2004 Annual Town Gown Report

Massachusetts Institute of Technology

December 6, 2004

Massachusetts Institute of Technology
2004 Annual Town Gown Report Update

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2004 Annual Town Gown Report

Institution Name: **Massachusetts Institute of Technology**

Report for Time Period: **2003-2004 Term (7/1/03 – 6/30/04)**

Date Submitted: **December 6, 2004**

I. EXISTING CONDITIONS[1]

Please provide the following information about the current conditions and population at your Cambridge campus. Add clarifying comments as needed.

A. FACULTY & STAFF

	2002	2003	2004	2014
Cambridge-based Staff				
Head Count:	7,820	7,881	7,911	7,500-8,500[2]
FTEs:	6,793	6,971	6,823	

Cambridge-based Faculty				
Head Count:	955	965	962	~1,000
FTEs:	948	958	952	

Number of Cambridge Residents Employed at Cambridge Facilities:	1,369	1,338	2,082[3]	~2,000

[1] Data for sections A, B, and C is accurate as of October 31, 2003.

[2] MIT has no planned initiatives that would increase the number of staff.

[3] The change reflects a new system of record and the ability of employees to update their own biographical information.

B. STUDENT BODY

	2002	2003	2004	2014 (projected)
Please provide the following statistics about your Cambridge-based student body:				
Total Undergraduate Students:	4,213	4,173	4,109	4,000-4,200
Day:	4,213	4,173	4,109	
Evening:	N/A	N/A	N/A	
Full Time:	4,150	4,107	4,069	
Part Time:	63	66	40	
Total Graduate Students:	5,667	5,864	5,963	6,000-6,200[4]
Day:	5,667	5,864	5,963	
Evening:	N/A	N/A	N/A	
Full Time:	5,501	5,687	5,819	
Part Time:	166	177	144	
Non-Degree Students:	217	185	158	
Day:	217	185	158	
Evening:	N/A	N/A	N/A	
Total Students Attending Classes in Cambridge:	10,097	10,222	10,230	10,000-10,400
Non-resident students not included	107	95	110	

[4] Graduate student enrollment is restricted by the availability of research funding as well as the ability of international students to enroll. International students account for 36 percent of the graduate population. MIT anticipates that increased competition for international students in the U.S. and abroad, along with visa restrictions will slow the growth of the graduate student population.

C. STUDENT RESIDENCES

	2002	2003	2004	2014 (projected)
Undergraduate Students:				
Number residing in Cambridge in Institute-approved housing (includes dormitories, fraternities, sororities and independent living groups):	3,185	3,324	3,253	3,200-3,400
Number residing in Cambridge in off campus housing owned and managed by MIT:	8	5	6	
Number residing in Cambridge in off campus non-MIT housing:	103	37	91	
Graduate Students:				
Number residing in Cambridge in Institute-approved housing (includes dormitories, fraternities, sororities and independent living groups):	1,458	2,048	2,207	2,100-2,300
Number residing in Cambridge in off campus housing owned and managed by MIT:	279	265	191	
Number residing in Cambridge in off campus non-MIT housing:	1,649	1,712	1,747	
Student Parking				
Number of parking spaces maintained for undergraduate and graduate students (including resident and commuter parking)	1,103	1,103	1,103	1,103

D. FACILITIES & LAND OWNED

The following facilities and land information should be provided for the campus as a whole as well as for sub-areas/precincts of the campus. For example:

- *Harvard University for the North Campus, Law School, Radcliffe Quad, Harvard Yard, etc.*
- *MIT for the East Campus, West Campus, Sloan School, etc.*[5]
- *Lesley University for the Main Campus and Porter Square Campus*

	2002	**2003**	**2004**	**2014 (projected)**
Acres:				
Tax Exempt	157	157	157	
Taxable	83	86	84	
Number of Buildings: (tax exempt)	123	125	125	
Dormitories:				
Number of Buildings:	26	26	26	
Number of Beds:	5,274	5,274	5,274	
Size of Buildings (square feet):				
Institutional/Academic			5,897,549	
Student Activities/Athletic (Service)			1,845,344	
Dormitory/Nontaxable Residential			2,687,681	
Commercial[6]	3,863,505	4,632,163	4,632,163	
Taxable Residential[7]	172	172	172	

[5] MIT and the City agreed that these sub-area divisions are unnecessary in this section.

[6] MIT's commercial properties are measured by rentable square feet.

[7] MIT's taxable residential properties are measured by rental units.

Parking Facilities

This section refers to parking spaces maintained in Cambridge only. Provide figures for the Campus as a whole and for each sub-area/precinct. Attach additional information as necessary.

2004

Campus sub-area	Total	Student	Faculty/Staff/ Visitors
Northeast	733	200	533
Northwest	1,269	280	989
Southeast	1,818	141	1,677
Southwest	640	482	158
Temporarily Displaced[8]	354	0	354
TOTALS	**4,814**	**1,103**	**3,711**

[8] Displaced by construction. Planned for new parking locations.

Housing *(Do not include any information about dormitories in this table.)*

2002	**Tax Exempt: MIT-Owned and Managed Housing**	**Tax Exempt: Other Housing**	**Taxable: MIT-Owned and Managed Housing**	**Taxable: Other Housing (Univ. Park & 100 Mem. Dr. Ground Leases)**
Number of Units:	none	none	172[9]	676
Number of Buildings:	none	none	12	5

2003	**Tax Exempt: MIT-Owned and Managed Housing**	**Tax Exempt: Other Housing**	**Taxable: MIT-Owned and Managed Housing**	**Taxable: Other Housing (Univ. Park & 100 Mem. Dr. Ground Leases)**
Number of Units:	none	none	172[10]	676
Number of Buildings:	none	none	12	5

2004	**Tax Exempt: MIT-Owned and Managed Housing**	**Tax Exempt: Other Housing**	**Taxable: MIT-Owned and Managed Housing**	**Taxable: Other Housing (Univ. Park & 100 Mem. Dr. Ground Leases)**
Number of Units:	none	none	172[11]	676
Number of Buildings:	none	none	12	5

2014 Projected	**Tax Exempt: MIT-Owned and Managed Housing**	**Tax Exempt: Other Housing**	**Taxable: MIT-Owned and Managed Housing**	**Taxable: Other Housing (Univ. Park & 100 Mem. Dr. Ground Leases)**
Number of Units:	none	none	172	930
Number of Buildings:	none	none	12	7

[9] 5 units were occupied by non-MIT residents.

[10] 5 units were occupied by non-MIT residents.

[11] 12 units are occupied by non-MIT residents.

