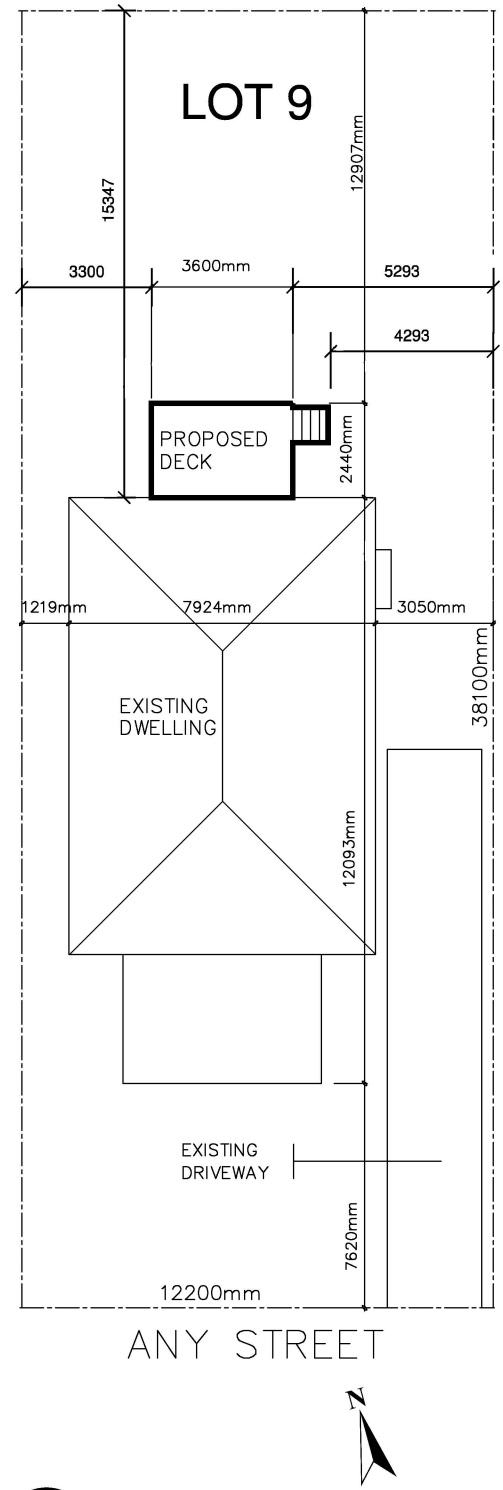
DECK CONSTRUCTION DRAWING PACKAGE

The City of Pickering Deck Construction Drawing Package consists of sample, code compliant drawings of typical construction and have been made available to assist you in the preparation of your building permit application. This package will be issued with your building permit and therefore the deck construction must meet the minimum requirements noted on these drawings along with the any notes the City of Pickering Plans Examiner adds to your issued drawings.



1 / DK01 SITE PLAN
Scale 1:100

Start the process by following these steps:

STEP 1: Check the zoning on the property
Municipal Zoning by-laws regulate where the location, height and size of the deck. Contact the City of Pickering Zoning Examiner for site specific information.

STEP 2: Is your property environmentally protected?
To find out if your property contains environmentally protected natural features contact Toronto and Region Conservation Authority (TRCA) and Central Lake Ontario Conservation Authority (CLOCA).

STEP 3: Find out if you need a Building Permit
- Is the deck greater than 10 square meters in area?
- Is the floor of the proposed deck higher than 600 mm from grade?
- Is the proposed deck attached to the building?

If you answered "YES" to any of the above questions, the deck requires a Building Permit.

STEP 4: Prepare a Site Plan drawing
Prepare a dimensioned site plan, showing the proposed deck and all other structures on the property. The site plan shows the location of the deck in reference to the property line and is used to verify zoning compliance of setbacks, height and coverage.

STEP 5: Prepare the construction drawings
Use the Ontario Building Code and Deck Construction Drawings Package to prepare construction drawings for the deck.

STEP 6: Assemble the drawings and apply for a permit
All applications for Building Permits must be submitted electronically.
A Building Permit will be issued after the City of Pickering Plans Examiner completes the review of the submitted drawings. The Building Permit must be printed and clearly displayed on the property.

STEP 7: Book your Building Permit inspections
To book an inspection visit the City of Pickering website and search inspection requests. Your first inspection will happen prior to pouring concrete footings.

DECK INSPECTIONS

Call 905.420.4631 to arrange inspections. Provide your approved drawings to the inspector. Failure to arrange inspections prior to covering the work may result in delays or the removal of finishes after work is completed.

	Type of Inspection	Required
	Footing/Foundation	Prior to pouring concrete
	Framing/Structure	Prior to covering
	Final	On completion of deck

STEP 8: Enjoy the deck!

The 8 steps is a summary of the City of Pickering's Deck Construction Guide. For the full guide, please visit City of Pickering website and search Deck Construction Guide.

SUPPORTED AREA OF A PIER

Piers transfer the deck load to the soil and must have sufficient bearing area to do so. The supported area of a pier is the total area of the structure (deck, floor, etc.) that transfers load to the pier through the beam and joists. This area is used for designing footings. The supported area may be calculated using this formula:

Supported area
=
[sum of 1/2 span of the beam on either side of the pier(plus cantilever length)]
X
[sum of half span of the joists (plus cantilever length) on either side of the beam]

To determine the appropriate pier size, first calculate the supported area for each pier using the formula below. Then, refer to a Pier Sizing Table or apply the pier calculation formula to determine the minimum required pier size for either a circular or square footing.

PIER SIZE TABLE

Supported Area (m^2)	Pier Area (m^2)	Diameter (mm)	Square (mm)
1.18	0.03	200	175
1.98	0.05	250	225
3.16	0.08	300	285
3.95	0.10	350	320
5.13	0.13	400	360
7.90	0.20	500	450
11.85	0.30	600	550

PIER CALCULATION:

$$\text{Pier Area} = \frac{\text{Supported Area} \times \text{Load}}{\text{Soil Bearing Capacity}}$$

Where;

Supported Area: deck area supported by the column and pier in m^2

Load: 1.9 kPa for the walking surface of the deck

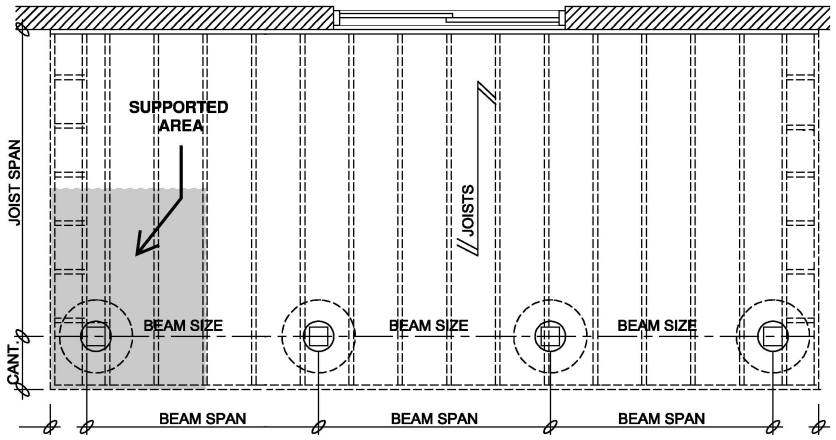
Soil Bearing Capacity: 75 kPa, unless a soils report is submitted

BEAM SPAN TABLE

Beam Size (mm)	Maximum Span (m) Specified Snow Load (kPa) 1.0	1.5	2.0
2 - 38 x 184	2.35	2.02	1.80
2 - 38 x 235	2.88	2.47	2.20
2 - 38 x 286	3.34	2.87	2.56
3 - 38 x 184	2.88	2.48	2.21
3 - 38 x 235	3.53	3.03	2.70

