MIT

Building Program Update

A Special Report from the Office of MIT President Charles M. Vest

Massachusetts Institute of Technology

June 2000

Building the Future:

A message from President Charles M. Vest

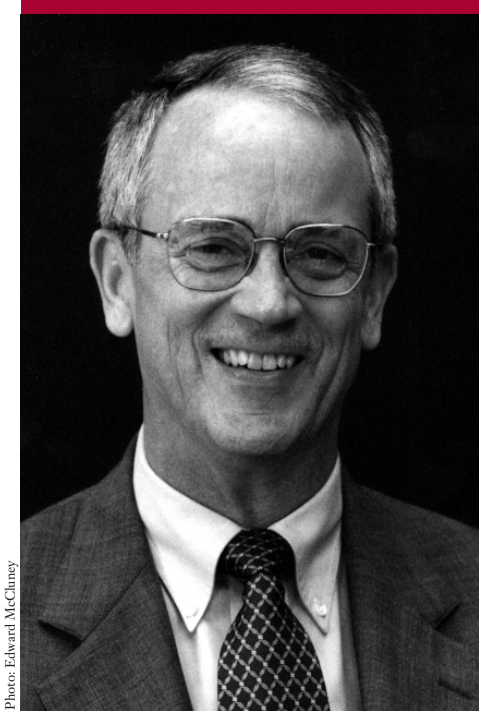

Photo: Edward McCluney

President Charles M. Vest

As a community, a campus and a culture, MIT has always been defined by the ideals of innovation and improvement. While other schools may have cultivated (or inherited) an atmosphere of timelessness and serenity, the Institute has grown and thrived in an atmosphere of ferment and activity. All of us at MIT believe that we are moving relentlessly forward into a future of our own making — a future that we are determined to make better than our past, both for our students and for society as a whole.

In short, we believe in the idea of *progress*. We also therefore accept the necessity of change, since, as the historian Henry Steele Commager once observed, "Change does not necessarily assure progress, but progress implacably requires change."

Our physical campus is, in many ways, a visible manifestation of MIT's commitment to a better future through innovation and the development of new knowledge. Though never entirely quiescent, there are times when our campus building program is particularly ambitious — times of intense intellectual ferment, creativity and opportunity. This is one of those times. *(See related story on historical trends in campus development, "Space Over Time.")*

We are now embarked on the most ambitious plan to improve and enhance our physical campus and infrastructure in more than 30 years. It is a plan that, both in its broad outlines and specific details, closely mirrors our intellectual agenda and our commitment to enhance the quality of student life and learning.

Strategic Initiatives

Over the past several years, the MIT community has collaborated in the development of major strategic initiatives in research, education and campus life. These initiatives have been defined through several recent studies and planning processes, including those conducted by the Task Force on Student Life and Learning, the Committee on the Undergraduate Program, the Committee on the Freshman Year and the Residence System Steering Committee. These initiatives are now being further refined through strategic planning by each School and each department.

Many of these initiatives were articulated in the *Report of the President, 1997–98*. Entitled "The Path to Our Future," that report summarized the case for change in MIT's academic and research program, outlined our long-term plan and addressed the central question of how that plan would be financed, including the role of our capital campaign.

These ventures range from residential and campus life to communication and information sciences, to the brain and neurosciences, to the arts, to entrepreneurship and management, to name just a few examples of what lies ahead.

These initiatives, as well as the broad strengthening of support for our faculty's research and teaching, carry major implications for our campus buildings and infrastructure. In order to support this agenda, MIT must therefore move forward on several construction fronts at once:

Renewal of Facilities

First, we have dramatically increased and accelerated our program to refurbish and

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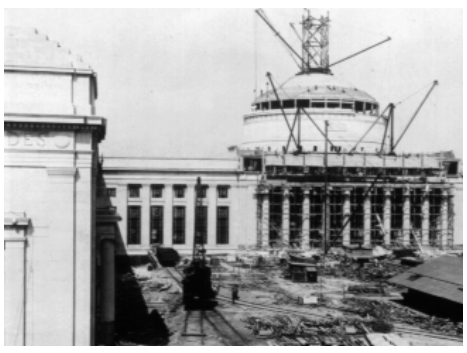
Space Over Time at MIT:

The 1910s, '50s, and '60s were prior decades of major change and growth

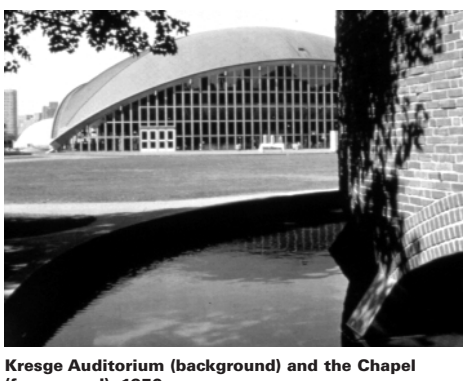
Throughout the last century, MIT never stopped building for the future, but some decades have been busier than others.

