



National School Delivery Cost Benchmarking Primary, Secondary & SEN Schools

A national cost benchmarking study undertaken by
Hampshire County Council in conjunction with
East Riding of Yorkshire Council and the
Department for Education

Supported By



Infrastructure
and Projects
Authority

May 2021

Version 12

Mill Chase Secondary School Academy, Hampshire County Council



EBDOG

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This publication is split into five distinct sections, namely; report context, primary schools, secondary schools, SEN schools and further information. These sections are shown below along with their key outputs.

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Wyton Primary School, Cambridgeshire County Council

1008 projects submitted

This document publishes the results of a national cost benchmarking exercise undertaken by Hampshire County Council in partnership with East Riding of Yorkshire Council on new build, extended and refurbished primary, secondary and SEN schools.

This report provides a useful reference point for Local Authorities when establishing their school building costs. As part of the initiative the Local Government Association (LGA) is seeking to encourage greater collaboration between Local Authorities to drive down new and refurbished school costs. A benchmarking workshop was held on 6 October 2017 to discuss the output of the 2017 study and the presentation of information included and analysed in that report. As a result some additional features have been included this time. It is also intended to further develop the data following the workshop and publish any additional findings.

The findings contained within this report have been shared with the Infrastructure and Projects Authority (IPA) which is part of the Cabinet Office, and Department for Education (DfE). This report is the seventh publication produced for the public sector and is a valuable tool to understand the total costs associated with providing new school places across the country.

This study has been undertaken with funding from the LGA and has been conducted in conjunction with the following organisations:

- ◆ Education Building and Development Officers Group (EBDOG).
- ◆ National Association of Construction Frameworks (NACF).

The project sample used in this report comprises 1008 projects from across England, consisting of:

- ◆ 690 primary school projects
- ◆ 205 secondary school projects
- ◆ 12 All-Through school projects
- ◆ 63 SEN school projects
- ◆ 38 projects not used (due to poor or inconsistent data)

Common Standard

A common standard of cost analysis has been used to capture cost data, ensuring a high level of consistency across the sample, while including detailed cost and background information on each project – allowing the costs to be fully understood on an individual project basis. The data has then been collated at a common price base, in order to compare projects with each other on level terms.

The following criteria were used to select projects for this study:

- Primary, secondary or SEN school projects.
- Permanent new build, extended or refurbished school projects.
- Contract formed since 2012.

Full details of how the data has been adjusted can be found on page 31.

Industry Summary

The July 2020 quarterly briefing from the Royal Institution of Chartered Surveyors (RICS) Building Cost Information Service (BCIS) have recently advised that they anticipate construction output to rise by 16% over the next five years, with construction costs rising by 17% and tender prices increasing by 21%.

384,000
school places

£5.57 billion
combined project capital value

We are grateful to all Local Authorities who have contributed projects to this study. In addition to data submitted directly from authorities, we are also grateful to have received a new sample from the Department for Education (DfE) of DfE capital programme schemes. The list below shows the areas covered by the study.

Amber Valley Borough Council	Liverpool City Council	Reigate and Banstead Borough Council	Wigan Metropolitan Borough Council
Bath & North East Somerset Council	London Borough of Barking and Dagenham	Rotherham Metropolitan Borough Council	Wiltshire Council (Unitary)
Birmingham City Council	London Borough of Barnet	Royal Borough of Greenwich	Wirral Council
Bolton Metropolitan Borough Council	London Borough of Bexley	Royal Borough of Kensington and Chelsea	Woking Borough Council
Bracknell Forest Council	London Borough of Brent	Royal Borough of Windsor and Maidenhead	Wokingham Borough Council
Bradford Metropolitan District Council	London Borough of Bromley	Rutland County Council	Wolverhampton City Council
Brighton & Hove Council	London Borough of Camden	Salford City Council	Worcestershire County Council
Bristol City Council	London Borough of Croydon	Sandwell Metropolitan Borough Council	Worthing Borough Council
Buckinghamshire County Council	London Borough of Ealing	Sefton Metropolitan Borough Council	
Bury Metropolitan Borough Council	London Borough of Enfield	Sheffield City Council	
Calderdale Metropolitan Borough Council	London Borough of Hammersmith & Fulham	Shropshire Council (Unitary)	
Cambridge City Council	London Borough of Harrow	Slough Borough Council	
Cambridgeshire County Council	London Borough of Havering	Somerset County Council	
Central Bedfordshire Council	London Borough of Hillingdon	South Gloucestershire Council	
Cheshire East Council (Unitary)	London Borough of Hounslow	South Lakeland District Council	
Cheshire West and Chester Council	London Borough of Islington	South Tyneside Council	
Chichester District Council	London Borough of Lambeth	Southampton City Council	
City of York Council	London Borough of Lewisham	Spelthorne Borough Council	
Cornwall Council (Unitary)	London Borough of Merton	St Helens Metropolitan Borough Council	
Coventry City Council	London Borough of Newham	Stafford Borough Council	
Cumbria County Council	London Borough of Redbridge	Staffordshire County Council	
Daventry District Council	London Borough of Richmond upon Thames	Stockport Metropolitan Borough Council	
Derby City Council	London Borough of Southwark	Stockton-on-Tees Borough Council	
Devon County Council	London Borough of Sutton	Stoke-on-Trent City Council	
Doncaster Metropolitan Borough Council	London Borough of Tower Hamlets	Suffolk County Council	
Dorset County Council	London Borough of Waltham Forest	Sunderland City Council	
Dover District Council	London Borough of Wandsworth	Surrey County Council	
Durham County Council	London Borough of Westminster	Swindon Borough Council	
East Riding of Yorkshire Council	Luton Metropolitan Borough Council	Tameside Metropolitan Borough Council	
East Sussex County Council	Manchester City Council	Taunton Deane	
Elmbridge Borough Council	Medway Council	Thanet District Council	
Epsom and Ewell Borough Council	Norfolk County Council	Thurrock Council	
Erewash Borough Council	North East Lincolnshire Council	Torbay Council	
Essex County Council	North Lincolnshire Council	Trafford Metropolitan Borough Council	
Gateshead Metropolitan Borough Council	North Somerset Council	Tunbridge Wells Borough Council	
Gloucestershire County Council	North Tyneside Metropolitan Borough Council	Wakefield Metropolitan Borough Council	
Halton Borough Council	North Yorkshire County Council	Wakefield Metropolitan District Council	
Hampshire County Council	Northampton Borough Council	Walsall	
Harrow Council	Northamptonshire County Council	Warrington Borough Council	
Hartlepool Borough Council	Northumberland Council Unitary	Warwickshire County Council	
Hertfordshire county Council	Norwich City Council	West Berkshire Council	
Isle of Wight Council	Nottingham City Council	West Sussex County Council	
Kent County Council	Nottinghamshire County Council		
Kingston-Upon-Hull city council	Oldham Metropolitan Borough Council		
Kirklees Council	Oxfordshire County Council		
Lancashire County Council	Peterborough City Council		
Leeds City Council	Plymouth City Council		
Leicester City Council	Portsmouth City Council		
Lewes District Council	Reading Borough Council		
Lincolnshire County Council	Redcar & Cleveland Council		

Wigan Metropolitan Borough Council
Wiltshire Council (Unitary)
Wirral Council
Woking Borough Council
Wokingham Borough Council
Wolverhampton City Council
Worcestershire County Council
Worthing Borough Council

