

Dispersed Densification: A Solution to the London's Housing Problem Using Small Sites

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URBANISM

ABSTRACT - To meet the demand for more housing in London today, there is great pressure to either rebuild existing housing estates at much higher densities, or to build on the Green Belt. Neither solution is desirable. But there is an alternative—here called dispersed densification on small sites. The 2017 Draft London Plan of the Greater London Authority presented proposals to make much greater use of small sites (less than 0.25 ha [0.62 ac.]) to meet housing needs. But it had no architectural model, and so this was largely disallowed by Central Government. A willingness to build taller on such sites could, however, have demonstrated the viability of that option. Planning policies currently aim to cluster taller buildings together near transport hubs and peripheral centers. This effectively requires the difficult assembly of larger sites. A willingness to accept taller buildings on a dispersed pattern would allow much greater use of small sites. Such buildings would enjoy an open outlook above the lower-density housing and gardens around them, enjoying the conditions of sun, space, greenery to which the architectural Modern Movement aspired.

Keywords: densification, Green Belt, Green City, housing, London

The urgent need for more housing in London is well known. The population is currently forecast to rise by 1.6 million by 2036, and the provision of additional housing has failed over many years to keep pace with the population growth that has already occurred. The result has been the soaring cost of housing. One solution that is frequently advanced is that we should relax greenbelt restrictions, and allow more housing to be built

in another concentric ring around the existing.¹ Although encroachment on the Green Belt is, regrettably, something that to some degree is constantly occurring, there is no doubt that enforcing a greenbelt is one of the most popular planning policies and has been one of the most effective in preserving amenity. The shapeless and wasteful sprawl of low-density development over green countryside is something that almost everyone deplors from a visual, ecological, social, and even agricultural point of view. Whilst more concerted strategic efforts should certainly be made to shift development pressures away from the South East, their efficacy is likely to be long term, and the need for large amounts of new housing will remain in and around London. So, where and how is it to be provided?



Figure 1. Eddystone Road, Lewisham, London SE4, looking east with existing terrace housing and tower. For location see Figure 6.

In fact, if the residential density of London is compared to that of other European cities, it looks as though its present built up area should be able to accommodate a substantially higher population without needing to encroach on the greenbelt. Take Paris for example. The Greater-Paris region, roughly equivalent to our Greater London Authority (GLA) area in that it covers effectively all the built-up area centered on Paris, has a population density nearly 60 % higher—in a country with an overall population density only 42 % that of the UK.² If the residential density of the GLA area was comparable to that of Greater Paris, it would house 5 million more people than it does. So on the face of it, it should be able to house an extra 1.6 million without too much difficulty. But how?

The possibility of building taller needs to be re-examined—especially, it will be argued, in the outer areas of London, where densities are lowest but social amenities such as green space and sports facilities are most

plentiful, areas which could benefit most from the additional population, and where small incidental underused or unused sites suitable for the pattern of development here proposed are most widely available. The densifying of the outer boroughs here proposed has been advocated by others, and is a core policy in the Draft London Plan of London Mayor Sadiq Kahn, focusing especially on small sites of less than 0.25 ha [0.62 ac.]. But detailed suggestions as to how it might be done, such as the Supurbia proposal advanced by RIBA Past President Ben Derbyshire,³ seem problematic. His proposal would require the densification of whole blocks of suburban housing at one time, requiring the co-ordination of large numbers of owner-occupiers. Gaps between suburban houses would progressively be filled in with matching low-rise development, including the development of the bottom of long gardens, and the result would be much disturbance and much-increased ground coverage by buildings, inevitably reducing the greenness and spaciousness of the suburbs which is their principal visual attraction. The monotony of the suburban environment due to uniformity of scale would not be addressed.

