Past awards related to Nagoya University campus
- Facility Management Awards, Excellence Award 2008
- Energy-saving Excellent Cases, Economy, Industry and Trade Minister’s Award 2008
- Aichi Environmental Awards, Excellence Award 2008
- Nagoya City Eco-Office, Excellence Award 2009
- National Institute for Academic Degrees and University Evaluation’s national university evaluation
  Highest rank evaluation “Excellent in achievement status of medium-term targets”
- Environmental Report, Public Sector Award 2010
- Architectural Institute of Japan Prizes, DOCOMOMO 100 selection (Toyota Auditorium)
- BCS Award, Chubu Architecture Award,
  Aichi Machinami Architecture Award
  (Noyori Materials Science Laboratory, Noyori Conference Hall)
- Nagoya Urban Landscape Award,
  Aichi Machinami Architecture Award
  (Integrated Building, Subway Nagoya-Daigaku Station)
- Chubu Architecture Award (Nagoya University Symposium)
- Heat Pump & Thermal Storage Technology Center
  “Thermal Storage Gathering” letter of appreciation
Introduction

A campus master plan represents the campus space planning objectives agreed by a university based on its management philosophy, providing guidelines for continuous improvement of facilities/environment and management/operation of the university.

Since their transformation into independent administrative entities, national universities have operated based on their medium-term objectives and medium-term plans, which require achievement within a relatively short period of time of six years. Meanwhile, with broad campus land areas and facilities whose development seems to take a long period of time, Nagoya University requires a longer-term plan. Its campus master plan should be capable of flexibly responding to changes in educational/research policies, social conditions, financial situations, and government policies. Under these circumstances, our Campus Master Plan 2010 shows the framework plan drawn up looking thirty years ahead, under which the medium-term action plans that should be implemented within six years are established.

Concept

Campus Master Plan Charter
Aims for an entity which shall create an environment for the exchange of ideas, and where students and faculty can engage in academic activities, and for which they can be proud as a university, as a key comprehensive university.

Basic goals
- Integrated development through university-wide cooperation
- Flexible utilization of land and facilities
- Establishment of planning, management, and evaluation systems

Structure of Campus Master Plan 2010

Making the Plan effective

In drawing up of the Plan, we invited opinions from various members. A system is being adopted in which opinions provided in questionnaire surveys as well as from various department and board members.

Advantages
- Detailed guidelines for continuous improvement of facilities/environment and management/operation of the university
- A plan made by inviting opinions from various members

Facility Management for Realization of the Plan

To realize the plans proposed in the Campus Master Plan, it is necessary to secure resources to finance the plans and to have a strategic facility management method. Facility management will be implemented based on the concept of the PDCA cycle, which aims for continuous improvement by setting management targets for quality, delivery, and cost, taking actions to achieve the targets and conducting evaluations.

Example of priority determination based on facility portfolio

System development for procurement of funds for facility maintenance and management
1) Secure financial resources for renovation of key facilities under the medium-term and long-term renovation plans.
2) Establish a database where various facility data is linked to financial information.
3) Develop an LCM support system containing energy management information.
4) Enhance space management utilizing database.

Enhancement of accounting system and database for FM
1) Introduce a management accounting system linked to the financial accounting system.
2) Establish a database where various facility data is linked to financial information.
3) Develop an LCM support system containing energy management information.
4) Enhance space management utilizing database.

Effective use of facility review/evaluation and benchmarking
1) Set and verify facility performance evaluation indexes
2) Strengthen facility evaluation systems employing building inspection checks and satisfaction surveys
3) Conduct inter-university benchmarking to evaluate facility quality.

Facility management promotion organization model

Chapter 1 Basic Objectives of the Campus Master Plan 2010

Chapter 5 Facility Management for Realization of the Plan
Chapter 3

Campus Framework Plan – 30-year long-term vision

### Zoning

For Higashiyama Campus, the highest development priority will be placed on the Green Belt where the University-Community Exchange Zone and Interdepartmental Exchange Zone overlap as an exchange center. The road that runs from Noyori Conference Hall to the south of Higashiyama Campus will be named ‘Nobel Prize Avenue’ (provisional name) and positioned as a new axis for exchanges besides the Green Belt.

### Determination of their future scale

Recognizing the history of how the present green areas and environment have been formed as a modern urban heritage, we will preserve and pass down there framework. Our campus design will be based on excellent modern historic architecture and environment including Toyota Auditorium. Under this Campus Master Plan, the proper future scale of resources will be determined to avoid increases in facility operation/management costs.

### Traffic, parking space planning

Parking lots will be placed in positions accessible from the campus periphery, and the use of cars and motorcycles will be basically prohibited, so as to realize a pedestrian-friendly transportation environment. The east and west areas of Higashiyama Campus will be connected with a pedestrian deck or other means, with the aim of eliminating the problem of separation between east and west.

### Green spaces, outdoor environment

Taking into account the local conditions of each campus, we aim to realize a safe and comfortable outdoor environment well-harmonized with buildings, that supports free and lively activities of campus members and visitors, and emphasizes each campus’ characteristics and features. Both zone open for local residents and zone requiring rigid security control will be designated, so that the entire campus will be open and safe.

### Basic policies for utilizing Higashiyama Campus

<table>
<thead>
<tr>
<th>Policy</th>
<th>Description</th>
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| 1. | Concentration and rearrangement of facilities:
|   | The blocks on the northeastern/southeastern sides will be used for education and research zones, and high-rise buildings are limited to prevent urbanization and residential areas. |
| 2. | Facility layout prioritizing accessibility:
|   | Facilitate easy access to main entrances, main offices, and facilities |
Chapter 4
Campus Action Plan – 6-year medium-term plan

Our Campus Action Plan is designed to support the facility/environmental aspects of the “Hagurumichi Plan,” consisting of action plans that are linked to the university medium-term objectives/medium-term plans requiring implementation in six years and the facility management plans to promote efficient campus operation. In each implementation plan, projects for development or operation are classified into 1) development that will require resources to improve the campus facilities, including renovation of Toyota Technological Institute, 2) projects to establish methods of raising university members’ environmental awareness, and 3) projects that can be implemented without any budget allocation.

Action Plan – 6-year implementation projects

- Efficient campus operation. In each implementation plan, projects for development or operation are classified into:
  1. Development requiring resources to improve the campus facilities, including renovation of Toyota Technological Institute
  2. Establishing methods of raising university members’ environmental awareness
  3. Projects that can be implemented without any budget allocation

Action plan for energy savings/environmental burden reduction

We aim to reduce carbon dioxide emissions by 20% from the fiscal 2005 level by fiscal 2014. To achieve this target, we will develop systems that promote energy savings and secure funds, make investments in renovations for improved energy efficiency and cost reduction, and provide education and establish methods of raising university members’ environmental awareness.

Roadmap for realizing Campus Master Plan 2010

- Plan concepts:
  - Low-carbon, environment-friendly campus
  - Comfortable and safe open spaces
  - A campus that supports global and local collaborations
  - A campus that serves as the foundation for state-of-the-art education and research
  - Safe and healthy education and research environment
  - Stable securing of spaces
  - Facility management that supports continuous campus development

Chapter 2
Campus Review/Evaluation and Problems with the Campus Master Plan 2010

The Nagoya University Campus Master Plan is positioned as a flexible plan that grows/develops through repeated reviews and evaluations, so it is capable of adapting to future environmental changes. Therefore, when revising the Plan, it is important to review and evaluate the contents and implementation status of the current master plan.

Since establishment of the Campus Master Plan 2005, various actions have been taken to improve the campus facilities, including renovation of Toyota Auditorium, seismic reinforcement of existing facilities, rebuilding of the university hospital and improvement of welfare facilities. Meanwhile, several problems on campus still remain.

Dispersed location of departments

Faculty members of some departments such as interdisciplinary colleges and graduate schools are dispersedly located throughout the campus, which causes inconvenience in education and research activities including students’ moves and classroom arrangement. Early integration of facilities is therefore necessary.

Energy consumption (CO2 emissions)

Nagoya University emits approx. 80,000 t of CO2 annually, of which Higashiyama Campus and Tsuirai Campus account for approx. 52% and 44%, respectively. The amount of emissions per unit area varies largely among departments and buildings.

Higashiyama Campus

Compliance with 31 m building height limit, 45% green area rate regulations. Redevelopment of the aged and inefficient former Nuclear Fusion Laboratory, which is needed for internal faculty functions management, for which only seismic reinforcement has been completed. Shortage of project spaces and increase of prefabricated buildings

Tsurai Campus

Negotiations for relaxation of the floor space ratio limit. Lack of green areas and open spaces that a university should have

Dako Campus

Utilization of the former School of Health Sciences main building (former Mitsubishi Heavy Industries building) as a memorial building

Other campuses

Development of housing for foreign students, using new scheme effective use of facilities and property of the Faculty of Commerce

Facility management

Securing various financial resources for development and maintenance integrating facility management and operation

Renovation and seismic reinforcement of aging buildings

About 48% of the total building area at Nagoya University is over 25 years old, of which about 44% of buildings have not been reinforced yet. Also, 23% of buildings designated as requiring seismic reinforcement have an IS value below 0.7.

Interdepartmental facilities for common use

Interdepartment educational/research facilities for common use are dispersedly located throughout the campus, which causes inconvenience in education and research activities including students’ moves and classroom arrangement. Early integration of facilities is therefore necessary.

University that contributes to realization of a sustainable society

Nagoya University aims to reduce carbon dioxide emissions by 20% from the fiscal 2005 level by fiscal 2014. To achieve this target, we will develop systems that promote energy savings and secure funds, make investments in renovations for improved energy efficiency and cost reduction, and provide education and establish methods of raising university members’ environmental awareness.

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