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This is the non-technical summary for an Environmental Statement (ES) which has been prepared on behalf of Bell Developments to accompany a hybrid planning application for a Student Village scheme at land off Parkgate Road, Chester.

A Hybrid Planning application is one that seeks outline planning permission for one part and full planning permission for another part of the same site.

This document is a summary of the ES that has been submitted as part of the hybrid planning application having regard to the Town and Country Planning (Environmental Impact Assessment) Regulations 2011. The report describes the physical characteristics of the development, its land use requirements, an outline of the main alternatives considered and a description of the effects on the environment which are likely to be effected by the development.

These include:
- Direct, indirect or secondary effects
- Cumulative effects
- Short, medium or long term effects
- Permanent or temporary effects
- Positive or negative effects

The report also identifies any measures required to mitigate potential adverse impacts of the proposals within and around the application site. Full details can be found within the Environmental Statement.

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### EIA Process

1. **Identify Proposed Development**
2. **Scoping Submission**
3. **LPA 5 Week Review Period**
4. **Review Response & Prepare EIA Report**
5. **Identify Baseline**
6. **Predict Impact on Environment**
7. **Assess Significance of Impacts**
8. **Consider mitigation**
9. **Prepare / Finalise Environmental Statement**

**Feedback and consideration of alternatives / Update and amend masterplan for site**
The proposed development site is located adjacent Parkgate Road approximately 0.7 miles north of the University of Chester’s Parkgate Road Campus and 1.7 miles north of the Chester City Centre. The site is some 27.3 ha in extent. Parkgate Road forms the eastern boundary to the site whilst the Shropshire Union Canal provides the south eastern boundary to the site. To the south of the site lie the residential community of Blacon and an area of recreational grassed green space whilst the northern boundary is bounded by Mollington Banastre Hotel and agricultural land forms the north western boundary to the site.

Vehicle access into the site can currently be achieved from an existing vehicular access located off Parkgate Road.

The site is underlain by topsoil and pockets of made ground with pond sediments in locations of former ponds.

The site adjoins the Blacon Vision and Action Plan area which identifies a series of regeneration proposals for the area including walking and cycling connections to the wider area.
The application is for a Hybrid Planning Application which will include part outline and part detailed application. The application is as follows:

To erect a student village including accommodation for up to 2,500 students, recreational open space, sporting facilities (comprising sports hall, full sized football pitch and four mini-sports pitches), a student hub (comprising dining, retail and leisure facilities) construction of a new access from Parkgate Road, an emergency vehicular access link off Milton Road, internal access routes, ground modelling and drainage works, parking provision for up to 400 cars, footpaths, cycle routes, Energy Centre, Refuge and Recycling facilities, Pump House, sub stations and associated works including access, landscaping and layout details (OUTLINE APPLICATION)

To erect student accommodation for up to 1469 students, a student hub, sports hall, full sized football pitch and four mini-sports pitches, construction of a new access from Parkgate Road, internal access routes, parking provision, footpaths, cycle routes, ground modelling and drainage works, Energy Centre, Refuge and Recycling facilities, Pump House and landscaping within Phase One. (FULL APPLICATION)

The proposal will provide the following:

- Student Accommodation (up to 2,500 units)
- Student Hub (1,538 sq.m)
- Energy Centre
- Refuse and Recycling Centre
- Pump House
- Outdoor sports pitches (full sized football pitch and four mini-sports pitches) for use by existing and future students and the local community
- Indoor Sports Hall or use by existing and future students and the local community
- Associated transport infrastructure including a shuttle bus to the University main campus, pedestrian and cycle routes, a trim trail, up to 400 car parking spaces and cycle storage

The development description is based on an illustrative Masterplan and Character Areas Plan which are appended to the Environment Statement.
The need for the Chester Student Village can be summarised under the following headings:

The need for future growth and role of Chester

Chester plays an important role within the Liverpool City sub-region. The Regional Spatial Strategy (RSS) for the North West recognises that Chester will continue to develop as a heritage city of international renown. Chester is also recognised as having a strong conference and exhibition potential which will be important in attracting ‘business tourists’ to the region. Whilst the historic nature of the City needs to be protected the City needs growth to allow it to compete within the sub-region.

The scheme will provide a mix of high quality student accommodation options available to students choosing to live and study within Chester. This in turn will provide a quality standard for future development within the area and will influence perceptions of the local area and wider Chester area for investment, businesses to locate and as a place to live.

Student Accommodation need

Student Accommodation need can be split into three distinct areas:

Quality

In terms of Quality, a series of reports confirm that the majority of student accommodation available within Chester is approximately 65 years old and does not offer modern facilities which are required by students. The majority of student accommodation within Chester in the private sector can be found in the “Garden Quarter” the area of Chester encircled by Parkgate Road, Cheyney Road, Stadium Way, Sealand Road and the City Walls with Garden Lane and Old Port Square. The Council have been assessing the issue of Houses of Multiple Occupation (HMOs) within Chester and produced a report in July 2009 in which the Executive agreed a package to address issues arising from the high concentration of student accommodation, whilst also ensuring the continuing success of the University.

Quantity

The Supply and Demand Analysis of Student Accommodation in Chester” report prepared by King Sturge, March 2011 identifies that there is scope for additional purpose built private and University provided accommodation within the City and states

“We are therefore of the opinion that there is potential for the provision of new purpose built student accommodation of between circa 1,851 and 2,282 bed spaces”.

The need for student accommodation within the City is further supported by the University’s accommodation website which states that they are unable to accommodate all of their first year under graduate students and an allocation policy is in place to deal with this issue. A review of UCAS figures identify that other competing Universities including York, Leeds, Lancaster, Manchester, Cardiff and Leicester meet 100% of their first year requirements in institutionally managed accommodation compared to 65% at Chester.

