Guidelines for obtaining a Deck Permit from the City of Union

- A plot plan is required showing the location of the deck (front or rear yard) and the dimensions of the deck.

- A diagram or explanation of how the deck is constructed must be submitted showing the layout of the deck, location of support posts, and depth of posts in ground, all dimensions such as height above ground, length and width, height of rail, size of spaces between balusters, height and depth of risers.

The building inspector will review all deck plans submitted for compliance with City of Union regulations.

Due to the various sizes and uses for decks, the following information is not complete but is a summary of the general requirements for building a deck.

- ***Footers***

Wood posts imbedded in concrete must be pressure preservative treated for ground contact. This needs to be verified by the inspector by the tags on the end of the wood with contact level denied by American Wood Preserver's Association (AWPA).

Minimum depth for footers shall be at least 32 inches (frost line for this area). Post holes need to be inspected before concrete is poured.

Exterior deck footings of poured in place concrete shall be a minimum of 8 inches thick and shall comply with Table R403.4.

TABLE R403.4
MINIMUM FOOTING SIZE FOR DECK
FOOTINGS WITHOUT ROOF LOADS

EXTERIOR DECK AND PORCH FOOTING SIZE IN INCHES		
Diameter	Square	Maximum tributary area allowed per post (square feet)
8	8 x 8	14
10	9 x 9	22
12	11 x 11	31.6
14	13 x 13	42.8
16	15 x 15	56
18	16 x 16	70.8
20	18 x 18	87.2

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m^2,
1 pound per square foot = 4.882 10g/m^2,

a. Based upon 2,000 pounds per square foot soil bearing capacity.

b. Based upon 40 pounds per square foot live load and a 10 pounds per square foot dead load.

- ***Guards***

Any deck, porch, or any raised surface of more than 30 inches above the floor or grade shall have guards a minimum of 36 inches measured vertically from deck.

Openings on the guards cannot allow the passage of a sphere of four inches or more. This applies to the stair steps also.

- ***Stair Steps***

Riser height: Maximum 8 1/4 inches with a variance not to exceed 3/8 inch.

Tread depth: Minimum 9 inches with a variance not to exceed 3/8 inch.

Openings between steps: Backs may be added to steps. If left open, the space must be small enough so a four inch (4") diameter sphere cannot go through. This is required to prevent a small child from getting caught or strangled.

- ***Handrails***

This is an important issue. 2" x 4" and 2" x 6" do not meet the code. Handrails must be continuous. If steps extend before or after a rail has begun or ended, trips and falls are much more likely.

Handrails are required on at least one side of each continuous run of treads or flight with four or more risers.

Height: No less than 34 inches or more than 38 inches.

Continuity – handrails should be continuous for full length of flight. Ends should terminate in newel posts or safety terminals.

Grip Size If circular, should have outside diameter of at least 1 ½ inches and no greater than 2 inches.

If not circular, perimeter dimension of at least 4 inches and not greater than 6 ¼ inches with a maximum cross section direction of 2 1/4/inches.

Any handrail with a perimeter greater than 6 ¼ inches shall have a graspable finger recess area on both sides.

- ***Wood Floor Framing***

Notches in solid lumber joists, rafters, and beams and locations of holes have specific requirements.

- ***Construction Notes***

Decks shall be anchored to the primary structure and be designed for both vertical and lateral loads. They cannot be attached with the use of toenails or nails because they can be pulled out.

Wood should be treated or decay–resistant (heartwood) such as redwood, black locust or cedar).

Fasteners shall be hot-dipped galvanized steel, stainless steel, silicon bronze or copper. (Exception is ½ inch diameter or greater steel bolts.