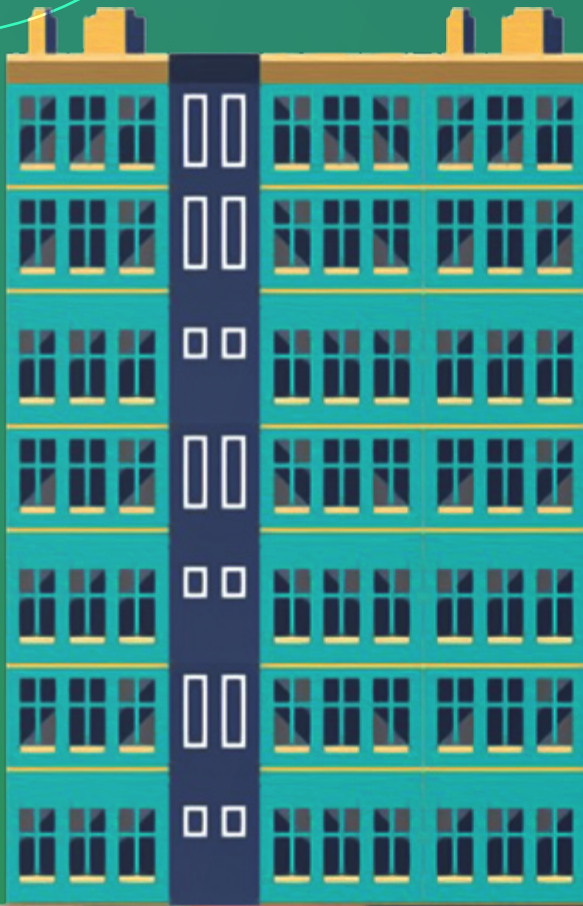


Co-Location in London

Is it still stacking up?



February 2023

Turley



Contents

Acknowledgements

We are Programme Champions of New London Architecture's (NLA) Industrial & Logistics programme and continue to work in partnership with other industry experts to examine the evolution of London's industrial and logistics sector as well as the concept of Co-Location over the coming year. We thank our NLA Industrial & Logistics programme partners Aukett Swanke and Chetwoods as well as BlackRock Real Assets and NEAT Developments for their contribution towards this report and the rights to use their imagery.

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Introduction

One year on from the publication of our first [Co-Location report](#) the question remains as to whether this innovative mixed-use development model actually 'stacks up' when it comes to addressing London's housing and industrial land needs.

In that time, the debate has only grown as to whether Co-Location presents a viable solution to the need to maintain, and where possible intensify, London's existing industrial land while also delivering much-needed housing.

As a reminder: an unprecedented loss of designated industrial land over the last two decades (almost 24% over the last 20 years¹) linked with the undeniably ambitious targets for new (affordable) homes across the capital (exceeding half a million between 2019 and 2029²) resulted in the active promotion of alternative approaches which seek to intensify suitable, yet underutilised industrial sites whilst delivering housing at the same time.

The Mayor's [2021 London Plan](#) (Policy E7) provides a policy framework for developers and decision-makers to integrate industrial, logistics and employment uses with new homes as part of a masterplan-led mixed-use regeneration initiative of designated and non-designated industrial land, whereby the protection of the most important Strategic Industrial Locations remains a priority. The effective use of brownfield land, ideally through an intensification of existing industrial uses, continues to be the starting point to meet our evidenced employment and housing needs.

In our report last year, we concluded that the geographical spread of strategic Co-Location schemes across London undoubtedly has the potential to deliver a significant uplift in employment floorspace whilst providing a similarly substantial contribution to its housing need.

Notes

1 Centre for London (2022)

<https://www.centreforlondon.org/wp-content/uploads/2022/01/CFL-IndustrialLand-v4-1.pdf>

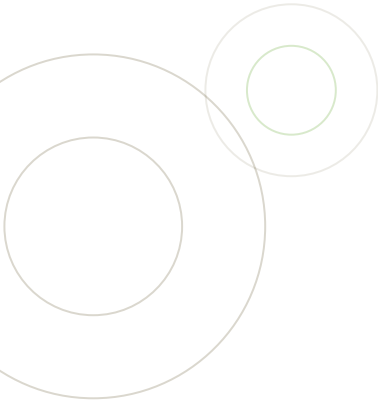
2 London Plan (2021)

https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

Credit © Chetwoods



Morden Wharf is a milestone mixed-use project integrating industrial and logistics with residential, workspaces and retail and community spaces on one of the last strategic sites on the Greenwich Peninsula



Since publishing our [2022 report](#), we registered the opportunities and question marks associated with Co-Location schemes in various discussions with investors, developers, policy-makers, architects, and other built environment experts and professionals including, but not limited to:

- The compatibility and spatial separation between employment and residential uses (both vertically and horizontally);
- Uncertainties in relation to the delivery of these developments, whether potential conflicts can be resolved and if the non-residential units are attractive enough for future occupiers;
- Who are the applicants promoting this concept;
- What are the main design-related challenges and how can the concept develop over time to alleviate 'agent of change' concerns;
- If the schemes successfully combine key design features to ensure the mix of uses is actually a sustainable form of development; or, most importantly
- Whether the 'right' industrial/logistics uses are incorporated into these schemes in the 'right' areas (providing modern occupiers with sufficient flexibility to successfully operate those).

For the second version of our research, we continued to monitor all strategic schemes (referrable to the Mayor of London at planning application stage) over an extended review period to provide the latest oversight of key facts associated with Co-Location schemes addressing key talking points of the industry.

In addition, this version not only wants to identify the contribution that Co-Location schemes make towards the envisaged intensification of industrial uses and housing targets, but also understand whether the difficult socio-economic climate of 2022 has yet had an impact on or led to a slow-down in planning applications or delivery activity. Furthermore, we have sought to identify changes to the level of affordable housing secured in such schemes or if there has been a relative change to employment floorspace and uses, or a scheme's sustainability credentials.

What is Co-Location?

Promoted by the London Plan (2021), "Co-Location" is a relatively new concept, largely unique to London, and refers to the careful knitting together of industrial/logistics and residential uses to form mixed-use developments on designated or non-designated industrial sites with the aim of providing an additional source of housing supply to address the Mayor's significant target whilst intensifying employment floorspace provision at the same time. There are two approaches to Co-Location:

- Vertical, whereby residential uses are stacked on top of industrial/logistics uses; and
- Horizontal, whereby existing industrial uses are intensified on one part of the site so that a portion of the remaining land can be given over to residential development.



Methodology





Is Co-Location
the answer to
our housing and
employment
needs?

Building on the evidence gathered for our previous report, our review has continued to encompass all full, hybrid and outline planning applications for Co-Location schemes referable to the Mayor (i.e. the Greater London Authority, GLA) for Stage 1 and Stage 2 sign-off within a 48-month period covering 1 January 2019 - 31 December 2022.

