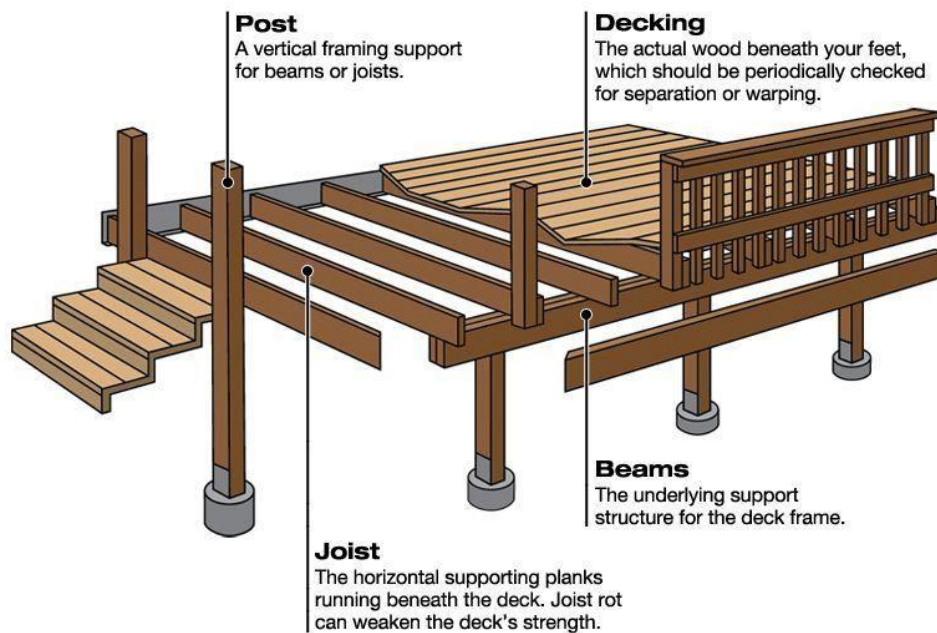




CLEARVIEW

Your Guide to Building Decks

Here's a look at some of the important components of your deck:



This guide has been developed for convenience purposes only. The Owner is responsible for ensuring compliance with all Township by-laws and other applicable regulations.

Any Questions? Office hours;

Phone: 705-428-6230 ext. 232 Monday to Friday

Web: www.clearview.ca 8:30am – 4:30pm

July 2022

V2

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Introduction

Safe, accessible, and sustainable buildings are critical to making Clearview Township a healthy municipality. Building permits and inspections help ensure our building standards are intact and the spaces we create to live, work, and connect in are safe, usable, and accessible to everyone.

The process outlined in this guide is for your protection. It follows the Ontario Building Code, the *Building Code Act*, Clearview's Zoning By-law, and other applicable laws to ensure that you, your home, and the interests of your community are safe.

This guide is an outline of the typical deck construction process. It incorporates information you should consider when you are planning your project right up to project completion and permit close-out. This is not an exhaustive list of regulations. Each building permit application is reviewed individually, and your home renovation process may adapt based on your specific situation. We have endeavoured to provide you with a helpful and informative guide so you can build with confidence knowing that you and your neighbours will be safe while enjoying your residence in Clearview Township.



Hire VS. DIY

When considering whether to hire a professional or complete the project yourself, consider your own skills and abilities carefully:

- Do you have a copy of the Ontario Building Code or familiar with span tables required for decks?
- Do you know and understand the requirements of the Building Code?
- Do you know the requirements of the Zoning By-law?
- Are you capable of providing code compliant detailed drawings to scale?
 - Can you size structural elements?
 - Can you provide enough detail that anyone could construct the project?
 - Are you prepared to revise the drawings if required?
- Do you have knowledge of common construction practices?

Items that require design professionals:

- Are you using Helical Piles?

If you choose to hire a professional, you should protect yourself by remaining involved in and aware of the whole process. This is for your own benefit. If your hired professional cannot produce a building permit there's a chance one was never obtained. In these cases, you are liable for building without a permit.

When choosing your professional, it's always a good idea to inquire about:

- Previous projects
- Examples of work
- Years of experience
- List of references
- Qualifications

Roles & Responsibilities:

Each stakeholder has a defined role in the building permit process; there are responsibilities attached to each role. Knowing your role in the construction and demolition permit process is beneficial because:

- It sets expectations for yourself and others;
- Helps mitigate risk as things are less likely to be missed or overlooked;
- Increases production and less energy is wasted
- Creates a collaborative working environment with fewer discrepancies; and,
- Ultimately: it's the law.

You can contribute to the success of your project by understanding the various roles in the building permit process.

When is a building permit required for a deck?

A permit is required for a new, replacement or structurally altered deck 24" or greater above finished grade.

How long does it take to get a permit?

Once a complete permit application is made the permit will be reviewed by the Planning Department for zoning compliance and once completed the Building Department will complete the review within a maximum of 10 business days.

What do I need to get a permit?

Drawings

All required drawings must be completed by the owner of the property or provided by a design professional qualified in the appropriate category as regulated by the Building Code.

If you're not comfortable with designing the deck on your own, you may wish to seek the services of a Design Professional. They have the experience and technical qualifications to ensure your project is done correctly. They also have the knowledge to provide alternative solutions, and design improvement opportunities. Should you wish to do the design yourself, please consult the sample drawings and technical tables near the end of the document.

Permit Application

Permit application forms are available on our website <https://www.clearview.ca/building-planning/building-permits> or hard copies are available at our offices.

Fees, Payment and Submissions

Building permit fees for decks start at \$170.00 for up to 300 square feet (*fees subject to change as per fee by-law*). Payment can be made by cash, cheque and debit as methods of payment. This includes the review of drawings, the building permit and building inspections.

To apply for a building permit please visit our website to apply online (<https://www.clearview.ca/building-planning/cityview-online-building-law-services>) or bring all required drawings and documentation to the Clearview Municipal Office located at 217 Gideon St, Stayner.

Important Numbers to Know

Use the Ontario One Call to locate underground infrastructure before you dig

call: 1-800-400-2255

online: <https://www.ontarioonecall.ca/>



Required Building Inspections

Building inspections are booked through contacting the Building Department **705-428-6230 ext. 232**.

When requesting inspections, please quote Building Permit Number and allow a minimum of **48 hours notice**.

Required inspections include;

- Excavation/Footing inspection- Once the holes have been dug, but prior to concrete being poured
- Structural Wood Frame inspection- Once the framing is complete (posts, beams, joists)
- Final Building inspection- When the deck and guard/railing are complete (Framing and Final Inspections may be combined)

Zoning Requirements

You can find your zoning and the zoning by-law on our website:

<https://www.clearview.ca/building-planning/zoning-land-use-planning/zoning>

1. Set Backs

Porches and deck having a height less than 2.0m above the lowest finished grade (at all points around the perimeter of the platform)	Rear yard	3.0m from the rear lot line
	Interior side yard	0.75m from the interior side lot line

** Decks are **not** permitted in the exterior side or front yard and decks that are above 2.0 m must meet the setbacks of the zone.*

2. Lot Coverage

In addition to main buildings, the following accessory items shall be included in the calculation of lot coverage:

- Accessory buildings over 10 square meters in area
- Above-ground swimming pools and hot tubs that protrude over 1.0 m above the lowest finished grade surrounding the pool.
- Porches.
- Above-ground decks having platforms that protrude more than 0.6 m above lowest finished grade surrounding the structure.

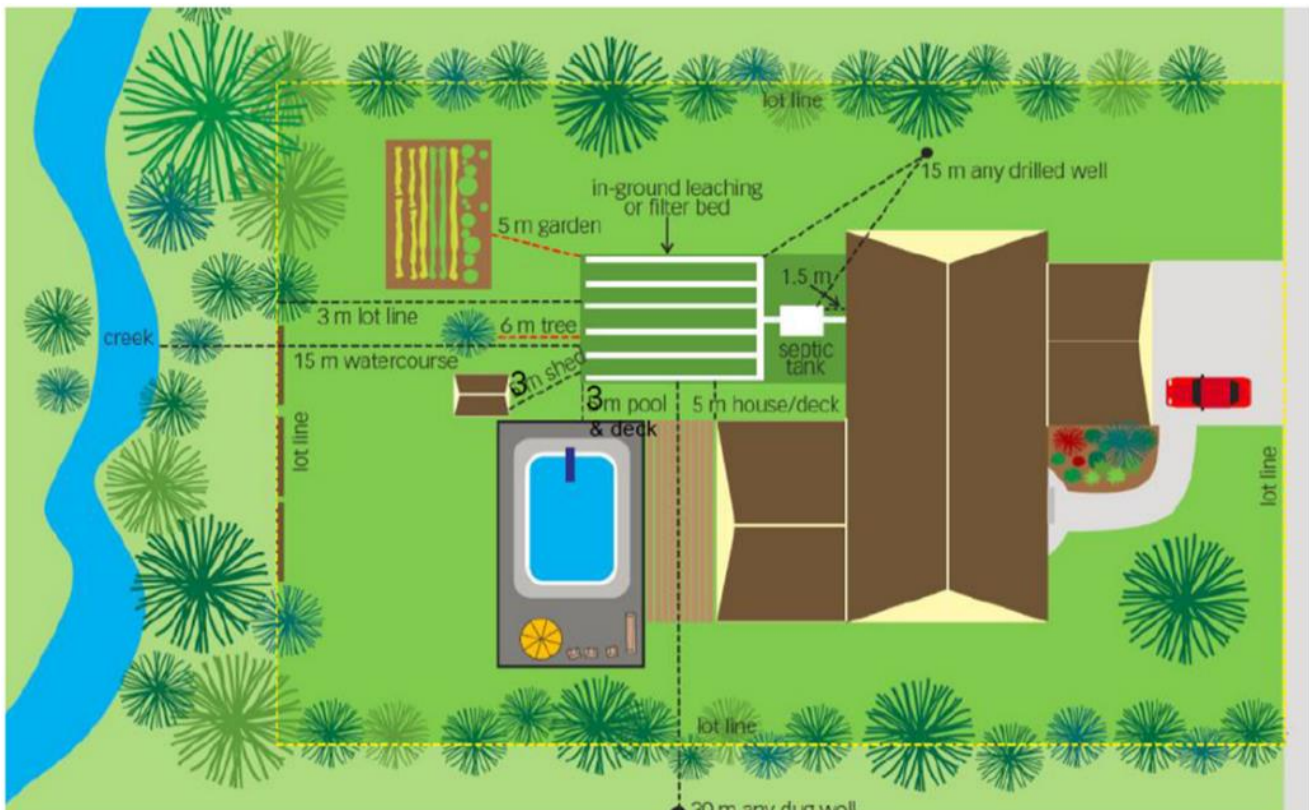
3. Septic Clearance Requirements

Accessory structures such as a pool, deck, detached garage or sheds are permitted to have a horizontal clearance of 3 metres (10ft.) under the following conditions:

- Detached garages or sheds shall not contain a basement.
- The existing sewage system fill, side slopes and sand mantle shall not be with infringed on or disturbed.
- The horizontal clearance of 3 metres (10ft.) shall be increased by twice the height that the leaching bed is raised above the original grade. OBC 8.7.4.2.(11).
- Deck structural components in contact with the ground shall maintain the horizontal clearance of 3 metres (10ft.).
- Any portion of the deck cantilevering beyond the supports may infringe into the required horizontal clearance of 3 metres (10ft.)

A deck may be constructed over the septic tank provide the following is maintained:

- Clear access is provided to the septic tank access ports or risers.
- Structural loads shall not be imposed onto the septic tank.



