

**Application Number:** 10/03254/FUL

**Decision Due by:** 3 March 2011

**Proposal:** Demolition of existing Physical and Theoretical Chemistry Laboratory to the north side of South Parks Road. Erection of new chemistry research laboratory (CRL2) to include lecture theatre, teaching and research laboratories, stores, workshops and ancillary cafe space on 3 levels below ground and 4 levels above plus roof level plant room. Provision of hard and soft landscaping, 15 car parking space plus 408 cycle parking spaces. Construction of underground pedestrian tunnel under South Parks Road to connect to existing chemistry research laboratory (CRL1). Extension to offices and atrium at CRL1 and creation of new entrance to Mansfield Road. (Amended plans)

**Site Address:** Land Adjacent Dyson Perrins Laboratory, South Parks Road, **Appendix 1.**

**Ward:** Holywell Ward

**Agent:** DPDS Consulting

**Applicant:** University Of Oxford

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**Recommendation:** Committee is recommended to grant planning permission, subject to conditions.

**Reasons for Approval.**

1. The Council considers that the proposal accords with the policies of the development plan as summarised below. It has taken into consideration all other material matters, including matters raised in response to consultation and publicity. Any material harm that the development would otherwise give rise to can be offset by the conditions imposed.
2. The planning application seeks to demolish one of the less distinguished buildings in the University Science Area and replace it with a new facility for the Department of Chemistry physically linked with the recently constructed Chemistry Research Building (CRL1) to the south side of South Parks Road, to provide consolidated facilities for the department. It carries with it reductions in traffic generation as car parking is lost and other means of access to the site favoured instead, as well as improvements to the public realm and highway linking the new building to CRL1.

The submitted designs come forward following a detailed dialogue with City and County officers and English Heritage, including modifications to the extension to CRL1. As now presented that extension is not only more relaxed in its appearance, but its function is supported as it repositions the building's main entrance to the Mansfield Road frontage and deletes an unattractive service yard located close to the listed Mansfield College. In short, medium and long distance views neither the new CRL2 building nor the extension at CR L1 building would harm the historic fabric of the conservation area or listed buildings nearby. Overall the proposals are in line with Local Plan and Core Strategy policies to support new academic and research facilities for the University at appropriate locations within its own landholdings.

3. Many of the comments received in response to public consultation relate to the extension to the existing CRL 1 rather more than to the new building proposed whose dynamic designs are generally supported by the South East Regional Design Panel (SERDP) for example. The design of the new extension to CRL 1 has however been modified in response to concerns raised by English Heritage and others so that it now relates more appropriately to Mansfield College and the street scene generally such that officers would not seek to oppose it in its modified form. Matters relating to the architectural detailing of the new structures, landscaped areas, public realm works etc can all be secured by the imposition of appropriate conditions.

**Conditions.**

- 1 Development begun within time limit
- 2 Develop in accordance with approved plans
- 3 Materials
- 4 Architectural details
- 5 PD rights
- 6 Student numbers
- 7 Landscape plan required
- 8 No felling lopping cutting
- 9 Landscape underground services - tree roots
- 10 Tree Protection Plan
- 11 Arboricultural supervisor
- 12 Arboricultural Method Statement
- 13 Landscape carry out after completion
- 14 Landscape management plan
- 15 Car parking numbers
- 16 Control of car parking
- 17 Works to highway / public realm
- 18 Constructional details: underground link
- 19 Cycle parking spaces
- 20 External lighting
- 21 Travel plan
- 22 Construction travel plan
- 23 Construction management plan
- 24 Ground source heat pumps
- 25 On and off site foul and surface water drainage
- 26 Flood risk assessment

- 27 Groundwater drainage scheme
- 28 Groundwater level monitoring
- 29 Plant noise attenuation
- 30 Sustainable drainage
- 31 Petrol / oil interceptors
- 32 Cooking fumes
- 33 Natural resource impact analysis
- 34 Archaeology
- 35 Public art
- 36 Habitat creation

### **Principal Planning Policies:**

#### Oxford Local Plan 2001-2016

- CP1 - Development Proposals
- CP6 - Efficient Use of Land & Density
- CP8 - Design Development to Relate to its Context
- CP9 - Creating Successful New Places
- CP10 - Siting Development to Meet Functional Needs
- CP11 - Landscape Design
- CP13 - Accessibility
- CP14 - Public Art
- TR1 - Transport Assessment
- TR2 - Travel Plans
- TR3 - Car Parking Standards
- TR4 - Pedestrian & Cycle Facilities
- TR11 - City Centre Car Parking
- TR12 - Private Non-Residential Parking
- NE11 - Land Drainage & River Engineering Works
- NE14 - Water and Sewerage Infrastructure
- NE15 - Loss of Trees and Hedgerows
- HE1 - Nationally Important Monuments
- HE2 - Archaeology
- HE3 - Listed Buildings and Their Setting
- HE7 - Conservation Areas
- HE8 - Important Parks & Gardens
- HE9 - High Building Areas
- HE10 - View Cones of Oxford

#### Core Strategy

- CS2 - Previously developed and greenfield land
- CS4 - Green Belt
- CS9 - Energy and natural resources
- CS10 - Waste and recycling
- CS13 - Supporting access to new development
- CS17 - Infrastructure and developer contributions
- CS19 - Community safety
- CS25 - Student accommodation
- CS29 - The universities

#### Other Policy Considerations:

PPS1: Delivering Sustainable Communities (2005).

PPS5: Planning for the Historic Environment (2010)

PPG23: Transport (2001).

PPS22: renewable energy (2004)

#### **Public Consultation.**

Prior to the submission of the planning application, the University held exhibitions of the emerging proposals at the Chemistry Research Laboratory on 25<sup>th</sup> June 2010 and at Oxford Town Hall on 1<sup>st</sup> November 2010. The first event was by invitation to principal interested parties, whilst the latter also included the local press etc. Further individual meetings were arranged with all local groups in the period August to November 2010. These discussions lead to various adjustments to the proposals prior to the submission of the planning application.

In addition the South East Regional Design Panel (SERDP) received a presentation on the proposals on 18<sup>th</sup> October 2010 and commented that: (i) there were many promising aspects to the proposals, including a distinctive form and an interesting interior; (ii) the bulk and height was appropriate in its context; (iii) underground passage provides an all weather, secure route but runs risk of draining activity from street; (iv) student entrances should have greater presence to the new green, though new public space welcomed; (v) South Parks Road elevation works well in view up Mansfield Road with striking, complex composition of volumes, but less successful at close hand or when seen from side where it conceals green.

On submission of the application normal consultation procedures were undertaken. The comments received may be summarised as follows:

#### Statutory Agencies and Interested Parties.

Thames Water: Waste: suggest condition requiring drainage strategy detailing on and off site drainage works; Water: main crossing the site will be required to be diverted; peak surface water discharges should not exceed historic levels: drainage from underground rooms should pump to ground level.

Environment Agency (i): Object to proposals as Flood Risk Assessment (FRA) fails to demonstrate that development would not increase flood risk from surface water.

