

RULES FOR BASIC DECK CONSTRUCTION

In the interests of preventing the inconvenience of failing inspection and being required to correct deficiencies, this information is provided by the Building Department to help you with your project.

1. Footings must be dug to a minimum depth of 42 inches, which represents the expected frost depth in this area.
2. Footing size should be based on the expected loads to be carried, common soils will support approximately 2000 lbs. per square foot. The deck is expected to support 40 lbs. per square foot of snow, people, etc. The weight of the deck is presumed to be 10 lbs. per square foot, giving a total of 50 lbs. per square foot to be supported by the footings.
3. To calculate the footing size and number required it is necessary to determine the area of the deck to be built, the portion of the weight to be carried by existing structure and the number of piers desired.
4. As an example, a deck is to be 10' x 15' with one 15' edge to be attached to the building. $10 \times 15 = 150$ sq. ft. $150 \times 50 = 7500$ lbs. Since the building is carrying one side, the remaining weight to be carried by the piers is 3750 lbs. ($3750/2000 = 1.875$ sq. ft. in.) If such a small footing is used, more than 5 footings will be required. Since probably only three footings would be desirable, it will be necessary to increase the diameter of the base of the footing to at least 11" to provide sufficient bearing capacity. This does not mean the post must be 11", only that the bottom of the hole to be filled with concrete to provide the footing must be this large.
5. The side of the deck attached to the building must be bolted to solid structure, probably the band joist. Nails will not provide sufficient strength to ensure that the side of the deck would not come loose and fall.
6. If the deck is built more than 30" above the surrounding area, a guardrail is required. In most cases this rail must be at least 36" high and be so designed that a ball 4" in diameter could not pass through it. This is to prevent small children from becoming stuck in the rail and possibly injured.
7. Stairs serving the deck can generally have a rise no more than $7 \frac{3}{4}$ " and a tread length, or run, no less than 10". The rises must vary no more than $\frac{3}{8}$ " between steps. Problems are often caused by using the precut stair stringers sold in lumber yards, these are generally cut to a 7 x 11 pattern which may not fit your application within the requirements of the code.

8. If the stair has more than 3 risers it must have at least one handrail mounted not more than 38" nor less than 34" above the nose of the tread. The handrail must be so made that it provides a good grip. This means a radius of not more than 2" or less than 1 1/4". The stair must also have the guardrail meeting the requirements as given for deck guardrail except that a 6" ball must not pass through in the area between the step and guardrail.
9. Work should not progress until a building permit has been applied and paid for and you have received a signed approved copy of the permit. An inspection of the footing holes should be performed prior to setting the piers and a final inspection performed at completion.