

**Report of:** Head of City Development.

**To:** West Area Planning Committee, 16<sup>th</sup> January 2013.

**Title of Report:** University Science Area: Masterplan

## Summary and Recommendations

**Purpose of Report:** This report seeks the views of committee on a Masterplan for the University Science Area at Parks Road and Keble Triangle.

**Key Decision:** No.

**Portfolio Holder:** Colin Cook.

**Scrutiny Responsibility:** Environment.

**Recommendation(s):** Committee is recommended to welcome the opportunity to comment on a Masterplan produced for the University Science Area and to offer its support to its contents and the general approach adopted as a framework to inform future development proposals, subject to the caveats indicated within the report.

## Purpose of the Masterplan

1. The University has produced a Masterplan for its Science Area located to the north east of the city centre at Parks Road and Keble Road Triangle on which it has requested the City Council as Local Planning Authority to comment. The intention of the Masterplan is to form a framework within which major redevelopment proposals will be brought forward over a period of perhaps 20 years. It does not constitute a planning application however, but represents a context within which individual proposals can be drawn up. The University has chosen this approach to the long term development of the Science Area due to its densely developed and constrained nature which presents particular challenges requiring a cohesive approach which has been lacking in the past.
2. In 2008 the University also produced a Masterplan for the former Radcliffe Infirmary site nearby which it had then recently acquired. The Infirmary site, now referred to by the University as the Radcliffe Observatory Quarter (ROQ), presented different issues however as it was intended to sweep away the majority of poor quality hospital buildings on that site and redevelop it over a period of time to provide teaching and research accommodation for departments lacking in floorspace and facilities. The Science Area differs from the ROQ site in that it is much larger at 12.4 ha. (30.6 acres) and already densely developed. A growing relationship will exist between the two sites in coming years however, and one of the aims

of the Masterplan is to improve the links between these two important sites.

3. This report does not attempt to scrutinise all the material included within the Masterplan submission in detail which includes a Strategic Environmental Assessment, but rather seeks instead to comment where appropriate on the generality of the approach adopted. Moreover, as the Masterplan does not constitute a planning application, then the Council's position as Local Planning Authority remains unfettered with the response to the Masterplan being entirely without prejudice to the consideration of any future planning applications submitted. If the Masterplan is supported however, then it will give the University confidence to proceed to future planning applications over a period of time and within an agreed framework.
4. Attached as **Appendix 1** is a site plan which refers, and as **Appendix 2** a plan of the existing Science Area estate. Attached as **Appendix 3** is an illustration of the Masterplan as proposed.

#### **Public Consultation.**

5. With the agreement of the University, on receipt of the Masterplan, public consultation was undertaken in a similar fashion to a planning application. The outcome of that consultation is summarised below.
  - Oxford Preservation Trust: Fully support the aim of maximising the development potential of the Science Area site. The provision of a Masterplan is welcome and many of the recent developments have, in our opinion, been beneficial to the area, making it more accessible and readable. Not possible to make more detailed comments. Object to the inclusion of plans to demolish four historic buildings at 1-2 South Parks Road, 12-13 and 14-15 Parks Road. Would discourage large and bulky buildings which have uninspiring roofs which can create a pattern of monotonous roof heights and lines which do little to add to Oxford and its character.
  - English Heritage: Welcome the approach to develop the Science Area and Keble Triangle. Object to the demolition of the grade II listed buildings of 1 and 2 South Parks Road and the locally listed buildings 1-11 Keble Road and 12-15 Parks Road and consider that their loss would amount to substantial harm to the character and appearance of the surrounding area. Advise that the impact of potentially uniform roof heights needs to be considered, and the impact on views within the city and looking into and out of the city.
  - The Victorian Group of Oxfordshire Architectural and Historical Society: Object to the demolition of 1-2 South Parks Road, 12-13 Parks Road, the Earth Sciences building and Department of Human Anatomy building.
  - Oxford County Council (Highways): Supportive of the Science Area and Keble Triangle Masterplan in terms of improving routes, spaces/public realm, and landscaping within the area and welcome the opportunity to develop the area in a comprehensive rather than

piecemeal fashion. Suggest that an indication of timescales for the reduction of on-site car parking spaces to 200 should be set out within the Masterplan, otherwise, linked to the proportion of the Masterplan that is implemented. A reduction in less sustainable modes of transport is sought and therefore the number of motorcycle parking spaces should be much lower than 100; fifty would seem to be more than enough. A key missing link in the off road cycle route network is at the corner of Parks Road / South Parks Road junction. Suggest that the route should be continuous here.

- Oxford County Council (Environment and Climate Change): The Masterplan will be a key vehicle for the University to achieve its commitment as a signatory of the Low Carbon Oxford Charter to reduce carbon emissions within the City. The County encourages consideration of adaptation requirements to ensure that the future development of this site is resilient to the impacts of extreme weather events.
  - Environment Agency: Welcome the additional chapter on sustainability and pleased to see a commitment to reduce water consumption and reference to energy efficiency standards. Recommend that reference is made in Chapter 9 to groundwater level monitoring, for areas of development which include basements in order for developers of the individual buildings to be aware of the issues associated with groundwater flooding.
  - Thames Water: It is unclear at this stage what the net increase in demand on our infrastructure will be as a result of the proposed development. Concerned that the network in this area may be unable to support the demand anticipated from this development. Developers will need to consider the net increase in water and waste water demand to serve the development and also any impact the development may have off site further down the network, if no / low water pressure and internal / external sewage flooding of property is to be avoided.
  - Natural England: Groundwater: Until site specific investigations are carried out, along with the construction of a model to assess the impacts of the proposed developments, the impact on nearby SSSIs will not be understood. Protect Species: Information has been submitted as part of the Masterplan SEA, although undertaken over two years ago, these are considered unreliable. Additional up to date survey information should be submitted with any planning application for developments implemented under this Masterplan.
6. In addition, in 2010 the South East Regional Design Panel (SERDP) received a presentation from the University on what was then an early draft of the Masterplan. Whilst the Masterplan has evolved further since that stage, the basic concepts have remained largely unchanged. Its main comments were: east - west spine is a sound idea, bringing legibility to the area which is currently confusing and impenetrable to visitors; north - south route also important; entrance points to routes important; more permeable boundary to University Parks would be beneficial to community; opportunity to rationalise levels at entrances to buildings; coordinated

landscape structure of trees and public realm would assist legibility; buildings should have ground floor frontages; opportunity to rationalise servicing arrangements; case to be made for quieter, less demonstrative buildings to sit alongside the grander ones.

