Estate Strategy
2010/11 to 2018/19

Physical Resources Department
GLOSSARY OF TERMS

AUV  Alternative Use Valuation (Open Market)
DEL  Department for Employment & Learning
DRC  Depreciated Replacement Cost
EMS  Estates Management Statistics (HEFCE)
EUV  Existing Use Valuation
GIA  Gross Internal Area – area measured to inside of external walls
HEFCE Higher Education Funding Council for England
SFC  Scottish Funding Council
KER  Key Estate Ratio
MaSN  Maximum Student Numbers
NIA  Net Internal Area
FTE  Full Time Equivalent

Qualification regarding costs contained in this report
The construction costs included are high level budgetary figures based on square metre rates for new build, refurbishment and fit out. Costs quoted include construction costs, fees and VAT (at 20.0%) but exclude furniture, equipment, etc. Costs are at Q3 2010.
1.0 EXECUTIVE SUMMARY

1.1 UNIVERSITY ESTATE

The University is located on four campuses, Belfast, Coleraine, Jordanstown and Magee, situated across Northern Ireland. It has a freehold estate comprising of 213 hectares (526.5 acres) and 237,876 m2 gross internal area (GIA) of accommodation. Of the built estate 52% was constructed in the 1960/70s with the bulk of the remainder constructed post 1980. The estate is valued at approximately £365M as at July 2010.

This report summarises the direction, objectives and status of the University of Ulster’s Estate Strategy. Essential to the support of these objectives is the need to understand what buildings and facilities will be required to deliver the academic and corporate plans for the University.

The University recognises the unique nature of its estate and the difficulties and duplication of resources resulting from the geographical distribution of its campuses but also the opportunities a dispersed presence across Northern Ireland offers in achieving its vision.

Analysis has identified the following parameters which have shaped the strategy and will be key Estate drivers over the period:

- Student numbers on the Coleraine campus are projected to remain constant or grow modestly in the non-MaSN area. The campus space is significantly over that calculated by the HEFCE space prediction model. These factors are further compounded by the aging building stock and split nature of the campus.
- As identified in the previous Estate Strategy, the 1960/70s building stock on the Jordanstown campus has reached the end of its economic life and now has the potential to impact on the attraction and retention of students and staff. The conclusion of the Jordanstown Master Planning exercise and subsequent economic appraisal was that the replacement of the majority of these facilities at an enlarged Belfast campus provided the most economically advantageous option.
- The confined nature of the Magee campus is a restricting factor to the University’s desire to grow student numbers by approximately 1,648FTE on the campus.
- Backlog maintenance reduction.
- Environmental performance and carbon reduction.
- Space efficiency performance benchmarked against the HEFCE Space Prediction Model.

The results of the analysis indicate that the recommended options for the University are:

- Coleraine - rationalisation and consolidation to the north of the campus.
- Jordanstown & Belfast - Delivery of the Greater Belfast Development plan by the start of 2018/19 academic year.
- Magee - Delivery of the physical environment to support the growth anticipated by the Magee Strategic Outline Case.

A full economic appraisal, which addresses proposed developments at the Belfast & Jordanstown campuses has already been completed and approved by both DEL and DFP.

The North West Development plan, addresses proposed developments at the Coleraine and Magee campuses. The Strategic Outline Case for a MaSN increase at the Magee Campus has been completed and was submitted to DEL in June 2010.
2.0 INTRODUCTION AND OVERVIEW

2.1 INTRODUCTION

This Estate Strategy provides a frame of reference for accommodation planning in support of the University’s Corporate Plan and business needs up to the year 2018/19 and reflects the University’s strategic plans for Teaching & Learning, Research and Knowledge and Technology Transfer over the period.

The Estate Strategy aims to address:
- Compatibility with current academic and financial plans.
- The existing estate, its condition and performance.
- The current and future requirements of the estate, and the changes required to implement those requirements.
- The problems of the estate.
- The opportunities for development and rationalisation.
- The options available to the University.
- An evaluation resulting in preferred options.
- Proposals for implementation of the Estate Strategy, including estimated costs and how this strategic document can be converted into annual plans which enable delivery.

The Estate Strategy is one of the three key elements of the Planning Triangle as defined by HEFCE. The triangle brings emphasis to the interdependency of the Academic, Estate, and Finance strategies in developing the Corporate Plan that ensures that the University’s academic aims can be achieved.

This strategy updates the previous Estate Strategy approved by the University in 2005 and subsequently revised through the annual Corporate Planning process.

The Estate Strategy takes into account known external and internal changes affecting the University and in particular addresses the two key areas for sector improvement, specifically identified by HEFCE.

- Improved environmental performance and reduced carbon emissions.
- More efficient space utilisation in line with the HEFCE space prediction model.

HEFCE have clearly recognised that efficiencies in space utilisation have a direct positive impact on financial and environmental performance.

The strategy, although setting down parameters for the use of the estate, must also be flexible to change with the changing needs of the University and must be able to respond to new demands and changes in both internal and external drivers.

The purpose of this strategy is to take a holistic overview of the estate needs and policies of the University to support its Academic and Corporate Plan. It must ensure that there is consistency between strategic direction in estate terms, effective management of assets, and a forward programme of planned projects. It is essential that opportunities for both development and rationalisation are assessed and planned for.
The following records the significant changes and additions to the University estate since the last Estate Strategy:

- Extension and redevelopment of the Belfast Campus.
- Extensive new build development of sports facilities at Jordanstown.
- New Learning Resource Centres at Coleraine and Belfast.
- New residences developments provided at Jordanstown.
- Complete refurbishment of Block L, Coleraine Campus.
- Refurbishment of former UUSRP buildings at Coleraine for Metabolomics, Diabetes and Pharmacy and at Magee for Computing and Intelligence Systems.
- New build Rehabilitation Research Centre – Block 1 Jordanstown.
- Procurement and refurbishment of the Foyle Arts Building at the Magee Campus.
- The installation of a Wind Turbine Generator at the Coleraine campus.
- Transfer of staff and students from Portrush to the Belfast and Coleraine campuses.

The Estate Strategy will be reviewed annually within the University's Corporate Planning process. The strategy will undergo major review on a 5 year rolling programme. This will ensure that changes to the estate and investment plans remain in line with the University’s short-term and long-term objectives.
2.2 UNIVERSITY OVERVIEW

The University of Ulster (Ulster) was established by Royal Charter in 1984 following the merger of The New University of Ulster and the Ulster Polytechnic and its legal status is that of an educational charity. Unlike most other universities it has a mission to serve a large region rather than to concentrate its resources in one centre. Accordingly the University is committed to maintaining a significant, unitary, presence across the Province in Greater Belfast (Belfast and Jordanstown) and the North West (Coleraine and Magee).

Figure 2.2.1 – Campus Location Map

Since 1989/90 the University’s student population has increased by 94% from a total of 10,445 FTE in 1989/90 to 20,076 FTE in 2009/10. This is split 95.7% Teaching & Learning FTEs and 4.3% Research.

The academic structure of the University is divided into six Faculties; Art, Design & Built Environment (AD&BE); Arts; Computing & Engineering(C&E); Life & Health Science (L&HS); Social Sciences (SS); and the Ulster Business School (UBS). The academic provision per campus is as follows:

- Belfast campus accommodates 1,491FTE drawn mainly from the School of Art & Design (AD&BE) together with 268FTE from UBS & Arts.
- Coleraine campus accommodates 4,558FTE from Arts, C&E, L&HS, SS & UBS.
- Jordanstown campus - accommodates 10,671FTE from C&E, L&HS, SS, UBS & School of Built Environment (AD&BE).
- Magee campus accommodates 3,355FTE from Arts, C&E, L&HS, SS & UBS.
2.3 ESTATE STRATEGY STRUCTURE

The strategy is based on an analysis of the estate, the Academic Plan, current resources, future opportunities and an assessment of the changing planning environment over the plan period. It is structured as follows:

- Outline of the strategic and academic objectives of the University encompassed in the following reference documents. Corporate Plan 2011/12 to 2015/16, The Academic Plan 2010/11, 1 Year Student Number Projection Plan 2010/11 the Greater Belfast and North West Development Plans and the Magee Campus Strategic Plan taking into account expected future proposals for growth and development in teaching and learning, research and innovation.

- Statistical assessment of the existing estate.

- Performance assessment, highlighting the current and future requirements of the estate in order to satisfy the strategic aims of the University.

- A table linking problems, opportunities and proposals.

- Evaluation of options.

- Implementation plan, showing how the proposals put forward in the Estate Strategy will be achieved.

- Appendices providing supporting information.
3.0 STRATEGIC OBJECTIVES

The University’s vision is “To be a University with a national and international reputation for excellence, innovation and regional engagement”.

To achieve its Vision the University of Ulster has set five core strategic aims, four relating to what the University will seek to achieve and one relates to how the University will seek to go about its business:

- Provide excellent learning opportunities which are student centred and client focused.
- Undertake excellent research in selected areas of activity.
- Maintain the University’s position as a sector leader in widening access to higher education.
- Establish the University as a sector leader in promoting creativity and innovation.
- Conduct business in line with the University’s core values and to the highest standards of corporate governance.

Underpinning these core strategic aims are five cross-cutting supporting aims:

- Contribute to the economic, social and cultural development of the region and to promote the University and the region internationally.
- Contribute to economic, social and cultural inclusion in the region.
- Recognise and reward staff who contribute to the achievement of excellence.
- Exploit the University’s multi-campus and unitary structure to realise successfully its vision.
- Ensure financial sustainability and work towards the achievement of environmental sustainability.

The University’s next Corporate Plan will span 2011/12 to 2015/16. The period of this new plan will encompass the development proposals for Ulster’s Greater Belfast and North-West campuses, the key elements are highlighted below:

Greater Belfast Development Plan
- Student numbers consolidated.
- All Jordanstown students to be relocated to a new site adjacent to the existing Belfast Campus, increasing Belfast numbers to 12,000 FTE in 2018/19.
- Limited research to remain at Jordanstown.
- Sports facilities to remain at Jordanstown.
- Student Residences to remain at Jordanstown.

North-West Campuses Strategic Plan
- Increase MaSN numbers by 1,000 FTE and non-MaSN numbers by 648 FTE to 5,003 FTE overall at Magee by 2014/15.
- Consolidation of student numbers at approx 4,500 FTE at Coleraine by 2014/15.

HEFCE Space Prediction Model
A new model was launched, by HEFCE, in April 2010 to provide higher education institutions with the means to manage space more effectively. Efficient space management has been identified as a key element in the drive towards improved financial and environmental sustainability. The output from the model will be used by HEFCE to benchmark an institutions progress with regard to increasing space efficiency. This will be a key requirement for the release of all future funds. As a result the University will need to develop a clear strategy to ensure that annual space efficiencies are achieved. The assessment of whole estate and individual campuses is included in Section 5.
The Department of Physical Resources Mission statement is “To support the delivery of the University's Corporate and Academic aims through the efficient management, maintenance and development of a quality and sustainable physical environment appropriate to the needs of the users”

To support the institutional strategy, the Estate Strategy will:

- Formulate an agreed statement of requirements for the University’s estate, in terms of space, location, quality and functionality, to support the corporate aims and facilitating the mission of the institution.

