

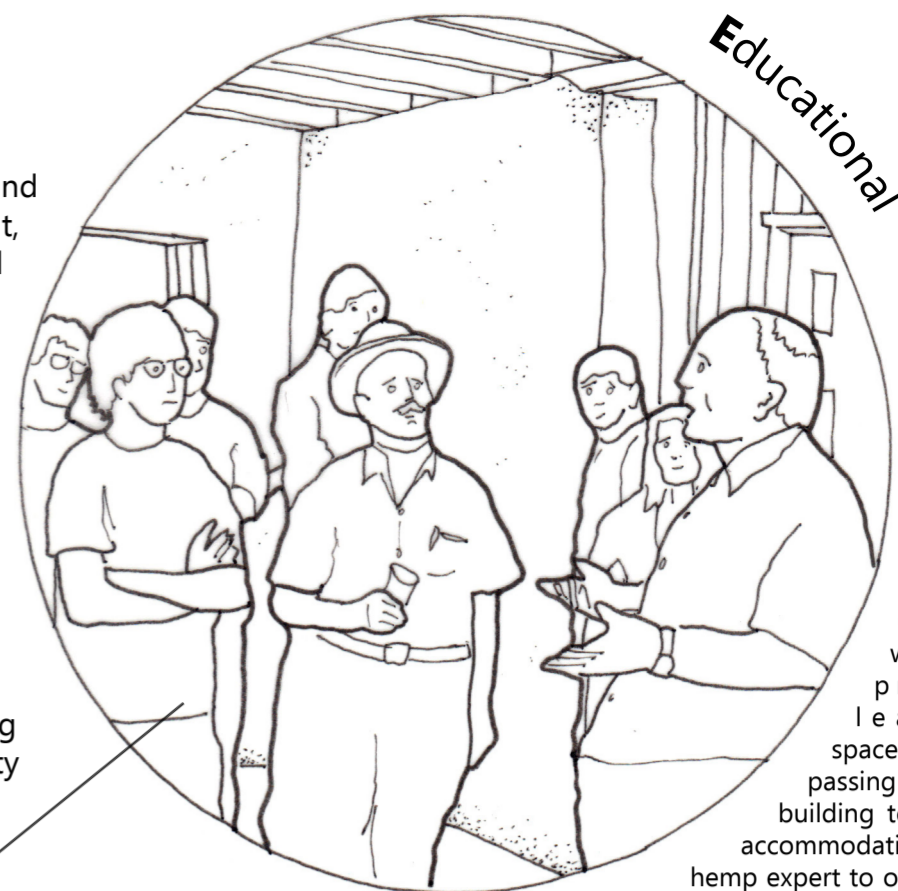
H*E*M*P

Homebuilding Educational Manufacturing Pop-up

A mobile university of hemp in the heart of the city, H*E*M*P both teaches and promotes the use of hemp and natural materials in our built environment, to the benefit of both the rural communities cultivating the raw material and the urban communities in which the buildings appear. The pop-up workshop establishes itself in a field of soil improving hemp plants and invites applications from members of the community to a training course in timber and hemp construction.

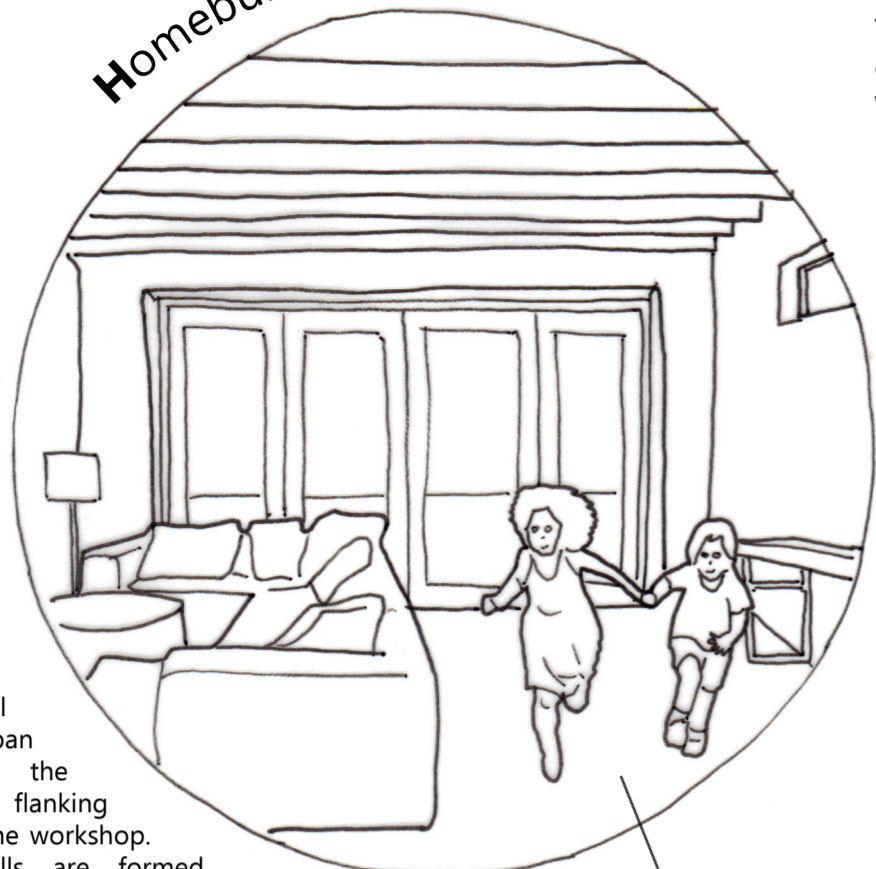
Attendees learn construction techniques and use these skills to construct new homes that grow from the workshop walls. Homes are used as experiments for the students to test their new skills and the hemp construction community to trial new building techniques and methods.

