

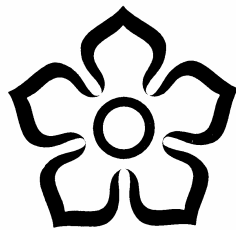
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**A Leicester City Council Scrutiny Review**

**A review by the Children and Young People's & Environment and  
Sustainability Joint Task Group**

**Sustainability within the Building Schools for the Future Programme**

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**Leicester**  
City Council

## Foreword

Building Schools for the Future (BSF) is the biggest ever school buildings investment programme. The aim is to rebuild or renew nearly every secondary school in England. As such it is an integral aspect of Leicester's 25-year strategy 'One Leicester' contributing as it will to the three main themes Confident People, New Prosperity, A Beautiful Place. BSF will also directly influence the key priorities within 'One Leicester' of Reducing our Carbon Footprint and Investing in our Children.

It was with this in mind that the Overview and Scrutiny Board endorsed the proposal to review an area of such strategic importance. The timing of the review allowed us to ensure that we could feed directly into the work already being undertaken by the department for future phases of BSF. This has meant that we have been able to openly influence policy formulation at the very outset of the planning process.

The Joint Task Group attracted a wealth of experience both from within and from outside the Council, to whom we owe a great deal of gratitude for their contributions. In particular we would wish to thank:

Jim Bowditch	Capital Programme Manager, CSYP
Tony Dowsett	Senior Research Fellow, Institute of Energy and Sustainable Development, De Montfort University
Professor Paul Fleming	Assistant Director, Institute of Energy and Sustainable Development, De Montfort University,
Julie Foster	Strategic Lead, Participation, CSYP
John Garratt	Head of Planning and Property, CSYP
Mark Jeffcote	Senior Environmental Consultant, R&C
Professor Jeff Knight	Acting Director, Institute of Energy and Sustainable Development, De Montfort University
Ken Judd	Head teacher, Buswells Lodge Primary School
Charlotte Lewis	Education Team Manager, Groundwork Leicester
David Lockhart	BSF Team, CSYP
Ian Lord	Principal Architect, Resources Department
Nick Morris	Home Energy Office, Adults and Housing
David Poxon	Road Safety Education and School Travel Team Leader
Helen Ryan	Service Director, Transferring Leicester Environment
Neville Stork	Head of Environment and Sustainability
Bill Thornton	Architect, Resources Department
Stephen Trebble	General Manager, Leicester Miller Education

### Task Group Review Leader

Councillor Gary Hunt



### Members

Councillors John Blackmore, Roger Blackmore, Mick Cooke, Stephen Corrall, Kim Blower, Wayne Naylor, Paul Newcombe, Sarah Russell, Ramila Shah.

## Executive Summary

*“Sustainable development will not just be a subject in the classroom: it will be in its bricks and mortar and the way the school uses and even generates its own power. Our students won’t just be told about sustainable development, they will see and work within it: a living, learning place in which to explore what a sustainable lifestyle means.”*

Tony Blair, September 2004.

The consensus from members of this Joint Task Group was that future phases of Building Schools for the Future (BSF) in Leicester need to build significantly on phase one and should seek to maximise the shift towards sustainability both culturally, through the engagement of children and local communities in the design, build and management of new schools, and practically, through the tendering process and through focusing on exploiting the various funding available for pursuing ambitious and innovative construction techniques and designs.

This review has served two purposes. In the first instance it has sought to influence and affirm the wording used by the Department in its Strategy for Change, the document that is being submitted to central government as a preliminary business case for phase 2. Secondly it has led to specific recommendations being made that the Joint Task Group would wish to see investigated as a matter of priority as the Department moves forward beyond the Strategy for Change towards the design and building of phase 2.

The Joint Task Group is supportive of the following key excerpts from the Part One of the Strategy for Change. Nevertheless we consider these to be only a starting point for our ambitions:

*“We will further develop the engagement programme that we commenced in phase 1 of BSF. The engagement will be integral to the design development process and starts with some learning about sustainability, climate change and building design, including a site visit to a sustainable building to prepare students and teachers. They will then attend workshops as part of the design process and will be able to challenge the designers on proposed solutions.”*

*“Once operational, schools will be curriculum tools for teaching and learning. All schools will have building services metered and monitored remotely. Data will be accessible via the web. Schools will also have high visibility metering in a prominent position in school.”*

*“We aspire to make our schools carbon neutral [or zero carbon]”*

We conclude, however that the Council’s BSF team, and its partners, have a great deal of work to do to win the hearts and minds of decision makers, and of the schools themselves. In addition, through its work, the Joint Task Group has agreed the following **recommendations** to put to the Department:

### Education and Curriculum:

- a. Develop a more integrated approach to involve pupils and whole school communities throughout the process i.e. in the design phase through to the operational to surmount the missed opportunities highlighted in

## Appendix A.

- b. Devise a way to ensure savings and efficiencies are made the most of during operation – probably through having eco-champions within staff and pupil bodies that could be used as community champions to showcase good practice amongst their peers.
- c. Encourage schools to open up their buildings for the general public, with particular emphasis on former pupils and their families, shortly after opening in order to inspire and raise awareness. Schools should also be asked to look to ways of maximise shared use of facilities with e.g. art and drama groups, sports clubs and community activities.
- d. Learning opportunities should be closely linked to the building and site through the development of high visibility educational displays e.g. visible insulation or interactive renewable displays – to allow contextualised learning.
- e. Appoint a curriculum advisor to ensure that sustainability and improvements made through the new schools are enshrined within the curriculum and the impact maximised.
- f. Establish pupil (and staff) working groups/workshops from each school during the design phase of the projects. They know best as to what makes them feel innovative and excited. We should learn from projects such as Castle Rock School, which have worked to create a sense of pride amongst its pupil body, and which would expect to see a noticeable rise in educational attainment as a result.
- g. Support the De Montfort University (DMU) - led project to ‘engage pupils, teachers and governors in the science, engineering and technology of carbon neutral school’.
- h. To ensure the lessons of the DMU project are enshrined long term. For example to make sure the processes that arise from the research project are embedded into the curriculum.

### **Building and Infrastructure:**

- i. That phase 2 and beyond should aim beyond BREEAM Excellent, which we consider to be largely obsolete, and move towards being zero carbon **as quickly as possible**, through the adoption of the BREEAM 2008 standard and the incorporation of a sustainable construction standard for all BSF and other Council new build and BREEAM Very Good for major refurbishments.
- j. That there is corporate consistency in terminology around sustainability, for example ‘carbon neutral’ seems to be used on occasion as a proxy for ‘zero carbon’. We also request clarity around exactly what our *corporate* aims and ambitions are in terms of dates for Council buildings being zero carbon.
- k. That the Department agree to the overriding objective to make phase 2 (and later) schools as sustainable as possible within financial limitations, to promote innovation and ambition, and to make Leicester a beacon/leader for sustainable school developments.

- l. That the Department assesses the implications of sustainability being so low in the prioritisation exercise to determine school priority lists.
- m. That, although the construction of zero carbon buildings would increase the up-front capital costs, the Department factors in the lower long term operating costs and not be afraid to set financial precedent within their facilities management contracts.
- n. That the Department develop a “spend to save matrix” at the outset for each new building based on a zero carbon aspiration. The matrix would identify the break even point over time between the higher front end costs required to build zero carbon schools and the lower revenue costs.
- o. That consideration be given to the idea of ensuring that at least some of the benefits resulting from lower running costs derived from higher front end costs be diverted back to the Department in order to act as an incentive for the process.
- p. That the results from the study currently been carried out by Faithful and Gould to establish the options and costs of zero carbon schools is considered very carefully in light of the recommendations made above. It is understood that the Department is expecting the Faithful and Gould report to be available in the next few weeks.
- q. That, although recognising the lack of case studies available for such an ambition as zero carbon, the Department should work closely with other leading edge Local Authorities to share information and best practice.
- r. That the new builds in phase 2 and beyond encompass leading edge technology such as photovoltaic cells, ground source heat pumps, green roofs, wind turbines and solar hot water systems and special consideration be given to how new schools can maximise their sustainable elements e.g. water, food preparation and waste. The newly completed Braunstone Skills Workshop designed by the Council’s architects incorporates cutting edge design in its use of a 110 mtr deep ground source heating system and is an example of what can be achieved.
- s. That consideration be given to incorporating energy consumption and emissions key performance indicators, perhaps linked to BREEAM In Use Standards, into the facilities management contract arrangements
- t. That a designated person be appointed permanently within the BSF team to source and secure additional third party funding for phase 2 and beyond to allow us to really stretch our ambitions.
- u. That there be much closer integration of school transport plans within the BSF planning phases and that consideration be given as to whether the Regeneration and Transport Task Group should carry out a review of this matter.
- v. That further work be undertaken into the environmental issues surrounding the use of biomass boilers and that the feasibility study into the biomass boilers at Soar Valley Community College and Judge Meadow be reported on as soon as possible. It is suggested the Task Group would reconvene to consider the matter.

- w. That the Council pursue opportunities, especially in relation to Leicester waterways, for innovative ways of generating heat and electricity.

### **Introduction – Strategy for Change**

1. The Children and Young People, and the Environment and Sustainability, Scrutiny Task Groups have undertaken a joint review of the arrangements relating to sustainability within the Building Schools for the Future programme (BSF) in Leicester. The topic was chosen specifically to assist Leicester City Council's Children and Young People's Services in preparing their business case for future phases of BSF for submission to Ministers. That document, entitled 'Strategy for Change', is a formal component of the BSF approvals process and is based on guidance issued by Partnerships for Schools to ensure that proposals are sufficiently radical and robust<sup>1</sup>. The main body of the Strategy for Change is scheduled for submission at the start of 2009. The elements of the document pertinent to this review were:

#### **(Paragraph 48)**

2. How will the local authority harness the opportunity of BSF to drive down carbon emissions from schools and promote sustainable behaviours among pupils and their communities?

Local authorities should consider the following points in their response to this question:

- How carbon emissions arising from schools' direct use of heat, power and transport will be reduced;
- How BSF investment will help minimise the effects of emerging extreme weather conditions, such as flooding;
- How BSF will enable schools to showcase good sustainability practices in energy, water, waste, travel, food and procurement to their pupils, staff and communities;
- How BSF will improve the teaching of sustainable development through the provision of innovative learning environments, inside and outdoors;
- How BSF will catalyse further environmental improvement and regeneration efforts in the local area to improve local environmental quality and quality of life.

### **Methodology**

3. This was the first time that two Task Groups had worked formally together on a scrutiny topic at Leicester since the reformation of the scrutiny function in 2007. This allowed the review to be wider in scope and enabled it to cover both the educational and infrastructural elements of sustainability within the BSF programme.
4. In order to answer the questions posed as part of the Strategy for Change it was first necessary to undertake a succinct look at the sustainability elements

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<sup>1</sup> Strategy for Change - Guidance for Local Authorities in BSF Wave, 5 September 2007, pp 3

of phase 1 BSF in Leicester<sup>2</sup>. In particular the Joint Task Group wished to investigate the extent to which the design of phase 1 BSF:

- Sought to minimise carbon emissions and to what degree that was successful;
  - Engaged pupils and the wider community;
  - Addressed the extent to which the new schools might be used as an on-going teaching resource in sustainability issues.
5. The Joint Task Group received a written submission from the department (Annex A). At the second meeting of the Task Group it was confirmed that this paper and the comments minuted at that meeting (Annex B) would, for the most part, conclude our study into phase 1.
6. At that second meeting it was also confirmed that the Group would split into two, in order to expedite the review, before re-assembling as a full Group to agree recommendations and to complete this report. The two groups would tackle the following areas:
- a. The **education and curriculum** side. For example, how:
    - i. BSF will enable schools to showcase good sustainability practices in energy, water, waste, travel, food and procurement to their pupils, staff and communities;
    - ii. BSF will improve the teaching of sustainable development through the provision of innovative learning environments, inside and outdoors;
  - b. The **building and infrastructure** side. For example, how:
    - iii. Carbon emissions arising from schools' direct use of heat, power and transport will be reduced;
    - iv. BSF investment will help minimise the effects of emerging extreme weather conditions, such as flooding;
7. This report is, therefore, split into the two main headings above.
8. As part of the joint review, Task Group Members also conducted a site visit to Castle Rock School in Coalville. We would like to thank the pupils and staff of the school who were both welcoming and informative and who served as a timely reminder of what can be achieved through the careful design and the redevelopment of schools to exacting standards.

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<sup>2</sup> Financial close had been reached for Phase 1 BSF in December 2007. This was to cover: Beaumont Leys School, Fulhurst Community College, Judgemeanow Community College and Soar Valley College

## **EDUCATION & CURRICULUM**

### **Background**

9. The Government, in announcing and supporting the BSF programme, have paid special attention to the ways in which the rebuilding and renovation of our school buildings serve to enhance pupils' knowledge and understanding of sustainability issues. This builds on existing work within 'Education for Sustainable Development (ESD)' which is a holistic approach for a school's management and the curriculum.
10. This holistic approach of ESD is designed to enable "people to develop the knowledge, values and skills to participate in decisions about the way we do things, individually and collectively, locally and globally, that will improve the quality of life now without damaging the planet of the future"<sup>3</sup>.
11. In Leicester, the main area of ESD has been through the EMAS in Schools programme (Eco Management Audit Scheme). EMAS is the corporate environmental management system, which is run by Leicester City Council and the schools aspect is delivered in partnership with Groundwork Leicester and Leicestershire (GWLL). It is through EMAS that the four schools in phase 1 of BSF have been consulted and it is the intention that EMAS will provide the foundation for further efforts stemming from future phases of BSF to make the most of sustainability within each school.

