MACCREANOR
LAVINGTON

with AECOM, Avison Young

APPENDIX C: SIL INTENSIFICATION ASSESSMENT APPROACH

London Industrial Land Supply Study 2020

MARCH 2023

CONTENTS

SIL INTENSIFICATION ASSESSMENT APPROACH

IDENTIFICATION OF SIL AREAS

ROLE OF THE REPORT

C1. This report supplements the assessment of London's Strategic Industrial Locations (SIL) included in Appendix B and sets out a method for assessing the theoretical intensification potential of SIL in London.

IDENTIFICATION OF SIL AREAS

Approach

C2. Assessing intensification potential at all of London's 55 SILs is beyond the scope of this report. Therefore, ten SILs were identified for further assessment broadly taking into consideration the following characteristics:

- Representation from different geographic parts of London.
- Commercial market conditions such as rental levels.
- Spatial characteristics such as size, density, presence of non-industrial designations, surrounding area.
- Presence of core industrial uses as wider and non-industrial uses were considered to limit scope for intensification.
- Whether an area has already been subject to existing intensification potential studies such that they should be discounted.

C3. The 10 SIL areas taken forward to the assessment of intensification potential are listed in Table 1, along with example of distinct characteristic for each.

Strategic Industrial Location	**Individually Distinct Characteristic**
West Thamesmead / Plumstead Industrial Area (including White Hart Triangle)	Amongst the lowest average rental levels
Dagenham Dock / Rainham Employment Area	Largest contiguous SIL
Purley Way	Largest range of non-industrial policy designations/ restrictions
Morden Road Factory Estate	Amongst the highest plot ratios
Wembley	Amongst the lowest plot ratios
Hayes Industrial Area	Representative of a West London SIL
Fish Island / Marshgate Lane	Highest average rental levels
London Industrial Park	Proximity of sensitive uses
Tottenham Hale	Amongst the smallest SILs
Queenstown Road (Stewarts Road) Nine Elms	Only SIL within the Central Activities Zone

Table 1. *SIL areas identified for assessment*

CRITERIA BASED ASSESSMENT

INTRODUCTION

C4. Moving into the sub-areas themselves for capacity testing to identify degrees of intensification and floorspace uplift, the following criteria-based assessment has been used.

C5. The starting point is assumed to be that all of the sub-area is suitable for intensification, and the criteria are used to:

- discount area for development should it be deemed unlikely to come forward in the near future; and
- consider typologies based on whether they are appropriate to a particular location or not.

DISCOUNTING AREA FOR DEVELOPMENT

Condition of existing stock

C6. Condition of existing stock should primarily be judged by age since construction or renovation. Plots with buildings less than 20 years old are discounted, as this reflects the expected lifespan of typical industrial buildings.

C7. Analysing the condition and imminent obsolescence of stock helps to identify opportunities for intensification. Owners who need to invest in their stock may take the opportunity to increase floorspace and hence income. By identifying where there may be core areas where stock is particularly old and therefore likely to be reaching the end of its useful life – this will provide a strong basis for intensification.

C8. For further consideration at local level, older stock may also be of a longer-lasting construction method, such as with brick, and may suit to be retained.

Less intensifiable uses

C9. It is important that SIL areas optimise their contribution to the city by prioritising uses that depend on SIL and will struggle to be accommodated in other locations.

C10. Some of these land uses are present in the identified SILs and are considered to be less readily capable of intensification. These have been discounted from the assessment to not overstate intensification potential. The principal examples of these uses along with the reason why they have been discounted are as follows:

- Waste Management/Recycling, & Utilities – sites typically contain bespoke building typologies or plant and/or are critical infrastructure vital to London's function
- Land for Rail & Land for Buses – development constraints with stacking industrial uses on top

C11. As the Valuation Office Agency (VOA) data on floorspace underpinning this assessment typically does not record floorspace at sites in these uses, no actual discount to total SIL floorspace is necessary.

CONSIDERING APPROPRIATE TYPOLOGIES

Business activities

C12. Typologies should reflect the nature of the local economy and likely business activities. This criterion considers whether a particular industrial use and its typologies would likely be appropriate in the current local economic context of the SIL. For example, if the local economy is largely based on small creative industries and businesses then typologies focused on Large and Extra Large unit sizes might not be appropriate.

Limitations to increased servicing activity

C13. Again in relation to typologies, it should be considered whether high levels of servicing, such as for multi-storey logistics that rely on regular vehicle movements, are appropriate for the location. The current road network can be analysed to understand whether it is able to accommodate increased industrial capacity and will meet the need of industrial occupiers. This can be done based on existing occupiers characteristics, and proximity to regional highway infrastructure.

C14. For further consideration, a transport capacity assessment could be undertaken.

Site size and proportion

C15. In relation to larger typologies and those that require space hungry vehicular ramps or other significant infrastructure, these may not be appropriate on the basis of awkward proportions and sizes of SIL sub-areas where it is deemed unlikely to be possible to accommodate these even with site assembly. For example, to deliver a 3 level multi-storey logistics facility with ramped access a minimum site of c.2.5ha is likely to be required.

FURTHER CRITERIA TO CONSIDER LOCALLY

Nature and extent of ownership consolidation

C16. By setting out the nature and extent of the ownership within the sites, it can be determined where there are areas of consolidated land ownership, and therefore opportunities for intensification. Fragmented ownership can be a significant cost and barrier to development and therefore requires careful consideration.

Townscape context

C17. Particularly at the fringes of SIL areas the potential impact on townscape and characterisation in relation to both built form and open space should be considered, taking into account bespoke conditions in each case.

C18. For more details on carrying out a site analysis of a site, see Stage One of the 'Optimising Site Capacity: A Design-led Approach' London Plan Guidance (LPG).

Nuisance, safety and proximity

C19. Noise, smell, vibrations, servicing frequency and other forms of nuisance need to be considered under the Agent of Change principle at a finer level of detail. This is particularly important in proximity to residential areas and environmental infrastructure. Safety impacts from hazardous uses must also be considered.

Ability to co-locate business activities

C20. By analysing the current uses and their operations within employment sites, it can be identified where there may be challenges to co-locate business activities with other uses.

