5.0 Landscaping & Site Strategy

5.3.1 Overview of External Learning and Social Spaces

The main external learning and social spaces area:

- The entrance plaza.
- The informal grass amphitheatre.
- The access link between the Construction Centre and the Sports Centre.
- The external learning space to the south of the construction centre.
- The Construction yard south of the construction centre.

5.3.2 Entrance Plaza and Informal Amphitheatre

The area between the Refectory and Construction centre accommodates an entrance plaza that provides a formal gateway into the Construction centre and a link between the two buildings.

The key elements are:

- Paved area with planting that provide an aesthetically pleasing frontage to the building.
- Trees provide shaded seating and add vertical interest to the space.
- Seating creates a social space for students and visitors to gather and provides an external learning resource.
- The existing level change between the grass bank to the north west and the external learning space is used to form an informal grassy amphitheatre of 2 terrace banks for sitting on, overlooking the social space.
- Access is provided from the main entrance square to the town centre campus via an extension to the existing pedestrian path along the rail lines.
- Planting is proposed at the back of the seating to create an edge to the informal amphitheatre. Planting is also provided between the amphitheatre and the entrance square, defining each space.

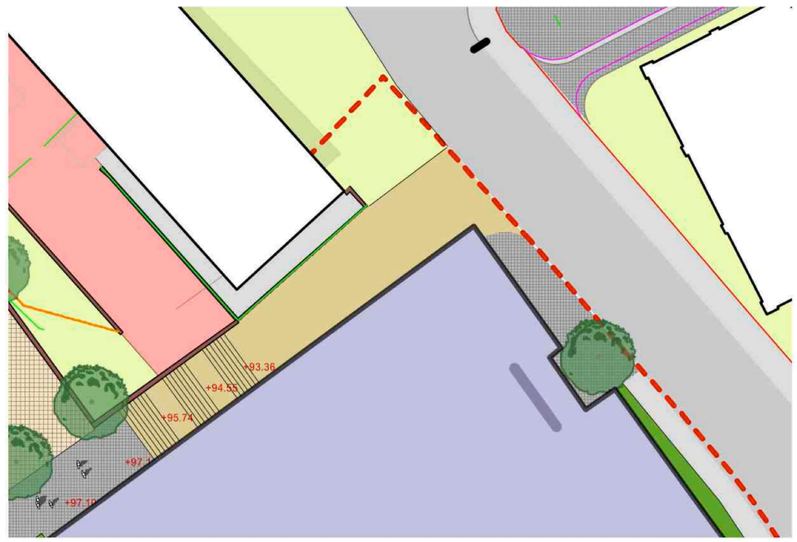
5.3.3 Access Link between the Construction Centre and the Sports Centre

Key elements of the main entrance route:

- A series of steps to accommodate level change and fit with the building frontage.
- Steps divided into two sets of 7 steps and one set of 8 steps with resting platforms between to provide a comfortable level change.
- Beside each set of stairs, a retaining wall retains the level change.
- Low-level lighting on the steps and platforms create an ambient atmosphere and a safe environment at night.



Entrance plaza and informal amphitheatre



Access link between construction centre and sports hall

5.0 Landscaping & Site Strategy

5.3.4 External Learning Space

386.7sqm of external learning space is proposed to the back of the building adjoining the construction yard.

Key elements of the External Learning Space:

- A canopy to keep materials and equipment dry
- Secure area for forklift machines - 45m^2
- Dry store area for 6000 bricks and 1000 blocks - 25m^2
- Brick recycling rubble crusher area - 25m^2
- Scaffold store - 30m^2

5.3.5 Construction Yard

In addition, the construction yard outside the covered external canopy space is proposed to accommodate a variety of storage for the construction centre.

Key elements of the Construction Yard:

- A Pan House and Plastering Mixing facility are located within the service yard area. Each housing for these facilities is 40m^2 and 2.5m in height.
- 9 Steel containers are provided along the bottom of the bank from the railway line. The following containers are 13.7m^2 and 2.3m in height and will be used for a variety of storage-
  - 3 for timber storage
  - 3 for plaster board storage
  - 2 for plumbing storage, and
  - 1 for gas storage.
- An additional store area (35m^2) for uncovered bricks and blocks will be accommodated outside the covered canopy and within the construction yard.
- 8 Euro bins and 2 skips are located within the construction yard to allow service vehicle access.

Furthermore, the external crèche area will be extended to incorporate additional hard/soft outdoor play area with trees to provide shade.



Access link between construction centre and sports hall



Construction Yard

5.0 Landscaping & Site Strategy

5.4 Materials Strategy

The key elements of the materials strategy:

- Macadam access road.
- Concrete service yard.
- Breedon bound gravel for the fire escape route.
- A mix of paving slabs and block pavers in a variety of colours for the entrance plaza.
- The unified approach to furniture and planting around the entrance plaza will include steel and timber seating and steel litter bins.

