



BUILDING SKILLS FOR THE FUTURE

LONDON HOMES COALITION

TECHNICAL ANNEX

July 2024

































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1. INTRODUCTION

It is crucial to have a robust and reliable evidence base on which to make decisions relating to labour and skills. This will help to ensure that any interventions are appropriately targeted and address where the need is greatest. To support the work of the London Homes Coalition we have carried out a detailed construction labour demand analysis of the work being planned by the housing association members of the Coalition. This has been set in the context of the wider construction labour market both in London and in the South East and East of England regions. This technical report accompanies the main report and provides details of the analysis and research that has been carried out to support the conclusions.

2. CONSTRUCTION INDUSTRY OVERVIEW

This section contains general data relevant to the construction industry. It considers the volume of activity in £m and employment trends in the industry across London, the South East and East of England. Consideration is also given to the demographics of the industry in comparison to other sectors.

2.1. VOLUME OF ACTIVITY

Figure 1 shows the forecast construction output in £m for London, the South East and the East of England over the next five years.

- London: Construction output for the 2024-2028 period is forecast to lie between £37.6bn and £43.3bn (2019 prices), with an average annual growth rate of 3.6%.
- **South East:** Construction output for the 2024-2028 period is forecast to lie between £26.9bn and £30.4bn (2019 prices), with an average annual growth rate of 3.2%.
- East of England: Construction output for the 2024-2028 period is forecast to lie between £18.9bn and £21.3bn (2019 prices), with an average annual growth rate of 3.0%.

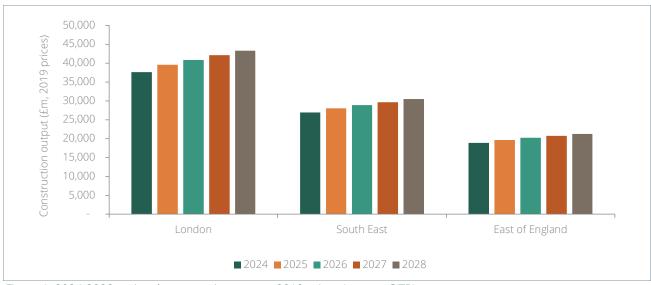


Figure 1: 2024-2028 regional construction output, 2019 prices (source: CITB)

Figure 2 shows how construction output in the three regions is driven by output in different sectors.

- London: Construction output associated with new build work will account for approximately 66% of output, driven by the private housing sector (24% of the total) and the commercial sector (21% of the total). Output associated with public housing new build accounts for approximately 4% of the total output. Output associated with housing repair and maintenance (R&M) accounts for approximately 18% of the total output.
- South East: Construction output associated with the housing sectors will account for approximately 46% of output, driven by the housing R&M sector (29% of the total) and the private housing new build sector (15% of the total). Output associated with public housing new build is forecast to account for approximately 2% of output.
- East of England: Construction output associated with R&M work will account for approximately 55% of all output, with the non-housing R&M sector accounting for 28% of that total and the housing R&M sector accounting 26% of that total. Output associated with public housing new build is forecast to account for approximately 2% of the total output.

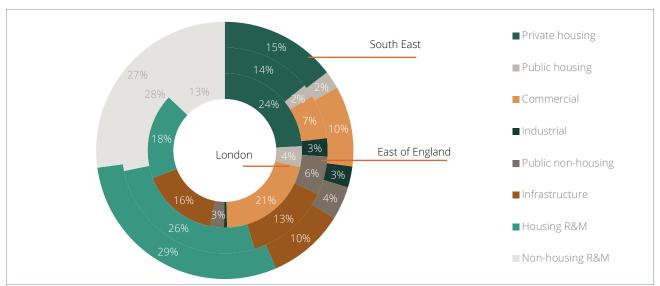


Figure 2: Average 2024-2028 regional construction output: breakdown by sector (source: CITB¹)

22 FMPLOYMENT

Based on the CITB Construction Skills Network data, the construction workforce in London, the South East and East of England is just over one million people. The annual London workforce in the 2024-2028 period is forecast to be between 402,250 and 426,750 people, with an average of 413,500 people. This is 39% of the of the total of the three regions.

¹ CITB, 2024. CSN Industry Outlook - 2024-2028



Figure 3: Average 2024-2028 construction workforce demand by region (source: CITB²)

2.2.1 Mobility of the workforce

There is geographic mobility of the construction workforce within the three regions (Figure 3). Around three-quarters of the workforce in each region have their current workplace in the same region as their permanent residence. Within the East of England and London most of the remainder come from neighbouring regions. However, in the South East about 15% come from regions further afield than which do not neighbouring the regions.

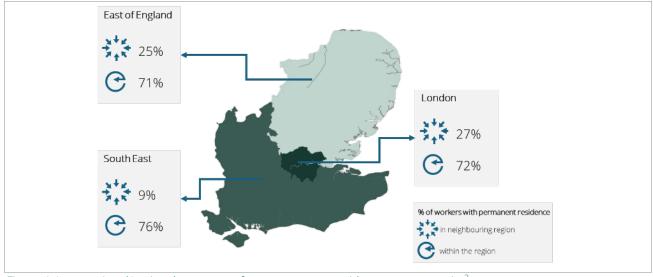


Figure 4: Inter-regional/national movement from permanent residence to current site³

2.2.2 Employment type

The construction industry has a large proportion of self-employed. Over the last two decades this has varied between 30% and 40% of the workforce and currently sits at 37% as shown in Figure 5.

² CITB, 2024. CSN Industry Outlook - 2024-2028

³ CITB, 2023. Workforce Skills and Mobility in the construction sector 2022 - UK-wide Report

This large proportion of self-employed can present additional challenges for recruitment and training in the sector.

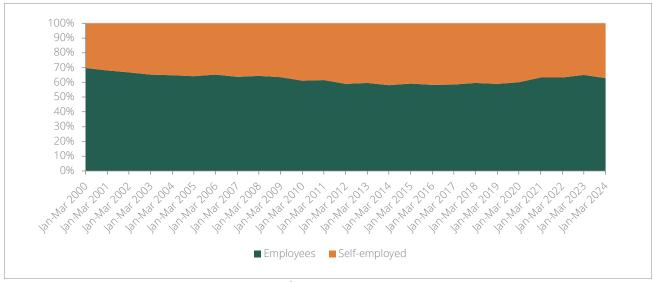


Figure 5: Construction employment by type, UK wide⁴

2.3. DEMOGRAPHICS

2.3.1 Age profile

Figure 6 shows details of the age profile of the London workforce.



Figure 6: Workforce age profile⁵

According to data collected as part of Census 2021, the age profile of the construction workforce in London is younger compared to the wider construction workforce in England and Wales, driven by a lower share of people in the 50+ age bands. At the same time the London construction workforce presents an older age profile when compared to the London workforce across all

⁴ ONS, 2024. Labour Force Survey, May 2024

⁵ ONS, 2023. Census 2021

industries. Details on the age profile of each occupational group underlying this total can be found on the scorecards in Appendix D.

2.3.2 Sex

A breakdown of the construction industry occupations by sex is shown in Figure 7⁶. Eighty six percent of the total construction workforce is predominantly male with 86% overall. This is more pronounced in operative roles where less than 2% are female.

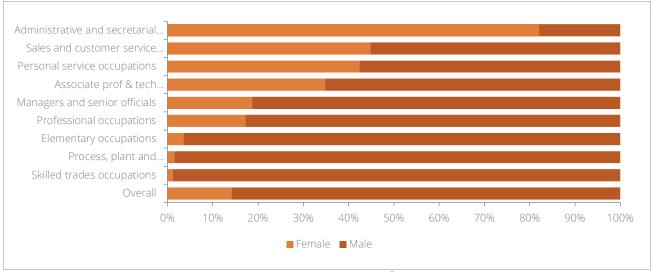
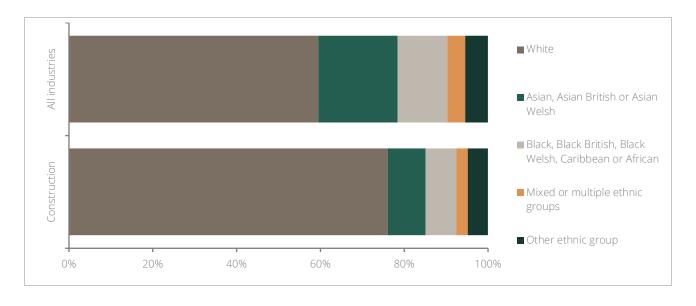


Figure 7: 2023 UK construction workforce: sex breakdown (source: ONS⁷)

2.3.3 Ethnicity

Figure 8 shows the ethnic breakdown of the London workforce comparing the construction sector to all industries.



⁶ Census 2021 asked respondents about sex with the response options of male and female; a response to this question was required. A further question was asked in relation to gender identity which was a voluntary response.

⁷ ONS, 2024. Annual Population Survey, Dec 2023

Figure 8: London workforce: ethnicity breakdown (source: ONS⁸)

According to data collected as part of Census 2021, 76% of the construction workforce in London is white. This is the highest share across all industries and compares, with the 60% recorded more broadly among the broader London workforce. Asian, Asian British or Asian Welsh are particularly underrepresented in the London construction industry (9% versus an all-industry base of 19%.)

2.3.4 Disability

Figure 9 shows the disability status of the London workforce.

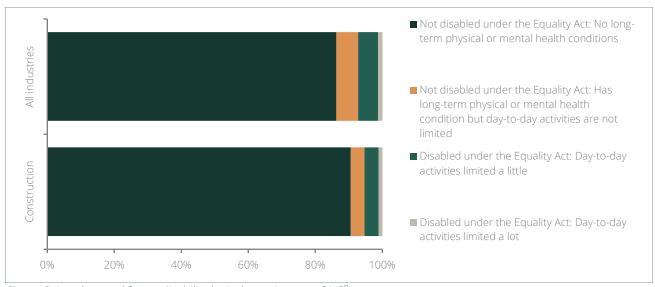


Figure 9: London workforce: disability by industry (source: ONS⁹)

According to data collected as part of Census 2021, 95% of the construction workforce in London is not disabled under the Equality act. This is the highest percentage share across all industries and it compares with the 90% recorded among the broader London workforce.

3. I ABOUR DEMAND

The construction labour demand depends on a number of factors including the wider macroeconomic conditions but is driven by the investment plans of the Coalition which set out how much they plan to spend and what they plan to spend it on. We have reviewed the pipelines of work for each of the housing associations that are part of the coalition to determine the future workforce requirements.

3.1. METHODOLOGY OVERVIEW

We have estimated the labour demand arising from the asset management and new build plans of the seven housing associations which are part of London Homes Coalition (LHC) using the CITB Labour Forecasting Tool (LFT). The LFT can estimate the construction labour requirements (ie number of operatives, managers, designers and support services) on a month-by-month and trade-

⁸ ONS, 2023. Census 2021

⁹ ONS, 2023. Census 2021

by-trade basis based on the type of project, its value, its location and its start and end dates. The value used is the construction value of the works under consideration and should omit any land or site preparation costs, client costs or design work. The design workforce is assumed to be a function of the construction spend.

To gain an understanding of the spending plans we have engaged with each of the seven housing associations in the LHC to obtain their asset management and investment plans over the next 5-10 years. The seven housing associations whose plans have been modelled as part of the assessment are listed below.

- L&O
- Metropolitan Thames Valley
- Notting Hill Genesis
- Peabody
- Sovereign Network Group
- The Guinness Partnership
- The Hyde Group

We obtain the following from each of the Coalition housing associations:

- Asset management plans:
 - Planned spend profiles for the coming 5-10 years
 - Details on the breakdown of the type of work undertaken in association with the planned spend
- New build plans:
 - Planned spend profiles for the coming years
 - Planned number of new build properties for the coming years (if spend profiles were not available).

The Labour Forecasting Tool has a number of models which reflect the nature of the work taking place. These include bespoke models for kitchens and bathrooms, roofing, etc. as well as more general models for housing repair and maintenance. The most appropriate model in the LFT was assigned to each of the items in the costing plan. Where specific details of the work taking place were not clear this was explored further with the housing association and if no further detail could be obtained this was allocated to the general repair and maintenance model. Around 50% of the work each year fell into this category.

The process used to develop the labour demand forecast was iterative in nature (see Figure 10): it involved i) producing preliminary workforce demand profiles for each housing association based on the data provided, ii) gathering their feedback around the assumptions made and iii) refining the forecasts based on the feedback and clarifications received.