Construction Drawing Requirements

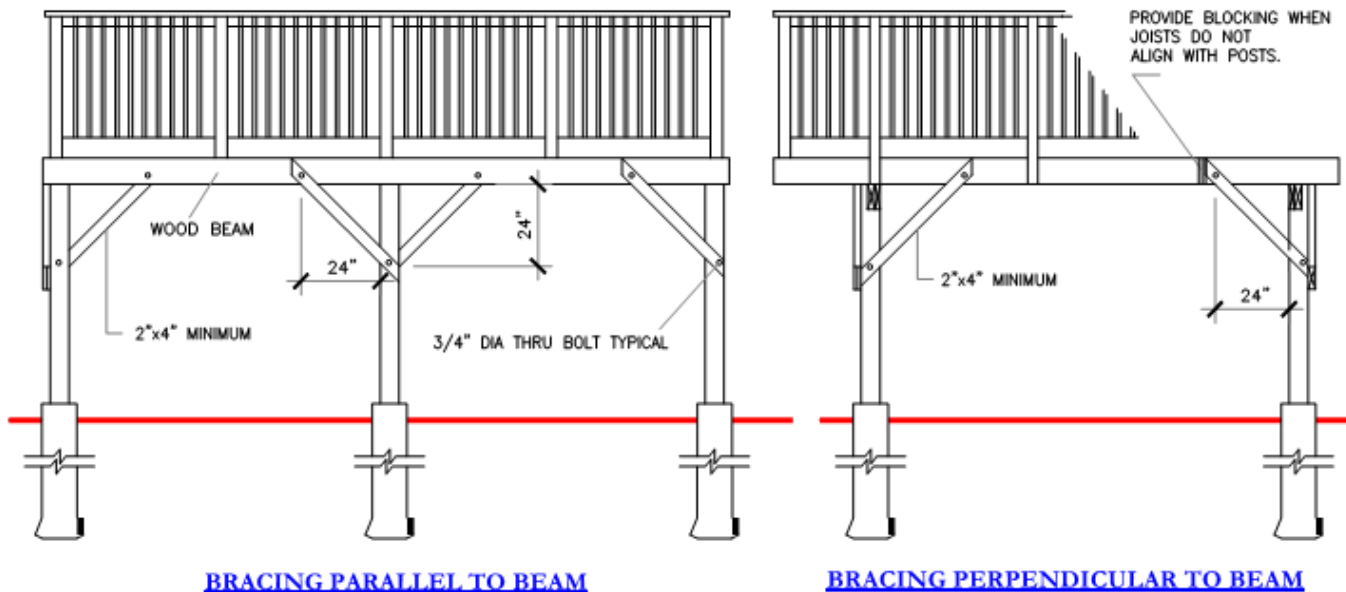
Footings or Deck Piers

Footings shall be constructed in accordance with the requirements below:

- Minimum of 10" diameter
- Footings shall bear on solid ground at a minimum of 48" below grade for frost protection.
- Footings shall be deeper if solid ground is not found. Bearing conditions must be verified by the Building Inspector prior to placement of concrete.
- Concrete piers shall extend 6" above grade.
- The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure in accordance with Table 1 above.
- Wood framing members that are not pressure-treated with a wood preservative and that are supported on concrete in contact with the ground or fill shall be separated from the concrete by not less than 0.05 mm polyethylene film or Type S roll roofing (not required if 6" above ground).

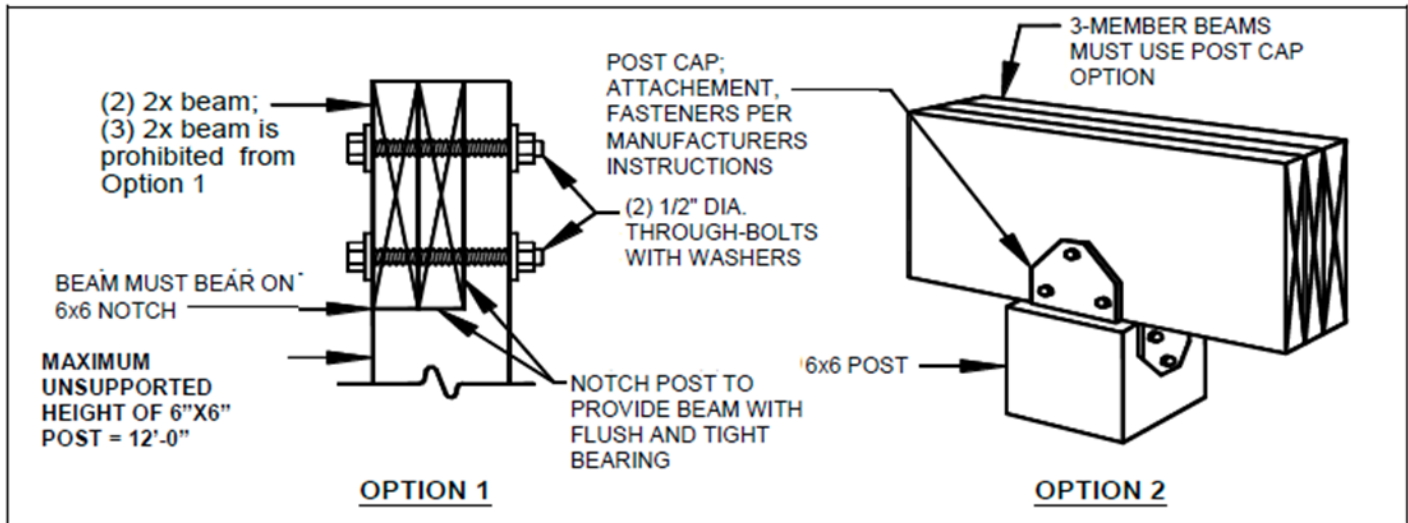
Deck Support Posts

- All deck support posts shall be a minimum 6"x6" with a maximum unsupported height of 10'-0" measured from the top of the footings to the underside of the beam.
- All supports shall be restrained from lateral displacement at the footing. Lateral restraint shall be provided by manufactured connectors or by minimum post embedment of 12 inches in surrounding soils or concrete piers.
- Cut ends of posts shall be field treated with a wood preservative



Lateral Bracing shall be provided for decks that exceed 24" above grade

Deck beam to Post Connection shall be connected together either by a post cap or by a notched post to accommodate all plies of the deck beam and bolted together.



Deck Beams and Spans

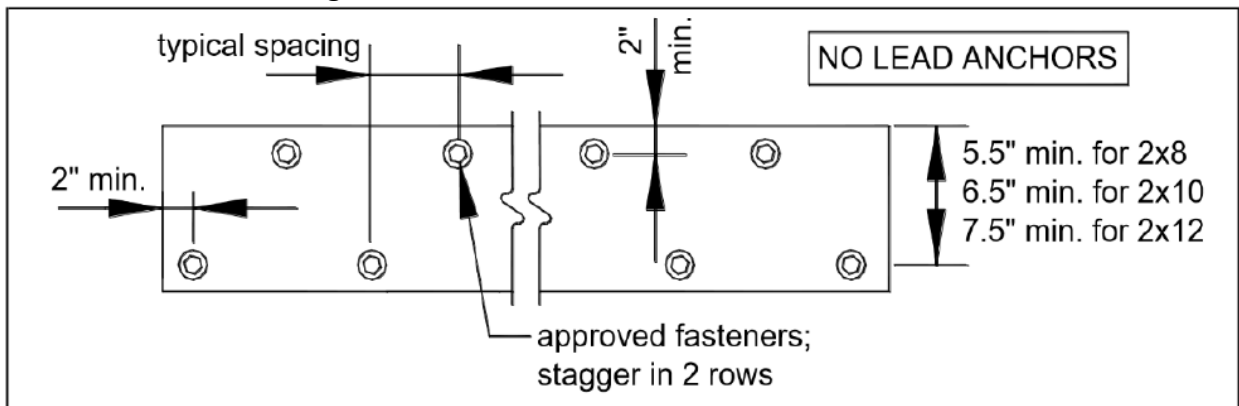
<u>Size</u>	<u>Max Spans</u>
2-2x8	6'-0"
2-2x10	7'-0"
2-2x12	8'-0"
3-2x8	7'-0"
3-2x10	8'-0"
3-2x12	9'-0"