5.5 Planting Strategy

The key elements of the planting strategy:

- Native species edge mix along the site boundary to provide screening to the railway.
- Tree planting along the pedestrian route behind the refectory to provide a pleasant route to the main square.
- Tree planting around the main square to create a welcoming entrance to the construction centre.
- Structural planting around the back edge of the informal amphitheatre to enclose the social space.
- Ornamental planting to elevation of building.
- Climbers to gabion retaining wall.

5.6 Drainage Strategy

5.6.1 Drainage

The utilisation of soakaways for surface water drainage disposal is likely to be feasible for all / part of this site. Specific site investigation should be undertaken to determine the specific requirements for the type, location and depth of soakaway for the site.

Consultation with the Environment Agency and Barnsley Council should be made in respect of the proposed development. Permitted types of soakaway should be agreed with these consultees in conjunction with acceptable types of pre-treatment in respect of protecting groundwater.

The new drainage for the Construction Centre will be developed with separate systems for foul and surface water. Below ground drainage systems are to be designed to the standards of BS EN 752 – Drain and Sewer Systems Outside Buildings. Under slab drainage including main runs and subsidiary branches are to be designed to flow rates determined from the standard BS EN 12056 – Gravity Systems Inside Buildings. SUDS features including soakaways for the site will be designed in accordance with the design guidance in CIRIA 697 - the SUDS Manual.

5.6.2 Flood Risk

The proposed development is less than 1Ha in area and is located outside of Flood Zone 1 as defined by the Environment Agency. A Flood Risk Assessment is therefore not required for planning. However, dependant on the proposed BREEAM accreditation the college is targeting, a flood risk statement may be required to claim the relevant drainage credit.

6.0 Sustainability Statement

6.1 Approach to Sustainability

The College is committed to creating a sustainable design solution and, in line with the Skills Funding Agency requirement, has identified a target BREEAM rating of Excellent for the new development.

As part of the design development a BREEAM pre-assessment has been undertaken, which has been used to refine the proposals, however core to the design concept are a number of key sustainable features:

- A focus on passive design measures including maximising use of natural daylighting and ventilation wherever practical.
- Additional investment in the building fabric to increase air tightness and insulation levels significantly above current building regulations.
- Specification of environmentally friendly or recyclable materials wherever practical (Green Guide A or A+ rated).
- Separate metering for utilities and water supplies serving the new building, enabling the College to monitor its performance.
- Use of energy efficient heating systems and controls, linked to the Building Management System.
- Use of energy efficient lighting and controls, including daylight and motion sensors.
- Conservation of water through the use of low flush/flow restricted sanitary fittings, metering and leak detection systems.
- Incorporation of significant amounts of low or zero carbon (lzc) on site renewable technologies to achieve a 10% target reduction in operational C02 emissions.
- Incorporation of facilities for separating waste and recycling within the external external servicing and storage area. There will also be a requirement for the contractor to minimise, separate and recycle waste during the construction of the new building.
- Provision of cycle stands plus changing, showers and locker space in the new building.

An assessment of all the possible lzc technologies has been undertaken as part of the early design work. This has preliminary identified incorporation of a combination of a biomass boiler and roof mounted photovoltaic panels as the optimum solution.

7.0 Access Statement

7.1 Pedestrian and Vehicular Access

Section 5.2 sets out in detail the approach to pedestrian, vehicle and cycle access, however in summary:

7.1.1 Pedestrian Access

The new Construction Centre responses to the main pedestrian approach from Huddersfield Road, with the main entrance and teaching block fronting directly onto this route helping to define and animate it. The proposed external works seek to separate pedestrian and vehicle traffic to improve safety, with the proposed new landscaping to the arrival plaza and landscaped steps greatly improving pedestrian links between the existing and new buildings.

7.1.2 Servicing and Waste

As noted in section 5.2 the proposed site plan seeks to separate the key vehicle and pedestrian routes as far as possible, with servicing and delivery vehicles utilising the existing access road to the Think Low Carbon Centre. This will be extended to provide key points for servicing:

- Use of the existing deliveries arrangements and hammer head turning point created as part of the Think Low Carbon Centre for very occasional use by large articulated vehicles. Once unloaded, deliveries from this area will be transported up to the main external compound by forklift.

- Creation of a new secure external deliveries and storage area to the rear of the main workshops. It is envisaged that this will be utilised by the majority of service vehicles delivering materials to the workshop with provision for turning fixed delivery and refuse vehicles. An internal goods lift will provide delivery access to the workshops on the first floor.

