WISHER CONSULTING

TCBGC – Review of University of Essex Land Requirements

Client : Colchester Borough Council and Tendring District Council

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1. Introduction

1.1 Colchester Borough Council and Tendring District Council in partnership with Essex County Council (the Councils) are preparing the Tendring Colchester Borders Garden Community (TCBGC) Development Plan Document (DPD).

1.2 A Draft DPD was subject to consultation in Spring 2022. The University of Essex submitted a representation to the Councils supporting the principle of the Garden Community but also noting that the proposed approach set out in the Draft Plan did not identify sufficient land to accommodate the University's growth ambitions. The University's representation set out their own quantified land requirements.

1.3 The Councils have sought an independent review on the requirements as set out in the University's representation, and this report presents the findings of that review. The core objective of this work has been to advise the Councils on the reasonableness of the University's position, given conflicting pressures for land at the Garden Community.

1.4 The report has been prepared by Wisher Consulting. Wisher Consulting is the new venture of Darren Wisher. Darren is an experienced economist and was previously Managing Director of Regeneris Consulting and the UK economics consulting arm of Hatch.

2. University Representation Spring 2022

2.1 The University's representation sets out a range of its achievements over the last decade:

- The University grew from circa. 10,000 students to over 15,000 students during the period 2013 to 2018.
- The University currently (2022) comprises just over 17,000 students, but with developments that are already in the pipeline, such as the Pastures student accommodation, it will grow to 20,000 by 2025.
- In 2014, the University had around 340 researchers submitting to the Research Excellence Framework (REF), which was the smallest of any university ranked in the top 25 of the Times/Sunday Times Good University Guide for Research Activity. The University has since doubled the number of researchers submitting to REF to around 700.
- The Knowledge Gateway, a new business park location within the main Colchester campus, was established to help grow research and technology intensive business and knowledge-based employment in the local economy.
- The University makes a significant contribution to the local economy, contributing some £600M annually to the region.

2.2 The points above are well made, and the achievements are recognised by this review. The University of Essex is a vital part of the local economy and will be pivotal in a successful economic future for the area.

Growth Objectives

2.3 Two main growth objectives are set out in the University's representation:

- To grow to a total student community of circa. 30,000 students and 1,500 researchers by 2035 (para 4a).
- To significantly expand the University's contribution to the employment and research outputs that are delivered by the Knowledge Gateway by identifying sufficient new employment land to create a critical mass of research and technology intensive businesses (para 4b).

2.4 The objectives imply a growth of 13,000 students in the 13-year period between 2022 and 2035. Some 23% of the growth (+3,000 students) is to be facilitated by student accommodation currently in development on-site. It is the additional growth of a further 10,000 students beyond 2025 that is the main focus of the University's representation.

Land Use Requirements

2.5 The University makes clear that there is no requirement for additional land outside the existing campus for additional academic buildings:

"Our expansion plans incorporate the creation of three new academic departments or subjects as well as the growth of existing faculties. We wish to retain the campus nature of the University, which does much to foster our ethos and the University community. We believe that with the remaining areas of development potential, together with the rationalisation and better use of the existing estate, we will be able to accommodate the majority of our needs for academic buildings up to 2035" (para 23)

2.6 The University's land-use requirement in respect of TCBGC falls into three categories:

Knowledge Gateway Expansion

2.7 The overall development land within the existing Knowledge Gateway allocation is 11.98 hectares (effectively 12 hectares).

2.8 The first building was completed in 2015 and only a relatively small proportion of the 12-hectare allocation is currently built out. The University representation explains that the Knowledge Gateway currently houses 250 jobs, with the majority of businesses being 'homegrown' by the University and including a number of spinoffs from the University's talent pool. The latest development plot (Parkside 3a) is due for completion in May 2023, providing 5,000sqm of additional space and is expected to deliver a further 300 jobs.

2.9 The University's assessment is that another 13 hectares of Knowledge Gateway expansion land, outside the current campus boundary, is vital in order to create a significant research and technology park that will become a location of choice for research and technology businesses in the East of England.

