

Combined Paediatric ED and CAU, Barnsley Hospital

Design and Access Statement by Race Cottam Associates


On behalf of Applicant, Barnsley Hospital NHS Foundation Trust

Design and Access Statement

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Introduction



Introduction

This Design and Access Statement (DAS) has been prepared in order to support an outline planning application made by Race Cottam Associates on behalf of Barnsley Hospital NHS Foundation Trust for a Combined Paediatric Emergency Department and Critical Assessment Unit at Barnsley hospital.

The total proposed development area occupies approximately 4205m² and the proposed extension has a GIA of 999m².

This application reserves matters of access, appearance, landscaping and layout. although scale, [that is size, location and height] are included in this application.

Purpose of Document

The DAS intends to explain the proposed scheme and contains a written description and justification of the outline planning application. Its purpose is to:

- Explain why the extension is required;
- Summarise the appraisal of context, the principles and factors that have informed the building's location and size; that has led to the proposal, including assessment, involvement, evaluation and design;
- Describe the key architectural, landscape and access parameters that have been considered as part of the design to date.

The Design and Access Statement seeks to promote good design as advocated within section 7 of the National Planning Policy Framework (NPPF). It has also been drafted in reference to the best practice document 'Design and Access Statements: How to write, read and use them' (CABE, June 2006).

This statement forms one part of the application pack and therefore should be read in conjunction with the other accompanying drawings and documents as follows;

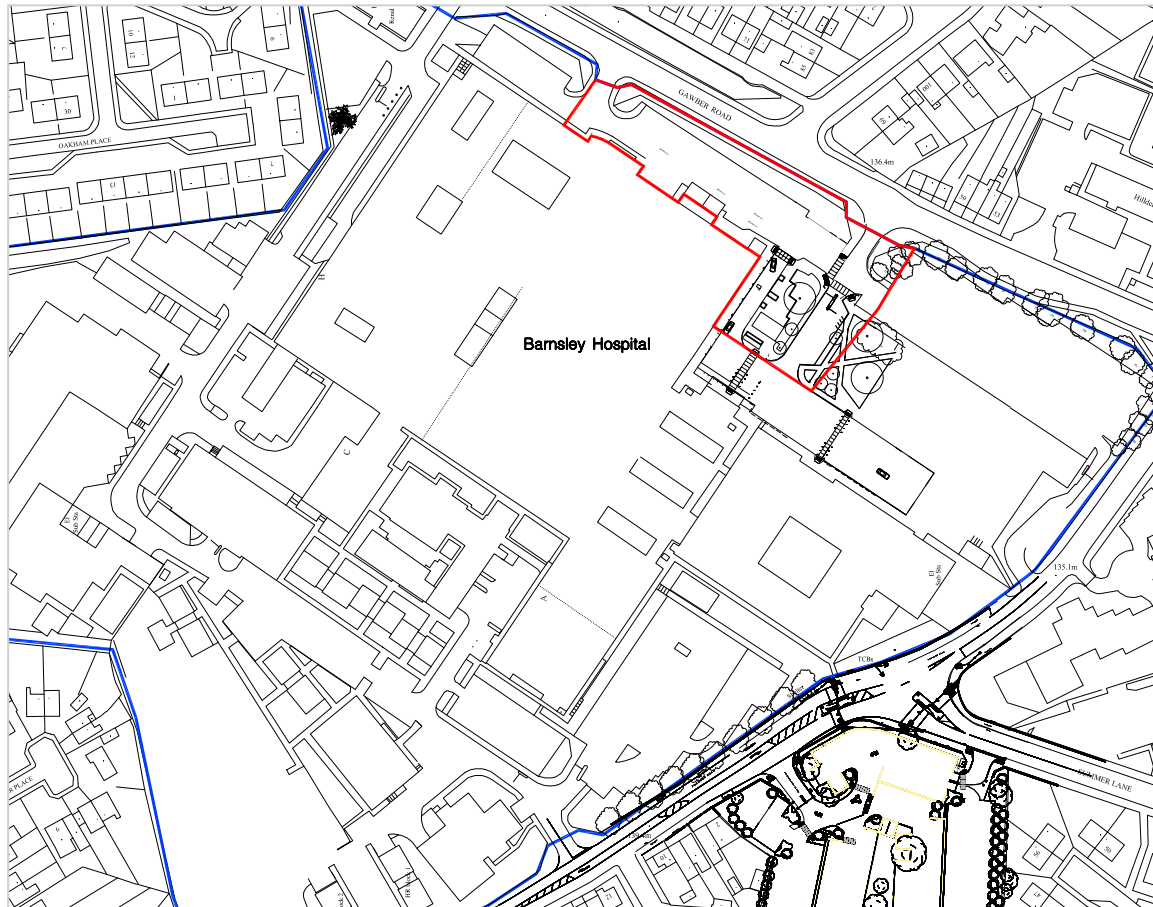
- (01)01- Site Location Plan*
- (01)02- Existing Site Plan and Ground Floor Plan*
- (01)03- Proposed Site and Ground Floor Plan*
- (01)04- Proposed Roof Plan and Section*