The Reports therefore conclude that there is a requirement to increase the supply of accommodation if the University wish to accommodate all of their first year undergraduate students and continue to attract students.

University Profile

In order to compete with other Universities across the UK the University of Chester is required to grow and continue to strive to be the best. The Urban Land Institute Report (ULI) 2010 addresses the need for the City of Chester and the University to have a better Student offer in terms of accommodation, job opportunities and leisure / recreation available to students.

The Complete University Guide 2012 ranked the University of Chester 90 out of 115 in 2010 and 81 out of 115 in 2011. 2012 rankings show the University ranked as 80 out of 116. The Sunday Times University Guide ranked the University 83 out of 118 for 2010 and 79 out of 118 for 2011.
**Regeneration Need**

Within Chester the wards of Blacon and Overleigh are ranked in the 2% most deprived in England and are in need of regeneration. Policy DP6 of the North West Regional Spatial Strategy addresses the need to marry opportunity and need to ensure priority for development is given in areas in greatest need of economic, social and physical restructuring and regeneration. The provision of Student Accommodation has the potential to support regeneration.

The delivery of the Student Village could also support the Blacon Vision and Action Plan which provides a long term strategy for the Blacon Estate through increased expenditure in local shops and services, improved connections to the wider area and increased sporting and recreational facilities for students and the local community.

Two petitions were introduced at the Full Council meeting on 28 July 2011. One petition (1,505 names which triggered the debate at Full Council) agreed in principle with the development of a student village. The second petition was opposing development of a student village in the green belt around Mollington.

The First Petition motion was carried by Councillors to resolve to work to facilitate a student village for an estimated 2000 students to resolve the issue of pepper potting of student accommodation within the City of Chester. The resolution was:

“The Council recognises the significant economic, social and cultural benefits that the University of Chester brings to the City of Chester, the Borough and the wider sub-region but recognises the limitations, difficulties and problems of student accommodation in the City of Chester and resolves to undertake to work with all interested parties, who so wish to participate, to facilitate the development of a student village or campus to accommodate sufficient numbers of students - estimated at 2,000 - to free the City of the harmful ‘pepper-pot’ development of student accommodation”.

**Planning Policy Context**

Planning Policy supports schemes that will assist in regeneration and encourage growth and investment into Chester.

The site is located within the Green Belt and it is accepted that the proposed development (with the exception of the sports pitches and open space) is inappropriate within the Green Belt. It is therefore necessary to demonstrate very special circumstances in order to justify permitting the development within the Green Belt.

The very special circumstances of the proposal relate to the unmet need for student accommodation within Chester tied with the need to find a solution to prevent the further pepper potting of student accommodations schemes across Chester.

A detailed Sequential Assessment has been undertaken which shows that there are no other sites outside the Green Belt that are of a sufficient size or in a sustainable location to meet that need. It also shows that the Application site is the best site to accommodate the need.

The chosen location also assist in the regeneration of Blacon and opportunities for improving access to and enhancing sport and recreation within the local area for both future and existing students and the community. The scheme will also assist in raising the Universities profile and the profile of Chester which in turn could lead to further investment, businesses choosing to locate within Chester and as an attractive place where people choose to live.
The alternatives considered by the Applicant are:

Do nothing scenario - this option would see the site remain unchanged without any investment. The need for a comprehensive solution to delivering student accommodation within Chester would not be met and there would be an increase in the ‘pepper potting’ of student accommodation sites across Chester. There would be a series of socio economic and regeneration benefits which would not be achieve as a result.

Alternative Sites - In order to assess whether there were any alternative sites within Chester to accommodate a Student Village Spawforths prepared a Student Accommodation Options Study in 2010. The study identified and analysed over 400 sites within Chester which could potentially be suitable for Student Accommodation. Based on the level of student accommodation need, technical issues and the need for lower / medium density development within Chester only the Parkgate site was identified as being suitable.

Alternative Uses - during the preparation of the application no other land uses other than Student Accommodation were considered for the site. The design team did however discuss the content of the Student Village and the different uses which would be included to compliment / benefit the Student Accommodation and wider area.

The chosen option demonstrates very special circumstances for development within the Green Belt and assists in the wider regeneration of the area and allows growth and investment to occur within Chester as well as meeting an identified need.
Since the publication of PPS1 and PPS3 the emphasis of securing high quality design with the ability of local authorities to reject scheme which are of poor quality has increased. This is a hybrid application seeking detailed approval for part of the site and consideration of the general principles of the design and layout of the scheme for the rest of the scheme.

The site consists of one distinct parcel of land accessed of Parkgate Road. The design of the scheme and development principles for the site have evolved through pre-application discussions and meetings with Cheshire West and Chester Council’s planning and highways officers as well as discussions with the local community and the client and consultant team.

The guiding principles for the design were to:

- Development of a high quality green wedge adjacent to Parkgate Road to retain key views into historic Chester.
- Reinforcement of a visual link to historical and cultural landmark buildings, i.e. Chester Cathedral.
- Creation of new leisure facilities and green space that can be accessed by the public.
- Provision of new student accommodation, supporting facilities and green open space.
- Secure student accommodation and a clear distinction between public and private areas.
- Provision of a new student Hub on main student access route.
- Provision of new entrance into the site from Parkgate Road.
- Provision of car park immediately adjacent to the site entrance to promote a predominately free environment with priority being given to pedestrian and cyclists.
- Establishment and reinforcement of pedestrian and cycle linkages throughout the site and the wider environment.
- Creation of a new pedestrian / cycle route along the canal side.

