



# 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 Education Funding Agency

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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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**343**  
projects submitted

- 1 | **Barncroft Primary**, Hampshire County Council
- 2 | **Richard Lee Primary**, Coventry City Council
- 3 | **Cayley Primary**, London Borough of Tower Hamlets
- 4 | **Beardall Fields Primary**, Nottinghamshire County Council

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, extension and refurbished primary, secondary and SEN schools.

This and future reports, build a credible case to inform both the market and Central Government. The findings contained within this report have been shared with the Cabinet Office, Department for Education (DfE) and Education Funding Agency (EFA). This publication is the fourth report 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 Local Government Association (LGA), as part of the National Procurement Strategy (NPS), and has been conducted in conjunction with the following organisations:

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

The project sample used in this report comprises 343 projects from across England, consisting of:

- ◆ 283 primary school projects.
- ◆ 44 secondary school projects.
- ◆ 16 SEN school projects.

**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.
- ◆ New build, extension or refurbished project.
- ◆ A permanent solution.
- ◆ Contract formed since 2011.
- ◆ No minimum project value required.

**£1.7 billion**  
combined capital value

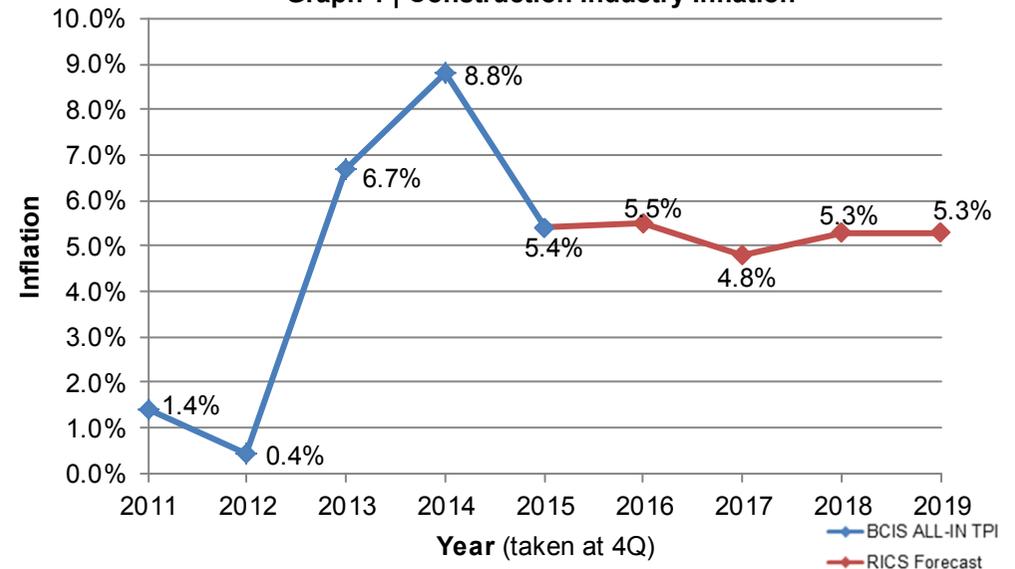
**Industry Summary**

The public sector is facing unprecedented pressures: rising inflation; constraints on funding; the need for authorities to make revenue savings and the growing construction industry skills gap. Alongside these, education basic need continues to grow in both the primary and secondary sectors, increase in demand for house building and commercial investment is generating a large demand in public sector construction and significant capacity issues. This pressure is leading to the market having greater demand than capacity to deliver which drives resource and associated costs up.

Tender price inflation has risen significantly since 2012 as output has increased across all sectors of the construction industry. Although the figures contained within this publication are indexed to remove the effects of inflation, projects remain influenced by increased labour and resource costs as the industry continues to adjust to meet the demand. This report contains projects from 2011 through to 2015 and therefore the changes in the market over this period will be reflected in the average costs published herein. Despite the inflationary pressure, this report evidences that the public sector continues to achieve value for money, demonstrated by a 20% reduction in gross costs since 2012 (see page 8 for further information).

Graph 1 below displays the historic inflation since 2011 and predicted future forecasts for the construction industry.

**Graph 1 | Construction Industry Inflation**



We are grateful to the following 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 sample from the Education Funding Agency (EFA) of centrally funded projects, notably from the Priority School Building Programme 1 (PSBP1).

- |   |   |
|---|---|
| Birmingham City Council                 | London Borough of Sutton                    |
| Bradford Metropolitan District Council  | London Borough of Tower Hamlets             |
| Brighton & Hove City Council            | Manchester City Council                     |
| Bury Metropolitan Borough Council       | Medway Council                              |
| Calderdale Metropolitan Borough Council | Norfolk County Council                      |
| Cambridgeshire County Council           | Northamptonshire County Council             |
| Central Bedfordshire Council            | North Tyneside Metropolitan Borough Council |
| Chichester District Council             | North Lincolnshire Council                  |
| Cornwall Council                        | North Somerset Council                      |
| Coventry City Council                   | North Yorkshire County Council              |
| Devon County Council                    | Nottingham City Council                     |
| Doncaster Metropolitan Borough Council  | Nottinghamshire County Council              |
| Dorset County Council                   | Peterborough City Council                   |
| Durham County Council                   | Portsmouth City Council                     |
| East Riding of Yorkshire Council        | Reading Borough Council                     |
| East Sussex County Council              | Rotherham Metropolitan Borough Council      |
| Essex County Council                    | Royal Borough of Kensington & Chelsea       |
| Hampshire County Council                | Sandwell Metropolitan Borough Council       |
| Hartlepool Borough Council              | Sheffield City Council                      |
| Kent County Council                     | Shropshire Council                          |
| Leeds City Council                      | Staffordshire County Council                |
| Liverpool City Council                  | Suffolk County Council                      |
| London Borough of Barnet                | South Gloucestershire Council               |
| London Borough of Bromley               | Sunderland City Council                     |
| London Borough of Croydon               | Surrey County Council                       |
| London Borough of Ealing                | Trafford Metropolitan Borough Council       |
| London Borough of Haringey              | Wakefield Metropolitan District Council     |
| London Borough of Hounslow              | West Sussex County Council                  |
| London Borough of Islington             | Windsor & Maidenhead Council                |
| London Borough of Merton                | Wokingham Borough Council                   |
| London Borough of Newham                | Worthing Borough Council                    |
| London Borough of Redbridge             |   |



**Please Note** | Markers display the spread of Local Authorities who have contributed, they do not indicate exact locations.

**63** Local Authorities  
contributed across England

## Part Two Primary Schools



- 1 | Rushden Primary, Northamptonshire County Council
- 2 | St Modwen's Catholic Primary, Staffordshire County Council

The primary school sample consists of 283 projects which are split into three categories as shown in the pie chart (right). This sample features projects from 2011 - 2015 with a total combined capital value of £1.03 billion, comprising:

- ◆ 40 New Development projects.
- ◆ 204 Re-Build & Extension projects.
- ◆ 39 Refurbishment projects.

The majority of the primary school sample consists of Re-Build & Extension projects, confirming the trend that Local Authorities are continuing to expand existing school sites to meet the increasing demand for pupil places. A number of schemes are being refurbished to increase capacity while new school builds on greenfield sites (New Development projects) are starting to be seen across the regions. We anticipate that the next national cost benchmarking report will see an increase in these New Development projects once it becomes unviable to continue to refurbish or extend existing school stock.

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 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.

