Review of Planning Application<br>submitted with outline application 11/21/0622<br>Land south of Blackburn Road, Oswaldtwistle<br>By Barnes Walker

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1. Barnes Walker have been engaged by the 'Say No to the Cemetery' protest group to investigate, understand and comment on the planning application for the proposed Muslim Cemetery off Blackburn Road.

Barnes Walker are a firm of landscape architects with extensive experience of delivering large scale landscape projects. Our expertise covers landscape design, landscape and visual assessments, drainage and SUDS, earth contouring and moving and the delivery of high-quality landscape projects with notable ecological enhancements. Some of our clients that have engaged us for the above categories of work include the National Trust, Natural England, Local Authorities, major road builders and wealthy industrialists. We led the proposal and gained planning permission for a major earth works project at Brindle just west of Blackburn which facilitated the construction of the western section of the M65 motorway.

We have made an appraisal of the submission documents; we have studied the site and the surrounding area and we have consulted with locals to gain an intimate knowledge of the site and its context.

This understanding has allowed us to make a series of comments. We have found omissions and errors in some of the baseline assumptions and have chosen to comment on these in sequence. Some of the omissions are profound.

The first series of comments deal with the basic understanding of the site and its inherent characteristics.

There are important relationships between the topography, geology and soils, surfaces and the hydrology of any given landscape.

It is important for the landscape designer to fully understand the existing situation before starting the design process.

The design proposals should seek to resolve any issues that the site analysis presents.

## Geology \& Soils

There are soil analysis trial holes across most of the site. These have been undertaken with an excavator and extend to approximately 3-4m deep.

The soil excavations identify a pattern:

- Heavy clay top soils cover the majority of the site
- Above the 185 m contour the trail holes encountered fractured sandstones at depth
- Below the 185 m contour the trail holes encountered a mixture of clay, coal, shales and mud stones at depth.

The heavy clay top soils together with the clay, shales and mud stones across the lower northern half of the site means that the ground conditions are generally impervious.

Given the fact that proposed excavations will reach a depth of 10-12m, bore hole analysis should extend to at least 1 m below proposed ground levels, otherwise the understanding of site conditions is incomplete. Design assumptions on drainage, suitability for burials, the measures required to excavate and stabilise the ground can not be made without this additional bore hole information.

## Hydrology

The ground water and drainage statement makes no mention and no allowance for the comprehensive and intricate system of springs, stream courses, ditches and pipes water courses which cross the site. This is a basic omission which has a profound impact on many assumptions made within the proposals.

The annotated aerial view identifies the various drainage features that traverse the site. The series of photos illustrate some of these features from ground level and also ponding which occurred after a couple of days rainfall. The lake features have the capacity to be much larger after prolonged rain.

It should also be recognised that old pastoral fields will have had an extensive system of land drainage pipes laid just below the surface. This type of drain is likely to be present and at the design stage should be allowed for.

The proposals make no provision for dealing with the enormous amount of water that presently flows across the site.

Therefore, the design proposals should demonstrate how the hydrological issues are to be overcome.

Refer to the water drainage figures below.

Known surface water drainage features


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Known surface water drainage features - photographs

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## Surfaces

The existing surfaces are all 'soft' grass. Where the topsoil has some (but limited) capacity for absorption. During times of even moderate rain the pronounced slopes will produce a surface run off which will either get caught by the various stream courses or ditches or continue to the lowest levels. The photos attached show the presence of a temporary pond feature in the lowest part of the site against Blackburn Road. Local knowledge states how the pond can become very large and extend across Blackburn Road.

The proposed cemetery layout has large areas of grass with some extensive areas of permeable paving and smaller areas of non-permeable bitumen macadam roadways and roofs.

The design proposal identifies an area of parking roadways and building roofs that will discharge water via an attenuation system into the drains that serve Blackburn Road. As the area of proposed hard surfacing approximately equates to the surface area of Blackburn Road the drain capacity within the road will need to be able to cope with double the present capacity. Has this been checked with the relevant authority?

There is no mitigation strategy for the proposed grass or permeable paving areas, we believe this to be an omission.

Porous paving will cope with light rains on flat levels when the paving is new. However, over time natural dusts can block the fine matrix within the surface to impede drainage and pronounced rainfall across slopes will cause accelerated run off. Therefore, backup positive drains will be required to cope with even persistent light rains.

Grass slopes of 1:20 (which is the designed gradient for much of the cemetery) will require positive drains to direct heavy rainfall into controlled directions.

Our experience has demonstrated that given the underlying soils and the slopes all the surfaces will need a positive drainage strategy. Our comments on the need for positive drainage for the permeable paving and grass surfaces follows standard industry practice.

This is a very important consideration which has been overlooked.

## Burials

The drainage statement provided by Archi-structure mentions the suitability of burials based on trial holes within the surface 2-3m.

However, many of the burials would take place between $5-10 \mathrm{~m}$ below existing ground levels. Where are the trial holes to those depths?

Given the fact that many of the burials would take place potentially 10 m below current ground levels...
and existing springs would directly emit water into the newly formed ground...
and water passing over and through the site will discharge off site into the neighbouring water course.
It is therefore highly likely that the burials will contaminate this movement of water.
There is a complex set of dynamics involving water flow and ground conditions which has not been assessed.

## Scale and Earth Works

The proposals are to generally cut and fill the site with a calculation for the cut to exceed the fill by $580,000 \mathrm{~m} 3$. A cut ratio of $1: 1$ is presumed.

Industry experience would show that excavated material bulks up once dug from the ground. Depending on the soils this will be by at least $10 \%$. Rock and clay will bulk up by a greater proportion.

Therefore, it is reasonable to assume that the excavated material will generate a significant amount of effort and traffic to remove the material.

This can be calculated as:
$580,000 \mathrm{~m} 3 \times 1.1=638,000 \mathrm{~m} 3$

Assuming 8-wheel lorries are used to move the material (which have capacity of 10 m 3 ), 63,800 vehicle movements will be required to export the material. The same number of journeys will be required to pick up the material.

The volume of material to be excavated equates to a football pitch sized tower 106 m high. This is an enormous volume of material.

Assuming that the material is to be removed to another Greenbelt site this could trigger further planning applications in other local areas within the Greenbelt?

It would be reasonable for this proposal to identify and twin with other proposals for the suitable disposal of the excavated material. Presumably the process of removal is reliant on the ability to successfully deposit elsewhere.

The cut and fill drawings identify fill to be positioned in some unusual positions, some of which are off site in neighbouring gardens.

Refer to EPS Plan UK21.5655-001A

- Position 1 - A 3-4 high knoll is proposed at the top of the new 10 m high embankment making a 14 m high feature.
- Position 2 - This fill will raise the level of the car park 3m above Blackburn Road and there is no allowance to grade down to adjacent land off site. (Is a retaining wall intended?).
- Position 3 - up to 5 m of fill is proposed across neighbours' gardens and in certain instances into their living rooms? A wall of earth would be presented to these neighbouring properties.
- Position 4 - up to $3 m$ of fill is proposed across neighbouring gardens and again in certain instances fill is proposed into the living rooms of certain properties?

Assuming these fill proposals are wrong this further exacerbates the cut proposals and the amount of material to be exported.

## EPS Plan UK21.5655-001A - Inappropriate Cut and Fill



KEY:
(1) A $3-4$ high knoll is proposed at the top of the new 10 m high embankment making a 14 m high feature.
(2) This fill will raise the level of the car park 3 m above Blackburn Road and there is no allowance to grade down to adjacent land off site. (Is a retaining wall intended?).
(3) Up to 5 m of fill is proposed across neighbours' gardens and in certain instances into their living rooms? A wall of earth would be presented to these neighbouring properties.
(4) Up to 3 m of fill is proposed across neighbouring gardens and again in certain instances fill is proposed into the living rooms of certain properties?

Assuming these fill proposals are wrong this further exacerbates the cut proposals and the amount of material to be exported.

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|  |  | CLIENT. <br> 'Say No to the Cemetery' |  | PROJECT TITLE. <br> New Muslim Blackburn Cemetery, Accrington |  |  |  |
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## The Practicabilities of Excavating The Site

It is known that the site comprises heavy soils which combine a mix of clays, shales, mud stones and coal seams.

It is also known that a line of springs emit water around the 185 m contour onto and across the site.
Further water is discharged from the pond in front of Knuzden Hall.

Water will also run off and across the site from falling rainfall.