### **Review of BSF Phase 1**

12. The EMAS programme has worked alongside the four schools in phase 1 of BSF. This has seen some engagement activities arranged for pupils, teachers and governors to understand the science, engineering and mathematics of the design and operation of low-energy school buildings. This included pupils and teachers visiting a low energy building (the Queens building at De Montfort University); pupils and teachers participating in workshops with experts on building design; and pupils, teachers and governors debating with "policy makers" and the potential designers of their new school buildings.
13. In terms of the enduring learning opportunities and the integration of sustainability into school culture all schools within the BSF phase 1 will have service metering that will be linked to a remote energy management system and data will be collected and made available via an IT solution for use in the schools. The schools will also have prominent high-visibility metering in the school foyer.
14. At Soar Valley there will be a virtual Energy Centre that links into the metering for the biomass boilers, the wind turbine and a variety of other small educational micro generation examples such as photovoltaic cells.
15. Whilst there has been some inflexibility in the way children and others have

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<sup>3</sup> UK Panel for Education for Sustainable Development, 1998.



been involved to date in the design stages for each school<sup>4</sup>, the further engagement of pupils during the construction period is being developed through partnership working with the Local Education Partnership, Millers Construction, CYPs and Groundwork. It is envisaged that this will be a continuation of the work already being carried out through the EMAS programme and further development of the school curriculum in relation to climate change and renewable technologies being installed on BSF Phase 1.

### Visit to Castle Rock School

16. The Joint Task Group visited Castle Rock (Middle) School in Coalville. The details of this visit are reported in more detail under the Infrastructure side. The school incorporates a number of environmentally friendly elements such as the harvesting of rainwater for later use in flushing of toilets, and energy-efficient construction and maintenance techniques.



*Councillors Hunt, Blackmore and Shah with Council Officers and colleagues from De Montfort University outside Castle Rock school*

17. It was felt important by the Education side of the review to try and establish whether having more sustainable and exciting surroundings for learning could improve educational attainment levels – i.e. the longer term success. The message we got from Castle Rock was that it was too early to tell and that although educational attainment was believed to be improving (as former pupils took GCSEs at their next school) it was not possible to attribute this to the redevelopment of Castle Rock and still harder to draw correlations to

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<sup>4</sup> This has mainly been because of the nature of the tightly defined tendering process for phase one.

sustainability. The staff at Castle Rock were, though, able to confirm that school attendance had improved dramatically and exclusions (both permanent and temporary) were now almost zero – and subsequently much better than the level experienced in their old accommodation.

18. Pupils were keen to confirm that the environment was ‘fun’ which they felt led to better and more concentrated learning. They also confirmed that bullying was virtually non-existent and that the modern relaxed and calm atmosphere made them feel safe. They also felt that the recycling at their school had led them to be more aware of recycling at home and that there was a real pride amongst the pupils and hence no issues in relation to vandalism and graffiti. This pride was exemplified by a story we were told whereby a pupil turned up one morning with extremely muddy shoes and his peers prevented him from coming into the building until the offending items had been removed. He subsequently spent the day walking round school barefoot. Another positive feature to emerge from the school was the close working relationship between the School Council and the local Community Support Officers.
19. On the curriculum side it was easier to see the subject of sustainability being integrated into the learning environment. Intelligent metering of the use of rainwater gathered at the site and the use of electricity that had been gained from the photovoltaic cells had brought energy efficiency and sustainability to the attention of all pupils. Teachers were also able to recount examples where pupils had sought answers as to why certain materials had been included in the building which increased their knowledge and understanding of recycling and sustainable resources.
20. Moreover pupils had been actively engaged in on-site flood alleviation schemes through their geography lessons because of the unique location on the side of a hill.
21. We also learned that pupils and staff had been actively engaged in the design phase of the rebuild and this had led to minimal teething problems once they had moved into the building. Also, critically, the school had held an open day soon after it was opened to which 1000 people from the local community came in to sample the building. Such an event clearly has the ability to raise awareness of sustainable techniques and methods far wider than the pupil and staff base.

## **Conclusion and Recommendations**

22. We have started from the premise that the Council should go as far as possible in changing culture and perceptions within schools and their pupil bodies towards the importance of sustainability issues. This is particularly prescient given that in a list of twenty priorities for new and refurbished schools in 2004, staff and pupils listed sustainability as 19<sup>th</sup> most important – despite sustainability being the second priority within the education section of the Corporate Plan at the same time. Albeit time has brought sustainability more to the forefront for young people.

23. For ease we have broken our recommendations in two to reflect the questions that were outlined in the guidance for completing the Strategy for Change.

24. ***What more could future phases of BSF do to enable schools to showcase good sustainability practices in energy, water, waste, travel, food and procurement to their pupils, staff and communities?***

- Develop a more integrated approach to involve pupils and whole school communities throughout the process i.e. in the design phase through to the operational to surmount the missed opportunities highlighted in Appendix A.
- Devise a way to ensure savings and efficiencies are made the most of during operation – probably through having eco-champions within staff and pupil bodies who could be used as community champions to showcase good practice amongst their peers.
- Encourage schools to open up their buildings for the general public, with particular emphasis on former pupils and their families, shortly after opening in order to inspire and raise awareness. Schools should also be asked to look to ways of maximise shared use of facilities with e.g. art and drama groups, sports clubs and community activities.

25. ***What more could future phases of BSF do to improve the teaching of sustainable development through the provision of innovative learning environments, inside and outdoors?***

- Learning opportunities should be closely linked to the building and site through the development of high visibility educational displays e.g. visible insulation or interactive renewable displays – to allow contextualised learning.
- Appoint a curriculum advisor to ensure that sustainability and improvements made through the new schools are enshrined within the curriculum and the impact maximised.
- Establish pupil (and staff) working groups/workshops from each school during the design phase of the projects. They know best as to what makes them feel innovative and excited. We can learn from projects such as Castle Rock, which have worked to create a sense of pride amongst its pupil body, and which would expect to see a noticeable rise in educational attainment as a result.

### **Developments since the Joint Task Group Review commenced**

26. Since the Joint Task Group came together there has been an important development by way of a research grant gained by De Montfort University, which was supported by the Department. The Engineering and Physical Sciences Research Council is supporting a project entitled “Engaging pupils, teachers and governors in the science, engineering and technology of ‘carbon neutral’ schools<sup>5</sup>.”

