

CITY OF CAMBRIDGE, MASSACHUSETTS PLANNING BOARD CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE MA NOTICE OF DECISION

Case Number:	246		
Address:	296 and 106 Vassar Street		
Zoning:	Residence C-3		
Applicant:	Massachusetts Institute of Technology 77 Massachusetts Avenue, Bldg. NE49-2100 Cambridge, MA 02139-4307 Attn: Kelley Brown		
Owner:	Same as Applicant		
Application Date:	February 12, 2010		
Date of Planning Board Public Hearing:	March 16, 2010		
Date of Planning Board Decision:	March 16, 2010		
Date of Filing Planning Board Decision:	April 7, 2010		

Application: Special Permit for installation of a Wind Turbine System under Subsection 11.42 of the Zoning Ordinance. Approval is sought for both of two proposed alternative locations for a single Wind Turbine.

Decision: **GRANTED**, with conditions.

Appeals, if any, shall be made pursuant to Section 17 of Massachusetts General Laws, Chapter 40A, and shall be filed within twenty (20) days after filing of the above referenced decision with the City Clerk. Copies of the complete decision and final plans, if applicable, are on file with the Community Development Department and the City Clerk.

Authorized Representative of the Planning Board:

Elysberm. Pad

For further information concerning this decision, please contact Liza Paden at 617 349 4647, or lpaden@cambridgema.gov.

DOCUMENTS SUBMITTED

 Special Permit Application Documents submitted by the Applicant dated February 12, 2010, including: Cover Sheet, Summary of Application, Introduction and Project Description, Conformance with Cambridge Zoning Ordinance, Dimensional Table, Supporting Statement for Special Permit, Ownership Certificate, Existing Conditions Maps, Existing Conditions Photos, Wind Turbine Site Plans, Wind Turbine Elevation, Wind Turbine Photos, Wind Turbine Photo Simulations.

FINDINGS

1. Standards for Granting a Special Permit for Wind Turbine Systems (11.42.3)

In addition to the requirements described in Section 11.44 below and the criteria established in Section 10.43 of the Zoning Ordinance for the granting of a special permit, the Planning Board shall consider the following specific criteria.

1. The visual impact of the Wind Turbine System on the abutting properties and the neighborhood.

As described in the Application Documents, the proposed Wind Turbine, in either of two locations where it is proposed to be installed, will be visible from Vassar Street at a distance of about 250-350 feet, and will also be visible from some surrounding MIT buildings. The Wind Turbine, including tower, rotor, and blades, will be painted in subdued colors of white or gray and will not be artificially lighted. Due to the far distance at which the Wind Turbine will be situated from the public right-of-way and other properties, the narrow profile of the proposed Wind Turbine tower, and the small size and narrow profile of the rotor blades, the visual impact of the Wind Turbine will be minimal and will not adversely affect adjacent uses. The proposed Wind Turbine will not significantly affect views, nor shall it negatively affect the architectural character of the area.

2. The extent, frequency and duration of continuous and intermittent shadows and their relationship to interior spaces and places people will regularly occupy.

As described in the Application Documents, shadows from the proposed Wind Turbine, in either location where it is proposed to be installed, will fall only on MIT-owned athletic fields and parking lots. Due to the placement of the Turbine away from sensitive receptors such as residential buildings, the relatively small size and narrow profile of the rotor blades, and the high speed at which the rotor blades will operate according to information supplied by the manufacturer, no detectable intermittent shadows or flicker are anticipated as a result of the turning rotor blades. 3. The extent of detectable noise and vibration impact on neighboring uses.

As described in the Application Documents, given the manufacturer's specifications, the proposed Wind Turbine is rated to operate at a noise level of 45 decibels at a 40-foot distance. Given the distance of the proposed Wind Turbine from surrounding uses, the proposed Wind Turbine will have no discernible noise impacts on surrounding uses and will meet the requirements of the Cambridge Noise Ordinance.

4. Where a Wind Turbine System is proposed in an Open Space District or near an open space facility, particularly one with a significant natural aspect, the system's impact on any conservation, historic, or recreational value should be carefully analyzed.