- Highways Proposal*
- Drainage Plan*
- Transport Statement*
- Ground Conditions Report*

The Application Site and its Context

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The Application Site and its Context



Extract from Site Location Plan

The site for the new Combined Paediatric Emergency Department and Critical Assessment Unit is on land to the north of the hospital's main entrance accessed off Gawber Road.

The land is currently used for disabled parking and three emergency vehicle access lanes and forms part of the current emergency department.

The site is bordered along its northern edge by a low level wall and a vegetation verge with grass, shrubs and two lines of trees (one within the hospital site and one to the highway).

The main hospital building consists of a two storey podium above which rises a nine storey building. On the Gawber road elevation to the two storey podium building are two large projecting canopies marking the ambulance only entrance and emergency walk-in patient entrance. It is to this facade that the extension is to be sited.

There is currently a two storey fire escape stair within the proposed site which will require reconfiguring.

Land to the north of the site is residential and buildings are generally two storey semi detached brick dwellings. The houses along Gawber Road are generally set down approx 3-4m from road level.

The Application Site and its Context



Main Entrance and Mullers Folly



Access lanes for ambulances and projecting canopies



Recent Works to Walk In Patient Entrance



The proposed site



Banked verge and Trees to site Boundary wall



Residential Properties to Gawber Road

Relevant Design Policy Context



Relevant Design Policy Context

Since all design matters are reserved, a full planning statement of how the design responds to the principles set out is in abeyance, however this outline planning application has had regard to and been informed by relevant national, regional and local policies.

Pre-Application Advice



Pre- Application Advice

A pre-application meeting with Barnsley Planning Department was held on 18th June 2018 with the Planning Officer Andrew Burton and the Principal Highways Development Control Officer, Barbara Wilson.

An introduction to the scheme and an explanation for the need for development was given by Alison Fearn (Project Manager - Estates Department at Barnsley Hospital) and the Design Team (Race Cottam Associates and Mott MacDonald) gave a summary of the approach to the building's design and transport strategy.

It was agreed that the boundary trees should be kept as far as possible.

The outcome of the meeting was that the Planning Department suggested a full application would be better, but Alison Fearn confirmed the very tight program as the reason to seek outline approval, to demonstrate progress in terms of the Planning within dates set by the funding agency.

A contents list for the application was agreed (see below).

- **Traffic.** A short statement outlining the intentions. This could go into the design and access statement. The travel plan can be conditioned which will give time to refresh this as agreed.
- **General Design and Access statement.** This could contain some of the statements regarding transport, drainage, tree retention etc.

- **A Drainage plan and strategy.** This is required, particularly for surface water run off, attenuating peak flows and minimising the flood risk.
- A construction method statement is not required at this time and can be conditioned.
- Environmental health would require a noise survey and attenuation of noise outbreak but again this can be conditioned. A general statement of intent for this to be contained in design and access statement. It was agreed that site movements creating other noise generally are not affected by this proposal. Ambulances will arrive in the same location so there is no change here. The main entrance can be rationalized and improved generally which will give an improvement.

