



Co-Location in London

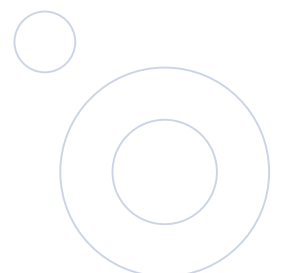
Is it stacking up?

March 2022

Turley



Contents



Introduction

In the adopted London Plan (2021), the Mayor sets out an ambitious approach to planning for the capital's industrial and housing needs.

Co-Location is promoted as a solution by intensifying and integrating industrial, logistics and employment uses with new homes as part of a Development Plan or masterplan-led mixed-use regeneration of industrial land.

The need for new (affordable) homes is undeniable. As long as a strategic Green Belt review is off the table, alternative solutions need to be found to provide housing for all Londoners. Answers usually point in the direction of making more effective use of the underutilised brownfield land available. The London Plan sets a ten-year target of 522,870 new homes – and evidence (such as the [2021 Housing Delivery Test](#)) suggests that many London boroughs are struggling to meet their respective targets and objectively assessed needs, which puts ever increasing pressure on decision makers.

In parallel to dealing with an apparent housing shortfall, London alone lost around 100 ha of industrial land annually over the last decade, compared to a release benchmark of just 37 ha per annum in the now superseded London Plan (2016). A recent report from the [Centre for London](#) shows that, not only did London lose almost a quarter of its industrial floorspace (24%) over the last 20 years, but also highlights vacancy rates as low as 2-3% signalling intense pressure on the capital's industrial space. This is supported by Savills' [2021 Big Shed Briefing](#) which concludes that supply in London and across the South-East is falling at its fastest pace. Demands are reaching new highs and it can fall to the built environment professionals to find quick solutions which give recognition to the industrial and logistics sector. In our "[Playing to our Industrial Strengths Report](#)" we published a series of recommendations which are aligned with solving the housing crisis.

Many in the industry have put their support behind the Co-Location concept and the Mayor's approach sets the scene for the plan-led or masterplanned co-location of uses. The [London Plan 2021](#) (see Policy E7) also provides a strategic framework and a policy approach for implementation, but with a clear objective to intensify existing industrial uses alongside maximising housing delivery.

It is evident that London's development pipeline is delivering an increasing number of schemes with a mix of industrial and residential uses. In this report we explore the key characteristics of emerging Co-Location schemes and assess their contribution towards delivering the much-needed affordable homes needed, whilst also protecting and intensifying London's industrial land. This report also considers:

- What have those schemes in common?
- How are they planned?
- How many homes can they deliver?
- Where are they located?
- Ultimately, do they result in an uplift of industrial floorspace?

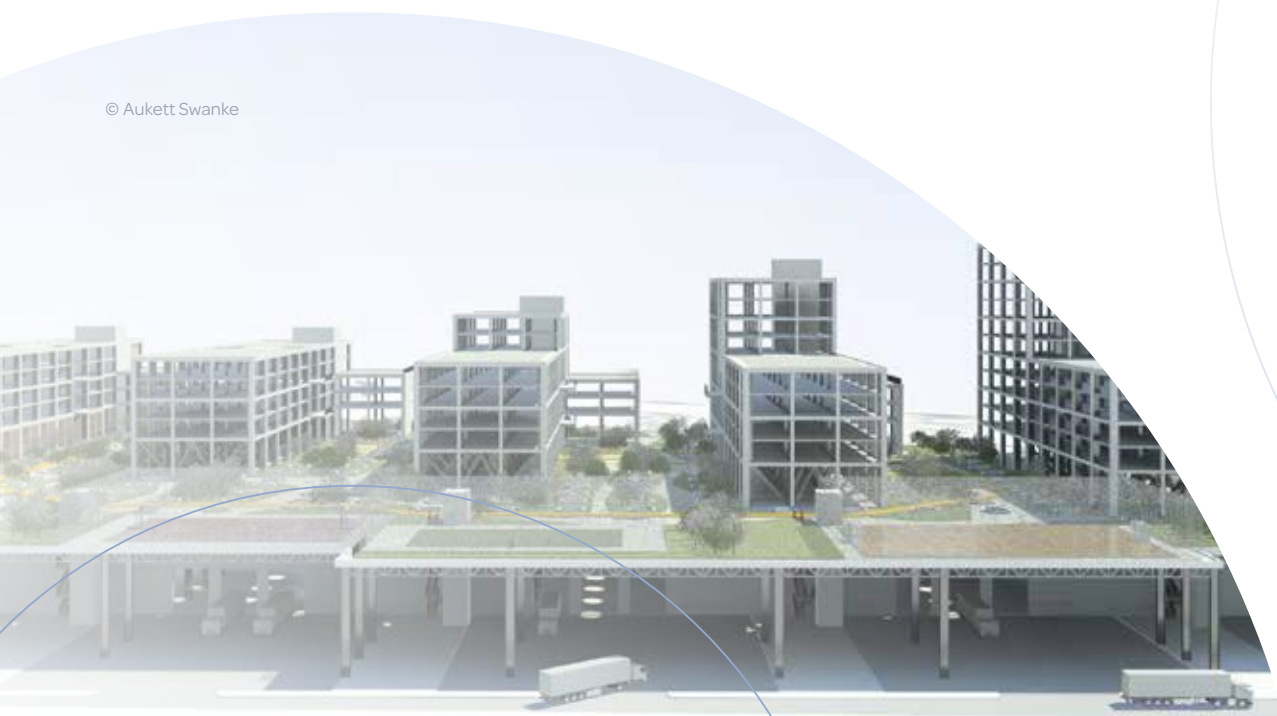
In short: Is Co-Location the answer to London's housing and industrial needs?

