ZONING COMMITTEE STAFF REPORT

1. **FILE NAME:** Metropolitan State University **FILE #** 11-310-568
2. **APPLICANT:** Metropolitan State University **HEARING DATE:** January 5, 2012
3. **TYPE OF APPLICATION:** Conditional Use Permit
4. **LOCATION:** 645 7th St E, between Maria and Mounds
5. **PIN & LEGAL DESCRIPTION:** 322922130131, Auditors Subdivision No 73 Part Of The Se 1/4 Of Nw 1/4 Lying Nly Of Vac Culvert St And Sly Of The Center Line Of Vac E 8th St And Ely Of And Par To The Centerline Of Sewer Esmt As Recorded In Blk 50 Of Plans Pg 2 In Sec 32 Tn 29 Rn 22 And Vac Culvert St
6. **PLANNING DISTRICT:** 4
7. **ZONING CODE REFERENCE:** § 61.501; §61.502; §65.310 **PRESENT ZONING:** B2
8. **STAFF REPORT DATE:** December 21, 2011 Revised Feb. 2, 2012 **BY:** Kate Reilly
9. **DATE RECEIVED:** December 15, 2011 **60-DAY DEADLINE FOR ACTION:** Waived

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A. **PURPOSE:** Conditional use permit for a wind turbine on a freestanding pole 104 feet high

B. **PARCEL SIZE:** Irregular parcel 112 ft x 291 ft x 329 ft x 134 ft x 162 ft x 191 ft x 699 ft, totaling approximately 194,278 sq. ft.

C. **EXISTING LAND USE:** Institutional Zoned B2& B3

D. **SURROUNDING LAND USE:**

North: Residential (RT1)

East: Residential/Commercial (T2 and RT1)

South: College (B2)

West: Residential (RM2)

E. **ZONING CODE CITATION:** §61.501 lists general conditions that must be met by all conditional uses; §65.310 cites specific standards and conditions for a cellular telephone antenna on a free-standing pole on institutional use property; §61.502 allows the planning commission to modify any and all special conditions.

F. **HISTORY/DISCUSSION:** Metropolitan State University (MSU) is proposing to install a 20-kilowatt wind turbine on campus. A determination of similar use/conditional use permit was granted to Macalester College for a 10 kW, 102 foot high, free-standing wind turbine on its campus for a test period in 2002 (Z.F. # 02-236-646) and permanently in 2005 based on noise monitoring during the test period (Z.F. # 05-085-530). The Macalester wind turbine was found to be similar in use to a cellular telephone antenna. In addition, a determination of similar use for three building-mounted and one pole-mounted wind turbines was granted to Tony Magnotta (Capitol Lien and Title) on June 24, 2011 (Z. F. # 11-129965). On April 15, 2011, the planning commission initiated a zoning study to consider amendments to the zoning code pertaining to wind turbines that will address issues specific to wind turbines and conditions under which wind turbines would be permitted in various zoning districts. This study continues.

G. **DISTRICT COUNCIL RECOMMENDATION:** The District 4 Council supports the installation of a wind turbine at Metropolitan State.

H. **FINDINGS:**

1. Metropolitan State University is proposing to install a 20-kilowatt wind turbine on campus to the west of its Library and Learning Center building, located northeast of the intersection of East 7th Street and Mounds Boulevard. The wind turbine will consist of a monopole 104 feet in height to the propeller hub, and a three-blade propeller 32 feet in diameter (16 foot blades), for a total height of 120 feet. The wind turbine will be used for research of alternative energy generation.
2. A determination of similar use/conditional use permit was granted to Macalester College for a 10 kW, 102 foot high, free-standing wind turbine on its campus for a test period in 2002 (Z.F. # 02-236-646) and permanently in 2005 based on noise monitoring during the test period (Z.F. # 05-

085-530). The Macalester wind turbine was found to be similar in use to a cellular telephone antenna. Thus, conditions for a cellular telephone antenna may apply to a wind turbine.

3. §61.501 lists five standards that all conditional uses must satisfy:

(1) *The extent, location and intensity of the use will be in substantial compliance with the Saint Paul Comprehensive Plan and any applicable subarea plans which were approved by the city council.* This condition is met. As described on page 7 of the introduction section of the Saint Paul Comprehensive Plan (2010), environmental sustainability is one of the three overarching themes of the Plan, which means "buildings, open spaces, and infrastructure are designed with attention to ecological systems and a light environmental footprint, and buildings are rehabilitated and constructed with reused and renewable materials and utilize technologies that are energy efficient and promote conservation."

(2) *The use will provide adequate ingress and egress to minimize traffic congestion in the public streets.* This condition is met. The proposed use will generate minimal traffic.

(3) *The use will not be detrimental to the existing character of the development in the immediate neighborhood or endanger the public health, safety and general welfare.* This condition is met. The proposed use is on a college campus and its appearance will be similar to a nearby antenna.

(4) *The use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.* This condition is met. The wind turbine is on a college campus and is set back 134 feet from the nearest property line and approximately 500 feet from the nearest residence. It should not impede the normal and orderly development and improvement of the surrounding property

(5) *The use shall, in all other respects, conform to the applicable regulations of the district in which it is located.* This condition is met. The use conforms to the applicable regulations of the B2 community business zoning district, which permits cellular telephone antennas as an accessory use with a conditional use permit. A wind turbine on a free-standing monopole was determined to be similar to cellular telephone antennas on free-standing poles on institutional use property in Z.F. # 02-236-646 and Z.F. # 05-085-530.

3. The Macalester wind turbine was found to be similar in use to a cellular telephone antenna. Thus, conditions for a cellular telephone antenna may apply to a wind turbine. Section 65.310 permits cellular telephone antennas located on a freestanding pole on institutional use property subject to several conditions. The conditions that might also be applicable to a wind turbine are as follows:

(a) In residential districts, a conditional use permit is required for cellular telephone antennas on a residential structure less than sixty (60) feet high. In residential, traditional neighborhood and business districts, a conditional use permit is required for cellular telephone antennas on a freestanding pole, except for existing utility poles. In residential and traditional neighborhood districts, existing utility poles to which cellular telephone antennas are attached shall be at least sixty (60) feet high. This condition is met. The proposed wind turbine will be constructed on a freestanding pole.

(c) For antennas proposed to be located on a residential structure less than sixty (60)feet high in residential districts, or on a new freestanding pole in residential, traditional neighborhood, and business districts, the applicant shall demonstrate that the proposed antennas cannot be accommodated on an existing freestanding pole, an existing residential structure at least sixty (60) feet high, an existing institutional use structure, or a business building within one-half (½) mile radius of the proposed antennas due to one (1) or more of the following reasons:

1. The planned equipment would exceed the structural capacity of the existing pole or structure. This condition is met. Existing poles and structures in the area do not meet the required foundation specifications for the wind turbine due to vibration transmission into the structure.