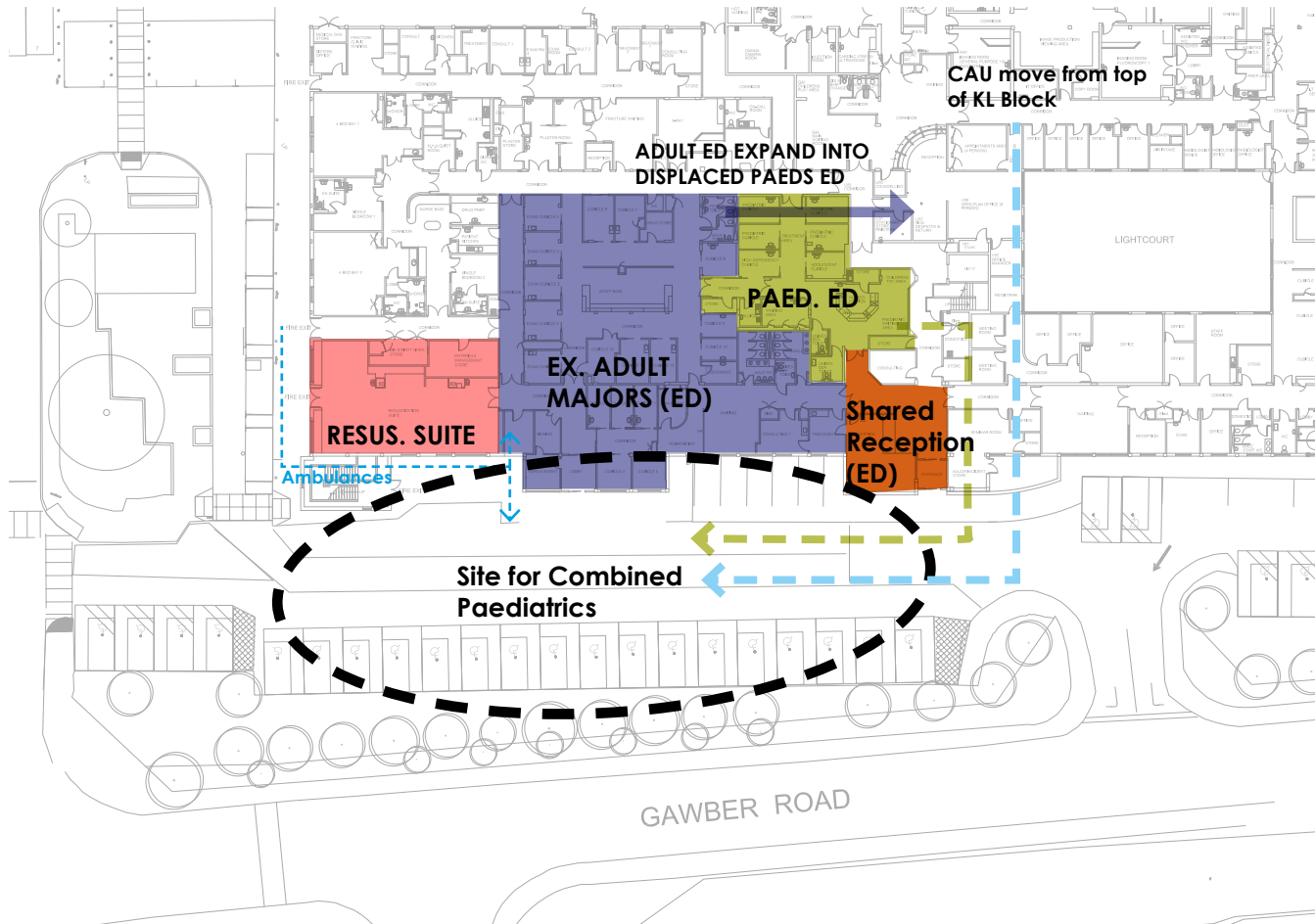
An additional email was sent by Andrew Burton that stated the application should also include

- **Desk top ground investigation report**
- **Indicative layout/ landscape masterplan**
- **Indicative section plans**
- **Site Location Plan** site edged red with land in applicants control in blue.
- **Application Fee, forms**

The Proposed Development



The Proposed Development



Use / Need

Barnsley Hospital deals with just acute paediatric; other long-term illnesses are treated at hospitals elsewhere.

Currently there are three existing paediatric locations - neonatal in block O, Children's Assessment Unit (CAU) at the top of KL Block and the Emergency Department (ED) at ground floor level facing Gawber Road. The same staff work in all three locations making for long staff journeys and there are inefficiencies in accommodation being split over multiple sites.

In addition to the issues associated with the Paediatric Services there is an urgent need to increase space in the adult Majors.

Three options have been investigated to provide a Combined CAU and ED Department and increasing provision for the Adult Majors. The preferred outcome is to extend at the front of the hospital to co-locate a new paediatric ED and CAU, which provides the best staff pathways and efficiencies. The vacated existing paediatric area is to be refurbished to form the extension to Majors.

It is expected only 2 additional staff would be employed. The scheme is a replacement and rationalisation of existing services. The number of patients to be treated would be the same for now however there is work being carried out to quantify future growth, housing developments and demographics and discussion has taken place with the planning policy unit and as a consequence some future-proofing is to be included in the scheme .

The Proposed Development

Design Approach

Since most design matters are reserved, a full planning statement of the approach and principles that have informed the design is in abeyance, To establish the amount of development the design team have worked closely with the Estates Department and clinicians in establishing a brief and schedule of accommodation. A layout has been worked up to ensure the size of development proposed can accommodate the rooms and more importantly the adjacencies required. New development at the hospital needs to be designed for long-term flexibility, enable more efficient department relationships, reducing staff travel times and ultimately improving patient care.

Size

The proposed maximum Gross Internal Area of the extension is to be 998m².

Layout / Location

The layout of the scheme is a reserved matter but the building's location is to be considered as part of this application.

As discussed earlier, various options have been considered for the new building and as a consequence of this full appraisal, the site at the front of the existing emergency entrance adjacent to Gawber Road is preferred as -

- It is in close proximity to the existing resus suite which is a shared facility for Majors and Paediatrics
- It is close to incoming ambulance routes
- There are efficiencies in sharing reception area and specialised consulting rooms with Majors
- It has the potential to use the new facade to create a new more welcoming child friendly face to the hospital.
- Allows the main hospital entrance to be visible from the main approach off Gawber Road.

Scale

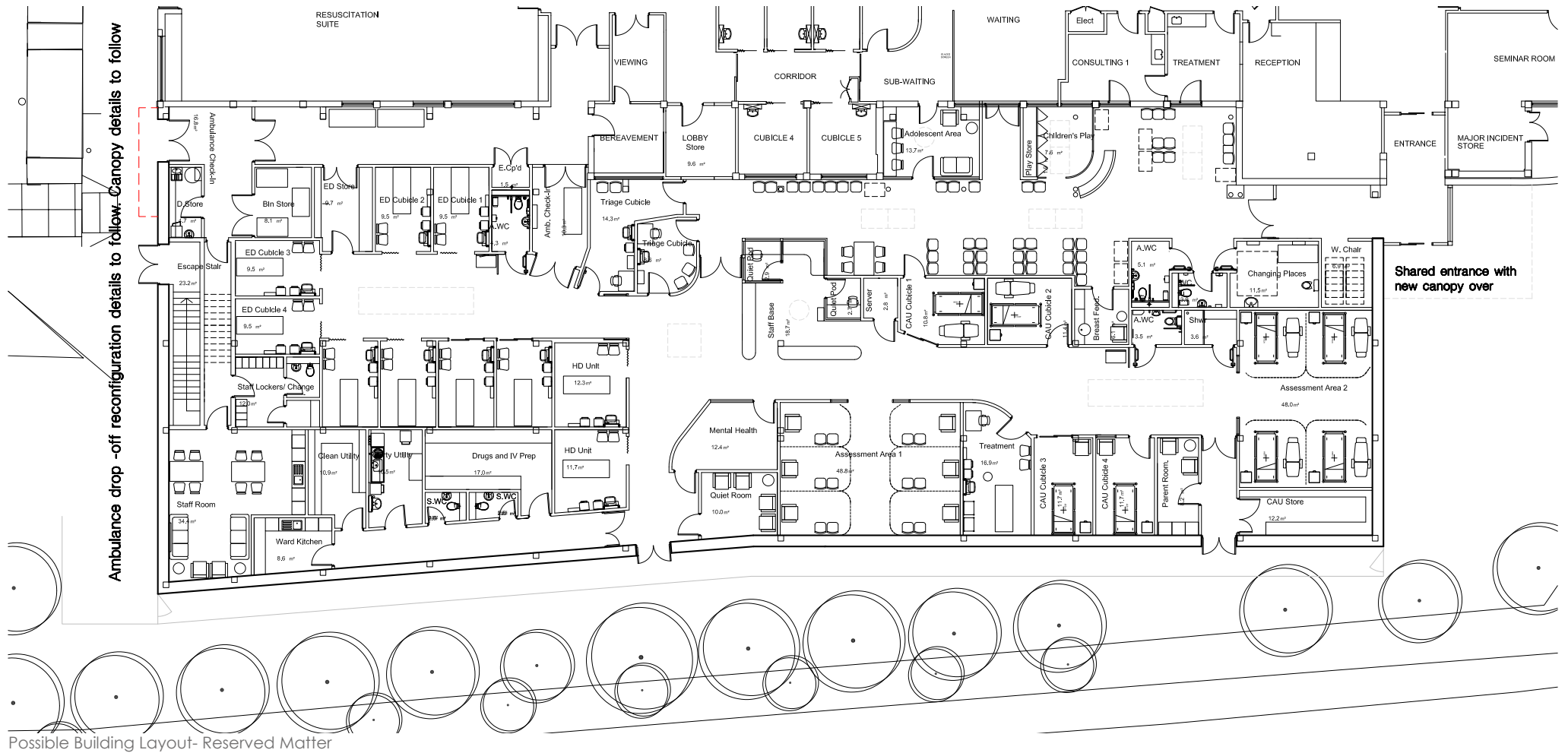
The new build will be a single storey extension and will require the removal of the existing canopies. There will be a small two storey element (extension to the existing emergency stair and a plant enclosure at roof level.