To answer the questions above, we have carried out extensive research into all strategic Co-Location schemes submitted for approval to the Mayor over a three-year period. We use facts to assess their effectiveness in meeting the Mayor's policy objectives to intensify London's industrial land supply and maximise the delivery of housing.

This will inform future assessments and determine the success of Co-Location schemes, their operational constraints and opportunities, and how residential and industrial occupiers (including last-mile distribution) can exist side-by-side.

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

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01 What is Co-Location?



What is Co-Location

“Co-Location” is a relatively new concept, and refers to the careful knitting together of residential developments and more “neighbourly” industrial activities to form mixed-use developments. The concept has emerged in response to the faster-than-planned release of, and steadily increasing demand for, industrial land in London. In essence, Co-Location aims to safeguard a sufficient supply of industrial land in the capital to meet current and future demand for industrial and related functions, whilst also ensuring that this land makes as full a contribution as is practicable to the supply of new homes.

There are two types of Co-Location:

- vertical, whereby residential uses are stacked on top of industrial uses;
- and horizontal, whereby existing industrial uses are intensified so that a portion of the site can be given over to residential development.

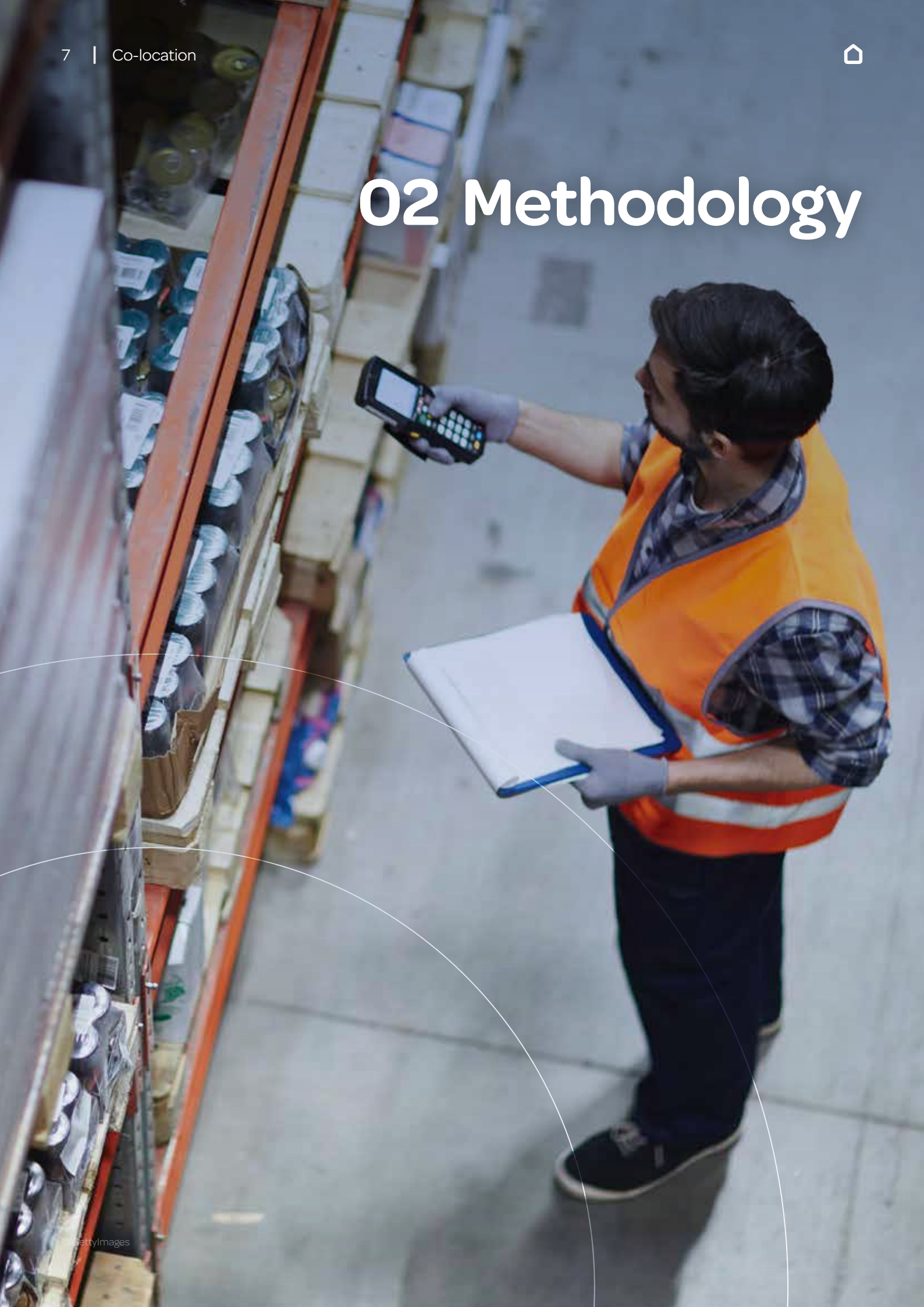
While some strategic industrial activities – such as waste management, for example – will likely never be suitable for Co-Location, a growing number of schemes are employing vertical stacking and other innovative configurations to bring various light industrial and storage, distribution and logistics activities into close proximity with residential uses.