Presently the settled and stable nature of the ground means that running and collected water is in a clean and unpolluted state. Recent heavy rain has created a temporary lake of 'clean water' alongside Blackburn Road

However, if the ground is disturbed by earth works the mix of water and disturbed soil will instantly turn to (huge) amounts of mud. This will be largely trapped by Blackburn Road. This mud will not be able to dissipate off site (the clean water can presently do so) and will quickly build up and cover Blackburn Road and beyond

## Given the confines of the site we believe it will be impossible to mitigate against the deluge of

 mud.A thorough Construction Method Statement should be provided.
3.1 The following sections provide comment on the detailed design approach as set out in the following documents and plans:

- Design and Access Statement (DAS) by Archi-Structure
- Landscape Appraisal by DEP Landscape Architecture
- Master Site Plan (221-100-01)
- Proposed Landscape Masterplan (4860-01)
- Master Site Plan Ex. Landform \& Contours (221-100-14)
- Preliminary Arboricultural Assessment by DEP
- Proposed Building Plans and Elevations by Archi-Structure
- Site Sections
- Master Site Drainage Plan (Provisional)
- Master Site Drainage Plan (Drainage Areas)
- Topographical and Landform Information

In essence, the proposed design approach is flawed and does not follow best practice. There has been a fundamental failure to appraise the existing characteristics of the existing site and the character of the wider area and therefore also a failure to apply a design approach that relates to the nature of the site or responds to the sensitive location in a sensitive manner.

On the contrary, it appears that a design solution has been devised in isolation from the site and its characteristics, and has then been retro-fitted to the specific site boundaries, in order to satisfy some very specific design aspirations or requirements such as:

- orientation of burial plots;
- an efficient geometric grid layout;
- an aspiration to bring accessibility to the burial plots irrespective of what that means engineering-wise
or how that will impact visually;
- a central statement building along the Blackburn road, which stands visually prominent in the middle of
the Green Belt gap;
- a central building of a specific architectural form and design (which does not respond to the local vernacular nor the setting);
- the creation of angular and topographically "flat" landscaped areas around the main building and proposed geometric "ponds" artificially located within the grid pattern and serving as part of the drainage strategy (which does not respond to the landscape characteristics of the wider area);
- a car parking facility that maximises the number of cars which could be parked on site with little thought
to how this could be best integrated.

The design response does not relate to the site characteristics nor those of the wider area.

The approach has been more to post-justify the preferred design and layout through either shallow "design intent" statements ( 6.01 of the DAS) or generic mitigation proposals, rather than achieving the best and most appropriate design, layout or form for the development. There is no evidence of a robust analysis and design process having being carried out as part of an iterative process that actually informs the design response.

For example, at p. 9 of the submitted Design and Access Statement, it is acknowledged that "topography and in particular the sharp rise from the north to the south proved to be challenging and the key factor dictating the design and layout of the Cemetery". However, it does not appear to have shaped the proposals at all. The solution has been simply to engineer alien site levels through major ground reprofiling, excavation and material removal, that would suit the design/layout, rather than work with the existing levels to create a design.

## In order to get the design proposals for the cemetery "to work", the development would

 necessitate a complete and irreversible change to the nature and form of the existing landscape and its character. This has not been acknowledged in any part of the design submission.Furthermore, the following aspects of the proposal appear to have either been ignored or have been covered or introduced as an afterthought in an attempt to mitigate the effects of a poor design solution:

- No acknowledgement of the visual or spatial contribution that the existing site makes to the Green Belt and the reasons for including land within the green belt, nor any appraisal of the effect that the proposals would have on that Green Belt contribution. There is a seeming reliance on a conclusion that the cemetery is not "inappropriate development" in the Green Belt.
- No meaningful Landscape and Visual Impact Assessment (see our separate response on this).
- Internal Tree planting presented as an afterthought informed by the grid layout
- External tree planting proposed around the entire perimeter in a manner that does not relate to anything other than the boundary to the site and intended solely to "screen" the development. Why does it need screening if it is "in keeping"?
- Artificial re-grading of banks and indicative retaining features that are alien to the wider landscape character (these are shown on p. 11 in the DAS).
- Proposed site levels, graded banks and a cut and fill drawing have been presented that would require work (either excavation or fill) on third party land, including within private garden areas.
- That proposed "fill" in garden areas would create sizeable mounds along (and within) the rear garden boundaries, which would fundamentally affect outlook, light, and the visual appreciation of the openness of the rural green belt land beyond for those residents.
- No guarantee that regrading works would not disrupt root areas of some of the trees on site.
- Rather convoluted and unworkable re-routing of public footpath 11-5-FP20. There has been no acknowledgement that this would fundamentally affect the users' experience.


## Misleading or Incomplete Information

The submitted documentation has included a series of design drawings that are misleading and/or under-play the effect of the proposals:

Refer to Existing and Proposed Situation Contour Plans which show accurate representations for the colour gradation between contours.