Environment Agency (ii): (*On receipt of additional information*). Withdraw previous objection; proposes good mix of sustainable drainage techniques; development in accordance with Flood Risk Assessment; further details of surface water drainage scheme required; details of impact of ground source heat pumps on controlled waters required; groundwater drainage scheme required; groundwater level monitoring required.

County Highway Authority: See text to report.

Natural England: No comments, subject to proposals being carried out in strict accordance with terms of application.

Thames Valley Police Crime Prevention Design Officer: Historically a number of crimes reported in area; no comments regarding design of building; appropriate security measures required for storage of certain goods.

English Heritage: Existing building on site makes modest contribution to street and is

outside Central Conservation Area; extension of existing Chemistry building fronting Mansfield Road would have harmful impact on the setting of Mansfield College and conservation area; Mansfield College chapel would have been most prominent building in street when constructed, but compromised by 20<sup>th</sup> century developments; service yard lost to construct extension not of any aesthetic merit; extension has visually challenging form with oddly projecting skylights on the footway leading to overbearing impact on Mansfield College; would harm historic and aesthetic values of chapel and college; need for extension at this point not compelling; suggest design is rethought to relate better to context; skylights would have less visual impact if set behind low boundary wall; recommend design of extension be reviewed.

Victorian Group of OAHS: Object to demolition of existing Physical and Theoretical Chemistry Laboratory; new building far too large and aggressive would overscale neighbouring listed Dyson Perrins building; existing Chemistry building to south side already too big, and object to proposal to make bigger; proposal shared surface to South Parks Road would be source of congestion.

Mansfield College: Comments confined to extension of existing Chemistry building; opportunity to remove unsightly cylinders from yard and improve approach roads and boundaries welcomed; extension less intrusive than existing building; extension an unsightly addition viewed through the gap between main buildings and college chapel; suggest modifying design to better relate to Mansfield College; would prefer extension to be lower and of materials which minimise visual impact when viewed from Mansfield.

*In response to these comments (plus those of SERDP made prior to the submission of the planning application) adjustments were made to that part of the development which forms an extension to CRL1 to the south side of South Parks Road. These changes were to create a more regular shape which would relate more sympathetically to Mansfield and CRL1 rather than to new building; removal of the extended atrium; generally making the extension less prominent in the street when viewed from the north towards Mansfield College; and adjusting the boundary wall to the street to incorporate slits to allow light and views of the underground tunnel below. A further round of consultation was undertaken and the following comments received:*

Thames Valley Police Crime Prevention Design Officer: No objections to amended plans.

English Heritage: Amendments an improvement, but concerns about relationship to chapel remain; no additional information submitted to justify this extension; revised pavement lights look less alien.

Victorian Group of OAHS: Amendments an improvement but wish previous objections to be taken into account.

Attached respectively as **Appendices 2 and 3** to this report are further supporting statements from the applicant as responses to the first round of consultation and subsequently.

## **Background to Proposals.**

1. The planning application relates primarily to the site of the existing Physical and Theoretical Chemistry Laboratory to the north side of South Parks Road,

opposite the junction with Mansfield Road. It also extends across to the south into Mansfield Road however where an extension is proposed to the existing CRL1 building completed approximately 6 years ago. **Appendix 1** refers. Along with a proposal for a new Physics building which appears elsewhere on this agenda, these proposals represent the latest in a series of major projects in the University Science Area which include refurbishment of the Tinsley building opposite CRL1; the newly completed Earth Sciences and Oxford Molecular Pathology Institute (OMPI); extension to the Pitt Rivers Museum; and phase 1 of the new Biochemistry building. A Masterplan for the Science Area has also been prepared and will come to committee for its consideration at a future meeting. Both the proposed Physics and Chemistry buildings are consistent with the intended aims of the Masterplan.

2. The main part of the application site where the new building is proposed is located to the east of Hinselwood Road and the listed Dyson Perrins building and to the west of Sidthorp Road and Plant Sciences. In the Masterplan Hinselwood Road forms the intended principal access route into the Science Area from the south, acting as an extension to Mansfield Road. Related to that intention the application also brings with it accompanying highways and public realm works to South Parks Road.
3. The new CRL2 building would be used for undergraduate teaching as well as research and would replace the existing Physical and Theoretical Chemistry building which is no longer of the required standard for current research purposes. It is accompanied by extensions to CRL1 at the corner point of the building at the junction of South Parks Road and Mansfield Road, and fronting directly onto Mansfield Road where it adjoins Mansfield College. In total some 19,000 sq m of floorspace is proposed on four levels above ground and 3 levels below in the new building, including an underground link below South Parks Road to CRL1. In addition to the demolition of Physical and Theoretical Chemistry, 600 sq m of floorspace at Dyson Perrins and 360 sq m at Inorganic Chemistry would be vacated and facilities transferred to the new building. This would allow the Chemistry Department to then operate from a single consolidated location. Overall there would be a net increase in floorspace of approximately 12,500 sq m, with 247 staff / researchers and 952 students catered for in the new accommodation, including those transferred from other buildings. Approximately one third of the chemistry students based here would be graduates whilst it is also anticipated there would be up to 58 visitors each day.
4. The principal determining issues in this case are assessed to be:
  - planning policy;
  - architecture and built forms;
  - trees and landscaping;
  - historic context;
  - an assessment of impacts of development;
  - highways, access and parking; and
  - sustainability.

## Officers' Assessment.

### Planning Policy.

5. Although the application site is not specifically allocated for development within the Local Plan or recently adopted Core Strategy, the latter supports the development of additional academic buildings at appropriate University sites where they respect the character and setting of the City's historic core. As this application relates to accommodation for the University's Department of Chemistry then committees are also reminded that newly adopted Core Strategy policy CS25 applies. This replaces Local Plan policy ED8 and requires that new teaching and academic floorspace for the University should be matched by new residential accommodation for its students and should only be permitted providing no more than 3,000 students live outside purpose built student accommodation.
6. Whilst figures can sometimes be difficult to interpret as many of the University's research fellows have both teaching and studying roles, as of 2010 that figure stood at 2,688. In addition major developments recently completed, under construction or at the planning stage at St. John's, Lady Margaret Hall, Keble, Pembroke, St. Hilda's and St Hugh's will further reduce that figure in the near future. Moreover the central University also holds an extant planning permission for 590 graduate student study rooms at its development at Castle Mill, Roger Dudman Way, of which only a first phase of 208 rooms have yet been built out and occupied. The planning application therefore complies with the terms of policy CS25 of the Core Strategy. A condition is suggested however requiring that the 3000 figure must continue to be met prior to occupation.
7. Whilst a range of more general policies relate to the proposed development, (listed at the head of this report), most relevant perhaps are those relating to the historic environment, even though the application site falls just outside the Central Conservation Area. These including HE9 of the Local Plan relating to high buildings plus HE3 and HE 7 relating to listed buildings and the Central Conservation Area respectively. Policy CS4 of the newly adopted Core Strategy relating to the Oxford Green Belt plus SR2 and SR 5 of the Local Plan relating to open spaces and sports facilities are also relevant, as are HE8 relating to historic parks and gardens, and transport policies for the central area TR3, TR 11 and RE12.
8. At a national level the revised Planning Policy Statement No. 5: "*Planning for the Historic Environment*" (PPS5) of March 2010 is of particular relevance. This re-affirmed the government's commitment to the historic environment and requires that applicants and the local planning authority have sufficient information to understand the significance of heritage assets and to understand the impacts that any proposal would have on them. It advises in particular that local planning authorities should take into account the desirability of sustaining and enhancing significant heritage assets and acknowledging the positive role that their conservation can make to the establishment and maintenance of sustainable communities and economic viability. PPS 5 recognizes therefore that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term, but equally that it is desirable for new development to make a positive contribution.
9. The application the subject of this report is supported by material that

assesses the heritage value of historic buildings on or near the application site and also the significance of views of the site from a variety of locations. The supporting information also shows how the proposals have been informed by this analysis and examines the impact of the proposed new building and extension to the existing CRL1 building.