In order to ensure that existing industrial operations are not undermined through Co-Location, the new London Plan (2021) introduced the ‘Agent of Change’ principle. This requires developers who wish to build homes next to, or within, an existing industrial site to take responsibility for protecting residents from the impacts of operations already taking place there. In this way, the principle seeks to ensure that Co-Location schemes are able to provide the full range of (often noisy) facilities needed by industrial occupiers – such as servicing yards, gantry cranes and goods lifts – while still delivering a safe and high-quality living environment for new residents.

A substantial number of Co-Location schemes have now been granted permission across London. While it is clear that there is no ‘one-size-fits-all’ solution – with each scheme having been influenced by, and evolved in response to, the unique constraints and circumstances of its respective site – Co-Location nevertheless appears to be a practicable solution to the capital’s industrial and housing needs.



02 Methodology





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

We reviewed 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 36 month period covering 1 January 2019 - 31 December 2021.

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.

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
- GLA Fast-Track Route compliance (in line with Policy H5 of the London Plan)
- Maximum building height (in storeys)
- Urban Greening Factor score
- Environmental Impact Assessment required/submitted
- Lead architect





03 Research & findings

Section 1: Location and policy designation



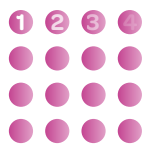
Distribution of Co-Location schemes across London

- GLA Stage 1
- GLA Stage 2
- Approved



Status of Co-Location schemes in the development pipeline

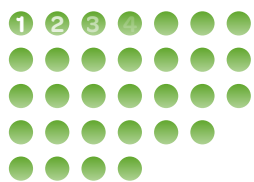
GLA Stage 1



GLA Stage 2



Approved



Co-Location schemes by London borough/development corporation

While Co-Location is a new concept for some parts of the capital, areas such as Ealing, Brent and Southwark are ahead of the curve with a high proportion of Co-Location schemes (i.e. as part of the Old Kent Road Masterplan).

Although some LPA's 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. 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 is more than a trend with a significant number of planning applications coming forward across various parts of London. The large number of schemes currently at Stage 1, as well as our understanding of schemes at pre-application/application stage, shows that the concept of Co-Location has not been significantly delayed by the COVID-19 pandemic. However, we are cautiously awaiting the implementation and delivery of the schemes that informed this report in order to analyse how they work in practice.



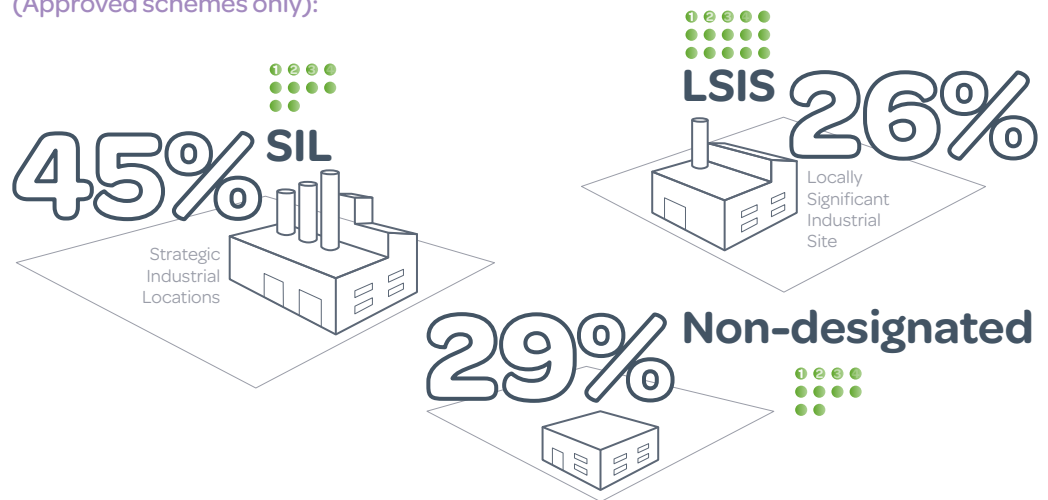
Land Use designation or protection of sites accommodating Co-Location

Designation of sites accommodating Co-location schemes
(All schemes):

- Stage 1
- Stage 2
- Approved



(Approved schemes only):



The above shows a summary of the policy designations which sites involving 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), 45% of which are located within areas of strategically important industrial land (SIL).

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 shifting, with a greater proportion of Co-Location scheme coming forward within LSIS. This increased emphasis on delivering Co-Location schemes within LSIS (and indeed non-designated employment sites) is indicative of the key policies within the London Plan, namely Policy E7, starting to bite in practice, where they are starting to steer focus this new mix of uses and approach to development.