A true representation of Existing Slopes


The submitted representation of Existing Slopes



| KEY: |  |
| :---: | :---: |
| 200.0 |  |
| 200.0-197.5 |  |
| 1975-195.0 |  |
| 195.0-192.5 |  |
| 192.5-190.0 |  |
| 190.0-187.5 |  |
| 187.5-185.0 |  |
| 185.0-182.5 |  |
| 1825-180.0 |  |
| 180.0-177.5 | 嗗 |
| 177.5-175.0 |  |
| 175.0-172.5 |  |
| 1725-170.0 |  |
| 170.0-167.5 |  |
| 1675-165.0 |  |
| $165.0 \cdot 162.5$ |  |
| * . Bottom of proposed Slope |  |
| -Site Boundry |  |
|  |  |
|  |  |

The submitted representation of Proposed Slopes


## Site Characteristics

There is no acknowledgement of the organic form of the land within the application site. No recognition of the irregular field pattern or clusters of trees. No reference has been made to the water courses and undulations of the land, shaped by water over the years. There is scant recognition of the rural and agricultural characteristics of the land, nor of the experience of users who currently traverse the land on the footpaths. There is no acknowledgement of the site's existing relationship with the neighbouring properties

## The design response is architectural, regular and geometric, dictated as it is by a rigid grid design structure. This is in stark contrast to the site characteristics and the wider landscape character.

## Topography

The existing digital terrain modelling (p. 10 of the DAS \& drawing number UK21.5655_Geo0018 rev. A) creates a contoured map of the existing landform. However, the colours used seemingly underplay the significant existing level changes across the site through the use of a green colour which at first glance appears to show that the main body of the site is largely flat (green), but the green band covers a change in levels of circa $15-20 \mathrm{~m}$. The incremental grading of the green colour range is not clearly apparent when compared with the yellow (circa 5 m range before it becomes clearly orange ( 5 m ) and then red). It could be argued that that this presentation technique has been employed to divert attention away from the significant level changes currently experienced across the application site and to hide the enormity of the required excavation works required to make the scheme "work".

Furthermore, the use of the green colour range for the site levels means that the significant level changes/excavation between the existing and proposed situations are equally as notably diluted through the contoured colour scheme utilised.

The Master Site Plan and Proposed Landscape Masterplan do not graphically differentiate between significant banks created $(12 \mathrm{~m}+$ ) and the smaller banks created (circa 2 m ). The generic extent of the "Slope" graphic does not tell the 3-D "story".

See the plans which refer to the true existing and proposed situations.

The proposed spot levels do not work when applied across the site, particularly in the areas around the buildings when some short sections of apparently $1: 20$ sloped accessible paths are required to climb 3.5 m over circa 15 m (i.e. steeper than a $1: 5$ slope).

Furthermore, there has been an acceptance that circa $580,000 \mathrm{~m} 3$ of net cut would need to be removed from site as part of the current proposals (p. 11 of the DAS). This is an astronomical amount. However, it is considered that this amount is actually understated, for the following reason:

- No acknowledgement of excavation to create sub-structure for the buildings, roads, parking areas, drainage systems (including "detention ponds" and swales, permeable MOT type 3 below permeable surfaces etc), has been accounted for.
- No acknowledgement of the requirement to remove unworkable material from below ground on the site and the severe practical challenges to achieving this.


## Drainage Proposals and Levels

More information is needed to justify how the proposed drainage system will work in practice. The levels identified within the car parking area and the flow direction of the water indicate that there will be water evels required around the detention ponds that do not successfully work with the FFL of the building or the car park.

Furthermore, as set out in section 4 above, the proposals make no provision for dealing with the enormous amount of water that presently flows across the site from springs and associated watercourses.

## Visual and Spatial Green Belt Impact Assessment

No Green Belt Assessment has been undertaken. Irrespective of whether or not aspects of the proposals could be considered as an exception to "inappropriate development" within the Green Belt, it would be expected that proposals of this magnitude and nature should be accompanied by a robust Green Belt Impact Assessment, in order to understand the nature and magnitude of the anticipated visual and spatial effects upon the Green Belt, to consider and mitigate identified "harm" and/or to explore how the proposals might impact upon the 5no. reasons for including land in the Green Belt identified at paragraph 138 of the NPPF (2021).

The proposals have effectively filled the Green Belt gap between Blackburn and Oswaldtwistle. At circa 1.4 km in length (furthest point to point - NW corner to SE corner), there is no apparent compromise in the proposed land use for the cemetery.

There has been no analysis of where built form or car parking could be sensitively located to minimise the visual and spatial effect upon the Green Belt.