150

Local Authority Areas
covered across England

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Part Two Primary Schools



Civitas Academy, Reading Borough Council

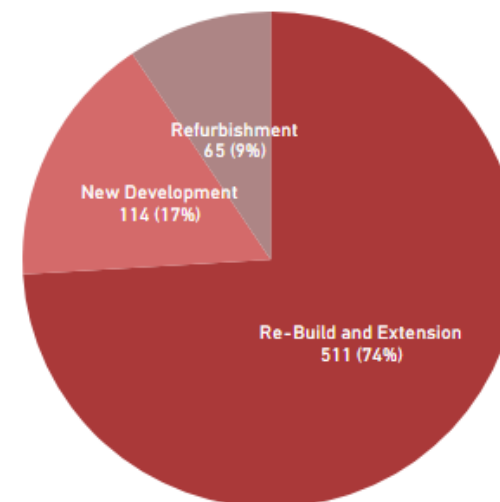
The primary school sample consists of 690 projects which are split into three school categories as shown in the pie chart (right). This sample features projects from 2012 to 2019 with a total combined capital value of £2.50 billion, comprising:

- ◆ 114 New Development projects
- ◆ 511 Re-Build & Extension projects
- ◆ 65 Refurbishment projects

690 primary schools

The majority of the primary school sample consists of Re-Build & Extension projects, continuing the trend that Local Authorities are expanding existing school sites to meet the increasing demand for pupil places. However, New Development projects on greenfield sites have seen a 20% increase in number since the last report. This rise tends to reflect the growth in new school places associated with major developments and reduced viability of providing new school places on existing sites.

Project Categories



178,000

new primary places

£2.50 billion

capital value of primary school sample

Procurement Route

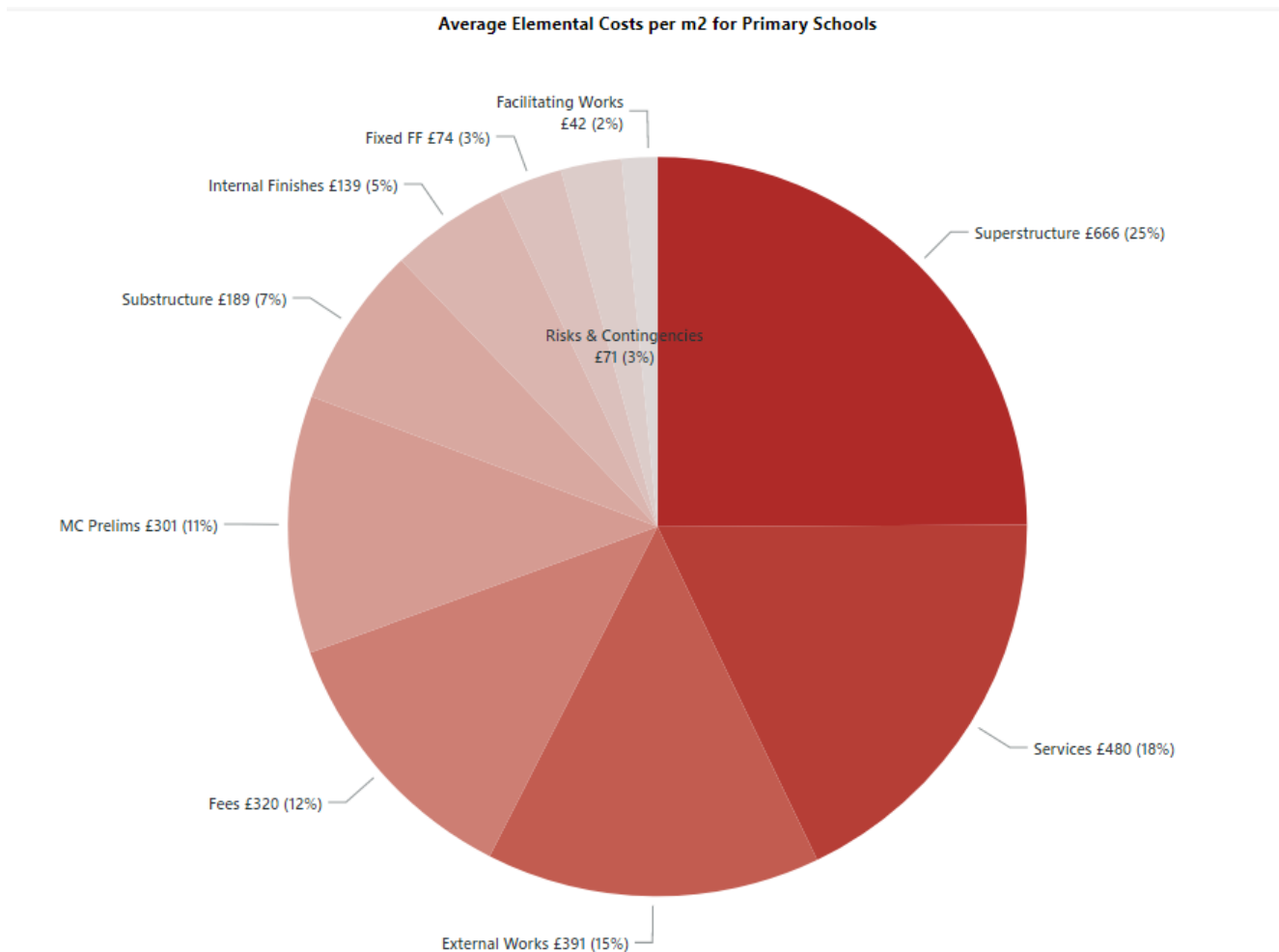


St Leonard's School. Devon County Council

New Development Primary Schools

Gross and nett rates plus average elemental cost breakdown have been provided this year for new build developments. This provides a cost per m² of the main building elements and the percentage of the cost each element represents drawn from the entire whole sample.

Average Elemental Costs per m² for Primary Schools



Re-Build & Extension projects are formed from a combination of new blocks, extensions to existing schools and re-build projects on the existing site. The sample used for comparing Local Authority with DfE procured schemes has been restricted to projects with a GIFA of over 750m²

Graph 2 (right) displays a cost trajectory for the DfE projects alongside those from Local Authorities. The total sample size has continued to increase year on year with 8 years of data now available. The graph illustrates that gross costs differences between DfE and Local Authority projects have been narrowing over time. The difference between the Local Authority and DfE figures over the last 4 years have reduced to an average of 11.8%, in comparison to the first 4 years of the study where the average difference was 29.9%. Over the duration of the study the difference between the Local Authority and DfE costs has reduced by just over half. 2018 did see the difference widen slightly in that one year but the 2019 data indicates it reducing again to around 9.4%. The DfE sample size is extremely small for 2019 and so, at this stage, this figure cannot be relied upon.

There are a number of factors influencing the lower costs of DfE projects including projects being generally larger, benefitting from economies of scale and batching into programmes of work.

Early indications from the data suggest that market costs are rising in 2019 but future data in the next annual report will better assess if this trend is confirmed. The impact of the pandemic on procurement and delivery has not yet fed through to the data as project costs are reported on completion.

Figure 2 (right) displays the average costs per year alongside the number of projects in each year banding.