Section 2: Employment





Existing industrial
floorspace



Proposed industrial
floorspace in
Co-Location schemes



Industrial and employment

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

The intent of the London Plan 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.

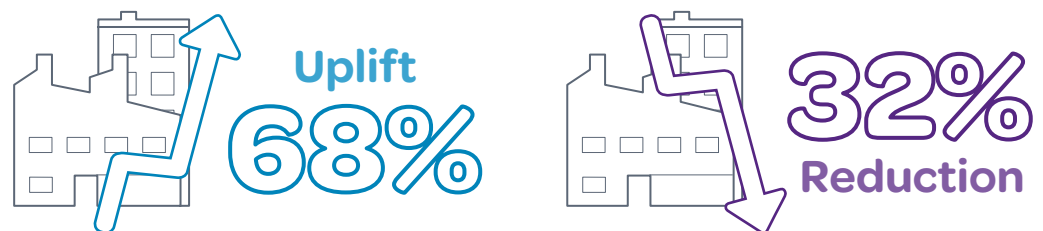
Overall, our research shows that Co-Location schemes have the potential to deliver a vast amount of new, modern employment-generating floorspace. The schemes reviewed result in approximately 325,000 sq m of employment floorspace, of which approximately 165,000 sq m have already been approved. Compared to the existing provision on those sites, this is an uplift of c.100,000 sq m.

Whilst overall only two-thirds of all Co-Location schemes actually deliver an uplift in industrial floorspace, we see that – on average – Co-Location schemes achieve a net increase of employment-generating floorspace of approximately 27% compared to the existing provision on individual sites.

For the avoidance of doubt, 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 is likely to coincide with the adoption of the London Plan in early 2021.

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



+27%

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



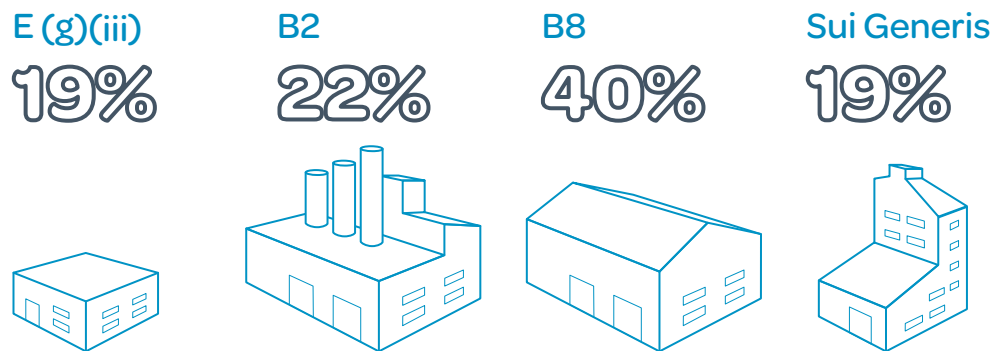


Employment land uses in Co-Location schemes

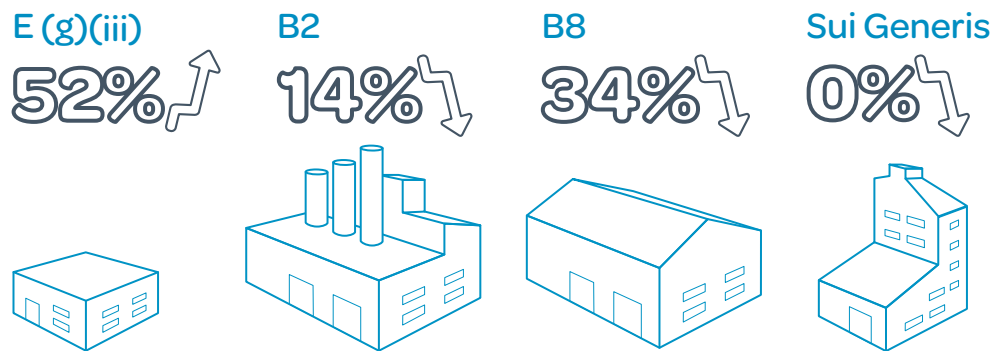
Our research of existing and proposed employment floorspace shows a significant reduction (or loss) of traditional industrial (Use Class B2), logistics (Use Class B8) and sui generis industrial uses, largely being replaced by light industrial/workspace uses falling within former Use Class B1c, now Class E(g)(iii).

Whilst deemed more compatible with adjacent residential uses, it will be a challenge for the industry (including both the public and private sector) to work on solutions which ensure the co-existence of new homes in close proximity to the more traditional and critical 24/7-operating B2 and/or B8 uses.

Existing industrial / employment uses



Proposed industrial / employment uses



Affordable workspace

The provision of affordable workspace has been 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 **42%** 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: **18.7%** - and therefore a substantial component of the employment offer.

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

18.7%

42%

of schemes provide affordable workspace



Section 3: Housing



Total number of new homes coming forward across all Co-location schemes:



New homes

Average no. homes delivered per scheme

The aim of the London Plan's Co-Location concept is to consolidate and intensify the use of brownfield, industrial land (which is often less constrained in heritage terms than town centre sites and avoids further reduction of the Green Belt) in order to support the delivery of new homes and support London's goal to meet its annual housing need of 52,287 new homes.

