



# UNIVERSITY OF STIRLING CAMPUS MASTERPLAN

A CHANGING PERSPECTIVE



UNIVERSITY OF  
STIRLING

# FOREWORD

## EDUCATION FOUNDED ON INNOVATION AND EXCELLENCE

The University of Stirling Campus Masterplan 2012 provides a compelling strategic vision, central to the University's ethos of innovation, excellence and commitment to serving the needs of society.



Within Higher Education, there is recognition of the important role a campus can play as a place of learning and as an asset to the wider community. Located within the historic Airthrey Estate, the University of Stirling's campus includes an 18th-century castle, Hermitage Wood, a central loch, a golf course and a 50-metre swimming pool. The 330-acre campus, set beneath the Ochil Hills, has become accustomed to receiving accolades: it is described as 'most picturesque', 'a place of idyllic beauty', 'an exceptional place to study and work'.

The University of Stirling is committed to providing a high-quality environment that nurtures life-enhancing student and staff experiences. In 2011 the University needed to determine how future development could be accommodated within the context of a new Strategic Plan, whilst preserving the natural beauty of the campus and improving

the student experience. The University embarked on a major campus planning initiative, which is the most comprehensive since the original Masterplan of 1968.

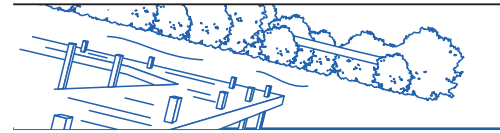
Not all of the ideas will come to fruition, but the plan will act as a blueprint for new creative ideas and solutions over the next ten years and beyond. It demonstrates that growth over the next decades can be accommodated in a way that results in enhanced facilities and infrastructure. It ties the campus together, re-invigorates the landscape, improves the environment, and integrates learning, research, social, sporting and community space. The University's vision and future commitment to this plan will foster a positive transformation.

The plan will ensure that the campus remains one of our most precious assets.

Kerry Bryson  
Director of Development & External Affairs

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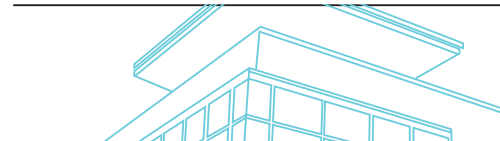
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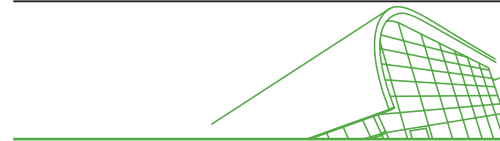
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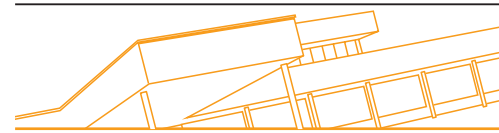
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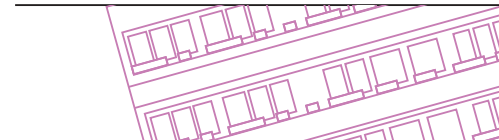
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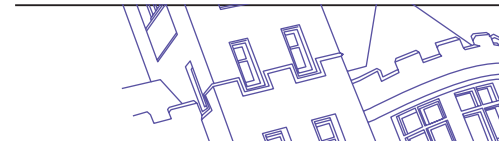
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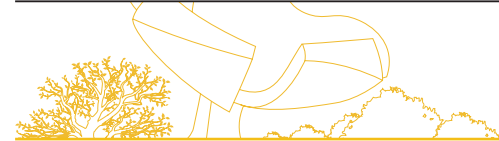
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# CAMPUS MASTERPLAN 2012

## INTRODUCTION

A masterplan provides an overall strategic vision for the long-term development of an estate, based on an organisation's strategic needs and aspirations. It provides a framework for development, including guiding principles and values.

A number of factors determine the timing for this new Masterplan:

- The need for a long-term vision for the estate that complements and supports the new Strategic Plan published in 2012 and the objectives set out within it
- The need to ensure that development projects under consideration, including the redevelopment of a significant proportion of the student

accommodation, are taken forward in the context of an overall vision

- The development of a new Local Development Plan for Stirling, as part of Scotland's overall planning framework, and the need to consider the University's estate planning in the context of the wider neighbourhood and community

Architects Page\Park were under no illusion about the challenge that this presented, given the exceptional piece of estate planning undertaken by John Richards in 1968, which brilliantly integrated the University into the stunning landscape setting of the historic Airthrey Estate. This early planning was a key factor in the campus being designated as one of the most attractive in Europe and for its nomination as one of the top heritage sites of the 20th century. Page\Park did not fail us and have produced an exciting vision for the next 10 to 15 years that provides

opportunities in three main areas:

- Further development and growth of the campus
- The improvement of some current arrangements
- Evolutionary change made possible by the fact that the use of the campus has matured over 40+ years.

This document considers the history that forms the foundation for further planning and then examines ten project areas from the position of the three opportunities identified above. It also considers sustainability and accessibility – two matters that are central to everything that the University does.

Karen Plouviez  
Director of Estates & Campus Services





# THE 1968 PLAN

## NEIGHBOURHOODS AND CAMPUS HUB IN A PARKLAND SETTING

The original 1968 plan was drawn up with key qualities and aspirations in mind and these have informed the creation of the new Masterplan.

In 2012, an important starting point was to fully understand the origins and design ethos of the 1968 plan. Only then could the University respond and build a cohesive and thoughtful direction for the future development of the campus.

Both the original Masterplan documentation and the University of Stirling Campus Conservation Plan (2009) by Simpson & Brown Architects contributed to the thinking.

The original 1968 Masterplan had outlined a compact and continuous campus with buildings that were physically connected within contrasting environments. It also identified the significance of the central defining landscape feature

which was, and still is, a great asset for the University: the loch.

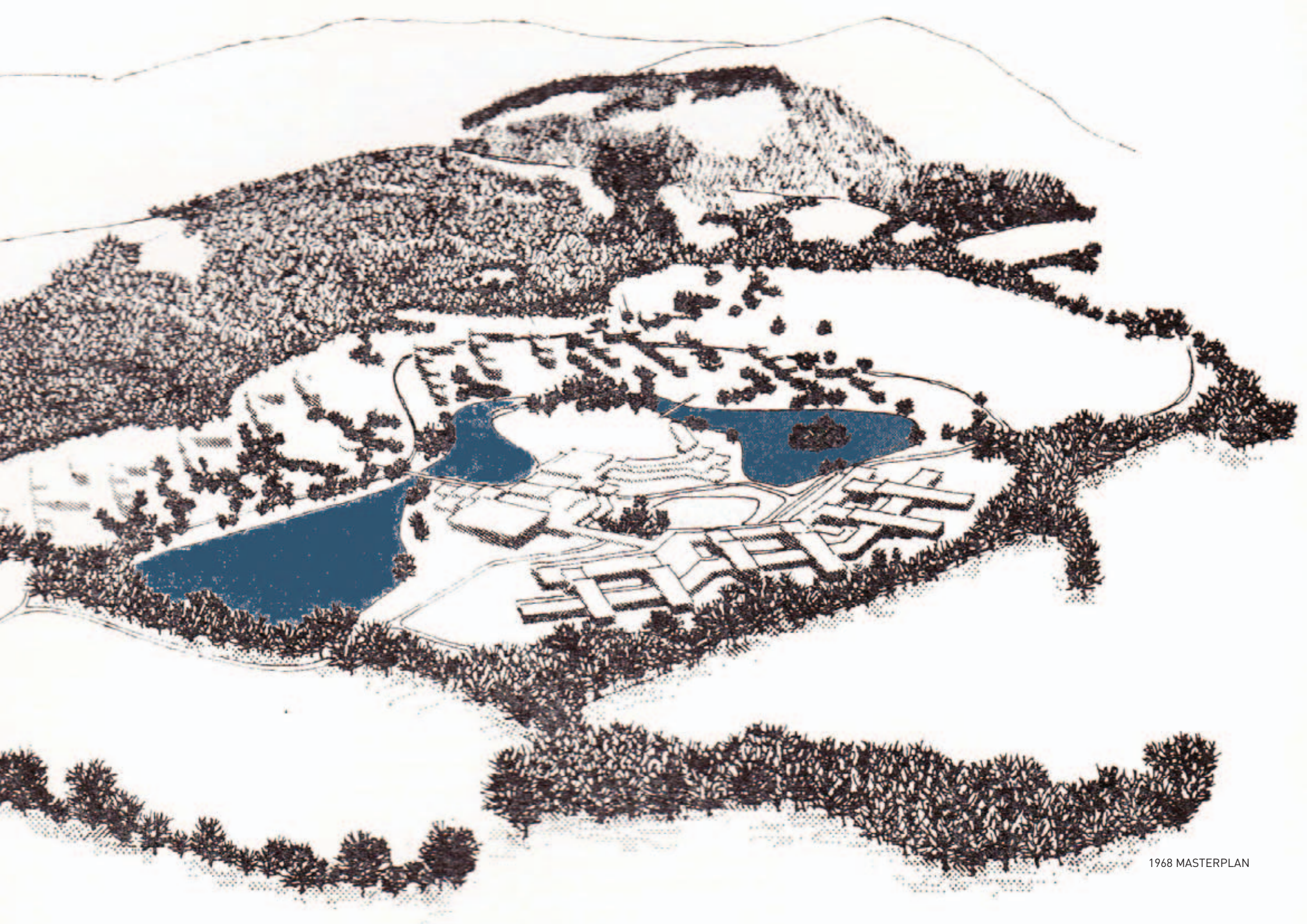
The approach to this current Masterplan is centred around four key issues:

1. Defining and strengthening the loch, the original central 'heart' of the campus, as an active amenity.
2. Reinforcing the original and individual campus 'neighbourhoods' as zones around the 'heart', each with different characters and qualities, but effectively linked.

3. Strengthening the existing Campus Hub, or 'town centre', establishing a clear sense of arrival at the centre of the campus, and also incorporating core social and amenity functions in the Atrium and Queen's Court.

4. Resolving inconsistencies in the landscape, promoting the clarity of the original parkland as a University setting and achieving continuity of management.





# THE HEART

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## THE 1968 VISION

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John Richards, the original campus architect, had a clear vision for the campus: the loch was to be its central, defining characteristic. He firmly believed that this enviable feature should play a key role in influencing the design of the campus as a whole.

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Extracts from the 1994 Interim Development Plan are provided in the following pages, which clearly describe the key qualities and design intent of the original plan:

The Development Plan proposed that the University should develop around the loch. The loch was the most important element in the natural formation of the site; its influence on ground form, views, vegetation and natural drainage was felt across the entire Estate.

The site was outstandingly attractive in landscape terms. It is extended to some 300 acres (some 120ha) of mature parkland and a further 63 acres (25ha) of adjacent woodland. Airthrey Castle was built in 1791 to a design by Robert Adam and the Estate had been landscaped early in the 19th century.

The grounds contain a large artificial loch curving around two small hills in the centre, carefully arranged ground slopes, shelter belts and clusters of trees.

When the Castle was extended at the end of the last century, groups of conifers were added to the original classical landscape. The loch, with its islands, was central to the landscape within the Estate's walls. The greater part of the site rose from the shores of the loch in an irregular bowl. From the upper part of these slopes there were clear views across the loch to the opposite shores and the backdrop of the surrounding hills. Elsewhere the detailed ground forms and planting had been arranged with subtlety to give views of varying openness.

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UNIVERSITY OF STIRLING INTERIM  
DEVELOPMENT PLAN 1994

(JOHN RICHARDS ASSOCIATES, IAN WHITE  
ASSOCIATES, JMP CONSULTANTS LTD)





Bridge of Allan

A9

Allangrange

Hermitage Wood

Kenilworth Road

Staff Housing 1

Phase 1

Residences

Staff Housing 3

Burgh boundary

West Lodge

Airthrey Castle

East Lodge

Pavilion and Sports Centre

Studies

Shops

Staff Centre

Residences

Library

MacRobert Theatre

Student Association

Playing Fields

Arts

Teaching Buildings

Sciences

Playing Fields

Airthrey Road

Hillfoots Road

Heavy Labs. etc.

Boiler House

Staff Housing 2

Substation

A997



# CAMPUS NEIGHBOURHOODS

## THE 1968 VISION

With the loch identified as the central feature, the functional areas of the campus (the residences, the bridge across the loch, the University centre and academic buildings) could be placed from north to south.

The Development Plan proposed that the main teaching and research areas would be planned as a compact and interconnected group on an area of moderate slope to the south of the loch. The buildings would be connected under cover with the library area and pedestrian routes on the promontory. (1)

Student residences would be grouped on the sunnier, south- and west-facing slopes to the north and east of the loch. The residences' buildings would step down the contours to allow a fairly high density without the need for lifts, and to open up most of the rooms to sunshine and views, usually over water, to the buildings on the opposite shore. The residences would be seen as light buildings against a dark backdrop of trees. The density of the residences was calculated to provide sufficient

residential accommodation for the 3,000 FTE (full-time equivalent) population (2,000 students in residence) along the north shore of the loch, with further provision to the 6,000 FTE stage on sites to the east of the loch. (2)

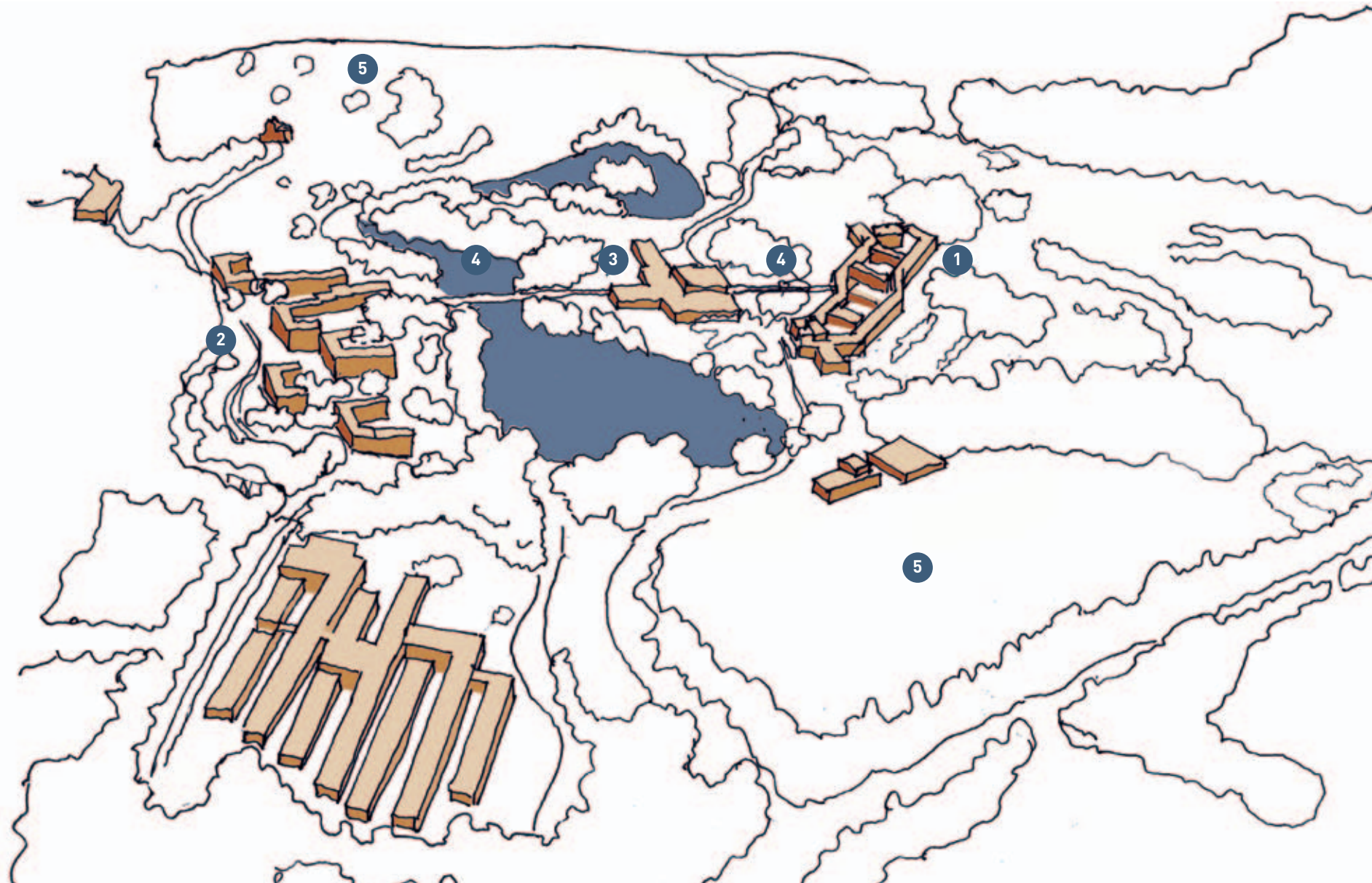
The library, study centres, arts centres, social buildings, shops and (it was thought at the time) a central administration building would be grouped together on the two promontories jutting into the loch. The ground form on this part of the site was particularly varied, and it was recognised that sites of individual character could be found close together, offering interesting architectural possibilities. The main routes from the residential areas to the teaching areas would cross this central precinct, giving it significance as the focus of community life. (3)

Subsequently, these routes were planned, like the main routes within the teaching building, to run at a single constant level, bridging the valleys and allowing covered connections between all the main activities. (4)

The flatter areas of the site were reserved for playing fields, to minimise earth moving. Buildings were to be on moderate slopes which could be accommodated relatively easily. Long buildings, such as the teaching buildings, were to run along contours. The residences were to step down across contours. The steepest slopes were avoided. (5)

UNIVERSITY OF STIRLING INTERIM  
DEVELOPMENT PLAN 1994

(JOHN RICHARDS ASSOCIATES, IAN WHITE  
ASSOCIATES, JMP CONSULTANTS LTD)



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## THE ORIGINS OF THE LANDSCAPE SETTING

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Understanding the origins and design principles behind the original campus is vital. It is also important to fully appreciate the history of the parkland in which the University is set.

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The University was developed within the parkland of Airthrey Castle.

The Estate comprises a beautiful assemblage of craggy woodland and rolling parkland containing a large, sinuous loch. The Castle surveys the grounds and the carselands to the east from an elevated position deep within the Estate; it is reached by a carriage road from lodge gates at the eastern and western limits.

The Castle was built in 1791 and the grounds remodelled in 1798. Thomas White, a former pupil of Lancelot 'Capability' Brown, designed the grounds following the picturesque fashion of the time. The design is characterised by naturalistic informality of tree planting in clumps and belts, subtle accentuation of landform, the formation of a large artificial loch and setting the new house directly into the parkland, without mediating formal gardens.

In the late 19th century, the grounds to the north and east of the Castle were enriched with exotic conifers, rhododendron and other non-native plants typical of the contemporary fashion for arboreta. The fundamental character of the Estate remained unchanged until the University of Stirling was established.

The response to and respect of this historic landscape setting is a fundamental aspect of the new Masterplan. Preservation and management of the character of the parkland setting is an essential component.

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Yellowraig Wood

Hermitage Wood

Airthrey Castle

Church

Spittal Hill

Crampton Cottage

Craigston

Poor's House



# 2012 MASTERPLAN: CORE THEMES

An examination of the intentions of the 1968 Masterplan was carried out together with a study of the evolution of the campus and recent developments.

The following core themes emerged, which define the approach to the 2012 Campus Masterplan:

## ESTABLISHING THE LANDSCAPE HEART

The University needs to establish and activate the landscape setting, focused on the loch as the physical and psychological 'heart' of the campus.

## DEFINING THE ENTRANCE

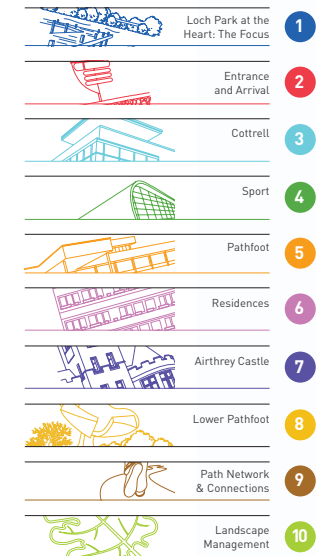
The University needs to create a stronger and more identifiable entrance at the Campus Hub, as well as a clear entry sequence leading to the heart of the campus.

## IMPROVEMENT AND GROWTH

The University needs to identify opportunities for improvement and growth within the campus that respond to, and strengthen, the principles of the original Masterplan and its 'neighbourhoods'. Such opportunities need to embrace known constraints, as well as looking to the wider setting of the campus within the context of both its immediate surroundings and the city of Stirling.

This approach means that the campus can evolve and grow over time with each 'neighbourhood' retaining its beautiful parkland setting. This allows the University to respond to opportunities and needs as they arise, but ensures that future developments are anchored around a clarity of identity. The approach generates a flexible but coherent strategy for continuing improvement and growth.

The study of the core themes has identified ten key project areas, complemented by a wider campus growth strategy.





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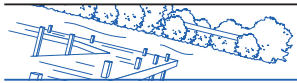
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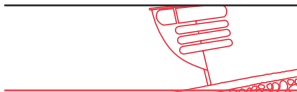
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# 2012 MASTERPLAN: KEY PROJECTS



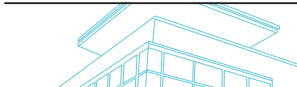
Loch Park at the heart: the focus

1



Entrance and arrival

2



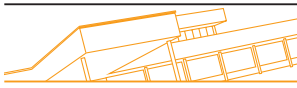
Cottrell

3



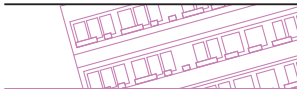
Sport

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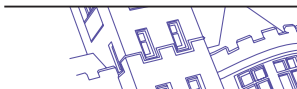
Pathfoot

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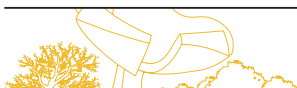
Residential accommodation

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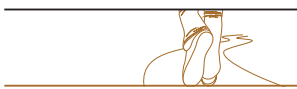
Airthrey Castle

7



Lower Pathfoot

8



Path network and connections

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Landscape management

10







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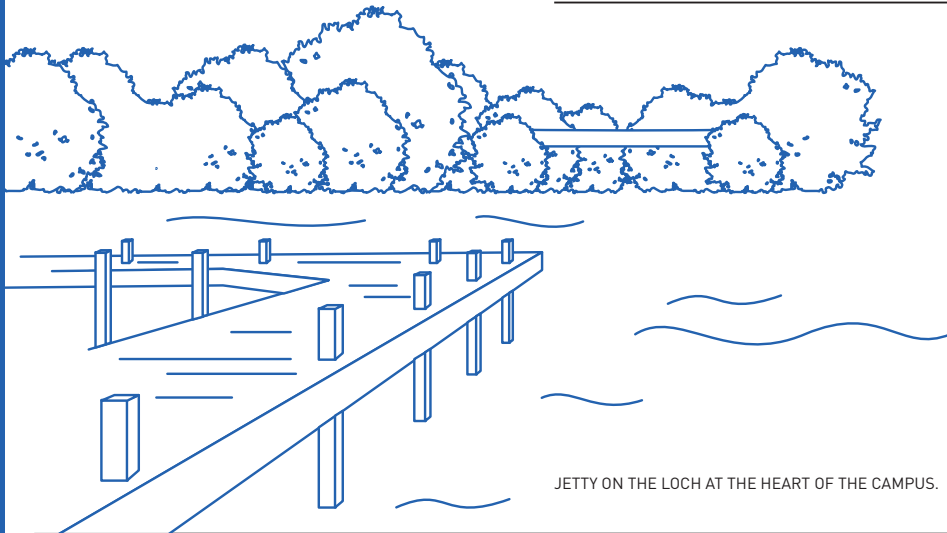
# LOCH PARK AT THE HEART

## THE FOCUS

The loch and valley create a unique, central bowl around which the University campus is draped. It is a key attribute that plays an important role in the mental visualisation of the campus.

However, the majority of the buildings sit considerably higher than the level of the water. The resulting physical separation is further accentuated by the fact that there is little or no functional reason to engage with the loch. The loch and landscape have become areas to pass through or look at they may be considered as merely decorative, rather than functional, assets.

Unlocking the potential of these assets is a central driver for the 2012 Masterplan.



JETTY ON THE LOCH AT THE HEART OF THE CAMPUS.





LOCH AS EXISTING

# LOCH PARK AT THE HEART

## ACTIVATING THE FOCUS

Areas at the edge of the loch could be transformed to stimulate and enhance the impact of the natural setting.

In isolated areas the changes could be subtle and discreet, while other areas could become key linking routes between neighbourhoods. These areas have the potential to accept more radical intervention, especially those fronting the loch edge.

A number of areas have been identified:

- A** Campus Hub loch edge-setting – a new external civic space/route fronting the loch and linking the Court building, library, Atrium and bridge over the loch to the residences.
- B** Loch west edge – the potential for pavilion/board walk/active edge as a link between the Campus Hub, Sports Centre and Pathfoot. The clearance of shrubbery will open views to the loch.
- C** George Forrest Walk – thinning of the loch-side trees to form a strong connection between the loch and residences, potentially introducing more sculpture and recreation niches.
- D** Bridge – the refurbishment and lighting of the bridge as a piece of architectural sculpture. The reworking of settings at the north and south ends to improve links to the loch-side.
- E** Airthrey Castle foreground – the thinning of loch-side trees to reveal the Castle and exploit the south-facing embankment, with the potential for featuring new and existing sculptures.
- F** Loch south-east edge – the potential for a pavilion/formal loch-side setting, (to mirror the west edge), acting as a link between the Campus Hub and a possible new development site.
- G** Small loch and Queen's Court – the potential for landscape art installation to connect the smaller loch with a re-conceptualised Queen's Court area.
- H** Peninsula wood – the potential for subtle art/sound installation within the wooded loch-side setting.



A

B

C

D

G

H

E

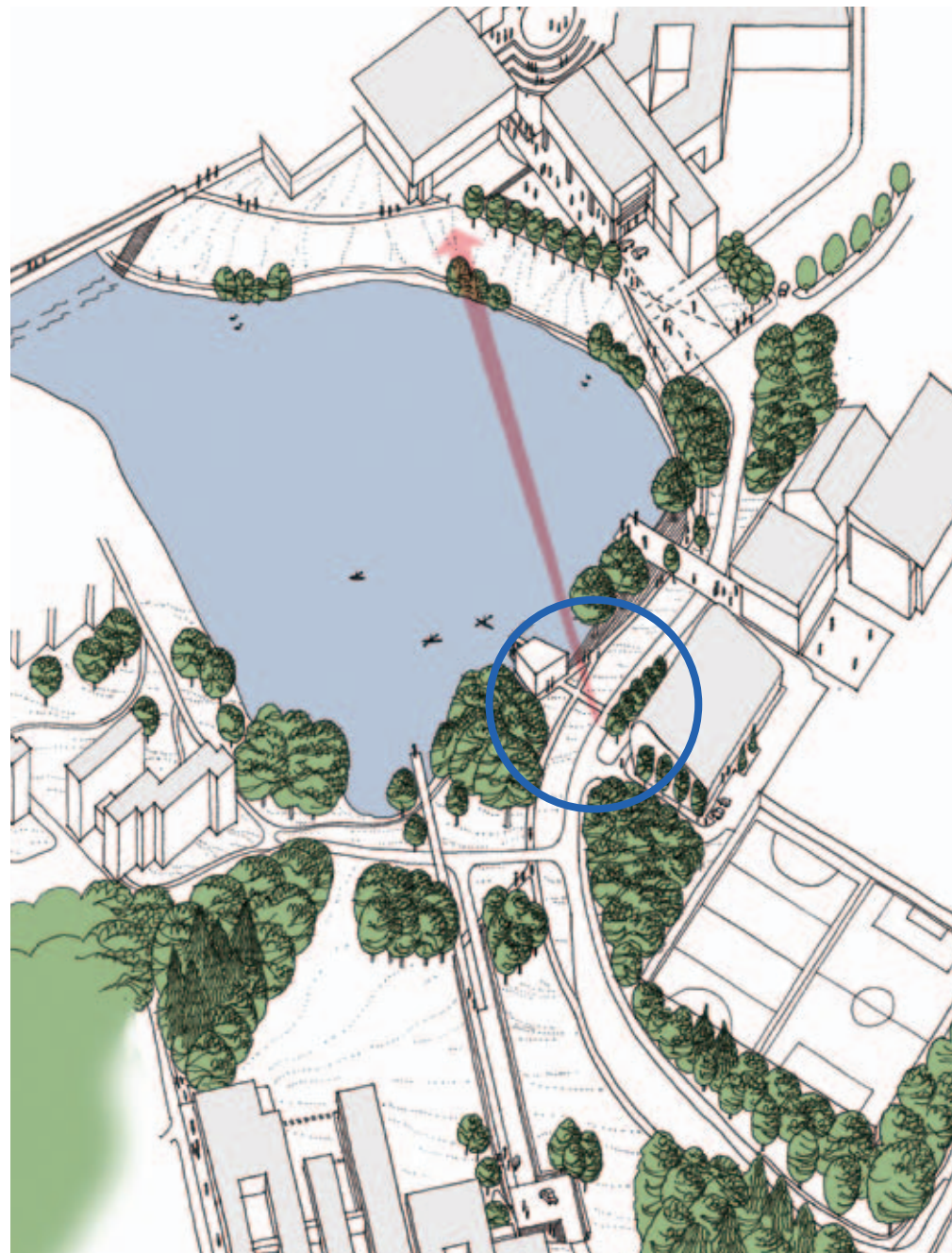
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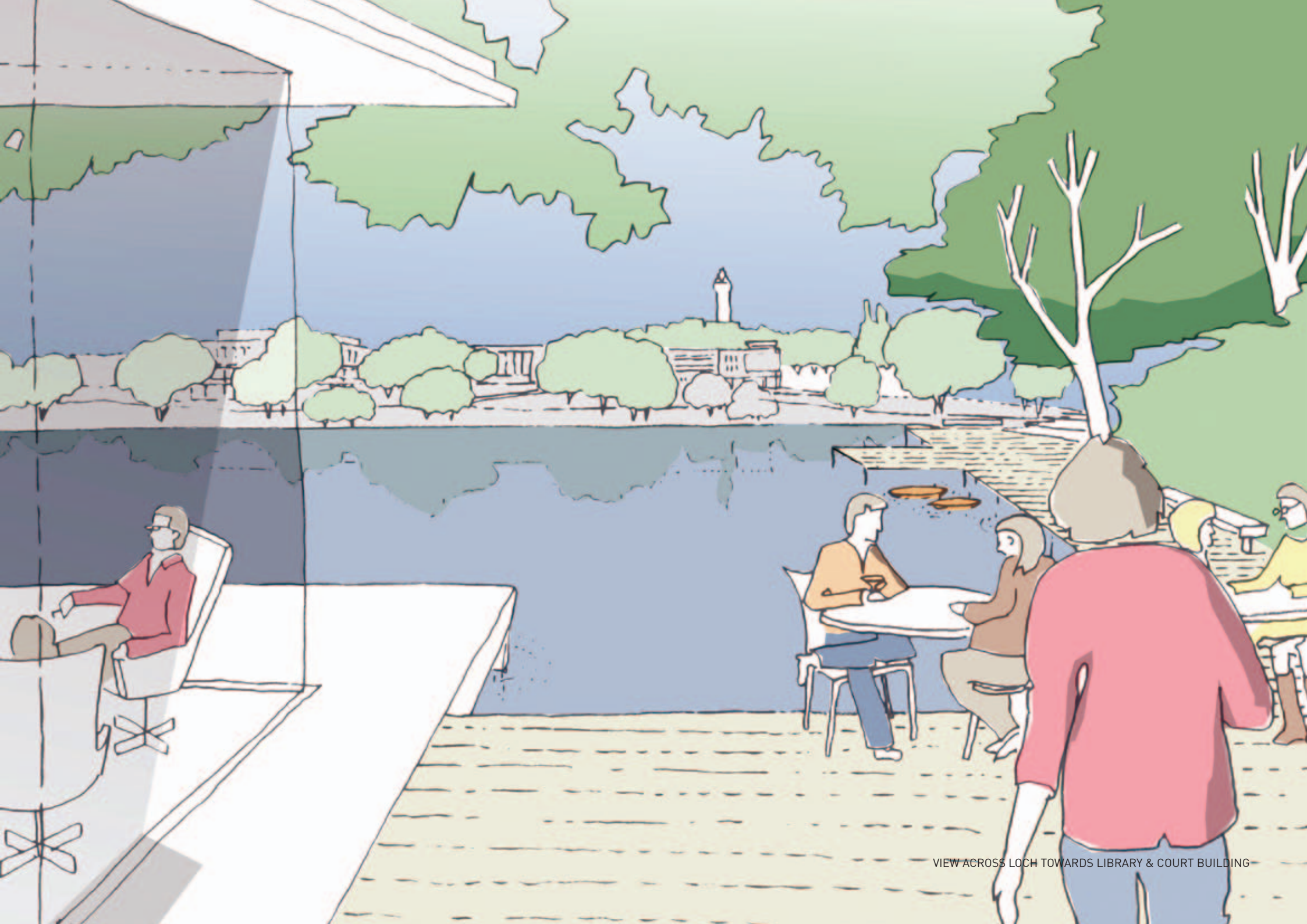


ACTIVATING LOCH PARK AT THE HEART

# LOCH PARK AT THE HEART

## ACTIVATING THE FOCUS





VIEW ACROSS LOCH TOWARDS LIBRARY & COURT BUILDING

# ENTRANCE AND ARRIVAL

## APPROACH, ARRIVAL AND ENTRANCE

The approach to, and sense of arrival at, the University is sometimes impressive. At other times it is confusing.

The journey through the historic boundary wall (1), past the security point (2), Sports Centre (3) and arrival at Queen's Court (4) requires careful consideration.

The initial impression of the University from the main entrance in Airthrey Road is quite defensive. The historic and protected stone boundary wall is not welcoming. Consideration should be given to improvements that would erode the sense of enclosure and improve the visitor welcome.

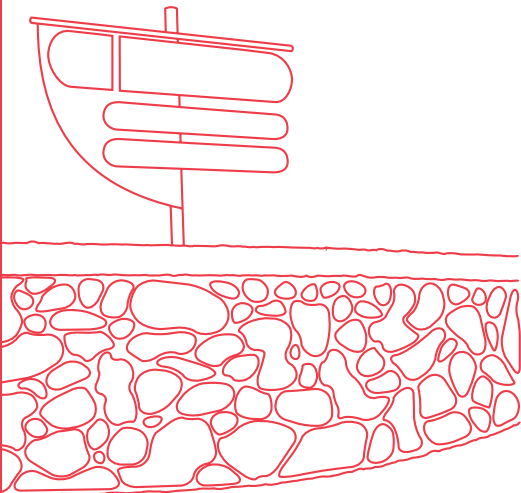
Currently, the entry sequence and resulting sense of arrival is compromised by the rise up to a high point at (A) followed by a descent into Queen's Court. It is never recommended to go up and then down before reaching a primary point of arrival. Entry into any University building from Queen's Court involves a flight of steps and the access points are neither visible or easily accessible.

The multiplicity of entrances available – none clearly expressing itself as the formal main entrance to the University – adds to the confusion. Where do you go as a visitor?

The logical response would be to create a main arrival point at the highest level of the entrance sequence (A) outside the Cottrell building,

before the road slopes down into Queen's Court. Significantly, this would give views to all key areas of the campus and would act as a visual point of orientation. This space could be considered as a conceptual interpretation of the esplanade at Stirling or Edinburgh Castles.

Crucially, the level of the new arrival plateau is at approximately the same level as the bridge link between the Andrew Miller and Cottrell buildings. It would therefore be possible to create a flat link alongside the library which would provide entry to the Andrew Miller building at the primary



MAIN ENTRANCE



1 2

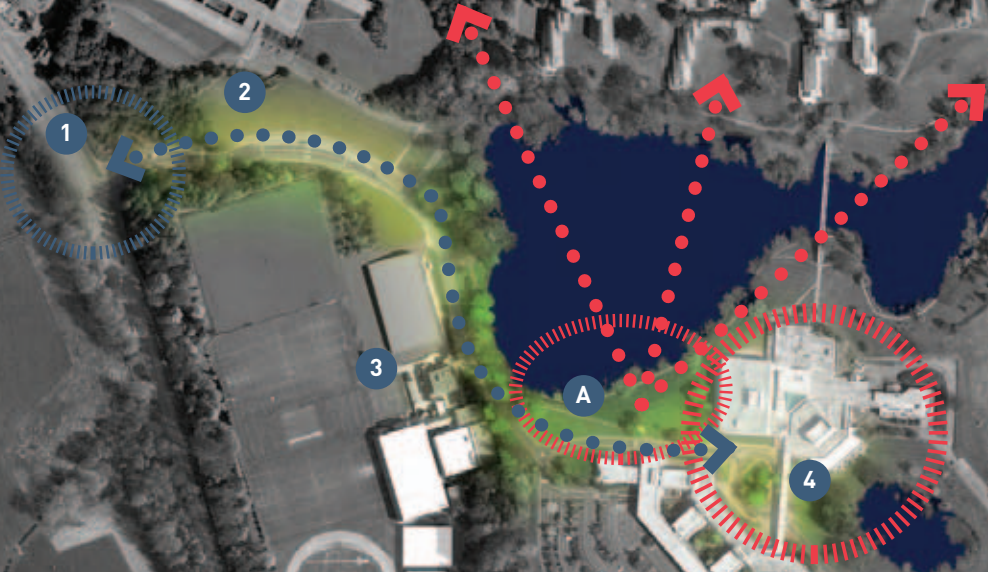


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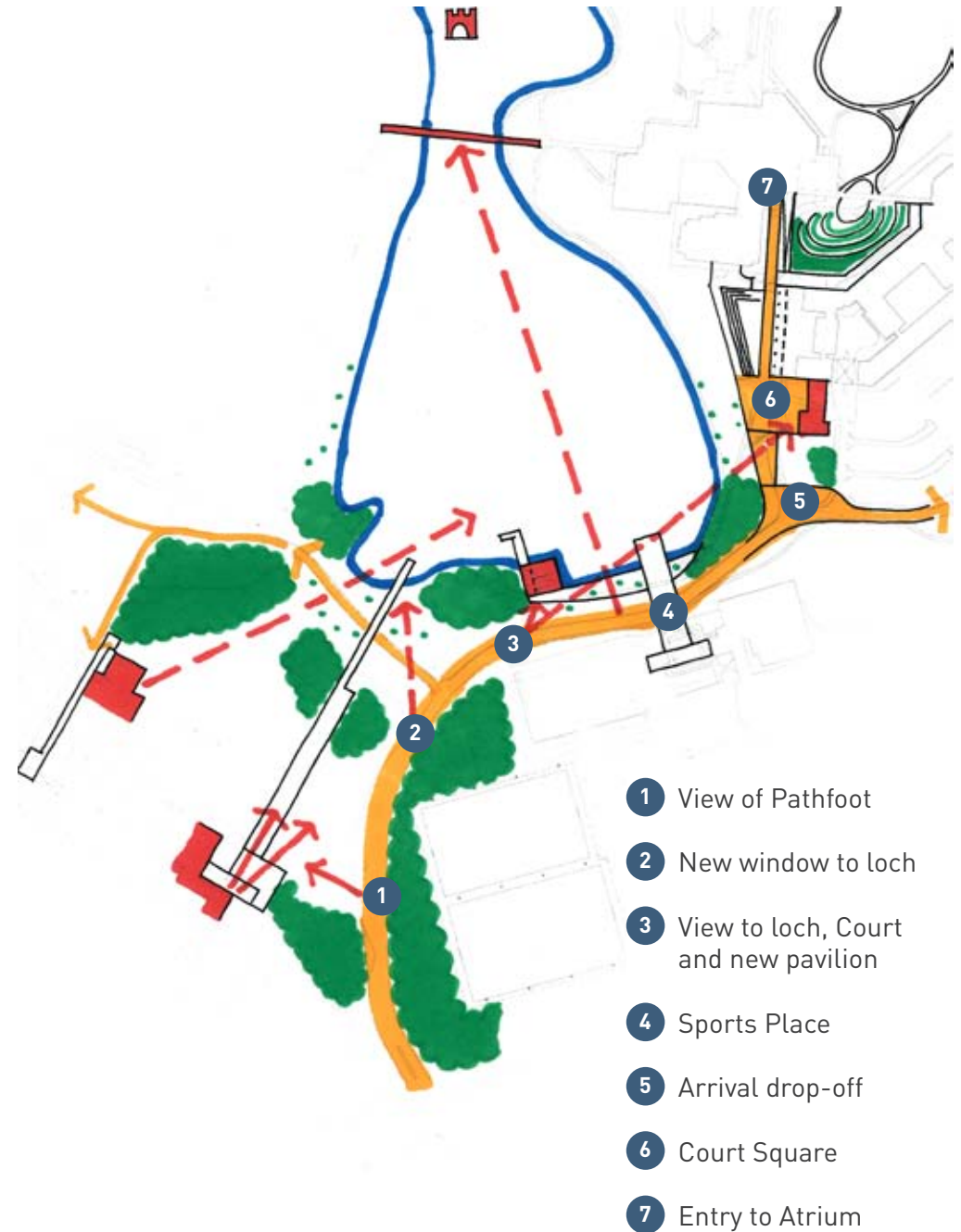


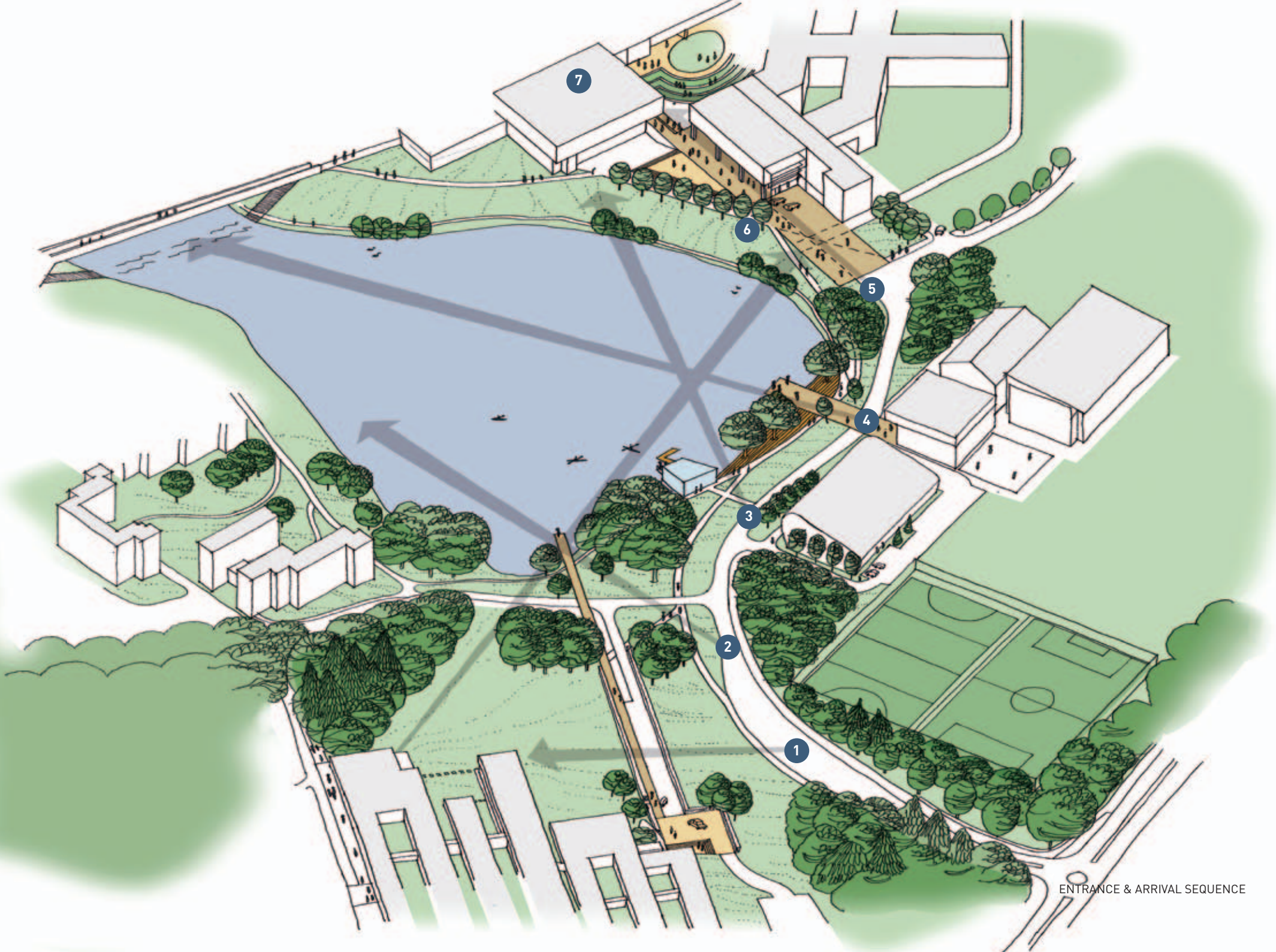


EXISTING ARRIVAL SEQUENCE

# ENTRANCE AND ARRIVAL

## APPROACH, ARRIVAL AND ENTRANCE

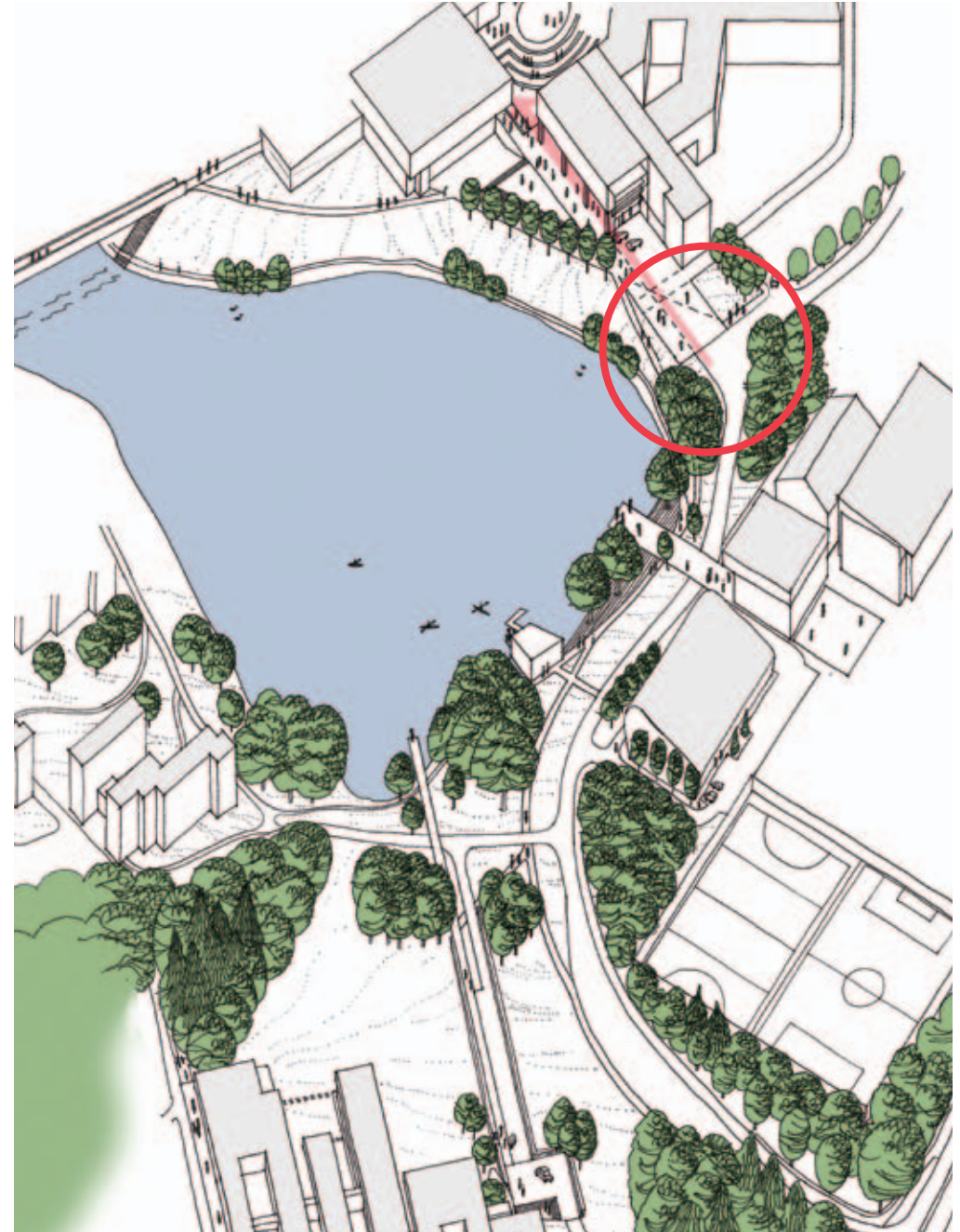


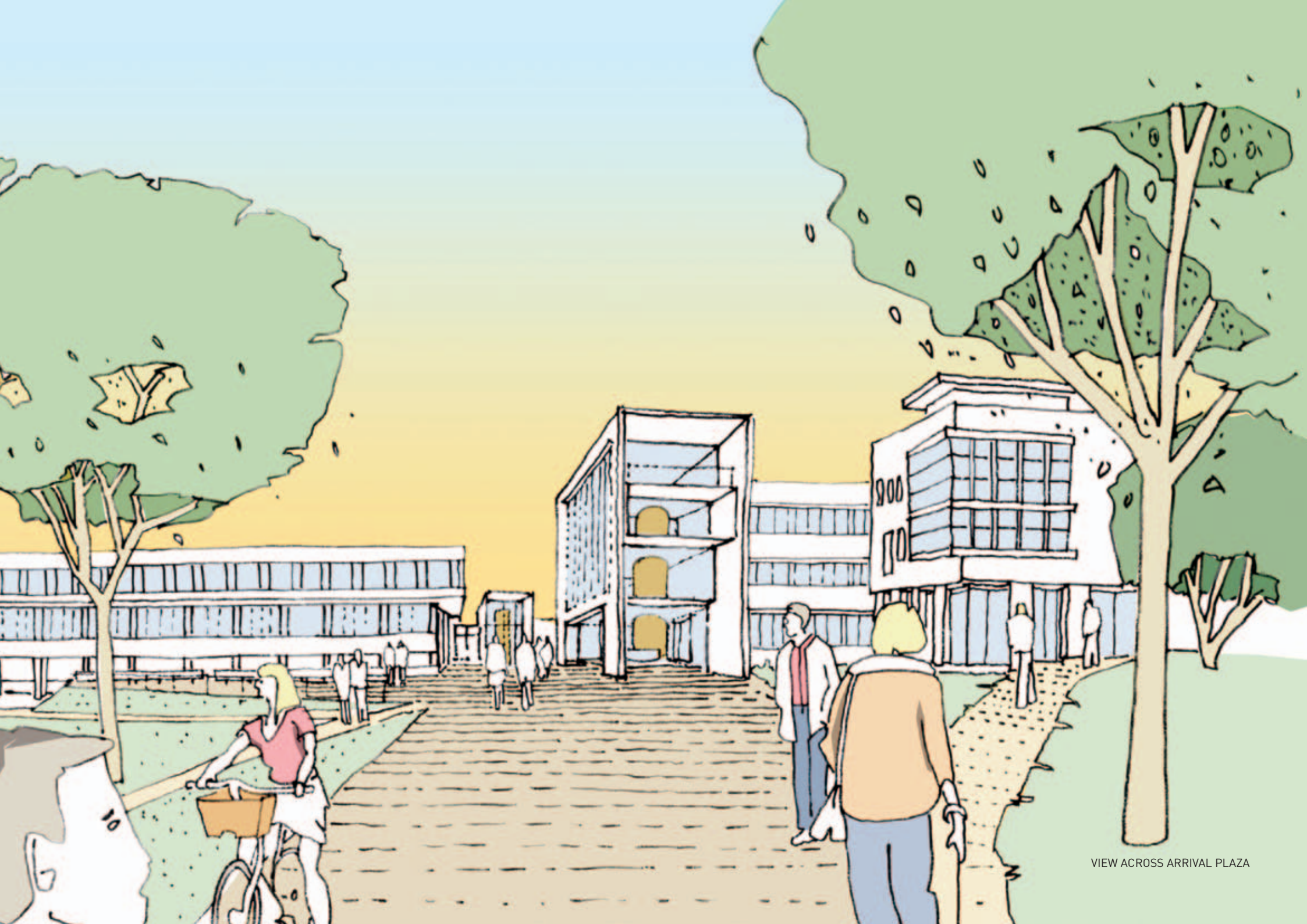


ENTRANCE & ARRIVAL SEQUENCE

# ENTRANCE AND ARRIVAL

## APPROACH, ARRIVAL AND ENTRANCE





VIEW ACROSS ARRIVAL PLAZA

# ENTRANCE AND ARRIVAL

## APPROACH, ARRIVAL AND ENTRANCE

circulation level.