- Identify and assess the most appropriate mix of options for meeting those requirements, taking account of the available resources and other constraints to ensure that an effective and efficient estate is maintained.

- Set in train actions needed to implement those measures over the period of the strategic plan, and establish appropriate review procedures for longer-term actions.

- Implement environmental sustainability principles that will inform the development and operation of the University’s physical estate and facilitate achievement of government performance targets.
4.0 ESTATE DATA
This section provides background information on the University’s Estate which is assessed in Section 5 – Performance assessment.

Current academic accommodation is provided on four campuses Belfast, Coleraine, Magee and Jordanstown. For campus maps refer to Appendix A.

Campus Areas
The University’s estate comprises 213 hectares (526.5 acres) as follows:

<table>
<thead>
<tr>
<th></th>
<th>BELFAST</th>
<th>Coleraine</th>
<th>Jordanstown</th>
<th>Magee</th>
<th>UU (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Site Area</td>
<td>0.73 (1.80)</td>
<td>129.81 (320.63)</td>
<td>69.82 (172.46)</td>
<td>12.8 (31.62)</td>
<td>213.16 (526.51)</td>
</tr>
<tr>
<td>Building Footprint</td>
<td>0.52 (1.28)</td>
<td>3.75 (9.27)</td>
<td>3.49 (8.62)</td>
<td>1.72 (4.25)</td>
<td>9.48 (23.42)</td>
</tr>
<tr>
<td>Developed area including buildings</td>
<td>0.718 (1.77)</td>
<td>21.31 (52.64)</td>
<td>7.91 (19.54)</td>
<td>6.19 (15.29)</td>
<td>36.128 (92.24)</td>
</tr>
<tr>
<td>Grounds Area</td>
<td>0.012 (0.03)</td>
<td>28.71 (70.91)</td>
<td>22.59 (55.80)</td>
<td>3.54 (8.74)</td>
<td>54.852 (135.48)</td>
</tr>
<tr>
<td>Playing Fields</td>
<td>0 (0)</td>
<td>33.71 (83.26)</td>
<td>14.07 (34.75)</td>
<td>1.79 (4.42)</td>
<td>49.57 (122.44)</td>
</tr>
<tr>
<td>Farmland</td>
<td>0 (0)</td>
<td>12.1 (29.89)</td>
<td>20 (49.40)</td>
<td>0 (0)</td>
<td>32.1 (79.29)</td>
</tr>
<tr>
<td>Non-Maintained</td>
<td>0 (0)</td>
<td>33.98 (83.93)</td>
<td>5.25 (12.97)</td>
<td>1.28 (3.16)</td>
<td>40.51 (100.06)</td>
</tr>
</tbody>
</table>

Figure 4.0.1 Campus Areas in hectares (acres)

4.1 NON RESIDENTIAL ESTATE

4.1.1 Size of operational estate
For comparison purposes the University has assessed the estate by residential and non-residential property in line with returns to the Higher Education Funding Council for England (HEFCE). The residential estate is assessed in Section 4.2.

<table>
<thead>
<tr>
<th>Non-Residential Estate</th>
<th>GIA (m²)</th>
<th>NIA (m²)</th>
<th>Balance (m²)</th>
<th>% Balance of GIA</th>
<th>% Balance of NIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELFAST</td>
<td>25,847</td>
<td>18,040</td>
<td>6,101</td>
<td>23.60</td>
<td>33.82</td>
</tr>
<tr>
<td>COLERAINE</td>
<td>82,661</td>
<td>49,082</td>
<td>23,380</td>
<td>28.80</td>
<td>47.60</td>
</tr>
<tr>
<td>JORDANSTOWN</td>
<td>97,567</td>
<td>64,350</td>
<td>25,490</td>
<td>26.13</td>
<td>39.61</td>
</tr>
<tr>
<td>MAGEE</td>
<td>31,601</td>
<td>21,140</td>
<td>8,422</td>
<td>26.65</td>
<td>39.84</td>
</tr>
<tr>
<td>UU (Total)</td>
<td>237,876</td>
<td>152,612</td>
<td>63,393</td>
<td>26.65</td>
<td>41.54</td>
</tr>
</tbody>
</table>

Figure 4.1.1.1 – Non-residential estate area (m²)
4.1.2 Age of Buildings

The University buildings were constructed between 1830 and 2009. The vast majority (94%) of the University non-residential buildings were constructed after 1960. 52% were constructed between 1960 and 1979, and major redevelopments since 1995 have increased the percentage of post 1980 buildings by 13% to a total of 42%. Pre 1960s buildings make up a small proportion and are predominantly located at Magee, which sits within the Magee Conservation Area.

The buildings dating from the 1960s and 1970s are generally of concrete frame with flat roofs and external cladding panels or curtain walls. The design and methods of construction of these buildings, in common with other peer buildings of the period, pose significant ongoing maintenance problems despite substantial expenditure on elements of backlog and planned maintenance.

4.1.3 Ownership

The University owns the freehold of 100% of its property.

4.1.4 Estate Valuation

In 2000 the University commissioned the Valuation and Lands Agency to undertake a comprehensive valuation of all its buildings. A further full valuation was carried out by independent valuation surveyors Gerald Eve in 2005 and the next full valuation will take place in 2011.

The valuation is updated annually by means of a desk top valuation allowing for inflationary factors and improvements/additions to the estate. The valuation of the University Estate on 31/07/10 was £365M existing use value (EUV).
4.1.5 Condition
During 2006, the University carried out a detailed survey of condition and requirements for legislative compliance.

The condition appraisal was carried out in line with the standard RICS building maintenance definitions:
A - As new;
B - Sound, operationally safe, exhibiting only minor deterioration;
C - Operational, but major repair or replacement needed in the short to medium term.
D - Inoperable or serious risk of major failure or breakdown.

The condition assessment has been updated as a desk-top exercise each subsequent year however another detailed survey is planned for next year.

Figure 4.1.5.1 - Estate Condition by Age Band 2009/10

Figure 4.1.5.2 - Estate Campus Condition 2009/10
As can be seen from the bar chart the Belfast campus has a high proportion of condition A accommodation. This is due to completion in 2008 of the £34M campus redevelopment which provided a new 6 storey extension and complete refurbishment of the original Warwick Building.

Coleraine has the 3rd highest proportion of Condition A accommodation due essentially to the influence of the newer buildings and recent refurbishments located to the northern part of the campus.

Jordanstown contains the largest proportion of Condition C accommodation, largely due to the age of its core blocks and subsequent deterioration of the building fabric. The proportion of Condition A and B buildings are influenced by recent sports and research buildings.

Magee has the highest level of Condition A and B accommodation due to the age and quality of the building stock.

**Backlog maintenance**

The University has an overall backlog maintenance liability of £71.6M (£52M excl Fees & VAT) and a legislative compliance liability of £8.83M (£6.4M excl Fees & VAT) giving a total liability of £80.59M (£58.4M excl Fees & VAT). The following table shows the breakdown by campus of the non-residential estate.

<table>
<thead>
<tr>
<th>Non-Residential</th>
<th>Net Internal Area (NIA) m²</th>
<th>Condition (£)</th>
<th>Legislation Compliance (£)</th>
<th>Total (£)</th>
<th>Cost per m² (NIA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>18,040</td>
<td>1,707,472</td>
<td>408,475</td>
<td>2,115,947</td>
<td>117</td>
</tr>
<tr>
<td>C</td>
<td>49,082</td>
<td>4,727,103</td>
<td>2,608,577</td>
<td>7,335,680</td>
<td>149</td>
</tr>
<tr>
<td>J</td>
<td>64,350</td>
<td>44,027,437</td>
<td>2,401,311</td>
<td>46,428,748</td>
<td>722</td>
</tr>
<tr>
<td>M</td>
<td>21,140</td>
<td>1,513,616</td>
<td>1,030,601</td>
<td>2,544,217</td>
<td>120</td>
</tr>
<tr>
<td>Ulster</td>
<td>152,614</td>
<td>51,975,628</td>
<td>6,448,964</td>
<td>58,424,592</td>
<td>383</td>
</tr>
</tbody>
</table>

Figure 4.1.5.3 – Breakdown of backlog maintenance and legislative compliance liability

While the Jordanstown campus figures allow only for the lowest cost maintenance option of re-cladding the main blocks it can be clearly seen that the progression of the Greater Belfast Development will, by eliminating Jordanstown & Belfast backlog maintenance, address 83% of the University’s current backlog maintenance liability.

In addition the rationalisation and consolidation of the Coleraine campus will eliminate an additional 11% of backlog maintenance liability. It is proposed that priority should be given to addressing the reduction of the campus backlog maintenance liability by consolidating other South Buildings activities within Central Buildings prior to redevelopment of the currently under utilised sports facilities.

It should be noted that the level of backlog maintenance liability on the Coleraine campus is almost three times that of the Magee campus.

Over the last five years the level of mainly capital expenditure has resulted in a significant improvement in the overall condition of the estate. However with a high proportion of the estate inherited by the University having been construction in the 1960’s and 70’s a considerable maintenance backlog remains. A high level of ongoing investment in major/strategic maintenance is required to maintain the current condition of the estate.
4.1.6 Functional Suitability

The functional suitability of the estate is assessed on an annual basis. Functional suitability measures the capability of the space to support its existing function. It is measured on a scale of 1 to 4 with 1 being the highest rating and 4 the lowest -

1 - Excellent: the room(s)/building(s) fully support current functions. There are no negative impacts upon the functions taking place in the space. (The space is highly suitable for current functions).

2 - Good: the room(s)/building(s) provide a good environment for the current function in all or most respects. There may be a shortfall in certain areas, but these have only a minor effect upon current functions. (The space is suitable for current functions).

3 - Fair: the room(s)/building(s) provide a reasonable environment for current functions in many respects, but have a number of shortfalls. These shortfalls may be causing discrepancies between space and function that is having a more significant effect upon current functions than Grade 2 rooms. (The space is generally suitable for current functions).

4 - Poor: the room(s)/building(s) fail to support current functions and/or are unsuitable for current use. The operational problems associated with such space are major, and are constraining current functions in the space. Space in this grade may require alternative solutions, rather than straightforward improvements in particular features of the space. (The space is very unsuitable for current functions).

Figure 4.1.6.1 – Functional Suitability by Age Band 2009/10
Belfast campus has the highest level of Grade 1 accommodation, again due to the recent redevelopment of the campus. The Orpheus Building accounts for the recorded level of Grade 3 and 4 accommodation.

Coleraine has the highest level of Grade 2 accommodation, at 74%.

Jordanstown has the highest level of Grade 3 accommodation, at 23%, reflecting the inherent inflexibility within the existing buildings.