By contrast, the proposal here advanced is that mid-rise residential blocks of ten-fourteen stories would be built on the kind of small under- or unused sites of around 0.25 ha [0.62 ac.] that are quite widely available in the outer parts of London such as disused petrol filling stations; little disruption of existing occupation need be involved. Even if there was to be some demolition, a block of the kind envisaged can be built on the site of two pairs of inter-war semi-detached houses, and would be within the scope of mid-sized building contractors, of the kind the mayor wishes to involve. As an example, the diagram below illustrates fourteen-story Glenkerry House, discussed later, occupying the same site as two pairs of semi-detached houses, and achieving a fourteen-fold increase in density on that site. It is planning control policies that would currently prohibit such developments.

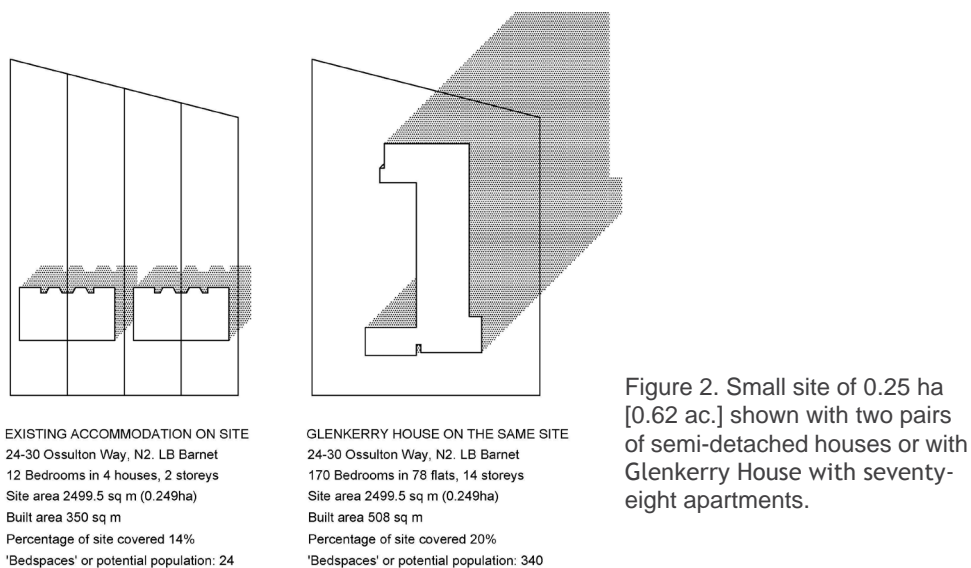


Figure 2. Small site of 0.25 ha [0.62 ac.] shown with two pairs of semi-detached houses or with Glenkerry House with seventy-eight apartments.

Present planning guidelines tend to favor the grouping of taller buildings, and clusters of them have emerged or are emerging not least in The City and Canary Wharf, but also in areas such as City Road in Islington and Hackney, or Blackfriars Road in Southwark. With current property values, many of these taller buildings are residential but are built in areas with few local social amenities such as open space— City Road and Blackfriars Road are notably lacking in them. The target market is often foreign investors, who frequently leave them vacant for long periods, so they contribute little to easing the local housing shortage resulting from the rapidly increasing population of London. The towers are often also extremely high, such as the fifty-story No. 1 Blackfriars Road recently completed, or the residential upper stories of the seventy-two-story Shard, both in Southwark, or the thirty-six-story towers in City Road, and provide a questionable framework for normal family life.

However, there would seem to be scope for building more modest residential towers in outer or suburban areas of London. Such towers would have little more ground coverage as a percentage of their sites than a typical development of two-story family houses, and could typically be of about twelve-fourteen stories. Such towers could do much to increase the amount of housing available for ordinary locally-based households without building on the Green Belt or in new towns beyond it, and without reducing the much-appreciated green-ness of the suburbs. With the average size of household constantly declining, many such towers could be designed for households without the young children for whom the suitability of life above ground has most often been questioned. Such towers could look out over the roofs and gardens of the low-rise suburban housing around them, and enjoy the optimal conditions of sun, space, and greenery sought by that great advocate of taller buildings, Le Corbusier. Indeed, where towers are too closely clustered—as at Canary Wharf for example—they can lose those desirable conditions by creating canyons between them.

