

## Appendix 7: Future Requirements for Employment Space

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1.1 This note considers, in full, the future employment space needs of South Tyneside. It draws on a range of analytical techniques which reflect Planning Practice Guidance (PPG) and align with the National Planning Policy Framework (NPPF). The various scenarios considered are used to inform an assessment of future needs for office, industrial and distribution uses in the Borough over the period 2021 to 2039.

1.2 The key findings of this note are summarised in Section 7.0 of the main ELR report.

### Methodology

1.3 The NPPF (July 2021) requires local authorities to “*set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration*” (Paragraph 82.a).

1.4 In addition, the PPG on Housing and Economic Needs Assessment (December 2020) advises that “*strategic policy making authorities will need to develop an idea of future needs based on a range of data which is current and robust.*” The PPG also suggests that this range of data could include measures of labour demand, labour supply and past take-up, as well as consultation with key stakeholders and businesses.

1.5 In the context of the above, the following scenarios have been considered:

- **Scenario 1:** projections of employment growth (**labour demand**) within the main office and industrial sectors derived from a pre-Covid baseline economic forecast produced by Experian (March 2019);
- **Scenario 2:** projections of employment growth (**labour demand**) within the main office and industrial sectors derived from the latest baseline economic forecast<sup>1</sup> produced by Experian (March 2022);
- **Scenario 3:** a policy-on estimate of employment growth (**labour demand**) to reflect the wider economic impact of the IAMP proposals<sup>1</sup>;
- **Scenario 4:** estimates of local **labour supply** growth based on demographic assumptions applied to South Tyneside’s Standard Method local housing need figure of 321 dwellings per annum (dpa); and
- **Scenario 5:** consideration of **past take-up** rates of employment space in South Tyneside, based upon data collected by LSH.

1.6 Each of the approaches listed above has its own strengths and limitations. As such, consideration needs to be given to how suitable each is to the likely future circumstances in South Tyneside.

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<sup>1</sup> Latest forecasts available at the time of Lichfields’ appointment

- 1.7 It should be noted that the final decision regarding the level of need that the Borough should plan for is not purely quantitative. There are various qualitative factors (as set out in other sections of the main ELR report) that should be taken into account alongside the modelled scenarios. These factors, which have been identified through an analysis of economic and market conditions – as well as consultation with economic stakeholders, commercial agents and local businesses – will influence the employment space requirements that need to be planned for.

### **Labour Demand Forecasts**

- 1.8 Employment growth forecasts for South Tyneside covering the period 2021 to 2039 (to align with the Council's Local Plan period) were obtained from Experian's Regional Planning Service. Experian's forecasts take into account regional and national macroeconomic trends and outlook to estimate future economic growth at the local authority level.
- 1.9 Having regard to the uncertainty regarding the UK's economic trajectory as it emerges from the Covid-19 public health crisis, two alternative scenarios were obtained:
- Experian's March 2019 forecast, to provide an understanding of the pre-Covid economic outlook; and
  - Experian's March 2022 forecast, to provide the latest (at the time of Lichfields' appointment) view of future economic performance.
- 1.10 Employment forecasts of this type are recognised as providing a valuable input to the ELR process by providing an indication of the broad scale and direction of future employment change by sector. This helps to assess the future land requirements of a local economy. It should also be noted, however, that there are limitations to the use of economic forecasts of this type, particularly during a period of economic uncertainty:
- National macroeconomic assumptions are taken as a starting point and then modelled down to the regional and local levels, having regard to the existing economic profile and sector make-up of an area. As such, data at the local level is less reliable than at the national and regional levels; and
  - The top-down nature of the forecasts means that they are unable to take account of specific issues or interventions at the local level that could influence future employment growth.

### **Scenario 1: Baseline Labour Demand (Pre-Covid)**

- 1.11 Employment growth forecasts for the Borough covering the period 2021 to 2039 were obtained from Experian's March 2019 release. This forecast was commissioned to provide an alternative to the March 2022 figures (Scenario 2). They outline the anticipated growth trajectory of South Tyneside prior to the Covid-19 pandemic.

- 1.12 The local level employment forecasts are consistent with Experian’s February 2019 UK macro forecast, with further detail on the key assumptions summarised below.

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*Brexit remains the key risk for the UK economy. For now we maintain an assumption that an “orderly” Brexit will be the eventual outcome and that the UK will gain similar access to the single market as it does currently. We fully anticipated that such a deal will take longer to conclude than the initial March deadline, and we do not expect growth to begin to make a meaningful recovery until 2021.*

*Business investment fell for a fourth consecutive quarter in 2018q4, down 1.4%. In annual terms, this represents a 3.7% decline, the largest fall since the first quarter of 2010.*

*Employment rose by 167,000 to 32.6 million in the three months to December 2018, the largest rise since 2018q1.*

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### *Implied Employment Change*

- 1.13 Table 1 provides a summary of employment change derived from the March 2019 Experian forecasts, broken down by office, industrial and distribution uses. This includes an allowance for jobs in other sectors that do not typically demand employment space. Total employment change over the Local Plan period is also set out in the table.

Table 1 Forecast Employment Change in South Tyneside (pre-Covid) 2021-2039

Type of Space/Use Class	Number of Workforce Jobs		
	2021	2039	Change (2021 – 2039)
Office E(g)(i)/(ii)	6,390	7,070	+680
Light Industrial E(g)(iii)	2,595	2,595	0
General Industrial B2	4,270	3,055	-1,215
Distribution B8	3,120	3,495	+375
<b>Total (Employment Uses)</b>	<b>16,375</b>	<b>16,220</b>	<b>-155</b>
<b>Total (Workforce Jobs)</b>	<b>46,500</b>	<b>49,100</b>	<b>+2,600</b>

Source: Experian (March 2019) / Lichfields analysis

NB: Figures may not sum due to rounding

- 1.14 Under this scenario, total workforce jobs are expected to increase by 6% over the Plan period, resulting in an additional 2,600 workforce jobs in the Borough. In contrast,

however, the number of workforce jobs accounted for by employment uses is anticipated to contract by 155. This contraction is driven by a forecast decline in B2 General Industrial jobs of 1,215, which is enough to offset the anticipated growth in employment in office-based sectors (+680 workforce jobs) and the distribution sector (+375 workforce jobs).

- 1.15 Figure 1 illustrates the trajectory of total workforce job growth in South Tyneside assumed under the (March 2019) Experian forecasts. It is important to acknowledge that the forecasts were produced in advance of the Covid-19 pandemic and so do not allow for any contraction of employment in 2020 and 2021. Workforce jobs are generally expected to be on an upward trajectory, albeit with some small periods of contraction (in the mid-2020s and mid-2030s). In comparison with the historic trend data (1997 to 2018) future performance is forecast to be significantly less volatile.

Figure 1 Employment Growth Trajectory (Total Workforce Jobs) in South Tyneside (pre-Covid)



Source: Experian (March 2019) / Lichfields analysis

- 1.16 Table 2 provides a summary of those sectors forecast to experience the largest absolute increases and decreases in employment over the Plan period. This demonstrates that some of those sectors forecast to experience the greatest growth would typically occupy space that falls within the employment use classes, including administrative & support services, land transport, storage & post, and professional services. The forecast also suggests that wider sectors such as accommodation & food services, residential care & social work, and health – which are less likely to generate any demand for employment space – will play an important role in driving local job growth between 2021 and 2039. In addition, it can be seen from Table 2 that the fastest declining sectors are dominated by manufacturing activities (which would typically be expected to influence the future demand for employment space).

Table 2 Fastest Growing and Declining Sectors in South Tyneside (2021 to 2039)

Sector	Forecast Change in Workforce Jobs (2021 to 2039)	
	Number	%
<b>Fastest Growing Sectors</b>		
Administrative & Support Services	700	16%
Land Transport, Storage & Post	600	22%
Accommodation & Food Services	600	17%
Residential Care & Social Work	500	17%
Health	500	9%
Professional Services	400	20%
<b>Fastest Declining Sectors</b>		
Public Administration & Defence	-200	-11%
Other Manufacturing	-200	-25%
Computer & Electronic Products (manufacture of)	-200	-40%
Machinery & Equipment (manufacture of)	-200	-40%
Textiles & Clothing (manufacture of)	-200	-40%
Transport Equipment (manufacture of)	-200	-40%
Metal Products (manufacture of)	-300	-30%

Source: Experian (March 2019) / Lichfields analysis

### *Converting to Employment Space Requirements*

1.17

The office, (light and general) industrial and distribution components of these employment growth forecasts have been converted to future floorspace requirements, with the following average density figures applied:

- **Offices (E(g)(i)/(ii)):** 1 workforce job per 12.5sq.m;
- **Light industrial (E(g)(iii)):** 1 workforce job per 47sq.m;
- **General industrial (B2):** 1 workforce job per 37sq.m; and
- **Distribution:** 1 workforce per 65sq.m for smaller scale warehousing/distribution, 1 workforce job per 71sq.m for medium scale, lower density units and 1 job per 87.5sq.m for 'big box' distribution uses. Lichfields has been advised, by LSH, that the future profile of demand in South Tyneside is likely to be dominated by smaller scale units

(80%) with medium scale and big box developments accounting for 5% and 15% respectively.

1.18 These assumptions are based on the latest Homes & Communities Agency (HCA) guidance on employment densities, published in 2015. The guidance takes account of recent trends in terms of the changing utilisation of floorspace, including more efficient use of office floorspace due to a higher frequency of flexible working and hot-desking. All the figures correspond to Gross External Areas (GEA).

1.19 An allowance of 8% has been added to all positive floorspace requirements, to reflect ideal levels of vacancy in commercial property markets. Where a reduction in jobs is forecast, the associated negative floorspace figure has been halved. This reflects the fact that, whilst there may be some ongoing job losses in a sector, it does not necessarily and automatically follow that all of the associated existing floorspace will be lost (particularly where job losses are linked to the adoption of more efficient production techniques etc.). The resultant net floorspace requirements are summarised in Table 3.

Table 3 Net Employment Floorspace Requirements in South Tyneside (pre-Covid) 2021-2039

Type of Space/Use Class	Net Requirement, 2021 to 2039 (sq.m)
Office E(g)(i)/(ii)	9,175
Light Industrial E(g)(iii)	80
General Industrial B2	-22,430
Distribution B8	27,915
<b>Total</b>	<b>14,735</b>

Source: Experian (March 2019) / Lichfields analysis

NB: Figures may not sum due to rounding

## Scenario 2: Baseline Labour Demand (Latest Data)

1.20 In addition to Scenario 1, employment growth forecasts for the period 2021 to 2039 were also obtained from Experian's March 2022 release. This later dataset (discussed in the following paragraphs) represented the most up-to-date forecast available at the time Lichfields was appointed by South Tyneside Council to produce an updated ELR.

1.21 The local level employment forecasts are consistent with Experian's February 2022 UK macro forecast and take account of the economic impacts of the Covid-19 pandemic. Further detail on the key assumptions underpinning the data is provided below.

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*Despite a slight downturn in the last month of 2021, the economy grew by 7.5% in 2021 over 2020, rebounding from its historic 9.4% plunge in 2020 when pandemic restrictions stifled activity. This is a modest bounce-back despite the spread of new variants and re-introduction of restrictions throughout the year weighing down on economy recovery.*

*As the UK economy continues to navigate the course correction of the pandemic, growing headwinds in the form of the Ukraine war which will exacerbate the cost-of-living crisis and the continued inflationary pressures darken the outlook across the UK this year. While growth will remain positive this year, there has been a downgrade relative to the previous release.*

*The latest Labour Force Survey shows a continued recovery in the labour market. UK unemployment dropped from 4.1% to 3.9%, its lowest level since the three months to January 2020, while 275,000 jobs were added to the UK economy in February...Meanwhile, the number of job vacancies hit a fresh record high of 1.318 million in the three months to February, a 105,000 jump from the previous quarter, underscoring the labour shortage facing many employers and this could well temper growth potential.*

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- 1.22 It is recognised that, since the production of the March 2022 forecasts, the UK has entered another period of economic volatility as a result of high inflation, a cost-of-living crisis and the devaluation of sterling as markets responded to the Government's mini budget (announced in September 2022). Reflecting the greater than usual degree of uncertainty and variability attached to the current economic outlook, there may be some merit in South Tyneside commissioning further forecasting work closer to the Local Plan Examination.

*Implied Employment Change*

- 1.23 A summary of employment change taken from the March 2022 Experian forecasts is provided in Table 4. The data is broken down by office, industrial and distribution uses. Total employment change over the Local Plan period is also set out in the table.

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Table 4 Forecast Employment Change in South Tyneside, 2021-2039

Type of Space/Use Class	Number of Workforce Jobs		
	2021	2039	Change (2021 – 2039)
Office E(g)(i)/(ii)	7,145	8,215	+1,070
Light Industrial E(g)(iii)	3,195	3,530	+335
General Industrial B2	3,845	2,900	-945
Distribution B8	2,950	3,395	+445
<b>Total (Employment Uses)</b>	<b>17,135</b>	<b>18,040</b>	<b>+910</b>
<b>Total (Workforce Jobs)</b>	<b>45,600<sup>2</sup></b>	<b>49,200</b>	<b>+3,600</b>

Source: Experian (March 2022) / Lichfields analysis

NB: Figures may not sum due to rounding

1.25

Under this scenario, total workforce jobs in South Tyneside are also expected to increase to c.49,000 by 2039. As a result of the lower base position, however (due to the impact of Covid-19) this corresponds to an additional 3,600 workforce jobs (an 8% uplift). Approximately 25% of this job growth is forecast to occur within those sectors that typically use employment space. This is driven by an increase in office-based sectors (1,070 additional jobs) and – to a lesser extent – distribution (445 additional jobs) and light industrial (335 additional jobs). In contrast, a decline in employment (equivalent to 945 jobs) is anticipated in relation to general industrial uses.

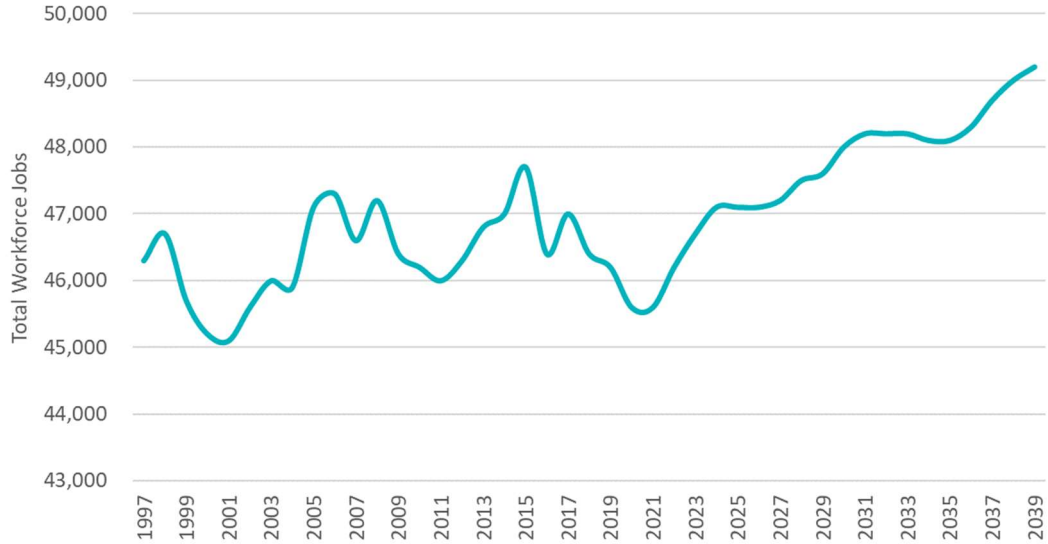
1.26

The trajectory of total workforce job growth in South Tyneside – as anticipated in the (March 2022) Experian forecasts – is shown in Figure 2. Under this scenario, workforce jobs are expected to grow in the short-term as the labour market recovers from the effects of Covid-19. The size of the Borough’s workforce is expected to return to pre-pandemic levels by 2022 and to continue growing to 2024. Beyond this, the local economy is expected to remain on an upward trajectory, albeit with some small fluctuations.

<sup>2</sup> Total workforce jobs in 2021 vary between Scenario 1 and Scenario 2. This reflects the fact that the two forecasts were produced at different points in time, with Scenario 2 drawing upon more up-to-date baseline data.



Figure 2 Employment Growth Trajectory (Total Workforce Jobs) in South Tyneside



Source: Experian (March 2022) / Lichfields analysis

1.27

Table 5 provides a summary of those sectors forecast to experience the largest absolute increases and decreases in employment over the Plan period. This demonstrates that some of those sectors forecast to experience the greatest growth would typically occupy space that falls within the employment use classes, including land transport, storage & post, administrative & support services, and professional services. The forecast also suggests that wider sectors such as accommodation & food services and health – which are less likely to generate any demand for employment space – will play an important role in driving local job growth between 2021 and 2039. In addition, it can be seen from Table 5 that the fastest declining sectors include a number of manufacturing sectors (which would typically be expected to influence the future demand for employment space).

Table 5 Fastest Growing and Declining Sectors in South Tyneside (2021 to 2039)

Sector	Forecast Change in Workforce Jobs (2021 to 2039)	
	Number	%
<b>Fastest Growing Sectors</b>		
Accommodation & Food Services	900	25%
Land Transport, Storage & Post	700	27%
Administrative & Support Services	700	17%
Professional Services	600	27%
Health	500	10%
Specialised Construction Activities	400	15%
<b>Fastest Declining Sectors</b>		
Public Administration & Defence	-200	-9%
Computers & Electronic Products (manufacture of)	-200	-40%
Machinery & Equipment (manufacture of)	-200	-40%
Transport Equipment (manufacture of)	-200	-40%

Source: Experian (March 2022) / Lichfields analysis

### *Converting to Employment Space Requirements*

1.28

The employment change forecast in Experian's March 2022 release has been translated into future employment space requirements using the same approach detailed above in relation to Scenario 1. The resultant net floorspace figures are summarised in Table 6.

Table 6 Net Employment Floorspace Requirements in South Tyneside, 2021-2039

Type of Space/Use Class	Net Requirement, 2021 to 2039 (sq.m)
Office E(g)(i)/(ii)	14,465
Light Industrial E(g)(iii)	16,970
General Industrial B2	-17,490
Distribution B8	33,185
<b>Total</b>	<b>47,130</b>

Source: Experian (March 2022) / Lichfields analysis

## Scenario 3: Policy-On Labour Demand

1.29 In addition to the Baseline Labour Demand scenarios described in the preceding paragraphs, Lichfields were asked to consider the job growth and employment space implications of a Policy-On Labour Demand scenario. This scenario takes, as its starting point, March 2022 baseline employment forecasts produced by Experian and adds to this dataset an allowance for the potential impact of the IAMP proposals (as envisaged in the Area Action Plan (and supporting documents) adopted in November 2017).

### *The IAMP Concept*

1.30 The development of the IAMP is central to the Sunderland and South Tyneside City Deal. The overall vision for the project is to bring forward a large site to the west of Sunderland City Centre (to the north of the Nissan UK car plant) with a focus on accommodating demand from the advanced manufacturing and automotive sectors. The site falls within the local authority areas of South Tyneside and Sunderland.

1.31 It is anticipated, based upon the evidence submitted to the IAMP Area Action Plan Examination in Public, that the IAMP will primarily provide accommodation for production, supply chain and distribution activities directly related to the automotive and advanced manufacturing sectors. The IAMP Area Action Plan states that:

*“Nissan’s supply chain has seen, and will continue to see, significant growth. Some of this supply chain is in the North East of England but in addition, Nissan currently sources £0.67 billion worth of components annually from outside the North East of England. It is likely that some of this growth will look to relocate to the North East of England and potentially into the vicinity of the Nissan plant. Given the increased demand from Nissan and the need to secure its supply chain.”*

1.32 The IAMP Area Action Plan allows for the development of 392,000sq.m of floorspace. It is recognised that the macroeconomic context has shifted since the production of the evidence base which underpinned the IAMP Area Action Plan. It is understood, however, that demand for space at the IAMP – and the underlying strategic economic case – has strengthened in recent years, due to:

- The evolution of the automotive industry, including an acceleration in the shift towards electrification. This has created new supply chain opportunities and a renewed emphasis on ‘just-in-time’ processes; and
- The introduction of the Rules of Origin Clause as a result of the EU Exit deal. This has prompted many commentators to conclude that the development of domestic battery production is critical to the continued success of the UK automotive industry.

1.33 Lichfields has been advised by STC officers that it is currently expected that 40% of the total floorspace to be delivered at the IAMP will be located within the administrative boundaries of South Tyneside.

### *Developing a Policy-On Forecast*

- 1.34 It is important to note that it is *not* the purpose of the ELR to test the case for bringing the IAMP forward for employment uses or to quantify the level of employment space to be provided at the IAMP. An Area Action Plan for the site, which provides the planning policy framework for the IAMP and is underpinned by a detailed body of site-specific evidence, has been tested by an Inspector at an Examination in Public and subsequently adopted.
- 1.35 Within the context of the above, the ELR focuses on understanding the demand-supply balance with respect to the stock of employment space in South Tyneside *excluding* the IAMP. Similarly, the Policy-On Labour Demand scenario considered in the following paragraphs *is not* intended to assess the potential need for employment space associated with the direct employment impacts of the IAMP (which will be accommodated on the site itself). Rather, it seeks to understand the implication of the IAMP on the general demand for employment space across the Borough. The scenario achieves this by considering the likely impact of the IAMP with respect to office and industrial employment change within South Tyneside (but outwith the IAMP site and adding this to the baseline employment forecasts presented under Scenario 2).

### *Projected Employment Change*

- 1.36 It is estimated that – during the Plan period – the IAMP could result in the creation of an additional 1,780 Full-Time Equivalent (FTE) jobs in South Tyneside (over and above the baseline level of growth forecast by Experian in March 2022). This figure *excludes* the direct (on-site) jobs to be created at the IAMP.
- 1.37 Appendix 9 explains, in detail, the methodology applied to estimate the additional employment growth associated with the IAMP supply chain. In summary, the analysis takes account of:
- The level of direct employment anticipated on the IAMP site (and the proportion to be located within South Tyneside);
  - The type of activity (by broad use class) that the site is expected to accommodate; and
  - The likely strength of local supply chain linkages.
- 1.38 This analysis indicates that the Policy-On jobs uplift is likely to be driven largely by the manufacturing sector (estimated to account for 1,080 of the 1,780 additional FTE jobs). The anticipated distribution of the Policy-On job uplift by use class is summarised below<sup>3</sup>:
- **Office (E(g)(i)/(ii)):** 480 FTE jobs;
  - **Light industrial (E(g)(iii) and Manufacturing (B2)):** 1,080 FTE jobs<sup>4</sup>; and
  - **Distribution (B8):** 220 FTE jobs.

<sup>3</sup> NB: figures may not sum due to rounding

<sup>4</sup> IAMP AAP background documents do not differentiate between general and light industrial uses

- 1.39 The above job figures relate to FTE employment, reflecting the way that the employment impacts of the IAMP were presented to the IAMP Area Action Plan Inspector. It has therefore been necessary to convert these to workforce job estimates to ensure:
- That job figures within this note are presented on a consistent basis across all scenarios; and
  - The correct application of the employment densities outlined earlier in this note (which correspond to workforce employment data).
- 1.40 The latest available data from the Business Register and Employment Survey (2020) has been used by Lichfields to determine the relationship between FTE and workforce jobs for office, manufacturing and warehousing activities. Applying this to the FTE jobs figures yields the following estimated workforce job figures:
- **Office (E(g)(i)/(ii)):** 550 workforce jobs;
  - **Light industrial (E(g)(iii)) and Manufacturing (B2):** 1,110 workforce jobs<sup>5</sup>; and
  - **Distribution (B8):** 235 workforce jobs.
- 1.41 Taking into account the anticipated supply chain impacts associated with the IAMP (above) as well as the underlying employment growth assumed within Scenario 2 (Baseline Labour Demand: Latest Data) it is estimated that growth of 2,805 workforce jobs could be anticipated under the Policy-On Labour Demand scenario. This covers the period 2021 to 2039 and is summarised in Table 7:

Table 7 Forecast Employment Change in South Tyneside (Policy-On) 2021-2039

Type of Space/Use Class	IAMP Supply Chain Job Impacts (workforce jobs)	Baseline (Workforce) Job Change (Scenario 2)	Policy-On Job Change (Workforce Jobs)
		2021-2039	2021-2039
Office E(g)(i)/(ii)	+550	+1,070	+1,620
Light Industrial E(g)(iii)	+610 <sup>6</sup>	+335	+945
General Industrial B2	+500	-945	-445
Distribution B8	+235	+445	+680
<b>Total</b>	<b>+1,895</b>	<b>+910</b>	<b>+2,805</b>

Source: Experian (March 2022) / IAMP AAP background evidence / Lichfields analysis

<sup>5</sup> IAMP AAP background documents do not differentiate between general and light industrial uses

<sup>6</sup> IAMP supply chain jobs (industrial) have been disaggregated based on the proportionate split between E(g)(iii) and B2 jobs in 2039 as indicated under Scenario 2

## Converting to Employment Space Requirements

- 1.42 The employment change forecast under the Policy-On Labour Demand scenario has been translated into future employment space requirements using the same approach detailed above in relation to Scenario 1. The resultant net floorspace figures are summarised in Table 8.

Table 8 Net Employment Floorspace Requirements in South Tyneside, 2021-2039

Type of Space/Use Class	Net Requirement, 2021 to 2039 (sq.m)
Office E(g)(i)/(ii)	21,890
Light Industrial E(g)(iii)	47,935
General Industrial B2	-8,240
Distribution B8	50,615
<b>Total</b>	<b>112,200</b>

Source: Experian (March 2022) / IAMP AAP background evidence / Lichfields analysis

NB: Figures may not sum due to rounding

## Labour Supply Forecasts

- 1.43 Alongside the labour demand scenarios, it is instructive to also consider how many jobs – and therefore how much employment space – might be needed to match anticipated growth in South Tyneside’s resident workforce over the period 2021 to 2039. In contrast to Scenarios 1 to 3, this approach projects forward the future supply of labour (based upon planned housing delivery) to estimate the number of jobs needed to provide employment for the likely growth in resident workers.

### Scenario 4: Labour Supply (321 dpa – Standard Method)

- 1.44 Lichfields is advised, by Council officers, that South Tyneside Council is making provision within the draft Local Plan for the delivery of 321 new homes per annum. It is understood that this level of housing need has been identified using the Standard Method.

- 1.45 The approach adopted by Lichfields to estimating the net employment change and associated net employment space requirements arising from a housing need figure of 321 dpa is summarised below:

- 1 A trajectory of population change over the Local Plan period was constructed, drawing on the 2014-based Sub National Population Projections (SNPP) and equivalent Sub National Household Projections (SNHP). The key data sources were selected to ensure consistency with the basis of the Standard Method for calculating local housing need (as set out in the PPG).

- 2 Economic activity rates for males and females over the age of 16 were estimated using the ONS' Annual Population Survey and Midyear Population Estimates (MYE) and anticipated future changes modelled using the projected rates published by the Office for Budget Responsibility (OBR).
- 3 Average unemployment rates were taken from the ONS APS model-based unemployment rate, with an assumption that by 2039 there will have been a modest re-adjustment to the pre-recession (i.e. 2004-2008) average of 8.3%.
- 4 Jobs:Labour Force ratio (LF) calculated by dividing the number of economically active residents (less those unemployed) by the number of jobs in South Tyneside (using the Experian data underpinning Scenario 2). The LF ratio applied equated to 1.36 (the average for 2004-2019). This ratio reflects the fact that there were fewer jobs in the Borough than economically active residents, resulting in a net outflow of commuters. The LF ratio is held constant in the modelling over the Plan Period (2021 to 2039).

- 1.46 The 2014-SNPP indicates that the number of residents living in South Tyneside will increase by 4,625 between 2021 and 2039 (from 150,750 to 155,375). Over the same time period, the number of residents over the age of 16 is projected to grow by 5,835 (from 124,030 to 129,860). Adjusting for economic activity rates and unemployment and applying the LF ratio indicates that jobs in South Tyneside could be expected to fall from 46,710 in 2021 to 45,800 in 2039. This represents a net decline of 905 jobs.
- 1.47 The SNPP population change for South Tyneside has been uplifted to reflect the extent to which the level of housing growth being planned for by the authority (based upon the Standard Method) diverges from the 2014-based SNHP baseline. This analysis indicates that over the period 2021 to 2039, housing delivery is expected to be 15.9% higher under the Standard Method. This rate of uplift has then been applied, by Lichfields, to the population growth over the Plan period. The increase has been applied equally to each age/gender cohort and evenly across the plan period, with all other inputs held constant.
- 1.48 This assumption is applied on the basis that the additional houses will support an increased local population. Whilst some of the houses may be occupied by existing residents that are presently in concealed households (and therefore within the local labour force already), the Standard Method uplift is also intended to improve affordability which could help to retain working-age people within the Borough. The application of this uplift indicates that, in 2039, the total number of jobs needed to meet projected population growth (based on the Standard Method OAN of 321 dpa) would be 53,085. This represents an increase of 6,380 jobs when compared against a figure of 46,710 in 2021.
- 1.49 This headline estimate of employment change has been disaggregated by use class having regard to the existing and forecast structure of employment assumed in the Experian data underpinning Scenario 2. Table 9 provides a summary of the breakdown by use class and the associated floorspace requirements.

Table 9 Net Employment Change and Floorspace Requirements from Labour Supply Growth (Standard Method: 321 dpa) 2021-2039

Type of Space/Use Class	Change (2021 to 2039)	
	Employment (workforce jobs)	Employment Floorspace (GEA sq.m)
Office E(g)(i)/(ii)	1,545	20,880
Light Industrial E(g)(iii)	535	27,185
General Industrial B2	-810	-14,980
Distribution B8	645	47,765
<b>Total (Employment Uses)</b>	<b>1,915</b>	<b>80,855</b>
Total (All Jobs)	6,380	80,855

Source: Lichfields analysis

NB: Figures may not sum due to rounding

## Past Take-Up

- 1.50 Because they reflect development patterns ‘on the ground’ long-term take-up rates can – in some instances – provide a reasonable basis for estimating future land needs. Completions data spanning a period of approximately 10 years or more should help to even out demand fluctuations attributable to different stages of an economic cycle. As such, they would ordinarily provide a reasonable starting point for estimating future needs in the event that supply has not been unduly constrained during this time.
- 1.51 Section 6.0 of the main ELR includes an analysis of past (gross) take-up within South Tyneside. This is based upon work undertaken by LSH and considers data on the basis of 5, 10, 15 and 20-year increments. For the purposes of forecasting future employment space requirements, Lichfields has had regard to take-up over a 20-year period. This has been selected on the basis that:
- The time period broadly aligns with the duration of the Local Plan period (18 years);
  - The data takes account of levels of development activity observed prior to the economic downturns of 2008/9 and 2020/21 (and the sluggish recovery experienced in the intervening period); and
  - Commercial agents in attendance at the Duty to Co-operate suggested that take-up in the Borough has been constrained by a tightening supply of large, good quality sites since approximately 2007/8. As such, it is considered that planning on the basis of the lower average take-up rates recorded over the short to medium-term could risk understating demand by failing to reflect the true scale of potential demand in the Borough.



## Scenario 5: Past (Net) Completions

- 1.52 Based upon analysis provided to Lichfields by LSH, it is understood that 66.12ha of land was developed for employment uses over the 20-year period 2002 to 2021 (inclusive). It should be noted, however, that these figures refer to gross rates of development (i.e. they include all instances of employment space delivery, without offsetting this against the redevelopment or recycling of employment sites for other uses). In contrast, the labour demand and labour supply approaches (Scenarios 1 to 4) considered elsewhere in this note express growth in net terms.
- 1.53 To ensure that all scenarios are presented on a consistent basis – and provide a ‘truer’ measure of demand – Lichfields has removed any losses of employment land to assess the net take-up of employment space in South Tyneside. Analysis undertaken by LSH suggests that almost 47ha of employment land was lost to non-employment uses over the 20-year period 2002 to 2021 (inclusive). This indicates that net take-up of employment space stood at 19.51ha (an average of 0.98ha per annum).
- 1.54 All data regarding take-up and losses was provided to Lichfields based on land take. Figures have therefore been converted into floorspace (shown in Table 10) by applying the same plot ratio assumptions outlined later in this section. This conversion exercise has been undertaken simply to ensure that the employment space estimates generated under Scenario 5 are directly comparable with those derived using the labour demand and labour supply techniques presented elsewhere in this note.

Table 10 Annual Completions Data (Gross and Net) for South Tyneside (2002 to 2021)

Type of Space/Use Class	Gross Annual Completions (sq.m)	Net Annual Completions (sq.m)
Office E(g)(i)/(ii)	3,920	3,480
Light Industrial E(g)(iii)	195	140
General Industrial B2	1,600	-6,535
Distribution B8	8,715	7,815
<b>Total</b>	<b>14,425</b>	<b>4,900</b>

Source: LSH / Lichfields analysis

NB: Figures may not sum due to rounding

- 1.55 One view of future growth needs in South Tyneside could therefore be to assume that these past development trends continue into the future. Over an 18-year Local Plan period (2021 to 2039), this would equate to an overall increase of 88,220sq.m of employment floorspace, broken down by use as shown in Table 11.

Table 11 Net Employment Space Requirements, Past Take-Up Rates (2021 to 2039)

Type of Space/Use Class	Net Requirement, 2021 to 2039 (sq.m)
Office E(g)(i)/(ii)	62,660
Light Industrial E(g)(iii)	2,500
General Industrial B2	-117,610
Distribution B8	140,670
<b>Total</b>	<b>88,220</b>

Source: Lichfields analysis

NB: Figures may not sum due to rounding

## Net to Gross Employment Space Requirements

### Floorspace Requirements

1.56

Table 12 provides a summary of net employment floorspace requirements in South Tyneside over the period 2021 to 2039. The table draws together the results of the various future scenarios considered in the preceding paragraphs.

Table 12 Net Employment Floorspace Requirements in South Tyneside, 2021-2039 (GEA sq.m)

Type of Space/Use Class	Scenario 1: Baseline LD (Pre-Covid)	Scenario 2: Baseline LD (Latest Data)	Scenario 3: Policy-On LD	Scenario 4: LS (321 dpa – Standard Method)	Scenario 5: Past (Net) Completions
Office E(g)(i)/(ii)	9,175	14,465	21,890	20,880	62,660
Light Industrial E(g)(iii)	80	16,970	47,935	27,185	2,500
General Industrial B2	-22,430	-17,490	-8,240	-14,980	-117,610
Distribution B8	27,915	33,185	50,615	47,765	140,670
<b>Total</b>	<b>14,735</b>	<b>47,130</b>	<b>112,200</b>	<b>80,855</b>	<b>88,220</b>

Source: Lichfields analysis

NB: Figures may not sum due to rounding

1.57 From this, it can be seen that the estimated floorspace requirements range from 14,735sq.m on the basis of the baseline job growth forecasts (pre-covid), rising to 112,200sq.m on the basis of a policy-on scenario which seeks to capture the wider labour market impacts of investment at the IAMP.

## Land Requirements

1.58 Table 13 translates the net floorspace requirements from Table 12 into net land requirements (by use class). Land requirements have been calculated by applying the following plot ratio assumptions:

- Industrial (E(g)(iii)/B2/B8): a plot ratio of 0.4 was applied, so that a 1 hectare site would be needed to accommodate 4,000sq.m of employment floorspace; and
- Office (E(g)(i)/(ii)): it was assumed that 20% of new floorspace would be provided in higher density town centre developments with an average plot ratio of 1.25. The remaining 80% of space, it was assumed, would be provided on lower density developments with an average plot ratio of 0.4 (typically observed in business park environments).

Table 13 Net Employment Land Requirements in South Tyneside, 2021-2039 (hectares)

Type of Space/Use Class	Scenario 1: Baseline LD (Pre-Covid)	Scenario 2: Baseline LD (Latest Data)	Scenario 3: Policy-On LD	Scenario 4: LS (321 dpa – Standard Method)	Scenario 5: Past (Net) Completions
Office E(g)(i)/(ii)	1.98	3.12	4.73	4.51	13.53
Light Industrial E(g)(iii)	0.02	4.24	11.98	6.80	0.63
General Industrial B2	-5.61	-4.37	-2.06	-3.74	-29.40
Distribution B8	6.98	8.30	12.65	11.94	35.17
<b>Total</b>	<b>3.37</b>	<b>11.29</b>	<b>27.31</b>	<b>19.50</b>	<b>19.92</b>

Source: Lichfields analysis

NB: Figures may not sum due to rounding

## Safety Margin

1.59 To estimate the overall employment land requirement that should be planned for in allocating sites, it is common practice to add an allowance – to the net land requirements – as a safety margin. This margin is a contingency factor, designed to provide an additional land buffer to allow for:

- Delays in development coming forward;
- Potential uncertainties in the forecasting process; and
- The need to allow developers and occupiers a reasonable choice of sites.

1.60 It is usually acceptable to use two years of net take-up as the basis of a safety margin. Based upon an 18 year Plan period, a two year margin would correspond to an allowance of approximately 11%.

1.61 It should be noted that in South Tyneside, however, net annual completions of general industrial space (B2) have been negative. The application of a negative value would reduce the overall requirement for B2 and would fail to provide the intended flexibility. As such, an allowance equivalent to two years of *gross* take-up has been applied to general industrial (B2) requirements only.

1.62 Table 14 provides a summary of the safety margins applied in estimating future land needs across South Tyneside. This shows that the approach increases the level of employment land to be planned for in the Borough by 6.28 hectares.

Table 14 Safety Margin Allowances

Type of Space/Use Class	Annual Completions (sq.m)	Safety Margin (sq.m)	Safety Margin (hectares)
Office E(g)(i)/(ii)	3,480	6,960	1.50
Light Industrial E(g)(iii)	140	280	0.07
General Industrial B2 <sup>7</sup>	1,600	3,200	0.80
Distribution B8	7,815	15,630	3.91
<b>Total</b>	<b>13,035</b>	<b>26,070</b>	<b>6.28ha</b>

Source: LSH / Lichfields analysis

NB: Figures may not sum due to rounding

1.63 Table 15 provides an illustration of the indicative gross land requirements for each scenario, following the application of a 2 year safety margin. From this, it can be seen that the forecast land requirements range from 9.65 hectares to 33.59 hectares.

<sup>7</sup> Based upon *gross* rather than *net* take-up

Table 15 Indicative Gross Land Requirements in South Tyneside (Safety Margin Only) 2021-2039 (hectares)

Type of Space/Use Class	Scenario 1: Baseline LD (Pre-Covid)	Scenario 2: Baseline LD (Latest Data)	Scenario 3: Policy-On LD	Scenario 4: LS (321 dpa – Standard Method)	Scenario 5: Past (Net) Completions
Office E(g)(i)/(ii)	3.49	4.63	6.23	6.01	15.04
Light Industrial E(g)(iii)	0.09	4.31	12.05	6.87	0.70
General Industrial B2	-4.81	-3.57	-1.26	-2.95	-28.60
Distribution B8	10.89	12.20	16.56	15.85	39.08
<b>Total</b>	<b>9.65</b>	<b>17.57</b>	<b>33.59</b>	<b>25.78</b>	<b>26.20</b>

Source: Lichfields analysis

NB: Figures may not sum due to rounding

## Losses

- 1.64 In calculating a gross requirement (i.e. the amount of employment space or land to be allocated/planned for) local authorities often choose to make an allowance for some replacement of losses of existing employment space. This is intended to ensure that sufficient space is re-provided to account for employment space that is anticipated to be lost (to non-employment uses) in the future and to provide some protection against the erosion of employment space in South Tyneside.
- 1.65 There are three approaches that can be adopted to calculate an allowance for losses:
- 1 Forecast the quantity of floorspace that might be lost in future and the extent to which this will need to be replaced. Such an approach requires an authority to look carefully at past losses and use local knowledge to make a judgement regarding the extent to which past trends might be a reasonable indicator of future activity;
  - 2 Monitor the loss of employment space through regular reviews of the Local Plan. This would enable the Council to respond, on the basis of recent evidence, to the scale of observed losses – potentially adjusting loss replacement allowances up/down to reflect changes in circumstances. However, any Local Plan review reflecting the monitoring findings would take some time to come forward; and
  - 3 Use the plan-making process to identify those existing employment sites and areas that the Council considers could/should be lost to non-employment uses over the period 2021 to 2039. This could either be because they are no longer suitable/available for

employment, or because there is a greater need for them to be used for an alternative land use (such as residential). Based upon such an assessment (which would be informed by the qualitative assessment of sites set out in the ELR, but would need to be considered by Council officers in the broader context of the plan-making process) the employment land calculations included within the ELR could be adjusted to factor in identified losses and plan accordingly for new sites.

- 1.66 Clearly, it is not possible to advise regarding the allowances associated with the second and third approaches outlined above. This is because further work is required by STC before the relevant figures can be quantified. It is possible, however, to provide an initial view on the land needs associated with the first approach.
- 1.67 LSH estimate that a total of 46.97 hectares of employment land in South Tyneside was lost to non-employment uses over the 20-year period 2002 to 2021 (inclusive). This corresponds to an average loss of 2.35 hectares per annum and included a number of large sites such as:
- Former VA Tech, Hebburn: 8.00 hectare industrial site which was demolished and redeveloped as housing;
  - Bedewell Industrial Estate: 8.71 hectare multi-let industrial complex with high voids, which was demolished and has been identified by the Council for residential development; and
  - Trench UK, BSTS and UHV Laboratory: 10.26 hectare industrial site, which was demolished is currently being redeveloped for housing.
- 1.68 It must be acknowledged, however, that not *all* losses need necessarily be replaced. Some losses, for instance, will reflect an element of restructuring of the local economy. In addition, some losses will reflect the continued evolution of business parks and industrial estates, with the provision of some complementary facilities (such as gyms, creches, hotels, pub/restaurants and retail units) of an appropriate scale potentially helping to enhance the appeal of estates.
- 1.69 Should Council officers wish to include an allowance for the replacement of losses, it is suggested that a replacement rate of 25% might be appropriate. This represents a low level of replacement and is suggested having regard to the following factors:
- The scale of difference between net and gross take-up rates in the Borough, arguably indicates that planning for a high level of replacement could overstate future needs;
  - The fact that historic losses have been driven by residential development on windfall sites, rather than the development of complementary uses on existing estates; and
  - LSH has advised that losses have focussed on old industrial complexes in inner urban areas – or 1960’s office blocks – which no longer meet the needs of modern businesses and that relatively few sites of this type remain (in comparison with 10 to 20 years ago).
- 1.70 As outline above, losses in South Tyneside have averaged 2.35 hectares per annum over a 20-year period. Including an allowance for the replacement of losses at 25% of past trends (should Council officers decide to do so) would therefore correspond to 0.59 hectares per

annum. This would correspond to a need to plan for an additional 10.57 hectares of employment land over the period 2021 to 2039, broken down by use as shown in Table 16.

Table 16 Potential Loss Replacement Allowances

Type of Space/Use Class	Loss Replacement Allowance (ha)
Office E(g)(i)/(ii)	0.35
Light Industrial E(g)(iii)	0.06
General Industrial B2	9.15
Distribution B8	1.01
<b>Total</b>	<b>10.57</b>

Source: LSH / Lichfields analysis

- 1.71 The application of this loss replacement allowance would see the gross requirements identified in Table 15 increase from up to 33.59 hectares to up to 44.16 hectares. In addition, it would generate a positive requirement for general industrial (B2) land under four of the five scenarios presented in this note.
- 1.72 An alternative to planning for loss replacement explicitly would be to consider the impact of applying an allowance for churn in the local property market. This has previously been used as a sensitivity test by Lichfields but is recognised as a valid approach in its own right<sup>8</sup>. The purpose of applying a churn allowance is to build into land requirements a mechanism to ensure the replacement of properties lost to the market through dilapidation.
- 1.73 A review of previous studies<sup>9</sup> indicates that a churn allowance of 1% of floorspace per annum is typically applied. This would allow for all of the premises within a local authority area to be replaced within a 100-year period.
- 1.74 Development appraisals on new buildings within the property sector typically consider a 25 to 35-year time horizon, which provides a starting point for considering when a building might be considered to reach the end of its useful life. The replacement of all buildings after 30 years would imply a need for a churn allowance of 3.3% of floorspace per annum. Clearly, however, there are many examples of properties built in the late 1980's/early 1990's (or before) which continue to be occupied. This demonstrates that the useful lifespan of some stock can extend beyond the 35-year development appraisal period. The industry 'rule of thumb' of 1% per annum is an attempt to strike a balance between the two positions.
- 1.75 Table 17 sets out the implications for South Tyneside of making an allowance for churn at 1% of stock per annum. This identifies an allowance of 4.0 hectares over the period 2021 to

<sup>8</sup> Studies which have adopted the approach are understood to include: Middlesbrough ELR; Greater Exeter EDNA; Dartmoor National Park ELR; Lichfield District ELR; and work to inform the West of England Joint Spatial Plan.

<sup>9</sup> See above

2039 to replace office premises and a further 28.5 hectares over the same timeframe to replace industrial (E(g)(iii), B2 and B8) premises. Taken together, this represents an allowance of 32.5 hectares. In the event that Council officers decide to include such an allowance in planning for employment needs, this would increase the gross land requirements shown in Table 15 from up to 33.59 hectares to up to 66.09 hectares.

Table 17 Churn Allowance (1% of Stock)

Type of Space	Current Stock (sq.m)	1% of Stock (sq.m)	18 Years' Allowance	
			(sq.m)	(ha)
Offices	103,000	1,030	18,540	4.0
Light industrial, industrial and distribution	633,000	6,330	113,940	28.5

Source: Lichfields analysis

1.76 Should the Council wish to apply a more modest churn allowance of 0.5% per annum, this would reduce the allowance from 32.5 hectares (as shown in the table) to 16.3 hectares. A 0.5% allowance would provide for the replacement of all stock over a period of 200 years.

It is important to note that the ELR (and this note) form part of the evidence-base to the Council's emerging Local Plan and it is for officers to translate this evidence into planning policy. The decision regarding whether to include an allowance for loss replacement or churn represents a policy choice and, as such, is a matter to be considered further by the authority.

<sup>i</sup> Scenario 3 (Policy-On Labour Demand) seeks to estimate the wider multiplier effects associated with the direct jobs to be supported at the IAMP. On the basis that the ELR only seeks to understand the implications in relation to demand for employment space, the analysis presented within this note (and the main ELR) focuses exclusively on the supply chain impacts associated with the IAMP.

This approach reflects the following key assumptions:

- That the changes in indirect (supply chain) employment captured via a Type I multiplier are likely to be the key determinant of future demand for employment space in the Borough. Indirect jobs are likely to be focussed in businesses including (but not limited to) part manufacturers and logistics/distribution businesses, as well as various business services; and
- That the changes in induced employment captured via a Type II multiplier will have little bearing on the demand for employment space in the Borough. Induced employment effects will principally be observed in the service sector, as a result of increased wage spending in the economy.