Once finalised, the workforce demand profiles from each individual housing association were combined to produce an aggregated labour demand for LHC asset management and new build workforce demands. Invitations to validation workshops were issued to all LHC housing associations with the objective of validating the LHC-wide findings as well as to gather feedback on how the modelling could be refined.

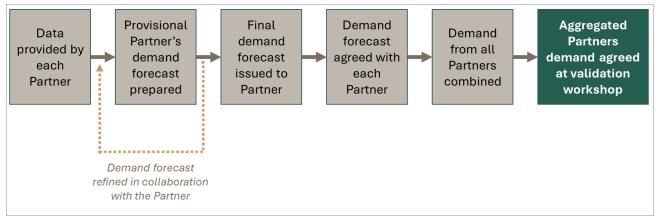


Figure 10: Diagram showing the iterative nature of the modelling approach adopted

General assumptions made while producing the labour demand forecasts include the following.

- Costs provided refer to construction activity only (ie land costs, design and client costs are excluded), if not otherwise stated in the dataset supplied.
- The labour coefficients are based on historic levels of productivity and no adjustment has been made to account for changes (increase or decrease) in productivity.
- Spend profiles for asset management and number of new build properties refer to sites located in London.

Numbers of new build properties were converted in spend profiles using a unit dwelling cost. The unit dwelling cost (ie the cost of building a typical dwelling) was derived by combining ONS regional output data¹⁰ with data on the numbers of properties delivered¹¹. While this approach might not reflect the nuances of the property types being delivered by the housing associations involved in the project, in the absence of more specific data from the housing associations it was considered appropriate for the purposes of estimating the labour demand.

The construction labour demand forecasts have been produced for 28 occupational groups. The construction occupational aggregates have been derived by CITB from the 201 relevant job titles that appear in the Office for National Statistics' Standard Occupational Classifications (2020). Aggregation of job titles is necessary because analysing data at the job title level would result in samples that are too small for robust statistical analysis. Appendix A provides additional details of the aggregation.

A distinction is maintained in the analysis between asset management and new build. This reflects the nature of the workforce, which may focus on one or the other of those sectors (although there will be overlap). More crucially, it allows the occupational pressures which may be pertinent to one or the other to be clearly seen without the potential of being alleviated by there being no pressures in the other sector.

¹⁰

https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/datasets/outputintheconstructionindustrysubnationalandsubsector

¹¹ https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants

3.2. ASSET MANAGEMENT

Figure 11 shows the output of the forecast of labour demand arising from the LHC asset management plans.

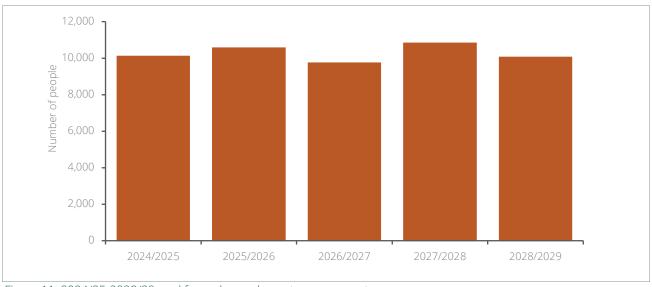


Figure 11: 2024/25-2028/29 workforce demand: asset management

The annual asset management workforce demand over the next five years is forecast to remain relatively constant, varying between 9,760 and 10,850 people, with an average of 10,280 people.

The average number of people required by occupational group to deliver asset management work over the 2024/25-2028/29 period is shown in Table 1.

Table 1: Average workforce demand 2024/25-2028/29: asset management

Occupational group	Average number of people
Carpenters and joiners	1,480
Other construction and building trades	1,240
Plumbing and HVAC trades	980
Non-construction professionals and technical office based staff	910
Directors, executives and senior managers	910
Electrical installation trades	830
Other non-construction office-based staff	790
Painters and decorators	560
Other professionals and technical staff working in construction	450
Plasterers	340
Roofers	320
Labourers	170
Construction trades supervisors	170
Floorers and wall tilers	160
Scaffolders	150
Construction project managers	150
Surveyors	140
Glaziers and window trades	100
Non-construction trades and operatives	100
Architects	70
Civil engineers	70
Logistics	60
Bricklayers and masons	40
Groundworkers	30
Plant operatives	20
Plant mechanics/fitters	20
Road and rail construction operatives	<10
Steel erectors and metal workers	<10
Total	10,280

The analysis shows that the mix of occupational groups involved in the delivery of asset management works does not change significantly over the 2024/25-2028/29 period (eg carpenters and joiners account for percentages varying between 14% and 15% of the total demand; plumbing and HVAC trades share varies between 9% and 10%).

The analysis indicates that the five occupational groups with the highest demand for the delivery of asset management work over the next five years are as follows.

- Carpenters and joiners (average demand of 1,480 people).
- Other construction and building trades (average demand of 1,240 people).

- Plumbing and HVAC trades (average demand of 980 people).
- Non-construction professionals and technical office based staff (average demand of 910 people).
- Directors, executives and senior managers (average demand of 830 people).

3.3. NEW BUILD

Figure 12 shows the output of the analysis of future labour demand arising from the new build component of the LHC plans.

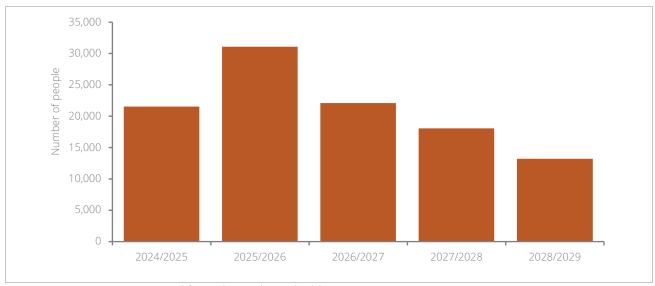


Figure 12: 2024/25-2028/29 workforce demand: new build

The new build workforce demand over the next five years is forecast to range between 13,220 people in 2028/29 and 31,080 people in 2025/26, with an average of 21,200 people. There is an apparent tail off in workforce from 2025/26 onwards

The average number of people by occupation required to deliver asset management work over this period is shown in Table 2.

Table 2: Average workforce demand 2024/25-2028/29: new build

Occupational group	Average number of people
Other professionals and technical staff working in construction	2,900
Directors, executives and senior managers	2,330
Non-construction professionals and technical office based staff	2,130
Other non-construction office-based staff	1,810
Other construction and building trades	1,390
Carpenters and joiners	1,170
Plumbing and HVAC trades	1,060
Electrical installation trades	1,050
Labourers	970
Surveyors	850
Bricklayers and masons	850
Civil engineers	480
Architects	460
Construction project managers	440
Plant operatives	400
Plant mechanics/fitters	390
Construction trades supervisors	300
Painters and decorators	280
Non-construction trades and operatives	270
Plasterers	270
Roofers	250
Logistics	250
Floorers and wall tilers	210
Steel erectors and metal workers	200
Groundworkers	190
Scaffolders	180
Glaziers and window trades	110
Road and rail construction operatives	10
Total	21,200

The analysis indicate that the five occupational groups with the highest demand for the delivery of new build work over the next five years are as follows.

- Other professionals and technical staff working in construction (average demand of 2,900 people).
- Directors, executives and senior managers (average demand of 2,330 people).
- Non-construction professionals and technical office based staff (average demand of 2,130 people).
- Other non-construction office-based staff (average demand of 1,810 people).

Other construction and building trades (average demand of 1,390 people).

3.4. LOW CARBON RETROFIT

To understand the likely scale of the challenge the LHC might face in delivering energy improvements on their building stock, we have isolated the part of the LHC asset management plans which refer to energy performance improvement/sustainability works. Forecasts of labour demand obtained from the analysis of the LHC plans were then put in the context of the wider London demand for low carbon retrofit skills.

3.4.1 LHC plans

Figure 13 shows the share of workforce demand arising from the delivery of LHC energy improvement plans in the context of the broader LHC demand for asset management work. It suggests that low carbon retrofit as specified in the LHC spending plans could account for between 3% and 5% of the total asset management workforce demand over the next five years.

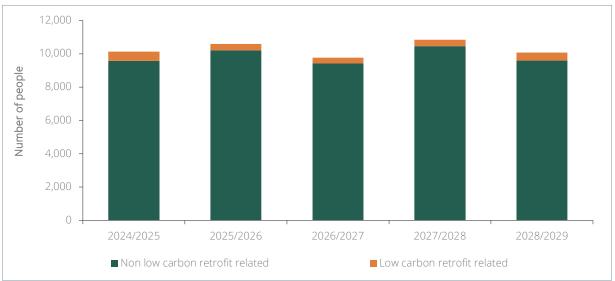


Figure 13: Low carbon retrofit demand vs other asset management work

The average number of people by occupation required to deliver the LHC energy improvement works listed in their pipelines over the next five years is shown in Table 3. Feedback from the validation workshops has indicated that this number may be lower than might be realistically expected due to uncertainty over future funding for such works meaning that they are not specified in the pipelines of work.

Table 3: Low carbon labour demand for LHC planned works

Occupational group	2024/25-2028/29 average number of people
Other construction and building trades	130
Construction trades supervisors	40
Scaffolders	30
Roofers	30
Plumbing and HVAC trades	30
Construction project managers	30
Labourers	30
Floorers and wall tilers	20
Surveyors	20
Other non-construction office-based staff	20
Carpenters and joiners	20
Electrical installation trades	20
Glaziers and window trades	10
Non-construction professionals and technical office-based staff	<10
Directors, executives and senior managers	<10
Logistics	<10
Painters and decorators	<10
Bricklayers and masons	<10
Other professionals and technical staff working in construction	<10
Architects	<10
Civil engineers	<10
Total	430

3.4.2 Broader London need for low carbon retrofit

To understand the London's wider need for low carbon retrofit, we have undertaken an analysis of energy performance certificates (EPCs) for all properties in the region. EPCs provide an assessment of the energy performance of properties on a scale of A to G and outline the recommendations made by the assessor on how this performance might be improved.

From the EPCs which are available we have carried out forecasting of the labour demand based on their listed recommendations. The number of recommendations corresponds to the volume of activity which is required for them to be delivered. Referring to this volume of activity, we have used the appropriate models within CITB's Low Carbon Labour Forecasting Tool to derive the overall workforce requirements by occupation.

In carrying out the analysis to compare the LHC and London-wide requirements, it was necessary to make the following assumptions:

• Only EPCs lodged since 2013 have been included. Where multiple EPCs have been lodged for the same property the most recent EPC has been used.

- The distribution of recommendations for properties which do not have an EPC is the same as that for properties for which an EPC is available.
- Interventions on properties with an EPC rating of D to G are being delivered between now and 2030. The rate at which these interventions ae being delivered over time is constant.
- LHC plans between now and 2030 refer to properties with an EPC rating of D to G.

The results indicate that approximately 500,000 person-years are needed to implement the energy performance improvement measures outlined in the EPC certificates of properties in London. Of these, 382,550 person-years are required to deliver interventions on domestic properties; while approximately 41,250 person-years are needed to implement the energy performance improvement measures outlined in the EPC certificates of social rental properties in London.

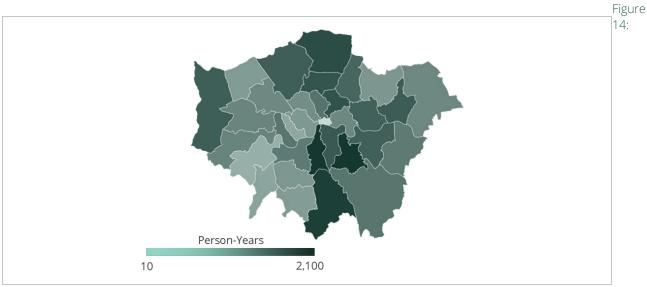
Table 4 shows the LHC low carbon retrofit workforce demand in the context of the wider London needs arising from the delivery of energy improvement interventions on different property types with a rating of D to G.

Table 4: Low carbon retrofit demand estimated in London for properties with EPC rating D to G

	Average 2024/25-2028/29 number of people
Social rental properties	3,800
Other domestic properties	39,240
Non-domestic properties	7,870
Total	50.910

We estimate that the LHC low carbon retrofit workforce demand, at an annual average of 430, would be around 11% of the requirement for D to G rated social rental properties in London and around 1% of all domestic properties in London.

Based on the analysis of EPCs, Figure 14 shows the workforce demand in person-years required for the delivery of EPC recommendations by borough for social rental properties. Lambeth (2,100 person-years), Lewisham (2,100 person-years), and Croydon (2,000 person-years) show the highest workforce requirements in for the delivery of low carbon retrofit of social rentals among the London boroughs.



Workforce requirements for the delivering of low carbon retrofit intervention on social housing stock

3.4.3 Summary

The average LHC workforce requirement for the delivery of energy improvement including in the asset management spending plans over the next five years is 430 people per year.

Occupational groups with the highest demand in the context of low carbon retrofit are:

- other construction and building trades,
- construction trades supervisors,
- scaffolders,
- roofers, and
- plumbing and HVAC trades

followed by

- plumbing and HVAC trades,
- construction project managers,
- labourers.

The 430 people per annum corresponds to approximately to 11% of the workforce for D to G rated social rental properties in London, and around 1% of all domestic properties in London.

3.5. THE ROLE OF MODERN METHODS OF CONSTRUCTION

3.5.1 Introduction

The labour demand associated with the delivery of new build works is influenced by the method of construction chosen. There is evidence that a higher uptake of modern methods of construction (MMC) can have an impact on the size of workforce required to deliver new build domestic projects, its occupational mix and where this workforce is needed (ie onsite or offsite).

Research carried out by CITB¹² provides details on the likely change in labour associated with the delivery of domestic properties through construction methods relying on panelised and volumetric solutions. The research outputs included details at an occupational level of i) the percentage change in labour and ii) the percentage of work that would be delivered offsite.

The impact that different levels of MMC uptake could have on the workforce demand arising from the delivery of LHC new build plans has been investigated by considering two scenarios as alternatives to the baseline. Scenario A assumes a moderate MMC uptake. Scenario B assumes that MMC solutions become the preferred methods of construction.

Details of the methods of construction assumed in the baseline as well as in scenarios A and B are provided in Table 5.

¹² CITB, 2019. The impact of modern methods of construction on skills requirements for housing. Available at: https://www.citb.co.uk/about-citb/construction-industry-research-reports/search-our-construction-industry-research-reports/the-impact-of-modern-methods-of-construction-on-the-skills-requirements-for-housing/">https://www.citb.co.uk/about-citb/construction-industry-research-reports/search-our-construction-industry-research-reports/the-impact-of-modern-methods-of-construction-on-the-skills-requirements-for-housing/">https://www.citb.co.uk/about-citb/construction-industry-research-reports/search-our-construction-industry-research-reports/search-our-construction-industry-research-reports/search-our-construction-industry-research-reports/search-our-construction-industry-research-reports/search-our-construction-industry-research-reports/search-our-construction-on-the-skills-requirements-for-housing/

Table 5: Details on the considered MMC scenarios

	Method of construction as a % of planned works			
Scenario	Traditional methods of construction ¹³	Panelised	Volumetric	
Baseline	100%	0%	0%	
Scenario A	80%	10%	10%	
Scenario B	20%	40%	40%	

3.5.2 Comparing scenarios

Table 8 shows the impact that the different levels of MMC uptake considered in Scenario A and Scenario B could have on the average workforce demand associated with the delivery of new build works over the next five years.

Table 6: Potential MMC uptake impact on 2024/25-2028/29 demand

Average 2024/25-2028/29 workforce		Baseline	Scenario A	Scenario B
Total	Number of people	21,200	20,900	20,050
workforce	Percentage variation from baseline	-	-1.4%	-5.4%
Onsite	Number of people	21,200	20,100	16,850
workforce	Percentage variation from baseline	-	-5.2%	-20.5%

Whilst the results shown in Table 6 might suggest that significant reductions in the onsite workforce through the adoption of panelised and volumetric MMC, these can vary significantly by occupation. Table 7 shows how workforce demand might change (from the baseline) at an occupational level under Scenario A and Scenario B.

Table 7: Workforce demand change: top five occupational groups by change

Ossupational group	Workforce demand (percentage change from traditional)			
Occupational group	Baseline	Scenario A	Scenario B	
Labourers	970	890 (-8%)	650 (-33%)	
Construction trades supervisors	300	280 (-7%)	30 (-26%)	
Carpenters and joiners	1,170	1,100 (-6%)	890 (-24%)	
Glaziers and window trades	110	110 (-5%)	90 (-20%)	
Bricklayers and masons	850	820 (-4%)	710 (-16%)	

Table 8 shows how onsite workforce levels might change (from the baseline) for each occupational group under Scenario A and Scenario B.

¹³ In this context, traditional methods of construction refers to the current mix and level of methods of construction used across the housing sector.

Table 8: Onsite workforce demand change: top five occupational groups by change

Occupational group	Workforce demand (percentage change from 'traditional')			
Occupational group	Baseline	Scenario A	Scenario B	
Glaziers and window trades	110	90 (-18%)	30 (-71%)	
Labourers	970	830 (-15%)	410 (-58%)	
Carpenters and joiners	1,170	1,000 (-14%)	510 (-57%)	
Plasterers	270	230 (-14%)	120 (-56%)	
Plumbing and HVAC trades	1,060	920 (-13%)	490 (-54%)	

3.5.3 Summary

MMC can have an impact on the volume of workforce required to deliver new build domestic projects, its occupational mix and where it is needed (ie onsite or offsite). The analysis of the LHC new build plans yielded the following conclusions when two scenarios alternative to the current baseline were considered:

- Workforce demand reduction: Under the above scenarios, the expected reduction in total workforce demand is relatively small (between 1.4% and 5.4%). Labourers, construction trades supervisors, carpenters and joiners, glaziers and window trades, and bricklayers and masons are the occupational groups which are most likely to experience a reduction in workforce demand of between 4% and 33%.
- Onsite workforce reduction: Under the above scenarios the expected reduction in onsite workforce ranges between 5.2 and 20.5%. Glaziers and window trades, labourers, carpenters and joiners, plasterers and plumbing and HVAC trades are the occupational groups which are most likely going to experience onsite workforce reductions of between 13% and 71%.

4. LABOUR DEMAND IN CONTEXT AND MISMATCH ANALYSIS

4.1. INTRODUCTION

It is important to consider the labour demand forecast to deliver a certain pipeline of work in the context of the wider demand for construction labour in that same region or indeed in the neighbouring ones. This is done by looking at the overall proportion of construction workforce required to deliver the modelled pipeline as a percentage of the total regional construction workforce and the annual recruitment requirements. These are applied as follows:

- The average annual demand as a proportion of the construction workforce in the region. This measure is used to contextualise the demand arising from the LHC pipeline in light of the demand arising from other programmes and projects in the region. It can be used to assess the level of competition that LHC supply chain might face in recruiting labour.
- The annual recruitment requirement (ARR) for each occupation in the construction sector for the short term (ie 2024-2028). The ARR takes into account current workforce flows into and out of construction, such as movements between industries, migration, sickness and retirements. The ARR provides an indication of the number of new

employees, in addition to current labour flows (ie over and above those which may be expected to occur naturally based on past data), that would need to be recruited into construction each year to realise the forecast output. This takes into account the forecast labour demand across the region for projects which are due to start and complete in the period to 2028. An ARR of zero suggests that current levels of recruitment are likely to meet forecast demand in the region.

While these measures provide a first high-level indication of the pressure that the modelled pipeline could exert on the local workforce availability, it is not sufficient on its own to establish potential pinch points at an occupational level. We therefore consider the following measures to put the forecast workforce demand in context and identify potential pressures and skills mismatches:

- The average annual demand associated with the delivery of the LHC pipeline. This is used to identify the significant occupations required for the delivery of that pipeline.
- The share of the workforce working in construction. This information allows the assessment of the extent to which suitably trained people might be drawn from other industries (eg. oil and gas). A low construction sector share suggests a large potential pool of labour and skills from other sectors from which construction sector employers might draw. This is based on an analysis of the standard occupational classification and standard industrial classification Labour Force Survey Data¹⁴ from 2019.

Following this prioritisation we have analysed further key metrics. Appendix D contains detailed scorecards for each of the 28 occupational groups covered by the assessment. The scorecards supplement demand and skills pressure information with further details age profile of the occupational group, their involvement in low carbon retrofit work, as well as the impact that MMC could have on them.

4.2. PRIORITISING ONE OCCUPATION OVER ANOTHER

To carry out an initial prioritisation of the occupations, the average annual demand as a proportion of the construction workforce in the region and the relative ARR were used. The scoring matrix below outlines the criteria used to assess the pinch points associated with each occupational group and therefore the level of priority they should take while developing policies and plans to tackle them.

Occupations with an above average ARR and share of demand are deemed to be "high priority" occupations; occupations with a demand less than 50 person-years are classified as "very low priority" regardless of their ARR level; occupations with no ARR but a demand greater than 50 person-years but below average are classified as "low priority". The remaining are classified as "medium priority".

A zero ARR does not mean that no recruitment is required, but that current recruitment levels are forecast to satisfy future demand. It is therefore important that existing recruitment approaches for occupations with no ARR are continued.

¹⁴

https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/labourforces urvey

Table 9: Prioritisation matrix for each occupation

	ARR > Average ARR	Very low priority	Medium priority	High priority
ARR ¹⁵	ARR ≤ Average ARR	Very low priority	Medium priority	High priority
	No ARR	Very low priority	Low priority	Medium priority
LHC demand		< 50 people	≥ 50 people	≥ 50 people
LHC demand as a share of London employment		n/a	≤ average	> average

4.3. RESULTS

High-level results of the prioritisation procedure are presented in the sections below distinguishing between the following:

- construction trades and manual occupations;
- construction-specific professionals and managerial occupations; and
- non-construction specific occupations.

Details on how the 28 occupational aggregates have been grouped in the categories listed above can be found in Appendix B.

Details on the values of each of the metrics used to identify potential pressures and skills mismatches can be found in Appendix C.

4.3.1 Construction trades and manual occupations

Table 10 provides a high-level overview of the outcome of the prioritisation exercise for construction trades and manual occupations.

¹⁵ Additional average annual recruitment requirement

Table 10: Priority rating: construction trades and manual occupations

Occupational group	Priority r	ating
Occupational group	Asset management	New build
Roofers		
Carpenters and joiners		
Plumbing and HVAC trades		
Glaziers and window trades		
Electrical installation trades		
Painters and decorators		
Floorers and wall tilers		
Scaffolders		
Other construction and building trades		
Construction trades supervisors		
Labourers		
Logistics		
Bricklayers and masons		
Plant mechanics/fitters		
Steel erectors and metal workers		
Plant operatives		
Groundworkers		
Plasterers		
Road and rail construction operatives		

Based on the results outlined in Appendix C, the construction trades and manual occupations which are likely to experience the greatest pressures both in the context of asset management and new build works are:

- roofers;
- carpenters and joiners;
- plumbing and HVAC trades;
- glaziers and window trades;
- electrical installation trades;
- painters and decorators;
- floorers and wall tilers;
- scaffolders; and
- other construction and building trades.

All these occupational groups are likely to experience high and medium pressures as a result of their involvement in asset management and new build LHC work respectively.

4.3.2 Construction professionals and managerial occupations

Table 11 provides a high level overview of the outcome of the prioritisation exercise for construction professionals and managerial occupations.

Table 11: Priority rating: construction professionals and managerial occupations

Occupational group	Priority rating						
Occupational group	Asset management	New build					
Surveyors							
Other professionals and technical staff working in construction							
Construction project managers							
Civil engineers							
Architects							

Results indicate that surveyors and other professionals and technical staff working in construction are likely to experience the highest pressures from the delivery of the LHC new build pipeline and also feature heavily in the asset management pipeline.

4.3.3 Other occupational groups

Table 12 provides a high level overview of the outcome of the prioritisation exercise for the remaining occupational groups. This group are less construction-specific than the other two previous groups.

Table 12: Priority rating: other occupational groups

Occupational group	Priority rating						
Occupational group	Asset management	New build					
Other non-construction office-based staff							
Directors, executives and senior managers							
Non-construction professionals and technical office- based staff							
Non-construction trades and operatives							

Results indicate that other non-construction office-based staff are likely to experience the highest pressures from the delivery of both asset management and the new build work. This occupational group includes occupations such as office managers, records clerks and assistants, data entry administrators, company secretaries and administrators.

APPENDIX A. OCCUPATIONAL DEFINITIONS

This appendix contains details of the 201 individual occupations which are aggregated to form the 28 occupational aggregates that are used for construction labour forecasts.

Occupationa	al group
Directors, executives an	
1111: Chief executives and senior officials 1121: Production managers and directors in manufacturing 1122: Production managers and directors in construction 1131: Financial managers and directors 1132: Marketing, sales and advertising directors 1134: Purchasing managers and directors Construction projections	1135: Charitable organisation managers and directors 1136: Human resource managers and directors 1137: Information technology directors 1139: Functional managers and directors n.e.c. 1140: Directors in logistics, warehousing and transport ect managers
2455: Construction project managers and related professionals	
Other non-construction	n office-based staff
3582: Health and safety managers and officers 4112: Local government administrative occupations 4121: Credit controllers 4122: Book-keepers, payroll managers and wages clerks 4124: Finance officers 4129: Financial administrative occupations n.e.c. 4131: Records clerks and assistants 4133: Stock control clerks and assistants 4136: Human resources administrative occupations 4141: Office managers 4142: Office supervisors 4143: Customer service managers 4151: Sales administrators 4152: Data entry administrators 4159: Other administrative occupations n.e.c. 4214: Company secretaries and administrators	4215: Personal assistants and other secretaries 4216: Receptionists 4217: Typists and related keyboard occupations 7111: Sales and retail assistants 7113: Telephone salespersons 7122: Debt, rent and other cash collectors 7125: Visual merchandisers and related occupations 7129: Sales related occupations n.e.c. 7132: Sales supervisors - retail and wholesale 7211: Call and contact centre occupations 7213: Communication operators 7219: Customer service occupations n.e.c. 7220: Customer service supervisors 8135: Printing machine assistants 9219: Elementary administration occupations n.e.c.
Non-construction professionals ar	nd technical office-based staff
1241: Managers in transport and distribution 1242: Managers in storage and warehousing 1243: Managers in logistics 1251: Property, housing and estate managers 1254: Waste disposal and environmental services managers 1255: Managers and directors in the creative industries 1257: Hire services managers and proprietors 1258: Directors in consultancy services 1259: Managers and proprietors in other services n.e.c. 2114: Physical scientists 2131: IT project managers 2132: IT managers 2133: IT business analysts, architects and systems designers 2134: Programmers and software development professionals 2135: Cyber security professionals	2431: Management consultants and business analysts 2432: Marketing and commercial managers 2433: Actuaries, economists and statisticians 2434: Business and related research professionals 2435: Professional/Chartered company secretaries 2439: Business, research and administrative professionals n.e.c. 2440: Business and financial project management professionals 2482: Quality assurance and regulatory professionals 2483: Environmental health professionals 3131: IT operations technicians 3132: IT user support technicians 3133: Database administrators and web content technicians 3229: Welfare and housing associate professionals n.e.c. 3319: Protective service associate professionals n.e.c.

2136: IT quality and testing professionals 2137: IT network professionals 2139: Information technology professionals n.e.c. 2141: Web design professionals 2142: Graphic and multimedia designers 2161: Research and development (R&D) managers 2212: Specialist medical practitioners 2259: Other health professionals n.e.c. 2412: Solicitors and lawyers 2419: Legal professionals n.e.c. 2421: Chartered and certified accountants 2422: Finance and investment analysts and advisers 2423: Taxation experts	3520: Legal associate professionals 3533: Financial and accounting technicians 3534: Financial accounts managers 3543: Project support officers 3544: Data analysts 3549: Business associate professionals n.e.c. 3552: Business sales executives 3554: Marketing associate professionals 3555: Estate agents and auctioneers 3556: Sales accounts and business development managers 3571: Human resources and industrial relations officers 3573: Information technology trainers 3574: Other vocational and industrial trainers.
Construction tra	ades supervisors
5250: Skilled metal, electrical and electronic trades supervisors	5330: Construction and building trades supervisors
Electrical inst	allation trades
3112: Electrical and electronics technicians 5241: Electricians and electrical fitters 5242: Telecoms and related network installers and repairers 5243: TV, video and audio servicers and repairers Carpenters	5245: Security system installers and repairers 5246: Electrical service and maintenance mechanics and repairers 5249: Electrical and electronic trades n.e.c.
5316: Carpenters and joiners 5442: Furniture makers and other craft woodworkers	8131: Paper and wood machine operatives
Plumbing and	d HVAC trades
5214: Pipe fitters	5225: Air-conditioning and refrigeration installers and repairers
Labo	purers
8159: Construction operatives n.e.c.	9129: Elementary construction occupations n.e.c.
Painters and	d decorators
5323: Painters and decorators	
Bricklayers	and masons
5312: Stonemasons and related trades	5313: Bricklayers
Plast	terers
5321: Plasterers	
Log	istics
4134: Transport and distribution clerks and assistants 8211: Large goods vehicle drivers	9251: Elementary storage supervisors 9252: Warehouse operatives
8214: Delivery drivers and couriers 8219: Road transport drivers n.e.c.	9253: Delivery operatives 9259: Elementary storage occupations n.e.c.
8219: Road transport drivers n.e.c. Plant op	9259: Elementary storage occupations n.e.c. peratives
8219: Road transport drivers n.e.c.	9259: Elementary storage occupations n.e.c.

F214. Declare reef tilere and eletere	
5314: Roofers, roof tilers and slaters	
Plant mecha	
5222: Tool makers, tool fitters and markers-out	5231: Vehicle technicians, mechanics and electricians
5223: Metal working production and maintenance fitters 5224: Precision instrument makers and repairers	8145: Tyre, exhaust and windscreen fitters
Floorers and	d wall tilers
5322: Floorers and wall tilers	
Groundy	vorkers
	VOI NEI S
9121: Groundworkers	Hara
Scaffol	iders
8151: Scaffolders, stagers and riggers	
Road and rail consti	ruction operatives
8132: Mining and quarry workers and related operatives8152: Road construction operatives	8153: Rail construction and maintenance operatives
Glaziers and w	indow trades
5317: Glaziers, window fabricators and fitters	5441: Glass and ceramics makers, decorators and finishers
Steel erectors and	d metal workers
5212: Metal plate workers, smiths, moulders and related	5311: Steel erectors
occupations	8115: Metal making and treating process operatives
5213: Welding trades	8120: Metal working machine operatives
5221: Metal machining setters and setter-operators Other construction a	and building trades
5319: Construction and building trades n.e.c.	5449: Other skilled trades n.e.c.
Non-construction tra	
5113: Gardeners and landscape gardeners 6232: Caretakers	9131: Industrial cleaning process occupations
8119: Process operatives n.e.c.	9139: Elementary process plant occupations n.e.c. 9223: Cleaners and domestics
8134: Water and sewerage plant operatives	9229: Elementary cleaning occupations n.e.c.
8142: Assemblers (vehicles and metal goods)	9231: Security guards and related occupations
8149: Assemblers and routine operatives n.e.c.	9267: Leisure and theme park attendants
9112: Forestry and related workers	9269: Other elementary services occupations n.e.c.
Surve	yors
2453: Quantity surveyors	2454: Chartered surveyors
Civil eng	ineers
2121: Civil engineers	
Archit	ects
2451: Architects	
Other professionals and technic	al staff working in construction
2111: Chemical scientists	3111: Laboratory technicians
2112: Biological scientists	3111: Eagineering technicians
2113: Biochemists and biomedical scientists	3114: Building and civil engineering technicians
	3115: Quality assurance technicians
2119: Natural and social science professionals n.e.c.	5115. Quality assurance technicians
2122: Mechanical engineers	3116: Planning, process and production technicians
·	

2125: Production and process engineers	3120: CAD, drawing and architectural technicians
2126: Aerospace engineers	3411: Artists
2127: Engineering project managers and project engineers	3429: Design occupations n.e.c.
2129: Engineering professionals n.e.c.	3541: Estimators, valuers and assessors
2151: Conservation professionals	3551: Buyers and procurement officers
2152: Environment professionals	3553: Merchandisers
2452: Chartered architectural technologists, planning	3581: Inspectors of standards and regulations
officers and consultants	8143: Routine inspectors and testers
2481: Quality control and planning engineers	8160: Production, factory and assembly supervisors

APPENDIX B. OCCUPATIONAL AGGREGATES GROUPING

This appendix shows the how the 28 occupational aggregates have been grouped in:

- construction trades and manual occupations
- construction-specific professionals and managerial occupations
- non-construction specific occupations.

Occupational aggregate grouping										
Occupational group	Construction trades and manual occupation	Construction professionals and managerial occupation	Non-construction specific occupation							
Directors, executives and senior managers			✓							
Construction project managers		✓								
Other non-construction office-based staff			✓							
Non-construction professionals and technical			✓							
office-based staff										
Construction trades supervisors	✓									
Electrical installation trades	✓									
Carpenters and joiners	✓									
Plumbing and HVAC trades	✓									
Labourers	✓									
Painters and decorators	✓									
Bricklayers and masons	✓									
Plasterers	✓									
Logistics	✓									
Plant operatives	✓									
Roofers	✓									
Plant mechanics/fitters	✓									
Floorers and wall tilers	✓									
Groundworkers	✓									
Scaffolders	✓									
Road and rail construction operatives	✓									
Glaziers and window trades	✓									
Steel erectors and metal workers	✓									
Other construction and building trades	√									
Non-construction trades and operatives			✓							
Surveyors		✓								
Civil engineers		√								
Architects		√								
Other professionals and technical staff working in construction		√								

APPENDIX C. SUMMARY OF THE LABOUR SKILLS DEMAND AND PRESSURES ARISING FROM THE DELIVERY OF THE LHC PLANS

Quantitative information derived from the analysis of the LHC plans is detailed in the tables below. Context-driven information related to both the London region and East of England and South East combined is also provided.

Occupational groups are ranked based on the level of pressure/potential skills mismatch experienced (ie based on their Priority rating).

The following legend applies.



LHC in the London context

Construction trades and manual occupations

	Priority	rating	LHC - Ave	rage 2024/25 demand	-2028/29	Average CSN	Average 2024/25-2028/29 demand as a share of the London demand		a share of the London demand			London	Average 2024/25-
Occupational group	Asset management (AM)	New build (NB)	AM	NB	AM + NB	2024/25- 2028/29 demand	AM	NB	AM + NB	ARR	2028/29 ARR as a share of the London demand		
Roofers			320	250	580	3,170	10.2%	8.1%	18.3%	80	2.5%		
Carpenters and joiners			1,480	1,170	2,650	19,020	7.8%	6.2%	13.9%	350	1.8%		
Plumbing and HVAC trades			980	1,060	2,050	18,200	5.4%	5.8%	11.2%	150	0.8%		
Glaziers and window trades			100	110	210	1,770	5.8%	6.3%	12.1%	25	1.4%		
Electrical installation trades			830	1,050	1,880	21,550	3.9%	4.9%	8.7%	260	1.2%		
Painters and decorators			560	280	840	11,530	4.9%	2.4%	7.3%	90	0.8%		
Floorers and wall tilers			160	210	360	4,110	3.8%	5.0%	8.8%	25	0.6%		
Scaffolders			150	180	330	4,230	3.6%	4.2%	7.7%	25	0.6%		
Other construction and building trades			1,240	1,390	2,630	37,760	3.3%	3.7%	7.0%	140	0.4%		
Construction trades supervisors			170	300	470	10,420	1.7%	2.9%	4.5%	160	1.5%		
Labourers			170	970	1,140	22,420	0.8%	4.3%	5.1%	70	0.3%		
Logistics			60	250	310	4,320	1.4%	5.9%	7.3%	60	1.4%		
Bricklayers and masons			<50	850	890	5,980	0.7%	14.2%	14.9%	90	1.5%		
Plant mechanics/fitters			<50	390	400	3,340	0.5%	11.6%	12.1%	100	3.0%		
Steel erectors and metal workers			<50	200	200	790	0.0%	25.7%	25.7%	25	3.2%		
Plasterers			340	270	610	4,820	7.1%	5.6%	12.7%	-	0.0%		
Plant operatives			<50	400	420	4,770	0.4%	8.4%	8.8%	100	2.1%		
Groundworkers			<50	190	220	2,800	0.9%	6.8%	7.7%	25	0.9%		
Road and rail construction operatives			<50	<50	<50	3,180	0.1%	0.4%	0.5%	60	1.9%		

Construction professionals and managerial occupations

	Priority	/ rating	LHC - Ave	rage 2024/25 demand	-2028/29	Average CSN	Average 2024/25-2028/29 demand as a share of the London demand			London	Average 2024/25-
Occupational group	Asset management (AM)	New build (NB)	AM	NB	AM + NB	2024/25- 2028/29 demand	АМ	NB	AM + NB		2028/29 ARR as a share of the London demand
Surveyors			140	850	990	10,660	1.3%	8.0%	9.3%	480	4.5%
Other professionals and technical staff working in construction			450	2,900	3,350	34,530	1.3%	8.4%	9.7%	800	2.3%
Construction project managers			150	440	580	17,300	0.8%	2.5%	3.4%	150	0.9%
Civil engineers			70	480	550	11,930	0.6%	4.0%	4.6%	160	1.3%
Architects			70	460	530	13,810	0.5%	3.3%	3.8%	210	1.5%

Other occupational groups

	Priority	/ rating	LHC - Ave	rage 2024/25 demand	-2028/29	Average CSN	Average 2024/25-2028/29 demand as a share of the London demand			London	Average 2024/25-
Occupational group	Asset management (AM)	New build (NB)	АМ	NB	AM + NB	2024/25- 2028/29 demand	AM	NB	AM + NB		2028/29 ARR as a share of the London demand
Other non-construction office-based staff			790	1,810	2,610	26,260	3.0%	6.9%	9.9%	320	1.2%
Directors, executives and senior managers			910	2,330	3,240	50,050	1.8%	4.7%	6.5%	350	0.7%
Non-construction professionals and technical office-based staff			910	2,130	3,040	59,220	1.5%	3.6%	5.1%	1,070	1.8%
Non-construction trades and operatives			100	270	370	5,550	1.7%	4.9%	6.6%	-	0.0%

LHC in the wider East of England and South East regional context

Construction trades and manual occupations

		East of Engl			South Ea		East of England and South East combined					
Occupational group	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand
Roofers	4,620	12.5%	<50	0.5%	5,810	10.0%	<50	0.4%	10,430	5.5%	50	0.5%
Carpenters and joiners	14,040	18.9%	200	1.4%	21,980	12.0%	180	0.8%	36,030	7.4%	380	1.1%
Plumbing and HVAC trades	11,960	17.1%	70	0.6%	21,820	9.4%	190	0.9%	33,780	6.1%	260	0.8%
Glaziers and window trades	340	62.7%	<50	7.3%	2,020	10.6%	-	0.0%	2,360	9.0%	25	1.1%
Electrical installation trades	16,710	11.3%	120	0.7%	18,540	10.1%	-	0.0%	35,250	5.3%	120	0.3%
Painters and decorators	8,850	9.5%	-	0.0%	12,170	6.9%	<50	0.2%	21,017	4.0%	25	0.1%
Floorers and wall tilers	3,870	9.3%	-	0.0%	3,480	10.4%	<50	0.7%	7,360	4.9%	25	0.3%
Scaffolders	1,960	16.7%	-	0.0%	3,880	8.4%	60	1.5%	5,840	5.6%	60	1.0%
Other construction and building trades	22,500	11.7%	80	0.4%	26,980	9.7%	60	0.2%	49,480	5.3%	140	0.3%
Construction trades supervisors	3,390	14.0%	<50	0.7%	6,780	7.0%	60	0.9%	10,170	4.7%	85	0.8%
Labourers	10,300	11.1%	320	3.1%	20,700	5.5%	360	1.7%	30,996	3.7%	680	2.2%
Logistics	4,230	7.4%	-	0.0%	4,830	6.5%	<50	0.5%	9,057	3.5%	25	0.3%
Bricklayers and masons	5,100	17.5%	-	0.0%	7,110	12.6%	70	1.0%	12,205	7.3%	70	0.6%
Plant mechanics/fitters	2,980	13.5%	<50	0.8%	3,810	10.6%	<50	0.7%	6,790	5.9%	50	0.7%
Steel erectors and metal workers	1,720	11.8%	80	4.6%	1,920	10.5%	-	0.0%	3,640	5.6%	80	2.2%
Plasterers	3,630	16.8%	180	5.0%	6,210	9.8%	<50	0.4%	9,835	6.2%	205	2.1%
Plant operatives	3,690	11.4%	110	3.0%	2,750	15.3%	80	2.9%	6,440	6.5%	190	3.0%
Groundworkers	2,910	7.5%	-	0.0%	4,410	4.9%	70	1.6%	7,310	3.0%	70	1.0%
Road and rail construction operatives	1,440	1.2%	<50	1.7%	2,230	0.8%	<50	1.1%	3,670	0.5%	50	1.4%

Construction professionals and managerial occupations

	East of England					South Ea		East of England and South East combined				
Occupational group	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand
Surveyors	5,940	16.7%	<50	0.4%	10,930	9.1%	50	0.5%	16,860	5.9%	75	0.4%
Other professionals and technical staff working in construction	23,870	14.0%	590	2.5%	40,550	8.3%	310	0.8%	64,420	5.2%	900	1.4%
Construction project managers	4,160	14.0%	<50	0.6%	7,450	7.8%	70	0.9%	11,610	5.0%	95	0.8%
Civil engineers	4,310	12.8%	340	7.9%	8,180	6.7%	290	3.5%	12,500	4.4%	630	5.0%
Architects	3,910	13.6%	100	2.6%	3,990	13.3%	170	4.3%	7,900	6.7%	270	3.4%

Other occupational groups

Occupational group	East of England					South Ea		East of England and South East combined				
	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand	Average CSN 2024/25- 2028/29 regional demand	Average AM + NB demand as a share of the average regional demand	ARR	Average 2024/25- 2028/29 ARR as a share of the total regional demand
Other non-construction office-based staff	27,600	9.4%	430	1.6%	42,160	6.2%	-	0.0%	69,760	3.7%	430	0.6%
Directors, executives and senior managers	30,470	10.6%	570	1.9%	42,710	7.6%	-	0.0%	73,180	4.4%	570	0.8%
Non-construction professionals and technical office-based staff	23,970	12.7%	760	3.2%	48,630	6.3%	-	0.0%	72,600	4.2%	760	1.0%
Non-construction trades and operatives	2,660	13.7%	<50	0.9%	5,650	6.5%	60	1.1%	8,310	4.4%	85	1.0%

APPENDIX D. OCCUPATIONAL SCORECARDS

Detailed scorecards summarising the findings for each of the 28 occupational groups covered by the forecast are provided below.



- Level 2 NVQ (>9 months)
- Level 2
 Apprenticeship
 (24 months)
- Specialist
 Applied Skills
 Programme (18 months)

LHC asset management pressure

• High demand (an average of 320 people over the 2024/25-2028/29 period compared to a London employment of 3,170 people).

LHC new build pressure

• High demand (an average of 250 people over the 2024/25-2028/29 period compared to a London employment of 3,170 people).

Annual recruitment requirement (ARR)

• High ARR (an average of 80 people corresponding to 2.5% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a slightly older age distribution compared to that of the broader construction workforce in London, driven by the low share of workforce in the 25-34 age bands.
- The share of roofers working in construction in London aged 50 or above is lower than the share of the broader roofing workforce in England and Wales. Around 9% of the roofers working in construction are 60 years old or older. This is slightly above the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 4%. The share of under 35-year-olds decreased by 2%.

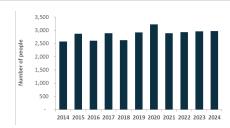


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (580 people (5.6%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 10,430 people).
- Medium ARR in South East and East of England (an average of 50 people for asset management and new build combined corresponding to 0.5% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was in 2020. Since then, the number of people working in this occupational group in construction has declined by 8%.
- 98% of the UK roofers work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw is negligible.



Source: GoConstruct

ММС

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of roofers required for new build work could decrease by 12%; and that of roofers on site by 44%.

Low carbon retrofit

• Low carbon retrofit work for domestic properties for this occupation could account for more than the overall available London workforce over the next five years.



- Level 2 NVQ (>9 months)
- Level 2
 Apprenticeship
 (24 months)
- Level 3 Apprenticeship (24+15 months)
- Specialist
 Applied Skills
 Programme (18 months)

LHC asset management pressure

• High demand (an average of 1,480 people over the 2024/25-2028/29 period compared to a London employment of 19,020 people).

LHC new build pressure

• Medium demand (an average of 1,170 people over the 2024/25-2028/29 period compared to a London employment of 19,020 people).

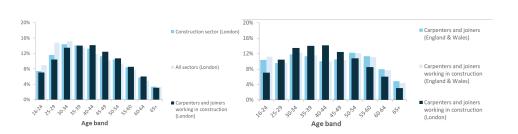
Annual recruitment requirement (ARR)

• High ARR (an average of 350 people corresponding to 1.8% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has an older age distribution compared to that of the broader construction workforce in London, driven by the lower share of workforce in the 25-34 age band.
- Around 9% of the carpenters and joiners working in construction are 60 years old or older. This is comparable with the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 4%. The share of under 35-year-olds
 decreased by 2%.

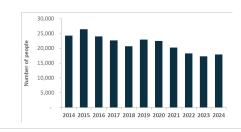


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (2,650 people (7.4%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 36,030 people).
- High ARR in South East and East of England (an average of 380 people for asset management and new build combined corresponding to 1.1% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was in 2015. Since then, the number of people working in this occupational group in construction has declined by 32%.
- Around 68% of the UK carpenters and joiners work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



(<u>Carpenter</u>), (<u>Joiner</u>)

MMC

Source: GoConstruct

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of carpenters and joiners required for new build work could be reduced by approximately 24%; and that of carpenters and joiners on site by 56%.

Low carbon retrofit

• Low carbon retrofit work for domestic properties for this occupation could account for up to 6% of the overall London workforce over the next five years. This moderate demand for this occupation in low carbon retrofit could increase the pressures for this occupation if low carbon retrofit increases.



- Level 2 NVQ (>9 months)
- Level 3
 Apprenticeship
 (36-48 months)

LHC asset management pressure

• High demand (an average of 980 people over the 2024/25-2028/29 period compared to a London employment of 18,200 people).

LHC new build pressure

• Medium demand (an average of 1,060 people over the 2024/25-2028/29 period compared to a London employment of 18,200 people).

Annual recruitment requirement (ARR)

• Medium ARR (an average of 150 people corresponding to 0.8% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 40-44 age band.
- This occupation has an older age distribution compared to that of the broader construction workforce in London except for the lower percentage in the 25-34 age band, which is compensated by the higher percentage in the 40-49 age band.
- Around 9% of the plumbing and HVAC trades working in construction are 60 years old or older. This is comparable with the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 5%. The share of under 35-year-olds decreased by 2%.

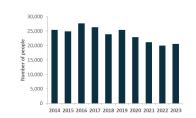


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (2,050 people (6.1%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 33,780 people).
- Medium ARR in South East and East of England (an average of 260 people for asset management and new build combined corresponding to 0.8% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was in 2018. Since then, the number of people working in this occupational group in construction has declined by 11%.
- Over 80% of the UK plumbing and HVAC trades work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



MMC scenarios

Source: GoConstruct (<u>Plumber</u>), (<u>HVAC</u> Engineer)

• While a greater uptake of MMC will likely not have a significant impact on the total demand for this occupation, it will have an impact on the number of skills required on site. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of plumbing and HVAC trades required on site could be reduced by approximately 54%.

Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 15% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.



- Level 2 NVQ (>9 months)
- Level 2 Apprenticeship (18 months)

LHC asset management pressure

• High demand (an average of 100 people over the 2024/25-2028/29 period compared to a London employment of 1,770 people).

LHC new build pressure

• Medium demand (an average of 1,770 people over the 2024/25-2028/29 period compared to a London employment of 1,770 people).

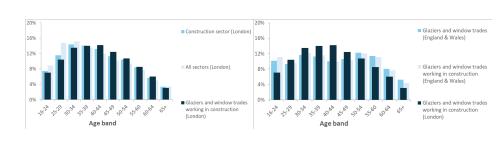
Annual recruitment requirement (ARR)

• High ARR (an average of 25 people corresponding to 1.4% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a slightly older age distribution than that of the broader construction workforce in London.
- Glaziers and window trades working in construction in London have a younger age profile
 than the broader glaziers and window trades workforce in England and Wales. Around 9%
 of the glaziers and window trades working in construction are 60 years old or older. This is
 higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 4%. The share of under 35-year-olds decreased by 2%.

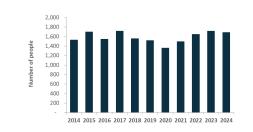


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (210 people (8.9%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 2,360 people).
- High ARR in South East and East of England (an average of 25 people for asset management and new build combined corresponding to 1.1% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was in 2017. Since then, the number of people working in this occupational group in construction has declined by 2%.
- 56% of the UK glaziers and window trades work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



Fitter) MMC scenarios

Source: GoConstruct (Glazier), (Window

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of glaziers and window trade required for new build work could be reduced by approximately 19%; and that of glaziers and window trades on site by 71%.



Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 49% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.



- Level 3 NVQ (>12 months)
- Level 3 Apprenticeship (36-48 months)

LHC asset management pressure

• High demand (an average of 830 people over the 2024/25-2028/29 period compared to a London employment of 21,550 people).

LHC new build pressure

• Medium demand (an average of 1,050 people over the 2024/25-2028/29 period compared to a London employment of 21,550 people).

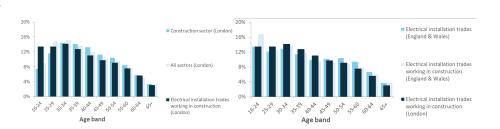
Annual recruitment requirement (ARR)

• Medium ARR (an average of 260 people corresponding to 1.2% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 30-34 age band.
- This occupation has a younger age distribution compared with that of the London workforce (both for the construction sector and for all sectors), driven by the higher share of people in the 16-24 age band.
- Around 9% of the electrical installation trades working in construction are 60 years old or older. This is comparable with the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England did not vary significantly.

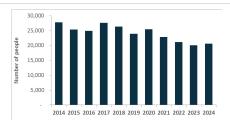


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (1,880 people for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 32,250 people).
- Medium ARR in South East and East of England (an average of 120 people for asset management and new build combined corresponding to 0.3% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was in 2014. Since then, the number of people working in this occupational group in construction has declined by 26%.
- Around 39% of the UK electrical installation trades work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

Source:

GoConstruct

(Electrician),

(Electrical Distribution Worker)

(Electrical Tester).

• While a greater uptake of MMC will likely not have a significant impact on the total demand for this occupation, it will have an impact on the number of skills required on site. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of electrical installation trades required on site by new build work could be reduced by approximately 45%.

Low carbon retrofit

• Low carbon retrofit work for domestic properties for this occupation could account for up to 8% of the overall London workforce over the next five years. This moderate demand for this occupation in low carbon retrofit could increase the pressures for this occupation if low carbon retrofit increases.



- Level 2 NVQ (>9 months)
- Level 2 Apprenticeship (24 months)

LHC asset management pressure

• High demand (an average of 560 people over the 2024/25-2028/29 period compared to a London employment of 11,530 people).

LHC new build pressure

• Medium demand (an average of 280 people over the 2024/25-2028/29 period compared to a London employment of 11,530 people).

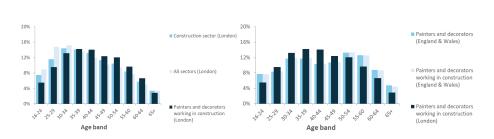
Annual recruitment requirement (ARR)

Medium ARR (an average of 90 people corresponding to 0.8% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 30-34 age band.
- This occupation has an older age distribution compared to that of the broader construction workforce in London, driven by the higher share of workforce in the 45-64 age bands.
- Around 10% of the painters and decorators working in construction are 60 years old or older. This is higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 7%. The share of under 35-year-olds decreased
 by 1%.

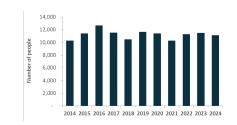


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (840 people for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 21,020 people).
- Medium ARR in South East and East of England (an average of 25 people for asset management and new build combined corresponding to 0.1% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was in 2016. Since then, the number of people working in this occupational group in construction has declined by 12%.
- 67% of the UK painters and decorators work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



Source:

GoConstruct MMC scenarios

• While a greater uptake of MMC will likely have no impact on the total demand for this occupation, it will have an impact on the number of skills required on site. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of painters and decorators required on site by new build work could be reduced by approximately 39%.

Low carbon retrofit

• Low carbon retrofit work for domestic properties for this occupation could account for up to 1% of the overall London workforce over the next five years, which is unlikely to have a significant impact on the overall labour demand.





- Level 2 NVQ (>9 months)
- Level 2 Apprenticeship (30 months)

LHC asset management pressure

• High demand (an average of 160 people over the 2024/25-2028/29 period compared to a London employment of 4,110 people).

LHC new build pressure

• Medium demand (an average of 210 people over the 2024/25-2028/29 period compared to a London employment of 4,110 people).

Annual recruitment requirement (ARR)

• Medium ARR (an average of 25 people corresponding to 0.6% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 30-34 age band.
- This occupation has an older age distribution compared to that of the broader construction workforce in London, driven by the lower share of workforce in the 16-29 age bands.
- Floorers and wall tilers working in construction in London have a younger age profile than the broader floorers and wall tilers workforce in England and Wales.
- Around 10% of the floorers and wall tilers working in construction are 60 years old or older. This is higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 7%. The share of under 35-year-olds decreased by 1%.

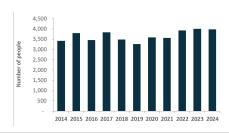


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (360 people (4.9%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 7,360 people).
- Medium ARR in South East and East of England (an average of 25 people for asset management and new build combined corresponding to 0.3% of the employment in these two
 regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was in 2023. The number of people working in this occupational group in construction in 2024 is forecast to be around the same levels.
- 91% of the UK floorers and wall tilers work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw is limited.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of floorers and wall tilers required for new build work could decrease by 14%; and that of floorers and wall tilers on site by 54%.



Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 68% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.





- Level 2 NVQ (>9 months)
- Level 2 Apprenticeship (18 months)

LHC asset management pressure

• High demand (an average of 150 people over the 2024/25-2028/29 period compared to a London employment of 4,230 people).

LHC new build pressure

• Medium demand (an average of 180 people over the 2024/25-2028/29 period compared to a London employment of 4,230 people).

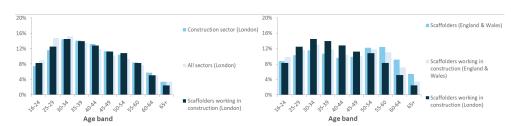
Annual recruitment requirement (ARR)

• Medium ARR (an average of 25 people corresponding to 0.6% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has an age distribution comparable to that of the broader construction workforce in London.
- Scaffolders working in construction in London have a younger age profile than the broader scaffolder workforce in England and Wales.
- Around 8% of the scaffolders working in construction are 60 years old or older. This
 percentage is comparable to that of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 8%. The share of under 35-year-olds increased by 1%.

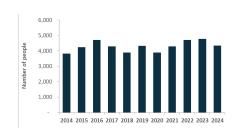


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (330 people (6%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 5,840 people).
- High ARR in South East and East of England (an average of 60 people for asset management and new build combined corresponding to 1.0% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2023. The number of people working in this occupational group in construction in 2024 is forecast to be 9% lower than the peak.
- 92% of the UK scaffolders work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw is limited.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of scaffolders required for new build work could be reduced by approximately 11%; and that of scaffolders on site by 11% too.

••

Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 81% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.

43



 A variety of qualifications including NVQs and Level 2 and Level 3

LHC asset management pressure

• High demand (an average of 1,240 people over the 2024/25-2028/29 period compared to a London employment of 37,760 people).

LHC new build pressure

• Medium demand (an average of 1,390 people over the 2024/25-2028/29 period compared to a London employment of 37,760 people).

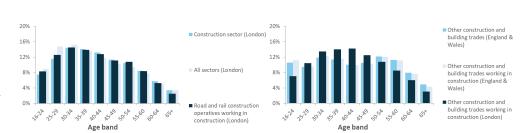
Annual recruitment requirement (ARR)

• Medium ARR (an average of 140 people corresponding to 0.4% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a slightly older age distribution than that of the broader construction workforce in London.
- Other construction and building trades working in construction in London have a
 younger age profile than the broader other construction and building trades
 workforce in England and Wales. Around 9% of the other construction and building
 trades working in construction are 60 years old or older. This is higher than the 8% of
 the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 4%. The share of under 35-year-olds decreased by 2%.

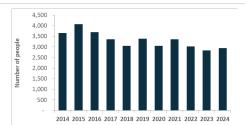


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (2,630 people (5.3%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 49,480 people).
- Medium ARR in South East and East of England (an average of 140 people for asset management and new build combined corresponding to 0.3% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2015. Since then, the number of people working in this occupational group in construction has declined by 9%.
- 62% of the UK other construction and building trades work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of other construction and building trades required for new build work could be reduced by approximately 6%; and that of other construction and building trades on site by 37%.



Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 32% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.





 A variety of qualifications generally building on a trades qualification

LHC asset management pressure

• Medium demand (an average of 170 people over the 2024/25-2028/29 period compared to a London employment of 10,420 people).

LHC new build pressure

• Medium demand (an average of 300 people over the 2024/25-2028/29 period compared to a London employment of 10,420 people).

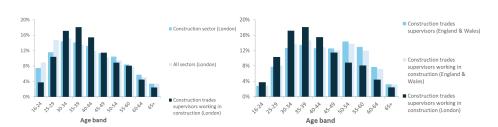
Annual recruitment requirement (ARR)

• High ARR (an average of 160 people corresponding to 1.5% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a slightly younger age distribution compared to that of the broader construction workforce in London except for the lower percentage in the 16-29 age band, which is compensated by the higher percentage in the 30-44 age band.
- Construction trades supervisors working in construction in London have a younger age
 profile compared to the broader construction trades supervisors in England and Wales.
 Around 7% of the construction trades supervisors working in construction are 60 years old or
 older. This is comparable with the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England did not vary significantly.

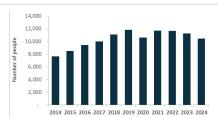


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (470 people (4.6%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 10,170 people).
- Medium ARR in South East and East of England (an average of 85 people for asset management and new build combined corresponding to 0.8% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2019. Since then, the number of people working in this occupational group in construction has declined by 11%.
- Around 48% of the UK construction trades supervisors work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of construction trades supervisors required for new build work could be reduced by approximately 27%; and that of construction trades supervisors on site by 40%.



Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 41% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.





- Level 3 NVQ in Construction Civil Engineering (Construction Operations)
- Level 3
 Apprenticeship in Construction Civil
 Engineering (Construction Operations)

LHC asset management pressure

• Medium demand (an average of 170 people over the 2024/25-2028/29 period compared to a London employment of 22,420 people).

LHC new build pressure

• Medium demand (an average of 970 people over the 2024/25-2028/29 period compared to a London employment of 22,420 people).

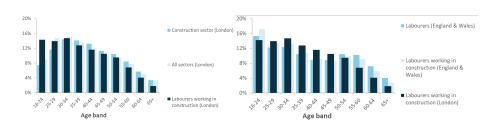
Annual recruitment requirement (ARR)

Medium ARR (an average of 70 people corresponding to 0.3% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 30-34 age band.
- This occupation has a younger age distribution compared to that of the broader construction workforce in London, driven by the higher share of workforce in the 16-24 age band.
- Around 6% of the labourers working in construction are 60 years old or older. This
 is slightly lower than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 5%. The share of under 35-year-olds decreased
 by 3%.

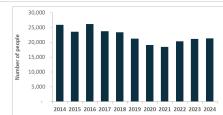


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (1,140 people (3.7%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 31,000 people).
- High ARR in South East and East of England (an average of 680 people for asset management and new build combined corresponding to 2.2% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2016. Since then, the number of people working in this occupational group in construction has declined by 18%.
- Over 80% of the UK labourers work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of labourers required for new build work could be reduced by approximately 33%; and that of labourers on site by 58%.



Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 16% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.





 A variety of routes including for instance HGV Licence (>10 weeks)

LHC asset management pressure

• Medium demand (an average of 60 people over the 2024/25-2028/29 period compared to a London employment of 4,320 people).

LHC new build pressure

• Medium demand (an average of 250 people over the 2024/25-2028/29 period compared to a London employment of 4,320 people).

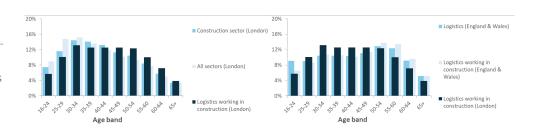
Annual recruitment requirement (ARR)

• High ARR (an average of 60 people corresponding to 1.1% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has an older age distribution compared to that of the broader construction workforce in London, driven by the low share of workforce in the 16-34 age bands.
- Around 11% of the logistics working in construction are 60 years old or older. This is higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 5%. The share of under 35-year-olds
 decreased by 1%.

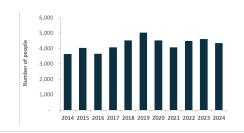


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (310 people (3.4%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 9,060 people).
- Medium ARR in South East and East of England (an average of 25 people for asset management and new build combined corresponding to 0.3% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2019. Since then, the number of people working in this occupational group in construction has declined by 14%.
- Only 4% of the UK logistics work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of logistics required for new build work could increase by 4%; while that of logistics on site could reduce by 44%.

Low carbon retrofit

• Low carbon retrofit work for domestic properties for this occupation could account for up to 1% of the overall London workforce over the next five years, which is unlikely to have a significant impact on the overall labour demand.





- Level 2 NVQ (>9 months)
- Level 2
 Apprenticeship
 (24 months)
- Specialist Applied Skills Programme (18 months)

LHC asset management pressure

• Low demand (an average of <50 people over the 2024/25-2028/29 period compared to a London employment of 5,980 people).

LHC new build pressure

• High demand (an average of 850 people over the 2024/25-2028/29 period compared to a London employment of 5,980 people).

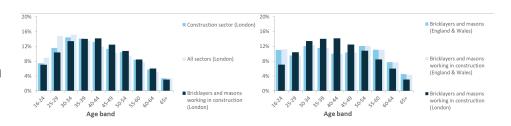
Annual recruitment requirement (ARR)

• High ARR (an average of 90 people corresponding to 1.5% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has an older age distribution compared to that of the broader construction workforce in London, driven by the low share of workforce in the 25-34 age bands.
- Around 9% of the bricklayers and masons working in construction are 60 years old or older. This is higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 4%. The share of under 35-year-olds
 decreased by 2%.

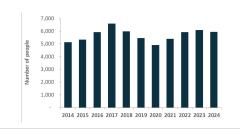


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (890 people (7.3%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 12,200 people).
- Medium ARR in South East and East of England (an average of 70 people for asset management and new build combined corresponding to 0.6% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2017. Since then, the number of people working in this occupational group in construction has declined by 10%.
- 98% of the UK bricklayers and masons work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw is negligible.



(<u>Bricklayer</u>), (<u>Stonemason</u>) *MMC scenarios*

Source: GoConstruct

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of bricklayers and masons on site by 48%.

Low carbon retrofit

• There is a negligible demand for this occupation in low carbon retrofit and so it is unlikely to be affected by an increase in workload.

- Level 2 NVQ (>9 months)
- Level 2
 Apprenticeship (15 months)

LHC asset management pressure

• Low demand (an average of <50 people over the 2024/25-2028/29 period compared to a London employment of 3,340 people).

LHC new build pressure

• High demand (an average of 390 people over the 2024/25-2028/29 period compared to a London employment of 3,340 people).

Annual recruitment requirement (ARR)

• High ARR (an average of 100 people corresponding to 3.0% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 30-34 age band.
- This occupation has an age distribution comparable to that of the broader construction workforce in London, with the share of people in in the 16-24 and 60+ age bands being slightly overrepresented.
- The share of plant mechanics/fitters working in construction in London aged 50 or above is lower than the share of the broader plant mechanics/fitters workforce in England and Wales. Around 10% of the plant mechanics/fitters working in construction are 60 years old or older. This is higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 5%. The share of under 35-year-olds
 decreased by 3%.

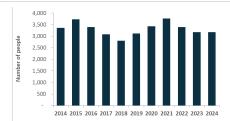


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (400 people (5.9%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 6,790 people).
- Medium ARR in South East and East of England (an average of 50 people for asset management and new build combined corresponding to 0.7% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2021. Since then, the number of people working in this occupational group in construction has declined by 16%.
- Only 9% of the UK plant mechanics/fitters work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of plant mechanics/fitters required for new build work could decrease by 5%; and that of plant mechanics/fitters on site by 26%.

Low carbon retrofit



New build

Potential training paths and timescales

- Level 2 NVQ (>9 months)
- Level 2 apprenticeship

LHC asset management pressure

• Low demand (an average of <50 people over the 2024/25-2028/29 period compared to a London employment of 790 people).

LHC new build pressure

• High demand (an average of 200 people over the 2024/25-2028/29 period compared to a London employment of 790 people).

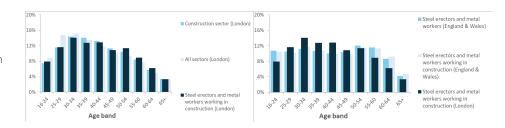
Annual recruitment requirement (ARR)

High ARR (an average of 25 people corresponding to 3.2% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has an age distribution comparable to that of the broader construction workforce in London
- Around 10% of the steel erectors and metal workers working in construction are 60 years old or older. This is higher than the 8% of the overall workforce in London. Steel erectors and metal workers working in construction in London have a younger age profile than the broader steel erectors and metal worker workforce in England and Wales.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 6%. The share of under 35-year-olds decreased by 5%.

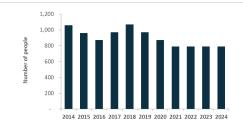


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (200 people (5.5%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 3,640 people).
- High ARR in South East and East of England (an average of 80 people for asset management and new build combined corresponding to 2.2% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2018. Since then, the number of people working in this occupational group in construction has declined by 27%.
- 18% of the UK steel erectors and metal workers work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

GoConstruct (Steel

Erector), (Welder Engineer)

Source:

• A greater uptake of MMC will likely have an impact on the total demand for this occupation in terms of onsite skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of steel erectors and metal workers required for new build work would likely not change; while that of steel erectors and metal workers on site could be reduced by 40%.

Low carbon retrofit

Plant operatives





Potential training paths and timescales

- Level 2 NVQ (>9 months)
- Level 2
 Apprenticeship (15-18 months)

LHC asset management pressure

• Low demand (an average of <50 people over the 2024/25-2028/29 period compared to a London employment of 4,770 people).

LHC new build pressure

• High demand (an average of 400 people over the 2024/25-2028/29 period compared to a London employment of 4,770 people).

Annual recruitment requirement (ARR)

• High ARR (an average of 100 people corresponding to 2.1% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a slightly older age distribution compared to that of the broader construction workforce in London, driven by the low share of workforce in the 16-29 age bands.
- Plant operatives working in construction in London have a younger age profile than the broader plant operative workforce in England and Wales.
- Around 9% of the plant operatives working in construction are 60 years old or older. This is slightly above the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 10%. The share of under 35-year-olds
 decreased by 9%.

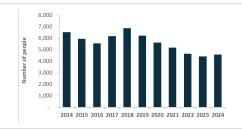


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (420 people (6.5%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 6,440 people).
- High ARR in South East and East of England (an average of 190 people for asset management and new build combined corresponding to 3.0% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2018. Since then, the number of people working in this occupational group in construction has declined by 33%.
- 28% of the UK plant operatives work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

<u>Driver</u>), (<u>Plant</u> Operator), (Shunter

GoConstruct (Crane

Operator), (Forklift

Source:

Driver)

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of plant operatives required for new build work could decrease by 10%; and that of plant operatives on site by 35%.

••

Low carbon retrofit





- Level 2 NVQ (>9 months)
- Level 2
 Apprenticeship
 (18 months)

LHC asset management pressure

• Low demand (an average of <50 people over the 2024/25-2028/29 period compared to a London employment of 2,800 people).

LHC new build pressure

• High demand (an average of 190 people over the 2024/25-2028/29 period compared to a London employment of 2,800 people).

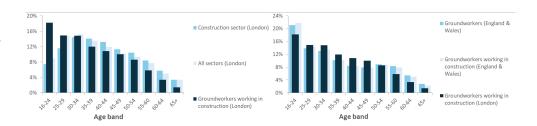
Annual recruitment requirement (ARR)

• Medium ARR (an average of 25 people corresponding to 0.9% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 30-34 age band.
- This occupation has a younger age distribution compared to that of the broader construction workforce in London, driven by the higher share of workforce in the 16-29 age bands.
- Around 5% of the groundworkers working in construction are 60 years old or older. This is lower than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 1%. The share of under 35-year-olds
 decreased by 4%.

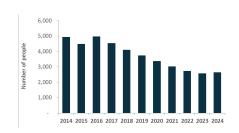


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (220 people (3%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 7,310 people).
- High ARR in South East and East of England (an average of 70 people for asset management and new build combined corresponding to 1.0% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2016. Since then, the number of people working in this occupational group in construction has declined by 47%.
- 81% of the UK groundworkers work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit



Level 2 NVQ (>9 months)

LHC asset management pressure

• High demand (an average of 340 people over the 2024/25-2028/29 period compared to a London employment of 4,820 people).

LHC new build pressure

• Medium demand (an average of 270 people over the 2024/25-2028/29 period compared to a London employment of 4,820 people).

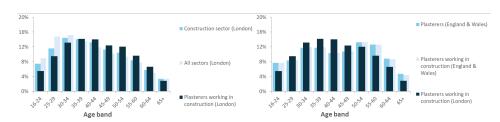
Annual recruitment requirement (ARR)

No ARR.

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has an older age distribution compared to that of the broader construction workforce in London, driven by the low share of workforce in the 16-34 age bands and the higher share in the 50+ ones.
- Plasterers working in construction in London have a younger age profile than the broader plasterers workforce in England and Wales. Around 10% of the plasterers working in construction are 60 years old or older. This is higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 7%. The share of under 35-year-olds decreased by 1%.

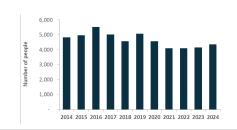


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (610 people (6.2%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 9,840 people).
- High ARR in South East and East of England (an average of 205 people for asset management and new build combined corresponding to 2.1% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2016. Since then, the number of people working in this occupational group in construction has declined by 21%.
- 98% of the UK plasterers work in construction. This suggests that the pool of people with transferrable skills in other sectors from which to draw is negligible.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation, both in terms of total number and on-site skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of plasterers required for new build work could be reduced by approximately 15%; and that of plasterers on site by 56%.



Low carbon retrofit



- Level 2 NVQ (>9 months)
- Level 2
 Apprenticeship
 (34 months)

LHC asset management pressure

• Low demand (an average of <50 people over the 2024/25-2028/29 period compared to a London employment of 3,180 people).

LHC new build pressure

• Low demand (an average of <50 people over the 2024/25-2028/29 period compared to a London employment of 3,180 people).

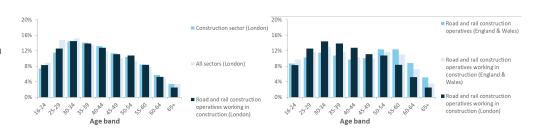
Annual recruitment requirement (ARR)

• High ARR (an average of 60 people corresponding to 1.9% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has an age distribution comparable to that of the broader construction workforce in London.
- Road and rail construction operatives working in construction in London have a younger age profile than the broader road and rail construction operatives workforce in England and Wales. Around 8% of the road and rail construction operatives working in construction are 60 years old or older. This percentage is comparable to that of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 7%. The share of under 35-year-olds
 stayed the same.

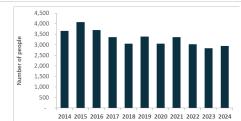


Broader pressures from neighbouring regions

- Low demand in the context of the broader South East and East of England construction skills employment (<50 people (<1.4%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 3,670 people).
- High ARR in South East and East of England (an average of 50 people for asset management and new build combined corresponding to 1.4% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2015. Since then, the number of people working in this occupational group in construction has declined by 28%.
- 43% of the UK road and rail construction operatives work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

Source:

GoConstruct

(Quarry Worker),

(Mastic Asphalter)

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit



- Level 6
 degree/diploma
 (3 years +)
- Chartered accreditation

LHC asset management pressure

• Medium demand (an average of 140 people over the 2024/25-2028/29 period compared to a London employment of 10,660 people).

LHC new build pressure

• High demand (an average of 850 people over the 2024/25-2028/29 period compared to a London employment of 10,660 people).

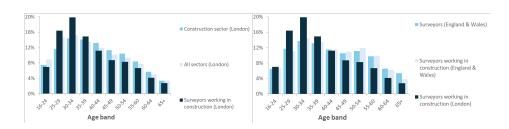
Annual recruitment requirement (ARR)

• High ARR (an average of 480 people corresponding to 4.5% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a younger age distribution than that of the broader construction workforce in London.
- Surveyors working in construction in London have a younger age profile than the broader surveyors workforce in England and Wales.
- Around 7% of the surveyors working in construction are 60 years old or older.
 This is lower than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 4%. The share of under 35-year-olds stayed the same.

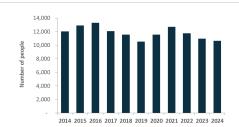


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (990 people (5.9%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 16,860 people).
- Medium ARR in South East and East of England (an average of 75 people for asset management and new build combined corresponding to 0.4% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2016. Since then, the number of people working in this occupational group in construction has declined by 20%.
- 77% of all construction surveyors work in construction UK-wide. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 18% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.