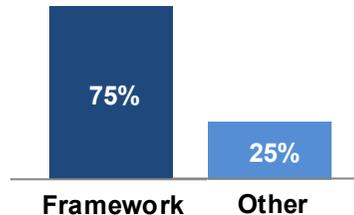
**£1.03 billion**

capital value of primary school projects

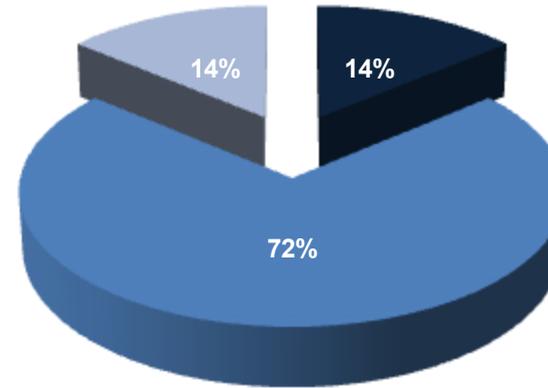
**71,300**

new primary places created

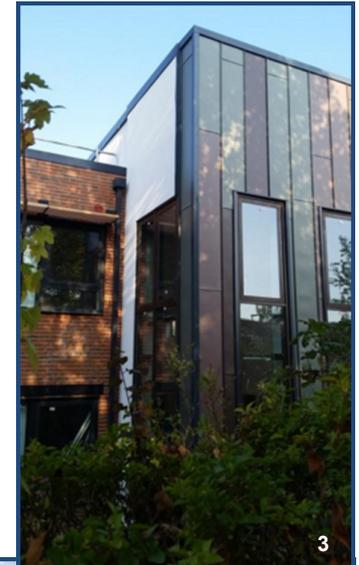
Procurement Routes



Project Categories



- New Development
- Re-Build & Extension
- Refurbishment



3



2



1

**283** primary school projects across England

- 1 | Rocester School, Staffordshire County Council
- 2 | Alfred Sutton Primary, Reading Borough Council
- 3 | Clare House Primary, London Borough of Bromley

Primary school gross costs as a whole sample have reduced over the last two years, however Re-Build & Extension project gross costs have increased over this period. This study has demonstrated a number of reasons for the fluctuations evidenced in the cost trajectory over the last five years (Graph 2, right) which are outlined below.

**New Development**

Projects built on greenfield sites with 100% of the works being new build have seen a steady reduction in gross costs over the last four years, equating to a 27% reduction since 2012.

**Re-Build & Extension**

Extensions to existing school buildings, new teaching blocks and rebuilt schools on existing sites have seen an increase in gross costs over the last 12 months, breaking the trend of reducing costs previously evidenced. This study has shown a number of factors influencing this trend:

- ◆ Smaller projects have been procured over the last 12 months, with most projects over this period in the 0 - 750m<sup>2</sup> GIFA banding. This is considerably smaller than the average GIFA seen prior to 2014, which reduces the cost benefits experienced by larger schemes.
- ◆ The market has seen 8.8% inflation since 2014 and although the figures within this report are indexed for the effect of inflation the market pressures in terms of labour and material costs will be a factor in tender costs over this period.

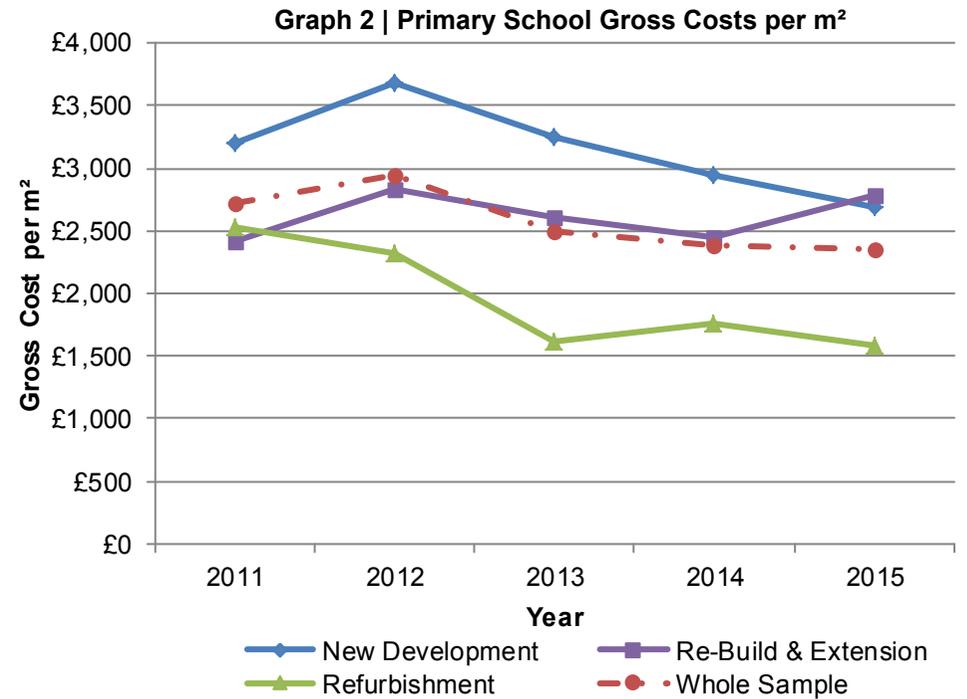
**Refurbishment**

Due to the varying nature of refurbishment projects it is difficult to draw conclusive results from the cost trajectory, however the study shows that gross costs have reduced considerably over the last five years. Given the sample sizes displayed in Figure 1 (right), there is less confidence in the figures between 2014 and 2015. Gross costs have reduced 24% from £2,314 in 2012 to £1,760 in 2014.

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

**20%**

reduction in gross costs across the whole sample since 2012



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
2011	£3,201	6	£2,414	6	£2,527	1	£2,714	13
2012	£3,680	5	£2,831	25	£2,314	6	£2,942	36
2013	£3,254	9	£2,607	54	£1,614	17	£2,492	80
2014	£2,951	13	£2,451	83	£1,760	12	£2,388	108
2015	£2,697	7	£2,788	36	£1,581	3	£2,355	46

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 features both local authority and PSBP1 projects with a GIFA of over 750m<sup>2</sup>. This not only enables a much more complete study, but also enables direct comparison to be drawn between local authority delivery and EFA procured schemes.

This cost trajectory includes 31 PSBP1 primary school projects. Graph 3 (right) displays a cost trajectory for these projects. We do not hold complete data for both EFA and local authority schemes for 2015 and therefore the small sample for this period has not been included.

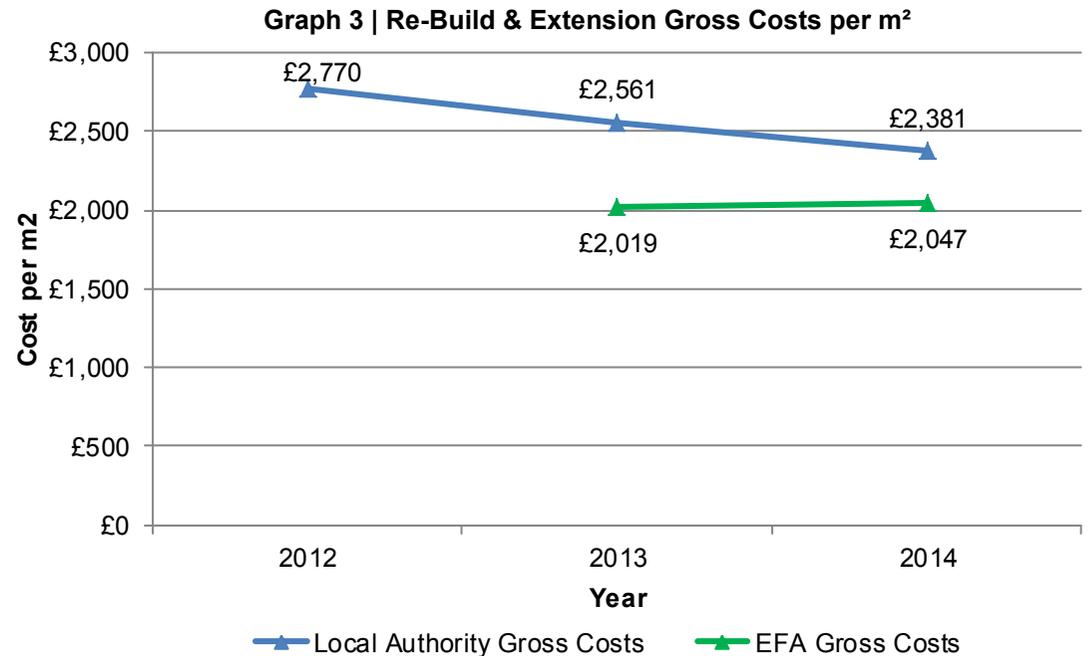
The cost trajectory shows that local authority cost have steadily fallen by 14% from 2012 to 2014. EFA costs were of a similar level in 2013 and 2014. However there are clear indications of a rising market in 2015 and we expect both LA and EFA costs to increase.

