



香港中文大學  
THE CHINESE UNIVERSITY OF HONG KONG

The Chinese University of Hong Kong  
Campus Master Plan

## **SYNOPSIS**

April 2009

**THE MASTER PLANNING TEAM**

**THE CHINESE UNIVERSITY OF HONG KONG**

Steering Committee on Campus Master Planning

Campus Development Office

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## INTRODUCTION: ON THE STRATEGIC OBJECTIVES OF THE UNIVERSITY

The Chinese University of Hong Kong (CUHK) is blessed with a campus on a natural site as stunning and varied as one can imagine for a seat of learning anywhere in the world. Panoramic views of distant mountains, hills of green overlooking the sea, rushing streams and quiet pathways all combine to form a setting that has inspired the love, loyalty and imagination of students and scholars for nearly five decades.

In looking ahead, an excerpt from Vice Chancellor Lawrence J. Lau's Open Letter in 2006 on the University's Strategic Plan describes its ambitions for the future:

*"What will the Chinese University look like in ten years time? We see a world-famous comprehensive research university steeped in its bilingual and bi-cultural heritage, one that gives equal emphasis to teaching and research, and to both general and specialist education. It takes upon itself to promulgate Chinese culture and to achieve the synthesis of Chinese and western intellectual traditions. We see a university that attracts the best students and the top scholars from around the world, one that offers flexible degree structures and programmes of the best quality not only in Hong Kong, but in Asia-Pacific and internationally. Several academic areas will have attained exceptional distinction and world-class impact, bringing enormous benefits to humanity through landmark achievements in scholarship. These will include Chinese studies, biomedical sciences, information sciences, economics and finance, and geo-information and earth sciences."*

The University's objective to grow into a world-class institution of excellence, and the re-establishment of the four-year undergraduate curriculum by 2012, require its physical campus to be optimized to meet the needs of an increased undergraduate population whilst aiming to maintain its lush, green and serene environment which is ideal for scholarly pursuit. This challenge will be guided by a master plan for developing the campus which takes into account the existing environment and looks to future needs and opportunities.

The development of the campus should be approached as a great potential to enhance the quality of experience of the entire University community. The increased student population will see many more faces from different cultures and backgrounds contributing to the vitality and diversity on campus and adding dynamism to the academic, cultural and social life of the University.

With more students, new constituent colleges have been established



and, together with the original colleges, will complement the University's efforts in providing all-round education and pastoral care. New academic and recreational facilities will be needed and they should be integrated gracefully within the treasured campus landscape with new or enhanced places for social gathering or quiet contemplation. More pedestrian movement should be encouraged by making walking easier and enjoyable.

The University's sense of community can be strengthened through closer integration of teaching, learning, working, living and recreation. Advances in the tools and practice of teaching and research will bring new ideas about discovery, exchange and application of knowledge which the University can support by enhancing its campus environment to offer a variety of settings and locations for different ways of teaching and learning.

Above all, the University should evolve in an exemplary sustainable way by using its resources efficiently and reducing energy consumption and the impact of development. The Master Plan will provide a planning framework to balance the future growth of the University with the conservation of its unique setting so beloved by the students and scholars.



aerial view of CUHK campus from west, circa 2006

## 1 THE MASTER PLANNING PROCESS

The Master Plan's synoptic report describes the consultative process and the resulting proposals to deliver an overall planning framework for the University campus. It has been formulated to provide planning guidance for the future development of the campus through to 2021 and beyond. The master planning process was carried out in response to the University's desire to accommodate its strategic objectives within the context of the increased undergraduate population and the changing requirements of the academic disciplines.

The Master Plan has been conducted as a process of engagement, consultation and briefing with groups representing the entire University community; it has addressed the historic development of the campus and taken account of the opportunities and challenges to present recommendations to guide the growth of the campus.

### 1.1 Historical development of the campus

Since the foundation of the University 45 years ago, the campus has evolved through periods of development to accommodate the demands of an increasing university population and advancement of the university programme.

#### The Founding Phase (1963 – 1969)

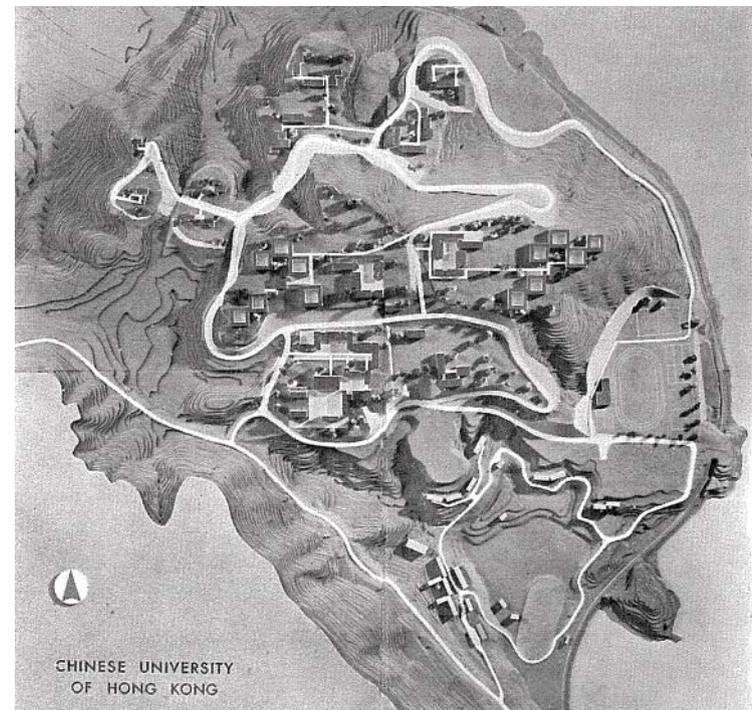
Following the Development Plan by W. Szeto & Partners  
Student population: around 3,000

The initial development of the University was focused around the Weiyuan Lake area with the previously established Chung Chi College. The development of the master plan comprising the three original colleges - Chung Chi, New Asia and United - composed as satellites to the University's headquarters complex, shifted the emphasis to the Central Mall which became established as the focus of campus activities.

#### The Growth Phase (1970 – 1986)

Based on W. Szeto & Partner's Development Plan  
Student population: around 6,000

Extensive building developments took place in the campus during this period following the basic layout and planning strategy of the founding phase. Shared teaching buildings were added, strengthening the eastern Central Mall. Additionally, extensions to original buildings and the conversion of older buildings to new functions provided for the increased student capacity evenly across the colleges. The value of the landscape to the campus was recognised in that all of the extensive building development remained within the original



bird's eye view of study model of CUHK campus, 1965



CUHK campus site, 1967

excavated areas.

### **The Rapid Expansion Phase (1987 – 1996)**

Student population: around 11,000

Driven by government policy to substantially increase tertiary education places, the original composition of the founding Colleges and the University core was augmented by the addition of a further college, Shaw College, on the west of the upper precinct. The increased development continued to follow the planning strategy of the original master plan and maintained the quality of the surrounding landscape with expansion towards the Eastern Campus on the newly reclaimed land and with the redevelopment of the original teaching buildings within the Chung Chi campus.

### **The Consolidation Phase (1997 – 2007)**

Student population grew to around 13,500 (including undergraduates and postgraduates)

The campus expansion continued as the University began to undertake campus development with a more strategic approach to campus development planning. In recognition of the space deficiencies across the campus, a series of campus development studies guided the campus development in preparation for the 4-year

normative curriculum reform and subsequent rise in student places.

### **Current Phase (2008 – 2012)**

Projected student population: around 17,000 (including undergraduates and postgraduates)

Strategic campus planning has continued with the instigation of a master plan framework for the sustainable expansion of the campus to accommodate:

- the planning needs of the University as a comprehensive research university
- the growth required to provide the space shortfall of meeting the requirements of the impending 4-year undergraduate curriculum
- the needs of several thousand students pursuing self-financed educational programmes.

### **Future Phase (2013 – 2021)**

Projected student population: around 20,000 (including undergraduates and postgraduates)

With the potential increase in research students, the total student population is projected to increase to around 20,000; this will establish a total university population of approximately 27,000 by 2021.



CUHK campus, 1977

## 1.2 The Master Plan approach

The Master Plan has been developed through an integrated approach led by the multi-disciplinary team of planning, engineering, transport and landscape consultants, working in close collaboration with the University's Steering Committee on Campus Master Planning and the Campus Development Office, and taking account of the diverse views and priorities of the University community. This collaborative process took place in four stages:

### Stage 1: Information gathering (February 2008 – May 2008)

Information gathering events such as briefing sessions, engagement meetings, workshops, online surveys, a forum and an alumni sharing session led to the establishment of primary principles as the grounds for the development of the Master Plan.

### Stage 2: Conceptual formulation of the Campus Master Plan (June 2008 – October 2008)

Adoption of the Concept Plan and development of preliminary planning concepts and options in response to the consensus of views gathered and the assessment of information gained during Stage 1.

Roving exhibition of conceptual proposals, engagement meetings, workshops and an alumni sharing session took place, concluding with a forum, and continuing online consultation with all stakeholders.

### Stage 3: Specific formulation of the Campus Master Plan (November 2008 – February 2009)

Formulation of the planning concepts leading to a campus planning framework and six important guiding precepts:

- places for education and research activities
- enhancing college life
- a pedestrian friendly campus
- conserving places of value
- a landscape of vital importance
- making a sustainable campus

Seminars, exhibitions, on-line survey and guided tours.

### Stage 4: Finalisation of the Campus Master Plan (March 2009 – April 2009)

Documentation of the Master Plan and adoption by the University as the framework for the future development of its campus.



Stage 1 workshop discussing options for student amenity provision



Stage 1 workshop meeting discussing potential development sites

### 1.3 Objectives of the Master Plan

The main objective of the Master Plan is to provide the University with a vision and an overall planning framework for its campus development for the years leading up to 2021 and beyond.

The Master Plan will address the additional space requirements anticipated under the impending normative '3+3+4' curriculum, accommodate further development into a comprehensive research university and strengthen the organization of the entire campus.

The specific objectives of the Master Plan are:

- (a) to reinforce the unique character of the campus, with the Central Mall and low-level precinct to remain the academic core of central teaching and learning facilities embraced by colleges
- (b) to assess and define development opportunities within the campus site to provide potential sites for academic, social and recreational activities
- (c) to assess and define development opportunities within the college areas to enhance the experience of students
- (d) to define places of high ecological, landscape and cultural heritage value within the campus for conservation, protection and enhancement
- (e) to assess circulation and travel modes within the campus and define development opportunities to improve connections and movement for pedestrians
- (f) to assess and define development opportunities within the campus outdoor environment to enhance the landscape experience
- (g) to formulate an urban design, conservation and landscape framework based on sustainable principles
- (h) to formulate an implementation strategy for the planning framework and identify the necessary follow-up actions



view of Central Mall on orientation day

## 2 CHALLENGES AND OPPORTUNITIES

The initial response to the objectives of the Master Plan and the views collected in the Stakeholder Engagements was the identification of the principal challenges posed by the campus site and the proposals with which they were to be addressed.

### Dispersal of campus facilities and buildings

Challenge:

Since the University's foundation in 1963, its development has largely been determined by the transformation of the natural hillside topography into three distinct levels:

- The low-level precinct, closest to the railway station was developed first with Chung Chi College, and has become one of the main entrances to the University.
- The mid-level precinct was then levelled to make the formal extended courtyard place – the Central Campus – which accommodates the academic and administrative core and is the symbolic identity of the University.
- The high-level precinct subsequently developed into New Asia College and United College, and later, Shaw College.

The campus's organization into the three precincts impedes both social and academic interaction which is further exacerbated by the increased reliance on vehicle use to connect and traverse the levels. While this dispersal helps to distinguish the University's collegiate system, the isolated nature of some college buildings can also be a disadvantage.