The Institute's first great surge in construction began in 1913, when MIT was still located in Boston's Back Bay. In that year, ground was broken for the series of integrated buildings that would frame what would one day be known as Killian Court. Designed by architect W. Welles Bosworth (Class of 1889), the new core campus was ready for occupancy in 1916 — and the entire MIT community relocated to its new home under Bosworth's classical dome and friezes.



Construction of the original Cambridge campus, 1910s.

A second major spurt of construction activity on the MIT campus began during the 1950s, when the Institute's faculty began to expand on the extraordinary advances in science and technology made during and just after World War II. Most of the 11 buildings dating from this decade were designed to house research and teaching programs, but perhaps the most notable were the creations of the renowned Finnish architect Eero Saarinen; his designs for the MIT Chapel (1955) and Kresge Auditorium (1956) remain compellingly contemporary even today.



Kresge Auditorium (background) and the Chapel (foreground), 1950s.

Dreyfus Chemistry Building, constructed 1960s, renovated 2000s.

In the 1960s and the 1970s, MIT continued its growth as a global research university and, as in the 1950s, much of the new activity was driven by steady growth in research support from the federal government. Indeed, because most institutional structures require renovation every 30 years or so, the fact that 23 MIT buildings date from the 1960s has created the need for a major renovation effort today — as in the current rehabilitation of Building 18, a creation of I.M. Pei (Class of 1940) that first opened in 1969.

Of course, the need to renovate and upgrade '60s and '70s-era infrastructure is only one facet of MIT's building program for 2000 and beyond. With its blend of residential, athletic, recreational, academic and research facilities, the new program promises to be one of the most ambitious in MIT history — and to spur a level of physical development and activity not seen on the Institute campus for 30 years. ■

Swimming pool in the sports and fitness center, to be constructed in the 2000s.

Campus Housing and Community Housing:

A Shared Goal

It has long been a goal of the Institute to provide more housing for our students, particularly our graduate students. At the same time, the City of Cambridge has as one of its highest priorities an increase in the supply of housing affordable to diverse populations in Cambridge. These goals are coming together in a new housing initiative by MIT.

This initiative will create housing for more than 1,100 undergraduate and graduate students in new and renovated buildings and thereby free up additional rental units within the overheated housing market in Cambridge.

Campus Housing

One of the major emphases of MIT's Task Force on Student Life and Learning was to create a stronger sense of campus community. The housing initiative will mark a big step in this direction — by making it possible for all first-year students to live on campus and by providing housing for a significant number of graduate students.

The three campus housing projects include:

- the 350-bed undergraduate residence on Vassar Street;
- renovation of the building at 224 Albany Street — a former storage warehouse — into housing for 120 graduate students;
- construction of a new building on the lot at Sidney and Pacific streets for approximately 600–700 graduate students.

When these new residences are occupied, MIT will be able to house nearly 50 percent of its graduate students in Institute-sponsored housing.

We are eager to get all three of these projects underway. Plans for the graduate projects are moving forward; we have recently hired architects and are refining the program, based on the substantial consultation that took place with graduate students in 1997 about plans for graduate housing. The undergraduate residence, unfortunately, is delayed by an appeal of the special permit granted to the project by the city's planning board, and we are working to resolve this matter as quickly as possible.

We are very pleased to be able to enhance our campus community in this way at a time when the demand for housing in Cambridge is particularly high. Many of the students who will live in our new residences are now renting in Cambridge, and this initiative should help reduce the pressure on the housing market and thus help to achieve one of the city's highest priorities.

Affordable Community Housing

MIT's commitment to enhancing the affordability of housing follows from a history of contributions made over the past three decades.

In the 1970s, MIT constructed 700 turnkey units of housing for the elderly in three neighborhoods in Cambridge.