**As per OBC Part 9 Tables A-12 and A-15*

- Beam span length is measured between the centerlines of two adjacent posts and does not include the beam overhangs.
- Beams may overhang past the centre of the post up to sixteen inches.
- Flush beams shall have a depth greater than or equal to the deepest joist.
- The plies of the built-up beam shall be fastened as follows:
 - nailed together with a double row of nails not less than 3-1/2" in length, spaced not more than 18" apart in each row with the end nails located 4"-6" from the end of each piece.
 - bolted together with not less than 1/2" diam. bolts equipped with washers and spaced not more than 48" o.c. with the end bolts located not more than 24" from the ends of the members.
- The distance from the centreline of the fastener to the top or bottom edge of the beam shall be 1/2-inch minimum.
- The distance from the centreline of the fastener to the ends of the beam shall be 1-inch minimum.
- Beam plies are permitted to have splices. However, splices shall be located at inside posts

Ledger Board and Attachment

- Decks are usually supported on one side by a ledger attached to the house. This ledger attachment is critical to ensure the deck is safely and securely supported to the house. There are very specific requirements that must be met. Follow the diagrams closely for the proper attachment of the ledger.
- The deck ledger shall NOT be nailed to the house - it must be lagged screwed or bolted to the structure of the house.
- **Do NOT secure a ledger to brick** – it must be connected to the house structure.



Joist Spans

Joist Size	Joist Spacing on Centre (inches)	Maximum Span
2x8	12"	12'-0"
	16"	11'-0"
	24"	10'-0"
2x10	12"	14'-0"
	16"	13'-0"
	24"	12'-0"
2x12	12"	14'-0"
	16"	14'-0"

* **Note:** Blocking required at midspan of joists or at 6'-10" on centre for all joists listed above.

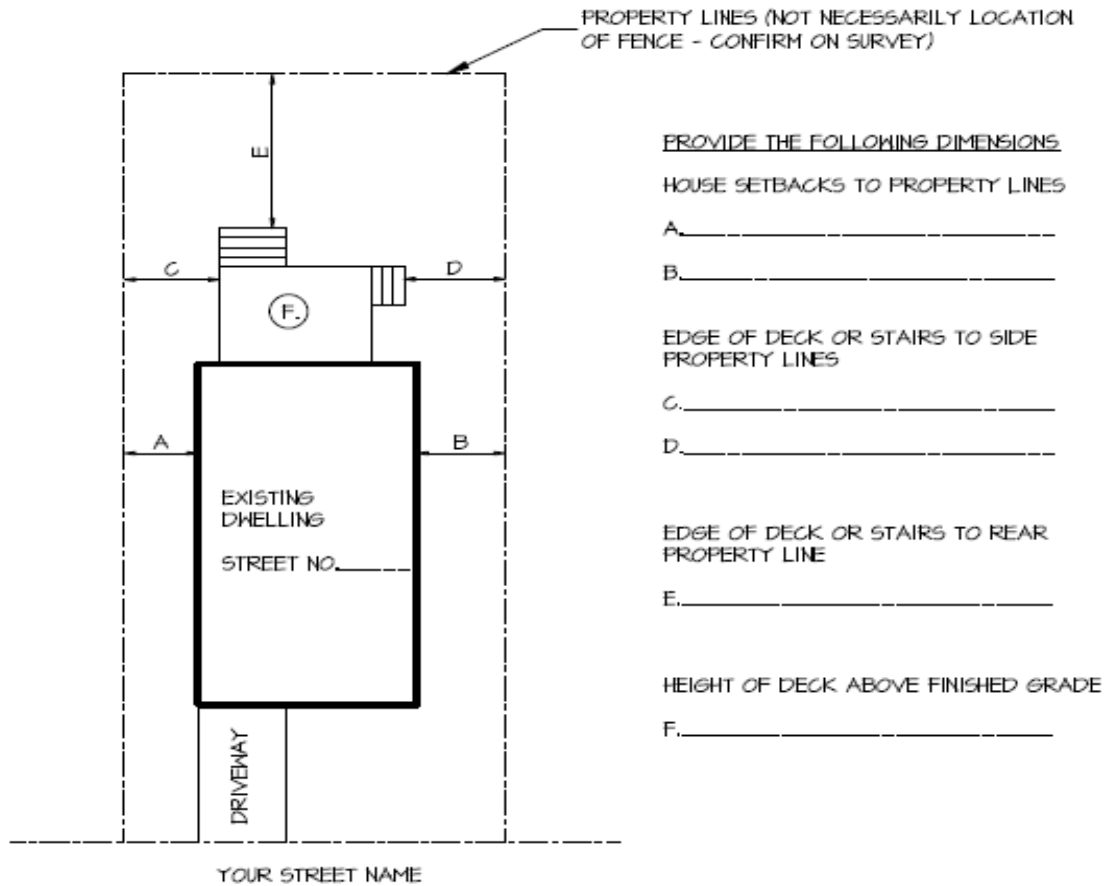
- Joist span length is measured from the ledger board to the centerline of the supporting beam or between the centerlines of the supporting beams at each end.
- Joists are permitted to overhang past a beam; joist span length does not include overhangs.
- The joists' design is based on spacing, size and span length. Use Table 1 to determine joist size and the corresponding maximum allowable overhang. **Note: the overhang dimension shall never exceed one sixth of the actual joist span. For example 10'-0" x .16 = 1'-6" maximum overhang.**
- Provide full-depth 2x blocking between overhanging joists above beam locations. Exception: blocking may be omitted if the overhand is less than or equal to 2 feet.
- Where blocking between joists is required, attach blocking using joist hangers at each end or by toenailing blocking to joists at each end, top and bottom with 10d nails.

<u>Application Checklist</u>		Yes	No
Documentation	Application to Construct or Demolish		
	Schedule 1: Designer Information – <i>if drawings are completed by someone other than the homeowner</i>		
	*If drawings are stamped by a Professional Engineer and/or Architect form is not required.		
	Conservation or other authority clearance letter		
Site Plan	Shows property lines and fully dimensioned		
	Provide dimensions and area of existing structures		
	Provide setbacks (dimensions) from property lines to edge of deck or stairs		
	Provide existing and proposed lot coverage calculations.		
Deck Plan View	Dimension length and width of deck		
	Dimensions distance between concrete piers		
	Dimension cantilever length for floor joists and support beams		
	Dimension floor joist span		
	Indicate size and type of floor decking		
	Indicate size and spacing of proposed joists		
	Indicate size and number of plies for support beam		
Cross Section	Provide concrete pier depth from grade to bearing soil * Note minimum depth is 4'-0" and must extend 6" above grade		
	Indicate concrete pier diameter * Note minimum 10" pier required		
	Dimension guard height and construction. If being constructed in other than wood Professional Engineer details required.		
	Provide post size, beam to post, and post to pier connections		
	Dimension height of deck from finished deck floor to average grade		
	Detail connection of deck to existing structure if applicable		