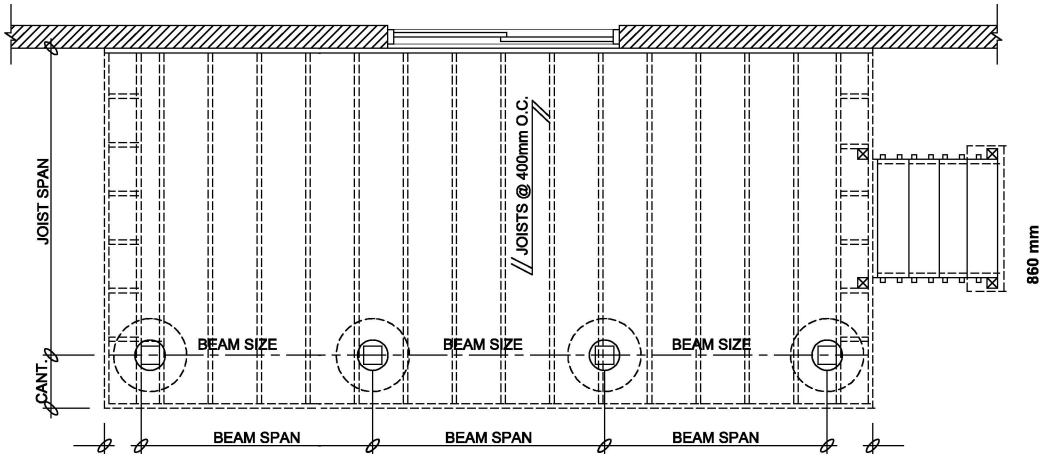
DECK JOIST AND ROOF JOIST SPAN TABLE

Joist Size (mm)	Maximum Span (m) Deck Load or Specified Snow Load (kPa) 1.0 Joist Spacing (mm) 300	400	600	1.5 Joist Spacing (mm) 300	400	600	2.0 Joist Spacing (mm) 300	400	600
38 x 140	3.89	3.53	3.08	3.40	3.08	2.69	3.08	2.80	2.45
38 x 184	5.11	4.64	4.05	4.46	4.05	3.54	4.05	3.68	3.22
38 x 235	6.52	5.93	5.18	5.70	5.18	4.52	5.18	4.70	4.11
38 x 286	7.94	7.21	6.30	6.94	6.30	5.50	6.30	5.73	5.00

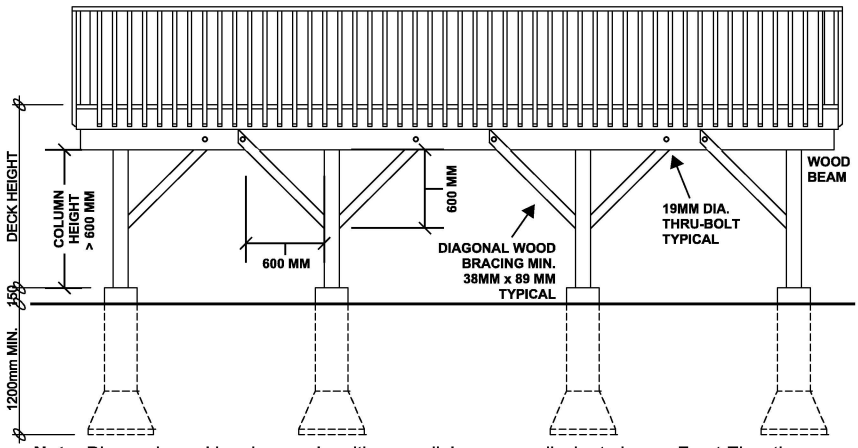


Notes to Sizing Tables:

1) Decks shall be designed to carry a minimum load of 1.9 kPa.
2) All wood to be S-P-F grade number 1 and 2, Spruce – Pines – Fur which includes Spruces (all species except Coast Stika Spruce) Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir.
3) Provide mid-span blocking for joist spanning more than 2.10 m.
4) Nails or structural screws are required to secure structural members. Pressure treated lumber requires the use of corrosion resistant fasteners.
5) For beams greater than 2–ply, beam spans are calculated based on a maximum supported length of 4.9 m. Spans may be increased by 5% for supported lengths of not more than 4.3 m, by 10% for supported lengths of not more than 3.7 m, and 25% for supported lengths of not more than 2.4 m.
6) Solid bearing is required under all beams.
7) To fasten multi–ply beams refer to details.
8) Where 100 mm by 100mm wood columns are used concrete piers shall be not less than 200 mm in diameter, and where 150 mm by 150 mm columns are used piers shall be not less than 250 mm in diameter.
9) Floor joists shall be a minimum of 38 mm by 184 mm when either SB-7 guard details, or cantilevered joists are used.
10) The maximum cantilever of a 38 mm by 184 mm joists is 400 mm, and for 38 mm by 235 mm joists is 600 mm but in no cases shall that cantilever be more than 1/6 the joist span. Maximum cantilever of 300mm for beams but in no case shall that cantilever be more than 1/6 of the beam span.
11) Concrete piers are sized based on an assumed soil bearing capacity of 75 kPa. A soils report is required if a higher capacity is used.
12) Concrete pier foundations shall have a compressive strength of 15 MPa. Exterior concrete flat work shall have a compressive strength of 32 MPa.
13) Footings must extend below frost depth (at least 1.2 m) and rest on undisturbed soil, not on backfill.
14) Spans are measured as the clear distance between supports, such as the face of columns.