Magee has the highest level of Grade 1 & 2 accommodation, at 93%.

4.1.7 Space Distribution
The EMS Key Estate Ratios confirm that overall the University is operating at a level of 6.77m²/FTE which is favourable against a sector mean of 9.2m²/FTE and a median of 7.4m²/FTE. However the mean figure is significantly impacted by the space inefficiencies inherent in many of the older universities meaning that the median figure is more representative of modern university requirements.

HEFCE, through the introduction of a number of Space Prediction Toolkits and Models (as referenced in Section 3), are now making funding dependent on a university’s ability to evidence year-on-year improved space efficiency, highlighting the increased importance of maximising space efficiency across the estate. Individual campuses have been assessed in Section 5.

There is considerable campus variation with Jordanstown and Magee just operating above the sector’s lower quartile at 5.54m²/FTE and 5.43m²/FTE respectively, and Belfast operating above the sectors higher quartile at 11.28m²/FTE. These figures are heavily impacted by the nature of the faculties which make up the various campuses, for example the high m²/FTE in Belfast is impacted by the provision of studio accommodation for the Art & Design and Architecture courses. The Belfast campus is currently operating below its design capacity.
During the peak load periods Jordanstown and Magee space are currently operating at close to capacity and as a result support services such as car parking are struggling to meet demand. Given the outcomes of the HEFCE space prediction model it is clear that additional accommodation would not be justifiable and the only way to alleviate the peak demand pressures currently experienced would be to ensure that teaching is timetabled across the full teaching week.

4.1.8 Utilisation
The University undertakes annual space usage surveys of teaching accommodation on all campuses. In addition to the annual surveys the University also completed a more comprehensive survey across a fuller range of weeks in the 2008/09 academic year. These surveys along with information from co-ordinated timetabling provide important management information to support changes in operational procedures and highlights potential areas of development.

In addition to the surveys on centrally held teaching accommodation Faculties are space charged for their faculty accommodation. Centrally held teaching accommodation both general teaching and IT labs, is recharged to the Faculties in line with the level of bookings.

Over the past five years there has also been a major effort to reduce the non-usage of booked slots in teaching accommodation. A number of initiatives including advising Faculties of the costs of central accommodation, full room surveys each semester, ad hoc usage surveys throughout the semester, penalty charging, and the removal of teaching rooms from availability have improved room usage.

Based on the Estate Management Statistics overall utilisation at 26% is equal to the sector median which for a University with duplication of teaching spaces across dispersed campuses must be seen as satisfactory.

The best utilisation rates are achieved in the general teaching rooms and although computer labs are well used may not always contain large numbers of students. Specialist spaces consistently record the worst utilisation performance. An aligned ISD and Physical Resources strategy needs to be developed to review the current provision of computer laboratories and account for the impact of the increasing trend of student owned portable computing devices.

4.1.9 Running costs
The University uses Key Estate Ratios (KERs) as defined in the report on the ‘Estate Management Statistics project’ (HEFCE 99/18) to benchmark the performance of the estate.

Although the University has invested considerable amounts of capital in the estate in the last five years this investment has largely been in new buildings. Extensive proportions of the University’s estate are of the 1960/70s era which are now around 40 years plus. It will be important that adequate investment is maintained on the existing estate in forthcoming years. In line with the recommendations of HEFCE, and the JM consulting report 2006, the University targets an annual investment of 4.8% of insurance replacement value (IRV) in the built estate. For an estate value of £365M this equates to expenditure of £18M per annum.
In 2008/09, the most recent year for which comparative statistics are available, the University had a Total Property Cost of £141.95/m² Net Internal Area (NIA) which is above the sector mean by £7/m² (5.1%) and the median by £15/m² (11.7%). This cost is due to a significant increase in maintenance expenditure during 2008/09 following previous years of higher levels capital expenditure. In 2008/09 this expenditure was balanced by a significant reduction in capital expenditure which at £41.33/m² was 61% below the sector median.

For a University which is so widely dispersed the running costs must be seen as satisfactory especially when it is noted that rates and utilities are more expensive than in Great Britain.

4.1.10 Maintenance Strategy
The key objective of the University’s maintenance strategy is ‘To optimise the life of the building components and to minimise disruption as a result of unforeseen major defects or component failures which may adversely affect the operation of the University’.

To facilitate this maintenance has been defined in the following categories:
Planned maintenance – carried out at predetermined intervals.
Response maintenance – necessitated by unforeseen events.
Backlog maintenance – necessary to prevent the deterioration of an asset.

Maintenance will be prioritised to reflect statutory obligations, maintaining the asset and academic requirements with a target of 90% on planned maintenance and 10% on reactive.

The full maintenance strategy is included in Appendix B.

4.1.11 Commercial Space
The estate includes 3,063 m² of commercial space across the Belfast, Coleraine, Jordanstown and Magee campuses which when fully occupied returns an income of just under £750k to the University.
4.2 RESIDENTIAL ESTATE

4.2.1 Size of operational estate
Residential Services accommodation portfolio consists of 2,380 bedspaces across three Campuses of the University.

<table>
<thead>
<tr>
<th></th>
<th>Partnerships</th>
<th>Head leases</th>
<th>Owned</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coleraine</td>
<td>350</td>
<td>405</td>
<td>117</td>
<td>872</td>
</tr>
<tr>
<td>Magee</td>
<td>400</td>
<td></td>
<td>230</td>
<td>630</td>
</tr>
<tr>
<td>Jordanstown</td>
<td>630</td>
<td>170</td>
<td>78</td>
<td>878</td>
</tr>
<tr>
<td>Totals</td>
<td>1380</td>
<td>575</td>
<td>425</td>
<td>2380</td>
</tr>
</tbody>
</table>

Figure 4.2.1.1 Residential Bed Spaces by Campus

872 bedspaces are provided at Coleraine 467 of which are provided on-campus. The on-campus accommodation includes 117 University owned bedspaces with a further 350 bedspaces provided through a private partnership scheme. Off-campus, 405 bedspaces are provided through various head leasing schemes with agreements ranging from 1 to 21 years.

At Magee Campus there are 630 bedspaces, 230 of which are University owned and the remainder provided through a private partnership scheme.

As provision satisfies current demand there are no plans to seek further accommodation developments at Coleraine or Magee campuses, although the latter may be reviewed if DEL releases sufficient additional full time places to the University.

878 bedspaces are provided at Jordanstown, 708 of which are on-campus. The on-campus accommodation includes 78 University owned bedspaces and 630 ensuite bedspaces provided through a recently completed private partnership scheme. There are also 170 bedspaces in a head leased development one mile from the Campus.

There are no plans to provide additional accommodation in the Greater Belfast Area as accommodation at Jordanstown satisfies current demand and will continue to be available to students after courses transfer to Belfast.

Current market conditions mean that the transfer of the University's remaining owned accommodation to the private sector is not currently viable however this option will be kept under review.
4.2.2 Age of Residential Estate

As can be seen from the above bar chart, 100% of University owned residential accommodation, with the exception of the Dalriada Gate lodge (Block 34) at the Jordanstown campus, was constructed after 1980.

4.2.3 Condition of Residential Estate

With the exception of the recently refurbished Dalriada Gate Lodge, which is classed as condition A, the University owned accommodation has been classified as category B condition.
5.0 PERFORMANCE ASSESSMENT

This section assesses the data provided in Section 4 and should be read in conjunction with that data.

5.1 OVERALL ESTATE

The University is located on four campuses situated across Northern Ireland. The estate comprises 213 hectares (526.5 acres) and 237,876m2GIA of accommodation. Of the built estate 52% was constructed in the 1960/70s with the bulk of the remainder constructed post 1980.

Due to the geographical split and the variance in academic provision the four campuses have been assessed separately. However a spatial benchmarking exercise for the whole estate has been carried out using the HEFCE Space Prediction Model referenced in Section 3. The output indicates that the non-residential estate is currently over provided by 43,011m2NIA or 39%.

The main areas of over provision have been identified as Core Teaching (15,471m2), Support (5,945m2), Teaching offices (2,470m2), Library (2,053m2) and Other (16,341m2) which includes vacant accommodation, Riverside Theatre, Assembly Hall, Diamond Hall and Octagon.

Within the sector, concerns have been raised over the validity of the output of the model. The area of particular concern to Ulster is that it makes no allowance for the geographical split of campuses and the resultant inevitable duplication of space, particularly support space. Notwithstanding this, the level of over provision at Coleraine (168% of predicted) represents a significant margin over that of the other larger campuses. The Belfast campus efficiency will be impacted by the Greater Belfast Development project. Assessments of individual campuses have been summarised in the table below.

<table>
<thead>
<tr>
<th>ESTATE SIZES (Sq. M.)</th>
<th>Belfast</th>
<th>Coleraine</th>
<th>Jordanstown</th>
<th>Magee</th>
<th>Whole Estate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE TEACHING &amp; RESEARCH</td>
<td>12563 3280 383%</td>
<td>16673 14835 112%</td>
<td>25705 24001 107%</td>
<td>8739 7970 110%</td>
<td>63681 50086 127%</td>
</tr>
<tr>
<td>TEACHING OFFICES</td>
<td>1390 1055 132%</td>
<td>5462 3483 157%</td>
<td>7590 8019 95%</td>
<td>3203 2265 141%</td>
<td>17645 14822 119%</td>
</tr>
<tr>
<td>LIBRARY</td>
<td>1408 637 221%</td>
<td>3599 3056 118%</td>
<td>5370 5076 106%</td>
<td>2786 2225 125%</td>
<td>13163 10995 120%</td>
</tr>
<tr>
<td>OTHER SUPPORT</td>
<td>1655 1985 83%</td>
<td>11931 7428 161%</td>
<td>18516 15835 117%</td>
<td>3792 3373 112%</td>
<td>35894 28621 125%</td>
</tr>
<tr>
<td>TOTAL CAMPUS</td>
<td>18040 7554 239%</td>
<td>49083 29254 168%</td>
<td>64350 56665 114%</td>
<td>21140 16129 131%</td>
<td>152614 109603 139%</td>
</tr>
</tbody>
</table>

A - Actual existing space. P - HEFCE Prediction. % - Actual as percentage of predicted.
Note: Vertical columns will not total as only HEFCE model key criteria are shown above. Additional sub criteria are however included within the Total Campus figure.

Figure 5.1.1 HEFCE Space Prediction Model
In support of the Space Prediction Model, the HEFCE 2009 EMS Annual Report highlighted effective space management as a key driver in achieving cost efficiencies and helping to drive energy reductions, this focus has been reinforced by the recent HEFCE Capital Investment Framework paper 2009/48 which identified space efficiency and carbon emission reduction as the two key areas for estates to address over the coming years. These elements are fundamentally linked as identified in ‘Sustainable Development in Higher Education: 2008 update to strategic statement and action plan’ which highlighted that ‘Good space management not only benefits the environment, it also frees up resources that can be used for teaching and research.’ To this end it is essential that Ulster strives to continue to increase its effectiveness in both categories.

