

homefolk paved site investigations/feasibility study



Contents:

1) PAVED AREAS INVESTIGATIONS

- Lark Row - Mowlem Street Case Study: Satellite Paved Areas Investigation
- MARGINAL SPACES: PARKING CALCULATIONS FOR LARK ROW ONLY
- AREA SUITABLE FOR HOMEFOLK HOUSING MODEL: CALCULATIONS
- POTENTIAL OF OUR MODEL: APPROPRIATING OUR CALCULATIONS OVER A LARGER AREA.
- Future further investigations for this case study

2) Three Case-Studies: Central East London Sites Identified As Underutilised &/ Marginal Paved Space

- No. 1: Network Rail
- No. 2: Council-owned Lark Street
- No. 3: Private Parking(s)

08/09/22 DISCLAIMER: *This document was first started as a small personal investigation over 2 years ago, before homefolk was even a named project. It has been modified to be useful to us again at present but please use this document solely as an illustration of the versatility of our housing model. Do not take sites or arrangements referenced as prescriptive or indeed the final route we will likely take. Understanding the public vs private vs institutional landowner is also very important, something explored in this document. For that reason, I cannot recommend enough the book 'Who Owns England' by Guy Shrubsole and Anna Powell-Smith → see their website project that inspired the book here <https://whoownsengland.org/>. This explores the concept of land ownership in contemporary England in much greater detail and is very informative.*

1) PAVED AREAS INVESTIGATIONS

Lark Row - Mowlem Street Case Study: Satellite Paved Areas Investigation



Output : Total Area(s)

7283.76 m² | 0.01 km² | 1.80 acres | 0.73 hectares | 78401.76 feet² | 0.00 square miles | 0.00 square nautical miles

Current Total Perimeter

2089.132m OR 6854.107feet



Output : Current Area

18560.14 m² | 0.02 km² | 4.59 acres | 1.86 hectares | 199779.73 feet² | 0.01 square miles | 0.01 square nautical miles

Current Perimeter

576.892m OR 1892.691feet

Lark Row - Mowlem Street Case Study: Satellite Paved Areas Investigation
CALCULATIONS

18,560m² total area of Lark Row - Mowlem Street

7284m² total paved area of Lark Row - Mowlem Street

$18,560 - 7284 = 11,276$

$7284 / 18560 * 100 = 39.25\%$

39.25% of the Lark Row - Mowlem Street area is paved

MARGINAL SPACES: PARKING CALCULATIONS FOR LARK ROW ONLY

Of 35 parking spaces available from satellite imagery on Lark Row, 14 were empty at the time the image was captured. This gives an occupancy rate of $(35-14)/35*100=60\%$

Est. only 60% parking occupancy in Lark Row

AREA SUITABLE FOR HOMEFOLK HOUSING MODEL: CALCULATIONS

Much more detailed and in depth study is needed for an accurate number. However, owing to time constraints at this most preliminary stage of the project, a basic calculation can be made to try and very loosely estimate the wider potential for our model...

Assuming between 5-10% of this paved area is marginal / underutilised and suitable for siting a home of 12m², how many homes could be fit into this area?

$0.05 * 7284 = 364\text{m}^2$ suitable for tinyhomes ...

$365 / 12\text{m}^2$ (the size of our tinyhomes) = 30 tinyhomes lower boundary

$30 * 2 = 60$ tinyhomes upper boundary

Assuming 8 homes require 3 communal units - $30 / 13 = 2.3$ communities (lower boundary) Therefore 4.6 communities for upper boundary. 8 people per community → housing for 16-32 people.

Assuming 5-10% of available paved spaces in the Lark Row - Mowlem Street area is suitable for use with our housing model, we estimate 30-60 tinyhomes could be added, or in other words, 2-4 homefolk model communities for.

POTENTIAL OF OUR MODEL: APPROPRIATING OUR CALCULATIONS OVER A LARGER AREA.

The total Lark Row - Mowlem Street study area was 18,560m². We have estimated 30-60 homes or 2-4 communities in this area. This is 0.018 Sq. kilometer.

$1/0.018 = 55.555$

$55.555 * 30 = 1,667$ homes (lower boundary) or $(*2) 3,333$ homes (upper boundary)

$1667/13 = 128$ communities (lower boundary) or $(*2) 256$ communities (upper boundary)

$128*8$ (number of occupants per community) = 1,024 people (lower boundary) OR 2,048.

This shows a potential of 128-256 communities per km² with space for 1024-2048 people. In the borough of Hackney, est. 19 km², this represents the potential for homes for 19,456 people at our current lower boundary (assuming 5% of currently available paved area in the borough, estimated at 39%, could be used for the homefolk housing model).