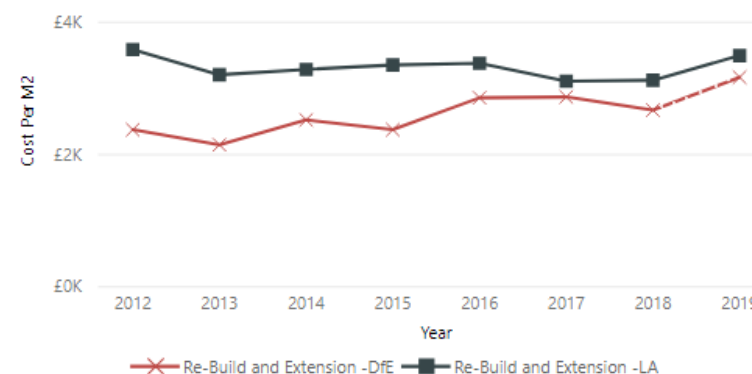
Graph 2 | Re-Build & Extension Gross Costs per m²

Figure 2 | Primary School Costs - Re-Build and Extension

Year	Gross Costs per m ²			
	Local Authority		DfE	
	Average	Sample Size	Average	Sample Size
2012	£3,574	27	£2,363	2
2013	£3,194	62	£2,136	10
2014	£3,276	80	£2,512	33
2015	£3,342	70	£2,364	36
2016	£3,368	55	£2,847	27
2017	£3,097	48	£2,859	6
2018	£3,112	27	£2,661	12
2019	£3,484	14	£3,157	2

Primary school gross costs as a whole sample have increased by 1.5% since 2012, after indexing. The sample size of projects has increased from the 2019 data capture increasing the level of confidence to the figures. The graph indicates that 2017 represented the lowest point of the gross costs trends which has since increased slightly in 2019 and 2020. There are a number of reasons for the fluctuations evidenced in the cost trajectory over the last eight years (Graph 1, right) which are outlined below.

New Development

Projects built on greenfield sites with 100% of the works being new build saw a steady reduction in gross costs from 2012 to 2017, although there was a spike in costs in 2016. The costs since 2018 have shown an increase of 4.9%. Overall in the last eight years costs have reduced by 23.7%. The positive trend indicated is likely to be as a result of the adoption of a standardised approach to design; more delivery through collaborative arrangements and adopting a more cost driven approach.

In 2016 the new build gross cost rose which is considered to be a reflection of the market conditions, Brexit and the impact of the increase in housing output on prevailing prices.

Re-Build & Extension

Extensions to existing school buildings, new teaching blocks and re-built schools on existing sites have seen a downward trajectory for cost up to 2018. The costs since 2018 have shown an increase of 15.8% (no data available for 2020). Overall in the last eight years costs have decreased by 1.3%. A number of factors influence this trend (N.B. page 10 dataset used as comparator).

Refurbishment

Due to the varying nature of refurbishment projects it is difficult to draw conclusive results from the cost trajectory. Due to no projects being submitted for 2019 & 2020, there is a lower level of confidence in the data.

Figure 1 (right) displays the average costs per year alongside the number of projects in each year banding.

Graph 1 | Primary School Average Gross Costs per m²

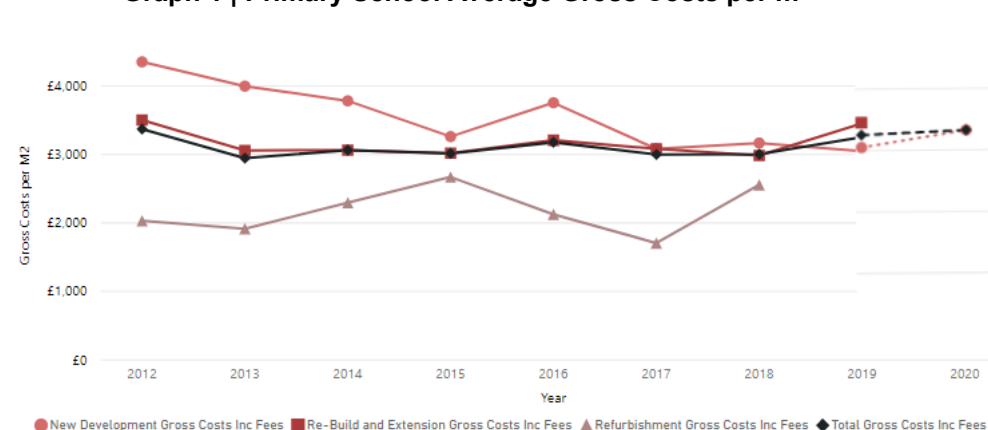


Figure 1 | Primary School Gross Costs per m²

Year	New Development		Re-Build & Extension		Refurbishment		Whole Sample	
	Gross Cost	Sample Size	Gross Cost	Sample Size	Gross Cost	Sample Size	Gross Cost	Sample Size
2012	£4,341	3	£3,490	29	£2,021	5	£3,360	37
2013	£3,987	6	£3,047	72	£1,095	14	£2,935	92
2014	£3,772	13	£3,053	113	£2,284	12	£3,054	138
2015	£3,250	19	£3,010	106	£2,660	15	£3,005	140
2016	£3,744	14	£3,197	82	£2,115	10	£3,167	106
2017	£3,071	25	£3,071	54	£1,696	5	£2,989	84
2018	£3,156	16	£2,973	39	£2,545	4	£2,994	59
2019	£3,039	16	£3,444	16	-	-	£3,241	32
2020	£3,312	2	-	-	-	-	£3,312	2

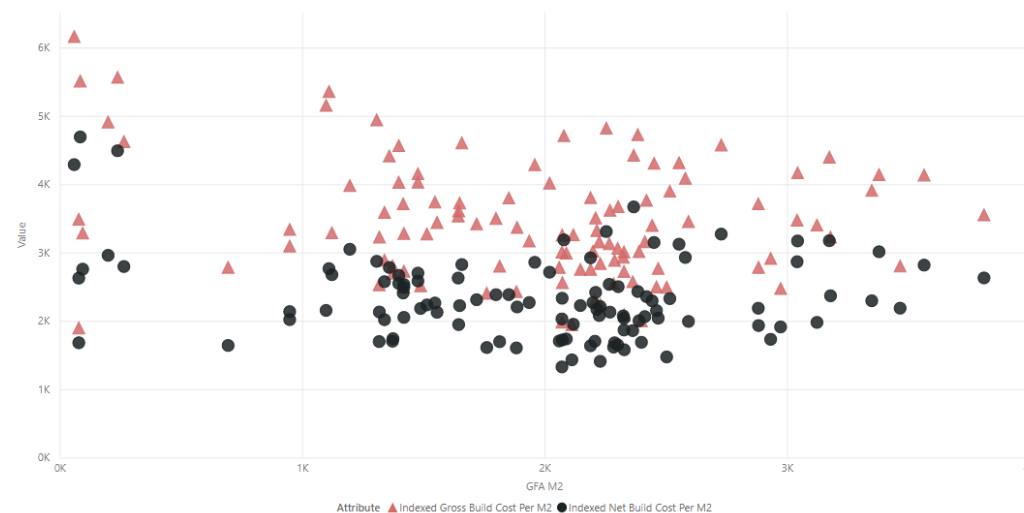
New Development projects are new schools built on greenfield sites, which include significant infrastructure and external work costs. There are 114 such projects in this study. Graph 3 (right) displays the gross and nett costs per m² for these projects. A detailed breakdown is shown on page 12.