C21. Key considerations in seeking to understand the ability to co-locate include:

- the scale of activity: particularly for industrial activity where it would be more difficult to accommodate this on upper floors
- the 'environmental impacts': such as noise, smell and vibration which would adversely affect other occupiers
- equipment needs: taking into account the scale (and weight) of specialist machinery, which may limit the ability to be on upper floors due to loading requirements

C22. A summary of co-location considerations is provided in Table 2, which presents a high-level assessment of examples of the ability to co-locate certain uses with other employment generating activity. Please note these provide broad characterisations of common industrial land uses and are not intended to provide a comprehensive assessment of all potential activities.

Activity	**Mix-ability, suitable development types**
General 'light' manufacturing	Co-location with industrial – Most likely ground floor only. There may be some potential for co-location with residential, but would be on a more 'activity-specific' basis
Construction	Co-location with industrial – Can be ground or upper floor
Wholesale	Co-location with industrial or residential – Likely to be ground floor with residential above, or on ground/upper floors of stacked industrial
Motor vehicle repair	Co-location with industrial – Most likely ground floor only
Waste and recycle processing	Stand alone
Repurposing and re-use	Co-location with industrial – Most likely ground floor due to servicing
Warehousing	Co-location with industrial or residential - Likely to be ground floor with residential above, or on ground/upper floors of stacked industrial
Heavy manufacturing and chemicals	Stand alone
Property and ground work services	Co-location with industrial and residential - Likely to be ground floor with residential above, or on ground/upper floors of stacked industrial
Logistics and distribution (parcel hub etc)	Co-location with industrial or residential - Likely to be ground floor with residential above, or on ground/upper floors of stacked industrial
Professional, Business + Admin services	Co-location with industrial/residential - Likely to be ground floor with residential above, or on ground/upper floors of stacked industrial
Printing	Co-location with industrial/residential - Likely to be ground floor with residential or industrial above

Table 2. *Co-location suitability*

CONSIDERING TYPOLOGIES

Typologies

C23. In order to calculate potential floorspace uplift that could be achieved through intensification, a series of typologies that represent a cross-section of industrial site layouts have been created. The typologies are the result of a series of considerations including research and analysis of precedents, the existing and future spatial demand, business aspirations, industrial space requirement baseline, and existing design principles documentation. They are based on current precedents, with plot ratios that are likely to be achievable in the current market and near future. Each typology has a different scale, hosts various type of businesses and reaches diverse intensification levels. They reflect three contrasting approaches to industrial site layout covering:

- stacking smaller units around a shared yard;
- wrapping larger units with smaller, stacked units; and
- stacking larger units.

C24. Many other variants and sub-types exist, though for the purposes of capacity testing this shortlist is used to represent the range of floorspace uplift potential, whilst also accommodating a variety of unit sizes.

C25. The typologies have been identified based on the consultants' understanding of what is considered achievable in the current market/ development context. It is possible that, as has happened in other locations with constrained land supply, as the market matures other approaches could be achievable (such as the 5 storey buildings Goodman have delivered in Beijing) however these have not been considered here in order to not overstate development potential.

Shared yard space

C26. It should be noted that each typology relies on the general principle that businesses will share yard space, a critical assumption in achieving greater plot efficiency. Sharing yard space is less common for businesses in current traditional forms of development, however does occur where older large premises have been sub-divided. For larger businesses the sharing of yard space is not established. Despite this not being common practice in the UK businesses in other countries operating in similar sectors to those identified in Table 2 do occupy intensified buildings with shared yards, demonstrating that it is operationally achievable. Examples of this include the Hotel Industriel Patin and the Air2 Logistique in Paris, France, and the Gewerbehof Laim in Munich, Germany.

C27. As with the broader concept of operating from an intensified environment, the sharing of yard space will require an evolution of how businesses operate. Ensuring designs minimise the number of compromises they have to make in operating from an intensified environment will be key to its success. As such, whilst yard spaces are shared in these typologies they retain the key dimensional requirements businesses are familiar with and need for their operations.

Converting gross to net

C28. The typologies here set out net plot ratios which are calculated as follows:

$$\frac{\text{total gross floorspace (eg. 7,500m}^2\text{)}}{\text{net plot area (eg. 5,000m}^2\text{)}} = \text{plot ratio (eg. 150\%)}$$

C29. The gross plot areas (cumulatively equating to the total SIL sub-area) must therefore be converted to net plot areas in order to determine their capacity. At this scale, an estimate is used to determine a typical conversion factor that can accommodate space for:

- primary access routes, (assumed to be shared);
- on-site car parking (assumed to be minimal and consolidated, avoiding inefficiencies from surface car parking);
- setbacks, buffers and boundaries required by certain industrial functions;inefficiencies from plot geometry (assumed to be minimal with best practice being to coordinate plots and layouts more holistically);
- potential constraints from utilities and underground services affecting building location / footprint;
- retained environmental features such as trees; and
- provision of shared amenity space, particularly to support employee well-being.

C30. This is set out graphically in Figure 1:

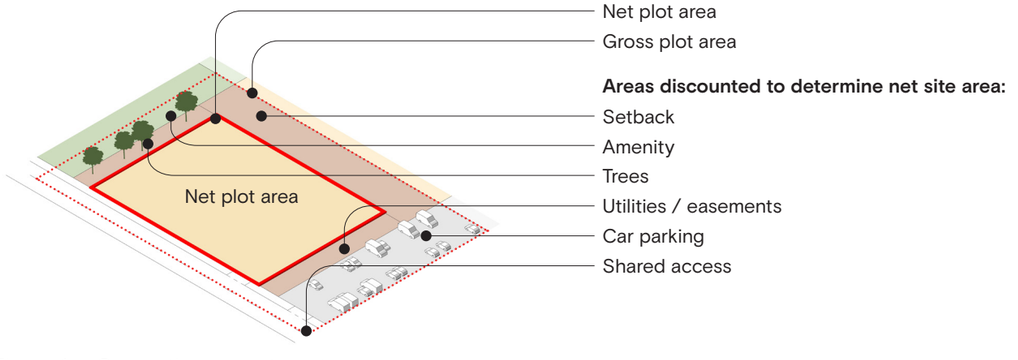


Figure 1. *Converting gross to net*

C31. These factors are all significant for the usability and quality of the industrial development and its wider context, and they cannot be completely mitigated by site configuration, in particular as these typologies are still emerging and underestimating the discount significantly could lead to inflated intensification potential. Also, there are qualitative aspects to these factors such as space for amenity which should be accounted for to support a more pleasant working environment.