Property Transfers:

Please list Cambridge properties purchased since filing your previous Town Gown Report:

None

Please list Cambridge properties sold since filing your previous Town Gown Report:

None

Please describe any planned dispositions or acquisitions:

None at this time

E. REAL ESTATE LEASED

Please attach to the report a table listing of all real estate leased by your educational institution within the City of Cambridge. Include the following for each lease:

- street address
- approximate area of property leased (e. g., 20,000 SF, two floors, entire building, etc.)
- use (e. g., institutional/academic, student activities/athletic, housing, etc.)

If your institution does not lease any real estate within the City of Cambridge, you may omit this section.

Use	Leased Location[12]	Square Feet[13]
Institutional/Academic	1 Cambridge Center	11,555
Institutional/Academic	3 Cambridge Center	60,960
Institutional/Academic	5 Cambridge Center	36,197
Institutional/Academic	320 Charles Street[14]	98,513
Institutional/Academic	One Kendall Square[15]	22,506
Institutional/Academic	One Hampshire Street	23,899
Institutional/Academic	185 Albany Street	45,000
Institutional/Academic	304 Vassar Street	61,638
Institutional/Academic	One Main Street	18,403
	TOTAL	**378,671**

[12] Leased on behalf of MIT by the MIT Real Estate Office.

[13] The square footage will, in some cases, only be a portion of the entire building.

[14 & 15] These new addresses reflect the establishment of the Broad Institute for Genomics. These leases were previously held by the Whitehead Institute for Biomedical Research.

F. PAYMENTS TO CITY OF CAMBRIDGE:

	FY 01	FY 02	FY 03	FY 04
Real Estate Taxes Paid[16]:	$11,927,466	$15,229,701	$18,930,865	$23,487,606
Payment in Lieu of Taxes (PILOT):	$1,137,000	$1,164,000	$1,193,000	$1,223,000
Water & Sewer Fees Paid:	$3,649,629	$3,715,171	$4,739,167	$4,235,501
Other Fees & Permits Paid:	$2,501,324	$3,829,294	$2,909,611	$1,753,585
TOTAL PAYMENTS	**$19,215,419**	**$23,938,166**	**$27,772,643**	**$30,699,692**

Cambridge First Purchasing Policy	$37,890,431	$41,387,889	$34,940,041	$39,519,046

[16] Includes real estate taxes paid on MIT-owned property, taxes paid on MIT-owned property by University Park and 100 Memorial Drive, and real estate taxes generated by Independent Living Groups.

II. FUTURE PLANS NARRATIVE

On page 12 of the 1991 Report of the Mayor's Committee on University-Community Relationships, the members of the Town-Gown Committee agreed that "Universities should offer statements of their future needs to the city and plans responding to those needs. These plans should include specific statements about known development projects and their status; forecasts of faculty, staff or student population growth; and identified needs that do yet have solutions . . . These plans should address known concerns of the community, such as parking and/or tax base erosion."

Describe your institution's current and future physical plans:

- Employ a planning horizon of ten years;
- How do you see your campus evolving to address your institution's strategic goals and objectives;
- Describe the goals and needs that you address through your plans
- Identify and describe plans for future development of the sub-areas/precincts of your campus, being certain to address the institution specific information requests and questions found in Section VI (coordinate with Map 4 in Section IV);
- Identify future development sites on your campus (coordinate with Map 4 in Section IV).
- Include in your discussion the relationship of planned and projected institutional development to adjacent residential districts within Cambridge and any impacts that might result;
- Include in your discussion the relationship of planned and projected institutional development to adjacent retail and commercial districts within Cambridge and significant impacts that might result (e. g., loss or relocation of retail space, etc.).

A. Introduction

The Evolving Campus

The current period in MIT campus development can largely be thought of as the end of one era and the beginning of a new one. The $1.4 billion building program of the last several years is drawing to a close. Several of the major projects have been completed for at least a year and are no longer listed. (See Map #4 – MIT Projects.) The single largest project, the Stata Center, was completed last spring and is in full operation. The brain and cognitive sciences project is on schedule for completion in the fall of 2005. Half of the Vassar Street redevelopment is complete and the other half is planned to begin construction. The last two projects associated with the Evolving Campus program, the Media Lab Extension (renamed the Media Arts and Sciences Project) and the East Campus Project (Sloan School and School of Humanities, Arts and Social Sciences), both conceived of as fully private gift-funded projects, have been delayed while fundraising proceeds in support of both projects.

Financial Stability

At this time last year, MIT was hard at work stabilizing its finances. MIT is more dependent on private gifts and the growth of the endowment than it used to be. Investment distribution policies are designed to stabilize the operating budget. The reverses in the growth of the

endowment since the peak reached in 2000 affected the operating budget in a significant way only in the last year or two. The growing distributions from investments that supported operating budget increases since the middle of the last decade slowed and finally decreased in absolute terms in fiscal year 2004.

Over the last several years, spending increases have provided higher levels of support for graduate students, additional financial aid for undergraduates, and higher levels of renovation and repair of space. In addition, increasing debt service and operating costs for new facilities, increasing health care costs, and rising pension fund contributions have all contributed to higher operating costs.

The measured reductions in staff, limits on new hires, a broad salary freeze, and general limits on spending described in last year's report have had the desired effect of reducing the growth of MIT's operating expenses. The $2.0 billion capital fund goal was reached in September of this year and the market value of endowment funds increased by 13 percent for fiscal year 2004, the first increase since FY 2000.

Despite competitive pressures to continue to improve academic and student life facilities, a major new wave of projects similar to the capital program of the past few years is unlikely. Total debt for the Institute was $1.286 billion at the close of FY 2004, up $374 million from the prior year and four times the $300 million in total debt held at the end of FY 2000. There will be some projects approved that bring new resources and provide strategic academic and student life opportunities, but in the near term there will be a limited number of such projects.

New Leadership

President Charles M. Vest has stepped down after leading MIT for 14 years. Susan Hockfield, a distinguished neuroscientist and former Provost at Yale University, has been selected as the 16th president of the Massachusetts Institute of Technology. Dr. Hockfield takes office on December 6, 2004.

In addition, William J. Anderson has been appointed as Chief Facilities Officer for MIT, succeeding Victoria Sirianni, who stepped down after leading the MIT Facilities Department for more than a decade. Mr. Anderson was formerly Associate Vice President for the Physical Plant at Pennsylvania State University and served in a number of senior facilities posts with the U.S. Navy's Civil Engineer Corps.

The completion of the Evolving Campus program, the financial downturn and recovery, and the change in leadership provide an opportunity to reflect and adjust to new circumstances. New academic priorities will emerge under the leadership of Dr. Hockfield, and new and renewed facilities will be needed to accommodate them.

