

GENERAL NOTES

1. GENERAL DESIGN CRITERIA AND CODE INFORMATION:

A. The construction of this structure shall conform to the IBC, 2006.

B. The design of the Tower Structure is the sole responsibility of the Tower manufacturer. The tower drawings shall be stamped by a Registered Engineer in the State of Tennessee.

C. The foundation is designed per the loads from the tower engineer as shown in the tower drawings.

D. The overall stability of the tower structure is the responsibility of the Tower Engineer/Manufacturer. The structural drawings show only the foundation design.

E. The contractor is to verify all dimensions and coordination with the Site Drawings and Tower Drawings. Immediately notify Engineer of any discrepancies.

F. Contractor responsibilities include but not limited to the following:

(1) Coordinate the Structural Documents with the Tower and O&M Documents.

(2) Verify existing geotechnical and soil conditions before starting work.

(3) Verify all dimensions and coordination with the Tower Engineer/Manufacturer.

(4) Contractor has sole responsibility to comply with OSHA regulations.
2. DESIGN LOADS:

Provided by A.E. and Tower foundations by Kestrel Turbines.

Design Wind Speed = 110 mph (10 min. return period)

PSF (K) = 20.3 (K), V (5), 1 K

Maximum turbine Weight = 4500k.
3. SUBMITTALS:

A. Shop drawings shall first contain details copied or reproduced from the Contract and then show any changes. All submittals shall be submitted in triplicate.

B. Review of the shop drawings will be by general conference with the Contract Engineer/Manufacturer. The Contractor shall be responsible for the coordination of the submittals to comply with the Contract Documents.

C. Shop drawings shall not be reviewed for approval unless approved by the Engineer and the Contractor.
4. FOUNDATION DESIGN INFORMATION:

A. It is imperative that the Contractor submit, read, and understand the soil report.

B. The foundation design is based on the recommendations contained in the soil report by GEO Services, LLC dated 6/6/2011.

C. Footings are to bear on rock as directed by the Geotechnical Engineer.

D. The registered Geotechnical Engineer in the State shall verify that all the preparation, filing, operations, and testing complies with the code requirements.
5. REINFORCEMENT:

A. Reinforcing Bars: ASTM A615, Grade 60

B. Reinforcement Placement (U.N.O.)

(1) Concrete conform to provisions of the ACI code for all tower placements.

Reinforcement Schedules:

(1) Reinforcement marked as continuous can be spliced at locations determined by the contractor (U.N.O.) and is subject only at locations shown or noted.

(2) unless approved by the engineer.

(3) Splice Lengths:

Concrete Reinforcement: Class B tension Splices

6. CUSTOMER-SPECIFIC CONCRETE:

A. Minimum compressive strength of concrete at 28 days for Strength Design by ACI 318-05 Building Code Requirements for Structural Concrete shall be as follows:

(1) Footings:  $f_c = 4,000$  p.s.i.

(2) Pile/blocks:  $f_c = 4,000$  p.s.i.
- SPECIAL INSPECTION NOTES
- SPECIAL INSPECTION AND TESTING:
1. The owner shall employ an independent testing company to perform the following on-site inspections and testing using the designated IBC sections:

Concrete Construction

Section 1704.4

Foundations

Section 1704.7

2. The owner shall employ a Design Professional registered in the State of Tennessee, to perform Structural observations in accordance with IBC Section 1709.

3. Special Inspectors shall furnish inspection reports to the Building Official and to the Engineer of Record in accordance with IBC Section 1704.12. The reports shall indicate that work inspected was performed in accordance with the approved construction documents. Discrepancies shall be brought to the attention of the Contractor for correction. If the discrepancies are not corrected the Building Official and the Engineer of Record shall be notified.
- The diagram illustrates the foundation plan for a windmill tower using a spread footing option. It features two parallel rows of rectangular footings, each containing a square representing a PV panel. The footings are situated on a gravel bed, which is shown as a stippled area. A note indicates that the location should be verified with owner and site drawings. The plan also shows the edges of two water tanks, one on the left and one on the right, with a dimension of 35'-0"± between the centerlines of the footings and the water tank edge. The entire foundation is enclosed within a dashed rectangular boundary.
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REVISION:
- Consulting Engineers  
630 Southgate Ave., Suite C  
Nashville, Tennessee 37203  
(615) 726-2902 Phone  
(615) 726-4990 Fax  
www.loganpatriengineering.com
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- WIND TOWER FOUNDATION  
KESTREL e400i - 80' TOWER  
SPREAD FOOTING OPTION
- SHEET NUMBER  
S100