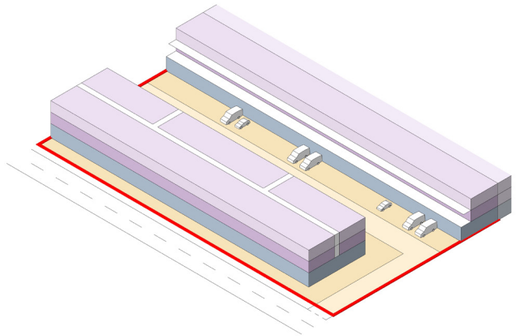
C32. Through analysing existing examples, it is assumed that approximately 15-25% of site area should be considered for accommodating these features, and discounted from gross SIL and sub-areas before applying net plot ratios. A range is used to accommodate for variation to address different requirements.

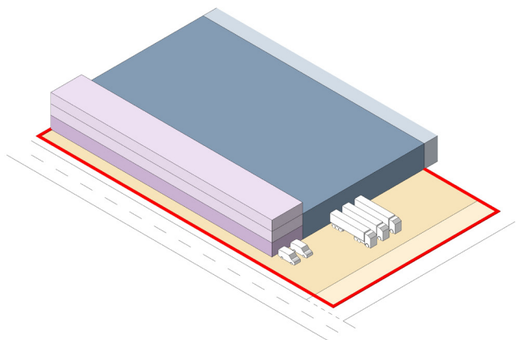
C33. As mentioned on the previous page, other criteria will likely impact efficiency, which should be considered when assessing at a finer level of detail.

CONSIDERING TYPOLOGIES

Typologies

C34. The typologies used to calculate the theoretical potential floorspace uplift are set out below in Figure 2. The plot ratio figures are derived from illustrative CAD models representing efficient site layouts that account for access arrangements, servicing, and yard space. Plot ration (net) is calculated as the ratio of indicative built gross floorspace to net plot area.





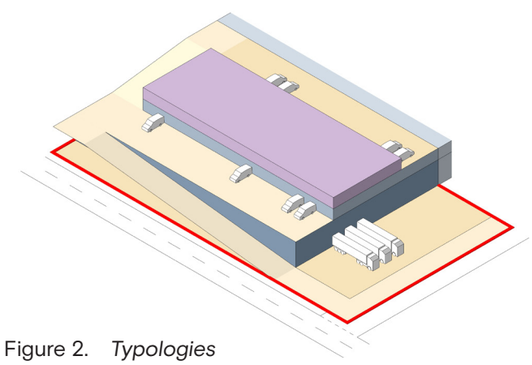


Figure 2. *Typologies*

Typology A

Plot Ratio (net)*	100–150%
Storeys	2-3
Ground dependent Units	30–45%
Stackable Units	55–70%

Typology B

Plot Ratio (net)*	100–120%
Storeys	1.5-3
Ground dependent Units	55–65%
Stackable Units	35–45%

Typology C

Plot Ratio (net)*	150–200%
Storeys	2-3
Ground dependent Units	65–80%
Stackable Units	20–35%

Industrial uses and unit sizes

C35. Certain industrial uses are appropriate to certain types of unit, as set out in Table 3 below. These units can exist in different typologies, as outlined by the colour coding of the diagrams.

USES	**UNIT SIZE**			
	S 0-185m²	**M** 185-465m²	**L** 465-1,850m²	**XL** 1,850m²+
Manufacturing	X	X	X	X
Wholesale		X	X	
Construction	X	X		
Motor trades	X	X	X	
Transport			X	X
Utilities			X	X
Distribution				X
TYPOLOGIES	**A,B**	**A,B,C**	**A,B,C**	**A,B,C**

Table 3. *Indicative unit sizes of industrial uses*

TYPOLOGIES

TYPOLOGY A

C36. A group of ground dependent and small stackable units with clustered shared yards and goods lifts, designed to maximise efficiency

C37. Main components:

- Multi-level industrial building with corridor or gallery access
- Shared yard at ground level

C38. An overview of the features and challenges for the typology is given in Table 4.