One area of potential space efficiency identified in the above reports is Academic Office allocation as HEFCE believe that these ‘generous space allocations’ are an area where there is ‘still potential for greater space efficiencies’. This is an area which following significant discussion during the recent Greater Belfast Development Space Planning Consultation the consultants recommended and received approval for a model which will see the Academic Office allocation reduce, however this new accommodation will be provided with suitable ancillary support accommodation to ensure that the allocations can operate in the most effective way.

The reports also raise the issue of a potential new direction in teaching. Ulster, in common with the sector, has seen a reduction in utilisation of teaching space with anecdotal evidence that some forms of teaching are now being delivered in more informal space, possibly identifying a move towards a more flexible teaching environment. This change of direction has been a recurring theme during the Greater Belfast Space Planning Consultations with all Faculties expressing a desire to move from the current didactic format to a more collaborative/hybrid format that can facilitate both formal and informal learning teaching. The implications of this new direction will need to be considered in all future developments.

**Knowledge Transfer**

The previous Estates Strategy identified the wholly owned subsidiary company UUSRP Limited (University of Ulster Science Research Park) as the property development and management vehicle for the University’s Knowledge Transfer strategy. This company ceased trading on 31 July 2009 with the result that four properties, SIC(Block X) at Coleraine, Block 26 at Jordanstown and Blocks MK & MH at Magee were transferred to University ownership on 1 August 2009. Block 26 has since been incorporated to the University estate function with the remainder of the buildings continuing to operate as incubator accommodation, however an operational review is currently underway. In line with Ulster’s Knowledge Transfer Strategy, the majority of Ulster’s Innovation continues to be carried out in or adjacent to the faculty accommodation.

**Data Centre**

Issues have been identified in relation to the supply infrastructure, location, capacity, environment and resilience of the University’s Data Centres. It is likely that changing service requirements and other components of the evolving IT Strategy will require upgraded facilities and increased capacity within the primary data centres. When the technical specification for the centre installations is determined and an appropriate location agreed a new next generation data centre building will be required.

### 5.2 BELFAST CAMPUS

**Campus Overview**

The Belfast campus underwent a major £34M redevelopment between 2004 and 2008. The campus has a site area of 0.73 hectares (1.8 acres), 18,040 m² NIA of accommodation, 1,491 student FTE and 187.41 staff FTE and is the smallest of the four campuses. The built estate consists of two individual buildings interconnected by a high level bridge. The campus is almost
exclusively occupied by the Faculty of Art, Design & the Built Environment however the campus also accommodates the Ulster Business School, Department of Hospitality & Tourism Management, and a number of Faculty of Arts language courses.

The campus has 7% of the University’s student population and 6.6% of the University’s staff population. As part of the redevelopment the original 1960s Warwick building (B82) was stripped back to its concrete frame and completely refurbished with a 6,000m2 six storey extension added to the York Street façade. The existing Orpheus building (B81) was constructed in the early 1900’s as warehousing/commercial/retail premises and was purchased and converted into studio/workshop space by the University in the 1980’s.

Projected change in student numbers by 2018/19
The current numbers for the existing buildings are projected to remain static at approx 1,500FTE. Additional FTE could be accommodated on the current Belfast Campus (Block 82) as the building is currently operating at significantly under design capacity however the number will vary depending on the type of programme introduced. Further studio based expansion would be feasible with a review of current accommodation. Current central teaching accommodation would have sufficient capacity to facilitate an additional 500FTE however if studio based this number would be significantly reduced.

HEFCE Space Prediction Model – Assessment and implications
The predicted size of the Belfast campus is 7,554m2/NIA against an actual of 18,040m2/NIA. The most significant variation is in the Core Teaching & Research where the model predicts 3,280m2/NIA against an actual of 12,563m2/NIA however when the AUDE Space Assessment Model (SAM) is applied to the individual taught courses the predicted area rises to 6,258m2/NIA. Adjusting for the SAM Model would revise the predicted size to 12,130m2/NIA. While the SAM makes some allowances for the requirements of the Art & Design course provision it is clear that there are still significant efficiencies which will need to be achieved in Belfast moving forward.

Functional Suitability
The overall functional suitability of the campus is excellent with 89% of the accommodation being rated in the level 1 or 2 band.

Condition
The campus has 72% in band A with the reminder in band C.

Academic requirement
1. Underutilisation of upper floors of Block 82 areas including that previously occupied by Interface should be reviewed as the Building is currently operating at excessive m2/FTE.
2. Cancellation of Phase 3 of the Belfast Campus Redevelopment (following adoption of the GBD plan) has resulted in some courses having to remain in what was planned as short term accommodation.
3. Workshop provision will be reviewed as part of the proposals for the Greater Belfast Development.

Support facilities requirement
Due to the recent redevelopment the core support provision is effective and should remain so for the foreseeable future.

Summary
In summary the existing Belfast campus buildings will facilitate academic needs for the immediate future. However the proposed Greater Belfast Development will impact on some aspects of building use and space efficiency issues over the coming years.
5.3 COLERAINE CAMPUS

Campus Overview
The Coleraine Campus with a site area of 130 hectares (321 acres), 49,083 m² NIA of accommodation, 4,558 student FTE and 962 staff FTE, is physically the largest site and second largest in terms of the built estate, student numbers and staff numbers.

There are two main building areas – Central Buildings with 6 original blocks and 4 adjacent new buildings on the north side and South Buildings with 4 older blocks isolated from Central Buildings.

The campus provides accommodation for five faculties. The campus accommodates 23% of the University’s student population and as the administrative headquarters of the University accommodates 34% of the University’s staff population.

The current buildings occupy around 4% of the site area, a further 13% being developed land – paths, car parking, etc, with the remainder split between grounds, playing fields and farmland. Around 90% of the accommodation was constructed in the late 1960’s and early 1970’s as University accommodation with the remaining 10% being constructed after 2000 as specialist research accommodation.

The previous Estate Strategy highlighted the need for an operational review of the Portrush facilities to be carried out due to inefficient utilisation, low student numbers and high operational costs. A subsequent review concluded that the facility was neither operationally efficient nor economically viable and as a result the facilities were closed in July 2008 with courses transferred to either Belfast or Coleraine campuses. The redundant buildings have since been demolished and outline planning permission received for alternative use. At an appropriate point in the future the University propose to sell the land and re-invest the capital in support of its development plans.

As part of the University’s Development Plans an area of the campus has been provisionally zoned to facilitate the development of a Business Park. The proposed development model is that the University would offer the land for lease or sale to a third party for development and operation as a Business Park.

Projected change in student numbers by 2018/19
Student numbers on campus are planned to remain at approx 4,500FTE.

HEFCE Space Prediction Model – Assessment and implications
The predicted size of the campus is 29,254m²/NIA against an actual of 49,083m²/NIA. The most significant over provisions are identified against support accommodation (4,503m²), Core Teaching & Research (1,838m²), Teaching Offices (1,979m²). In addition the non key category accommodation is 7,812m² above the predicted area. This can largely be accounted for by The Diamond, Octagon, Riverside and other miscellaneous buildings totalling 3,400m² and approx 3,600m² of vacant accommodation (South Buildings, Block X etc).

Functional Suitability
The overall functional suitability of the campus is one the highest of all campuses with 85% of the accommodation being rated in the level 1 or 2 bands and the remainder mainly in the level 3 band as shown in Figure 4.1.6.2. This is attributable to a number of factors including the purpose built nature of university accommodation in the 1970’s, the construction of major new build research accommodation since 2000, and strategic targeted investment in recent years.
**Condition**
The condition of the estate is the second highest of all of the campuses with 80% of the accommodation rated at Condition A or B with the majority of the remainder (18%) in condition C. The present condition rating is attributable to a number of factors including the purpose built university accommodation in the 1970’s (despite inherent maintenance issues common in buildings of that era), the construction of major new build research accommodation since 2000, proactive estate management and targeted investment in strategic and backlog maintenance over a number of years. However the older blocks located at South Building (Condition C&D), including Block T Cavehill, are nearing the end of their useful life and are becoming increasingly difficult to maintain and keep weather tight. The South Buildings have also become increasingly remote from the other academic and student activities as new buildings and refurbishments have been completed in the Central Buildings area.

The University will require to give careful consideration to how it deals with the high proportion of 1960s and 70s accommodation, particularly South Buildings, before the buildings or major elements of them begin to fail.

**Academic requirement**
With only a nominal increase in student numbers expected over the coming 10 years there are no academic growth areas that need addressed. However as South Building accommodation is quickly reaching the end of its useful life consideration needs to be given to how to minimise the likely future impacts on academic activities at the campus.

**Support facilities requirement**
In a recently completed capital project the dated LRC provision in South Buildings was moved to the refurbished and extended central buildings. The new facility will address LRC needs for the foreseeable future.

Sports provision on the campus is currently split with the internal facilities located in the aging South Buildings and the external facilities located remotely to the north of the site. A scheme has been developed and planning approval received for a new £7M sports centre to be located adjacent to the pitches, however due to funding constraints this project is currently suspended.

The Cavehill Building (within South Buildings) housing the crèche has reached the end of its economic and operational life and needs to be vacated and demolished at the earliest opportunity.

Block X (previously occupied by UUSRP) is now mostly vacant and presents an opportunity for one of the academic functions currently located in south buildings to be relocated to the Central Buildings. This can be accommodated by moving support departments out of central building and into Block X and relocating the support sections which remain in Block L to Block J. The C&E functions within Block D could then be relocated within Block L. This would also provide the opportunity for both sections of the new Finance & Planning Information Directorate to be collocated within Block X.

**Summary**
There are three main issues relating to the Coleraine Campus.

- There are two geographically separated main building areas – the older South Buildings containing four blocks in relatively poor condition and Central Buildings consisting of six original older blocks and four adjacent new buildings on the north side.
• The existing campus space is significantly more than indicated by the HEFCE Space Prediction Model and there are relatively large areas of vacant accommodation.

• The Cavehill building which is a temporary sectional building originally constructed during the early 1960’s and has reached the end of its operational and economic life.

5.4 JORDANSTOWN CAMPUS

Campus Overview
The Jordanstown Campus with a site area of 70 hectares (172 acres), 64,350 m² NIA of accommodation, 10,671 student FTE and 1,251 staff FTE is physically the second largest site and the largest in terms of the built estate, student numbers and staff numbers.

The campus provides accommodation for five faculties. The campus accommodates 54% of the University’s student population and also 44% of the University’s staff.

The built estate consists of a main building with eighteen finger blocks linked by a central spine and 9 stand alone buildings. The current buildings occupy 5.3% of the site area with a further 6% being developed space – paths, car parking, etc, with the remainder split between grounds, playing fields and farmland. Around 70% of the accommodation was constructed in the 1960’s and 70’s as polytechnic accommodation with 4% (Dalriada House and its gate lodge) being listed buildings. The remaining 26% has been constructed in the 1990’s and 2000’s.