B. Campus Planning Considerations

Capital Renewal

There is, at present, an opportunity to take stock of campus conditions as a whole. One consideration is how to respond to the need for the capital renewal of the existing building stock. This includes the original academic buildings, about to enter their 89th year of service, the post-WWII buildings that require substantial system upgrades to continue operation and serve new uses, and aging dormitories. A number of programs will move into the Stata Center and the brain and cognitive sciences project, and potentially into the Media Arts and Sciences Project and the East Campus Project. These relocations provide opportunities for improved and consolidated space for a

number of departments, laboratories, and centers. Because there are relatively large spaces being vacated, these relocations can perhaps be combined with infrastructure renewal at the scale of a whole building or major parts of a building.

Utility Program

Another issue is how best to serve the utility requirements of the campus. The utility program has been closely tied to individual capital projects in the recent past. A broader assessment of campus-wide supply and demand combined with a more far-reaching view of the future needs of the campus might yield a more comprehensive and efficient utility program. There are opportunities on both the supply and demand side to implement high-performance "green" solutions and to achieve substantial savings.

Site Improvements

Integrated with the success of the capital projects is the reconstruction of Vassar Street east of Massachusetts Avenue. The transformation of this former industrial route shows the power of site improvements in changing the feel of an entire area. The completion of the west Vassar portion of this project is now first on the agenda, but smaller and incremental improvements that re-knit the campus – new and more uniform walkway surfaces and pathway furniture, improved lighting and planting, better bicycle amenities, and installation of a wayfinding system – will leverage the huge investments in new buildings and promote a more seamless and attractive campus.

C. Growth in the number of MIT Staff, Faculty and Students

This year's Town Gown Report has asked for projections of campus populations and facilities. The Institute is not able to offer the kind of certainty implied in these kinds of projected figures. Take, for example, growth of the student body. As noted in last year's report, the explosive growth of the student body of the Institute took place after WWII, as the total number of students doubled from 3,100 to 6,271, with the number of graduate students more than tripling from 721 to 2,691 between 1940 and 1960. From 1960 to 1980, there was a 44 percent growth in the number of students, bringing total student numbers to over 9,000, split evenly between undergraduates and graduate students.

Since 1981, the total number of students is up only 960 to about 10,200 in total, a ten percent increase in 23 years. This is a growth rate of less than one half of one percent per year. The number of undergraduates has dropped by 400 to 500 since 1981 and remains stable. The growth in the number of graduate students has been more uneven, as it is contingent on a large number of factors, including research funding, economic conditions, and visa availability for foreign students. The increase in graduate students has been just below three percent annually since 2000.

The number of faculty members has been stable at just under 1,000 for many years. There has been growth in the last seven years of about 1,500 in the number of academic and administrative staff. Current economic conditions have moderated this, while new research and other revenue could regenerate employment growth. While the number of unemployed Cambridge residents rose to over 2,000 during the most recent recession, for the first time since the recession of the early 1990s, employment at MIT has remained stable.

D. Housing: Cambridgeport, West and East Campus

As noted in last year's report, since 1981, MIT has created an additional 1,410 beds of student housing, providing housing for every additional student admitted and making progress in increasing

the percentage of its students housed in MIT-approved housing. The Cambridge rental housing market has continued to be relatively soft, leading to lower rents and higher vacancies. As a result, there has been a two percent increase in the number of graduate students living in off-campus housing in Cambridge.

Most of the older graduate and undergraduate residences on campus need substantial renovation, with only a few exceptions, such as Senior House and Baker House, which have both recently been renovated. The Institute is exploring alternatives for expanding housing opportunities, including a strategy of multi-year renovation of existing residential buildings, vacated one by one, allowed by the creation of significant residential swing space.

There are multiple objectives being deliberated within the Institute as housing strategy is considered. There are constituencies for undergraduate, graduate, staff, and faculty housing, each with its own rationale for the value of serving that portion of the academic community. There are different points of view about whether separate sectors of graduate and undergraduate housing are desirable. Is it more important to shore up Simmons Hall with additional undergraduate housing in that area, or should the critical mass of graduate housing be reinforced near 70 Pacific and 224 Albany Street or in the eastern end of campus?

Campus community-building is an important component of academic housing that is aided by generous staff support and program space. In order to keep the costs of these features from overwhelming the ability of students to pay, efficiencies are sought in economies of scale in construction and operations. Greater scale tends to limit the number of suitable sites, may conflict with other campus design objectives, and requires greater capital.

As noted in last year's report, Cambridgeport and West Campus locations are under consideration for additional MIT housing, but there are no plans for any specific site. A scope for a study of the alternatives is currently being fashioned.

70 Pacific and 224 Albany Street graduate residences have demonstrated the viability of the area north and west of the MIT Main Campus as a housing location. Complaints about connections to campus, the unattractive character of Albany Street, and worries about safety continue to be issues of concern. The commercial and industrial buildings in the area further to the west (many of which are not owned by MIT, and a number of which have been recently constructed or renovated) make it difficult to create the kind of lively, mixed-use community with retail and 18-hour activity that would be most desirable in this part of Cambridge.

The economics of student housing development remain difficult. The costs of land, construction, and the development process are very steep. The densities allowed by zoning in Special District 8 and 8a are quite low. The rents that would fully support both the operating and debt service costs of new residential facilities need to be set at the limits of what the overall student market can afford. Access to capital is also constrained in the near term. The Institute is investigating how each of these constraints can either be satisfied or where changing one or another of them could support a successful project.

E. MIT Property in the Osborn Triangle and along Massachusetts Avenue

There are several MIT investment-owned parcels in this area, along with a few academic properties. (See Map #2.) There are no plans for changes to the buildings approaching Central Square with existing residential, commercial and retail uses and tenants. These include 220, 233, 289, and 351

Massachusetts Avenue and 782-798, 840, and 882 Main Street. Keeping these properties stable during the full-depth reconstruction of Massachusetts Avenue in this area will be a significant challenge over the next 18 to 24 months. (See Section III.B. for a more detailed discussion of the impact of roadway construction in this area.)

Right in Central Square, outside of the Osborn Triangle, at 452 Massachusetts Avenue, there are plans for a new building in this so-called South Row location. An agreement with two local theaters is in place and fundraising continues. The plans for this site are complicated by the compromised structural integrity of the existing building. While major efforts to save these structures have been made, it has been determined that only new construction can serve the objectives that have been set for this location.

The building at 28 Osborn Street (now known as 700 Main Street) is under long-term lease to TKT, the sole tenant. The Analog Devices Building at 21 Osborn Street is also a long-term investment, under the control of Analog Devices for many years. No changes are anticipated for the frontage of this property along Massachusetts Avenue.