Our very basic preliminary calculations are explorative. Many assumptions have to be made: that our study area is representative of the borough of Hackney/other London Zone 2 locales, that 5-10% of the paved areas are suitable for our housing model etc. However, if some assumptions can be reasonably made at this early stage, we could be looking at increasing the density of housing considerably in inner London areas worst affected by the housing crisis. Even if our estimates of suitable paved space prove overly liberal, we hope we've made the potential of this housing model clear. Decentralised communities on marginal land can be low cost.

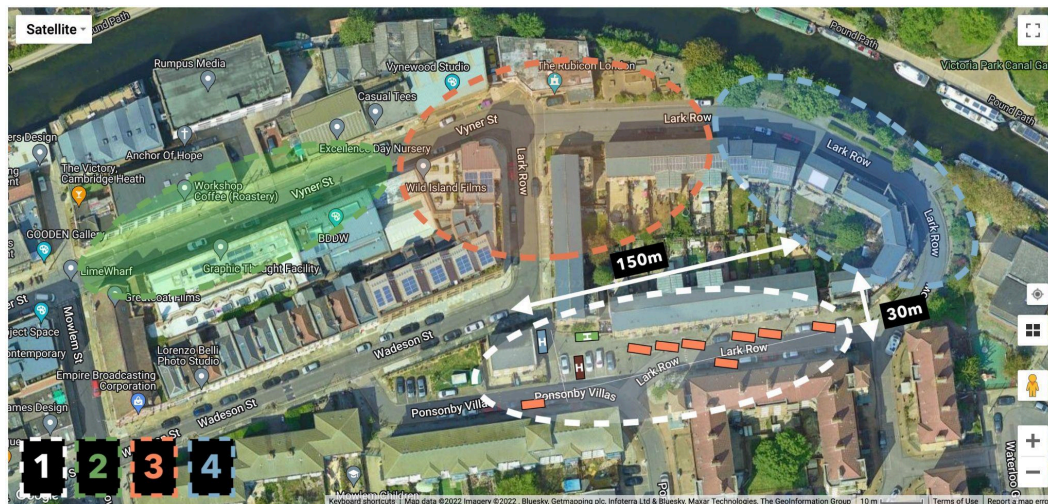
Future further investigations for this case study area:

- Marginal/Underutilised Paved areas
 - Foot traffic count
 - Vehicle traffic count
 - Physical parking occupancy count and calculation averaged over time
- Potential of our Model
 - Detailed mapping of the areas large enough for our 12m² tinyhomes within our case study site and repeating this over many areas to provide an average

Additional info from coin street iroko housing coop on property guidelines:

- 68 dwellings per hectare (PPG3 suggests 30-50 dwellings per hectare)
- 332 habitable rooms per hectare (London Borough of Lambeth's planning guideline 210 habitable rooms per hectare, an increase of 58%)

RECENTLY ADDED: 01/11/22



“Lark row-Mowlem street” case study: in this we took the total study area (18,000m²) and did a manual area plot (7000m²) that showed ~40% of our study area is ‘paved’. Former industrial/mixed residential areas like this qualify as low density urban areas perfect for increasing ‘soft density’ with homefolk’s model. On the map above, we demonstrate at least 4 zones with sufficient marginal paved space for one of our ‘villages’, each roughly a 1.5 minute walking span (150m in 90 seconds → walking pace of 6km/hr)

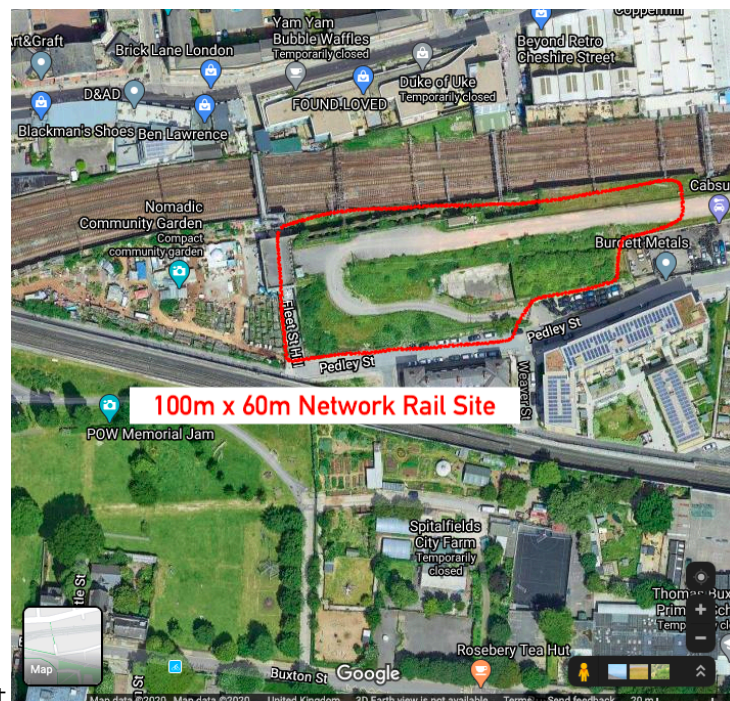


2) Three Case-Studies: Central East London Sites Identified As Underutilised &/ Marginal Paved Space:

These 3 sites were selected over a three hour investigation prioritising proximity to waterway/greenspace whilst also looking for a range of sites that best demonstrate the diverse range of sites appropriate for a homefolk pilot site. Notwithstanding, these case studies are to explore feasibility and are in no way suggested as final locations for a pilot site.

