

CONTEXT



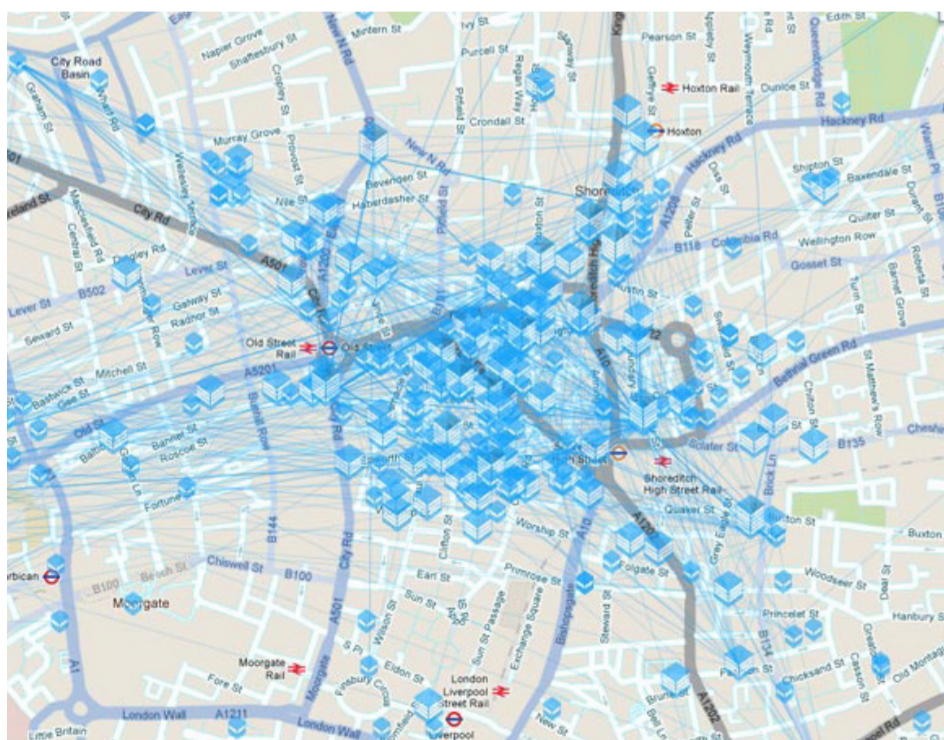
map by Thrillist

LOCATION: OLD STREET ("TECH CITY")

Rents are currently **unaffordable**, with an average of £2364pcm for a one bed flat. Property prices are rising above £9000 per m2. (Source: Zoopla).

It is increasingly unaffordable for both long term residents and young creative professionals who work in the area, to rent or buy locally.

There are a number of unused or **underused garages** in the area, notably adjacent to existing council estates.



www.techcitymap.com

APPROACH

AIMS:

- To provide affordable self-build **starter homes** and **live-work** units for people working in and around Old Street who are currently unable to rent or buy in the area.
- To aid short-term efforts to **ease the pressure on housing** provision in London
- To support measures to **reduce car ownership** and use in inner city areas

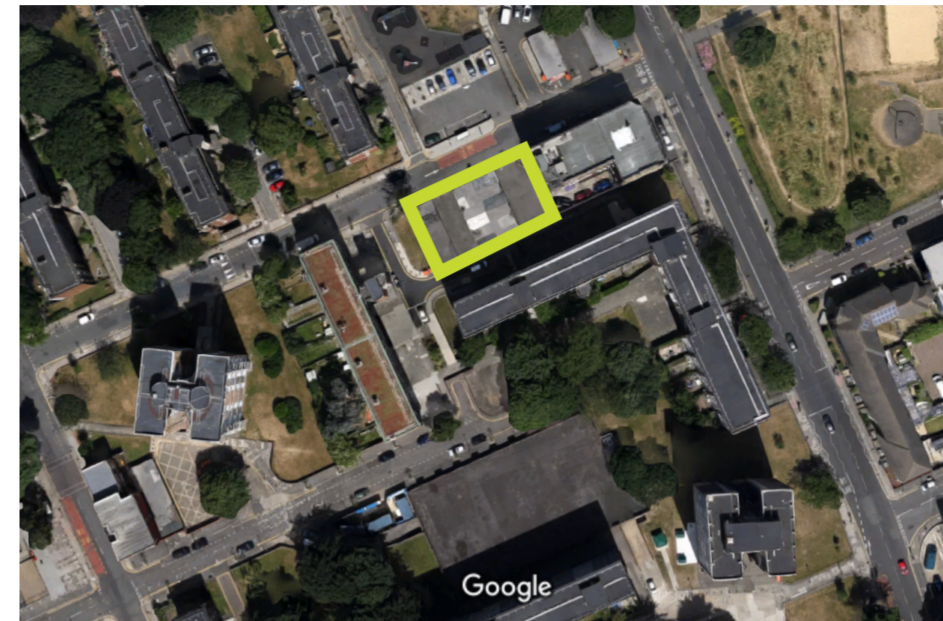
METHODOLOGY:

- Replace council owned garages and make **publicly owned plots** available to rent for self-build starter home units
- Offer the plots for rent from the council **at the same rate** at which they are currently rented for vehicles
- Create a **self-build system** that buyers can purchase to construct on the rented plot
- Enable the houses to be purchased with a long-term loan. In 7 years **the building will be owned** by the occupant.



View of site

SITE



PLOT CONTAINING 18 SINGLE CAR GARAGES
WIMBOURNE STREET, LONDON N1

The approach taken to the Wimbourne Street site could be **repeated across London**.

How many garages in London are owned by councils?

An accurate figure requires more detailed research. However, we can make an estimate from a number of smaller sample areas and scale that up to London as a whole.

We took a 4km2 area of Islington, the inner London Borough with London's highest population density, and 4km2 from Brent, a borough with one of the lowest densities. We counted the number of garages apparently in, or formerly in, council ownership.

Islington:

- Precise area: 3.935km2
- Number of garages: 414
- 105.21 spaces/km2

Brent:

- Precise area: 0.642km2
- Number of garages: 42
- 65.42 spaces/km2

Average number of garages per km2 = 85.32

London has an area of 1572km2

*Possible number of London garages: **134,123***

Ownership of these garages is unknown. Assuming 50% remain in public ownership, the total figure is 67,066 garages. Hypothetical number of starter homes:

**Micro flats: 33,533, or
Live work units: 22,355**

PROPOSAL

Defining the self-build parking plots:

- A garage plot measures approximately 5m x 2.5m = 12.5m2
- 2no. garage plots measure approximately 5m x 5m = 25m2
- **25m2** is sufficient for a carefully designed **micro-flat**
- 3 no. garage plots measure approximately 5m x 7.5m = 37.5m2.
- **37.5m2** is sufficient for a **micro-live-work unit**.

Plot Rental:

- Islington Council currently rents out a vehicular garage for £18.13/week, for a category B CO2 emission-rated vehicle

Construction system:

The micro-flat and live-work unit would be self-built, using **standard** but **customisable kits**, which are designed for disassembly, to allow the owner to take them with them when they leave.

The units would be manufactured with or without internal finishes, giving the occupier the opportunity to tailor the interior to suit their needs.

The Structural Insulated Panels (**SIPs**) construction, allows design for **disassembly**, as well as upgrading and replacement.

The external finishes would be demountable and come in a range to suit the local context. Together, these would reduce construction times and allow design changes or upgrades with simple modifications.

The SIPs panels would have simple tongue and groove assembly, with mechanical fixings, **designed for repeated use**. Acoustic EPDM sealant would be used to achieve good airtightness, water-tightness and acoustic isolation.

Ducts and cabling would be pre-engineered and integrated into the SIPs panels, allowing **plug-and-play** operation.:

Costs:

Construction of a standardised kit of SIPs panels would cost approximately £1000/m2.

*Micro-flat: £25,000. £269.53 per month loan repayment
With a £5000 deposit and a £20,000 7 year loan at 3.6% APR*

*Overall monthly cost: £269.53 + £157.13 = **£426.66***

*Live-work unit: £37,500. £336.92 per month loan repayment
With a £12,500 deposit and a £25,000 7 year loan at 3.6% APR*

*Overall monthly cost: £336.92 + £235.69 = **£572.61***

ABOUT US



Planning:

We propose that government and local councils create a policy whereby the change of use and construction using the pre-agreed standardised system is **deemed permitted development**, subject to minor conditions.

The general massing of the units will be similar to the existing garages, with the addition of the pitched roof, and the overall height remaining within the standard permitted development heights of 4m ridge and 2.5m eaves.

