TOWN OF GREENWOOD, MAINE

SITE PLAN REVIEW **ORDINANCE**

Adopted October 18, 2005 Amended May 21, 2016

Amended August 6, 2018

Kymberly Sparks

Attested: Kimberly Sparks, Town Clerk

Date:

August 9, 2018

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SITE PLAN REVIEW ORDINANCE TOWN OF GREENWOOD, MAINE

1-101 GENERAL

1-101.1 Purpose

The purposes of this Ordinance are to protect the public health, safety and welfare of the residents and tax payers of the Town of Greenwood, to implement the Comprehensive Plan and to insure an orderly growth and development of the Town. Greenwood is primarily a town with recreational opportunities, physical beauty, abundant bodies of water, and a rural setting. These are important characteristics to the full time and part time people of Greenwood. Certain use of land, including commercial wind energy facilities, can be a threat to the public health, safety and welfare and the characteristics that the residents and tax payers of the Town of Greenwood value. Based on the advice of professionals and its own research, that have been fully documented, this Ordinance provides the mechanisms to protect the public health, safety and welfare of the residents and tax payers of the Town of Greenwood.

1.101.2 Authority

- A. This Ordinance is adopted pursuant to Article VIII Part 2 Section 1 of the Maine Constitution and Title 30-A M.R.S.A. Section 3001 (Home Rule).
- B. This Ordinance shall be known as the Town of Greenwood, Maine Site Plan Review Ordinance.

1-101.3 Validity and Separability, Conflict with other Ordinances and Effective Date

- A. Should any section or provision of this Ordinance be declared by any court to be invalid, such decision shall not invalidate any other section or provision of the Ordinance.
- B. Whenever the requirements of this Ordinance are inconsistent with the requirements of any other ordinance, code or statute, the more restrictive requirements shall apply.
- C. The effective date of this Ordinance is October 18, 2005, the date of its adoption at a town meeting.

1-101.4 Amendments

This Ordinance may be amended by a majority vote of the annual or special town meeting. Amendments may be initiated by a majority vote of the Planning Board or by request of the Board of Selectmen to the Board or on a written petition of a number of voters equal to at least 10% of the number of votes cast in the last gubernatorial election in the Town. The Board shall conduct a public hearing on any proposed amendment.

1-201 APPLICABILITY

1-201.1 This Ordinance shall apply to:

- A. All development proposals for new, or substantial enlargements of commercial, retail, industrial, institutional, public, structures or uses, Commercial Wind Energy Facilities (CWEF), and newly established mineral extractions.
- B. Change in use including new uses of existing structures or land which would employ new materials and/or processes not normally associated with the existing or previous use.
- C. Home Occupations when determined by the Code Enforcement Officer that Site Plan Review is required.

1-201.2 This Ordinance does not apply to:

- A. Construction of detached single family dwellings, two-family dwellings, and multi-family dwellings and accessory structures for the use of the residents thereof.
- B. Accessory structures and uses.
- C. Construction of barns, stables, and other agricultural related buildings by and for the private use of families residing on the property on which the building is to be located.
- D. All nonstructural uses of land for agricultural or forestry purposes.
- E. Home occupations which meet the following conditions.
 - 1. The home occupation is incidental and secondary to the primary residential use of the premises;
 - 2. Do not employ persons who do not make the residence their permanent home;
 - Do not display any exterior sign larger than eight (8) square feet, any exterior indications
 of the home occupation or variation from the residential character of the principal
 dwelling or accessory structure.
 - 4. Do not generate any nuisance, waste discharge, offensive noise, vibration, smoke, dust, odors, heat, glare/ excessive light, radiation, fumes, or electrical interference detectable to the normal senses or which interferes with normal radio or television reception, or causes other nuisances which extend beyond the limits of the subject property; and
 - 5. Are not likely to generate regular daily or seasonal traffic not associated with residential uses.

E Home Occupations which do not meet the criteria in Section D above shall comply with Section 1-701.1.

1-301 ADMINISTRATION

1-301.1 Planning Board

This Ordinance shall be administrated by the Planning Board of the Town of Greenwood, Maine, hereafter referred as the Board.

1-301.2 Approval Required.

No building permit or plumbing permit shall be issued by the Board, Code Enforcement Officer or Local Plumbing Inspector for any use or project within the scope of this Ordinance until a Site Plan Review Application has been reviewed and approved by the Board.

1-301.3 Expiration of Approval

All Site Plan approvals shall expire two (2) years after the date of approval unless substantial construction thereunder has commenced. If work is not completed within three (3) years from the date of approval, the approval lapses and a new application, with all required fees, must be made and approved. The Board may grant up to a twelve (12) month extension to these time periods upon request by the applicant and a showing that the time periods cannot be complied with due to circumstances beyond the control of the applicant.

1-301.4 Applications in Writing

All applications for Site Plan Review shall be made in writing to the Board on forms provided for that purpose and shall be by the owner of the property or the owner's agent as designated in writing by the owner. Application forms are available at the Town Office during normal business hours.

1-301.5 Fees

A. An application for site plan approval shall be accompanied by a fee of \$50.00 plus \$5.00 per 1,000 square feet or portion thereof of gross floor area, parking and storage areas. For mining operations and outdoor-based uses such as but not limited to golf course, recreation areas and campgrounds and for structures without floor areas such as communication towers, there shall be a fee of \$150.00. This application fee shall be paid by check payable to the Town of Greenwood, Maine. This fee shall not be refundable.

- B. Review escrow account, \$150.00 per 2,000 square feet or portion thereof of gross floor area, parking and storage area, for mining operations and outdoor-based uses such as but not limited golf courses, recreation areas and campgrounds and for structures without floor areas such as communication towers, there shall be a payment of \$500.00, deposited in an escrow account established by the Town, which monies may be used by the Board to pay for professional reviews and advice related to the developer's application as it deems necessary. The Board shall provide the applicant with notice of its intent to spend any portion of this account which notice shall specify the purpose for the proposed expenditures. If the balance in the applicant's portion of the Board Review Escrow Account shall be drawn down by 75%, the Board shall require that an additional 50% of the original review escrow account fee be deposited by the applicant. Those monies deposited by the applicant and not spent by the Board in the course of its review shall be returned to the applicant within thirty (30) days after the Board renders its final decision on the application.
- C. The Selectmen, upon recommendation of the Planning Board, shall have the authority to revise the application fee and/or review escrow account fee after holding a public hearing.

1-401 APPLICATION PROCEDURE

1-401.1 Pre-Application Meeting

- A. Prior to submitting an application for a project, the applicant or the applicant's authorized agent shall appear informally at a regular or special meeting of the Board to discuss the proposed project.
 - The Planning Board, at this time, will also make a determination whether a change in the use requires Site Plan Review. If it does, the Board will inform the applicant of the submission requirements.
- B. The applicant or applicant's authorized agent shall present to the Board, at this time for informal review and comment, a sketch plan of the proposed project. The sketch plan shall consist of a rough outline of the proposed project and may be a freehand, pencilled sketch of the parcel showing the proposed layout of buildings, parking areas, and other features which may aid the Board to understand the project.
- C. The Board may request that the applicant arrange for an inspection of the site with the Board, or an individual appointed by the Board Chairman to act as the Board's representative.
- D. No binding commitments shall be made between the applicant and the Board at this stage. The purpose of the pre-application meeting shall be to understand what is proposed.

1-401.2 Site Plan Review Application Requirements

- A. Applications for Site Plan Review approval shall be submitted on application forms provided by the town. Ten copies of the completed application form, required plans and related information shall be submitted to the Town Office no less than fourteen (14) days prior to the Board's regular scheduled meeting. The Board shall forward copies to the Board of Selectmen, Fire Chief and Road Commissioner for review and comment.
- B. Upon receipt of the application the Board shall send written notice by Certified Mail to all owners of property within 500 feet of the boundaries of the project site, including those across a road or street. In addition the Board shall cause notice of the date, time and place of the meeting to discuss the project to be published in a newspaper of general circulation in Greenwood at least two (2) times; the date of the first publication shall be at least seven (7) days prior to the meeting.

1-401.3 Submission Requirements

When the owner of the property or his authorized agent makes formal application for Site Plan Review, the application shall contain at least the following exhibits and information:

- A. A fully executed and signed copy of the application for site plan review.
- B. A site plan drawn at a scale sufficient to allow review of the items listed under the preceding general standards, but at not more than 50 feet to the inch for that portion of the total tract of land being proposed for the project, and showing the following:
 - 1. Owner's name, address and signature.
 - 2. Names and addresses of all property owners within 500 feet for the project site.
 - 3. Sketch map showing general location of the site within the Town.
 - 4. Boundaries of all contiguous property under the control of the owner or applicant regardless of whether all or part is being developed at this time.
 - 5. A perimeter survey of the parcel made and certified by a Professional Land Surveyor pursuant to Rule 12, Standards of Practice, by the State Board of Regulation of Land Surveyors. This survey shall relate to reference points showing magnetic north, graphic scale, corners of parcel and date of survey and total acreage.
 - 6. Existing and proposed topography of the site at contour intervals as determined by the Board if major changes to the existing topography are proposed.
 - 7. Soil types and location of soil boundaries as certified by a registered engineer or soil scientist.

- 8. The location of all existing and proposed structures (including design, nature of exterior materials, size and height), driveways, sidewalks, parking spaces, loading areas, open spaces, open drainage courses, service areas, easements, and landscaping.
- 9. The location, size, and character of all signs and exterior lighting.
- 10. The area of the parcel and street frontage.
- 11. The location of all buildings within 50 feet of the parcel to be developed and the location of intersecting roads or driveways within 200 feet of the parcel.
- 12 Location of aquifers and aquifer recharge areas, if mapped.
- 13. Location of wetlands, significant wildlife habitat, known or potential archaeological resources, scenic locations as identified in the Comprehensive Plan and historic buildings and sites to be developed or adjacent to the parcel.
- 14. Location and elevation of the 100-year flood plain.
- 15. If the project site is located in the direct watershed of a great pond the name of that watershed shall be indicated on the plan.
- 16. A utility plan showing such provisions for power, communications, water supply and waste water disposal.
- 17. Where the plan was prepared by an architect, engineer, surveyor, geologist, soil scientist or other professional licensed or certified and issued a seal by the State of Maine, the preparer's seal shall be affixed to the plan.
- C. A written, narrative statement by the applicant that supplies the following information and is substantiated by the appropriate documents.
 - 1. Name, address and number of Registered Professional Engineer, Professional Land Surveyor or Planner who prepared the plan.
 - 2. Address to which all correspondence from the Board should be sent.
 - 3. Evidence by the applicant of right, title or interest in the property for which the application covers.
 - 4. Location of property: book and page (from Registry of Deeds).
 - 5. Location of property: map and lot (from Assessor's Office).
 - 6. Proposed method of sewage disposal and the results of an on-site soil investigation.
 - 7. Indication of type of water supply to be used. Evidence of adequate ground water supply and quantity shall be submitted by a well driller or a hydrogeologist familiar with the area.

- 8. A description of the proposed uses to be located on the site including: products to be manufactured, description of and volume of manufacturing by-products and wastes, type of products to be warehoused, and type of products to be sold.
- 9. Total floor area and ground coverage of each proposed building and structure and percentages of lot covered by each building or structure.
- 10. A copy of the existing and/or proposed easements, restrictions and covenants placed on the property.
- 11. Method of solid waste disposal.
- 12. Erosion and sedimentation control plan.
- 13. A stormwater control plan designed to accommodate the 25-year storm.
- 14. Statement of financial capacity which should include the names and sources of the financing parties including banks, government agencies, private corporations, partnerships, and limited partnerships and whether these sources of financing are for construction loans or long-term mortgages or both.
- 15. The nature and type of any air emissions that would result in air pollution.
- 16. The applicant shall provide a municipal service impact analysis that includes a list of construction and maintenance items, with both capital and annual operating cost estimates, that must be financed by the Town of Greenwood or quasi-municipal districts. This list shall include but not be limited to: street reconstruction, maintenance, and snow removal; solid waste disposal; and fire protection. The applicant shall provide an estimate of the net increase in taxable assessed valuation from the project.
- 17. The applicant=s evaluation of the availability and suitability of off-site public facilities including sewer, water, and streets.
- 18. A statement from the Fire Chief as to the availability of fire hydrants and/or fire ponds or provisions of fire protection services.
- 19. An estimate of the date when construction will start, when uses(s) will begin and when the project will be completed.
- 20. A description of the current or most recent use of the building or land including type of products(s) sold or manufactured, operating hours, nature and number of patrons served on a daily basis, peak hours, and other items as the Planning Board may find necessary.
- 21. Traffic data shall include the following when required by the Planning Board:

- a. the estimated peak hour and average daily traffic to be generated by the proposal;
- b. existing traffic counts on surrounding roads;
- c. traffic accident data covering the most recent three-year period for which such data is available.
- 22. Maine Department of Transportation Driveway/Entrance Permit if the project will have access to Routes 26, 219, or the East Bethel Road.
- 23. The type, size, and location of all machinery likely to generate appreciable noise at the lot lines.
- 24. A phosphorus impact analysis and control plan when located in the direct watershed of a great pond.
- 25. Other local, State or Federal permits as required. The Board may require the applicant to submit letters from appropriate State and Federal agencies indicating all applicable requirements will be met.
- 26. Waivers requested accompanied by reasons and justification.
- D. Additional information for Commercial Wind Energy Facilities
 - Location map, including lot and map numbers, showing the boundaries and owners names of the proposed facility site, all contiguous property under total or partial control of the applicant or participating landowner(s), any scenic resource to be impacted by CWEF, and historic sites within 1,000 feet of any disturbed area associated with the CWEF.
 - 2. Description of the proposed CWEF that includes the number and aggregate generating capacity of all wind turbines, the turbine height and manufacturer's specifications for each wind turbine (including but not limited to the make, model, maximum generating capacity, sound emission levels and types of overspeed controls) and a description of associated facilities.
 - 3. Site plan showing the proposed location of each wind turbine, its flicker sector, associated facilities and any of the following features located within 1,000 feet of any wind turbine: parcel boundaries, required setbacks, topographic contour lines (maximum 10-foot interval), roads, rights-of-way, overhead utility lines, buildings identified by use), land cover, wetlands, streams, water bodies and areas proposed to be re-graded or cleared of vegetation.
 - 4. Written evidence that the provider of electrical service to the property has been notified of the intent to connect an electric generator to the electricity grid.
 - 5. Description of emergency and normal shutdown procedures.

- 6. Photographs of existing conditions at the site.
- 7. Site line, photographic, and, if applicable, any screening information.
 - a. Sight line representations of each wind turbine from the nearest occupied building, planned residence, or other approved but not yet developed facility and from at least one other representative location within 1,000 feet of the wind turbine, such as a scenic resource or another occupied building. Each site line representation shall be drawn at a scale sufficiently large to make it legible. If screening is proposed, the proposed screening device, such as trees, shrubs or fencing, shall be depicted on the drawing along with the sight line as altered by the screening.
 - b. A current four-inch by six-inch color photograph of the proposed site of the wind turbine(s) taken from viewpoints corresponding to each of the site line representations.
 - c. One copy of each of the photographs described in b), above, onto which is superimposed an accurately-scaled and sited presentation of the wind turbine(s).
- 8. Certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories, Det Norske Veritas, or other similar certifying organizations.
- 9. A preliminary decommissioning plan that includes the following.
 - a. Methods to remove all parts of the CWEF including foundations and how they will be disposed of.
 - b. Areas and the methods to restore disturbed land areas.
 - c. Estimated time period (months) to complete decommissioning.
 - d. Estimated cost for decommissioning in accordance with Section 1-701.3.T.4.
- 10. Written summary of operation and maintenance procedures for the CWEF and a maintenance plan for access roads.
- 11. Visual impact assessment.
- 12. Audible sound and infrasound level analysis, prepared by a qualified engineer(s).
- 13. Shadow flicker analysis based on WindPro or other modeling software approved by the Department of Environmental Protection. The flicker sector will be shown on maps.

- 14. Foundation and anchoring system drawings that are stamped by a Maine-licensed professional engineer.
- 15. A Public Utility Grid Impact Statement documenting all anticipated changes to the public utility grid within the Town due to the wind energy facility. The Statement shall be signed and approved by the Maine Public Utilities Commission and shall include proof of leases or rights of way for transmission lines, and an analysis of the residual capacity in the grid that will be available to other local generating projects after the construction of the wind energy facility.
- 16. Other relevant studies, reports, certifications and approvals as may be reasonably requested by the Planning Board to ensure compliance with this Ordinance.
- 17. The name, telephone number, and E-mail address of the CWEF owner's/operator's contact person that is responsible to respond to public inquiries and/or complaints.
- 18. A copy of the owner's/operator's public inquiry/complaint response protocol.
- 19. Legal description of proposed deed language for each participating landowner's parcel(s) that specifies which restrictions, setbacks, sound, and/or shadow flicker, that are to be waived by the landowner by a mitigation waiver as defined.
- E. The Planning Board may waive any of the submission requirements when it makes written finding of fact that and determines that the scale of the project is of such magnitude as to make the information unnecessary.
- F. Informational Sign
 - 1. Upon submission of the application the applicant shall install in a conspicuous location a 4' X 4' a sign that is legible and has a professional quality on the project parcel. The sign shall have a white back ground with contrasting lettering. The minimum lettering size shall be four (4) inches in height. The sign shall contain the following information.

Proposed Development Site
Project Name
Name and Address of Applicant
For Application Information ContactTown of Greenwood
875-2773

2. Within seven (7) days of final action the applicant shall remove the sign.

1-501 APPLICATION REVIEW

1-501.1 Complete Application

Within 30 days of the Board receiving an application, the Board shall notify the applicant in writing either that the application is a complete application or, if the application is incomplete, the specific additional material needed to make a complete application. After the Board has determined that a complete application has been received, it shall notify the applicant in writing and begin its review of the proposed project.

1-501.2 Public Hearing

The decision to hold a public hearing is discretionary, and in making its decision, the Board may consider the size and type of project, the community impact and whether any written requests for such a hearing have been received. In the event that the Board determines to hold a public hearing, it shall hold such public hearing within thirty (30) days of having notified the applicant in writing that a complete application has been received and shall cause notice of the date, time and place of such hearing to be given to the applicant, and published in a newspaper of general circulation in Greenwood at least two (2) times; the date of the first publication shall be at least seven (7) days prior to the hearing. Public hearings shall be conducted in accordance with the procedures in Title 30-A M.R.S.A., Section 2691, Subsection 3 a, b, c, d, and e. The Board shall notify all property owners within five-hundred (500) feet of the boundaries of the project parcel of the public hearing.

1-501.3 Board Action

- A. Within thirty (30) days following the public hearing or sixty (60) days of the determination of a complete application, the Board shall either approve the application, approve the application with conditions, or disapprove the application. The time limit for review may be extended by mutual agreement between the Board and the applicant.
- B. Within seven (7) days of reaching their decision, the Board shall notify the applicant in writing of any action taken and the reason for taking such action.
- C. The Board may impose conditions on any site plan approval where it finds that such conditions are necessary to insure that the project will comply with the criteria and standards of this Ordinance. All elements and features of the plan and all representations made by the applicant concerning the project and use of the property which appear in the record of the Board proceedings are conditions of approval. No change from the conditions of approval is permitted unless an amended plan is first submitted to and approved by the Board.

1-501.4 Waivers

- A. Where the Board finds that extraordinary and unnecessary hardships may result from strict compliance with this Ordinance, or where there are special circumstances of a particular project, it may waive any provision of this Ordinance provided that such waivers will not have the effect of nullifying the purpose of this Ordinance, the Town of Greenwood Comprehensive Plan, or any other ordinance or law.
- B. In granting any waiver, the Board shall require such conditions as will, in its judgment, secure substantially the objectives of the requirements so waived.

1-601.1 Requirements

The following standards are to be used by the Board in reviewing applications for site plan review and approval of the site plan. The site plan review application shall be approved, unless in the judgement of the Board the applicant is not able to reasonably meet one or more of these standards. In all instances, the burden of proof shall be on the applicant and such burden of proof shall include the production of evidence necessary to complete the application insuring the Board that the proposed site plan conforms to other applicable ordinances.

1-601.2 Review Standards

A. Preserve and Enhance the Landscape: The landscape shall be preserved in its natural state, insofar as practicable, by minimizing tree removal, disturbance of soil, and retaining existing vegetation during construction. After construction is completed, landscaping shall be designed and planted that will define, soften or screen the appearance of off-street parking areas from the public right-of-way and abutting properties and/or structures in order to enhance the physical design of the building(s) or site, and to minimize the encroachment of the proposed use on neighboring land uses.

Environmentally sensitive areas which include wetlands, significant wildlife habitat, unique natural areas shall be conserved to the maximum extent.

The Board shall assess the proposed activities impact upon scenic areas and views as identified in the Comprehensive Plan.

Where the Board finds that the proposed activity would have an undue adverse effect on identified scenic views, the Board shall require the applicant to minimize such effects.

- B. Relationship of the Proposed Buildings to the Environment: Proposed structures shall be related harmoniously to the terrain and to existing buildings in the vicinity which have a visual relationship to the proposed buildings so as to have a minimally adverse effect on the environment and the aesthetic qualities of the developed and neighboring areas. The Board shall consider the following criteria.
 - 1. Architectural style is not restricted. Evaluation of the appearance of a project shall be based on the quality of its design and relationship to surroundings.
 - 2. Buildings shall have good scale and be in harmonious conformance with permanent neighboring development.
 - Mechanical equipment or other utility hardware excluding communication devices on roofs, ground, or buildings shall be screened from public view with materials harmonious with the building, or they shall be located so visibility from any public way is minimized.

- C. Vehicular and Pedestrian Access: The proposed site layout shall provide for safe entrances and exits from public and private streets by providing adequate locations, numbers and control of access points including sight distances, turning lanes, and traffic signalization when required by existing and projected traffic flow on the public street system and for pedestrian ways within the project appropriate to the type and scale of the project. The Board shall consider the following criteria. Where these standards conflict with the Maine Department of Transportation Rules for Driveway/Entrance Permits for projects that will be accessed by Routes 26, 219 or the East Bethel Road the more restrictive shall apply.
 - 1. Vehicular Access: The proposed site layout shall give special consideration to the location, number, and control of access points, adequacy of adjacent streets, traffic flow, sight distances, turning lanes, and existing or proposed traffic signalization.
 - a. The proposed project shall provide safe vehicular access to and from public and private streets.
 - Vehicular access to the site shall be on streets which have adequate capacity to accommodate the additional traffic generated by the project. The Board may approve a project not meeting this requirement if the applicant demonstrates that:
 - (1) A public agency has committed funds to construct the improvements necessary to bring the level of access to this standard, or
 - (2) The applicant shall assume financial responsibility for the improvements necessary and will guarantee the completion of the improvements within one (1) year of approval of the project.
 - ii. Any exit driveway or driveway lane shall be so designed in profile and grading and so located as to provide the following minimum sight distance measured in each direction. The measurements shall be from the driver's seat of a vehicle standing on that portion of the exit driveway from distances of between 10 and 15 feet behind the curbline or edge of the shoulder with the height of the eye 3.5 feet to the top of an object 4.25 feet above the pavement. The Board may require up to 50% greater sight distance where at least 30% of the traffic using the driveway will be larger vehicles.