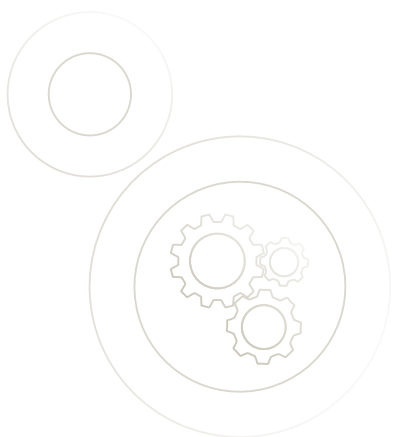
Data was collected in relation to the following key indicators:

- Scheme name and address
- Description of development
- LPA
- LPA planning reference
- GLA planning reference
- Project Stage (i.e. GLA Stage 1/Stage 2, Determined)
- Industrial/employment land designation
- Existing employment use(s)
- Existing employment floorspace
- Proposed employment use(s)
- Proposed employment floorspace
- Overall uplift/reduction in employment floorspace
- Affordable workspace provision
- Affordable workspace discount
- Vertical stacking of employment uses
- Vertical stacking of employment and residential uses (i.e. residential above employment)
- Car parking proposed (employment)
- Car parking proposed (residential)
- Number of residential units proposed
- Residential density
- Residential mix
- Affordable housing provision (in terms of percentage of habitable rooms)
- Affordable housing tenure mix
- Maximum building height (in storeys)
- GLA Fast-Track Route compliance (in line with Policy H5 of the London Plan)
- Urban Greening Factor score
- Environmental Impact Assessment required/ submitted
- Lead architect
- Applicant / Developer Type
- Post-consent status (built out, under construction, conditions discharged, no activity)
- PTAL Score
- Average on-site non-domestic CO₂ emissions reduction
- Average on-site residential CO₂ emissions reduction

For the avoidance of doubt, non-referable developments are generally not reflected in this report.

For the purposes of the research, Co-Location schemes were defined as those incorporating B1c (now Class E(g)(iii)), B2, B8 and/or related sui generis industrial uses, as well as new homes falling within Use Class C3 and forming part of the same overall development. In terms of its spatial and administrative boundaries, the research covered London's 33 Local Planning Authorities (LPAs) and the two Mayoral Development Corporations – namely, the Old Oak and Park Royal Development Corporation (OPDC) and the London Legacy Development Corporation (LLDC). All analysed data has been retrieved from the public domain and included the GLA's Stage 1 and Stage 2 Reports, Decision Notices, Committee/Officer Reports, Section 106 Agreements and other planning application documentation available online.

Note: referable developments that had reached GLA Stage 1/2 at the time that the previous research was conducted, but that have since been refused, have been removed from and do not inform the latest research.





Research & findings

Section 1: Location and policy designation



Distribution of Co-Location schemes across London

- GLA Stage 1
- GLA Stage 2
- Approved

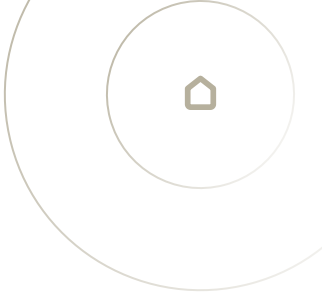


Co-Location schemes by London borough/development corporation

While Co-Location is an emerging concept for some parts of the capital, the latest survey results indicate clear growth across the capital (with ten newly registered schemes over the past 12 months). Boroughs identified such as Ealing, Brent and Southwark continue to be ahead of the curve with a high proportion of Co-Location schemes (i.e. as part of the Old Kent Road Masterplan and Old Oak Common Masterplans). However, several Boroughs towards the east of capital have made steady gains, reflective of emerging strategic policies and associated Masterplans (e.g. Waltham Forest, Newham, Barking and Dagenham, Greenwich and Tower Hamlets).

Although some LPAs are yet to accommodate strategic Co-Location Schemes, we are aware that several projects are in the early stages of the planning process (i.e. at pre-application or submission stage) and will be included in future iterations of this report. Schemes continue to be primarily coming forward in the central and inner London Boroughs (broadly Zones 1-4).

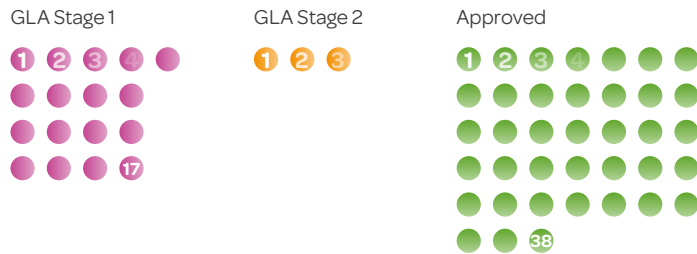
In addition, various LPAs are dealing with or have determined smaller, non-referable mixed-use employment and residential schemes. It is fair to conclude that the concept is getting significant traction across the capital with various Co-Location schemes now in the development pipeline.



Planning status of all assessed Co-Location schemes in the planning process

As set out in the Methodology, the research undertaken to inform this report focused on schemes which have reached at least GLA Stage 1. We can see that Co-Location schemes are continuing to come forward across various parts of London and critically gain approval. As with last year’s results there continues to be a large number of schemes currently at Stage 1, as well as our understanding of schemes at the pre-application/ application stage. The findings therefore continue to demonstrate that the concept of Co-Location is being actively promoted by developers and supported by Boroughs and the Mayor (via scheme approvals).

Status of Co-Location schemes in the development pipeline



Are Co-Location schemes being delivered in practice?

Adding to our research from last year, we undertook a high-level review of the approved schemes to assess whether these are now moving towards the delivery. Our research indicates that c.33% of approved schemes were under-construction (inc. demolition) (based on a desktop review using Google Streetview) whilst c.57% of approved schemes were moving towards the delivery phase by planning conditions and/or starting construction/demolition activities on site.

Given the infancy of the concept and often large scale of proposed development it is positive to see nearly two thirds of approved schemes heading towards delivery. Whilst clearly at the early stages, these findings demonstrate the policy aspirations of the Mayor (and Boroughs) has the potential to be delivered in practice i.e. increasing the supply of new homes and delivering high quality modern industrial floorspace.