A Tree Preservation Order protecting all trees on campus was issued by the Planning Service on 27 February 2008.

Projected change in student numbers by 2018/19
The campus is expected to see consolidation of student numbers over the period of this strategy.

HEFCE Space Prediction Model – Assessment and implications
The predicted size of the campus is 56,665m²/NIA against an actual of 64,350m²/NIA. Core Teaching & Research, Teaching Offices & Library are all approximately in line with the space prediction. Areas of over provision have been identified as support (2,681m²), which includes sports facilities, and again the campus has been affected by the level of vacant accommodation at approximately 1,900m² (Carrick Dining, Pool, TEIC, B24 etc).

Functional Suitability
The overall functional suitability of the campus is the lowest of all campuses with 76% of the accommodation being rated in the level 1 or 2 bands and the remainder mainly in the level 3 band as shown in Figure 4.1.6.2. With a large proportion of the accommodation having been constructed in the 1960’s and 70’s as polytechnic accommodation the footprint of the blocks does not allow them to be easily modified for changing uses. The finger blocks are generally around 12 m wide with a narrow off-centre corridor with a reasonably wide teaching/laboratory space to one side and narrow office accommodation to the other side. The positioning of large structural columns and vertical service risers to the side of the corridor make it difficult to plan or provide flexibility within the structural and service constraints.

Strategic targeted investment in recent years plus the provision of new accommodation on campus has improved the percentage of accommodation in Bands 1 and 2.
Space distribution
Jordanstown is the second most densely occupied of the 4 campuses with an occupancy ratio of 5.54 m$^2$ per student FTE which is 22% below the University average of 6.77m$^2$/FTE. As the largest campus volume efficiencies are to be expected and the relatively high proportion of programmes predominately using classroom based teaching rather than studio or workshop based teaching is also a contributing factor.

Condition
The campus has 67% of accommodation rated condition C with only 32% rated at Condition A or B. The present condition rating is attributable to a number of factors including the poor condition of the core 1960’s & 70’s accommodation.

Academic requirement
Consideration needs to be given to the following:
Potential growth of the Built Environment’s Centre for Sustainable Technology.
Potential growth of Computing & Engineering NAMRI research centre.
Potential reduction in L&HS Rehabilitation research requirements.
Provision of student centric hubs to support and enhance collaborative learning.
Delivery of the Greater Belfast Development will facilitate all of these academic requirements.

Support facilities requirement
Over the last five years the campus has seen significant capital investment in support facilities including:
- New 6,000m$^2$ high performance sports facility.
- New student support accommodation.
- New career development centre.

Areas to be addressed:
The data centres electrical infrastructure and air conditioning provision are currently operating at capacity and, subject to confirmation of the University’s ICT strategy, may need addressed to facilitate new ICT needs.

Summary
The previous Estate Strategy noted the poor condition of the campus, discussed options and proposed that replacement be considered.

As a result a Jordanstown Masterplan Exercise commenced in late 2006. Seven possible options were proposed and following assessment the leading options that best fulfilled the non-financial and financial criteria were; option 6, new build on the Jordanstown site and; option 7, new build on an alternative site. The Masterplan exercise and subsequent economic appraisal concluded that option 7 was the most economically advantageous solution.

The Greater Belfast Development proposals are now being progressed in line with Option 7 which is discussed in more detail under section 7 – Evaluation of options for Major Issues.

On completion of the Greater Belfast Development the Jordanstown campus will house the University’s sports facilities together with limited areas of specialist research that are unsuitable for relocation to the new campus and student accommodation.
5.5 MAGEE CAMPUS

Campus Overview
The Magee Campus with a site area of 13 hectares (32 acres), 21,140m² NIA of accommodation, 3,355 student FTE and 434 staff FTE is the third largest campus.

The campus provides accommodation for five faculties. The campus accommodates around 16% of the University’s student population and 15% of the University’s staff population.

The built estate consists of 16 stand alone buildings. The current buildings occupy 13.5% of the site area, a further 35% being developed land – paths, car parking, etc, with the remainder split between grounds and playing fields. Around 30% of the accommodation was constructed in the 1800’s as a college and college residential houses, 50% were constructed between 1980 and 2003 with the remaining 20% constructed post 2003.

The main campus (excluding the Duncreggan Road site) sits within the Magee Conservation Area as defined by the Planning Service in June 2006.

The relatively high campus density, difficult topography and limitations imposed by the location within the conservation area mean that the opportunity for future development on the existing campus is limited.

Projected change in student numbers by 2008/09
Growth in student number on campus is projected to increase by up to 1,648 FTE to c5,003 FTE by 2014/15.

HEFCE Space Prediction Model – Assessment and implications
The predicted size of the campus is 16,129m²/NIA against an actual of 21,140m²/NIA. The main areas of over provision have been identified as Academic offices (938m²), Core Teaching & Research (769m²) and Library (561m²) however the library has been designed to accommodate expansion. The campus statistics are affected by the vacant MH building (former UUSRP building) at 513m². One of the metrics used in the model is the percentage of students in funding band B, while this is approximately 20% on other campuses it is only 2% on Magee resulting in a lower space prediction.

Functional Suitability
The overall functional suitability of the campus is the highest of all campuses with 93% of the accommodation being rated in the level 1 or 2 bands and the remainder mainly in the level 3 band as shown in Figure 4.1.6.2. With a large proportion of the accommodation having been converted, refurbished or constructed in recent years it is to be expected that the campus has a relatively high functional suitability score despite it having the highest percentage of older buildings.

Space distribution
Magee is the most densely occupied of the 4 campuses with an occupancy ratio of 5.43 m² per student FTE which is 20% below the University average of 6.77m²/FTE. For a relatively small campus that has to replicate central facilities the occupancy level at Magee is efficient and reflects the current type of academic provision and increasing space pressures on campus.

Condition
The condition of the estate is the highest of all of the campuses with 100% of the accommodation rated at Condition A or B. The present condition rating is largely due to the refurbishment of existing buildings plus the proportion of recent new buildings on campus. However the older Blocks ME and MI will require significant work in the short to medium term to maintain weather tightness and maximise their potential for useable office accommodation. Aberfoyle House (Block MI) needs significant work both to improve the environment in the lower ground floor and to bring the rear extension into line with modern accommodation standards.
Block ME accommodation is dated and inflexible which is restricting the opportunity to utilise the building to its maximum capacity.

There are two derelict buildings on campus – the old crèche on the Strand Road and the small gate lodge on the Northland Road, both of which are listed. Consideration will be given to application for de-listing and subsequent replacement or refurbishment options.

**Academic requirement**
Block MS, previously part of the Science Park accommodation returned to University ownership in 2008 and following refurbishment the C&E Informatics Research Centre was relocated to this block. This provided the opportunity to reorganise and consolidate disparate faculty accommodation within the main campus blocks with; Nursing now consolidated in Block MG, Social Sciences in Block MF and Arts in Block MA, as a result minimal academic reorganisation within the existing accommodation is expected in the coming years.

**Support facilities requirement**
A new LRC building was constructed in 2002.
The main support issues are a lack of central storage and playing fields. However the implication on support accommodation will need to be assessed in tandem with the proposed academic growth as the resultant increase in both student and staff numbers will need to be supported by appropriate growth in support staff and accommodation.

**Summary**
The main issue is that the accommodation on the campus is effectively at capacity with few potential development sites on campus. Due to the current efficient space utilisation it will not be possible to accommodate any substantial increase in student numbers or facilitate changes in teaching programmes or research activities on campus beyond the existing levels without further development.

The proposed North West Development plan is addressed in more detail in section 7.

### 5.6 SUSTAINABILITY & CARBON MANAGEMENT

One of the cross cutting aims of the University’s Corporate Plan is “To work towards environmental sustainability in the provision and management of the University’s physical estate and to promote an environmentally friendly transportation policy.”

**Background**
In 2006/07 UK Universities and colleges were responsible for the consumption of 7.1M MWH of energy, 25M m$^3$ of water, emissions of 1.8Mtonnes of CO2 and the creation of 232,000 tonnes of waste. In addition the sector’s buildings and equipment contain large amounts of “embedded” carbon amounting to a multiple of the annual emissions figure. The supply and use of energy has many environmental impacts including ecological, land take, sterilisation, air pollution, global warming and biodiversity loss. Universities and colleges are under increasing pressure to reduce their energy consumption and carbon emissions as a result of both energy prices and the Government’s challenging carbon reduction targets (from 1990 levels) of 34% by 2020 and 80% by 2050.
Ulster has been pro-active in improving its energy and environmental performance since 1992/93. In 2004/05 the University achieved its target of reducing energy consumption by 20% from the 1992/93 baseline year in spite of significant campus size and student number increases during this period. While the University has made good progress over the last number of years in reducing its carbon footprint, many of the potential quick-payback interventions such as; switching to natural gas; installation of combined heat & power units; optimisation of building controls systems have already been made and future improvements will be more difficult, costly and time consuming to develop and achieve.

**Moving Forward**
HEFCE is currently developing carbon reduction targets for HE institutions and future funding will be tied to performance against these targets. In addition HEFCE is expected to follow HEFCW and SFC in requiring all new buildings to achieve a BREEAM Excellent rating and all refurbished buildings, where achievable on major projects, to achieve a BREEAM Very Good rating. DEL has indicated that such arrangements will be extended to the Northern Ireland Universities.

Stakeholder pressures from students, staff, the general public and public bodies is also growing as is illustrated by the growing interest in environmental performance surveys.

**Sustainable Development Design Brief**
In response to the increasing environmental issues the University has, in conjunction with Health Estates and Queen’s University, developed a detailed Sustainable Development Design Brief (SDDB) which sets clear sustainability targets for any future developments. This documents dovetails with the BREEAM requirements and re-enforces the University’s commitment to ongoing sustainable development.

As part of the ongoing development of the University’s sustainability agenda the following plans will be developed and implemented over the coming year.

**Carbon Management Plan**
The Carbon Management Plan is a HEFCE funding requirement. It is a detailed document which includes the overall energy and carbon management strategies.

The Carbon Management Plan will reference the University’s Energy Policy, Environmental Policy, Sustainable Design Development Brief, Travel Plan and Estate Strategy.

It will set out the direction to be followed on energy and carbon management in the years up to 2020 at each University campus and will take account of the proposals for the Greater Belfast and Northwest Developments.

Historical data on energy and carbon emissions will be presented and the baselines and targets clearly set out. Sector and government guidance, best practice, regulation and legislation will be used to justify the selection of baseline and targets.

Strategic measures to conserve energy, to operate and maintain key energy using infrastructure, to sustainably undertake development, to target particular forms of refurbishment and to increase the proportion of renewables will also be set out.

Measures to improve the University’s non-energy environmental sustainability performance, such as waste and water management, procurement and travel will also be developed and these will contribute to carbon emissions reduction.
The implications and requirements for the University of the new energy and carbon legislation and regulations will be identified. For example, the University policies with regard to Display Energy Certificates, The Renewable Obligation, Energy Performance Certificates, Climate Change Levy, Building Regulations etc. will be included.