Minimum Sight Distance

Posted Speed Limit	Minimum Sight Distand		
25 mph	200'		
30 mph	250'		
35 mph	305'		
40 mph	360'		
45 mph	425'		
50 mph	495'		

- iii. Where more than one business or structure is located on a single parcel, all vehicular access to and from a public street shall be via a common access or entrance way(s) serving all business and structures except as provided for herein.
- iv. The grade of any exit driveway or proposed street for a distance of 100 feet from its intersection with any existing street will be a maximum of three (3) percent.
- v. Projects generating 400 or more vehicle trips per 24-hour period will provide two or more separate points of vehicular access into and out of the site.
- vi. The Planning Board may require the applicant to conduct a traffic impact study. In making the determination as to the need for a traffic impact study, the Planning Board shall consider the following:
 - (1) the proposed project will generate 100 or more peak hour site trips.
 - (2) The existence of a current safety problem in the area: high accident location, confusing intersection, etc.
 - (3) Current or projected capacity deficiencies near the project.
 - (4) Sensitive neighborhood areas adjacent to the project.
 - (5) The proximity of site drives to other drives or intersections.
- 2. Vehicular access to Routes 26, 219 or the East Bethel and Greenwood Road shall comply with the following provisions in addition to the above. Where conflicts exist between this section and a Driveway/Entrance Permit issued by the Maine Department of Transportation, the most stringent or restrictive shall apply.
 - a. Where a proposed project is to be located at the intersection of Route 26, 219 or the East Bethel and Greenwood Road and a minor or collector street, entrance(s) to and exit(s) from the site shall be located only on the minor or collector street, provided that this requirement may be waived where the applicant demonstrates that existing site conditions preclude the location of a driveway on the minor or collector road, or that the location of a driveway on the minor or collector street would conflict with residential areas.
 - I. Curbcuts or access points shall be limited to one per lot for all lots with less than the required street frontage as of the effective date of this ordinance. For lots with greater than 150 feet of frontage, a maximum of one curb cut per 150 feet of frontage shall be permitted to a maximum of two, provided the Board makes a finding that (a) the driveway design relative to the site characteristics and site design provides safe entrance and exit to the site and (b) no other practical alternative exists.
 - ii. The maximum number of curbcuts to a particular site shall be governed by the following:
 - (1) No low volume traffic generator shall have more than one two-way access onto a single street.

- (2) No medium traffic generator shall have more than two two-way accesses in total onto Routes 26, 219 or the East Bethel and Greenwood Roads.
- iii. Curb cut widths and design shall conform to the following standards:
 - (1) Low volume driveways: Defined as driveways with less than 50 vehicle trips/day based on the latest edition of the Institute of Traffic Engineers' Trip Generation Report, as the same may be amended from time to time shall:
 - (a) have two-way operation;
 - (b) intersect the street at an angle as close to 90 degrees as site conditions permit, but at no less than 60 degrees;
 - (c) not require a median;
 - (d) slope from the gutter line on a straight slope of 3 percent or less for at least 100 feet, with a slope no greater than 8 percent except where unique site conditions permit a waiving of the slope standard to 10 percent; and
 - (e) comply with the following geometric standards:

NOTE: The Board may vary these standards due to unique factors such as a significant level of truck traffic.

Item	Desired Value (ft.)	Minimum Value (ft.)	Maximum Value (ft.)
Radius	15-25*	10	15-25*
Width	20-30*	20	24-30*

^{*}Upper values apply where major street speed and/or volume is high.

- (2) Medium volume driveways with more than 50 vehicle trips/day but fewer than 200 peak hour vehicle trips, based on the latest edition of the Institute of Traffic Engineers' Trip Generation Report, as the same may be amended from time to time, and generally including all land uses not in the low or high volume groups shall:
 - (a) have either two-way or one-way operation and be a minimum of 50 feet in length;
 - (b) intersect the street at an angle as close to 90 degrees as site conditions permit, but at no less than 60 degrees;
 - (c) not require a median;
 - (d) slope upward from the gutter line on a straight slope of 3 percent or less for at least 100 feet and a slope of no more than 6 percent thereafter, with the preferred grade being a 4 2 percent, depending on the site; and

(e) comply with the following geometric standards;

NOTE: The Board may vary these standards due to unique factors such as a significant level of truck traffic.

ltem	Desired Value (ft.)	Minimum Value (ft.)	Maximum Value (ft.)
ONE WAY R1 (radius) R2 (radius) W (drive width)	30 5 20-24	25 5 20	40 10 24
TWO WAY Radius Width	30 26-36*	25 24	40 30-40*

^{*}Where separate left and right exit lanes are desirable.

- iv. When the proposed project is to be located on the opposite side of an existing development, the driveway shall be directly opposite of the existing driveway or separated from the opposite driveway by a minimum of seventy-five (75) feet whenever possible.
- e) When a conversion or expansion of an existing use occurs, access shall be upgraded to comply with these standards. This requirement may be waived upon a written finding that (a) the need to demolish or relocate an existing building on the site or (b) denial of full access to Routes 26, 219 or the East Bethel and Greenwood Roads where full access presently exists and cannot be provided by an adjacent side street.
- D. Parking and Circulation: The layout and design of all means of vehicular and pedestrian circulation including walkways, interior streets, drives, and parking areas shall provide for safe general circulation, separation of pedestrian and vehicular traffic, service traffic, loading areas, and the arrangement and use of parking areas.
 - 1. A use shall not be extended and no structure shall be constructed or enlarged unless sufficient off-street parking space is provided that conforms to the following:
 - a. Parking spaces shall be arranged so that it is not necessary for vehicles to back into the street.
 - b. Where the project will abut an existing or potential parking area, provisions shall be made for internal vehicular connections.

- c. Parking areas shall be designed to permit each motor vehicle to proceed to and from parking space provided for it without requiring the moving of any other motor vehicle.
- d. Off-street parking spaces shall comply with the following standards.
 - Except as provided below, each parking space shall contain a rectangular area at least eighteen (18) feet long and nine (9) feet wide. Lines demarcating parking spaces may be drawn at various angles in relation to curbs and aisles, so long as the parking spaces so created contain within them the rectangular required by this section.
 - ii. Up to twenty (20) percent of the required parking spaces needed may contain a rectangular area of only eight (8) feet in width by fifteen (15) feet in length. If such spaces are provided, they shall be conspicuously designated as reserved for small or compact cars only.
- e. Off-street parking shall be provided to conform with the number required in the following:

Retail	one per 300 sq. ft. of gross
	floor area

Office	one per 300 sq. ft. of gross
	floor area

Wholesale/warehouse	one	per	1,200	sq.	ft.	of
	stora	ige oi	r gross i	floor	are	а

Industrial/manufacturing	one	per	emplovee	on

Schools

Elementary one per classroom Secondary 5 per classroom

Theaters/auditoria/churches one per five seats and one

space per 100 sq. ft. of area

for assembly

Eating and drinking establishments one per three seats

For those uses not specifically listed or able to be placed into one of the above categories, there shall be sufficient off-street spaces to accommodate the normal parking demand as determined by the Board.

- f. Required off-street parking for projects which cannot provide their own parking because of location, lot size or other existing development may be substituted by parking facilities which, in the public's interest, may be provided for by the Town of Greenwood or private parking resources.
 - No such public or private off-street parking shall be considered as a substitute unless located within 500 feet of the principal building or use as measured along lines of public access.
 - If the required off-street parking is to be provided by off-site private parking such areas shall be held in fee simple by the owner of the use served, or in other tenure as assures continued availability for parking as long as the particular land will be needed for such use provided that if the tenure is other than ownership in fee simple, the form of the tenure shall be approved by the Town Manager prior to final approval by the Board.
- g. The joint use of a parking facility by two or more principal buildings or uses may be approved by the Board where it is clearly demonstrated that said parking facilities would substantially meet the intent of the requirements by reason of variation in the probable time of maximum use by patrons or employees of such establishments.
- h. The use of an existing building for its current use shall be deemed to be in compliance with the off-street parking requirements of this section. However, any change in the use which increases the floor area shall be required to comply with the required off-street parking requirements for the increased floor area.
- E. Advertising Features: The size, location, design, lighting, and materials of all exterior signs and outdoor advertising structures or features shall not detract from the design of proposed buildings and structures and the surrounding properties and shall not interfere with or obstruct pedestrian or vehicular traffic.
- F. Special Features of the Project: Exposed storage areas, exposed machinery installation, service areas, truck loading areas, utility buildings, and similar structures shall have sufficient setbacks and screening to provide an audio-visual buffer sufficient to minimize their adverse impact on other land uses within the project area and surrounding properties.
- G. Emergency Vehicle Access: Provisions shall be made for providing and maintaining convenient and safe emergency vehicle access to all buildings and structures at all times.
- H. Any proposed project shall be reviewed by the Board with respect to its effect upon existing community services and facilities. When the Board finds, based on a recommendation of the selectmen and the results of any municipal impact analysis, that municipal services do not have the capacity to provide services to the proposed project, the Board will require one or more of the following.
 - 1. A voluntary payment to the Town of Greenwood to mitigate the direct impact to municipal services that has been identified as the consequence of the proposed project. Any such payment shall be subject to the following provisions.

- a. The Board, with advice from the Selectmen, shall find that the money offered will mitigate the identified direct impact of the project.
- b. The payment shall be held in a reserve account and may only be expended to fund capital improvements agreed to by the applicant and Board to mitigate the identified direct impacts.
- c. The payment in all cases shall be expended within five years of collection, unless otherwise agreed upon the Board and applicant.
- d. Any payment not expended shall be refunded to the property owner(s) of record at the time of the refund with interest as earned by the Town of Greenwood for the period the payment was held by the Town.
- 2. The applicant will construct or pay to construct the required improvements necessitated by the project.
- 3. Deny the application.
- I. Water Pollution: The project will not result in water pollution. In making this determination, the Board shall consider the evaluation of land above sea level and its relation to floodplains, the nature of soils and subsoils and, if necessary, their ability to adequately support waste disposal and/or any other approved licensed discharge; the slope of land and its effect on effluents; the aquifer and aquifer recharge areas; the availability of streams for disposal of surface run off; and the applicable federal, state and local laws, ordinances, codes, and regulations.
 - a. Phosphorus, a natural nutrient, stimulates algal growth that causes a significant decline in water quality. The primary source of new and increasing phosphorus loads in Maine lakes is development-residential, commercial, and industrial. Its impact on water quality is extremely long term. The following phosphorus control measures were created and designed to address this concern.

Projects proposed within the direct watershed of a lake or pond listed below shall be designed to limit phosphorus runoff to the levels defined below.

Post Project Phosphorous Export by Watershed

Lake Name	Lake Protection Level	Lake Load Allocation (lbs/ppb/yr) ¹	Allowable Phosphorus Export Per Acre (Pounds)	
Bryant Pond	High	4.43	0.056	
Furlong Pond	Medium	1.76	0.035	
Hicks Pond	Medium	27.54	0.027	
Indian Pond	High	6.03	0.034	
Mud (Twilight) Pond	Medium	3.28	0.035	

Lake Name	Lake Protection Level	Lake Load Allocation (lbs/ppb/yr) ¹	Allowable Phosphorus Export Per Acre (Pounds)	
North Pond	Medium	0.15	0.038	
Overset Pond	High	0.86	0.034	
Pennesseewassee Lake	High	13.88	0.031	
Sebago Lake	High	33.75	0.095	
South Pond	High	35.70	0.030	
Twitchell	High	11.97	0.033	

The pounds per year of phosphorus from the watershed that would produce an increase in phosphorus concentration by more than 1.0 parts per billion.