(d) In residential, traditional neighborhood and business districts, cellular telephone antennas to be located on a new freestanding pole are subject to the following standards and conditions:

1. *The freestanding pole shall not exceed seventy-five (75) feet in height, unless the applicant demonstrates that the surrounding topography, structures, or vegetation renders a seventy-five-foot pole impractical. Freestanding poles may exceed the above height limit by twenty-five (25) feet if the pole is designed to carry two (2) antennas.* This condition is met. The proposed freestanding pole will be 104 feet in height. The wind turbine manufacturer stated that this tower height is necessary to overcome the turbulence generated by obstacles and trees on the ground and for the turbine to generate electricity, and therefore the seventy-five foot pole is impractical.
2. *Antennas shall not be located in a required front or side yard and shall be set back one (1) times the height of the antenna plus ten (10) feet from the nearest residential structure.* This condition is met. The proposed wind turbine will not be located in a required front or side yard and its proposed location is set back 134 feet from the nearest property line, and approximately 500 feet from the nearest residential property.
3. *The antennas shall be designed where possible to blend into the surrounding environment through the use of color and camouflaging architectural treatment. Drawings or photographic perspectives showing the pole and antennas shall be provided to the planning commission to determine compliance with this provision.* This condition is met. The propeller blades will be located on a galvanized pole to match existing light poles.
4. *In residential and traditional neighborhood districts, the pole shall be on institutional use property at least one (1) acre in area. In business districts, the zoning lot on which the pole is located shall be within contiguous property with OS or less restrictive zoning at least one (1) acre in area.* This condition is met. The parcel is 4.46 acres and the MSU campus is over 14 acres in size.

(g) Freestanding poles shall be a monopole design. This condition is met. The proposed wind turbine is a monopole design.

(h) Transmitting, receiving and switching equipment shall be housed within an existing structure whenever possible. If a new equipment building is necessary, it shall be permitted and regulated as an accessory building, section 63.500, and screened from view by landscaping where appropriate. This condition is met. Conduit from the proposed wind turbine will be trenched to the existing Library and Learning Center Building.

STAFF RECOMMENDATION: Based on the above findings, staff recommends approval of the Conditional use permit for a wind turbine on a freestanding pole 104 feet highwith a three-blade propeller 32 feet in diameter, for a total height of 120 feet.

CONDITIONAL USE PERMIT APPLICATION

Department of Planning and Economic Development
Zoning Section
1400 City Hall Annex
25 West Fourth Street
Saint Paul, MN 55102-1634
(651) 266-6589

Zoning office use only
File # 11-310568
Fee: 800.00
Tentative Hearing Date: 1-5-12

PD=4

32922130131

APPLICANT

Name Metropolitan State University
Address 700 East Seventh Street
City St. Paul St. MN Zip 55106 Daytime Phone 651-793-1300
Name of Owner (if different)
Contact Person (if different) Daniel Hambrock, Assistant Vice President Phone 651-793-1712

PROPERTY LOCATION

Address / Location Metropolitan State University 700 E 7th Street, St. Paul, MN 55106
Legal Description See Attached.
Current Zoning B2 - Community Business
(attach additional sheet if necessary)

TYPE OF PERMIT: Application is hereby made for a Conditional Use Permit under provisions of Chapter 65, Section 300, Paragraph 10 of the Zoning Code.

SUPPORTING INFORMATION: Explain how the use will meet all of the applicable standards and conditions. If you are requesting modification of any special conditions or standards for a conditional use, explain why the modification is needed and how it meets the requirements for modification of special conditions in Section 61.502 of the Zoning Code. Attach additional sheets if necessary.

The following supporting information is attached:
- Project Description and Explanation of Zoning Conditions Met
- Legal Description
- Site Plan

The following additional information is also attached:
- Site Rendering
- Final Turbine Site
- FAA Determination of No Hazard
- MnDOT Aeronautics Permit
- Support Letters

CK
055765
800.00

☑ Required site plan is attached

Applicant's Signature [signature] Date 12/15/11 City Agent pdd

D. L. HAMBROCK

12-15-11

DESCRIPTION OF PROPOSED USE

Metropolitan State University (MSU) is proposing to install a 20-kilowatt wind turbine on campus to the west of its Library and Learning Center building located north east of the intersection of East 7th Street and Mounds Boulevard.

In 2007, Innovation Power Systems (IPS) prepared a feasibility study to evaluate the economic and technical viability of using wind and solar power as renewable energy on the MSU campus. When a decision was made to place additional external lighting on the MSU campus, Xcel Energy offered to fund the lighting project if a wind turbine was included to offset the electrical load created by the additional lighting. MSU will install the wind turbine in conjunction with Xcel Energy and IPS.

The wind turbine will consist of a monopole of 104 feet in height to the propeller hub, and a three-blade propeller 32 feet in diameter (16 foot blades), for a total height of 120 feet. The wind turbine will be used for research of alternative energy generation.

DESCRIPTION OF HOW THE CONDITIONS OF THE ZONING CODE WILL BE MET

A site plan of the proposed use is attached.

Section 61.501 of the zoning code requires that before the planning commission may grant approval of a conditional use, the commission shall find that:

(a) The extent, location and intensity of the use will be in substantial compliance with the Saint Paul Comprehensive Plan and any applicable subarea plans which were approved by the city council.

This condition is met. As described on page 7 of the introduction section of the Saint Paul Comprehensive Plan (2010), environmental sustainability is one of the three overarching themes of the Plan which means buildings, open spaces, and infrastructure are designed with attention to ecological systems and a light environmental footprint and buildings are rehabilitated and constructed with reused and renewable materials and utilize technologies that are energy efficient and promote conservation.

(b) The use will provide adequate ingress and egress to minimize traffic congestion in the public streets.

This condition is met. The proposed use will generate minimal traffic.

(c) The use will not be detrimental to the existing character of the development in the immediate neighborhood or endanger the public health, safety and general welfare.

This condition is met. The proposed use is on a college campus and its appearance will be similar to a nearby antenna.

(d) The use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

This condition is met. The wind turbine is set back 134 feet from the nearest property line and approximately 500 feet from the nearest residence. It should not impede the normal and orderly development and improvement of the surrounding property.

(e) The use shall, in all other respects, conform to the applicable regulations of the district in which it is located.

This condition is met. The use conforms to the applicable regulations of the community business zoning district.

Section 61.106 of the zoning code states that when a specific use is not listed in the zoning code, the zoning administrator shall issue a statement of clarification, finding that the use is or is not substantially similar in character and impact to a use regulated in the code. The zoning administrator or planning commission shall make the following findings in determining one (1) use is similar to another:

(a) That the use is similar in character to one (1) or more of the principal uses permitted.

The condition is met. Wind turbines are not specifically covered under the zoning code, but they are similar to cellular telephone antennas located on a freestanding pole on institutional use property which is a use permitted subject to special conditions in residentially-zoned properties under Section 65.310.

