



Nathaniel Lichfield
& Partners

Planning. Design. Economics.

**County Durham Employment Land
Review**

**Assessment of Future Land
Requirements**

Interim Report

Durham County Council
31 May 2016

22845/02/HE/RL

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1.0 Introduction

1.1 Durham County Council (DCC) has commissioned Nathaniel Lichfield & Partners (NLP) to produce an updated Employment Land Review (ELR) for the County. Work on the ELR is ongoing, with a final report expected to be made available in autumn 2016.

1.2 This report presents the emerging findings from a 'fast tracked' needs assessment for the County. The aim is to provide the Council with a picture of emerging requirements ahead of the completion of the wider ELR work, in order to help inform consultation on Issues and Options with respect to the County Durham Plan.

1.3 It is important to note that the employment land requirements presented within this report should be viewed as indicative only. They represent the outputs of a quantitative modelling exercise and will, in due course, be considered alongside a range of qualitative factors as part of the wider ELR process. As such, the figures remain subject to further refinement.

Scope of Commission

1.4 The report considers the likely future land requirements across County Durham associated with the B class sectors, as outlined below:

- **B1 Business** (offices, research & development, light industry);
- **B2 General Industrial**; and
- **B8 Storage or Distribution** (wholesale warehouses, distribution and logistics centres).

1.5 Demand for B class land and floorspace is considered in this report and references to 'employment space' are used interchangeably in relation to both. References to 'industrial space' relate to both manufacturing and distribution uses.

1.6 The employment growth projections used to inform the analysis contained within this report do cover all sectors of the economy (including non-B class sectors). It is important to note, however, that this report does not seek to quantify the space implications associated with the growth (or contraction) of these sectors. This is because they are typically planned for using different methodologies and considered by other forms of technical evidence (e.g. retail assessments).

1.7 As with any report of this type, the exercise is inevitably a point-in-time assessment. The report has incorporated the latest data and other evidence available at the time of preparation. The accuracy and sources of data derived from third party sources has not been checked or verified by NLP.

2.0 Estimating Future Land Requirements

2.1 This section considers future employment land needs across County Durham over the seventeen year period 2016 to 2033. *Planning Practice Guidance* advises that local authorities should develop an understanding of future employment land needs by taking account of a variety of forecasting techniques, whilst also having regard to an analysis of market signals.

2.2 Within this context a number of potential future scenarios are considered in order to provide a framework for assessing future B class employment space requirements in County Durham. These are summarised below:

- a Baseline employment forecasts (**labour demand**) produced by Experian Business Strategies;
- b Estimated future growth in the local **labour supply** – and the jobs and employment space that this could be expected to support – having regard to demographic analysis undertaken to inform the Council's Objectively Assessed Housing Need (OAHN); and
- c Consideration of **past take-up of employment land and property** based on monitoring data collected by DCC.

2.3 All of these approaches have their own individual strengths and limitations. For this reason, it is generally more appropriate to consider the land requirements associated with each, before reconciling the figures – taking into account any relevant qualitative factors. Whilst the outputs of the various modelling techniques are presented in this document, no attempt has been made to reconcile these with market signals. This additional layer of analysis will be incorporated as part of the wider ELR commission that is current being undertaken by NLP.

a. Labour Demand

2.4 DCC commissioned Experian Business Strategies, in June 2015, to produce a baseline forecast of employment growth in the County over the period 2016 to 2033. These forecasts reflect recent trends and economic growth projections at the national and regional level. They also take account of how sectors in County Durham have performed relative to regional growth rates in the past.

2.5 The forecasts are not constrained by labour or land supply. In addition, whilst stated government policy is considered by Experian in order to help frame the future macroeconomic outlook, the forecasts do not take account of any: local policy interventions; planned major developments; or infrastructure changes at the local/regional level.

2.6 Econometric forecasts of this nature tend to be most reliable at the regional and national level and less so when considering local economies. Nevertheless, they provide a valuable input by indicating the broad scale and

direction of economic growth in different sectors, thereby helping to assess future land requirements.

2.7 These projections indicate an overall growth of 11,640 FTE (Full-Time Equivalent) jobs in County Durham over the seventeen year study period – equivalent to around 685 additional FTE jobs per annum. Table 2.1 provides a summary of those sectors expected to experience the largest absolute increases¹ and reductions² in employment.

