



St Mary Magdalene C of E Primary School, Woolwich

Southwark Diocesan Board of Education
Royal Borough of Greenwich





Multiple decks provide external playspace



An external view of the school hall



The school is a modern landmark within the area

Building summary

SIGNIFICANT
COMMUNITY
BENEFIT

STRONG VISUAL
LANDMARK
FOR THE AREA

SIZEABLE
STAKEHOLDER
CONTRIBUTION

INSPIRATIONAL
LEARNING
ENVIRONMENT

CHILDREN
PLAY SAFELY AT
HEIGHT

BREEAM RATED
'VERY GOOD'

"THE OLD SCHOOL BUILDING WAS WELL PAST ITS SELL BY DATE. IT IS SUCH A TREMENDOUS JOY THAT THE NEW BUILDING HAS BEEN DESIGNED FOR TWO-FORM ENTRY AND SO TWICE AS MANY WOOLWICH CHILDREN WILL BE ABLE TO BENEFIT FROM THE NEW IMPROVED AMENITIES."

Reverend Grahame Stephens, Chair of Governors

Re-built on the site of the original Victorian school, the Voluntary Aided St Mary Magdalene C of E School in the Diocese of Southwark has increased in size from 1FE to 2FE through the use of a robust design methodology that incorporates 'playdecks', providing external playspace on four levels of the building. Situated in one of the most deprived boroughs in London, a key aspect of the brief was to strengthen the identity of the school within the local community and provide long-term benefits to the local area.

The result is incredible; a striking, modern landmark building that is as far from an 'out of the box' solution as you can imagine. With over double the original teaching space, it serves as an urban 'London Board School' for the 21st Century. A socially responsible building programme and high levels of consultation have provided significant short and long-term community benefits.

Through the use of quotes and imagery included in this document we have attempted to convey the passion and pride that Pellings as the Architect and Project Manager; Lakehouse as the Contractor; the many project stakeholders; and the local community have for the building. We hope you will find the story as uplifting as we found the project experience.



View of the eastern elevation provides a strong architectural statement



The modern fully equipped staff facility



A view of a year three classroom



Children are able to play safely on all levels of the building

Design Philosophy



Adjacent classrooms with adjoining shared facilities to maximise the use of space



E R Robson's School Building Programme inspired the multi-storey design

“THIS FULLY MODERN SCHOOL IS AN EXCELLENT INVESTMENT IN OUR CHILDREN’S FUTURE WHICH MEETS THE EXTRA DEMAND FOR PLACES WHILE CREATING A SUPERB LEARNING ENVIRONMENT. THE NEW SCHOOL BUILDINGS ARE A FITTING ADDITION TO WOOLWICH AS IT CONTINUES TO BE REVITALISED.”

Cllr Jackie Smith, Greenwich Council Cabinet Member for Children and Young People

In this densely populated urban area where the school is **central to the local community**, it was vital that this Voluntray Aided (VA) Church primary school within the Diocese of Southwark achieved a continued and strengthened identity.

The Victorian school building which had stood on the site since 1877 suffered from poor lighting and ventilation. With a poor sustainability record it was fast becoming unfit for purpose. The new school sits on its original site and the requirement to increase from one form entry to two form entry during design development was the driving force behind the **innovative four storey design**.

A strong conceptual approach to the design and a robust methodology has met the challenges of delivering **a complex building within an extremely contained site**. Inspiration has been taken from E R Robson's School Building Programme for the London Schools Board at the turn of the 20th Century, and in particular, the multi-storey urban schools which often utilised playspace on the roof level to allow children to play away from noise and pollution.

The organic flowing form of the playdecks contrast with the functional form of the classroom accommodation providing **2,800m² of teaching space** compared with 1,200m² in the original Victorian school Building. Natural daylight has been exploited to provide an **inspirational learning environment**.

Inside the building the consultation with the school is evident in the attention to detail. The age group of the classrooms rise as you move up the floors together with the gradual height of sinks and cloakroom facilities. Shared spaces such as cloakrooms and breakout areas sit between the two classrooms serving the same year groups, **maximising use of space**. A modern staff facility is located on the first floor, and a roof terrace contains a viewing gallery looking across the Greenwich Peninsula, Docklands and the City of London.

Innovation



An external view of the decks providing outdoor playspace

The main hall is a dominant feature of the design and sits as a buffer between the noisy road network and the teaching and play spaces. It adopts **a modern interpretation of the 'stained glass window'** to reflect its dual use as a place of worship. At night, this is particularly spectacular with the hall becoming a beautifully lit local landmark and lasting image for the school as a whole.