The Carbon Management Plan will establish current carbon emissions, target carbon reductions for each year going forward until 2050 and the planned implementation measures to achieve the reductions for each year until 2020. The plan will take account of the University’s development plans as set out in this strategy document. Hence carbon reductions through conservation, refurbishments and the use of lower carbon energy sources on the existing estate will have to exceed the overall target reductions to compensate for the additional emissions from new developments.

**Strategic Plan for the CRC Energy Efficiency Scheme**

The University in common with other large users of electricity is obliged to participate in the UK CRC Energy Efficiency Scheme. The cost of the scheme in the early years is uncertain due to the complex rules determining payments and penalties. Key factors for the University are as follows:

1. Automatic Metering requirements.
2. Carbon Trust Standard – The University received this award in May 2010.
3. Renewable Obligation Certificates associated with the Wind Turbine Generator – programme for the sale or disposal of ROCs to maximise financial and other advantages.
4. The Greater Belfast and North West developments – With regard to carbon emissions these projects pose both risks and opportunities.

The University will develop the strategy in order to minimise the financial cost of the CRC Energy Efficiency Scheme and to ensure full participation in the scheme as an organisation exemplary in its management of carbon.

**Waste Management Strategy**

Over the past two years the University has developed a Waste Management Strategy to position Ulster as a leader in effective waste management. The strategy sets out the University’s commitment to recycling 75% of waste with the remaining 25% used for waste energy schemes as a result the University is targeting minimal waste going to landfill.

To deliver on this strategy the University has invested in specialist equipment and entered into a waste management contract partnership with a locally-based company with the aim of improving environmental performance and reducing reliance on landfill.

As part of the contract the contractor will provide vital management information on weights and destination of the various waste streams. This information will be used to monitor outputs, report on waste management and sustainability performance and inform future reviews of waste management strategy.

In the initial year to October 2010 the University has seen 43% of waste recycled, 47.5% recovered (waste used to generate energy) with only 9.5% entering landfill. As prior to October 2009 all waste was disposed of to landfill (via the campuses’ respective local authorities) the progress achieved within the first year should be seen as significant.
Projects
In line with the University’s corporate sustainability objectives the following projects have either been completed or are in the planning stage:

Wind Turbine Generators
In 2008/09 the University, at a capital cost of £1.3M, erected a wind turbine generator on the Coleraine campus. The provision of the wind turbine enables the University to supply 20% of the University’s base load itself and to meet the stated aims of the University’s Environmental Policy. This will also help the University to meet the UK Kyoto Agreement targets, which came into force on 16 February 2005, and provide a visual statement of the University’s commitment to sustainability. Data produced by the wind turbine is used as material for environmental and engineering courses and is shared with other Universities.

The existing wind turbine has proved to be highly beneficial in increasing the renewable energy usage of the University and goes some way towards meeting the University’s targets for CO₂ abatement.

Due to the success of the initial wind turbine the University are planning the installation of three additional wind turbines of 800 to 900kW output and in May 2010 submitted the required planning application. The additional turbines plus the existing turbine could displace approximately 62% of the electrical demand which would normally be imported from the University’s electricity supplier.

Biomass
The University is conducting feasibility studies into the use of biomass fuels on both the Coleraine and Magee campuses. The prospective plant at Coleraine could reduce emissions by 720tCO₂ (10% of CE, 4% of total emissions) and displace 3.8GWh (30% of CE, 10% total gas consumption) of natural gas consumption. The plant at Magee could reduce emissions by 170tCO₂ (6% of Magee, 1% of total emissions) and would displace approximately 0.9GWh (18% of Magee, 2% total gas consumption) of natural gas consumption. However initial indications are that this option is likely to be unviable in the short term given current relatively lower fuel tariffs. This situation will be periodically reviewed.
6.0 IDENTIFICATION OF PROBLEMS, OPPORTUNITIES AND PROPOSALS

This section seeks to assess the problems, potential opportunities and proposals at a high level for each campus. It should be read in conjunction with Section 5. The assessment has individually reviewed campuses, with sub sections for Academic space, Central Facilities and Infrastructure etc.

6.1 BELFAST CAMPUSS

<table>
<thead>
<tr>
<th>Problems</th>
<th>Opportunities</th>
<th>Proposals</th>
</tr>
</thead>
</table>
| **Academic Space**                                                      | • The city centre location of the campus within the cathedral quarter provides an opportunity for the University to promote itself as part of the business and artistic centre of the city.  
                                                                                   • The building can support additional FTE.                                               | • In conjunction with the School of Art & Design, prepare a study of the upper floors of Block 82 to identify how space utilisation could be improved. 
                                                                                   • Block 81 accommodation will be addressed as part of the Greater Belfast Development.    |
| • Under utilisation of upper floors of Block 82.                         |                                                                                                   |                                                                                             |
| • Some courses in short term accommodation in Block 81 and Level B workshops should be reviewed. |                                                                                                   |                                                                                             |
| **Central Facilities**                                                  |                                                                                                   |                                                                                             |
| • The recently completed campus redevelopment has addressed all central issues. |                                                                                                   |                                                                                             |
| **Infrastructure**                                                      |                                                                                                   |                                                                                             |
| • The recently completed campus redevelopment has addressed all infrastructure issues. |                                                                                                   |                                                                                             |
### 6.2 COLERAINE CAMPUS

<table>
<thead>
<tr>
<th>Problems</th>
<th>Opportunities</th>
<th>Proposals</th>
</tr>
</thead>
</table>
| **Academic Space** | • The campus has extensive grounds which could facilitate the construction of new facilities.  
• Block X the former UUSRP building is underutilised, is of good quality and is reasonably flexible to restructure. | • That future development should be concentrated in the Central Buildings area with the activities located in the South Buildings progressively transferred to the land adjacent to Central Buildings as opportunity and resources permit.  
• Relocation and rationalisation of Faculty of Computing & Engineering accommodation to central buildings (Block L).  
• Rationalisation and extension of Central Buildings teaching and IT lab accommodation, releasing approx 2,200m² of dated accommodation in South Buildings for demolition.  
• Relocation and rationalisation of Faculty of Social Sciences and Faculty of Arts to new or refurbished accommodation in Central Buildings releasing 3,200m² in South Buildings for demolition. |
| **Central Facilities** | • Bann View dining room is underutilised and could be converted for alternative use.  
• The link lounge is underutilised and could be converted for alternative use. | • Rationalisation of Central Buildings catering facilities and adjacent underutilised accommodation to facilitate the move of the Students’ Union from South Buildings. The new SU location |
| • There are two geographically separated main building areas – The older South Buildings containing four blocks and Central Buildings consisting of six original blocks and four adjacent new buildings on the north side. This geographical split inhibits academic collaboration and reduces the overall effectiveness of the campus.  
• The existing campus space is significantly more than indicated by the HEFCE Space Prediction Model and there are relatively large areas of vacant accommodation. | | |
| • The Student Union is remote from the central student accommodation.  
• The current catering facilities are dated. | | |

---

Page 34

Estate Strategy 2010/11 – 2018/19
• Cavehill is a temporary sectional building which has reached the end of its operational and economic life.
• Existing sports provision is outdated in nature and operationally inefficient due to split site locations. The indoor Sports Centre (South Buildings) and Sports Pavilion require substantial modernisation.
• Block X, former UUSRP building has a low nett lettable to gross area ratio with high running costs and is unlikely to be commercially viable in its current format.
• Space is required to accommodate the newly created Finance and Information Services Directorate.

would benefit from the proximity to the main student body and proximity with the central catering facilities. This move would release approx 1,950m2 in South Buildings.
• Cavehill should be completely vacated and demolished by summer 2011.
• Proposals to be invited for new crèche facilities procured under a design, develop & operate model.
• Convert Ground floor of the Tower to provide central storage space.
• New sports centre on the site of the outdoor Sports Pavilion located on the north side of the Central buildings.
• Relocate Finance and Information Services Departments to Block X.

Infrastructure

• Outdated High Voltage and Low Voltage require replacement.

• Existing High Voltage Infrastructure will be replaced in 2011.
• Existing Low Voltage Infrastructure will be replaced in 2011.
## 6.3 JORDANSTOWN CAMPUS

### Problems

**Academic Space**
- Following consideration of the Jordanstown Master Plan and economic appraisal. The University have agreed the transfer of most facilities to the Belfast campus by 2018.
- Interim expansion space for the Centre of Sustainable Technology (CST).
- Interim expansion space for the NAMRI Research centre.
- Interim need for student centric space to support and enhance collaborative learning.

### Opportunities

- The campus sits on extensive grounds surrounded by good quality residential accommodation and subject to the necessary planning approvals sale of the land has potential to generate development funding for the GBD project.
- The TEIC building provides some area for interim growth.
- Closure of the Block 1 clinic and the relocation of the school activities into the Rehabilitation Research Building will return 900m2 for interim academic growth.

- Block 24 has been vacated by student support and subject to a refurbishment would be suitable to relocate a central support function from the main academic blocks.

### Proposals

- Proceed with the GBD project.
- Retain sufficient area within the TEIC building to allow for growth of both CST and NAMRI.
- Relocate the staff common room to provide a student centric space within the new student hub created by the collocation of the Student Union, Career Development Centre and Student Support.

- Identify an appropriate support function which can be relocated to Block 24.
- Develop new support facilities to facilitate the staff not moving to Belfast and students using sports facilities.
- Develop new sports facilities to replace Block 11 facilities.
- The student village will continue to provide accommodation for Belfast.

---

Page 36

Estate Strategy 2010/11 – 2018/19
short term issues with this provision given the GBD proposal.

students after the transfer takes place.

Infrastructure
- Due to the proposal relocation to the Belfast city centre, all major infrastructure works have been suspended and a comprehensive maintenance regime implemented.
- Data centre infrastructure at capacity.

- Significant site infrastructure works will be required to facilitate sale of land as part of the GBDP.
- Progress data centre requirements once ICT strategy has been established.

6.4 MAGEE CAMPUS

<table>
<thead>
<tr>
<th>Problems</th>
<th>Opportunities</th>
<th>Proposals</th>
</tr>
</thead>
</table>

**Academic Space**
- Projected increase in Student numbers to increase (from the current 3,355 FTE) by 1,000 – 1,648FTE by 2015.
- Lack of expansion space limits the current campus’s ability to accommodate any significant changes in teaching programme or research activities beyond existing levels.
- The site restrictions are likely to restrict further development to two further buildings.

- The University has an option agreement to purchase the nearby Foyle & Londonderry College site to facilitate future growth.
- The former UUSRP (MH) building is now available to the University and could provide some area for future growth.
- Purchase and Development of Foyle and Londonderry land to allow expansion by 1,000 – 1,648 FTE.
- Refurbish ME & MI.
- Blocks ME & MI require improvement/ refurbishment work.