Between July 2011 and December 2011, the community consultation exhibitions and presentations invited the views and comments of the community groups to encourage local people and all stakeholders to raise comments and make suggestions in respect of the proposed masterplan proposals for the Student Village. Throughout the early design stage and where possible, several amendments to the masterplan have been made which include the following:

- Removal of six post graduate town houses alongside boundary of Browning Close and Milton Road and replacement with new landscape to enhance landscape buffer/ reduce visual impact of proposal;
- Incorporation of an ‘access for all’ sports hall including a four court sports hall, gymnasium and changing facilities to support external rugby/football pitches;
- Creation of a new ‘access for all’ fishing pond adjacent to the external sports facilities to provide a social and leisure benefit;
- Incorporation of two detention basins along the southern boundary of the proposed development to provide an aesthetic improvement alongside the publicly accessible trim trail;
- Provision of a new canal side pedestrian and cycle link between Parkgate Road and Blacon Avenue to provide a social and leisure benefit; and,
- Fun and fitness opportunities at physical exercise stations within the trim trail which is fully accessible to adjoining community and also provides access to large areas of new public open space to the North and West of the development proposal.

The design of the Student Village is fully detailed in the Design and Access Statement.
The Highways and Transportation chapter of the Environmental Statement has been prepared by Waterman Boreham and provides an assessment of the likely transport impacts of the application proposals on the site and sensitive receptors in the surrounding area. It should be read in conjunction with the Transport Assessment which has been prepared by Waterman Boreham.

The Traffic and Transport Chapter demonstrates that the proposed scheme achieves the aims and objectives of national and local transportation planning policy. The existing traffic flow situation on the local highway network has been determined based on traffic count information provided by the Council and an independent traffic survey company.

The accessibility of the site by sustainable modes has been assessed in detail, with the most significant findings set out below:

- There is existing pedestrian infrastructure accommodating pedestrian movements from the site to medical, leisure, local shops and other amenity facilities;
- The proposals would deliver significant improvements to pedestrian/cycle infrastructure along Parkgate Road and provide a new, well lit, pedestrian/cycle link along the western side of the Shropshire Union Canal;
- The site has a number of bus stops located within the recommended 400m catchment; and
- A total of 5 services operate from these bus stops.

Highway safety has been considered on the local highway network with the accident characteristics considered in the design of off-site highway improvements.

This highways and transportation assessment has considered the impact of the proposed development on traffic flows, accessibility and highway safety. The assessment concludes that the proposed development would have an impact on the immediate highway network.

The construction phase of the proposed development would have a temporary minor adverse impact.

The increase in traffic flows during the operational phase will result in a minor adverse impact on the local highway network. However, the proposed highway improvements will have a minor beneficial impact at local junctions.

With regard to accessibility, the development proposals include the provision of and enhancements to the sustainable transport infrastructure. These improvements will further encourage travel by non-car travel modes and will have a minor beneficial impact.

In terms of safety, the proposed development scheme is not expected to exacerbate any existing highway safety issues and therefore the impact is considered to be negligible.

The nuisance arising from construction traffic would be mitigated via considerate construction practices and road/vehicle cleaning facilities.

To mitigate against general increase in traffic, a Travel Plan will be produced to reduce reliance on the car and promote initiatives that encourage the use of sustainable modes of travel including walking, cycling and bus services.

Off-site highway improvements would also be delivered to mitigate the traffic impact of the proposed development on the local highway network.

Based on the impacts which have been identified and the proposed improvement to existing highway, pedestrian and cycle infrastructure it is concluded that there are no traffic and transportation reasons why this development should not be granted planning approval.
Weetwood has undertaken an assessment of the potential impacts that the proposed development may have on the water environment during construction and operation for the lifetime of the development, relating to fluvial flood risk, the canal, pond, groundwater, surface water drainage, foul drainage, potable water, and water quality.

The Environmental Statement (ES) chapter has been prepared with reference to national, regional and local planning policy including Planning Policy Statement 25: Development and Flood Risk (PPS25). The Environment Agency (EA), Cheshire West and Chester (CWAC) Council and Welsh Water have been consulted as part of the process.

The site is designated Flood Zone 1 (little or no risk of fluvial flooding) according to the EA Flood Map. Highfield Drain, an ordinary watercourse, the Shropshire Union Canal and a small pond are located at or within the vicinity of the site. The bedrock at the site is designated a principal aquifer, but the superficial deposits are not designated as aquifers. Surface water run-off from the site currently discharges at greenfield rates. The site is not currently supplied with potable water and there are currently no foul flows discharging from the site.

Fluvial Flood Risk - No impacts on fluvial flood risk off-site have been identified. No buildings will be located in the lowest areas of the site, in order to mitigate the residual risk of flooding from overland flow from Highfield Drain and the ordinary watercourse. Land re-profiling and landscaping will be designed to ensure that any out-of bank floodwaters would be managed appropriately and directed away from the development. Culverts for access crossings will be designed and maintained so as not to present an unacceptable risk of blockage. The residual impact of the development on fluvial flood risk will be negligible.

Shropshire Union Canal - No development will take place within 10m of the canal, and only water-compatible development uses (e.g. sports pitches and surface water storage areas) will be located within the lowest areas of the site in the vicinity of the canal. The residual impact of the development on flood risk from the canal will be negligible.

Pond - No inflows to the pond have been identified, therefore the flood risk to the site from the pond is negligible. Two new ponds in the south of the site will provide ecological and amenity benefits. No adverse. The residual impact of the development will be negligible.

Groundwater - Re-profiling the site may alter the depth of clay below ground level which could increase the risk of groundwater flooding in parts of the site. However, no buildings will be located in the lowest parts of the site, which would be most susceptible to groundwater flooding. The development has the potential to have a minor adverse impact with regard to groundwater flood risk.

Groundwater recharge at the existing site would be limited by the underlying clay, therefore the impermeable areas at the proposed site will have a limited impact on groundwater recharge. The impact of the development on groundwater recharge will be negligible.