Table 2.1 Largest Projected Increases and Decreases in FTE Employment (County Durham, 2016-2033)

Sector	Use Class	Additional FTE Jobs (2016-2033)
Residential Care & Social Work	RED	+4,270
Accommodation & Food Services	RED	+1,780
Specialised Construction Activities	ORANGE	+1,670
Health	RED	+1,590
Wholesale	GREEN	+1,450
Land Transport, Storage & Post	ORANGE	+1,350
Utilities	ORANGE	+1,340
Construction of Buildings	RED	+1,030
Professional Services	GREEN	+840
Non-Metallic Products	GREEN	-580
Computer & Electronic Products	GREEN	-590
Education	RED	-710
Transport Equipment	GREEN	-910
Machinery & Equipment	GREEN	-1,040

Source: Experian Business Strategies / NLP analysis

Key: GREEN = B class sector ORANGE = Part B class sector RED = Non-B class sector

2.8 This analysis indicates that Experian anticipate the strongest employment growth to occur in the residential care & social work sector. This is unlikely to generate a significant requirement – if any – for B class space.

2.9 Employment growth on a more moderate scale is, however, forecast to occur in the wholesale and professional services sectors. Typically, it would be

¹ In excess of 750 FTE jobs

² Contractions of 500 FTE jobs or more

reasonable to expect such growth to result in a demand for B class employment space.

- 2.10 In addition, moderate growth is also anticipated in the following sectors, where a proportion of employment growth would generally be expected to give rise to a demand for B class employment space: specialised construction activities; land transport, storage & post; and utilities.
- 2.11 Sectors forecast to experience the largest employment losses over the period include: machinery & equipment; transport equipment; computer & electronic products; and non-metallic products. All of those listed are classified as part of the wider manufacturing sector and would therefore be expected to influence demand for B1c and B2 employment space.
- 2.12 The total employment change projected to occur in County Durham under the Experian baseline scenario – alongside a breakdown by B use class – is summarised in Table 2.2. This includes an allowance for jobs in other non-B class sectors that generally occupy office or industrial space.

Table 2.2 Baseline Forecast FTE Employment Change in County Durham (2016-2033)

	FTE Jobs (2016)	FTE Jobs (2033)	Change (2016-2033)
Offices (B1a/B1b)	21,025	22,170	+1,140
Manufacturing (B1c/B2)	30,035	26,430	-3,605
Warehousing/Distribution (B8)	13,180	15,300	+2,120
<i>Total B Class Jobs</i>	<i>64,245</i>	<i>63,900</i>	<i>-345</i>
Total Jobs (All Sectors)	157,510	169,150	+11,640

Source: Experian Business Strategies / NLP analysis

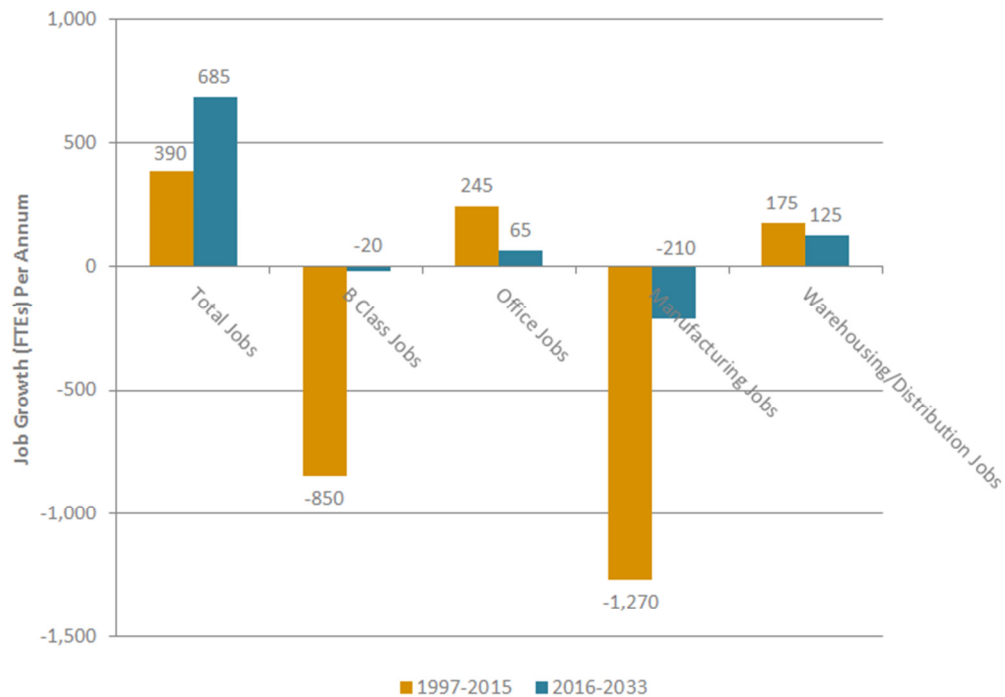
- 2.13 The overall level of employment growth (11,640 FTE) forecast by Experian corresponds to approximately 685 additional FTE jobs per annum. This rate of growth is significantly higher than the rate observed over the period 1997-2015 (390 FTE jobs per annum).
- 2.14 Looking specifically at employment in the B class sectors, the number of FTE jobs in County Durham fell – on average – by 850 per annum between 1997 and 2015. Between 2016 and 2033, the baseline scenario forecasts a stabilisation of B class employment, with a net contraction of just 20 FTE jobs per annum over the Plan period.
- 2.15 The figures contained within the baseline scenario would appear to suggest that much of the shift in B class employment performance is forecast to be driven by changes in the manufacturing sector. Employment in manufacturing fell by 1,270 FTE jobs per annum on average between 1997 and 2015. The pace of employment contraction in the sector is forecast to slow markedly

