09 Drainage & Ground Conditions

9.1 Access, Levels & Cut/Fill

The principle of maintaining the existing site access arrangements, service road and car parking areas has generally been maintained to date. Tracking has been undertaken to check on pinch points and certain manoeuvres.

1-3) aligns with the existing, with minor adjustment to reflect the changes in pinch point relationships. This includes the increased building footprint to include a dirty corridor in zone 3 and its encroachment on the existing road to remain.

The proposed buildings (zones 1-3) and site are set near existing levels with the exception of the formation of the wetland/attenuation basin area. This area will likely result in cut (surplus of material) to be removed from site however some of this might be used to form the associated embankments subject to its suitability.

9.2 Amenity

The scheme will be based on accessible natural forms that mimic natural landscapes found within the region and the vegetated bio retention planting areas are designed with locally contextual species that will encourage natural colonisation. Other key amenity benefits should include improving air quality around the development, increasing carbon sequestration, and improving water quality through removal of pollutants via the rain gardens and wetland basin.

9.3 Biodiversity

The SuDS scheme's biodiversity strategy will revolve around increasing the overall biodiversity of the site and ecological value. The inclusion of plant species that will enhance the general eco system and simultaneously act as a water filtration system to clean pollutants and contaminants should be used where possible.

9.4 SuDS Approval Body

The proposed development is subject to the Schedule 3 requirements and therefore subject to SAB approval. The role of the SAB is also to adopt SuDS features and maintain them for the lifetime of the development; although in this case the SuDS features will not be adopted by The finished floor level for the buildings (zones the SAB as the development will fall within the single managed curtilage.

> Early engagement in the form of a Pre-SAB application with RCT has been completed, with the SAB generally acknowledging the concept proposed could be compliant across all 6 designated standards given the submission of further detail as part of the full SAB application. Importantly SAB have acknowledged the methodology and have agreed the proposed discharge rate of 11.61/s.

The aim of the surface water drainage strategy is to mimic the natural catchment processes as closely as possible and adopt the principles of water management schemes. The principles of the concept surface water drainage design have largely been maintained throughout the

Multi-benefit SuDS features have been proposed to be incorporated for water quantity, quality, interception, bio-diversity & amenity benefits in line with statutory standards for SuDS in Wales for the new build areas.

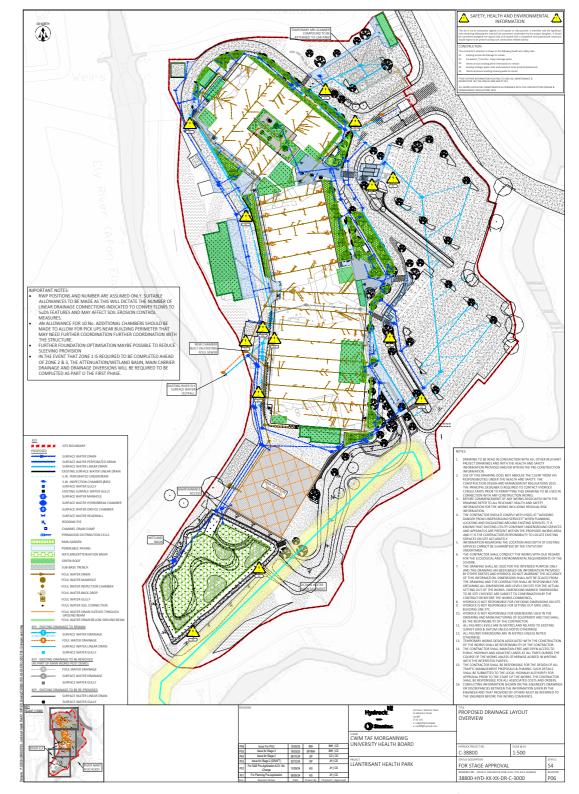
The wetland/attenuation basin has been reconfigured to remove any encroachment on the existing DCWW water main easement. Following additional SI, a slope stability assessment is required to ensure its structural

It is considered that the proposed drainage layout has been well considered based on a detailed appraisal of the existing drainage arrangements and site constraints/conditions. As part of the proposals a scheme of SuDS

is proposed for the new build element of the scheme which will provide interception, water quality, flow reduction, amenity and biodiversity benefits in line with the applicable standards. A gravity based foul drainage solution is also proposed. It is considered therefore that the proposed development drainage strategy does not offer a barrier to the granting of planning

9.5 Foul Drainage

Foul water from the site will be discharged to the DCWW combined sewer via the existing



Above: Proposed drainage strategy for the site (Stantec)

10 Transport

A pre-application Scoping Note was submitted to RCT in September 2024 and discussion were undertaken with Highway Development Control of the development proposals. The focus of these discussions is to agree the scope of the TA to support planning including the approach for calculating the car parking provision and the use of TRICs database to calculate the likely trip generation.

The transport assessment available as part of this application sets out the transport issues relating to the development site (existing conditions) and provides details of the development proposals; including accessibility and connectivity, an assessment of the traffic predicted to be attracted by the development and the likely impact on the surrounding local highway network. The purpose of the assessment is to demonstrate that the development is acceptable in terms of transportation, highway safety and access, and that it is compliant with relevant national and local planning policies.

The LHA raised no objection to the proposed approach to calculating the trip generation or parking provision provided it can be demonstrated to be robust.

10.1 Car Parking

As agreed with the Local Highway Authority as part of the pre-application discussions, the proposed car parking provision has been calculated based on:

A first principles approach using the likely number of theatres, length of appointment and number of staff

Car parking standards are set out in Access, Circulation and Parking Requirements of RCTCBC Local development Plan 2011.

As part of the development, it is proposed to provide a total of 283 car parking spaces onsite, including 15 accessible bays. It is considered that this parking provision is appropriate, as sets out a maximum capacity based on:

 The staff parking calculated on the maximum staff onsite at one time. In reality, this is only likely to occur for three hours a day (between 1 pm-3 pm). For the majority of the day the number of staff onsite is likely to be considerable fewer than this

- All rooms/theatres have been calculated based on maximum capacity
- Surgical patients (day surgery, arthroplasty units and endoscopy) are likely to be dropped off and collected from the site. Therefore, parking demand for patients associated with this use is likely to be lower than the proposed allocation
- Delegates attending the Endoscopy Academy course are likely to have travelled a significant distance, and there is potential that delegate would stay and park in a near-by hotel. This could reduce the parking demand onsite associated with this use
- The Endoscopy Academy courses are likely to run for approximately two days a week
- The RCT parking standards used for the Arthroplasty Theatres and Endoscopy Academy set out a maximum parking requirement.

It is, therefore, considered that the proposed provision of 283 car parking on-site is sufficient to accommodate the likely parking demand.

10.2 Cycle Parking

It is proposed to provide two cycle stores at the entrance of the building, with one store dedicated to visitors and one store dedicated to staff. Both of these stores are sheltered and lite have a capacity of up to 10 cycles. This provides a total cycle parking provision of 20 spaces.

The proposed cycle parking provision is in excess of the RCTCBC requirement.

10.3 Servicing Access

A dedicated service area is provided to the rear to the proposed building, which will be used for operational hospital vehicles only, including a delivery vehicles and refuse.

The proposed layout consists of a number of servicing and maintenance bays to the rear of the hospital together with access for ambulances. This enables safe access to the hospital for the range of uses.

For patients, number of vehicle 'drop-off' bays have been provided to the front of the hospital.