EFA average gross costs are lower than local authorities but the gap is reducing. EFA projects were 21% lower in 2013 and are currently 16% lower (in 2014). There are a number of factors influencing these costs:

- ◆ EFA projects are generally larger than local authority schemes and therefore benefit from economies of scale.
- ◆ The EFA has had the benefit of batching projects and a keen contractors' market.

**Please Note** | We currently only have complete data for both EFA and local authority projects for 2 years (2013 and 2014). We do not hold complete datasets for both EFA and local authority procured projects for 2015, therefore we are currently unable to conduct a comparison for this year.

Figure 2 (right) displays the average cost data for 2013 and 2014.



Year	Gross Costs per m <sup>2</sup>				Costs Per Pupil Place			
	Local Authority		EFA		Local Authority		EFA	
	Average	Sample Size	Average	Sample Size	Average	Sample Size	Average	Sample Size
2013	£2,561	33	£2,019	5	£15,132	33	£10,581	5
2014	£2,381	32	£2,047	26	£13,716	32	£11,036	26

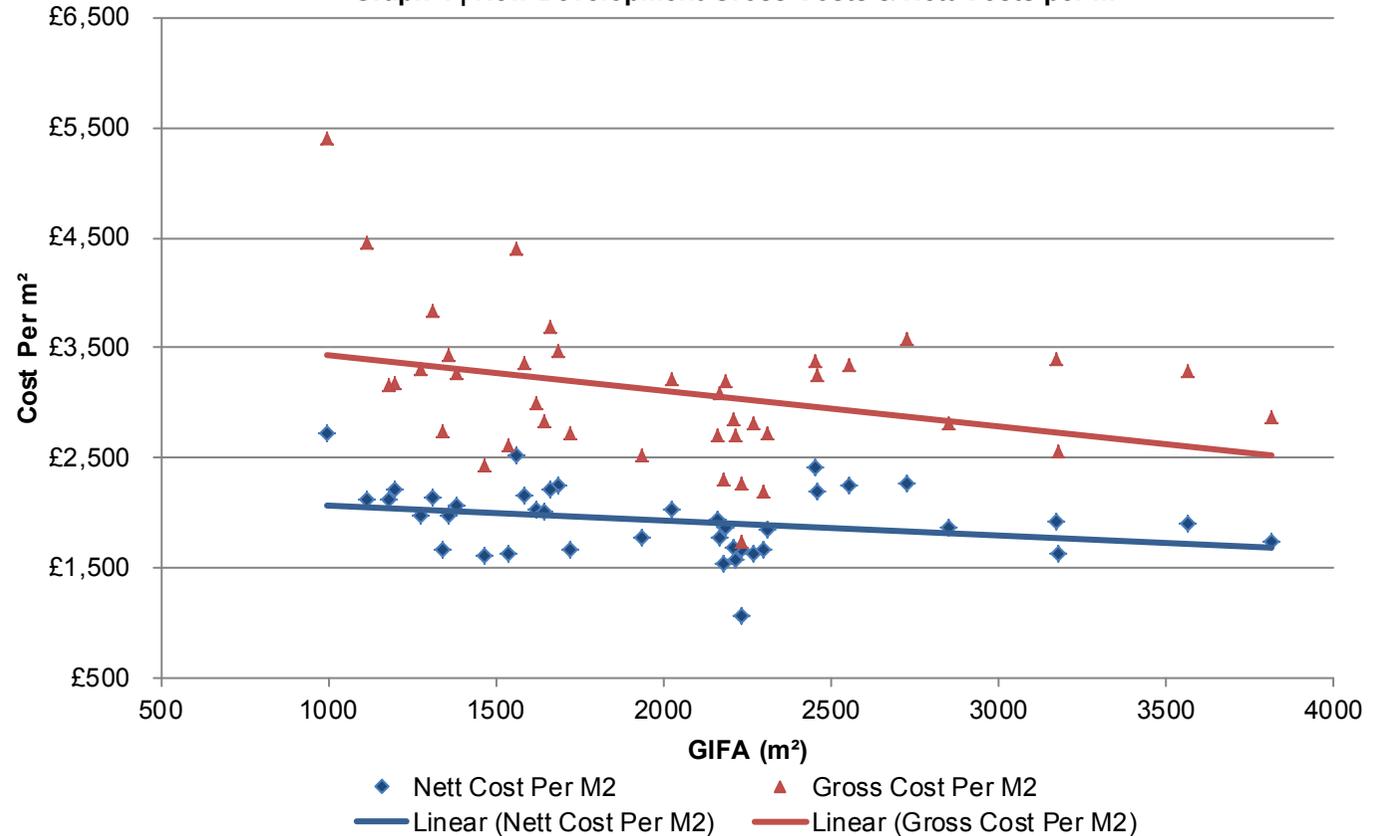
New Development projects are new schools built on greenfield sites, which include significant infrastructure and external work costs. There are 40 such projects in this study. Graph 4 (right) displays the gross and nett costs per m<sup>2</sup> for these projects. A detailed breakdown is shown on page 11.

Due to the nature of these projects a significant investment in infrastructure and external works is evidenced throughout the sample. On average this cost is 55% higher than seen throughout an equivalent sample of Re-Build & Extension projects where the existing site is used.

The study has demonstrated that the majority of New Development projects are procured via a two stage tender process. These projects within this sample have on average 12% higher gross costs than projects using a single stage tender.

The sample is small and therefore it is not possible to draw any firm conclusions regarding benefits or contract period duration implications from the procurement routes used.

Graph 4 | New Development Gross Costs & Nett Costs per m<sup>2</sup>



**2,020m<sup>2</sup>**

average floor area

**6.0m<sup>2</sup>**

average GIFA per pupil place

**52wks**

average contract period

**£3,103**

average gross cost

**£1,933**

average nett cost

**£19,904**

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 November 2015.

**Inflation**

All costs have been updated to the latest firm Building Cost Information Service (BCIS) ALL-IN Tender Price of Index (TPI) of 1<sup>st</sup> Quarter 2015 of 266. Index taken at November 2015. 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 29.

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

Figure 3   New Development Average Cost Summary							
GIFA (m <sup>2</sup> )	Gross Cost per m <sup>2</sup>		Nett Cost per m <sup>2</sup>		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
0 - 750	Insufficient Data					0	
750 - 1,500	£3,523	£3,073 £3,962	£2,061	£1,911 £2,151	£23,352	£20,005 £28,599	10
1,500 - 2,250	£2,927	£2,560 £3,301	£1,854	£1,639 £2,111	£19,455	£14,592 £25,092	18
2,250 - 3,000	£3,011	£2,753 £3,360	£2,020	£1,734 £2,261	£17,649	£14,560 £20,069	8
3,000 - 3,750	£3,084	£2,851 £3,360	£1,815	£1,741 £1,907	£18,404	£17,180 £19,391	3
Above 3,750	£2,873	Insufficient Data	£1,732	Insufficient Data	£16,061	Insufficient Data	1
<b>Whole Sample</b> All GIFA Bands	<b>£3,103</b>	<b>£2,689</b> <b>£3,409</b>	<b>£1,933</b>	<b>£1,658</b> <b>£2,204</b>	<b>£19,904</b>	<b>£15,403</b> <b>£24,086</b>	<b>40</b>

#### 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 November 2015.

##### Inflation

All costs have been updated to the latest firm Building Cost Information Service (BCIS) ALL-IN Tender Price of Index (TPI) of 1<sup>st</sup> Quarter 2015 of 266. Index taken at November 2015. 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 29.

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 which account for 17% of the works on average where this occurs.