moving forwards, with net losses of 210 per annum projected by Experian over the period 2016 to 2033.

2.16

In contrast, it can be seen from Figure 2.1 that the baseline scenario forecasts that office-based employment growth over the Plan period will be significantly lower than past trends. Whereas office-based employment increased by an average of 245 FTE jobs per annum between 1997 and 2015, Experian project that this rate of growth will fall to an average of 65 FTE jobs per annum. Employment growth in warehousing and distribution over the Plan period (125 FTE jobs per annum) is forecast to correspond to approximately 70% of past trend growth (175 FTE jobs per annum).

Figure 2.1 Past Trends vs Projected Annual FTE Job Growth



Source: Experian Business Strategies / NLP analysis

2.17

The forecasts would appear to suggest, therefore, that the future employment performance of County Durham could be expected to exceed past trends with respect to both total jobs and industrial jobs. Based upon the Experian forecasts, however, it is projected that the future employment performance in the office-based sectors will be lower than past trends.

2.18

The growth in B class employment forecast under the baseline scenario has been converted into a net future employment space requirement by applying the following average employment densities:

- **Offices (B1a/B1b):** 1 FTE job per 14sq.m for general office space;
- **Manufacturing (B1c/B2):** 1 FTE job per 49sq.m as an average across B1c and B2 uses; and

- **Warehousing/Distribution (B8):** 1 FTE job per 70sq.m for general, smaller scale warehousing (assumed to account for 70% of future space) and 1 FTE job per 86sq.m for large scale, high bay units (assumed to account for 30% of future space).

2.19 These assumptions are based upon the latest HCA/OffPAT guidance on employment densities, published in 2015³. The guidance takes into account recent trends relating to the changing use of employment space, with the main change being the more efficient use of office space through hot-desking and flexible working.

2.20 An allowance of 10% is added to all positive net floorspace requirements to reflect normal levels of market vacancy in employment space. Where a reduction in employment is forecast (e.g. manufacturing) the associated negative floorspace has been halved. This reflects the fact that whilst there may be ongoing manufacturing job losses, it does not necessarily and automatically follow that all of the associated existing employment land will be lost.

2.21 Table 2.3 provides a summary of the net floorspace requirements, by use class, generated as a result of the methodology described in the preceding paragraphs.

Table 2.3 Baseline Employment Forecast: Net Employment Space Requirements in County Durham (2016-2033)

	Floorspace (sq.m.)
Offices (B1a/B1b)	+17,556
Manufacturing (B1c/B2)	-88,323
Warehousing/Distribution (B8)	+174,434
Total	+103,667

Source: Experian Business Strategies / NLP analysis

b. Labour Supply

2.22 The employment space requirements associated with a labour supply scenario have also been considered by NLP. At the time of writing, it is understood that three scenarios have been presented by Edge Analytics – working with DCC to identify the Council's OAHN – to DCC for further consideration in identifying a housing requirement for the County over the Plan period.

³ Based upon the HCA/OffPAT Employment Densities Guide (2015) and converted to Gross External Area by NLP

- 2.24 The three scenarios are presented below. It is understood that each one is underpinned by an employment rate of 73%:
- PG Short Term: employment growth of 605 FTE jobs per annum;
 - PG Long Term (SNPP): employment growth of 646 FTE jobs per annum; and
 - PG Long Term: employment growth of 740 FTE jobs per annum.