10. The site falls wholly outside the Central Conservation Area but the new building adjoins the listed Dyson Perrins building to the west whilst the proposed extension to CRL1 fronting Mansfield Road adjoins the Grade 1 listed chapel to Mansfield College. University Parks which falls within the Oxford Green Belt and possesses the status of a statutorily “registered” garden lies a little way to the north, though any potential views of the development have also been tested from there. The University Club sports field to the east of Mansfield Road is a protected open space.

### **Architecture and Built Forms.**

11. The proposed CRL 2 building occupies a similar if rather larger footprint to the existing Physical and Theoretical Chemistry building it replaces, and extends to 4 levels above ground and 3 below. It is located at that point on the north side of South Parks Road where the “building line” moves back from a position tight to the street, (Dyson Perrins), to one where spaces exist to the frontage of buildings (Plant Sciences). The proposed CRL2 building seeks to bridge this change in building footprints in a structure which is distinguished by a series of distinctively angular “parallelogram” forms which embrace an entrance forecourt and leads the visitor to the centrally located main entrance off South Parks Road. Two other entrances are located to the western side of the building leading off a public space created by displacing existing car parking from Hinselwood Road. This space has been named as “Chemistry Green” in the proposals and functions as a space where users of the building can spill out, and indeed where the ground floor cafes located to this side may enjoy outside seating during summer months. At ground floor level here and to the principal southern elevation to South Parks Road a glazed plinth to the building gives views into the interior. The two entrances to the west side are likely to be used in the main by students entering the building rather than researchers or visitors who would more likely enter direct from South Parks Road via the main entrance and reception area which is set within a full height entrance atrium at this point.
12. The distinctive angularity to the building is emphasised by its verticality throughout. To the parallelogram elements to the frontage of the building automated, vertically hung timber louvres are set in front of a frameless single glazing system with opening windows where they serve office and meeting rooms. In between these parallelograms a glazed curtain walling system above the main entrance exposes the atrium beyond. To the main part of the west elevation fixed vertical, angled stone louvres are indicated with glazed curtain walling set behind where write up spaces to laboratories are located. Where plant rooms exist to this side of the building metal louvres exist in place of the curtain walling. To the eastern elevation facing Plant Sciences a simpler bronze glad walling system is proposed, with simple vertical glazed elements



periodically set within the facade to create tower like features. Generally plant and other rooms with specialist equipment are located to this side of the building which have only a lesser requirement for direct light. To the north where there would be less solar gain, a clear glazed curtain walling system is again employed. At various points around the building smaller stone clad sections are introduced to the elevations.

13. The functional requirements of the building have also dictated at which levels within the building various activities are located. Thus elements which do not require natural light such as laser laboratories, plant and specialist rooms, and the three 200 seat plus lecture theatres are sited at various basement levels with the ground floor given over to entrances, circulation, breakout spaces, cafe etc, and upper levels to extensive laboratories, write up areas, private offices and meeting rooms. Accommodating various activities at basement levels and creating 4 levels above ground results in the building sitting at about the Carfax height of 79.3m AOD. Elements such as some plant and flues (which are required to discharge above roof levels) are set above within a series of off - set "chimneys" designed as architectural features to the building. This is a similar approach as adopted in other recently constructed science buildings nearby such as Biochemistry and Earth Sciences. Whilst there is therefore some intrusion above the Carfax height, it is in the form of architectural elements which conceal functional requirements and which officers judge not to be harmful to the changing nature of the roofscape across the Science Area.
14. Perhaps the most unusual and intriguing feature of the building is however the underground link to CRL1 to the south side of the street, linking the building physically as well as functionally with CRL2. To CRL1 three modifications to the building are proposed. Firstly at the corner point of the building at the junction of South Parks Road and Mansfield Road vertical timber louvres matching those opposite at CRL2 are added to also provide a visual connection between the buildings. Secondly where the rubble stone wall along the Mansfield Road frontage is currently located, this is replaced by a smooth stone boundary wall with glazed slots inserted plus a sloping glazed skylight attached to the wall and building. The insertion of glazing provides interest to this largely blank eastern elevation to CRL1. It also provides light and glimpses of the basement accommodation and underground link below. The third and most significant element is an extension to the south - east corner where a service yard is currently located. Here a 3 storey extension is proposed with a new entrance to the building created direct from Mansfield Road. This would become the principal entrance to the building replacing the existing one to the west accessed off the hidden square which also provides access to the Rothermere Institute.
15. Originally this extension had been intended to replicate the parallelogram architectural features displayed at CRL2. However due to concerns about its relationship to Mansfield College to the south, and in particular its listed chapel, modifications have been made to provide a more relaxed building and relationship. The modifications have moved the extension back from the footway to the main face of the existing building within the rectangular

structure sited slightly further away from Mansfield. The facing materials consist of the smooth stone proposed for the adjacent boundary wall as a ground floor plinth to the extension, with vertical stone louvres above. Internally the extension is intended to accommodate a reception area at ground floor level plus internal storage, with individual offices and meeting rooms at upper levels. Officers consider the modified design to provide a more relaxed and less aggressive neighbour to the sensitive Mansfield College to the south, replacing an unsightly service yard. Together with a recently permitted extension at Mansfield set between the CRL1 extension and the college chapel, officers therefore consider that an acceptable transition in terms of architectural forms, scale of development and choice of materials has been achieved along this section of Mansfield Road.

16. At CRL2 the different architectural treatments to the various elevations is driven in large measure by the internal functional requirements of what is necessarily a heavily serviced building and the need to control solar gain in the interests of an energy efficient building. In all cases however overriding features are the strong vertical rhythm and order set within rectilinear architectural elements. Whilst there is a distinctive modernity to the building as a consequence, the use of traditional materials in the main - stone, timber, glass - acknowledges the building's more traditionally designed neighbours. Nevertheless the distinctive architecture of the building at a prominent location within South Parks Road opposite the junction with Mansfield Road will identify CRL2 as perhaps the most striking of additions to the University Science Area in recent times.

### **Trees and Landscaping.**

17. A full tree survey accompanies the planning application relating to some 28 individual specimens in the vicinity of the proposed new building, mostly along South Parks Road and Hinselwood Road. Of these 12 are common limes, 9 flowering cherries, 2 common yew, 2 bay and one each of crab apple, Rowan and Norwegian maple. In turn 11 of these are graded B (moderate visual quality), and 15 grade C (low quality). None were assessed as grade A (high visual quality) whilst two flowering cherries to the west of the existing Physical and Theoretical Chemistry building were recommended for removal as they possessed significant decay, die back and canker.
18. To allow the development to proceed 4 further flowering cherries and the Rowan, all also located to the west of the existing building, are intended for removal. None are large species and only one is graded B, the remainder being C category trees. Their loss in terms of public amenity is therefore minor, and does not form a reason to oppose the development.
19. None of the more significant row of mainly common limes to the South Parks Road frontage are indicated for removal however, though the retention of 4 of the common limes and 1 yew could be potentially threatened by the construction works unless best practice on the retention of trees is employed throughout the construction period. The Arboricultural Implications Report accompanying the planning application indicates that whilst excavation for the

proposed basement is in close proximity to these trees their root development over the years will have been limited by the presence of the existing building. As such the proposals should not involve root removal or impacting the trees' current available rooting system. To avoid any risks the building could be realigned slightly, and / or the stringent tree protection measures indicated in the report strictly enforced. It is recommended that an arboriculturalist be appointed with a watching brief to supervise protection of the lime trees when work is carried out near to them, and that this be required by condition.

20. New tree planting is proposed as part of an overall landscaping scheme for the new, more pedestrian orientated spaces created along Hinselwood Road, to "*Chemistry Green*". To the west side to the rear of Dyson Perrins and adjacent to the Centre for the Environment a group of up to 8 cherries are proposed within a small raised landscaped area whilst along the line of Hinselwood Road Turkish hazel, Himalayan birch or sweet gum are being considered. To the east side of Hinselwood Road between the two entrance points to the building from this direction, a mixed hard and soft landscaped area is created where car parking in part currently exists. This landscaped area provides an external space to the building where staff and students can linger. In plan the angular form of the landscaped area reflects the distinctively angularity of the CRL2 building itself. Part of the area would be in there form of a further raised area, this time in the form of a lawn. The two raised landscaped areas either side of Hinselwood Road would provide informal seating to their perimeter.
21. To the South Parks Road frontage a paved area provides a large forecourt area leading to the building's main entrance. Surface materials here and elsewhere would be chosen to respond to the characteristics of the locality, and those more commonly used within the city. These and the details of a coordinated scheme street furniture consisting of seating, litter bins, cycle stands, lighting and bollards would be secured by condition. In sum these landscaped external spaces are fully supported as being both functional and providing an appropriate visual setting for the new building to which they relate.

### **Historic Context.**

22. 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 what was the Earth Sciences building. 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 20th. 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 is their work. Physical and Theoretical Chemistry Laboratory of 1939 now proposed for demolition to make way for the new CRL2 building is one of them.

23. Today the notable buildings within this part of the Science Area include the following:
- Mansfield College (Basil Champneys 1887, listed Grade II\*)
  - Radcliffe Science Library (T. G. Jackson 1901 - 03, 1933 - 34, listed Grade II).
  - Dyson Perrins (Paul Waterhouse 1913, listed Grade II)
  - Sir William Dunn School of Pathology (E.P.Warren 1926, unlisted)
  - Plant Sciences (Sir Hubert Worthington 1947, unlisted)
  - Earth Sciences (Wilkinson and Eyre 2010, unlisted)
24. These and other buildings referred to in this report are identified in the accompanying plan attached as **Appendix 4** to this report. Of particular significance in conservation terms are Mansfield College and the Dyson Perrins building.
25. Mansfield College, which is sited south of the existing, recently constructed Chemistry building was founded in 1886 to provide education and theological training for nonconformist ministers of the Congregationalist denomination. The college originally had buildings on three sides with the chapel in the east range (1887- 1889) with further buildings added later on the south side to complete the quad along a new road constructed between Holywell Street and South Parks Road. Although it has a more open aspect to Mansfield Road, it is typical of Oxford colleges in layout and design. The Chapel next to the proposed extension to the Chemistry building is designed with buttresses and tall windows to create a strong vertical rhythm and uses a warm natural stone to give colour and texture to the streetscape.
26. Dyson Perrins, to the west of the main site to the north of South Parks Road has a restrained classical style with an ordered and regular rhythm of windows and is built in stone and red brick. Probably for the first time in buildings in the Science Area the external appearance of the building with its large first floor windows begins to suggest its function and the nature of activities internally. It is one of only two buildings in the Science Area to have been awarded National Historic Chemical Landmark status by the Royal Society of Chemistry for the work of Professor Hodgkin on antibiotics, vitamins and proteins.
27. In this context the significant conservation elements relating to the proposed development can be summarised as follows.
- The University Science Area is highly significant as part of the history of the university, the history of the development of research buildings. Some buildings at the Science Area are listed and have high significance. Many

though, particularly the later C20th buildings, are utilitarian and have more limited interest.

- For its listed buildings and for its associations with history of nonconformist religion in the C19th Mansfield College has high significance.
- As statutorily registered gardens designed as an arboretum and recreational facility for the public, University Parks also has high significance.
- The urban and natural landscape of the City Centre overall has high significance for a variety of reasons – architectural, historic, aesthetic, artistic and archaeological. The site and its context is part of this wider landscape, though there are elements that detract from this overall quality.
- There are long distance views of the city skyline from identified viewing points around the city (Oxford's View Cones). The application site is not prominent in these views and currently does not make a contribution.
- The setting of the listed buildings within the area has changed as part of the acknowledged ad hoc and planned development of the Science Area and South Parks Road throughout the C20th and into the C21st. The setting of Mansfield College has also changed with development opposite and adjacent to it. The existing Chemistry building has the greatest impact in some views.
- The character of Mansfield Road as a consequence of the development of the Science Area has changed over time. With notable exceptions like the Master of Balliol's lodgings to the south of the University Club, C19th villas have in the main been replaced by purpose built research buildings and the scale of buildings has changed its original suburban character to one that has a more urban scale. The tree lined verges and landscaped frontages soften the street and provide colour, texture and screening, particularly when in leaf.

### **Assessment of Impacts of Development.**

28. In line with PPS 5 advice, accompanying the planning application is a detailed Heritage Statement which seeks to assess the historical significance of the application site and its surroundings in order to gauge the impact of the new building. The various buildings, streets and spaces surrounding the proposed development are assessed for their architectural and conservation significance, and “verified” images produced accordingly. The analysis also assesses the importance of the research to be undertaken and the development's compliance with Local Plan and Core Strategy policy which are also material considerations in determining the application.

29. Long and Middle Distance Views. The building size and design is a function of the identified needs and best practice in the design of research buildings balanced with the architect's understanding and response to context. Reducing the level of accommodation will threaten to compromise fulfilling its academic requirements. Elements of them CRL2 building rise above the Carfax threshold and include the frontage blocks, chimneys, plant and equipment. The justification is the need to articulate the parapet level and reduce the apparent bulk. In long distance views (View Cones) the building will be imperceptible and will not harm the spiky skyline or foreground views. Views from middle distance vantage points have also been tested, from the University Church and from University Parks. In the former the extensions at roof level are seen against the changing roofscape of the Science Area as minor features start to protrude above the Carfax height, replacing other

features such as the dominant Hans Krebs tower due for demolition in order to build out the remainder of the new Biochemistry building in the near future. From University Parks the development would be obscured from view by the intervening tree coverage and buildings to the north side of the Science Area. Taken in the round these changes are not viewed as harmful.