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<sup>5</sup> The Principal Investigator for this project will be Paul Fleming of DMU who was a member of this Joint Task Group.

27. The project will last around three years and will “enable pupils to engage with building designers and researchers on the science and engineering of their new school. It will also enable them to engage with the Leader of Leicester City Council and other decision makers about the pupils’ views on the design of these schools and hear their views.”
28. More specifically the project will “engage with young people, teachers and governors to increase their awareness and understanding of the actions that they can take to move towards a carbon neutral school” and will include “visits to sustainable buildings, role-play, and workshops with building energy experts and policy makers.”
29. The project will work with all secondary schools but will actively involve 480 school pupils and leaders, and will engage around 8000 indirectly and promises to monitor and evaluate the changes in attitude and behaviour towards science and engineering. The key measure of success is expected to be a 50% change in attitude to science and engineering as well as an increase in pupil attainment levels
30. The Joint Task Group enthusiastically endorses the scope of this project although we wish to see an enduring legacy come from it beyond the intended scope of three years. For that to happen, the main thrust of the project will need to be embedded into the school curriculum, probably through a geography lesson.
31. The Joint Task Group looks forward to a continuing partnership between the Council and De Montfort University to secure additional resources to better understand the design, operation and maintenance of sustainable schools.

## **INFRASTRUCTURE**

### **Background**

32. Leicester City Council’s new sustainable communities strategy<sup>6</sup> places a large emphasis on the environmental credentials of the city. We are aiming to uphold the title of Britain’s first Environment City. As such it is imperative that the City leads the way in how it plans, builds and constructs public buildings that push the boundaries for environmental sustainability, not least in the context of BSF.
33. The joint task group recognises the risks associated with developing cutting edge facilities and prototypes ahead of others and conversely the benefits that can accrue from waiting for others to develop new best practice. However we feel that Leicester’s BSF programme should strive for excellence from the outset and set the benchmark for others to follow.

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<sup>6</sup> [One Leicester - Britain's sustainable city](#), which was agreed at the Leicester Partnership on the 12th March 2008 and at Leicester City Council on the 27th March 2008.

34. During its review the Joint Task Group received detailed information from Council officers and external experts on current and future legislation around sustainable buildings, especially in relation to the public sector. In particular it was important for the Joint Task group to fully understand some of the definitions around planning standards and, most importantly, zero and positive carbon.
35. The Government has already established target dates for new domestic and non-domestic buildings (including new schools) to achieve 'carbon zero' by 2016 and 2018 for all other public sector buildings. The 'One Leicester' document goes beyond that and calls every new building to be carbon neutral by 2013<sup>7</sup>.
36. It was confirmed that there was currently no obvious definition of zero carbon for non-residential buildings but that a comparable definition would need to go beyond standard Building Regulations and include the use of all electronic equipment in offices (computers, servers and telephones). In addition it was agreed that the carbon footprint of a building goes beyond just the carbon dioxide emissions from the energy used directly by the building, for example the transport used by staff and pupils, water usage and treatment, waste treatment.
37. The fact that to date there had not yet been a zero carbon school built in the UK would make it expensive and time consuming to find the expertise to plan and design such a school.

### Phase 1

38. Leicester is one of the first areas in the country to deliver the Building Schools for the Future (BSF) programme.



39. Work has begun on four schools: Beaumont Leys School, Judgemeadow Community College, Soar Valley College and Fulhurst Community College.
40. The new schools will offer the latest in technology and learning environments to inspire pupils, teachers and the local community.
41. The Joint Task Group was informed of how sustainable the four schools within phase one were likely to be. In this context it was noted that 24% on-site

<sup>7</sup> We note the inconsistency in terminology around carbon 'neutral' and 'zero' carbon.

renewable energy would be achieved which went beyond the existing building regulation condition of 10%. This was felt by the Department to be a considerable success considering the competitive tendering process that had been gone through. The main focus of this was the installation of biomass boilers at Soar Valley and Judgemeadow schools. There were other features of the schools including energy efficient lighting; maximum use of natural ventilation, intelligent metering and CO2 emissions reduced further than current Building Regulation requirements (by 42%)

42. The Department gave the Joint Task Group an honest appraisal that, despite going beyond the legal and planning requirements for carbon emissions, phase 1 BSF schools did not push the boundaries for sustainability that might have been hoped for. This was for two very obvious reasons:
- a. The process for the design of the first four schools was governed by the strict rules of competition. This limited engagement with contractors and prevented the Council leading the contractor towards any particular solutions.
  - b. The nature of the contracts for PFI and facilities management was complex and followed the standard models prepared by Partnerships for Schools. It was difficult during the procurement process to introduce variations to these contracts which would have elongated the process to Financial Close.

### **Castle Rock High School**

43. The Task Group visited Castle Rock High School in Coalville as a means of witnessing first hand the sorts of strides forward that can be made to educational facilities and, subsequently, the pupils attainment levels. The visit was made on October 3<sup>rd</sup> and one other Councillor, Council staff and colleagues accompanied the two Task Group Chairs from De Montfort University. The school's Assistant Head Clive Kemp hosted the visit and the Task Group is especially grateful for his support.

The school is the first of four new High Schools to be constructed for Leicestershire County Council under a Strategic Alliance Partner Framework Agreement. The scheme comprises of a new 600 place secondary school within an existing primary school and college campus. Design features include an expressed timber frame glulam frame, prefabricated timber wall and roof panels, natural ventilation and a number of sustainable elements. There is extensive use of natural daylight via full height windows, 110 roof lights and a glass roof to the large atrium feature library area. The building has a fully integrated BMS controlled under floor heating and natural ventilation systems as well as rainwater harvesting and a small amount of photo voltaic cells. The construction was completed in 78 weeks and the whole project was completed 14 weeks early, allowing the school to open a term earlier than expected in April 2006. The early completion was due in part to the close working arrangements between the teaching staff, who were directly involved in the design, and Wilmott Dixon

Construction which ensured that problems were eliminated and modifications were dealt with speedily and effectively. The total cost of the project was within budget at £8.887 million excluding design and ICT and the cost per square metre (5,458m square) was £1,628.

A key feature of the school is the circulation areas, which are spacious and carpeted. The school also has some “intelligent metering”. However some regrets with the finished project were pointed out to the Task Group. The teaching staff were disappointed that the dining room was slightly too small and the layout of the ICT suite was not fully conducive to teaching. Other than these difficulties the teaching staff and students were extremely pleased with the final product. As well as providing a generally more conducive environment for learning and working the new building has allowed staff to deliver more personalised and appropriate support to disabled students.

