



Town Gown Report to the City of Cambridge

February 2, 2016



Massachusetts
Institute of
Technology



January 2016
 Sources: EVP
 Fac



Celebrating a century in Cambridge



Major initiatives in 2016



Advances in Innovation


- MIT Innovation Initiative
- Innovation Orchards
- Undergraduate minor in Entrepreneurship and Innovation
- Laboratory for Innovation Science and Policy



Digital Learning

- Implementing recommendations from the Task Force on the Future of MIT Education
- Micromasters Degree
- The Future of Libraries





The problem of climate change, the subject of serious work at MIT for decades, demands society's urgent attention...given our mission, history and capabilities, MIT has a particular responsibility to lead...and that moment is now.

-From President Reif's "A Plan for Action on Climate Change," October

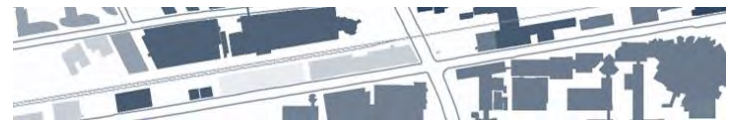
Climate and Resiliency



Sustainability

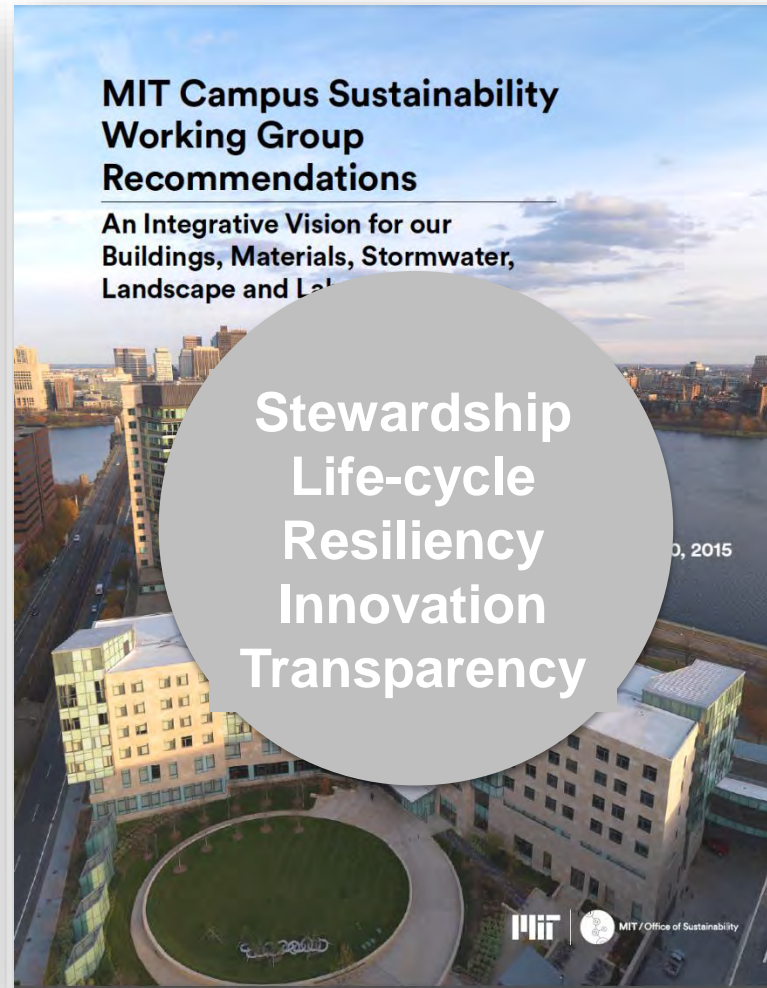


We aim to transform MIT into a powerful model that generates new and proven ways of responding to the unprecedented challenges of a changing planet via operational excellence, education, research and innovation on our campus.



Sustainability

**Reduce GHG
by at least 32%
below 2014**





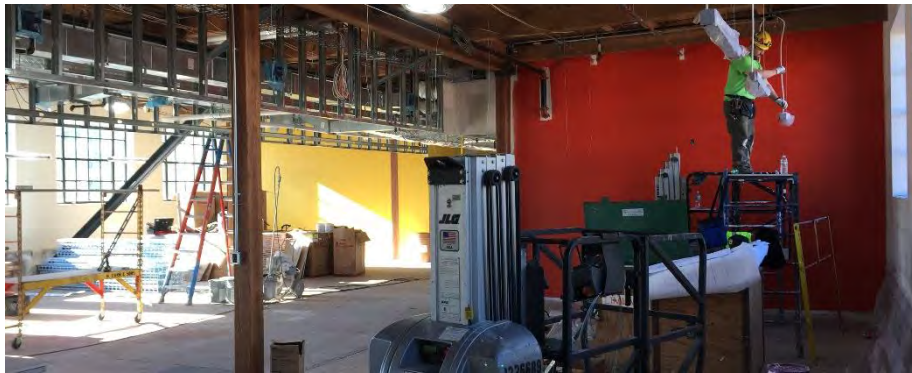
Planning to advance research & education



2030 Planning Framework

- Innovation and collaboration
- Renovation and renewal
- Sustainability
- Enhancement of living and learning





The renewal and stewardship of our physical assets on campus are critical elements of MIT's plans for the future.



2030 Capital Plan

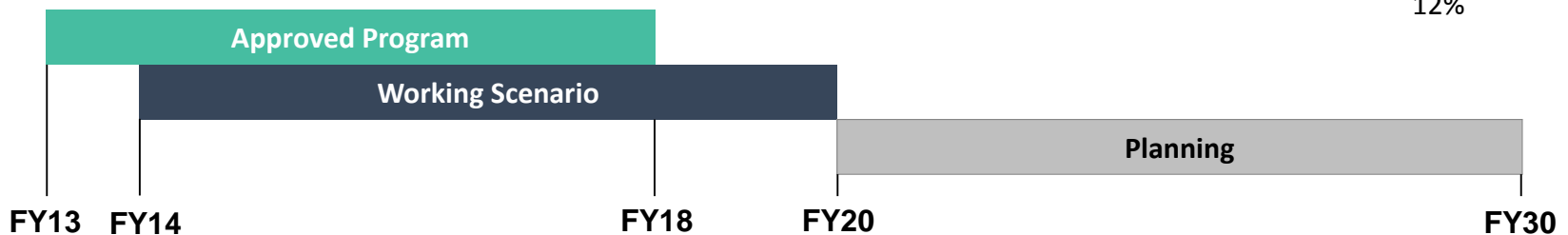
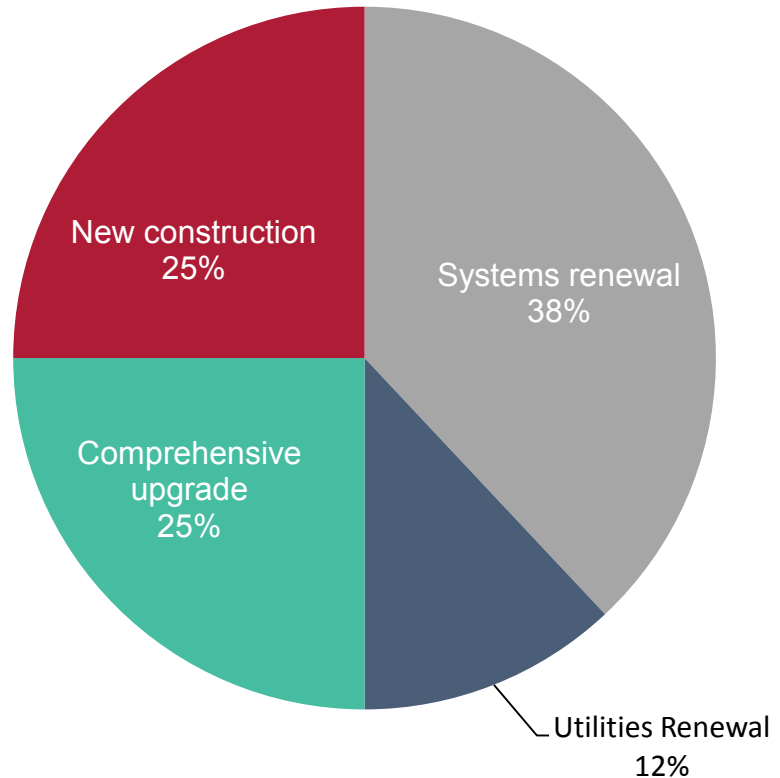
Investment priorities

- Capital Renewal
- Comprehensive Upgrade
- New Construction

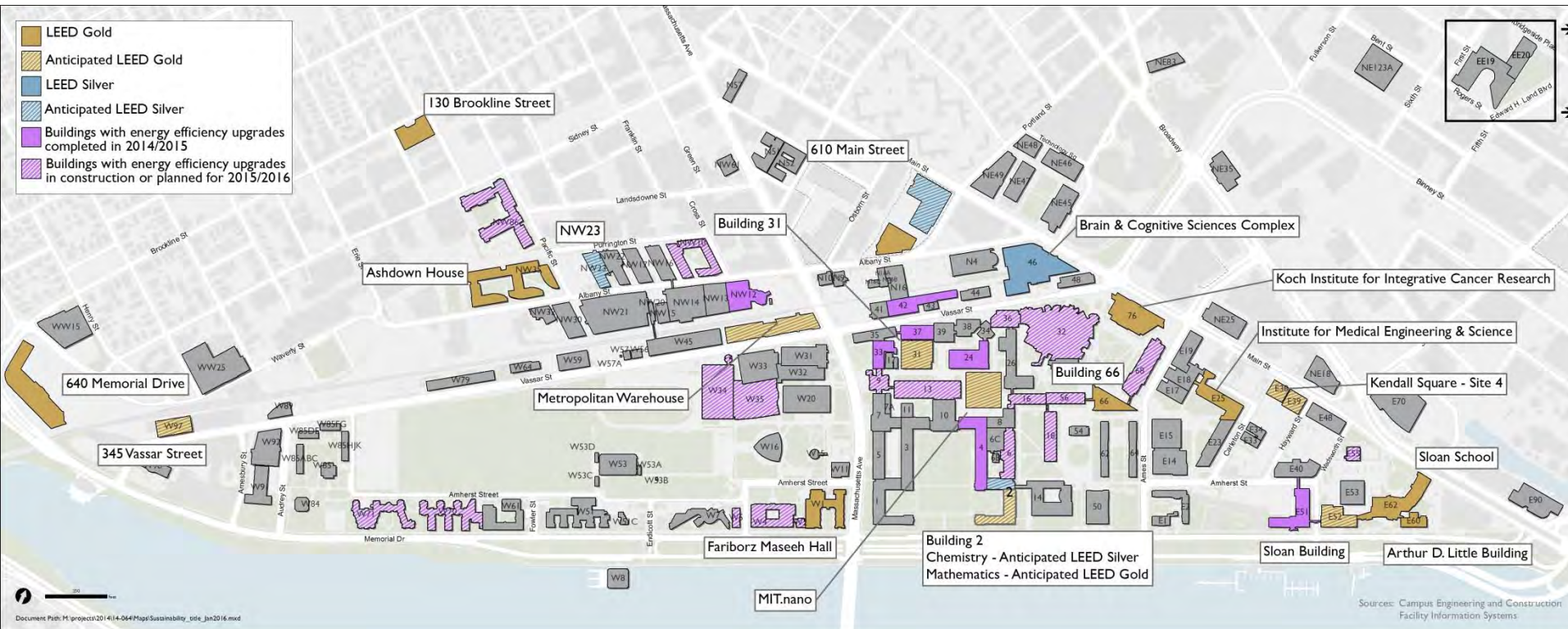
Investment stream

- Academic/Research
- Student Life
- Infrastructure

Planning horizon



Sustainable design



Sustainable Buildings and Infrastructure

Ensure that an integrated design process embeds sustainability into the design of our buildings, sites and infrastructure. Meet LEED v.4 Gold and our GHG reduction goal

Stormwater and Land Management

Plan comprehensively for a renewed campus commons that supports the health and well-being of the MIT community and other living systems

Green Labs

Develop a sustainable human behavior engagement program that impacts lab operations and design

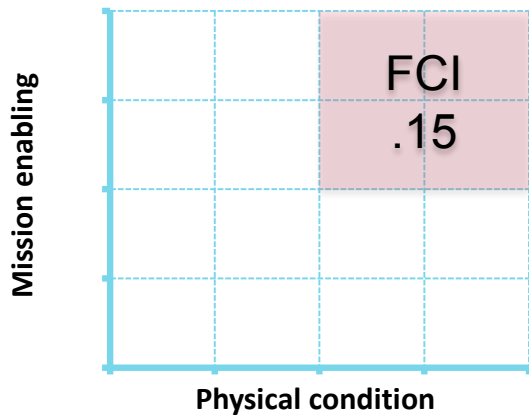
Materials Management

Plan our materials management systems to reduce the impact on our built environment by reducing consumption and streamlining processes

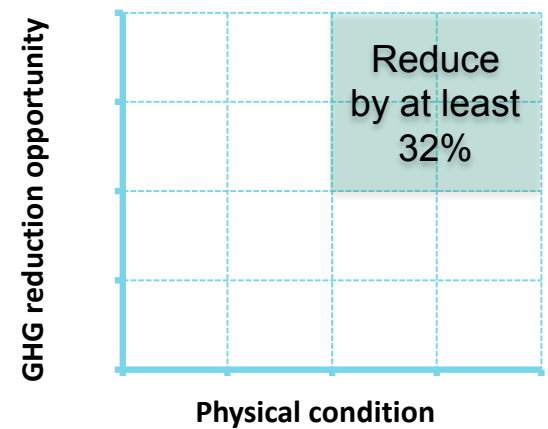
January 2016



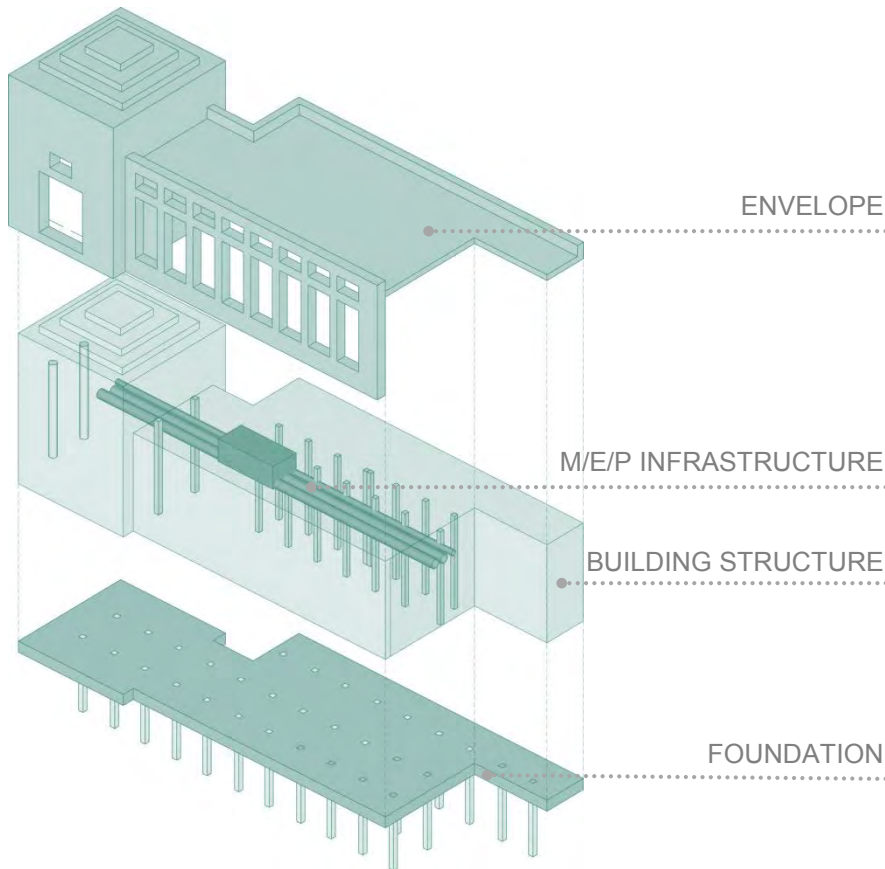
Sustainability



- Leverage renewal program to reduce GHG
- Include cost of carbon in project evaluation
- Initiate comprehensive energy metering
- Ensure application of an integrated design process



Comprehensive building renewal



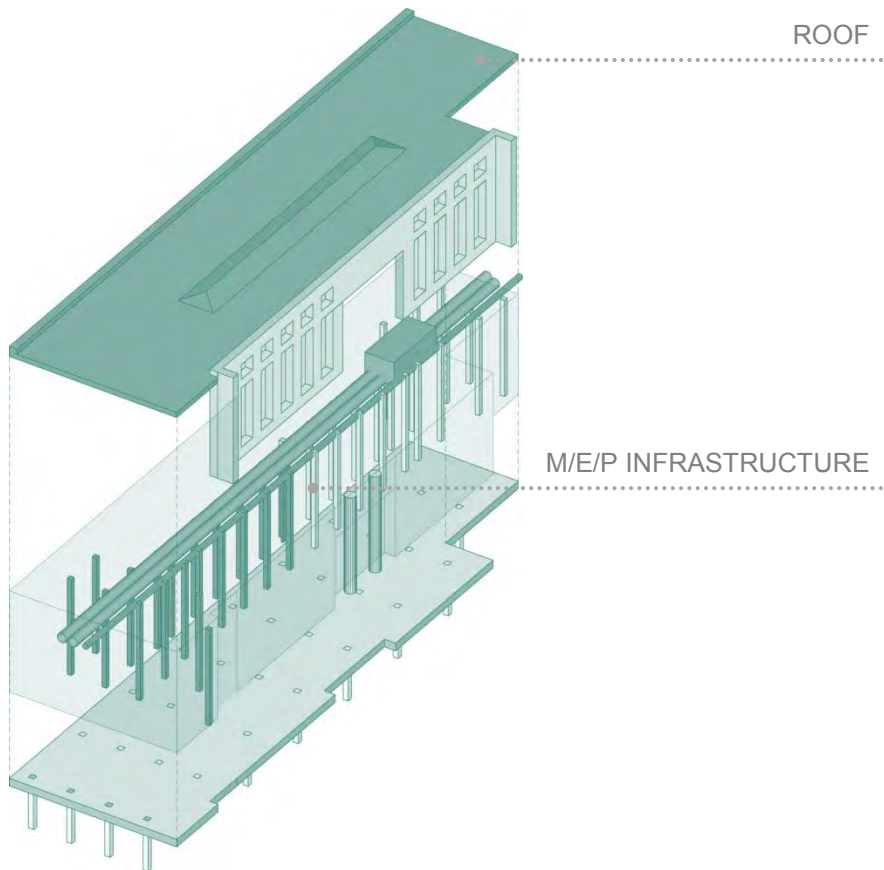
A significant portion of capital renewal program resources are dedicated to full building renewal projects.

CASE STUDY: BUILDING 2

While the building was unoccupied, a full renovation of all floors was completed including building envelope, mechanical, electrical, plumbing systems, and renewal of interior finishes.



Systems renewal



Between FY13 and FY15, nearly half of the program resources were spent on systems renewals in priority buildings (envelope, mechanical, electrical, plumbing, structure) while buildings remained occupied.

CASE STUDY: BUILDING 1

Replacement of the roof and skylight system, upgrade of fire protection systems, a new lab waste system, and life safety improvements were completed in 2014.



Renew aging infrastructure: steam distribution



Fall 2015



Efficiency Forward program

In collaboration with Eversource

Program goals

- Reduce overall energy consumption on campus
- Improve operation of campus facilities

On target to reduce campus electrical usage by 55 Million kWh by June 2016, approximately a 22% reduction from 2010 baseline levels.

Building 68

Lighting efficiency upgrade



Building 46

Efficiency upgrades



Building 66

Mechanical renovation, capital renewal



Planning & Development Opportunities by Sector



Current Renewal Projects



Building E52



Building NW23



Building 2



Kresge (W16)



New Construction



Building 12 - MIT.nano



300 Mass Ave



181 Mass Ave



610 Main Street North



Planning and Design



Kendall Square/East Campus



Central Utility Plant Upgrade



345 Vassar Street (W97)



12 Emily Street (NW98)





Our Shared Community



Collaborating with Cambridge Public Schools



KeyPals Program



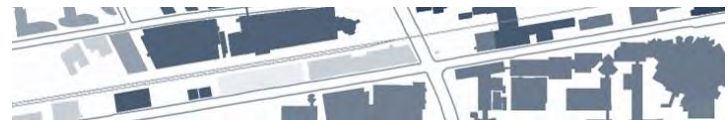
Summer Youth Employment Program



Engineering Outreach STEM program



MIT Edgerton Center



March

- Symposium: The intersections of architecture and campus culture

April

- Arts: Concert celebrating music at MIT
- Symposium: Beyond 2016 — MIT's frontiers of the future
- Cambridge Science Festival
- Together in Service: Day of Service
- Open House — Under the Dome: Come Explore MIT

May

- Moving Day at MIT
Events include Crossing the Charles, Reinterpreting "The Pageant" and a Community Dance Party.