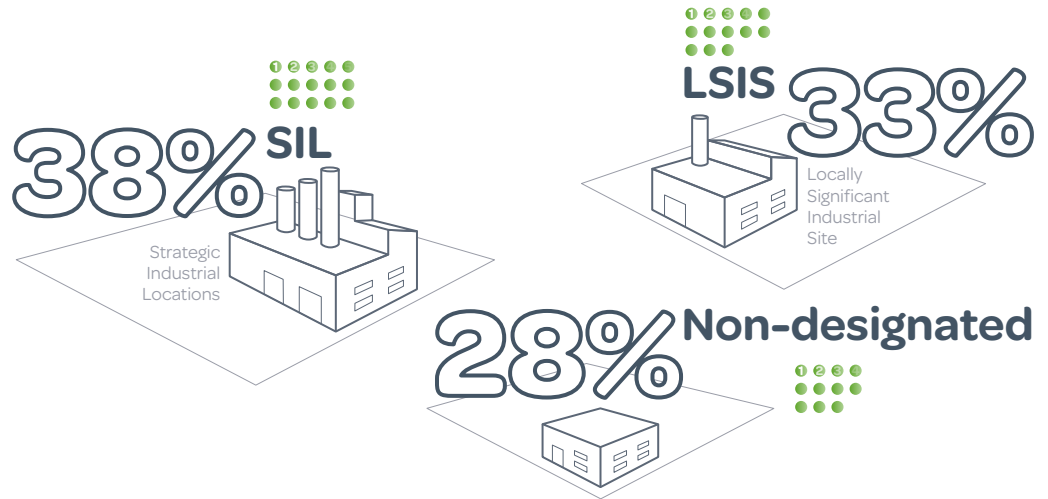




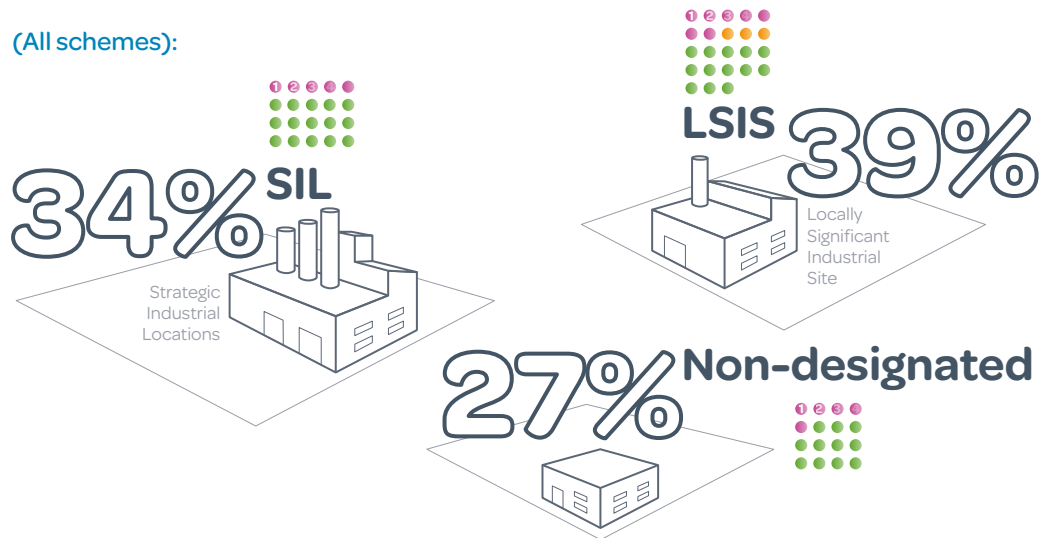
Designation of sites accommodating Co-Location schemes

(Approved schemes only):

- Stage 1
- Stage 2
- Approved



(All schemes):

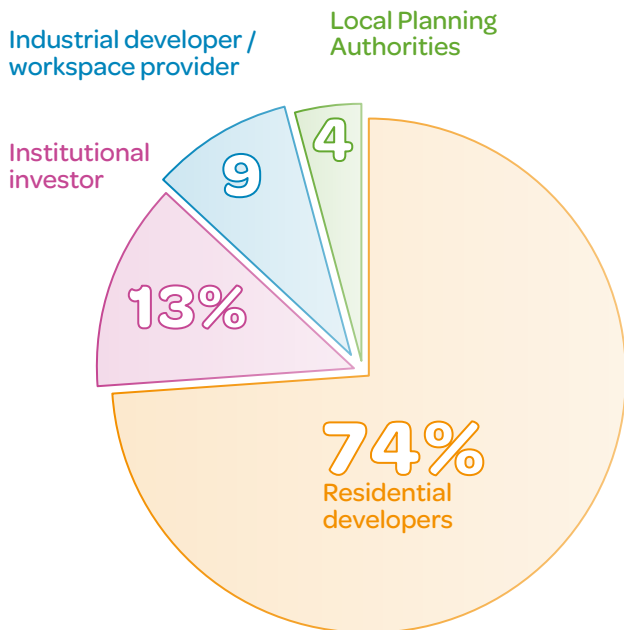


The above shows a summary of the type of land use designations which Co-Location schemes are subject to. We have found that over 70% of approved schemes have been located within designated employment land (SIL or LSIS), 38% of which are located within areas of strategically important industrial land (SIL) a slight reduction (c. 7%) from last year's survey.

When we consider the broader pipeline of all live applications and approvals (GLA Stage 1 and 2) the proportion of schemes located within designated employment land remains at c.70%. However, we note that the split between SIL and LSIS designated sites is continuing to shift, with a greater proportion of Co-Location schemes coming forward within LSIS (up 4% from last year). This increased emphasis on delivering Co-Location schemes within LSIS continues to evidence that the key policies within the London Plan, namely Policy E7 (and indeed locally led-masterplans), are biting in practice by focusing this new mix of uses and approach to development.



Type of applicant



So who are submitting and promoting Co-Location schemes?

This year we have undertaken additional research on the types of developer submitting planning applications including Co-Location schemes within their development proposals. The infographic on the left summarises the current position and broadly splits all Co-Location schemes between those identified as main applicant/ key promoter including (primarily) residential developers/ housebuilders; institutional investors; (primarily) industrial developer/ workspace provider; and schemes that are public sector-led (i.e. by Local Authorities).

Perhaps unsurprisingly, nearly three quarters of Co-Location schemes surveyed are being led by residential developers. Only a small proportion (9%) are led by industrial-focused developers who deal with the provision of (speculative) industrial/logistics floorspace as their bread-and-butter business model. Interestingly, we found no clear evidence of any obvious joint ventures between developers from either sector.

Turley Viewpoint

It is positive to see the figures - over two thirds of Co-Location schemes deliver an uplift in industrial floorspace, and on average this is a 40% increase on the sites' current employment floorspace (Chapter 2). The industry is evidently responding to the gauntlet laid down in the London Plan.

To be truly successful both in the eyes of the GLA and in the eyes of the industrial sector (namely occupiers) the industrial space re-provided and enhanced needs to be fit for purpose.

The significant proportion (74%) of schemes which are residential developer-led is interesting. There is a notable absence of cross-industry JVs between residential and industrial developers and the increase in proposed vertical stacking (Chapter 4).

Despite the 'two halves' of the product it appears that Co-Location is not resulting in greater relationships between the two development sectors. It is a difficult nut to crack, with the two significant markets not historically having to work together, and having notable differences in how they approach development.

We are aware of several of the major housebuilders and industrial developers being keen to forge relationships and JVs as they navigate their way through the policy requirements. So perhaps next years iteration of the report will evidence an increase in cross-industry arrangements.

There will be obstacles to be overcome but the overall outcome is likely to be an improved product for both residents and businesses.

Section 2: Employment

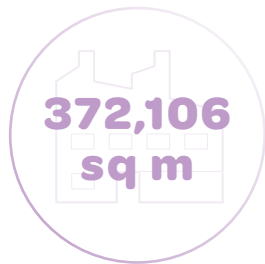


Bugsby's Way is a development of a multi-level industrial/logistics scheme with a wide range of unit sizes/types, including SME space on a 3.38 acre industrial site on the Greenwich Peninsula. Chetwoods developed the initial concept design with the GLA.

© Chetwoods



Total proposed industrial floorspace in approved and submitted Co-Location schemes



Industrial and employment

Does Co-Location still result in an uplift in industrial floorspace?