Although the sustainability elements of the school building were leading edge when it was conceived around 5 years ago standards have now moved on. Indeed many of the environmental and sustainability features of Leicester’s phase 1 BSF schools are in ahead of those at Castle Rock. What has endured however is the way the design has allowed the issue of sustainability to be integrated more closely into student’s learning and the way in which the physical environment has provided a calmer and more relaxed teaching environment. These elements have been referred to in more detail in the previous sections 16 to 21.

## **Wind Turbines**

44. The issue of the installation of wind turbines for electricity generation within the BSF programme to date has been problematical. Wind turbines clearly play a vital role in reducing the overall dependence on carbon within both the individual schools and the city as a whole.

Clearly there are local community concerns regarding wind turbines, which must be addressed positively within BSF phase 2 and future phases. It should be noted that Wilmott Dixon, who have now won a contract to rebuild another school on the castle Rock site, encountered similar difficulties with their latest project which have now been resolved.

## **Biomass Boilers**

45. The climate change agenda is based on carbon reduction and the use of alternative fuels, of which woody biomass is an important element. There are issues surrounding the use of biomass boilers and a number of London Boroughs have commissioned a report on the issue. Biomass plants sited in Leicester will have a considerable impact on the Air Quality Control Area both in their direct output and in vehicle movements required to transport the biomass. Systems currently been installed in the city, one at a major sports venue and the other at a manufacturing /process organisation, will be monitored carefully by the Council.

## Building Management

46. In order to derive the maximum benefit from the sustainable elements of the new buildings it is essential that they are occupied, used and run in an appropriate manner. This was demonstrated by the highly technical building management system installed at Castle Rock. Obviously students, staff and governors have a key role to play in this and the De Montfort University research project referred to earlier should play a significant part in helping to achieve this. In addition it is essential that the facilities management company contracted to run the buildings make effective use of the sustainability elements within them.

## External Funding

47. There are considerable funding opportunities, which could enhance the BSF programme, many of which are linked to the sustainability agenda, but which have remained largely untapped because of staff capacity issues. It is understood the Department is in the process of bringing in an external resource on a temporary basis with a view to providing a permanent resource through an Appendix R review. The Joint Task Group notes that Rushy Mead phase 2 school has been short listed for £1million through the DCSF Zero Carbon Exemplar Funding.

## Recommendations

48. From looking at Phase 1 and documents such as One Leicester and the Strategy for Change, and through its further deliberations, the Joint Task Group is able to make the following recommendations:

- That phase 2 and beyond should aim beyond BREEAM Excellent, which we consider to be largely obsolete, and move towards being zero carbon **as quickly as possible**, through the adoption of the BREEAM 2008 standard and the incorporation of a sustainable construction standard for all BSF and other Council new build *and* BREEAM Very Good for major refurbishments.
- That there is corporate consistency in terminology around sustainability, for example 'carbon neutral' seems to be used on occasion as a proxy for 'zero carbon'. We also request clarity around exactly what our *corporate* aims and ambitions are in terms of dates for Council buildings being zero carbon.
- That the Department agree to the overriding objective to make phase 2 (and later) schools as sustainable as possible within financial limitations, to promote innovation and ambition, and to make Leicester a beacon/leader for sustainable school developments.
- That the Department assesses the implications of sustainability being so low in the prioritisation exercise to determine school priority lists.

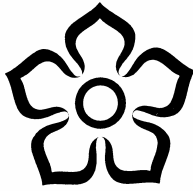


- That, although the construction of zero carbon buildings would increase the up-front capital costs, the Department factors in the lower long term operating costs and not be afraid to set financial precedent within their facilities management contracts.
- That the Department develop a “spend to save matrix” at the outset for each new building based on a zero carbon aspiration. The matrix would identify the break even point over time between the higher front end costs required to build zero carbon schools and the lower revenue costs.
- That consideration be given to the idea of ensuring that at least some of the benefits resulting from lower running costs derived from higher front end costs be diverted back to the Department in order to act as an incentive for the process.
- That the results from the study currently been carried out by Faithful and Gould to establish the options and costs of zero carbon schools is considered very carefully in light of the recommendations made above. It is understood that the Department is expecting the Faithful and Gould report to be available in the next few weeks.
- That, although recognising the lack of case studies available for such an ambition as zero carbon, the Department should work closely with other leading edge Local Authorities to share information and best practice.
- That the new builds in phase 2 and beyond encompass leading edge technology such as photovoltaic cells, ground source heat pumps, green roofs, wind turbines and solar hot water systems and special consideration be given to how new schools can maximise their sustainable elements e.g. water, food preparation and waste. The newly completed Braunstone Skills Workshop designed by the Council’s architects incorporates cutting edge design in its use of a 110 mtr deep ground source heating system and is an example of what can be achieved.
- That consideration be given to incorporating energy consumption and emissions key performance indicators, perhaps linked to BREEAM In Use Standards, into the facilities management contract arrangements
- That a designated person be appointed permanently within the BSF team to source and secure additional third party funding for phase 2 and beyond to allow us to really stretch our ambitions.
- That there be much closer integration of school transport plans within the BSF planning phases and that consideration be given as

to whether the Regeneration and Transport Task Group should carry out a review of this matter.

- That further work be undertaken into the environmental issues surrounding the use of biomass boilers and that the feasibility study into the biomass boilers at Soar Valley Community College and Judge Meadow be reported on as soon as possible. It is suggested the Task Group would reconvene to consider the matter.
- That the Council pursue opportunities, especially in relation to Leicester waterways, for innovative ways of generating heat and electricity.

## Annex A



Leicester  
City Council

**WARDS AFFECTED**  
**All Wards**

### **FORWARD TIMETABLE OF CONSULTATION AND MEETINGS:**

**BSF Sustainability Scrutiny Task Group**  
**2008**

**14<sup>th</sup> April**

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### **Initial Discussion Paper – Review of BSF Phase 1 and Future Opportunities**

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#### **Report of the Head of Planning and Property, Children and Young People's Services**

#### **1. Purpose of the Report**

1.1.1 The purpose of this report is to review the Departments approach on sustainability, answer questions raised by the task group on BSF Phase 1 Schools, review the sustainable features for this phase and the options on future phases. The report then outlines the areas for discussion and opportunities for the task group to input into policy development for the next phases of BSF. Although the focus of the task group will be BSF there will be some overlap on primary schools with the forthcoming Primary Capital Programme and possible Council wide strategies for sustainability.