Stoneham Park Primary Academy. Hampshire County Council

Graph 3 | New Development Gross & Nett Costs per m²

Graph 3 | New Development Gross and Nett costs per m²



1,962m²

average floor area

5.70m²

average GIFA per pupil place

44wks

average contract period

£3,357

average gross cost /m²

£2,257

average nett cost /m²

£23,886

average cost per pupil place

Key Definitions

New Development

Any project where 100% of the works being undertaken are new build and the site used is a greenfield site. Includes significant infrastructure and external works.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.

A detailed breakdown of average costs by GIFA bands is shown in the table below.

Some key analysis from this data set is summarised below:

Procurement

The study has demonstrated that the majority of New Development projects are procured via two stage open book tendering.

Form of Construction

The majority of projects use a steel frame with a composite cladding system. A small number of schemes use modular forms of construction, which on average reduce contract periods by about 15% on a typical school build when compared to an equivalent sample of steel frame projects.

Infrastructure

Due to the nature of these projects a significant investment in infrastructure and external works is evidenced throughout the sample. On average this infrastructure cost is 10% higher than seen throughout an equivalent sample of Re-Build & Extension projects where the existing site is used.

Figure 3 | New Development Average Cost Summary

GIFA (m²)	Gross Cost per m²		Nett Cost per m²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
0 - 1,500	£3,939	£2,840 £4,928	£2,624	£2,143 £2,835	£22,226	£15,048 £28,889	23
1,500 - 3,000	£3,194	£2,565 £3,802	£2,174	£1,728 £2,590	£25,333	£13,412 £26,382	53
Above 3,000	£3,233	£2,736 £4,057	£2,151	£1,661 £2,780	£22,872	£13,231 £23,703	38
Whole Sample All GIFA Bands	£3,357	£2,726 £4,138	£2,257	£1,716 £2,771	£23,886	£14,305 £26,568	114

Key Definitions

New Development

Any project where 100% of the works being undertaken are new build and the site used is a greenfield site. Includes significant infrastructure and external works.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.



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Re-Build & Extension projects are formed from a combination of new blocks, extensions to existing schools and re-build projects on the existing site. In most cases there are elements of demolition and some projects include refurbishment work to existing buildings.

In total, 511 Re-Build & Extension projects were submitted to the study, Graph 4 (right) displays the gross and nett costs per m² for these projects. A detailed breakdown is shown on page 14.

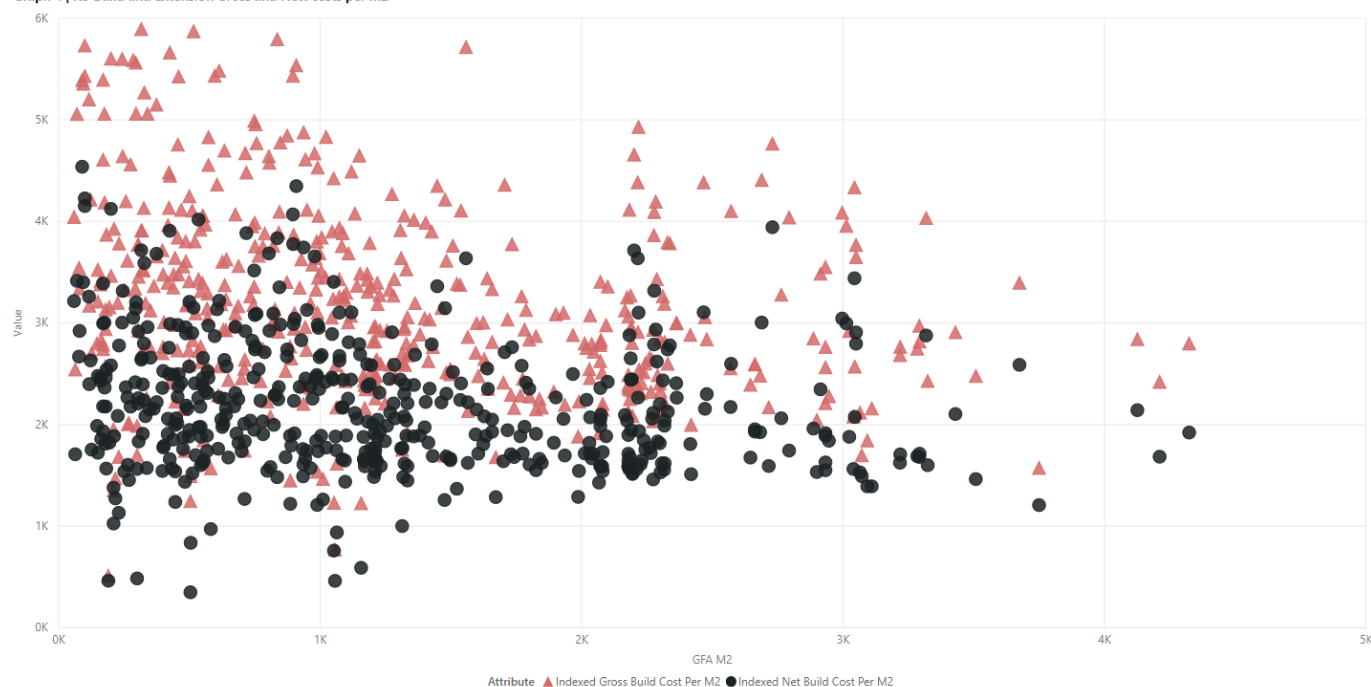
The sample includes 128 DfE schemes submitted by the DfE, these projects include local authority contributions where applicable.



Whitehouse Primary School, Suffolk County Council

Graph 4 | Re-Build and Extension Gross and Nett costs per m²

Graph 4 | Re-Build and Extension Gross and Nett costs per m²



1,285m²

average floor area

5.26m²

average GIFA per pupil place

30wks

average contract period

£3,099

average gross cost /m²

£2,110

average nett cost /m²

£17,650

average cost per pupil place

Key Definitions

Re-Build & Extension

Any project where over 50% of the works being undertaken are new build, where the site used is adjacent to or the same as the existing site. Including new build blocks, extensions to existing buildings and rebuilds which include elements of demolition.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.



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EBDOG

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A detailed breakdown of average costs by GIFA bands is shown in the table below.

Some key analysis from this data set is summarised below.

Procurement

The study demonstrates that the Re-Build & Extension projects are procured via a number of different methods which include single stage and two stage tendering.

Form of Construction

The majority of projects use a steel frame with a composite cladding system. A small number of schemes use modular forms of construction, which on average reduce contract periods by 11% when compared to an equivalent sample of steel frame projects.

Infrastructure

Due to the nature of Re-Build & Extension projects, where the existing site is maintained, the costs associated with infrastructure are low, representing 15% of the total project cost on average across the sample.

Figure 4 | Re-Build & Extension Average Cost Summary

GIFA (m²)	Gross Cost per m²		Nett Cost per m²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
0 - 1,500	£3,351	£2,551 £4,114	£2,245	£1,714 £2,805	£18,056	£10,709 £22,317	303
1,500 - 3,000	£2,748	£2,250 £3,375	£1,956	£1,590 £2,420	£15,844	£11,471 £21,383	126
Above 3,750	£2,707	£1,764 £3,538	£1,848	£1,307 £2,475	£18,925	£8,965 £18,553	83
Whole Sample All GIFA Bands	£3,099	£2,392 £3,911	£2,110	£1,622 £2,669	£17,650	£10,688 £21,705	511

Key Definitions

Re-Build & Extension

Any project where over 50% of the works being undertaken are new build, where the site used is adjacent to or the same as the existing site. Including new build blocks, extensions to existing buildings and rebuilds which include elements of demolition.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.



