

Chatelherault Primary School

General Introduction to Project



Chatelherault Primary School is a single stream primary school with a nursery and a 24 place Special Education Needs Unit (SEN).

This school replaces a much-loved but dilapidated 1960s school on the same steeply sloping site. The new school was constructed in the playground while the original school continued to operate until June 2006.

While the school was being constructed, the children undertook workshops to design and make ceramic artworks for the new building.

This school was selected as a case study as it is located at the heart of a housing development and is used by the community. It builds upon lessons learned from the construction of earlier, successful primary schools in the same Council area, such as [St Brides RC Primary](#) (also included as a case study). These schools are extremely successful and have been built by South Lanarkshire as part of a 'Partnering Agreement' between the Council and the same architect and main contractor team. The Council's architecture team took the scheme to concept stage in consultation with the users and then worked closely with the delivery team. The school is well-designed, makes an architectural statement and demonstrates the benefits of a high level of user consultation.

Key Project Data

Sector	Primary with Nursery and SEN Unit
Location	Silvertonhill Avenue, Hamilton, South Lanarkshire
Client/ Local Authority	South Lanarkshire Council
School Capacity	363 primary pupils 40am/ 40pm nursery pupils 24 SEN (Special Educational Needs) unit pupils
Procurement Route	Open book Design and Build - Framework Partnership
Project Value	£8.8 million
Gross Internal Floor Area	3673 sq m
Design Team	Architects Concept Design - SLC Housing & Technical Resources Detailed Design - Atkins Civil and Structural Engineers - Atkins M&E Engineers - Atkins
Contractors	Mowlem PLC
Start Date	July 2005
Completion Date	August 2006

Design Features

In designing the new school, the opportunity was taken to address some of the problems of the old school, especially the way in which the building functions.



The key aims were to provide:

- good natural light;
- a division of the school into infant, junior and senior wings with associated breakout spaces;
- a split level design to suit the sloping site;

- the use of non-classroom areas, specifically the gym and dining room as community facilities outwith school hours;
- adult sized shower facilities to allow multi-use of facilities. The sloping site afforded opportunities for large areas of general storage and this was augmented by a storage wall in each classroom, which combines teachers' resources with the whiteboard and a projection screen.

The basement (street) level, houses the offices and staff areas. The classrooms are located at ground and first storey levels. Through discussion with the Council's architect, it was agreed that to provide flexibility and spill-out space for active lessons and for children who need space or quiet zones, classrooms would have an open door policy and would be placed in groups of 4 which open on to a shared octagonal central flexible space. This has been found to work very well.



Ground floor classrooms have high ceilings (around 3m) which gives a feeling of spaciousness. The upper floor is able to exploit the site slope, and has even higher ceiling heights due to the pitched roof. The spaces appear 'lofty', airy and bright.

To encourage expansion of the classroom to the external playground, many classrooms have direct access to outdoors. The layout has the SEN unit located centrally between the other classrooms and close to the dining, computer and library facilities to encourage integration between pupils from all parts of the school and across age groups.

Other features include a fully glazed upper floor dining room which doubles as a drama and dance studio with panoramic views out over the Clyde Valley and a full working stage with scenery, storage facilities, lighting rig, access lift and changing rooms.

The need to address security issues was part of the brief, especially to minimise the risk of vandalism. This has been done in a way that does not compromise the design.

Choice of Site

On the site of the old school playground. The woodland area to the rear of the school was preserved in its entirety and is a real asset for the school.

The design evolved as a response to the sloping site topography and restricted space available adjacent to the existing school. This led to a split level solution with the main teaching spaces

linking directly to the upper external play areas with staff, community and nursery accommodation located in the lower 'basement' level.

Materials

Consideration of life cycle maintenance for 60 years was incorporated into the design and use of materials. Materials used for the building include:

- External Walls: Brick and block construction, finishes in feature areas with self coloured render for ease of maintenance or timber effect laminated panels to add warmth and interest to the elevation whilst also conforming to insurance standards for fire and again reducing the need for maintenance;
- Internal walls: stud partitions in some areas and block in areas that receive more traffic;
- Floor coverings: mix of linoleum, safety vinyl and carpet in offices;
- Mill finished, built up aluminium roofing system;
- Self coloured render to provide a bright portal to the main school entrance;
- The colour scheme was developed to be sensitive for autistic pupils.

