - | £ 110,363.78 |
| Works Package 7 | Intermediate Floor Zone (if applicable) | £ 33,248.29 | £ - | £ 33,248.29 |
| Works Package 8 | Fireplace & Chimney (if applicable) | | £ - | / |
| Works Package 9 | Roof Structure, Insulation & Covering | £ 55,264.24 | £ - | £ 55,264.24 |
| Works Package 10 | Joinery (Windows, doors, stairs, skirtings...) | £111,867.74 | £ - | £ 111,867.74 |
| Works Package 11 | Specialist Products (eg; Eco products...) | | £ - | / |
| Works Package 12 | Electrical Installation | £14,400.00 | £ - | £ 14,400.00 |
| Works Package 13 | Plumbing Installation | £ 60,494.36 | £ - | £ 60,494.36 |
| Works Package 14 | Heating Installation | £130,520.00 | £ - | £ 130,520.00 |
| Works Package 15 | Plastering (or dry-lining) | £ 22,892.40 | £ - | £ 22,892.40 |
| Works Package 16 | Kitchen and Utility Units (+ appliances) | £ 28,915.00 | £ - | £ 28,915.00 |
| Works Package 17 | Decorations & Wall Ceramics | £ 85,000.00 | £ - | £ 85,000.00 |
| Works Package 18 | Floor Finishes | £ 34,262.08 | £ - | £ 34,262.08 |
| | TOTAL | £845,071.29 | £ - | £ 845,071.29 |

For Works Packages 19 and 20 provide figures for the additional communal facilities required to support the 20 homes

| | | | | |
|------------------|---|-------------------|------------|---------------------|
| Works Package 19 | Road connection, parking, paths, cycle facilities, street lighting, bin areas, landscaping | 385,500.00 | £ - | £ 385,500.00 |
| Works Package 20 | Communal areas/access to homes - eg stairways, halls, lobbies, lifts (if required), storage | 85,380.00 | £ - | £ 85,380.00 |
| | TOTAL | 470,880.00 | £ - | £ 470,880.00 |

GRAND TOTALS

1,315,951.29 £ 184,048.71 £ 1,500,000.00

Average
cost/home

£ 75,000.00