**Central Facilities**
- Teaching facilities, particularly large lecture theatres have been accommodated in converted central accommodation and as a result have a number of layout compromises exist.
- Support staff accommodation is split across the blocks with no coherent centre.
- Derelict former crèche, on Strand Road, and Northland Road gate lodge require demolition, replacement or refurbishment.
- Current sports facilities are inadequate for the student numbers.

**Infrastructure**
- The existing electrical supply load will not accommodate any further development.
- The current campus has the ability to accommodate two additional buildings.
- The University has identified the existing nearby Foyle & Londonderry College site as a potential location for future growth.

- Provision of central teaching accommodation and administration block allowing vacated accommodation to be used to facilitate the growth of adjacent academic provision. Any statutory requirement to provide car parking will be accommodated within the basement, or ground floor of the building.
- Sports facilities and pitch refurbishment to be provided at Foyle & Londonderry sports fields.

- Electrical infrastructure upgrade will be addressed during development of any new buildings.
7.0 EVALUATION OF OPTIONS FOR MAJOR ISSUES

This section seeks to evaluate the options to the major issues raised in Section 6 and should be read in conjunction with Section 6.

The construction costs included are high level budgetary figures based on square metre rates for new build, refurbishment and fit out. Costs quoted include construction costs, fees and VAT (at 20.0%) but exclude furniture, equipment, etc. Costs are current at Q3 2010. All major projects will on approval require full economic appraisals.

7.1 BELFAST

The Greater Belfast Development (GBD) proposals have been outlined under section 7.3 - Jordanstown.

Due to the recently completed £34M redevelopment of the campus there are no major academic, central support or infrastructure issues which need addressed within the timescale of this strategy.

7.2 COLERAINE

The campus has an over provision of accommodation and there are two geographically separated main building areas – south buildings with four older blocks sitting remote from the main campus and central buildings consisting of six original blocks and four adjacent new build blocks to the north side. The excess space and geographical split affects the overall effectiveness of the campus and inhibits academic collaboration. The options can be summarised as follows:

- Do minimum.
- Retain and refurbish all existing blocks.
- Construct new campus to the North side and demolish all existing 1960s & 70s buildings.
- Retain and refurbish Central buildings and construct new blocks to facilitate the demolition of South Buildings.

Option 1 – Do minimum

Strategy
Retain all existing buildings and continue with planned and reactive maintenance.

Advantages
- Minimal disruption to staff and students.
- Minimal cost expenditure.

Disadvantages
- South Buildings are coming to the end of their useful life and even with major expenditure would provide restricted and inflexible accommodation.
- The quality of the accommodation would eventually become unfit for purpose subsequently negatively impacting on the student and staff experience with potential attraction and retention issues.
Conclusion
Even with effective maintenance a significant part of the University would deteriorate, within the next ten years, to an extent that it would have a negative impact on the business of the institution, therefore this option is not tenable.

Option 2 – Retain and refurbish all existing blocks
Strategy
Retain all existing buildings and convert and refurbish as budget allows.

Advantages
- Reduced capital expenditure with refurbishment costs significantly below new build.

Disadvantages
- Decant accommodation would have to be utilised to allow blocks to be refurbished.
- The refurbishment of the academic focused South Buildings would be restricted by the existing structure which would compromise any solution and also impact on their future flexibility.
- The remote location of south buildings will mean continued separation and restricted opportunity for collaboration across the buildings.

Conclusion
The proposal maintains the separation of the buildings and therefore does not address the key site constraint or address the issue of the poorer quality of the South Buildings.

Option 3 – Construct new campus to the North side and demolish all existing 1960s & 70s buildings
Strategy
Develop a new campus provision on the North East corner of the site.

Advantages
- New purpose built facility.
- More efficient use of space, as per HEFCE requirement, and reduced running costs.
- Positive impact on University business and local economy.
- New campus can be constructed while existing is retained therefore minimising disruption to students and staff.
- New purpose built facilities can be designed to be flexible to accommodate future academic flux.
- Maximise opportunity to provide a sustainable campus.

Disadvantages
- The value added by recent and ongoing works to the Central buildings would be lost, i.e. new LRC £4M, recladding of existing blocks, refurbishment of Diamond Hall £2.7M.
- The cost of the capital programme (£180m).

Conclusion
Not cost effective.
Option 4 – Retain Central buildings and construct new blocks to facilitate the demolition of South Buildings.

Strategy
Retain and refurbish Central buildings, construct new blocks and gradually withdraw from and demolish South Buildings. Works would progress over time as opportunity and resource permit.

Advantages
- The benefits of the past expenditure on Central buildings are not lost.
- Space efficiencies could be achieved which would allow the campus to progress towards the HEFCE predicted campus spatial requirement.
- Some existing accommodation could be relocated to currently vacant or restructured central buildings accommodation allowing the vacated space to be demolished, reducing running & maintenance costs.
- The SU could be located in a central location and would be complemented by an adjacent refurbished and more accessible catering provision.
- Consolidation of Blocks to the North of the campus would provide alternative opportunities for the southern section of the site.
- New blocks would provide flexible state of the art accommodation for the delivery of the academic programme.
- Substantially lower capital expenditure than option 3 (£23.7m).

Disadvantages
- The future flexibility of Central buildings accommodation would in some areas remain compromised by its restrictive structural layout.
- Minor compromise on spatial efficiencies against option 3.
- Minor compromise on sustainable benefits against option 3.

Conclusion
Option 4 provides the most efficient and cost effective solution, providing the consolidation whilst making maximum benefit of the previous capital expenditure. It eliminates the inherent disadvantages of the remote South Buildings and will also allow the provision of new flexible facilities to be developed for primarily academic focused provision.

7.3 JORDANSTOWN

The previous Estate Strategy noted the poor condition of the campus and proposed that replacement be considered. The JM Consulting Report confirmed this position by describing the campus buildings as “time expired” and identifying the campus as the most material estate factor “DEL will wish to bear in mind as it plans its future capital schemes”. In response to this report a Jordanstown master plan exercise was carried out to identify and assess options for moving forward. In August 2008 the University's Master Planning Report concluded that the two options which best fulfilled the non-financial criteria and represented best value were considered to be Option 6 (£292.3M), a new build on the Jordanstown site and Option 7 (£254.6M), a new build on an alternative site.
Following further evaluation and economic appraisal of the 2 options, option 7 was considered the best value for money option in accordance with the economic appraisal and was subsequently approved by the University's Council on 9 December 2008.

The Economic Appraisal was submitted to DEL's economists and was approved in March 2010, resulting in a Letter of Offer from DEL providing initial financial support for the project of £16M.

As a result it is planned that all sports facilities, student accommodation and the Fire SERT research building will remain at Jordanstown and all other activities will relocate to an enlarged Belfast campus for the start of the 2018/19 academic year. The GBD project includes plans for the provision of appropriate sports and support facilities at the Jordanstown campus.

7.4 MAGEE

Increased student numbers
Magee is a densely occupied campus with limited ability to grow student numbers above the current figure of 3,355 FTE or for accommodating additional staff or research activity without the provision of additional accommodation.

To accommodate the long term expansion needs of the campus at Magee it was recognised that additional land would be required. In 2007 government identified the site currently occupied by the Foyle and Londonderry College, on the Northland Road, as a potential site for expansion of the University and in December 2009 the University signed an option agreement with Foyle and Londonderry College to secure 30 acres of land for expansion. The Northland Road lands will become vacant when the College migrates across the Foyle to its new site circa 2012/13 and offers Ulster much-needed space for the growth of third-level education in the city.

The proposed expansion on the Magee campus will build on existing strengths in health and wellbeing, in creative arts and technologies and in business and professional services. It will extend activity into sustainable technologies, the latter complementing existing activity at the Jordanstown campus. Approximately half of the proposed expansion will be at the full-time undergraduate level and half at the postgraduate and part-time level. As approval from government is required to increase full-time undergraduate numbers a Strategic Outline Case (SOC) for an increase in MaSN of 1000 FTE was submitted to DEL in June 2010. It is anticipated that this phase of Magee's development will see student numbers grow from the current 3,355 FTE by up to 1,648 FTE by 2015.

The 6 academic options for the increase in student numbers were identified as part of the Strategic Outline Case (SOC) are listed below. Due to the variable student numbers and the differing nature of the space provision for the proposed subject areas, it is proposed that the Estate implications are assessed in more detail as part of any subsequent economic appraisal.

Academic Options
Option 1 Status Quo.
Option 2a Expand the student numbers at the Magee Campus by 2,000 by 2015 (including the targeted relaxation of the MaSN by 1,000), focusing on STEM subjects.
Option 2b Expand the student numbers at the Magee Campus by 2,000 by 2015 (including the targeted relaxation of the MaSN by 1,000), focusing on Social Sciences and Arts Subjects.
Option 3a Expand the student numbers at the Magee Campus by 1,000 by 2015 (including the targeted relaxation of the MaSN by 500), focusing on STEM subjects.
Option 3b  Expand the student numbers at the Magee Campus by 1,000 by 2015 (including the targeted relaxation of the MaSN by 500), focusing on Social Sciences and Arts Subjects.

Option 4  Expand the student numbers at the Magee campus by 2,000 by 2015 (of which 1,000 would be unfunded undergraduates) focusing on STEM subjects.

Estate Options
The high level Estate Options for Magee can be summarised as follows:

- Do minimal
- Additional 1,200 FTE to be accommodated on existing campus with F&L sports facilities developed.
- Additional 1,648 FTE to be accommodated. 1,200 on existing campus with 448 on F&L site plus F&L sports facilities developed.

Option 1 – Do minimum
Strategy
Existing estate to remain as is. No significant capital expenditure on Estate development

Advantages
- Minimal disruption to staff and students.
- Minimal cost expenditure.

Disadvantages
- The estate would not be able to meet the University's strategic objective of expanding the academic provision at the campus.
- No improvement to sporting facilities.

Conclusion
Not a tenable option. The campus currently operates at a level significantly above the University's mean occupancy ratio and cannot accommodate even a modest increase in student numbers without additional accommodation.

Option 2 - Additional 1,200 FTE to be accommodated on existing campus with sports facilities developed on F&L site
Strategy
Develop two remaining sites on existing Magee campus to provide accommodation to support an additional 1,200 FTE (£20.70M) plus address the shortage of sports facilities by developing the existing F&L facilities (£8.20M sports pitches, £12.25M new sports centre) Total £41.15M.

Advantages
- Provides accommodation for short term student number growth.
- Could prove new teaching accommodation and allow support facilities to be centralised to provide better student/staff focused provision
- Current under provision of sports facilities would be addressed.

Disadvantages
- While the additional accommodation would provide some scope for expansion it would not be sufficient to increase student numbers by the upper target of 1,648FTE.