· Broad range of requirements, many requiring a degree

LHC asset management pressure

Medium demand (an average of 450 people over the 2024/25-2028/29 period compared to a London employment of 34,530 people).

LHC new build pressure

• High demand (an average of 2,900 people over the 2024/25-2028/29 period compared to a London employment of 34,530 people).

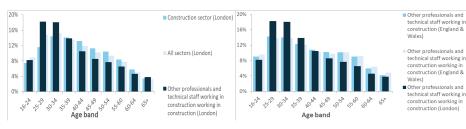
Annual recruitment requirement (ARR)

High ARR (an average of 800 people corresponding to 2.3% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a younger age distribution than that of the broader construction workforce in London.
- Other professionals and technical staff working in construction in London have a younger age profile than the broader workforce of other professionals and technical staff working in construction in England and Wales. Around 8% of the other professionals and technical staff working in construction are 60 years old or older. This percentage is comparable to that of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 2%. The share of under 35-year-olds increased by 3%.



construction (England & technical staff working in

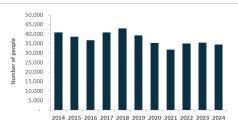
construction working in construction (London)

Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (3.350 people (5.2%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 64,420 people).
- High ARR in South East and East of England (an average of 900 people for asset management and new build combined corresponding to 1.4% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2018. Since then, the number of people working in this occupational group in construction has declined by 20%.
- 25% of the UK other professionals and technical staff working in construction work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit

- Project management qualification
- Professional experience may be required

LHC asset management pressure

• Medium demand (an average of 150 people over the 2024/25-2028/29 period compared to a London employment of 17,300 people).

LHC new build pressure

• Medium demand (an average of 440 people over the 2024/25-2028/29 period compared to a London employment of 17,300 people).

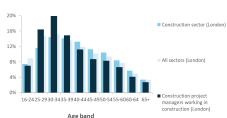
Annual recruitment requirement (ARR)

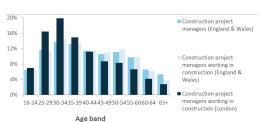
• Medium ARR (an average of 150 people corresponding to 0.9% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a younger age distribution compared with that of the London workforce (both for the construction sector and for all sectors).
- Around 7% of the construction project managers working in construction are 60 years old or older, compared with 8% for the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 4%.



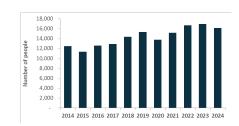


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (3,240 people (4.4%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 73,180 people).
- Medium ARR in South East and East of England (an average of 570 people for asset management and new build combined corresponding to 0.8% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2023. The number of people working in this occupational group in construction in 2024, is forecast to be 5% lower than the peak..
- Only 77% of all construction project managers work in construction UK-wide. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit scenarios

• Low carbon retrofit work for domestic properties for this occupation could account for up to 17% of the overall London workforce over the next five years. This could have a significant draw on this occupation if low carbon retrofit increases.



 University degree (up to 4 years)

LHC asset management pressure

• Medium demand (an average of 70 people over the 2024/25-2028/29 period compared to a London employment of 11,930 people).

LHC new build pressure

• Medium demand (an average of 480 people over the 2024/25-2028/29 period compared to a London employment of 11,930 people).

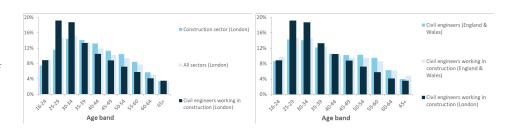
Annual recruitment requirement (ARR)

• High ARR (an average of 160 people corresponding to 1.3% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a younger age distribution than that of the broader construction workforce in London.
- Civil engineers working in construction in London have a younger age profile
 than the broader civil engineers workforce in England and Wales. Around 8% of
 the civil engineers working in construction are 60 years old or older. This
 percentage is comparable to that of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England did not change. The share of under 35-year-olds increased by 9%.

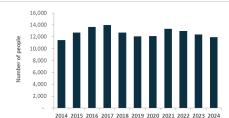


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (550 people (4.4%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 12,500 people).
- High ARR in South East and East of England (an average of 630 people for asset management and new build combined corresponding to 5.0% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2017. Since then, the number of people working in this occupational group in construction has declined by 15%.
- 71% of all civil engineers work in construction UK-wide. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit



• University degree (5 years) and professional experiences (2 years)

LHC asset management pressure

• Medium demand (an average of 70 people over the 2024/25-2028/29 period compared to a London employment of 13,810 people).

LHC new build pressure

• Medium demand (an average of 460 people over the 2024/25-2028/29 period compared to a London employment of 13,810 people).

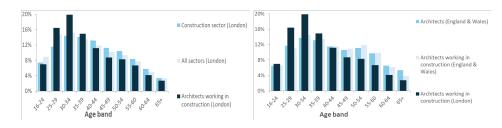
Annual recruitment requirement (ARR)

• High ARR (an average of 210 people corresponding to 1.5% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has a younger age distribution than that of the broader construction workforce in London.
- Architects working in construction in London have a younger age profile than the broader architect workforce in England and Wales.
- Around 7% of the architects working in construction are 60 years old or older.
 This is lower than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 4%. The share of under 35-year-olds stayed
 the same.

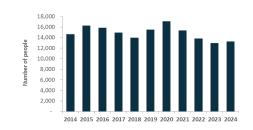


Broader pressures from neighbouring regions

- High demand in the context of the broader South East and East of England construction skills employment (530 people (6.7%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 7,900 people).
- High ARR in South East and East of England (an average of 270 people for asset management and new build combined corresponding to 3.4% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2022. Since then, the number of people working in this occupational group in construction has declined by 22%.
- 83% of all architects work in construction UK-wide. This suggests that the pool of people with transferrable skills in other sectors from which to draw might be limited.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit

Potential training paths and

 Broad range of requirements

timescales

LHC asset management pressure

• High demand (an average of 790 people over the 2024/25-2028/29 period compared to a London employment of 26,260 people).

LHC new build pressure

• High demand (an average of 1,810 people over the 2024/25-2028/29 period compared to a London employment of 26,260 people).

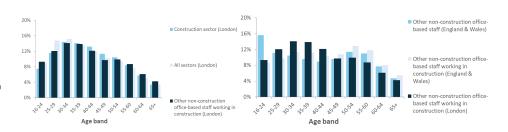
Annual recruitment requirement (ARR)

• Medium ARR (an average of 320 people corresponding to 1.2% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 35-39 age band.
- This occupation has an age distribution comparable to that of the broader construction workforce in London except for the lower percentage in the 45-49 age band, which is compensated by the higher percentage in the 16-24 age band.
- Around 10% of the other non-construction office-based staff working in construction are 60 years old or older. This percentage is slightly higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 5%. The share of under 35-year-olds, on the
 other hand, decreased by 4%.

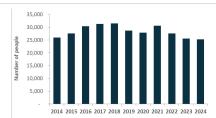


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (2,610 people (3.7%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 69,760 people).
- Medium ARR in South East and East of England (an average of 430 people for asset management and new build combined corresponding to 0.6% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2018. Since then, the number of people working in this occupational group in construction has declined by 20%.
- Only 5% of the UK other non-construction office-based staff works in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit

• Low carbon retrofit work for domestic properties for this occupation could account for up to 8% of the overall London workforce over the next five years. This moderate demand for this occupation in low carbon retrofit could increase the pressures for this occupation if low carbon retrofit increases.

 Professional experience usually required, sometimes including chartered status

LHC asset management pressure

• Medium demand (an average of 910 people over the 2024/25-2028/29 period compared to a London employment of 50,050 people).

LHC new build pressure

• Medium demand (an average of 2,330 people over the 2024/25-2028/29 period compared to a London employment of 50,050 people).

Annual recruitment requirement (ARR)

• Medium ARR (an average of 350 people corresponding to 0.7% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 40-44 age band.
- This occupation has an older age distribution compared with that of the London workforce (both for the construction sector and for all sectors) likely driven by the level of expertise required by this job role.
- Around 12% of the directors, executives and senior managers working in construction are 60 years old or older, compared with 8% for the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this occupation in England increased by 2%.

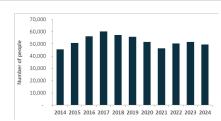


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (3,250 people (4.4%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 73,180 people).
- Medium ARR in South East and East of England (an average of 570 people for asset management and new build combined corresponding to 0.8% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2017. Since then, the number of people working in this occupational group in construction has declined by 17%.
- Only 8% of all directors, executives and senior managers work in construction UK-wide. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



Source: GoConstruct

MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit

• Low carbon retrofit work for domestic properties for this occupation could account for up to 1% of the overall London workforce over the next five years, which is unlikely to have a significant impact on the overall labour demand.





 Broad range of requirements, some including a degree

LHC asset management pressure

• Medium demand (an average of 910 people over the 2024/25-2028/29 period compared to a London employment of 59,220 people).

LHC new build pressure

• Medium demand (an average of 2,130 people over the 2024/25-2028/29 period compared to a London employment of 59,220 people).

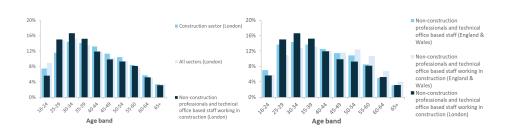
Annual recruitment requirement (ARR)

• High ARR (an average of 1,070 people corresponding to 1.8% of the London employment).

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 30-34 age band.
- This occupation has a slightly younger age distribution compared with that of the London workforce (both for the construction sector and for all sectors driven by the higher share in the 30-34 and 35-39 age bands.
- Around 8% of the non-construction professionals and technical office-based staff
 working in construction are 60 years old or older. This percentage is comparable
 to the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 2%. The share of under 35-year-olds also
 increased by 2%.

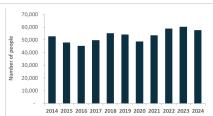


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (3,040 people (4.2%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 72,600 people).
- High ARR in South East and East of England (an average of 760 people for asset management and new build combined corresponding to 1.0% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2023. The number of people working in this occupational group in construction has in 2024, is forecast to be 4% lower than the peak.
- Only 3% of the UK non-construction professionals and technical office based staff work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

• A greater uptake of MMC will likely not have a significant impact on the demand for this occupation.

Low carbon retrofit

• Low carbon retrofit work for domestic properties for this occupation could account for up to 1% of the overall London workforce over the next five years, which is unlikely to have a significant impact on the overall labour demand.



Broad range of requirements

LHC asset management pressure

• Medium demand (an average of 100 people over the 2024/25-2028/29 period compared to a London employment of 5,550 people).

LHC new build pressure

• Medium demand (an average of 270 people over the 2024/25-2028/29 period compared to a London employment of 5,550 people).

Annual recruitment requirement (ARR)

No ARR.

Other factors

Age

- The median age of people working in this occupation in construction in London sits in the 40-44 age band.
- This occupation has a slightly older age distribution than that of the broader construction workforce in London.
- The share of non-construction trades and operatives working in construction in London aged between 25 and 55 is higher than the share of the broader nonconstruction trades and operatives workforce in England and Wales. Around 12% of the non-construction trades and operatives working in construction are 60 years old or older. This is higher than the 8% of the overall workforce in London.
- Between 2016 and 2021, the percentage of people aged 55+ working in this
 occupation in England increased by 6%. The share of under 35-year-olds decreased
 by 8%.

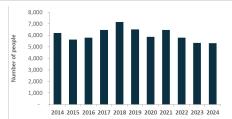


Broader pressures from neighbouring regions

- Medium demand in the context of the broader South East and East of England construction skills employment (370 people (4.5%) for asset management and new build combined over the 2024/25-2028/29 period compared to an employment in these two regions of 8,310 people).
- High ARR in South East and East of England (an average of 85 people for asset management and new build combined corresponding to 1.0% of the employment in these two regions).

Other sectors and 10-year employment trends

- Peak employment in this occupation in London was reached in 2018. Since then, the number of people working in this occupational group in construction has declined by 26%.
- Only 3% of the UK non-construction trades and operatives work in construction. This suggests a wider pool of people with transferrable skills from which to draw might exist in other sectors.



MMC scenarios

• A greater uptake of MMC will likely have an impact on the total demand for this occupation in terms of onsite skills required. Under a scenario where 80% of the work is delivered through panelised and volumetric solution, the number of non-construction trades and operatives required for new build work would likely not change; while that of non-construction trades and operatives on site could be reduced by 11%.



Low carbon retrofit





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