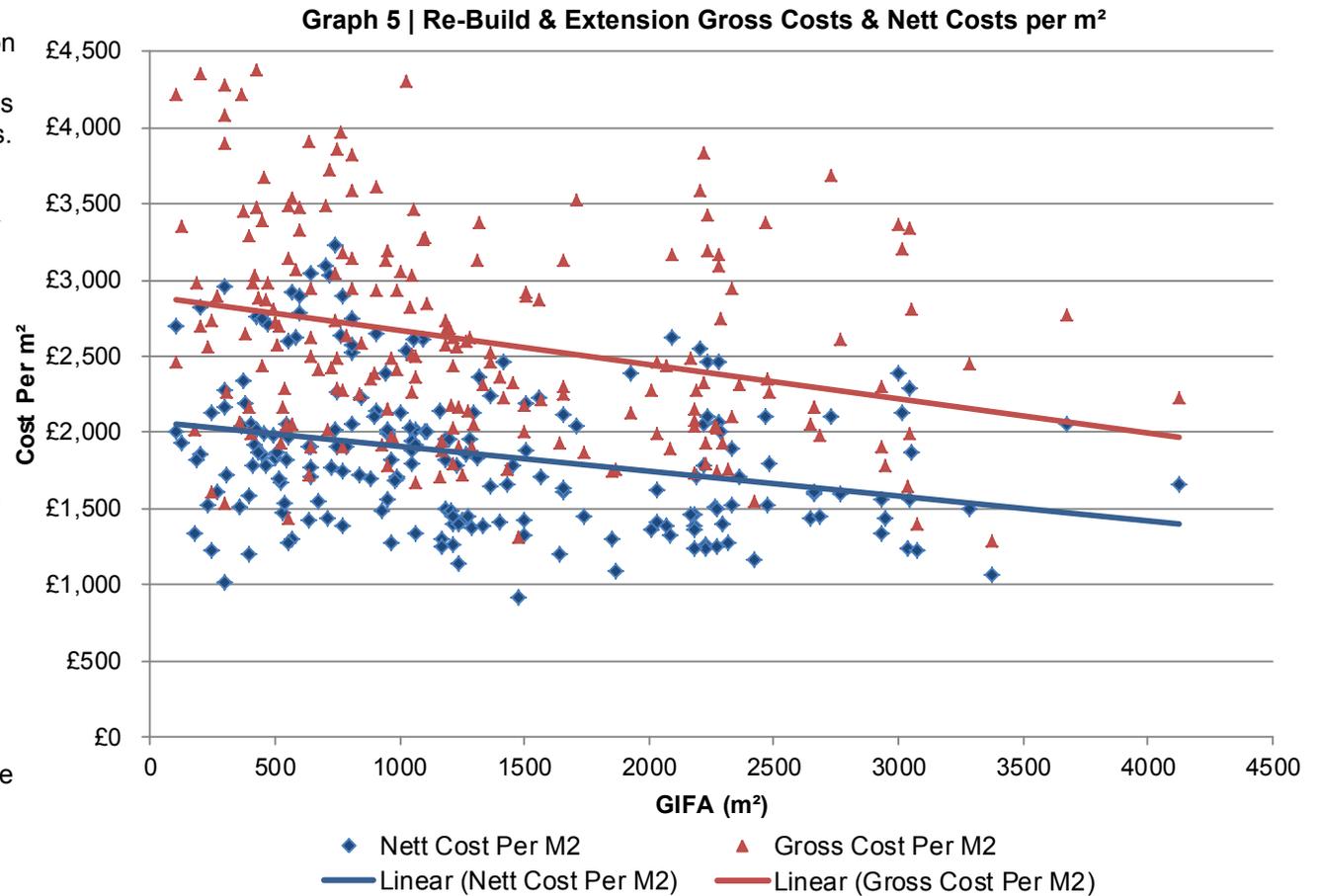
In total, 204 Re-Build & Extension projects were submitted to the study, Graph 5 (right) displays the gross and nett costs per m<sup>2</sup> for these projects. A detailed breakdown is shown on page 13.

The sample includes 34 Priority School Building Programme 1 (PSBP1) schemes submitted by the EFA, these projects include local authority contributions where applicable.

The study has demonstrated that the majority of Re-Build & Extension projects are procured via a two stage tender process which on average increases the contract period by 9 weeks when compared to projects using a single stage tender.

Reductions in contract period are also evidenced by the use of modular forms of construction, which on average reduce contract periods by 5 weeks when compared to an equivalent sample of steel frame projects (which have an average period of 38 weeks).

Due to the nature of Re-Build & Extension projects, where the existing site is maintained, the costs associated with infrastructure are low, representing 10.8% of the total project cost on average across the sample.



**1,399m<sup>2</sup>**  
average floor area

**5.3m<sup>2</sup>**  
average GIFA per pupil place

**43wks**  
average contract period

**£2,597**  
average gross cost

**£1,853**  
average nett cost

**£13,755**  
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 November 2015.

**Inflation**

All costs have been updated to the latest firm Building Cost Information Service (BCIS) ALL-IN Tender Price of Index (TPI) of 1<sup>st</sup> Quarter 2015 of 266. Index taken at November 2015. 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 29.

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

Figure 4   Re-Build & Extension Average Cost Summary							
GIFA (m <sup>2</sup> )	Gross Cost per m <sup>2</sup>		Nett Cost per m <sup>2</sup>		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
0 - 750	£2,862	£2,162 £3,488	£2,026	£1,587 £2,622	£13,066	£8,832 £15,524	66
750 - 1,500	£2,533	£1,966 £3,059	£1,850	£1,422 £2,146	£14,119	£10,696 £16,938	71
1,500 - 2,250	£2,457	£1,932 £3,086	£1,709	£1,333 £2,119	£14,525	£10,789 £18,586	32
2,250 - 3,000	£2,378	£1,925 £2,976	£1,668	£1,427 £2,016	£13,264	£8,888 £18,114	25
3,000 - 3,750	£2,320	£1,543 £2,965	£1,660	£1,234 £2,089	£14,468	£8,927 £18,904	9
Above 3,750	£2,226	Insufficient Data	£1,654	Insufficient Data	£14,576	Insufficient Data	1
<b>Whole Sample</b> All GIFA Bands	<b>£2,597</b>	<b>£1,990</b> <b>£3,183</b>	<b>£1,853</b>	<b>£1,422</b> <b>£2,187</b>	<b>£13,755</b>	<b>£10,202</b> <b>£17,809</b>	<b>204</b>

#### 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 November 2015.

##### Inflation

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Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 29.

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.

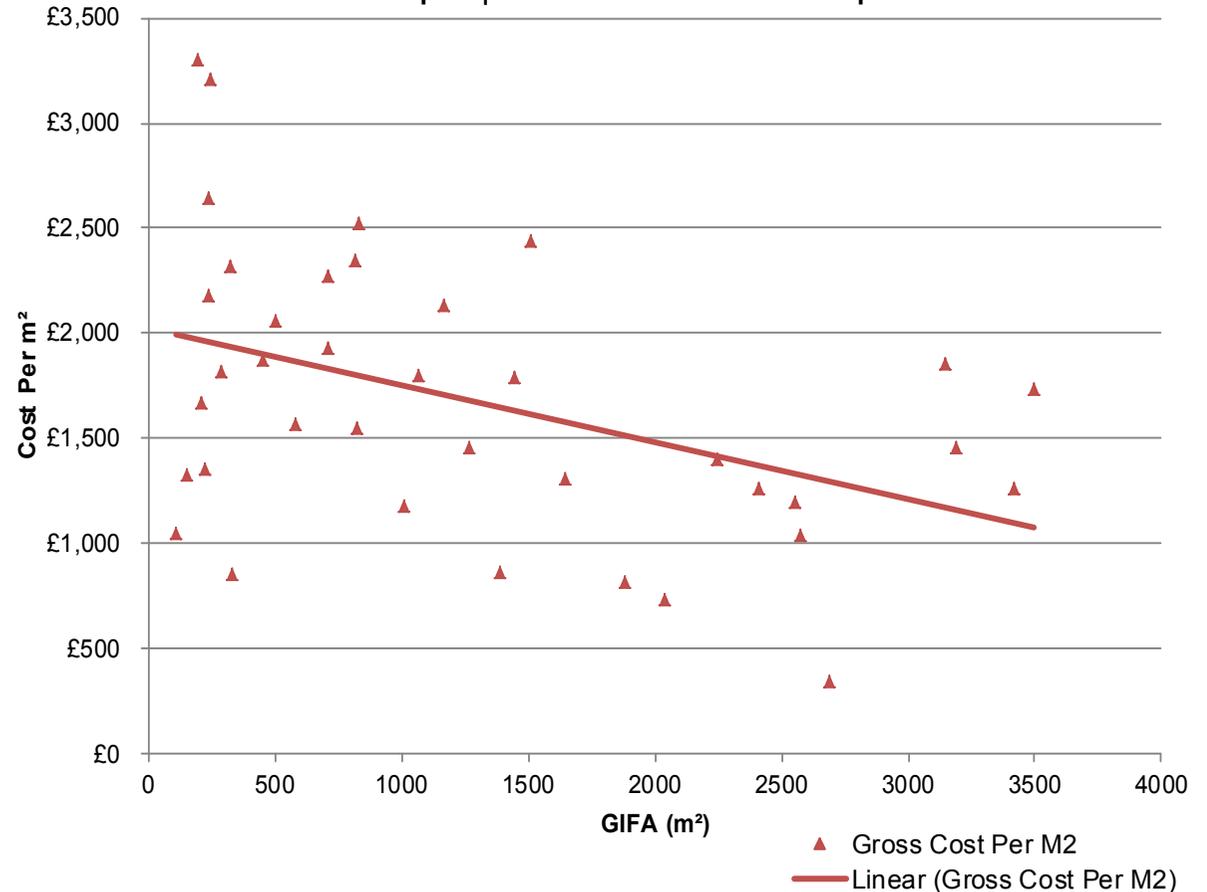
In total, 39 refurbishment projects were submitted to the study, Graph 6 (right) displays the gross and nett costs per m<sup>2</sup> for these projects. A detailed breakdown is shown on page 15.