### **History of Development of Science Area.**

7. The Oxford Science Area which includes the Keble Triangle makes up the principal teaching areas for science disciplines at Oxford University. The area also attracts a wide range of visitors as it houses the University's Natural History and Pitt Rivers Museums. Development of the University Science Area began with the Oxford University Museum, completed in 1859 and built on 8 acres at the corner of University Parks. Extensions to the museum and new buildings were added during the remainder of the C19th, the earliest being the Clarendon Laboratory just to the north of the Museum, subsequently replaced by the Robert Hooke Building which until recently housed Earth Sciences.
8. In the north - west corner of the Science Area the first building was a lodge constructed in 1888 to match an existing one at the southern end (now replaced by the Radcliffe Science Library). The Townsend Library (Grade II listed) was added in 1910 extending the Science Area further into the University Parks and in 1913 the Dyson Perrins building (Grade II listed) was added further east in South Parks Road. The extension of the Science Area eastwards along South Parks Road continued with the Sir William Dunn School of Pathology in 1926. With the acquisition of this further land to the south east of the museum development continued ad hoc during the first part of the C20th.
9. In 1934 a Masterplan for the Science Area was adopted which sought to rationalise and plan future development and define the limit of the northern boundary with the University Parks. Architectural practice Lanchester and Lodge became involved in the delivery of the Masterplan and several of the buildings in the Science Area are their work. Nevertheless by 1963 the University's Holford report had recognized the need for further development land, specifically identifying even at that time the acquisition of the former Radcliffe Infirmary site to coexist with the Science Area.
10. The consequence has been a continuing process of development at the Science Area over the years, but often in an uncoordinated fashion. The result has been a mixed collection of listed buildings including the Grade I listed Natural History Museum; mediocre and / or modified structures sometimes unsuited for modern teaching and research; and good quality new buildings such as the Earth Sciences Building fronting South Parks Road and Biochemistry and Oxford Molecular Pathology Institute (OMPI) in the heart of the Science Area. Other new buildings for Physics fronting Parks Road and New Chemistry fronting South Parks Road have received planning permission but are currently at their fund raising stage. What has not been achieved however is a more coherent movement pattern and

overall framework within which proposals for new buildings can emerge whilst also retaining its important heritage assets.

11. In heritage terms the Science Area falls outside the Central Conservation Area with the exception of the Natural History Museum and Radcliffe Science Library. It is however surrounded by it. In this context the listed buildings which currently exist within the study area are:

- University Natural History and Pitt Rivers Museums: Grade 1.
- Inorganic Chemistry Laboratory: Grade II.
- Dyson Perrins Laboratory: Grade II.
- Radcliffe Science Library: Grade II.
- 1 & 2 South Parks Road: Grade II.
- Townsend Building: Grade II.

12. These are identified in **Appendix 2** to this report. Other important listed buildings in the immediate locality which equally require to be protected are:

- Rhodes House, South Parks Road: Grade II\*.
- Boundary Wall to Rhodes House: Grade II.
- Mansfield College: Grade II\*.
- Keble College: Grade I and II\*.
- School of Rural Economy, Parks Road: Grade II.
- Approximately 8 buildings to west side of Banbury Road: Grade II.
- University Cricket Club Pavilion, University Parks: Grade II.
- North Lodge of University Parks: Grade II.

### **Planning Policy.**

13. In terms of planning policy, the aims of the Masterplan are consistent with existing and emerging policy documents. Although the Local Plan contains no site specific policy for the main part of the Science Area, development at Keble Triangle is supported by policy DS9, whilst policies CS25 and CS29 of the Core Strategy support the future redevelopment of academic and research buildings generally and makes a commitment to work with the University to improve facilities and build on the benefits it brings to Oxford.

14. Moreover policy SP60 of the emerging Sites and Housing Plan supports the continued use and development of the Science Area by the University for scientific research and teaching activities, and the renewal of the area accordingly. It advises however that development must retain and enhance the listed buildings on the site, and that careful design must ensure that development proposals contribute towards the character of the adjacent conservation area and preserve and enhance the nearby listed buildings there and their setting. It also requires a reduction in car parking provision whilst pedestrian and cycle links through and to the site, including to the ROQ, should be enhanced. Development should be designed to ensure that there is no adverse impact on the New Marston Site of Special Scientific Interest (SSSI).

15. A wide range of other non site specific policies relating to educational provision, conservation, archaeology, public realm, highways and traffic, sustainability etc will also impinge upon the successful redevelopment of the site for its intended purposes together with the Supplementary Planning Documents (SPDs) which flow from them. The site and its constituent developments may also be subject to planning obligations secured by legal agreement in line with Local Plan policy and the Planning Obligations SPD.

### **Existing Built Forms and Layout.**

16. Cumulatively the Science Area covers an area of approximately 12.4 hectares (30.6 acres). Both sites are densely covered with buildings, and have developed in an ad hoc manner alongside each other. The larger part of the Science Area is bounded to the north and east by University Parks but has frontages to Parks Road to the west and South Parks Road to the south. The Grade I University Museum forms the formal set piece to Parks Road with the Radcliffe Science Library to the south and Robert Hooke Building to the north, enclosing an open grassy area forming the only substantial open space on the two sites. To the rear of the Museum a collection of buildings have developed in an ad hoc manner, predominantly in the mid to late 20<sup>th</sup> Century. The recent permission for a new Physics building by Hawkins Brown Architects opposite Keble College and adjacent to the south - west gate of University Parks has yet to be implemented.
17. To South Parks Road there are frontages created by the Inorganic Chemistry Laboratory, Dyson Perrins, Plant Sciences and the Sir William Dunn School of Pathology along the north side whilst the Chemistry Research Laboratory and Biomedical Sciences are the most recent buildings on the south side and dominate the middle section of the street. To the east of these is the brutalist Tinbergen Building by Sir Leslie Martin, whilst to the west are the Grade II listed Gothic villas at nos. 1 and 2 and (outside the study area) the Grade II\* listed Rhodes House by Sir Herbert Baker. Permission has been granted for a new building for New Chemistry by Francis - Jones Morehen Thorp (FJMT) Architects on the north side of the street opposite the junction with Mansfield Road but again has yet to be implemented.
18. Generally this main part of the Science Area is built tight to University Parks to the north but with linkages limited, whilst elsewhere most of the circulation routes are utilitarian and not landscaped.
19. The smaller section of the Science Area at the Keble Triangle is an island site bounded on the south by Keble Road with Parks Road and Banbury Road to the east and west respectively. It was not developed until 1860. Originally comprising Victorian villas and terraces, some of which have been retained, the site now accommodates prominent 1960s concrete and steel buildings of five or more storeys with only the remnants of earlier

