

II. DESIGN

A. General

The component design of this building shall meet or exceed the printed Basic Building Code standard requirements for material design loading, quality, fabrication and the installation procedures of the code referenced organizations and as listed below for applicable methods employed in the building design. In cases of conflicting requirements, use the greater requirement.

American Concrete Institute	ACI
American Plywood Association	APA
American Softwood Lumber Standard	U.S. Dept. Of Commerce PS-20
American Institute of Timber Construction	AITC
Truss Plate Institute	TPI
American Iron and Steel Institute	AISI
National Electrical Code	NEC

B. Requirements

1. The building design shall include a 12' - 0" (H) X 12" (W) concrete wall on which to erect the building.
2. Concrete wall shall be designed to be a floating, unless specified otherwise in the plans.
3. Concrete wall shall be designed with a minimum of two (2) layers of reinforcing steel.
4. The building shall be designed to withstand a snow load of (dead or live) of 110 lbs. per square foot.
5. The building shall be designed to withstand wind gusts of up to 90 MPH.
6. The minimum headspace clearance shall be 14' - 0".
7. The building design shall provide a doorway with a minimum of 15' - 0" in both width and height which extends out from the building a minimum of 6' - 0".

III. MATERIALS AND EXECUTION

A. Delivery Storage and Handling

1. Materials shall be delivered to the project site in manufacture's unopened containers or bundles, fully identified with name, brand, type and grade.
2. Materials shall be protected from effects of moisture and damage. They shall be stored off the ground in a dry, ventilated manner and protected with waterproof tarpaulins or other acceptable methods.

B. Concrete

1. Concrete for footings, foundations, and pier or post fill supports below and above grade shall meet Air-Entraining Portland ASTM Designation C150-74, Type 1A standards and standards set forth in the current ODOT Construction Materials and Specifications manual.
2. Concrete shall be air entrained with a minimum compressive strength of 4,000 PSI at twenty-eight (28) days.
3. Concrete mixing water shall be clean and free from oil, acid, injurious amounts of vegetable matter, alkalies and other salts.
4. Concrete shall be placed and cured in accordance with the guidelines set forth in the current ODOT Construction and Materials Specifications manual, Sections 510.03 and 511.14 respectively.
5. Adjustments shall be made in the field to the 10' ring wall to facilitate a vertical building axis and level horizontal foundation lines.

C. Concrete Sealant/Sealing

1. Inside and out, concrete shall be treated with a water repellent silane chemical solution.
2. The solution shall consist of a 40% solution by weight of alkyl-aliyxy silane in ethyl alcohol.
3. All surfaces to be sealed with the silane solution shall be thoroughly cleaned in accordance with the manufacturer's recommendation, light sweep sandblasting, power sweeping or air brooming.
4. The silane solution shall be applied as supplied. It SHALL NOT BE DILUTED or altered in any way.
5. The solutions shall be sprayed onto concrete surfaces, using low pressure spray equipment.

CALCULATED

CHECKED

SPECIAL PROVISIONS

LAK-90-4.12

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