Surface Water Drainage - The surface water runoff from the impermeable areas at the site following development will be limited to the mean annual greenfield run-off rate. The drainage system for the proposed site will be designed to manage flows in up to the 1 in 100 year event including an allowance for climate change. A surface water drainage scheme based on the principles of SUDS will be adopted for the site. The residual impact of the development on surface water drainage will be negligible.

Foul Drainage - The proposed development will increase the loadings on the main foul drainage system. Any constraints in the foul drainage network to accommodating the additional loads from the development will need to be addressed with Welsh Water and agreement reached. The residual impact of the development will be minor adverse.

Potable Water - The proposed development will increase potable water demand. This may be mitigated through the use of water efficiency measures. Any constraints in the water supply will need to be addressed with the water company and agreement reached. The residual impact of the development will be minor adverse.

Water Quality - In order to mitigate the risk of compromising the watercourse or groundwater quality during construction, emergency plans will be put in place to cope with any potential pollution incidents, with method statements agreed with the EA to reflect their Pollution Prevention Guidelines. The residual impact of the development on water quality during construction will be minor adverse. Surface water run-off from the development will not be discharged to the canal or to groundwater, therefore the development is considered to have a negligible impact on the quality of the canal or groundwater. Surface water runoff from the site will be discharged to Highfield Drain. The proposed development of student accommodation does not contain any processes or elements that would pose a significant threat of pollution to the receiving watercourse. The surface water drainage design, which includes the use of sustainable drainage systems, will reduce pollutant loads and improve the quality of the surface water discharging to the watercourse. The residual impact of the development on water quality will be negligible.

Summary - Suitable mitigation can be provided to address the potential impacts of the development on the water environment to an acceptable level.
Waterman Energy, Environmental and Design have undertaken the Air Quality Chapter of the ES. The proposed development is not located within or in close proximity to an existing Air Quality Management Area (AQMA). However, the proposed development may have the potential to give rise to an increase in pollutant levels as a result of increased traffic movements. Accordingly, an air quality assessment was undertaken to determine the effects of the Development on local air quality.

CWaC air pollutant monitoring data for the area surrounding the site were reviewed. The air quality assessment included the likely effects of the Development in relation to construction activities and the completed Development. Predicted traffic flow data for a worst case operation year with the development in full operation were analysed using a complex computer model which calculates and predicts the likely changes in local air quality.

During construction works, dust would likely be generated by activities at the Site. The amount of dust generation is influenced by the type of activity taking place and is therefore usually temporary. Best practice measures would be implemented by construction contractors on the site to minimise the risk of dust causing a potential nuisance for local residents. These measures would form part of the site-specific Environmental Management Plan (EMP) and would likely include damping-down exposed surfaces, covering construction materials and stockpiles, sheeting material-laden vehicles leaving the site, and regular cleaning of frequently used areas. Even with mitigation in place, it is difficult to completely avoid the effects of dust generated by construction activities. Consequently, some minor effects from dust on nearby local residents on Browning Close, Milton Road within Blacon, and properties to the west of the site on Parkgate Road may arise.

As described above under ‘Transportation and Access’, construction traffic is not anticipated to significantly add to local traffic flows. As a result, the effects of demolition and construction traffic on local air quality would be insignificant at all times.

Computer modelling of road traffic associated with the completed Development showed that the additional traffic flows would result in a negligible effect on the concentrations of air pollutants nitrogen dioxide and fine particulate matter at the existing receptors tested. The modelling also confirmed that Development would be suitable for the proposed residential uses.
The proposed Chester Student Village development brings a series of significant benefits to Saughall and Mollington, Blacon, the Garden Quarter, Chester City and Cheshire West and Chester Authority and the Region. The overall impact of the proposal in terms of socio economic issues is considered to be negligible to moderate beneficial due to the major regeneration potential of the proposals, the ability to meet the need for student accommodation within Chester and the positive effects that the development will have to the local community and economy.

Beneficial socio economic impacts will arise as a result of the Chester Village scheme. The provision of new student accommodation within Chester has been assessed as having minor beneficial impact upon the rebalancing of population within the Saughall and Mollington Ward as well as the overall student population living within Chester. The rebalancing of student accommodation within the Garden Quarter assists in addressing issues associated with high concentrations of Houses in Multiple Occupation (HMOs) within the Garden Quarter. Essentially the provision of a Student Village within Chester seeks to negate the need for further pepper potting of student accommodation within Chester.

The provision of high quality purpose built student accommodation will provide new opportunities for people to live and study within Chester thus improving the University offer. A proportion of students will choose to stay within the City of Chester on completion of their course. This would allow the City to retain young professionals allowing an educated and high skilled population and labour force to increase over time. This would result in a moderate increase in migration within Chester.

The development of a new Student Village will increase the level of demand for local services which would have a potential positive impact on local businesses in terms of increased income. An additional demand for local services could have a positive impact on local employment levels as local businesses may need to employ additional staff.

Employment opportunities for the local population will be provided through the proposed Student Village scheme. The Technical paper indicates that the scheme is expected to achieve an average employment over the 3 year build period of circa 600 – 700 per year. Based on a similar Student Village the proposed Chester Student Village could generate circa 192 jobs during the operational phase. Pochin Construction offer a “Local Benefits” Plan which includes guaranteed Apprenticeships for the duration of the project. Contractors should enter into such a scheme to provide employment opportunities locally.

The proposed project could generate £26,110.00 of net additional Gross Value Added (GVA) within Chester per annum. This is related to construction jobs for a finite period whilst the scheme could result in the delivery of £15,725,000 annual expenditure within Chester (based on a 34 week student year).