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 m<sup>2</sup> of £1,592. This represents a 17% 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.

Full definitions of light, medium and heavy refurbishment used for this study can be found on page 30.

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.

Graph 6 | Refurbishment Gross Costs per m<sup>2</sup>



**1,519m<sup>2</sup>**  
average floor area

**6.0m<sup>2</sup>**  
average GIFA per pupil place

**39wks**  
average contract period

**£1,788**  
average gross cost

**£9,993**  
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 28.

**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 November 2015.

**Inflation**

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Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 29.

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

Figure 5   Refurbishment Average Cost Summary							
GIFA (m <sup>2</sup> )	Gross Cost per m <sup>2</sup>		Nett Cost per m <sup>2</sup>		Cost Per Pupil Place		Sample Size
	Average	20th Percentile	Average	20th Percentile	Average	20th Percentile	
		80th Percentile		80th Percentile		80th Percentile	
0 - 750	£2,190	£1,394 £2,580	Not Benchmarked		£9,081	£6,450 £11,251	17
750 - 1,500	£1,738	£1,343 £2,219			£9,693	£6,497 £11,741	9
1,500 - 2,250	£1,342	£800 £1,613			£12,053	£8,544 £15,412	5
2,250 - 3,000	£960	£759 £1,225			£6,227	£5,578 £6,983	4
3,000 - 3,750	£1,576	£1,375 £1,783			£15,737	£10,266 £19,903	4
<b>Whole Sample</b> All GIFA Bands	<b>£1,788</b>	<b>£1,192</b> <b>£2,292</b>					<b>£9,993</b>

**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 28.

**Location Factor**

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**Inflation**

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Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 29.

## Part Three Secondary Schools



1 | Humber UTC, North Lincolnshire Council

2 | Ernesford Grange Community Academy, Coventry City Council

The secondary school sample consists of 44 projects which are split into two categories as shown in the pie chart (right). This sample features projects from 2011 - 2015 with a total combined capital value of £560 million, comprising:

- ◆ 40 Re-Build & Extension projects.
- ◆ 4 Refurbishment projects.

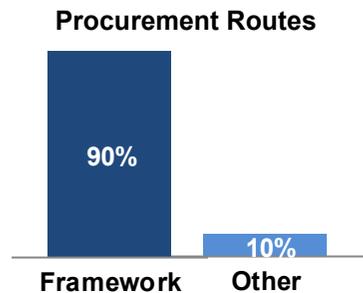
The majority of local authorities are not currently seeing significant secondary demand, however there is a considerable forecast requirement and many authorities are planning to cost and procure secondary schemes over the next twelve months. It is therefore anticipated that the next publication of this study will see an increase to the secondary school sample.

Most 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 these different procurement routes due to the significant variations in the framework arrangements.

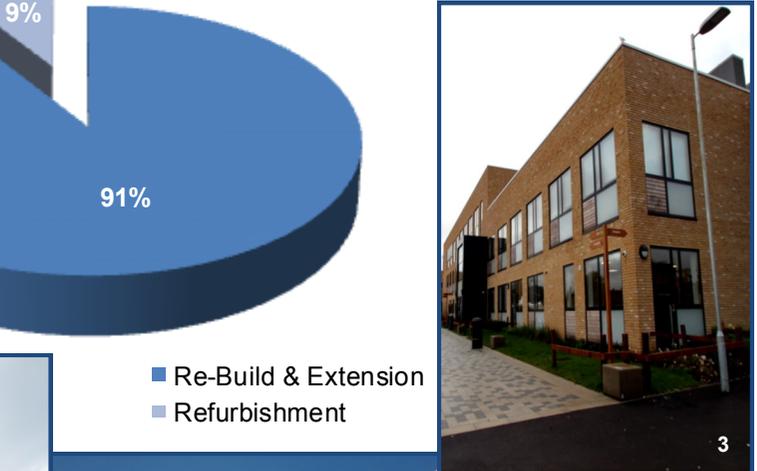
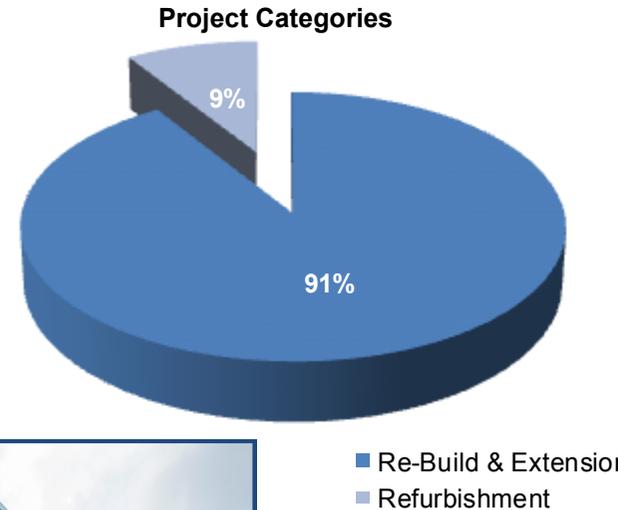
Over the next pages further commentary is provided for each project category which details cost variations and observations on drivers for costs between projects. Due to the small sample size of the Refurbishment category, these costs are only displayed for information purposes. The secondary school sample does not include any New Development projects, those built on greenfield sites.

**£560 million**  
capital value of secondary school projects

**33,000**  
new secondary places created



**44** secondary school projects across England



1 | Wickersley Comprehensive, Rotherham Metropolitan Borough Council  
 2 | St Bedes Catholic Voluntary Academy, North Lincolnshire Council  
 3 | Park Community School, Hampshire County Council

Secondary school gross costs as a whole sample have reduced over the last five years across both categories of project. Graph 7 (right) displays the cost trajectory of these projects.

Since 2012 average gross costs across the whole sample have fallen 2% (with a 3% fall over the last twelve months).

**New Development**

The secondary school sample does not include any New Development projects.

**Re-Build & Extension**

Extensions to existing school sites, new blocks and rebuilt schools have seen a steady reduction in gross costs since 2012. It should be noted that the sample size for 2012 and 2013 is small and that therefore greater certainty can be placed in the 2014 - 2015 trajectory, which has seen a 3% reduction in gross costs.