30. South Parks Road. The character of South Parks Road has changed over time and now contains a mix of late C19th and early C20th buildings interspersed with modern ones of different scale. As with the Grade II listed Dyson Perrins building to the west, the scale of the existing Physical and Theoretical Chemistry building reflects the period of expansion of research buildings in the first part of the C20th. It has an economy of design, but is rooted in the neo classical. The quality of its immediate setting is poor with a utilitarian public realm, mitigated mainly by the trees lining the road. The views up Mansfield Road towards the site are underwhelming, framed by two modern and large research buildings. The site has prominence at the junction between Mansfield Road and South Parks Road and as a transition point where buildings on the north side are set back from the road, compared to those further west. The proposals seek to mediate between these various characteristics to provide a building that more positively addresses the street, providing a point of interest and public entrance, plus new views north along Mansfield Road and east and west along South Parks Road.
31. Mansfield College. The north boundary of the College and south boundary of the existing CRL1 accommodate the service needs of the two institutions and this part of the two sites is characterised by plant and equipment, sheds and parking areas. Mansfield College is proposing to extend into this area with a new two storey buildings and generally tidy up the area. The University's proposals similarly involve changing the appearance to remove the clutter of plant from the service yard facing the street and insert a new extension to CRL1. It is a sensitive location within the setting of the listed Mansfield College chapel. The detailed design seeks to respond to the verticality and rhythm of the chapel's form, yet link it to the main Chemistry building in architectural language. In doing so there is a difference in scale to address. As originally submitted English Heritage expressed concern about this element of the proposal and its projection forward of the building line. The scheme has been revised to resolve these concerns and is now proposed set back on the existing building line with amended detailing. English Heritage whilst still maintaining some concern, nevertheless acknowledge the improvement. Given the improved relationship, the existing use of the space currently as an inappropriately located service yard, and Mansfield's own intentions to improve the gap between the two sites, on balance officers have concluded that the proposed extension would provide a more fitting neighbour to the college chapel than current arrangements.
32. The college has also voiced concerns regarding glimpses of the new extension to CRL1 when viewed from the college quad through the gap between the northern range and the chapel to the east side. The gap is a narrow one and views beyond are only visible from limited vantage points. The character of the College's quad is an enclosed space framed by the college's own buildings. The new extension would certainly be viewed from some vantage points obscuring a small amount of visible sky. At lower levels

the college's own proposed extensions would also be seen in this view. Officers have concluded that the extension CRL1 would not damage the character of the quad. Although the new building will be visible and obscure a small amount of visible sky from limited vantage points, this change will not be unacceptably harmful. It would be compensated anyway by gains in views from public vantage points where the CRL1 extension would replace the service yard fronting the street.

33. Dyson Perrins Building. Situated to the west of the proposed new building, the Grade II listed Dyson Perrins building was constructed in the early C20th to the designs of Paul Waterhouse. This 2 and 3 storey building of stone and brick construction with a stone parapet at roof level displays regular rhythm of vertically paired windows to South Parks Road. To its rear is the less pleasing Centre for the Environment attached to which is a modern lecture theatre to the west side of Hinselwood Road. This thoroughfare is intended to be the principal route into the Science Area from the south in the Masterplan, but possesses a character more akin to a car park and service area. The application seeks to rationalise activities here by removing car parking along the east side of Hinselwood Road, and creating a landscaped public space integrated with the new building and providing entrance points to it. A further small green space is also created to the east, to the rear extension to Dyson Perrins. In views along Hinselwood Road and along this section of South Parks Road the impacts are positive in terms of the setting of Dyson Perrins and its subsequent extensions.

### **Highways, Access and Parking.**

34. Currently some 38 car parking spaces occupy the application site either side of the Physical and Theoretical Chemistry building, together with 270 cycle parking spaces, also located around the perimeter of the building. In these proposals car parking is reduced to 15 spaces (including 2 for disabled use), located along Hinselwood Road. Cycle parking is increased however to 408 spaces, 90 of them under cover. Again these are sited at a variety of locations, including to the South Parks Road frontage. Local Plan standards require cycle parking to be provided at a ratio of 1 space per two students for educational / research buildings of this type, and one per 5 staff / researchers. However the University has adopted a single standard of approximately 1 space per 3 students / researchers which is based on its own research of actual usage across the Science Area. This acknowledges that not all students and researchers are present on the site at the same time. The figure of 408 spaces would contribute to some 4500 cycle parking spaces envisaged for the whole of the Science Area in the Masterplan. Servicing of CRL2 would be from a point to the south - east corner of the building off Sidthorp Road. These arrangements are supported as they respond positively to the aims of the adopted policies of City and County Council as planning and highway authorities respectively.
35. In support of the gradual reduction of private car parking across the Science Area in favour of other modes, the University has produced a comprehensive Travel Plan. A condition to the planning permission if granted would require

the submission of a revised Travel Plan accordingly. A Construction Travel Plan would also be secured by condition.

36. In further support of the proposals the University would contribute to highway / public realm works to South Parks Road extending east and west from the new building, and also along Mansfield Road. Such works would assist in improving the above ground connectivity between CRL 1 and 2, improve the quality of the public realm, and also serve to reduce traffic speeds. It would also be consistent with the aims of the Science Area Masterplan which identifies Hinselwood Road as the principal thoroughfare into the Science Area from the south as an extension of the route from the City centre along Mansfield Road. The details of such a proposal have yet to be fully worked up however and designs would come forward through a collaborative process involving the University, and officers of City and County Councils. In addition to public realm works extending as far as the Statistics building to the west, Plant Sciences to the east and the Tinsley building on Mansfield Road, the works might also include additional signal controlled or advisory crossings, speed control platforms, level surfaces, features to assist the blind etc. The works would be to the value of approximately £400,000 with the University undertaking construction on behalf of the Highway Authority under the provisions of the Highways Acts secured by condition.
37. The Highway Authority is fully in support of the approach of the University in relation to access to the application site but seeks further information in relation to the revised Travel Plan, Construction Travel Plan, constructional details of the underground link between CRL 1 and 2 and the public realm works. It would also wish to see sustainable drainage techniques for surface water runoff incorporated within the development. These details can all be secured by condition.

### **Sustainability.**

38. A Natural Resource Impact Analysis (NRIA) and Energy Strategy accompany the planning application with the intention of achieving the minimum score and more on the NRIA and an “outstanding” BREEAM rating, bearing in mind the high energy requirements of the building, equating to 5 times that of an office building of the same size. In terms of the NRIA a minimum score is achieved in all four categories of energy efficiency, renewable energy, use of materials and water resources, giving a combined score of 7 out of a possible 11, above the minimum score of 6.
39. In summary energy demands are reduced by a combination of features integral to the building, including maximising solar gain tempered by vertical shading louvres; double skin facades to offices to reduce heat loss in winter and heat gain in summer; and insulation and air tightness up to 20% in excess of the requirements of the Building Regulations. This is supplemented by approximately 20% on site renewable energy made up of 8.7% from air source heat pumps; 0.3% from photovoltaics; 7.4% from a mini gas fired combined heat and power system; and 3.0% from ground source heat pumps located below the building in a closed loop system. (At the time of writing the



University is also investigating the scope for extending the use of ground source heat pumps to serve the Science Area more generally).