Sample Drawings

Site Plan

SAMPLE SITE PLAN



* USE SURVEY TO SHOW SETBACKS (PROVIDED WITH HOUSE PURCHASE) OR SKETCH DRAWN TO SCALE

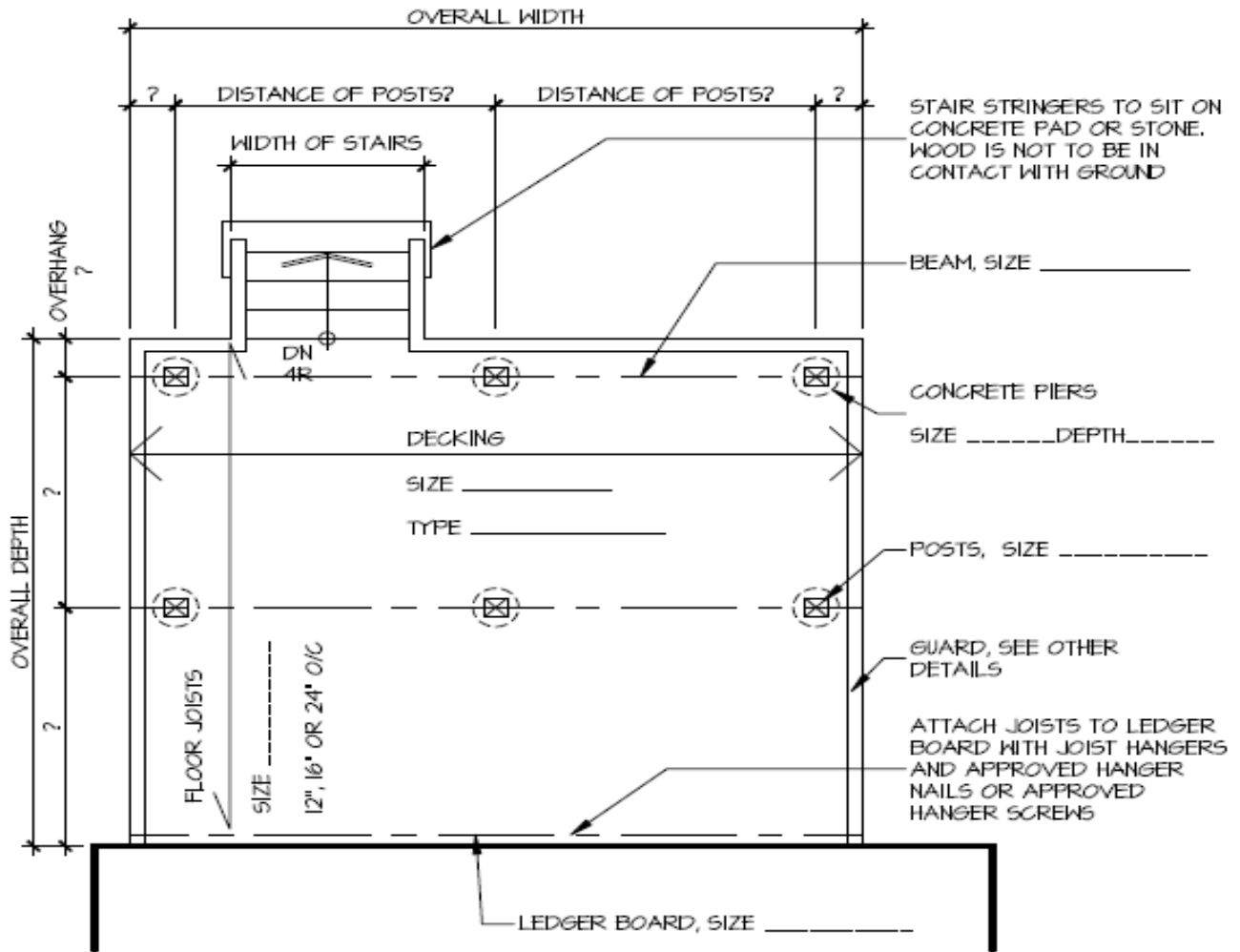
* THE SETBACKS FROM THE EDGE OF THE DECK OR EDGE OF STAIRS (WHERE APPLICABLE) ARE SET OUT BY THE THE TOWN OF NEWMARKET COMPREHENSIVE ZONING BY-LAW 2010-40

* LAKE SIMCOE REGION CONSERVATION AUTHORITY APPROVAL MAY BE REQUIRED DEPENDING ON YOUR ADDRESS

* CONSIDER CONTACTING SOMEONE IN THE PLANNING OFFICE FOR YOUR ZONING AND SETBACK REQUIREMENTS BEFORE APPLYING FOR A BUILDING PERMIT

