The objective of this planning study is to create a comprehensive and visionary master plan for sustainable development of the Chinese University to the Year 2021.

C. Preservation of Historical Landmark
Existing landmarks are proposed to be preserved. Major landmark identified include the sculpture “Gate” and the Beacon at the Central Campus, the New Asia Water Tower and Amphitheatre, the United Water Tower and the Sculpture Garden, the Shaw entrance sculpture and the Chung Chi Chapel and Alumni Trail. The master plan will link up these focal points for easy accessibility of visitors.

A. Existing University Mall
The University Mall at the central campus is the core of the University. Upgrading work is proposed at this area in parallel with the concept of vehicle-free campus. After omitting the parking and vehicular traffic along Central Avenue, the landscape pedestrian area will be greatly increased and more spaces for the cultural and communal activities is allowed.

B. Historical significance of Chung Chi Campus
The Chinese University tracks back its origin at the present location of Chung Chi Campus. Weyuan Lake and Lingnan Stadium provide visual focus and openness to the Southern Campus. A covered pedestrian route is proposed to link up various buildings in Chung Chi

B. Establishment of New Colleges
New Colleges can fulfill the new hostel needs after “3+3+4” curriculum. The scale of the new colleges is suggested to be similar to the existing colleges in order to maintain the community sense within Colleges. Besides, co-location of college facilities can also strengthen the communication between different colleges.

C. Connection between Colleges
The planning suggests the sites of the new colleges to be incorporated into the planning of the pedestrian network system. This ensures the accessibility of the new colleges while at the same time resolves the remote problem of the existing colleges.

3. Comprehensive Research University
With a significant increase to 30,000 populations, considerable construction will need to be take place. With campus capacity restricted due to topography and available land, the portion of Eastern and Northern campus should be explored to fill a significant portion of that need. Also, the expansion of existing facilities can also upgrade the image of the University.

Key Factors and Strengths
Upgrading works of existing facilities are listed as follows:

A. Central Campus Expansion
To support the vision of a central campus, we anticipate that the Central Campus will provide not only common support functions, but also become more the centre for specialized programs, centers and institutes. The central library should also be double the existing size to meet the student population growth as well as the target of a World Class Comprehensive Research University.
B. Integrated Sports Complex
The existing Sir Philip Haddon Cave Sports Fields will be upgraded with new provision of Sports Facilities, such as indoor sports centre and swimming pool to international standard, cafeteria, gymnasium and park and ride facilities for easy accessibility of visitors. Also, linked bridge is proposed to connect to the Water Sports Centre along waterfront of Tolo Harbour to centralize the major sports facilities at eastern part of the campus.

New proposed facilities include: -

A. Centralized Research Campus
The research activities are all located at the Northern Campus with new hostel facilities. This creates a centralized community of research student.

B. Eastern Research Campus
Further to the Teaching Hotel currently under construction at Eastern Campus, new site is identified adjacent to the KCRC station and existing Public Transport Terminal to establish a comprehensive research campus with various teaching mode.

C. Centralized Residential Area
The new Postgraduate Hotels and Staff Residential area are proposed at northeast part of the campus fronting the sea view of Tolo Harbour. Elevated walkway system allows accessibility to connect the Postgraduate Hostel Cluster to the Northern Research Campus and the Central Campus.

4. Vehicles-free Campus
The master planning proposes vehicles-free campus to maximize the landscape area and to diminish the traffic and pollution problem within campus, so that students can fully enjoy the natural environment in campus.

Key Factors and Strengths
In order to achieve a feasible vehicle-free campus, the following methodology is proposed: -

A. Limited Shuttle Bus Service
Traffic along Pond Crescent, University Avenue, Central Avenue, United Road and New Asia Circle is proposed to be omitted. This will resolve the undesirable condition of the narrow and meandering driveway as well as mixing of pedestrian and vehicular traffic within campus. Pedestrian road widening work can be carried out after removal of traffic at these areas where more flexibility for public activities and gathering is allowed. The shuttle bus service is limited along Campus Circuit East Road and Campus Circuit North Road connecting the KCRC station, Sir Philip Haddon Cave Sports Field and the Northern Research Campus. Electric powered or hybrid buses running along the above-mentioned horizontal road can minimize the air pollution and use of fuel.

B. Pedestrian Network System
Linkages within campus should be enhanced for pedestrians and cyclists. The proposed pedestrian circulation network centered and orientated from the Central Mall and from this central location, it branches out to northern, eastern and southern campus spines. From the spines it further branches out to the Northern Campus Link, the Amenity Link, the Southern Campus Ring and the Eastern Campus Link. This circulation system comprises horizontal covered walkway, elevators and escalators which enable an efficient mover system with maximum 15 minutes walking distance from Central Campus to other major areas. A clear circulation pattern with clear annotation will greatly enhance legibility and sense of orientation for visitors.

C. Park and Ride Facilities
Since the traffic road, on-street parking, indoor car parks within campus is omitted for landscape upgrading and extension of outdoor area, four nodes of new integrated park-and-ride facilities are proposed at the east, south, west and north entrance of the campus. Drivers can directly enter the new park-and-ride complexes near the University Library, University Sports Ground, south of Chung Chi College near KCRC station and the Northern Research Campus. Transfer to the pedestrian network system and shuttle bus terminal can be made at these nodes to access to other areas within campus.

5. Utilization of Renewable Energy
The Northern Campus being focus on research activities and open to unobstructed view to the north is an ideal location to explore the massive use of wind and solar energy. Wind turbine, solar panel and green roof is suggested to incorporate into the building façade and roof of the Northern Campus buildings to reinforce the image of high-tech Research University. This also serves as an important gesture to the community that the Chinese University is concerned about protecting the local as well as global environment.

Conclusion
The master planning proposal not only aims to provide facilities to fulfill the needs of the coming "3+3+4" curriculum, but also to resolve the connection problem in such extensive campus and to provide a more variety and green spaces to accommodate the university study and communal activities.