The use of playdecks on upper floors of the building **allow children to play safely at height** close to their classrooms and challenges the norm of children being ushered towards one central playground or school hall during break periods. The breakthrough multi-storey approach has produced an approximate **233% increase in floor area** to enable the school to meet demand and operate more efficiently.

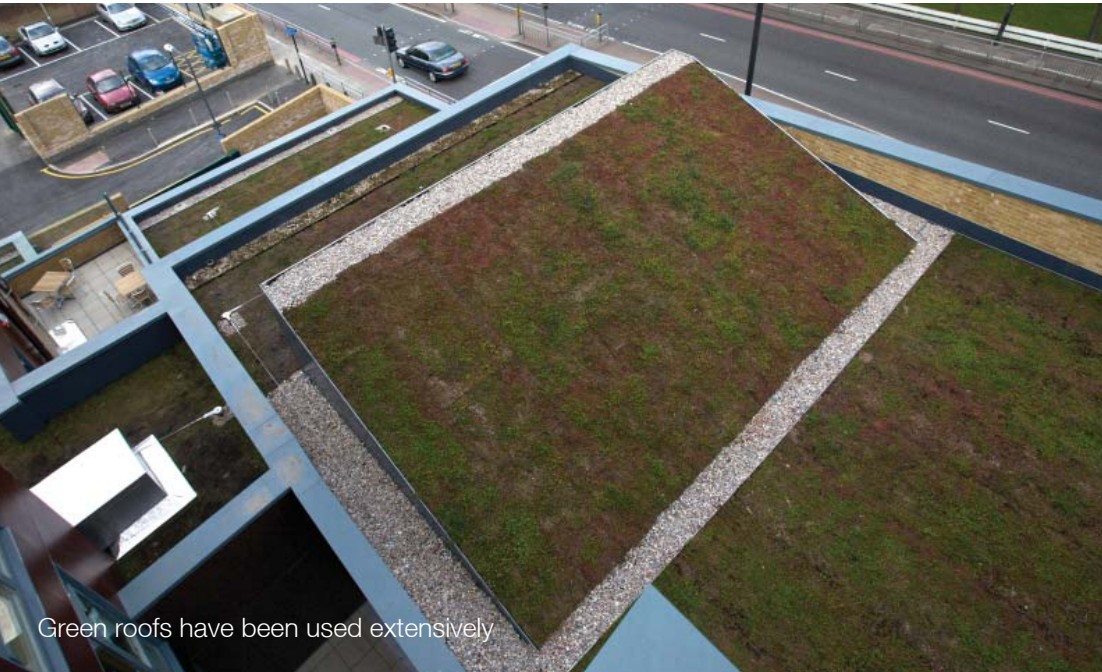
"MANY VICTORIAN SCHOOLS, SUCH AS THE ONE WHICH SAT ON THE ORIGINAL SITE, WERE BUILT TO MEET THE GROWING DEMAND FOR PRIMARY SCHOOL PLACES IN INNER CITY AREAS. GENERATIONS ON AND DEMAND IS STILL GROWING AND URBAN SPACE IS STILL LIMITED. WE BELIEVE THE INNOVATIVE 'MULTI-STOREY' APPROACH WILL OFFER AN EFFICIENT SOLUTION TO MEET THE MODERN CHALLENGES OF DELIVERING SCHOOLS IN URBAN AREAS."

Neill Werner Pellings LLP



A modern interpretation of a stained glass window in the main hall reflects its dual purpose as a place of worship

Sustainable Features



Green roofs have been used extensively

A natural ventilation system featuring night cooling technology was incorporated in the design; sensors operate louvres which provide ventilation during the day. In summer the system works to purge the building of heat during the night using the cool outdoor air. The system means that compliance with Building Bulletins is achieved for cooling the building **without mechanical ventilation** giving considerable capital cost savings and a **reduction in the carbon footprint** of the building.

The building incorporates sustainable features such as **green roofs**, and **grey water recycling**, and **high levels of insulation**. **Photovoltaic panels** generate electricity cutting emissions by an estimated 10%.

As a result, the building is **BREEAM rated 'Very Good'**.

A **wind turbine** has also been incorporated for educational purposes, being used to educate pupils on the benefits of renewable energy to the school and their environment.



Photovoltaic panels cut emissions by an estimated 10%



A night cooling system purges the building of heat removing the need for a mechanical cooling system

Project Management



Pupils were bussed to a temporary school during construction



The temporary school was sold to Greenwich Council to benefit future school building projects

The project was driven by the Southwark Diocesan Board of Education and the Board of Governors with government funding from the Partnership for Church Schools programme to rebuild the original school, with additional funding and support from Greenwich Council to provide the additional form of entry.

During the works pupils were bussed to and from a nearby temporary school built as part of the project, the associated costs meant that completion on-time was essential for the project to complete within budget. This was achieved when the building was handed over on time in February 2011 after a contract period of 19 months.

Including the building of the temporary school the original budget stood at £7.5m; the building was handed over within budget.

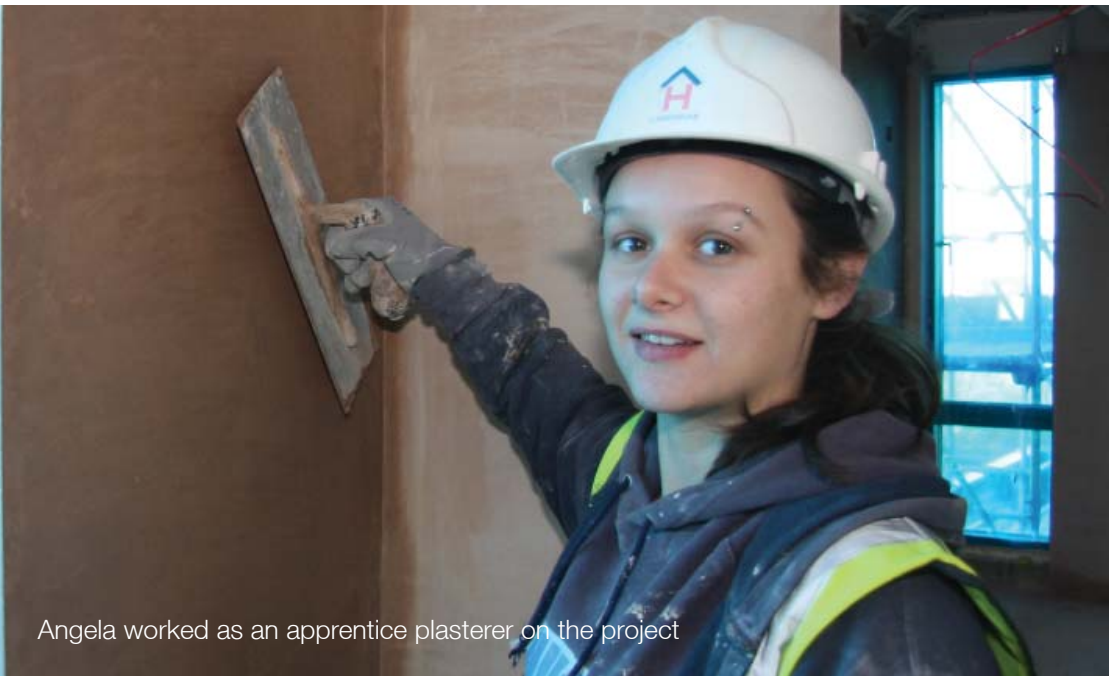


Bishop Christopher laid the foundation stone of the building

Community Benefit



Children attended open days during construction



Angela worked as an apprentice plasterer on the project

“THIS IS MY FIRST TIME ON A CONSTRUCTION SITE BUT THE EXPERIENCE HAS BEEN FANTASTIC. IT HAS REALLY HELPED ME TO FOCUS AND DEVELOP MY SKILLS”

Angela, Apprentice Plasterer

Greenwich is listed as the 10th most deprived borough in London and the London Poverty Profile 2011 listed Woolwich Riverside as an area of extreme deprivation. Woolwich Riverside has a crime rate of 16.37% compared with the wider Borough average of 8.88%. Unemployment in the area stands at 16.3% and the child poverty rate is 37%.

The requirement to deliver community and public benefit was central to project.

Apprenticeships

Seven out of work young people were given 26 week paid placements on the project through ‘Future Jobs Greenwich’, a scheme run by Greenwich Council, and delivered by its local labour initiative Greenwich Local Labour and Business, with funding through the Government’s Future Jobs Fund.

Attendance

Since moving into the school pupil attendance rates stand at 97.8% compared with the national average of 95%.

Legacy accommodation

On completion, temporary accommodation was sold to Greenwich Council in order to benefit future school building projects. It will be used to support another Diocese of Southwark VA school building project in 2012.