Refurbishment projects vary considerably in nature which makes trends and benchmarking difficult. We have split these schemes into three types of refurbishment project, namely light, medium and heavy to try and limit the variations.

In total, 65 refurbishment projects were submitted to the study, Graph 5 (right) displays the gross and net costs per m² for these projects. A detailed breakdown is shown on page 16.

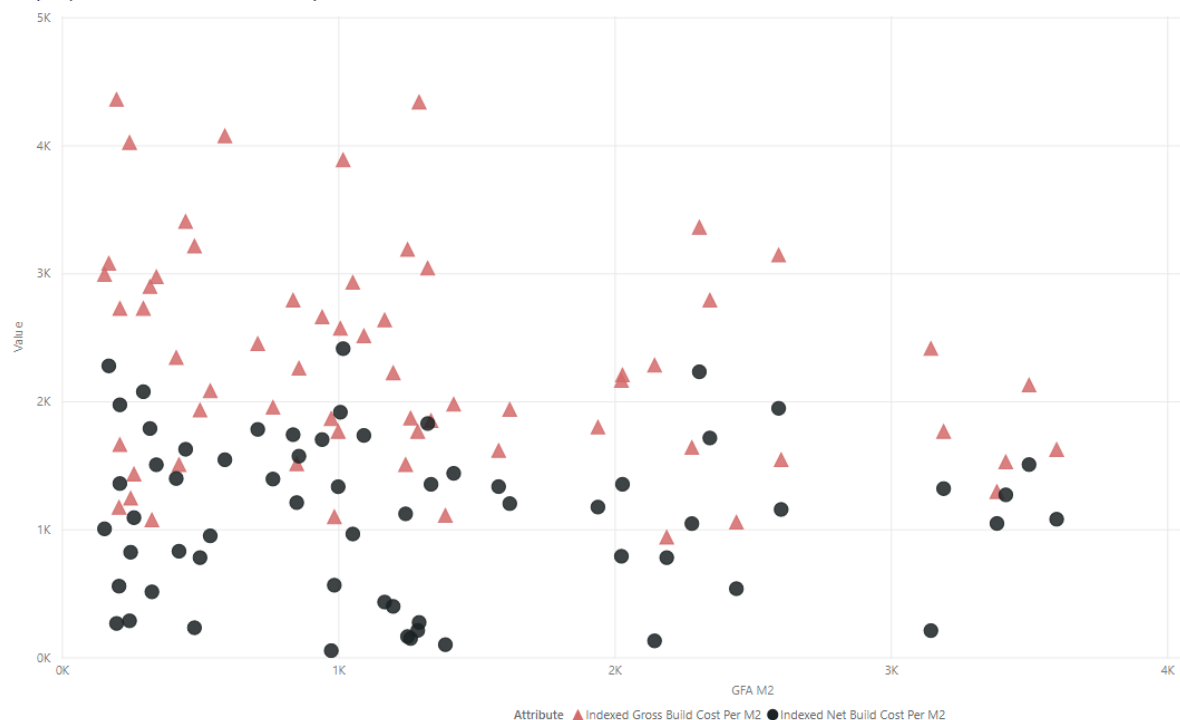
Full definitions of light, medium and heavy refurbishment used for this study can be found on page 31.



Wilson Primary School, Reading Borough Council

Graph 5 | Refurbishment Gross and Net costs per m²

Graph 5 | Refurbishment Gross and Nett costs per m2

1,302m²

average floor area

5.99m²

average GIFA per pupil place

36wks

average contract period

£2,214

average gross cost /m²

£14,713

average cost per pupil place

Key Definitions Refurbishment

Any project which contains significant alterations or less than 50% new build to existing buildings. The works are further categorised as light, medium and heavy refurbishment. See further definitions for these levels on page 31

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.

A detailed breakdown of average costs by GIFA bands is shown in the table below.

Some key analysis from this data set is summarised below:

This study has demonstrated that heavy refurbishment projects which typically extend the economic life of a building by approximately 15 - 25 years, have an average gross cost per m² of £3,006. This represents a 22.5% increase when compared to a sample of equivalent medium refurbishment projects which typically increase the economic life of a building by up to 15 years. Given that heavy refurbishment projects include significant structural alterations and may also include the replacement of facades and roof finishes, this additional cost would be expected. The above is indicative as the majority of the sample (53 in number) comprise medium refurbishment projects.

The sample of heavy and light refurbishment projects is 8 and 4 projects respectively.

Projects within the dataset vary considerably, as is the nature of refurbishment schemes and therefore it is difficult to draw any firm trends across the sample.

Figure 5 Refurbishment Average Cost Summary					
GIFA (m ²)	Gross Cost per m ²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile	Average	20th Percentile	
		80th Percentile		80th Percentile	
0 - 1,500	£2,351	£1,644 £3,011	£13,567	£7,403 £20,294	49
1,500 - 3,000	£1,789	£1,056 £2,791	£18,676	£8,348 £23,316	11
3,000 and above	£1,801	£1,456 £2,185	£17,216	£10,460 £21,547	5
Whole Sample All GIFA Bands	£2,214	£1,511 £2,977	£14,713	£7,983 £21,372	65

Key Definitions

Refurbishment

Any project which contains significant alterations or less than 50% new build to existing buildings. The works are further categorised as light, medium and heavy refurbishment. See further definitions for these levels on page 31.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.



Part Three Secondary Schools



Robert Mays School, Hampshire County Council



The secondary school sample consists of 217 projects which are split into three school categories as shown in the pie chart (right). This sample features projects from 2012 to 2020 with a total combined capital value of £2.72 billion, comprising:

- ◆ 31 New Development projects (4 All Through schools)
- ◆ 182 Re-Build & Extension projects (8 All Through schools)
- ◆ 4 Refurbishment projects

217

secondary schools

The majority of the secondary school sample consists of Re-Build & Extension projects, demonstrating that Local Authorities are starting to expand existing school sites to meet the considerable forecast demand for pupil places. The sample has seen a 27% increase in schemes since last year.

The majority of schemes are procured via a framework arrangement, be that at a national, regional or local level. It has not been possible to draw sufficient trends relating to the cost benefits of the different procurement routes due to the significant variations in the framework arrangements.

Over the next pages, further commentary is provided for each project category which details cost variations and observations on drivers for costs between projects.

A small sample of New Development and Refurbishment projects has been obtained. It is not possible to draw any conclusions or provide further commentary, but this information is given to show the emergence of the sample.