The creation of a series of new footpaths and cycleways and the provision of new sporting facilities for use by both students on the site and members of the existing community will result in minor beneficial effects. In order to mitigate potential impacts, the development will provide the following:

- The provision of a construction Management Plan to include working
- A Travel Plan which aims to restrain vehicular traffic and encourage the use of alternative forms of travel. Students will be advised of alternative travel modes that are available. The scheme will also include an internal layout which is designed to accommodate bus movements through the site and the existing University Shuttle Bus will be extended to include the proposed site along its route.
- On site management is proposed to be provided as part of the Student Village proposals in order to develop a strategy for preventing and addressing issues relating to anti-social behaviour should they arise. It is also proposed that the on-site manager will liaise with the local police within Blacon and Chester along with the University and active community groups within the area. To address concerns relating to the use of the Student Village out of term time the following can be introduced:
  - Local sports and community groups utilising the sports pitches and sports hall throughout non-term times
  - Accommodation being rented out for leisure stays / business use outside term times, including accommodating University based Seminars and Conferences.
  - Facilities (rooms for conferences / large spaces for events) being rented out to the private sector and community
  - 24 hour Security and Management throughout the year
  - The provision of an Environmental Management Plan to address issue of noise and dust entering the atmosphere and or being deposited in nearby receptors.

It is considered that the Chester Student Village would have an overall beneficial effect in terms of socio economic impact due to the local and borough wide benefits.
Biota have undertaken an ecological assessment of the site, and prepared the Biodiversity and Conservation chapter of the ES.

Ecological surveys were undertaken in November 2010 and again between June and August 2011. Protected Species assessments and/or surveys for European Protected Species or species protected under the CRoW Act (Great Crested Newt, Badger, Bats, Water Vole and Otter in particular) using the accepted methodologies were undertaken. Data requests were made to (and received from) RECORD and Cheshire West and Chester Local Authority.

The survey area is predominantly agricultural land, bounded by Parkgate Road to the North, the Shropshire Union Canal to the east, Blacon to the south and agricultural land to the west. Several mature trees line the boundary with Parkgate Road and also along the course of a brook running through the site. A single field pond, used for fishing, is situated in the middle of the site. Most of the blackthorn and hawthorn hedges are intact.

Non-native alien plant species such as Giant Hogweed and Japanese Knotweed are to be found on the site – these will require specialist treatment to remove and be disposed of.

No protected species were found on the site with the exception of foraging bats (no bat roosts were detected).

The proposed development will result in the loss of some mature trees, some mature hedgerows, re-profiling of the pond and the loss of agricultural land. All of the losses are considered to be minor on a local scale and will be compensated for by the planting of new native species trees, hedgerow enhancement and the creation of two new ponds. In addition specialist nest and bat boxes are to be incorporated into the design of the new buildings. The end result will be a positive benefit for Biodiversity and Conservation.
Waterman Energy, Environmental and Design have undertaken the Noise and Vibration Chapter of the ES. The noise and vibration effects of the Development were established in accordance with published guidelines. This included a comprehensive monitoring survey of noise and vibration on the site carried out in November 2011. The principal existing sources of noise identified was road traffic, reflecting high volumes of traffic on the adjacent highway network.

In accordance with published guidance, residential properties are considered to be noise sensitive receptors. The nearest noise sensitive locations to the Site are listed below:

- The Brambles
- Meynell Place
- Donne Place
- Milton Road

The future residents of the Development were also considered as potentially sensitive receptors to noise and vibration.

Demolition and construction activities would inevitably give rise to some noise and vibration effects on existing receptors closest to the site. The highest construction noise levels tend to be associated with plant used during earthmoving, concreting and road pavement construction. Calculations were undertaken to estimate likely noise levels at selected locations. These calculations indicate that temporary adverse effects would be negligible to moderate during construction. Given the phasing of the construction work, phase one of the developments may be occupied in part whilst phase two is under construction. In this situation, temporary adverse construction effects on these residents would be moderate at worst.

Appropriate controls to minimise noise and vibration would be imposed on the construction contractor as part of their contract requirements. The Environmental Management Plan (EMP) would include a range of best practice control measures such as siting fixed plant and equipment away from the Site boundary, restricting working hours, using properly silenced plant, switching off equipment when not in use, and using screens / enclosures where appropriate.

The levels of traffic generated by the Development during the demolition and construction phase on the local highway network would be relatively small in comparison to the total flows. As such, there would be no significant increase in road traffic noise during the demolition and construction phase of the Development.

Calculations of road traffic noise were undertaken using data provided by the project Transport Consultants. The traffic flows generated by the completed Development would be relatively low and calculations indicate they would not result in any significant increases in road traffic noise. Noise from car parking and servicing within the Development itself would likely be minimal.

Existing noise conditions within the Site are relatively low resulting in the development as a whole being considered suitable for residential development provided standard façade designs which meet current building regulations are provided.
Tier Environmental was commissioned to undertake a geoenvironmental appraisal of land off Parkgate Road, Chester. The purpose of the investigation was to identify previous on site and off site land uses, to characterise the risk to future users and receptors within the vicinity of the Site and to provide foundation recommendations.

Analysis of historical ordnance survey maps has shown that the site has not undergone significant previous development, with the present site layout remaining unchanged since 1873 with the exception of the addition of pylons and the infilling of previous ponds.

A total of six ponds were previously located on site, three in the northwest of the site and three in the south. Two of the ponds in the north of the site were infilled between 1960 and 1976, and the third between 1993 and 2002. Two of the ponds in the south of the site were infilled between 1873 and 1898, and the remaining pond between 1992 and 1995. Only one Pond is left remaining at the site.

The site is bound to the south by the Shropshire Union Canal, with an on site stream located in the west of the site. The site investigation was undertaken in two stages, with the first stage of the investigation conducted on the 8th and 9th of August 2011 and the 18th and 19th of August 2011, and comprised:

- The excavation of 4 No. cable percussive boreholes to a maximum depth of 10.05m bgl;
- Drilling of 10 No. window sample holes to a maximum depth of 6.45m bgl;
- The excavation of 24 No trial pits to a maximum depth of 3.00m bgl.