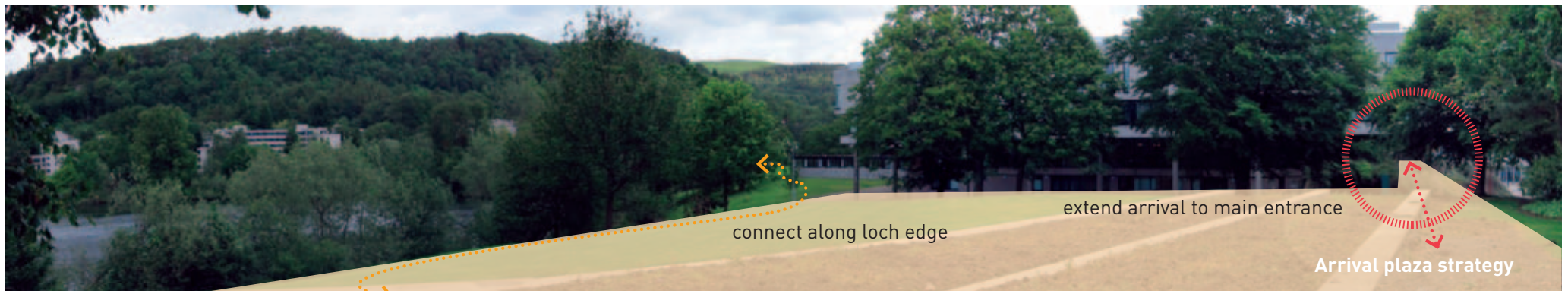
The strategy of a new arrival space to act as a bookend to Cottrell would establish an interesting series of stepped edges facing the loch.

This would create and link a clear arrival point to Cottrell, the library, the Atrium and the bridge to the residences.

The new diagonal link fronting these core University areas would play an important role in activating the new physical and psychological heart of the University – the Loch Park. Core functions would include:

- 1 Management Hub
- 2 Arrival Hub
- 3 Private Learning Hub
- 4 Social Learning Hub

A building in this location would offer an unrivalled opportunity to create a clear architectural statement of 'University Entrance', whilst combining clear, level routes into the Cottrell building and the Atrium.

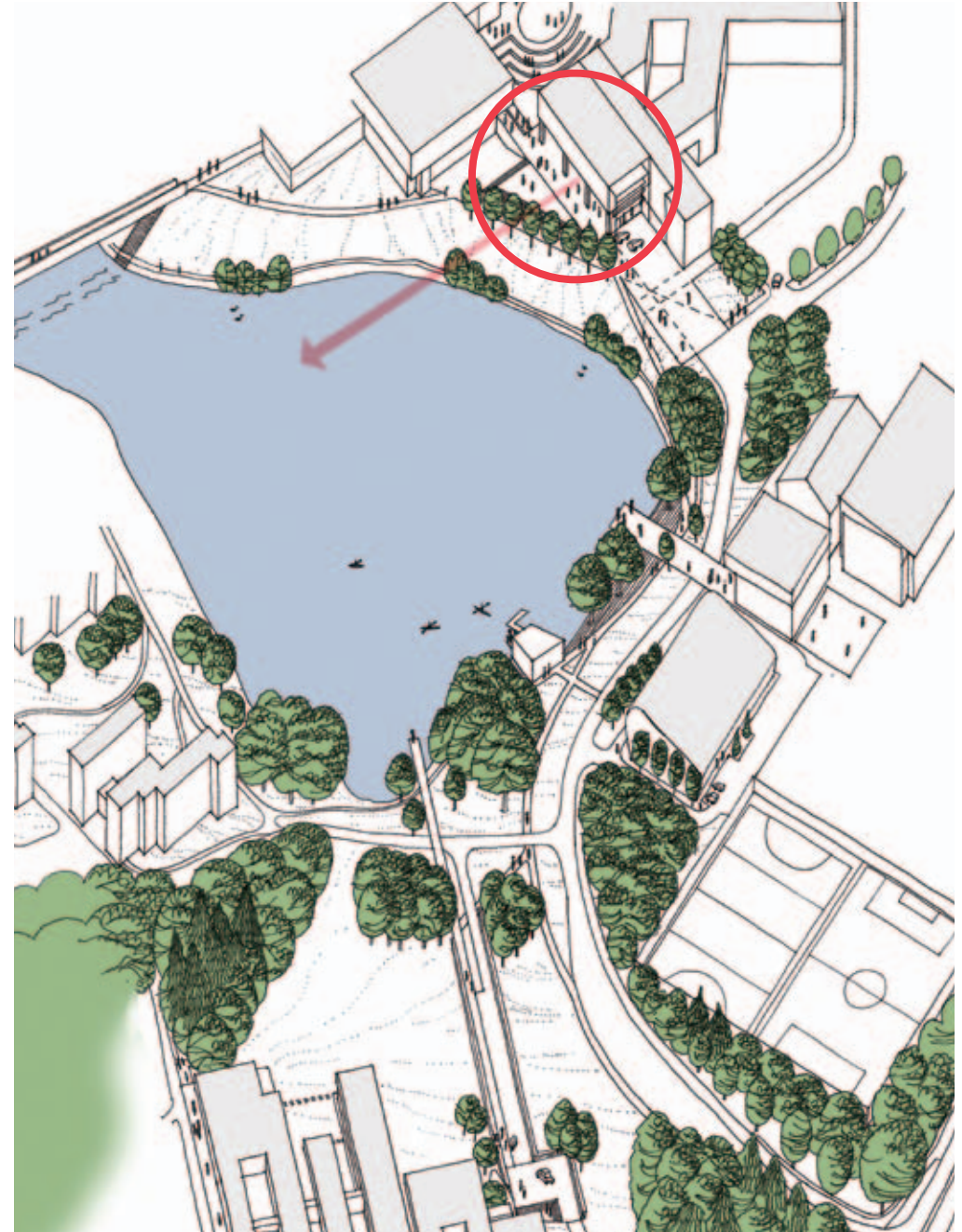




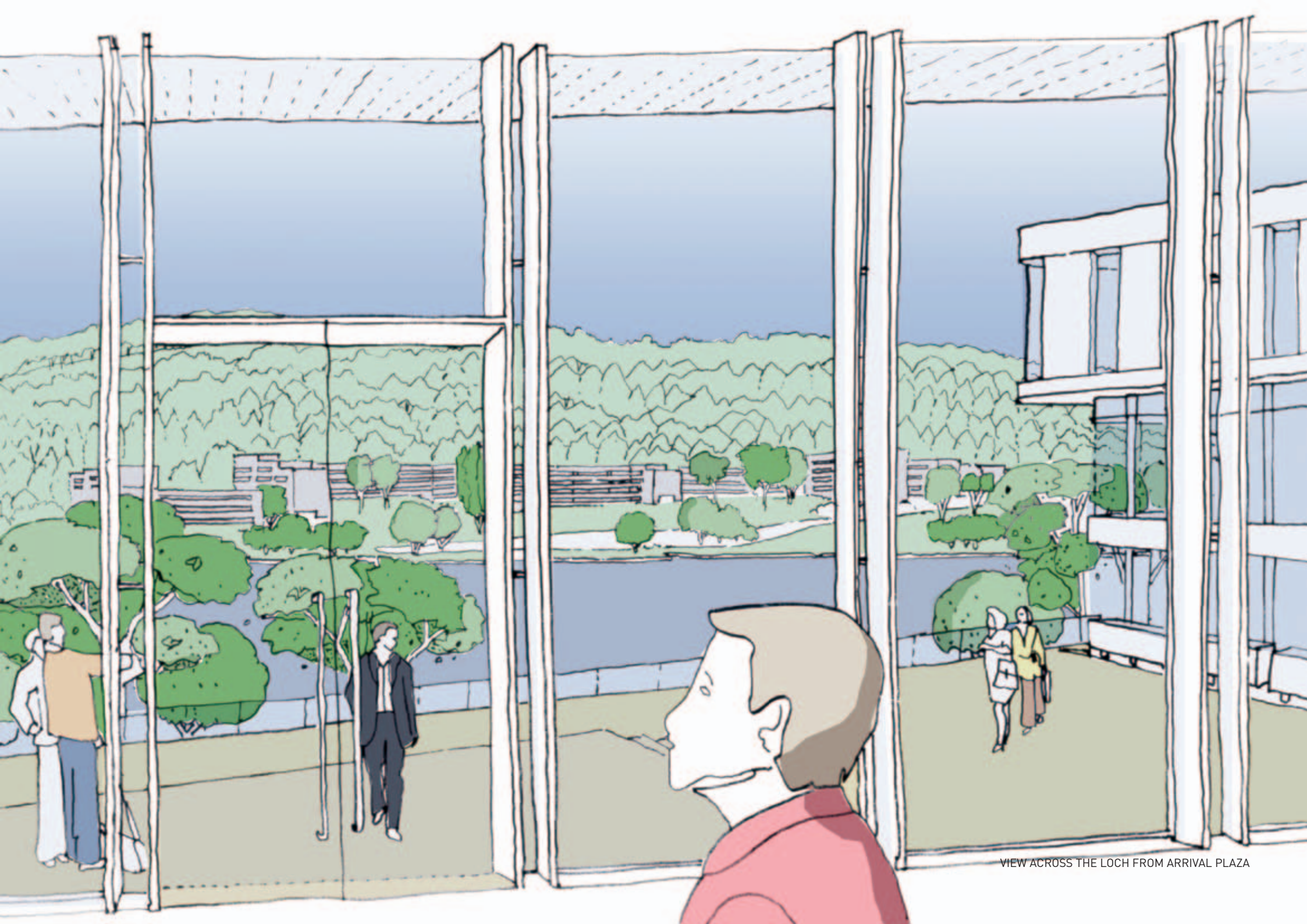
ARRIVAL PLAZA STRATEGY

# ENTRANCE AND ARRIVAL

## APPROACH, ARRIVAL AND ENTRANCE







VIEW ACROSS THE LOCH FROM ARRIVAL PLAZA

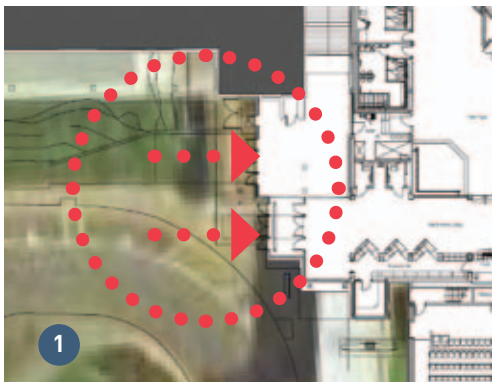
# ENTRANCE AND ARRIVAL

## CAMPUS HUB

The entrance into the Andrew Miller building from Queen's Court lacks any sense of urban presence. The dual, separated entrances into the **macrobert** and the Atrium are confusing for users.

A re-configuration of the entrances into a new, double-height, single space would clearly identify the access to both buildings. By visually and physically linking the approach to the Atrium from the new arrival plateau (approximately at the same level as the first floor bridge and the Atrium), the main entrance

of the building can be re-ordered with primary access at this upper level, with an option to descend into Queen's Court. This would strengthen the sense of entrance and arrival to the key Campus Hub complex which contains the Atrium and the refurbished library.



EXISTING ANDREW MILLER AND MACROBERT ENTRANCES



VIEW TOWARDS ANDREW MILLER / MACROBERT ENTRANCE



margrobert

ANDREW MILLER / MACROBERT ENTRANCE

# ENTRANCE AND ARRIVAL

## CAMPUS HUB

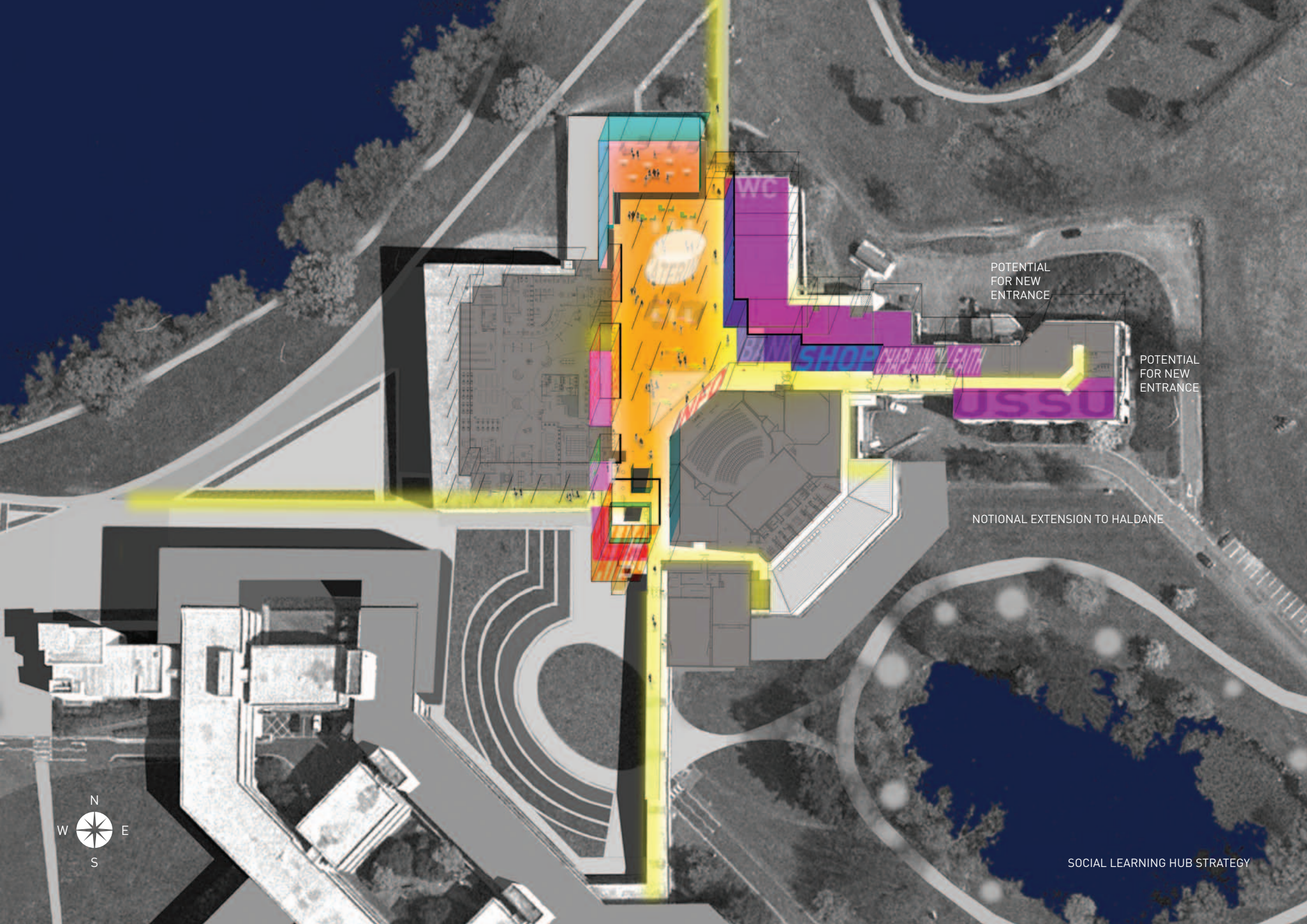
Following the library refurbishment, the Atrium has been the subject of a more detailed study. The aim is primarily to consider how this space could be transformed into an inspiring, new and vibrant social learning facility.

The Atrium is a pivotal space. It connects the main University arrival plateau to the west, Cottrell to the south (via the link bridge), the residences to the north and the Students' Union to the east. Accessed via the re-configured southern entrance, and northern entrance at the bridge, the Atrium currently provides a mix of catering and commercial facilities within an environment which lacks identity. More focused learning space is provided in the library. An extended platform to the north would open up views towards the loch, transforming what is currently a completely internalised environment.

This re-configuration would link the Social Learning Hub to the Loch Park at the heart of the campus.



THE ATRIUM AS EXISTING



POTENTIAL FOR NEW ENTRANCE

POTENTIAL FOR NEW ENTRANCE

NOTIONAL EXTENSION TO HALDANE



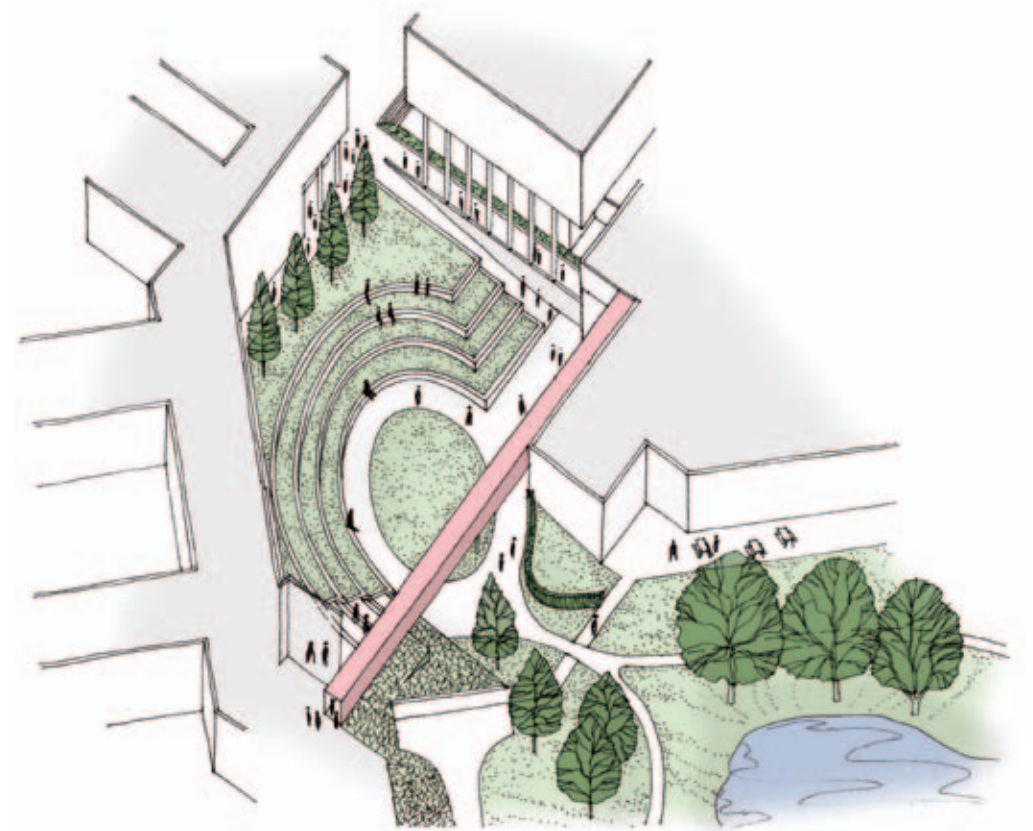
# ENTRANCE AND ARRIVAL

## QUEEN'S COURT CAMPUS GREEN

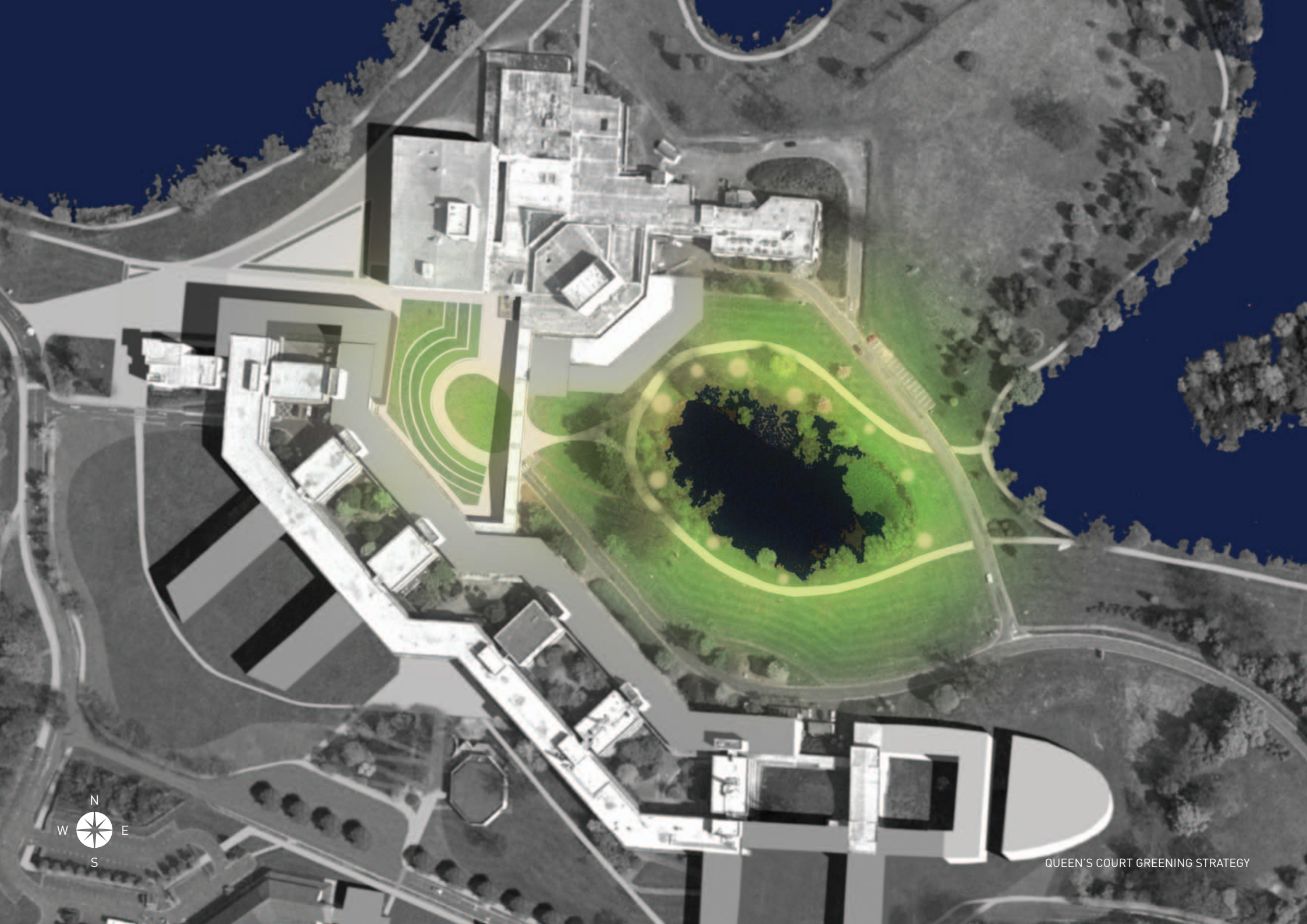
A new arrival strategy for the central hub of the University would allow Queen's Court to be transformed into a south-facing Campus Green.

This would provide the opportunity for a series of terraced landscape cascades from the arrival plateau into an 'amphitheatre' set opposite the Atrium/**macrobert** entrance. The landscape would sweep under the bridge linking the Cottrell building to the Atrium, and sweeping around the small loch.

Crucially, Queen's Court would become an extension of the internal hub within the Atrium, providing an external social hub linking the Atrium/**macrobert** complex with Cottrell at ground level. Most importantly, it would be pedestrianised.

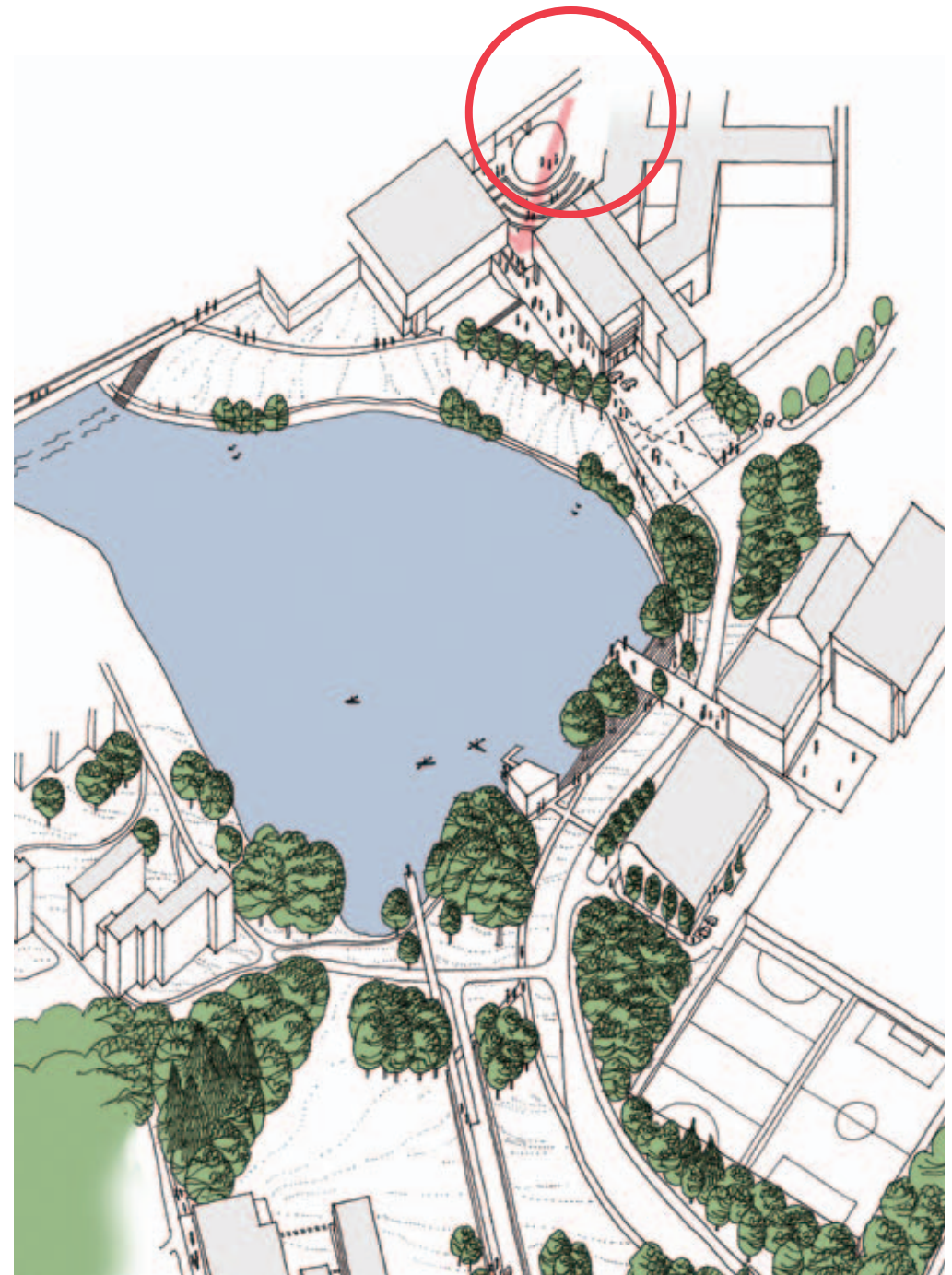


QUEEN'S COURT CONCEPT



# ENTRANCE AND ARRIVAL

## QUEEN'S COURT CAMPUS GREEN







# ENTRANCE AND ARRIVAL

## TRAFFIC AND PARKING

At the moment, the primary traffic route through the southern half of the campus severs the Cottrell building from the Atrium/**macrobert** complex and Loch Park heart.

The first-floor link bridge goes some way to overcome this, but the opportunity exists to move the primary transport route to the south of Cottrell by rationalising the roads around the existing car parks.

The bus drop-off would be moved to a new location adjacent to the Logie Lecture Theatre, which would reinforce the southern entrance to Cottrell as the primary, everyday access route to the teaching accommodation within this building.

The alteration would enable Queen's Court to be re-conceptualised as a pedestrian-focused University garden, or green, that could be used for events, performance and social learning.

The main priorities for a new traffic strategy should be as follows:

- 1 Reducing traffic flow through the central campus
- 2 Making Queen's Court a pedestrianised civic and garden space
- 3 Clarifying the road network to the south of Cottrell
- 4 Creating a new public transport point south of Cottrell
- 5 Creating a new, everyday 'arrival' space south of Cottrell

One option for rationalising campus parking would be to consider a new structured parking facility to the south side of the campus (6) on the footprint of one of the existing car parks. This could provide shared parking facilities for the University, Stirling Management Centre and Stirling University Innovation Park, whilst releasing space currently used for parking for development and/or landscaping.



1968 PLAN CAMPUS CIRCULATION



PROPOSED CAMPUS CIRCULATION



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TRAFFIC & PARKING STRATEGY

# COTTRELL

## EXISTING

Cottrell is located on the gentle slope to the south of the loch with architecture which responds to the natural lie of the land.

Like Pathfoot, Cottrell is a split-level building, with a lower (1) and upper (2) entrance to the north and south of the building.

Unlike Pathfoot, there is no clear front door to the building. The lower stepped entrance from Queen's Court is associated with the current bus

terminus, while the upper entrance is predominantly used by those arriving by car.

A second stepped entrance from Queen's Court at the lower level provides additional access.

## IMPROVEMENTS

As described earlier, a re-conceptualised main entrance to the south at bridge and Atrium level, with a downgraded lower garden entrance to the north, would give the Cottrell building a formal main door

and a 'back door with a garden'. The remodelling of Queen's Court would incorporate level changes and ramps so that unrestricted access would be provided around the perimeter of Cottrell, linking the existing access points to the arrival plaza and eliminating stepped access.

The existing southern access should be redefined to provide a quality, everyday entrance into Cottrell. A new civic square at this entrance would link with the Logie Lecture Theatre and south to the Stirling Management Centre. In addition, this would allow the nature and function

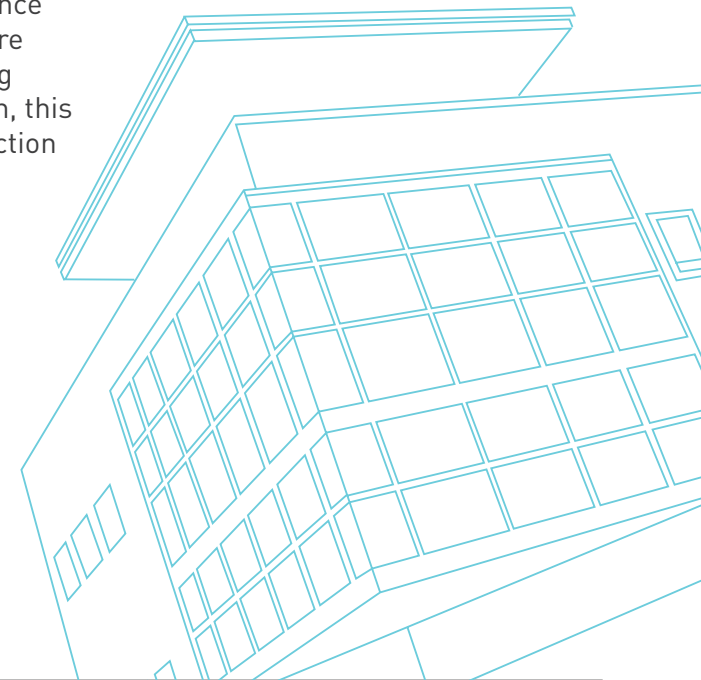
of the open courtyard space between the north/south axial routes between A and B corridors of Cottrell, to be revisited. One option would be to provide a glazed roof to this central courtyard space, providing a central meeting point and additional social learning and breakout spaces.

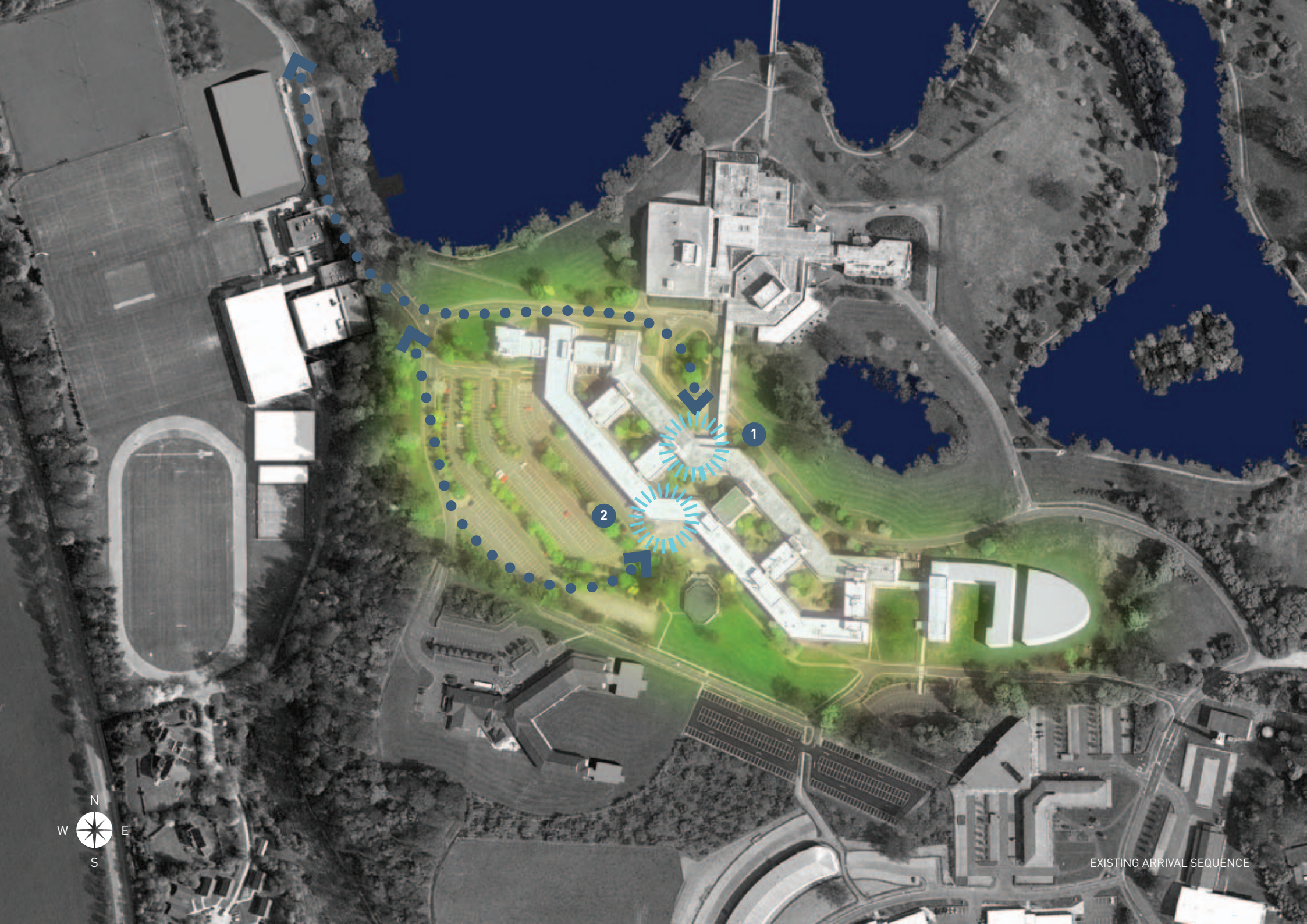


SOUTHERN UPPER ENTRANCE



NORTHERN LOWER ENTRANCE





EXISTING ARRIVAL SEQUENCE

# COTTRELL

## GROWTH

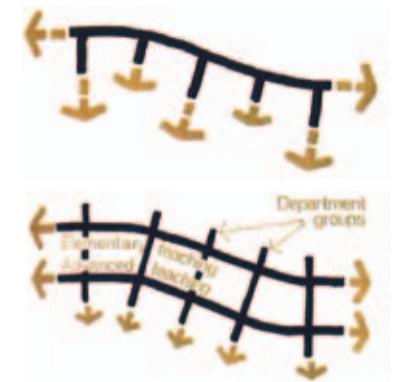
At first glance, the distinctive ladder-form of Cottrell – with its recent additions to the eastern and western ends – would appear to be quite restrictive, with limited possibilities to alter, expand or extend the building.

There are in fact a number of opportunities for growth, giving significant potential for the construction of additional space if space is needed. These include:

- 1 A corridor – the original building was constructed so that an additional floor could be added along the entire length of A corridor on the north-east side of the building.
- 2 New main entrance extension – a new building could be constructed as a bookend to Cottrell, offering a main entrance facility at ground floor, linking directly to the existing Cottrell building, as well as providing a second additional space for administrative or teaching use plus a third-floor level.
- 3 Bomont and Bell gap sites – the possibility exists to infill the gap sites between these buildings on the southern edges to reconnect the new buildings back into the ladder form of Cottrell.
- 4 Southern 'rung' extensions – the original 1968 plan showed the principle of extension of the cross-corridor 'ladder rungs' south and south-west into the space now occupied by the car park. Building in these locations would clearly require the relocation or reduction of car parking, but has the

advantage of maintaining external views and good natural ventilation from the B corridor accommodation, as well as breaking down the defensive wall feel of the Cottrell block form on the southern side.

Initial calculations suggest that these additions could add around 40% to the existing floor area of Cottrell.



1968 PLAN GROWTH STRATEGY

+40%



BUS DROP-OFF

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COTTRELL GROWTH STRATEGY



# SPORT

## EXISTING

The Pathfoot building (1) and the sports complex (2) currently frame the arrival route onto the campus.

The sports cluster has grown incrementally over the years in response to different funding opportunities. This has resulted in a variety of architectural styles marking the campus approach, and the feeling of a circulation bottleneck between the sports buildings and loch-edge (3).



VIEW OF SPORTS AND WESTERN LOCH EDGE

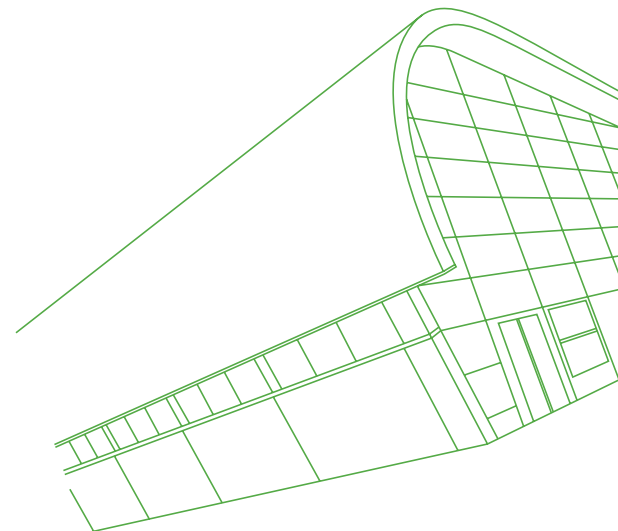
## IMPROVEMENTS

Building facades and road engineering dominate the area and approach route. The creation of a more civic, pedestrian-friendly interface between the different components of the main access road (4), the lower service road (5) and the pedestrian route around the edge of the loch (6) would offer a significant improvement. Currently the landscape planting is too dense on the loch-side of the access road, and too open on the sports side.

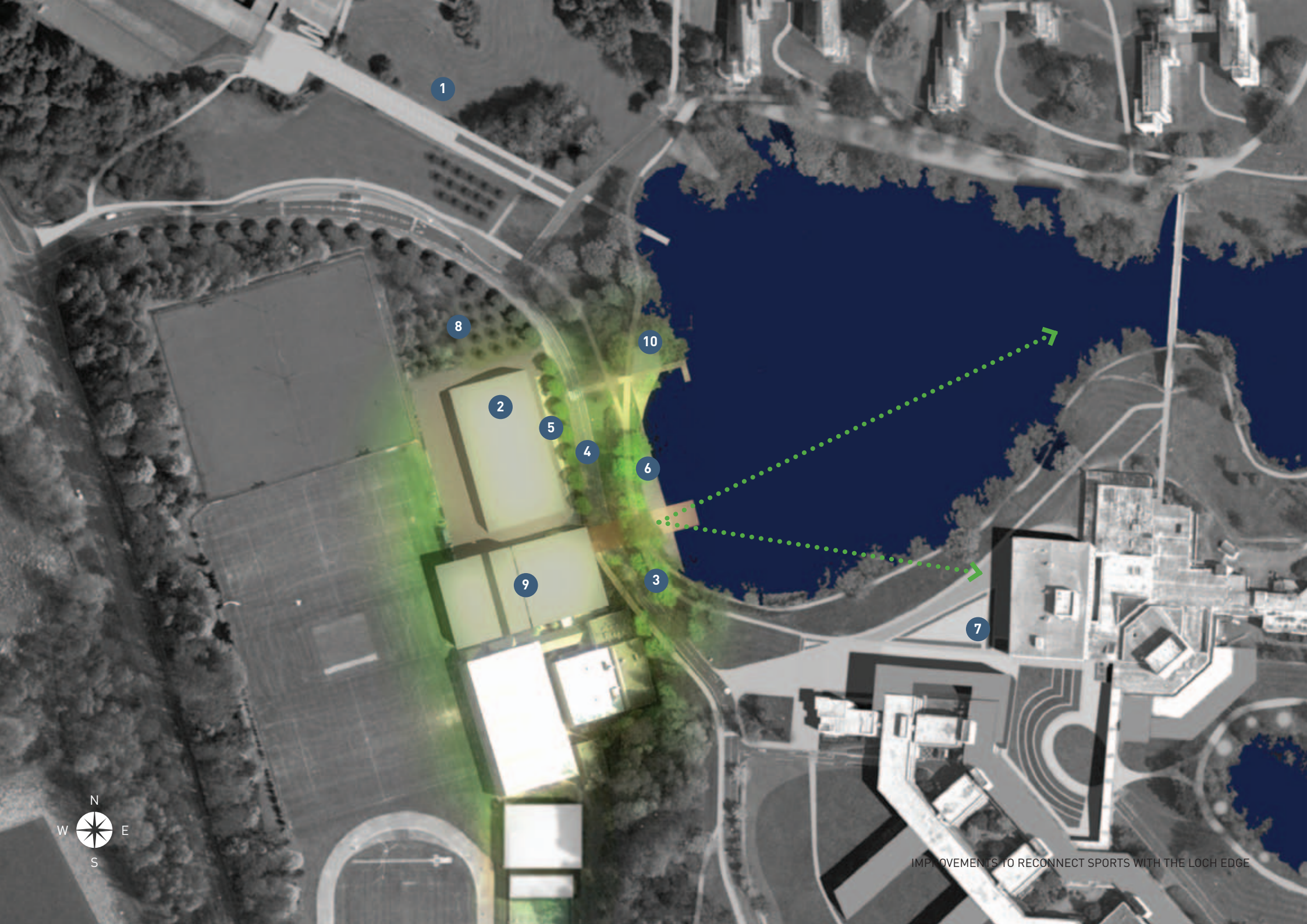
This should be reversed to focus attention on the Loch Heart and views across the loch to the library and Campus Hub (7). Tree planting should be added as a landscape belt around the sports buildings (8), and existing dense shrubbery to the loch-edge thinned to open up views and aspect as part of the loch-edge project.

The redevelopment of the Gannochy building (9) is one of the University's aspirations and should be seen in the context of resolving these interfaces between sports, road infrastructure and loch. Any new building and loch-side setting should be considered together as an opportunity to create a formalised water edge with a new pavilion building (10) as a staging post between Cottrell and Pathfoot on the loch-edge. This could incorporate new rowing facilities, a café, and room for a social learning study space.

Such a building would address and activate this key section of loch-edge, and provide an important viewing point towards Airthrey Castle. A new sports building will be visible from points within the landscape. The form and massing of this building will need to be carefully considered in the context of the designed landscape setting.







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IMPROVEMENTS TO RECONNECT SPORTS WITH THE LOCH EDGE

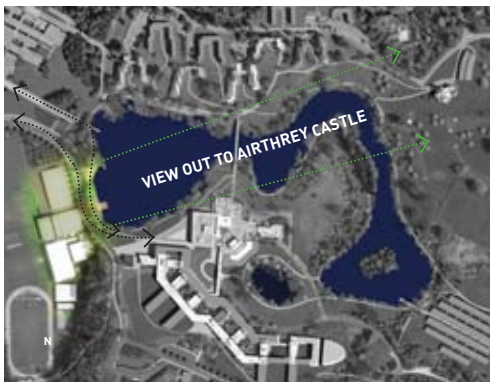
# SPORT

## GROWTH

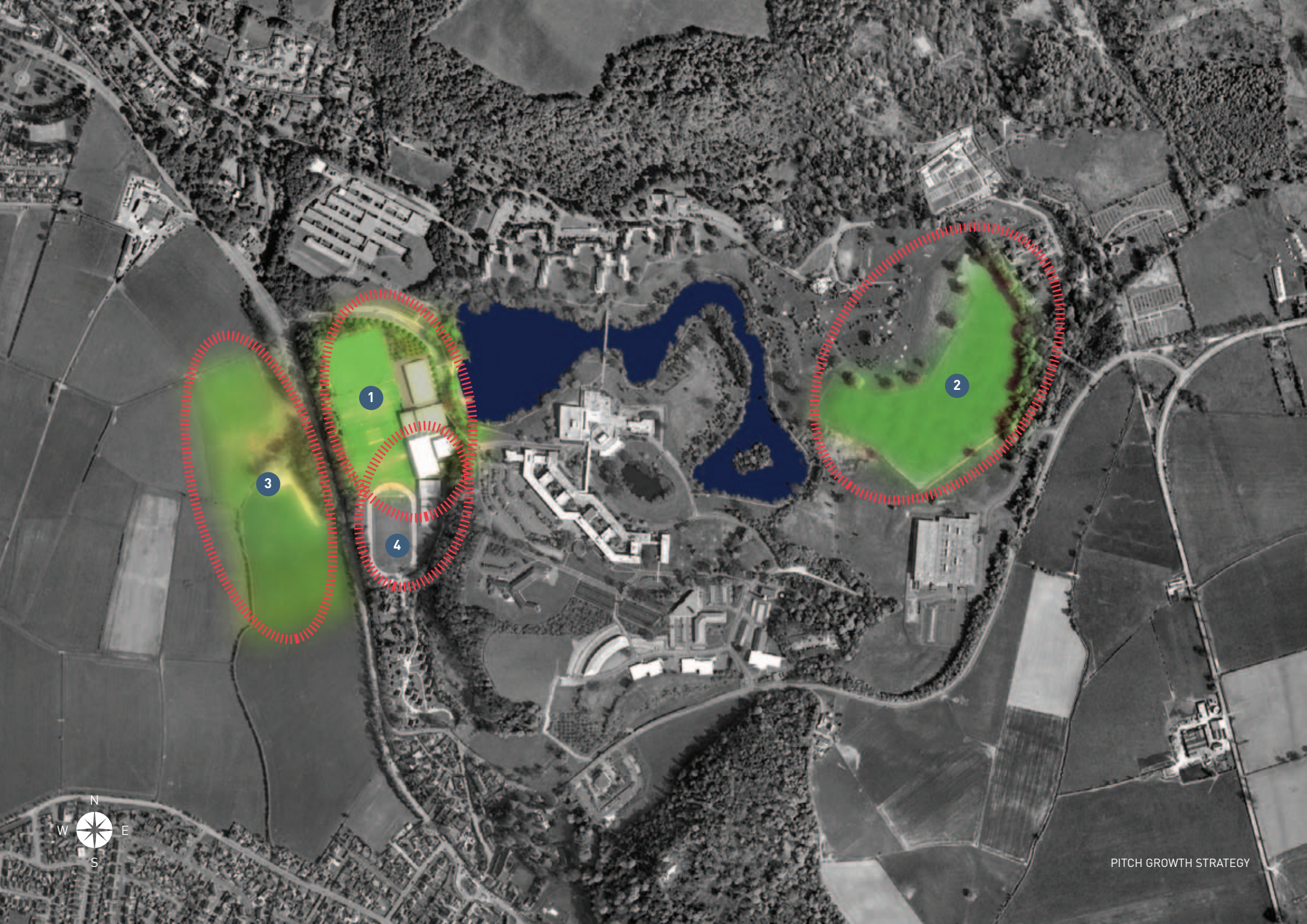
As Scotland's University of Sporting Excellence, it is not surprising that provision is needed for future expansion of both indoor facilities and external pitches.

The current facilities, situated between Gannochy Pavilion and Airthrey Road, (1) do not provide the capacity to address the possible expansion plans being considered, so options for growth have been considered.

Two options for growth have been identified: firstly, the development of the pitches at the eastern edge of the campus (2) within the immediate setting of Airthrey Castle, and secondly, in discussion with Graham's Family Dairy, there is potential for pitches to be developed on land to the west of Airthrey Road (3) as part of wider development plans for Airthrey Kerse. The second option would enable the creation of a sports focus to the western edge of the campus, and forge closer links with the local community. Additional indoor facilities would be provided to the south-east of the existing sports buildings (4).



VIEW OF WESTERN LOCH EDGE FROM THE ARRIVAL PLAZA



# PATHFOOT

## EXISTING

Comfortably nestled into the landscape, the Category A listed Pathfoot building sits elegantly above the main entrance approach to the University.

The change in gradients on various routes to the building could be deemed off-putting as it hinders interconnectivity between the different areas of the campus.

Pathfoot's great quality is how it climbs the hillside in a clever and innovative way. This culminates in one of the most splendid outlooks of any University social space and could be considered as a contemporary castle on the hilltop (1).

## IMPROVEMENTS

An important contribution would be to improve the approach to the building for pedestrians coming from the direction of the loch.

This could be achieved by strengthening the road access up the hill to transform a 'road with parking spaces' into a civic piece of public realm, within which cars may park (2). It would be a long-term aspiration to relocate the parking on this key approach route to existing car park locations adjacent to the Pathfoot building, but this is problematic in the short to medium term due to capacity issues.

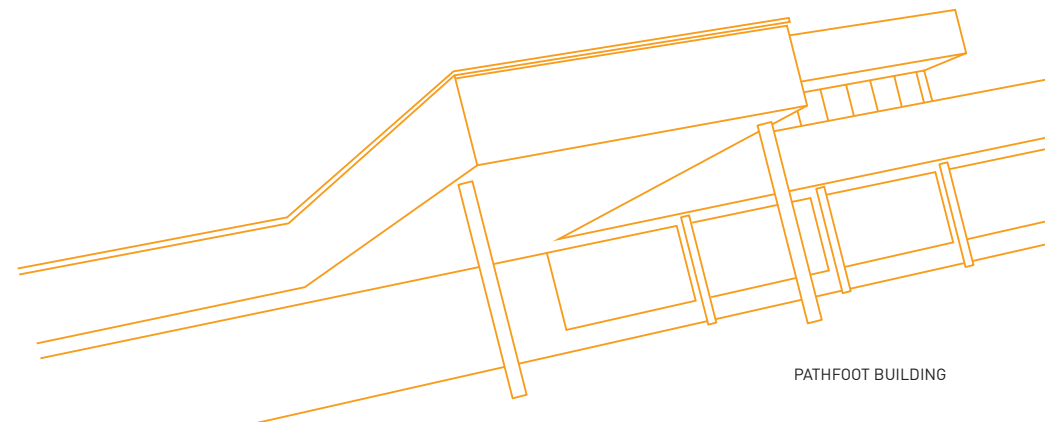
Both the southern (main) entrance and northern (rear) entrances have differing characters that can both be enhanced to improve accessibility as well as to improve their civic quality.

Currently, the approach to the southern main entrance is split between students climbing the steps from the bus drop-off point at the main University entrance (3) and a car-dominated access along Pathfoot Road (2). A more pedestrian-friendly and open arrival leading down to the loch would help reinforce the Pathfoot setting and its relationship back to the campus (4).

The northern entrance (5) currently has a very understated 'back door' feel, and the area is dominated by road and service infrastructure.

Improvements to the surface treatments in this area, combined with discreet screening of the service areas, would create a civic quality for this entrance.

Finally, the views from the dining area to the loch and Campus Hub have, over time, become somewhat obscured by trees. It is proposed that certain tree belts are thinned to re-establish the views and connections with the Loch Heart and the main University complex (6).



PATHFOOT BUILDING



CAR PARKING

CAR PARKING

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1

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VIEW OUT

VIEW OUT



STRATEGY FOR IMPROVEMENT

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## GROWTH

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Areas for growth exist to the east and west of the building. The primary concern in terms of the expansion will be the Category A listing status of the building and the limitations this will impose.

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Issues relating to views, especially from the top of Pathfoot, topography and the proximity to existing trees to the east also need careful consideration.

There are potential sites for growth at the lower level to the west end of A corridor (1), at the upper level adjacent the boiler house (2) and at the east end of G corridor (3). New buildings would most likely need to be single storey and highly sympathetic to the sensitive listed status of their neighbour.

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# RESIDENTIAL ACCOMMODATION

## EXISTING

The residential accommodation has a very special relationship with its setting. New proposals must reflect the design criteria of the 1968 Masterplan.

The open-sided courtyard layout responds to the landscape and reveals inspiring views to the loch from deep within each site. This design also provides protected, south-facing sun-trap courtyard spaces.

Compositionally, the 'legs' of the blocks act as powerful piers climbing up the hillside, with Hermitage Wood providing a backdrop to rest against.

Refurbishment and rebuilding of these blocks is currently being pursued. A number of key qualities of the existing buildings, which are rooted in the 1968



MUIRHEAD HOUSE COURTYARD

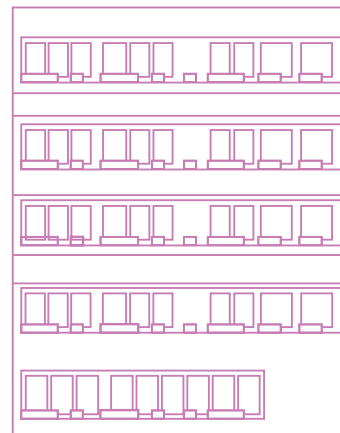
Masterplan, will be reflected in the new buildings:

- Light building to dark background
- Stepping up the site
- South-facing, open courtyard typology
- The relationship between blocks and staggered plan form
- Horizontal window configuration
- Bold planes of blank walls.

Any proposals that seek to deviate from these basic rules would need to demonstrate the advantages of an alternative approach.

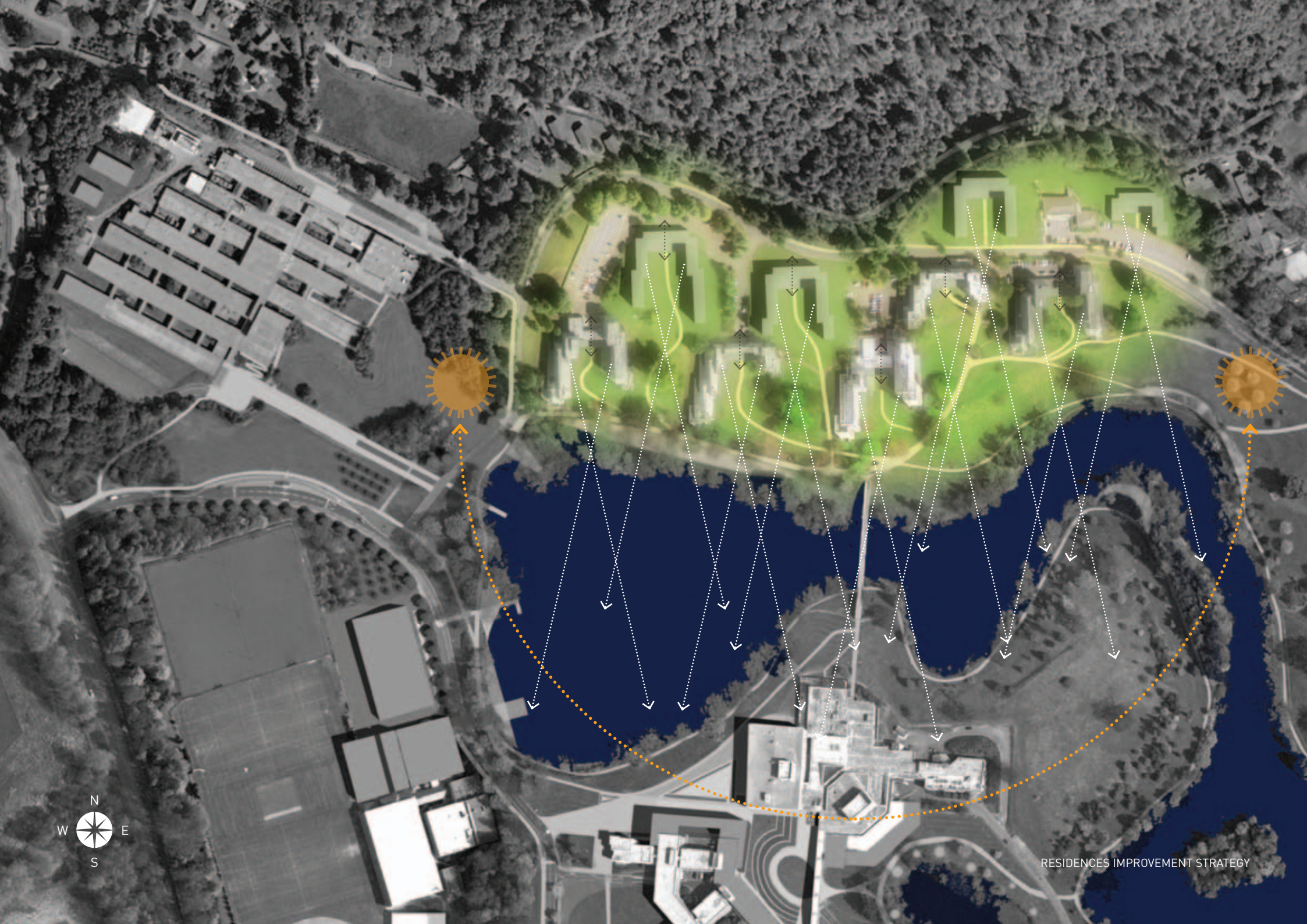
## IMPROVEMENTS

The main entrances to the residential accommodation are on the northern side - which is dominated by car parking and services. The southern side, although having a wonderful aspect and daylight penetration, is under-utilised. A strategy to re-configure the internal building planning and footpath network should be pursued to re-organise the approach to the residences from the sunnier, south-facing loch-side, with a through entrance linking to the rear parking areas. This strategy would engage the residences with the Loch Heart and improve pedestrian links with the loch-edge and bridge link.



RESIDENTIAL ACCOMMODATION





# RESIDENTIAL ACCOMMODATION

## GROWTH

The current landscape and layout of the residences are highly appropriate and should inspire the blueprint for any future growth.

There is the potential to increase residential capacity by considering the enlargement of the blocks to the rear (1). This would reduce the area of car parking, but retain the staggered open courtyard typology established in the original plan.

The 'stepping down' and south-facing courtyards make the most of the views towards the loch and campus. They also optimise daylight penetration.

An additional block to the eastern edge of the neighbourhood could be accommodated (2) as envisaged in earlier masterplans.



VIEW TOWARDS AIRTHREY CASTLE



VIEW NORTHWARDS ACROSS LOCH



1

1

1

2



# AIRTHREY CASTLE

## EXISTING

Airthrey Castle is sited in a designed parkland setting which preceded the establishment of the adjacent golf course. The location has been somewhat compromised by the unstructured over-planting of trees.

As a result, clear views across the campus are only available from the second floor of the Castle. Views of the Castle from key points on campus are also obscured.

## IMPROVEMENTS

Improvement to the Castle and its setting should include:

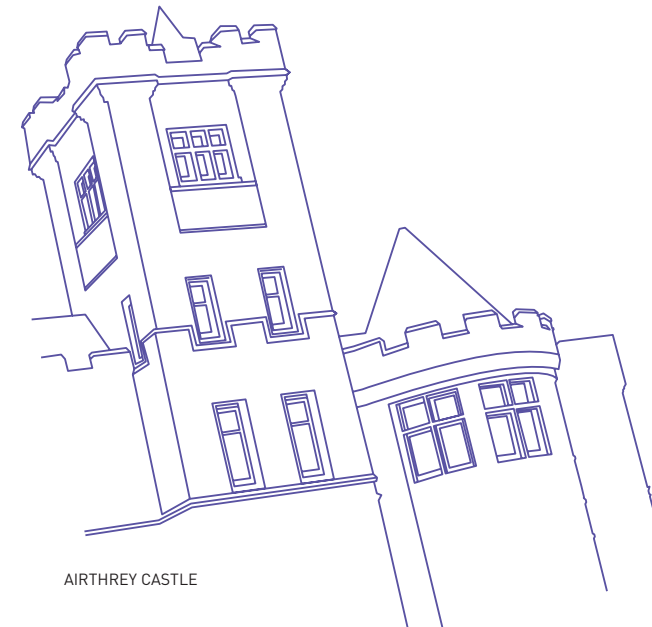
- 1 Re-establishing a clear landscape setting for the Castle through selective tree removal and new planting of parkland trees. This will re-establish and enhance key views across the campus.
- 2 Re-configuring the driveway access to re-establish a civic quality to the frontage and to remove through-traffic movement and excessive car parking.
- 3 Enhancing the linkage between the Castle and the rest of the campus, by providing a clear pedestrian route to the student residences and to the loch-side.
- 4 Considering the removal of the nurses' wing to the east of the Castle. It is considered to have a negative impact on the landscape setting and architectural integrity of the Castle.



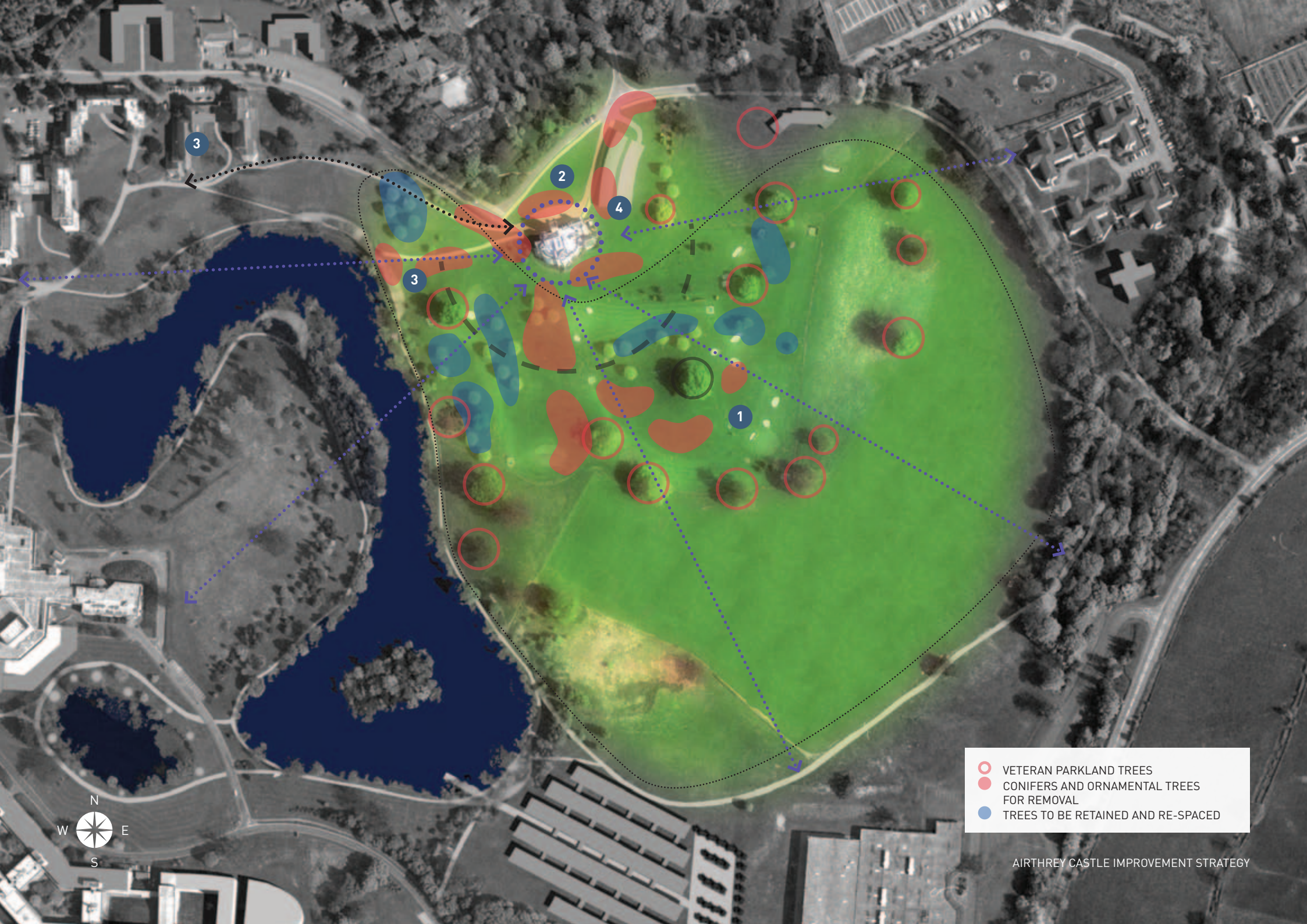
AIRTHREY CASTLE ACROSS THE LOCH



AIRTHREY CASTLE AS EXISTING



AIRTHREY CASTLE



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- VETERAN PARKLAND TREES
- CONIFERS AND ORNAMENTAL TREES FOR REMOVAL
- TREES TO BE RETAINED AND RE-SPACED



# AIRTHREY CASTLE

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## GROWTH

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The potential exists to construct a new building (1) to the east of the Castle.

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This could provide important function spaces to complement restricted facilities within the Castle, enhancing the scope for use of the two buildings in partnership.

A new building would need to respect the size, scale and architecture of the Castle, and be carefully integrated into the landscape setting.

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VIEW SOUTH-WESTERLY ACROSS LOCH TOWARDS ANDREW MILLER COMPLEX



1



# LOWER PATHFOOT

## GROWTH

Should it be needed, the campus has the capacity for larger scale growth in the future, in addition to the structured growth within established neighbourhoods.

The area to the south-east of the loch adjacent to the Falcon Foodservice site can be considered as an area for significant growth in the medium- to long-term. This site is owned by Scottish Enterprise, with an agreement to gift it to the University should a development need be identified.

This site offers potential for the creation of a new neighbourhood for the campus, anchoring the eastern edge.

The area is low lying, sloping up to higher ground to the north and south. Although not completely hidden from view from Airthrey Castle, the valley formation of the site could give clues to the building typology.

The development should integrate with, and form part of, the overall landscape strategy for Airthrey Castle and be of a scale and design which would not disrupt views from the Castle. Clear views to the north-west which connect visually and physically to the loch (1).

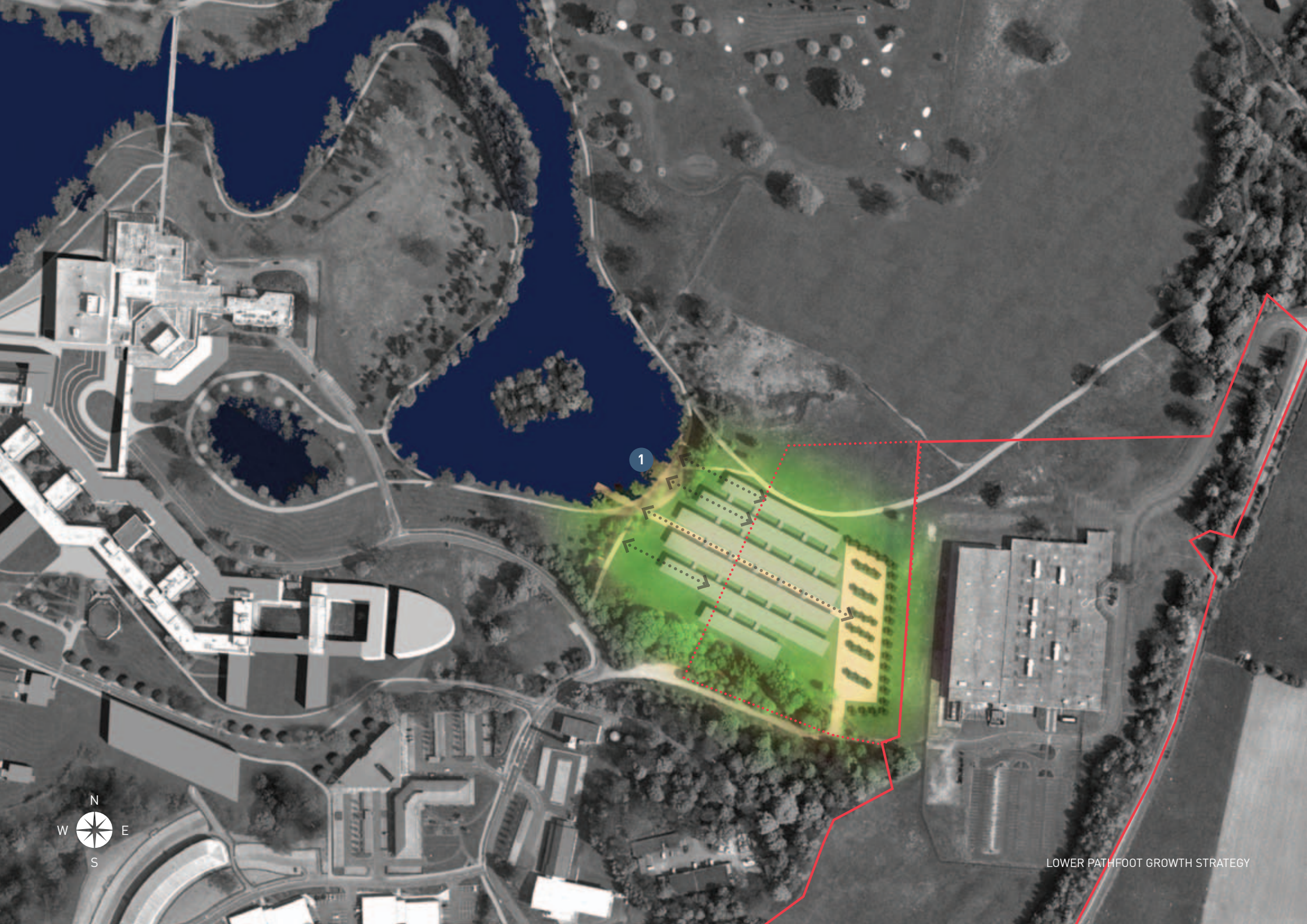
This site has been conceptually considered as 'Lower Pathfoot', echoing the flexible plan form and skillful integration into the landscape of the original Pathfoot composition,

with courtyards and glimpsed views to the landscape beyond. Strong links to the loch-edge should form a component of the Lower Pathfoot development, effectively flanking the Loch Park setting at either side and activating its edges.



BASED ON 'RESERVOIR TAP' BY THE GLASGOW-BASED SCULPTOR, JOSEPH INGLEY.





1



# PATH NETWORK AND CONNECTIONS

## EXISTING

The campus has a complex path network that serves all buildings, although there seems to be a lack of overall legibility and coherence.

Paths have suffered the intrusion of vehicle parking, particularly in the residences neighbourhood. Achieving gradients suitable for universal access has been difficult due to site topography.

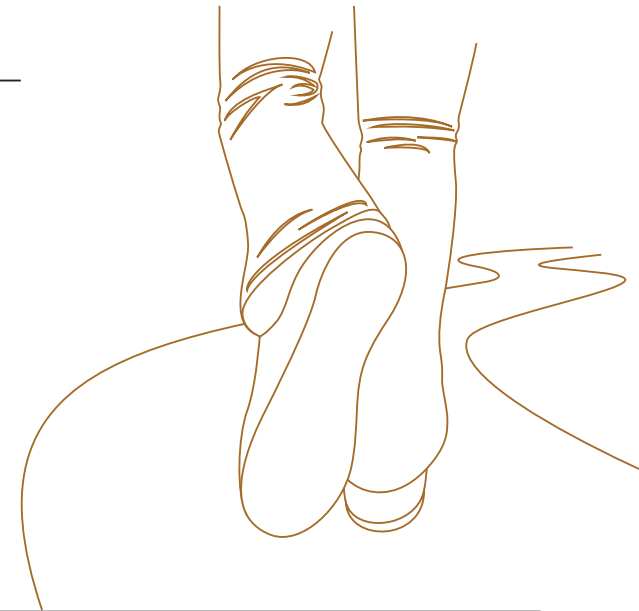
## IMPROVEMENTS

A clearer hierarchy of main routes is proposed, with greater availability of routes suitable for sharing by pedestrians and cycles. Particular areas of focus are:

- 1 Re-orientation of the main footpath routes to the residences, so that approach is made directly from the campus core area into the south side of the residences.
- 2 Creation of a path loop around the small loch and connecting to Queen's Court.
- 3 Improved legibility of the route between the south entrance and the west end of Cottrell.
- 4 Public realm paths between the sports complex, Cottrell new arrival point, and Atrium axis.
- 5 Creation of a stronger connection between Cottrell and the footbridge to the residences.

- 6 Visibility of path links into Hermitage Wood and local improvements to paths.
- 7 Improved standard and legibility of key cycle routes (shown in orange) and additional facilities for secure cycle parking at core locations and the residences.

In addition to these specific areas, signage addressing orientation and interpretation needs to be revisited campus wide.





**PATH NETWORK  
KEY CYCLE ROUTES (SHARED PATHS)**

# PATH NETWORK AND CONNECTIONS

## GROWTH

It is essential that the path network responds to new developments.

Connection of the future Lower Pathfoot development by a new path from Alexander Court around the main loch will open up a remote part of the campus (1). Additionally, creating more open routes through the Innovation Park (2) will better integrate this area with the University.

Connections with wider networks are also important in promoting the uptake of pedestrian and cycle commuting, as well as leisure use of the campus by members of the local community. Further improvements to the access points at Spittal Hill (3) and Airthrey Road (4) will provide and promote safe and attractive routes. The latter could form an important part of any future connection to the proposed Airthrey Kerse development site and onward to Cornton – offering a low-traffic alternative to the busy Causewayhead Road. Greater legibility of the access points to Blairlogie Road (5) would also benefit cycle commuting from the direction of the Hillfoots Road.

Localised new paths are needed to provide a suitable surface in this area.



PROPOSED DEVELOPMENT OF THE GRAHAM'S FAMILY DAIRY SITE



# LANDSCAPE MANAGEMENT

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## EXISTING

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The principles of the landscape design implemented are less successful than those initially proposed by the 1968 plan.

The retention and reinforcement of landform, water and tree blocks have provided a strong structure to the landscape. However, this effect has been diluted by the addition of increased colour and ornamental content which has compromised the elegant purity of the original green parkland.

Rapidly growing ornamental shrubs have proved overwhelming for pathside and built locations; the addition of small ornamental and coniferous trees within the grassland has obscured stately vistas; naturally seeded trees along the loch-side have been allowed to develop into a dense screen, dividing the loch from its park.

Over the past two decades the University has been addressing these issues through a programme of landscape works.



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## IMPROVEMENTS

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The overall strategy must provide a context for long-term decisions on the management of the campus landscape. The objective is to regain clarity in the landscape, taking the concepts from the 1968 plan but applying them with greater rigour than before. The key elements of this strategy are:

- Providing for succession of large parkland trees and belts through continuous investment in new planting of appropriate large native species.
- Removing inappropriate ornamental or naturally seeded

trees growing in the parkland and along the loch shoreline, to reinstate the vistas and access to the loch envisaged in the 1968 plan and the original Airthrey Castle landscape.

- Providing visual containment and structure to car parking areas using hedging.
  - Exploiting the opportunities for attractive external social spaces close to buildings, without degrading the parkland setting.
  - Improving biodiversity through close attention to landscape management practices.
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# LANDSCAPE MANAGEMENT

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## FUTURE

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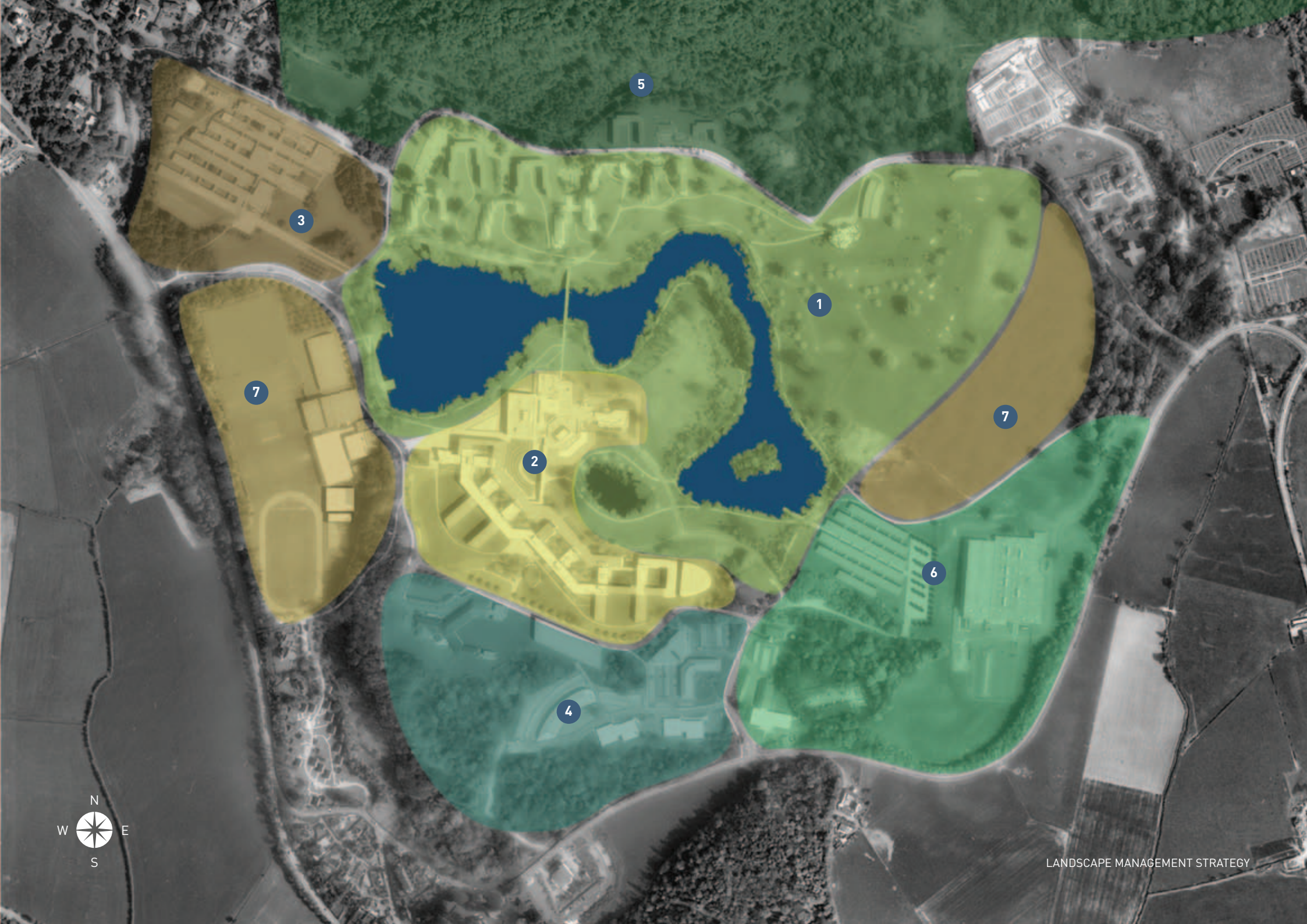
The campus has several distinctive landscaped areas of immense character. These demand that the approach to any new developments and ongoing landscape management should be specific, subtle and sensitive.

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The key recommendations are:

- 1 Loch and parkland – this is recognisably an 18th-century landscape into which the original University buildings were carefully inserted. Re-establishment of loch-side vistas and the flow of parkland to meet buildings, combined with clarity of tree planting, are the key objectives.
- 2 University core – progressive replanting of courtyards to replace large shrubs, making these areas more attractive as outdoor spaces.
- 3 Pathfoot – the return to a pure parkland setting, free of intervening shrubs and underused footpaths. Re-establishing the connection to the Loch Park.
- 4 Stirling University Innovation Park and Stirling Management Centre – developing tree planting within the car parks and along their boundaries to create a strong southern woodland buffer to the original campus.
- 5 Hermitage Wood setting – continue active woodland management in the interests of biodiversity and sustainability.
- 6 South-east campus – extension of the parkland character into this area.
- 7 Sports – core activities to occur at the Airthrey Road frontage, leaving the eastern pitches free of visible infrastructure.





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# OTHER PROJECTS

## GROWTH – FURTHER FLEXIBILITY

The strategy for future growth follows two strands: the growth of existing neighbourhoods by improving and/or extending the existing structures, and the creation of new neighbourhoods by identifying sites within the campus where new development could take place.

New neighbourhoods should maintain the distinctive typologies as set out within the original plan.

The additional sites with opportunities for growth within the campus are as follows:

- A** Stirling Management Centre – should be considered typologically as development on the edge of a wooded setting, providing a strong landscaped backdrop to the primary University setting (as Hermitage Wood does to the north).
- B** Stirling University Innovation Park – like the Stirling Management Centre, the Innovation Park should be considered typologically as development within a wooded setting, with the potential to extend west and east.
- C** The Robbins building – has the potential for a modest extension to the east without affecting views from Airthrey Castle.
- D** Falcon Foodservices site – this site originally formed part of the University's estate and if an opportunity arises, consideration could be given to re-acquisition.
- E** Alexander Court – an isolated area which has the potential for additional development.
- F** Walled garden and cottages – conservation and maintenance is required, which could be undertaken in parallel with specific, small-scale development opportunities as they arise.
- G** Airthrey Castle Yard houses – conservation and maintenance of these properties.
- H** Chalet residences – both sites offer the potential for medium-scale replacement or redevelopment.
- I** East Lodge – conservation and maintenance is required, and a specific use should be found to enable re-occupation.



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# SUSTAINABILITY

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## EXISTING

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The University has a proactive approach to sustainability and carbon reduction.

The overarching Carbon Management Plan sets an ambitious target for carbon reduction.

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Strategies to achieve this target include projects to reduce overall energy consumption, such as; boiler upgrades, better insulation, improved water management and the widespread installation of lighting controls.

The University already has a gas-fired district heating system which incorporates a central energy centre. This provides heat to a network of buildings across the campus.

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## IMPROVEMENTS

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Increasing energy costs and carbon tax commitments will require the University to further reduce energy consumption and associated carbon emissions in the coming years.

The University can take advantage of existing heat and electricity networks and move to a new low carbon energy generation source, to supplement or replace the existing gas fired boiler plant. The most feasible energy generation source, providing the largest carbon savings and economic return, would be Combined Heat and Power (CHP). CHP uses natural

gas to produce both heat and power efficiently, reducing the quantity of costly and carbon-intensive electricity that needs to be purchased from the grid. In the longer term, gas-fired CHP units could be replaced with low carbon synthetic gas or biofuel units, further reducing the University's carbon emissions.

The University is adopting a sustainable approach to development, prioritising low energy passive design (building orientation, shading etc.) and efficient distribution of energy (insulation, metering etc.) in preference to more costly renewable energy technologies such as photovoltaic devices.

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# SUSTAINABILITY

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## GROWTH

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As the University grows and expands, the district energy networks can be extended to serve new buildings.

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Increasing flexibility and durability of the energy supply across the campus, the construction of a second energy centre to house further CHP units could be considered.

In tandem with the campus-wide strategy, the University will consider small-scale renewable technologies where appropriate, such as solar thermal hot water, photovoltaics and heat pumps. The strategy will be regularly reviewed as different systems develop, the key drivers being financial savings and carbon reduction.

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## WIDER SETTING

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The University is committed to assisting the local authority to achieve its planning policy aims in relation to carbon reduction. Development sites adjacent to the University will be considered for their potential to be supported by the University's low carbon energy networks, thereby increasing the efficiency of the systems and reducing carbon emissions within the wider community.

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- ... existing D/H network
- potential extension to D/H network
- potential electrical private wire network (only high electrical load buildings)

# OPTION 1



solar thermal modules for domestic hot water pre-heat



solar thermal modules for domestic hot water pre-heat



boilerhouse currently gas fired, change to CHP

# ACCESSIBILITY

This Masterplan promotes the integration of effective access for all users based on best practice and reasonableness – meeting the requirements of the Equality Act 2010. This fulfils the University's commitment to be a truly inclusive organisation as set out in its Single Equality Scheme 2009–2012.

In relation to its estate, it also allows the University to fulfil the anticipatory duty placed upon it.

Best practice is subjective but takes into account:

1. Design guidance in the Building Standards and BS8300:2009
2. Specialist professional advice
3. Consultation with those with disabilities

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## REASONABLENESS

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The Equality Act makes frequent reference to what is reasonable and the following factors are taken into account when considering and justifying what is reasonable:

- How effective any measures would be in overcoming the difficulty that people with disabilities face in accessing services
- How practicable it would be for the service provider to implement these measures
- How disruptive the measures would be
- The extent of the provider's financial and other resources
- The resources already spent on making adjustments
- The availability of financial and other assistance

It is important that the proposals for improvement or growth contribute positively to a holistic approach to accessibility.

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# SUMMARY STATEMENT

This 2012 Campus Masterplan seeks to build on the University's current position and on previous plans.

It aims to provide a framework and vision to guide future development opportunities to support the needs of the University.

The framework seeks to reinforce the core attributes of the 1968 plan to enhance and enrich the campus experience.

This will, in turn, help to ensure that the University of Stirling maintains and strengthens its position as one of the most popular and renowned Higher Education establishments in Scotland.

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# ACKNOWLEDGEMENTS

The Masterplan design team was led by Page\Park Architects under the direction of the University's Estates & Campus Services Directorate. Ian White Associates, Buro Happold and Adapt Access Services provided essential input and advice respectively on landscape assessment and design, sustainable engineering, and inclusive and accessible design.

As a part of the evolution of the plan, the University led a wide consultation process involving stakeholders and interest groups, as well as key statutory bodies.

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## THE UNIVERSITY CONSULTEES:

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The Principal & Vice Chancellor

The University's Strategy and Policy Group

Heads of Academic Schools

Academic School Managers

Service Directors

Representatives of the Students' Union

Stirling Council Local Development Plan Group

Historic Scotland

Simpson & Brown Architects (authors of the University's Campus Conservation Plan 2009)

Stirling University Innovation Park

Graham's Family Dairy

Stirling University Retired Staff Association

Comments received from these consultations were incorporated within the final document wherever possible.

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