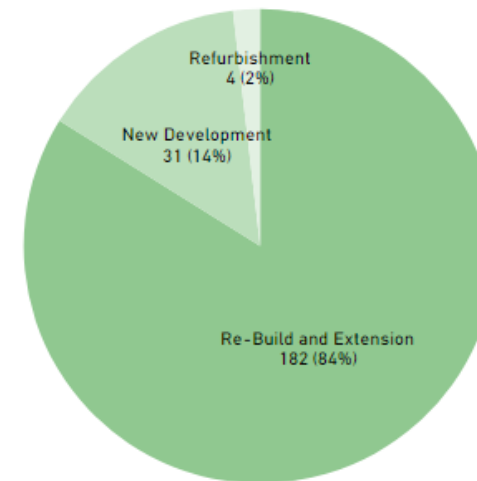
200,000

secondary places provided

£2.72 billion

capital value of secondary school sample

Project Categories



Procurement Route



Starbank All Through School, Birmingham City Council

Secondary school gross costs as a whole sample have decreased over the last two years. This has been driven by the small data sets available within the study for New Development and Refurbishment Projects. This study has demonstrated a number of reasons for the fluctuations evidenced in the cost trajectory over the last five years (Graph 6, right) which are outlined below.

New Development

A small sample of New Development projects has been obtained. It is not possible to draw any conclusions or provide further commentary, but this information is given to show the emergence of the sample.

Re-Build & Extension

Extensions to existing school sites, new teaching blocks and re-built schools on existing sites have seen a decrease in gross costs in 2018 with a rise in 2019. Costs have reduced from a high in 2012 by 2.4%. It should be noted that the sample size for 2012 is small and therefore greater certainty can be placed in the 2013 - 2019 trajectory, which has seen a 7.7% increase in gross costs. This study has shown a number of factors influencing this trend:

- ♦ Smaller projects have continued to be procured over the last 12 months, with the average project GIFA over this period being 6,300m². This is considerably smaller than the 7,500m² average GIFA seen prior to 2015, which reduces the cost benefits experienced by larger schemes.

Refurbishment

A small sample of Refurbishment projects has been obtained. It is not possible to draw any conclusions or provide further commentary.

Figure 6 (right) displays the average costs per year alongside the number of projects in each year. It should be noted that the secondary school sample for New Development and Refurbishment is small and therefore average costs displayed are indicative only.

Graph 6 | Secondary School Average Gross Costs per m²

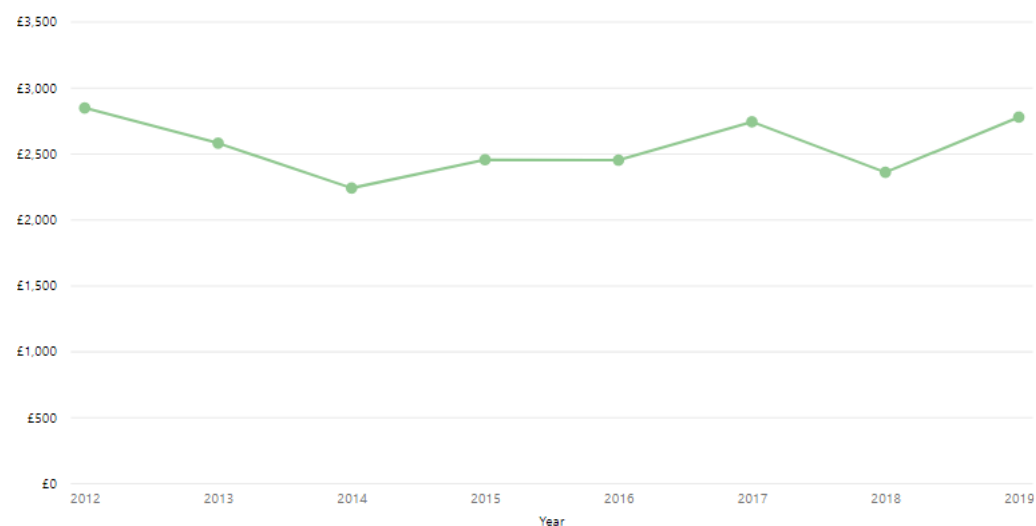


Figure 6 | Secondary School Gross Costs per m²

Year	Re-Build & Extension	
	Gross Cost	Sample Size
2012	£2,844	2
2013	£2,577	10
2014	£2,237	26
2015	£2,452	38
2016	£2,448	32
2017	£2,739	18
2018	£2,356	36
2019	£2,775	19
2020	Insufficient Data	1

Re-Build & Extension projects are formed from a combination of new blocks, extensions to existing schools and re-build projects on the existing site. In most cases there are elements of demolition and some projects include refurbishment work to existing buildings.

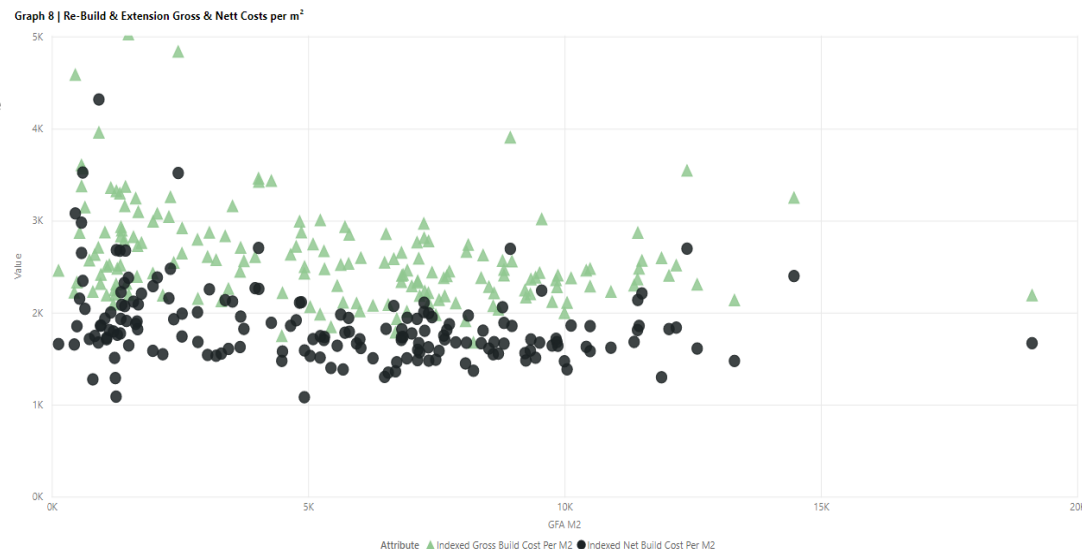
In total, 182 Re-Build & Extension projects were submitted to the study, Graph 8 (right) displays the gross and nett costs per m² for these projects. A detailed breakdown is shown on page 21.

The sample includes 124 DfE schemes submitted by the DfE, these projects include local authority contributions where applicable.



Branston Road High School, Staffordshire County Council

Graph 8 | Re-Build & Extension Gross & Nett Costs per m²



5,594m²

average floor area

5.95m²

average GIFA per pupil place

23wks

average contract period

£2,491

average gross cost /m²

£1,777

average nett cost /m²

£17,321

average cost per pupil place

Key Definitions

Re-Build & Extension

Any project where over 50% of the works being undertaken are new build, where the site used is adjacent to or the same as the existing site. Including new build blocks, extensions to existing buildings and rebuilds which include elements of demolition.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.

A detailed breakdown of average costs by GIFA bands is shown in the table below.

Some key analysis from this data set is summarised below:

Procurement

The study has demonstrated that the majority of local authority Re-Build & Extension projects are procured via two stage open book tendering. DfE projects are let via an DfE procurement process.

Infrastructure

Due to the nature of Re-Build & Extension projects, where the existing site is maintained, the costs associated with infrastructure are low, representing 15% of the total project cost on average across the sample.

Figure 7 Re-Build & Extension Average Cost Summary							
GIFA (m ²)	Gross Cost per m ²		Nett Cost per m ²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile	Average	20th Percentile	Average	20th Percentile	
		80th Percentile		80th Percentile		80th Percentile	
Below 5,000	£2,803	£2,315 £3,243	£1,989	£1,626 £2,266	£18,697	£3,961 £23,522	81
5,000 - 10,000	£2,208	£2,034 £2,596	£1,721	£1,560 £1,915	£19,398	£15,670 £24,442	81
Above 10,000	£2,373	£2,221 £2,572	£1,580	£1,484 £1,824	£15,431	£12,710 £18,955	20
Whole Sample All GIFA Bands	£2,491	£2,181 £2,873	£1,777	£1,541 £2,083	£17,321	£9,202 £20,989	182

Key Definitions

Re-Build & Extension

Any project where over 50% of the works being undertaken are new build, where the site used is adjacent to or the same as the existing site. Including new build blocks, extensions to existing buildings and rebuilds which include elements of demolition.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.

A small sample of New Development and Refurbishment projects has been obtained. It is not possible to draw any conclusions or provide further commentary, but this information is given to show the emergence of the sample.

Figure 8 New Development Average Cost Summary							
GIFA (m²)	Gross Cost per m²		Nett Cost per m²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
Below 5,000	£2,739	£2,689 £3,303	£2,031	£1,797 £2,529	£32,531	£13,522 £34,593	12
5,000 - 10,000	£2,676	£2,303 £3,418	£1,881	£1,707 £2,363	£20,622	£17,548 £27,009	14
Above 10,000	£2,510	£2,004 £2,934	£1,799	£1,556 £2,101	£19,176	£14,766 £23,750	5
Whole Sample All GIFA Bands	£2,673	£2,267 £3,389	£1,926	£1,705 £2,445	£24,999	£14,584 £27,344	31

Figure 9 Whole Sample Average Cost Summary							
GIFA (m²)	Gross Cost per m²		Nett Cost per m²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
Below 5,000	£2,744	£2,311 £3,226	£1,950	£1,610 £2,316	£20,302	£6,322 £26,471	97
5,000 - 10,000	£2,277	£2,057 £2,674	£1,624	£1,487 £1,934	£16,196	£12,814 £20,226	95
Above 10,000	£2,400	£2,180 £2,633	£1,737	£1,560 £2,058	£19,353	£15,443 £24,442	25
Whole Sample All GIFA Bands	£2,500	£2,169 £2,932	£1,783	£1,541 £2,120	£18,395	£9,930 £23,215	217

Key Definitions

New Development & Refurbishment

Category definitions can be found on page 31.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.



Part Four SEN Schools



Portesbury SEN School, Surrey County Council

The SEN school sample consists of 63 projects which are split into three school categories as shown in the pie chart (right). This sample features projects from 2012 to 2020 with a total combined capital value of £351 million, comprising:

- ◆ 11 New Development projects.
- ◆ 39 Re-Build & Extension projects.
- ◆ 13 Refurbishment projects.

63

SEN schools

While significant demand for school capacity is being seen across the country, this increases the need for specialist teaching facilities and therefore Local Authorities are starting to increase the capacity within SEN school stock. This study evidences that the majority of provision is being made within existing schools, namely Re-Build & Extension projects.

The majority of schemes are procured via framework arrangements either at a national, regional or local level. It has not been possible to draw sufficient trends relating to the cost benefits of these different procurement routes due to the significant variations in the framework arrangements.

Over the next pages further commentary is provided for each project category which details cost variations and observations on drivers for costs between projects. A small sample of New Development and Refurbishment projects has been obtained. It is not possible to draw any conclusions or provide further commentary, but this information is given to show the emergence of the sample.

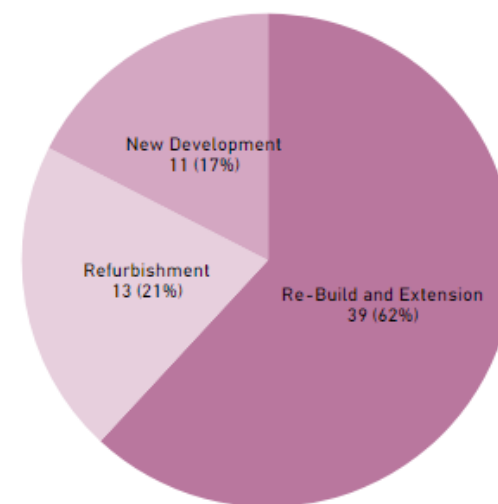
6,463

new SEN places

£351million

capital value of SEN school sample

Project Categories



Procurement Route



Yewstock Special School, Dorset County Council



Hampshire
County Council



EAST RIDING
OF YORKSHIRE COUNCIL



Department
for Education



Infrastructure
and Projects
Authority



EBDOG

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May 2021

Re-Build & Extension projects are formed from a combination of new blocks, extensions to existing schools and re-build projects on the existing site. In most cases there are elements of demolition and some projects include refurbishment work to existing buildings.

In total, 39 Re-Build & Extension projects were submitted to the study, Graph 9 (right) displays the gross and nett costs per m² for these projects. A detailed breakdown is shown on page 26.

The sample includes 18 DfE schemes submitted by the DfE, these projects include local authority contributions where applicable.

Graph 9 | Re-Build & Extension Gross & Nett Costs per m²

The Base, Blessed Hugh Farringdon, Reading Borough Council

2,634m²

average floor area

23m²

average GIFA per pupil place

29wks

average contract period

£2,834

average gross cost /m²

£2,058

average nett cost /m²

£76,184

average cost per pupil place

Key Definitions

Re-Build & Extension

Any project where over 50% of the works being undertaken are new build, where the site used is adjacent to or the same as the existing site. Including new build blocks, extensions to existing buildings and rebuilds which include elements of demolition.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.



Hampshire
County Council



EAST RIDING
OF YORKSHIRE COUNCIL



Department
for Education



Infrastructure
and Projects
Authority



A detailed breakdown of average costs by GIFA bands is shown in the table below.

Figure 10 Rebuild & Extension Average Cost Summary							
GIFA (m²)	Gross Cost per m²		Nett Cost per m²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
Below 2,250	£3,377	£2,586 £4,047	£2,473	£1,752 £3,016	£71,839	£50,088 £104,322	13
2,250 - 3,750	£2,690	£2,232 £2,821	£1,914	£1,615 £2,031	£74,862	£62,183 £87,880	11
Above 3,750	£2,470	£1,974 £2,886	£1,803	£1,473 £2,231	£80,919	£36,914 £122,600	15
Whole Sample All GIFA Bands	£2,834	£2,227 £3,567	£2,058	£1,563 £2,770	£76,184	£50,095 £103,476	39

Key Definitions

Re-Build & Extension

Any project where over 50% of the works being undertaken are new build, where the site used is adjacent to or the same as the existing site. Including new build blocks, extensions to existing buildings and rebuilds which include elements of demolition.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.



A small sample of New Development and Refurbishment projects has been obtained. It is not possible to draw any conclusions or provide further commentary at this stage.

Figure 11 New Development Average Cost Summary							
GIFA (m²)	Gross Cost per m²		Nett Cost per m²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile	Average	20th Percentile	Average	20th Percentile	
		80th Percentile		80th Percentile		80th Percentile	
0 - 2,250	£1,761	£1,009 £2,513	£1,103	£469 £1,737	£41,411	£21,544 £61,278	2
2,250 - 3,750	£2,375	£2,303 £2,446	£1,690	£1,644 £1,736	£81,965	£77,916 £86,014	2
Above 3,750	£2,971	£2,827 £3,169	£2,152	£1,903 £2,313	£95,828	£61,452 £89,859	7
Whole Sample All GIFA Bands	£2,643	£2,256 £3,052	£1,877	£1,767 £2,312	£83,413	£60,132 £88,713	11

Figure 12 Refurbishment Average Cost Summary					
GIFA (m²)	Gross Cost per m²		Cost Per Pupil Place		Sample Size
	Average	20th Percentile	Average	20th Percentile	
		80th Percentile		80th Percentile	
Below 2,250	£1,678	£1,326 £1,997	£36,623	£22,851 £47,391	5
2,250 - 3,750	£2,247	£2,247 £2,247	£46,813	£46,813 £46,813	1
Above 3,750	£1,179	£452 £1,705	£40,376	£6,323 £54,082	7
Whole Sample All GIFA Bands	£1,453	£761 £2,090	£39,428	£8,764 £53,116	13

Key Definitions

New Development & Refurbishment

Category definitions can be found on page 31.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price Index (TPI) of 1st Quarter 2020 of 336. Index taken from April 2020 data forecasts. This adjusts costs for inflation. VAT is excluded throughout.

Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 31.



Part Five Further Information



Kings' School, Hampshire County Council



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We are keen to receive projects for our next publication planned for June 2021 and welcome project submissions from any Local Authority in the United Kingdom.

Participating Authorities will be listed in the published report (see page 5), however any data supplied will be treated as commercially confidential and will not be shared with third parties without the submitting Authority providing written approval and / or written acknowledgement. All data submitted remains the property of the submitting Authority.

We are particularly keen to obtain further Primary, Secondary and SEN school cost data. All submissions must use our standard form of cost analysis. For further information or to register your interest for the next study please contact Peter Robinson using the details found at the end of this publication.



Images | Current & Previous Reports



Loddiswell Primary School, Devon County Council

Summary of Publications			
Report	Sample Size	Contributing Authorities	Sample Type
April 2013*	45	-	Primary & Secondary
November 2013	39	-	Primary
June 2014	70	-	Primary
January 2015	122	42	Primary & Secondary
February 2016	343	63	Primary, Secondary & SEN
February 2017	546	108	Primary, Secondary & SEN
February 2018	660	126	Primary, Secondary & SEN
March 2019	845	140	Primary, Secondary & SEN
May 2021	1008	150	Primary, Secondary & SEN

Key terms used throughout this publication and an outline of how data has been adjusted for inflation and regional cost variations are defined here.

New Development

Any project where 100% of the works being undertaken are new build and the site used is a greenfield site. Includes significant infrastructure and external works.

Re-Build & Extension

Any project where over 50% of the works being undertaken are new build, where the site used is adjacent to or the same as the existing site. Including new build blocks, extensions to existing buildings and rebuilds which include elements of demolition.

Refurbishment

Any project which contains significant alterations or less than 50% new build to existing buildings. The works are further categorised as light, medium and heavy refurbishment. See further definitions for these levels.

Refurbishment Level - Light Refurbishment

Investment focused on common areas and essential repairs only. Extension of economic life is approximately 5 years. Works include strip out of existing space, shell and core refurbishment including cosmetic upgrades. Assumes existing main plant, existing floors and ceilings are retained.

Refurbishment Level - Medium Refurbishment

Investment involves full upgrade of the existing building services and finishes but stops short of major structural alterations. Extension of economic life is approximately 15 years. Works include strip out of existing space, shell and core refurbishment including cosmetic upgrades. No major structural or substructural alterations. Existing floors and ceilings are retained and minor repairs only to façade.

Refurbishment Level - Heavy Refurbishment

Investment includes significant structural alterations and may also include the replacement of facades and roof finishes. The complete renewal of internal fittings, finishes and MEP systems. The building is typically unoccupied. Extension of economic life is approximately 15 - 25 years. Works include strip out of existing space, shell and core refurbishment including cosmetic upgrades. Replacement to raised floors, ceilings and new services.

Spatial Measures (GIFA)

Encompass the most common formats used by clients and industry to benchmark total construction costs, which in the case of schools has been taken as £/m² of the Gross Internal Floor Area (GIFA). This is related to throughout and is the total m² of accommodation delivered by a project. For Refurbishment projects the GIFA refers to the percentage of new build floor area only.

Total Project Cost

Represents the overall project cost at tender stage, inclusive of fees, external works, abnormal costs, including minor building works and fittings and fixtures. It is inclusive of additions for preliminaries, contingency, overheads and profit.

Nett Cost per m²

Represents the tendered cost per m² of GIFA, exclusive of fees, abnormalities, external works, minor building works and alterations. It is inclusive of additions for preliminaries, contingency, overheads and profit. Fixed fittings and furnishings are included.

Gross Cost per m²

Represents the tendered Total Project Cost per m² of GIFA.

Cost Per Pupil Place

Represents the Total Project Cost, divided by the number of additional pupil places being created by the works in the school. Where this data has not been available for refurbishment projects, the Total Project Cost has been divided by the total number of pupils in the school.

20th and 80th Percentiles

The 20th percentile is the value below which 20% of the observations may be found, while the 80th percentile is the value below which 80% are found.

Abnormals

These encompass substructure cost above normalised base cost and demolitions. The normalised base cost for substructures used was £120 per m² of GIFA. This value has been derived using the worked example for calculating substructure abnormalities published by the former Department for Education and Employment (DFEE) within their document entitled "Education Building Projects: Information on Costs and Performance Data". This calculation used within this report recognises the impact of timing (tender factor), location and size of projects.

Fees

All professional (client) fee costs have been included where provided within the sample data. These fees include project management, cost management and other professional services associated to the project. In house architectural service fees are also included where applicable. If fee information was not available a standardised professional fee allowance of 12% has been included on all projects where the unadjusted tendered Contract Sum is £10m or less. A standardised professional fee allowance of 10% has been included on all projects where the unadjusted Contract Sum is in excess of £10m. A professional (client) fee of 3% has been applied to all centrally funded projects submitted by the DfE as agreed with the DfE.

Excluded Cost Elements

Statutory fees, survey costs, loose furniture and equipment, client department costs including programme management, legal and land acquisition costs are excluded from all figures shown herein.

Preliminaries, Contingency, Overheads & Profit

Included in all figures herein as a percentage cost of GIFA. In the case of Refurbishment projects the GIFA refers to the percentage of new build floor area only.

Location Factor

All costs have been normalised to a common UK average price level using regional location factors published by BCIS to accord with the UK Mean 100. Index taken at March 2020.

Inflation

All costs have been updated to the latest Building Cost Information Service (BCIS) ALL-IN Tender Price of Index (TPI) of 1st Quarter 2020 of 336. Index taken at April 2020. This adjusts costs for inflation. VAT is excluded throughout.

Please Note

All cost data contained within this report relates to Tender Stage (Gateway 3, Contract Let) costs, unless otherwise identified as Outturn figures.

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For further information relating to this study or for details regarding future publications and how to participate please contact the individuals below.

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Wimborne First School, Dorset County Council