Appearance

The external appearance of the new extension is to be a reserved matter but is intended to keep the architecture and facade simple and to respect the distinctive 1970's Modernist architecture of ribbon windows and rendered bands.

The new building's elevations will need to balance the need for connection to the external environment for wellbeing but also privacy for both patients and staff.

The Proposed Development



The Proposed Development

Landscape Strategy

The existing trees along the hospital site boundary to Gawber road, for an attractive feature, particularly with the springtime blossom, and also an effective screen between the road and the hospital buildings. It is proposed to retain these trees along Gawber Road and the banked grass verge. It is expected that these can all be kept although at the northern end, it may be necessary to remove the end one or two to effect a suitable drop off area to the ambulant entrance area.

At this end of the site, there is also a low hedge/shrub feature which will need to be partially removed to allow the vehicle drop off to be formed and construct the northern corner of the proposed building.

The main hospital entrance roads and paths are to be re-configured, both to suit the ambulance entrance and to improve the access and safety of all users. The intentions here are described in the 'traffic statement' - see next page. This area will be mainly hard paved with contrasting surfaces to demarcate the roads and pavements together with tactile paving, kerb lines etc as would be normal in roadway design. new tree planting to form an avenue leading to the main entrance is envisaged. The overall design of this area and in particular the enhancement of the main entrance areas is to be developed. and the details agreed as a reserved matter.

Proposed Site Plan

The Proposed Development

Traffic Statement

The development proposal will occupy the current Accident and Emergency Department ambulance drop off area adjacent to Gawber Road and existing accessible parking spaces located adjacent to the northern elevation of the hospital. Consequently, current arrangements for the ambulance services, including the exit at the northern corner of the application site, [outside C5 block] become superfluous and will be addressed as part of the development proposal as outlined below.

A key factor in the movement framework of the proposed development is ensuring that ambulance services can access the emergency unit upon arrival and depart from the site to respond to another emergency call with minimal delay. A new dedicated operational area for ambulance services is proposed to be located adjacent to the new development, replacing existing hard landscaping areas and a redundant smoking shelter.

The existing parking area outside C5 Block is proposed to be used for drop-off and parking for patients arriving at the Accident and Emergency Department by independent means.

Vehicular Access

The current main vehicle access from Gawber Road does not need to be changed by the proposals and the current ambulance access route remains with some road replanning within the site. However, other options have been investigated, and entrance flows may be able to be improved by an overall re-thinking of the main entrance and adjacent car parking access. This includes the possibility of a widened 3 lane entrance from the main road, to give preference to ambulance movements and reduce car park queuing into Gawber Road. This would form part of future detailed considerations, all to be discussed and agreed with the highways department.