The argument against such developments in suburban areas is generally related to the question of whether a tall tower would be out of scale with its surroundings in a low-rise area and detract from them. My own view is that on the contrary, the existing large suburban areas around London can be monotonous precisely because of the absence of contrasts of scale. Taller towers at certain widely-spaced points could provide a much-needed variety of scale and emphasis. There have been many developments where low houses have been combined with towers on the same site. For example, single-story cottages are combined with eleven-story towers on the famous 1950s LCC Roehampton Estate in Wandsworth, and three-story terrace houses are combined with the thirty-one-story Trellick Tower by Ernö Goldfinger which is part of the GLC Cheltenham Estate in North Kensington, both now listed at a high Grade.



Figure 3. Visualization of fourteen-story Glenkerry House rebuilt on the suburban Courtrai Road site, Lewisham.

Going further a-field, the famous Lafayette Park housing development in Detroit by Mies van der Rohe from the 1960s successfully combines two-story row houses with twenty-story residential slab blocks. Even Frank Lloyd Wright with his dispersed Broadacre City model imagined that it would be dotted by residential towers for those not willing or able to participate in his proposed semi-agrarian life-style. The taller blocks do not detract from the lower houses but benefit from being able to look out over their roofs and gardens. Indeed, it might be argued that such low-rise housing with generous gardens will look after the necessary green space at the foot of towers which can, if not adequately maintained, be unsightly or uncared for. The final section to this text illustrates the wider application.

Issues of overlooking and overshadowing are also relevant, but I believe can be managed by the specific choice of site, placement, orientation and landscaping, as in the example described below. Any overlooking would generally be from a considerable distance.

COURTRAI ROAD SITE IN THE LONDON BOROUGH OF LEWISHAM

There is an undeveloped site of under 0.91 ha [2.25 ac.] in the Crofton Park ward lying between Courtrai Road and Eddystone Road, London SE4 and backing onto the London Overground railway line between Honor Oak and Brockley stations, which it appears could be a trial location for

a development of the kind described above, involving no loss of existing housing. Photographs of the site as seen from Courtrai Road looking west, and from the pedestrian bridge over the railway at the head of Eddystone Road looking south, are reproduced:



Figures 4 and 5. Courtrai Road, Lewisham, looking west towards the Scout Hall site. Courtrai Road Scout Hall site and Site of Importance for Nature Conservation (SINC) seen from the railway footbridge to the north.

The site is vacant except for a disused former Scout Hall at the southern Courtrai Road end, and it is included within the Forest Hill-to-New Cross Gate Railway Cutting designated as a Site of Importance for Nature Conservancy (SINC), with a number of trees protected by Tree Preservation Orders – although, unlike the rest of the SINC, the site is not actually within the railway cutting. For these reasons no development has taken place on the site. However, indications following an independent specialist survey in the past are that the local natural assets are few, in part due to the fact that much of the soil on the site is spoil excavated when the cutting alongside was dug (originally for a canal). The value from a nature conservation point of view is primarily that it forms part of a 4 km [13,123 ft. 5 in.] long corridor allowing wildlife to move along it for a considerable distance beyond the site on either side. The site is adjacent to a narrowing of that corridor where the gardens of the houses on the southern side of Courtrai Road run down to the edge of the cutting itself. However, what natural assets there are clearly need to be protected.