- Phosphorus export from a proposed project shall be calculated according to the
 procedures defined in Phosphorus Control in Lake Watersheds: A Technical Guide
 for Evaluating New Development (Maine DEP et.al., September 1989 with revision
 in 1992 and as may be amended). Copies of all worksheets and calculations shall be
 submitted to the Board.
- ii. Phosphorus control measures shall meet the design criteria contained in Phosphorus Control in Lake Watersheds: A Technical Guide for Reviewing Development (Maine DEP et al., September 1989 with revisions in 1992 or as may be amended). The Board shall require the reasonable use of vegetative buffers, limits on clearing, and minimizing street lengths, and shall encourage the use of other nonstructural measures prior to allowing the use of high-maintenance structural measures such as infiltration systems and wet ponds.
- J. Ground Water: The proposed project shall not adversely impact either the quality or quantity of ground water available to abutting properties or to public water supplies. Applicants whose projects involve on-site water supply or sewage disposal systems with a capacity of 2,000 gallons per day or greater must demonstrate that the ground water at the property lines will comply, following project development, with the Primary and Secondary Standards for Drinking Water established by the Maine Department of Human Services.
- K. Floodplain Protection: The proposed project will avoid problems associated with floodplain development and use.

- L. Shoreland Areas: Whenever situated in whole or in part, within 250 feet of any pond, lake, river, or wetland as delineated on the Town of Greenwood, Official Shoreland Zoning Map, will not adversely affect the quality of such water body or unreasonably affect the shoreline of such body of water, and will be in compliance with the Shoreland Zoning Ordinance of the Town of Greenwood.
- M. Water Supply: The project shall have sufficient water available for the reasonably foreseeable needs of the project, will not cause an unreasonable burden on an existing public or private water supply.
- N. Sewage Disposal: The project shall provide for adequate sewage disposal.
- O. Stormwater Drainage: Adequate provision shall be made for disposal of all storm water generated within the project through a management system of ditches, swales, culverts, underdrains, and/or storm drains. The storm water management system shall be designed to conduct storm water flows to existing watercourses or storm drains.
 - 1. All components of the storm water management system shall be designed to meet the criteria of a 25-year storm.
 - 2. Outlets shall be stabilized against soil erosion by stone riprap or other suitable materials to reduce storm water velocity.
 - The storm water management system shall be designed to accommodate upstream drainage, taking into account existing conditions and approved or planned developments not yet built and shall include a surplus design capacity factor of 25% for potential increases in upstream runoff.
 - 4. Downstream drainage requirements shall be studied to determine the effect of the proposed project. The storm drainage shall not overload existing or future planned storm drainage systems downstream from the project. The applicant shall be responsible for financing any improvements to existing drainage systems required to handle the increased storm flows.
- P. Erosion and Sedimentation Control: Erosion soil and sedimentation of watercourse and water bodies shall be minimized. The following measures shall be included, where applicable, as part of project review and approval.
 - 1. Stripping of vegetation, regrading or other development shall be done in such a way as to minimize erosion.
 - Development shall keep cut-fill operations to a minimum and ensure conformity with topography so as to create the least erosion potential and so as to adequately handle surface water runoff.
 - 3. The disturbed area and the duration of exposure of the disturbed area shall be kept to a practical minimum.

- 4. Disturbed soils shall be stabilized as quickly as practical. Temporary mulch will be placed on all disturbed areas where seeding or other construction or stabilization activities will not take place for over 14 consecutive days.
- 5. Temporary vegetation or mulching shall be used to protect exposed critical areas during development.
- The permanent (final) vegetation and structural erosion control measures shall be installed in the time periods contained in the erosion and sediment control plan.
- 7. Until the disturbed area is stabilized, sediment in the runoff water shall be trapped by the use of debris basins, sediment basins, silt traps or other acceptable methods.
- 8. Whenever sedimentation is caused by stripping vegetation, regrading or other development, it shall be the responsibility of the developer causing such sedimentation to remove it from all adjoining surfaces, drainage systems and watercourses and to repair any damage at his or her expense.
- 9. Maintenance of drainage facilities or watercourses originating and completely on private property is the responsibility of the owner to the point of open discharge at the property line.
- The standards set forth in the Maine Erosion and Sediment Control Handbook for Construction, Best Management Practices (March 1991 and as amended) shall be employed.
- Q. Exterior Lighting: All exterior lighting shall be designed to minimize adverse impact on neighboring properties and to insure the safe flow of pedestrian or vehicular traffic.
- R. Noise: The proposed project shall not raise noise levels to the extent that abutting and/or nearby residents are adversely affected. See section 1-701.3. L for Commercial Wind Energy Facility noise standards.
 - The maximum permissible sound pressure level of any continuous, regular or frequent or an intermittent source of sound produced by any activity shall be limited by the time period and land use which it abuts listed below. Sound levels shall be measured at least 4 feet above the ground at the property boundary of the source.

Sound Pressure Level Limits Using the Sound Equivalent Level of One Hour (leq 60) (measured in dB(a) scale)

	7a.m 10.p.m.	10p.m 7a.m.
Residential	55	45
Commercial	65	55
Industrial	70	70

Note: Residential, commercial and industrial above refers to the predominate nature of land use in the vicinity of the proposed project.

- Noise shall be measured by a meter set on the A-weighted response scale, fast response.
 The meter shall meet the American National Standards Institutes (ANSA SI 4-1961)
 "American Standard Specification for General Purpose Sound Meters."
- 3. The following uses and activities shall be exempt from the sound pressure level regulations.
 - a. Noise created by construction and temporary maintenance activities between 7:00 a.m. and 7:00 p.m.
 - b. The noise of safety signals, warning devices and emergency pressure relief valves and other emergency activity.
- S. Air Pollution: The project will not result in undue air pollution. Should an Air Emission License be required from the Maine Department of Environmental Protection a copy of the approved license will be submitted.
- T. Odors: The proposed project will not produce offensive or harmful odors perceptible beyond the lot lines, either at ground level or habitable elevation.
- U. Archaeological Resources: Any proposed development activity involving structural development or soil disturbance on or adjacent to sites listed on, or eligible to be listed on the National Register of Historic Places, shall be submitted by the applicant to the Maine Historic Preservation Commission for review and comment, at least 20 days prior to action being taken by the Board. The Board shall consider comments and recommendations to minimize impacts on such archaeological resources received from the Commission prior to rendering a decision on the application.
- V. Historic Locations: The Board shall consider the proposed project's impacts on historic buildings and sites as identified in the Greenwood Comprehensive Plan. When a proposed project will include a historic building or site the applicant will design the project to minimize the impacts on the historic building or site.
- W. Endangered or Threatened Species: The Board shall consider the existence of endangered or threatened species as may be identified by the Maine Natural Areas Program. As a condition of approval the Board may require the applicant to undertake protective measures as recommended by the Maine Natural Areas Program.
- X. Financial and Technical Capacity: The applicant has adequate financial and technical capacity to meet the above standards.
- Y. Conformance with the Comprehensive Plan: The proposed project is in conformance with the Comprehensive Plan and other applicable ordinances.

1-701 SPECIAL REGULATIONS

The following regulations shall be complied with, in addition to the performance standards contained in Section 1-601. Where conflicts occur between these and other standards of this Ordinance the more restrictive shall apply.

1-701.1 Home Occupations

Home Occupations which do not meet the criteria contained in Section 1-201.2.D.1-5 shall obtain a permit from the Board and comply with the following conditions:

- A. The business must be incidental and secondary to the primary residential use of the premises;
- B. At least one member of the residential household must own the business and be actively involved in the business and have control over the business activities. There will be not more than two full or part-time employees working on the premises, other than immediate family members residing on the premises;
- C. The appearance of the structure or accessory structure may not be altered, except as provided under subsection D below and the occupation within the residence must be conducted in a manner that would not cause the residence to differ from its residential character by means of colors, lights or sounds;
- D. Additions to the residence or accessory structure for the express purpose of a home occupation shall be constructed and finished in the same manner as the original structure such that the character and appearance of the principal structure is maintained.
- E. Retail sales shall be limited to the sale of products or goods produced, fabricated or substantially altered on the premises as a result of the home occupation. This may include products that are not manufactured on the premises as defined above, but which are customarily incidental to the product created by the home occupation.
- F. There is adequate off-street parking on the premises for customer or client use.
- G. There is no objectionable increase in vehicle traffic over that traffic normal for the neighborhood.
- H. It does not adversely affect any natural resource or environmentally sensitive area including, but not limited to, a wetland, aquifer, watercourse, or water body.
- I. The home occupation shall not generate any nuisance, waste discharge, offensive noise, vibration, smoke, dust, odors, heat, glare, radiation, fumes, or electrical interference detectable to the normal senses or which interferes with normal radio or television reception, or causes other nuisances which extend beyond the limits of the subject property.

All waste material from the home occupation shall be removed promptly from the premises, according to state laws and local ordinances.

1-701.2 Projects Located on Sand and Gravel Aquifer

The Board shall utilize the following standards in addition to the other criteria contained in this Section 1-601.2.J in reviewing projects located on a mapped sand and gravel aquifer.

- A. The boundaries of the sand and gravel aquifers shall be delineated on the Sand and Gravel Aquifer Maps prepared by the Maine Geological Survey labeled Map 15 dated 1983. When boundaries of the sand and gravel aquifer are disputed due to the lack of sufficient detail on the available maps, the applicant, or applicant's agent may submit hydrological evidence prepared by a geologist, certified in the State of Maine, which identifies actual field locations of the aquifer boundaries within the project area.
- B. No use shall dispose of other than normal domestic waste water on site without approval of the Department of Environmental Protection. Disposal of waste water shall be in strict compliance with the Maine Subsurface Wastewater Disposal Rules and other relevant State and local laws, rules, and ordinances.
- C. Indoor use or storage facilities where hazardous materials, wastes, or other liquids with the potential to threaten groundwater quality are used or stored shall be provided with containment which is impervious to the material being stored and have the capacity to contain 10 percent of the volume of the containers or 110 percent of the volume of the largest container, whichever is larger.
- D. Petroleum and other hazardous material storage and transfer. A Spill Prevention and Countermeasure Plan meeting the standards of the Maine Department of Environmental Protection shall be submitted.
- E. In those areas identified as sand and gravel aquifers as defined in subsection A above, the following newly established land uses are prohibited unless the Board finds that no discharges will occur such that water quality at the property line will fall below State Drinking Water Standards and all provisions of this Ordinance will be met.

dry cleaners
printers
laundromats
salt piles/sand-salt piles
leather tanning
plastic/fiberglass fabricating
industrial waste disposal/impoundment areas
chemical manufacturing
metal platters
crematorium

photo processors
auto washes
meat packers/slaughter houses
wood preservers
electrical equipment manufacturers
chemical reclamation facilities
automobile graveyards
pesticide/herbicide stores
concrete/asphalt/coal companies
cemetery

1-701.3 Commercial Wind Energy Facilities

A. Reserved

B. Joint meetings

If any portion of a CWEF, including any land owned or leased by the applicant and associated facilities, crosses municipal boundaries, or the CWEF is less than 1 mile from an inhabited dwelling in an adjoining municipality all meetings and hearings to review the application must be held jointly by the Planning Boards from each municipality that have adopted Commercial Wind Energy Facility Ordinances. The Planning Boards in each municipality, upon written agreement, may waive the requirement under this subsection for any joint meetings or hearings.