When the plots are all inhabited, the workshop disassembles leaving 20 new homes with a central communal space for the new community and surroundings to enjoy direct access to the park whilst the pop-up appears elsewhere continuing the growth of H*E*M*P across the UK.



On site workshop provides learning space for passing on natural building techniques, accommodation for a hemp expert to oversee the site and temporary accommodation for students if needed whilst houses are being constructed.

Homebuilding

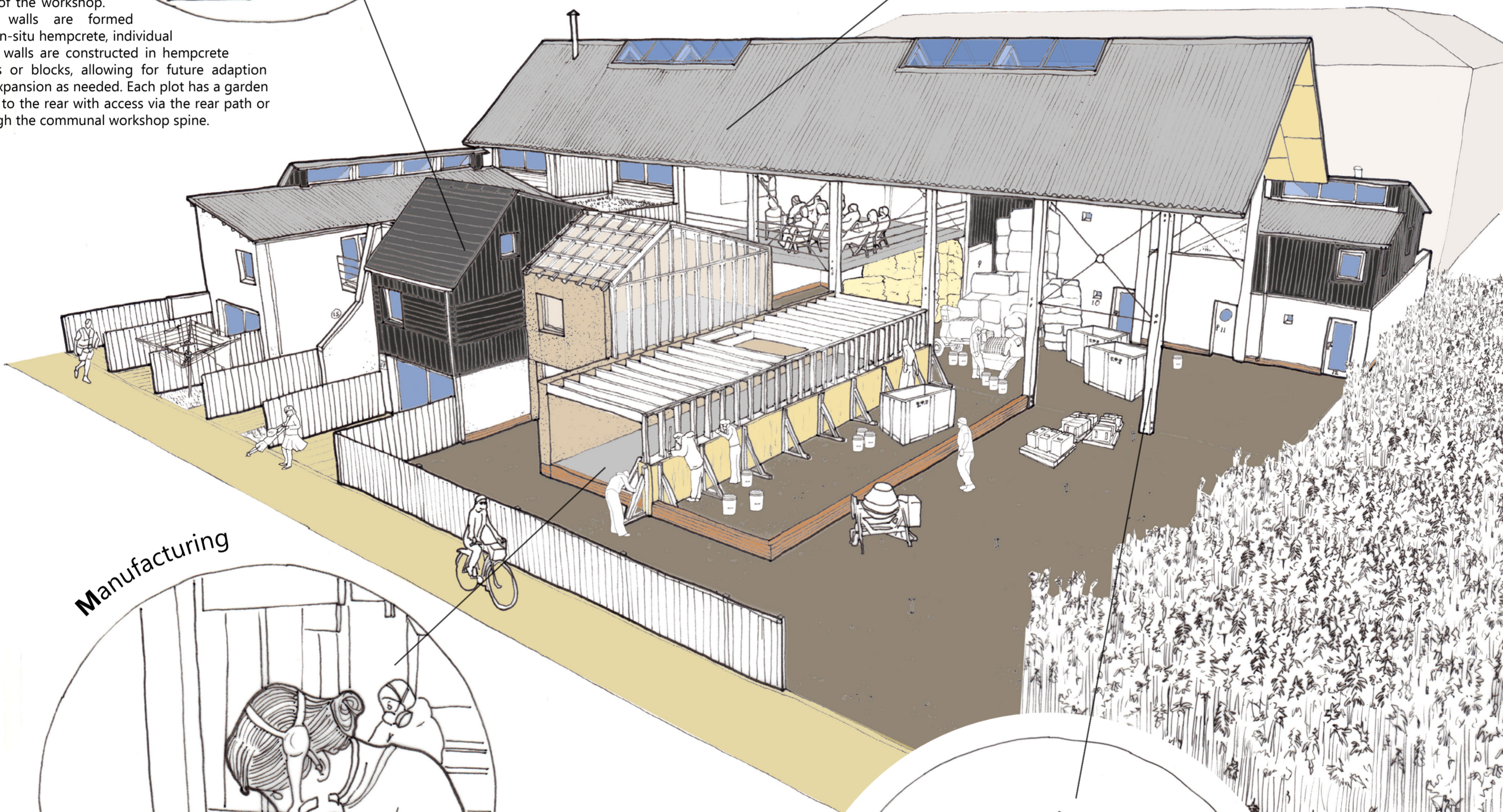


20 individual plots span from the external flanking walls of the workshop. Party walls are formed from in-situ hempcrete, individual home