Swept path analysis has been undertaken of a range of vehicles that are likely to access the development safely manoeuvring onsite and exiting in a forward gear. This includes:

- 16.5t articulated vehicle (egressing the site via both the exit and access lanes)
- 7.9m pumping appliance
- 11.2m refuse vehicle
- 10m Rigid vehicle
- Ambulance (based on a Mercedes Sprinter Panel Van)
- Large car

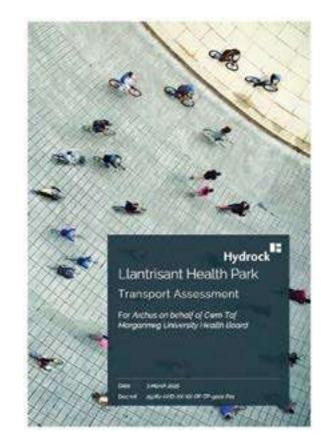
10.4 Trip Generation

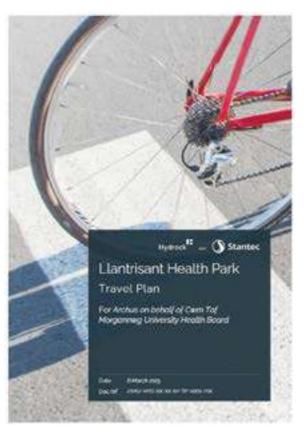
Due to the different types of health care provision included within the proposed Health Park development, the likely vehicle generation has been calculated based on the each of the difference uses. This includes the use of both TRICs database, as agreed with the Local Highway Authority as part of the pre-app process.

The trip generation shows that the proposed development is likely to generate a total of 104 two-way vehicle movements in the morning peak period (8am-9am), and a reduction of 16 two-way vehicle movements in the evening peak period (5pm-6pm) compared to the existing use.

10.5 Conclusion

It is considered that the proposed development can be safely accommodated on the highway network and that the impact of the development will be minimal.





11 Ecology

A technical summary of ecological assessments and recommendations has been produced by Acer Ecology for RIBA 3. A summary of the key surveys and findings are outlined as below:

11.1 Surveys Conducted

- 2024 Preliminary Ecological Appraisal (PEA)
- 2025 Bat and Nesting Bird Report
- 2025 Reptile Survey Report
- 2025 Dormouse Report
- 2025 Bat Activity Survey Report

11.2 Recommendations

Swallows -

The new swallow housing structures installed as part of the demolition works will be retained and remain a permanent feature on the LHP site. This will provide a future home for 22 swallow nests on the site as the new buildings will not have eaves suitable for swallow nesting.

Reptiles -

In reptile-sensitive areas on the site, such as the lower plateau, mitigation measures will be implemented to protect reptile populations. This will be by installation of exclusion fencing and, later, translocation of any reptiles found, prior to works commencing to ensure the risk of harm is minimised.

Bats-

The proposals for the site will include lighting strategies and design which are sensitive to ecological requirements. Additionally, a dark corridor will be maintained along the existing woodland and scrub habitats within the site boundary.

Further to the above, bat boxes will be installed on suitably mature, retained trees, on site and non-native hedgerow species will be enhanced within the landscape design to improve foraging opportunities.

Small Mammals -

Throughout the works on site, clearance of existing scrub or hedgerows will be supervised by a suitably qualified Ecologist. Clearance will be two-stage, giving small mammals an opportunity of window to vacate the area.

Wherever possible, existing landscaping is proposed to be retained on site and this will bring benefit through retained habitats.

11.3 Conclusion

The ecological assessments conducted at Llantrisant Health Park have identified key ecological features and potential impacts, with particular focus on nesting birds, reptiles, bats and small mammal habitats. The findings have been used to inform mitigation measures designed to minimise disturbance to wildlife during the proposed works.

Adherence to these measures, including vegetation management and habitat retention, will be essential to ensure compliance with relevant legislation and the protection of local biodiversity.

11.4 Additional Information

Early project requests have been made by Ecology Consultant and Council for Bat Boxes to be incorporated within the future LHP proposals and for integration of solitary bee bricks etc. where possible.

Locations of these will be agreed during RIBA 4 detailed design, but a provision should be made for these within the RIBA 3 cost plan.

12 Noise

12.1 Acoustic Design and Evaluation

Throughout the RIBA Stage 3 design, the acoustic engineers have reviewed and advised upon the following aspects:

- Completed façade insulation calculations based on the proposed external building fabric constructions, and provided a glazing specification to achieve the HTM-08-01 internal noise intrusion criteria
- Revised the internal wall sound insulation strategy to achieve the HTM-08-01 sound insulation criteria between rooms
- Assessed the airborne and impact sound insulation performance of the proposed separating floor construction, to check compliance with the HTM-08-01 sound insulation criteria between floors
- Carried out reverberation time calculations to assess the proposed absorption strategy for compliance with the HTM-08-01 sound absorption requirements

Predicted external plant noise emissions using noise modelling software, and provided mitigation measures for external plant accordingly to achieve HTM-08-01 noise intrusion criteria within noise-sensitive rooms, and to achieve the noise limit at the nearest noise-sensitive receptors to achieve BREEAM Pol 05 (1 no. credit)



13 External Lighting

13 External Lighting Principles

External lighting will be provided to all entrance areas, car parks, paths and courtyards to suit the architectural requirements of the development. The external lighting design will provide a secure environment for both road and pedestrian users.

The site has ecological sensitive area to the rear of the building, which have been considered in the Stage 3 design. In order to ensure no negative ecological impacts, the following strategies have been employed: Luminaires to have no upward light component; Appropriate siting of luminaires, with focussed directional lighting to avoid an unnecessary spill into areas deemed ecologically sensitive (on ground and upward into sky); Back shields provided as required; Colour temperature of luminaires to

be between 2700K -2200K to reduce the blue light component of the lighting in line with "Bats and artificial lighting in the UK" ILP guidelines.



14 Conclusion

This Planning, Design and Access Statement has been produced to support a full planning application for the creation of a new Elective Treatment and Diagnostic Centre at Llantrisant Health Park. It sets out the steps taken to appraise the context of the development, the critical clinical need for NHS Wales and the South-East Wales region, and explains how that context has been applied to the development, providing commentary in line with TAN 12 and Design & Access Statements in Wales guidance (2017).

It is considered that there is a strong and compelling case for planning permission being granted for this development. Specifically, the proposed development:

- Provides a clinically efficient facility and model of care for the South-East Wales community which will directly and positively impact the significant waiting list times for elective and planned care in Wales.
- Provides a modern skills and development space for training the next generation of clinical nurses and specialitst. Partnered with relevant clinical services, this creates first hand opportunities for practical and theoretical learning, including live-streaming suitable for national clinical training.
- Creates a welcoming environment to drive a positive patient experience and aid quick recovery times. Hopsital environments can often be sterile and clinical, creating anxiety

in patients - this is not the approach nor environment proposed for Llantrisant Health Park. The building design and layout pulls on nature and views out, ensuring patients and staff have access to these throughout their journey.

- Makes efficient and effective use of previously developed site within the settlement boundary, reusing as much onsite infrastructure as possible, with good access to the community and nearby supporting health-sites.
- Is sited to provide good visual connection to the boundary and adjacent highway, whilst being suitably set back from neighbouring properties and residences to avoid

detrimental impacts to amenity and views.

- Adds an attractive, high-quality building that will transform the character, appearance and function of this part of the community.
- Facilitates inclusive access and movement to and around the site for all, whilst addressing clinical and operational principles.
- Has been developed based on an understanding of the site-specific ecological characteristics and SAB requirements, providing mitigation measures and biodiversity enhancements for the public and staff to use, enhancing well-being.
- By using the existing building footprint,

the proposal limits the extent to which tree removal is required and includes an extensive scheme of new planting to enhance the site and wider context.

 Includes provision for a range of renewable energy technologies to deliver a sustainable health park site and achieve NHS Net Zero Building Standard goals.

Overall, it is considered that the proposed development has considered how it would impact the site and its surroundings, enhancing amenity and biodiversity through design. It is therefore considered that the proposals are consistent with Welsh Government and local planning policy and should be supported.