This enabled the recovery of soils samples, of which a selection will be scheduled for laboratory analysis and in situ geotechnical testing to be undertaken across the site.

Samples of soil and soil leachate were submitted for analysis of a range of metal, other inorganic and organic components. Geotechnical testing was scheduled on selected samples. All testing was undertaken at accredited laboratories. The site is underlain by Topsoil and pockets of Made Ground / pond sediment in locations of former ponds. Glacial Till deposits underlie this, along with and Tidal Flat deposits in the south of the site. The site is ultimately underlain by the Kinnerton Sandstone Formation (Principal Aquifer).

Selected samples have been sent for a range of chemical tests, the results of which are below the respective GACs for a residential development. Consequently on site shallow soils are not considered to be contaminated with respect to human health or controlled waters. Based on current gas and groundwater monitoring results, the site has been classified as Characteristic Situation 1 in accordance with CIRIA C665.

Provided that subsequent monitoring visits produce similar results, no specific gas protection measures are likely to be required. Based upon the results of the chemical analyses for pH and soluble sulphate content, it is considered that all subsurface concrete should be designed to DS-1, with an ACEC classification of AC-1s.

The majority of the site is underlain by Topsoil and Glacial Till in the form of a firm to stiff consistency clay; however, the site investigation has recorded localised pockets of Made Ground and Pond Sediment which correspond to infilled ponds on historical mapping. These materials are generally variable, of low strength and extend down to varying depths, but with a maximum of 2.10m bgl. Due to the inherent variability and instability, it is considered that the Made Ground and Pond Sediments are not suitable founding strata for the proposed development.

Due to the excessive depth of Made Ground and very low strength Pond Sediment in localised areas of the site, it is recommended that traditional trench fill foundations are taken through these soils and founded on the underlying Glacial Till.

Made Ground and Pond Sediments have been shown to be very localised; however, NHBC Standards suggest that suspended floor slabs should be used where Made Ground thicknesses exceed 600mm and, as such, suspended floor slabs should be used wherever these unsuitable soils remain.

The report has not identified any significant risks to the identified receptors with regard to ground conditions and geology.
Castlering Archaeology have undertaken a Cultural Heritage Assessment, in respect of proposals for a new student village, in order to evaluate the potential impacts of the proposed development on the cultural heritage resource, with the objective of eliminating and / or minimising any adverse repercussions of the proposed development on the said resource.

The assessment follows the guidance of the Department for Communities and Local Government’s Planning Policy Statement 5: Planning for the Historic Environment (March 2010).

The assessment comprises a desk-based study followed by non-intrusive site inspections which were complemented in August 2011 by the monitoring of a series of test pit excavations by Tier Consult. The Assessment is submitted as Castlering Archaeology Report No. 361.

The results of the desk-based study showed that there is no previously recorded archaeological information for the site itself, which has been used as agricultural land since the tithe record of 1840 at least. However, information gained during desk-based study showed a potential for unknown buried archaeological remains to exist on the site from prehistoric times, although there is no above ground evidence.

In particular, the route of the Roman Road from Chester to the Wirral is believed to be fossilised in Parkgate Road, which forms the eastern boundary of the site. The present Parkgate Road has been considerably widened and improved in modern times, but the creation of new access into the site may have the potential to reveal evidence of the former Roman Road. In addition coins from the Roman period have been found at random locations within 1km buffer zone of the site showing the potential for chance finds to be located on the site.

The site visits have recorded several features of cultural heritage interest on the site. The stream, hedged and tree-lined boundary between the two existing fields represents the former Parish boundary as recorded by the Tithe in 1840. The sites of seven ponds or former ponds are evident on the site. The ponds may have their origins in former marl pits, five of which are recorded by the 1840 tithe map. The ponds bear testament to the practice of ‘marling’ and the continued use of the water-filled features to provide a source of drinking water for cattle as arable land changed to dairy farming. Observations made during the test pit excavations showed the survival of valuable organic material at the base of the marl pit / pond features, from which paleo-environmental evidence might be retrieved.

The most significant feature on the site is a cylindrical concrete pillar, the site of which corresponds to a structure recorded as ‘ts’, a ‘Traverse Station’ by the Ordnance Survey in 1958. There is no earlier record of the feature. Site visits have shown that this feature strongly resembles a Spigot Mortar Base, a VVV2 feature generally manned by the Home Guard. The feature is considered to be of national importance as material evidence of the preparations for the defence of Britain during WWII and of local and regional significance as evidence of a part the local Home Guard would have played with the aim of slowing up an advancing enemy so that the regular army could regroup. Preservation of the feature is strongly recommended.

Impacts and Mitigation - The proposed development could have both a negative and a positive impact on the cultural heritage resource. Without mitigation, the negative impacts are likely to come from the construction phase during which the physical impact on the cultural heritage resource would be permanent and irreversible. Secondary impacts as a result in changes to the environs of Cultural Heritage features may result in the change of accessibility to, amenity value or the setting of these features.

Positive impacts to be considered are the potential for an increase in knowledge arising from the opportunity to research and investigate the cultural heritage resource as a result of the proposed development; the creation of greater public awareness of the cultural heritage and possible improvements in the setting and / or maintenance of features identified.

Current mitigation proposals include the retention of the intact spinney; the retention of the water-filled pond and the creation of a new pond in the location of a former marl pit and compensation for any loss in the existing hedgerows and tree-lined boundaries the planting of new native species trees and enhancement of the, hedgerows.

An appropriate mitigation strategy for the site in general, in the form of a combined programme of archaeological work is recommended, in accordance with PPS 5.

An appropriate programme of archaeological work might comprise recording and preservation of the ‘TS’ / spigot mortar base; geophysical survey, archaeological evaluation trenching, metal detecting survey, paleo-environmental sampling together with further investigation, where as appropriate. In addition, an archaeological watching brief is recommended during topsoil stripping and groundworks associated with future construction work on the site. All recommendations are subject to further consultation with Cheshire West and Chester Heritage Manager.