Opportunity:

Improving the connection and interaction between the dispersed constituent elements of its campus can increase the academic and social potential of the University. To avoid making a piecemeal campus which lacks focus, the precincts should be consolidated into clusters of development, each with a distinct neighbourhood character containing specific disciplines, activities and uses to support more effective sharing of facilities, stronger identity of particular places, promoting a greater sense of community and enabling shorter walking distances within each neighbourhood. New academic facilities within the main campus should predominantly relate to the Central Mall.

### Hilly topography

Challenge:

The hilly topography of the site has had far reaching effects on the planning of the campus, the building construction, as well as movement between different parts of the campus.

The original plan of the University – an academic core encircled by colleges – is derived from the historical model of universities on flat sites where pedestrian connections are simple and direct. On this hilly site, access to the Central Campus and to the colleges is mainly by car or bus on graded roads, winding lengthily up and down the slopes.

This road system, formed at the same time as the original master plan, caters only for low density development, being constrained by the topography, utilities and adjacent developments.

The hilly topography has provided the university with a site of stunning natural beauty and diverse ecological character which requires sensitive approach to any development in order to maintain its micro-environment, its diverse and rich plants life, and see that its limited land suitable for construction is used most effectively.

Opportunity:

Establishing a network of much more direct or stepped pedestrian paths between the various parts of the University should enhance the connectivity throughout the campus – between individual college precincts, and between the Central Mall and the new colleges. The inconvenience that vertical distances imposed on pedestrian movement can be reduced with the provision of express lifts and cascading developments strategically placed to directly link the various levels.

The University has long had an extensive policy of Slope Stabilization necessitated by the topography, which has been turned into a major opportunity for maintaining and enhancing the landscape and plant life. The Master Plan will continue this approach and extend it to every occasion of development work.

### Lack of communal space

Challenge:

Up to now, some of the existing buildings on the hillside campus have tended to be 'object-like', with insufficient amenity places between and beside them that are suitable for informal social interaction or gathering.

The collegiate structure of the university has long cultivated a deep sense of community life and attachment to places of historical and communal life in the campus. This is an integral and special aspect of the Chinese University which lies at the root of what gives a special identity and quality to the entire campus as well as many particular places in it. As a result, the strong sense of place in the campus has been and must continue to be the primary guiding consideration in maintaining the campus and planning any new developments in it.

Opportunity:

To enhance the provision of social gathering and amenity spaces within the University, the spatial organization of the campus should be reinforced with a strategic open space network to create more plazas and courtyards with enhanced inter-connections.

New buildings should be designed with open terraces or enclosed courtyards, which, as gathering places, will seem all the more evocative in contrast to the steep wooded hillside.



bird's eye view of CUHK campus, 2008

### 3 THE MASTER PLAN VISION

#### 3.1 The Vision Statement

The vision of the Master Plan is to enable the University to be an exemplar of sustainable development by balancing the enhancement of its campus environment with the conservation of its natural heritage.

#### 3.2 Aspects of the Vision

The objectives of the Master Plan and the main challenges and opportunities of the campus site highlight three aspects of the Master Plan Vision:

- 1 To build most sustainably on what we now have, we must strengthen the academic core and the encircling colleges as palpable places in a fine hillside landscape and we should connect the whole composition with a lattice of pathways
- 2 To maintain the University campus as an ideal place for scholarly pursuits and to enhance the quality of life of the entire community by:
  - improving the integration of learning, working, living and social interaction
  - creating a neighbourhood of colleges to strengthen the overall sense of community and identity while accommodating new possibilities
- 3 To formulate a planning framework to enable the evolution of the campus which balances the need for future growth with preserving the lush, green and serene setting

#### 3.3 Interpretation of the Vision

The Master Plan is conceived as a living and continuously developing document, setting out the vision of the campus development for reference by architects and engineers engaged in implementing the plan in the future.

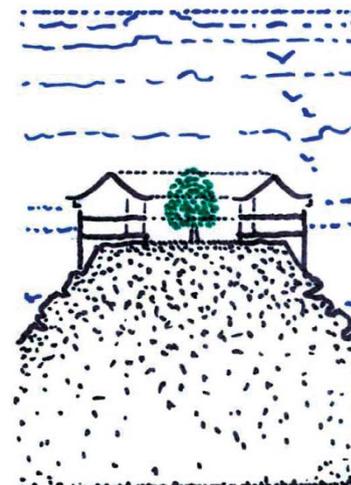
In the discussions that took place during the early stages of formulating the Master Plan, a consensus was generated within the six important guiding precepts which were agreed to be vital to the Master Plan. The precepts together provide a planning framework for the entire campus development for the years leading to 2021. Each precept will rely on the collective contribution of each of the other precepts to bring about the full benefits of a sustainable growth in the University campus.



#### 1 Places for education and research activities

Places for academic and other activities should be clearly defined by:

- planning most of the teaching facilities near to the Central Campus and University Station, while research facilities can be relatively remote
- identifying potential development sites for education, research and amenity facilities



#### 2 Enhancing college life

We should build up the colleges to enhance student life by:

- providing more convenient facilities and gathering spaces
- arranging new undergraduate hostels closer to teaching facilities
- providing postgraduate hostels and staff residences which can be relatively distant from the Central Campus
- enhancing accessibility among the colleges



### 3 A pedestrian friendly campus

The campus should be pedestrian friendly by:

- promoting walking with improved accessibility by express lifts and cascading building design
- improving certain existing pedestrian links for safety and security



### 4 Conserving places of value

We should conserve places that are highly valued and of historical importance by:

- conserving built heritage which contributes to the University's image and identity or which has special architectural or memorial value
- exploring adaptive re-use of built heritage



### 5 A landscape of vital importance

The landscape of the campus is of vital importance including:

- conserving existing natural water streams and trails
- introducing new nature trails and enhancing the green experience
- minimising tree felling



### 6 Making a sustainable campus

We should be aiming to build a sustainable campus by:

- harmonising new developments with the existing natural setting
- designing for a low carbon campus
- encouraging green building design

## 4 THE MASTER PLAN PROPOSALS

The Master Plan proposals are contained within the six planning precepts:

### 4.1 PLACES FOR EDUCATION AND RESEARCH ACTIVITIES

The Master Plan aims to strengthen the presence of academic and amenity buildings by:

- preserving and enhancing the identities and the usefulness of existing academic facilities
- strengthening connectivity between academic facilities, existing and new
- enhancing the landscape and making the character of the places between them as important as the buildings themselves
- promoting walking by providing vertical transportation devices where the gradients are steep
- giving priority to pedestrians over vehicles
- creating faculty zones to achieve physical proximity and obtain the benefits of interdisciplinary collaboration
- turning some open areas strategically into places for staff and student interaction

#### The Master Plan Proposals

##### Zoning

The recommendation of the Master Plan is to develop the concept of clustered and zoned development for disciplinary teaching and research activities. The resulting concentration of associated facilities will enable the efficient use of resources and convenience of access, and optimize the land use for social and academic interaction.

The proposed clusters of faculties are:

##### Campus Central West – Arts and Humanities

Faculty of Arts  
Faculty of Law

##### Campus South – Business and Social Studies

Faculty of Business Administration  
Faculty of Education  
Faculty of Social Science

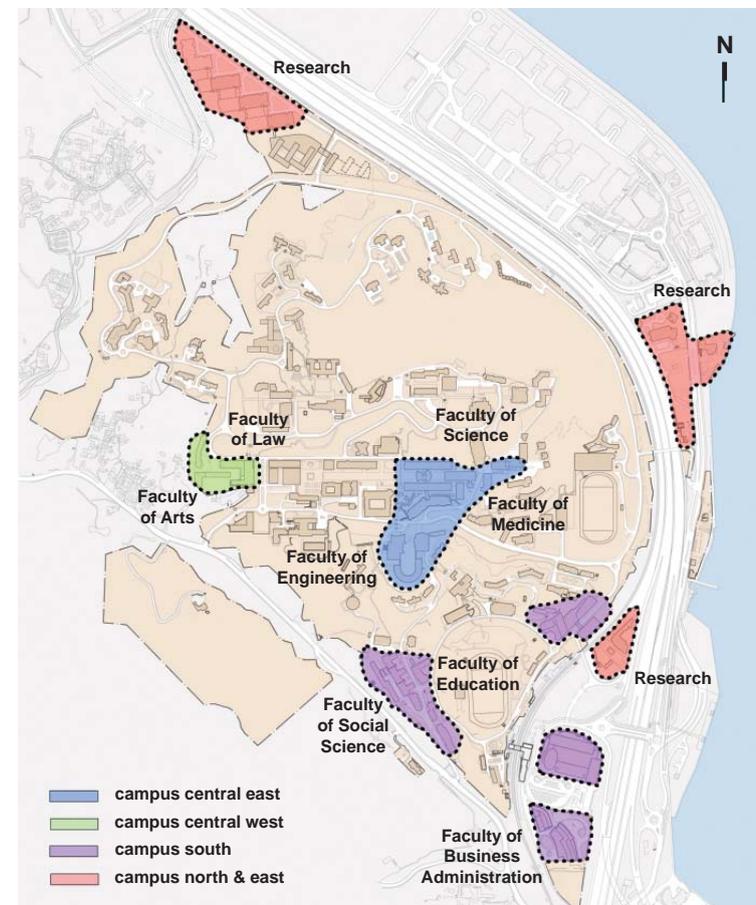
##### Campus Central East – Science and Technology

Faculty of Engineering  
Faculty of Medicine  
Faculty of Science

##### Campus North & East – Research

##### Campus setting

To address the requirement for additional teaching spaces, research,



campus plan of faculty clusters

administration and amenity facilities, the Master Plan proposes a campus setting to accommodate these facilities with:

- the Central Campus as the principal focus for major teaching and administration facilities
- the area near University Station as another major zone for teaching facilities
- the area around Sir Philip Haddon-Cave Sports Field as the major recreational and sports hub
- research taking place away from Central Campus in the Eastern Campus and Area 39, a large vacant site north of the main campus

##### Potential for growth

Within the proposed setting, the Master Plan identifies eight potential development sites for locating the academic, recreational and research facilities as well as locations for two new colleges. (Please refer to section 5 for descriptions of these sites).



aerial view of campus model development sites

## 4.2 ENHANCING COLLEGE LIFE

The University has a unique college system with constituent colleges within the campus. The Master Plan recognizes and respects the traditions and identity of each college to engender a sense of loyalty and ownership amongst students and alumni which enriches the experience of college life. The Master Plan aims to enhance college life by reinforcing the identity of the individual colleges, giving each a further sense of being a distinctive place, or even a 'home from home', with proposals to:

- preserve and enhance the existing characteristics of the colleges
- encourage social interaction by enhancing the landscape and valuing the places between college buildings as much as the buildings themselves
- strengthen pedestrian routes between colleges and the campus core
- establish neighbourhood settings for the existing and new colleges to obtain the benefit of shared use of new facilities

### New colleges

To cater for the increased student enrolment as a consequence of the re-establishment of the four-year undergraduate curriculum, five new colleges have been established: Morningside College, S.H. Ho College, C.W. Chu College, Wu Yee Sun College and Lee Woo Sing College.

### The Master Plan Proposals

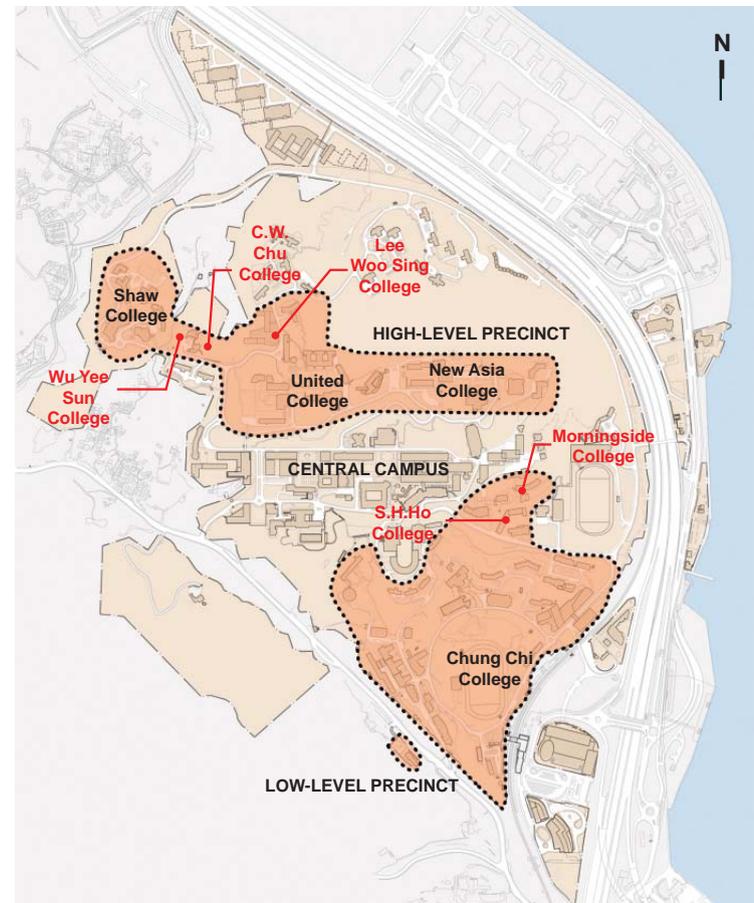
The recommendation of the Master Plan is to reinforce the continuous development of the college system in providing the best environment for college experience with the following proposals:

### College neighbourhoods

Forming distinct college neighbourhoods is considered important to strengthen the college system. The new colleges are proposed to be located near to the existing colleges as well as the Central Campus to enable communication between colleges, gain the benefit of sharing amenity facilities and enhance pedestrian connections between the colleges and the Central Campus. The northern college precinct will be enhanced with new connecting footways, bridges and express lifts to provide comfortable pedestrian access to and from the Central Mall.

### Shared facilities

New recreational facilities and learning commons are proposed as



campus plan of college neighbourhoods

shared amenities for colleges. Such facilities will be accessible as social hubs accommodating different learning styles and needs. The Master Plan proposes the development of a new amenity facility on Campus Circuit West which will contain learning commons for shared use by existing and new colleges within the high-level precinct.

### New student hostels

As part of the plan for the Northside Research Campus, student hostels for postgraduate students will be developed in the Area 39 site. The complex will provide the amenity facilities required in this relatively remote location on the campus. The communal facilities planned at Area 39 may gradually be developed into a graduate college.

### Possible enhancement to existing colleges

Options to enhance the facilities of the colleges include the following:

- 1 Chung Chi College  
Two new student hostels can be provided beside Hua Lien Tang, with improvements to pedestrian connectivity and the landscape environment.
- 2 New Asia College  
A landscape strategy can be developed to enhance the outdoor spaces, and a new student hostel provided in the gap between Friendship Lodge and Xuesi Hall.
- 3 United College  
A new student hostel can be built beside Chan Chun Ha Hostel and the green landscape court extended with sheltered spaces.
- 4 Shaw College  
The college is the furthest of all the colleges from the Central Campus. To improve its pedestrian connections, two strategic express lifts are proposed to ease vertical access, with the first rising to the level of Residence Lane 1, and the second taking pedestrians up to an elevated walkway leading to United Road.

The introduction of a new student hostel at the west side of Shaw Campus and an express lift route on the east side will enable Shaw Terrace to become a more significant thoroughfare and therefore the terrace should be enhanced to provide a better place for social gathering.



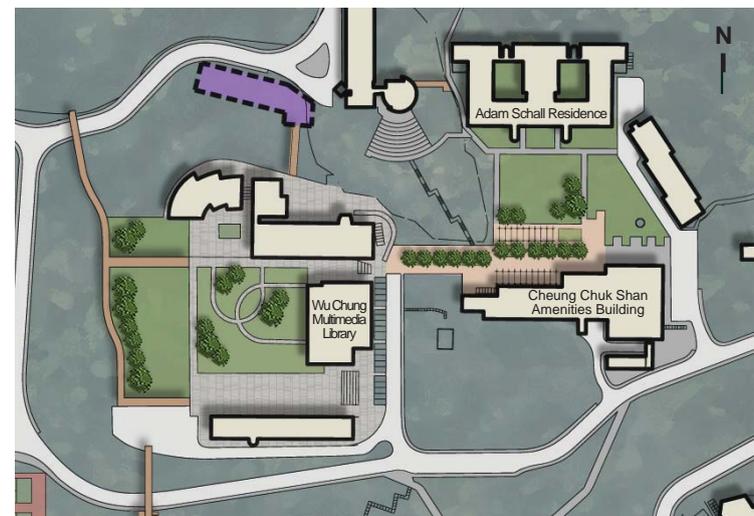
1: plan of Chung Chi College with potential student hostel and enhanced landscape



2: plan of New Asia College with potential student hostel and enhanced landscape



4: plan of Shaw College with proposed new student hostel and enhanced terrace plaza



3: plan of United College with potential student hostel and enhanced landscape

### 4.3 A PEDESTRIAN FRIENDLY CAMPUS

The Master Plan's key aim is to improve the connectivity within the campus by making it comfortable, convenient and enjoyable to walk through. By prioritizing walking, with some cycling, within the campus, it will rationalise the shuttle bus usage and minimise reliance on the private car. This strategy is based on transport analysis of the existing situation and the immediate needs of the campus, with a forecast of the demand between 2012 and 2021.

The Master Plan's approach is to optimize the performance of the various transport facilities including pedestrian linkage, internal road system management and shuttle bus services. It proposes to reinforce the major pedestrian spine on the campus by creating a complete and desirable network through the existing link bridges, a series of covered walkways and communal gathering spaces, thereby minimising reliance on the shuttle bus and private vehicle.

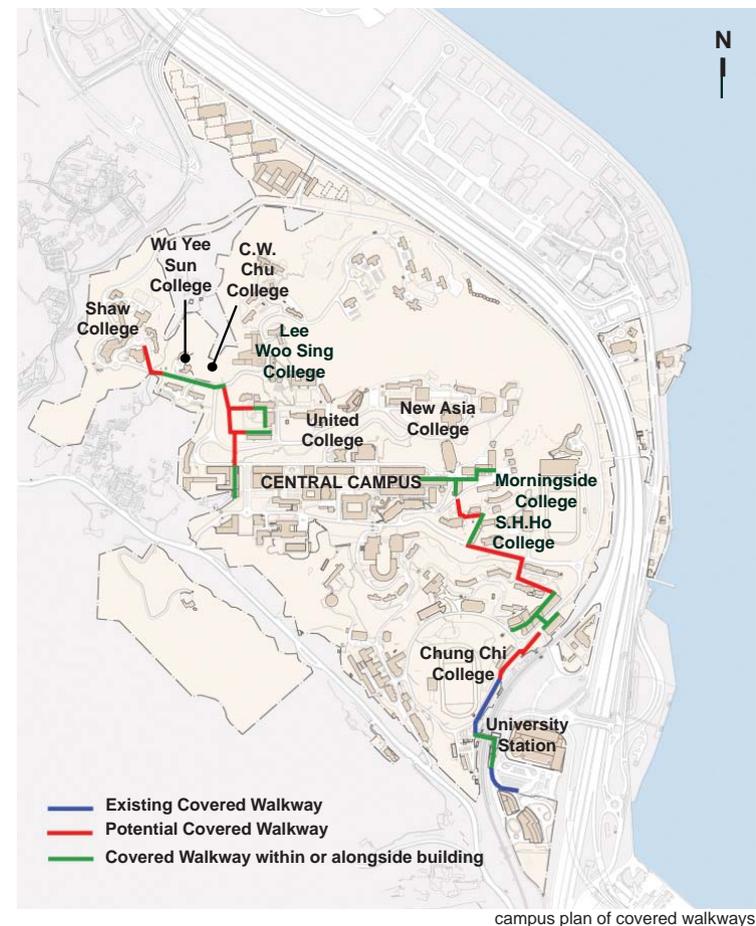
#### The Master Plan Proposals

The recommendation of the Master Plan is to establish long-term implementation strategies to achieve a pedestrian friendly campus with the following proposals:

#### Pedestrian network

The Master Plan proposes an extension to the pedestrian network; the network will begin at University Station, passing through the lower campus precinct and up to the Central Campus which will form the hub of the road and pedestrian networks. From the Central Campus, the network will extend to the upper precinct colleges via separate linkages with existing and new vertical components.

- Pond Crescent  
Chung Chi College will be closely consulted on any proposals including the following about the Pond Crescent. Pond Crescent is recommended to be made one-way anti-clockwise, thereby releasing road area for the widening of the footways and providing space for cycling. This proposal will simplify traffic movements between University Station and Chung Chi Road, provide safer pedestrian crossings and enhance the pedestrian environment.
- Eastern Link  
A new pedestrian route will link University Station to the Central Campus with express lifts in the new Integrated Teaching Buildings, adjacent to the Pentecostal Mission Hall Complex, and within new developments on the Village Path site. This principal link will divert pedestrian traffic to the east of Pond Crescent and provide a sheltered route from the station to the Central Campus. It is highly recommended that the University



explore with MTRC the possibility of a new northern exit to the University Station which should be most helpful in diverting pedestrian traffic in 2012.

- Central Link  
A new pedestrian route will connect the lower precinct at Pond Crescent to the Central Campus. Express lifts within the new Student Amenity Centre and on Chung Chi Road will provide access to new developments at the Academic Building 1 site. Express lifts within this building will provide access to a high-level bridge link to the William M W Mong Engineering Building, and link directly to the Central Mall.
- Western Link (northern colleges to Central Campus)  
New express lifts at Shaw College and Campus Circuit West will connect to a new trail south of the Residence Blocks 3 and 4. A further lift will provide access up to Residence Road and a direct downhill connection to the Central Avenue. To reverse the

journey, new express lifts are proposed connecting the Teaching Complex footbridge onto United Road and further to the western court of United College.

With the establishing of the new colleges, a bridge link and integrated express lifts will complete the connection loop for the northern colleges and the Central Campus.

The proposed extension to, and enhancement of the existing walkways, will enable a comfortable walking time of 15 minutes between the periphery and the core of the campus.

### Road enhancements

The Master plan proposes a series of improvements for road safety and efficiency within the campus:

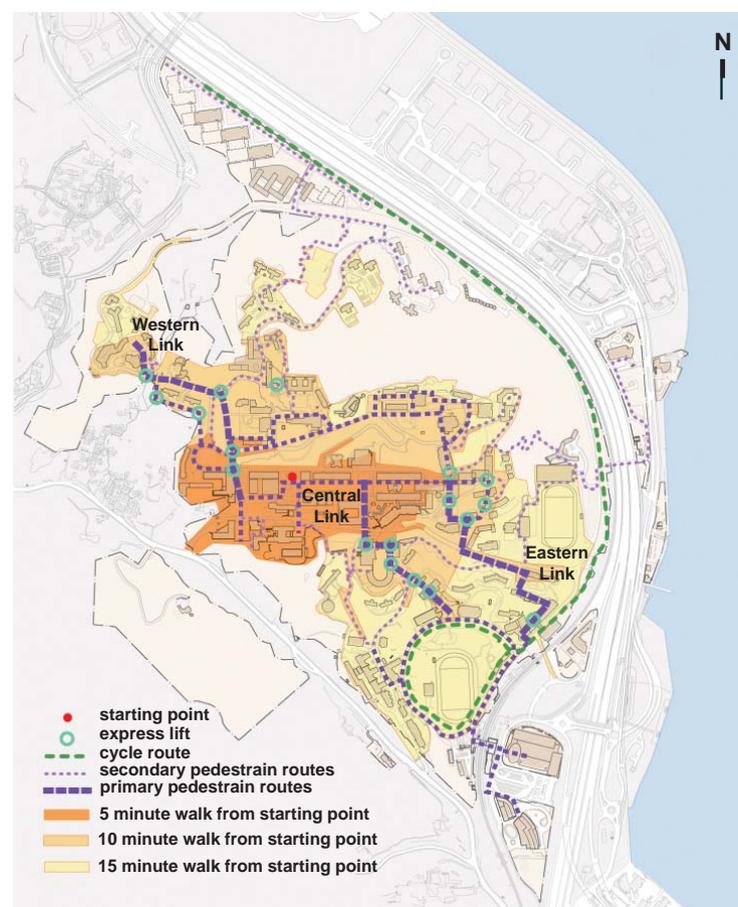
- at Station Road/ University Avenue/ Campus Circuit East  
The existing junction will be upgraded to a formal roundabout to allow for the increased movements to Area 39.
- at Residence Road adjacent Shaw College  
The existing priority junction will be re-configured into a new roundabout and close the access to the college. Space will be provided for the turning area for buses and to improve circulation outside the confines of the college. This proposal will also enable any expansion of the Shaw College Plaza area.
- at Station Road  
The roundabout will be relocated nearer to University Station to provide additional space for new bus bays to increase bus pick-up capacity and overall bus efficiency so as to reduce the waiting time and queuing for passengers.