Whilst the delivery of new industrial schemes which truly meet the needs of modern occupiers is often more than a 'numbers game', it is important to remind ourselves that the intention of the London Plan is to promote the intensification of industrial land, both in employment-led and mixed-use developments is clear. The aim of our research therefore was to assess whether Co-Location schemes meet this key policy aspiration (no-net-loss) and provide an uplift in industrial, logistics and employment floorspace to meet identified needs.

Like last year, our research shows that Co-Location schemes have the potential to deliver a vast amount of new, modern employment-generating floorspace. The schemes reviewed result in approximately 372,106 sq m of employment floorspace (a net additional 47,106 sq m proposed in the last year), of which approximately 192,000 sq m has already been approved (an uplift of 16% on last year). Compared to the existing provision on those sites, this is an uplift of c.100,000 sq m.

Notably, more than two-thirds (c.71%) of all Co-Location schemes deliver an uplift in industrial floorspace – a slight increase on the 68% recorded in last year's report. We also see that, on average, Co-Location schemes achieve a net increase of employment-generating floorspace of approximately 40.5% compared to the existing provision on their respective industrial sites.

Architect Viewpoint

We have been exploring Co-Location for a number of years now - covering over 50 sites in London and many others around the UK and internationally. The mix of uses has changed from a focused residential addition to an industrial site that also retains its original B8, B2 or E Class employment function, to a range of uses such as life sciences, education, recreational, ecosystem landscape and ultimately more industrial levels. It is no longer a binary exploration in terms of use or whether the additional use on the industrial site should be above or alongside. Industrial and logistics operations are fascinating and enticing if viewed through controlled windows and neighbours are shielded from any yard and internal activity impacts.

The industrial environment must not be compromised, but neither must the additional use. That's the objective, then you can work through the potential uses and their integration options to decide the optimum composition, whether vertically or horizontally arranged, all blended together by creating a fresh, vibrant, multi-level and

biodiverse public realm. Phasing, ownership partnerships, independent management and future changes lean towards schemes with vertical party walls, but on smaller sites, a horizontal separation can be arranged with care and through legal agreements.

Our approach has become ever more sophisticated but in many ways, this is actually more simple. The opportunities are still opening up and the level of innovation is becoming more understood for both the sustainable intensification benefits and values this can bring with much needed dual uses to parts of a city. Living, working, playing or crafting in a neighbourly proximity to industrial and logistics activities is not new, but balancing the elements skilfully for mutual benefits requires a sensible yet innovative approach to create these exciting urban communities.

Tom Alexander

Director Aukett Swanke

Chair NLA Industrial, Logistics + CoLocation Expert Panel



As per our research last year, it is worth noting that a number of developments include a component of office/workspace falling within former Use Class B1a, now Class E(g)(i), which is similarly classed as employment floorspace. However, this has been discounted for the purposes of this report given that it is not a typical industrial use or deemed acceptable (in principle) in designated/non-designated industrial sites.

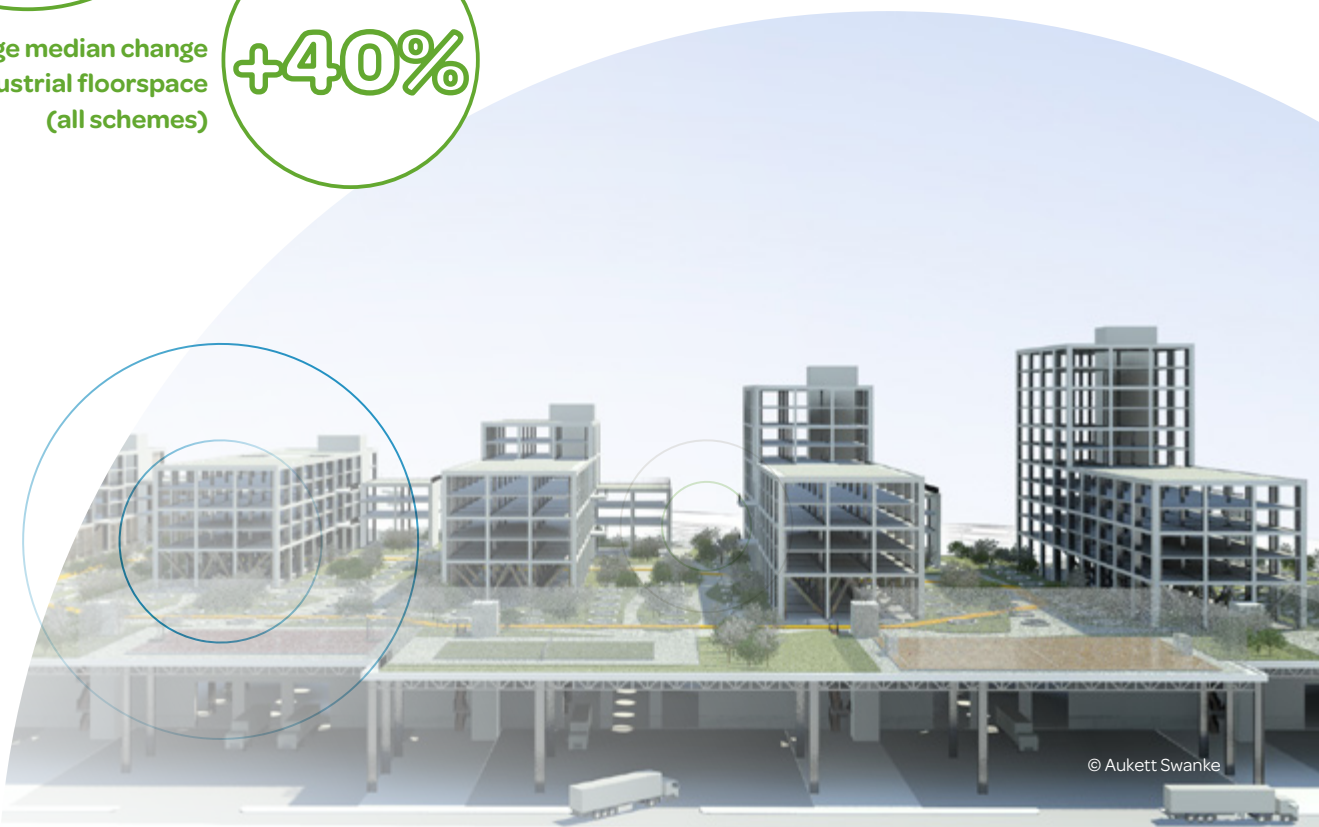
Our research also shows that the proportion of schemes resulting in an uplift in industrial floorspace currently at GLA Stage 1/Stage 2 is significantly higher to those already approved, a trend which likely reflects the impact of the London Plan - adopted in early 2021 - and its ambitious policies concerning industrial intensification.

Proportion of Co-Location schemes providing a net uplift in industrial floorspace compared to the existing on-site provision:



Average uplift in industrial floorspace of Co-Location schemes compared to existing on-site provision

Average median change in industrial floorspace (all schemes)





Employment land uses in Co-Location schemes

As per the trend identified in our report last year, the research on existing and proposed employment floorspace continues to show a reduction (or loss) of traditional industrial (Use Class B2), logistics (Use Class B8) and sui generis (industrial) uses, and their replacement through largely light industrial/workspace uses falling within former Use Class B1c, now Class E(g)(iii).

However, interestingly the gap is slowly closing in regards to the loss of B2 uses – last year’s data showed a loss of 8% of this type of use with this year’s average coming in at about a 5% loss.