40. Other specific sustainability features of the building include:

- an energy management system to control all heating, cooling and ventilation systems;
- high efficiency lighting;
- appliances with A+ ratings, including timers where 24 hour running is not required;
- minimisation of power consumption of PCs when idling;
- materials sourced from the UK within 30 kilometres wherever possible to minimise transportation, bearing in mind also their durability over time;
- timber products from renewable sources;
- reuse of crushed materials as piling mat and for other non structural fill;
- rainwater collection for irrigation and WCs;
- dual flush WCs;
- proximity controlled urinals;
- sensor operated aerated taps; and
- water saving showers.

#### **Other Matters.**

41. Archaeology. A desk based archaeological assessment is submitted with the planning application and details the potential for Roman, medieval and post medieval (including Civil War) remains in the general locality. Bearing in mind the density of recorded archaeological sites in the near vicinity then a condition is recommended requiring the implementation of a programme of archaeological work in accordance with a written scheme of investigation, in line with the requirements of PPS25. The archaeological investigation should take the form of a strip and record excavation and be undertaken by qualified archaeological contractors working to a brief issued by the city council as local planning authority.

42. Flood Risk and Water Management. The proposed CRL2 building occupies a similar but larger footprint on the ground as the existing Physical and Theoretical Chemistry building on what is a level site located approximately 500m from the River Cherwell to the east and 1500m from the River Thames to the west. It is located within Flood Zone 1 as defined by the Environment Agency, i.e. within an area with less than 0.1% likelihood of flooding in any given year. There is no history of flooding at the site and as it falls within Flood Zone 1, no "Sequential Test" of other sites is required. The large basement area to the proposed building would be "tanked" to prevent any water ingress, though a collection system may be required to ensure there is no detrimental impact on groundwater flows which are generally eastwards towards the River Cherwell.

43. In terms of surface water, whilst the site is not at risk of flooding, over the potential lifetime of the building an increase in rainfall intensity of 30% may be expected, and appropriate measures need to be in place to reduce runoff. Surface water runoff from roof areas is intended to be stored for use in a

rainwater harvesting system with a capacity of 40 cu m. An additional 40 cu m of surface water storage is proposed in the form of an attenuation tank to be operational when the rainwater harvesting system is full.

44. Overall the Environment Agency is now satisfied with these emerging details but requests the imposition of conditions requiring further details relating to surface water drainage, ground source heat pumps, groundwater drainage, and groundwater level monitoring.
45. Public Art. The application qualifies for the provision of public art in some form and a condition is suggested accordingly. The proposed Chemistry Green is a potential location, though other possibilities also exist.

### **Conclusion.**

46. The planning application represents the latest in a series of major new research buildings proposed for the University Science Area which seek to provide state of the art teaching and research accommodation by replacing undistinguished buildings which are no longer suitable for the cutting edge research expected to be undertaken within them. The new CRL 2 building would also allow the Department of Chemistry to be consolidated within two linked buildings either side of South Parks Road, and the public realm between them improved. Concerns have been raised about the scale of the new building, but more particularly about the relationship of the extension to CRL1 to the listed Mansfield College chapel nearby. Whilst these concerns are acknowledged, officers have also taken into account that the proposed extension has been modified from its original form; that it provides a better and more logically positioned entrance to CRL1; and that it replaces an unsightly service yard facing directly onto the street. It is concluded that the extension and the change that it represents is not harmful therefore and overall represents an improvement to the streetscene at this point. Nor are any changes to short, medium or longer distance views of CRL2 and the extension to CRL1 harmful so as to warrant opposing the planning application.
47. Committee is recommended to support the proposals accordingly.

### **Human Rights Act 1998**

Officers have considered the Human Rights Act 1998 in reaching a recommendation to grant planning permission, subject to conditions. Officers have considered the potential interference with the rights of the owners/occupiers of surrounding properties under Article 8 and/or Article 1 of the First Protocol of the Act and consider that it is proportionate.

Officers have also considered the interference with the human rights of the applicant under Article 8 and/or Article 1 of the First Protocol caused by imposing conditions. Officers consider that the conditions are necessary to protect the rights and freedoms of others and to control the use of property in accordance with the general interest. The interference is therefore justifiable and proportionate.

## **Section 17 of the Crime and Disorder Act 1998**

Officers have considered, with due regard, the likely effect of the proposal on the need to reduce crime and disorder as part of the determination of this application, in accordance with section 17 of the Crime and Disorder Act 1998. In reaching a recommendation to grant planning permission, officers consider that the proposal will not undermine crime prevention or the promotion of community safety.