Our research shows that maximising the development potential of designated and non-designated industrial land through Co-Location schemes can play an important role in delivering new homes for Londoners and boosting its overall supply. On average, Co-Location schemes will deliver 573 new homes in total (slightly reduced to 487 new homes on average if we include those that are still pending determination).

In total, 17,184 new homes were approved as part of Co-Location schemes by LPAs, in consultation with the Mayor, over the past 36 months. A figure which is set to increase to 23,377 new homes when taking live applications into account. Whilst Co-Location is not the single answer to meet London's housing need, our data shows that it can play an important role in contributing towards it alongside supporting the delivery of modern, fit for purpose industrial floorspace – but also that a significant number of homes are required on average in order to deliver a viable form of development.

Average number of homes delivered in Co-Location schemes

573





40.9%



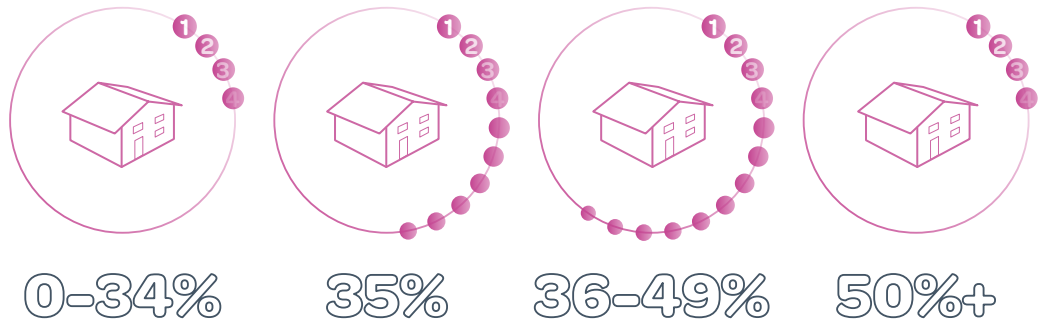
More than 40% of all Co-Located residential units are affordable in tenure

Affordable housing

Average affordable housing provision in Co-Location schemes

Affordable housing is at the forefront of the London Plan and sets 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 Co-Location schemes typically exceed the Mayor's minimum threshold delivering more than 40% of all residential units in an affordable tenure (i.e. social/affordable rented or a qualifying intermediate product).

Affordable housing provision per Co-Location scheme





Section 4: Height, layout and parking

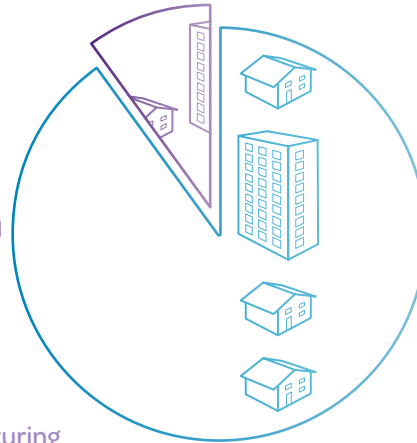




Vertical or horizontal Co-Location

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

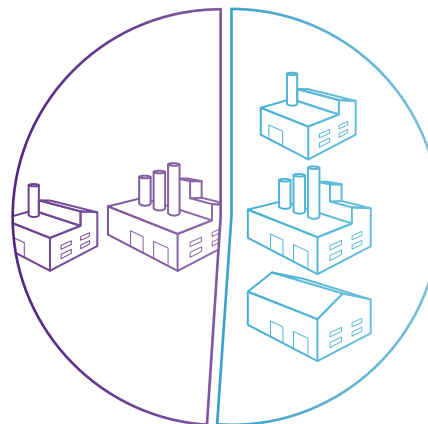
10%
**Horizontal
Co-Location**



90%
**Vertically
stacked
Co-Location**

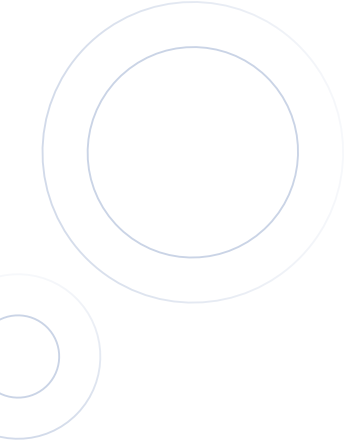
Co-Location schemes featuring stacked employment uses

49%
Horizontal
Single-storey
employment uses
next to each other
old B1c



51%
**Vertically
stacked**
Two or more storeys
of employment
B8

The term 'Co-Location' is often used interchangeably with the tongue-in-cheek phrase 'beds on sheds', and not without good reason. While the vast majority of schemes take a considered and contextual approach towards the integration of industrial and residential uses, Co-Location in the capital nevertheless tends to follow a vertically stacked approach. Over 90% of the schemes that have come forward so far have sought to locate residential uses above industrial and employment uses, reflecting high values of industrial land in the capital, and the resulting need for schemes to make the best use of airspace if they are to be viable. This raises two key inter-related questions for the future: how the relationship between residential and industrial uses will play out once the developments are fully operational; and whether the mitigation measures considered at the planning stage will prove effective once delivered – that is, will they prove sufficient to enable the 24/7 operation of B2/B8-type uses, while also protecting the amenity of residents?