development remaining at 1 - 11 Keble Road and 12-15 South Parks Road. Also prominent is the recently listed Denys Wilkinson Building to the south western corner of the triangle. Overall Keble Triangle lacks legibility as some of the modern buildings are accessed from raised podiums with hidden entrance points not necessarily fronting onto the street

20. Movement between the two halves of the Science Area is constrained by the road network, and by the lack of connection points across Parks Road. Movement within both sites is also constrained and confusing for pedestrians, with poor or inappropriate access arrangements.

### **Proposed Masterplan.**

21. The University has sought to retain scientific research and teaching within the City rather than seek to develop a new science based campus at an alternative non - central location. This is strongly supported in planning policy terms. It considers that this will allow researchers to work in proximity to each other, building a community of students and academics to facilitate the exchange of ideas and foster inter disciplinary working. The main focus of the Masterplan is therefore to ensure the delivery of buildings to accommodate modern teaching and research requirements, whilst making the area more attractive, legible and welcoming by creating spaces and linkages within the Science Area and to University Parks and the ROQ.

22. Whilst important listed buildings and heritage assets are sought for retention, the University nevertheless wishes to ensure the Science Area continues to provide the facilities required to maintain its position as a leading research and teaching centre for the sciences which can attract and maintain the highest calibre of staff and students. To do so it is envisaged that the total floorspace within the Science Area may increase by as much as 50% over 20 years, to be made up of approximately 40% laboratory space, 40% office accommodation and 20% ancillary space. However the Science Area's sensitive location to the Grade II Registered Garden at University Parks to the north places significant constraints on outward expansion. The only realistic option for development is therefore within the confines of the Science Area itself but making better use of the land available.

23. The implementation of the Masterplan would not be delivered as a consequence of a single proposal, but incrementally over as long a period as 20 years but within a defined framework. The Masterplan proposes the following objectives accordingly:

- form a new primary pedestrian route through the site, running east to west to create new and improved linkages between the academic areas, the Radcliffe Observatory Quarter, Keble Triangle, South Parks Areas and University Parks;
- enhance the public realm, making it safe and attractive;
- removal of existing buildings that do not contribute to townscape, heritage, or operate at the highest functional suitability;

- creation of new buildings;
  - increase sustainability; and
  - ensure deliverability.
24. The Masterplan does not seek to confirm a precise design but has set out a series of strategic principles and policies which the University seek to use to inform future development. These are considered in the text which follows and listed in **Appendices 4**. Also included as **Appendix 5** are the main elements of a proposed Landscape and Public Realm Strategy.
25. Central to the Masterplan is a proposed east - west aligned “*central spine*”, intended as a new key route to enhance accessibility and create a pedestrian and cycle friendly, high quality external environment and setting for the adjacent buildings. The western end of the route would be to the immediate north of the Natural History Museum where an ‘arrival space’ would be created to then run eastwards incorporating hubs and linkages to allow for both public gathering spaces at axis connection points. At its eastern end an additional entry point into University Parks would be created. The ‘central spine’ would require the opening up of back plots, introducing a new primary frontage down the length of the route. It is proposed to cluster lecture facilities along this route to increase activity along it. The creation of the east - west central spine does require the demolition of various extensions to existing buildings however.
26. The central spine would become one of two primary movement routes through the Science Area, the other being on a north - south alignment, extending from a point opposite the junction with Mansfield Road along the eastern side of the Dyson Perrins Laboratory and the existing Hans Krebs Building, to link with the existing pedestrian access into University Parks at the point where the Sherrington Building attaches to the Henry Welcome Building. The Hans Krebs Building is recognised as one of the structures which no longer fulfils the University’s requirements in terms of laboratory and research space and is due for demolition to allow the second phase of the new Biochemistry Building to proceed.
27. An additional access point into University Parks is indicated to the rear (east) of the Clarendon Building as an extension of Haldane Road, but is absent (in error?) from the movement plan included in the documentation. This and the other routes into University Parks form part of a proposed wider network of routes extending beyond the Science Area to include an entrance into University Parks from Parks Road opposite the Materials Building. This gated access to the park has already been granted planning permission as part of the as yet unimplemented Physics Building opposite Keble College. From here a series of new pedestrian routes can be created through the currently difficult to navigate Keble Triangle and beyond. Significant realignment of the buildings would be required however, but the achievement of new linkages here allows the pedestrian route to be continued through the former Acland Hospital site, (for which planning permission has been granted to Keble College for its substantial



redevelopment), and on to Woodstock Road, thus creating the potential for a direct pedestrian route between the Science Area and ROQ site.

28. Officers strongly support the creation of these new routes both internal and external to the Science Area but would emphasise the importance of their early implementation if possible in successfully delivering the remainder of the Masterplan. In support of the creation and improvement of these routes, the Masterplan also seeks to increase the amount of primary frontages that face onto defined routes within both sites. Altering existing buildings or designing in active frontages in new buildings is essential to create routes and spaces that are not only safe by being well overlooked but which can also enliven elevations and add interest and vitality to the streetscene. As indicated above, the buildings on the Keble Triangle present a particular challenge in this respect.
29. In terms of new buildings the Masterplan suggests that building heights might exceed the maximum identified in the Local Plan across certain parts of the site. Local Plan policies allow for "*minor elements of no great bulk*" to exceed the general restriction for this part of Oxford of 18.2m or 79.3m AOD, whichever is the lower. Developments coming forward will therefore be required to respect the importance of Oxford's fragile skyline and demonstrate how they will respond to its significance so as to avoid monotonous, single height, flat roofscapes to new buildings all constructed to the same height. All new proposals will also be required to identify the nature of their impact on public views and heritage assets, and any harm caused weighed against any substantial public benefits which may accrue from the development.
30. The Masterplan indicates that the maximum storey height of new buildings would be likely to be 4 storeys, but with basements and plant equipment at roof level. Undertaken sensitively however this may present an opportunity to improve the quality of roofscape and the impact of the Science Area in longer distance views, as presented itself in granting planning permission for the Biochemistry Building in 2006 for example. Phase two of that development will require the demolition of the 8 storey Hans Krebs building referred to above, currently the tallest and least sympathetic building in the Science Area visible in long distance views.
31. Generally the tallest new buildings should be sited on primary routes, with smaller, visually subservient buildings located on secondary routes, to help maintain an appropriate visual street hierarchy and to ensure that visual distinction, and variation is created. The mass, bulk, scale, siting and detailing of new buildings is a critical consideration in this regard, and certainly Officers would not wish to see large scale buildings across the whole area as the definition between primary and secondary routes would be lost, with each new building competing visually with the last. Equally, in architectural terms there have been several striking contemporary styled new buildings constructed or permitted in the Science Area in recent years, but it would not be appropriate for all new buildings to also be so

striking. Rather there will be a need for “quieter” but good quality buildings to complement rather than compete with the more iconic ones.

32. The Masterplan also proposes the inclusion of double or even triple basements, and indeed several of the more recent buildings such as Chemistry and Biochemistry already possess such structures. Basements can assist in the efficient use of the space available within the Science Area and can often provide spaces suitable for research work which might not be suitable for office type activities for example. The use of basements is therefore supported, subject to considerations relating to groundwater conditions, archaeological requirements etc.
33. In order to manage the retained historic buildings and heritage assets within and adjacent to the Science Area and their juxtaposition to new additions to the building stock, a Conservation Plan accompanies the Masterplan. As well as examining the importance of the principal buildings on site and nearby, the Conservation Plan describes the significance of the Science Area overall, and identifies constraints and opportunities. It is prepared in order to inform decisions made in the future where there is pressure for growth and expansion of facilities, or the threat of demolition of listed buildings or other buildings of local interest. At the same time the Conservation Plan acknowledges the existing poor quality public realm and paucity of landscaping which are required to be addressed. A series of specific conservation policies are therefore identified accordingly. These are listed at **Appendix 6**.
34. Officers would generally endorse these policies on the basis that heritage assets should be retained unless there are public benefits which outweigh the harm caused by their loss. Furthermore, all new developments must be informed by an understanding of the heritage significance of the existing buildings, and heritage assets around them that may be potentially affected. In this regard any proposed demolition of historic buildings at 1 - 2 South Parks Road, 12 - 15 Parks Road or 1 - 11 Keble Road for example would be required to demonstrate that the harm caused by their loss was outweighed by the wider public benefit.
35. As indicated above, there is little positive landscaping to be enjoyed within the Science Area and very few trees. Those which do exist are mostly located on the edges of the site, particularly at the boundary with the University Parks and to the South Parks Road frontage. As a result, the public realm has a hard, urban character which in places is given an industrial feel by the presence of air conditioning units, externally located enclosures for oxygen cylinders and other clutter. These features tend to dominate many spaces to the exclusion of planned social spaces and landscaping. The Masterplan suggests that trees should be incorporated into these areas as the opportunity arises. Specific public realm and landscaping proposals indicated in the Masterplan are listed as follows:
  - Develop the public realm to visually unify the site and reinforce the identity of spaces and connections.
  - Improve the quality of social space within the site.

- Prioritise pedestrian circulation, with limited provision of operational vehicles.
  - Enhance links with University parks by retaining existing trees and introducing tree planting along the newly created routes where possible and desirable.
  - Create semi - private courtyards to form sheltered spaces between buildings.
  - Promote relationship with University parks by adding soft green edges to existing and proposed buildings and encouraging physical and visual connections.
  - Take opportunities to provide biodiversity enhancement.
36. Whilst the commitment to introduce more trees and landscaping is welcomed, these features should be integral to new designs and Science Area generally and should not be seen as an add on or after thought where space is left over following the construction of new buildings. Rather, it is recommended that the Masterplan should seek to plan positively for the removal of clutter, the creation of new spaces, tree planting and landscaping, to stand alongside the improvement to public routes, the construction of new buildings and the improvement of existing ones.
37. In summary then, Officers would suggest the following guiding principles in creating better quality buildings, spaces and routes. These should be read in conjunction with those set out in **Appendices 4, 5 and 6**:
- Prioritise the implementation of the principal east - west and north - south routes.
  - Create pedestrian routes through Keble Triangle.
  - Create new linkages to University Parks as part of wider pedestrian route network.
  - Improve legibility by reorientating buildings wherever possible to create active street frontages, especially within Keble Triangle.
  - Reduce clutter and support the removal of buildings and structures which detract from the appearance and efficient functioning of the Science Area.
  - Support variation in roof heights and forms, taking into account long and short distance views.
  - Larger buildings to front onto principal thoroughfares.
  - Support variation in building scales, to reflect the scale of street or space they address.
  - Plan positively for public realm, street furniture and landscaping.

### **Accessibility.**

38. In recent decades the amount of car parking within the Science Area has reduced significantly as the University has sought to impose a strict Travel Plan and new developments have reduced parking facilities. For example the as yet unimplemented Physics and New Chemistry buildings are envisaged to reduce car parking by 28 and 23 spaces respectively. These

and other developments have however sought to greatly increase cycle parking correspondingly. Developments have also contributed to improvements to other off site highway and access improvements, and although direct bus services are not currently routed via Parks and South Parks Roads, bus stops at Banbury Road are within a short walking distance, whilst the railway station is 15 minutes walk away. There are approximately 40 bus services each hour along the nearby stretch of Banbury Road.