The footprint of the Scout Hall is of about 270 m² [2,906 sq. ft.] and together with the hard-standing and paved area around it as shown on the Ordnance Survey map it covers about 850 m² [9,149 sq. ft.]. Its present enclosure within the overall site measures 0.26 ha [0.64 ac.]—a Small Site + 4 %. Purely by way of an example, the drawing 1409-SK2E (Fig. 6), reproduced below, shows an existing 14-storey block—Grade 2-listed Glenkerry House in London E14 designed by Ernő Goldfinger (on which the author of this article was for a time project architect) superimposed with its footprint of 600 m² [6,458 sq. ft.] on the site of the Scout Hall. With hard landscaping around it, and assuming any parking provision to be in Courtrai Road itself, the total hard footprint in the SINC might equal that of the Scout Hall, and so, it would seem, should not have any greater impact on the natural assets of the site than the Scout Hall. It is also worth noting that such a block could be wholly or partly open at ground level, the building supported on stilts or *pilotis* above ground and thus interfering even less with natural life and movement on the ground surface. It could in fact have a smaller footprint than the existing Scout Hall. Glenkerry House provides a total of seventy-eight residential units varying from six-person to two-person.

Running very nearly due north-south, and backing onto a railway line on the other side of which lies Honor Oak Sports Ground and the New Camberwell Cemetery, the shadow cast by a block of this kind would fall on neighboring houses or their gardens for only a very limited part of the day. The scheduled trees on the site which—with the block sited as shown—need not be disturbed, would provide neighboring houses with generous protection from overlooking. A photograph of the block, built 1972–75, is included below as illustration, but a wholly new design reflecting current demand and building practices and regulations would be developed. The main elevation shown is square in proportion, 38 m [124 ft. 8 in.] in height and breadth. The ground rises considerably up Courtrai Road from the



DISPERSED DENSIFICATION - Coutrai Road site, London SE4. Glenkerry House replaces Scout Hall in Site of Importance for Nature Conservation (SINC) - James Dunnett Architects 1409-SK2E
Figure 6. Courtrai Road Scout Hall site in the context of the SINC, the railway and the surrounding housing, with the proposed Glenkerry House superimposed, with shadow cast.



Figure 7. Glenkerry House as existing (Grade 2-listed, by Ernő Goldfinger, 1972).

east and such a block on this site would command wide views especially towards the east but also to the west over the well-landscaped cemetery and Honor Oak Sports Area.

It is worth noting that partial developments in SINC-designated areas are not ruled out, and an application for the Gifford Street Railway Embankment SINC in Islington (P2014/0609/FUL) involving much greater coverage of the ground by buildings than here proposed has been approved after an extended consultation exercise.

LEWISHAM POLICY ON TALL BUILDINGS

The London borough of Lewisham produced in September 2010 a “Draft Tall Buildings Study”—an evidence-based assessment. This identifies six areas within Lewisham where tall buildings might be considered suitable and, in accordance with The London Plan 2009 draft policy 7.7 on tall buildings, they are limited to “sites in the Central Activity Zone, Opportunity Areas, Areas of intensification or Town Centres...,” and they therefore do not include the Courtrai Road site. Tall buildings are identified as those “significantly taller than their neighbors... that have a notable impact on the skyline... that are more than 25 m [82 ft. ¼ in.] high adjacent to River Thames or more than 30 m [98 ft. 5 in.] elsewhere...,” and it is assumed that they would be likely to be clustered with other substantial buildings as part of a major development on the identified sites.

The Lewisham borough’s study is generally therefore devoted to analyzing in greater detail the suitability of the six selected sites for tall buildings and so does not address in detail the criteria that might be applied to tall buildings elsewhere. But it is the contention of this paper that it is in locations elsewhere in the borough that moderately tall or medium-rise residential buildings might have their greatest benefits.