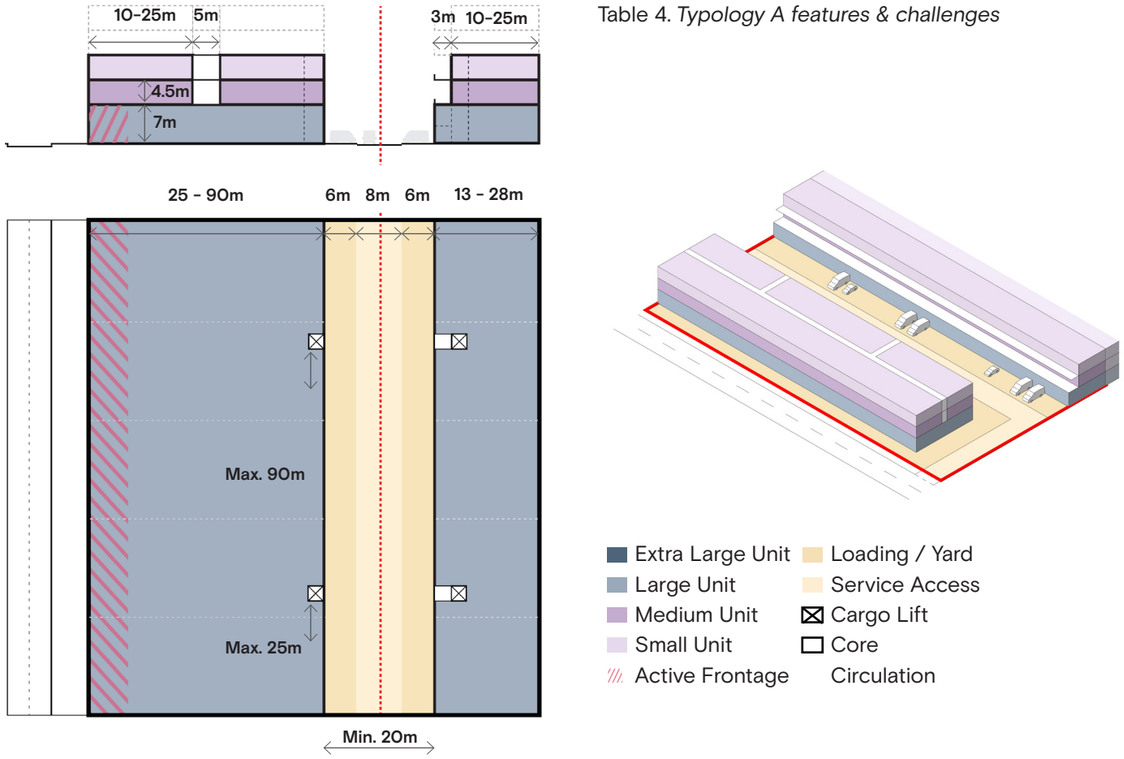


Figure 3. *Typology A*

Features & challenges

Form	Smaller units allow greater flexibility in building form
Access	Vehicles kept at ground level
Yard space & servicing	Shared yard within the plot increases efficiency of land use
Internal servicing	Goods lifts required for upper level units Requires multiple lifts to provide resilience to business operations Frequency of cores will impact on net to gross efficiency
Street activation	Smaller units can provide more active frontage to streets through overlooking and primary access
Interface with context	Opportunity to introduce near to more dense urban locations – potentially near to residential context Potential to act as buffer between larger/heavier industrial and non-industrial use
Economic context	Able to broaden the offer of industrial sites and potentially expand the space portfolio by delivering in other large development sites
Attractiveness to businesses	Ongoing management and maintenance approach/cost may deter occupiers May limit upper floor business types if only 'pallet truck' loading and movement of goods

Table 4. *Typology A features & challenges*

References

C39. The multi-level industrial buildings could be double side or gallery depend on the plot size.

Gewerbehof Laim
Bogevischs buero architekten
Munich, Germany

TYPOLOGIES

TYPOLOGY B

C40. A group of small stackable units attached to a ground dependent larger industrial buildings, creating an active frontage to a large unit.

C41. Main components:

- Multi-level industrial building
- Large format industrial building

C42. An overview of the features and challenges for the typology is given in Table 5.

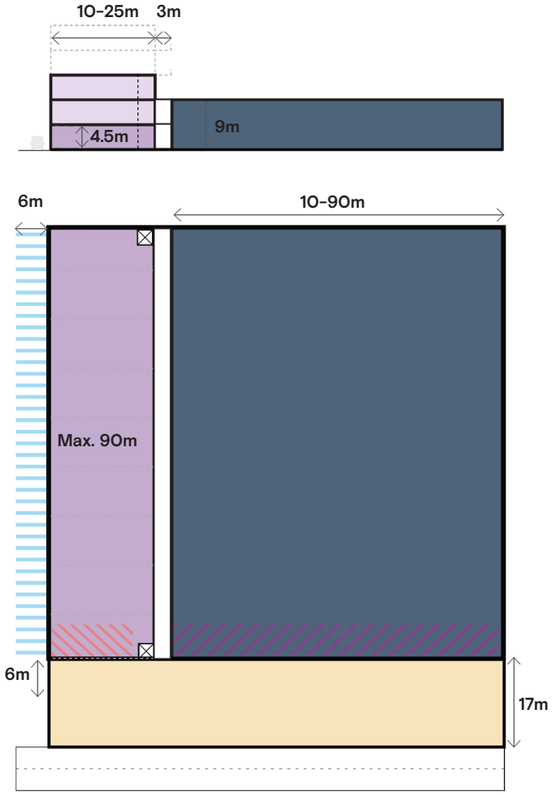


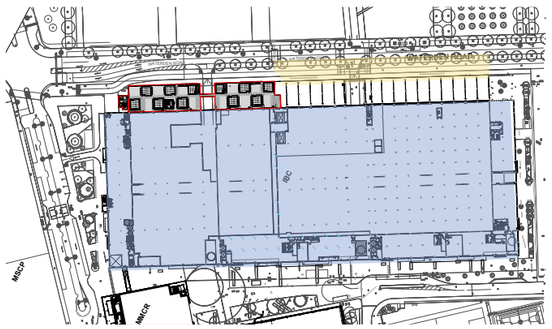
Figure 4. *Typology B*

Features & challenges

Form	Large and/or extra large unit can be wrapped with smaller units Unlikely to stack larger units due to ramp space requirements for HGV accessibility Potential to deliver as part of 'retro-fit' of existing large properties
Access	Vehicles kept at ground level
Yard space & servicing	Opportunity to share yard space for servicing with neighbouring plots and with shared access arrangements
Internal servicing	Goods lifts required for upper level units Frequency of cores will impact on net to gross efficiency Requires multiple lifts to provide resilience to business operation
Street activation	Smaller units can provide active frontage to streets through overlooking and primary access, more so than the larger unit
Interface with context	Potential to act as buffer between larger/heavier industrial and smaller industrial uses
Economic context	Support economic diversification of larger industrial areas
Attractiveness to businesses	Ongoing management and maintenance approach/cost may deter occupiers Challenge of natural light in lower/middle floor units may restrict attractiveness to occupiers. Complex to deliver a management / operational approach to balance large and small occupier needs May limit upper floor business types if only 'pallet truck' loading and movement of goods Suitable for lighter industrial activity

Table 5. *Typology B features & challenges*

References



The Gantry Studios
Hawkins Brown & Architecture OO
Hackney Wick, London, UK

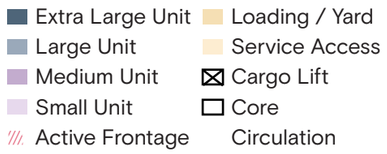
TYPOLOGIES

TYPOLOGY C

C43. A group of large units serving both ground dependent or stackable units with a ground and first floor operational yard. The third floor has the potential to be occupied by smaller units served by cargo lifts.

C44. For the purposes of this study, it is deemed less efficient to include ramps to take HGV's to upper levels unless considered at a much larger scale, and thus has not been included for consideration here. There is potential for this to come forward as a potential typology at a later date.

C45. An overview of the features and challenges for the typology is given in Table 6.