(b) That the traffic generated by such use is similar to one (1) or more of the principal uses permitted.

This condition is met. The traffic generated by the wind turbine would be similar to the minimal traffic generated by a cellular telephone antenna.

(c) That the use is not first permitted in a less restrictive zoning district.

This condition is met. The code does not have specific provisions for a wind turbine.

(d) That the use is consistent with the comprehensive plan.

This condition is met. As described on page 7 of the introduction section of the Saint Paul Comprehensive Plan (2010), environmental sustainability is one of the three overarching themes of the Plan which means buildings, open spaces, and infrastructure are designed with attention to ecological systems and a light environmental footprint and buildings are rehabilitated and constructed with reused and renewable materials and utilize technologies that are energy efficient and promote conservation.

Section 65.310 permits cellular telephone antennas located on a freestanding pole on institutional use property subject to several conditions. The conditions that might also be applicable to a wind turbine are as follows:

(a) In residential districts, a conditional use permit is required for cellular telephone antennas on a residential structure less than sixty (60) feet high. In residential, traditional neighborhood and business districts, a conditional use permit is required for cellular telephone antennas on a freestanding pole, except for existing utility poles. In residential and traditional neighborhood districts, existing utility poles to which cellular telephone antennas are attached shall be at least sixty (60) feet high.

This condition is met. The proposed wind turbine will be constructed on a freestanding pole.

(b) In residential, traditional neighborhood, and OS—B3 and B5 business districts, the antennas shall not extend more than fifteen (15) feet above the structural height of the structure to which they are attached. In B4 business and industrial districts, the antennas shall not extend more than forty (40) feet above the structural height of the structure to which they are attached.

This condition is met. The proposed wind turbine will not be attached to a structure.

(c) *For antennas proposed to be located on a residential structure less than sixty (60) feet high in residential districts, or on a new freestanding pole in residential, traditional neighborhood, and business districts, the applicant shall demonstrate that the proposed antennas cannot be accommodated on an existing freestanding pole, an existing residential structure at least sixty (60) feet high, an existing institutional use structure, or a business building within one-half (½) mile radius of the proposed antennas due to one (1) or more of the following reasons:*

1. *The planned equipment would exceed the structural capacity of the existing pole or structure.*

   This condition is met. Existing poles and structures in the area do not meet the required foundation specifications for the wind turbine due to vibration transmission into the structure.

2. *The planned equipment would cause interference with other existing or planned equipment on the pole or structure.*

3. *The planned equipment cannot be accommodated at a height necessary to function reasonably.*

4. *The owner of the existing pole, structure or building is unwilling to co-locate an antenna.*

(d) *In residential, traditional neighborhood and business districts, cellular telephone antennas to be located on a new freestanding pole are subject to the following standards and conditions:*

1. *The freestanding pole shall not exceed seventy-five (75) feet in height, unless the applicant demonstrates that the surrounding topography, structures, or vegetation renders a seventy-five-foot pole impractical. Freestanding poles may exceed the above height limit by twenty-five (25) feet if the pole is designed to carry two (2) antennas.*

   This condition is met. The proposed freestanding pole will be 120 feet in height with three propeller blades. The wind turbine manufacturer stated that this tower height is necessary to overcome the turbulence generated by obstacles and trees on the ground.

2. *Antennas shall not be located in a required front or side yard and shall be set back one (1) times the height of the antenna plus ten (10) feet from the nearest residential structure.*

   This condition is met. The proposed wind turbine will not be located in a required front or side yard and it is proposed location is set back 134 feet from the nearest property line, and approximately 500 feet from the nearest residential property.

3. *The antennas shall be designed where possible to blend into the surrounding environment through the use of color and camouflaging architectural treatment. Drawings or photographic perspectives showing the pole and antennas shall be provided to the planning commission to determine compliance with this provision.*

   This condition is met. The propeller blades will be located on a galvanized pole to match existing light poles.

4. *In residential and traditional neighborhood districts, the pole shall be on institutional use property at least one (1) acre in area. In business districts, the zoning lot on which the*

pole is located shall be within contiguous property with OS or less restrictive zoning at least one (1) acre in area.

This condition is met. The MSU campus is over 14 acres in size.

(e) *In industrial districts, cellular telephone antennas on a freestanding pole shall not exceed one hundred fifty (150) feet in height, shall not be located in a required front or side yard, and shall be set back one (1) times the height of the antenna plus ten (10) feet from the nearest residential structure.*

This condition is not applicable. The proposed wind turbine is not located within an industrial district.

(f) *Antennas located in historic districts shall be subject to review and approval of the heritage preservation commission.*

This condition is not applicable. The proposed wind turbine is not located within a historic district.

(g) *Freestanding poles shall be a monopole design.*

This condition is met. The proposed wind turbine is a monopole design.

(h) *Transmitting, receiving and switching equipment shall be housed within an existing structure whenever possible. If a new equipment building is necessary, it shall be permitted and regulated as an accessory building, section 63.500, and screened from view by landscaping where appropriate.*

This condition is met. Conduit from the proposed wind turbine will be trenched to the existing Library and Learning Center Building.

Minnesota Department of Transportation
Office of Aeronautics
222 Plato Blvd. East
Saint Paul, MN 55107

Fax: 651-234-7261
Office: 651-234-7200

B

July 26, 2010

Dan Hambrock
Metropolitan State University
700 East Seventh Street
St. Paul, MN 55106-5000

Re: Application for Permit for Small Turbine Project at Metropolitan State University (Saint Paul Campus)

Dear Mr. Hambrock:

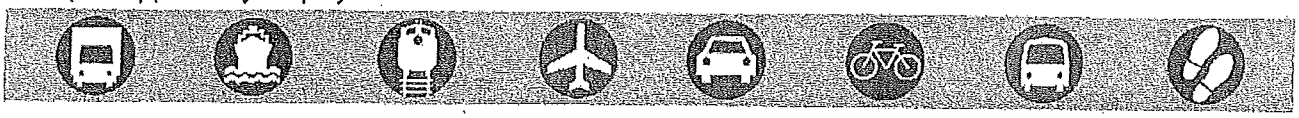
The Minnesota Department of Transportation hereby issues a conditional permit for the erection of a small wind turbine at Metropolitan State University as requested in your letter dated June 16, 2010. This permit is for a small wind turbine to be erected at: 44°57'27.57"N and 93°04'33.24"W, with a maximum height limit of 120 feet above ground level and 929 feet above mean sea level. Because this tower is being erected in close proximity to the St. Paul Downtown Airport and specifically in close proximity to the approach and transitional surfaces to Runway 14, we want to inspect the site after it has been staked for construction. Once the location is verified to be outside of the transitional surface we will issue a final permit for the construction of the wind turbine.

Please contact Darlene Dahlseide once the site has been staked to arrange for the pre-construction inspection. We should be able to complete the inspection and issue the final permit within two days. Once the tower has been constructed we will perform a final inspection to ensure that you have complied with the terms of the permit.

Sincerely,

Christopher Roy
Director, Office of Aeronautics

Cc: Mr. Greg Fries, St. Paul Downtown Airport, 644 Bayfield St., St. Paul, MN 55107
Mr. Pat Mosites, Metropolitan Airports Commission



Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2008-WTE-941-OE

Issued Date: 04/26/2010

Dan Hambrock
Metro State University
700 East Seventh Street
Saint Paul, MN 55106-5000

**** Extension ****

A Determination was issued by the Federal Aviation Administration (FAA) concerning:

Structure:	Wind Turbine Metro Turbine
Location:	Saint Paul, MN
Latitude:	44-57-27.36N NAD 83
Longitude:	93-04-33.69W
Heights:	120 feet above ground level (AGL)
	929 feet above mean sea level (AMSL)

In response to your request for an extension of the effective period of the determination, the FAA has reviewed the aeronautical study in light of current aeronautical operations in the area of the structure and finds that no significant aeronautical changes have occurred which would alter the determination issued for this structure.

This extension is subject to review if an interested party files a petition on or before May 26, 2010. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and should be submitted in triplicate to the Manager, Airspace Branch, Federal Aviation Administration, 800 Independence Ave SW, Washington, D.C. 20591.

This extension becomes final on June 05, 2010 unless a petition is timely filed. If so, this extension will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review.

Accordingly, pursuant to the authority delegated to me, the effective period of the determination issued under the above cited aeronautical study number is hereby extended and will expire on 04/26/2012 unless otherwise extended, revised, or terminated by this office.

This extension issued in accordance with 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerns the effect of the structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-7081. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2008-WTE-941-OE.

C

MACALESTER COLLEGE

THE HIGH WINDS FUND
1600 GRAND AVENUE
SAINT PAUL, MINNESOTA
55105-1899

TEL: 651-696-6552
FAX: 651-696-6250
E-MAIL: highwinds@macalester.edu
www.macalester.edu/highwinds/

February 14, 2012

Ms. Kate Reilly
Department of Planning & Economic Development
1300 City Hall Annex
25 West 4th Street
Saint Paul, MN 55102

Re:#11-310-568 – Metropolitan State University Wind Turbine Proposal

Dear Ms. Reilly:

Please share this letter with members of the Zoning Committee and Planning Commission who will be considering the proposal from Metro State University to install a campus wind turbine.

Macalester College applied for the necessary variances and permits to erect a wind turbine in 2003. It was the first turbine in St. Paul and, as such, received only a temporary 'similar use' permit which was reviewed after a year of operation. Our turbine is situated near the Olin-Rice Science Center on the southern end of campus on the Snelling Avenue side. It is within 500 feet of residences on Snelling and Osceola Avenues and a few hundred feet from the stadium dormitory. The wind turbine was installed by Innovative Power Systems, a Saint Paul company.

When we first proposed erecting a wind turbine there was no small amount of objection from concerned neighbors. We held several meetings with nearby residents and the Macalester-Groveland Community Council. Several of our neighbors both east and west of campus testified before the Planning Commission and its committees in opposition to the wind turbine.

The issues raised were mainly about public safety and the urban environment: Concerns about noise, flickering light, falling parts, ice flinging off blades as well as potential harm to bird and bat populations. With unclear evidence about the concerns raised, the Planning Commission granted only a temporary permit to Macalester. As it turns out none of the issues raised during the temporary permitting process were of concern to neighbors after installation. In fact, when Macalester returned to the Planning Commission to make permanent its temporary permit, there was no opposition to granting a permanent permit. Nine years after installation, the wind turbine continues to operate without complaint.

Please contact me if you have questions or need more information.

Sincerely,

Tom Welna
Director

Request for Continuance

Date January 4, 2012

Donna Drummond
Planning Director
City of Saint Paul PED
1400 City Hall Annex
Saint Paul, Minnesota 55102

Re: Zoning File # 11-310-568

Dear Ms. Drummond:

I am the applicant or the applicant's duly appointed representative for this zoning file.

I request a postponement of the public hearing on the application in this zoning file, which is presently scheduled before the Zoning Committee on January 5, 2012.

I understand that a postponement of the public hearing before the Zoning Committee means that the decision of the Planning Commission on this application will also be postponed.

I am aware of and understand the statutory requirements found in Minn. Statue § 15.99 (1995) requiring the City of Saint Paul to approve or deny this application within sixty days of its submission. I desire to waive the sixty day period for a City decision under Minn. Stat. §15.99 to accommodate the postponement I am requesting.

I will contact you when we are ready to proceed with the Planning Commission review of this application, and will provide any revised plans at that time.

Sincerely,

Signature of Applicant or
Applicant's duly appointed
representative.

292 Design Group
Pamela Bakken Anderson
Printed name of Applicant or
Applicant's duly appointed
representative.

11/24/2010

MINUTES OF THE ZONING COMMITTEE
Thursday, January 5, 2012 - 3:30 p.m.
City Council Chambers, 3rd Floor
City Hall and Court House
15 West Kellogg Boulevard

PRESENT: Commers, Kramer, Nelson, Wencl, and Wickiser
Excused: Fernandez, Perrus, and Spaulding
STAFF: Kate Reilly, Samantha Langer, Patricia James, and Peter Warner

The meeting was chaired by Commissioner Kramer.

Metropolitan State University - 11-310-568 - Conditional use permit for a wind turbine on a freestanding pole 104 feet high, 645 7th St E, between Maria and Mounds

Kate Reilly stated that the applicant has requested a lay over to allow more time to meet with the neighborhood residents. She stated they anticipate they will be ready for the February 2, 2012, Zoning Committee meeting.

The public hearing remains open.

After discussion on the waiver submitted by the applicant, Commissioner Barbara Wencl moved lay over of the conditional use permit to February 2, 2012. Commissioner Gaius Nelson seconded the motion.

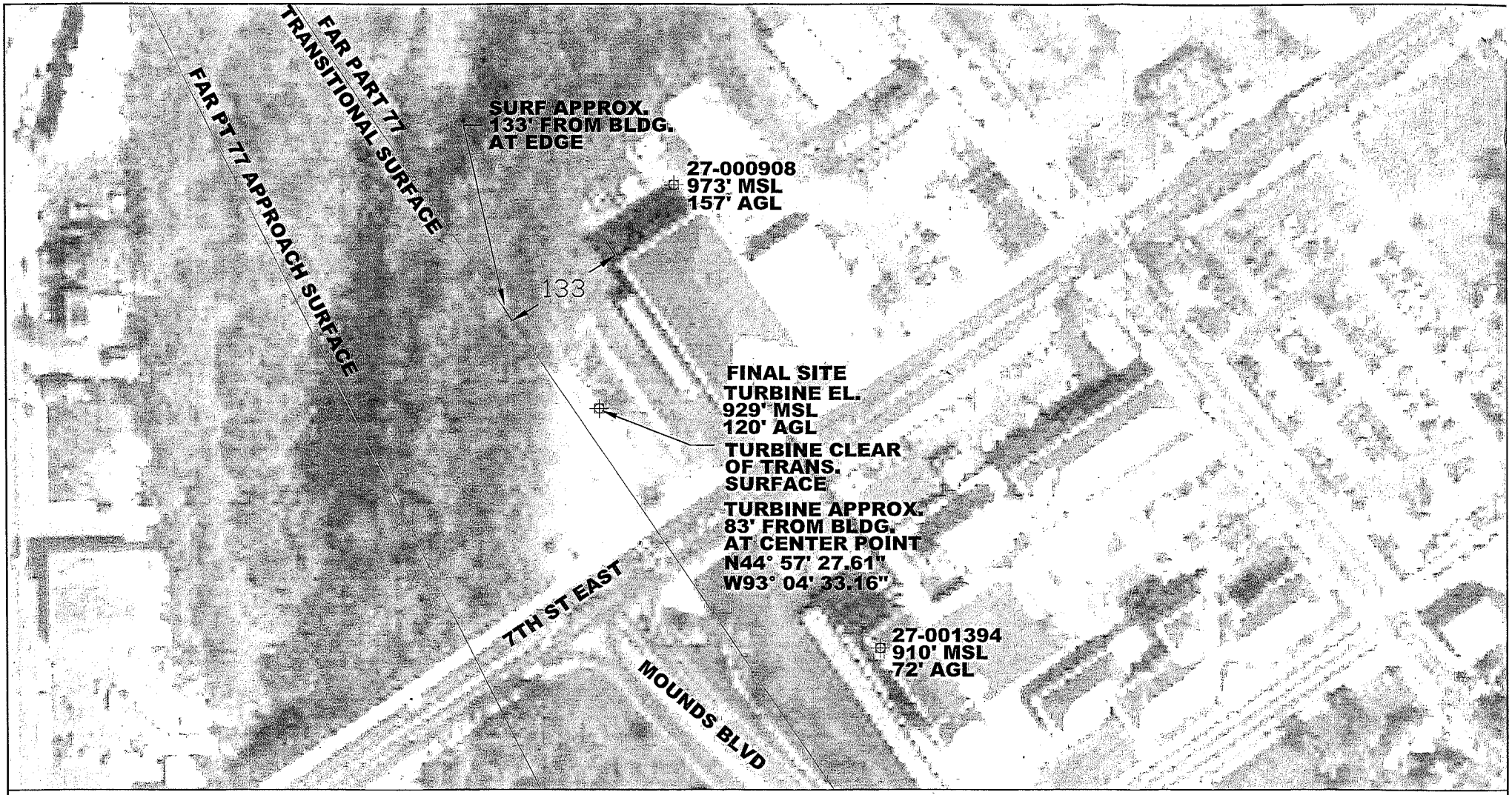
The motion passed by a vote of 4-0-0.

Adopted Yeas - 4 Nays - 0 Abstained - 0

Drafted by:
Samantha Langer
Recording Secretary

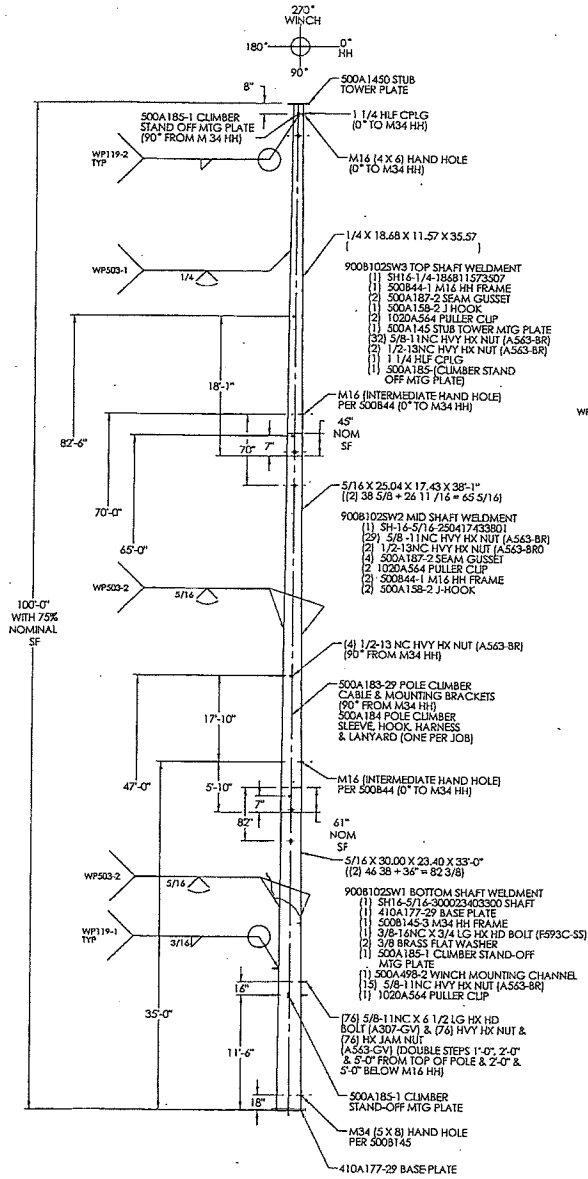
Submitted by:
Kate Reilly
Zoning Section

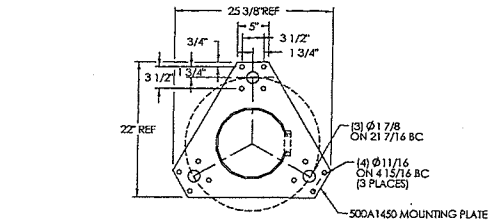
Approved by:
Richard Kramer
Chair

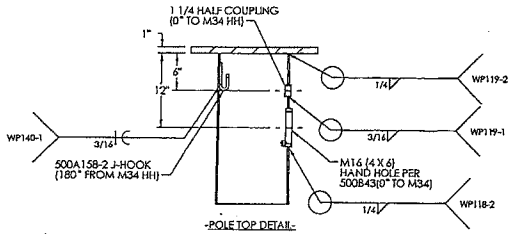


1. FAA DIGITAL OBSTRUCTION FILE DATED AUG. 2009.
2. DIMENSION FROM BUILDING BASED ON IMAGERY AND REPRESENTS AN APPROXIMATE VALUE.
3. FINAL LOCATION BASED ON MNDOT WORKING MEETING ANALYSIS ON 10/11/10.
4. FINAL COORDINATE SURVEYED BY WESTWOOD PROFESSIONAL SERVICES.

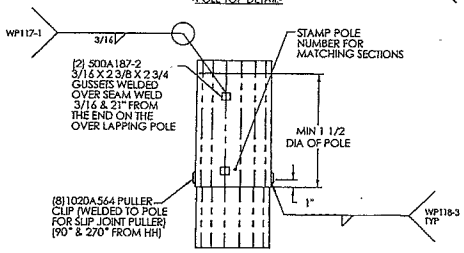
DWN BY:	RMV	DATE:	10/11/10	N 50 0 50	VMC LLC 11508 ARNOLD PALMER DRIVE MINNEAPOLIS, MN 55449 612-618-7230	FINAL TURBINE LOCATION METRO STATE UNIVERSITY	EXHIBIT
CHK BY:		DATE:					



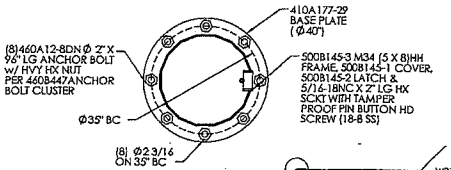


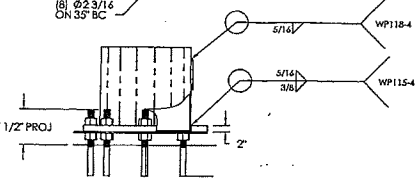


-POLE TOP DETAIL-

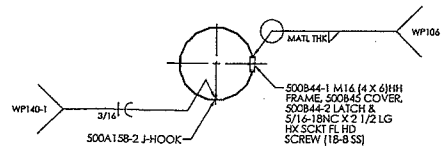


-TYPICAL SLIP FIT JOINT-

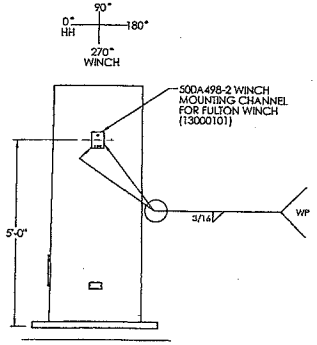




-POLE BASE DETAIL-



-SECTION THRU INTERMEDIATE HANDHOLD-



-BACK VIEW OF BOTTOM SHAFT-

NOTE:

1. POLE MATERIAL - HIGH STRENGTH LOW ALLOY STEEL 50,000 PSI MIN YIELD PER ASTM A572 OR A1011
2. FINISH - HOT DIP GALVANIZED PER ASTM A123 AND EXTERIOR FINISH PAINT ALTERNATING ORANGE AND WHITE STARTING WITH ORANGE & ENDING WITH ORANGE WITH SEVEN EQUAL SPACES APPROX. 14'-3" APART
3. WELDING PER AWES D1.1 LATEST EDITION
4. WELD PENETRATION - SHAFT TO BE 16-SIDED TAPERED TUBE FABRICATED WITH ONE OR TWO SUBMERGED ARC LONGITUDINAL SEAM WELDS WITH 100% COMPLETE JOINT PENETRATION (CJP) WELDS IN THE SLIP JOINT AREA PLUS 6", 6" FROM BASE PLATE CIRCUMPERENTIAL WELD AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS TO BE USED FOR THE REMAINDER OF WELDING FABRICATION.
5. WELD TESTING- 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT), A RANDOM 30% OF ALL FILLET WELDS & PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT)
6. THE BOTTOM, MIDDLE & TOP SHAFT WELDMENTS & THE FOLLOWING PARTS ARE SHIPPED UNASSEMBLED:
   - (3) 500B45 M16 HH COVER
   - (3) 500B44-2 M16 HH LATCH
   - (3) 5/16-18NC X 2 1/2 LG HX SCKT FL HD SCREW (18-8 SS)
   - (1) 500B145-1 M34 HH COVER
   - (1) 500B145-2 M34 HH LATCH
   - (1) 5/16-18NC X 2" LG HX SCKT WITH TAMPER PROOF PIN BUTTON HD SCREW (18-8 SS)
   - (76) 5/8-11NC X 6 1/2 LG HX HD BOLT (A307-GV)
   - (76) 5/8-11NC HX JAM NUT (GR2-GV)
   - (4) 500B68 CABLE LATCH
   - (1) DBI-SALA 1261 CABLE TOP MTG BRACKET
   - (1) DBI-SALA 1262 CABLE BOTTOM MTG BRACKET
   - (1) 3/8 DIA X 90' 1X7 GV WIRE ROPE
   - (1/JOB) 500A184 CLIMBER COMPONENTS

DRAWING REF NO	QTY	PART NO
900B102SA1	1	16-100FP-1TS-1450

APPROVAL DWG

DWN: SAF	16-100FP-1TS-1450 WINDTRUBINE POLE	
DATE: 09-19-08		
CHK: FLOYD F.	Millerbernd MANUFACTURING CO. WINSTED, MN	900B102
SCALE: NTS		

mmc 30594 INOVATED Power Systems

Audubon MINNESOTA

July 31, 2008

TO: Ralph Jacobson
RE: Wind Generator at Metro State

Dear Mr. Jacobson;

Thank you for taking the time to bring to my attention the plans to install one wind generator at Metro State University in St. Paul. Since Metro State University is located just outside the Mississippi River-Twin Cities Important Bird Area and next to Swede Hollow Park there is the potential for significant bird movement through the area.

After reviewing the site plans with you, discussing this location with others knowledgeable about the birds in the area, and visiting the site last week, I have come to the conclusion that the area where the generator is proposed to be located should not pose a hazard to local or migratory birds. However, it should be noted that without actually monitoring the site it is impossible to say with certainty that this is the case.

The Mississippi River is an internationally important bird migration corridor and the protection of its habitats and birds is of the highest priority to Audubon Minnesota. At the same time we support the use of renewable and carbon free power sources such as wind generators. Assuming the use of bird-friendly best practices in design and construction I see no reason why this structure should pose a hazard to migratory birds. If siting or other circumstances change I would appreciate a chance to review those plans.

Thank you for your interest in protecting migratory birds.

Sincerely,

Mark Martell

Mark Martell
Director of Bird Conservation
mmartell@audubon.org

Dayton's Bluff
District 4 Community Council

798 E. 7th Street, Saint Paul, MN 55106 • Phone 651-772-2075 • Fax 651-774-3510
Visit our web site at www.daytonsbluff.org

January 13, 2009

Innovative Power Systems
Ralph Jacobson
1153 16th Ave SE
Minneapolis MN 55414

Dear Mr. Jacobson;

Thank you for presenting your plans to install a 20 kilowatt wind generator on a 100-foot tower at Metropolitan State University (Metro State) in Saint Paul. Metro State is located on the crest of Dayton's Bluff, acting as a very visible gateway to the neighborhood from the downtown area.

After reviewing the site plans with you, we have come to the conclusion that the area where the generator is proposed to be located will not conflict with other neighborhood needs and activities. At the same time we support the use of renewable and carbon free power sources such as wind generators.

Therefore, the Dayton's Bluff Community Council board of directors gave its unanimous support to the installation of a wind project at Metropolitan State University. If you need more information please call me at 651-772-2075.

Sincerely,

Karin DuPaul

Karin DuPaul
Community Organizer

INNOVATIVE POWER SYSTEMS

Renewable Energy Design & Installation

13 March, 2009

Paul DuBruiel, City Planning
City of Saint Paul, Minnesota

Mr. DuBruiel:

I am writing on behalf of Metro State University to request that the Saint Paul Planning and Zoning Commission grant a variance on the 75-foot height restriction for towers, so that Metro State may install a wind generator on a 100-foot tower. This variance is necessitated by the requirement for a wind machine to be higher than the turbulence created by surrounding objects (such as trees and buildings), in order to perform adequately. The "rule of thumb" here, is that the hub of the machine should be 30 feet higher than anything within a quarter of a mile. [Please see the attached drawing.]

However, there is a 160-foot telecom tower a couple hundred feet to the northeast, so we recognize that strict adherence to the rule of thumb in all directions is not practical in this case. The dominant wind directions are from the west and the north, and so the bluff site itself has a favorable aspect for catching a reasonable amount of wind energy from those two directions. Hence, our interest here is only on the tree line immediately to the west of our intended wind tower location. The trees have the potential to grow to a height range of 60 to 70 feet, and thus we will need to set the hub height of the wind machine at 104 feet. This means that the top of the "swept area" of the blades will be 120 feet above grade.

Please consider our request in light of the fact that we have received the unanimous endorsement of the District Four community council, the Audobon Society, and the National Park Service, as well as the approval of the FAA.

Thank you for your consideration of this request.

Sincerely,

Ralph Jacobson, President
Innovative Power Systems, Inc.

1153 Sixteenth Ave SE
Minneapolis, MN 55414
ph: 612.623.3246 • fax: 612.623.4041

www.ips-solar.com
e-mail: info@ips-solar.com
MN GC License # 20101407

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Dayton's Bluff
District 4 Community Council

798 E. 7th Street, Saint Paul, MN 55106 - Phone 651-772-2075 - Fax 651-774-3510
Visit our web site at www.daytonsbluff.org

February 10, 2012

Kate Reilly
Saint Paul PED
25 West 4th Street
Saint Paul MN 55102

Dear Ms. Reilly,
The Dayton's Bluff Community Council Board of Directors, at their regular board meeting of February 6, 2012, passed a motion to write a letter of non-support of the conditional use permit for a wind turbine at Metropolitan State University. This motion is in opposition to an earlier letter-of-support motion passed by the Board in 2009, based on new information and acknowledging new members of the Board.

Among the current concerns of neighbors, Board members, and other residents of Dayton's Bluff are the following:

- The predicted decline in the bat population of the neighborhood, due not necessarily from striking the blades but because of the sudden drop in air pressure as air flows over the turbine blades, resulting in death as the bats' lungs burst. Besides the simple desire not to cause unnecessary deaths in the bat population, neighbors recognize the benefit of bats eating mosquitoes and other small insect pests.

- The increased noise level. Sound from the turbine was said to be similar to that of the traffic on East 7th Street. However, neighbors pointed out the disturbance would be felt most during the night, when traffic is typically much less. It was pointed out that most residents have older homes in which external sounds are transmitted easily and which cannot be easily soundproofed.

- The negative effect on the aesthetics of the historic neighborhood. Neighbors talked of having come to Dayton's Bluff because of the historic homes and "old world" feel of the area. There was concern that such an industrial looking device as the wind turbine would adversely affect the look and atmosphere of the nearby historic preservation district.

- The lack of applicable regulations. Currently, there are no City regulations for a wind turbine. A cell phone tower is being used as the model but neighbors feel there is considerable difference between a cell phone tower and a wind turbine. For example, there is much concern as to environmental issues that could affect adjoining Swede Hollow.

For more information please email Karin@DaytonsBluff.org or call her at 651-772-2075.
Thank you

Sincerely,

Karin DuPaul cc. Councilmember Lantry

OPPOSITION TO CONDITIONAL USE PERMIT FOR AN URBAN WIND TURBINE AT METRO-STATE UNIVERSITY

While I understand and support the use of commercial wind turbine technology, I seriously question the value and impact of placing a wind turbine in the midst of an urban area for the following reasons:

URBAN IMPACT

1. The scale of a wind turbine installation near Metro-State Library is too large for the neighborhood in terms of both the bulk of the shaft and the extent of the blades. It diminishes the domestic character of the neighborhood and gives it an industrial character that is not helpful for a stressed neighborhood.
2. From the perspective of the city center a wind turbine located above the city raises further serious aesthetic issues. The intent of the University architects: Benz Thompson and Rietow was to design a cluster of buildings that created an iconic profile at the edge of the Dayton's Bluff. They achieved this. A wind turbine is an unnecessary and aesthetically conflicting addition to the architectural city scape. In general I feel that the Zoning Commission needs to consider the principal of allowing scattered wind turbines throughout the city which will result from giving a conditional use permit to the University. Is this commercial venture what you want for the city scape?

SUPPORTING COMMERCIAL WIND TURBINE TECHNOLOGY.

1. Germany has vast wind turbine farms located in non-migratory paths, outside of cities and located because of known wind currents. Like any other energy source establishing a location needs to consider all these factors especially the impact on the environment and habitation as well as aesthetics.
2. It would be better for the University that is committed to wind power to establish turbines in proven areas already established for commercial wind power, then sell the energy to the grid as they would here. The South Western Minnesota escarpment has tested wind velocity and established commercial wind farms outside the urban environment and migratory concourses. There is no essential need to establish such a wind turbine within city limits.
3. The proposed location is part of the river corridor, a known migratory route whose wind currents are at best tenuous. The precise location is lower than existing University buildings and whose effectiveness is compromised because of that.

Dear Resident,

I would like to inform you of Metropolitan (Metro) State's intent to install a 20kw wind turbine at 645 7th St. E. (The proposed location sits atop the Swede Hollow Park and behind the library between Maria and Mounds Blvd.)

The installation of this turbine is concerning for various reasons. Several of which are listed below:

- Immediate and negative impact to the ecosystem
- Harmful effects to humans
- Lack of regulation regarding wind turbines in St. Paul
- Impact to historic character of the surrounding neighborhood

Immediate and negative impact to the ecosystem

The proposed location of the wind turbine puts the wind turbine in the known Mississippi River migratory path. The eagles, red tailed hawks, black birds, owls, herons, and a multitude of other species will be in immediate danger of falling victim to bird strikes.

In addition to the certain bird fatalities, our local bat population will also be impacted – in most cases, with a far more gruesome death.

Wind turbines are the most dangerous to bats due to what is known as Barotrauma – trauma caused by the bat flying through different pressure zones created by the wind turbine which results in the bursting of blood vessels, causing the bat to essential 'explode' and die.

Not only is it against federal law to kill bats, but bats provide a tremendous service in reducing Mosquito populations in immediate area.

Oil Leakage from the site could also prove disastrous to the wetlands that sit directly below the proposed site.

Harmful effects to humans

Throughout the United States, there are numerous lawsuits filed by people fighting these wind turbines due to the documented health issues of people living in proximity to the wind turbines.

Wind Turbine Syndrome (WTS) is a phenomenon caused by several factors associated with all wind turbines. WTS is caused by low frequency noise, vibration, and shadow flicker created by the spinning rotors and ultimately affecting the body's various balance organs.

Those who live within proximity to wind turbines experience sleep disturbances, headaches, tinnitus (ringing , buzzing in the ear), ear pressure, dizziness, vertigo, nausea, visual blurring, tachycardia (rapid heart rate), irritability, problems with concentration and memory, photosensitive seizures, and panic episodes resulting from the internal pulsations experienced while awake or asleep.

Please contact all the individuals listed below to voice your opposition and please pass this information to neighbors, family and friends!

- The Mayor's office: Ann Hunt: 651-266-8520
- Kathy Lantrys Office Kathy Lantry 651-266-8670
- Zoning Committee Kate Reilly 651-266-6618 email: kate.reilly@ci.stpaul.mn.us
- District 4 Council Karin DuPaul 651-772-2075

Thank you so much!

Additionally, the following events will be occurring within the next two weeks and your participation in voicing your concerns is also requested.

- The Zoning Commission Committee Public hearing
  - Time and Date: Thursday - February 2nd, 2012 at 3:30 pm
  - Location of hearing: City Council Chambers Room 300, 3rd Floor City Hall, Court House 15 West Kellogg Blvd. St. Paul

Also, there will be a District Council Board Meeting on Metro States Wind Turbine Project on February 6th, 2012.

- District 4 Council Meeting:
  - Date and Time: Monday - Feb 6th, 2012 / TIME: 7:00 P.M.
  - Location: 798 East 7th Street (corner of 7th & Margaret).

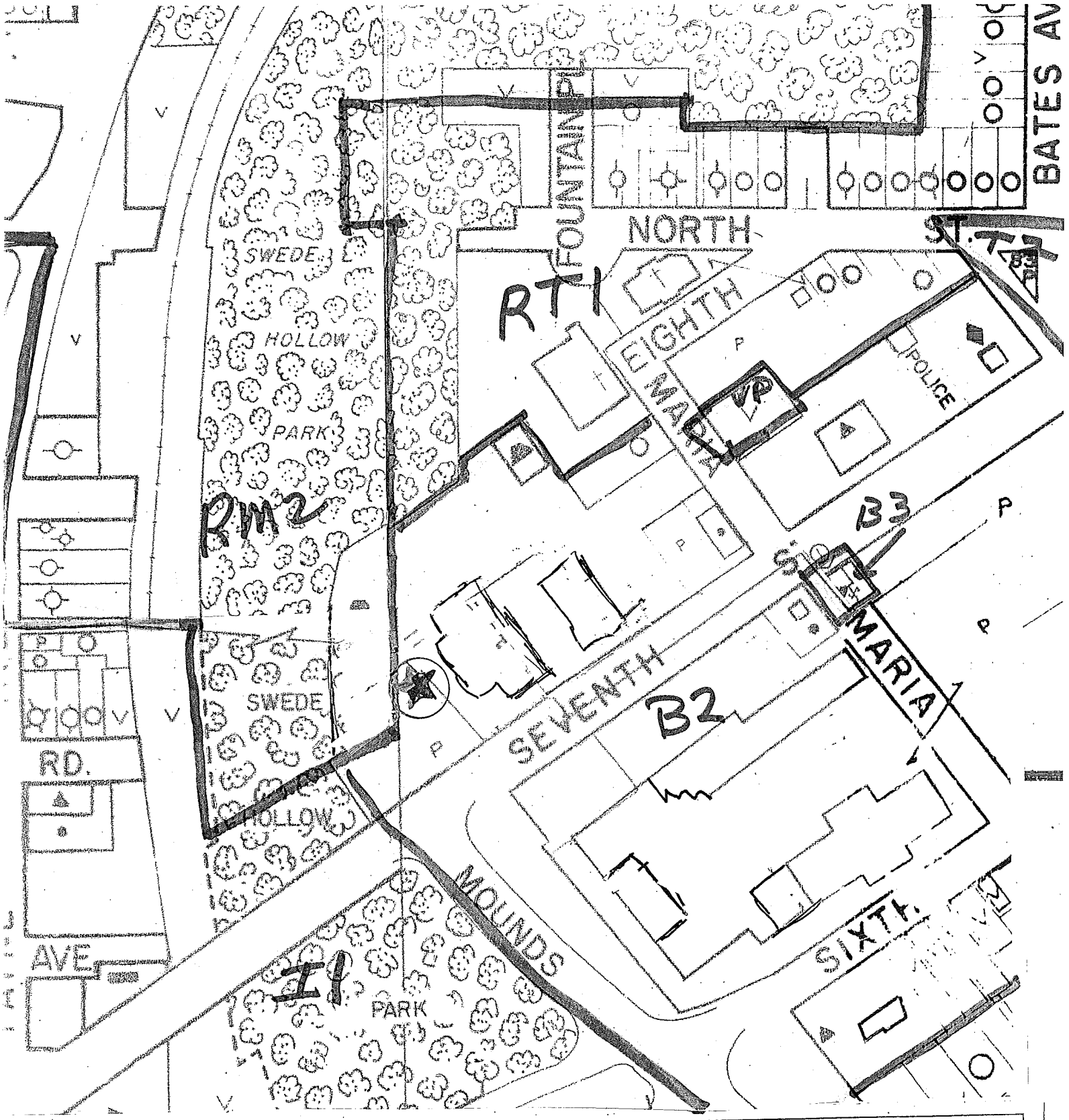
I implore everyone to try attending these meetings to voice their concerns.

Lastly, we would also like to start a petition to illustrate collective opposition to the turbine and if you would like to be included in the petition, please call or email at the following:

- Kim and Rene Lerma
  - 651.776.3321 (please leave a message if you reach our voice mail)
  - rjlerma@comcast.net

Best,

Kim and Rene Lerma



APPLICANT Metropolitan State U

PURPOSE Conditional USE

FILE # 11-310568 DATE 12-19-11

PLNG. DIST 4 Land use MAP # 22, 14, 13

Zoning # 10

SCALE 1" = 400'

PED DEPARTMENT OF PLANNING & ECONOMIC DEVELOPMENT

LEGEND

zoning district boundary

subject property

north

one family

two family

multiple family

commercial

industrial

V vacant

Metropolitan State University
Renewable Energy Feasibility Study
Barbour LaDouceur Design Group & Innovative Power Systems

6. Wind Turbine