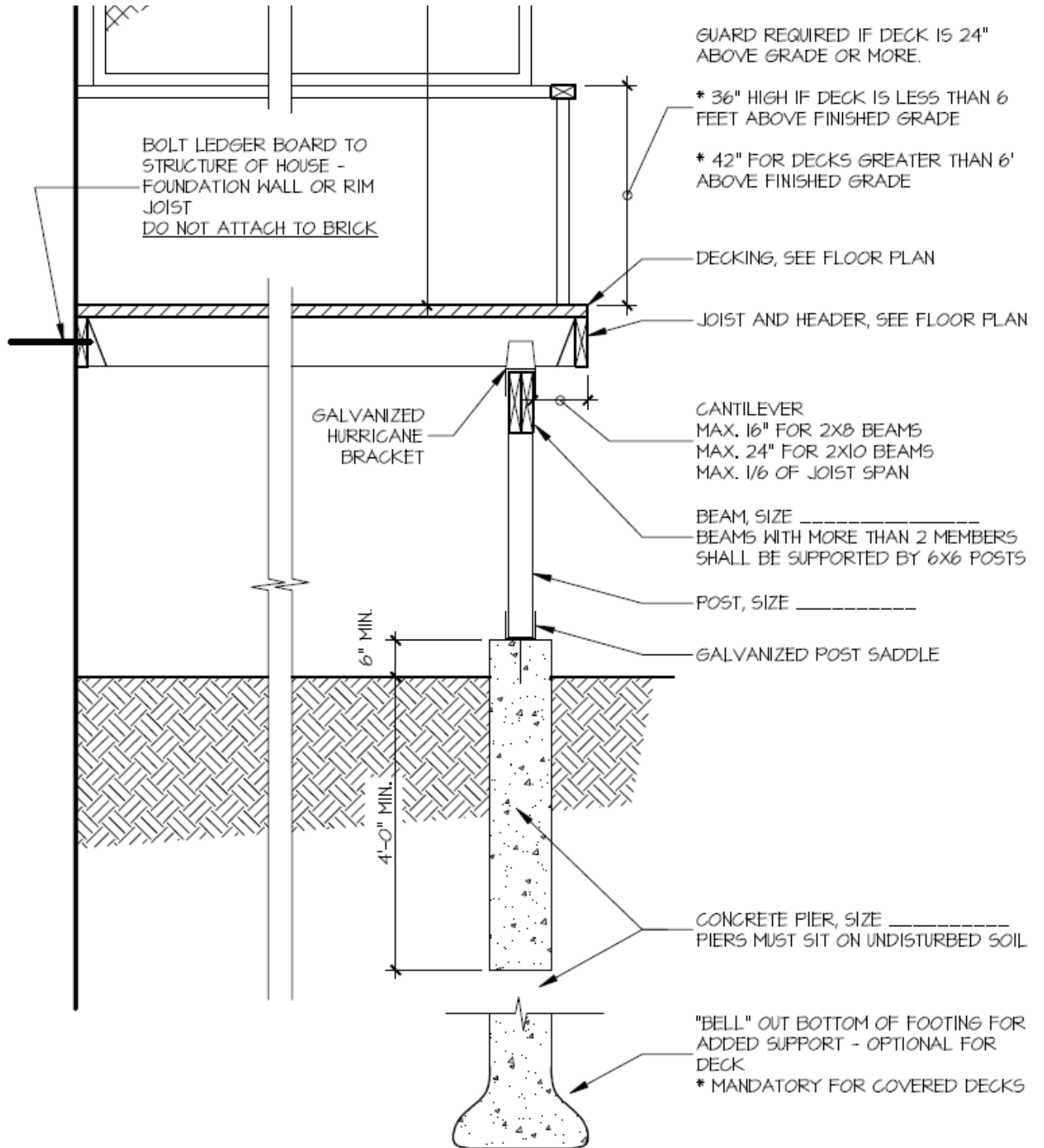
Deck Plan View

SAMPLE FLOOR PLAN
 (EXAMPLE ONLY, REFER ALSO TO THE ONTARIO
 BUILDING CODE AND TACBOC STANDARD DETAILS)

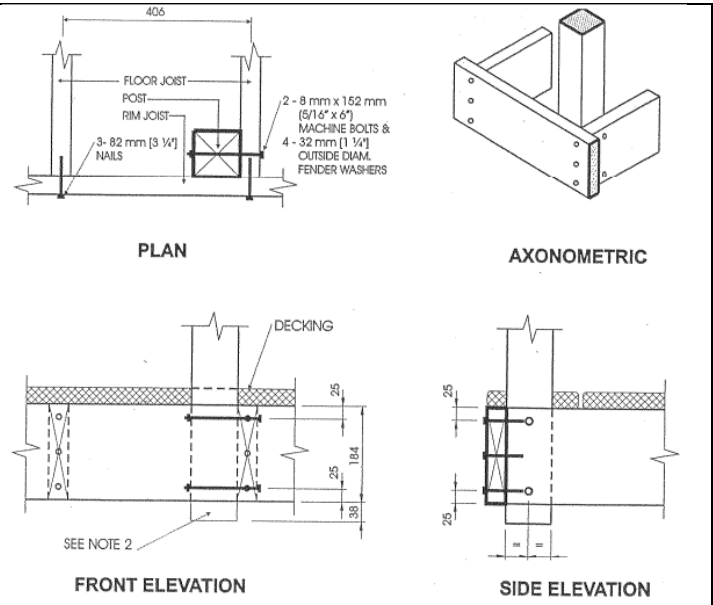
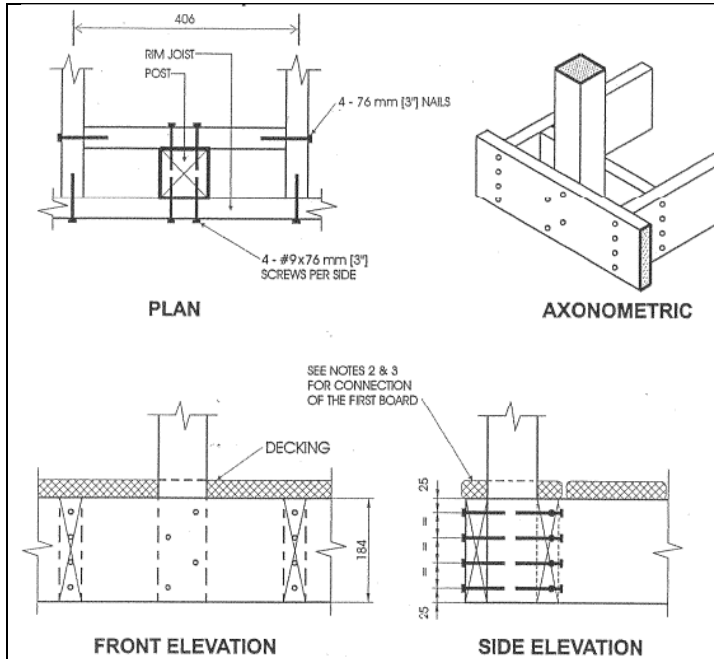


- * LEDGER BOARD TO BE ATTACHED TO HOUSE WITH MIN. 1/2" CONNECTORS AT MAX. 32" CENTRES
- * PROVIDE TYPE OF MATERIAL USED FOR STRUCTURE
- * PROVIDE TYPE OF MATERIAL USED FOR DECKING
- * PROVIDE TYPE OF MATERIAL USED FOR GUARD
- * GUARD REQUIRED AT ANY PORTION OF DECK THAT IS 24" ABOVE GRADE OR MORE