It is worth noting that a small minority of schemes adopt a purely horizontal approach to Co-Location. This tends to be more common on larger sites, where there is more room to provide clear separation between residential and industrial/ employment uses. While only around 10% of schemes rely entirely on horizontal separation at the moment, it is an approach that is ripe with opportunities for place-making. For example, it might literally involve putting ‘clear blue water’ between the two uses in the form of a river, canal or other blue link, or separating them via a tree-lined linear park; alternatively, it might involve using softer, intermediate employment uses – such as offices or artists’ studios – as a buffer between more traditional industrial workspaces and residential accommodation.

Not only do the vast majority of Co-Location schemes seek to vertically stack residential and employment uses, but approximately half of all Co-Location schemes vertically stack their employment uses too. This is achieved through the use of mezzanines/multi-storey approaches or by separating different employment uses across different floors, for example, locating light industrial floorspace over a podium-level distribution and logistics hub. While this suggests that Co-Location schemes are working hard to comply with the London Plan’s policy requirements around the re-provision and intensification of industrial floorspace, it remains to be seen whether these new and innovatively-configured spaces will be able to meet in full the complex operational needs of industrial occupiers.



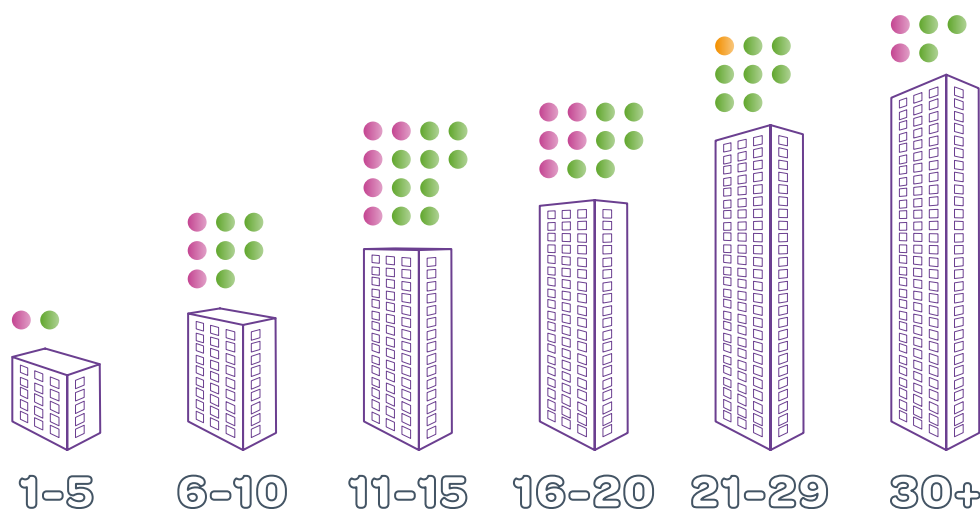


Maximum building heights

Maximum building heights across all Co-Location schemes

The fact that many Co-Location schemes are located in wider growth or masterplan areas or sites which may be less constrained in heritage or environmental terms, or in relation to its impact on existing communities, is visible in the range of mid- and high-rise buildings that are coming forward, with schemes usually comprising ten or more storeys.

- Stage 1
- Stage 2
- Approved



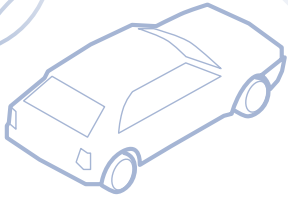
Urban greening

Urban Greening Factor in Co-Location schemes

In recent years, a significant focus has been on maximising urban greening. Introducing an Urban Greening Factor (UGF) target score of 0.3 for predominantly commercial and 0.4 for predominantly residential or mixed-use schemes, Policy G5 of the London Plan set a new benchmark for developers to demonstrate how the provision of soft landscaping and other urban greening solutions has been maximised. Especially since the adoption of the London Plan in March 2021, we see planning applications for Co-Location schemes performing reasonably well against the target scores referred to above, currently averaging at 0.35, reflecting the fact that the UGF is now a key consideration for all schemes entering the pre-application process.