14 Drawing List & Supporting Information

The following information has been supplied as part of this application and should be read in conjunction with this Planning Design and Access Statement document:

Architectural Site Plans

Site Location Plan W550-STL-00-00-DR-A-00010-PL01

Existing Site Block Plan W550-STL-00-00-DR-A-00011-PL01

Proposed Site Block Plan W550-STL-00-00-DR-A-00012-PL01

Proposed Site Plan - Sheet 1 W550-STL-00-00-DR-A-00013-PL01

Proposed Site Plan - Sheet 2 W550-STL-00-00-DR-A-00014-PL01

Proposed Site Plan - Sheet 3 W550-STL-00-00-DR-A-00015-PL01

Architectural Building Plans - Zone 01

Ground Floor Plan W550-STL-01-00-DR-A-01000-PL01

First Floor Plan W550-STL-01-01-DR-A-01001-PL01

Second Floor Plan W550-STL-01-02-DR-A-01002-PL01

Third Floor Plan W550-STL-01-03-DR-A-01003-PL01

Roof Floor Plan W550-STL-01-04-DR-A-01004-PL01

Architectural Building Plans - Zone 02

Ground Floor Plan W550-STL-02-00-DR-A-01000-PL01

First Floor Plan W550-STL-02-01-DR-A-01001-PL01

Second Floor Plan W550-STL-02-02-DR-A-01002-PL01

Roof Floor Plan W550-STL-02-03-DR-A-01003-PL01

Architectural Building Plans - Zone 03

Ground Floor Plan W550-STL-03-00-DR-A-01000-PL01

First Floor Plan W550-STL-03-01-DR-A-01001-PL01

Second Floor Plan W550-STL-03-02-DR-A-01002-PL01

Thirds Floor Plan W550-STL-03-03-DR-A-01003-PL01

Architectural Site Sections

Site GA Section W550-STL-00-ZZ-DR-A-03000-PL02

Architectural Building Sections - All Zones

GA Sections W550-STL-01-XX-DR-A-03000-PL02

GA Sections W550-STL-01-XX-DR-A-03001-PL02

GA Sections W550-STL-02-XX-DR-A-03000-PL02

GA Sections W550-STL-03-ZZ-DR-A-03000-PL02

Architectural Site Elevations

Site GA Elevations W550-STL-00-ZZ-DR-A-02000-PL02

Architectural Building Elevations - Zone 01

GA Elevations - Sheet 1 W550-STL-01-XX-DR-A-02000-PL02

GA Elevations - Sheet 2 W550-STL-01-XX-DR-A-02001-PL02

GA Elevations - Sheet 3 W550-STL-01-XX-DR-A-02002-PL02

Architectural Building Elevations - Zone 02

GA Elevations - Sheet 1 W550-STL-02-XX-DR-A-02000-PL02

GA Elevations - Sheet 2 W550-STL-02-XX-DR-A-02001-PL02

Architectural Building Elevations - Zone 03

GA Elevations - Sheet 1 W550-STL-03-ZZ-DR-A-02000-PL02

Ancillary Site Buildings

Generator Compound Drawings W550-STL-00-00-DR-A-09010-PL02

Sprinkler & VIE Compound Drawings W550-STL-00-00-DR-A-09011-PL02

Gatehouse & Hydrant Tank Drawings W550-STL-00-00-DR-A-09012-PL02

Substation & HV Switchroom Drawings W550-STL-00-00-DR-A-09013-PL02

Medical Gas Room Drawings W550-STL-00-00-DR-A-09014-PL02

Site Massing

Site Massing 01 W550-STL-00-00-DR-A-V0001-PL02

Site Visuals

Site Visual 01 W550-STL-00-00-DR-A-V0004-PL02

Site Visual 02 W550-STL-00-00-DR-A-V0005-PL02

Site Visual 03 W550-STL-00-00-DR-A-V0006-PL02

STRIDE TREGLOWN

Contact

Chloe Madge

chloemadge@stridetreglown.com

Adam Parry

adamparry@stridetreglown.com

Simon Boundy

simonboundy@stridetreglown.com

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