39. Nevertheless the Science Area remains congested and visually cluttered as a result of its limited road widths and parking at inappropriate locations. The Masterplan proposes to make the Science Area as free from car parking as possible with extensive areas pedestrianised entirely. Generally new buildings would continue to result in the loss of parking as part of a programme to phase out all but approximately 200 spaces required for operational, servicing and disabled needs. Cycle parking is probably best provided within or close to destinations rather than centrally located, and it is suggested that this should be in a mix of secure covered and uncovered facilities, the former catering mainly for staff etc likely to be on site for a full working day, and the latter for students and visitors who may be present only for shorter periods. In parallel with this level of provision, the internal and external linking routes must be suitable for cyclists as well as pedestrians on a shared surface arrangement wherever possible. In this regard a key missing link in the off road cycle route network is at the junction of Parks Road and South Parks Road where a continuous route would be welcomed.
40. Officers are supportive of the Masterplan's proposals for access to the Science Area which continues a process already under way, and which is consistent with the Council's longstanding policies of parking and traffic restraint. In 2006 there were some 526 car parking spaces within the Science Area. This fell to 368 in 2008, representing a fall in the proportion of staff accessing the area by car from 46% in 1997 to 28% in 2002 and 22% in 2007. These figures represent good progress towards the Masterplan's goal of 200 spaces only. Whilst the removal of car parking spaces is therefore strongly supported, Officers would welcome a clear indication of the timescales involved to achieve the reduction in on - site car parking. Further to this and to support the aims of reducing less sustainable modes of transport, the Highway Authority recommend that the number of motorcycle spaces envisaged should be lower than the 100 spaces currently proposed, and suggest an alternative provision of 50 spaces.
41. Cycle parking for staff is ultimately envisaged to be provided at a rate of one space per 3 staff, totally 1,330 spaces. Similarly one space per 3 students is also envisaged, or 2,230 spaces. The total figure of 3,560 spaces is anticipated by the University to meet future requirements bearing in mind that not all staff or science students would be on site at the same time.

## **Sustainability.**

42. The Science Area is located at an inherently sustainable location within the City Centre, close to colleges, other buildings and institutions to which it has a functional relationship and where public transport is available. As indicated above there is a strong commitment already in place to reduce use of the private car as a means of access in favour instead of cycling, walking and public transport, which is supported. The University's current Travel Plan is in the process of being replaced by a new 5 year plan following a quinquennial travel survey.
43. Moreover the Science Area accounts for approximately 51% of the University's current CO2 emissions. Its Carbon Management Strategy seeks to reduce these emissions to 11% below the 2005 / 6 baseline by 2016, and to 33% by 2012. These are particularly challenging objectives given the Science Area's high energy demand, and its stock of older buildings. Recent developments have examined the use of ground source heat pumps (GSHP) and combined heat and power systems (CHP) in particular to respond to these requirements. There are limitations to both however. GSHPs are restricted due to the depth of the aquifer below ground and footprint of new buildings proposed. Whilst installing GSHP beyond actual buildings within University Parks is being examined, this is a Registered Garden and there is also significant archaeology present which may limit the potential. Although there is a current CHP engine in the Science Area and a further one under construction, there are challenges in locating the required pipework etc in the heavily built up Science Area. Nevertheless consideration is being given to reserving space for a centralised energy centre so that CHP or other generation could be installed in the future as part of a review of new building projects.
44. In support of this approach the University's Sustainable Buildings Policy seeks to achieve the highest possible embedded energy, energy efficiency and lowest carbon emissions and water usage for new buildings commensurate with their function. To this end all new buildings with a capital cost of over £1m are required to achieve BREEAM excellent status, whilst the University has set a target of reducing water consumption by 11% by 2014 / 15 from 2009 / 10 levels. The University is also developing a Waste Management Policy, and seeks to divert 70% of construction waste away from landfill. In addition it has a programme to replace equipment containing CFC refrigerants which have a significant global warming potential by more environmentally friendly equivalents.
45. Overall officers support the University's existing and expanding commitment towards sustainable development at the Science Area and in the wider context.

## **Other Matters.**

46. The Masterplan submission is accompanied by a Strategic Environmental Assessment (SEA) as it is assessed as falling within the terms of the

Assessment of Plans and Programmes Regulations, 2004. These Regulations implement the requirements of European Directive 2001/42/EC (the SEA Directive). The assessment relates to various topics and the predicted impact of redevelopment across the Science Area, whether positive or negative. The subjects addressed in the document are: air quality; archaeology; built heritage and townscape; drainage and flood risk; ecology; groundwater, contamination and waste; land use and employment; noise and vibration; and transport.

47. The predicted impacts are stated not to be especially significant, and many of them positive in the longer term, for example reductions in traffic generation. Such negative impacts as there are more generally confined to phases of demolition and construction, for example air quality and noise. As each phase of redevelopment and each new building comes forward the Environmental Report confirms a commitment to the following measures:

- Dust controls and monitoring during construction
- Written Schemes of Archaeological Investigation
- Heritage surveys and recording of buildings to be demolished
- Incorporation of sustainable drainage features into detailed designs
- Bat surveys (where necessary) and habitat creation
- Phase 2 site investigations, including groundwater monitoring and asbestos surveys
- Site waste management plans
- Monitoring and control of construction noise/vibration; and
- Construction traffic management plans

48. Specifically in relation to archaeology, an Archaeological Assessment has been submitted with the Masterplan and is considered by officers to be thorough. The Science Area has the potential for significant Neolithic / Bronze Age, Iron Age, Roman and Civil War remains. The Masterplan proposes that Written Schemes of Investigation will be agreed with the City Council as a precondition to subsequent planning conditions attached to any permission granted. It is recommended however that a Science Area wide programme of pre-determination evaluation to provide a comprehensive assessment and reduce the overall archaeological costs would be valuable and appropriate.

### **Summary and Conclusions.**

49. Whilst the Masterplan is not intended to be a prescriptive document, it is nevertheless intended to form a framework for future development within the Science Area over a period of perhaps 20 years. It has been produced in consultation with officers of the City Council as well as local stakeholders, statutory consultees and interested parties. In doing so the University's commitment to retaining the Science Area as the principal location for science based teaching and research at its sustainable city centre location is acknowledged and fully supported. So too is its commitment to sustainable modes of transport and the creation over time

of a more appropriate, efficient and pleasant working environment for its staff, students and visitors.