By filling the width of the Green Belt gap with up to 3no. banks of car parking spaces, the settlements of Blackburn and Oswaldtwistle would effectively be joined with urban form in terms of the hardstanding, car parking, built form, hard paths, engineered water features/ponds, lighting and the associated activity. The character would be fundamentally visually and spatially changed.

In terms of hard area coverage, following a crude exercise, it appears that there would be in excess of $72,000 \mathrm{~m} 2$ ( 7.2 ha ) of new hard standing provided on site, combining building footprints, car parking, main paths/drives and smaller paths. This is an astronomical amount and has not even been acknowledged.

Furthermore, the activity associated with a Cemetery of this size would be significant and the car park and use of the site would be effective 7 days per week irrespective of whether burials were being carried out or not. Family and/or friends visiting the burial site to pay respects would ensure that the cemetery would be continually busy.

This is not a positive design approach and leads to development that would in effect appear as wholly alien in its context and would clearly harm the visual and spatial characteristics of the rural Green Belt land within which it would be located.

| Building Footprint | $1,217.01 \mathrm{~m} 2$ |
| :--- | :---: |
|  <br> Intersection Grid / <br> Nodes | $37,064.25 \mathrm{~m} 2$ |
| Car Parking Area \& Main <br> Access | $25,337.49 \mathrm{~m} 2$ |
| Internal Paths | $8,782.23 \mathrm{~m} 2$ |

## Building Design

The administrative and funeral prayer block building takes no design cues from the local vernacular. This is a rural site between 2 no. settlements and is agricultural in character. The nearest properties on the northern side of Blackburn Road are traditional stone cottages that appear to have been previously part of Wolfenden Farm.

The layout and contemporary form proposed, with large amounts of glazing would draw attention to the built form, enhancing its visual prominence. Indeed, when illuminated (after dark), it would be even more apparent in the wider landscape. Although identified as single storey in nature, it appears as a large structure with elements at circa 6 m in height, and it is notably wide within the site.

By siting the building centrally within the site it further enhances its visual prominence and this does little to minimise the impact on the openness of the Green Belt. No attempt has been made to site this building closer to the urban edge of Oswaldtwistle.

The compound buildings are simpler in nature and incorporate some timber cladding and more traditional agricultural elements, although the buildings contain a large amount of modern glazing and doors as well as large industrial style shutters which do little to assimilate the building into the rural setting.

This building is sited more sensitively adjacent to the M65 motorway.

## Public Footpaths

There is no analysis of the existing public footpaths through the site or the nature of the experience that users of those footpaths currently enjoy.

Given the blanket approach to the proposals, the relevant section of 11-5-FP20 would need to be diverted through the car park area, up newly created hard paths around burial plots and then across service roads within the site until it meets a sheer 1:2 slope created through the proposed excavation of the site. To cross the cemetery, this footpath route becomes somewhat convoluted and there is no appreciation of how the experience of the user would be affected by the proposals.

There is no acknowledgement that the sheer 1:2 bank that users of 11-5-FP20 experience at the southern extent of the site creates a fundamental obstacle to a convenient link with the remaining southern section of that historic footpath to where it meets Stanhill Road. Presumably, users of the footpath would need to be re-directed east up the gentler level change before being turned back west along the newly created steep bank to ascend along the new contours.

Not only would this be a convoluted route change, it would also present an issue in terms of either needing to widen the graded bank to accommodate a circa 2 m section (strip) of flat land for the footpath to traverse along the bank, or would require expensive retaining walls to enable the footpath. This has simply not been addressed in the application submission.

Either way, given the gradient of the slope, it might be that additional railings or other such balustrades are required which would again urbanise what is currently a very rural experience.

## Trees

The application is supported by a tree survey. That tree survey identifies 11 no. individual trees and hedgerows and 3no. groups of trees to be removed/fundamentally affected as a result of the development and 14 no. individual trees to be removed due to their condition (inc. signs of Dieback in the Ash trees within the site).

What the tree survey fails to consider is the potential effect on the groups of trees, particularly G6, which are located immediately adjacent to the application site, the root protection area of which could be impacted by the proposed re-grading works immediately adjacent to that tree group. Further information should be required (perhaps in the form of localised site sections to confirm that these (and other) off-site trees will not be affected by the significant engineering/re-grading works associated with this application.

The replacement planting proposals have been considered as an afterthought to respond to a previously dictated layout and the more appropriate planting species are limited to the perimeter where they would simply envelope the site in a rather crude attempt to "screen" the proposals.