Conclusion
A potential short to medium term solution which would provide some capacity for the expansion of the student numbers and address sports facilities requirements.
Option 3 - Additional 1,648 FTE to be accommodated, 1,200 FTE on existing campus with 448 FTE plus sports facilities developed on F&L site

Strategy
Develop two remaining sites within the existing Magee campus to provide accommodation for additional 1,200 FTE and also develop the main F&L site to accommodate an additional 448 FTE (£20.70M Magee Build, £8.95M F&L Build – Total £29.65M to meet SOC requirements). Current shortage of sports facilities to be addressed by developing the existing F&L sports provision (£8.20M sports pitches, £12.25M sports centre – Total £20.45M) – Option Total £50.1M.

Advantages
- Would address Ulster’s expansion requirements for both the medium to longer term
- Addresses Ulster’s sports requirements.

Disadvantages
- Significant capital expenditure required for land purchase and subsequent development.

Conclusion
This option would facilitate the University’s strategic growth plans up to 2015.
8.0 IMPLEMENTATION AND FINANCING PLAN

The attached table provides an indication of the expenditure on major capital projects from 2009/10 – 20018/19. The construction costs included are high level budgetary figures based on square metre rates. Costs include fees and VAT (at 20.0%) but exclude furniture, equipment, etc. Capital costs are current at 3Q 2010 and make no allowance of increased construction costs over the duration of the strategy. No land purchase costs are included.

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Pre 2011/12 £m</th>
<th>2011/12 £m</th>
<th>2012/13 £m</th>
<th>2013/14 £m</th>
<th>2014/15 £m</th>
<th>2015/16 £m</th>
<th>2016/19 £m</th>
<th>Post 2018/19 £m</th>
<th>Total £m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belfast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No major issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coleraine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relocate C&amp;E etc</td>
<td>0.45</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.50</td>
</tr>
<tr>
<td>Demolish South Buildings</td>
<td>0.05</td>
<td>0.05</td>
<td>0.10</td>
<td></td>
<td>0.10</td>
<td></td>
<td></td>
<td></td>
<td>0.30</td>
</tr>
<tr>
<td>Rationalise teaching accomm</td>
<td></td>
<td>2.25</td>
<td>2.20</td>
<td>0.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.15</td>
</tr>
<tr>
<td>Arts &amp; SS – New build</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.75</td>
</tr>
<tr>
<td>Relocate SU to Cent Bldgs</td>
<td>0.30</td>
<td>2.90</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.25</td>
</tr>
<tr>
<td>New Sports facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.75</td>
</tr>
<tr>
<td>Jordanstown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Belfast Development</td>
<td>29.6</td>
<td>7.35</td>
<td>21.50</td>
<td>43.10</td>
<td>49.00</td>
<td>48.75</td>
<td>65.40</td>
<td>5.30</td>
<td>270.00</td>
</tr>
<tr>
<td>Magee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200FTE on existing campus</td>
<td></td>
<td>7.15</td>
<td>7.15</td>
<td>6.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.70</td>
</tr>
<tr>
<td>448FTE on F&amp;L site</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.10</td>
<td>4.85</td>
<td></td>
<td></td>
<td>8.95</td>
</tr>
<tr>
<td>Develop F&amp;L Pitches</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.20</td>
<td></td>
<td>8.20</td>
</tr>
<tr>
<td>Develop F&amp;L Sports centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.25</td>
<td></td>
<td>12.25</td>
</tr>
<tr>
<td>Overall Campus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Centre</td>
<td>0.75</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.55</td>
</tr>
<tr>
<td>Total</td>
<td>29.6</td>
<td>8.60</td>
<td>29.80</td>
<td>59.55</td>
<td>62.60</td>
<td>61.00</td>
<td>88.90</td>
<td>5.30</td>
<td>345.36</td>
</tr>
</tbody>
</table>

Figure 8.0.1 Estimated Expenditure for Capital Programme
9.0 CONCLUSION

The University is committed to the delivery of its Estate Strategy. It has set itself challenging but achievable targets, some of which are summarised below, and achievement of these targets will significantly enhance the institution’s asset value over the period to 2019.

With regard to the Development Programmes the strategy recommends:
- Jordanstown & Belfast – Delivery of the Greater Belfast Development.
- Magee & Coleraine – Delivery of the estate required to facilitate the North West Development plan.

The implementation of the above development programmes will eliminate the majority of the £81M backlog maintenance liability however maintenance expenditure on the areas not impacted by the development plans must be maintained at the 2009/10 level.

The University has environmental targets to:
- Reduce energy consumption and carbon emissions by 34 per cent by 2020 and 80 per cent by 2050 (from 1990 levels).
- Develop and implement a Carbon Management Plan for the years up to 2020.
- Target minimal waste going to landfill.
- Design sustainability into the estate.

The University has space efficiency targets to:
- Bring the Belfast campus occupancy levels up to building design capacity.
- Deliver a Greater Belfast campus which will meet key HEFCE space targets.
- Develop effective and efficient accommodation to support the University functions remaining at Jordanstown after 2018.
- Develop proposals to improve Coleraine campus space efficiency.
- Review teaching provision on the Magee campus.
- Review teaching timetable spread to address current peak loading.

The disposal options for the vacant Portrush will be kept under review, with any proceeds of sale reinvested in the University’s development plans.

The options for developing private sector partnerships for the remaining University owned residential accommodation will be kept under review.
10. APPENDICES

APPENDIX A - CAMPUS MAPS
BELFAST CAMPUS
MAGEE CAMPUS
APPENDIX B - MAINTENANCE STRATEGY
Introduction

The University’s vision is “to be a model of an outstanding regional university with a national and international reputation for quality”

The Department of Physical Resources Mission statement is “To support the delivery of the University’s Corporate and Academic aims through the efficient management, maintenance and development of a quality physical environment appropriate to the needs of the users”

This strategy should be read in conjunction with the University’s Estate Strategy.

1.00 Objectives of Maintenance Strategy

1.01 To optimise the life of the building components and to minimise disruption as a result of unforeseen major defects or component failures which may adversely affect the operation of the University.

1.02 To focus on operational interventions ensuring the Estate is maintained as a safe and secure environment, complying with statutory legislation.

1.03 To protect the asset value of the Estate.

1.04 To mitigate the potential for claims against the University for issues associated with negligence and statutory non-compliance matters.

2.00 Maintenance Funding

2.01 In 2006 the University adopted the methodology set out in the JM Consulting Report (completed for HEFCE and DEL regarding “Future needs for Capital Funding in HE”) recommending that approximate 4.8% of an institutions Insurance Replacement Value is spent annually on recurrent reactive, planned or long term maintenance, refurbishment and renewals. This is particularly important as 62% of the estate was constructed in the 1960/70’s or earlier.

2.02 Resources Committee has approved in principle an annual budget of approximately £18M for investment in the Estate plus an annual percentage allowance for BCIS Tender and Cost forecast. The Estate Department submits an annual budget to the Resources Committee for approval for all maintenance works. This is subject to funds being available.
3.00 Maintenance categories

The University uses the following categories for defining maintenance.

3.01 Response maintenance

Response maintenance is maintenance necessitated by unforeseen breakdowns or damage and is a reaction to a situation. It can therefore result in prolonged disruptions and inconveniences to building occupiers.

3.02 Planned Maintenance

Planned maintenance is maintenance carried out at predetermined intervals, or corresponding to prescribed criteria, and is intended to reduce the probability of failure.

3.03 Backlog Maintenance

Backlog maintenance is maintenance that is necessary to prevent the deterioration of an asset or its function but which has not been carried out.

4.00 Strategy for delivery of Maintenance

All maintenance programmes will be prioritised to reflect Statutory obligations, maintaining the asset and academic requirements.

The balance between planned preventative, long term and reactive maintenance is critical. The University’s maintenance strategy is to promote the majority of maintenance work being carried out as planned maintenance rather than reactive/response maintenance. A target of 90% of the operational maintenance budget is spent on planned preventative/long term maintenance Vs 10% on reactive maintenance.

4.01 Response maintenance

Response maintenance will primarily be carried out by the University’s in house Direct Works Units (D.W.U) on each campus supported by specialist contractors. Priority will always be given to statutory and other health and safety requirements.

- Prioritisation for response maintenance.

The Estate Department prioritises response maintenance as follows:-

Immediate Incident likely to endanger life or cause structural damage to property. 
To be actioned within 1 working day.

Urgent Incident causing considerable inconvenience to building users. 
To be actioned within 3 working days.

Routine Incident causing minor inconvenience to building users.
To be actioned within 10 working days unless other higher priority maintenance dictates.

- **KPIs**

  Key Performance Indicators (KPI) for the percentage of jobs to be completed within the designated response times (on a campus by campus basis) will be used to monitor performance. This maintenance strategy sets the following targets, which are measured and reported on an annual basis:

  90% for immediate,
  85% for urgent,
  80% for routine.

- **Monitoring**

  The performance of the Estate Department in meeting these targets will be the responsibility of the Estate Managers. Monthly statistical reports will be produced monitoring performance against KPI’s together with management commentary.

4.02 Planned Maintenance

To prevent the premature deterioration of the assets a planned maintenance regime will be developed over a 5 year rolling programme. The approach to planned maintenance is based on best practice and will take account of the University’s requirements for statutory undertakings, the impact on the University’s operations through asset failure and the replacement costs of the assets.

Planned Maintenance will be carried out by outside contractors with a small element carried out by DWU staff.

- **Monitoring**

  Each maintenance project will be reported on a monthly basis using an on-line pro-forma. This will be monitored by the Deputy Director with each Head of Estate Department.

4.03 Backlog Maintenance

The backlog maintenance is identified using a risk based condition and statutory compliance survey. This survey is carried out every 5 years and uses RICS definitions to rate the condition of the building stock, as follows:

- **Condition A** – as new
- **Condition B** – serviceable state of repair requiring only minor repairs.
- **Condition C** – operational but requiring major repairs or upgrading.
- **Condition D** – inoperable, unsafe or at risk of immediate failure.

The survey incorporates age, current condition and expected future lift of assets.
The strategy is to maintain the estate at a minimum of condition Category B (subject to availability of necessary funding). The maintenance strategy will be incorporated in the Estate Strategy.

Mechanisms are incorporated within the plan to provide flexibility when considering strategic decisions relating to internal and external drivers, such as changes to the Estate Strategy and the introduction of new statutes.

Backlog maintenance will be carried-out by external contractors.

- Monitoring

Each maintenance project will be reported on a monthly basis using an online pro-forma. This will be monitored by the Deputy Director with each Head of Estate Department.

5.00 Procurement

The Estate Department will comply with the University’s Financial Regulations when procuring maintenance contracts.

<table>
<thead>
<tr>
<th>Range</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>£0 - £2,999 (excluding VAT)</td>
<td>Obtain 1 quotation</td>
</tr>
<tr>
<td>£3,000-£50,000 (excluding VAT)</td>
<td>Obtain 4 quotations</td>
</tr>
<tr>
<td>Over £50,000 (excluding VAT)</td>
<td>Public Tender</td>
</tr>
</tbody>
</table>