C. Design Safety Certification

Each wind turbine shall be certified that it conforms to all applicable industry standards including those of the American National Standards Institute (ANSI) and at least one of the following: Underwriters Laboratories, Det Norske Veritas, Germanischer Llloyd Wind Energies, or other similar certifying organization.

D. Structure Type

With the exception of Meteorological (MET) Towers, towers shall be monopoles with no guy wires.

E. Blade Clearance

The minimum distance between the ground and all blades of a wind turbine shall be 25 feet as measured at the lowest arc of the blades.

F. Signal Interference

The CWEF shall not produce electromagnetic interference with radio, television, cellular service or internet reception.

G. Overspeed Controls and Brakes

Each wind turbine shall be equipped with an overspeed control system that includes both an aerodynamic control such as stall regulation, variable blade pitch, or other similar system, and a mechanical brake that operates in fail safe mode certified by the manufacturer.

H. Voltage Warnings

A clearly visible warning sign that conform to applicable ANSI and OSHA standards concerning voltage must be placed at the base of all pad-mounted transformers and substations.

I. Visual Appearance

- 1. A wind turbine shall have a non-obtrusive color such as white, off-white or gray, with a matte finish, or as may otherwise be required by another governmental agency with jurisdiction over the CWEF.
- A wind turbine shall not be lighted artificially, except to the extent consistent with Federal Aviation Administration recommendations or other applicable authority that regulates air safety or as is otherwise required by another governmental agency with jurisdiction over the CWEF.
- 3. A wind turbine shall not be used to support signs and shall not display advertising except for reasonable and incidental identification of the turbine manufacturer, facility owner and operator, and for warnings.

J Effect on Scenic Resources

- 1. Except as otherwise provided in this subsection, if a CWEF is proposed for location in or is visible from a scenic resource, the Applicant shall provide a visual impact assessment that addresses the evaluation criteria in subsection 3. There is a rebuttable presumption that a visual impact assessment is not required for those portions of a CWEF that are located more than three miles, measured horizontally, from a scenic resource. The Planning Board may require a visual impact assessment for portions of the CWEF located more than three miles and up to eight miles from a scenic resource if it finds that a visual impact assessment is needed to determine if there is the potential for significant adverse effects on the scenic resource. Information intended to rebut the presumption must be submitted to the Planning Board by any interested Person within 30 days of acceptance of the application as complete. The Planning Board shall determine if the presumption is rebutted based on a preponderance of evidence in the record.
- 2. The Planning Board shall determine, based on consideration of the evaluation criteria in subsection 3, whether the CWEF significantly compromises views from a scenic resource such that the proposed facility has an unreasonable adverse effect on the scenic character or existing uses related to scenic character of that scenic resource.

- 3. In making its determination and in determining whether an Applicant for CWEF located more than three miles from a scenic resource must provide a visual impact assessment, the Planning Board shall consider:
 - a. The significance of the potentially affected scenic resource;
 - b. The existing character of the surrounding area;
 - c. The expectations of the typical viewer;
 - d. The extent, nature and duration of potentially affected public uses of the scenic resource and the potential effect on the public's continued use and enjoyment of the Scenic Resource; and
 - f. The scope and scale of the potential effect of views of the CWEF on the scenic resource, including but not limited to issues related to the number and extent of wind turbines visible from the scenic resource, the distance from the scenic resource and the effect of prominent features of the commercial wind energy facility on the landscape.

A finding by the Planning Board that the commercial wind energy facility is a highly visible feature in the landscape is not a solely sufficient basis for determination that it has an unreasonable adverse effect on the scenic character and existing uses related to scenic character of a scenic resource. In making its determination under subsection 2, the Planning Board shall consider insignificant the effects of portions of a commercial wind energy facility located more than 8 miles, measured horizontally, from a scenic resource

K. Shadow Flicker and Blade Reflection

Shadow flicker and blade refection shall not result in the following:

- 1. More than 30 hours of flicker per year on any non-participating occupied building regardless in which municipality it may be located.
- 2. More than 10 hours of flicker per year on any public or private road that interferes with traffic movement safety.
- 3. Flicker at intersections of any public and/or private roads that interferes with traffic safety.

L. Control of Noise

The Town of Greenwood finds that noise, both audible sound and infrasound, from a CWEF is unique from other commercial type development. These findings are based on information provided at public meetings provided by Michael Bahtiarian, Principal Consultant-ACENTECH Acoustical Consulting Services, and Stephen E. Ambrose ASA, INCE 1981 Board Certified, Emeritus. These professionals provided scientific data and their opinions on the effects of noise from CWEF on human health problems and recommended standards to minimize such health problems. Health problems from wind turbine noise may include loss of wellbeing: cognitive ability and stress; sleep disorders: interruption, deprivation; and motion sickness: nausea, headaches and vertigo. Considerations in the recommended standards included the rural nature of Greenwood rather than standards employed in more urban areas.

Guidelines for Community Noise, edited by Birigatta Berglund, Thomas Lindvall and Dietrich H. Schwela, World Health Organization, 1999 were studied and used in setting standards.

Therefore, to protect the public health, safety, and welfare from noise impacts from CWEF the following standards shall be met.

1. Audible Sound Level Limits

a. Sound from Routine Operation of Facility.

Notwithstanding Section 1-601.2.R The hourly sound levels resulting from routine operation of the CWEF and measured in accordance with the measurement procedures described in subsection 4 (Measurement Procedures) shall not exceed the following limits:

When a proposed facility is to be located in an area where the daytime pre-development ambient hourly sound level at a protected location is equal to or less than 35dBA and/or the nighttime pre-development ambient hourly sound level at a protected location, is equal to or less than 25dBA, The hourly sound levels resulting from routine operation of the facility and measured in accordance with the measurement procedures described in section 4 shall not exceed the following limits at non-participating landowner's property lines:

35 dBA between 7:00 a.m. and 10:00 p.m. (the "daytime hourly limit"), and 25_dBA between 10:00 p.m. and 7:00 a.m. (the "nighttime hourly limit").

For the purpose of determining whether a protected location has a daytime or nighttime pre-development ambient hourly sound level equal to or less than 35 dBA or 25 dBA, respectively, the Applicant shall make sound level measurements in accordance with the procedures in section 4.

- (a) For the purposes of determining compliance with the above sound level limits, 5 dBA shall be added to the observed levels of any tonal sounds that result from routine operation of the facility.
- (b) When routine operation of a facility produces short duration repetitive sound, the following limits shall apply:
 - (i) For short duration repetitive sounds, 5 dBA shall be added to the observed levels of the short duration repetitive sounds that result from routine operation of the facility for the purposes of determining compliance with the above sound level limits.
- b. Sound from Construction of a Facility
 - i. The sound from construction activities between 7:00 p.m. and 7:00 a.m. is subject to the following limits:
 - (a) Sound from nighttime construction *activities* [7:00 p.m. to 7:00 a.m.) shall be subject to the nighttime routine operation sound level limits contained in subsections 1.a. (25 dBA.)
 - (b) If construction activities are conducted concurrently with routine operation of the facility, then the combined total of construction and routine operation sound shall be subject to the nighttime routine operation sound level limits contained in subsections 1.a.
 - ii Notwithstanding Section 1-601.2.R Sound from construction activities between 7:00 a.m. and 7:00 p.m. shall not exceed the following limits at any protected location.

Duration of Activity Hourly Sound Level Limit

12 hours	87 dBA
8 hours	90 dBA
6 hours	92 dBA
4 hours	95 dBA
3 hours	97 dBA
2 hours	100 dBA
1 hour or less	105 dBA

iii. All equipment used in construction on the facility site shall comply with applicable federal noise regulations and shall include environmental noise control devices in proper working condition, as originally provided with the equipment by its manufacturer.

c. Sound from Maintenance Activities

- Sound from routine, ongoing maintenance activities shall be considered part of the routine operation of the facility and the combined total of the routine maintenance and operation sound shall be subject to the routine operation sound level limits contained in section 1.
- ii Sound from occasional, major, scheduled overhaul activities shall be subject to the construction sound level limits contained in section 2.b. If overhaul activities are conducted concurrently with routine operation and/or construction activities, the combined total of the overhaul, routine operation and construction sound shall be subject to the construction sound level limits contained in section 2.b.

2. Submissions

a. Technical Information

Technical information shall be submitted describing the Applicant's plan and intent to make adequate provision for the control of noise. The applicant's plan shall contain information such as the following, when appropriate:

- Maps and descriptions of the land uses, local zoning and comprehensive plans for the area potentially affected by sounds from the facility.
- ii A description of major sound sources, including tonal sound sources and sources of short duration repetitive sounds, associated with the construction, operation and maintenance of the proposed facility, including their locations within the proposed facility.
- iii A description of the daytime and nighttime hourly sound levels and, for short duration repetitive sounds, the maximum sound levels expected to be produced by these sound sources at protected locations near the proposed facility.
- iv a description of the protected locations near the proposed facility.

- v A description of and location of continuous noise monitoring systems that shall include the latest technology on sensors and expected performance.
- vi A comparison of the expected sound levels from the proposed facility with the sound level limits of this section.

3. Terms and Conditions

The Planning Board may, as a term or condition of approval, establish any reasonable requirement to ensure that the Applicant has made adequate provision for the control of noise from the facility and to reduce the impact of noise on Protected Locations. Such conditions may include, but are not limited to, enclosing equipment or operations, imposing limits on hours of operation, or requiring the employment of specific design technologies, site design, modes of operation, or traffic patterns.

The sound level limits prescribed in this ordinance shall not preclude the planning board from requiring an Applicant to demonstrate that sound levels from a facility will not unreasonably disturb wildlife or adversely affect wildlife populations. In addition, the sound level limits shall not preclude the Planning Board as a term or condition of approval, from requiring that lower sound level limits be met to ensure that the Applicant has made adequate provision for the protection of wildlife.

4. Measurement Procedures

- a. Scope. These procedures specify measurement criteria and methodology for use, with applications, compliance testing and enforcement. They provide methods for measuring the ambient sound and the sound from routine operation of the facility, and define the information to be reported. The same methods shall be used for measuring the sound of construction and maintenance activities.
- b. Measurement Criteria
- i Measurement Personnel

Measurements shall be by personnel who hold professional qualifications in measurement and evaluation of environmental sound.

- ii Measurement Instrumentation
 - (a) A sound level meter or alternative sound level measurement system used shall meet all of the Type 1 or 2 performance requirements of American National Standard Specifications for Sound Level Meters, ANSI S1.4-1983 and as revised.

(b) An integrating sound level meter (or measurement system) shall also meet the Type 1 or 2 performance requirements for integrating/averaging in the International Electrotechnical Commission Standard on Integrating-Averaging Sound Level Meters, IEC Publication 804 (1985) and as revised.

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- (c) A filter for determining the existence of tonal sounds shall meet all the requirements of-American National Standard Specification for Octave-Band and Fractional Octave-Band Analog and Digital Filters, ANSIS 1.11-1986 for Order 3, Type 3-D performance and as revised.
- (d) An acoustical calibrator shall be used of a type recommended by the manufacturer of the sound level meter and that meets the requirements of American National Standard Specification for Acoustical Calibrators, ANSI S1.40-1984 and as revised.
- (e) A microphone windscreen shall be used of a type recommended by the manufacturer of the sound level meter.

iii Calibration

- (a) The sound level meter shall have been calibrated by a laboratory within 12 months of the measurement, and the microphone's response shall be traceable to the National Bureau of Standards.
- (b) Field calibrations shall be recorded before and after each measurement period and at shorter intervals if recommended by the manufacturer.

iv Measurement Location, Configuration and Environment

- (a) Except as noted in subsection (ii) below, measurement locations shall be at nearby Protected Locations that are most likely affected by the sound from routine operation of the facility.
- (b) For determining compliance with the property line hourly sound level limits described in subsection 1.a.i, measurement locations shall be selected at the property lines of the proposed facility or contiguous property owned by the Applicant or participating landowner.

- (c) The microphone shall be positioned at a height of approximately 4 to 5 feet above the ground, and oriented in accordance with the manufacturer's recommendations.
- (d) Measurement locations should be selected so that no vertical reflective surface exceeding the microphone height is located within 30 feet. When this is not possible, the measurement location may be closer than 30 feet to the reflective surface, but under no circumstances shall it be closer than 6 feet.
- (e) When possible, measurement locations should be at least 50 feet from any regulated sound source on the facility.
- (f) Measurement periods shall be avoided when the local wind speed exceeds 12 mph and/or precipitation would affect the measurement results. Wind speeds are the ones at which the wind turbine is shown to produce the highest sound level based on vendor testing.

c. Measurement of Ambient Sound

i. Pre-development Ambient Sound

- (a) Measurements shall be made at representative Protected Locations for periods of time sufficient to adequately characterize the ambient sound. At a minimum, measurements shall be made on three different weekdays (Monday through Friday) during all hours that the facility will operate. If the proposed facility will operate on Saturdays and/or Sundays, measurements shall also be made during all hours that the facility will operate.
- (b) Measurement periods with particularly high ambient sounds, such as significant insect activity should generally be avoided.
- (c) At any measurement location the daytime and nighttime ambient hourly sound level shall be computed by arithmetically averaging the daytime and nighttime values of the measured one hour equivalent sound levels. Multiple values, if they exist, for any specific hour on any specific day shall first be averaged before the computation described above.

ii. Post-Facility Ambient Sound

- (a) Measurements of the post-facility ambient one hour equivalent sound levels and, if short duration repetitive sounds are produced by the facility, the maximum sound levels made at nearby Protected Locations and during representative routine operation of the facility that are not greater than the applicable limits of section 3 clearly indicate compliance with those limits.
- (b) Compliance with the limits of subsection 1.a may also be demonstrated by showing that the post-facility ambient hourly sound level, measured in accordance with the procedures of subsection c.i above during routine operation of the facility, does not exceed the predevelopment ambient hourly sound level by more than one decibel, and that the sound from routine operation of the facility is not characterized by either tonal sounds or short duration repetitive sounds.
- (c) Compliance with the limits of section 1.a.i.(b)(ii) may also be demonstrated by showing that the post facility maximum sound level of any short duration repetitive sound, measured in accordance with the procedures of subsection c.i above, during routine operation of the facility, does not exceed the pre-development ambient hourly sound level by more than five decibels.
- iii. If any of the conditions in (a), (b) or (c) above are not met, compliance with respect to the applicable limits must be determined by measuring the sound from routine operation of the facility in accordance with the procedures described in section 4.
- d. Measurement of the Sound from Routine Operation of Facility.

i. General

(a) Measurements of the sound from routine operation of facilities are generally necessary only for specific compliance testing purposes in the event that community complaints result from operation of the facility, for validation of an Applicant's calculated sound levels when requested by the Planning Board, for determination of existing hourly sound levels for an existing facility or for enforcement by the Codes Enforcement Officer.

- (b) Measurements shall be obtained during representative weather conditions when the facility sound is most clearly noticeable. Preferable weather conditions for sound measurements at distances greater than about 500 feet from the sound source include overcast days when the measurement location is downwind of the facility and inversion periods (which most commonly occur at night).
- (c) Measurements of the facility sound shall be made so as to exclude the contribution of sound from facility equipment that is exempt from this regulation.
- ii Measurement of the Sound Levels Resulting from Routine Operation of the Facility.
 - (a) When the ambient sound levels are greater than the sound level limits, additional measurements can be used to determine the hourly sound level that results from routine operation of the facility. These additional measurements may include diagnostic measurements such as measurements made close to the facility and extrapolated to the Protected Location, special checkmark measurement techniques that include the separate identification of audible sound sources, or the use of sound level meters with pause capabilities that allow the operator to exclude non-facility sounds.
 - (b) For the purposes of computing the hourly sound level resulting from routine operation of the facility, sample diagnostic measurements may be made to obtain the one hour equivalent sound levels for each sound component.
 - (c) Identification of tonal sounds produced by the routine operation of a facility for the purpose of adding the 5 dBA penalty in accordance with section 1.a.i.(a) requires aural perception by the measurer, followed by use of one-third octave band spectrum analysis instrumentation. If one or more of the sounds of routine operation of the facility are found to be tonal sounds, the hourly sound level component for tonal sounds shall be computed by adding 5 dBA to the one hour equivalent sound level for those sounds.

- (d) Identification of short duration repetitive sounds produced by routine operation of a facility requires careful observations. For the sound to be classified as short duration repetitive sound, the source(s) must be inherent to the process or operation of the facility and not the result of an unforeseeable occurrence. If one or more of the sounds of routine operation of the facility are found to be short duration repetitive sounds, the hourly sound level component for short duration repetitive sounds shall be computed by adding 5 dBA to the one hour equivalent sound level for those sounds. If required, the maximum sound levels of short duration repetitive sounds shall be measured using the fast response [LAFmax]. The duration and the frequency of occurrence of the events shall also be measured. In some cases, the sound exposure levels of the events may be measured. The one hour equivalent sound level of a short duration repetitive sound may be determined from measurements of the maximum sound level during the events, the duration and frequency of occurrence of the events, and their sound exposure levels.
- (e) The daytime or nighttime hourly sound level resulting from routine operation of a facility is the energy sum of the hourly sound level components from the facility, including appropriate penalties, (see (c) and (d) above). If the energy sum does not exceed the appropriate daytime or nighttime sound level limit, then the facility is in compliance with that sound level limit at that Protected Location.
- e. Reporting Sound Measurement Data. The sound measurement data report should include the following:
 - i The dates, days of the week and hours of the day when measurements were made.
 - ii The wind direction and speed, temperature, humidity and sky condition.
 - iii Identification of all measurement equipment by make, model and serial number.
 - iv The most recent dates of laboratory calibration of sound level measuring equipment.

- v The dates, times and results of all field calibrations during the measurements.
- vi The applicable sound level limits, together with the appropriate hourly sound levels and the measurement data from which they were computed, including data relevant to either tonal or short duration repetitive sounds.
- vii A sketch of the site, not necessarily to scale, orienting the facility, the measurement locations, topographic features and relevant distances, and containing sufficient information for another investigator to repeat the measurements under similar conditions.
- viii A description of the sound from the facility and the existing environment by character and location.

5. Infrasound

Infrasound Level Limits

No wind turbine(s) shall produce an infrasound pressure level, which is 6 dB higher than the background infrasound pressure level at the primary blade pass frequency and blade-pass frequency harmonics. All measurements are taken on any protected adjacent residentially used property. Measurements inside a building or residence may be performed assuming the building owner allows access.

b. Measurement Personal Qualifications

- i All persons conducting sound pressure measurements to assess compliance with this standard shall be trained in the current techniques and principles of sound measurement equipment and instrumentation, and shall take such measurements under the supervision of a qualified acoustical engineer as described herein.
- A qualified acoustical engineer shall be either a degreed engineer practicing acoustical engineering for 10 years or more as long as the engineer works for a firm that is a member of the National Council of Acoustical Consultants (NCAC), a board-certified member of the Institute of Noise Control Engineering (INCE Bd. Cert.) or a licensed professional engineer (PE) with an acoustical focus.

c. Instrumentation

i Infrasound pressure level measurements shall be performed with appropriate equipment that is properly calibrated to industry standards, as described below. The microphone shall have a frequency response that is less than or equal to 0.5 hertz (i.e. an infrasonic microphone).

The measurement system shall be able to collect electrical signals from the microphone and perform a Fast Fourier Transform (FFT) of the signal with a frequency range of 0 to 20 hertz with a resolution of 0.1 hertz or less (≥ 200 lines).

The instrumentation shall also be compatible to a Type 1 sound level meter. All test instrumentation shall be field calibrated with acoustic calibrator or pistonphone in the audible frequency range (typically 1,000 hertz). All instrumentation and the acoustic calibrator shall be laboratory calibrated to NIST traceable standards within the previous 12 months. All such instruments shall conform, as a minimum, to the specifications of American National Standard ANSI S1.4—1983 (R2006 and as revised) for Type 1 precision sound-level meters.

d. Measurement Procedure

- i The instrument manufacturer's specific instructions for the configuration and use shall be followed. The microphone or sound-level meter shall be calibrated before and after each survey period.
- With the wind turbines operating and producing at least 85% of full power, a series of three sequential measurements shall be taken at each location. Each measurement shall be for a period no less than three-minutes consisting of no less than ten "FFT" averages. If there are multiple locations to survey, each locations shall be measured three times. If there is only one location, it shall be measured nine times by series of three measurements with tenminute break between each series of three measurements for a total of nine measurements.
- Background infrasound pressure levels shall be measured with the wind turbine shut down at all locations for at least one series of three measurements.
- iv The actual measurement location(s), date and time of survey(s) and specific wind/weather conditions shall be defined by the Town of Greenwood.

M. Use of Public Roads

- The Applicant shall identify all municipal maintained public roads to be used, to transport earthen materials, equipment and parts for construction, operation or maintenance of a CWEF.
- 2. A qualified third-party engineer retained by the Planning Board and paid for by the Applicant shall document road and bridge conditions prior to construction. The third-party engineer shall document road and bridge conditions again thirty (30) days after construction is complete or as weather permits and provide an assessment to the Planning Board of damage to roads and bridges attributable to the CWEF construction.
- 3. The Applicant shall demonstrate, to the satisfaction of the Planning Board, that it has financial resources sufficient to comply with subsection 4, below, and the Planning Board shall require the Applicant to post a bond or other security in order to ensure such compliance.

4. Road and/or bridge damage determined to have been caused by the Applicant or its contractors shall be repaired to the satisfaction of the third-party engineer at the Applicant's expense in the time period specified by the third-party engineer.

N. Height and Setbacks

1. Height

The maximum turbine height shall not exceed 250 feet as measured from the surface (top) of the tower base to the highest point of any turbine rotor blade measured at the highest arc of the blade.

2. Setbacks

The minimum setback from any tower to a non-participating landowner's property line shall be a minimum of one (1) mile, measured horizontally per 100 feet of tower height, or portion thereof.

O. Local Emergency Services

- 1. The Applicant shall provide a copy of the project summary and site plan to local emergency service providers, including paid or volunteer fire department(s).
- 2. Upon request, the Applicant shall cooperate with emergency service providers to develop and coordinate implementation of an emergency response plan.
- 3. A wind turbine shall be equipped with an appropriate fire suppression system to address fires within the Nacelle portion of the turbine or shall otherwise address the issue of fire safety to the satisfaction of the Planning Board.

P. Hazardous Wastes

The Applicant shall be responsible for compliance with all state and federal regulations applicable to the use and disposal of hazardous wastes involved in or generated by the CWEF construction and operation.

Q. Blasting

The Applicant of a CWEF shall not commence blasting without notifying the Town's Code Enforcement Officer and submitting a blasting plan in accordance with the latest Maine Department of Environmental Protection standards. The blasting plan shall be reviewed and approved by the Code Enforcement Officer within 10 days of receipt before any blasting takes place. All blasting shall comply with Title 38 MRSA section 490-Z.14. Forty-eight hour notice shall be given to all property owners by the Applicant within a one mile radius of the blasting area (measured horizontally), before blasting can begin.

R Insurance

The Applicant, Owner/operator and Licensee, as applicable, shall maintain a current appropriate insurance policy for the CWEF that covers bodily injury and property damage in an amount commensurate with the scope and scale of the CWEF, and acceptable to the Planning Board, which acceptance shall not be unreasonably withheld. Certificates of insurance shall be provided to the Town annually.

The policy must include the requirement that the Town will be provided at least ten days notice by the policy provider in the case of cancellation or change to the policy.

S. Public Inquiries and Complaints

- 1. CWEF public inquiries and/or complaints shall be made as follows.
 - a. By completing a public inquiry and complaint form found on the Town of Greenwood, Maine web site (www.greenwoodmaine.org, or
 - By completing a public inquiry and complaint form at the Town of Greenwood, Maine town office (593 Gore Road) during normal office hours.
- 2. Receipt of CWEF public inquiries and/or complaint

Upon a receipt of a public inquiry and/or complaint the Town shall.

- Notify the inquiry and/or complainant that a public inquiry and/or complaint have been received.
- b. Forward by E-mail and US Mail or other acceptable means to the CWEF owner/operator's contact person that is responsible to respond to public inquiries and/or complaints, the public inquiry and/or complaint form.
- c. Place in the appropriate file for public inspection the public inquiry and complaint form.
- 3. Responsibility of the CWEF owner/operator
 - a. Within seventy-two (72) hours the owner/operator's contact person, that is responsible to respond to public inquiries and/or complaints, shall provide a response to the Town and the person filing public inquiry and/or complaint in accordance with the approved public inquiry/complaint response protocol.
- 4. Responsibility of the Town
 - a. The Town shall attach to the appropriate public inquiry and complaint form the response of the owner/operator.

- b. Within one (1) week of the receipt by the Town of the response from the owner/operator, the Town shall contact the person that made the inquiry and/or compliant to assess if he/she is satisfied with the response based on the approved public inquiry/complaint response protocol, Town Ordinances and conditions of and CWEF approval.
- c. The Town within one (1) week shall forward to the owner/operator's contact person, that is responsible to respond to public inquiries and/or complaints, the results of the assessment as identified in b above.
- d. If the Town, within fourteen (14) days, of the actions provided in Sections 3.a and 4.b determines that the complaint is without merit, it will be dismissed, and the Town will inform the complainant and the Owner/Operator.
- e. The Town may convene a meeting with the Town, the owner/operator, and person filing the inquiry and/or complaint to attempt to reach a resolution if such actions as identified in 3.a and 4.a-c above have not resolved the complaint. If such a meeting is convened it shall be held within forty-five (45) days of the receipt of the original public inquiry or complaint by the Town.

T. Decommissioning and Discontinuance

- 1. The CWEF shall be decommissioned within twelve months after it ceases to generate electricity, is discontinued, or as the result of legal action as provided for in Section 1-110.2.
- 2. Final Decommissioning Plan

At least six (6) months from the anticipated start date of decommissioning the owner of the CWEF shall submit to the planning board a final decommissioning plan for review and approval. The final decommissioning plan shall include but not limited to the following.

- a. Anticipated start date of decommissioning.
- b. Anticipated completion date of decommissioning.
- c. Methods to remove all parts of the CWEF including foundations and how they will be disposed of.
- d. Areas and the methods to restore disturbed land areas.
- e. Time period (months) to complete decommissioning.
- f. Cost for decommissioning based on Section1-701.3.T.4.

Copies of all permits from local, state, and/or federal agencies needed for decommissioning.

- 3. Decommissioning shall include removal and disposal off-site of all parts of the CWEF (including foundations) in accordance with local, state and federal laws and regulations. Areas of disturbed earth shall be graded, reseeded, or otherwise re-vegetated, unless the landowner of the affected land requests otherwise in writing.
- 4. A Maine Licensed Professional Engineer shall be retained by the Planning Board and paid for by the Applicant to estimate the total cost of decommissioning and itemization of the estimated major expenses, including the projected costs of measures taken to minimize or prevent adverse effects on the environment during implementation of the decommissioning plan. The itemization of major costs may include, but is not limited to, the cost of the following activities: turbine removal, turbine foundation removal and permanent stabilization, building removal and permanent stabilization, transmission corridor removal and permanent stabilization and road infrastructure removal and permanent stabilization
- No permit for a CWEF shall be issued until decommissioning funds have been posted by the Applicant with a bonding company or a Federal or State-chartered lending institution (the Escrow Agent) authorized to conduct such business in the State of Maine and approved by the Selectmen. Permit shall be valid for two (2) years subject to renewal as described below.
- 6. Estimates as described above shall be redone every two-years on the anniversary of the granting of a CWEF Permit and shall be submitted to the Town. Upon acceptance of the revised estimates, the Planning Board will issue a two (2) year permit extension. The owner/operator of the CWEF shall be required to maintain decommissioning funds that are at least equal to the most recent estimate
- 7. Decommissioning funds may be in the form of a performance bond, surety bond or other form of financial assurance acceptable to the Selectmen.
- 8. If the owner/operator of the CWEF does not complete decommissioning within the prescribed time period the Town may take such action as necessary (including court action, with all legal costs to be paid by applicant) to secure the posted decommissioning funds and to ensure completion of the decommissioning.
- 9. The Escrow Agent shall not release the decommissioning funds except upon written approval of Selectmen.
- 10. In the case of abandonment the Town shall utilize the decommissioning funds to decommission the CWEF and take such action as necessary, including court action, to secure funds and to ensure completion of the decommissioning should the posted decommissioning fund not be sufficient to complete decommissioning.

U. Tower Lighting

Radar-activated obstruction lighting systems shall be used on all towers and all lighting of towers shall conform to the Federal Aviation Administration standards.

V. Prior to the granting of any final approval the applicant shall provide mitigation waivers that shall specify which provisions(s) of setback, sound, and/or shadow flicker are waived by participating property owners that shall provide a legal description of the property subject to the waiver(s) and shall be recorded in the Oxford County Registry of Deeds. Any subsequent deeds shall advise all later owners that the property is so burdened.

1-801 PERFORMANCE BOND

1-801.1 Performance Bond Required

Prior to approval, the Board may require that the applicant file with the Board a performance guarantee in an amount sufficient to defray all expenses of the proposed public improvements. This may be tendered in the form of a certified check payable to the Town of Greenwood, or a performance bond running to the Town of Greenwood and issued by a surety company acceptable to the Town of Greenwood. The conditions and amount of such certified check or performance bond shall be determined by the Board with the advice of the various municipal officers concerned.

1-801.2 Extension

The Board may recommend a maximum extension of twelve (12) months to the guaranteed performance period when the applicant can demonstrate, to the satisfaction of the Board and the municipal officers, good cause for such extension. Such recommendation shall be referred to the Board of Selectmen for official action.

1-801.3 Release

Before an applicant may be released from any obligation requiring a guarantee of performance, the Board will require certification from the various municipal officers (Inspecting Official, Selectmen, Road Commissioner, Fire Chief) to the effect that all improvements have been satisfactorily completed in accordance with all applicable standards (state, federal and local codes, ordinances, laws and regulations).

1-901 CHANGES AND AMEND TO APPROVALS

1-901.1 Minor Changes to Approved Projects

Minor changes to approved projects necessary to address field conditions may be approved by the Code Enforcement Officer/Inspecting Official provided that such change does not affect the compliance with the standards of this Ordinance, conditions of approval or alter the essential nature of the project. Any such change must be endorsed in writing on the approved plan by the Code Enforcement Officer/Inspecting Official.

1-901.2 Amendments to Approved Plans

Approvals of site plans are dependent upon and limited to the proposals and plans approved by the Board. Any variation from the approved plans, proposals and supporting documents, except minor changes, is subject to review and approval of the Board.

1-110 ENFORCEMENT

1-110.1 Notice of Violation

The Code Enforcement Officer shall act in all cases of violations of this Ordinance by notifying, in writing, the owner or lessor of the project and the Selectmen of the nature of the violation and the correction of the same, if possible. Notification shall be deemed to have been made when sent to the owner or lessor by certified mail.

1-110.2 Legal Action

The Selectmen are charged with the prosecution for all violations of the provisions of the Ordinance. In cases where such notices referred to in Paragraph 1-110.1 above, are not promptly complied with after receipt of said notices, the Selectmen shall make such complaints to the courts as, in their judgement, are proper, or may institute such actions or proceedings at law or in equity as are proper to restrain, correct, remove or punish such violations.

1-110.3 Fines

Any person or corporation who shall violate any of the provisions of this Ordinance or fail to comply with any of the requirements thereof, shall be fined not less than \$100.00 nor more than \$2,500.00 as provided by State law. Each day on which the violation shall continue shall constitute a separate offense.

1-111 Appeals

An appeal may be taken within thirty (30) days from the Board's final decision by any party to Superior Court in accordance with Rule 80B of the Maine Rules of Civil Procedure.

1-112 DEFINITIONS

Accessory Use or Structure: A subordinate use of a building, other structure or land, or a subordinate building or other structure:

- 1. whose use is customary in connection with the principal building, other structure or use of land; and
- 2. whose use is clearly incidental to the use of the principal building, other structure or use of land; and

3. which is located on the same lot with the principal building, other structure or use of land, or on a lot adjacent to such lot if in the same ownership or part of the same establishment.

Agricultural Land Management Practices: Those devices and procedures utilized in the cultivation of land in order to further crop and livestock production and conservation of related soil and water resources.

Ambient Sound: At a specified time, the all-encompassing sound associated with a given environment, being usually a composite of sounds from many sources at many directions, near and far, including the specific commercial wind energy facility of interest.

ANSI S1.1-1960: American National Standard Acoustical Terminology.

ANSI S12.9-1988: American National Standard Quantities and Procedures for Description and Measurements of Environmental Sound, Part 1;

ANSI S3.20-1973: American National Standard Psychoacoustical Terminology.

Approved Residential Subdivision: A residential subdivision for which all applicable land use permits have been issued, provided that the time for beginning construction under such permits has not expired.

Associated Facilities: Elements of a commercial wind energy facility other than its generating facilities that are necessary to the proper operation and maintenance of the commercial wind energy facility, including but not limited to buildings, access roads, generator lead lines and substations.

Building: Any structure having a roof or partial roof supported by columns or walls used for shelter or enclosure of person, animals, goods or property of any kind.

Background Infrasound Pressure Level: The infrasound pressure level with the subject wind turbine(s) not operating.

Blade-Pass Frequency: operational speed of the wind turbine in revolutions per minute (rpm) divided by sixty, times the number of blades. For example, a wind turbine that operates at 14 rpm with three blades will have a blade pass frequency of 0.7 hertz.

Cemetery: Property used for the interring of the dead, human or animal.

Change in Use: The conversion of a building or parcel of land from one type of nonresidential use to any other type of nonresidential use. By way of example, the change from retail to office or retail to a restaurant.

Commercial: Connected with the buying or selling or goods or services or the provision of facilities for a fee, exclusive of rental or residential buildings and/or dwelling units.

Commercial Wind Energy Facility: a wind energy facility whose primary purpose is to sell electricity to be supplied to the regional electric power grid. A commercial wind energy facility includes generating facilities and associated facilities.

Construction- Activity and operations associated with the commercial wind energy facility or expansion of the facility or its site.

DEP Certification: A certification issued by the Department of Environmental Protection pursuant to 35-A M.R.S.A § 3456 for a Wind Energy Development.

Direct Watershed of Lake or Pond: Any land area that contributes stormwater runoff either by direct surface water or subsurface flow to a great pond without such runoff traveling through another great pond.

Discontinuance-Commercial Wind Energy Facility: no power has been generated and sold for a continuous twelve (12) month period.

Dwelling Unit: A room or group of rooms designated and equipped exclusively for use as living quarters for one family including, provisions for living, cooking, and eating.

Emergency Maintenance and Repairs: Work done in response to an emergency at a facility.

Emergency: An unforeseen combination of circumstances which calls for immediate action at a facility.

Energy Sum of a Series Of Levels: Ten times the logarithm of the arithmetic sum of the antilogarithms of one-tenth of the levels.

Equivalent Sound Level: The level of the mean-square A-weighted sound pressure during a stated time period, or equivalently the level of the sound exposure during a stated time period divided by the duration of the period. (NOTE: For convenience, a one hour equivalent sound level should begin approximately on the hour.)

Existing Facility: A commercial wind energy facility legally constructed before the effective date of this ordinance or a proposed commercial wind energy facility for which the application is found complete on or before the effective date of this ordinance. Any facility with an approved permit application which has been remanded to Planning Board by a court of competent jurisdiction for further proceedings relating to noise limits or noise levels prior to the effective date of this ordinance shall not be deemed an existing facility and the ordinance shall apply to the existing noise sources at that facility.

Existing Hourly Sound Level: The hourly sound level resulting from routine operation of an existing commercial wind energy facility prior to the first expansion that is subject to this ordinance.

For purposes of this definition, (1) a residence is considered planned when the owner of the parcel of land on which the Residence is to be located has received all applicable building and land use permits and the time for beginning construction under such permits has not expired, and (2) a residential subdivision is considered approved when the developer has received all applicable land use permits for the subdivision and the time for beginning construction under such permits has not expired.

Family: One or more persons occupying a premises and living as a single housekeeping unit.

Flicker: The phenomenon of noticeable pulsating light produced by the wind turbine blades passing between the sun and the observer and temporarily interrupting the sun's rays."

Flicker Sector: A zone with the shape of a circular sector within which the observer may see the sun's rays interrupted by the wind turbine's blades in the phenomenon herein called flicker. The radius of this circular sector that shall be equal to the maximum width of the blade of each wind turbine times 100. The flicker occurs mostly to the north of each Wind Turbine base and is limited by the radial line with an azimuth of 114 degrees going counter-clockwise through north to the radial line with an azimuth of 246 degrees". This zone represents the area north and south of the wind turbine within which the flicker phenomenon throughout the year. This maximum area occurs on the day of the summer solace.

Forest Management Activities: Includes timber cruising and other forest resource evaluation activities, pesticide application, timber stand improvement, pruning, timber harvesting, and other forest harvesting, regeneration of forest stands, and other similar associated activities, but not the construction, creation, or maintenance of land management roads.

Fresh Water Wetland: Means fresh water swamps, marshes, bogs and similar areas which are:

- Inundated or saturated by surface or ground water at a frequency and for a duration sufficient
 to support, and which under normal circumstances do support, a prevalence of wetland
 vegetation typically adapted for life in saturated soils; and
- 2. Not considered part of great pond, river, stream or brook.

These areas may contain small stream channels or inclusions of land that do not conform to the criteria.

Generating Facilities: Wind turbines and electrical lines, not including generator lead lines, that are immediately associated with the wind turbines.

Generator Lead Line: A "generator interconnection transmission facility" as defined by 35-A M.R.S. § 3132 (1-B).

Harmonics: Integer multiples of a primary frequency. For example, the primary blade pass frequency of 0.7 hertz would have harmonics at 1.4, 2.1, 2.8 and 0.7 hertz where 0.7 is 0.7 hertz where 0

Historic Areas: Historic sites administered by the Bureau of Parks and Lands of the Maine Department of Agriculture, Conservation and Forestry.

Historic Building/Site: Building and sites on the National Register of Historic Places or identified as of historic importance in the Greenwood Comprehensive Plan.

Historic Site: Any site, structure, district or archaeological site which has been officially included on the National Register of Historic Places and/or on the Maine Historic Resource Inventory, or which is established by qualified testimony as being of historic significance.

Home Occupation: An occupation or profession which-results in a product or service and is conducted in whole or in part a residential structure, accessory structure to a residential use or property which is:

1. clearly incidental to and compatible with the residential use of the property and surrounding residential uses; and

2. which employs no more than two (2) persons other than family members residing in the home.

Hourly Sound Level: The equivalent sound level for one hour measured or computed in accordance with this ordinance.

Impervious Surface: The area of land covered by buildings, structures and paved and gravel surfaces.

Industrial: Connected with the assembling, fabrication, finishing, manufacturing, packaging, or processing of goods or the extraction of minerals.

Infrasound: Sound in the portion of the frequency spectrum less than 20 hertz.

Infrasound Pressure Level: Sound pressure level in the portion of the frequency spectrum less than 20 hertz.

Institutional: A building devoted to some public, governmental, education, charitable, medical or similar purpose.

Larger Vehicle: A vehicle that has a larger length, width, or turning radius and/or lesser acceleration capability than standard passenger vehicles or pick-up trucks including busses, commercial trucks and recreation vehicles.

Locally-Designated Passive Recreation Area: Any site or area designated by a municipality for passive recreation that is open and maintained for public use and which: a) has fixed boundaries, b) is owned in fee simple by a municipality or is accessible by virtue of public easement, c) is identified and described in a local comprehensive plan and, d) has been identified and designated at least nine months prior to the submission of the Applicant's commercial wind energy facility permit application.

Maximum Sound Level: Ten times the common logarithm of the square of the ratio of the maximum sound to the reference sound of 20 micropascals. Symbol: LAFmax.

Maximum Sound: Largest A-weighted and fast exponential-time-weighted sound during a specified time interval. Unit: pascal (Pa).

Meteorological Tower (MET Tower): A Tower used for the measurement and collection of wind data that supports various types of equipment, including but not limited to anemometers, data recorders, and solar power panels. MET Towers may also include wildlife related equipment such as ANABAT detectors, bird diverts and wildlife entanglement protectors.

Mineral Extraction: Any operation which within any twelve (12) successive month period removes more than 5,000 cubic yards of soil, topsoil, loam, sand, gravel, clay, peat, or other like material from its natural location, and to transport the product removed away from the extraction site.

Mitigation Waiver: A legally enforceable, written agreement between the applicant and a participating landowner in the Town of Greenwood for which the landowner waives certain protections afforded by this Ordinance. Mitigation waivers may be granted only for setbacks, sound, and/or shadow flicker.

Nacelle: The frame and housing at the top of the tower that encloses the gearbox and generator.

Non-Participating Landowner: Any landowner, other than a participating landowner.

Occupied Building: A residence, school, hospital, house of worship, public library or other building that is occupied or in use as a primary residence or is customarily frequented by the public at the time when the permit application is submitted.

Participating Landowner: One or more persons that hold title in fee or a leasehold interest with sublease rights to property on which generating facilities or associated facilities are proposed to be located pursuant to an agreement with the Applicant or an entity that has entered into an appropriate agreement with the Applicant allowing the Applicant to demonstrate the requisite right, title and interest in such property.

Persons: Any person, firm, association, partnership, corporation, municipal or other local governmental entity, quasi-municipal entity, state agency, educational or charitable organization or institution, or other legal entity.

Planned Residence: A residence for which all applicable building and land use permits have been issued, provided that the time for beginning construction under such permits has not expired.

Pre-Development Ambient: The ambient sound at a specified location in the vicinity of a facility site prior to the construction and operation of the proposed commercial wind energy facility or expansion.

Protected Location: any location that is beyond the property boundary of the applicant. In cases where participating landowner agreements exist, the property boundary of the applicant may be extended as described in such documents

Radiation: The emission of atomic particles or rays by the nucleus of an atom.

Reference Location: A location that is similar in acoustical environment with respect to other sources of noise such as highway or other transit, industry environmental sounds, but is not influenced by sound from the subject wind turbine(s).

Residence: A building or structure, including manufactured housing, maintained for permanent or seasonal residential occupancy providing living, cooking and sleeping facilities and having permanent indoor or outdoor sanitary facilities, excluding recreational vehicles, tents and watercraft.

Retail: Connected with the sale of goods to the ultimate consumer for direct use and consumption, and not for trade.

Road, Minor: A street whose function is to provide access to abutting properties and which may also collect traffic from minor streets that intersect it.

Road, Collector: A street whose principle function is to carry traffic for residential streets to higher order streets.

Routine Operation: Regular and recurrent operation of regulated sound sources associated with the purpose of the commercial wind energy facility and operating on the facility site.

Scenic Resource: Either a scenic resource of state or national significance, as defined in 35-A M.R.S § 3451(9) or a scenic resource of local significance located within the municipality and identified as such in a comprehensive plan, open space plan or scenic inventory adopted by the municipal legislative body.

Shadow Flicker: Alternating changes in light intensity caused by the movement of Wind Turbine blades casting shadows on the ground or a stationary object.

Short Duration Repetitive Sounds: A sequence of repetitive sounds which occur more than once within an hour, each clearly discernible as an event and causing an increase in the sound level of at least 6 dBA on the fast meter response above the sound level observed immediately before and after the event, each typically less than ten seconds in duration, and which are inherent to the process or operation of the facility and are foreseeable.

Sight Line Representation: A profile drawing showing prominent features, including but not limited to topography, buildings, and trees, along and in relation to a line of sight extending from an observer's eye to the lowest point visible on a proposed Tower.

Sign: Any device, fixture, placard or structure that uses any color, form, graph, illumination, symbol, or writing to advertise, announce the purpose of, or identify the purpose of a person or entity, or to communicate information of any kind to the public.

Significant Wildlife Habitat: A Significant Wildlife Habitat as defined in 38 M.R.S. § 480-B(10).

Sound Component: The measurable sound from an audibly identifiable source or group of sources.

Sound Level: Ten times the common logarithm of the square of the ratio of the frequency-weighted and time-exponentially averaged sound pressure to the reference sound of 20 micropascals. For the purpose of this ordinance, sound level measurements are obtained using the A-weighted frequency response and fast dynamic response of the measuring system, unless otherwise noted.

Sound Pressure Level: 20 times the logarithm (to the base 10) of the given root mean square (rms) sound pressure divided by the reference sound pressure of 20 micropascals (μ Pa). Reported in units of decibels (dB).

Sound Pressure: Root-mean-square of the instantaneous sound pressures in a stated frequency band and during a specified time interval. Unit: pascal (Pa).

Structure: Anything constructed, erected or placed on the ground which is permanent, temporary, or mobile. Structure(s) include, but are not limited to: building(s), mobile homes, recreational vehicles, and processing facilities. Boundary walls, fences and flag poles are not considered structures.

Substantial Construction: Completion of thirty (30) percent of a permitted structure or use measured as a percentage of the total estimated cost.

Substantial Enlargement: An expansion by 20 percent or greater feet of new gross floor area or 20 percent or greater of new impervious surface area provided such expansion involves at least 500 square feet within any five-year period.

Tonal Sound: A tonal sound exists if, at a protected location, the one-third octave band sound pressure level in the band containing the tonal sound exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies at or between 500 Hz and 10,000 Hz, by 8 dB for center frequencies at or between 160 and 400 Hz, and by 15 dB for center frequencies at or between 25 Hz and 125 Hz.

Tower: The free-standing structure on which a wind measuring or energy conversion system is mounted.

Turbine Height: The distance measured from the surface (top) of the tower foundation to the highest point of any turbine rotor blade measured at the highest arc of the blade.

Use: Any purpose for which a building or other structure or a tract of land may be designed, arranged, intended, maintained, or occupied; also any activity, occupation, business or operation carried on or intended to be carried on in a building or other structure or on a tract of land.

Wind Energy Facility: A facility that uses one or more wind turbines to convert wind energy to electrical energy.

Wind Turbine: A system for the conversion of wind energy into electricity which is comprised of a Tower, generator, Nacelle, rotor and transformer.

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