2.10 This assessment is based on in-house comparator research by the University that suggests 25 hectares of Knowledge Gateway land in total is required in order for the Knowledge Gateway to compete and attract major businesses:

'The principal aim is to create a sufficient critical mass that can compete for national and international research and technology businesses alongside the best university-affiliated research and technology parks in the UK' (para 34).

2.11 The University make clear they believe the additional 13 hectares should be to the north of the A133 such that it will form a natural extension of the Knowledge Gateway. A bridge over the A133 is envisaged for walking, cycling and other non-vehicular modes such as e-scooters.

Student Accommodation

2.12 The University representation sets out an objective to grow student numbers by 10,000 over the period 2025 to 2035.

2.13 Within the 10,000 total, the University representation states that it will itself need to deliver an additional 4,500 units of student accommodation together with accompanying support facilities. These 'support facilities' are likely to include a small amount of communal space, functions like laundry rooms and potentially very small scale retail immediately adjacent to or within a student block.

2.14 The 4,500 figure relates to the amount of new student accommodation directly provided for by the University (or via its development partnerships) on land adjacent to or very close to the existing campus.

2.15 The University states in its representation that these additional 4,500 residential units will require somewhere in the order of 12 to 15 ha of land (para 25). This land requirement includes provision for the additional support facilities.

2.16 The University stated that it is…'open minded to the location of expansion land for student accommodation. The land though must connect seamlessly with the existing University campus. North of the A133 would not provide a seamless connection. East, West or South of the existing campus are options the University is willing to consider'.

2.17 It should be noted that locations to the West and South of the existing campus are locations outside of the TCBGC boundary and both will face some form of development constraint (west – environmental, south – coalescence and potential conflict with the Wivenhoe Neighbourhood Plan).

Sports and Leisure

2.18 The University's representation states that the existing sports facilities on the campus are already stretched to their limits (para 26).

2.19 The current sports centre buildings, sports arena, tennis pitch and all-weather pitch, within the Campus amount to some 3.29 hectares. The University's representation states that ' a similar level of built development will be needed to accommodate our expansion plans' (para 26).

2.20 Land take for sports pitches currently comprises just under 17 hectares. The majority are grass playing fields and are within the protected landscape of Wivenhoe Park.

2.21 The representation states:

- 'Our existing sports pitch provision will need to be replicated (i.e. a further 17 hectares) in order to address existing deficiencies and accommodate our planned growth'. (para 27)
- 'If the new facilities incorporate a number of 3G/4G pitch options, with perimeter fencing, spectator stands and fixed floodlighting, the area of land required could be reduced, as such pitches can be used more intensively than traditional grass pitches'. (para 27)

2.22 The representation does not explicitly identify the University's preferred location for additional sport and leisure provision.

Summary of University Land Requirements within TCBGC (Spring 2022)		
	Scale	University view on Optimal Location
Knowledge Gateway Expansion	13 Ha	'Immediately north of A133, providing adjacency to existing Knowledge Gateway'
Student Accommodation	12-15 Ha	'East, West or South of the existing campus'
Sport and Leisure	3.3 Ha built development 17 Ha pitches	Position not made clear. Although land to south of the A133 and east of the B1028 appears to be an option University would be open to for sports provision.

Subsequent Clarification

2.23 The University submitted a further clarification note ('Garden Community – DPD – Further clarity and justification') to the Councils in August 2022.

2.24 The clarification note was in fact very helpful and, amongst other things, examined different ways of achieving the same level of growth but via less land hungry options.

2.25 The contents of the clarification note are referred to in the main body of this report. This review also included a helpful clarification meeting with the University of Essex.

3. Review of Knowledge Gateway Requirement

The Existing Knowledge Gateway

3.1 The desire to develop a University of Essex science/technology/research park is long established. The concept was clearly evident in the 2008 Colchester Core Strategy and in the 2010 Site Allocations DPD and its origins can be traced back even earlier than that.

3.2 As set out in the previous section, the current allocation spans 12 hectares and a considerable amount of sunk investment has been committed to providing the necessary site infrastructure and initial buildings on the Knowledge Gateway.

3.3 Development so far has largely taken the form of high-quality buildings of two to four storeys.

3.4 Partners should value the presence of a science and technology park within the local economy. It represents one of a relatively small number of circa 100 specialist university science and technology parks throughout the UK. Science parks of this nature represent an important part of the property portfolio for growth orientated local economies.

3.5 The University's clarification note sets out a schedule of 'most likely' future development dates at the existing Knowledge Gateway. The schedule shows that development plots at the existing Knowledge Gateway are predicted to be completed all the way through the latter part of the 2020s and into the early-mid 2030s. Delivery of the full 12 hectares may therefore span a circa 20-year period.

3.6 The delivery schedule confirms the fact that science and technology parks often grow relatively slowly, and that this growth is often with the support of public sector grants and loans. The occupier mix, and associated covenant strength, on science and technology parks is often skewed to towards relatively higher risk/higher return businesses that has proved a strong rationale for public sector assistance.

Scale of UK Science and Technology Parks

3.7 The University's position is that the existing 12 hectare allocation will prove insufficient to create a fully competitive science and technology park of regional/national significance, and that a further 13 hectares of expansion land is required – to create an overall concept of circa 25 hectares.

3.8 This review agrees that 12 hectares will ultimately prove insufficient and that further expansion land is required.

3.9 The University's assessment is based on their own in-house comparator research. The comparator research has been shared as part of this review and it lists nine other science parks at an average median size of 30 hectares.

3.10 There are over 100 science and technology parks in the UK and the University has arguably focused its selection of some of the larger science parks to help substantiate its view.

3.11 Separate research undertaken by Wisher Consulting of a sample of 30 science and technology parks points to:

- 5 larger science parks with an average size of 20.4 hectares
- 9 medium-sized science parks with an average size of 15.1 hectares
- 16 smaller science parks with an average size of 8.2

3.12 This survey research was undertaken several years ago and the average size may have risen slightly, but the general message remains that there are a wide range of very successful science parks operating in the 15 to 20 hectare category.

Knowledge Gateway Expansion : Likely Requirement

3.13 Based on the analysis above, it is suggested that expansion land of circa 8 hectares, rather than 13 hectares, is a more appropriate figure to feed into the preparation of the DPD.

3.14 An overall concept of circa 20 hectares in total (12 hectares of currently allocated land plus a further 8 hectares of expansion land) would in the view of this review prove to be sufficient to create a product of regional/national significance.

Optimal Location

3.15 On location, the University's position is that:

- Any expansion land should be to the north of the A133 such that it will form a natural extension of the Knowledge Gateway.
- A bridge over the A133 is required for walking, cycling and other non-vehicular modes such as e-scooters, to link the two parts of the Knowledge Gateway.

3.16 This review agrees with the University on the need to create a single coherent property product and the need for adjacency and integration with the existing Knowledge Gateway is paramount.

3.17 The positioning of circa 4 hectares of expansion land as shown on the Draft DPD Option A Plan is certainly an area that could be integrated into the existing Knowledge Gateway with the appropriate A133 crossing infrastructure.

3.18 In term of an additional 4 hectares over and above the Option A Plan:

- There is potential to create a strong linear strip of science and technology uses with immediate A133 (north-side) frontage to the east of the existing Knowledge Gateway.
- There may be some potential to carefully examine the area immediately around the triangular wooded copse on the north side of the A133, to see if any development could be threaded into the fringes of the copse whist retaining the integrity of the Salary Brook Country Park.

3.19 As noted above, science and technology parks are regularly able to attract public sector assistance. The idea of securing public sector assistance to fund, or part fund, a non-vehicular bridge across the A133 is a realistic one.