walls are constructed in hempcrete panels or blocks, allowing for future adaption and expansion as needed. Each plot has a garden space to the rear with access via the rear path or through the communal workshop spine.

Manufacturing



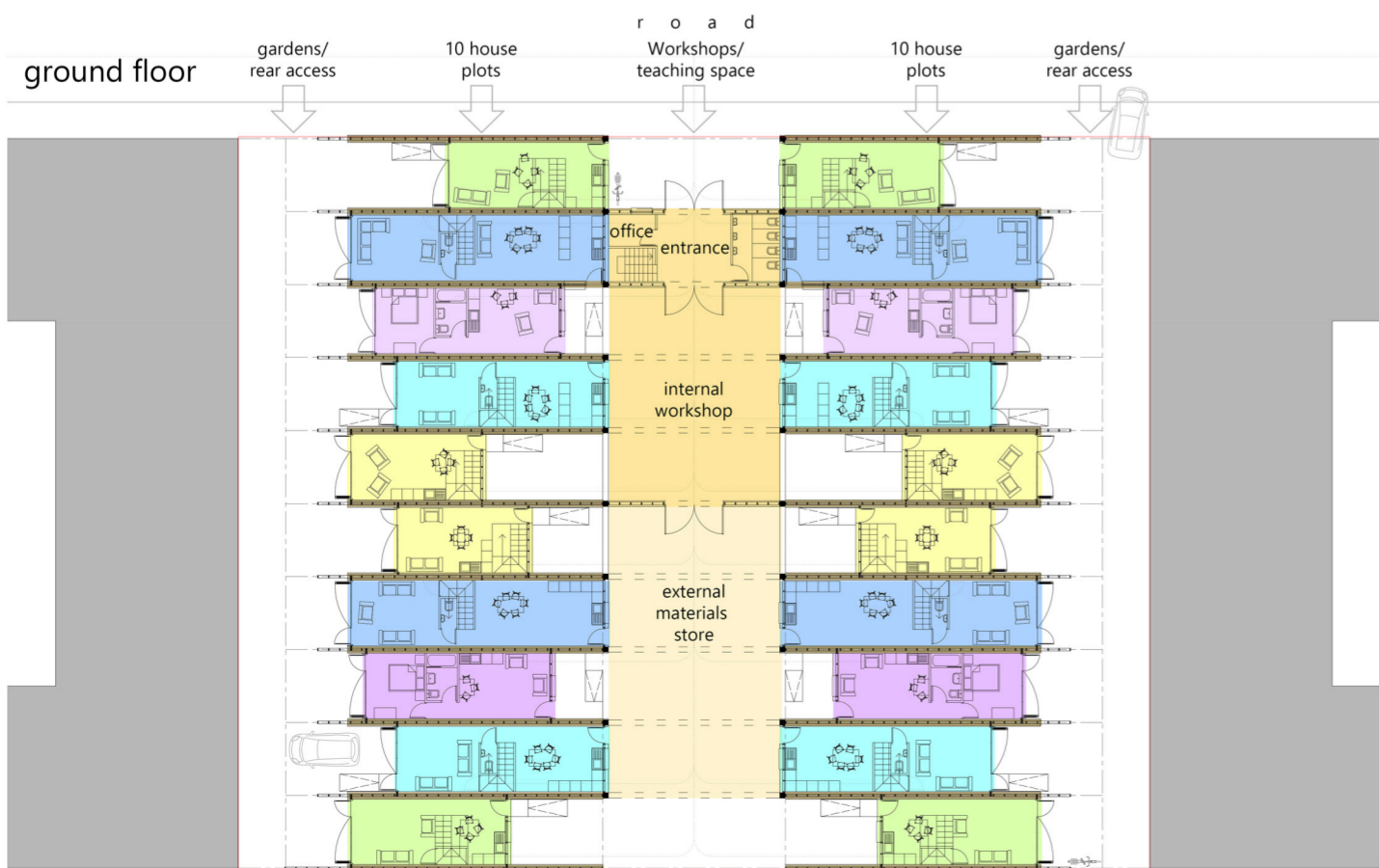
Students of the workshop put lessons into practice forming a fully functional manufacturing plant that processes hemp grown on site or in the nearby park, using the shiv for construction of hempcrete homes, and selling the by-products to feed back into the community. Hemp experts utilise the workshop to test new construction techniques to bring natural building materials back into standard building practice.