**Refurbishment**

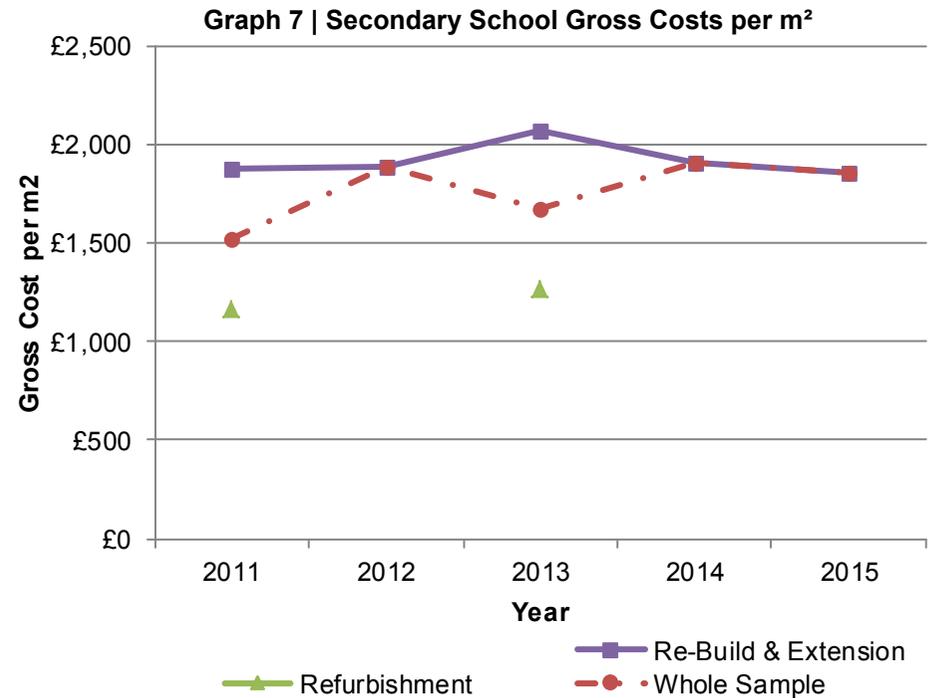
Due to the varying nature of refurbishment projects it is difficult to draw conclusive results from these projects and the sample of refurbishment projects is too small to allow any trends to be identified. The graph (right) displays these projects on the cost trend for information purposes only and the data should not be used for any other purpose.

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

**Alternative Delivery Model Cost Trajectory**

Due to the small sample size, a cost trajectory of EFA and local authority procured schemes has not been possible. Initial observations show that average gross costs for EFA schemes are 10 - 15% less than those being built by local authorities. The EFA projects are generally larger than local authority schemes and therefore benefit from economies of scale.

**2%**  
reduction in gross costs  
across the whole sample since 2012



Year	Re-Build & Extension		Refurbishment		Whole Sample	
	Gross Cost	Sample Size	Gross Cost	Sample Size	Gross Cost	Sample Size
2011	£1,877	3	£1,168	2	£1,522	5
2012	£1,895	1		0	£1,895	1
2013	£2,074	6	£1,270	2	£1,672	8
2014	£1,907	21		0	£1,907	21
2015	£1,859	9		0	£1,859	9

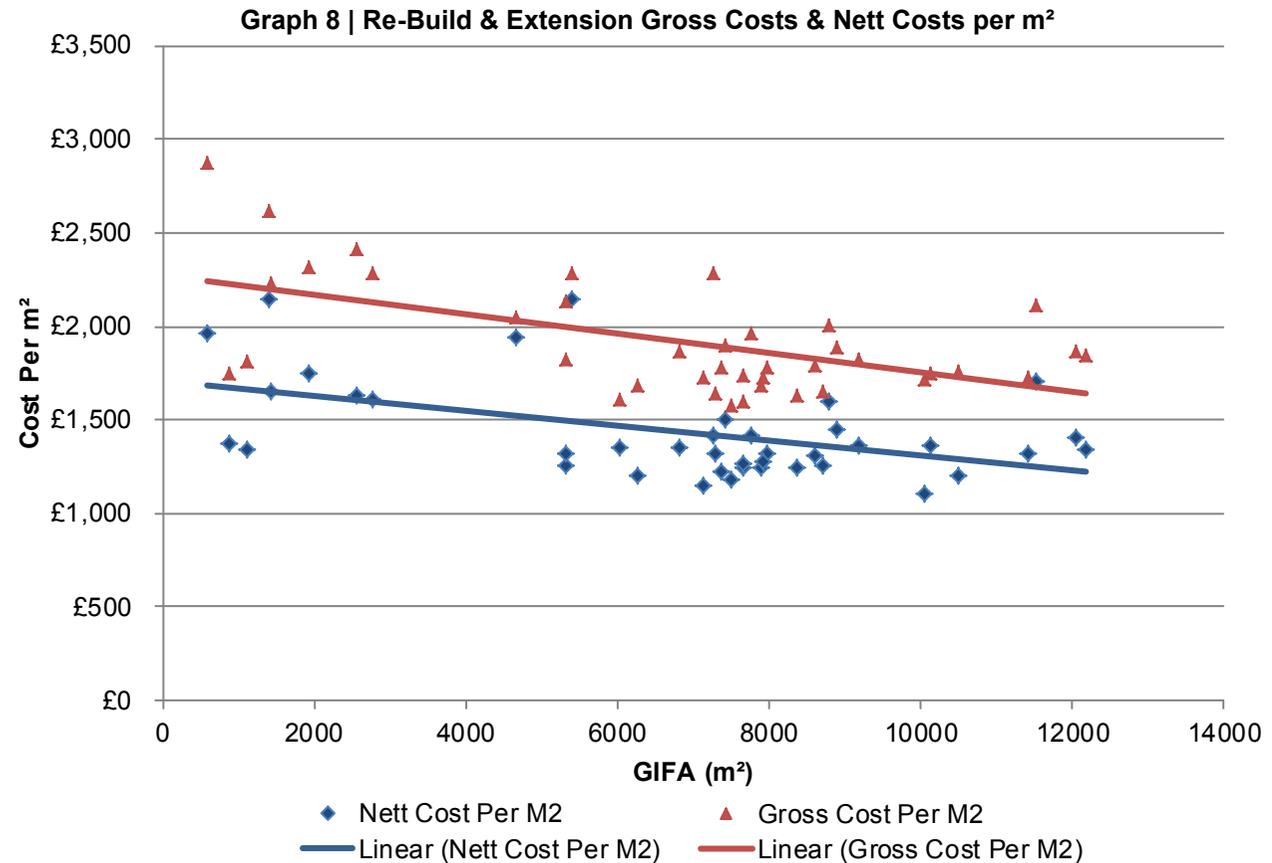
Re-Build & Extension projects are formed from a combination of new blocks, extensions to existing schools and re-build projects on the existing site. In most cases there are elements of demolition and some projects include refurbishment work to existing buildings which account for 19% of the works on average where this occurs.

In total, 41 Re-Build & Extension projects were submitted to the study, Graph 8 (right) displays the gross and nett costs per m<sup>2</sup> for these projects. A detailed breakdown is shown on page 20.

The sample includes 24 Priority School Building Programme 1 (PSBP1) schemes submitted by the EFA, these projects include local authority contributions where applicable.

The majority of re-build & extension projects are constructed using a steel frame which are procured using a two stage tender process (accounting for 75% of the projects).

Due to the nature of Re-Build & Extension projects, where the existing site is maintained, the costs associated with infrastructure are low, representing 8.3% of the total project cost on average across the sample.



**6,973m<sup>2</sup>**  
average floor area

**7.6m<sup>2</sup>**  
average GIFA per pupil place

**71wks**  
average contract period

**£1,918**  
average gross cost

**£1,431**  
average nett cost

**£14,102**  
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 November 2015.

**Inflation**

All costs have been updated to the latest firm Building Cost Information Service (BCIS) ALL-IN Tender Price of Index (TPI) of 1<sup>st</sup> Quarter 2015 of 266. Index taken at November 2015. 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 29.

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

Figure 7   Re-Build & Extension Average Cost Summary							
GIFA (m <sup>2</sup> )	Gross Cost per m <sup>2</sup>		Nett Cost per m <sup>2</sup>		Cost Per Pupil Place		Sample Size
	Average	20th Percentile	Average	20th Percentile	Average	20th Percentile	
		80th Percentile		80th Percentile		80th Percentile	
0 - 2,500	£2,266	£1,815 £2,619	£1,702	£1,370 £1,959	£12,961	£8,973 £18,547	6
2,500 - 5,000	£2,251	£2,144 £2,366	£1,725	£1,616 £1,814	£16,785	£14,898 £18,664	3
5,000 - 7,500	£1,858	£1,650 £2,087	£1,369	£1,210 £1,408	£15,199	£12,480 £17,961	12
7,500 - 10,000	£1,776	£1,658 £1,879	£1,332	£1,249 £1,404	£12,625	£10,807 £13,510	12
10,000 - 12,500	£1,826	£1,734 £1,863	£1,347	£1,227 £1,392	£14,583	£12,192 £17,989	7
12,500 - 15,000	Insufficient Data					0	
15,000 - 17,500	Insufficient Data					0	
<b>Whole Sample</b> All GIFA Bands	<b>£1,918</b>	<b>£1,707</b> <b>£2,154</b>	<b>£1,431</b>	<b>£1,248</b> <b>£1,612</b>	<b>£14,102</b>	<b>£11,656</b> <b>£17,865</b>	<b>40</b>

**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 November 2015.

**Inflation**

All costs have been updated to the latest firm Building Cost Information Service (BCIS) ALL-IN Tender Price of Index (TPI) of 1<sup>st</sup> Quarter 2015 of 266. Index taken at November 2015. 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 29.