4. Review of Student Accommodation Requirement

Patterns of Recent Growth

4.1 The University has grown from 10,000 students in 2013 to what will be 20,000 students in 2025. The University has itself developed a substantial array of new accommodation on campus to meet this growth, including:

- The Meadows - 649 bed spaces
- The Copse - 643 bed spaces
- The Pastures (imminent) - 1,262 bed spaces

4.2 The period of expansion has also seen off-campus accommodation developments by other developers, including:

- The Maltings – 779 bed spaces
- Avon Way House – 406 bed spaces
- Host – Magdalen Street – 252 bed spaces
- Hythe Mills – 239 bed spaces

4.3 In addition, some of the student growth will have been accommodated in the private rental sector and/or for some new students living at home will be an option.

Examples of Recent University of Essex On-Campus Developments

4.4 According to the University's clarification note there will be 6,017 bed spaces on their Colchester campus by 2023/24 by which time to total student population at the University of Essex likely to be 18,000 across the three university locations (Colchester Campus, Loughton Campus & Southend Campus). The student numbers attached to the Colchester campus is forecast to be 15,900 as at 2023/24.

4.5 The data above implies that some 38% of all student numbers at the Colchester campus are housed on-campus in University-led developments, and some 33% of all University students (across the three locations) are housed on the Colchester campus.

4.6 The assumption built into the university representation, that 45% of all future accommodation needs (i.e 4,500 units) are met on land near to/adjacent to the existing campus and through University-led developments, is slightly on the high side but not unreasonable. The University makes clear that the vast majority of growth is anticipated at the Colchester campus. The 45% assumption is of the right order of magnitude given past patterns of student accommodation growth.

Student Growth Objectives

4.7 The University of Essex aims to grow by 10,000 students over a 10-year period between 2025 and 2035.

4.8 This growth trajectory is not substantially different to what is looking very likely to be a growth of 10,000 students over a 12-year period between 2013 to 2025. The growth that is forecast is not without precedent.

4.9 The University has provided contextual evidence to help validate its predictions:

- The existing academic subject / course model for Essex is aligned with key growth areas nationally and internationally, and market penetration is positive.
- There is predicted to be substantial growth in the 18 year old population in England in the period 2020 to 2030, and particularly strong growth is prevalent within the key recruiting regions for the University.
- The rate of 18 year-olds entering University in England has continued to rise, from 27% in 2010 to 38% in 2021. The growth trend is expected to continue, further adding to the prospects for Essex.
- The University of Essex has a substantial reputation internationally, and recruits students from 140 nationalities. The University continues to grow international student numbers and markets.
- The University is also currently experiencing substantial growth in postgraduate student numbers.

4.10 Whilst the growth predictions of the University have not been forensically tested as part of this review, they are demonstrably aligned with the trends of the last 10-12 years and are backed up by strong belief amongst the University of Essex leadership team that continued growth will be achieved.

4.11 It is suggested that the DPD develops on the assumption that there is a very strong prospect that the University will in fact grow by a further 10,000 students between 2025 and 2035.

Original University Reps Versus Clarification

4.12 The original University representation stated that 4,500 student accommodation units might require some 12-15 hectares of land, inclusive of both land for the accommodation units and small-scale ancillary uses.

4.13 The derivation of the 12 to 15 hectares was not made clear in representation, and it certainly appeared on first reading a particularly large land requirement given the development densities achieved on other student accommodation schemes, in both Colchester and elsewhere.

4.14 The clarification, perhaps pre-empting this response, revisited the land requirement and ran various scenarios that examined different height buildings, with all scenarios being below an average achieved height of 8 storeys.

4.15 The scenarios show the need for between 7.2 and 9.5 hectares of land for 4,500 bed spaces, together with 1 to 2 hectares for ancillary uses.

4.16 This revised requirement of circa 8 hectares to 11 hectares, inclusive of ancillary uses, is more in keeping with achieved densities on other student accommodation schemes.