Cross Section

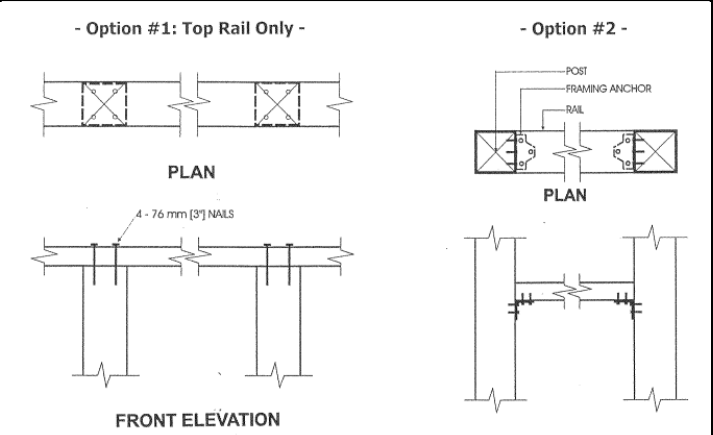
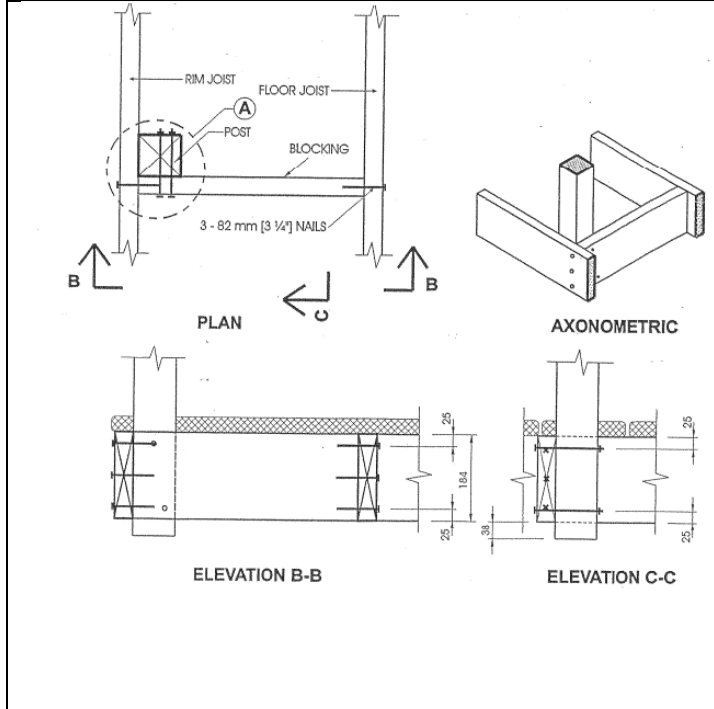


Guard Details – SB-7



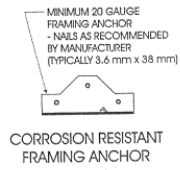
- Notes:
1. Decking is omitted from the plan view and the axonometric view for clarity.
 2. 38 mm (1 1/2") post projection is not required where the maximum spacing between posts does not exceed 1.20 m (3'-11").
 3. Joists may be spaced at 610 mm (24") o.c. or 406 mm (16") o.c.
 4. Where floor joists are spaced at 610 mm (24") o.c., decking shall have a minimum thickness of 38 mm (1 1/2") and shall be fastened to the floor with 2 - 76 mm (3") nails.

- Notes:
1. Decking is omitted from the plan view and the axonometric view for clarity.
 2. Fasten 25 mm x 140 mm (2 1/4" x 6" nominal) outer deck board to rim joist with 63 mm (2 1/2") nails at 300 mm (12").
 3. Fasten 25 mm x 140 mm (2 1/4" x 6" nominal) outer deck board to floor joist with 1 - 63 mm (2 1/2") nail at each joist.
 4. The post may be positioned anywhere between the joists.
 5. #9 screws may be replaced by #8 screws if the maximum spacing between posts is not more than 1.20 m (3'-11").



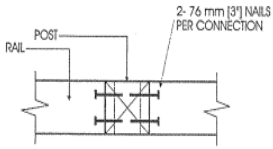
Minimum Size of Loadbearing Elements

Guard Element	Minimum Size, mm (in)
Post	89 x 89 (4" x 4" nominal)
Top Rail	38 x 89 (2" x 4" nominal)
Bottom Rail	38 x 89 (2" x 4" nominal)
Picket / Baluster	32 x 32 (1 9/32" x 1 9/32")

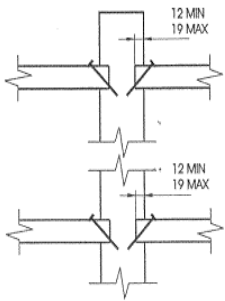


CORROSION RESISTANT FRAMING ANCHOR

- Option #3 -



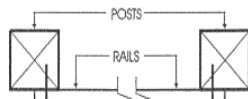
PLAN



FRONT ELEVATION

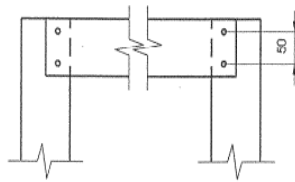
- Option #4 -

DECK SIDE

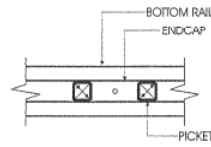


2 - #8 x 76 mm [3\"] SCREWS

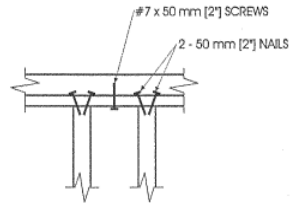
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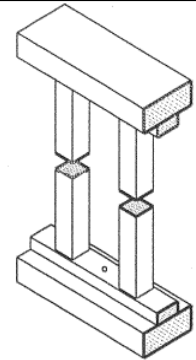
FRONT ELEVATION



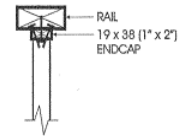
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BOTTOM RAIL



FRONT ELEVATION



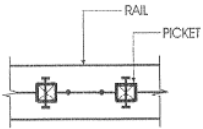
AXONOMETRIC



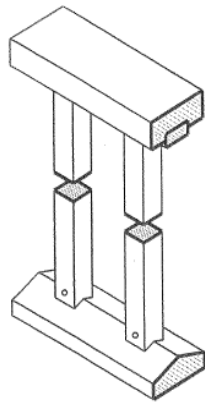
SIDE ELEVATION

Notes:

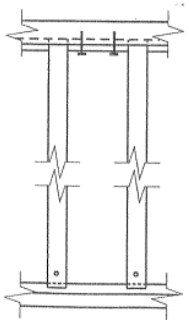
1. Fasten each end of each picket to endcaps with 2 - 50 mm (2") nails.
2. Fasten endcaps to rails with #7 x 50 mm (2") screws at 300 mm (12") o.c.