Features & challenges

Form	Largest units at ground level Large and medium sized units at upper levels with respectively smaller vehicle ramps
Access	Vehicle ramps allow access to upper levels
Yard space & servicing	Opportunity to share ground floor yard space for servicing with neighbouring plots and with shared access arrangements
Internal servicing	Upper level units accessible by vehicular ramps HGV access consolidated on ground level to avoid excessive ramp space Goods lifts may be required for upper level units depending on vehicular access Frequency of cores will impact on net to gross efficiency
Street activation	Limited opportunity for street activation
Interface with context	Potential to sit near urban context depending the nature of uses and their nuisance
Economic context	Support economic diversification of larger industrial areas
Attractiveness to businesses	Potential for vertically integrated units, which may suit e-commerce/3PLs etc who have inbound goods on HGV and outbound goods on LGV/van Single ramp access may deter occupiers as no alternative servicing should ramp be blocked Viability challenge given cost of delivering ramp/floor loadings to enable flexible use – acute issue in 2022 given construction cost inflation Corridor access to 'rear' medium units may limit attractiveness

Table 6. *Typology C features & challenges*

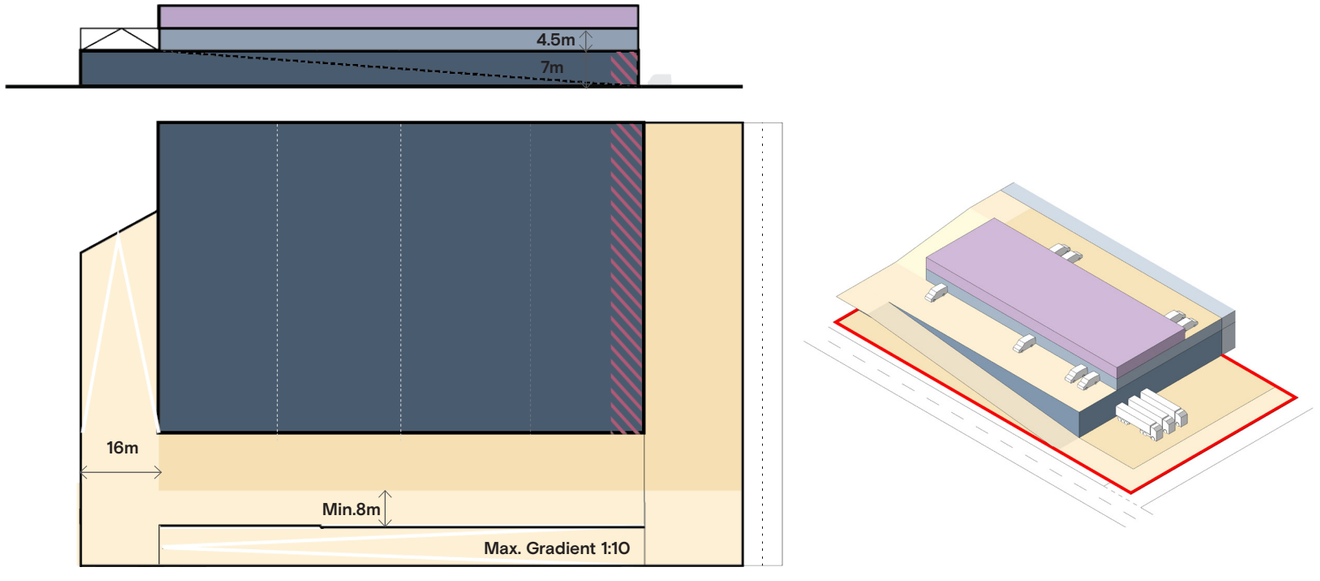
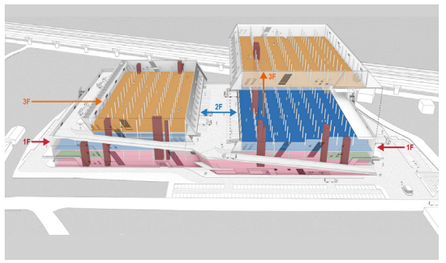


Figure 5. *Typology C*

References

Hotel Industriel Patin
Paul Chemetov
Paris, France



Yangmei Logistic Center
JJP Architects & Planners
Taoyuan City, Taiwan

APPROACH: PROCESS TO DETERMINE INTENSIFICATION

1. Developable plot area

C46. Determine whether to discount a portion of the sub-area based on the condition of building stock and discounting less intensifiable uses. As explained in paragraph C11, no discount is necessary where VOA floorspace data has already excluded areas in these uses.

2. Measure uplift potential

C47. Determine net available developable plot area for intensification and apply net plot ratios of potential typologies to represent ranges of potential uplift in floorspace.

3. Consider appropriate typologies

C48. Consider further, if typologies may be more or less likely to come forward, based on business activities, limitations to increased servicing activity, and site size and proportion, in order to potentially discount any from capacity considerations.