No. 1: Network Rail

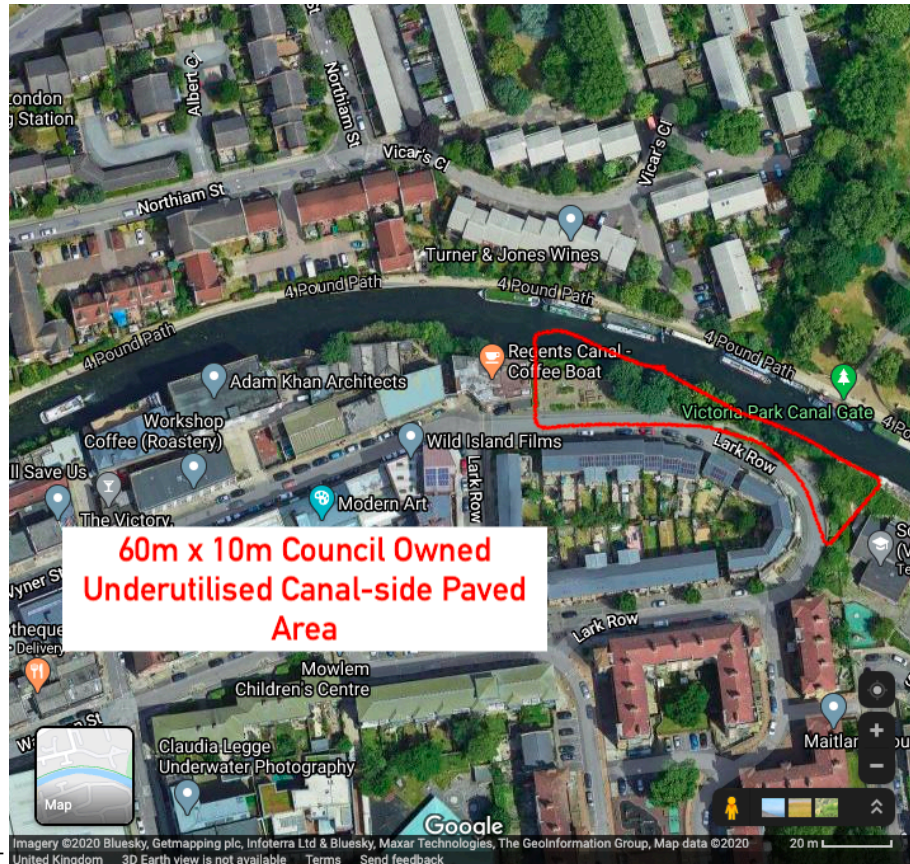
- 100m x 60m Network Rail Site (scale bar in bottom right corners)



- Local Context

No. 2: Council-owned Lark Street

- 60m x 10m Council owned underutilised canal-side paved area (scale bar in bottom right corners)



- Local Context



- Wider Context
- This investigation shows its age as this site has now been given over to a different housing group to build an ambitious affordable co-housing project! Therefore best to read only as a case study :)
- Percieved Site Benefits:
 - Proximity to canalside and opportunities to experiment with *street-strip village style* (as opposed to courtyard scenario) - greater exportability London wide as a *housing model* as parking becomes increasingly redundant over the next 10-15 years
 - High visibility for canal goers and existing planters/trees in situ
 - Proximity to small commercial & creative Vyner Street

No. 3: Private Parking(s)

- 20m x 20m OR 15m x 40m Privately Owned Underutilised Canal-side Car Parking Areas (scale bar in bottom right corners)



- Local Context



- Wider Context

- Land/property guardian approach to explain relationship to prospective private landowners to lease/rent land to homefolk.
- Perceived Site Benefits:
 - Ability to create fully enclosed, gated courtyard style homefolk community.
 - Many sites highlighted here demonstrate how widespread underutilised paved/tarmacked areas are - criminal land use in the context of epidemic homelessness. As previous calculations suggest, areas even in Zone 1/2 of London might have paved area as high as est. 40%!
 - Proximity to canal

wwwwwww

Further reading on paved spaces in cities:

- 1→ We Are the 25%: Looking at Street Area Percentages and Surface Parking
 - <https://oldurbanist.blogspot.com/2011/12/we-are-25-looking-at-street-area.html>
- 2→ Density on the Ground: Cities and Building Coverage
 - <https://oldurbanist.blogspot.com/2011/06/density-on-ground-cities-and-building.html>

Hectares of small sites

Contextualise in terms of tennis courts