### Park-and-Ride

To further enhance the pedestrian friendly nature of the campus, the Master Plan proposes to reduce private vehicle use and the associated fuel emissions within the campus. New car parks will be located near to the existing main university entrances, at the periphery of the campus, at University Station in the south (Site G), adjacent to John Fulton Centre in the west (Site D), and, in addition, within Area 39 in the north (Site H). Visitors will be required to park their cars at these peripheral locations and either walk or take the shuttle bus within the campus.

### Shuttle bus service

The Master Plan's aim to optimize the performance of the various transport facilities within the campus is a critical component in the proposals for the campus shuttle bus provision. Should no enhancement take place in the proportion of those choosing to walk within the campus, the projected bus frequency will be increased from 78 to 100 per hour by 2012 and 115 per hour by 2021. These projected increases will result in the failure to deliver a sustainable and environmentally friendly campus.



campus plan of principal pedestrian and cycle routes

The Master Plan recommends a phased replacement of the existing bus fleet with hybrid electric or Euro V, low emission diesel buses by 2021:

- The shuttle bus routes will be simplified to adopt a 'bus and walk' strategy, to promote more walking within the campus.
- An Area 39 express service will be provided.
- Bus stop locations will be aligned with the new pedestrian routes to reduce the number of bus stops particularly in the downhill direction.

### Cycle tracks

To promote an alternative mode of transport and help develop a cycling culture within the University, the Master Plan proposes the construction of a dedicated cycle track connecting University Station to Area 39, together with the provision of cycling made possible around Pond Crescent.

#### 4.4 CONSERVING PLACES OF VALUE

The Master Plan acknowledges existing buildings, landscape and places that represent cultural significance in the campus because they are original and therefore historical, and they have been conferred personal meaning and association by the University community through use and occupation. They stand to convey identity to the University and help to give unity to the campus – a unity which the Master Plan proposes to enhance and extend.

##### The Master Plan Proposals

A list of places of value to be conserved has been compiled as a result of consultations during engagement events. This list includes places such as the Statue of Confucius in New Asia College, the Sculpture Garden in United College and Weiyuan Lake in Chung Chi College.

In addition to the places on the list, the Master Plan recommends the establishment of a methodology for identifying places with unique values that should be conserved. The methodology should include two key procedures:

- 1 Procedure to identify places with unique valued fabric, use and associations

Step 1: Identification and investigation of places including:

- architecture (such as a building, infrastructure or monument)
- cultural landscape (such as a garden, plaza or landscape feature)

Drafting a preliminary 'List of Places with Cultural Significance' based on:

- investigation and collected information
- preliminary consultation with stakeholders and experts

Step 2: Assessment of the significance of a place according to the following values:

- (i) historical value
- (ii) identity value
- (iii) memorial value
- (iv) architectural value

Step 3: Consultation with the community

Step 4: Assessment of class of significance

Step 5: Recommendation for listing

The implementation of this procedure can be carried out by a task group which reports to the University. The task force will set a timetable for the procedure to take place in stages.

- 2 Procedure to assess the implication of any intervention to a 'Place with Cultural Significance'

The implementation of this procedure as part of a management plan for the list can be carried out on an individual basis by a separate team of specialists from different disciplines.



mall of Central Campus



examples of places of value on campus

#### 4.5 A LANDSCAPE OF VITAL IMPORTANCE

The Master Plan has an objective to create a green and humanistic landscape framework to:

- promote the enjoyment of the landscape and visual amenity of the surroundings
- enable active experience of the natural campus context
- encourage social interaction by providing high quality landscape for gathering, study and knowledge sharing
- strengthen the sense of belonging and community

##### The Master Plan Proposals

The recommendation of the Master Plan is to maintain and continue to develop a green and humanistic landscape with the following proposals:

##### Composition of campus landscape

The University sits within a natural context which is adjacent to Tai Po Kau Nature Reserve and Tolo Harbour, with over 60% of its campus area covered with greenery. The Master Plan proposes a Landscape Strategy Plan which identifies and recommends the treatment of the different types of landscape zones within the campus to enhance the greenery and to supplement hard landscape works.

(Please refer to section 6 for the recommendations on the treatment of landscape zones.)

##### Network of campus open spaces

The Master Plan proposes to enhance the landscape experience by

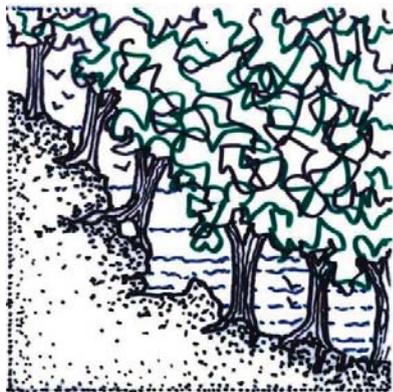
creating a comprehensive open space network within the campus with:

- open spaces as destinations which are framed by buildings and activated by new pedestrian paths which pass through them
- open spaces located around viewpoints that look out towards the sea or wooded hills
- shaded courtyards created between buildings as cooling retreats
- attractive planted roofs which have shading devices and ponds for storm water storage
- open spaces connected with wider footpaths and shared road surfaces where possible
- new footpaths created and existing ones improved through the wooded hillsides for convenience and aesthetic pleasure
- thematic landscaping provided to identify significant places
- the existing natural water streams and trails conserved
- the planting kept as natural as possible for ecological and aesthetic reasons, and water and energy used in maintenance reduced
- recycled, recyclable or sustainable paving and materials used wherever possible

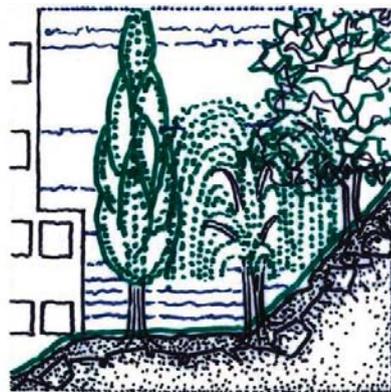
##### Potential new nature trails

The Master Plan proposes two trails to promote the enjoyment of the natural campus context:

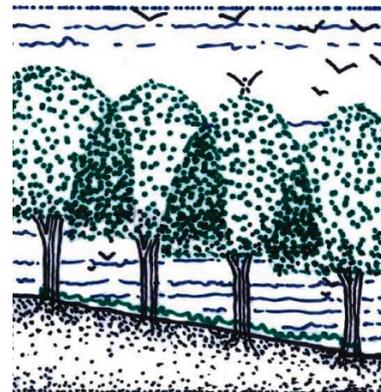
- Nature Trail 1 between United College and Area 39
- Nature Trail 2 between Eastern Outlook and the Jockey Club Postgraduate Hall



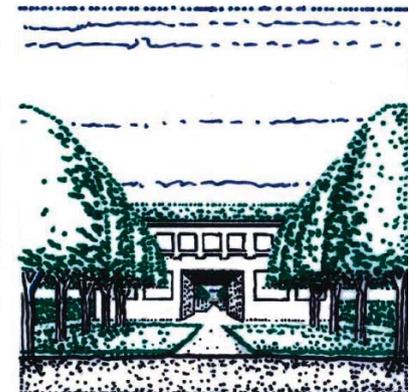
indigenous woodland



screening/buffer plantation woodland



amenity plantation woodland



ornamental planting



campus plan of landscape zones and trails

#### 4.6 MAKING A SUSTAINABLE CAMPUS

The University has pledged its commitment to continuously improve the environmental quality of the campus, putting the principles of sustainable design at the heart of campus development, and has been acclaimed for the effort put to enhance sustainability, including measures for recycling, use of renewable energy, energy conservation, waste management, tree and ecology preservation, and carbon audit on existing buildings.

Winning a silver award of the 2008 Hong Kong Awards for Environmental Excellence Sectoral Awards under the category of Public Sector and Non-Government Organizations (NGOs) is a good testimonial to the existing effort for comprehensive environmental management. In recognition of the University's commitment, the Master Plan aims to create a model for a sustainable campus with a reduced dependency on the earth's finite natural resources and a reduction in the total emissions of greenhouse gases – a campus with cleaner air, producing less waste, with less reliance on the motor vehicle, and which sets a target to reduce energy consumption of 25% (per capita) in 2025 from the campus-base figure of 2005. Reference can be made to Hong Kong's commitment in reduction of total energy consumption by 25% by 2030.

Of the greenhouse gas (GHG) emitted by Hong Kong, 60% comes from electricity use, of which 89% is attributable to buildings, with transport, waste and other sources producing the remaining balance.

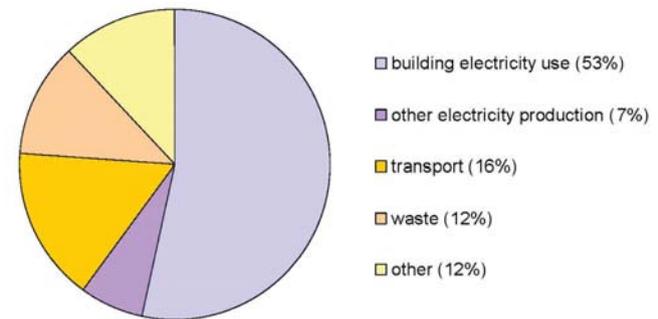
##### The Master Plan Proposals

The Master Plan recommends establishing guidelines to develop a practically achievable model for a sustainable campus with 25% cut in energy use (per capita) and a 20% cut in GHG emissions (per capita). These will require significant changes in building design methods:

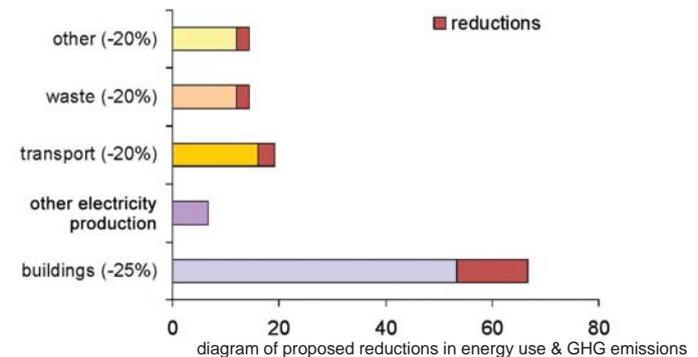
- Apply design performance codes to all new campus developments. All new buildings shall aim to achieve the higher performance target such as "Excellent" rating of HK-BEAM or 5 stars of the Australian Green Star™ System.
- Implement all feasible measures for energy conservation and energy efficiency within the existing campus development.
- Recommend the following environmental design principles to be considered in all developments:

##### Building solar shading

- East-west building orientation
- Deep eaves and balconies
- Vegetation for shading and evaporative cooling
- Covered walkways and colonnades



Hong Kong's greenhouse gas emissions



##### Natural building ventilation

Natural ventilation has the potential to reduce reliance on air-conditioning for thermal comfort. Where possible, buildings should have breezeways through principal floors to improve evaporative cooling.

Design features to consider include:

- breezeways, atria and courtyards
- large openings for cross-ventilation
- high ceilings for good air circulation
- double skin facades for stack effect cooling
- shallow floor plates



##### Planted roofs

All developments should have green roofs to provide the following benefits:

- biodiversity
- rainwater attenuation
- solar insulation
- reduction in heat island effect
- an attractive 'fifth elevation'



##### Materials

Materials with low embodied energy should be used. Demolition and reconstruction are inherently wasteful of materials and energy,

therefore, design for longevity is paramount.

Design measures to consider include:

- lightweight structures and materials
- design for longevity and conserve buildings where possible
- build using recycled / recyclable / low embodied energy materials
- conserve, adapt and upgrade valuable existing structures

### Energy and CO<sub>2</sub>

Design measures to consider:

- energy efficient appliances to minimise energy demands
- movement / daylight sensors to reduce demand on artificial lighting
- roof top photovoltaics, solar water heaters and wind turbines may supplement the University's energy demands through micro-generation
- sea or lake source heat exchange pumps to stabilise internal temperatures
- 'mixed-mode' services strategy to combine air conditioning with natural ventilation to provide comfort cooling
- improved building management to increase efficiency
- plentiful day lighting to reduce artificial lighting loads
- integrate vernacular, tropical climate ideas for low carbon strategies

### Transport

A principal recommendation of the Master Plan is the implementation of a comprehensive pedestrian movement framework within the campus to provide comfortable access throughout the campus and give precedence to pedestrians over vehicles. Improved connectivity will reduce the reliance on motor vehicles, bringing improved air quality and reduced environmental impact and noise levels. Hybrid and fuel-efficient vehicles will reduce emissions still further, with the proposed 'park-and-ride' scheme keeping private cars out of the central campus.

Measures to reduce emissions include:

- pedestrian friendly campus to encourage walking as the principal means of transport
- phased upgrading of existing campus buses to hybrid vehicles
- simplified bus network to reduce total bus numbers
- park-and-ride facilities to reduce private car use within the campus
- cycle lanes and secure cycle storage and facilities

### Water

The University currently collects rainwater from the Weiyuan Lake for future use in landscape irrigation. This sustainable measure should be enhanced with further recommendations for water management within the campus development design:

- reservoirs to gather drainage from natural hill streams



view of Weiyuan Lake

- recycling to use grey water in WCs
- attenuation to reduce storm-water surges
- conservation through efficient and aerated fittings

Development at Area 39 site presents an opportunity for a reservoir to capture the natural stream run-off from the main campus and manage the natural water systems with sustainable water management.

### Waste and energy sources

The conversion factor from fuel to power at a large power station is around 25%. Site generated power is a proposal which should be considered in the long-term power provision for the campus. Combined cooling, heating and power (CCHP) plant can provide significant reductions in carbon emissions when fuel is provided from local sources.

The Master Plan recommends a feasibility study be conducted to assess viability of alternative forms of centralised energy production within the campus, and consider low or zero carbon technologies such as on-site micro-generation, biogas production from waste and CCHP.

Measures to reduce emissions include:

- reduce construction waste
- source building materials responsibly and locally
- solar powered absorption chillers may reduce operating costs by utilising low grade heat
- sea or lake source heat pumps to provide natural cooling
- wind power to generate electricity
- photovoltaics panels to generate electricity
- solar collectors for water heating

## 5 PROVISION FOR GROWTH — POTENTIAL DEVELOPMENT SITES

During the Stage 1 stakeholder engagement exercise, a consensus was reached with the University community to support development of certain areas of the campus to accommodate further growth of the University.

During Stage 2, all the possible sites identified in the previous stage were assessed and their suitability and potential agreed at further stakeholder engagement sessions.

During Stage 3, specific proposals were developed for the potential development sites and confirmed with the stakeholders for inclusion in the Master Plan. Collectively, these sites will provide comprehensive accommodation for the anticipated future growth of the University up to and beyond 2021.

In order to accommodate the educational development and space needs, a number of new development sites have been identified in the following categories with due consideration to cultural value, as well as geotechnical and ecological concerns.

- Immediate developments are considered as a priority to provide the shortfall in accommodation resulting from the four-year undergraduate curriculum and the establishment of enhanced research facilities.
- Intermediate developments will contribute to the enhancement of the University's connectivity and the provision of a pedestrian friendly campus.
- Long-term developments will provide accommodation beyond the University's planned requirements for 2021.

### 5.1 Sites of immediate potential

- 5.1.1: New Colleges on Residence Lane 1 (Site I)
- 5.1.2: Area 39 - Northside Research Campus (Site H)
- 5.1.3: Arts and Humanities Hub (Site E)
- 5.1.4: Staff Residences (Site F)

### 5.2 Sites of intermediate potential

- 5.2.1: Academic Building 1 - Southside Outlook (Site C)
- 5.2.2: University Station - Station Court (Site G)

### 5.3 Sites of long-term potential

- 5.3.1: Romney Stores - Eastside Sports Hub (Site A)
- 5.3.2: Open Car Park outside John Fulton Centre
  - Westside Belvedere (Site D)
- 5.3.3: Village Path - Eastside Outlook (Site B)



aerial view of campus development sites

## 5.1 Sites of Immediate Potential

### 5.1.1 NEW COLLEGES ON RESIDENCE LANE 1 (SITE I)

#### Site Context

The site with steep slopes lies opposite to University Residence No. 3 and 4 on Residence Lane 1 between Shaw College and United College and the to-be-built Lee Woo Sing College. The existing Staff Common Room needs to be relocated to a more central place for ease of access by stakeholders.

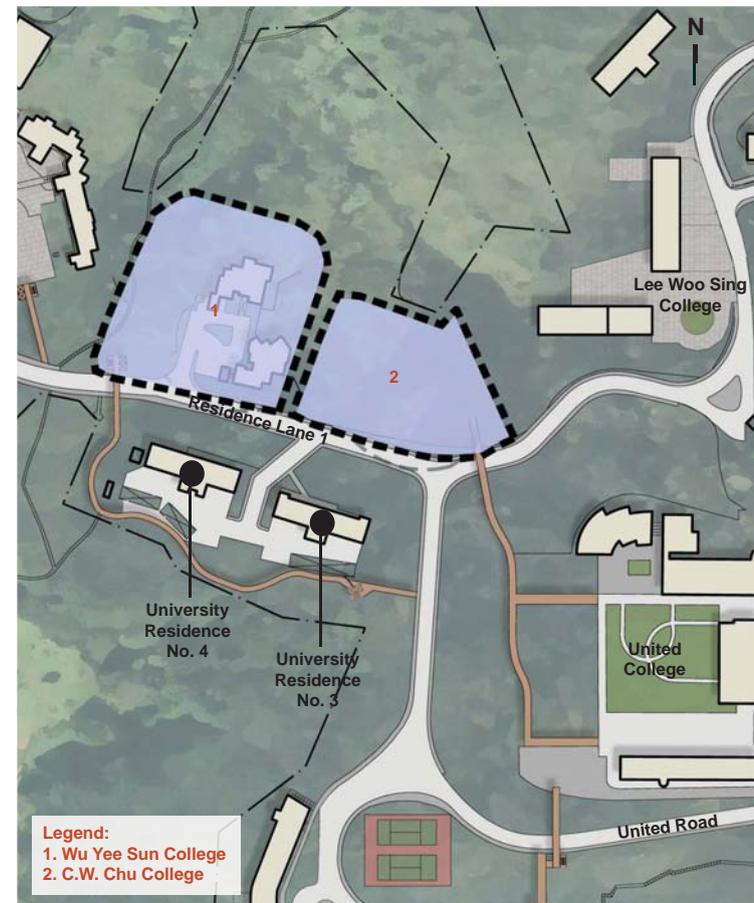
#### Planning Concept

The proposed two new colleges will establish the northern college neighbourhood with Shaw College and United College and the to-be-built Lee Woo Sing College.

- **Orientation and Height**  
The height of two new colleges shall be comparable with the surrounding buildings.
- **Connectivity and Movement**  
The new colleges will connect to the Central Campus along Residence Lane 1 to the new bridge of Teaching Complex at Western Campus across Central Avenue.
- **Facilities**  
The design of Wu Yee Sun College may incorporate one or both of the buildings on the site. This new collegiate space will provide additional accommodation for 600 beds.

East of this new complex is C.W. Chu College providing accommodation for 300 beds. To enjoy the beautiful view of the site, the design of this new college may consider using a low-rise terrace and cluster approach.

The design of the residential blocks of these two new colleges should take into consideration a harmonious setting with the neighborhood and try not to block the view of nearby buildings.



location of new colleges

### 5.1.2 AREA 39 - NORTHSIDE RESEARCH CAMPUS (SITE H)

#### Site Context

The site lies between Campus Circuit Road and Tolo Highway, occupying a relatively level parcel of land. It is currently sparsely covered by low bushes and some trees.

#### Planning Concept

The Northside Research Campus will grow in phases to become a substantial research hub to facilitate the University's increasing need to provide support for its scientific and developmental ambitions. A postgraduate hostel complex is recommended to be built on the eastern portion of the site with associated amenity at ground level to serve all users of the site. The density of the developments shall be governed by the plot ratios specified by the Authority.

- **Orientation and Height**  
The research buildings will have their main elevations facing north-south to maximise solar control. The hostels will be orientated at right angles to Tolo Highway. The height of the tallest building is 40 m, comparable with the heights of the adjacent Science Park.
- **Connectivity and Movement**  
Although relatively distant from the Central Campus, the site should be very well linked by vehicle, shuttle bus and bicycle, with an option of a pedestrian footpath descent from United College. Car and bicycle access will be via the Campus Circuit Road which will be upgraded to include cycle lanes. Extra car parking spaces will be available on site to support a park-and-ride facility, with regular shuttle bus services connecting it with University Station and the Central Campus.

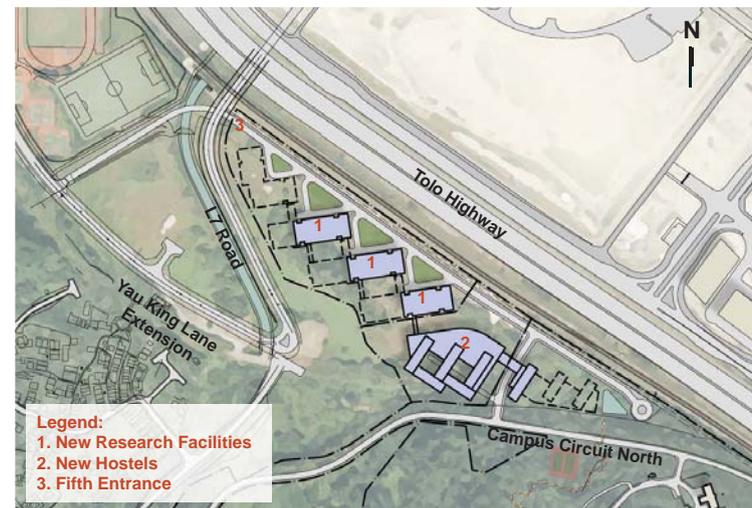
The new buildings will be served by a new road leading off Campus Circuit North as well as a fifth entrance to the University that enters this research campus off L7 Road and Yau King Lane.

- **Facilities**  
The site will be laid out with open and enclosed courtyards, providing attractive social areas, shaded by trees and other vegetation. The east and west sides of the courtyards are partially open to allow cooling breezes and people to flow through the landscape. Both developments will be shielded from traffic and railway noise by a screen of trees and landscaping along the highway and road facing edges of the site.

The research campus will potentially comprise seven blocks

organised into four linear components with setbacks and colonnades on their ground floor perimeters and main entrances facing east. The postgraduate hostels east of the research campus are entered from forecourts on the buildings' eastern and western edges into internal courtyards.

Although the Northside Research Campus will be occupied primarily by research laboratories in the western portion of the site and by hostels in the eastern part, both will bring some amenity function to the site for their mutual benefit as well as for the use of visitors to the campus. Dining areas, social areas and flexible learning commons can be considered in both areas with office and sports facilities offered where necessary.



plan of Northside Research Campus

aerial view of Northside Research Campus



### 5.1.3 ARTS AND HUMANITIES HUB (SITE E)

#### Site Context

The site is situated on the western end of the Central Campus with three existing buildings to consider – the Teaching Complex at Western Campus, the Fung King Hey Building and Leung Kau Kui Building.

#### Planning Concept

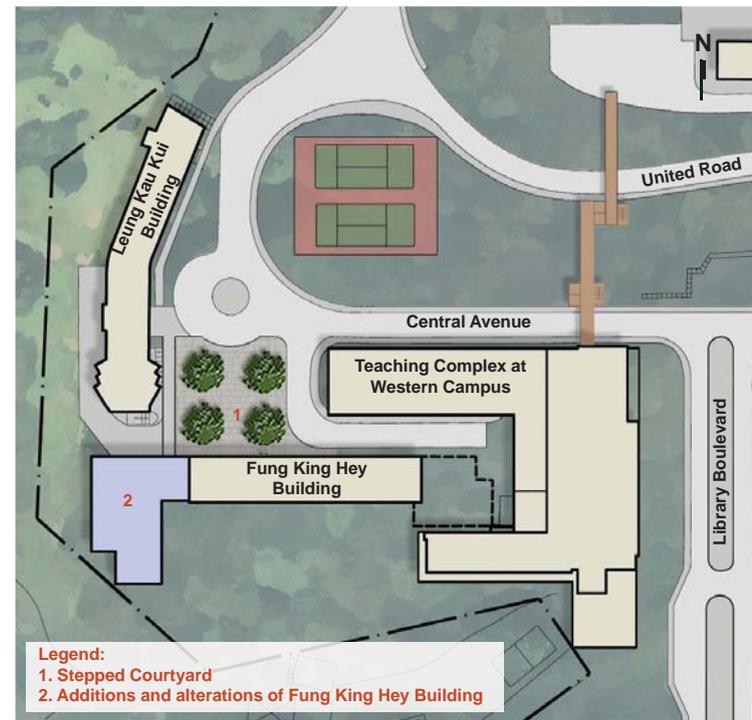
The potential of the site has been identified through the desire to rationalize the organisation of faculties into distinct zones. When the Faculty of Business Administration moves away from Leung Kau Kui Building, there is an opportunity of reconfiguring this area into an Arts & Humanities Hub.

- Orientation and Height  
The height of both options shall be comparable with the surrounding buildings.
- Connectivity and Movement  
Two options have been considered:  
Option A proposes a partial demolition of the Fung King Hey Building with a new western redevelopment. This is a minimal approach to enhance the entrance to the hub with a small formal stepped courtyard and by relocating the car parking provision to a lower level behind the building.

Option B proposes replacing the Fung King Hey Building with a new purpose built arts facility with increased floor area for the hub. This proposal creates a more generous entrance courtyard for social gathering.

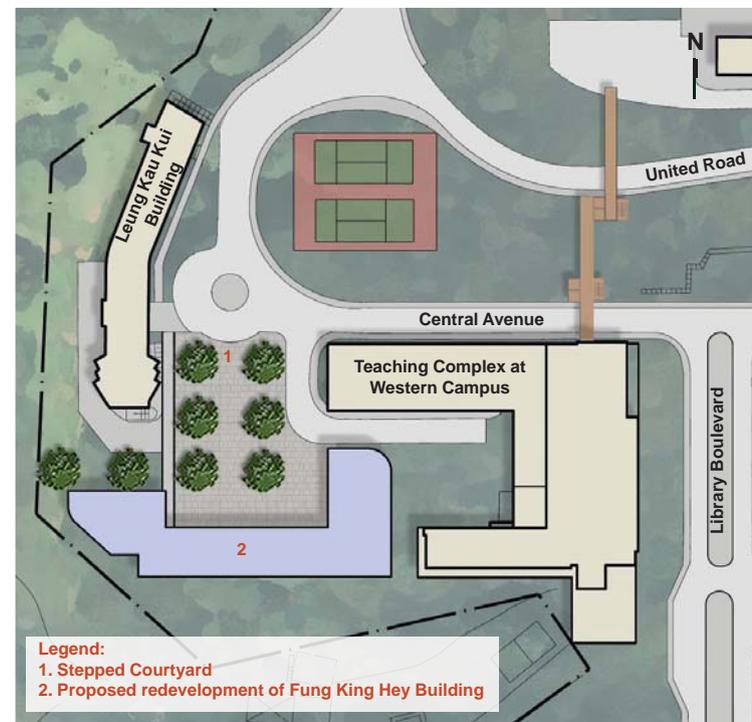
- Facilities  
The redeveloped or new building will accommodate teaching labs, faculty offices and study spaces.

aerial view of Arts & Humanities Hub option B



plan of Arts & Humanities Hub option A

plan of Arts & Humanities Hub option B



#### 5.1.4 STAFF RESIDENCES (SITE F)

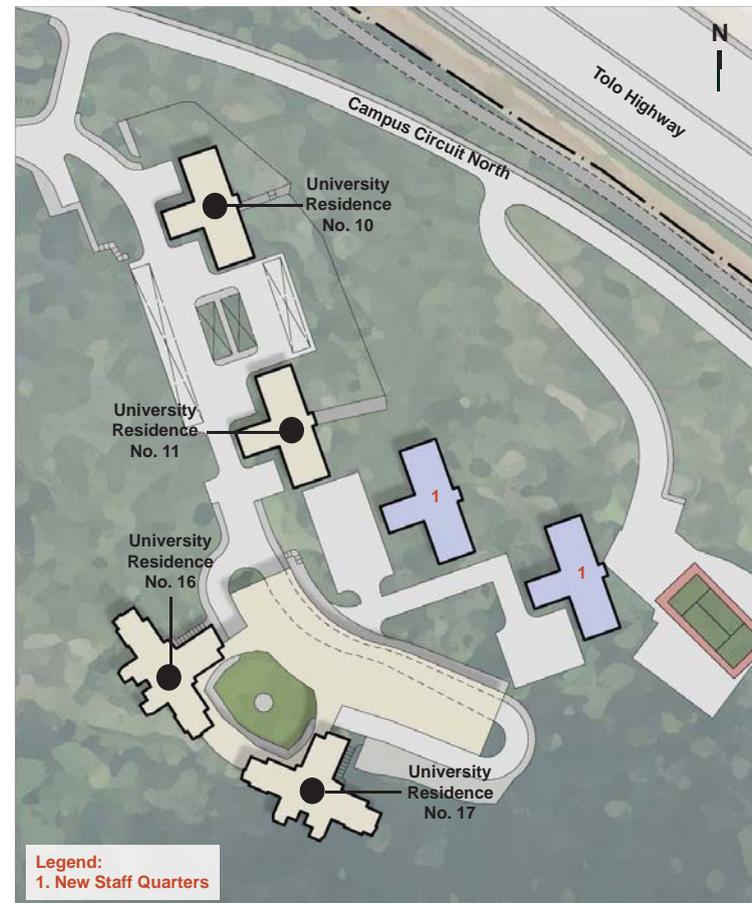
##### Site Context

The site is situated on the lower wooded foothills north of the campus, and due east of the existing cluster of University Residence towers overlooking the Hong Kong Science Park and Tolo Harbour.

##### Planning Concept

This locale is considered to be the most appropriate site for any new staff quarters, with the two proposed buildings to be designed as additions to the existing cluster of staff residences.

- **Orientation and Height**  
The residences should be orientated to maximise views towards Tolo Harbour. The buildings will be approximately 13 storeys high which is in keeping with the existing residential towers.
- **Connectivity and Movement**  
This site off Residence Road will be served by regular shuttle bus services to and from the Central Campus as well as enjoying easy vehicle access from Tolo Highway. The new staff residences will be within a short stroll of the proposed Site H (Northside Research Campus) and will also be well connected via new cycle routes to sites A (Eastside Sports Hub) and G (Station Court), and University Station. The site is also served by a footpath linking Site H with the Central Campus.
- **Facilities**  
The main entrances will be located on the south-west side of the buildings, adjacent to a proposed car parking area. The proposals will include residential apartments of varying sizes with internal and external communal areas at entrance level.



plan of Staff Residences

aerial view of Staff Residences



## 5.2 Sites of Intermediate Potential

### 5.2.1 ACADEMIC BUILDING 1 - SOUTHSIDE OUTLOOK (SITE C)

#### Site Context

The site is situated due south of the Ho Sin-Hang Engineering Building and the William M W Mong Engineering Building. The existing Academic Building 1 on the site, which is not efficient for current academic functions, will be demolished. The site sits on a level outcrop which drops off on its east, west and south sides.

#### Planning Concept

The new academic building on this site will sit outside the immediate area of the Central Mall but will complete an existing southward branch off University Avenue continuing the massing of the two Engineering Buildings. In addition, it will form part of the 2021 pedestrian movement plan, providing a crucial express lift and bridge through the William M W Mong Engineering Building, leading to the Central Mall buildings. The floor area lost from Academic Building 1 will be provided elsewhere within the Master Plan proposals.

- **Orientation and Height**  
The main building will be approximately 6 storeys high, with an express lift in its north-east corner taking users up to a pedestrian bridge linking to the 9th floor of the adjacent William M W Mong Engineering Building.
- **Connectivity and Movement**  
The building will be served by Chung Chi Road and a secondary pedestrian route which ascends from Pond Crescent. It will also support a primary pedestrian route by providing an express lift at its north-east corner linking its ground level at Chung Chi Road to a roof terrace and bridge-link level of William M W Mong Engineering Building.
- **Facilities**  
The main entrance to the building will be situated on the north-west corner accessed directly off the existing road level at Chung Chi Road. The building will accommodate teaching labs, faculty offices and study spaces, and has the potential at the lower floors to provide deep plan accommodation, for example, auditorium and lecture halls. The inward facing elevation will look upon a green planted courtyard. The roof of the building which is at the bridge-link level will be landscaped as a green sheltered garden for relaxing and enjoying views.



plan of Southside Outlook

aerial view of Southside Outlook



## 5.2.2 UNIVERSITY STATION - STATION COURT (SITE G)

### Site Context

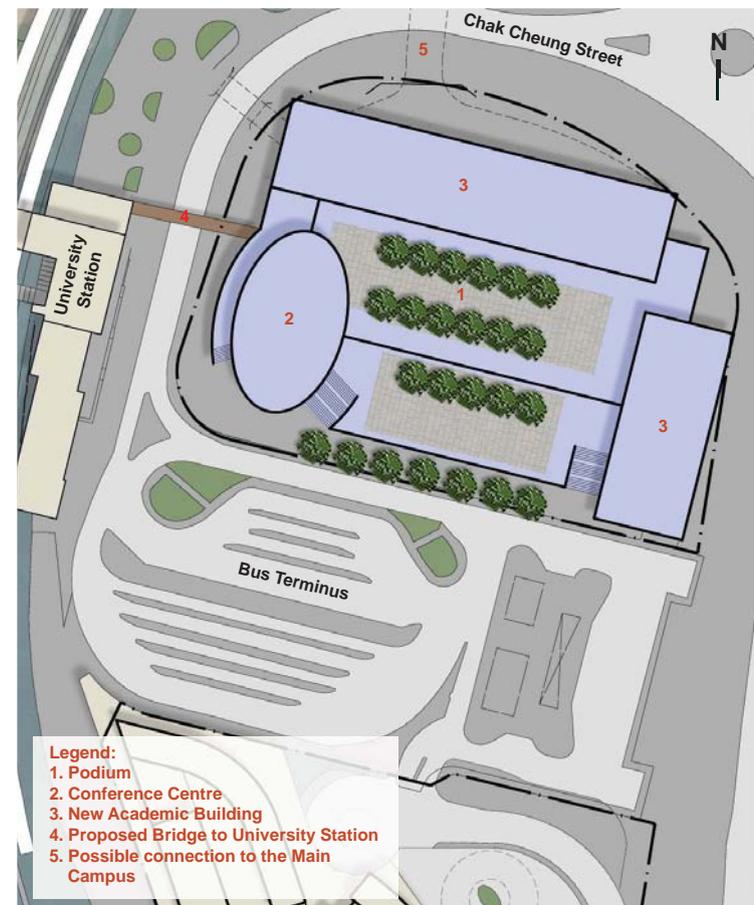
The site is situated in the undeveloped lot between University Station and Tolo Highway. It is ringed by Chak Cheung Street and is currently a green piece of land with a perimeter of woodland along its east, north and west edges. The site offers excellent road and rail connections.

### Planning Concept

The new building on the site will enclose a raised external space. Although outside of the main campus area, the site will form a transport hub and major academic and administration building, with possible new connection to the Main Campus which may be a bridge at grade level or through a tunnel. This option will ensure that vehicles need not leave university-owned land. As part of a longer-term planning strategy, integration of the nearby public bus terminus with the new campus development should be considered.

- **Orientation and Height**  
The height of the development shall be comparable with the surrounding buildings.
- **Connectivity and Movement**  
The new raised plaza in the centre of the proposed building will become a pedestrian hub, with the potential to relocate the Public Transport Interchange (PTI) beneath the plaza podium. A car park for the park-and-ride facility will also sit alongside the new university bus terminal here.
- **Facilities**  
The main entrances to the building accommodation will be via the raised podium level facing towards the open space. Access up to the podium will be via a generous stair and lift arrangement located in the south-west corner of the site, which will also provide access down to the PTI hub and park-and-ride car park. This will be a significant visual entrance which gives easy access for pedestrians coming from University Station, the main bus terminal and taxi ranks, as well as the existing subway connection to the Main Campus.

The building will accommodate student amenity and teaching spaces, academic offices, study areas and community college facilities. A conference centre with theatre facilities will also draw public visitors.



plan of Station Court

aerial view of Station Court



## 5.3 Sites of Long-Term Potential

### 5.3.1 ROMNEY STORES - EASTSIDE SPORTS HUB (SITE A)

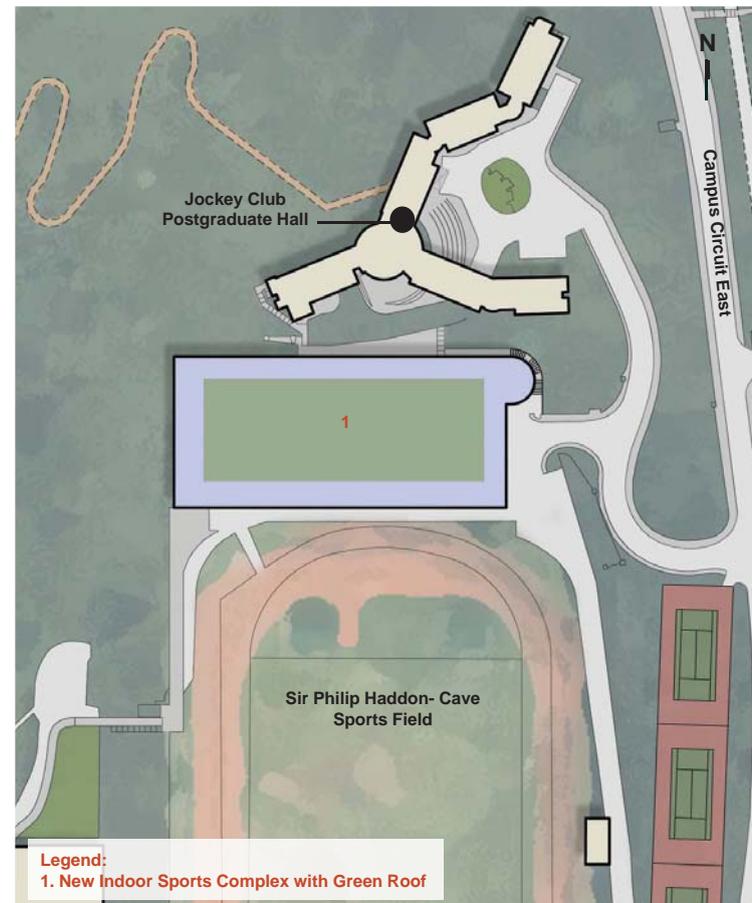
#### Site Context

The site lies between the Sir Philip Haddon-Cave Sports Field and the Jockey Club Postgraduate Hall. The proposed development will replace a collection of Nissan huts known as the Romney Stores. The site is relatively level although a steep cliff rises west towards the Central Campus. The east of the site is wooded around the access road with a sports field and running track to the south. The adjacent Jockey Club Postgraduate Hall sits over 6m above the entrance level of the proposed building, with its service area facing the site.

#### Planning Concept

The proposal for Eastside Sports Hub arises from the University's requirement for an indoor, Olympic-sized swimming pool. In addition, the building is to accommodate a sports hall with spectator seating. The centre will complement the existing sports facility to provide the University with a single, fully-equipped sports hub.

- **Orientation and Height**  
The building shall be 2 storeys high.
- **Connectivity and Movement**  
The site is removed from the major pedestrian thoroughfares and is served from within the University via: (a) a footpath from the proposed development at Village Path (Site B) down the hillside; (b) a footpath leading from the Morningside College past the existing University Sports Centre and Kwok Sports Building; and (c) the road from the east end of University Avenue to the Jockey Club Postgraduate Hall. However, the site is connected to Campus Circuit East road by a short slip road, offering easy car and bicycle access, being on the main route connecting University Station to the proposed research facilities at Area 39 (Site H).
- **Facilities**  
The main entrance will be on the east side of the building, adjacent to the car parking area and primary access route, providing access to a multi-sports hall (with flexibility for some spectator seating), 36.5 m x 32 m with a 2 m perimeter walking area, and an Olympic-size swimming pool, 21 m x 50 m with a 3 m perimeter area. Changing and administration facilities will be located beneath the poolside raked seating area. The building shall have a green roof for the benefit of the overlooking buildings.



plan of Eastside Sports Hub

aerial view of Eastside Sports Hub



### 5.3.2 OPEN CAR PARK OUTSIDE JOHN FULTON CENTRE - WESTSIDE BELVEDERE (SITE D)

#### Site Context

The site is situated due west of the John Fulton Centre, south of Library Boulevard, encompassing the coach park and Security & Transport Building. To the South the site sits at the edge of a steep drop which is covered with historic woodland.

#### Planning Concept

Driven by the aspiration to extend the core of the University in a low-rise manner with new courtyards, places and clearly defined connections, a southern extension of the Library Boulevard is proposed, extending the Central Mall westwards in the manner of the original master plan, with a new public open space proposed adjacent to the John Fulton Centre which will also terminate the boulevard.

- Orientation and Height  
The two proposed buildings will be 6 storeys high, in line with the John Fulton Centre.
- Connectivity and Movement  
The new plaza will be framed by new buildings on its west side adjacent to the University's main entrance and on its east side alongside the John Fulton Centre. This plaza is envisaged as a new gathering space or 'exterior room' which is intended to facilitate the exchange of ideas and interaction between members of the university community.

The resolution of the proposal will require the reconfiguration of the existing coach and car park beneath the level of the new plaza and new building on the west side of the site.

- Facilities  
The focus of this site will be the new plaza with active frontages and main entrances to the new buildings to animate the open space and create a destination point. The landscaping strategy will provide substantial natural shade for pedestrians at the perimeter, with the central area remaining open for people to congregate. The buildings will accommodate administration facilities and amenity spaces.



plan of Westside Belvedere

aerial view of Westside Belvedere



### 5.3.3 VILLAGE PATH - EASTSIDE OUTLOOK (SITE B)

#### Site Context

The site is situated due east of the Choh-Ming Li Basic Medical Sciences Building between the Mong Man Wai Building and the Yali Guest House. The existing Minor Staff Quarters on the site will be redeveloped and the adjacent University Health Centre will be converted into a learning commons. The site drops steeply onto Clinic Road through a wooded embankment. The existing health service is to be relocated to a site near the University Station for convenience.

#### Planning Concept

The new academic buildings on this site will enclose two significant outdoor public spaces, activated by a network of new pedestrian routes that will connect the Central Mall with University Avenue. The development will form an extension and eastern terminus to the Central Mall.

- Orientation and Height  
The proposed North-South orientated academic buildings will be 5 storeys high when approached from the Central Mall and 9 storeys at the lower level square, matching the heights of the buildings on the Central Mall.
- Connectivity and Movement  
It is proposed to extend the Central Mall's character eastwards beyond the Choh-Ming Li Basic Medical Sciences Building by converting its podium level into a public route leading to a new public square in front of the Mong Man Wai Building. South-east of this New Square, a cascade of stepped terraces will follow the natural slope of the hillside down to a new Eastern Outlook on Clinic Road, terminating with a sheltered belvedere looking out towards Tolo Harbour.

The New Square and supporting buildings will provide a link between the Central Mall and Clinic Road. Express lifts within the new buildings will enable vertical pedestrian movement between the Central Mall, the New Square, Clinic Road and the new Eastern Outlook.

Supplementing the primary pedestrian movements, footpaths and trails will connect to the proposed Site A sports complex to the east and Morningside College to the south.

- Facilities  
To ensure the legibility of the new site and buildings, main building entrances will be located on the new public spaces at the beginning of Village Path and Eastern Outlook at the end of Clinic Road. The buildings will accommodate teaching spaces, faculty offices and learning commons.

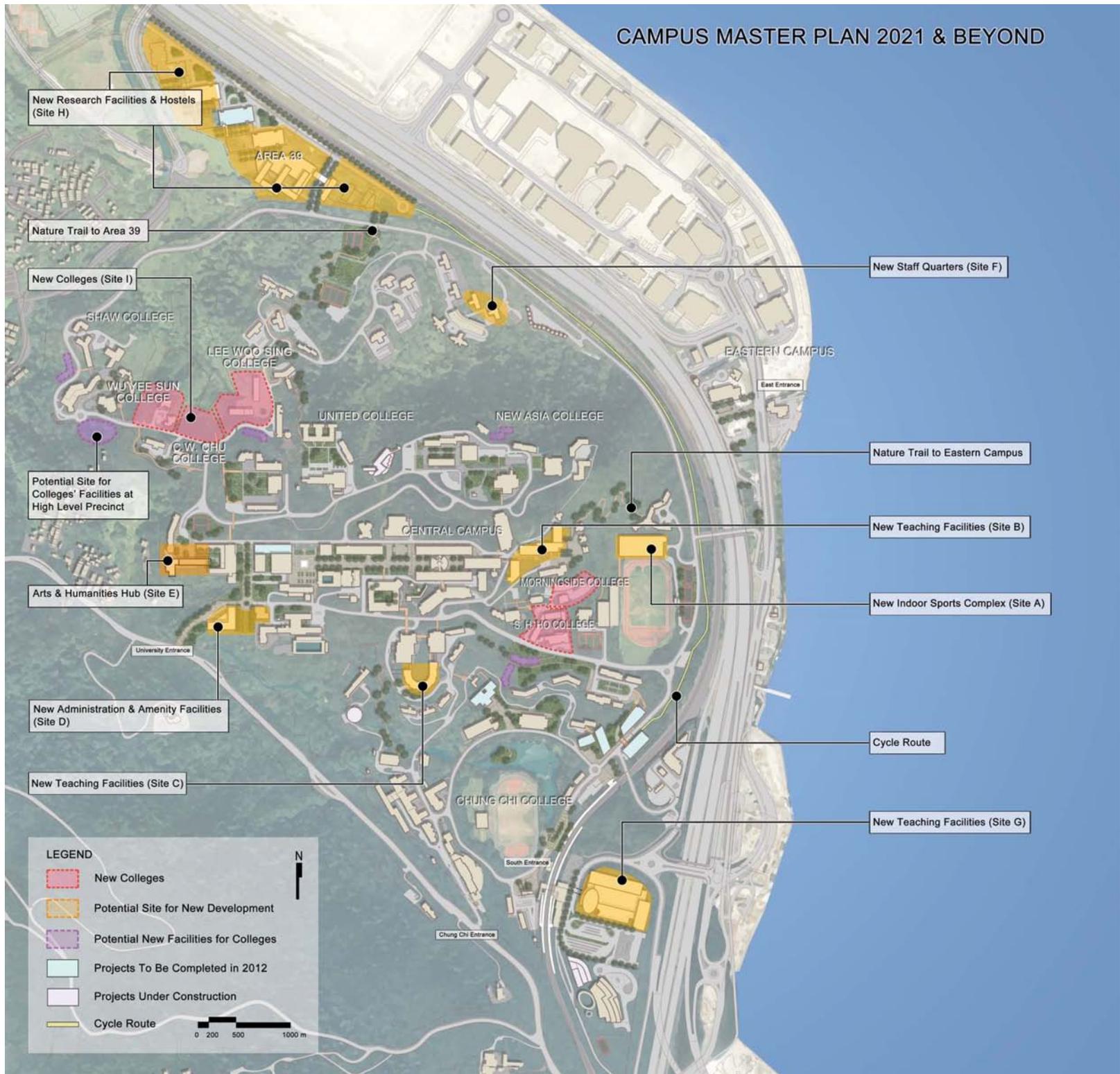


plan of Eastside Outlook

aerial view of Eastside Outlook



# CAMPUS MASTER PLAN 2021 & BEYOND



campus master plan 2018 & beyond

## 6 RECOMMENDATIONS AND IMPLEMENTATION STRATEGIES

It is recommended that the Master Plan is overseen by a Steering Group to be appointed by the University. A duty of the Steering Group will be to ensure that the Master Plan is updated periodically so as to remain relevant and appropriate in relation to any new developments within the campus.

All new development proposals should be assessed against the Master Plan's framework of the six precepts:

### 6.1 Provision for Growth — Education and Research Activities

The proposed potential development below are listed in order according to the different categories of sites. Implementation timeframes are approximate as the provision will be subject to actual demand for the facilities and the acquisition of funding:

#### Sites of Immediate Potential

- |   |  |                        |
|---|--|------------------------|
| 1 | New Colleges on Residence Lane 1 (Site I)<br><i>Consideration: planning for pedestrian and bus routes servicing the northern college cluster.</i>  | by 2012                |
| 2 | Area 39- Northside Research Campus (Site H)<br><i>Phase 1: laboratory facilities</i><br><i>Remaining phases: future development</i><br><i>Consideration: planning of cycle track, changes in bus routes and road improvements.</i> | by 2012<br>longer term |
| 3 | Arts & Humanities Hub (Site E)<br><i>Consideration: provide alternative accommodation to enable relocation of existing occupancy</i>   | by 2012                |
| 4 | Staff Residences (Site F)<br><i>Consideration: subject to the demand of new residential units</i>  |                        |

#### Sites of Intermediate Potential

- |   |   |         |
|---|---|---------|
| 1 | Academic Building 1 - Southside Outlook (Site C)<br><i>Consideration: relocation of existing occupancy at Academic Building 1</i> | by 2018 |
|---|---|---------|

- |   |   |         |
|---|---|---------|
| 2 | University Station - Station Court (Site G)<br><i>Consideration: overall planning of the University Station area including access to the Main Campus and integration with the Public Transport Interchange (PTI).</i> | by 2018 |
|---|---|---------|

#### Sites of Long Term Potential

- |   |   |             |
|---|---|-------------|
| 1 | Romney Stores - Eastside Sports Hub (Site A)<br><i>Consideration: overall planning of recreational/ sports facilities within campus</i>   | longer term |
| 2 | Open Car Park outside John Fulton Centre - Westside Belvedere (Site D)<br><i>Consideration: temporary relocation of existing car park</i> | longer term |
| 3 | Village Path -Eastside Outlook (Site B)<br><i>Consideration: relocation of occupancy at Village Path &amp; University Health Centre</i>   | longer term |

### 6.2 Enhancing College Life

The implementation of any proposals for enhancing college life is within the authority and responsibility of the Colleges.

- 1 Colleges may resolve to set up Stakeholder Groups to ascertain the development aims of their colleges.
- 2 Stakeholder Groups to review Master Plan proposals for their colleges in relation to specific college aims.
- 3 Colleges to implement agreed proposals.

### 6.3 A Pedestrian Friendly Campus

#### MTR platform extension

- |   |   |      |
|---|---|------|
| 1 | Long-term plan for a new northern entrance and extension of the platforms at University Station to allow additional entry/exit to the station at the junction of Pond Crescent for stronger pedestrian connections to the central mall. Open negotiations with MTRC to discuss the proposal for a new northern entrance to the Station. | 2009 |
|---|---|------|

### New walkways, foot bridges, express lifts

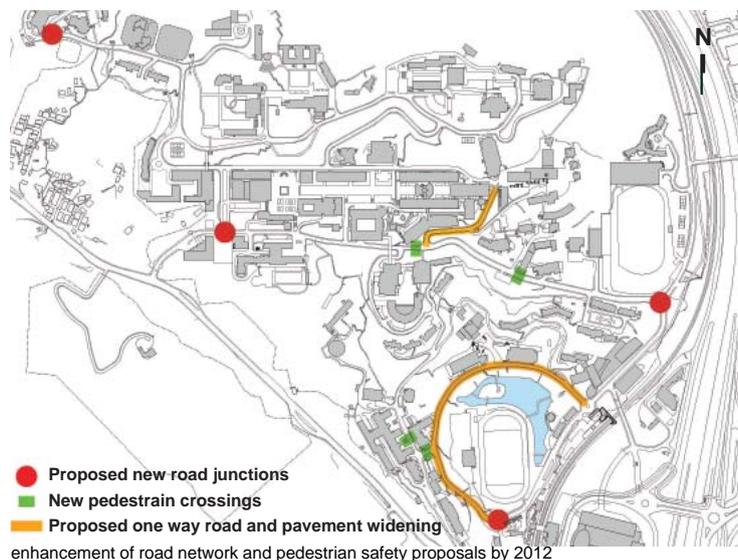
- 1 Central Link: New footbridge and express lifts linking up the Student Amenity Centre to the Engineering Buildings are essential for the new Central Link, and should be built along with the Student Amenity Centre. by 2012
- 2 Western Link: New footbridge and express lifts to be planned along with the development of the new colleges. longer term
- 3 Eastern Link: Covered walkway, footbridge and stand alone lifts along the route to be planned in order to increase the access to the Mall. Development at Village Path is essential for the route completion. longer term

### Re-arrangement of bus routes

- 1 With the widened footpaths along the University Avenue and other planned pedestrian friendly facilities, reducing downhill bus stops to encourage walking is immediately feasible. by 2009
- 2 Re-arrangement of some of the bus routes to be completed before Sept 2012 to accommodate the increase in student population. by 2012

### Enhancement of Road Network

The following diagram summarizes the enhancement of road network to be completed by 2012



### Park-and-ride

Following completion of all the proposed peripheral car parks, further limitation of vehicle access can be developed. Vehicular free zone can be considered. long term

### Cycle tracks

As part of the connectivity planning for the research facilities and hostels at Area 39, the cycle tracks are best to be completed before 2012. by 2012

## 6.4 Conserving Places of Value

University to carry out the procedures in identifying places of cultural value:

- Establish a draft List of Places with Cultural Significance for consultation.
- Appoint experts and stakeholders to carry out an assessment of the significance of each listed place against a set of values.
- Conclude report on all aspects of Places with Cultural Significance.
- Consult the document against any future proposal and follow its guidance.
- Review List of Places with Cultural Significance every 5 years.

## 6.5 A Landscape of Vital Importance

The following is the Management Plan for each of the Landscape Areas. The measures to be implemented shall be an ongoing process.

### Indigenous woodland

- To maximise the ecological potential taking into account the requirements of all avian habitats.
- Proposals for the incorporation of new trails shall be developed in line with the 2012 proposals.
- The indigenous woodland planting zone should be properly protected through the administration of the Landscape Management Plan.

### Screening / buffer plantation woodland

- Carry out work for visual mitigation requirements, to screen land uses and unsightly utility areas as well as slope stabilization.
- Carry out review of existing trees especially ageing non-indigenous trees in terms of their safety.
- Carry out replacement planting with trees of native species in areas not destined for future development.

- Carry out landscape design work in conjunction with new campus development within the existing buffer plantation woodland.

#### **Amenity plantation woodland**

- The amenity plantation woodland zone should be properly protected through the administration of the Landscape Management Plan.
- Where development is proposed, the landscape, visual and ecological impact should be carefully studied and documented.
- Carry out design work at new road junctions and new developments to incorporate ornamental species within the indigenous planting to generate visual accents.
- The Management Plan should ensure that the composition of woodland planting takes account of requirements of avian habitats.

#### **Ornamental planting**

- Design work for new developments, plazas and courtyards should incorporate lawn spaces to enhance existing features.
- Design of sub-soil drainage systems should be installed to remove excess water from soil bodies and be connected to the sustainable campus water system.

### **6.6 Making a Sustainable Campus**

It is the recommendation of the Master Plan to establish guidelines to develop a practically achievable model for a sustainable campus which aims to reduce campus energy consumption further than that proposed for the wider region of Hong Kong with two principal targets:

- Reduce the energy demands (per capita) by at least 25% by 2025 from the campus base figure of 2005.
- Reduce GHG emissions (per capita) by at least 20% by 2025.

## 7 CONCLUSIONS

The Vision of the Master Plan, which has emerged from consideration of the objectives of the Master Plan and the main challenges and opportunities of the campus site, is to enable the University to be an exemplar of sustainable development by balancing the enhancement of its campus environment with the conservation of its heritage.

The Master Plan Vision has been interpreted by six important precepts with specific proposals for the campus to develop within a sustainable planning framework:

- 1 **Places for Education and Research Activities**  
A central proposal of the Master Plan is the concept of clustered and zoned development, to enable the efficient use of resources and convenience of access, optimize land use and enhance social and academic interaction. Within this concept, a series of potential development sites are identified with proposals outlined to accommodate the projected future needs of the campus.
- 2 **Enhancing College Life**  
Forming distinct college neighbourhoods is an important principle for strengthening the University's unique college system to enhance communication, the sharing of amenity facilities and pedestrian connections between the colleges and the Central Campus. Two new college sites in the northern college precinct and options for enhancing each of the existing colleges with new student hostels and landscape improvements are proposed.
- 3 **A Pedestrian Friendly Campus**  
The Master Plan has a key aim to improve connectivity within the campus by prioritising walking to minimize reliance on the motor vehicle, and by optimizing the performance of all campus transport facilities including the pedestrian network, internal road enhancements and management, park-and-ride, cycle tracks and shuttle bus services.
- 4 **Conserving Places of Value**  
A methodology is proposed to identify, assess and list all places of significance on the campus.

- 5 **A Landscape of Vital Importance**  
A Landscape Strategy Plan is proposed which identifies the treatment of the different types of landscape zones within the campus and creates a network of open spaces and potential new nature trails to enhance the green campus environment and landscape experience.
- 6 **Making a Sustainable Campus**  
The Master Plan aims to establish the principles for a sustainable campus with a reduced dependency on the earth's finite natural resources and a reduction in the emissions of greenhouse gases (per capita), so as to develop a campus with cleaner air, producing less waste, with less reliance on the motor vehicle. It sets an environmental target which is higher than that of Hong Kong's, by committing to reduce its total energy consumption (per capita) by 25% by 2025.

Within the framework of the six precepts, the implementation strategy provides guidance and recommendations on the phasing of the development sites and sequencing of the Master Plan proposals.

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