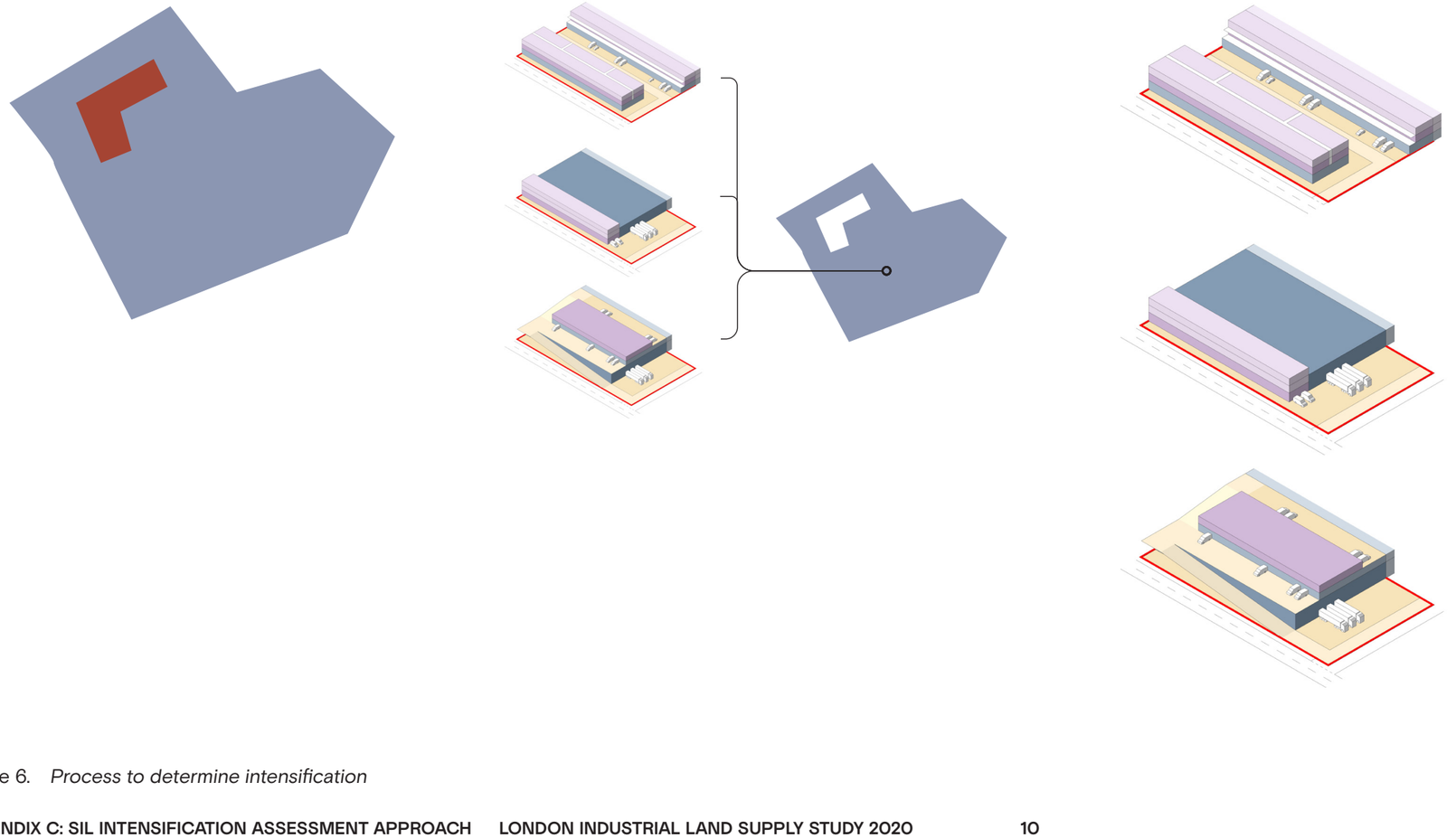


Figure 6. *Process to determine intensification*

THEORETICAL CAPACITY CALCULATIONS

DEVELOPABLE AREA

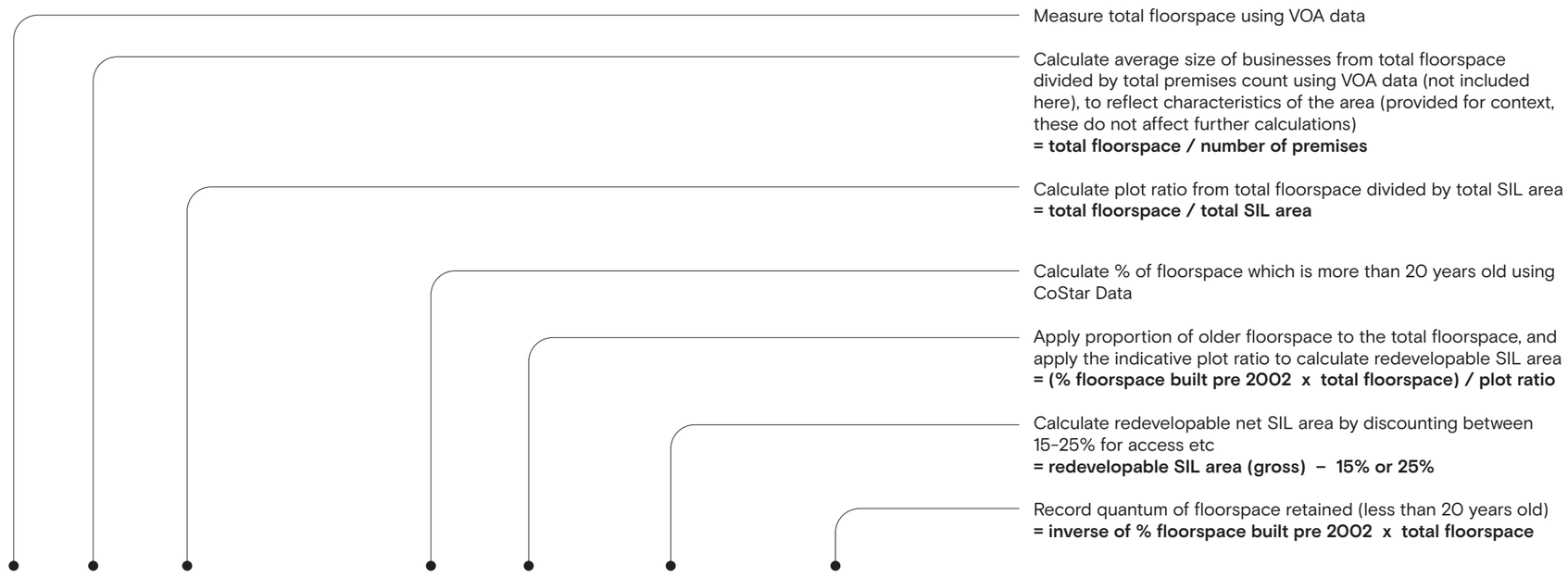
C49. In order to calculate the area suitable for redevelopment and theoretical uplift in capacity, the methodology outlines the need to determine the quantum of existing stock older than 20 years (pre-2002). The percentage of built stock older than 2002 is taken from CoStar Data.

C50. From this, the amount of floorspace that is considered redevelopable can be calculated.

C51. Plot areas related to floorspace is only known at a SIL sub-area level, therefore in order to calculate developable plot area an average plot ratio must be applied to the floorspace.

C52. Once gross plot area is calculated, this must be converted to net in order to allow typology net plot ratios to be applied.

C53. Application of the above process is set out in Table 7 below.