The existing site egress outside C5 Block, currently utilised as egress for ambulance services as well as egress from the existing car park, is proposed to be revised to allow both access and egress from Gawber Road to the new drop-off / parking area.

Pedestrian Access

The proposal seeks to retain existing pedestrian routes and crossing facilities along Gawber Road with some modifications at the Gawber Road site access if required. The layouts of the proposed modifications at Gawber Road site access and at the C5 Block car park access will be detailed in the next design stage.

Existing pedestrian routes from Gawber Road to building entrances will be reviewed to give better separation from vehicles and more straightforward navigation. These will all be further considered and detailed in the next design stage with a view to provide a safer walking environment.

Emergency Access

The proposal will retain existing access arrangement for fire engines from the Gawber Road site access.

The Proposed Development

Drainage Strategy - Foul and Surface water generally

This technical note represents a summary of relevant information contained within Mott MacDonald's Barnsley Hospital – CAU & ED Flood Risk Assessment, BPU-MMD-00-XX-RP-D-0001 Revision P02 and should be read in conjunction with this report. The below summary provides information relating to the initial foul and surface water drainage strategy proposed for the development.

1 Existing Site Drainage

Barnsley Hospital is in the area covered by Yorkshire Water. Sewer records obtained from YW show a surface water sewer (225Ø) and a combined sewer (225Ø) beneath Gawber Road to the north of the site. The records indicate these are at a depth of approximately 0.91m and 1.52m for the surface water and combined water respectively.

Historic information provided by Barnsley Hospital NHS Trust also shows a private surface water and foul water sewer running parallel to Gawber Road, beneath the existing car parking and verge area. The quality of the historic documents limit the information able to be extracted, however, it is indicated that the diameters for the foul and surface water pipes are 18" (c.450mm) and 12" (c.300mm) respectively. The depth of the surface water at the exit onto Gawber Road is estimated to be 1.1m and the foul 1.7m.

2 Existing Land Drainage

As the site is developed and positively drained it is assumed there is no land drainage. There is no evidence to suggest any existing.

3 Existing Watercourses

There are two watercourses within a 1km radius of the proposed development. The first is an unnamed watercourse to the north of the site. OS open source maps indicates it starts 300m from the site, beneath Samuel Road. It flows north and outfalls into the River Dearne. The second watercourse is 650m south of the proposed development and is known as Sough Dyke. The watercourse is indicated to start at May Terrace, before flowing east. The watercourse is culverted at Perseverance Street, where it travels through Barnsley town centre.

4 Potential for Infiltration

Historical borehole logs available through the British Geological Survey maps (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>) indicate the presence of made ground to approximately 2.20m depth, clay to approximately 3.95m depth then a sandstone bedrock at 4.17m depth.

Given these observations of the known geology, the use of an infiltration based system does not appear viable due to the likely depth of made ground, however, in-situ, site specific testing would need to be undertaken. Therefore, in-lieu of this data, for the purpose of this study alternative methods of surface water discharge shall be considered as the primary means of disposal of storm water.

The Proposed Development

Surface Water Drainage Strategy

The existing site is positively drained to a private drainage network that discharges to the adopted sewer beneath Gawber Road. It is proposed to re-use this existing system and connection where possible for the new development.

A suitably designed storm water drainage system shall be provided to collect, convey and attenuate the additional runoff generated by the development of this site. The net result shall be that there is no increase in flood risk to either downstream properties or assets as a result of the development. Yorkshire Water are likely to require a reduction in the peak discharge rate.

As the site is classified as a brownfield site, it is proposed to offer a 30% reduction on the existing M30-30 storm event (50mm/hr). The existing site run-off is estimated to be 36.14l/s. This will be achieved via the provision of onsite surface water attenuation and flow control devices.

Based on the site area (0.33ha) and using the Lloyd-Davis Method for the undeveloped site, the proposed run-off will be 25.3l /s. The application of a SuDS based system will be considered as the primary measure for dealing with surface water management.

The natural topography and nature of the site is such that available space for surface water management is limited. This means that many options including swales, ponds, permeable paving and surface storage are not considered viable for the site as discussed in report BPU-MMD-00-XX-RP-D-0001 Revision P02 section 6. A geo-cellular storage system has a reduced size when compared to permeable paving and provides the benefit of potential shallow installation, for this reason it appears the most suited to this site.

The volume of attenuation required for the development has been estimated using design software. For the purpose of this assessment a geo-cellular storage tank with flow control device has been used. The software uses the FSR characteristics of M5- 60= 19.000 mm and ratio R=0.360. A climate change percentage of 40% has been used as at this point surface storage does not appear to be possible.

Table 1: Summary of Anticipated Attenuation Volume

| Run-off | Impermeable Area | | Anticipated Unrestricted | |
|------------|------------------|-------------|--------------------------|--------|
| | Flow Restriction | Approximate | Attenuation | Volume |
| | ha | ls-1 | ls-1 | m3 |
| Whole Site | 0.26 | 36 | 25.3 | 135 |

Source: Microdrainage Calculation

This assessment is for the whole impermeable area discharging to a single system such as a geo-cellular storage system. Undeveloped areas within the site boundary have not been considered as it is assumed that drainage of these areas will be as existing.

An initial drainage strategy drawing has been provided within Appendix B of the Flood Risk Assessment Report referenced above which details initial proposals and strategy for surface water management. These proposals shall be developed further at detailed design stage.

The Proposed Development

Foul Water Drainage Strategy

1 Foul Water Flow Rates

Based on an early assessment of the proposed layout and with the assumption of 200 users per day an approximate dry weather flow of 1l/s has been estimated using Flows and Loads. This equates to an approximate peak flow of 2-4l/s.

2 Proposed Outfall

It is proposed to divert the existing private foul sewer beneath the existing car park around the perimeter of the new building. New foul flows shall be connected into the existing private network, allowing re-use of the existing foul connection to the adopted sewer beneath Gawber Road.

Site investigations are required to assess the diameter and depth of the existing private sewer network on site and a capacity assessment is also required to confirm its potential use. These assessments shall be completed at detailed design stage.

An initial drainage strategy drawing has been provided within Appendix B of the Flood Risk Assessment Report referenced above which details initial proposals and strategy for foul water drainage management. These proposals shall be developed further at detailed design stage.

3 Strategy

Foul flows shall be collected using an internal pipe network, leaving the proposed building to the north. The flows will then connect to the existing private sewer network that runs parallel to Gawber Road, before discharging to the existing combined sewer beneath Gawber Road, indicated on the Yorkshire Water sewer records as included within Appendix A of BPU-MMD-00-XX-RP-D-0001 Revision P02.

Access



Access

Accessibility

The new extension is intended to be set at the same floor level as existing ensuring that there will be no steps [or ramps] between the new and existing.

The main pedestrian entrance to the area is intended to be shared with the existing adjacent entrance point and drop off and disabled parking bays can be provided nearby.

Accessible toilets, including a 'changing places' provision are intended within the new paediatric waiting areas

The ambulance access will need to be re-provided and this can be done to the south of the extension, utilising the same site access point from Gawber Road. The ambulance area is intended to be designed with level pavings throughout.

Within the building, all flooring will be designed for wheeled traffic including wheelchairs and trolleys. Finishes generally will be of suitable contrast between main elements for easier visual recognition.

In general all design will be to the standards of Part M as a minimum.

Proposed Construction Access Routes (Pros/Cons comments may want to be removed?)

Conclusion



Conclusion

The application is for outline permission only and all matters are reserved except for the scale of the proposed building.

The outline design concept allows for the ambulance and general public access to be maintained with only minor alterations to the traffic routes. The loss of parking can be made up elsewhere on the site.

The proposed building mass comes close to the Gawber Road boundary but enables the retention of the boundary trees both within the site and within the highway verge. The building is single storey and therefore will not form an overbearing element relative to the residential properties opposite.

The new ambulance access area will enable the removal of the existing, untidy chalet and sitting area in front of the main entrance and enable new amenity landscape as the first part of further planned enhancements of the main entrance area.

Initial studies show little engineering and environmental risk in terms of the affect of the development.

We believe that the concept for the proposed extension is in keeping with the existing hospital and will form a much needed enhancement of this service to the residents of the local area.



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