4.17 The University's clarification note repeated the points made in the earlier representation on locational preference. The clarification note stated that east, west or south of the existing campus are all options the University is willing to consider for additional student accommodation.

Likely Student Accommodation Requirements

4.18 Given the analysis in the University's clarification paper, which is more aligned with densities achieved at other UK student accommodation schemes than the original representation, this review concludes that circa 8-9 hectares of expansion land should be sufficient for the University to continue its trend of providing for up-to

45% of all student growth via its own 'campus-based' accommodation – but on this occasion on land very close to or adjacent to the exiting University campus.

4.19 It is not essential that this new accommodation is developed solely in one location – development split across a small number of locations could work. The main options open are:

- North of the A133 within the Garden Community. This is not favoured by the University but the growth of both new transit nodes and new local centres within the Garden Community could present opportunities to develop student accommodation. This review notes the predicted growth in postgraduate student numbers, and bespoke accommodation tailored to this growth sector in particular could work north of A133.
- South of the existing campus. This is land outside the Garden Community and has status as a previously identified location of growth for the University (it was an unused historic allocation and subsequently removed in the current Local Plan, replaced by protections within the Wivenhoe Neighbourhood Plan). It remains a logical location for additional student accommodation but would need to be considered/accommodated by future reviews to the Local/Neighbourhood Plan.
- Further development of the Hythe area for student accommodation, and possibly elsewhere across the Colchester urban area within close proximity to the campus.
- East of the B1028 and south of the A133. If all options north and south of the exiting campus are exhausted, then land to the east of the campus could prove to be a location for future student accommodation growth subject to continued evidenced expansion needs – although this is likely to be more remote from the existing campus and the likely Garden Community local centres so is not considered the most suitable location.

4.20 The only location that seems to be wholly unsuitable for student accommodation is land to the immediate west of the existing campus. It is understood there are a series of environmental constraints and protections in place that would dictate development is highly unlikely.

5. Review of Sports/Leisure Requirement

Current Provision

5.1 The University currently benefits from a range of sport and leisure facilities on campus.

5.2 Indoor sports facilities and outdoor artificial pitches within the existing campus currently utilise 3.29 hectares of land. This incorporates the current sports centre (opened 1977), sports arena (opened 2018), tennis courts (x4 hard courts covered with single-skin dome September-May), a single all-weather pitch and some associated car parking.

5.3 There are approximately 17 hectares of outdoor grass playing pitches including x5 11-a-side football pitches, x2 rugby pitches, x1 lacrosse pitch, x2 cricket pitches, x2 outdoor cricket nets and a series of grass training grids.

5.4 There are currently no swimming pool facilities on campus. The University has stated that there is considerable demand for new swimming facilities and the Councils have also identified ongoing needs for additional swimming facilities.

Existing Sports Arena

Shared Use Model

5.5 The University has for a long time pursued a model of shared use, whereby they seek to open up all sports and leisure facilities for both student use and for wider community use. It offers membership packages for the local community and host a variety of local community clubs.

5.6 Increasingly as student numbers have grown, community use has been put under pressure in most of the on-campus sports facilities.

5.7 Moving forward, the University is committed to a continued model of shared use. The University makes clear that any expansion of sports and leisure facilities will be for both student and wider community use.

Original University Reps versus Clarification

5.8 The quantification of future sports and leisure needs set out int the original University representations did not follow a particularly scientific approach, a point the University agreed with at the clarification meeting for this review.

5.9 The quantification of need was based a relatively crude doubling of both:

- Current built sports facilities - so an extra 3.29 hectares.
- Current outdoor grass pitch provision – so an extra 17 hectares.

5.10 The quantification has however been refined further in the University's clarification note.

5.11 On built sports facilities, the University has clarified that its main requirement is for a purpose-built sports facility on a likely 2.0 hectares plot. This facility could comprise gym, studios, squash courts and potentially a swimming pool. Elsewhere in the UK combined sport centres and swimming pools of the scale envisaged have certainly been constructed on 2 hectare plots.