50. The challenge for both University and local planning authority in the years ahead will be to ensure in particular that future developments:

- integrate the old with the new;
- sustain the viability of historic buildings;
- create active frontages to research and laboratory buildings;
- improve public realm and permeability;
- sustain the significance of the Oxford skyline, whilst recognising its fragility to change;
- bring forward new buildings of appropriate size, scale, mass, and detailing;
- adopt a proactive approach to the improvement of the public realm, landscaping and tree planting;
- create cycle parking at appropriate locations;
- meet the challenge of climate change; and
- meet the University's needs for research buildings in this central location, sustaining the contribution made to Oxford's economy, research and academic reputation and performance.

51. Officers have concluded that the principles and policies embedded within the Masterplan can be supported accordingly, subject to the various caveats indicated.

**Contact Officers:** Clare Golden, Nick Worlledge & Murray Hancock

**Extensions:** 2221, 2147 & 2153

**Date:** 4th January 2013.

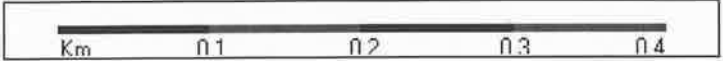


# 11/00940/CONSLT

## Oxford University Science Area, South Parks Road



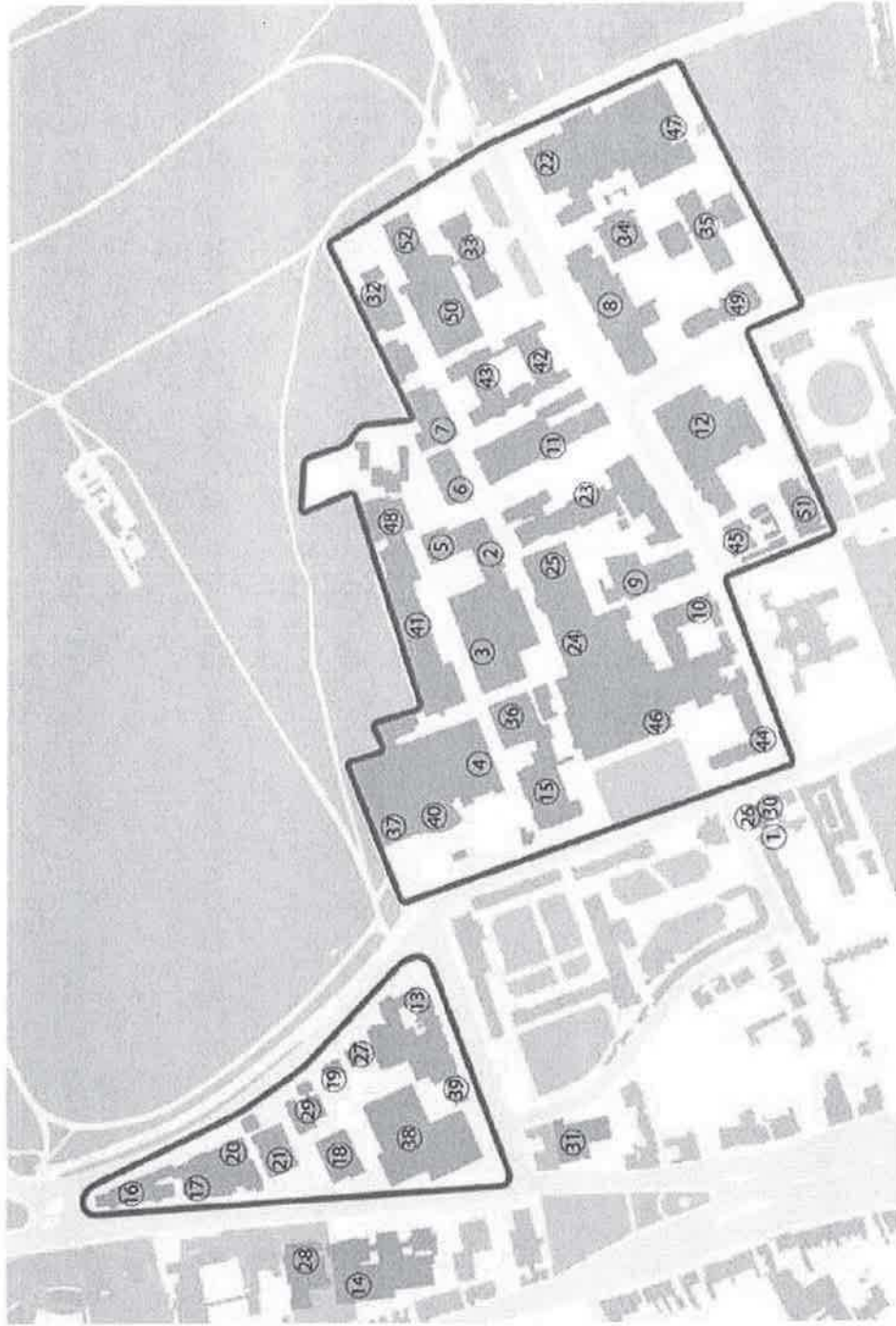
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<b>Organisation</b>	Oxford City Council
<b>Department</b>	Planning
<b>Comments</b>	
<b>Date</b>	04 January 2013
<b>SLA Number</b>	100019348