#### **2. Summary**

##### **2.1 Review of BSF Phase 1 Schools**

2.1.1 There are four schools in Phase 1. Two of the schools are new build, under a Private Finance Initiative (PFI) form of contract, one school is a new build under a design and build (D&B) contract and one school is being refurbished also under a D&B contract. All four contracts require the Local Education Partnership (LEP) to comply with the current legislation at the time of the contracts being tendered. The main areas of legislation being the Building Regulations Part L2 and the Planning (BE16) condition at the time to achieve 10% on site renewable energy. Currently the LEP has achieved a higher percentage of 24% on site renewable energy, which is a good achievement considering this was secured in competitive tender. This figure has been achieved across the combined 4 schools energy usage. The main focus of the sustainable measures being biomass boilers at Soar Valley and Judgemeanow PFI schools.

2.1.2 The new PFI schools will also have:

- Materials sourced from the Building Research Establishment (BRE) Green Guide
- Energy efficient lighting
- Maximum use of natural ventilation
- 'Excellent Building Research Establishment Environmental Assessment Method (BREEAM) Rating
- Intelligent metering
- CO2 emissions reduced further than current Building Regulation requirements (by 42%)
- Water efficient sanitary ware and leakage detection systems

The new D&B School will also have:

- All the features noted above except boilers that will be energy efficient gas-fired boilers

The remodelled / refurbished will also have:

- All the features noted above except BREEAM Rating of 'Very Good'

Whilst it is important to note that current sustainable achievements could be improved upon, we should dispel the idea that Phase 1 sets a precedent or benchmark for later phases.

There are two very clear reasons for this; firstly, the process for the design of the first four schools was governed by the strict rules of competition, since the quality of the designs formed part of the tender evaluation. This limited engagement with contractors and prevented the Council leading the contractor towards any particular solutions.

Secondly, the nature of the contracts for PFI and facilities management (FM) was complex and followed the standard models prepared by Partnerships For Schools. It was difficult during the procurement process to introduce variations to these contracts, which would have elongated the process to Financial Close.

### 2.1.3 Additional funding from the Council and External Sources

Due to the complex nature of commercial negotiations, it has not been possible to supplement Miller Construction's proposals with further Council sponsored initiatives and as a result the provision of wind turbines have been carved out of the BSF contracts.

As part of the CYPS Capital Programme in 2007/08, £60,000 of match funding was earmarked for further sustainability initiatives in the Phase 1 BSF schools. Following feasibility studies, it was proposed to install a 50kw wind turbine on both Judgemeadow and Beaumont Leys school sites, connecting to the Football Foundation building and the City Learning Centre respectively (as these are not covered by PFI or FM contracts).

Bids were submitted to the Carbon Trust in respect of both schools. The bid for Beaumont Leys was not successful but the Council has secured £55,000

for a turbine at Judgemeanow. The remainder of the funding is to be raised from Judgemeanow School and prudential borrowing. However, on Beaumont Leys we are currently waiting to find out whether we have managed to secure third party funding from another source.

#### 2.1.4 Teaching and Learning

It is important that we take the opportunity of providing educational tools in order that children and teachers are engaged in sustainability on the BSF programme. This leads into curriculum opportunities, which enables schools and communities to learn about energy usage, technologies and climate change. All schools will therefore have service metering that will be linked to a remote energy management system and data will be collected and made available via an IT solution for use in the schools. Schools will also have prominent high – visibility metering in the school foyer. At Soar Valley there will be a virtual Energy Centre that links into the metering for the biomass boilers, the wind turbine and a variety of other small educational micro generation examples such as photovoltaic cells.

The engagement of pupils during the construction period is being developed through partnership working with the LEP, Millers Construction, CYPS and Groundworks UK. It is envisaged that this will be a continuation of the work being already carried out through the EMAS programme and further development of the school curriculum in relation to climate change and renewable technologies being installed on BSF Phase 1.

## 2.2 Questions BSF Phase 1- these are questions that have been raised by the Environmental and Sustainability Task Group

### 2.2.1 *Do we understand why sustainability came only 19<sup>th</sup> in order of priorities by the schools as outlined in the Outline Business Case? This goes against sustainability being the second priority within education section of the Corporate Plan of the time (2003-2006)?*

We are still investigating the response to this question.

### 2.2.2 *Have eco-champions / council members been appointed from within the staff and pupil bodies?*

The process for the design of the first four schools was governed by the strict rules of competition, since the quality of the designs formed part of the tender evaluation. This limited engagement with contractors and prevented the Council leading the contractor towards any particular solutions. For these reasons we have not to date nominated eco-champions from the Council or the Schools at this time.

### 2.2.3 *What workshops/forums were conducted during design phase and who did they involve?*

MF Associates arranged two workshops at each school, which involved such parties as School Councils, teachers, Groundworks UK and the two preferred bidders. Engagement activities were arranged for pupils, teachers and

governors to understand the science, engineering and mathematics of the design and operation of low-energy school buildings. This included visits to a low energy building (the Queens Building at De Montfort University); discussion with teachers and governors; and pupils, teachers and governors debating with “policy makers” and the potential designers of their new school buildings. This created a sustainable vision for each school. Unfortunately due to the limitations on funding the school’s visions have not been fully achieved. Further workshops with the schools and other parties are planned in the summer to compare the requirements within their original visions against the Phase 1 school designs. MF Associates also arranged interviews with the head teachers on Phase 1 schools.

**2.2.4 *What negotiations were held with Millers on maximising sustainability elements of the buildings? Alternatively how were sustainability elements handled within the tender documents?***

Several meetings at pre-contract stage were held with Miller Construction, where they clarified the environmental features being provided on the Phase 1 schools (please refer to paragraph 2.1.2). Currently the LEP has achieved a higher percentage on site renewable energy compared to the requirements of the tender documents (please refer to paragraph 2.1.1 and 3.1.1).

Millers were asked to assess the opportunities to improve the sustainability of Phase 1, but this was not possible due to the limitations of the funding and the other school priorities.

**2.2.5 *What other forms of funding were considered to try and draw into phase 1? If none, why not?***

Please refer to paragraph 2.1.3 concerning the wind turbine proposals for Phase 1.

CYPS commissioned feasibility studies in spring of 2007 to establish what sites were suited to renewable technologies.

All sites were suited to photovoltaic cells. Due to the long pay back periods which could be up to 120 years, it was considered that photovoltaic cells would not be financial viable even when taking into account a 50% grant from a third party source.

**2.2.6 *What negotiations with schools for putting up some of their own money given the anticipated reduced energy costs on an on-going basis?***

Please refer to Paragraph 2.1.3 and 2.2.5.

**2.2.7 *What plans for staff to be ‘energy managers’ – that is to make the most of the buildings environmental assets?***

No specific members of staff in the four schools are named as the energy managers. However all schools on Phase 1 will have intelligent monitoring of services and are in the EMAS programme, which will involve personnel from Groundworks, teachers, pupils, premises officers and the Council Energy

Office. Without knowing the full details of the energy manager's job role it is difficult to comment, but it is anticipated that the personnel mentioned above would cover the majority if not all of the duties.