Sharing facilities

Consultation with extended schools groups meant the infrastructure was implemented to enable various community groups to utilise the facilities.

Community initiatives

Various initiatives took place during construction including, Eco Council competitions, open days and presentations.

Initiative	Number Supported	Community Benefit
Apprentices	5	£110,300
Work experience placements - main contractor/ supply chain	8	£800
School visits	2	£1,200
Eco Council competitions	12	£1,400
LB Greenwich Primary and Secondary days	3	£3,600
Donations, open days, HSE presentations	5	£25,000
Total		£142,300

“THE CHILDREN HAVE REALLY ENJOYED THEIR DAY OUT, IT’S A REAL TREAT FOR OUR STUDENTS, PARTICULARLY THOSE WHOSE FAMILIES ARE UNABLE TO SUPPORT EXTRACURRICULAR ACTIVITIES.”

Victoria Ellis, Deputy Headteacher

Client Involvement



Pellings interior architecture team led consultation sessions with pupils at the school



Consultation led the design detail

“WE THINK WE HAVE THE BEST PRIMARY SCHOOL IN THE COUNTRY, WHICH IS NOT ONLY UNIQUE BUT OFFERS A RANGE OF EXCELLENT FACILITIES FOR ALL ITS USERS. WE WERE VERY FORTUNATE TO HAVE A TEAM OF ARCHITECTS AND BUILDERS WHO REALLY LISTENED TO WHAT WE NEEDED AND WHAT WE WISHED FOR, AS WELL AS ENSURING IT LOOKED LIKE WE WANTED IT TO!”

Claire Harrison, Headteacher

The Southwark Diocesan Board of Education and Greenwich Council were jointly responsible for the success of the project and there was a high level of involvement by the school governors and staff throughout; the project had **many stakeholders**. Stakeholder consultation was a theme that ran from start to finish, consultation sessions took place with pupils, teachers, Governors and local residents to ensure the needs of all were listened to and catered for. Aspects that different stakeholders felt passionate about are clearly visible, and make a strong contribution to the final building.

Extended schools groups were also consulted resulting in the incorporation of the infrastructure for: an adult learning zone; Charlton Athletic Football club to run after school sessions; and the local Church to use for Sunday worship.

A specialist interior designer was employed to facilitate the liaison between the school and the contractor meaning the school were actively involved in all of the aesthetics of the build and were able to voice an opinion on design submissions.

Strong relationships between stakeholders and the project team was a key factor in the success of the project and these relationships have extended beyond the handover of the building. Pellings and the school worked together to exhibit the building as part of **Open House London 2011**, and the school aquarium contains fish named after key members of the project team.

“VICTORIA ELLIS’S KNOWLEDGE OF EVERY ASPECT OF THE BUILDING DURING THE TOUR CLEARLY DEMONSTRATED HER PASSION FOR THE BUILDING AND THE LARGE INVOLVEMENT THAT THE SCHOOL MUST HAVE HAD IN THE CONSTRUCTION OF IT.”

Attendee at Open House London 2011

Budgetary Constraints



Muck away and rubble from the existing building were compacted and used in the construction of the Multi Use Games Area

Risk of significant overspend arose due to levels/ground conditions and unforeseen drainage changes. A **successful resolution** was achieved by building the level of the Multi Use Games Area using retained muck away and parts of the existing building which were crushed and compacted on site. Removal and imported fill would have cost the client in the region of £40k.



The completed Multi Use Games Area

After school sessions by Charlton Athletic FC take place weekly

Final word

STRONG VISUAL
LANDMARK FOR THE
LOCAL COMMUNITY

“IT COMES ALIVE WHEN THE CHILDREN PUNCTUATE THE LAYERED SPACES. THERE IS A SUBTLE YET APPEALING COMBINATION OF COLOURS AND TEXTURES OF THE WOOD LAMINATE, FROSTED GLASS AND BRIGHTLY COLOURED FLOORING. IMPRESSIVELY LIGHT CONSIDERING THE AMOUNT OF CLASSROOM SPACE INCLUDED.”

Philip Durrant, Professional Architectural Photographer

INNOVATIVE AND
SOCIALLY RESPONSIBLE
PROJECT

The aesthetics of the building are something that must be seen to be appreciated, the intention of **strengthening the identity** of the school within the community and raising the quality of living in the area was considered at every stage of the project.

Through **innovative** design and a **socially responsible** building programme a building has been delivered that the local community can be proud of, both in terms of aesthetics and the benefits it provides to the area.





Contact us

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