

Benwick Primary School

Cambridgeshire County Council Design & Access Statement



November 2023

r h partnership architects

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1. Introduction

This Design and Access Statement has been written to accompany the planning application for the replacement of the existing double mobile classroom with a permanent double classroom and ancillary facilities on the same footprint as the existing.

2. Project summary

The current team was appointed in August 2023 following the completion of a Milestone 1 Feasibility report in August 2021. The team has engaged with the head of the school, Mrs Clare Talbot and the County Council team during the Milestone 3 Outline design process which has resulted in a number of developments to the brief.

Benwick Primary School is a small rural Community School that serves the village of Benwick and the surrounding rural area, situated between Chatteris and March. It is currently a 0.5 FE school with a capacity of 105 pupil places. The school caters for children aged 4 to 11 years, covering reception stage and year groups 1 to 6. The total number of pupils at the school will not change as a consequence of this scheme. The overall aim of the scheme is to remove and replace the temporary double classroom facilities to the rear of the site with a permanent teaching block.

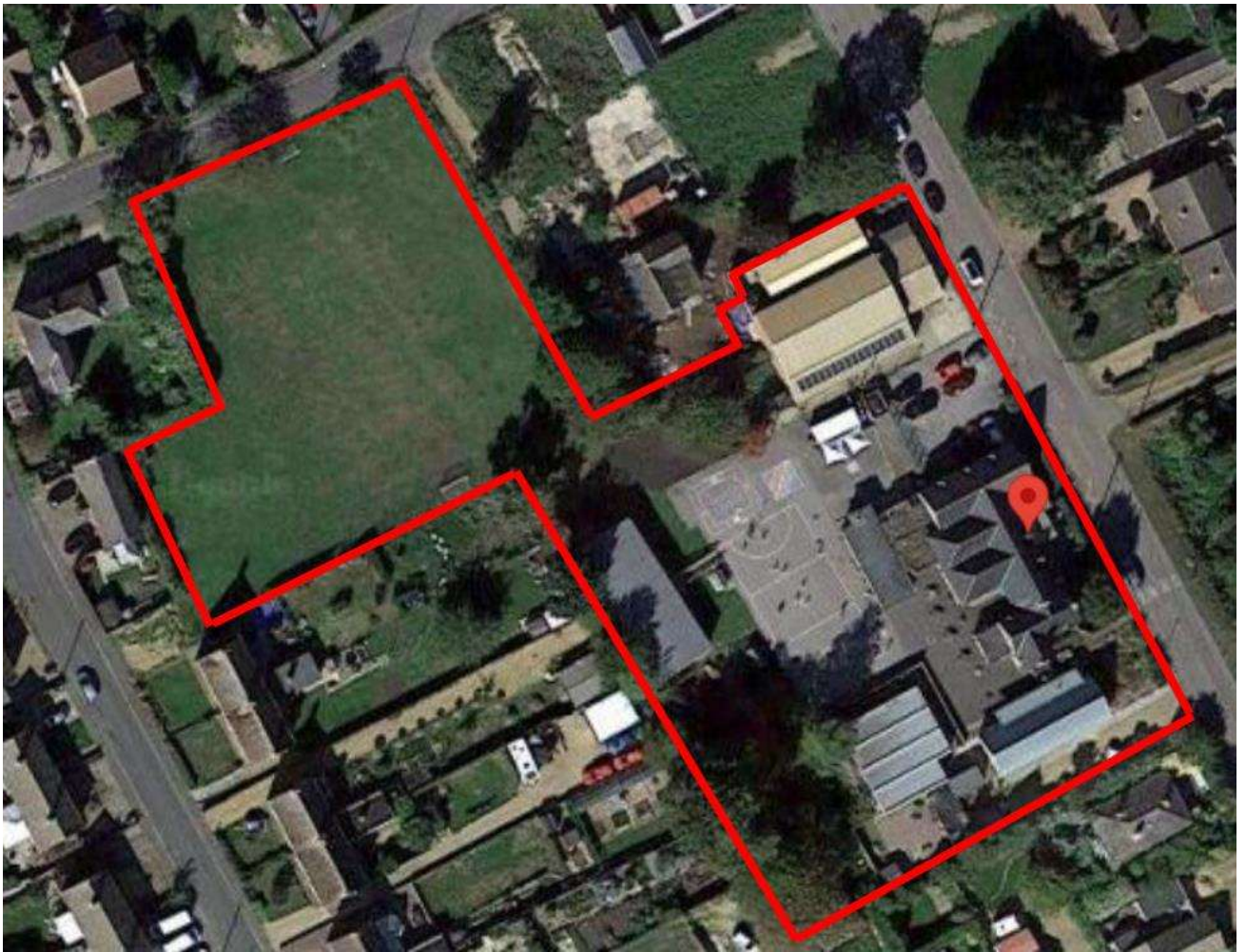
3. Design and Architectural Proposal

3.1 Site Context and Surroundings

The school site is attractive and well maintained. The frontage is set back slightly from the public footpath and partly screened by a mature hedge which help integrate the school into the surrounding semi urban setting and provides a pleasant street frontage.