The proposed Wind Turbine will be located within an MIT-owned area adjacent to athletic fields and/or parking lots. As described in the Application Documents, the size, scale, and character of the proposed Wind Turbine will not be significantly different from light poles that currently exist in the area. The proposed Wind Turbine will not impact any conservation or historic area and will not derogate from the visual enjoyment of the open space. MIT will be responsible for managing any impacts, safety-related or otherwise, on the use of its athletic fields and parking facilities as a result of the proposed Wind Turbine.

5. Other factors with regard to the operational and visual impacts of the Wind Turbine System that may suggest that a time limitation should be imposed on the special permit.

The Planning Board finds that the proposed Wind Turbine will be installed no later than one year from the issuance of this Special Permit. However, the Board finds no reason to impose an end date at which the proposed Wind Turbine would be required to cease operation, so long as the Wind Turbine continues to meet the requirements of the Zoning Ordinance, the conditions of this Special Permit, and all other applicable regulations.

2. <u>Conformance with the General Special Permit Criteria – 10.43</u>

Special permits will normally be granted where specific provisions of this Ordinance are met, except when particulars of the location or use, not generally true of the district or of the uses permitted in it, would cause granting of such permit to be to the detriment of the public interest.

Upon consideration of the Application Documents and other relevant documents, and testimony provided at the Public Hearing, the Planning Board finds that the requested special permit should be granted, because the specific provisions of the Zoning Ordinance will be met, and the project authorized will not be a detriment to the public interest. Furthermore, the Board finds that this project will serve a public benefit by providing an opportunity to conduct research on wind energy generation in an urban setting, consistent with the intent of Section 11.40 of the Zoning Ordinance.

a. The requirements of the Zoning Ordinance can be met.

The proposed Wind Turbine, when installed in either of its two proposed locations, will meet all requirements of the Zoning Ordinance. As described in the Application Documents, the proposed Wind Turbine will meet the General Limitations and Requirements for Wind Turbine Systems described in Subsection 11.44 of the Zoning Ordinance and will meet the Dimensional Limitations described in Subsection 11.42.1 of the Zoning Ordinance.

b. Traffic and patterns of access and egress will not cause hazard or congestion or change in neighborhood character.

The proposed Wind Turbine will not affect traffic, access, or egress.

c. The operation or development of adjacent uses will not be adversely affected.

The proposed Wind Turbine will not adversely affect the operation of adjacent uses, all of which are MIT-owned institutional uses.

d. No nuisance or hazard will be created to the detriment of the health, safety and welfare of future residents or citizens of Cambridge.

The proposed Wind Turbine will comply with all applicable health, safety, and noise standards.

e. The use will not impair the integrity of the District or adjoining districts or otherwise derogate from the intent and purpose of this Ordinance.

The proposed Wind Turbine is consistent with the intent of the Special Regulations for Wind Turbines set forth in Section 11.40 of the Zoning Ordinance. The Planning Board finds that the proposal is well thought-out and will provide benefits to ongoing research on wind energy generation within the built environment.

f. The new use or building construction is consistent with the Urban Design Objectives set forth in Section 19.30.

The proposed Wind Turbine is consistent with the Urban Design Objectives set forth in Section 19.30, as detailed below.

New projects should be responsive to the existing or anticipated pattern of development.

As described above, the proposed Wind Turbine, given its size, scale, and character, is consistent with the structures and fixtures that currently exist on the site. The research-oriented use of the Wind Turbine is consistent with its location on a university campus.

Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.

The proposed Wind Turbine will have no impact on pedestrian or bicycle activity nor any impact on mobility or access in general.

The building and site design should mitigate adverse environmental impacts of a development upon its neighbors.

As described above, the proposed Wind Turbine will have no significant impact on adjacent uses.

Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.

The proposed Wind Turbine will not impact City infrastructure services.

New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.

The proposed Wind Turbine will not impact existing structures. It will be installed and used primarily for research and education purposes, consistent with the function of the university campus on which it is proposed.

Expansion of the inventory of housing in the city is encouraged.

Housing is not part of this proposal.

Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.

No development of buildings is proposed, and the proposed Wind Turbine will not significantly impact the privately-held open space within which it is located. Landscaping will be installed at the base of the proposed Wind Turbine. Otherwise, the enhancement or expansion of open space is not part of this project.

DECISION

Based on a review of the application documents, comments made at the public hearing, and the above findings, the Planning Board **GRANTS** the requested Special Permit subject to the following conditions and limitations:

- 1. All uses, building construction and site plan development shall be in substantial conformance with the plans and application documents submitted to the Planning Board as referenced above, dated February 12, 2010. Appendix I summarizes the dimensional features of the Project as approved.
- 2. The project shall be subject to continuing design review by the Community Development Department (CDD). Before issuance of a Building Permit for construction authorized by this Special Permit, CDD shall certify to the Superintendent of Buildings that the final plans submitted to secure the Building Permit are consistent with and meet all conditions of this Decision.
- 3. As requested in the Application Documents, the Planning Board grants approval for the installation of one Wind Turbine to be installed on one of the two alternative locations proposed in the application. The Wind Turbine, once installed, shall not be moved to alternate different site.
- 4. All authorized development shall conform to the requirements of the City of Cambridge *Noise Control Ordinance*, Chapter 8.16 of the City Municipal Code.
- 5. Consistent with the requirements of Subsection 11.44.1, Paragraph 7 of the Zoning Ordinance, prior to the issuance of a building permit, the Permittee shall post a bond or other surety in a form and in an amount acceptable to the City that shall cover the cost of removal of the system by the City should that be necessary, such bond amount to be consistent with estimates for removal prepared at the Permittee's expense by a qualified engineer.
- 6. The Proposed Wind Turbine shall be installed at a date no later than one year from the issuing of this Special Permit. If it is anticipated that the Wind Turbine will not be installed within this one-year timeframe, the Permittee may seek a time extension from the Planning Board.

Voting in the Affirmative to GRANT the Special Permit were Planning Board Members T. Anninger, T. Cohen, H. Russell, P. Singer, W. Tibbs, S. Winter and P. Winters, constituting at least two thirds of the members of the Planning Board, necessary to grant a Special Permit.

For the Planning Board,

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High Russell, Chair

A copy of this decision #246 shall be filed with the Office of the City Clerk. Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws, and shall be filed within twenty (20) days after the date of such filing in the Office of the City Clerk.

ATTEST: A true and correct copy of the above decision filed with the Office of the City Clerk on April 7, 2010, by Elizabeth M. Paden, authorized representative of the Cambridge Planning Board. All plans referred to in the decision have been filed with the City Clerk on said date.

Twenty (20) days have elapsed since the filing of the decision. No appeal has been filed.

DATE:

City Clerk of Cambridge

Appendix I: Dimensional Chart

Appendix I: Dimensional Ch	Existing	Allowed or Required	Proposed	Permitted
Lot Area (sq ft)	2,790,855	N/A	No change	No change
Lot Width (ft)	N/A	N/A	No change	No change
Total FAR	0.80	3.00 (max)	No change	No change
Residential	Ň/A	N/A	N/A	
Non-Residential	N/A	N/A	N/A	
Inclusionary	N/A	N/A	N/A	
Total GFA (sq ft)	2,232,619	8,372,565 (max)	No change	No change
Residential	N/A	N/A	N/A	
Non-Residential	N/A	N/A	N/A	
Lot Area per Dwelling Unit	N/A	N/A	No change	No change
Total Dwelling Units	N/A	N/A	No change	
Base Units	N/A	N/A	N/A	
Inclusionary Units	N/A	N/A	N/A	
Height of Wind Turbine (ft)	N/A	As permitted (11.42.1)	67.5	67.5
All Setbacks (ft)	N/A	As permitted (11.42.1)	250-350	Location consistent with application documents
Total Open Space (% of lot area)	N/A	N/A	No change	No change
Permeable	N/A	N/A	No change	
Other	N/A	N/A	No change	
Off-Street Parking Spaces	N/A	N/A	No change	- No change
Handicapped Parking Spaces	N/A	N/A	No change	
Bicycle Spaces	N/A	N/A	No change	
Loading Bays	N/A	N/A	No change	