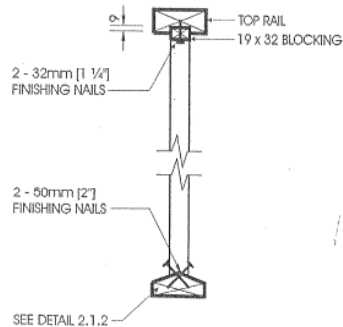
PLAN
BOTTOM RAIL



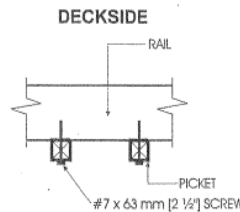
AXONOMETRIC



FRONT ELEVATION

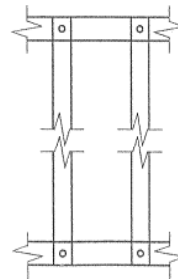


SIDE ELEVATION

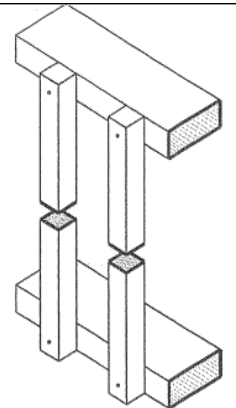


DECKSIDE

PLAN



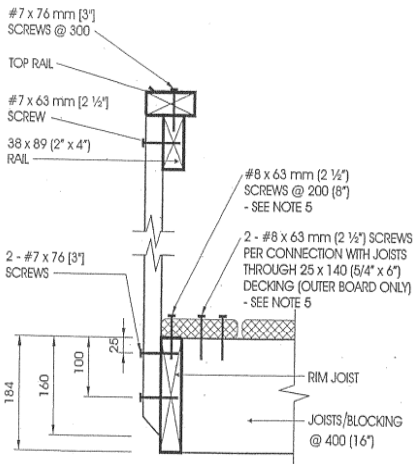
FRONT ELEVATION



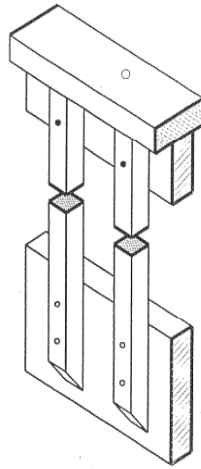
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SIDE ELEVATION



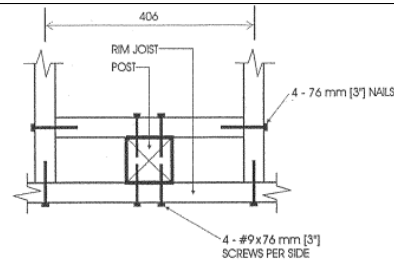
SIDE ELEVATION



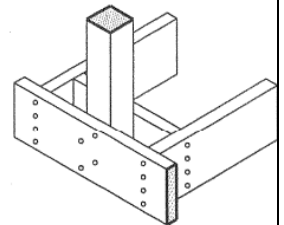
AXONOMETRIC

Notes:

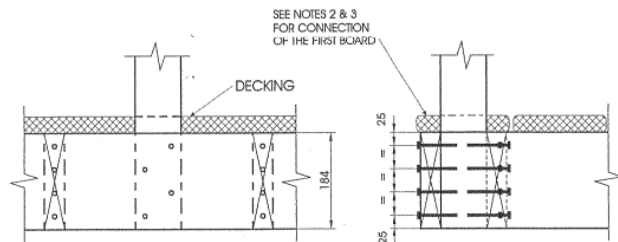
1. Provide a suitable post, return, or solid support at each end of the guard.
2. Wood for cantilevered pickets shall be Douglas Fir-Larch, Spruce-Pine-Fir, or Hem-Fir Species.
3. Fasten rim joist to each floor joist with 3 - 82 mm (3 1/4") nails.
4. Dimensions shown are in mm unless otherwise specified.
5. The outer deck board shall not be less than 140 mm (6" nominal) wide. Where 38 mm (2" nominal) thick boards are used, the length of the wood screws shall be not less than 76 mm (3").



PLAN



AXONOMETRIC

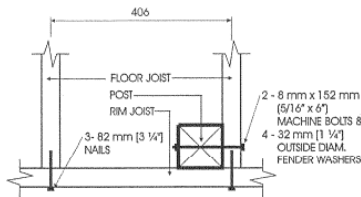


FRONT ELEVATION

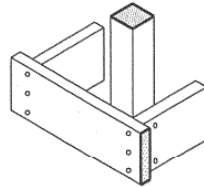
SIDE ELEVATION

Notes:

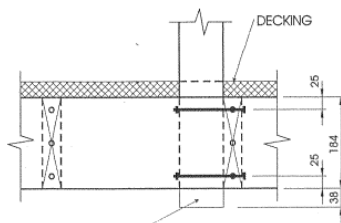
1. Decking is omitted from the plan view and the axonometric view for clarity.
2. Fasten 25 mm x 140 mm (2 1/4" x 6" nominal) outer deck board to rim joist with 63 mm (2 1/2") nails at 300 mm (12").
3. Fasten 25 mm x 140 mm (2 1/4" x 6" nominal) outer deck board to floor joist with 1 - 63 mm (2 1/2") nail at each joist.
4. The post may be positioned anywhere between the joists.
5. #9 screws may be replaced by #8 screws if the maximum spacing between posts is not more than 1.20 m (3'-11").



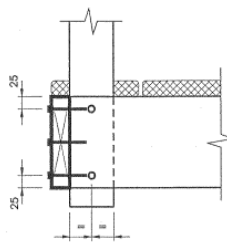
PLAN



AXONOMETRIC



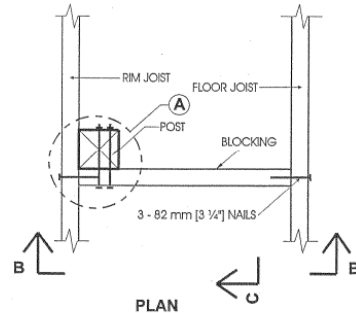
FRONT ELEVATION



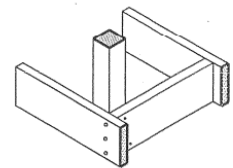
SIDE ELEVATION

Notes:

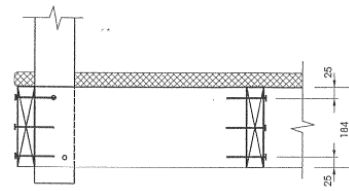
1. Decking is omitted from the plan view and the axonometric view for clarity.
2. 38 mm (1 1/2") post projection is not required where the maximum spacing between posts does not exceed 1.20 m (3'-11").
3. Joists may be spaced at 610 mm (24") o.c. or 406 mm (16") o.c.
4. Where floor joists are spaced at 610 mm (24") o.c., decking shall have a minimum thickness of 38 mm (1 1/2") and shall be fastened to the floor with 2 - 76 mm (3") nails.



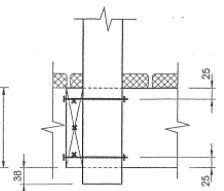
PLAN



AXONOMETRIC



ELEVATION B-B



ELEVATION C-C

Notes:

1. Use any of the connection details shown on Details EB-1 to EB-5 at location "A". Connection Detail EB-4 is shown in this detail, as an example.
2. Maximum spacing between posts is determined from connection detail used at location "A".
3. Decking is omitted from the plan view and the axonometric view for clarity.
4. Blocking shall be not less than 38 mm x 184 mm (2" x 8" nominal).