**Background Papers:** 11/03254/FUL

**Case Officers:** Amanda Rendell / Murray Hancock / Nick Worlledge

**Extensions:** 2153 / 2147

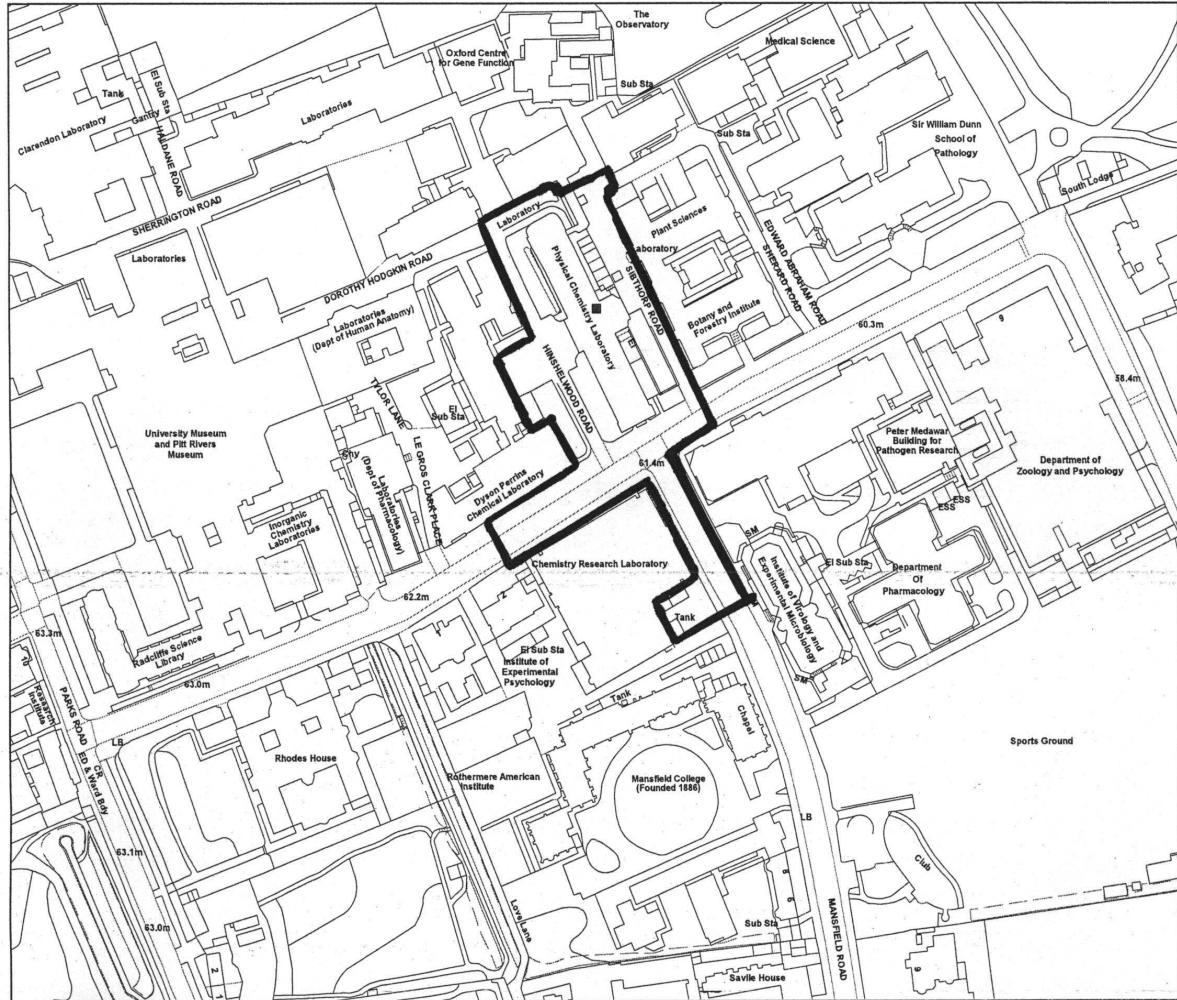
**Date:** 27 May 2011

# Chemistry (CRL2), South Parks Rd.

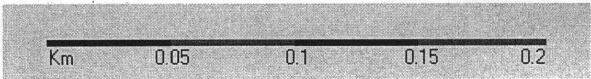
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**Legend**



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Organisation	Not Set
Department	Not Set
Comments	Not Set
Date	31 May 2011
SLA Number	Not Set

ADDITIONAL INFORMATION

CHEMISTRY RESEARCH LABORATORY 2 (CRL2)  
PROPOSED ALTERATIONS TO SUBMITTED SCHEME

1.0 Introduction

1.1 The consultations on the submitted scheme have led to careful consideration of matters of concern that were raised by the consultees. Having analysed the comments the project design team has concluded that some changes to the proposed extensions and alterations to the existing Chemistry Research Laboratory would address the concerns of several key consultees.

1.2 The design team considers that the proposed changes are an improvement to the original design. The City Council is therefore requested to substitute these drawings for those which were submitted originally. A further period of consultation will be necessary to allow groups and individuals to consider these changes.

1.3 This report sets out the comments that have been received and describes the way in which proposed changes are intended to address the comments of consultees.

2.0 Consultation Responses

Victorian Group of Oxfordshire Architectural and Historical Society

2.1 *"Chemistry Lab on S. side of road (CRL1) is already far too big, and a most overbearing neighbour for Mansfield College. We object to the proposal to make it even bigger by adding to its SW (sic) corner".*

English Heritage

2.2 In relation to extension to CRL1

*"The extension here will have a harmful impact on the setting of the Mansfield buildings and the Conservation Area".*

*"If an extension of the scale proposed can be justified, then EH suggests that the design is rethought to relate better to its context"*

*"The skylights would have less visual impact if they were set behind a low boundary wall".*

Recommends:

*"...that the scale and design of the extension to CRL1 and associated skylights is reviewed to minimise the adverse impact on the setting of Mansfield College and on views within the Central Conservation Area along Mansfield Road".*

Mansfield College

2.3 *"...the atrium proposals as they are currently conceived did not find favour..."*

*"The new atrium proposal is obviously less intrusive than this (CRL1 and roof areas, especially plant room and metal chimneys), but from the visuals presented at the meeting.....represent yet another unsightly building element on our northern boundary."*

*"...re-think the design, the scale, the materials and the lozenge shape..."*

*It has "...no relationship at all to either the 19<sup>th</sup> Century Mansfield College or the 21<sup>st</sup> Century Chemistry Research Building".*

### 3.0 Design Changes to address these comments

3.1 These proposed changes relate to the proposed extension to the south east corner of the existing Chemistry Research Laboratory (CRL1) and to the surface treatment (the skylight) of the tunnel which would link CRL1 to CRL2.

3.2 The extension has been redesigned in a number of ways.

- It is now a regular shape which is more in sympathy with CRL1 and does not seek to reflect the shape of CRL2.
- The change in shape means that the building is now further away from Mansfield College Chapel.
- The extended atrium has been removed, and the atrium retains its current size and position.
- The materials and elevational treatment of the extension, which occupies the position of the former service yard, have been modified to be more sympathetic to the design of CRL1, and less “challenging” in the street scene, especially to Mansfield Chapel.
- The extension will be less prominent in all views, especially from Mansfield Road and from the north looking towards Mansfield Chapel.

3.3 The treatment of the skylight to the linking tunnel has also been modified. The new extension building proposes a base layer of stone and this material is used to form much of the boundary of the tunnel skylight. The stone feature will replace the existing rubble stone wall with a series of “blades” with irregularly positioned glazed inserts. This stone wall will conceal the skylight.

3.4 The relationship between these changes and the comments outlined above is quite clear, and these modifications are a direct result of the consultation process.

3.5 In essence the changes involve:

- Rationalising the extension into an orthogonal form and pulling the south-east corner away from Mansfield College attempts to maintain the gap between the main building and the Chapel when viewed from the College quadrangle.
- The orthogonal form will have a more harmonious relationship with the existing CRL1 and Mansfield College's geometries as opposed to the original "lozenge shape".
- The original extension attempted to mimic Mansfield College Chapel in its proportions, scale and materiality. This is seen to detract from the prominence of the Chapel.
- The current design proposes floating the extension above a "stone base" which is intended to reduce the visual bulk and weight of the extension when read in comparison with the Chapel.
- The orthogonal form of the extension seeks to address the concerns that the earlier design had no reference to the existing CRL1.
- The suggestion that the skylights should be set behind a boundary wall has been taken up so that the skylights will be concealed behind the continuation of the stone base wall which will incorporate slits to allow views from the street to the tunnel below.



#### 4.0 Conclusion

- 4.1 The consultations with Mansfield College and English Heritage have proved to be highly productive. They enable key issues to be identified, especially in relation to heritage assets. The changes that are now proposed flow directly from these consultation responses.
- 4.2 Some changes were made to the main building, CRL2, as a result of the consultation process, especially with the South East Regional Design Panel. These changes were made before the planning application was submitted.
- 4.3 It is hoped that these current changes will address, satisfactorily, the concerns of Mansfield College and English Heritage and the design team is grateful to both for the constructive way in which the consultation process has been carried out.

## PROPOSED CHEMISTRY RESEARCH LABORATORY (CrL2)

### RESPONSES TO CONSULTATION COMMENTS

#### 1.0 BACKGROUND

- 1.1 The consultation process for the new Chemistry laboratory has involved many opportunities for discussion with interested groups and organisations. The process has sought to explain why this development is required at this time, and why the chosen site is considered to be the most suitable and appropriate.
- 1.2 Many of the existing buildings which are used for chemistry (both teaching and research), are outdated and no longer fit for purpose. This includes the Physical and Theoretical Chemical Laboratory (PTCL) which is proposed to be demolished as part of the development. Other buildings such as Inorganic Chemistry and Dyson Perrins are also no longer fit for purpose. Redevelopment of PTCL will enable the department to consolidate its activities, albeit on two sides of South Parks Road.
- 1.3 The ambition to consolidate activities has also led to proposals to the existing Chemistry Research Laboratory on Mansfield Road/South Parks Road and to the creation of a physical link between it and the new building. This will also help to improve the appearance of the Mansfield Road elevation by removing a service yard and large gas tanks.
- 1.4 Consideration was not given to locations remote from the centre of Oxford, or indeed away from the Science Area itself.
- 1.5 A wide range of groups and organisations were consulted and many of their views and comments have been taken into account wherever possible.

#### 2.0 COMMENTS AND CHANGES

- 2.1 Prior to submission of the planning application changes were made to the initial design to take account of comments from Oxford Civic Society and the South East Regional Design Panel. These included changes to the shape of the

building, modifications to the entrance positions and changes to the east, west and north elevations. The roofscape was an important consideration and great care has been taken to try to create a varied and interesting roofscape. This has included the integration of flues into the overall design of the building rather than as an extra and somewhat alien feature.

2.2 Most adverse comments related to the relationship of the additions and alterations to CRL1 to Mansfield College. The College itself commented, as did English Heritage. The design of this part of the project was amended after submission of the application. A full explanation and justification for the alterations was submitted with the amended scheme.

2.3 Benefits of the proposed development

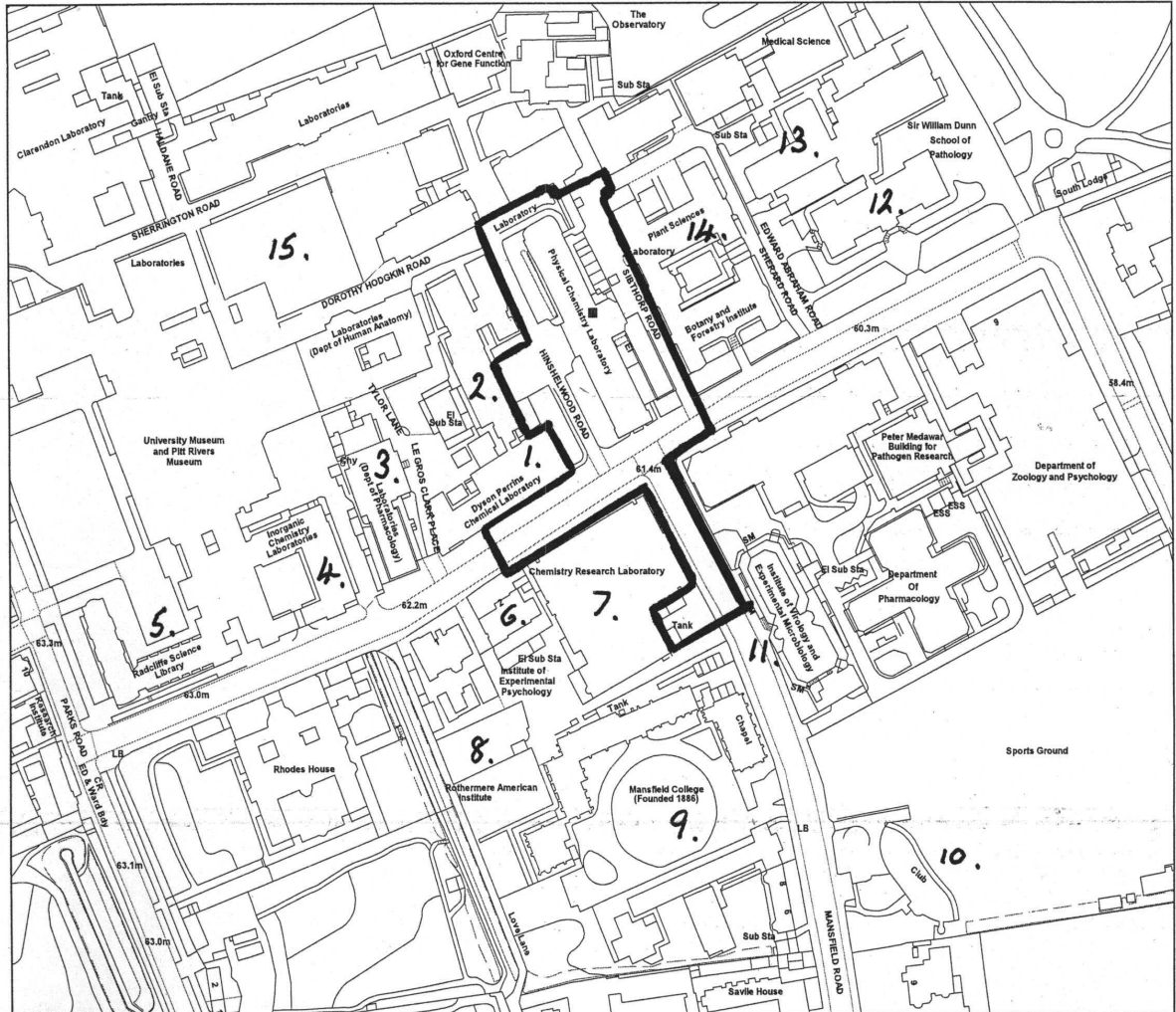
- Significantly improved accommodation for the University Chemistry department enabling it to maintain and expand its international reputation.
- A notable and impressive new building at a key location at the junction of South Parks Road and Mansfield Road.
- Significantly improved pedestrian access into and through Science Area.
- Safe means of moving people between different buildings in the department through the tunnel and using the "shared surface".
- Improvements to highway safety generally as a result of the shared surface.
- Removal of an untidy and ugly service yard and gas tanks on Mansfield Road.
- Very greatly improved legibility for visitors by making the entrances to

# Chemistry (CRL2), South Parks Rd.

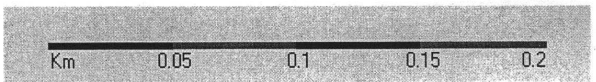
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GIS by ESRI (UK)



- Legend**
1. Dyson Perrins.
  2. Centre for the Environment.
  3. Earth Sciences.
  4. Inorganic Chemistry.
  5. Radcliffe Science Library.
  6. Statistics.
  7. Chemistry Research Building (CRL1).
  8. Rothermere Institute.
  9. Mansfield College.
  10. University Sports Club.
  11. Tinsley Building.
  12. Sir William Dunn School of Pathology
  13. Oxford Molecular Pathology Institute
  14. Plant Sciences.
  15. Biochemistry.



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Organisation	Not Set
Department	Not Set
Comments	Not Set
Date	31 May 2011
SLA Number	Not Set