



DESIGN
COMMISSION
FOR WALES
COMISIWN
DYLUNIO
CYMRU

Design Review Report

Rhydypenau Primary School,
Cardiff

30th January 2014

19th January 2016 – DCFW has been informed that this scheme is no longer active, therefore, the report relates simply to the scheme that was presented in January 2014.



Declarations of Interest

Panel members, observers and other relevant parties are required to declare **in advance** any interests they may have in relation to the Design Review Agenda items. Any such declarations are recorded here and in DCFW's central records.

Review Status

PUBLIC

Meeting date	30th January 2014
Issue date	6 th February 2014
Scheme location	Llanishen, Cardiff
Scheme description	Primary School Extension
Scheme reference number	29
Planning status	Submitted

Declarations of Interest

None declared.

Consultations to Date

Consultation with staff and community has taken place.

The Proposals

This is a scheme for a new nursery extension to a 1930s primary school in north Cardiff. This first of three planned phases addresses some of the functional deficiencies inherent in the existing school, which now has many more pupils than originally designed for. The extension takes the form of a courtyard infill.

Summary

- This phase is part of a complex project, serving strategic need over a long period of time. The Design Commission would encourage continued consultation during the future phases.
- It is encouraging that users have been consulted and a movement study has taken place. However, the team should check that the solutions derived from the movement study match the aspirations of the users. A strategic masterplan for the whole site would make these things clear.
- The design of the tall, open space of the new nursery is compromised by the ancillary spaces. The scale and acoustics of this space must be carefully considered in order to provide an appropriate environment for very small children.

- The ongoing daylighting, ventilation and thermal assessments are crucial, and must be included in tender documentation.
- Any opportunities to improve the external spaces in this phase should be considered.

Main Points in Detail

Masterplan

This is the first of three planned phases of development at the school, which needs to accommodate a potential increase in students, as well as upgrade current facilities to the standard expected of a modern primary school. There needs to be some flexibility in the development to allow the school to adapt to uncertain pupil numbers.

A comprehensive masterplan for the school site, which takes into account the future phases of development would help to ensure that the school ends up with a well planned and designed school, which operates efficiently and effectively, and provides a comfortable and inspiring environment for the pupils.

It is particularly important that access, movement and entrance strategies are included in the masterplan. These strategies must come from in depth consultation with school staff to make sure that designed proposals match aspirations for the running of the school. These strategies need to be considered in more detail at this stage.

Form, Space and Layout

The 3D drawings presented at the review show that the architects have an aspiration for the new nursery classroom to be a high, open, inspiring space. The pitched roof form of the proposed extension lends itself to this type of space. However, the floor plans demonstrate that this aspiration has been compromised by the need to accommodate ancillary functions, such as toilets, cloakrooms and storage. These smaller scale spaces will have flat false ceilings, leading to dead volume in the roof. It is understood that the floor plan arrangement has been developed alongside consultation with the school and fire officers which has led to an evolving brief. The designers should consider whether the proposed form and plan arrangement provide the best possible solution to the brief.

The design should provide a scale of space which is appropriate to the little children who will use the facility. Large volumes could be intimidating, and they must be dealt with through use of appropriate furniture and noise control. These should be written into the contractor's specification to make sure they are not lost in the value engineering or construction phases. Ancillary spaces such as the activity room provide an opportunity for spatial contrast and should be as carefully considered as the main space.

Comfort and Sustainability

Well designed ventilation and daylight strategies are crucial for schools, to create a comfortable work/play environment.

The previous addition of a semi-external access corridor has already created problems with ventilation and overheating, which this scheme aims to address. The partial infilling of a courtyard space of a building which was originally designed to be daylit and

ventilated on two sides, presents a number of challenges. The proposal creates a very deep plan which will require a different ventilation strategy to that of the original building.

Although there is no requirement to achieve a particular BREEAM level with a school extension of this size, the design team expressed a desire to provide the best possible solutions in terms of comfort and sustainability. Environmental strategies need to be formally assessed and tested at each level of detail in the design process to make sure that satisfactory results are achieved. In particular, the ventilation strategy needs testing before detail design stage, taking into account any restrictions on window opening allowances.

Some spaces in the proposed plan do not have openings to the outside, limiting opportunities for daylighting. It would be positive if daylight was introduced to the toilet spaces.

The existing high-level windows are being reduced in size. Testing should be used to establish whether they can still provide a useful amount of daylight and ventilation. If they cannot, the strategy for this part of the building should be reconsidered.

The external canopy which is proposed for the new extension should be carefully considered and modelled in daylight assessments. Even if it is constructed from a translucent material, it will still reduce internal daylight factors.

All thermal, ventilation and daylighting assessments and requirements must be included in the tender documentation, especially as the design team are not being novated.

External Spaces

If there are any opportunities for making improvements to the quality of external spaces alongside this phase of building work, these should be explored. Any external works should take into account the long term masterplan for the whole site, including access, entrances, and different types of play space.

Any fencing or other division of outside space should be integrated with the building design and shown on images and models.

Timescales

The design aspirations of this phase of development have been compromised by late input and advice from user clients and fire officers. It is best practice to begin consultations at the outset of a design project, to avoid these compromises, and fix the brief and operational requirements at an early stage.

The timescales for construction discussed at the review were extremely tight, and had no contingency for overrun. However, the Design Commission has been informed that, since the review, the timetable for construction has been revised and extended. If construction is to take place during term time, the safety and comfort of the pupils needs to be carefully planned for.

To reduce on-site construction time, a pre-fabricated system or elements could be considered, which would allow quality to be maintained. However, these should really be

researched at an early stage and inform the design and form of the building. The planning submission should be fully resolved with whatever build method is proposed

The team would like to have consulted with contractor during the design process to discuss efficiency of different build methods, but they explained that restrictions on procurement prevented this. The ability to collaborate with contractors early has the potential to achieve better value for money on future projects, and mechanisms for doing so should be investigated by Cardiff City Council and Welsh Government.

Future Design Review

To be of most value, Design Review should first take place at an early stage of a project when there is more scope to inform the design process. This phase of the project is at an advanced stage, where the major design decisions have already been made, and there is limited opportunity for the review to influence the design. However, we would encourage the Local Authority to take advantage of the Design Commission's flexible timetable for design review, and arrange early reviews for the next phases of this scheme and any future schools projects.

DCFW is a non-statutory consultee, a private limited company and wholly owned subsidiary of the Welsh Government. The comment recorded in this report, arising from formal Design Review through our Design Review Service, is provided in the public interest for the consideration of local planning authorities as a material consideration, and other users of the Design Review Service. It is not and should not be considered 'advice' and no third party is bound or required to act upon it. The Design Review Service is delivered in line with DCFW's published protocols, code of conduct and complaints procedure, which should be read and considered by users of the service.

A Welsh language copy of this report is available upon request.

Attendees

Agent/Client/Developer:	Mike Gwyther-Jones, Richard Israel, Graham Dalton, Cardiff CC
Architectural/Urban Designer:	Karyn Williams, Owen French, Stride Treglown
Planning Authority:	
Design Review Panel:	
Chair	Wendy Richards
Lead Panellist	Toby Adam
	Simon Power
	Elfed Roberts
	Ashley Bateson
	Amanda Spence, Design Advisor, DCFW
Observing:	Carole-Anne Davies, DCFW