Applying as far as possible the criteria described to the Courtrai Road site, however, it is worth noting that it does not lie under the protected sightlines from strategic points to the Cathedral of St. Paul and the Palace of Westminster identified in the London Plan. It does lie within the local view cones from Blythe Hill Fields and Hilly Fields Park shown in the “Tall Buildings Study,” but at some considerable distance such that little impact on these views would be likely. The fine listed Arts and Crafts Church of St. Hilda in Crofton Park (1907) lies at the eastern, Brockley Road end of Courtrai Road, but there is no reason to think that its setting would be adversely affected by a taller building at the western end. Indeed, it might be enhanced by there being a focal feature at the far end of the straight rising road, as might the local townscape more generally. The site lies just within the area shown in the Lewisham study as being deficient in local and small parks, however it is possible the residents might have access to their own green site of nearly one hectare (nature conservancy permitting),

and otherwise have easy access to the One Tree Hill open space and Honor Oak Sports Ground across the railway in the neighboring borough of Southwark.

The London Plan Policy 4B.9 explains in the Lewisham study that the mayor will promote the development of tall buildings where they will create attractive landmarks that enhance the character of London, which at least implies a measure of acceptance of tall buildings that would not have existed twenty years ago. But the Policy continues to see them in scenic terms rather than as possible contributors to human welfare in providing light and airy accommodation with a wide outlook and pleasant green space at the foot. The Courtrai Road site provides an opportunity for a demonstration project that could be a model for additional housing throughout wide areas of low-density outer London, if local planning policies towards them were reconsidered to allow them.

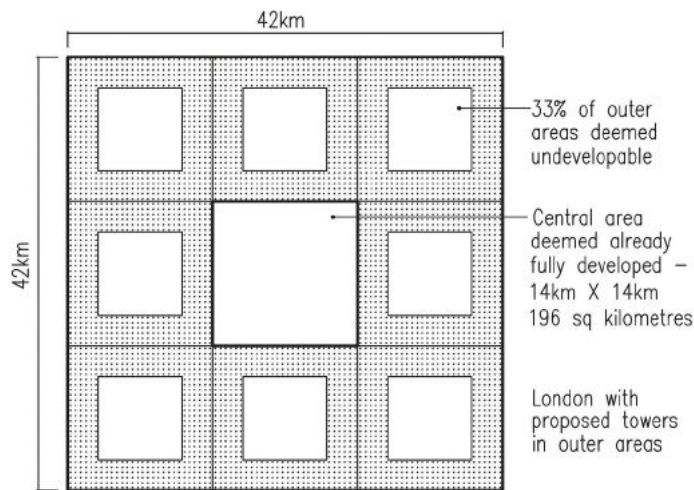
THE POTENTIAL FOR LONDON-WIDE APPLICATION

Figure 8 below is intended to illustrate how in principle a policy of building residential blocks comparable to Glenkerry House at distances of 0.5 km [1,640 ft. 5 in.] from each other throughout outer or suburban London might provide housing for an additional population of 1.4 million within the existing built-up area of London, without building on or beyond the greenbelt.

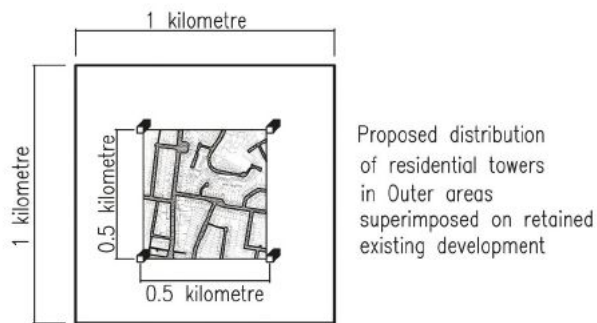
The growth forecast of London up to 2036 was 1.6 million according to the 2014 Report of the Government Inspector into the GLA's proposed Further Alterations to the London Plan. The additional population provided by such blocks within the outer areas would help support social services and especially public transport in areas where their viability can often be marginal. These blocks could also visually enhance the areas concerned, provided they were of adequate architectural quality, by introducing much-needed contrast or variety of scale, as discussed above.