0.35

The average Co-Location scheme achieves a UGF score of 0.35



18

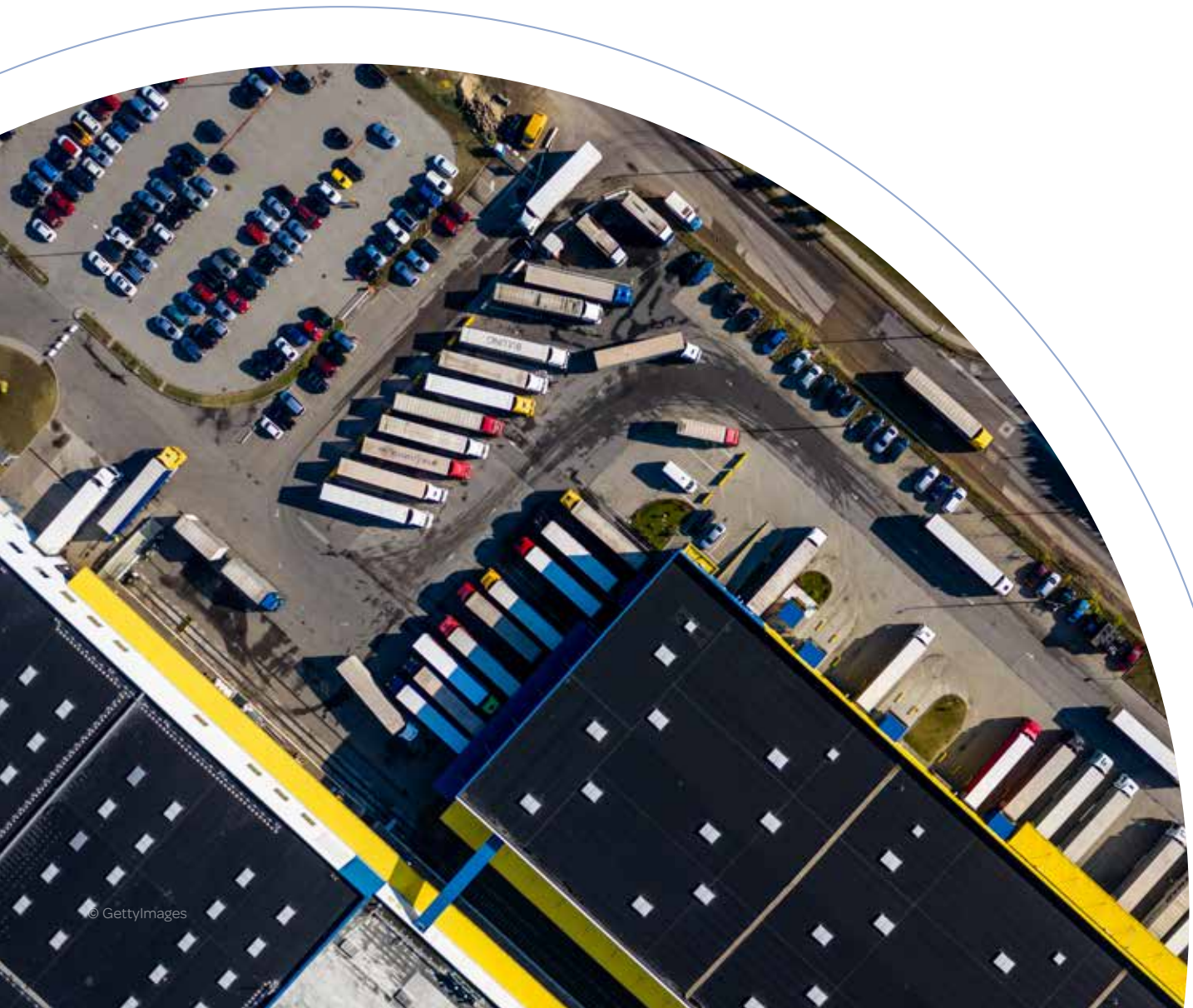
Co-Location schemes are car-light, providing on average just 18 parking spaces

Car parking (employment only)

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

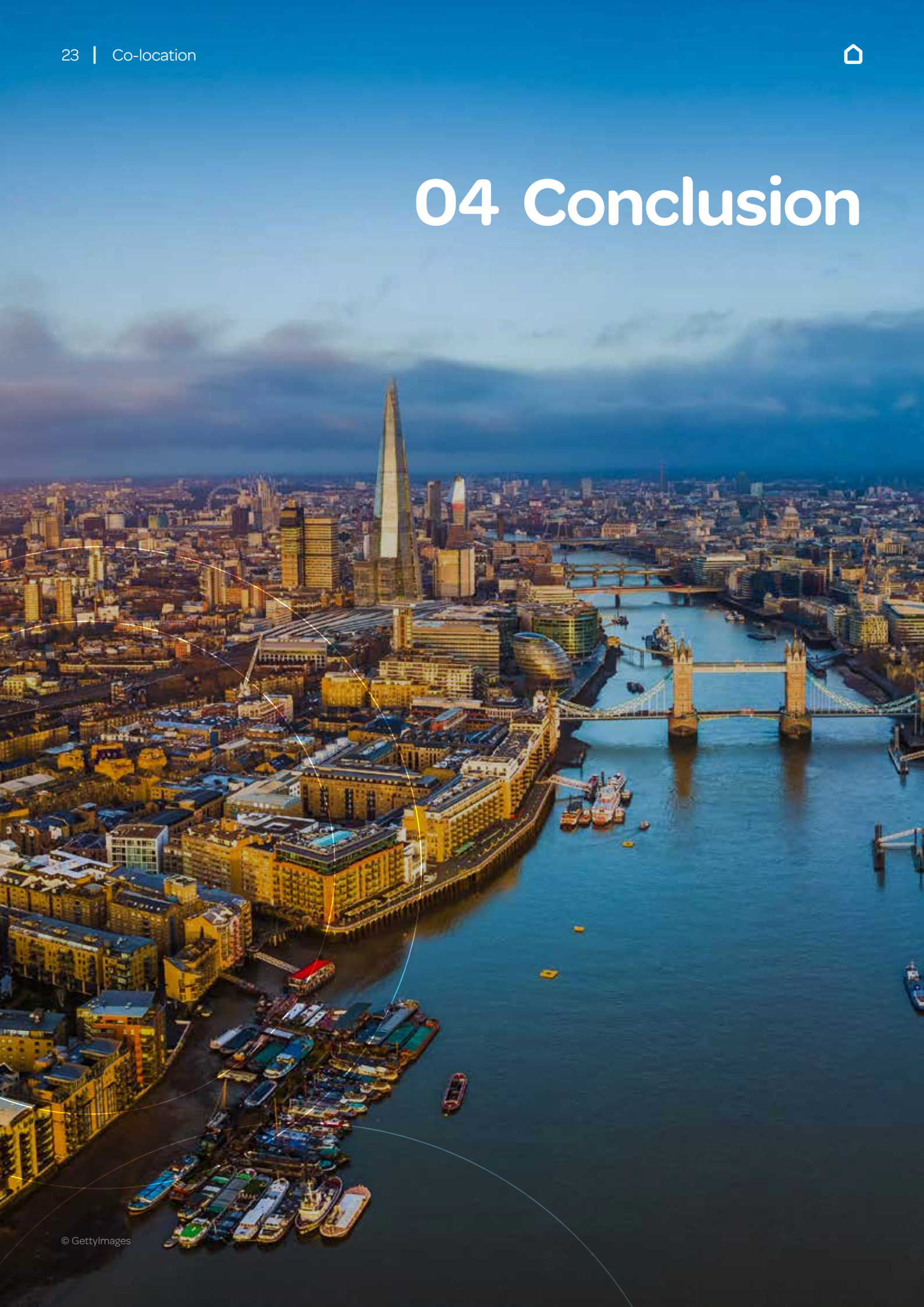
Operational car parking is usually a key consideration for industrial developers and occupiers, especially where sites are less connected to the public transport network (and where shift patterns require employees to travel at night/off-peak hours).