Existing industrial / employment uses

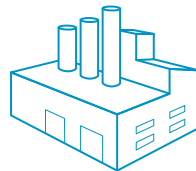
E (g)(iii)

24%



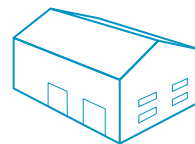
B2

20%



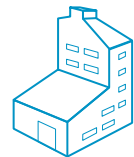
B8

37%



Sui Generis

19%



Proposed industrial / employment uses

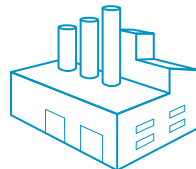
E (g)(iii)

54%



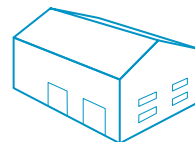
B2

15%



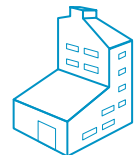
B8

30%



Sui Generis

1%



Turley Viewpoint

It is reasonable to conclude the perceived conflict between residential amenity and operational requirements of (24/7) industrial and logistics occupiers, mixed with the challenging deliverability and buildability of stacked uses, are the main reasons for the replacement of B2/B8 floorspace with the lighter industrial operations found under Use Class E(g)(iii). However, should we just accept this as the way it is?

As we can see from the research, schemes are being proposed both vertically and horizontally, with B2/B8 floorspace in some cases the predominant floorspace or, more frequently, provided as flexible components.

There is of course a challenge to ensuring this works, and the proof will be in the pudding once these schemes come out of the ground. However, there is arguably a call to make to finding innovative design-led solutions, ideally brought forward in partnership between residential- and industrial- focussed developers, based on a strong understanding of commercial occupier and market requirements to enable the successful integration of B2/B8 uses in these Co-Located schemes - not a lot to ask?!

If well planned, this will lead to an exciting new mix of places, spaces and communities whilst providing an uplift in much needed traditional industrial stock and new homes.



41%

of schemes
provide affordable
workspace

Affordable workspace

The provision of affordable workspace continues to be a policy priority in many (central and outer) London boroughs to ensure local businesses or start-ups are not forced to move elsewhere due to rising land and rental values. Our research shows that **41%** of all approved Co-Location schemes are already incorporating an element of affordable workspace secured via Section 106 Agreements.

Of the Co-Location schemes that provide affordable workspace, the average provision against the total employment floorspace is **16.2%** (a 2.5% reduction from last years data, but nevertheless a still substantial component of the employment offer).

Of the Co-Location
schemes that
provide affordable
workspace, the
average provision is:

16.2%

The City of London Corporation plans to co-locate London's historic wholesale markets – Billingsgate, New Spitalfields and Smithfield – in purpose-built facilities at Dagenham Dock to secure their long-term future. The scheme has been designed by Chetwoods.





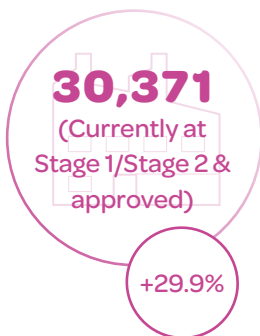
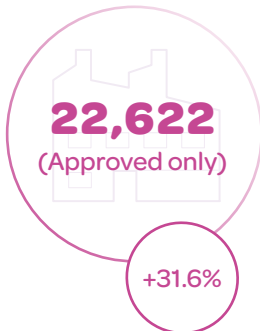
Section 3: Housing

Leaside Lock, Bromley-by-Bow, is a residential-led mixed-use development across three phases delivering 965 new homes and c.4,000 sq m of non-residential floorspace.

Credit © PRP Architects;
Guinness Developments Limited



Total number of new homes coming forward across all Co-Location Schemes:



New homes

Brownfield industrial land is often seen as less constrained in environmental (for instance, in terms of impacts on surrounding sensitive uses), townscape and heritage terms than other available development sites (such as town centre locations) which suits the London Plan's Co-Location concept of consolidation and intensification in order to be regarded as important contributor to its annual housing target of 52,287 new homes.

Our latest research shows that maximising the development potential of designated and non-designated industrial land through Co-Location continues to play an important role in delivering new homes for Londoners and boosting its overall supply, particularly in the boroughs with a high density of strategic Co-Location schemes. For instance, Co-Location schemes in the development pipeline have the potential to contribute to over 16% of LB Southwark's ten-year housing target of 23,550 new homes, as set out in the London Plan.

In total, we have seen an uplift of **31.6%** over the last year resulting in a total of 22,622 new homes in Co-Location schemes approved by Local Authorities, in consultation with the Mayor, over the past four years. A figure which is set to increase to 30,371 new homes (+29.9% over the last 12 months) when taking live applications into account.

Despite the current socio-economic climate, we have not noticed a slowdown in new homes being promoted based on strategic applications submitted over the past year in terms of absolute numbers which continues to highlight that a significant number of Londoners may soon live in Co-Location schemes. This underlines the important role Co-Location continues to play in contributing towards the Mayor's housing targets alongside the delivery of modern, fit for purpose industrial floorspace. Given that the economic uncertainties may only affect new schemes coming forward in 2023, we will watch this space closely.

Whilst the average number of new homes in Co-Location schemes slightly reduced to 514 over the last year, this is still a substantial amount of housing coming forward on individual sites showing the strategic importance of this development approach. Nevertheless, and more important than ever, our research confirms that a significant number of new homes are required on average in order to deliver a viable form of development.

The re-development of Uplands Business Park seeks to co-locate flexible, stacked industrial floorspace alongside residential and community uses, creating a new, vibrant and sustainable 15-minute neighbourhood beside the Walthamstow Wetlands.

514

Average number of homes delivered in Co-Location schemes





38.5%



Significant reduction in average affordable housing provision over the last 12 months from 40.9% (2019-2021) to: 33.4%

Affordable housing

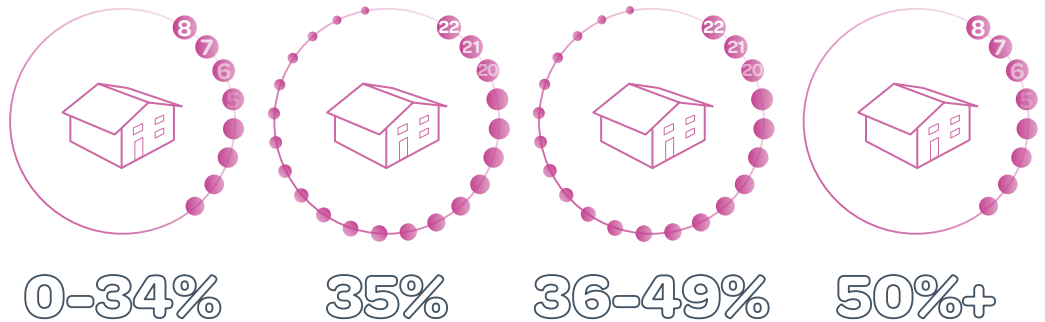
Average affordable housing provision in Co-Location schemes

Affordable housing is at the forefront of the Mayor’s agenda with the London Plan setting the threshold on gross residential developments at a minimum 35% or 50% on industrial land (where a Co-Location scheme would result in a net loss of industrial capacity).