Conclusion - The assessment concludes that, allowing for appropriate mitigation, the proposed development will have limited adverse impact on the cultural heritage of the site.

In addition, development of the site will have a visual impact on the aspect and setting of the Shropshire Union Canal. While the Canal will not be directly impacted on by the proposed scheme, the feature will be visually affected and land formerly adjoining the north bank of the canal will be altered. This assessment concludes that in the long-term the current plans will have a positive beneficial impact on the aspect of the canal.
This section summarises the landscape impacts of the development.

This assessment has examined the landscape and visual impacts in relation to the development proposals for the proposed student village site. The potential impacts have been thoroughly assessed through a combination of desk study research and walk over surveys of the site and the surrounding context.

The development proposals involve the creation of a new student village containing a variety of buildings, semi-private and publicly accessible outdoor spaces. The report sets out the likely impacts of the proposed scheme on the environment, in terms of both construction and operational phases.

The visual impacts have been assessed through a process of identifying principal viewpoints through observation on site. Analysis of these viewpoints and of the proposals has concluded that whilst some of the principal viewpoints will experience pre-mitigation impacts which are moderate to high negative in their magnitude, many will be beneficially impacted by the proposals, or will only experience a negligible impact.

The more adverse potential impacts on principal views during both construction and operational phases are predicted to arise on views from Parkgate Road towards Chester City Centre skyline, which are classed as National Views, and views towards the Welsh mountains, which are classed as Regional Views.

Overall, potential impacts arising from the operational phase on the green open space network and on local footpaths and permeability of the site, and on trees and scrub cover are assessed as having a minor beneficial significance, with negligible impact on site topography.

Mitigation in the form of tree and scrub planting, sometimes in combination with earth bunding, is predicted to reduce potentially negative impacts on principal views, to varying degrees throughout the overall scheme within five to ten years of planting, although minor benefits may be achieved during that period as vegetation establishes.
RPS Group have prepared the Energy Chapter of the ES. The site is currently a Greenfield site and therefore this development will have an effect on the carbon footprint of the site, however it is the intent of the design team to minimise this impact by providing an energy efficient, sustainable site which benefits the local community.

It is the design team’s intent to minimise the impact of the Construction phase, by the scheme following the BREEAM construction assessment. BREEAM is an internationally recognised environmental assessment method and rating system for buildings, it was first launched in 1990. BREEAM sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognised measures of a building’s environmental performance. The BREEAM rating will influence both the energy use of the construction and operational phases of the site.

Part L2A Building Regulations 2010 will be the baseline Energy standard that all new buildings must meet. Regional and National planning policies also require the site to achieve 10 – 20% renewable energy sources.

In the pursuit of meeting the above requirements and thus providing a sustainable, Low energy design, a ‘strategic design route’ will be followed which steers the design team to focus on key aspects of the design at the appropriate juncture in the design process as follows:

1) Passive design solutions to minimise initial energy use.
2) Minimise Energy use using energy efficient technologies.
3) Introduction of Low Zero Carbon Technologies (Renewable)

A feasibility of renewable energy forms for the site has been undertaken which concluded that the principle renewable technology proposed to meet the energy targets is a gas fired Combined Heat and Power Plant which performs the most effectively from a payback and carbon reduction perspective.

A CHP plant is an installation where there is simultaneous generation of usable heat and power (usually electricity) in a single machine. CHP typically achieves a 35% reduction in primary energy usage compared with the combination of electricity power stations and heat only boilers. This can allow the host organisation to make economic savings where there is a suitable balance between the heat and power loads. The CHP plant would be in the form of an Energy Centre, providing heat through district heating mains along with electricity to each building.

This heat and power generation allows organizations and communities to take greater control of their energy provision, because decentralized energy is generated close to where it will be consumed, and distributed through local networks, therefore traditional dependence on the national grid is reduced.

The impacts identified at the construction phase relate to site construction vehicle and plant, commissioning of Mechanical and Engineering Services, the manufacturing of materials and sourcing of materials all of which can be mitigated through design and management and responsible sourcing of materials. The use introduction of an environmentally and socially considerate construction site will ensure minor beneficial impacts are achieved.

During the operational phase that is likely to be an increase in Co2 emissions which again can be mitigated through the introduction of passive measures.

A series of beneficial impact are achieved in energy terms including achieving environmental BREEAM assessment “excellent rating”, use of passive design measures to reduce energy, use of renewable energy technologies and the promotion of culture of energy saving.

The residual impact significance for Energy varies between Minor Adverse to Minor Beneficial. The anomaly being Substantial beneficial for the Excellent rating of BREEAM.
### Interaction of Effects of Construction