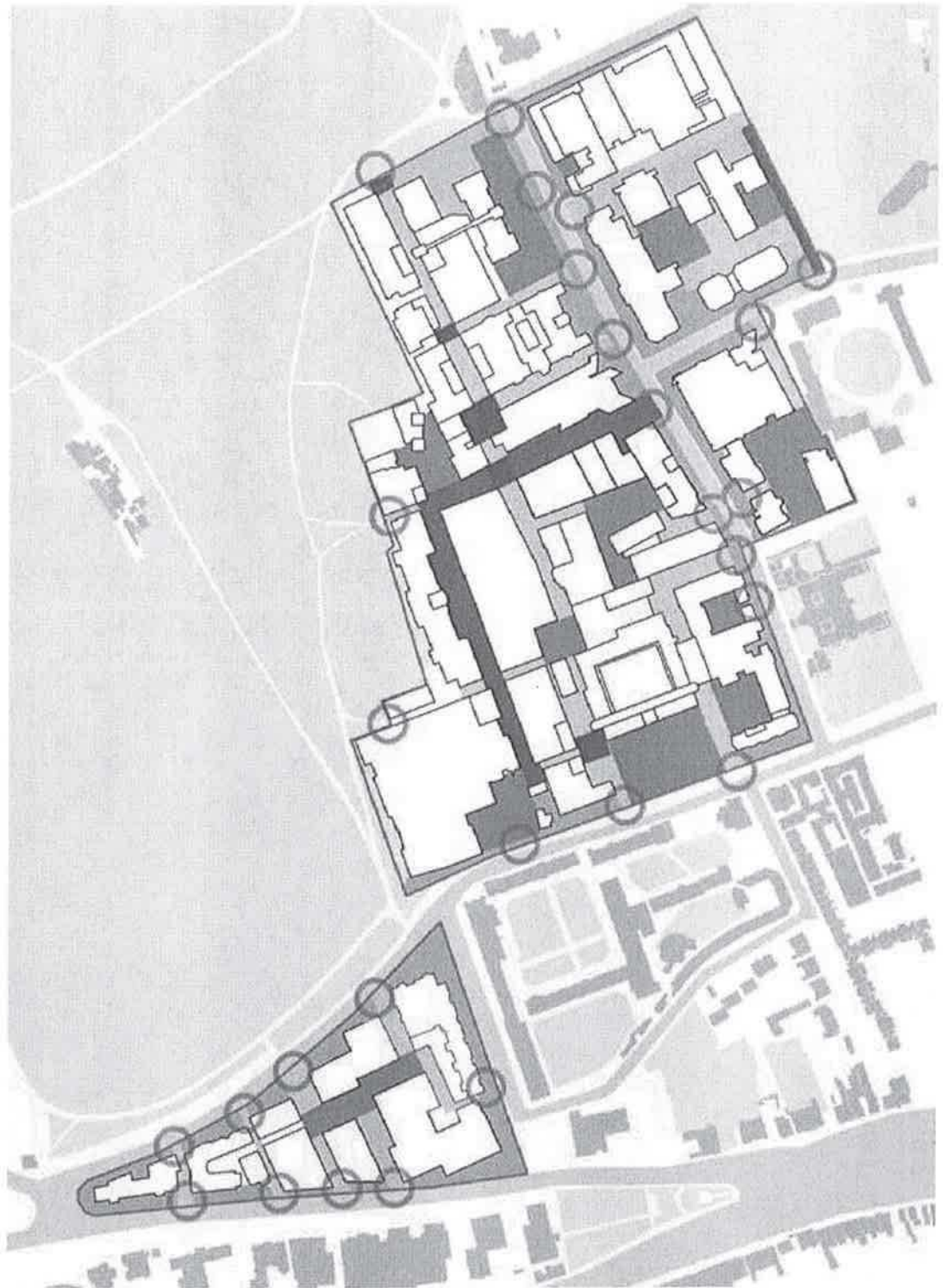
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Science Area Existing Building Plan

- 1 Archaeology Research Laboratory
- 2 Hans Krebs Building
- 3 New Biochemistry Building
- 4 Townsend Building
- 5 Donald Woods Building
- 6 Rex Richards Building (MPLS, Materials)
- 7 Biochemistry (Rodney Portner Building)
- 8 Biomedical Sciences
- 9 Earth Sciences
- 10 Chemistry, Inorganic
- 11 Chemistry, Physical and Theoretical
- 12 Chemistry Research Laboratory
- 13 Department of Computer Science
- 14 Computing Services (OUCS)
- 15 Robert Hooke Building
- 16 Engineering Science (Jenkin Building)
- 17 Engineering Science (Information Engineering Building)
- 18 Engineering Science (Thom Building)
- 19 Engineering Science (Parks Road)
- 20 Engineering Science (Engineering and Technology Building)
- 21 Engineering Science and Materials (Holder Building)
- 22 Experimental Psychology (Timbergen)
- 23 Geography and Environment (Dyson Perrins)
- 24 Pitt Rivers Museum/ Research Centre
- 25 DPAG (Le Gros Clark)
- 26 Occupational Health (10 Parks Road)
- 27 Materials (Parks Road)
- 28 Materials (Banbury Road)
- 29 Materials (Hume Rothery Building)
- 30 Mathematical, Physical and Life Sciences Division
- 31 Mathematical Institute
- 32 Medical Sciences Teaching Centre
- 33 Pathology (Sir William Dunn School)
- 34 Peter Medawar Building for Pathogen Research
- 35 Pharmacology
- 36 Physics (Atmospheric)
- 37 Physics (Clarendon Laboratory)
- 38 Physics (Denys Wilkinson)
- 39 Physics (Theoretical)
- 40 Physics (Martin Wood Lecture Theatre)
- 41 DPAG (Sherrington Building)
- 42 Plant Sciences (South Building)
- 43 Plant Sciences (North Building)
- 44 Radcliffe Science Library
- 45 Statistics
- 46 University Museum of Natural History
- 47 Zoology (Timbergen)
- 48 Henry Wellcome Building of Gene Function
- 49 Virology
- 50 Oxford Molecular Pathology Institute
- 51 Rothermere American Institute
- 52 EPA Building



- Lanes
- Entry point
- Nodes
- Entrances
- Courtyards and gardens
- Boundary
- Car park
- Site boundary

### Appendix 4: Science Area Masterplan: Strategic Principles and Policies.

#### Strategic Principles:

- Provide Oxford's scientific community with world class teaching and research facilities.
- Enhance the presence and identity of the Science Area.
- Celebrate the heritage of the Science area and its historical role as the home of science in Oxford.
- Optimise capacity by retaining those buildings which contribute to the historical and architectural interest of the science area and its functionality, whilst taking opportunities to replace buildings which are not fit - for - purpose.
- Deliver change without compromising the continued functioning of academic departments.
- Create safe, accessible, permeable routes over the area.
- Create accessible linkages with other academic areas, including the Radcliffe Observatory Quarter and with the University Parks.
- Rationalise vehicular access and improve other transportation methods.
- Enhance the area's aesthetic environment and public realm through a consistent landscape strategy.
- Deliver the Masterplan in line with the University's new Sustainable Buildings Philosophy Document.

#### Policy - Uses:

- A mix of laboratory, lecture, office and social space will be provided.