For the purpose of the diagram, I have assumed London to be a square of 42 km [26 mi.] breadth and depth, 1764 km² [681 sq. mi.] in overall area (the actual figure is 1,738 km² [671 sq. mi.]). This area can be divided into nine squares of 196 km² [76 sq. mi.] each. One square represents central London which is excluded from this calculation on the assumption that it is already fully developed and unsuitable for the kind of blocks envisaged. The nine inner London boroughs of Islington, Hackney, Tower Hamlets, Southwark, Lambeth, Kensington and Chelsea, Hammersmith and Fulham, Westminster, and Camden, together with the City of London itself, amount to 184 km² [71 sq. mi.]. One-third of each of the remaining eight outer squares is assumed to be unavailable for the building of such blocks because it is open space, green belt, or in some form of institutional or industrial use. The remaining area amounts to 1035 km² [400 sq. mi.] in total. If the proposed blocks were spaced 0.5 km [1,640 ft. 5 in.] apart, four would be accommodated in each kilometer square, and a total of 4,140

such blocks would be built. Glenkerry House, used here as an example of the kind of block envisaged, provides a total of 340 bed spaces in seventy-eight dwellings on fourteen floors. The 4,140 blocks would therefore provide accommodation for 1,421,200 people—see diagram CC01 in Figure 8 that follows.



Greater London Urban Area = 1738 sq km. Area represented by the diagram above is 1764 sq km, 1045 sq km deemed developable. With 4 residential towers per sq km there would be 4180 towers, each housing 340, like Glenkerry House. Such towers would house 1,421,200 more people within the Greater London Urban Area or 1,247,580 within the GLA area.



'Green Towers' proposal for Outer London housing - James Dunnett RIBA diagram CC01

Figure 8. Dispersed Densification by means of residential Green Towers at approximately 500 m [1,640 ft. 5 in.] centers throughout the outer London Boroughs.

What is needed is a detailed study of a representative area of outer London to establish the number of small sites that might typically be available for such developments, and the visual impact that might result from them. Visually one of the attractions of such developments in a dispersed pattern on small sites would be that the oppressive repetition of towers or blocks on a large estate that characterized many social housing developments of sixty years ago and contributed to their disfavor, would be avoided. A successful result from such a study might win the case for a solution to the housing needs of London by use of small sites, and the encroachment on the green

spaces on existing housing estates, currently widely occurring, might cease. Given the very small land take of each development of this kind, it might even be worth studying the viability of developing small sites of 0.25 ha [0.62 ac.] at intervals on the margins of the extensive open spaces characteristic of many outer boroughs, or even in green belt, because such sites, surrounded by space and greenery, would provide optimal conditions for such towers, affording residents the maximum enjoyment of sun, space, and greenery, reaching towards the conditions of the Green City to which the Modern Movement aspired.⁴

Notes

1. Paul Cheshire and Boyana Buyklieva, "Homes on the Right Tracks," *Centre for Cities* (London, 2019).
2. The statistics are from Wikipedia.
3. Ben Darbyshire and Riette Oosthuizen, "Transforming Suburbia—Supurbia Semi-Permissive," *HTA* (London, 2015).
4. See illustrations 149, 154 and 156 in Le Corbusier, *Précisions sur un état présent de l'architecture et l'urbanisme* (Paris: Georges Crès & Cie, 1930).

Credits

Figures 1, 2, 4-8: drawings, images and photos by © the Author.
Figure 3: visualization by Daphne Kessissoglou. Courtesy of © the Author.

James Dunnett studied architecture at the University of Cambridge under Professor Sir Leslie Martin and sculpture at the University Arts London, Central Saint Martin under Sir Anthony Caro. Subsequently, he worked for the celebrated architect Ernö Goldfinger RA, and for the Department of Architecture of the London borough of Camden at a time when it was producing social housing recognized for its quality around the world. Dunnett established his practice in 1983. He continues to be the principal designer and to be closely involved in every stage of every project. E-mail: info@jamesdunnettarchitects.com