Whilst the London Plan does not include maximum parking standards for B2 and B8 uses (which are subject to site-specific considerations using office parking requirements as a starting point), it is interesting to see that the employment element of Co-Location schemes is generally subject to a relatively low car parking provision ranging between 11 (approved planning applications only) to 18 (all applications including those at Stage 1/Stage 2) car parking spaces (excluding any disabled or residential parking) on average.





04 Conclusion



Conclusion

This report summaries our research into all strategic Co-Location schemes submitted for approval to the Mayor over a three year period, with the aim of providing a factual overview of the data gathered to draw initial conclusions on the effectiveness of this new, mixed-use regeneration concept.

From a spatial perspective, our research indicates that major Co-Location schemes are now being progressed across at least 13 of London's boroughs. Some LPAs are ahead of the curve in terms of their experience of dealing with planning applications and combining a mix of industrial/logistics and residential uses, including Ealing, Brent and, particularly, Southwark. It is fair to say that the Co-Location model is growing at pace and across multiple local geographies and markets within the capital.

Critically, our research has identified that the assessed Co-Location schemes, if all granted planning permission, have the potential to deliver approximately 325,000 sq m of employment floorspace, which would achieve an overall uplift of approximately 100,000 sq m compared to the existing provision of those sites. This broadly equates to an average increase of 27% in employment floorspace across Co-Location schemes and confirms that the application of the London Plan's industrial policies is leading to an overall intensification on employment sites across the capital.

However, critical for many industrial developers and occupiers, we see a consistent trend leading towards a reduction in more traditional industrial uses (i.e. Use Classes B2/B8) where new homes are introduced, with Co-Location schemes often focusing employment-generating floorspace in the form of light industrial/workspace (i.e. Class E(g)(iii)). This has likely been driven to date by the greater compatibility of such uses with neighbouring residential occupiers.



The integration of typical industrial and logistics uses in Co-Location schemes will be an important issue to focus on as the concept develops, as those uses are similarly critical to London's economy and serving its residents as employment opportunities or distribution hubs for last-mile delivery. Addressing the conflict between residential amenity and operational requirements of commercial occupiers (including 24/7 activity) is going to be the key challenge for Co-Location schemes if we want to ensure that they are truly capable of serving our industrial and housing needs.

Clearly innovative design approaches on the developer side with a strong understanding of the occupier requirements on the decision-makers side will be required to make those schemes work, but – if well planned – could lead to an exciting mix of places, spaces and buildings.

Our research further shows that maximising the development potential of designated and non-designated industrial land through Co-Location schemes can play an important role in delivering new homes for Londoners and boosting its overall supply, with the potential to create up to 23,377 new homes in the schemes we examined. Importantly, our research also confirms that on average schemes are delivering 40% affordable housing (and therefore exceeding the Mayor's threshold level for standard residential developments).

In summary, our research demonstrates Co-Location schemes definitely have the potential to deliver a significant quantum and uplift of modern industrial and employment floorspace (compared to the status quo on those sides) alongside over 23,000 much needed new homes in the capital and therefore assisting in meeting two of the London Plan's key strategic objectives.

However, critically the key challenges for this development model are yet to come. Whilst the planning system can generate a pipeline for such sites, the next step is to deliver these sites. It will be interesting to understand both how they work in practice and critically whether they continue to remain attractive models of development for developers, investors, commercial occupiers and LPAs – and whether we see the model emerge across other cities in the UK.





About Turley

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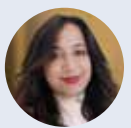
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