

Sustainable Boston:

“Beantown is Greentown”

Mayor Thomas M. Menino

James W. Hunt, III

Chief of Environmental and Energy Services

Maverick Gardens
Boston Housing Authority
Photo Voltaic Panels

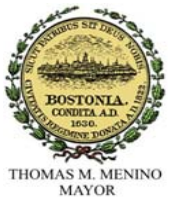


1903 1912 1915

2007

WORLD CHAMPS

1916 1918 2004



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Mayor Menino's Climate Leadership

- Joins ICLEI's Local Governments for Climate Protection Campaign in 2000
- Early Signatory to US Conference of Mayor's Climate Protection Agreement
- Issued Sweeping Climate Action Executive Order in April of 2007



Mayor Menino's Climate Action Agenda and Executive Order

- Ambitious GHG Reduction Goals:
 - 7% below 1990 levels by 2012
 - 80% below 1990 levels by 2050
- Enhance mitigation strategies: energy efficiency, renewable energy, green building, urban forestry, recycling
- Prepare for climate change and adaptation – integrated planning
- Work with businesses and residents on city-wide strategy through the Mayor's Community Climate Action Task Force



Josiah Quincy School
Green Roof Project

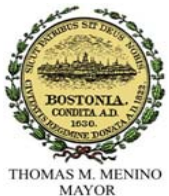
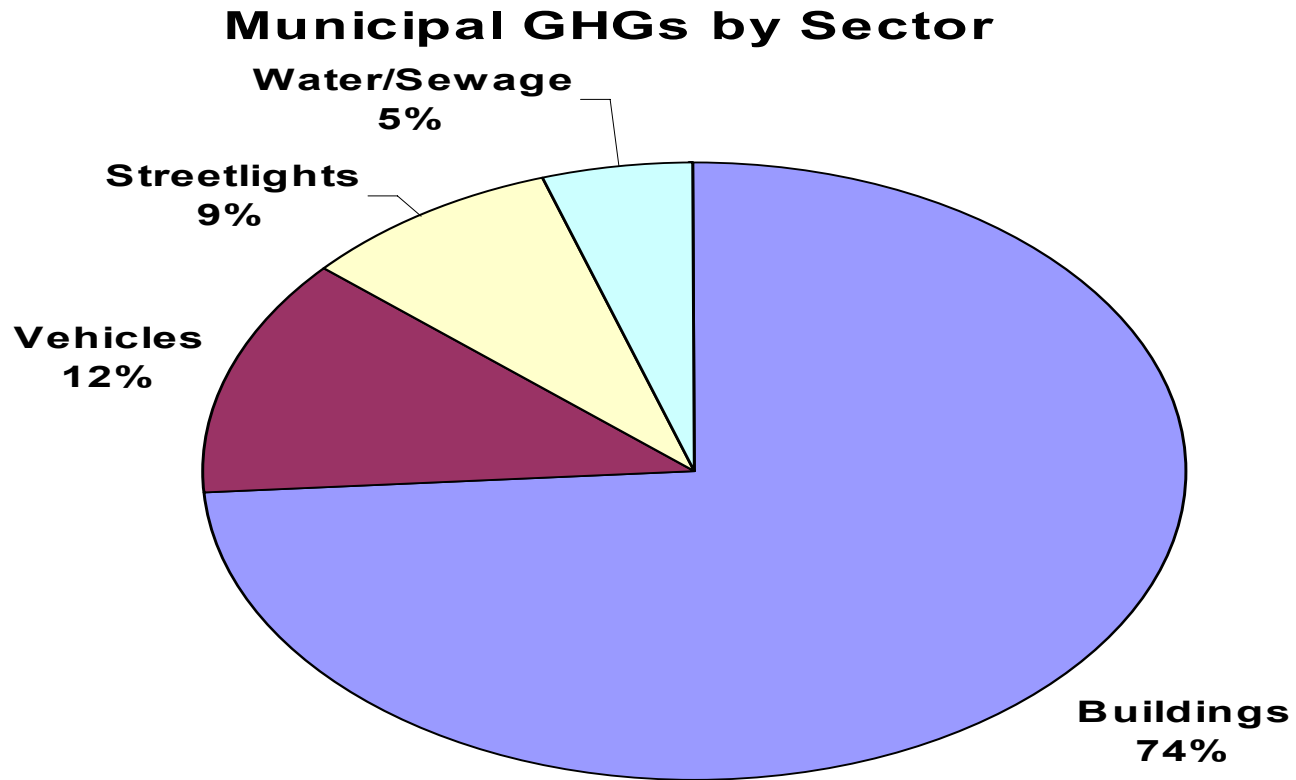


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Boston Municipal Government's Greenhouse Gas Emissions By Sector



Boston's Green Building Strategy



**Oct. 2002: Dedication of George Robert White
Environmental Conservation Center
*Boston Nature Center, Mattapan***

June 2003: Mayor names Green Building Task Force

2003-2004: Task Force Convenes over 12 months

**Nov. 2004: Mayor Receives Task Force
Recommendations and Announces
Three Year Implementation Plan**



Green Building Action Plan



John Hancock Building

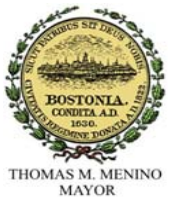
City Development
LEED Silver Certified

Affordable Housing
LEED Silver Certified

Private Construction
Boston Zoning 80B
LEED Certifiable



Brigham & Women's Hospital




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Boston Green Building Zoning - Article 37

- Requires all Large Projects (50,000 sf +) to meet LEED Certified Standards
- LEED Certified = 26 of 69 Available Points [LEED New Construction]
- Boston Priority Points

 LEED-NC
LEED-NC Version 2.2 Registered Project Checklist
 << enter project name >>
 << enter city, state, other details >>

Yes	?	No			Points
Sustainable Sites 14 Points					
			Prereq 1	Construction Activity Pollution Prevention	Required
			Credr 1	Site Selection	1
			Credr 2	Development Density & Community Connectivity	1
			Credr 3	Brownfield Redevelopment	1
			Credr 4.1	Alternative Transportation, Public Transportation Access	1
			Credr 4.2	Alternative Transportation, Bicycle Storage & Changing Rooms	1
			Credr 4.3	Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles	1
			Credr 4.4	Alternative Transportation, Parking Capacity	1
			Credr 5.1	Site Development, Protect or Restore Habitat	1
			Credr 5.2	Site Development, Maximize Open Space	1
			Credr 6.1	Stormwater Design, Quantity Control	1
			Credr 6.2	Stormwater Design, Quality Control	1
			Credr 7.1	Heat Island Effect, Non-Roof	1
			Credr 7.2	Heat Island Effect, Roof	1
			Credr 8	Light Pollution Reduction	1
Water Efficiency 5 Points					
			Credr 1.1	Water Efficient Landscaping, Reduce by 50%	1
			Credr 1.2	Water Efficient Landscaping, No Potable Use or No Irrigation	1
			Credr 2	Innovative Wastewater Technologies	1
			Credr 3.1	Water Use Reduction, 20% Reduction	1
			Credr 3.2	Water Use Reduction, 30% Reduction	1
Energy & Atmosphere 17 Points					
			Prereq 1	Fundamental Commissioning of the Building Energy Systems	Required
			Prereq 2	Minimum Energy Performance	Required
			Prereq 3	Fundamental Refrigerant Management	Required
			Credr 1	Optimize Energy Performance	1 to 10
			Credr 2	On-Site Renewable Energy	1 to 3
			Credr 3	Enhanced Commissioning	1
			Credr 4	Enhanced Refrigerant Management	1
			Credr 5	Measurement & Verification	1
			Credr 6	Green Power	1
Materials & Resources 13 Points					
			Prereq 1	Storage & Collection of Recyclables	Required
			Credr 1.1	Building Reuse, Maintain 75% of Existing Walls, Floors & Roof	1
			Credr 1.2	Building Reuse, Maintain 100% of Existing Walls, Floors & Roof	1
			Credr 1.3	Building Reuse, Maintain 50% of Interior Non-Structural Elements	1
			Credr 2.1	Construction Waste Management, Divert 50% from Disposal	1
			Credr 2.2	Construction Waste Management, Divert 75% from Disposal	1
			Credr 3.1	Materials Reuse, 5%	1
			Credr 3.2	Materials Reuse, 10%	1
			Credr 4.1	Recycled Content, 10% (post-consumer + ½ pre-consumer)	1
			Credr 4.2	Recycled Content, 20% (post-consumer + ½ pre-consumer)	1
			Credr 5.1	Regional Materials, 10% Extracted, Processed & Manufactured Regio	1
			Credr 5.2	Regional Materials, 20% Extracted, Processed & Manufactured Regio	1
			Credr 6	Rapidly Renewable Materials	1
			Credr 7	Certified Wood	1
Indoor Environmental Quality 15 Points					
			Prereq 1	Minimum IAQ Performance	Required
			Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required
			Credr 1	Outdoor Air Delivery Monitoring	1
			Credr 2	Increased Ventilation	1
			Credr 3.1	Construction IAQ Management Plan, During Construction	1
			Credr 3.2	Construction IAQ Management Plan, Before Occupancy	1
			Credr 4.1	Low-Emitting Materials, Adhesives & Sealants	1
			Credr 4.2	Low-Emitting Materials, Paints & Coatings	1
			Credr 4.3	Low-Emitting Materials, Carpet Systems	1
			Credr 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products	1
			Credr 5	Indoor Chemical & Pollutant Source Control	1
			Credr 6.1	Controllability of Systems, Lighting	1
			Credr 6.2	Controllability of Systems, Thermal Comfort	1
			Credr 7.1	Thermal Comfort, Design	1
			Credr 7.2	Thermal Comfort, Verification	1
			Credr 8.1	Daylight & Views, Daylight 75% of Spaces	1
			Credr 8.2	Daylight & Views, Views for 90% of Spaces	1
Innovation & Design Process 5 Points					
			Credr 1.1	Innovation in Design: Provide Specific Title	1
			Credr 1.2	Innovation in Design: Provide Specific Title	1
			Credr 1.3	Innovation in Design: Provide Specific Title	1
			Credr 1.4	Innovation in Design: Provide Specific Title	1
			Credr 2	LEED [®] Accredited Professional	1
Project Totals (pre-certification estimates) 69 Points					
Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52-69 points					



Energy Conservation

- **Municipal Energy Management – IEMP**
362 Buildings Focusing on Top 10, 20% reduction w/ over \$1m annual savings
- **Cambridge / Boston Energy Alliance,**
aggregated EE w/ private capital investment



LED Traffic Signals

**City Hall Green Roof
Demonstration Project**



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Renewable Energy

- 11.7% of City's electricity purchase comes from green power
- Solar and wind power installations at City facilities
- Solar Boston Initiative



Mayor Menino dedicates 2.3 kW solar panels
Boston Arts Academy



IBEW Local 103
100 kW Turbine



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Solar Boston Program

\$500,000 GRANT AWARDED JUNE 2007

- Includes \$200,000 Technical Assistance from National Renewable Energy Laboratory



US Department of Energy--Solar America Initiative (SAI)
Solar City Strategic Partnerships

Solar Boston Partnership

- Mayor's Solar Task Force
- Map Boston
- Private and Public

Non-Profit Entity

- Bulk Purchase
- Financing
- Warranty Negotiation
- Bulk Installation



Maverick Gardens Affordable Housing
Photo Voltaic System



Clean Transportation & Air Quality

- City's 450 diesel vehicles now run on ultra low sulfur fuel
- City purchase 650,000 gallons of bio-diesel
- 500+ school buses retrofitted with pollution control technologies
- Clean Cabs



Mayor Menino
Dedicates First Green Cab



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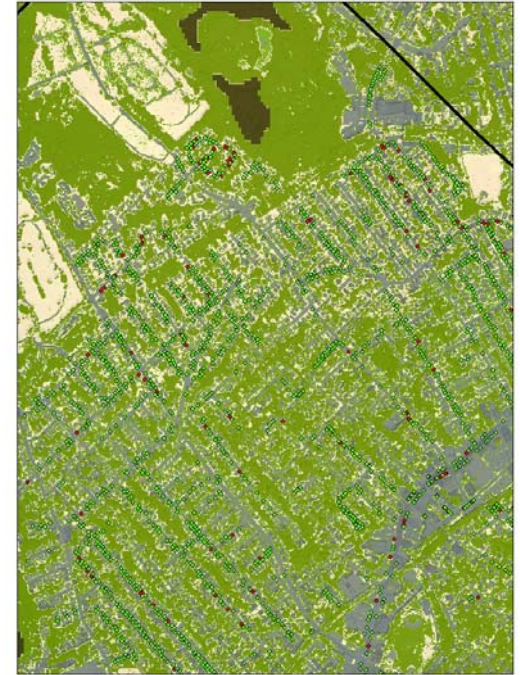
Growing Boston Greener 100,000 New Trees By 2030



East Boston



Roxbury



West Roxbury



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“Our green agenda will improve our environment and public health while stimulating our growing clean tech economy. Equally important is that each of these initiatives speak to the core values we all hold dear as Bostonians.”
– Mayor Thomas M. Menino



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