Sustainability:

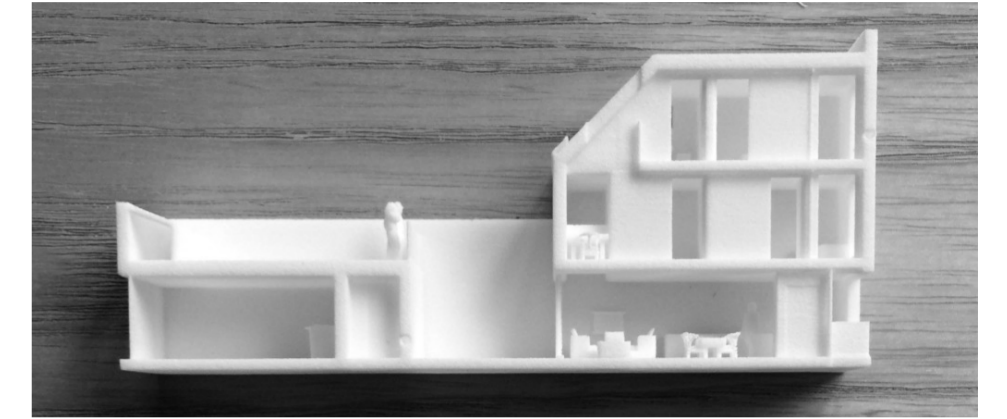
Each home would comfortably achieve the equivalent of the out-going Code For Sustainable Homes Level 4.

The homes would be designed to secure their annual **electrical requirement from the sun**. The design would be such that the roof of the buildings can be oriented to maximise the solar gain for a 1.5kwp photovoltaic array, covering 12.5m² of the 30° pitched roof. The roof can be rotated to the most appropriate orientation according to the site.

The structural elements will use timber from sustainably managed forest and chains of custody and cladding will use regionally sourced materials.

Langstaff Day Architects is an emerging architectural and design practice established by Nicholas Langstaff and Joanna Day and based in London. Between us we have spent over 25 years working in architectural studios and have extensive residential, commercial and education experience. LDA have won, or been short-listed, in several competitions - including the current AJ Barratts Home of the Future Competition - and exhibited around London.

We have a track record of developing complex briefs and realise the importance of understanding our clients' requirements to develop a shared vision. We aim to design functional buildings and spaces that are thoughtful, refined and crafted.



The occupier can take the home with them when they leave, or they can sell it on.

The land remains controlled by the council.



JOANNA DAY

BA(Hons) BArch RIBA

Joanna led projects at Nicholas Hare Architects for ten years. Involved in a range of project types and sizes, she is particularly proud of the awards gained both for design (Park Hall School: Best Design for a New School) and for the implementation of BIM (Woodlands School: winner of three awards).

As well as progressive new build secondary schools, Joanna has been responsible for refurbishment schemes such as the Education Centre at the Royal College of Surgeons. Joanna's experience also includes high end residential and commercial new builds and refurbishments.

Trained at Liverpool University and the University of Washington in Seattle, Joanna qualified from the Bartlett School of Architecture in 2004. Joanna has long had a passion for the wider implications of architectural design. Studies at university focused on the role of public space in the urban realm. In 2005 she participated in a training scheme run by Freeform Arts Trust which focused on community art and architecture. During this time she ran many community consultation workshops as part of live design projects.

Believing that practice and teaching are mutually beneficial activities, Joanna works as a Studio Design Tutor at the University of Liverpool. She has spoken about design ideas at events such as the NLA Capital Ideas Pecha Kucha and regularly contributes reviews to the Building Design journal.

NICHOLAS LANGSTAFF

BArch DipArch MArch RIBA

Nicholas has experience across a range of scales and in a variety of sectors. His portfolio includes commercial, residential, and primary, secondary and tertiary education projects. He has worked on masterplans and on conservation schemes. During ten years at Nicholas Hare Architects, he led a number of award winning design projects.

He has a particular interest in socially and environmentally responsible design across the whole built environment. His contributions have been recognised in awards gained by NHA for Inspiring Design (Golden Lane Campus) and Civic Contribution (Dormers Wells High School).

Nicholas trained at the University of Nottingham and University of Hong Kong, where he gained a first class degree and then distinction in his diploma. He completed his studies with a distinction in his masters from Nottingham, qualifying in 2006. His design studies were located within diverse social contexts and communities. He has built on this area of interest with recent masterplanning work that included extensive public consultation and engagement with local communities in Kings Cross, London.

He has been a design tutor and visiting critic at the University of Nottingham. He is a qualified Accredited Professional for BREEAM (Building Research Establishment Environmental Assessment Methodology) and a specialist in inclusive design.