2.25 **The analysis presented in the following paragraphs is based upon employment growth of 646 FTEs per annum (or growth of 10,982 FTE jobs over a seventeen year period).** It is understood that this is consistent with the level of job growth assumed within the middle of the three demographic scenarios presented to DCC by Edge Analytics. It should, however, be noted that the employment land implications of DCC adopting a housing target which aligns with one of the two alternative OAHN scenarios referenced above are to be considered within the completed ELR as part of a wider sensitivity testing exercise.

2.26 NLP has estimated the quantum of employment space that the level of employment (and population) growth implicit within the PG Long Term (SNPP) scenario could be expected to support. This approach reflects the most recent demographic projection work commissioned by DCC. It is intended, within the context of this exercise, to provide a purely demographically-driven assessment of future labour supply. The scenario presented by NLP does not consider the housing implications associated with this level of growth.

2.27 Table 2.4 summarises the overall level of employment growth derived from this scenario, which corresponds to an increase of 10,982 FTE jobs over the period 2016 to 2033. From this figure, the number of B class jobs has been estimated. The methodology applied by NLP takes account of the structural change in employment forecast under the labour demand scenario in order to disaggregate the job growth figures by use class.

Table 2.4 Forecast Job Growth: in Durham: Labour Supply Scenario (2016-2033)

	Annual Average (FTE Jobs)	Total Change (FTE Jobs, 2016-2033)
Total Jobs	+646	+10,982
<i>All B Class Jobs</i>	-35	-595
Office Jobs (B1a/B1b)	+62	+1,055
Manufacturing Jobs (B1c/B2)	-218	-3,708
Warehousing/Distribution Jobs (B8)	+121	+2,059

Source: Edge Analytics / NLP analysis

2.28 This implies a need for total employment to grow – in net terms – by 646 FTE jobs per annum over the study period, in order to accommodate the level of

growth assumed within the analysis undertaken by Edge Analytics. This is projected, having regard to the structural change in employment forecast by the Experian baseline, to translate to a net contraction in B class employment of 35 FTE jobs per annum.

2.29 Analysing B class employment change at the headline level, however, fails to recognise that moderate levels of employment growth are forecast to occur in particular sectors. This growth is, however, offset by a forecast contraction in manufacturing employment.

2.30 Indeed, considering the use classes on an individual basis, it can be seen that growth is forecast to occur in:

- Office-based employment: with projected growth of 1,055 FTE jobs (62 FTE jobs per annum); and
- Warehousing and distribution: with projected growth of 2,059 FTE jobs (121 FTE jobs per annum).

2.31 The job forecasts presented in Table 2.4 can be translated into estimated requirements for B class employment space by applying the same standard employment densities used in the labour demand scenario considered above. A 10% vacancy allowance has also been applied in those instances where forecast employment growth (as opposed to contraction) gives rise to a positive net space requirement. Where a reduction in jobs is forecast (in this instance in relation to manufacturing) the associated negative floorspace figure is halved.

2.32 In order to meet the level of employment growth anticipated to occur under the PG Long Term (SNPP) 73% Employment scenario modelled by Edge Analytics, County Durham is forecast to require 94,815sq.m of additional B class employment floorspace to 2033 (Table 2.5).

Table 2.5 Net Employment Floorspace Required from Labour Supply Scenario (2016-2033)

	Floorspace (sq.m.)
Offices (B1a/B1b)	+16,247
Manufacturing (B1c/B2)	-90,846
Warehousing/Distribution (B8)	+169,414
Total	+94,815

Source: Edge Analytics / NLP analysis

c. Past Take-Up

2.33 Because they reflect demonstrable market demand, as well as 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 over 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 the period.

Gross Completions

- 2.34 Take-up data covering a 14 year period to April 2015 (the latest monitoring year for which data was available at the time of writing) has been provided by DCC. This shows that 199.45ha of land was developed for B class employment uses in County Durham over the period, corresponding to an annual average of 14.25ha.
- 2.35 The majority of new employment land delivered over the period was for industrial uses (75%), with a more modest level of provision in relation to offices, as summarised below:
- Manufacturing (B1c/B2): total gross take-up of 83.29ha;
 - Warehousing/Distribution (B8): total gross take-up of 66.60ha; and
 - Offices (B1a/B1b): total gross take-up of 49.56ha.

Net Completions

- 2.36 The employment forecasts considered elsewhere in this report (under the labour demand and labour supply scenarios) express growth in net terms. In contrast, the figures summarised above relate to gross development rates (as they include all instances of employment space delivery, without offsetting this against the redevelopment or recycling of employment sites for other uses). In order to ensure that all scenarios are considered on a consistent basis, therefore, it is necessary to remove any losses of employment land and assess the net take-up of employment land in County Durham.
- 2.37 Based upon information provided to NLP by DCC, it is understood that a total of 69.10ha of employment land was lost to non-B class uses across the County over the 14 year period to April 2015. This corresponds to an average loss of 4.94ha per annum.
- 2.38 Net take-up rates are calculated by subtracting losses from gross take-up. During the 14 year period to April 2015, gross take-up averaged 14.25ha per annum and losses averaged 4.94ha per annum. This would suggest that the net delivery of employment land across County Durham has averaged 9.31ha per annum over the 14 year period for which data is available.
- 2.39 Based upon data provided by DCC, it is estimated that the net take-up figure derived above can be broken down by use class as follows:
- Manufacturing (B1c/B2): 3.98ha per annum;
 - Warehousing/Distribution (B8): 3.36ha per annum; and
 - Offices (B1a/B1b): 1.97ha per annum.

2.40 All data regarding take-up and losses was provided to NLP on the basis of land take. However, net take-up figures have been converted into floorspace using the same plot ratios outlined later in this section. This conversion exercise has been undertaken simply to ensure that the employment space estimates generated under the past take-up scenario are directly comparable with those derived using the labour demand and labour supply techniques considered elsewhere in this section.

2.41 The outputs of this exercise are summarised in Table 2.6.

Table 2.6 Past Take-Up of Employment Floorspace in County Durham (2001-2015)

	Average Annual Net Completions (sq.m)
Offices (B1a/B1b)	9,455
Manufacturing (B1c/B2)	15,920
Warehousing/Distribution (B8)	13,440
Total	38,815

Source: DCC / NLP analysis

Future Net Floorspace Requirement

2.42 One view of future growth in County Durham could therefore be to simply assume that past development rates continue into the future. If it were assumed that past net completion rates were to continue over the seventeen year study period, this would equate to an overall increase of 659,855sq.m of employment space, comprising of:

- 160,735sq.m of office (B1a/B1b) space;
- 270,640sq.m of manufacturing (B1c/B2) space; and
- 228,480sq.m of warehousing/distribution (B8) space.

Net Employment Space Requirements

2.43 Table 2.7 draws together the analysis presented in the preceding paragraphs. It provides a summary of net floorspace requirements for the period 2016 to 2033, as identified under each of the scenarios considered above.

Table 2.7 Net Floorspace Requirements by Scenario, 2016-2033 (sq.m)

	a. Labour Demand	b. Labour Supply	c. Past Take-Up
Offices (B1a/B1b)	17,556	16,247	160,735
Manufacturing (B1c/B2)	-88,323	-90,846	270,640
Warehousing/Distribution (B8)	174,434	169,414	228,480
Total	103,667	94,815	659,855

Source: NLP analysis

2.44 From the table it can be seen that there is a strong degree of consensus between the labour demand and labour supply scenarios and that both vary markedly from the figures implied under a continuation of past trends. In terms of the headline need for employment space, for instance, a top end figure of 659,855sq.m – derived under the past take-up scenario – is more than six times higher than the figures generated by the labour demand and labour supply scenarios (of 103,667sq.m and 94,815sq.m respectively).

2.45 The close alignment between the requirements identified under the labour demand and labour supply forecasting techniques is entirely unsurprising given:

- The relatively small difference between the level of employment growth assumed under each scenario; and
- The fact that the labour supply scenario has been disaggregated by use class having regard to the structural change implied within the labour demand scenario.

Net to Gross Adjustments

Safety Margin

2.46 To estimate the overall level of employment space that should be planned for in allocating sites, and to give some flexibility in provision, it is common practice to add an allowance as a safety margin. This margin is a contingency factor, providing an additional land buffer to allow for: delays in some sites coming forward; uncertainties in the forecasting process; and to allow developers and occupiers a reasonable choice of sites.

2.47 Given the scale and complexity of the market for employment land and premises within County Durham, it is considered appropriate to allow for a

safety margin equivalent to five years of net take-up. This has been selected having regard to the size and diverse nature of the study area. County Durham is a unitary authority made up of seven former districts. It is characterised by a number of individual and localised markets.