During the 1980s and 1990s, as part of the University Park development, MIT made a commitment to build 400 units of housing, including 150 units of affordable housing. The total number of units has climbed to 650 — over 50 percent more units than originally proposed. The affordable units are distributed among the buildings along Brookline Street.

The Institute continues to explore ways to help relieve housing pressures in Cambridge as we enter a new decade.

This housing initiative is the first step in what we expect to be a multi-pronged program to address the need for affordable housing by members of the MIT and greater Cambridge communities. ■

Overview of Campus Construction

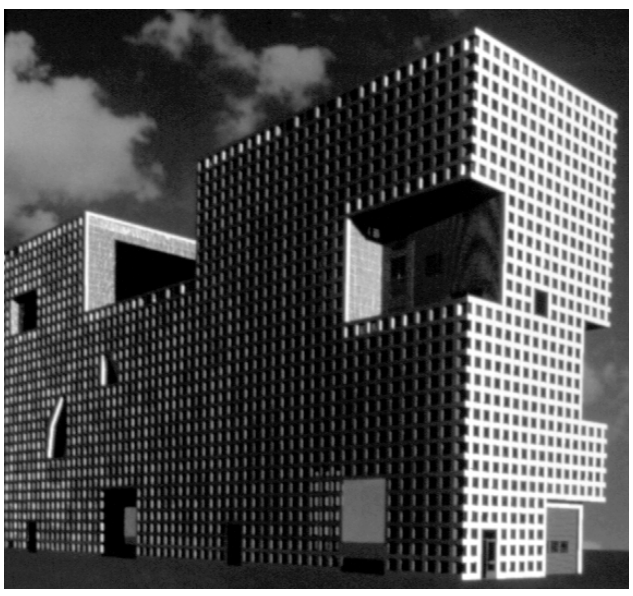
inside...

Campus construction overview:

infrastructure renewal and new buildings

Guggenheim Laboratory (Building 33)
The Department of Aeronautics and Astronautics is currently renovating its facilities to create a new 38,000-square-foot Learning Laboratory for Complex Systems, which will bring faculty and students together around the synthetic product development process. *Approximate construction period: June 1999 – August 2000. Architect: Cambridge Seven Associates*

Chiller 6 CUP Expansion
The Central Utility Plant will be expanded to support the Stata Center and other new facilities on campus. *Approximate construction period: October 1999 – October 2000*



Undergraduate Residence
This Progressive Architecture Award design winner will house 350 undergraduates. Incorporated into the design are public and private spaces for the residents including study lounge areas and computer rooms. The building is designed in an open plan — open to light and air, and open to the residents who will live, work, eat, study, and be entertained within its welcoming spaces. *Approximate construction period: September 2000 – August 2002. Architect: Steven Holl Architects and Perry Dean Rogers & Partners*

Baker House
This undergraduate residence, designed by Alvar Aalto, has been comprehensively restored on the occasion of its fiftieth anniversary. The replacement of all windows will take place in the next phase of construction in the summers of 2001 and 2002. *Approximate construction period: April 1996 – August 2002. Architect: Perry Dean Rogers & Partners*

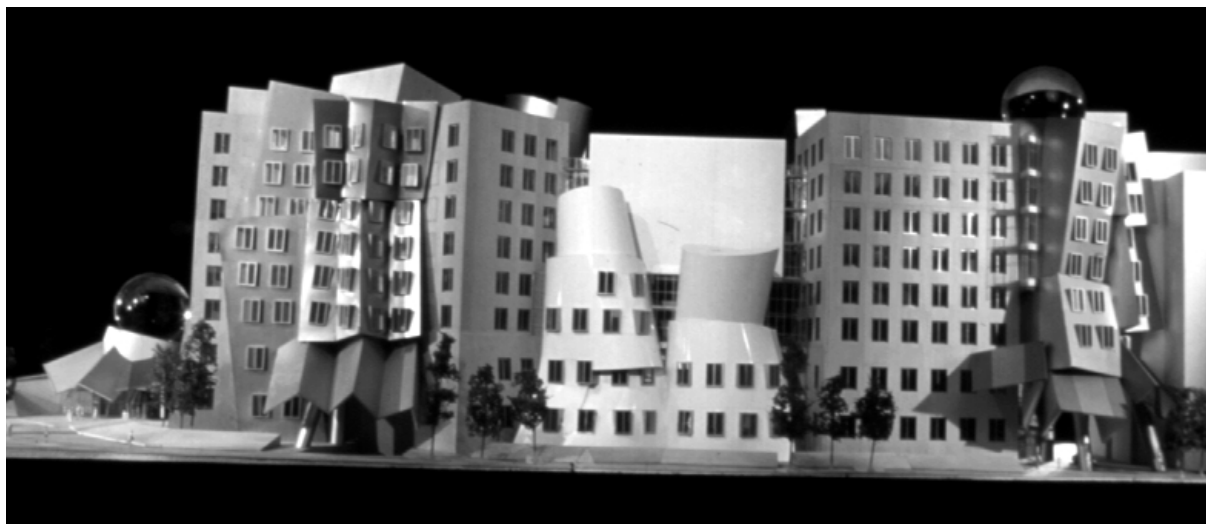
Vassar Street Utilities
The installation of new utility lines (steam, chilled water, fire protection, electrical and telecommunications ducts) will support the new undergraduate residence, the new sports and fitness center, and the Stata Center. *Approximate construction period: February 2000 – October 2002. Engineering firm: S E A Consultants Inc.*

Sports and Fitness Center
A sports and fitness center, to be built between the existing Johnson Athletics Center and the Stratton Student Center, will include a 50-meter pool, seating for approximately 450 spectators, recreation and team locker rooms, a health fitness center, a sports medicine training facility, an equipment desk, and a laundry room. The barbecue pits currently on the site will be relocated for future use. *Approximate construction period: Fall 2000 – May 2002. Architect: Roche & Dinkeloo and Sasaki Associates*

Random Hall
This undergraduate residence will undergo a renovation as part of the Fire Safety Systems Renewal Program. The safety program will upgrade, where necessary, all fire alarms, sprinklers, fire stops, doors, and egress lighting to ensure better safety on campus. *Approximate construction period: June – August 2000*

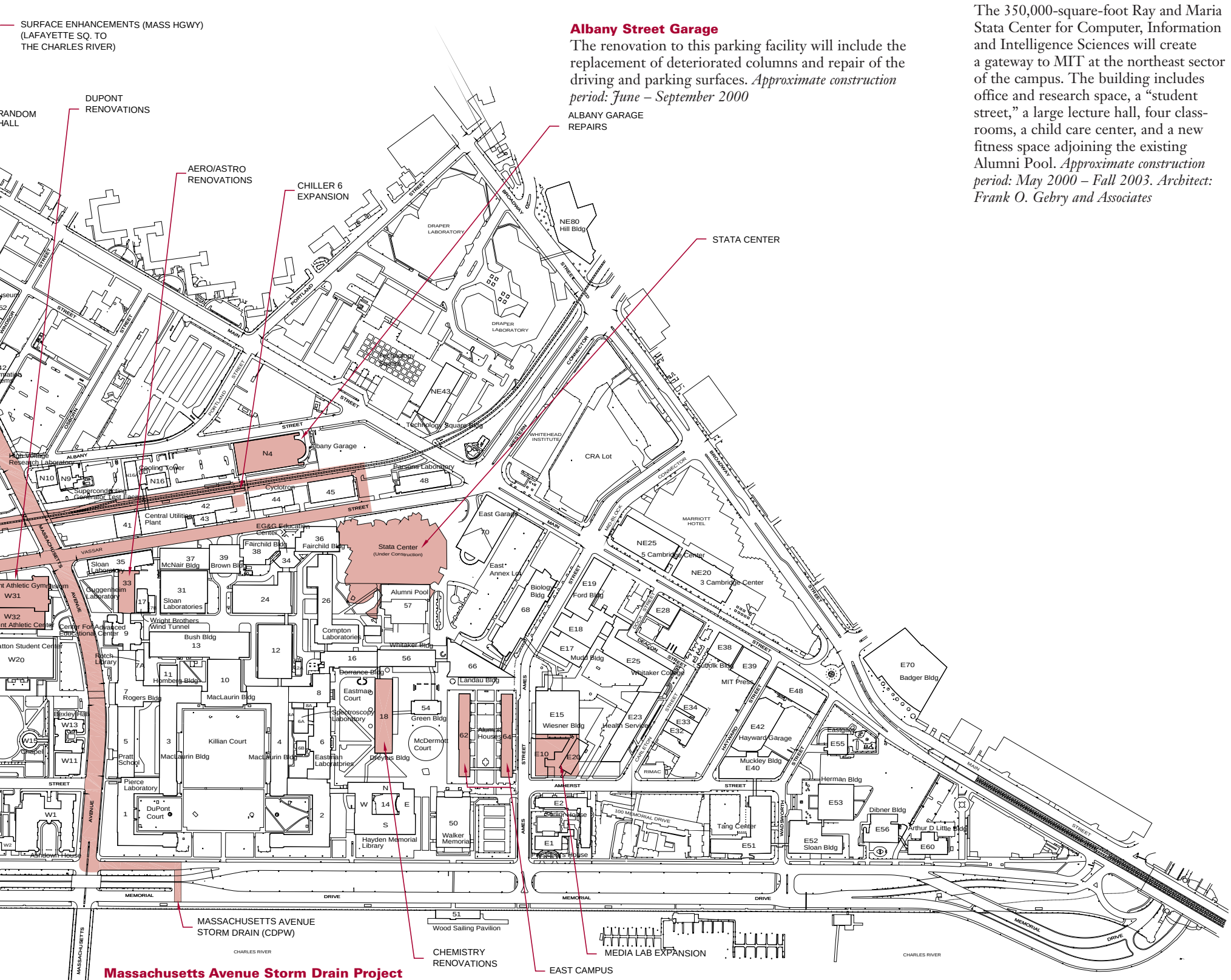
duPont Athletic Center
The renovation to the duPont main locker rooms will accommodate athletes during the construction of the new sports and fitness center. *Approximate construction period: June – August 2000. Architect: Sasaki Associates*

Surface Enhancement Project
This resurfacing project continues the state's enhancement of Massachusetts Avenue. Construction plans include a new pedestrian plaza in Lafayette Square at the intersection of Massachusetts Avenue and Main Street. *Approximate construction period: Spring 2001 – Fall 2001. Sponsor: Massachusetts Highway Department*



Stata Center
The 350,000-square-foot Ray and Maria Stata Center for Computer, Information and Intelligence Sciences will create a gateway to MIT at the northeast sector of the campus. The building includes office and research space, a "student street," a large lecture hall, four classrooms, a child care center, and a new fitness space adjoining the existing Alumni Pool. *Approximate construction period: May 2000 – Fall 2003. Architect: Frank O. Gehry and Associates*

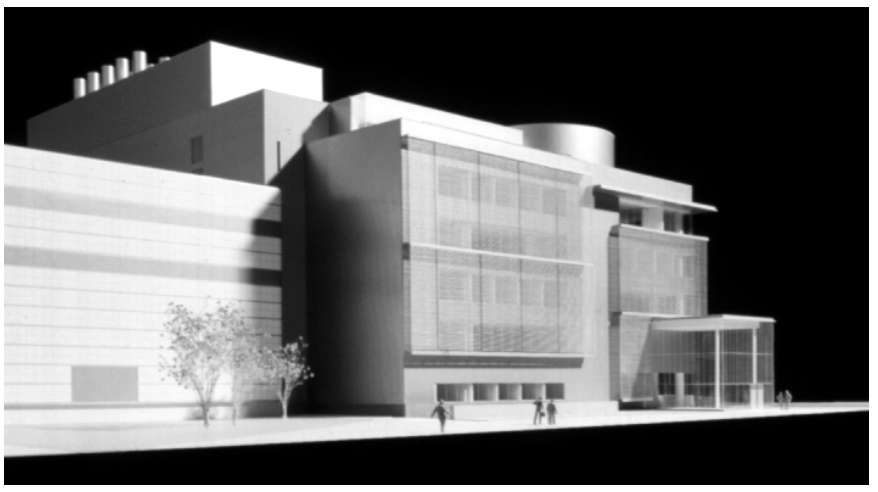
Albany Street Garage
The renovation to this parking facility will include the replacement of deteriorated columns and repair of the driving and parking surfaces. *Approximate construction period: June – September 2000*



Massachusetts Avenue Storm Drain Project
The City of Cambridge will install large drainpipes that will provide significant drainage improvements over the existing system. The improvements should relieve overflow problems during heavy rain storms. *Approximate construction period: June 2000 – Spring 2001. Sponsor: Cambridge Department of Public Works*

East Campus
This undergraduate residence will have renovations to its fire alarms, sprinklers, fire stops, doors, and egress lighting as part of the infrastructure renewal effort to improve safety in campus buildings.

Dreyfus Building (Building 18)
Laboratory facilities and infrastructure in this Department of Chemistry building will be renovated and modernized in order to meet today's research demands and to enhance life-safety systems. *Approximate construction period: Summer 2000 – August 2003. Architect: Goody, Clancy & Associates*



Media Lab Expansion
The Media Laboratory will expand on a site adjacent to its existing facilities in the Wiesner Building. The new structure will house a range of research and educational programs relating to the future of information and learning technologies and their application for both everyday life and creative expression. Prior to construction, utility relocation will occur in the adjacent streets. *Approximate construction period: Spring 2001 – December 2003. Architect: Fumihiko Maki & Associates, with Leers Weinzapfel Associates*

Q and A with the Director of Facilities

Victoria V. Sirianni

Q How long will this period of significant construction work last and what are the plans to minimize the disruption? Also, what methods will you use to keep the campus community informed?

A Over the next decade, MIT will add approximately 10 percent to the total square footage of buildings on campus. During this construction, the visual appearance of parts of our campus will be severely affected, and there certainly will be dirt, noise and some disruption. We hope that the community is patient because the end result of all this work will be a wonderful transformation of the campus.

We will do our best to keep the community informed. For example, we're working with the Chair of the Faculty for input on ways to let faculty know about developments in a timely way and to minimize the inconvenience to them and their students. We've already begun to include a "Campus Construction Updates" box in *Tech Talk*, and that information, and more, will be included in a web site linked to the Facilities' home page. That web site is currently being developed. We're also trying to communicate with the students by advertising in *The Tech* and working through other student information channels.

In addition, we'll be holding meetings with the campus neighbors of the various projects. We feel that it's very important that people be able to voice their questions and concerns. A harder audience to reach is those who are not directly associated with a building but may be affected by the construction. That's why we try to have neighbors' meetings. This process was quite successful when we were constructing the Tang Center.

Also, signage is critical to helping people navigate around the construction sites. We're paying a lot of attention to signage, which will soon increase around campus.

All of our communications efforts will expand as time goes on. We welcome any suggestions in this regard.

Q Who decides what new buildings will be constructed?

A The Building Committee is the primary decision-making group. Chaired by Executive Vice President John Curry, the committee's objective is to guide the overall development of the campus and its facilities. Although the Building Committee has existed for many years, it was revitalized after the report from the Task Force on Student Life and Learning revealed the need for major building initiatives.

In order to involve the community in the planning for new facilities, the Building Committee establishes a client team for each project. With some of the larger projects, a member of the client team is invited to be a member of the project team, which is the group that determines uses of the building. That way, they have first-hand involvement with the decisions made about their space.

Q Who's in charge of managing the new construction projects, and are there principles of campus development that are guiding the work?

A We just hired two outstanding people to lead our construction efforts: Deborah Poodry, director of capital project development, and Paul Curley, director of capital construction. Both have a wealth of background in building design and construction. Currently, they're in the process of establishing and coordinating a construction management team.

One of their top priorities is to develop a policies and procedures manual for our capital projects, and that work has begun.

Q Our campus is obviously in an urban setting, so we didn't have a lot of green space to begin with. Now, the construction work has eliminated even more of it. When the new buildings are finished, will MIT be paying attention to making those areas green again?

A Yes, we are developing an integrated landscape plan that will not only provide green spaces but also will connect the campus more effectively. There will be places for people to congregate outside and spend time in a relaxed way, something we need more of at MIT.

In the meantime, the construction work will temporarily consume some of the grassy areas on campus. When that occurs, it will be kept to a minimum and plans for restoration and enhancement of that space will be an explicit part of the project.

Photo: Ruth T. Davis

Director of Facilities Victoria V. Sirianni

Q Traffic around campus has been heavier lately, both because of MIT's construction work and the city's projects. Do you have any suggestions for commuters?

A It's true that our campus projects as well as the city's work on the Massachusetts Avenue storm drain will affect traffic patterns and inconvenience drivers. MIT's utility work on Vassar Street also will create delays. For these reasons, I encourage more members of our community to use public transportation, if that's an option for them.

Q There also seems to be a lot of renovation work being done on campus. Who makes the decisions about which of those projects are funded and the schedule on which they'll be renovated?

A The Committee for Review of Space Planning, often referred to by its acronym of CRSP, makes those decisions. Chaired by Chancellor Larry Bacow, CRSP is charged with space planning and capital budgeting to ensure the most strategic allocation and use of the Institute's physical and related financial assets.

The deans and vice presidents assist in prioritizing the requests for space changes from academic and administrative areas, and CRSP respects those priorities. The committee then guides the allocation of Institute funds for approved projects. CRSP is actually responsible for the assignment and allocation of all space on campus.

Recently, MIT's senior officers and the Executive Committee of the Corporation made a commitment to significant infrastructure renewal in order to preserve the integrity of our older buildings. This work isn't always as visible as new construction, but it's no less important. ■

Building Committee Members:

Executive Vice President
John R. Curry, Chair

Director of Facilities
Victoria V. Sirianni, Staff to the Committee

Chairman of the Corporation
Alex d'Arbeloff

Chancellor
Lawrence S. Bacow

Dean of Architecture and Planning
William J. Mitchell, Architectural Advisor to the President

President
Charles M. Vest

Provost
Robert A. Brown

Treasurer
Allan Bufferd

Vice President for Resource Development
Barbara G. Stowe

Committee for Review of Space Planning (CRSP)

Chancellor
Lawrence S. Bacow, Chair

Executive Vice President
John R. Curry, Vice Chair

Space Administrator
John P. Dunbar, Secretary and Staff to the Committee

Advisors:

Provost
Robert A. Brown

Assistant Provost for Administration
Doreen S. Morris

Director of Facilities
Victoria V. Sirianni

The Alexander Dreyfoos Building in the Stata Center.

Photos courtesy of the Department of Facilities

Building the Future (cont. from page 1)

improve our existing physical plant. In such projects as the rehabilitation of Building 33 for the Department of Aeronautics and Astronautics, a systematic renovation of classrooms throughout the original Bosworth buildings, and a thorough upgrading of the Chemistry Department's Building 18, we are working to provide faculty and students with the facilities they need to support cutting-edge educational and research activities into a new century. This commitment to physical renewal also extends to our residence halls — where we have made significant investments in projects at Baker House and Senior House — as well as to less visible but equally vital areas such as our campus-wide safety systems.

New Academic Facilities

Second, we are working to provide new facilities designed to support the emerging multidisciplinary activities that will drive our academic agenda for decades to come. Notable among these new facilities is the Ray and Maria Stata Center for Computer, Information and Intelligence Sciences. Work has already begun on this 350,000 square-foot facility, which, in a link to MIT's innovative past, is rising on the site of Building 20. Upon completion, it will house the Laboratory for Computer Science, the Artificial Intelligence Laboratory, the Laboratory for Information and Decision Systems, and the Department of Linguistics and Philosophy. In addition to the Stata Center, we are in the planning stages for new facilities to support activities in the Media Lab, the Sloan School of Management, and the neurosciences.

New Campus Life Facilities

Third, and of equal importance, MIT is committed to the construction of several buildings that significantly enhance the Institute's residential, athletic and recreational resources. Foremost among these are: a new undergraduate residence hall on Vassar Street on West Campus; a major new sports and fitness center adjacent to the Johnson Athletics Center; and at a later phase in the construction plan, a new graduate residence hall. In the meantime, we are moving ahead with plans to renovate Building NW30 at 224 Albany Street in order to provide housing for approximately 120 graduate students.

Information on these projects and more may be found in the centerfold of this special report.

The Challenges Ahead

The pursuit of such a wide-ranging program requires us to exercise special care in the phasing and coordination of all construction activity, and to remain alert to the impact of public and private construction projects adjacent to the MIT campus. There is no question that it will prove challenging to our everyday lives — and we will do our best to mitigate the inconvenience it causes.

At the same time, however, the campus-wide scale of this construction and renovation program gives us a once-in-a-generation opportunity to foster a stronger sense of shared purpose and community, and to strengthen our relationships among ourselves and also with our off-campus neighbors.

The fulfillment of this unparalleled opportunity will require all of us to give generously of our patience, creativity, cooperation and good will. It will require those of us responsible for administering the building program to communicate regularly and effectively with all affected parties, both on campus and off.

In the end, however, this era of physical change is crucial to the future of the Institute. It is a necessary part of our preparation for a new century of innovation and progress — and we owe it the benefit of our participation and our informed support.

No one should be in doubt about the potential for problems along the way: a transformation of this magnitude is certain to create disruptions and inconvenience for all of us. On the other hand, the end result will be worth the difficulties — and the stewarding of our campus in this time of change is a privilege that we should all embrace with determination and enthusiasm. ■

MIT

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