- Waste vehicles will pick up from the external service and storage area to the rear of the workshops, with provision for separation of waste materials for recycling.

- An additional refuse store is located next to the refectory building adjacent to existing recycling facilities, which is accessible by service vehicles via the existing access road off the College access road.

7.1.3 Parking Provision

As part of the project the College has undertaken a Transport Assessment and updated its Green Travel Plan. These are provided as separate reports and provide detail regarding the existing and proposed parking numbers and rationale. The proposed layout would create a total of 25 parking spaces campus comprising:

- 4 accessible bays.
- 11 spaces adjacent the existing refectory/crèche.
- 4 spaces adjacent the new Construction Centre.
- 6 Motorcycle parking bays

7.1.4 Fire Tender Access

- Fire Tenders will have emergency access to via the existing access road to the service yard at the rear of the building. In addition fire tenders will have level access to the main entrance and front of the new facility from the parking area adjacent the existing refectory building.

7.2 Inclusive Access

7.2.1 Approach to Accessibility

The design proposals for the new Construction Centre have been designed to meet the requirements of Approved Document M. Set out below is a brief summary of the design features included within the design:

7.2.2 New Construction Centre

The new building is designed to be fully compliant with Part M. key features include:

- ***Main Access –*** The main entrance into the building from the arrival plaza will provide level access with automatic sliding doors. All entrance doors that are fully glazed shall incorporate manifestations in accordance with Section 2 of Approved Document N. All principal entrance areas will have large walk-off low friction entrance matting to entrance lobbies.

- ***Internal Circulation*** - The building is constructed with level floor plates allowing ease of movement horizontally throughout the building. Vertical circulation for able bodied and ambient disabled users will be provided by two general access stairs and a feature stair in the internal street. These stairs are designed to ambulant disabled standard to Approved Document M and have a wheelchair refuge point with a call facility.

  A passenger lift will also be provided users with mobility issues. This is located in one of the stair cores enabling it to be utilised for evacuation.

  All circulation routes are to be marked out in a contrasting colour to the other finishes so as to give a 30% min. visual differential to aid those building user with impaired sight. All internal doors are to provide a minimum clear opening width of 900mm, via one door leaf opening. All doors to have the requisite vision panels to comply to Approved Document M.

- ***Accessible WC Provision*** - A total of 21 WC's are to be provided including larger cubicles for ambient disabled as well as 2 dedicated accessible WC's. These are located to ensure that the maximum travel distance to an accessible WC is under 40m. In recognition of the practical nature of the curriculum, one of the accessible WC's will also include shower facilities.

- ***Reception*** - Reception points will be designed to maximise inclusion whilst still maintaining a secure environment for both students and staff. The main reception will be prominently located adjacent the main entrance with a split height counter. This shall be designed to both receive wheelchair users and to allow a wheelchair user to be employed as a receptionist. However, given the varied nature of disabilities it will also be necessary to have a higher level serving position which will allow people to have difficulty in bending down to be served at a comfortable height.

  Permanently installed Hearing Induction Loops will be fitted in key areas including the main reception to assist visitors who may have hearing aids. The incorporation of a hearing induction loop will be appropriately signed and made visible to all visitors to the building.

- ***Alternative Provision/Mezzanine Bays.*** To maximise utilisation of the available workshop space it is currently proposed that a number of the workshops have double stacked practice bays accessed via internal stairs. These will not have lift access however, should provision be required for a disabled learner it is envisaged that an appropriate facility will be made available at the ground floor level.

7.0 Access Statement

7.2.3 External Works

- ***Accessible Parking –*** 4 accessible parking bays will be provided for the new Construction Centre opposite the existing refectory building with a level approach to the main entrance with gradients being less than 1:20.

- ***External Surfaces and Approaches Generally*** - All access points into the building, including the fire escapes are to be provided with level thresholds and ramped access to Approved Document Part M requirements. Elsewhere in the site, all gradients of the external paved areas will seek to achieve as close to Approved Document M compliance for ramped access as possible given the existing external gradients.

- ***Accessible Paths & Steps*** - All pathways as proposed will be hard surfaced with non-granular surface finishes being specified. Gradients of all paths around the building complex will be designed to be less than 1 in 20 where possible to avoid the need for ramped access. Where ramped access cannot be avoided and is greater than 1 in 20 stairs shall be provided for the use of ambulant users who may find the use of a ramp difficult to negotiate. Cross falls will be less than 1 in 40.

- ***Warning Surfaces*** - The edges of vehicular crossings to pathways at all access / egress points to and from the site will be provided with drop kerbs and tactile warning surfaces. The length of the tactile paving in instances such as these will at least 1.2 metres.