#### Policies - Layout:

- Create an "arrival space" at the museum and enhance other entry points to the site to improve site identity and wayfinding.
- Create a new primary access route, the Spine, between Parks Road and University Parks to provide easy access.
- The intersections of pedestrian routes will be designated as "hub" spaces, designed to improve wayfinding and become the focus of activity.
- Links between the Keble Road Triangle and Science Area will be improved.
- New primary frontages to be created on all sides of the Keble Road triangle.

#### Policies - Movement and Access:

- The Science Area will become largely pedestrianised over the life of the Masterplan.
- Existing car parking spaces will be phased out over the course of the Masterplan, leaving residual disabled parking only.
- Bicycle parking will be increased over the life of the Masterplan, with spaces being organised and of better quality in the future.

- Access to public transport facilities will be improved, including the potential introduction of a bus stop on Parks Road.
- Creation of a primary service route, to become the focus of operational traffic and to enable vehicular access to the site as a whole to be reduced.

**Policies - Condition and Suitability:**

- Buildings of historic and architectural value, which are fit for purpose, will be retained. Development affecting designated and non - designated heritage assets will be consider the significance of the asset against the scale of harm or loss proposed and set out supporting justification.
- The siting and design of new buildings must have regard to the quality, settings and streetscapes of the listed buildings on site and to the neighbouring Grade II registered University Parks.
- All new buildings on the site must make the most efficient use of land available whilst having regard to relevant planning policy.

**Policies - Scale and Massing:**

- Four storeys of development plus plant over a double or triple basement is identified as the maximum scale appropriate, but not across the entire site. National and local guidance regarding heritage assets and townscape will be used to inform detailed design proposals.
- Regard must be had to views of historic buildings on site or in the locality.
- In the scoping and execution of townscape or related appraisals, regard is also to be had to relevant guidance.

**Policies - Services:**

- Enhance the HV power distribution.
- Upgrade water and gas networks.
- Upgrade drainage collection systems.
- Ensure flexibility in installed services to provide capacity for the Masterplan development.

**Policy - Implementation:**

- Individual development projects will be implemented in accordance with this Masterplan as they come forward.

**Appendix 5: Science Area Masterplan: Landscape and Public Realm Strategy.**

**Routes:**

- Reducing the visual clutter associated with traffic.
- Replacing the blacktop associated with carriageways with a more aesthetic finish.
- Defining a hierarchy of vehicular routes.
- Creating a series of nodes at key junctions to improve orientation and wayfinding.
- Reduced width of carriageway to a minimum to encourage reduced speeds.
- Clear buffer zones for planting, cycle parking and occasional parking.
- A clear, consistent language of materials across the site.

**Spaces:**

- Clearly defining a series of spaces for pedestrian usage.
- Changing the emphasis of the spaces away from a vehicle to a pedestrian dominated environment.
- Exploring the use of a consistent palette of materials to reinforce the identity of the site.
- Increasing the amount of planting where possible.

**Planting:**

- Trees to be planted where the lanes are at least 8m wide and where there is sufficient space away from utilities and vehicular servicing.
- Trees adjacent to a service trench will have a root barrier.
- Protection for bats, birds and invertebrates should be provided on site according to the recommendations of the site ecologist.
- Irrigation will be kept to a minimum and watering will only occur during establishment unless the planting is on a building slab when it will have direct rain or drip irrigation.

**Lighting:**

- Base layer providing a safe level of light across the site.
- Key facades, entrances and termination of views.
- Elements within spaces, eg benches, trees.

**Materials:**

- Define a clear, consistent language of materials to reinforce the identity of the site.

**Appendix 6: Conservation Plan Policies.**

**General Policies.**

GP1: This Conservation Plan should be reviewed and updated on a regular basis.

GP2: Any works to the site should take into account local and national statutory legislation relating to the historic environment.

GP3: There will be other organisations or amenity societies that have an interest in buildings on the site. These should be consulted where appropriate regarding future works or demolitions.

GP4: If any works are proposed to the individual listed buildings on site a Conservation Plan or Impact Assessment should be prepared.

GP5: Any work that involves excavation should be subject to a desk-top archaeological assessment at the planning stage and as a minimum a watching brief will be needed when the work is carried out.

GP6: Should consent be granted in the future for major alterations or demolition of any listed building, a full measured survey with photographs should be carried out and deposited in the local university archives. This should also be undertaken for buildings of local interest.

GP7: Staff should be informed of the implications of relevant legislation relating to the historic environment and of the reasons for this Conservation Plan.

**Control of Change.**

CP 1: Within the framework of this Conservation Plan, change will be necessary in order that the function of the site as a world class research and teaching facility for science can be sustained.

CP2: The design of new buildings on the site should be of a high standard.

**Policies for Specific Buildings.**

BP1: Any new building or landscape work that is proposed on the Science Area site should take full note of the significance of the University Museum and of its symmetrical setting.

BP2: The Grade II listed Victorian villas on South Parks Road should be retained and conserved.

BP3: The other listed buildings on the Science Area should be retained and conserved.

BP4: Clear justification will be needed for any works of alteration or demolition of those buildings which are already on the City Council's list of locally important buildings.

BP5: The implications of policy BP4 should also apply to those buildings which are of high architectural merit.

BP6: If any work is proposed to the Department of Human Anatomy (166) the quality of the interiors should be assessed before any work is planned.

### **Maintenance and Repair.**

MP1: Any works to listed buildings and locally important buildings should be carried out by skilled tradesmen with a clear grounding in Conservation principles. Care should be taken to specify the most appropriate materials and techniques.

MP2: The listed buildings should have maintenance plans which are specific to the individual buildings and not simply generic.

### **Landscape and Setting.**

LP1: The internal setting of the sites should be landscaped to positively improve the environment. Any landscaping should respect and enhance both the surrounding historic buildings and the modern ones.

LP2: The number of vehicles permitted on site should be restricted to the minimum necessary for access for maintenance vehicles and disabled access.

LP3: Proper parking and storage facilities should be provided for bicycles which are the transport and choice for people coming to the site.

LP4: The existing soft landscaping on the site should be retained and improved.

LP5: The current good streetscapes of South Parks Road, Keble Road and the section of Parks Road between these two should be preserved and enhanced. Consideration should be given to improving the appearance of the east and west sides of the Keble Triangle

LP6: While planning new development on the sites, the impact of these proposed developments on the University Parks should be considered.

LP7: When planning any new development, the impact on the surrounding Conservation Area should be considered.

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