### **2.2.8 *What discussion has there been re: curriculum advisors and spending an amount of learning time looking at specific sustainability elements of the new buildings?***

Please refer to 2.2.3. Please also note that this has been and will be continued to be delivered through the EMAS Programme by Groundworks please refer to 2.1.4.

## **2.3 Opportunities for later BSF Phases**

### **2.3.1 Technology**

It is anticipated that the range of technologies used in Phase 1 will be expanded.

Importantly, since the next phases will be developed in partnership rather than in a competitive environment, the Council will be able to decide where the balance between cost and benefit lies rather than relying on the contractor to decide which technologies are appropriate. Technologies that could be considered in the next phase include:

- Photovoltaic cells
- Ground source heat pumps
- Green roofs
- Sustainable urban drainage
- Rainwater harvesting
- Wind turbines
- Solar hot water systems

### **2.3.2 Capital Investment**

We need to re-examine the facilities management contracts to make it an attractive proposition for the facilities management contractor to invest capital funds and recoup the expenditure from reduced energy costs. We also need to maximise funding opportunities through prudential borrowing up to the maximum period of 25 years.

The Government now accept that in order to reduce whole life costs it is necessary to increase initial capital investment. DCSF has announced that some new build BSF schools will receive an additional capital allocation of £50/ sq.m to improve sustainability. Early indications are that three schools will receive this additional funding (amounting to about £500,000 per school) but this will depend on future decisions about phasing and whether schools are refurbished or rebuilt.

The continuation of the submission of bids for sustainable technologies referred to in 2.3.1 from third party sources needs to continue to maximise the funding available.

### 2.3.3 Engaging with young people and the school curriculum

The task group has a role to play in determining the policy and approach to making schools more sustainable. The terms of reference for the task group include an extract from the Partnerships for Schools Guidance on preparing a Strategy for Change and the specific questions that require a response as part of the strategy. Either by including students on the task group or by setting up a separate student reference group, it should be possible to give young people a greater say in determining the approach to sustainable schools.

Since the next phase of schools will be developed in partnership rather than in a competitive environment it should be possible to allow students much greater involvement in the design process, for example, through participation in design workshops.

Groundworks UK are environmental experts and specialise in this field of school engagement and providing information for the school curriculum on climate change through their work with schools on the EMAS programme. They could carry out this role on behalf of the CYPS on the future phases of BSF. Please also refer to the separate report on prepared by Groundworks UK for the task group, which details their proposals' titled 'Education for Sustainable Development'.

It should also be noted that MF Associates ran workshops on the Phase 1 schools and could continue this work on future Phases.

## 2.4 Areas for Discussions

2.4.1 Below are a number of options and points that the task groups need to discuss, consider and agree how they are progressed:

- a) The definition of a carbon neutral school. The DCSF have stated their definition to be 60% on site renewable technologies and the remainder being off set. Should the task group be considering 100% renewables? This target would be extremely difficult to achieve and may not be possible on all school sites. Should it also be assumed that we are only negating the energy used by a school over each year of its life cycle and we are excluding the carbon generated through transportation to school and procurement resources such as food? A further option is a stepped approach where we start at 60% and then progress higher in an agreed time frame may be linked to the BSF programme phases.
- b) We understand there are no current examples of a carbon neutral school and the Council does not have the expertise to establish the cost of creating a carbon neutral school. Officers have recently met Faithful and Gould a Construction Consultant who have acted as advisors for the DCSF on carbon reduction on schools. It is proposed that Faithful and Gould or a similar consultant could be commissioned to provide this information but the scope needs to be determined, suggestions for which are listed below:



- i) To carry out two studies of a new build school currently being constructed on Phase 1, (possibly Beaumont Leys Community School) to determine the capital cost and the technologies required to convert this school to carbon neutral. The first study would assess the cost with 60% renewable technologies (DCSF definition) and the second survey at 100% renewable technologies
  - ii) To complete the same studies on a refurbished school on Phase 1. We would suggest this would be Fullhurst Community College.
  - iii) To complete the same studies on a new build primary school.
- c) Due to the majority of carbon emissions being generated by the existing primary school building stock, a study could be carried out by Faithful and Gould on a number of different size and types of buildings, where minor, major or new future maintenance work is planned. This study could estimate the funding required to achieve the schools environmental targets on carbon reduction and provide information for the Primary Capital Strategy.
- d) Should this be rolled out across the remaining CYPS buildings and also other department's buildings to create an overall Council strategy for carbon reduction to meet the Council targets? This decision would probably fall outside of the remit of this task group.
- e) It should also be noted that the Council will incur taxation of around £12 per metric tonne of carbon per year starting in around 2010. It is unclear whether this is limited to energy use or will be wider reaching (such as people travelling to work, purchasing materials, food etc.) and it is also uncertain whether schools will be included at this stage. It is important that the Council should be in a position to know its actual emissions in order for the correct tax to be levied. Currently, the Energy Office can provide this information on energy usage only, through intelligent monitoring.
- f) How BREEAM should be used as part of the Council environmental targets?

2.4.2 Other environmental programmes are being carried out across the Council and by other organisations such as Groundworks UK. These current programmes and the future carbon reduction strategies and programmes by the Council should all be linked and co-ordinated. One suggestion is that an Environmental Project Board could be set up which includes Councillors and Senior Officers for each department to co-ordinate the Councils environmental strategies and programmes. Under this board an Environmental Working Party could be formed, co-ordinated by the existing Environmental Team. This team includes project managers from all department involved in sustainability to ensure awareness and cross fertilisation of strategies and programmes.

Some of the environmental projects, which are now being carried out are listed below:

- g) Within the CYPS Capital Programme 2007/08 £1m of funding was allocated to undertake educational and environmental capital projects to schools buildings. The programme is split into two sections, the first section relates to quick win schemes such as the replacement of light fittings and the second section relates to micro-generation renewable projects such as wind turbines and photovoltaic cells. Further funding is being secured to increase the size of the programme from Schools Devolved Capital, prudential borrowing and the Low Carbon Building Programme Phase 2 (LCBP 2). The LCBP is government funding, where Public Sector organisations can claim up to £1m of grants for various micro technologies. The grants on offer range from 30% to 50% of the capital cost of each project.
- h) A feasibility study is currently underway to assess the possibility of converting 4500 tonnes of timber waste material from City Landscapes to fuel the biomass boilers at Soar Valley and Judgemeanow. There could be government grants available to fund the feasibility. Further funding from DEFRA may be available for biomass boilers.
- i) A proposal from Groundworks UK is currently being considered by the CYPS Directorate for an ambitious project to install wind turbines on approximately twenty schools sites to generate a total of two megawatts of green energy. The funding for the scheme could be raised from a community share issue and matched with a bank loan, which will hopefully raise the capital to install all the wind turbines. The bank loan and the shareholders would be re-paid through the school purchasing the energy and/or from selling the energy back to the grid.
- j) The Adult and Housing Department's feasibility study into large-scale wind turbines in Leicester, please refer to paper presented to Cabinet Briefing on 15 October 2007.
- k) The Regeneration and Culture Department's programme to plant 10,000 trees in the City.
- l) The visionary idea from Alan Gledhill (Project Manager Leicester Better Buildings Project) of the Council being facilitator for making schools Energy Centres, which generate energy from renewable sources for use by the school and the local community.