The schools existing pedestrian access will be retained from the street. The ground is relatively level, falling away to the rear of the site. As a result, ramped access to the new teaching block entrances will be retained.

The existing vehicle access to the school and adjacent Village Hall will remain and be reconfigured to provide marked out parking bays and a dedicated accessible parking space and secure pupil entrance.



Existing Site plan of Benwick Primary School

The existing temporary double classroom mobile is located to the rear of the school site behind the existing hard play area. Due to the change in levels it is approached via a timber ramp, with access steps at the ends of the mobile.



Main School frontage with the existing mobile classrooms in the distance behind the playground, with the school car parking in the foreground between the school buildings and village hall

Site entrances & approaches

The only school entrances are off Ramsey road B1096. There is vehicular access from the street, which provides access to the car park, for kitchen deliveries and access to the adjacent Butterflies pre-school at the rear of the school.

There is no existing visitors or disabled parking provision, staff cars are triple and double stacked to meet the current requirement.

Pedestrians access the site from the single footpath running along the front of the school. There is a school lollipop patrolled crossing for pedestrians coming from the residential areas to the eastern side. Reception pupils enter the secure play area directly from the public footpath, all other pupils currently enter the school grounds via the secure gated entrance to the right of the main entrance.



View of kitchen and Pre-school access from Street



View of reception class entrance from High Street



View of school entrance



Benwick primary school

Existing building

The existing main school building is Victorian with further localised single storey additions and a separate dining and kitchen block. The overall architectural impression is low key and domestic in feel within an established landscaped school setting.

The original school buildings have steep pitch roof construction and were joined by a single storey flat roof block in 1996 and further additions in 2002.

The original school buildings are constructed of a buff facing brick with white UPVC double glazed units (replacements of the original windows), coloured spandrel panels and cladding panels over the windows and stained doors.

There is currently one double mobile classrooms located to the rear of the school on the playing fields.



3.2 Use

The site is an existing Victorian built primary school that has been extended over a number of years, and on completion of the project will continue to be used for educational and community purposes.

The key objective of the proposals are to replace the existing double classroom mobile accommodation with a permanent building, to be located on a similar footprint as the existing, to the rear of the site, accessed from the hard playground.

The single storey replacement classroom block, will accommodate the KS2 years 5 & 6 pupils, provide two classbases with storage, toilets and cloak areas. These works are proposed to take place in 2024 and will consist of the following:

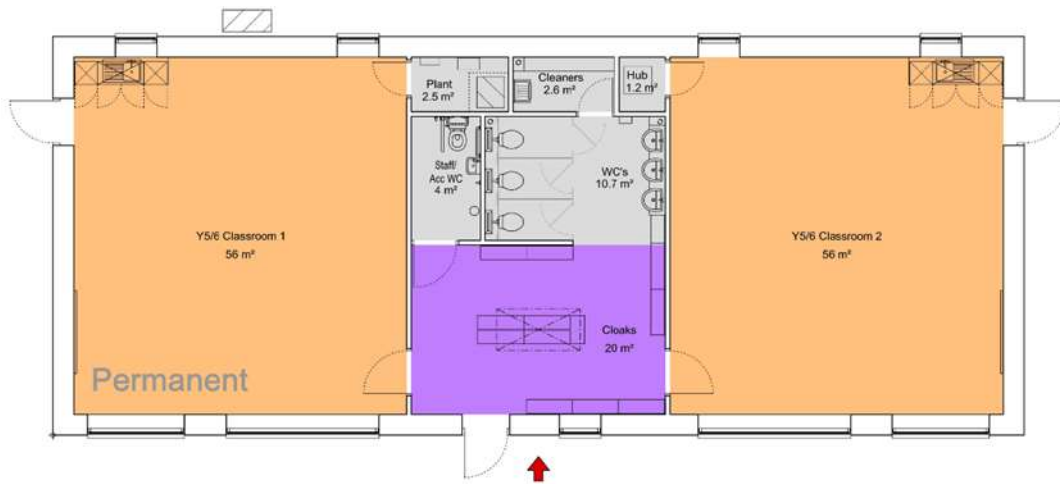
- The construction of a replacement permanent single storey classroom block with ancillary cloaks and toilet areas.
- Reorganisation of the existing carpark with marked out bays. The existing vehicle drop off, vehicle and pupil site access will remain as existing.

3.3 Amount

The existing total gross internal mobile classroom block is approximately 174m² and an external footprint area of approximately 183m². The single storey permanent replacement block is 157m² gross internal with an external footprint of 183m², similar to the existing.

3.4 Layout

To enable the removal of the existing temporary accommodation and provide permanent buildings for the pupils, the existing single storey mobile classrooms at the rear of the site will be removed and replaced with a single storey classroom block.



Ground Floor Plan

Demolitions

The existing temporary double mobile classroom will be removed and the new permanent classroom block on the footprint of the demolished buildings and internal courtyard.



The new permanent classroom block

The replacement classroom block is orientated so that the long façades of the new classrooms align north and south to minimize the number of windows facing low angle morning and afternoon sun causing glare, overheating and the drawing of blinds.

The block contains two KS2 classrooms, a central shared entrance and cloak area and separate toilet facilities for pupils and staff/accessible.

The main teaching spaces are no deeper than 7.2m deep with high ceilings in order to permit and facilitate natural cross ventilation and to allow daylight from the tall windows to penetrate to the back of the rooms. The classroom pitch roofs offers the opportunity to locate solar panels which benefit from the southern aspect and will be advertise and promote the sustainable credentials of the building.

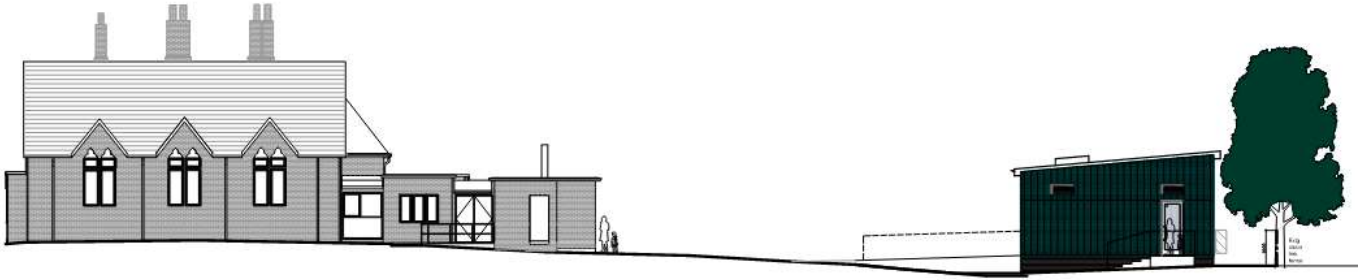
Entry into the classrooms block is via an approach ramp from the existing hard play area directly into the entrance lobby/cloak areas. Vision panels will be fitted to the internal classroom doors from the entrance to help with passive supervision in the circulation space.

3.5 Scale

The scale of the proposed single storey classroom block is appropriate to a building of this type within a school setting. Within the context of the single storey Victorian school building and the adjacent village hall, with pitched roofs and the surrounding neighbourhood of 1 and 2 storey dwellings. The school buildings are set back and separated from the adjacent properties by the playground along the western boundary and school car park along the eastern boundary.

The existing school is made up of predominantly single storey buildings, and the proposed single storey replacement block (on the same footprint as the existing temporary mobile block), sits comfortably within the site context and the proposed shallow mono-pitch roof is no higher than the existing school or the existing mature trees which help to screen the new building from the neighbouring dwellings.

The replacement classroom block is built on the footprint of the existing temporary mobile classrooms, set back from the main road behind the line of the existing secure fence and school car park. The site slopes to the rear, which helps reduce the impact of the replacement classroom block from the highway and whilst being visible should not overly dominate the site.



Cross section of site looking west illustrating the sloping site which helps to nestle the replacement single storey classroom block, reducing it's visual impact from the highway

3.6 Appearance

Building massing options and roof forms for the replacement building have been investigated, together with external material pallet choices. The elevations have been developed with a conscious simple pallet, to be sympathetic with the existing, whilst providing a contemporary appearance which will last the test of time.

The overall intention is to create a building which blends in well with the existing school, is relatively low key, but has a modern identity all of its own. The single one storey replacement block has a robust plinth and neutral coloured vertical rainscreen cladding extending around the building, helping to reduce the mass of the building.

The window fenestration is generated by the need to provide maximum daylight to the teaching spaces and is broken by opening windows. The classrooms have full height windows and side doors allowing access directly out to the playground via steps.

The low pitched roof element is a low maintenance polyester powder coated mid grey standing seam with matching gutters and rainwater downpipes to give the appearance of weathered zinc. The windows, doors and louvres will be in a darker grey to contrast with the of the rain screen cladding and mid grey of the roof colour.

4. Externals & Landscaping

The landscape proposals

The strategy for the landscaping is to retain all existing trees and vegetation with all formal and informal hard and soft play areas and playing field to be retained also.

A small area of new ornamental shrubs is proposed to provide an element of seasonal interest with a specimen tree planted in proximity to the existing play area adjacent to the new teaching block which will offer some shade in the summer months and an opportunity to benefit wildlife with the inclusion of a bird nesting box.

All existing boundary fencing is to be retained as is except for the existing security fence and gate which currently separate the existing car park with the school playground. This will be replaced with new 1.8m high security fencing and a centralised double gate with a 3.5m wide opening to suit the new formal layout of the car park and enable emergency vehicle access into the main school site

- The existing temporary mobile classrooms will be removed from the site.
- The playing field with goal posts will remain as existing with some localized regrading to mitigate against flooding.
- All existing vegetation and trees are to be retained. Some “access facilitation pruning” is proposed to the existing trees located beyond the school boundary behind the proposed teach block.
- The existing tarmac hard play area to the rear of the school will remain unchanged.
- The staff car park located at the front will be retained. Emergency vehicle access will be retained.

5. Energy Statement

The new two classroom building has been designed to optimise energy efficiency. The fabric performance and air permeability performance of the building are enhanced beyond minimum Part L2A Building Regulation requirements. Both the window fabric performance and the air permeability are beyond minimum requirements.

The energy efficiency of the building is further enhanced by the implementation of hybrid ventilation heat recovery units (HVRs) in the classrooms and a mechanical ventilation heat recovery unit (MVHR) that serves the cloak room and WCs.

The building heating and hot water load is supplied entirely by a high efficiency air source heat pump renewable energy supply. Four roof mounted photovoltaic panels provide a supplementary renewable energy electricity supply to the building.

The new classroom block achieves BRUKL compliance. The as designed building carbon emissions and primary energy rate are well below the maximum permissible levels, as below:

The CO ₂ emission and primary energy rates of the building must not exceed the targets		
Target CO ₂ emission rate (TER), kgCO ₂ /m ² :annum	4.74	
Building CO ₂ emission rate (BER), kgCO ₂ /m ² :annum	3.7	
Target primary energy rate (TPER), kWh _e /m ² :annum	50.54	
Building primary energy rate (BPER), kWh _e /m ² :annum	37.09	
Do the building's emission and primary energy rates exceed the targets?	BER =< TER	BPER =< TPER

6. Access

External access and approach to the site

The access strategy will remain as existing. The school has a single vehicle entrance serving the staff car park which is shared with the main pedestrian entrance directly from the Street. Access to the school kitchen, located in an adjacent separate building to the left of the main school building will remain unchanged.

Entry point for teaching staff and pupils is via the existing car park. Children dismount and walk their bikes and scooters through the pedestrian gate across the playground to the bike racks. Reception classes use the existing pedestrian gate from the highway directly into the reception play area which remains unchanged.

Approach to the Buildings

The main entrance has a level access via a short ramp. Pupils enter the site via a separate secure entrance and generally enter and leave the school buildings via external doors in each classroom or a separate entrance from the main building and not via the main entrance.



Pupil access to the new separate single storey classroom block will be via external doors to the classrooms on the ground floor or via the stair entrances at each end of the block, all with level thresholds.

Car Parking

There will be a dedicated disabled parking for staff and visitors close to the building entrance, parents will not be permitted to use the car park to drop off or pick up pupils. Kitchen deliveries, emergency vehicles, maintenance access and goods deliveries will continue to use the existing access arrangements.

There are currently 11 Full time members of staff, 7 part time, 15.3 FTE staff and this is not intended to increase. The current car parking provision is less than the standards set out by the planning authority (2 spaces for 3 members of staff), but the provision has been agreed with the school as consistent with current demand.

Cycle provision

The existing covered cycle provision and secure storage arrangements within the schools secure line will remain as existing.



Internal circulation and access

The new single storey classroom block shared entrance & cloakroom lobby, provides access to the classrooms and conveniently located WCs. Each of the classrooms have access directly to the outside via steps.

Toilet provision

The shared gender neutral pupil toilet area within the new classroom block, contains a total of 3 WC's, which equates to a 1:20 ratio to meet the minimum BB103 requirement. The toilets are open to the shared cloakroom/entrance to facilitate passive supervision.

There is 1 No new ADM compliant toilet provided within the new classroom block. This will be accessible for use by pupils, staff and visitors in accordance with the revised Education Premises Regulation 2012. It will incorporate adult height WCs.

Roof access

Access to the new shallow pitch roof and rooflights for maintenance purposes is via mobile tower or MEWP.

Site security

The existing secure line of the school will remain unchanged. A gated fence completes the secure line to the playground to the right of the front entrance doors. A further gate and fence secures the front of the school and reception play areas. The existing secure perimeter line around the playgrounds will remain unchanged.

During the school day all pedestrian entrances are locked, to create a secure site in which entry and exit is limited to the main entrance through the car park off the High Street.