2.48 Analysis presented within the *County Durham Employment Land Review (2012)* identified – on the basis of consultation with commercial agents, land owners and developers – six distinct commercial property markets within County Durham. More recent analysis and consultation undertaken in producing an updated ELR has endorsed their continued use. The property markets are summarised below:

- A1 Corridor;
- A19 Corridor;
- Durham City and its locality;
- Bishop Auckland and the surrounding area;
- Consett and the surrounding area; and
- The remainder of County Durham, including rural areas.

2.49 Within the context of the above, it is important to ensure that County Durham's portfolio of land provides an adequate range and choice of sites within each of these localised markets in order to ensure that the County's growth potential is not constrained by a lack of available land in a particular local market.

2.50 On the basis of the above, the margins set out in Table 2.8 have been added to the net space requirements for the relevant B class uses. The margins have been calculated on the basis of five years of net take-up.

Table 2.8 Safety Margin Allowances by Use Class

	Average Annual Net Take-Up (sq.m)	Safety Margin Added (sq.m)
Offices (B1a/B1b)	9,455	47,275
Manufacturing (B1c/B2)	15,920	79,600
Warehousing/Distribution (B8)	13,440	67,200

Source: NLP analysis

Replacement of Losses

2.51 In converting net requirements for employment space into a gross requirement (i.e. the amount of space to be planned for and allocated by DCC) an allowance is also typically made for some replacement of losses of existing employment space that may be developed over the Plan period for other (non B class) uses. This allowance seeks to ensure that sufficient space is re-provided to account for the employment space that is anticipated to be lost in

future. It is intended to provide some protection against the continued erosion of employment space throughout the County.

- 2.52 69.10ha of employment land in County Durham was lost to non B class uses over the 14 year period to April 2015. A continuation of this trend – with no allowance made for the replacement of land – would significantly reduce the available supply of land. This could, in turn, act as a constraint to future growth in the study area.
- 2.53 Notwithstanding the above, it must be acknowledged that not all losses need necessarily be replaced. Some losses will, for instance, reflect an element of restructuring in the local economy. As a result, it is necessary to have regard to locally specific factors in arriving at a judgement regarding the rate of replacement to be applied.
- 2.54 Mindful of the factors outlined below, it is considered that allowing for the replacement of losses at 66% of past trends is appropriate. Indeed it is considered that allowing for a rate of replacement lower than this could risk giving rise to a shortfall of land in particular locations:
- Historic losses have included a number of relatively large employment sites, rather than simply the piecemeal development of small infill parcels of land. This includes: c.14ha at Durham Gate for residential development and a public house; 11.73ha at Cape, Bowburn; and 5.4ha at Bishop Auckland for retail and leisure development. The loss of larger sites (rather than smaller-scale, infill development) has a potentially greater impact on the demand-supply balance at the market area level;
 - Based upon the data provided to NLP by DCC, it would appear that the rate of losses has increased more recently. Whilst data is not available on an annual basis, it is understood that losses averaged 4.72ha per annum for the 11 year period 2001 to 2011 (inclusive), which rose to 5.71ha per annum for the 3 year period to April 2015; and
 - The trends outlined above appear set to continue in the short-to-medium term. Data on extant planning permissions identifies a significant pipeline of losses including: 19.3ha at Peterlee North East Industrial Estate; 11.6ha at Tanfield Lea North Industrial Estate; and 8.06ha at Green Lane Industrial Estate.
- 2.55 Losses across the County have averaged 4.94ha per annum over a 14 year period. This corresponds to approximately 21,015sq.m of floorspace per annum.⁴ Including an allowance for the future replacement of losses at 66% of past rates therefore equates to some 13,870sq.m per annum over the period 2016 to 2033.
- 2.56 An indicative breakdown of the 13,870sq.m, by use class, is provided below. This has been derived having regard to historic data regarding losses by use class, as well as apportioning equally between office, manufacturing and

⁴ It has been assumed that 5% of office losses could be expected to occur at a plot ratio of 2.0, with all other losses occurring at a plot ratio of 0.4.

warehousing uses any losses simply recorded as having occurred on ‘general employment land’:

- 4,975sq.m of office (B1a/B1b) space;
- 5,200sq.m of manufacturing (B1c/B2) space; and
- 3,695sq.m of warehousing/distribution (B8) space.