### **3.0 Conclusion**

- 3.1.1 The schools that are being constructed in Phase 1 of the BSF programme are significantly exceeding the Building Regulations requirements and Planning conditions in relation to carbon emissions that were set at the time that the first phase was tendered in 2005. Further improvements in reducing carbon emissions will be made by the installation of wind turbines at Judgemeanow School and Beaumont Leys School (subject to planning and confirmation of funding on Beaumont Leys). The preferred bidder was also pushed to provide

further sustainable features but the limitations of funding and the other priorities did not make this possible.

At the time that the projects were tendered the Council did not have in place a formal policy on sustainable buildings, which is now in place through the Climate Change Action Plan (March 2007). The aspirations of the Council on climate change have move significantly forward compared to the Council position when the BSF project was tendered in 2005.

3.1.2 The Leader of the Council made a speech at a recent environmental conference in Leicester and stated the following:

‘We are aiming for our new schools to far exceed current CO2 emissions requirements and raise awareness in the wider community of environmental technology and issues.’

‘Schools can be made into places where communities learn about sustainability by making their school building tools for teaching and learning.’

‘We welcome the fact that Government have set an ambition for all new school buildings to be zero carbon by 2016, but there should be sufficient funding for schools to exceed, not just meet targets’.

3.1.3 We would welcome carbon neutral studies to be carried out to establish the technologies required and their respective costs, with linkages to the Council targets for reducing emissions. This would put CYPS in a strong position where we know the size of the task; the costs involved and is assist in lobbying and hopefully securing further funding to make Carbon Neutral schools possible.

3.1.4 There are significant opportunities with the remainder of the BSF Programme to secure additional funding for green technology, to engage with young people in the design of their schools and to make schools places where young people can learn about and discuss sustainability issues by experiencing what happens in their own environment.



Leicester  
City Council

Minutes of the Meeting of the  
CHILDREN, SCHOOLS AND YOUNG PEOPLE'S TASK GROUP AND  
ENVIRONMENT AND SUSTAINABILITY TASK GROUP

Held: MONDAY, 14 APRIL 2008 at 5.00pm

P R E S E N T :

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**11. WELCOME AND INTRODUCTIONS**

In the absence of Councillor Grant, Councillor Blower was elected to Chair the meeting. Councillor Blower welcomed all to the meetings and introductions were given.

**12. APOLOGIES FOR ABSENCE**

Apologies for absence were submitted by Bill Thornton.

**13. DECLARATIONS OF INTEREST**

Members were asked to declare any interests they may have in the business on the agenda. No such declarations were made.

**14. MINUTES OF PREVIOUS MEETING**

RESOLVED:

that the minutes of the Task Group held on 3 March 2008 be confirmed as a correct record

**15. REPORT ON BUILDING SCHOOLS FOR THE FUTURE (BSF)**

The Head of Planning and Property, Children and Young People's Services submitted a report that reviewed the Departments approach on sustainability, answered questions raised by the Task Group on BSF Phase 1 Schools and

reviewed the sustainable features for this phase and the options on future phases.

The Capital Programmes Manager introduced the report. He stated that the phase 1 work comprised four schools, and that two of these were to be built under a Private Finance Initiative (PFI) form of contract. These two schools were to have Co2 emissions reduced further than current Building Regulation requirements (by 42%).

In relation to the opportunities for later phases it was made clear by officers that the range of technological methods used during phase 1 would be expanded. It was generally expected that the aim of phase 2 would be to ensure a higher level of criteria would be used, and for the buildings to be constructed with a better standard of thermal insulation which in turn would minimise heating costs.

A further opportunity identified for future phases was to conduct better pupil engagement with the projects. It was stated that displays of the work were put together in those schools within Phase 1, but that efforts could be made to set-up more physical ways for pupils to engage with the adaptations to schools, and that it was possible that this could still be achieved within phase 1. In addition, Members heard that a Building Schools for the Future Website would be made created for use by pupils within schools.

In relation to alternative funding sources, the Task Group recommended that efforts should be made to try to acquire more third-party funding.

It was reported that government had set a target of achieving zero Carbon admissions in all new build schools by 2016. The City Council, as part of it's One Leicester visionary document had set to achieve the same target by 2013. It was thought however, that this earlier date would present an opportunity to review the target.

## **16. DEFINING AND ACHIEVEING 'ZERO CARBON' - THE IMPLICATIONS FOR NEW BUILDINGS**

A further paper was circulated to the Task Group that attempted to explain what was meant by 'Zero Carbon', whether or not it was possible to achieve 'Zero Carbon', the key target dates and the main barriers.

Mark Jeffcote, Senior Environmental Consultant, stated that a definition of 'zero carbon' had been established for houses through the Code for Sustainable Homes and that the definition could also be applied to non-domestic buildings if some minor alterations were made. He further stated that the definition did not include the total carbon footprint of constructing a new building.

Mark referred again to the 'One Leicester' strategy and Members sought clarification of whether the target for achieving 'Zero Carbon' in the City was 2013 or 2016. It was agreed that a response to this query be provided by Keith Murdoch, Director of Partnerships.

## **17. METHODOLOGY**

It was agreed that the Task Group would now split into two subgroups that looked at both the educational and infrastructure sides of the review. It was agreed that both subgroups would meet at least twice in May before holding a joint concluding meeting to make a series of recommendations to OSMB before the strategy was submitted by the end of June. It was intended that this would enable a piece of Task Group work to take place that would deliver a significant impact on the strategy for change.

It was agreed that the set of tasks agreed at the first meeting would be sent out to all invitees.

Discussions took place in relation to the involvement of young people with the work of the Task Group. It was suggested that a future meeting of the education sub-group could take place at a Phase 1 school building to engage with young people, such as the current Youth M.Ps and Youth Councillors.

In terms of the infrastructure sub-group, it was suggested that links could be made with the Climate Change Management Board.

## **18. DATE OF NEXT MEETING**

It was agreed that a set of dates of for both sub-groups would be drawn together and sent to all concerned.

## **19. CLOSE OF MEETING**

The meeting closed at 7:20pm