Viewpoints

Client's Perspective



The initial brief in terms of accommodation size and educational requirements was developed by the Council's Education Resources team. A detailed brief was then developed by the Housing and Technical Resources Department in association with the Education Manager and Head Teacher.

The Council's architect provided the initial concept design which was based on themes used in the first schools rebuilt under the modernisation programme. These were developed to suit the site constraints and by consultation throughout the design period with both the Head Teacher and the Education Manager. This allowed any school specific needs to be identified and incorporated into the scheme as it developed through ongoing dialogue with the future users of the building.

Architect's Perspective

This school was part of the framework agreement which has seen Atkins deliver 13 school designs for primary schools in South Lanarkshire as lead consultant for the contractor Mowlem.

"Sustainability was part of the prerequisites of the framework agreement, but rather than applying overly aspirational and expensive bolt on renewable elements such as wind turbines, matters such as natural ventilation and daylighting are inherent to the project." Atkins.

On this project Atkins worked closely with the Council's architect who provided the original concept plan after dialogue with the school and this relationship continued as the design was developed. The initial sketch design was based on themes used by South Lanarkshire in their first schools rebuilt under the modernisation programme.

Other matters addressing sustainability are the use of a mill finished built up aluminium roof which can be recycled and a pre-coloured render system to reduce maintenance. The use of a brise soleil reduces heat build-up from solar gain.

Users' Perspective

The pupils and staff had an excellent relationship with the Council architect. This facilitated a process based approach to the early design stages, allowing their views and requirements to be taken on board, reviewed at each stage and incorporated into the final design. The school is an Eco School and is involved in Grounds for Learning, and these issues were considered in the environmental performance of the building design and in the design of the playground and outdoor classroom. Teaching staff were concerned about access to the school woodland area, however, this was answered in the final design and the resource remained.



The pupils also chose colours for teaching areas, within a given colour palette. This resulted in colour 'zones' and the school pupils and staff are pleased with the results. The children and teachers are delighted with the accommodation provided and although they were sorry to leave the old school behind, they did 'document' the building and were involved in the development of art work for the new school that reflects on the past. Now firmly ensconced in new accommodation, they say that they are looking forward to the old school being demolished to allow the playground to be extended.

Previously, the school had no kitchen and food was brought in at lunchtime. Now with its own kitchen the school is able to provide greater flexibility in the choice of food available to encourage healthy eating.

"The school is brilliant because from the dinner hall you get a good view from the giant window. Also we have patio doors in the classrooms so we can go straight outside. We have skylights in the classrooms and a very big gym hall". Mollie, P7

"I love the new school because the skylights make the classrooms much brighter. The chairs are more comfortable and we have a fabulous unique ceramic wall display. We have a fantastic view from our new dinner hall". Rebecca, P7

General evaluation of building

Based on the fact that it is designed on a 60 year life-cycle, with programmed maintenance criteria, it is envisaged that the building will be sustainable in terms of providing a high quality, well cared for, robust building.

The users report that the school is modern, bright and airy, with excellent learning and teaching spaces and open areas, which allow flexible use depending on the requirements. Teachers especially enjoy the airiness and good daylight and the storage walls adjacent to the whiteboards. Storage needs were considered from the outset and built-in to the design. This has the added advantage that it does not encroach on classroom floor area.



The children have more space than before and there is an opportunity for their varying needs to be accommodated, including bespoke, contemplation rooms for children with special educational needs such as autism.

Lessons Learned

Involving the building users and client at an early stage helped everyone involved understand the design process more clearly and encouraged 'ownership' of the school.

Experience has shown that materials used for SEN quiet rooms require to be more robust.

Breakout spaces for classrooms are excellent.

Rubber safety hinges were used on all doors, which avoid the risk of children's fingers being caught. This is now used as standard in all schools in South Lanarkshire.

Early discussions regarding storage provision have resulted in better solutions that do not reduce classroom floor areas.

Further Information

For further information please use the contact details provided in the table below.

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