TEXAS DEPARTMENT OF INSURANCE

Engineering Services / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104 Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION

Effective November 1, 2005

RV-12

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code** (*IRC*) and the **International Building Code** (*IBC*). This product shall be subject to reevaluation 3 years after the effective date. This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

The Lomanco BIB-12, BEB-12, BIB-12TR, BEB-12TR, BIB-14 and BEB-14 Whirlybird Wind Turbines manufactured by

Lomanco, Inc. 2101 West Main Street Jacksonville, AR 72076 Telephone: 1-800-643-5596

will be acceptable for use in designated catastrophe zones along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

Lomanco BIB-12, BEB-12, BIB-12TR, BEB-12TR Whirlybird aluminum turbine roof ventilators with a 12inch diameter base vent and 21 turbine vanes. The Lomanco BIB-14 and BEB-14 Whirlybird aluminum turbine roof ventilators have a 14-inch diameter base.

LIMITATIONS

Maximum Allowable Uplift Pressure for BIB 14 and BEB 14: -100 psf, +120 psf

Maximum Allowable Uplift Pressure for BIB 12, BEB 12, BIB 12TR and BEB 12TR: -175 psf

For All Applications: The roof slope shall be a minimum 2:12. The vari-pitch base adjusts to 12:12 roof pitch.

INSTALLATION INSTRUCTIONS

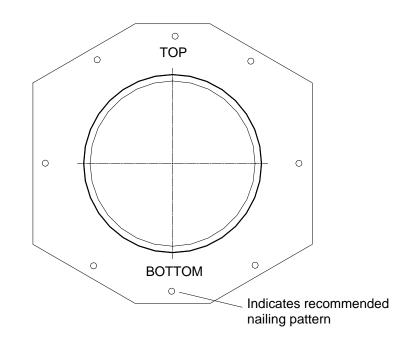
General Installation Requirements:

The Whirlybird wind turbines shall be installed in accordance with the manufacturer's installation instructions with the following exceptions specified in this product evaluation report:

BIB-12 and BEB-12 Turbines:

The turbine vents are applied with a layer of Tropical 2100-asphalt roof cement or equivalent approximately $\frac{1}{8}$ inch deep and 4 inches wide, which is used to seal the vent to the underlayment and the shingles.

Deck: The roof deck shall consist of wood structural panels with a minimum thickness of $\frac{11}{32}$ inch. **Anchorage:** The turbine base shall be attached with a total of eight (8) $1\frac{3}{4}$ " x 0.120 diameter x $\frac{3}{8}$ " head barbed shank roofing nails spaced 1" from the base edge. Base shape is octagonal with one fastener located approximately mid-span of each straight edge. The elbow is attached to the base with three (3) #12 x $\frac{3}{4}$ " hex washer head screws. Asphalt based roofing mastic shall be applied from the dome base to the plywood decking.



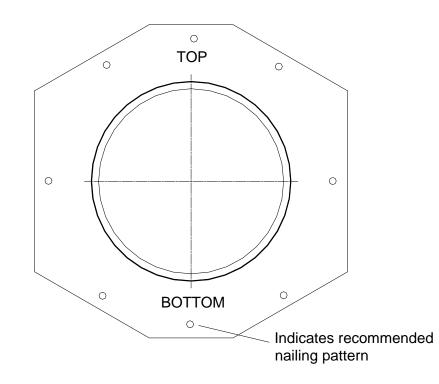
WhirlyBird Turbine Base BIB-12, BEB-12, BIB-12TR, BEB-12TR

BIB-14 and BEB-14 Turbines:

The turbine vents are applied with a layer of Tropical 2100-asphalt roof cement or equivalent approximately $\frac{1}{8}$ inch deep and 4 inches wide, which is used to seal the vent to the underlayment and the shingles.

Deck: The roof deck shall consist of wood structural panels with a minimum thickness of $\frac{1}{2}$ inch.

Anchorage: The turbine base shall be attached with a total of eight (8) $1\frac{3}{4}$ " x 0.120 diameter x $\frac{3}{8}$ " head barbed shank roofing nails spaced 1" from the base edge. Base shape is octagonal with one fastener located approximately mid-span of each straight edge. The elbow is attached to the base with three (3) #12 x $\frac{3}{4}$ " hex washer head screws. Asphalt based roofing mastic shall be applied from the dome base to the plywood decking.



WhirlyBird Turbine Base BIB-14 and BEB-14 Turbines

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC).