

Submittal requirements to obtain a building permit for:

**DECK OVER 30" HIGH**

- Completed two page application (make sure it is signed at the bottom of the page)
- Permission from the township in the form of a checklist (signed and sealed)
- Footer & framing plan
- Site plan (must contain setback dimensions in four directions)
- Proof of workman's compensation insurance, sole proprietor or religious exemption.
- Driving directions

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- After submitting all required documents your application will be reviewed.
  - CCIS will contact you with approval or denial within 2 weeks.
  - If approved, your permit will be issued and the inspections fees are due when you pick-up the permit.

# Deck Plan Submittal

Deck Size (overall dimensions): \_\_\_\_\_ x \_\_\_\_\_

\*Note: All fasteners Must Be Exterior Grade

## Railing:

- Req'd if floor is 30" or more of the ground
- Constructed so no opening will allow a 4" sphere to pass through.

## Flooring:

- Materials \_\_\_\_\_
- Size (nominal) \_\_\_\_\_ x \_\_\_\_\_

## Floor-Joists:

- Material \_\_\_\_\_
- Size (nominal) \_\_\_\_\_ x \_\_\_\_\_
- Spacing Cen. To Cen. \_\_\_\_\_
- Clear Span Distance \_\_\_\_\_

## Carrier Beam:

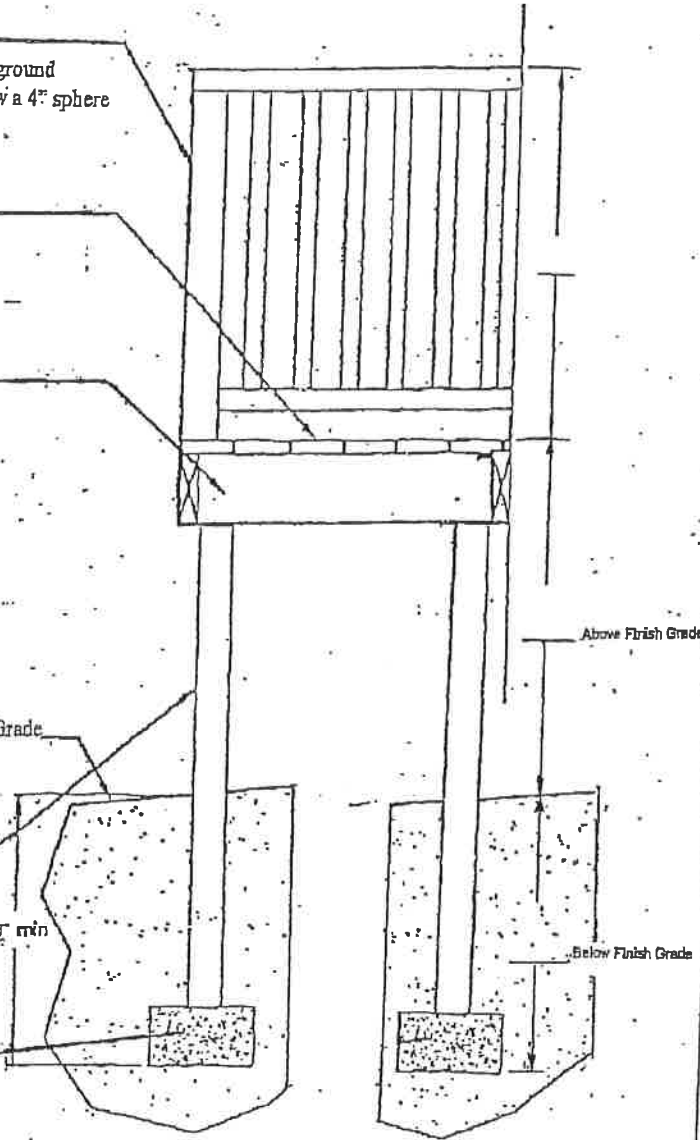
- Material \_\_\_\_\_
- Size (nominal) \_\_\_\_\_ x \_\_\_\_\_
- Spacing Cen. To Cen. \_\_\_\_\_ Finish Grade
- Clear Span Distance \_\_\_\_\_

## Support Post:

- Material \_\_\_\_\_
- Size (nominal) \_\_\_\_\_ x \_\_\_\_\_
- Post Length \_\_\_\_\_ 36" min

## Footer:

- Depth (below grade) \_\_\_\_\_
- Size \_\_\_\_\_ x \_\_\_\_\_
- Thickness (6" minimum) \_\_\_\_\_



## Residential Porch Handout

Exceptions:

*Repair or replacement of any part of a porch or stoop that does not make load bearing support changes or changes to means of egress. Installation of an uncovered deck where the floor does not exceed 200 square feet in area, that is not more than 30" above grade measured at a point within 3 ft of the deck, are not attached to a dwelling and do not serve the exit door required by Section R311.4 is exempt from a building permit but may require a "use permit" from the municipality.*

- Table 301.2(1) Minimum rafter/truss ground snow load is site specific or case study in many areas. Generally Blair Co. is not less than 30 lbs sq ft. and Bedford Co. is not less than 35 lbs sq ft. Minimum wind speed exposure is 90 mph.
- Table 301.5 Deck minimum uniformly distributed live load is 40 lbs per sq ft. Guardrails and handrails live load applied in any direction is 200 lbs per sq ft.
- 311.3.1 Landings at doors: The required egress door which swings out shall have a floor or landing not lower than 1 ½" below the top of the threshold of the door, 7 ¾" if the door swings in. The width of the landing shall be not less than the door served and at least 36" long measured in the direction of travel. Other exterior doors where a stairway of 2 or fewer stair risers is located on the exterior side of the door, a landing is not required for the exterior side of the door provided the door does not swing over the stairway. 3 or more stair risers are required to have a landing, listed above, no more than 7 ¾" below the top of the threshold.
- 311.7 Stairways min. 36" wide – Riser height max 8 ¼" – Tread depth min. 9"
- 311.7.7 Handrails – Height 34" min./ 38" max., 1 ¼" min. diameter and 2" max. dia. shall be provided on at least one side of each continuous run of treads or flight with four or more risers. Handrail ends shall be returned or end in newel posts.
- 312.1 Porches and landings located more than 30" above the grade below shall have guards not less than 36" in height. Open sides of stairs more than 30" above the grade below shall have guards not less than 34" in height measured vertically from the tread nosing.
- 312.3 Guard openings shall be 4" max., 4 3/8" on the sides of stair treads, 6" by the triangle at the tread.
- 317 All wood in contact with the ground supporting permanent structures or imbedded in concrete in direct contact with the ground that supports permanent structures intended for human occupancy shall be approved pressure preservative treated wood suitable for ground contact. *All fasteners must be listed for use with pressure treated wood.*
- Table 401.4.1 Concrete porches, slabs and steps exposed to the weather shall be constructed of concrete having minimum compression strength of 3,500 psi.
- 506.1 Concrete slab-on-ground floors shall be a minimum of 3 ½" thick.
- Table 403.1 & 403.1.1 Footings minimum size. All exterior walls shall be supported on continuous solid concrete footings or other approved structural systems. Footings shall be on undisturbed natural soil or engineered fill. Concrete shall be 2500 psi minimum compression strength and at least 6" thick with 2" min projection.
- 403.1.4.1 The bottom of the concrete footer shall be at least 36" below finished grade. Foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by projecting below the 36" frost line. Decks not supported by a dwelling need not be provided with footings that extend below frost line.
- 502.2.2 Decks supported by a dwelling shall be positively anchored to the primary structure and designed for loads as applicable.
- Table 502.3.1(2) Floor Joist spans for common Lumber
- Table 802.5.1(3) Rafter spans for common lumber.

## STAIRS

### R311.5

Specifications – Minimum 36" wide between handrails.  
Maximum 8 1/4" tread rise  
Minimum 9" tread depth

Variation - Maximum of 3/8" in depth and height in any flight of stairs.

Risers – Stairs with solid risers shall have a maximum 9/16" radius of curvature of leading edge.

Nosing – The projection of nosing shall be a minimum of 3/4" and a maximum of 1 1/4"

## HANDRAILS

### R311.5.6

Requirement – Handrails are required on 4 or more risers.

Height – Minimum 34"  
Maximum 38"

Minimum 1 1/2" from the wall

Round: Rail size 1 1/4" minimum and 2 5/8" maximum.

Not Round: 4" min. perimeter and 6 1/4" max. perimeter with max 2 1/4" cross section dimension.

## GUARDS

Requirement – Guards are required where the floor surface is more than 30" above finished grade.

Height – Minimum 36" high

Rails – Shall not allow a 4" sphere to pass through.

## Deck Tables ( 40 lb./ft. live load)

### Table 1 Minimum Beam Sizes

Length of Span ↓ ft	Spacing between posts (ft)						
	4	5	6	7	8	9	10
6	(2) 2x8s	(2) 2x8s	(2) 2x8s	(2) 2x10s	(2) 2x10s	(2) 2x10s	(2) 2x12s
7	(2) 2x10s	(2) 2x10s	(2) 2x10s	(2) 2x10s	(2) 2x10s	(2) 2x12s	(2) 2x12s
8	(2) 2x10s	(2) 2x10s	(2) 2x10s	(2) 2x12s	(2) 2x12s	(2) 2x12s	(3) 2x12s
9	(2) 2x10s	(2) 2x10s	(2) 2x12s	(2) 2x12s	(2) 2x12s	(3) 2x12s	*
10	(2) 2x10s	(2) 2x12s	(2) 2x12s	(3) 2x12s	(3) 2x12s	*	*
11	(2) 2x12s	(2) 2x12s	(3) 2x12s	(3) 2x12s	*	*	*
12	(2) 2x12s	(3) 2x12s	(3) 2x12s	(3) 2x12s	*	*	*

\* Beams Larger than 2x12 recommended

### Table 2 Minimum Post sizes

Height (ft)	Load Area (sq. ft)= beam spacing x post spacing				
	48	72	96	120	144
up to 6	4x4	4x4	6x6	6x6	6x6
up to 8	6x6	6x6	6x6	6x6	6x6

Vertical loads figured as concentric along axis.  
No Lateral loads considered

### Table 3 Recommended Spans for spaced deck boards

	Spans in Inches				Laid on Edge
	Laid Flat				
5/4x4	5/4x6	2x4	2x6	2x4	
16	16/24**	16	16/24**	48	

\*\*Although 24 inches is a safe span, undesirable deflection or springiness may occur.

## Table 4 Maximum allowable

spans for deck joists

Joist size (inches)	Joist 16	spacing 24
2x6	9'-9"	7'-11"
2x8	12'-10"	10'-6"
2x10	16'-5"	13'-4"

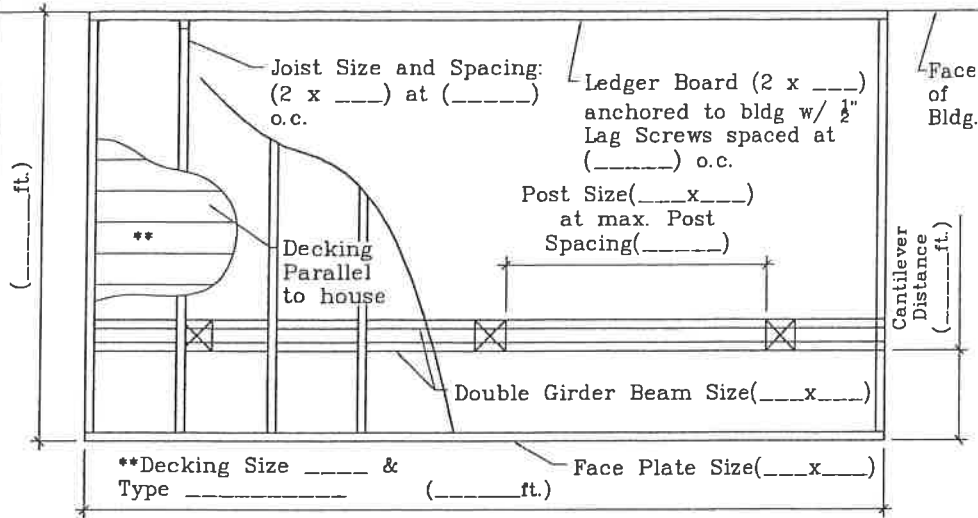
## Table 5 Railings

Distance between posts (inches)	Post size (inches)	Cap size (inches)
2' to 3'	2x4	2x4
3' to 4'	2x4, 4x4	2x4, 2x6
4' to 6'	2x6, 4x4	2x6

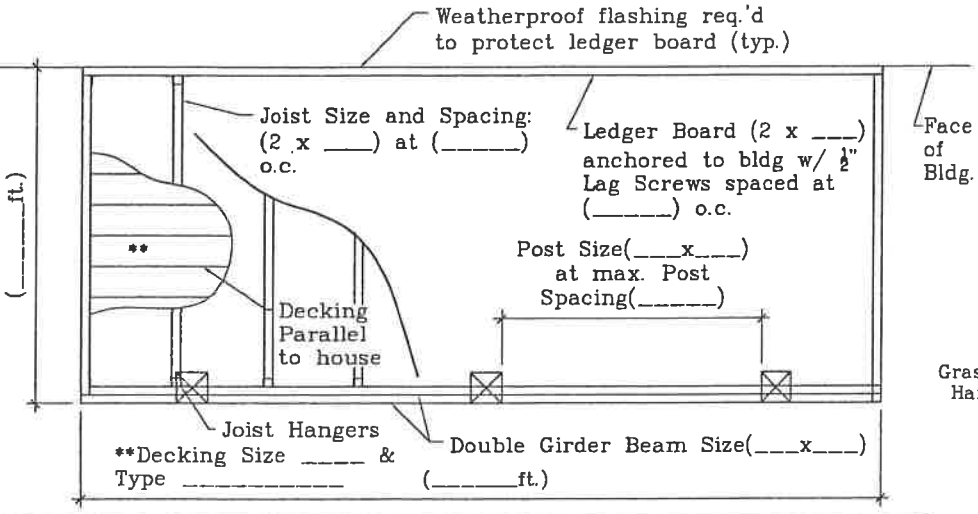
Side rails can be nominal 1" or 2"  
lumber of varying widths

Tables are based on lumber with 1200 psi bearing stress  
rating and a live load of 40 psf.

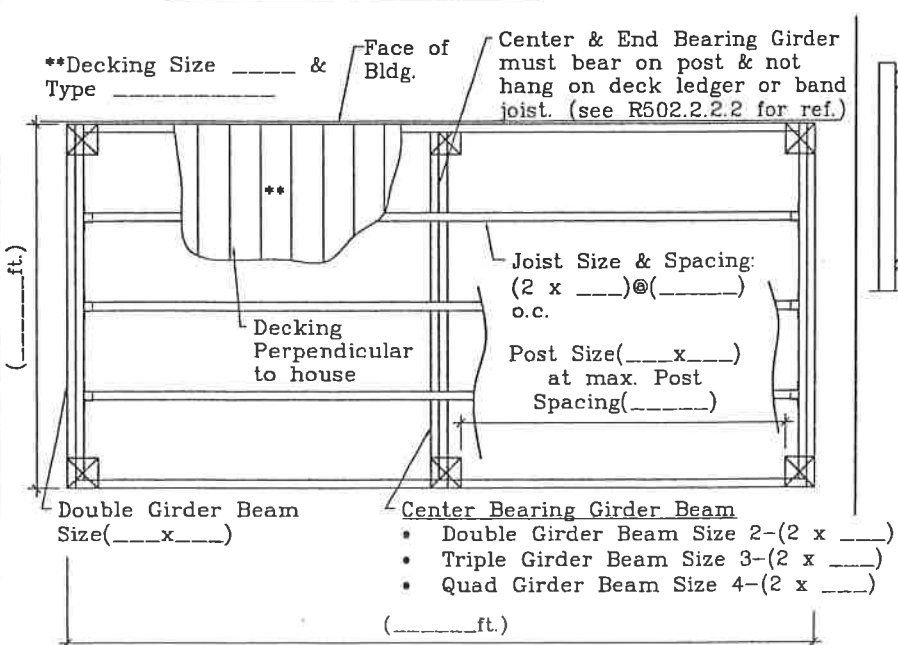
### DECK PLAN WITH CANTILEVER



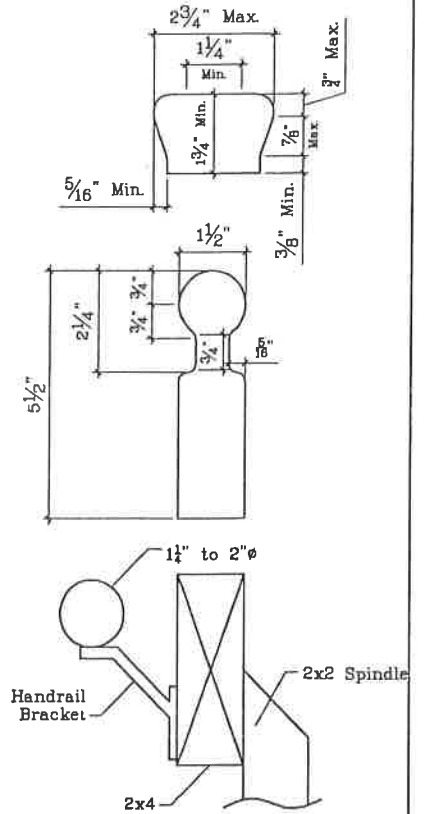
### DECK PLAN WITHOUT CANTILEVER



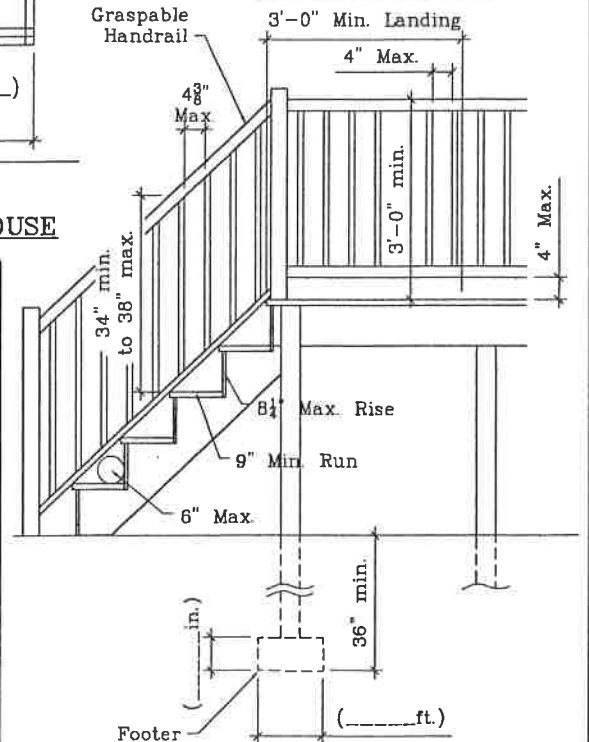
### DECK PLAN WITH DECKING PERPENDICULAR TO HOUSE



### GRASPABLE HANDRAIL DETAILS



### TYPICAL PORCH & LANDING SECTION



## DECK DETAILS

Date: 11-14-14 Revised: