CITY OF NEW LONDON DECK PERMITS

Building permits are required for all decks that are attached to the home or are 30 inches or more above finished grade. Decks and platforms not more than 30 inches above adjacent grade and not attached to a structure with frost footings, do not require a building permit. If you are outside city limits, but within the two mile radius that we serve, you will also be required to obtain a land use permit from Kandiyohi County.

PERMIT FEES

Permit fees are established by the City of New London Ordinance. The plan review is done by the building official in order to spot potential problems or pitfalls that may arise prior to starting construction. The building official will make notes on the plan for your use. Construction inspections will be done during the project to verify code compliance. The plan review and inspections are done to provide a reasonable degree of review and observation so the project will be successful, safe, and long lasting.

Actual permit costs can be obtained by calling the building official at 320-354-2444 with your proposed size and estimated construction costs; these costs include both materials and labor.

You will need to provide a completed permit application, site plan or survey with specific setback information, and building plans.

REQUIRED INSPECTIONS

1. **Footings:** After the holes are dug but prior to pouring any concrete.

2. **Framing:** To be made after all framing, blocking, and bracing are in place and prior to covering the construction so it is accessible for inspection. This inspection can be completed at the time of the final inspection if all parts of the framing will be visible and accessible.

3. **Final:** To be made upon completion of the deck and finish grading.

SETBACKS

Contact the City Zoning Office to determine proper setbacks in your area. This is an important step in the planning of any deck.

Notice regarding pressure-treated wood

When pressure-preservative treated wood is used, it must comply with the American Wood Preservers Association UI standard based on exposure (exterior) and use (above ground, ground contact or ground embedment). The lumber must bear the quality mark (stamp or end tag) of an approved inspection agency. Designers, builders, and home owners need to verify that proper hardware (hangers, nails and brackets) are appropriate with the particular treatment of the lumber. This not only applies to decks utilizing these products, but sill plates and posts as well.

GENERAL BUILDING CODE REQUIREMENTS

a. Footings must extend to frost depth if attached to the house (42 inches below finish grade minimum)

b. Decks need to be designed to carry a minimum 40 pounds per square foot live load and balconies to a minimum 60 pounds per square foot live load. Decks exposed to the weather must be constructed of approved wood with natural resistance to decay such as redwood, cedar or treated wood. Ledger boards must be bolted or lagged to the building and all connections between the deck and dwelling must be flashed. Hold down tension devices must be installed in not less than two locations. Before using alternative building products, check with the building official.

c. Columns and posts in contact with the ground or embedded in concrete, earth, or masonry must be of special pressure treated wood approved for ground contact.

d. Cedar or redwood posts require a minimum 8 inch separation from the ground.

e. All decks, balconies, or porches and open sides of landings and stairs that are more than 30 inches above grade or a floor below must be protected by a guard not less than 36 inches in height. Grade is measured at a point three feet from the edge of the structure. 2015 MSBC guard opening limitations states required guards on open sides of stairways shall have intermediate rails or ornamental closures which do not allow passage of a sphere 4 ⅜ inches in diameter to pass through. Raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of a sphere 4 inches in diameter to pass through.

Exceptions:

1.The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a sphere 6 inches in diameter cannot pass through. (R312.1.3)

2. Openings for required guards on the sides of stair treads shall not allow a sphere 4 ⅜ inches in diameter to pass through. (R312.1.3

f. If a stairway is to be provided, it must be no less than 36 inches in width. Stairways may be constructed having a 7 ¾ inch maximum rise (height) and a 10 inch minimum run (length) measured from stair nosing to stair nosing. The largest tread rise and tread run may not exceed the smallest corresponding tread rise or run by more than ⅜ inch. Stairway illumination is required by the code. Open risers are permitted, provided the opening between the treads does not permit the passage of a 4 inch diameter sphere to pass through.

g. Handrails are required on all stairways having 4 or more risers. (R311.7.8) All required handrails shall be of the following types or provide equivalent grasp ability. (R3 11.7.8.l)

Type I. Handrails with a circular cross section shall have an outside diameter of at least 1 ¼ inches and not greater than 2 inches. If the handrail is not circular it shall have a perimeter dimension of at least 4 inches and not greater than 6 ¼ inches with a maximum cross section dimension of ¾ inches.

Type II. Handrails with a perimeter greater than 6 ¼ inches shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin a distance of ¾ inch measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch within ⅞ inch below the widest portion of the profile. This required depth shall continue for at least ⅜ inch to a level that is not less than 1¾ inches below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1 ¼ inches to a maximum of 2 ¾ inches. Edges shall have a minimum radius of 0.01 inch. (R3 11.7.8.3)

The top of the handrail must not be less than 34 inches nor more than 38 inches in height measured vertically from the front edge of the finished stair nosing of the treads and they must be returned to the wall or a newel post. (R311.7.8)

h. The electrical code requires overhead power lines to be located a minimum of 10 feet above decks and platforms. Existing lines may need to be raised or relocated if a new deck is to be installed beneath them.

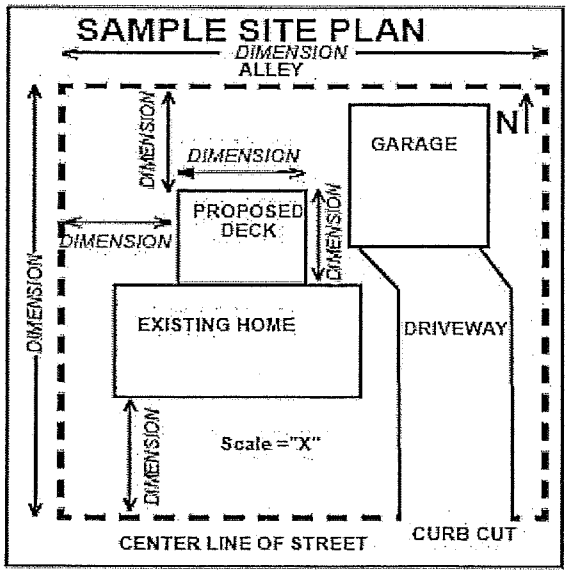
i. Outside meters, wells, and septic systems. When locating a deck, care must be given to the location of outside gas and electric meters, wells, and septic systems. These may need to be relocated to allow for construction of the deck. Septic systems and wells may be difficult to relocate, therefore requiring an alternative location for the deck. Prior to placement of any deck that will interfere with these devices, contact your local Building Official.

j. Outside water meter readers. Some communities use a remote outside meter-reading device that may need to be relocated to allow for construction of a deck. These devices must be relocated properly and may require special tools. Prior to placement of any deck that will interfere with the operation or accessibility of the reader, contact city hall to obtain information and procedures about relocating these devices.

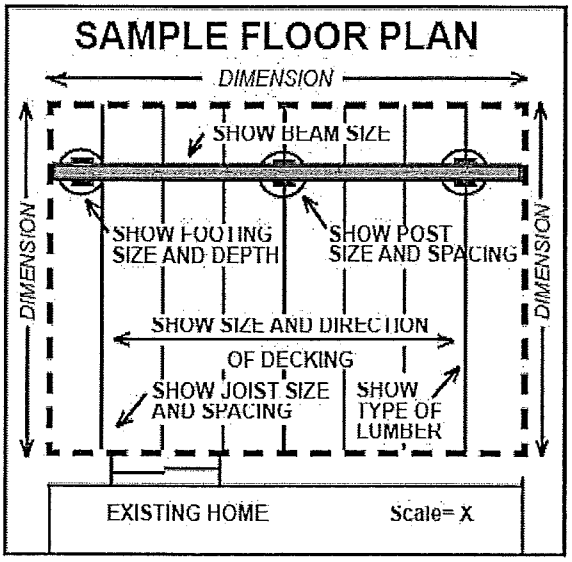
PLANS: SITE, FLOOR, AND ELEVATIONS

The following text and sample drawings show the minimum detail expected so the permit process can proceed smoothly. Two sets of each plan are required. The plans should include all of the information requested but do not have to be professionally drawn. The permit application can be filled out at the time you drop off your plans.

Certificate of survey or site plan drawn to scale indicating the lot dimensions, the location and size of the existing and proposed structure(s), and the setback distance from all property lines. Include the septic system area and wells if applicable.

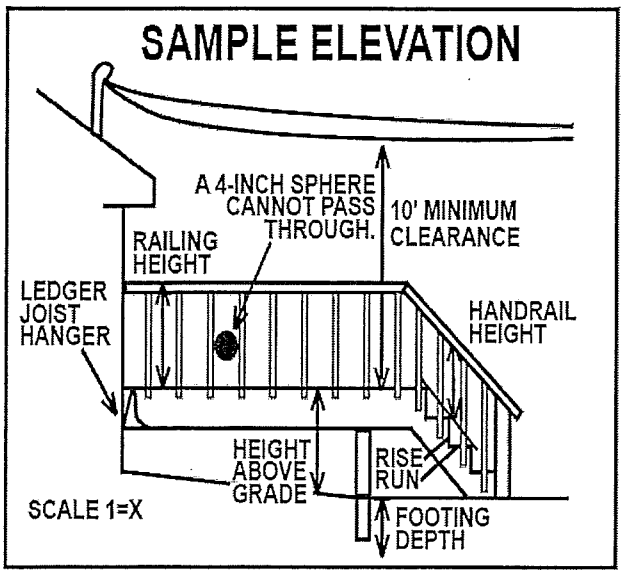


DECKS continued



FLOOR PLAN

1. Proposed deck size
2. Footing sizes
3. Size, type, location, and spacing of the posts.
4. Size and type of the beams.
5. Size and spacing of floor joists.
6. Size and type of decking material.



ELEVATION PLAN

1. Height of the structure from grade.
2. Size and depth of the footings.
3. Guard height and spindle spacing.
4. Maximum stairway rise is $7^3/_4$"
5. Minimum Tread length is 10".
6. Minimum guardrail height of 36" from the finished standing surface (if required).
7. A minimum handrail height of 34" and a maximum of 38" measured in a plumb line from the front of the stair nosing (if required).
8. A minimum clearance of ten feet is required for over-head wiring (if applicable).

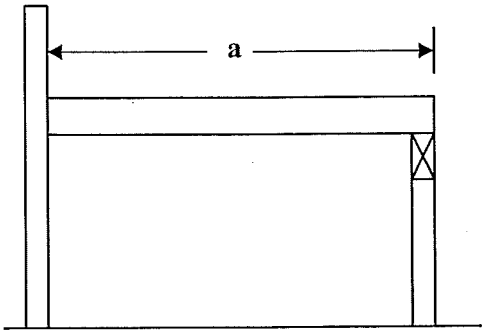
GOPHER ONE CALL STATE CALL Call at least 2 full business days before you dig.
1-651-454-0002 1-800-252-1156 www.gopherstateonecall.org

Joist Span

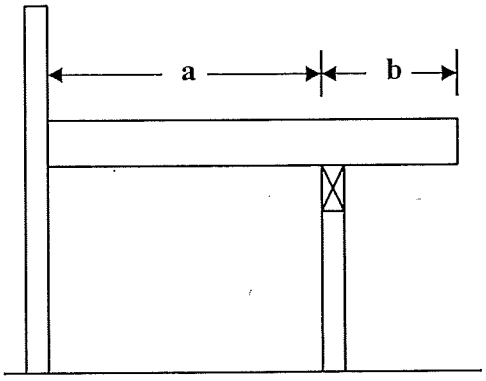
Based on No. 2 or better wood grades
(Design Load = 40#LL + 10#DL Deflection = L/360)

	Ponderosa Pine			Southern Pine			Western Cedar		
Spacing	12"OC	16'OC	24"OC	12"OC	16"OC	24"OC	12"OC	16"OC	24"OC
2"x 6"	9'-2"	8'-4"	7'-0"	10'-9"	9'-9"	8'6"	9'-2"	8'-4"	7'-3"
2"x 8"	12'-1"	10'-10"	8'-10"	14'-2"	12'-10"	11'-0"	12'-1"	11'-0"	9'-2"
2"x 10"	15'-4"	13'-3"	10'-10"	18'-0"	16'-1"	13'-5"	15'-5"	13'-9"	11'-3"
2"x 12"	17'-9"	15'-5"	12'-7"	21'-9"	19'-0"	15'-4"	18'-5"	16'-0"	13'-0"

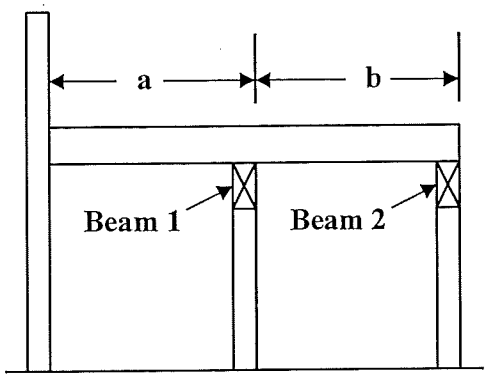
Sample Calculations for Using Joist Span, Beam Size and Footing Tables



Refer to tables for, joist, beam and footing size requirements
Example: a = 12', Post Spacing = 8'
Use the **Joist Span Table** to find the acceptable joist sizes for a 12' span, 2"x8" at 12"OC, 2"x10" at 16"O.C. or 2"x12" at 24"O.C.
Use the **Beam and Footing Sizes Table** and find the 8' post spacing column. With a 12' deck span, the beam may be either (2) 2"x8" or (2) 2"x10", depending on the species of wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 12", 10" or 9" for the corner post and 17", 14" or 12" for all intermediate posts.



Use "a" to determine the joist size and "a" + "2 b" to determine the beam and footing sizes. The length of "b" is restricted by both the length of "a" and the size of the joists.
Example: a = 8', b = 2', Post spacing = 10'
Refer to the **Joist Span Table.** For an 8' joist span, either 2"x8" at 24"O.C. or 2"x6" at 16"O.C. are acceptable.
For sizing the beam, use a joist length of 12' (8'+4') and a post spacing of 10'. The **Beam and Footing Sizes Table** indicates that the beam may be either (2) 2"x10" or (2) 2"x12", depending on the species of wood used. Depending on the type of soil, the footing size at the base must be a minimum of 15", 12" or 11" for the corner post and 20", 17", or 15" for all intermediate posts. Note that because of the 2' cantilever all footing sizes were increased by 1" as required by footnote 2 at the end of the table.



Use "a" or "b" whichever is greater, to determine joist size. Use "a" + "b" to determine the size of beam 1 and the post footing size for the posts supporting beam 1. Use joist length "b" to determine both the size of beam 2 and the post footing size for the posts supporting beam 2.
Example: a = 6', b = 7', post spacing = 9'
Joist size is determined by using the longest span joist (7'). The **Joist Span Table** indicates that 2"x6" at 24"O.C. would be adequate for this span. For beam 1 and footings, use a joist length of 13' (6 + 7) and a post spacing of 9'. The **Beam and Footing Sizes Table** indicates that the beam may be (2) 2"x10" or (2) 2"x12", depending on the species of wood used. Depending on the type of soil, the footing diameters for beam 1 posts shall be 13", 11" or 9" for the corner (outside) posts and 19", 15" or 13" for all intermediate posts. For beam 2 and its footings use a joist length of 7' and post spacing of 9'. The beam may be (2) 2"x8" or (2) 2"x10", depending on the species of wood used. Depending on the type of soil, the footing diameters for beam 2 shall be 10", 8" or 7" for corner posts, and 14", 11" or 10" for all intermediate posts.

NOTE: 5/4" THICK DECKING MATERIAL CAN NOT SPAN MORE THAN 16".

BEAM AND FOOTING SIZES

(Based on No. 2 or better Ponderosa Pine and Southern Pine treated for weather and/or ground exposure)

JOIST LENGTH			Post Spacing 4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
		Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 1-2x6	1-2x6 1-2x8	2-2x6 2-2x8	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x12	2-2x10 2-2x12	2-2x10 3-2x10
	6'	Corner Footing Intermediate Footing	6 5 4 9 8 7	7 6 5 10 8 7	7 6 5 10 9 7	8 7 6 11 9 8	9 7 6 12 10 9	9 7 6 13 10 9	10 8 7 14 11 10	10 8 7 14 12 10	10 9 7 15 12 10	11 9 8 15 13 11	11 9 8 16 13 11
		Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 1-2x6	1-2x6 1-2x8	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x10	2-2x10 2-2x12	2-2x10 3-2x10	2-2x12 3-2x10
	7'	Corner Footing Intermediate Footing	7 5 5 9 8 7	7 6 5 10 8 7	8 7 6 11 9 8	9 7 6 12 10 9	9 8 7 13 11 9	10 8 7 14 11 10	10 8 7 15 12 10	11 9 8 15 13 11	11 9 8 16 13 11	12 10 9 17 14 12	12 10 9 17 14 12
		Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 2-2x6	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x10	2-2x10 3-2x10	2-2x12 3-2x10	2-2x12 3-2x12
J	8'	Corner Footing Intermediate Footing	7 6 5 10 8 7	8 6 6 11 9 8	9 7 6 12 10 9	9 8 7 13 11 9	10 8 7 14 11 10	10 8 7 15 12 10	11 9 8 16 13 11	11 9 8 16 13 12	12 10 9 17 14 12	13 10 9 18 15 13	13 11 9 18 15 13
O		Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 2-2x6	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x10	2-2x10 3-2x10	2-2x12 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12
I	9'	Corner Footing Intermediate Footing	7 6 5 10 9 7	8 7 6 12 10 8	9 7 6 13 10 9	10 8 7 14 11 10	10 9 7 15 12 10	11 9 8 16 13 11	12 10 8 17 14 12	12 10 9 17 14 12	13 10 9 18 15 13	13 11 9 19 15 13	14 11 10 20 16 14
S		Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 2-2x6	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x12	2-2x12 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12	3-2x10 Eng Bm
T	10'	Corner Footing Intermediate Footing	8 6 6 11 9 8	9 7 6 12 10 9	10 8 7 14 11 10	10 8 7 15 12 10	11 9 8 16 13 11	12 10 8 17 14 12	12 10 9 17 14 12	13 11 9 18 15 13	14 11 10 19 16 14	14 12 10 20 16 14	15 12 10 21 17 15
		Southern Pine Beam Ponderosa Pine Beam	1-2x6 2-2x6	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x8	2-2x8 2-2x10	2-2x10 2-2x12	2-2x10 2-2x12	2-2x12 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm
L	11'	Corner Footing Intermediate Footing	8 7 6 12 9 8	9 7 6 13 11 9	10 8 7 14 12 10	11 9 8 15 12 10	12 9 8 16 13 11	12 10 9 17 14 12	13 11 9 17 14 12	14 11 10 18 15 13	14 12 10 19 16 14	15 12 10 20 16 14	15 13 11 21 17 15
E		Southern Pine Beam Ponderosa Pine Beam	1-2x6 2-2x6	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x12	2-2x10 2-2x12	2-2x12 3-2x12	3-2x10 3-2x12	3-2x10 Eng Bm	3-2x12 Eng Bm
N	12'	Corner Footing Intermediate Footing	9 7 6 12 10 9	10 8 7 14 11 10	10 9 7 15 12 10	11 9 8 16 13 11	12 10 9 17 14 12	13 10 9 18 15 13	14 11 10 19 16 14	14 12 10 20 16 14	15 12 10 21 17 15	15 13 11 22 18 15	16 13 11 23 18 16
G		Southern Pine Beam Ponderosa Pine Beam	1-2x6 2-2x6	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x12	2-2x10 2-2x12	2-2x10 2-2x12	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm	3-2x12 Eng Bm
T	13'	Corner Footing Intermediate Footing	9 7 6 13 10 9	10 8 7 14 12 10	11 9 8 15 13 11	12 10 8 17 14 12	13 10 9 18 15 13	13 11 9 19 15 13	14 12 10 20 16 14	15 12 10 21 17 15	15 13 11 22 18 15	16 13 11 23 19 16	17 14 12 24 19 17
H		Southern Pine Beam Ponderosa Pine Beam	1-2x6 2-2x6	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x10 2-2x12	2-2x10 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm	3-2x12 Eng Bm	3-2x12 Eng Bm
	14'	Corner Footing Intermediate Footing	9 8 7 13 11 9	10 8 7 15 12 10	11 9 8 16 13 11	12 10 9 17 14 12	13 11 9 18 15 13	14 11 10 20 16 14	15 12 10 21 17 15	15 13 11 22 18 15	16 13 11 23 18 16	17 14 12 24 19 17	17 14 12 24 20 17
		Southern Pine Beam Ponderosa Pine Beam	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x8	2-2x8 2-2x10	2-2x10 3-2x10	2-2x12 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm	3-2x12 Eng Bm	Eng Bm Eng Bm
	15'	Corner Footing Intermediate Footing	10 8 7 14 11 10	11 9 8 15 12 11	12 10 8 17 14 12	13 10 9 18 15 13	14 11 10 19 16 14	14 12 10 20 17 14	15 12 11 21 17 15	16 13 11 22 18 16	17 14 12 23 19 17	17 14 12 24 20 17	18 15 13 25 21 18
		Southern Pine Beam Ponderosa Pine Beam	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 3-2x10	2-2x12 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm	3-2x12 Eng Bm	Eng Bm Eng Bm
	16'	Corner Footing Intermediate Footing	10 8 7 14 11 10	11 9 8 16 13 11	12 10 9 17 14 12	13 11 9 18 15 13	14 11 10 20 16 14	15 12 10 21 17 15	16 13 11 22 18 16	16 13 12 23 19 16	17 14 12 24 20 17	18 15 13 25 21 18	18 15 13 26 21 18

Notes:

1. Joist length is total length of joist, including any cantilevers.
2. When joist extends (cantilevers) beyond support beam by 18" or more, add 1" to footing dimensions shown.
3. Requirements for future 3-season porches or screen porches:
   a. Increase corner footing size shown by 90%.
   b. Increase center footing size shown by 55%.
   c. Locate all footings at extremities of deck (no cantilevers).
   d. Beam sizes indicated may need to be altered.
4. All footing sizes above are base diameters (in inches) and are listed for THREE SOIL TYPES:

	Clay	Sand	Gravel
Corner Footing	10	8	7
Intermediate Footing	14	11	10

1-13-16