Our research shows that whilst Co-Location schemes – on average – continue to exceed the Mayor’s minimum threshold by delivering more than 38.5% of all residential units in an affordable tenure (including social/ affordable rented or a qualifying intermediate product) which is a net reduction of c.2.4% over the past 12 months – and not insignificant when seen in absolute terms (i.e. it represents a difference of 728 new homes when using 2022 as a benchmark).

Reflective of a more challenging economic climate for developers fuelled by labour shortages, increased build costs and rising interest rates, Co-Location schemes averaged a provision of 33.4% affordable housing in 2022 (compared to 40.9% over the three previous years).

Affordable housing provision per Co-Location scheme





Section 4: Height, layout and parking

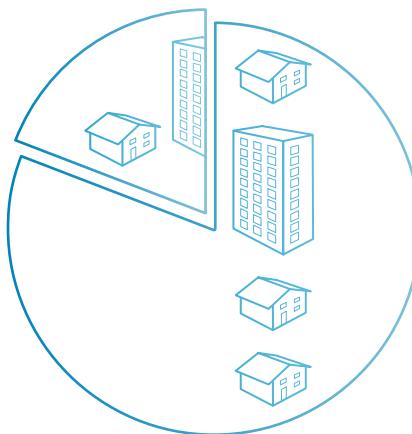




Vertical or horizontal Co-Location

Proportion of schemes coming forward as vertically stacked or horizontal Co-Location (approved and submitted):

19%
Horizontal
Co-Location



81%
Vertically
stacked
Co-Location

Is Co-Location stacking up? The answer – in a very literal sense – is yes: over 80% of the Co-Location schemes that have come forward so far have followed a vertically-stacked approach, seeking to locate residential uses above industrial and employment uses.

Turley Viewpoint

The dominance of vertical Co-Location likely reflects the continuing resilience of industrial land values in the capital, as well as the resulting need for schemes to make the best use of scarce space if they are to be viable.

It is notable, however, that a small – albeit growing – minority of schemes adopt a purely horizontal approach to Co-Location. That fewer than 20% of schemes rely entirely on horizontal separation at the moment may reflect the fact that this approach is best suited to the largest sites where, for example, one end can be reserved for residential and community uses; the centre designated as a ‘transitional’ Co-Location zone comprising a mixture of residential, community and lighter industrial uses; and the opposite end used to house intensified, multi-storey industrial spaces.

The growth in the proportion of horizontal Co-Location schemes coming forward is interesting, and the approach presents many place-making opportunities. It is possible, however, that the growing number of these schemes speaks to the difficulty of successfully integrating industrial and residential uses vertically – and the continuing scepticism from some industrial and residential developers concerning the typology.



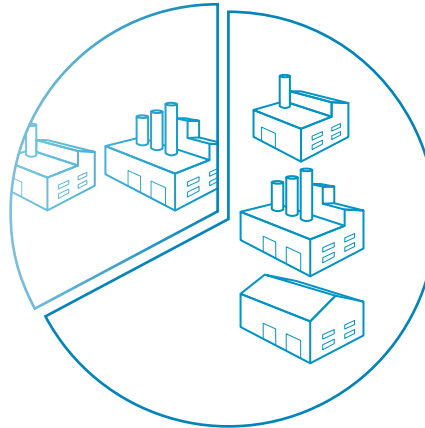


Co-Location schemes featuring stacked employment uses

33%

Horizontal

Single-storey employment uses next to each other



67%

Vertically stacked

Two or more storeys of employment

In total, just over two-thirds (67%) of all Co-Location schemes coming forward feature vertically-stacked employment floorspace. Lower levels of intensification on industrial sites have traditionally been achieved through the incorporation of mezzanines; however, as our results suggest, the emerging multi-storey, 'stacked industrial' typology is increasingly common. This looks to overturn a long-held belief regarding industrial uses – that they necessarily require their own spaces at or close to ground level for delivery and servicing – by providing industrial and employment floorspace at the first-floor level and beyond.

While ground- and first-floor provision remains the most common arrangement for vertically-stacked employment uses, there are a growing number of more ambitious schemes where, for example, three, four or even five floors of industrial floorspace might be arranged around a shared goods lift and service yard. Although it is challenging to get right – in both structural and, relatedly, viability terms – this approach can be highly effective in maximising site efficiency and achieving the ambitious plot ratios required by the London Plan.

Credit © BlackRock/NEAT Developments and Allies and Morrison

Goldsmith Street, Uplands Business Park



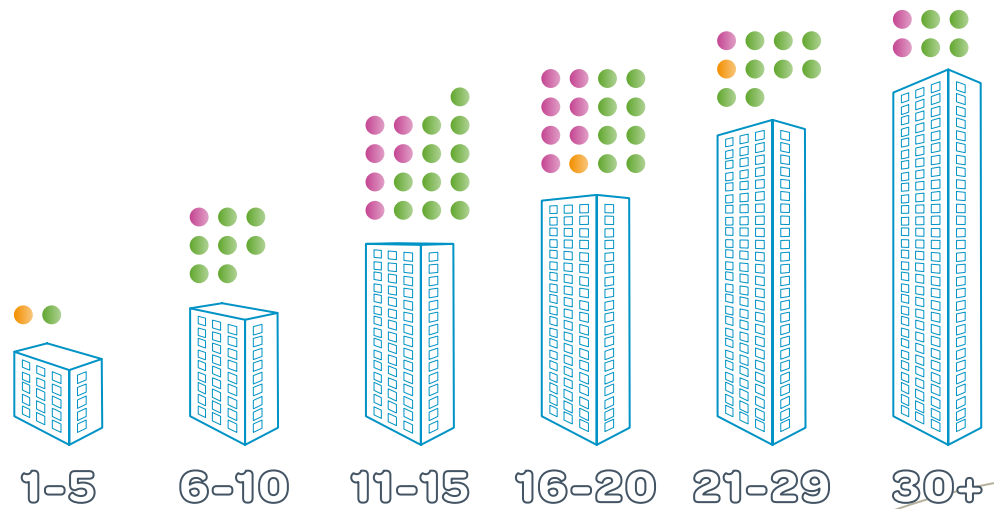


Maximum building heights

Maximum building heights across all Co-Location schemes

The fact that many Co-Location schemes are located in wider Growth or Masterplan Areas - or on sites which may be less constrained in heritage or environmental terms - is visible in the range of mid- and high-rise buildings that are coming forward. Indeed, the majority of schemes comprise ten or more storeys (and a substantial minority of schemes comprise 20+ storeys).

- Stage 1
- Stage 2
- Approved



Overall, the picture is broadly unchanged from the results recorded over the previous three-year period: the majority of schemes continue to fall within the 11-15 and 16-20 storey ranges. It remains to be seen, however, whether the proposed changes to the fire regulations will prompt a reduction in the height of the average Co-Location scheme – and crucially, if so, whether this will impact the number of Co-Location schemes coming forward in the future, given that they are often more reliant on height for their viability than the average residential scheme.

West End Gate is a multi-phased residential development delivering 825 new homes across seven buildings of up to 30 storeys in height.



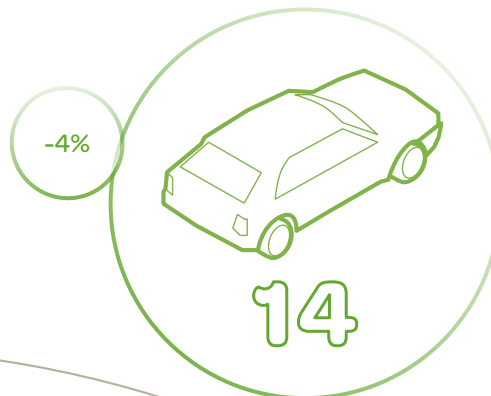


Car parking (employment only)

Average car parking provision (for employment uses) in Co-Location schemes

Operational car parking is a key consideration for industrial developers and occupiers. This is especially the case where sites are less connected to the public transport network, or where occupiers' shift patterns require employees to travel at night or during off-peak hours.

While the London Plan does not include maximum parking standards for B2 and B8 uses – these are instead subject to site-specific considerations, using office parking requirements as a starting point – the employment elements of Co-Location schemes are notably 'car-light', providing between 10 (approved planning applications only) and 14 (all applications) car parking spaces on average (excluding any disabled or residential parking). This is a slight reduction compared to the equivalent figures (11 and 18 car parking spaces, respectively) recorded for the previous three-year period.



Co-Location schemes are car-light, providing on average just 18 parking spaces





Section 5: Sustainability

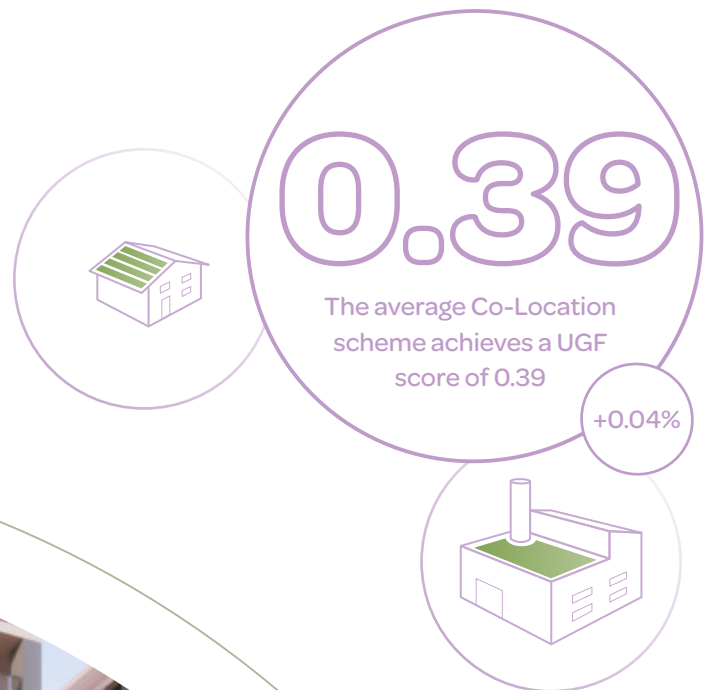


Urban greening

Urban Greening Factor in Co-Location schemes

In recent years, Co-Location schemes – like all major developments – have been under ever-greater pressure to maximise the quantity and quality of urban greening that they provide. To help meet its target of more than 50% of the city being green by 2050, Policy G5 of the London Plan introduced the Urban Greening Factor (UGF): a planning policy tool designed to provide a simple way for LPAs to assess green infrastructure interventions. The UGF sets a target score of 0.3 for predominantly commercial schemes, and a higher target score of 0.4 for predominantly residential or mixed-use schemes.

Co-Location schemes continue to perform well against the target scores referred to above. The average Co-Location scheme now achieves a UGF score 0.39 – an increase upon the 0.35 average recorded over the previous three-year period. This suggests that UGF continues to be a key consideration for all new schemes entering the pre-application process – and that Co-Location schemes, in addition to delivering new homes and employment floorspace, also promise to hasten the greening of London through well-planned and high-quality green infrastructure interventions.





Accessibility

One potential issue with Co-Location is that residential development occurs in locations with poorer public transport provision and cycle / walking routes, increasing congestion through the use of private cars.

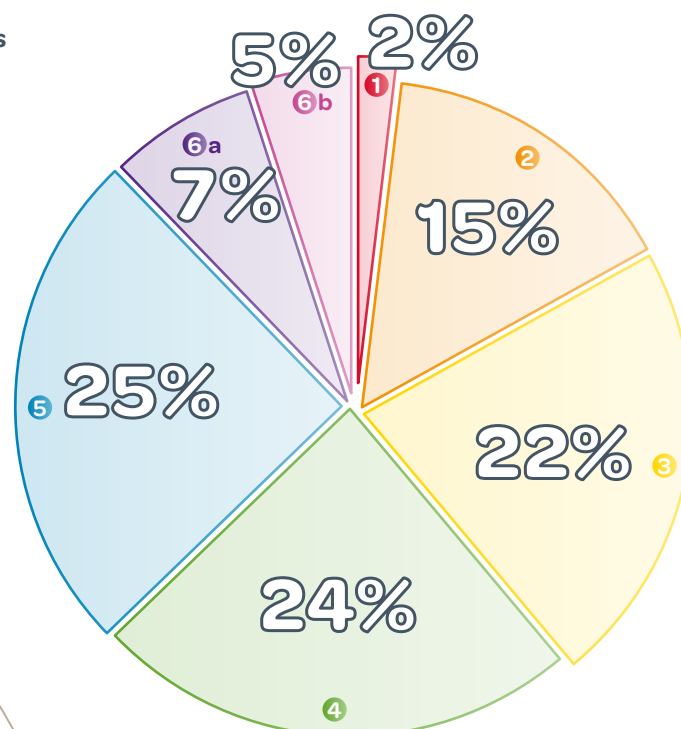
To consider this, we looked at the Public Transport Accessibility Level (PTAL) rating of each of the developments. Sites with a score of 4 or more are considered to have a high accessibility. Looking at the data for the Co-Location sites, over 50% had a PTAL rating of 3 or lower. This does suggest that Co-Location is occurring in sites of poor public transport provision, potentially necessitating investment into the provision of improved accessibility both at a local and strategic level.

As well as the higher car parking provision this is likely to require, there is the issue that industrial sites may discourage walking and cycling, due to the number of traffic movements and needs for roads and turning circles.

It is not all a challenge; Co-Location lends itself naturally to delivery consolidation centres, and the fact that sites are likely to have a lot of people at home or working most of the time means that there is a good opportunity to also provide retail and social spaces on-site or nearby, reducing the need to travel (which is not accounted for in the PTAL).

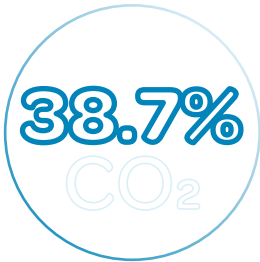
This initial review suggests that it would be beneficial to develop bespoke thinking on mobility. Industrial sites can't be moved and many of them will be in sites with lower public transport access. Examples of opportunities may include taking advantage of the likely large presence of people working or at home to provide sufficient retail and leisure space, as well as delivery consolidation centres to minimise the need for travel. Another opportunity, would be to use the high-quality road access to the site to provide a high level of shared mobility; car clubs, e-scooters and bikes.

PTAL Ratings

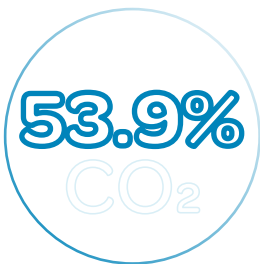




Average on-site non-domestic CO₂ emissions reduction:



Average on-site residential CO₂ emissions reduction:



CO₂ Emissions

Because we have little experience of the blending of industrial and residential within one building, there is the risk that the energy efficiency and low carbon performance will be compromised.

To consider this, we looked at the on-site CO₂ emissions from the Co-Location developments, compared to the GLA target of a 35% reduction against the standard Building Regulations development. The results are positive with both the residential and non-residential site exceeding the GLA requirements, on average.

- Average on-site non-domestic CO₂ emissions reduction = **38.7%**
- Average on-site residential CO₂ emissions reduction = **53.9%**

This suggests that the sites are not being hampered by the dual-aspect nature of their construction. It will be interesting to see if that changes now that new building regulations in this area have taken effect, and are due to be tightened again in 2025. The issue of overheating is now also regulatory and is a challenge for noisy sites where homes can't use openable windows to stay cool. These are certainly issues that will need detailed consideration for the next generation of Co-Location.

We didn't measure embodied carbon in the analysis, but the nature of Co-Location sites means their construction is normally lower carbon than standard residential development. Correspondingly, there is a concern as to how these developments perform over time in locations with a large number of vehicle movements and, perhaps, a more transient population.

Although, we didn't look into the issue of air pollution, it was positive that all of the developments that had stand-alone energy systems were all-electric, therefore emitting no air pollution. It was only where developments were connected to heat networks that combustion and air pollution would be increased.

Turley Viewpoint

Social sustainability, or social value, is a growing area of interest in how we live our lives and deliver developments to support the creation of places which bring benefit to the people that use them and in neighbouring areas. Quality of life is a priority.

While the subject of social value is not new, there is a growing awareness both within the development industry and a greater expectation across society. For example, the Covid pandemic has raised health and wellbeing, as well as appropriate living spaces and outdoor areas, as an every day priority.

The London Sustainable Development Commission is looking at how social value can be delivered as part of London's regeneration and development. As well as being 'the right thing to do' on the part of the industry, with many major developers and funds already advocating this as front and central to both investment decisions and approach to individual schemes, it is likely that there will be a greater policy stipulation on delivering and evidencing social value in the next London Plan.

Those schemes which place social value – environmental, social and economic – at their heart will be rewarded by greater support from decision makers. It will be interesting to monitor the growth of such aspects in future iterations of this research.



Conclusion

An urban co-location project currently being designed by Chetwoods. The scheme features residential uses alongside light industrial and logistics.

© Chetwoods





Conclusion

One year on from the publication of our last report – and despite the scepticism of many in the development industry – it is clear that Co-Location is here to stay, with new schemes continuing to come forward across the capital in spite of the more challenging economic climate.

Crucially, the research shows that the assessed Co-Location schemes – were they all to be granted planning permission – have the potential to deliver approximately 372,000 sq m of employment floorspace – an overall uplift of approximately 100,000 sq m compared to the existing provision on those sites. Notably, more than two-thirds (c.71%) of all Co-Location schemes deliver an uplift in industrial floorspace – a slight increase on the 68% recorded in last year's report. This is evidence that the London Plan's industrial policies – with their tough stance towards the re-provision of existing floorspace – are having the desired effect (although most importantly sites need to work for future occupiers and their requirements).

If there was ever any doubt, this year's research also demonstrates conclusively that Co-Location schemes are now a significant contributor to London's housing supply pipeline. Taking live applications into account, Co-Location schemes have the potential to provide over 30,000 new homes across the capital – a near-30% uplift compared to the equivalent figure (c.23,000 homes) recorded in last year's report.

Developer Viewpoint

Vertically integrating new industrial units ('stacked industrial') is essential as it allows us to maximise use of limited land to unlock the potential for Co-Location.

As a developer, we need to be able to sell both the new industrial space and the new co-located homes, so there are three simple tests for us. Firstly, are the proposed industrial uses compatible with residential use? I.e: creatives, makers, maybe trade counters, but not the dirty, smelly and noisy uses for which SIL designation was rightly intended for.

At Uplands for example, BlackRock had already curated a strong F&B offering from coffee roasters to craft brewers and vegan food producers, allied with makers such as a niche furniture marque, the largest UK jean manufacturer and a children's book illustrator all combined to create a vibrant habitat of creatives.

Secondly, can the Co-Location be done safely with the employment uses? Agent of Change issues need to be carefully thought through.

Thirdly, any project has to be financially viable. Whilst lifts & ramps, load bearing construction, and generous yard spaces all come at a premium, much of the existing tin shed stock will never meet the EPC standard.

So, with industrial land values having risen by 150% in the last 5 years, industrial rents set to rise by over a third in the next 5 years, and vacancy rates at a historic low, it is no surprise that SEGRO, British Land and other industrial providers are developing stacked units. Ultimately if we all agree we will be in a higher interest rate environment then really it's the rental growth story one has to buy into and all indicators in London is that this is a particularly strong story.

Youssef Kadiri, Managing Director, NEAT Developments



Encouragingly, we have seen a trend towards the adoption of more – and clearer – guidance by LPAs, with an increasing number having adopted (or intending to adopt) dedicated Co-Location policies or more detailed, up-to-date policy guidance concerning the release and intensification of industrial land. However, the continued success of Co-Location as a concept perhaps most clearly reflects the hard work of architects and developers, and their efforts to produce new and innovative design solutions to ensure that these two seemingly-incompatible uses can co-exist in harmony.

Yet while many in the sector are more confident than ever that residential and industrial uses can be integrated successfully – and even sit happily alongside other, more community-oriented or town centre-type uses – the year ahead could still prove to be a testing one for Co-Location as a concept. The proposed changes to the fire regulations, for instance, are likely to have significant implications for building heights and layouts, with resulting uncertainty for scheme viability. At the same time, recent hikes in interest rates – and a more turbulent macro-economic environment in general – may leave some funders reluctant to finance what is still perceived to be a novel, cutting-edge concept that often includes speculative employment floorspace which ultimately needs to be attractive to prospective tenants. It remains to be seen whether these (and other) challenges will prompt a slowdown in the number of Co-Location schemes coming forward in 2023.

In light of the above, perhaps the most significant finding of this year’s research is that more than half of all approved schemes (57%) are showing signs of implementation. The more that Co-Location is seen to work in practice, the more that confidence in the concept will grow - as will our understanding of what makes for a truly successful Co-Location scheme. After all, only when the hoarding comes down can we truly know whether Co-Location stacks up.



Goldsmith Yard, Uplands Business Park



About Turley

We are a full service planning and development consultancy.

Our Planning expertise is complemented by Business Cases and Funding, Design, Economics, EIA, Expert, Witness, Heritage, Townscape and Landscape, Strategic Communications, and Sustainability services. All services can be provided together or individually.

We help clients achieve good growth in all jurisdictions in the UK and Ireland from our locations in major cities and growth areas.

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