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>IMPACT</th>
<th>MITIGATION</th>
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<tbody>
<tr>
<td>Earthworks and construction activity</td>
<td>• No access to site for dog walking</td>
<td>• Provision of a Construction Management Plan including limitation on hours / construction site traffic management / construction logistics plan</td>
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<td></td>
<td>• Noise impact from construction activities</td>
<td>• Implementation of Environmental Management Plan and BPM. Adherence to relevant British Standards</td>
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<td></td>
<td>• Visual impact of construction activities</td>
<td>• To be in accordance with BRE Guidance</td>
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<td></td>
<td>• Vibration from construction activities</td>
<td>• Detailed archaeological re-coding</td>
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<td></td>
<td>• Emissions to air including dust, vehicle emissions, plant emissions</td>
<td>• Programme of geophysical survey / further works / sampling</td>
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<td></td>
<td>• Impact on Cultural Heritage – Spigot Mortar base / unknown buried archaeological deposits</td>
<td>• BREEAM- responsible specification of materials</td>
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<tr>
<td>Construction traffic</td>
<td>• Increase in traffic flows</td>
<td>• Beneficial impact of Environmentally and socially considerate construction site</td>
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<tr>
<td>Water quality and drainage</td>
<td>• Fluvial flood risk to development and impact on flood risk</td>
<td>• Surface water run-off carefully controlled</td>
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<td></td>
<td>• Flood risk to development from canal / pond and impact on pond quality / groundwater and impact on ground water recharge</td>
<td>• Waste storage emptied regularly</td>
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<td>• Quality and quantity of surface water run-off from the site</td>
<td>• Portable water clearly marked and protected from contamination</td>
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<td>• Impact on foul drainage loadings</td>
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<td></td>
<td>• Impact on potable water demand</td>
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<td></td>
<td>• Impact on water quality of watercourses, water bodies and ground water</td>
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<tr>
<td>Cultural Heritage, Landscape and visual impact</td>
<td>• Impact on visual setting of Shropshire Union Canal</td>
<td>• No development within 10m of Shropshire Union Canal</td>
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<tr>
<td></td>
<td>• Loss of or disturbance of landscape features</td>
<td>• Creation of two new ponds</td>
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<td></td>
<td>• Loss of Spinneys</td>
<td>• New Hedgerows and gapping up existing hedgerows</td>
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<td></td>
<td>• Loss of Marl Pits</td>
<td>• New tree planting</td>
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<td></td>
<td>• Loss of Evidence of Postulated Roman Road</td>
<td>• Preservation of intact sample – Spinneys</td>
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<td></td>
<td>• Visual Impact</td>
<td>• Archaeological watching brief</td>
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<tr>
<td>Ecological Impacts</td>
<td>• Loss of hedgerows / mature trees / pond</td>
<td>• Programme of archaeological work to assess presence / absence of Roman Road</td>
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<td></td>
<td>• Loss of agricultural land</td>
<td>• Well maintained solid hoardings / security fencing / avoid storage on elevated parts of site</td>
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<tr>
<td>Employment</td>
<td>• Creation of construction jobs / indirect jobs</td>
<td>• Beneficial impact – no mitigation proposed</td>
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<td>• Increased expenditure and demand for local services</td>
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New Student Village including:

- Accommodation for up to 2,500 students
- Sporting and recreational facilities
- A student hub
- New access from Parkgate Road
- Energy Centre
- Refuse and recycling facilities
- Pump House
- Landscaping

Impact:

- Increase traffic flows on approach to site access / Parkgate Road / Countess Way / Devo Link / Blacon Avenue Roundabout and related air and noise issues
- Positive impact on accessibility of pedestrians, cyclists, public transport
- Impact on Road Safety / Accidents
- Impact on flood risk
- Impact on foul drainage loadings
- Impact on potable water demand
- Impact on water quality of watercourses, water bodies and ground water
- Rebalancing of the population within the Garden Quarter
- Growth in future population of Chester
- Beneficial impact - increase in demand from services and facilities within the local area and Chester City Centre
- Beneficial impact - Increased expenditure in the local area and Chester City Centre
- Creation of long term job opportunities on site and indirect jobs
- Reduced need for pepper potting of student accommodation / HMO’s within Chester
- Provision of student accommodation to meet unmet demand
- Beneficial impact on image of Chester and University

Mitigation:

- Construction Management Plan
- Production of a Transport Travel Plan
- Proposed infrastructure Improvements
- Improved pedestrian / cycle linkages
- New Pedestrian crossings
- Access Road layout
- No buildings in lowest parts of site
- Land re-profiling / landscaping
- Maintenance of watercourse and culvert inlets surface water limited to greenfield rates
- Water efficiency measures
- Introduction of SUDs
- Beneficial impact – no mitigation proposed

Interaction of Effects of Operational Impacts:

Development within the Green Belt

Increased CO2 emissions

"Excellent Rating" - BREEAM

Impact on Cultural Heritage – Spigot Mortar / Shropshire Union Canal and unknown buried archaeological deposits

Impact on Biodiversity and Conservation / Landscape and Views

Impact on crime and anti-social behaviour

Sporting and recreational provision

On site management company and liaison with local Police

Restricted hours of operation

Justification for very special circumstances. Appropriate design solution.
The ES Scoping report which was submitted to the LPA in October 2011 identified that there are a series of proposals emerging within the surrounding area which have been considered. These include the Blacon Vision and Action Plan, the Parkgate Road Campus, the GlenEsq farm site and the Countess of Chester Community Park.

The Scoping request invited the Council to confirm that there are no other schemes that need to be considered in a Cumulative Impacts section of this ES. The Council did not challenge this within their scoping response on 10 November 2011 and as such a Cumulative Effects section is not considered within the ES.

The main purpose of the ES is to provide an objective assessment of the Environmental Impacts of the Chester Student Village development. This Non-technical Summary provides a summary of the main issues identified within the ES Part 1 and ES Part 2.

The separate papers within ES Part 2 contain the detailed analysis of impacts and mitigation and should be referred to for the complete assessment of impact. ES Part 1 report aims to provide an overview of the predicted effects and how it is proposed to mitigate the impacts. It should be noted that the information submitted for this planning application is extensive given the nature of the site, however, the detailed mitigation strategies will be controlled via the use of planning conditions and the Section 106 Agreement.

The ES report also assesses the potential for interaction of effects and concludes that the construction phase holds the greatest potential for impacts within and around the site which are proposed to be extensively mitigated. During the operational phase it is predicted that there will be numerous beneficial impacts due to the regeneration benefits the site brings which will outweigh any adverse impacts.

The results of the EA show that, with mitigation measures in place, the Chester Student Village can be developed and operated with only a small number of adverse environmental impacts. These relate to Landscape, Cultural Heritage, Energy, Water Environment and Air. Within these topic areas there are more beneficial than adverse impacts within the operational phase.