The vacant industrial buildings at 730-750 Main Street are intended for renovation for commercial tenants and for long-term investment. The former Polaroid building at 600-624 Main Street remains in the Institute's investment portfolio, and a commercial tenant is being sought.

The academic parcels in this area are located near Massachusetts Avenue. There is an opportunity to improve the gateway parcels along Massachusetts Avenue between Albany and Vassar Streets. The potential Music and Theater Arts Teaching Laboratory (see Map #2) would be a step in the right direction. The redevelopment of the parcels on the east side of Massachusetts Avenue is complicated by the proposed MBTA Urban Ring stations at Massachusetts Avenue, the continuing need for the research space in the high voltage laboratory, and the service provided by the public parking at the corner of Massachusetts Avenue and Vassar Street.

The Information Systems and Technology Building (Building N42) on the northeast corner of Smart Street and Massachusetts Avenue was rehabilitated a few years ago. There is some consideration of a more systematic review of N51/N52, as a number of occupants are being considered for relocation on campus and new occupants would likely replace them. None of these service, residential, and academic properties is likely to be converted from institutional uses.

F. Northeast and East Campus Redevelopment

The East Parking Lot

The East Parking Lot and the space in front of the Biology Building (Building 68), fronting on Main Street and opposite 7 Cambridge Center – the future home of the Broad Institute – is a future development site. (See Map #3.) A building here would strengthen this corner of the campus, screening or eliminating the last large surface parking lot on Main Street and creating an active street edge that continues the connection of Technology Square with Kendall Square. The development of this site would also create an opportunity to develop a major courtyard between the Stata Center and the Biology Building.

Hayward Garage Block

The area between Hayward and Wadsworth Streets, behind the historic 238 Main Street building, has long been seen as a redevelopment area, but no specific program has yet emerged to make use of it. As noted in the List of Projects section below, MIT is planning the demolition

of the Hayward Garage and its temporary replacement with surface parking. The shape and use of this parcel has yet to be determined. It is bracketed by the Muckley Building (Building E40) and 238 Main Street (Building E48) with frontage only on the smaller Wadsworth and Hayward Streets.

E32/E33/E34 and Medical Parking Lot Block

The other significant academic redevelopment opportunity is behind the MIT Press Bookstore (Building E38) and the adjacent MIT-owned commercial building (Building E39), between Carleton, Amherst, and Hayward Streets. The current occupants of Buildings E32, E33, and E34 will be relocated elsewhere on campus, and these buildings will be demolished. Because of the substantial academic density existing and planned for the area, as well as the substantial amount of surface and garage parking that exists in and around this location, an underground parking structure is planned. This garage would be tied to the development of an academic project in this location.

III. LIST OF PROJECTS

List all development and public improvement/infrastructure projects completed within the past year, currently in construction or which will require City permits or approvals during the next three years (coordinate with Map 3 in Section IV);

- Indicate how each project meets the programmatic goals of your institution discussed in Section II;
- Indicate how each project fits into the physical plans for the immediate campus area;
- Indicate identified future development sites on your campus (coordinate with Map 4 in Section IV).

A. Enhanced Academic Facilities

The Stata Center

The Center is a new campus gateway at the intersection of Main and Vassar Streets, and houses the computer, information, and intelligence science laboratories in order to support potential new collaborations and innovations. Because of its non-traditional and eye-catching design, the building is a new landmark for the City of Cambridge. The Stata Center and the underground garage associated with the building opened in summer 2004.

Brain and cognitive sciences project

This new facility will be the home of the Department of Brain and Cognitive Sciences, the McGovern Institute for Brain Research, and the Picower Center for Learning and Memory. It has been designed by Charles Correa Associates and Goody, Clancy Associates and is being constructed by Turner Construction Company. These disciplines are currently housed in various locations, including some leased space. Construction started in April 2003. The building is closed in; mechanical, electrical and plumbing systems are in place; and most areas are framed out. The project is on track for completion date in fall of 2005.

The Broad Institute

The Broad Institute is a partnership among MIT, Harvard University and affiliated hospitals, and the Whitehead Institute for Biomedical Research. Its mission is to create the tools for genomic medicine, make them freely available to the world, and pioneer their application to the study and treatment of disease. The Broad was founded based on a $100 million gift of Eli and Edythe L. Broad announced in June 2003. Administration of the Broad collaborative is based at MIT. The current 350-person research staff comprises former Whitehead Institute personnel located at One Kendall and 320 Charles Street.

Boston Properties, the developer of Cambridge Center designated by the Cambridge Redevelopment Authority, broke ground in June 2004 on a 202,000 square foot, seven story research building at 7 Cambridge Center. This building, located adjacent to the Whitehead Institute and across the street from MIT's Biology Building, will be fully leased by MIT on the Broad's behalf. About 60 percent of the space at the new location will be dedicated to laboratory work. Besides laboratories and offices, the building will feature a publicly accessible first floor that includes gallery space and a restaurant. A parking garage will be constructed behind the building, as part of the Cambridge Center master plan. The new facility is planned to be complete in 2006.

Media Arts and Sciences Project (formerly known as the Media Lab Extension)

This facility will include computer labs, student and faculty offices, meeting space, and exhibition spaces. The project required demolition of both E10 and E20 to accommodate a facility comprising three major research centers. The designer of the Media Arts and Sciences Project is architect Fumihiko Maki of Tokyo, with Leers Weinzapfel of Boston as associate architect. The facility will accommodate a growing educational program in media studies.

The project was ready for a building permit in the summer of 2002, when MIT determined that more funding needed to be in place before construction could begin. There have been substantial cost-saving changes to the interior of the building, including the elimination of an entire basement floor level. The exterior of the building is nearly unchanged, preserving the outstanding design created by Maki & Associates and Leers Weinzapfel Associates.

The Planning Board approved a minor amendment to the existing special permit in September 2003 allowing these design changes. In September 2004, the Board extended the expiration of the special permit for another year.

The Music and Theater Arts Teaching Laboratory

This proposed building is a long-desired teaching facility for musical and theatrical disciplines. This facility would be primarily for rehearsal and teaching and is not planned as a performance venue. The building program calls for approximately 36,000 gross square feet. A siting study, completed in 2003, concluded that the parking lot at the corner of Albany Street and Massachusetts Avenue, just north of the railroad tracks, would be the optimal location. It would act as a gateway to the campus and would be reasonably close to Kresge Auditorium, the primary performance space on campus. The project will be considered for further design work pending progress on fundraising.

Green Center for Physics

Through a new project involving space swapping with other departments, renovation, and new construction, the Physics Department will be able to consolidate its space, now spread throughout 13 buildings on campus. About a third of the program space will be provided by new construction of an infill building in the courtyard framed by Buildings 2, 4, 6, and 8. A small building (6A) would be demolished to make way for this new construction. The demolition was approved by the Historical Commission in July 2004. Value engineering and further design work is ongoing. Construction is anticipated to begin in 2005.

East Campus Project

An addition to the Sloan School of Management and a renovation of facilities for the School of Humanities, Arts, and Social Sciences will accommodate the expanding needs of both schools on the East Campus in order to provide enhanced teaching and learning spaces. This project has been sited on the eastern-most block of the campus, adjacent to the existing Sloan facilities. The project is on hold while fundraising proceeds. It is expected that the 300-plus parking spaces in this area will be relocated underground.

B. Public Improvement Projects

The City is actively making improvements to infrastructure throughout Cambridge. MIT is an active participant in several of these major projects. The capital contributions from MIT are substantial

and reflect the Institute's interest in doing its part to improve the quality and safety of the common infrastructure.

Vassar Street Enhancements

The rebuilding of Vassar Street is intended to improve the pedestrian, bicycle and vehicular environment of the roadway from Audrey Street near Memorial Drive to Main Street. This is the first major project to implement the landscape design guidelines provided by the Olin Partnership to MIT. The Institute, with the support and cooperation of the City, is undertaking major improvements to form a residential street, including landscape and streetscape enhancements, pedestrian and bicycle paths, traffic calming strategies, and consolidated utility lines. This project has been split into two phases: Vassar East and Vassar West, divided at Massachusetts Avenue.

Vassar East is complete. Vassar West is planned to start in 2005, but there are substantial concerns about the coordination of this project with the reconstruction of Massachusetts Avenue, the Cambridgeport Roadways project and the Memorial Drive project of the Department of Conservation and Recreation (DCR, which absorbed the Metropolitan District Commission). The current schedules for these projects may result in difficult traffic conditions around the campus in 2005, including pedestrian and bicycle crossings from the Main Campus to the West Campus. Coordination discussions with City officials are underway.

Cambridgeport Roadways Project

MIT, in conjunction with the City and Forest City Development, has contributed land and money for the construction of a new roadway through Cambridgeport that will facilitate the flow of vehicles from University Park and surrounding areas. This project is now underway.

DCR Memorial Drive Historic Parkways Initiative

The DCR, in partnership with MIT and NSTAR, has removed a lane of eastbound traffic on Memorial Drive in front of MIT and most of the existing parking on the eastbound side to extend the riverside park and promenade area. In addition, the long-sought signalization of Massachusetts Avenue and the Memorial Drive off-ramps has been completed. MIT has contributed the construction documents it developed for the intersection improvements to be amended and integrated into the Parkway project. MIT contributed an additional $565,000 for the project. Phase I of this project (the civil and roadway work) is nearly complete. Phase II includes most of the landscape improvements. It is not yet scheduled to start.

Cambridge Drainage Projects

There are three City drainage lines for the Cambridgeport district that are planned to cross MIT property. MIT constructed a storm water drainage connection from Vassar Street down Audrey Street (a private way) to two former river-water cooling pipes. In accordance with the Institute's Storm Drain agreement with the City, MIT is giving these improvements to the City without charge. The City will make some additional improvements in the manholes as soon as the property transfer takes place and make the new outfall operational.

The City has proposed two new municipal storm drain lines. One was originally proposed to cross the athletic facilities near Johnson Athletic Center and Kresge Auditorium, connecting to the existing Danforth Street outfall. However, the City is now considering a connection to the South Mass Avenue drain line as a less expensive alternative. The other drain line is proposed to cross the West Parking Lot, run down Amherst Alley and then adjacent to Next House. The City

is still designing these improvements. MIT and the City will need to reach an agreement on a property transaction and appropriate mitigation methods. The City hopes to do the work in Vassar Street in the summer of 2005 to allow the start of the Vassar West project.

C. Utility Infrastructure and Parking

MIT intends to maintain its parking inventory by replacing or rehabilitating aging garages and parking lots on valuable campus locations. The Institute also plans to expand and upgrade its utility infrastructure to keep pace with its building program.

Utility Expansion

The growth of demand for steam on campus requires development of additional boilers. Two temporary emergency boilers will be installed outside N16A, north of the railroad tracks, to provide back-up capacity in the event that one or more of the existing boilers in the Central Utility Plant goes off-line. These temporary boilers will be replaced during the implementation of a larger strategy to provide sufficient permanent steam capacity to serve the currently planned building projects.

Parking

MIT has not added any net new parking spaces in more than a decade. In recent years, large numbers of parking spaces have been either temporarily lost to construction or permanently displaced. In July 2004, the Cambridge Redevelopment Authority took back 250 parking spaces that had been rented to MIT for a decade. MIT intends to restore parking spaces that are temporarily out of service and to relocate permanently displaced parking spaces. Where possible and financially feasible, parking will be located underground, freeing up land for academic and campus development. Each of the following changes in parking has a corresponding academic development potential associated with it and is described in Section II, Future Plans Narrative.

The Hayward Garage, containing 141 parking spaces, is slated for demolition in 2005, to be temporarily replaced by surface parking. This location between Hayward and Carleton Streets is an important future academic development site. (See Map #3.)

The East Parking Lot and the space in front of the Biology Building (Building 68) is also a future development site. This will displace some or even all of the parking in the East Parking Lot.

The cleared sites of E32, E33, and E34, along with the surface parking lot serving MIT Medical between Carleton, Amherst, and Hayward Streets, would permit a large underground garage to be constructed in the future under a new academic development. This garage would absorb the 200-plus existing parking spaces that would be displaced and capture additional parking spaces displaced by the capital building program.

The only relatively precise time frame for any of these parking changes is the anticipated demolition of the Hayward Garage in 2005 and its replacement by surface parking. There are no specific academic uses, plans, or schedules for the developments that would either permanently displace the surface parking in these areas or, in the case of the underground garage in the Carleton/Amherst/Hayward block, accommodate displaced parking.

IV. MAPPING REQUIREMENTS

Please attach to the report maps of the following (these may be combined as appropriate):

1. Map of all real estate owned in the City of Cambridge. Categorize properties by use as appropriate (e. g., institutional/academic, student activities/athletic, dormitory/nontaxable residential, investment, etc.).

   See Map #1 – MIT Property in Cambridge.

2. Map of real estate leased. Categorize properties by use as appropriate (e. g., institutional/academic, student activities/athletic, housing). This map can be combined with the one above.

   See Map #1.

3. Map of development projects completed within the past year, now underway, proposed or planned within the next three years.

   See Map #4 – MIT Projects.

4. Map the sub-areas/precincts of your campus, indicating the location of future development areas and projects. If appropriate, include detailed maps of sub-areas/precincts where significant changes are anticipated to occur over the next five years.

   See Map #3 – Campus Development Opportunities.

V. TRANSPORTATION DEMAND MANAGEMENT

Please provide the following information. You may summarize the information below or attach documents to this report, as appropriate. If your school has not updated information since submitting the 2003 Annual Report, you may so indicate in the appropriate space below.

A. Results of surveys of commuting mode choice for faculty and/or staff and/or students.

   See Appendix A.

B. Information on the point of origin of commuter trips to Cambridge for faculty and/or staff and/or students.

   See Appendix B.

C. Have there been any changes in your TDM plan or strategy since submitting your 2003 Town Gown report? If so, please describe briefly.

   No

VI. INSTITUTION SPECIFIC INFORMATION REQUESTS

Massachusetts Institute of Technology

1. Provide an update on long term planning for the main campus, including the Sloan School area.
2. Provide information on any plans for additional housing and other uses under consideration for MIT owned parcels in Cambridgeport.
3. Provide information on plans for MIT owned parcels located along Massachusetts Avenue, with particular attention to ground floor retail uses.
4. Provide information on plans for MIT owned parcels located along Main Street and in the Osborne Triangle (the area bounded by Massachusetts Avenue, Main Street and Osborne Street), including parcels acquired from Polaroid, with particular attention to ground floor retail uses.

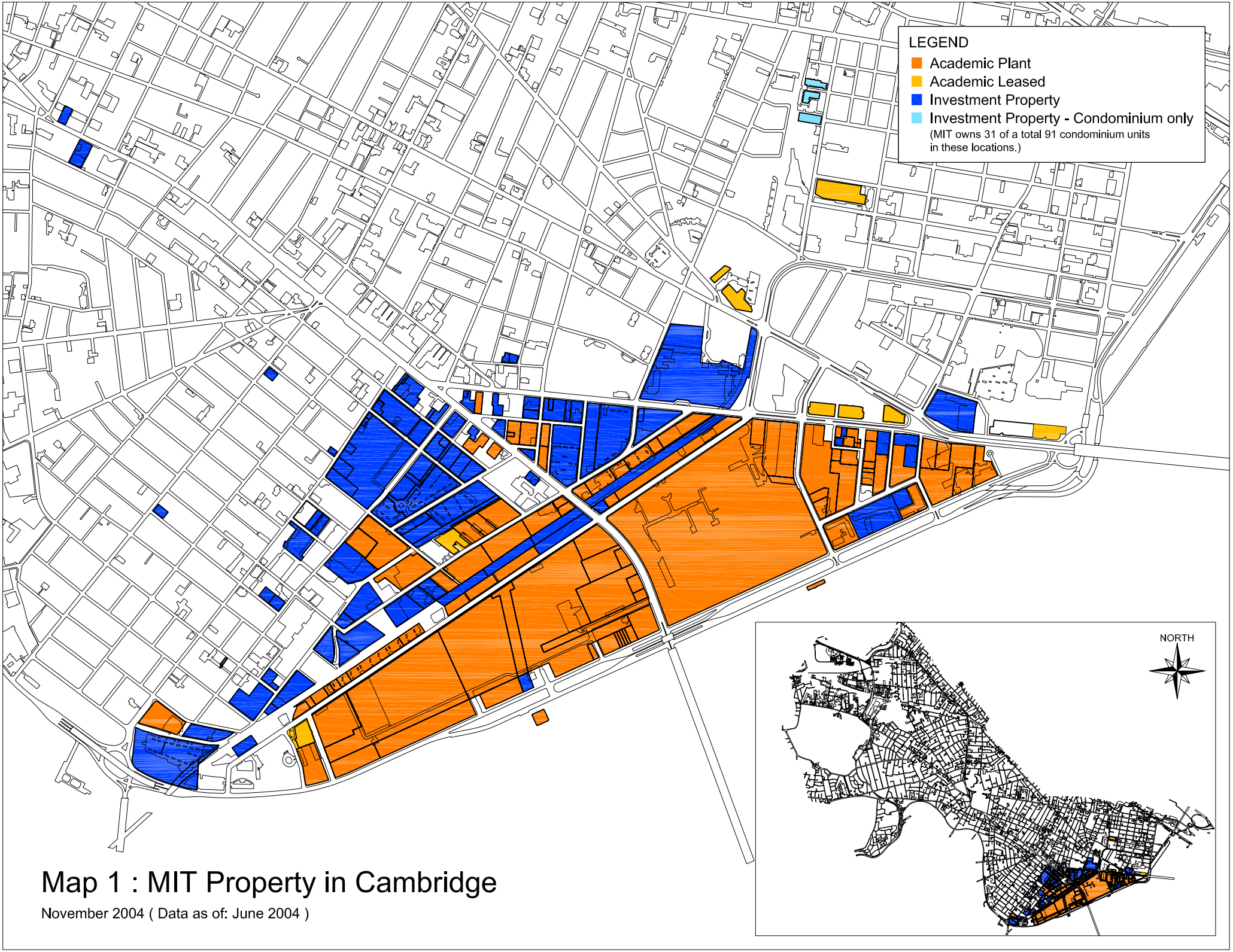
MIT questions are addressed in Section II, Future Plans Narrative.

Appendix A:
Results of Commuting Mode Survey

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Drove alone the entire way	25.2%	25.3%	25.2%	25.4%	24.1%	10.4%	10.3%
Drove alone, then took public transportation	3.9%	3.8%	4.1%	4.0%	3.8%	0.4%	0.4%
Walked, then took public transportation	26.1%	26.9%	27.2%	27.1%	25.6%	9.9%	9.0%
Shared ride/dropped off, then took public transportation	2.4%	2.7%	2.7%	2.6%	2.3%	0.5%	0.6%
Bicycled and took public transportation	1.5%	1.5%	1.5%	1.5%	1.4%	0.8%	0.7%
Rode in a private car with another person	4.3%	4.5%	4.6%	4.3%	4.5%	2.0%	2.0%
Rode in a private car with 2-7 people	1.1%	1.0%	1.1%	1.0%	1.1%	0.6%	0.6%
Rode in a 8- or more person vanpool	0.4%	0.5%	0.5%	0.6%	0.4%	0.1%	0.2%
Dropped off at work (by taxi or other)	0.8%	0.7%	0.8%	0.7%	0.7%	0.2%	0.4%
Bicycled	12.4%	12.2%	11.5%	11.7%	11.3%	7.3%	7.5%
Walked	14.7%	14.7%	14.8%	14.3%	14.4%	11.3%	10.8%
Out of the office (sick, vacation, jury duty, business trip)	2.0%	1.6%	1.6%	1.9%	2.9%	1.9%	1.9%
Scheduled day off	0.8%	0.5%	0.4%	0.6%	1.4%	41.9%	42.9%
Worked at home	1.6%	1.5%	1.4%	1.6%	3.5%	10.6%	10.9%
Other	2.6%	2.7%	2.7%	2.7%	2.6%	2.0%	1.7%
Frequency	6291	6295	6305	6273	6212	4060	3929

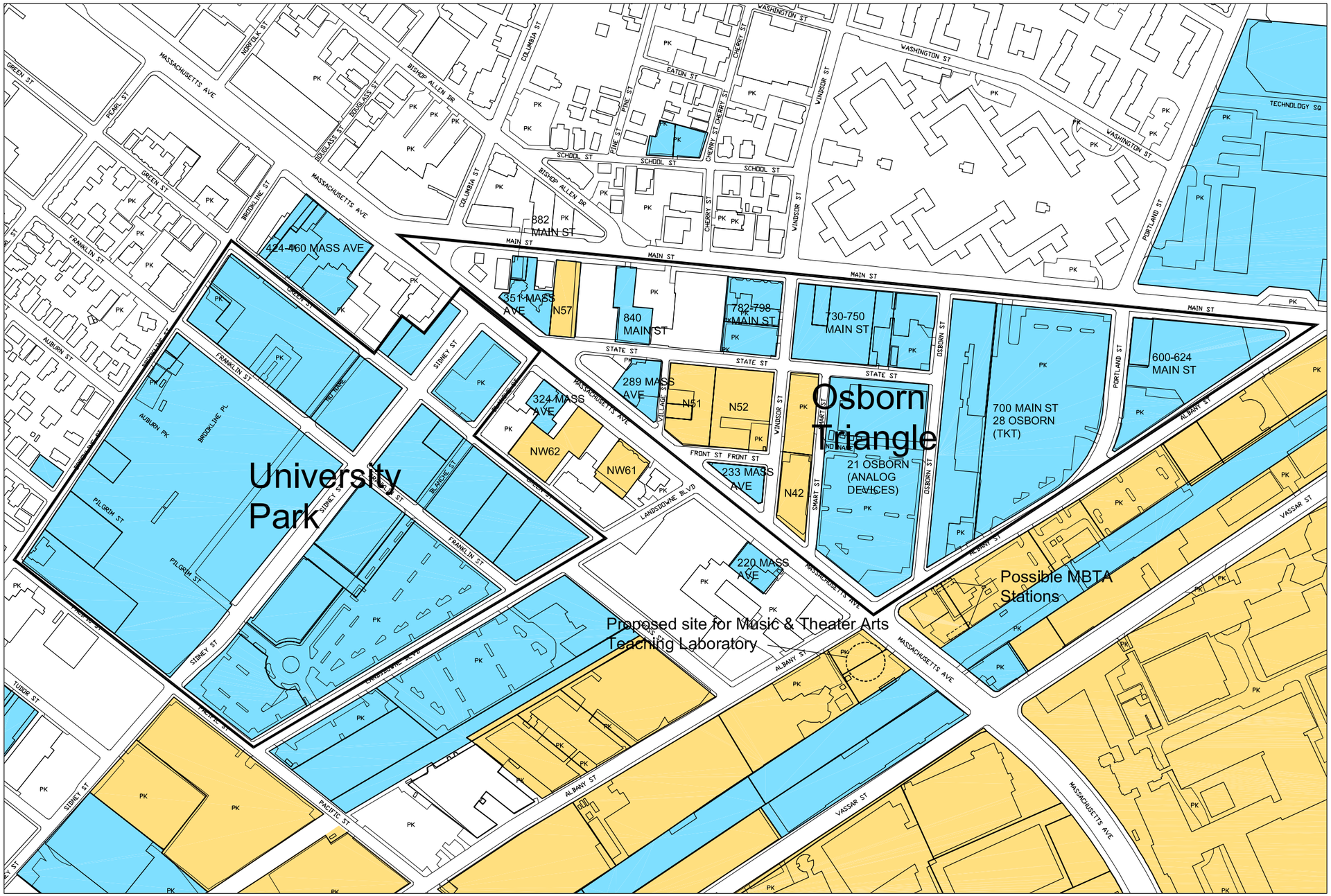
Appendix B:
Commuter Point of Origin

Home Location	Frequency	Percentage
Cambridge	1,821	19.9%
Boston	1,181	12.9%
Somerville	669	7.3%
Newton	408	4.5%
Arlington	350	3.8%
Brookline	290	3.2%
WEST OF BOSTON	560	6.1%
NORTH OF BOSTON	962	10.5%
SOUTH OF BOSTON	338	3.7%
OUTSIDE 128	1,274	13.9%
OUTSIDE 495	690	7.5%
Outside of Massachusetts	483	5.3%
NEW HAMSPSHIRE	121	
RHODE ISLAND	45	
CONNECTICUT	28	
MAINE	11	
VERMONT	8	
OUTSIDE NEW ENGLAND	270	
Unknown	117	1.3%
Total	9,143	



Map 1 : MIT Property in Cambridge

November 2004 (Data as of: June 2004)

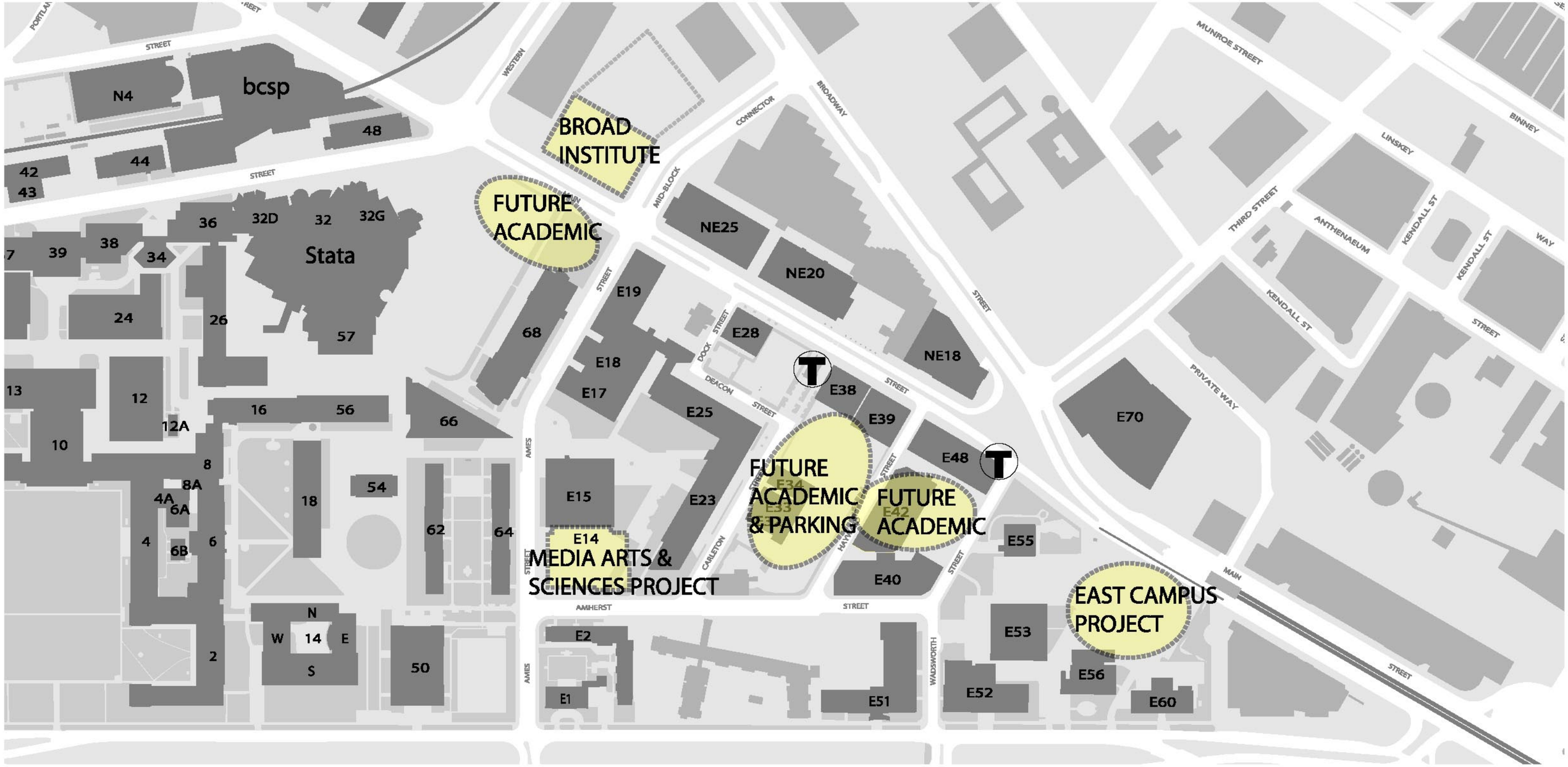


Map 2 : Mass Ave & Osborn Triangle

November 2004

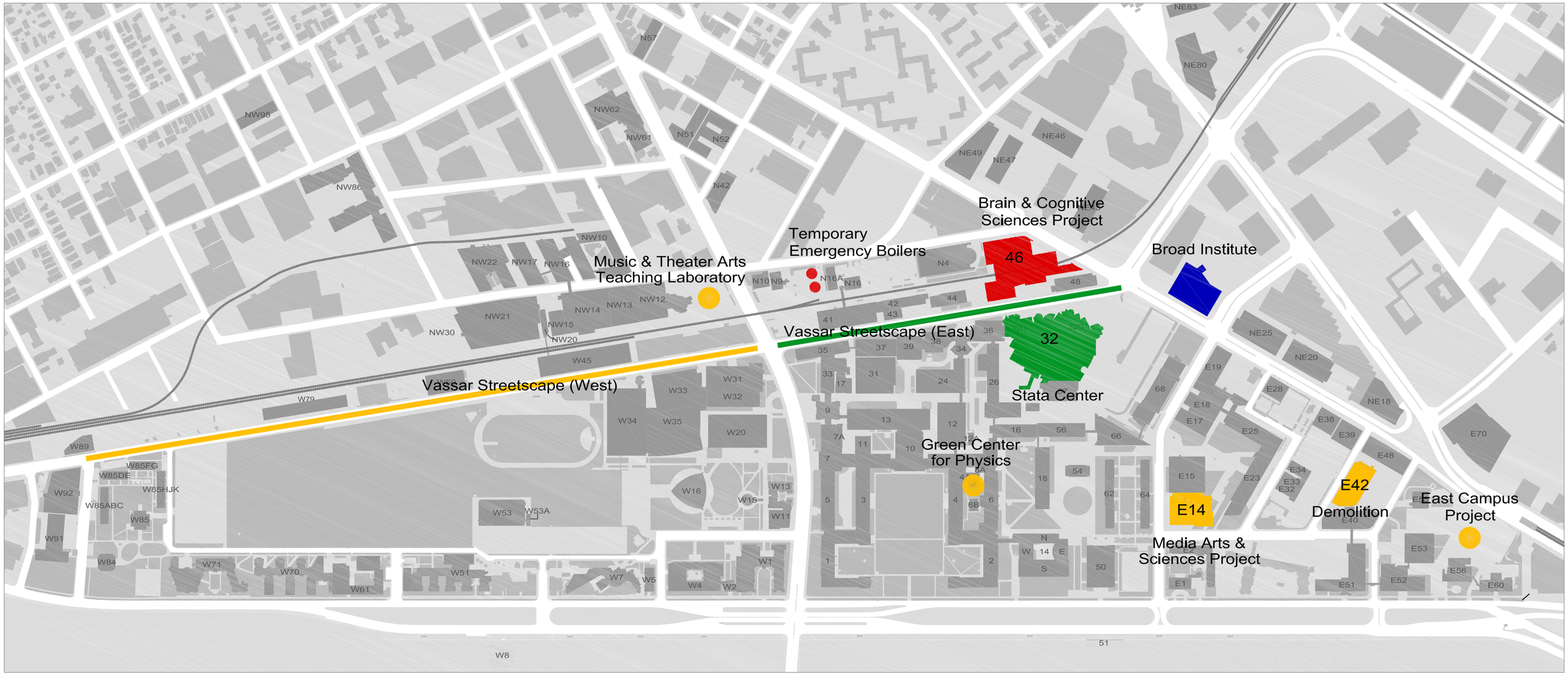
NORTH

LEGEND
- Academic Plant
- Investment



Map 3 : Campus Development Opportunities

Campus Planning & Project Development - MIT Department of Facilities
November 2004



Map 4 : MIT Projects

November 2004

Planning / Design

Construction

Completed

Construction By Others

NORTH