5.12 On sports pitches, a lot will depend on the balance of 3G/4G artificial pitches versus grass pitches. Obviously 3G/4G pitches can be used far more intensively than grass pitches, especially if they are also floodlit. The University has set out a scenario where there is the creation of one 3G/4G artificial grass pitch on campus (subject to planning) and 2 or 3 new 3G/4G pitches are provided on expansion land alongside a series of additional grass pitches. Under this scenario, the overall requirement reduces markedly from 17 hectares to 10 hectares.

Likely Sports and Leisure Requirement

5.13 This review agrees with the University that a circa 2 plot is likely to be required for a shared use sports centre and swimming pool facility. This facility would meet the needs of an expanding student population but also the needs of residents of the Garden Community.

5.14 The optimal location for this facility would be somewhere that facilitates regular and easy access by both students and the wider community. A facility immediately east of the B1028 and south of the A133, near the junction of the two roads, would work well especially if this location was also to become a main public transit node.

5.15 It is difficult to be precise on the scale of future outdoor pitch needs. The scale of overall need is dependent on the extent to which 3G/4G pitches are able to complement grass pitches.

5.16 It is recommended that any expansion land for sport pitches incorporates at least 2 to 3 artificial pitches, potentially with floodlighting. With the ability to incorporate artificial pitches in this way, the long-term land requirement for additional outdoor pitches is unlikely to exceed 10 hectares

5.17 Land to the east of the B1028 and south of the A133 would be the most suitable location to meet this need.

6. Conclusions

6.1 The matrix on the following page sets out the main conclusions of this review.

6.2 The matrix shows the original University position, compared with the conclusions of Wisher Consulting. It should be noted that the University has itself evolved its original position and the contents of the University's clarification note are in many instances closely aligned with the findings of Wisher Consulting.

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Summary of University Land Requirements within TCBGC (Spring 2022)			Summary of Review Findings	
	Scale	University view on Optimal Location	Scale	Wisher Consulting view on Optimal Location
Knowledge Gateway Expansion	13 Ha	'Immediately north of A133, providing adjacency to existing Knowledge Gateway'	c 8 Ha	Agree with University that expansion land needs to be located as close as possible to existing Knowledge Gateway The circa 4 hectares of expansion land as shown on the Draft DPD Option A Plan should be reserved for Knowledge Gateway expansion, facilitated by appropriate A133 crossing infrastructure. There is also potential to create a strong linear strip of science and technology uses with immediate A133 (north-side) frontage to the east of the existing Knowledge Gateway.
Student Accommodation	12-15 Ha	'East, West or South of the existing campus'	c 8-9 Ha (not all of which will necessarily be within the current TCBGC boundary)	Unlikely that all new edge of campus accommodation will be delivered in one location. More than one location likely to be required, spanning both plots within the TCBGC boundary and outwith. Some development to the north of A133 and within the TCBGC may work for student accommodation – particularly if tied to a transit node or new local centre. Land south of the existing campus, outside Garden Community boundary, remains a logical location for additional student accommodation but would need to be considered/accommodated by future reviews to the Local/Neighbourhood Plan. Student accommodation to the east of the existing campus might be possible (as part of a distributed approach) but is more remote from the existing campus and the likely Garden Community local centres so is not considered the most suitable location.
Sport and Leisure	3.3 Ha built development 17 Ha pitches	Position not made clear. Although land to south of the A133 and east of the B1028 appears to be an option University would be open to for sports provision.	2.0 Ha built development 10 Ha pitches (on assumption that at least 2 or 3 are artificial pitches)	For built development – land immediately east of the B1028 and south of the A133 (at the junction of the two roads) would work well. The location would serve both student and community users well. For pitches – land east of the B1028 and south of the A133 would be the most suitable location to meet this need. Any location for new provision should connect well to existing sports provision on campus and respect the wider need to avoid encroachment to Wivenhoe. Grass pitches could be a suitable method to help control encroachment.

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