				Buildings and Businesses		Site Characteristics	Redevelopable plot area					
				Total floorspace	Average size of businesses by premises size	Indicative plot ratio	Total SIL area	% floorspace built pre 2002	Redevelopable SIL area (gross, based on average plot ratio)	Redevelopable SIL area (net range)		Retained floorspace
LONDON PLAN REF.	LONDON PLAN NAME	SUB-AREA NAME (IF APPLICABLE)	BOROUGH	sqm	Average Premises size, sqm	Total floorspace divided by SIL sub-area	ha		ha	lower range ha	upper range ha	
				VOA	Calculation	Calculation	GLA	CoStar data	Calculation	25% discounted	15% discounted	Calculation
3	**Fish Island / Marshgate Lane**			**36,591**	**189**	**65%**						
		Bow Goods Yard East*	LLDC	-	-	-	-	-	-	-	-	-
		Fish Island South including Bow Midland West Rail Site	LLDC	36,591	189	65%	5.63	37%	2.08	1.56	1.77	23,052
5	**Queenstown Road, Battersea**			**145,020**	**384**	**90%**						
		Nine Elms	Wandsworth	145,020	384	90%	16.11	39%	6.28	4.71	5.34	88,462
13	**Tottenham Hale**			**47,245**	**239**	**63%**						
		Tottenham Hale	Haringey	47,245	239	63%	7.55	97%	7.33	5.50	6.23	1,417
17	**Hayes Industrial Area**			**538,118**	**1,092**	**42%**						
		Springfield Road	Hillingdon	129,118	1,050	56%	23.09	80%	18.47	13.85	15.70	25,824
		Hayes Industrial Area	Hillingdon	409,000	1,105	39%	103.61	65%	67.35	50.51	57.25	143,150
27	**Wembley**			**126,462**	**1,240**	**20%**						
		Wembley	Brent	126,462	1,240	20%	64.25	80%	51.40	38.55	43.69	25,292
32	**Dagenham Dock / Rainham Employment Area**			**1,001,885**	**2,183**	**26%**						
		Dagenham Dock	Barking & Dagenham	445,381	7,070	23%	194.49	37%	71.96	53.97	61.17	280,590
		Rainham Employment Area	Havering	556,503	1,405	28%	196.28	37%	72.62	54.47	61.73	350,597
39	**London Industrial Park**			**131,080**	**2,149**	**57%**						
		London Industrial Park	Newham	131,080	2,149	57%	23.02	90%	20.72	15.54	17.61	13,108
47	**West Thamesmead / Plumstead Industrial Area (including White Hart Triangle)**			**126,335**	**883**	**27%**						
		Plumstead including White Hart Triangle	Greenwich	27,143	1,131	23%	11.56	38%	4.39	3.29	3.73	16,829
		West Thamesmead	Greenwich	99,193	834	28%	35.60	48%	17.09	12.82	14.52	51,580
52	**Morden Road Factory Estate and Prince George's Road**			**229,783**	**560**	**62%**						
		Morden Road Factory Estate & Prince George's Road	Merton	229,783	560	62%	37.32	68%	25.38	19.03	21.57	73,531
54	**Purley Way and Beddington Lane Industrial Area**			**840,996**	**1,114**	**45%**						
		Purley Way North	Croydon	264,163	1,240	47%	56.26	78%	43.88	32.91	37.30	58,116
		Purley Way South	Sutton	232,290	671	59%	39.62	77%	30.50	22.88	25.93	53,427
		Purley Way and Beddington Lane Ind. Area	Sutton	344,543	1,758	38%	89.86	63%	56.61	42.46	48.12	127,481
				3,223,516	**1,101**	**38%**						

*No assessment undertaken as there is no existing floorspace from which to base this on

Table 7. *Calculating developable area*

DETERMINE UPLIFT POTENTIAL

C54. In order to determine the theoretical uplift range the quantum of floorspace generated by different typologies – based on their respective plot ratios and applied to the net developable area – must first be calculated.

C55. This is added to the retained floorspace to create a potential floorspace total.

C56. Lastly, the delta between the current floorspace and potential total theoretical capacity gives the uplift.

C57. A lower and upper figure is given for the uplift, responding to the potential for a mix of appropriate typologies.

C58. Application of the above process is set out in Table 8 below.

Calculate lower and upper quantum of floorspace that could potentially theoretically be achieved by applying the typology plot ratio % to the redevelopable net SIL area. Here, the lower plot ratio % is applied to the lower end of the range of the redevelopable net SIL area, and likewise the upper plot ratio % is applied to the upper end of the range of the redevelopable net SIL area, to produce two extremes. A further assessment of appropriate typologies will determine if any should be discounted from the calculation – see following page
= redevelopable SIL area x typology plot ratio x 10,000

Calculate potential total floorspace as a range, adding the redevelopment potential per typology to the retained floorspace quantum
= redevelopment potential range + retained floorspace

Calculate potential floorspace uplift as a range by comparing the new total floorspace quantum with the current floorspace quantum
= existing total floorspace – potential total floorspace range

				Buildings and Businesses		Site Characteristics	Redevelopment potential per typology						Potential total floorspace range		Potential uplift range	
				Total floorspace	Average size of businesses by premises size	Indicative plot ratio	Typology A		Typology B		Typology C		Potential lower total floorspace	Potential upper total floorspace	Potential lower uplift	Potential maximum uplift
LONDON PLAN REF.	LONDON PLAN NAME	SUB-AREA NAME (IF APPLICABLE)	BOROUGH	sqm	Average Premises size, sqm	Total floorspace divided by SIL sub-area	2 storeys (m^2)	3 storeys (m^2)	1.5 storey (m^2)	3 storeys (m^2)	2 storeys (m^2)	3 storeys (m^2)	Floorspace lower range (m^2)	Floorspace upper range (m^2)	Floorspace lower range (m^2)	Floorspace upper range (m^2)
				VOA	Calculation	Calculation	100%	150%	100%	120%	150%	200%	Calculation	Calculation	Calculation	Calculation
3	**Fish Island / Marshgate Lane**			**36,591**	**189**	**65%**										
		Bow Goods Yard East*	LLDC	-	-	-							-	-	-	-
		Fish Island South including Bow Midland West Rail Site	LLDC	36,591	189	65%	15,629	26,570	15,629	21,256	23,444	35,426	38,682	58,479	2,090	21,887
5	**Queenstown Road, Battersea**			**145,020**	**384**	**90%**										
		Nine Elms	Wandsworth	145,020	384	90%	47,112	80,090	47,112	64,072	70,667	106,786	135,574	195,249	- 9,446	50,228
13	**Tottenham Hale**			**47,245**	**239**	**63%**										
		Tottenham Hale	Haringey	47,245	239	63%	54,951	93,417	54,951	74,733	82,427	124,556	56,368	125,973	9,123	78,728
17	**Hayes Industrial Area**			**538,118**	**1,092**	**42%**										
		Springfield Road	Hillingdon	129,118	1,050	56%	138,525	235,492	138,525	188,394	207,787	313,990	164,348	339,813	35,230	210,695
		Hayes Industrial Area	Hillingdon	409,000	1,105	39%	505,114	858,693	505,114	686,955	757,670	1,144,924	648,264	1,288,074	239,264	879,074
27	**Wembley**			**126,462**	**1,240**	**20%**										
		Wembley	Brent	126,462	1,240	20%	385,497	655,344	385,497	524,275	578,245	873,792	410,789	899,085	284,327	772,622
32	**Dagenham Dock / Rainham Employment Area**			**1,001,885**	**2,183**	**26%**										
		Dagenham Dock	Barking & Dagenham	445,381	7,070	23%	539,709	917,505	539,709	734,004	809,563	1,223,340	820,299	1,503,930	374,918	1,058,549
		Rainham Employment Area	Havering	556,503	1,405	28%	544,673	925,945	544,673	740,756	817,010	1,234,593	895,271	1,585,190	338,767	1,028,687
39	**London Industrial Park**			**131,080**	**2,149**	**57%**										
		London Industrial Park	Newham	131,080	2,149	57%	155,392	264,166	155,392	211,333	233,088	352,221	168,500	365,329	37,420	234,250
47	**West Thamesmead / Plumstead Industrial Area (including White Hart Triangle)**			**126,335**	**883**	**27%**										
		Plumstead including White Hart Triangle	Greenwich	27,143	1,131	23%	32,933	55,986	32,933	44,789	49,400	74,648	49,762	91,477	22,619	64,334
		West Thamesmead	Greenwich	99,193	834	28%	128,154	217,862	128,154	174,290	192,231	290,483	179,734	342,063	80,542	242,871
52	**Morden Road Factory Estate and Prince George's Road**			**229,783**	**560**	**62%**										
		Morden Road Factory Estate & Prince George's Road	Merton	229,783	560	62%	190,339	323,577	190,339	258,862	285,509	431,436	263,870	504,967	34,087	275,183
54	**Purley Way and Beddington Lane Industrial Area**			**840,996**	**1,114**	**45%**										
		Purley Way North	Croydon	264,163	1,240	47%	329,114	559,494	329,114	447,595	493,671	745,992	387,230	804,108	123,067	539,945
		Purley Way South	Sutton	232,290	671	59%	228,782	388,929	228,782	311,143	343,173	518,572	282,209	571,999	49,918	339,709
		Purley Way and Beddington Lane Ind. Area	Sutton	344,543	1,758	38%	424,580	721,786	424,580	577,429	636,870	962,382	552,061	1,089,863	207,518	745,320
				3,223,516	**1,101**	**38%**							**5,052,960**	**9,765,598**	**1,829,444**	**6,542,082**