Gross Employment Space Requirements

2.57

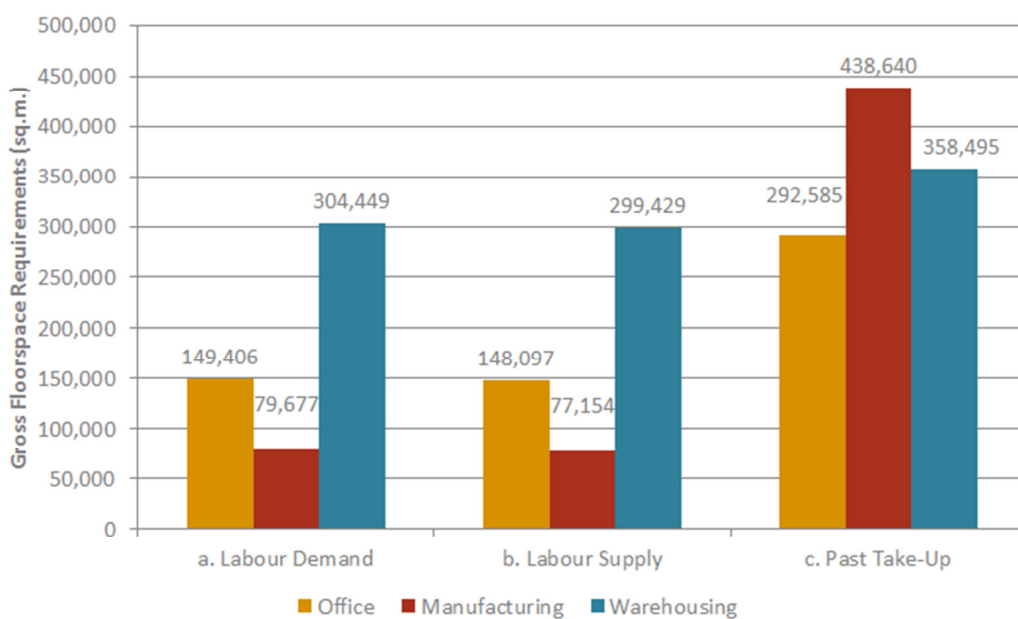
Gross employment space requirements have been calculated by adding a safety margin and an allowance for the replacement of losses (at 66% of past trends) to the net employment space requirements outlined in Table 2.7. The resultant estimates of gross floorspace need (disaggregated by use class) are set out in Table 2.9 and Figure 2.2.

Table 2.9 Gross Floorspace Requirements by Scenario, 2016-2033 (sq.m)

	a. Labour Demand	b. Labour Supply	c. Past Take-Up
Offices (B1a/B1b)	149,406	148,097	292,585
Manufacturing (B1c/B2)	79,677	77,154	438,640
Warehousing/Distribution (B8)	304,449	299,429	358,495
Total	533,532	524,680	1,089,720

Source: NLP analysis

Figure 2.2 Gross Floorspace Requirements by Scenario, 2016-2033 (sq.m)



Source: NLP analysis

- 2.58 The total floorspace requirements generated using the methodology outlined above vary considerably – from 524,680sq.m (on the basis of the labour demand scenario) to 1,089,720sq.m (on the basis of a scenario predicated on past take-up rates). The lowest requirement generated corresponds to 48% of the requirement identified at the upper end of the range.
- 2.59 Looking at the requirements in more detail, it can be seen that the scale of difference – between the upper and lower bounds of the range identified – also varies significantly by use class:
- Office floorspace requirements vary from 148,097sq.m (under the labour supply scenario) to 292,585sq.m (under the past take-up scenario). The lowest requirement generated corresponds to 51% of the requirement identified at the upper end of the range;
 - Manufacturing floorspace requirements vary from 77,154sq.m (under the labour supply scenario) to 438,640sq.m (under the past take-up scenario). The lowest requirement generated corresponds to just 18% of the requirement identified at the upper end of the range; and
 - Warehousing floorspace requirements vary from 299,429sq.m (under the labour supply scenario) to 358,495sq.m (under the past take-up scenario). The lowest requirement generated corresponds to 84% of the requirement identified at the upper end of the range.
- 2.60 It can also be seen from Table 2.9 and Figure 2.2 that there is a high degree of consensus between the labour demand and labour supply scenarios. As discussed previously, however, this is a function of the methodological similarities underpinning the two. As such, limited weight should be attached to the commonalities between the two scenarios.