Pop up

The central spine workshop is demountable in construction. On completion of the home building, the workshop can be removed, allowing the central space to become communal outdoor space and access through the site into the park beyond.

The H*E*M*P workshop relocates to the next site, ready for a new intake of self-build hemp students.



Pop-up workshop 1 person house (35 sqm) 2 person house (50 sqm) 3 person house (60 sqm) 4 person house (80 sqm) 5 person house (100 sqm)

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....	£ 3,582.00	£ -	£ 3,582.00
Works Package 2	Foundations (up to DPC)	£ 46,697.38	£ -	£ 46,697.38
Works Package 3	Ground Floor Slab or Suspended Floor (including insulation)	£ 116,217.11	£ -	£ 116,217.11
Works Package 4	Drainage & Service Trenchwork	£ 33,167.00	£ -	£ 33,167.00
Works Package 5	Specialist Building System (eg timber frame, SIPs, etc if applicable)	£ -	£ -	£ -
Works Package 6	External & Internal Walls (including insulation)	£ 282,745.31	£ -	£ 282,745.31
Works Package 7	Intermediate Floor Zone (if applicable)	£ 23,396.32	£ -	£ 23,396.32
Works Package 8	Fireplace & Chimney (if applicable)	£ -	£ -	£ -
Works Package 9	Roof Structure, Insulation & Covering	£ 161,449.99	£ -	£ 161,449.99
Works Package 10	Joinery (Windows, doors, stairs, skirtings...)	£ 94,288.94	£ -	£ 94,288.94
Works Package 11	Specialist Products (eg; Eco products...)	£ -	£ -	£ -
Works Package 12	Electrical Installation	£ 14,082.00	£ 34,620.00	£ 48,702.00
Works Package 13	Plumbing Installation	£ 12,079.79	£ -	£ 12,079.79
Works Package 14	Heating Installation	£ 33,618.00	£ -	£ 33,618.00
Works Package 15	Plastering (or dry-lining)	£ 55,440.00	£ -	£ 55,440.00
Works Package 16	Kitchen and Utility Units (+ appliances)	£ 53,576.00	£ -	£ 53,576.00
Works Package 17	Decorations & Wall Ceramics	£ 6,209.48	£ -	£ 6,209.48
Works Package 18	Floor Finishes	£ 73,920.00	£ -	£ 73,920.00
	TOTAL	£ 1,010,469.32	£ 34,620.00	£ 1,045,089.32
<i>For Works Packages 19 and 20 provide figures for the additional communal facilities required to support the 20 homes</i>				
Works Package 19	Road connection, parking, paths, cycle facilities, street lighting, bin areas, landscaping	£ 32,426.20	£ -	£ 32,426.20
Works Package 20	Communal areas/access to homes - eg stairways, halls, lobbies, lifts (if required), storage	£ -	£ -	£ -
	TOTAL	£ 32,426.20	£ -	£ 32,426.20
GRAND TOTALS		£ 1,042,895.52	£ 34,620.00	£ 1,077,515.52
			Average cost/home	£ 53,875.78

Costs have been calculated via quantifiable rates, established from a number of sources:

- Average rates known from previous projects.
- The Homebuilder's Bible for standard self-build costs.
- Builders merchants stores for standard building material costs.
- Lime specialists rates for lime products.
- Hemp specialists online stores for hemp products.
- Advice on Hemp building techniques and cost provided by Hemp-Lime Construct.