*No assessment undertaken as there is no existing floorspace from which to base this on

Table 8. *Calculating theoretical uplift range*

APPROPRIATE TYPOLOGIES

C59. A further assessment of appropriate typologies is required to adjust the potential uplift range calculated above to realistic levels. This will also be informed by the specific characteristics of the identified SILs - see for example distinct characteristics included in Table 1.

C60. It is important that the approach to testing the theoretical capacity of the identified sub-areas is undertaken using typologies that suit the likely nature of demand for space.

C61. To inform further sub-area testing, Avison Young propose a high-level review of the likely need for space in each location both now and in the future using knowledge of the sub-areas, general market dynamics, emerging development concepts and data from the other parts of this supply study.

C62. Primarily this further assessment would be based on the following to establish a broad understanding of potentially suitable typologies:

- A review of the existing nature of properties, including the age of stock, and sizes.
- Consideration of the existing business mix to determine the degree of alignment with space that would be provided.
- General understanding of demand for different size units to understand the likelihood of intensified space being delivered.
- Scale and nature of sites and plots within each sub-area, considering whether land ownership structure would allow plots of sufficient size.
- A review of recent development in the sub-area to identify whether it is a location that may have potential for intensified typologies.
- Identifying any potential limiting factors in the sub-area such as proximity to residential and other sensitive uses.

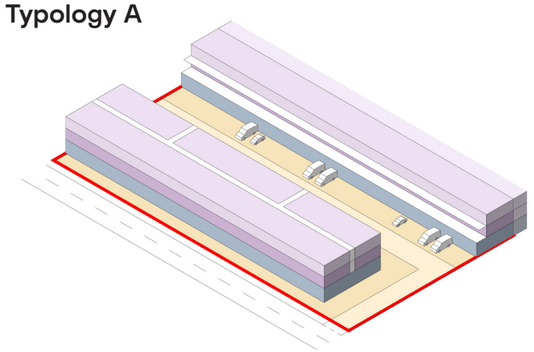
C63. The local site assessment should also consider the guidance set out in the initial stages (site analysis, design vision and parameters) of the 'Optimising Site Capacity: A Design-Led Approach' LPG.

C64. Specific consideration should be given to the potential to service the sub-area. Whilst no transport assessment has been undertaken an initial view of the scale and nature of the road network and its potential limitation on site accessibility/servicing is important. This would need specific investigation to understand the true potential of any of the sub-areas for intensification.

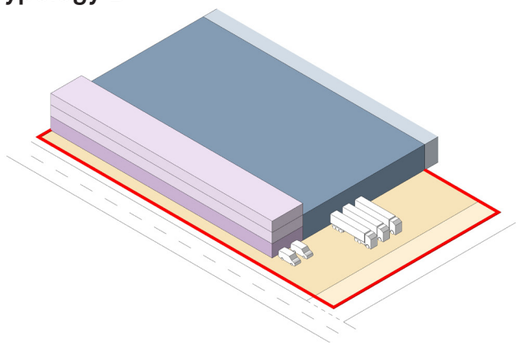
Viability

C65. The viability of intensified typologies within the London market is yet to be fully established by private sector market actors, as such there is no consensus around how achievable rents, yields and build costs should be benchmarked against established industry 'norms'. Therefore, until intensified typologies are more proven in the market, to understand viability and deliverability of any particular proposal it will be necessary for local authority specific testing to be undertaken, with direct input from the sector to establish reasonable input assumptions that reflect market conditions at that point in time and within that specific sub-market.

Typology A



Typology B



Typology C

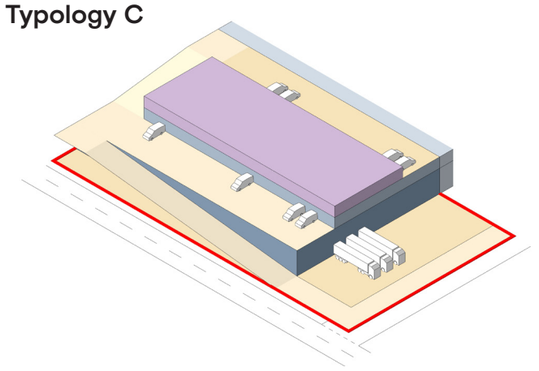


Figure 7. *Typologies*

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