We have obtained a small dataset for Refurbishment secondary school projects, therefore the data displayed here is for information purposes only and should not be used for any other purpose.

Figure 8   Refurbishment Average Cost Summary							
GIFA (m <sup>2</sup> )	Gross Cost per m <sup>2</sup>		Nett Cost per m <sup>2</sup>		Cost Per Pupil Place		Sample Size
	Average	20th Percentile	Average	20th Percentile	Average	20th Percentile	
		80th Percentile		80th Percentile		80th Percentile	
<b>Whole Sample</b> All GIFA Bands	<b>£1,219</b>	<b>£1,173</b>	Not Benchmarked		<b>£12,144</b>	<b>£11,078</b>	<b>4</b>
		<b>£1,267</b>				<b>£13,245</b>	

## Part Four SEN Schools



1 | Kingsmill SEN School, East Riding of Yorkshire Council

2 | Glebe SEN School, London Borough of Bromley

The SEN school sample consists of 16 projects which are split into three categories as shown in the pie chart (right). This sample features projects from 2011 - 2015 with a total combined capital value of £101 million, comprising:

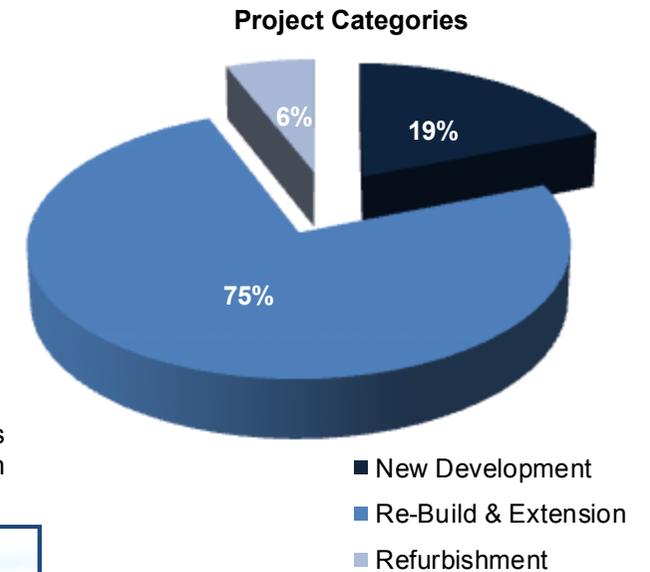
- ◆ 3 New Development projects.
- ◆ 12 Re-Build & Extension projects.
- ◆ 1 Refurbishment project.

While significant demand for primary 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, Re-Build & Extension projects.

Most 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 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. Due to the sample sizes obtained, we have only focused on the Re-Build & Extension category.

For information purposes only, we have included the average costs of the New Development projects on page 26.

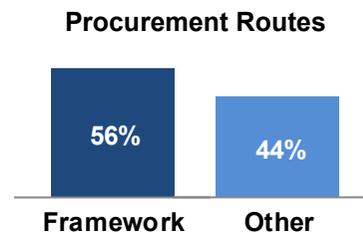


**£101 million**  
capital value of SEN school projects

**1,300**  
new SEN places created



1 | Yewstock Special School, Dorset County Council  
2 | North View Special School, Sunderland City Council



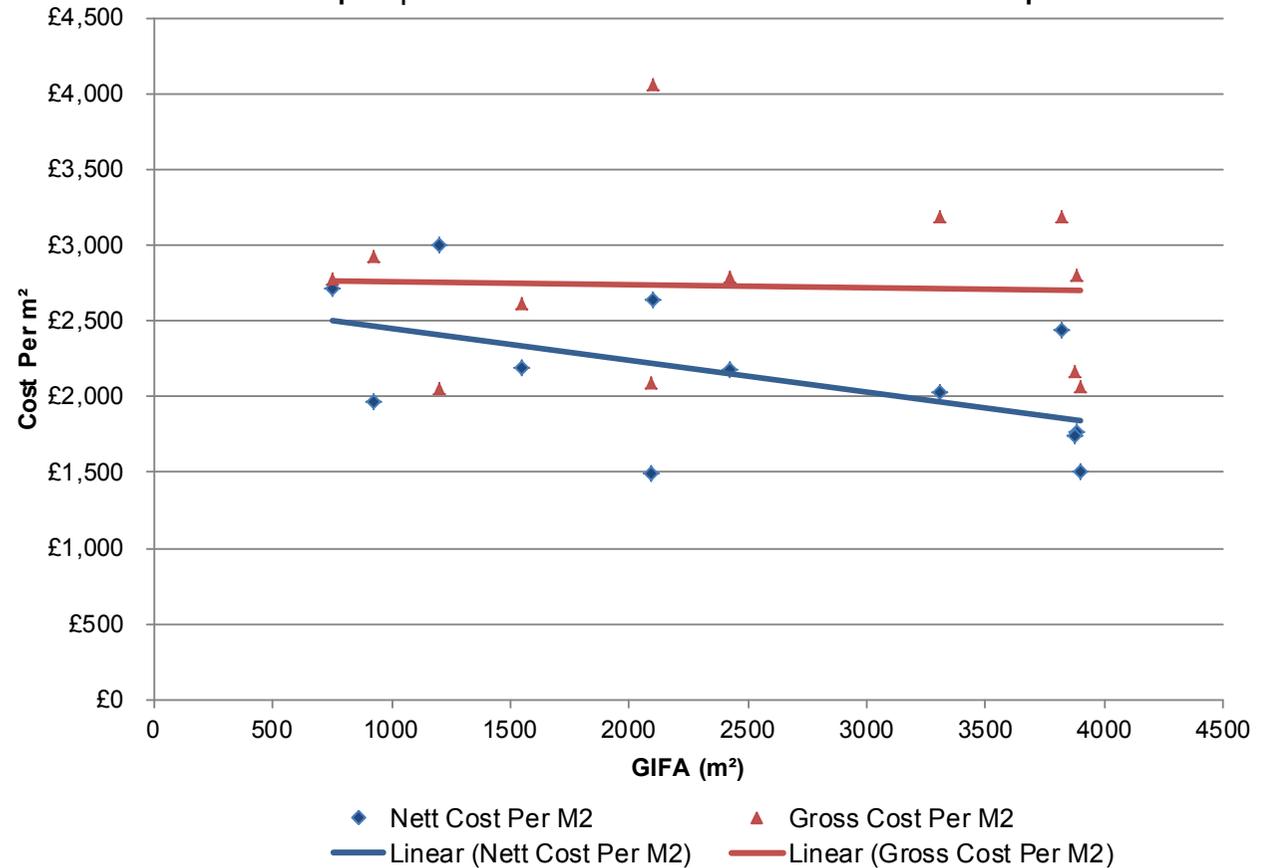
**16** SEN school projects across England

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 which account for 10% of the works on average where this occurs.

In total, 12 Re-Build & Extension projects were submitted to the study, Graph 9 (right) displays the gross and nett costs per m<sup>2</sup> for these projects. A detailed breakdown is shown on page 25.

Due to the nature of these projects a significant investment in fixed furniture and fittings (FF&E) is evidenced throughout the sample. However, the sample is small and therefore it is not possible to draw any firm conclusions.

Graph 9 | Re-Build & Extension Gross Costs & Nett Costs per m<sup>2</sup>



**2,616m<sup>2</sup>**  
average floor area

**25m<sup>2</sup>**  
average GIFA per pupil place

**59wks**  
average contract period

**£2,727**  
average gross cost

**£2,140**  
average nett cost

**£65,820**  
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 November 2015.

**Inflation**

All costs have been updated to the latest firm Building Cost Information Service (BCIS) ALL-IN Tender Price of Index (TPI) of 1<sup>st</sup> Quarter 2015 of 266. Index taken at November 2015. 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 29.

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

Figure 9   Re-Build & Extension Average Cost Summary							
GIFA (m <sup>2</sup> )	Gross Cost per m <sup>2</sup>		Nett Cost per m <sup>2</sup>		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
0 - 750	£2,772	Insufficient Data	£2,714	Insufficient Data	£69,444	Insufficient Data	1
750 - 1,500	£2,494	£2,233 £2,756	£2,483	£2,173 £2,793	£51,634	£43,884 £59,384	2
1,500 - 2,250	£2,924	£2,302 £3,483	£2,108	£1,772 £2,459	£61,766	£47,749 £75,629	3
2,250 - 3,000	£2,786	Insufficient Data	£2,185	Insufficient Data	£56,902	Insufficient Data	1
3,000 - 3,750	£3,188	Insufficient Data	£2,034	Insufficient Data	£70,328	Insufficient Data	1
Over 3,750	£2,555	£2,123 £2,959	£1,866	£1,649 £2,038	£76,151	£68,759 £81,803	4
<b>Whole Sample</b> All GIFA Bands	<b>£2,727</b>	<b>£2,110</b> <b>£3,136</b>	<b>£2,140</b>	<b>£1,747</b> <b>£2,602</b>	<b>£65,820</b>	<b>£57,721</b> <b>£73,024</b>	<b>12</b>

#### 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 November 2015.

##### Inflation

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Further definitions of key terms and footnotes outlining how the data has been treated can be found on page 29.

We have obtained a small dataset for New Development SEN school projects, therefore the data displayed here is for information purposes only and should not be used for any other purpose.

Figure 10   New Development Average Cost Summary							
GIFA (m <sup>2</sup> )	Gross Cost per m <sup>2</sup>		Nett Cost per m <sup>2</sup>		Cost Per Pupil Place		Sample Size
	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	Average	20th Percentile 80th Percentile	
<b>Whole Sample</b> All GIFA Bands	<b>£3,503</b>	<b>£3,411</b> <b>£3,592</b>	<b>£2,273</b>	<b>£2,226</b> <b>£2,327</b>	<b>£78,817</b>	<b>£66,278</b> <b>£92,495</b>	<b>3</b>

#### 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 November 2015.

##### Inflation

All costs have been updated to the latest firm Building Cost Information Service (BCIS) ALL-IN Tender Price of Index (TPI) of 1<sup>st</sup> Quarter 2015 of 266. Index taken at November 2015. 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 29.

## Part Five Further Information



1 | Dalton Listerdale Primary, Rotherham Metropolitan Borough Council

2 | Whitmore Park Primary, Coventry City Council

We are keen to receive projects for our next publication planned for January 2017, and welcome project submissions from any Local Authority in the United Kingdom.

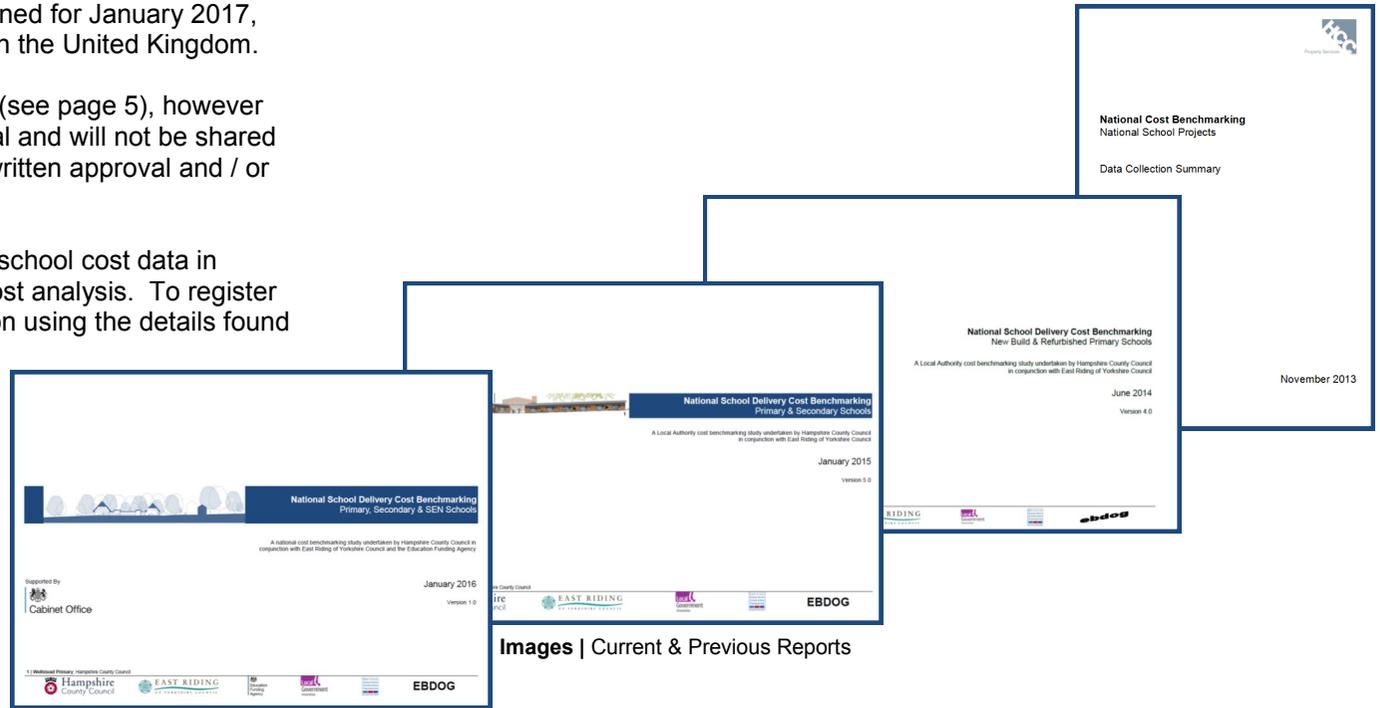
Participating Authorities will be listed in the published report (see page 5), however any data supplied will be treated as commercially confidential and will not be shared with third parties without the submitting Authority providing written approval and / or written acknowledgement.

We are keen to obtain further Primary, Secondary and SEN school cost data in particular. All submissions must use our standard form of cost analysis. To register your interest for the next study please contact Matt Robertson using the details found at the end of this publication.

Limited data is also held on the following types of project and we welcome any further submissions to allow analysis to be carried out for these categories:

- ◆ Free schools.
- ◆ Academies.

For further information and to participate, please use the contact details found at the end of this report.



Images | Current & Previous Reports

The table below displays a summary of previous publications, which can be obtained by contacting Matt Robertson using the details found at the end of this report.

Report	Sample Size	Sample Type
April 2013*	45	Primary & Secondary
November 2013	39	Primary
June 2014	70	Primary
January 2015	122	Primary & Secondary
February 2016	343	Primary, Secondary & SEN
January 2017*	-	-

\* Report not currently available.

**Outturn Costs**

We have started to obtain outturn costs for projects, to allow these to be compared with contract let costs on an individual basis.

This analysis allows the true cost of projects to be understood and for any unforeseen increases to be accounted for.

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 £/m<sup>2</sup> of the Gross Internal Floor Area (GIFA). This is related to throughout and is the total square metreage 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 m<sup>2</sup>**

Represents the tendered cost per m<sup>2</sup> of GIFA, exclusive of fees, abnormal, 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 m<sup>2</sup>**

Represents the tendered Total Project Cost per m<sup>2</sup> 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.

#### **20<sup>th</sup> and 80<sup>th</sup> Percentiles**

The 20<sup>th</sup> percentile is the value below which 20% of the observations may be found, while the 80<sup>th</sup> 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 m<sup>2</sup> of GIFA. This value has been derived using the worked example for calculating substructure abnormal 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 PSBP1 projects submitted by the EFA as agreed with the EFA.

#### **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 November 2015.

#### **Inflation**

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#### **Please Note**

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

Photographs contained throughout this publication are used with the permission of the associated Local Authority.

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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**Mike Raven** | Study Co-Ordinating Officer  
YORbuild Framework Manager (East)  
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Principal Quantity Surveyor  
East Riding of Yorkshire Council  
pete.skinner@eastriding.gov.uk



- 1 | Tweseldown Primary, Hampshire County Council
- 2 | Alameda Middle School, Central Bedfordshire Council
- 3 | Cayley Primary, London Borough of Tower Hamlets
- 4 | Ermine Street Primary, Cambridgeshire County Council

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