Estimated Land Requirement

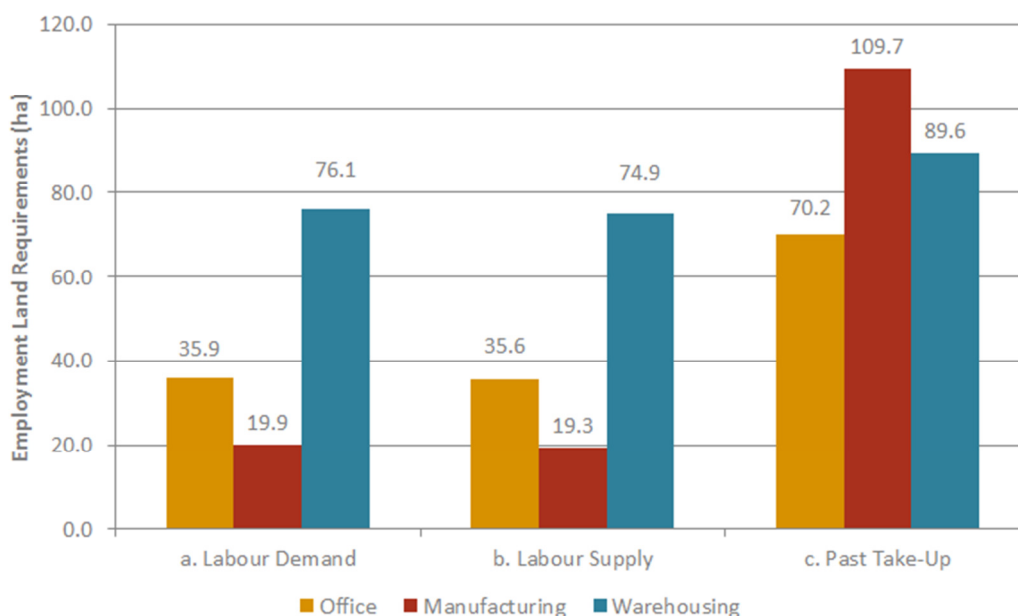
- 2.61 For each of the scenarios discussed in the preceding paragraphs, the gross floorspace requirements (by use class) have been translated into gross land requirements. The land requirements have been calculated by applying the following plot ratio assumptions to the floorspace estimates:
- **Industrial:** a plot ratio of 0.4 was applied, so that a 1ha site would be needed to accommodate 4,000sq.m of employment floorspace; and
 - **Offices:** it was assumed that 5% of new floorspace would be provided in higher density city centre-style developments with an average plot ratio of 2.0, with 95% of space provided on lower density developments with a plot ratio of 0.4 (typically observed on business park environments). This takes account of the fact that DCC is seeking to address the lack of a clearly defined CBD in Durham City through the provision of office space at Aykley Heads, which is – in density terms – likely to be more akin to a business park product.
- 2.62 The gross land requirements derived by applying the assumptions outlined above are set out (by use class) in Table 2.10 and Figure 2.3.

Table 2.10 Gross Land Requirement by Scenario, 2016-2033 (hectares)

	a. Labour Demand	b. Labour Supply	c. Past Take-Up
Offices (B1a/B1b)	35.9	35.6	70.2
Manufacturing (B1c/B2)	19.9	19.3	109.7
Warehousing/Distribution (B8)	76.1	74.9	89.6
Total	131.9	129.8	269.5

Source: NLP analysis

Figure 2.3 Gross Land Requirement by Scenario, 2016-2033 (hectares)



Source: NLP analysis

Summary

2.63 This report considers three different scenarios of future employment land needs in County Durham, drawing upon approaches that reflect economic growth, potential housing supply factors and past take-up. The overall gross requirements derived on the basis of these approaches range from 129.8ha to 269.5ha.

2.64 Under each scenario, demand for industrial land (B1c/B2/B8) is anticipated to drive future need. Indeed, demand for industrial is consistently forecast to account for between 70% and 75% of total demand. In absolute terms, however the scale of industrial demand varies according to the forecasting technique applied. This is primarily a function of conflicting views regarding the future requirements of the manufacturing industry.

- 2.65 The baseline job growth and labour supply scenarios, which are driven by the latest macroeconomic and demographic assumptions, indicate that future manufacturing (B1c/B2) demand will be in the order of 20ha. In contrast, the past take-up scenario, which reflects historical patterns of observed demand, indicates that future manufacturing demand will be closer to 110ha.
- 2.66 A far greater degree of consensus between the scenarios exists in relation to future warehousing requirements across the County. All three scenarios identify a future need for between 75ha and 90ha of land.
- 2.67 As discussed in Section 1.0, this document provides indicative requirements derived solely on the basis of a quantitative modelling exercise. NLP are currently undertaking a wider ELR for the County Council. This will frame the modelling outputs within the context of qualitative considerations including commercial market intelligence and business. Such analysis will provide further guidance for DCC in identifying the level of demand to plan for to 2033, as well as the likely spatial distribution of future need.



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