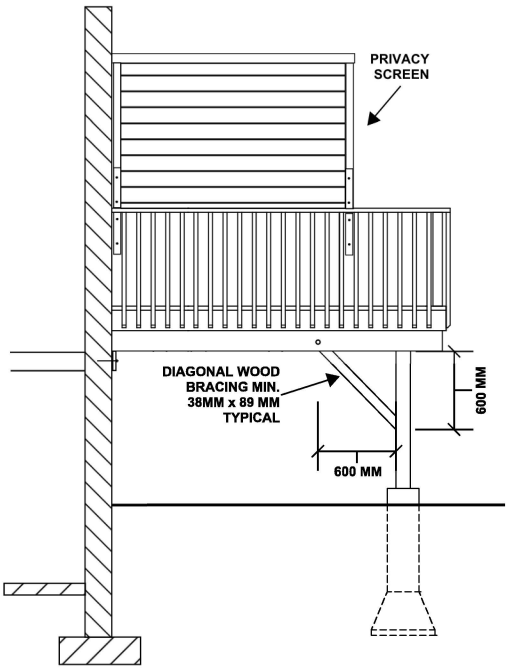


1 / DK03 FRAMING PLAN



Note: Diagonal wood bracing can be either parallel or perpendicular to beam. Front Elevation shows bracing parallel to beam. Side Elevation shows bracing perpendicular to beam.

2 / DK03 FRONT ELEVATION



3 / DK03 SIDE ELEVATION

LATERAL SUPPORT DESIGN

Columns shall be securely fastened to the supported member to reduce lateral differential movement between the column and supported member. Lateral bracing can be achieved with approved hardware, such as post caps, or by using diagonal wood bracing. Diagonal wood bracing is required as per detail 2 and 3 where the supported deck area exceeds those listed in the Post Sizing Table on sheet DK03.

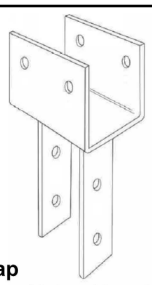
Columns do not need to be provided with lateral support if the length of the column is less than 600 mm as per OBC 9.17.2.2.(3).

PRIVACY SCREEN DESIGN

A privacy screen does not replace the requirements for a guard. Where a privacy screen is desired a guard is also required. This is because privacy screens do not typically withstand the required loading criteria. The easiest way to add a privacy screen is to add it in conjunction with a guard.If this is not done, then a qualified person, such as a structural engineer is required to design the privacy guard.

POST SIZING TABLE

Post Size (mm)	Maximum Height (m)	Supported Deck Area (m^2) Load (kPa)		
		1.9	2.5	3.0
89 x 89	1	10.86	8.71	7.48
	1.5	5.93	4.76	4.09
	2	3.15	2.53	2.17
140 x 140	2	13.67	10.98	9.43
	2.5	9.32	7.48	6.43
	3	6.35	5.1	4.38
	3.5	4.41	3.54	3.04



Post Cap
Example of lateral bracing hardware. Refer to manufacturers literature to size.

City of PICKERING
BUILDING SERVICES

DECK CONSTRUCTION DRAWING PACKAGE

PLAN AND ELEVATIONS

DK03

LEDGER BOARD DESIGN

Where a deck is connected to a building, it is to be supported on ledger board connected to the interior structural framing or concrete foundation of the house. For wood framing connections spacing refer to Ledger Fastener Design details and table. For concrete foundation wall connections refer to manufacturer's specifications.

In all cases:

1) Minimum size of ledger board shall be 38 mm by 184 mm.
2) Anchors shall be staggered to avoid splitting wood.
3) Maximum gap between ledger and face of wall sheathing shall be 12 mm.
4) Maximum distance between face of ledger board and face of rim joist shall be 25 mm.

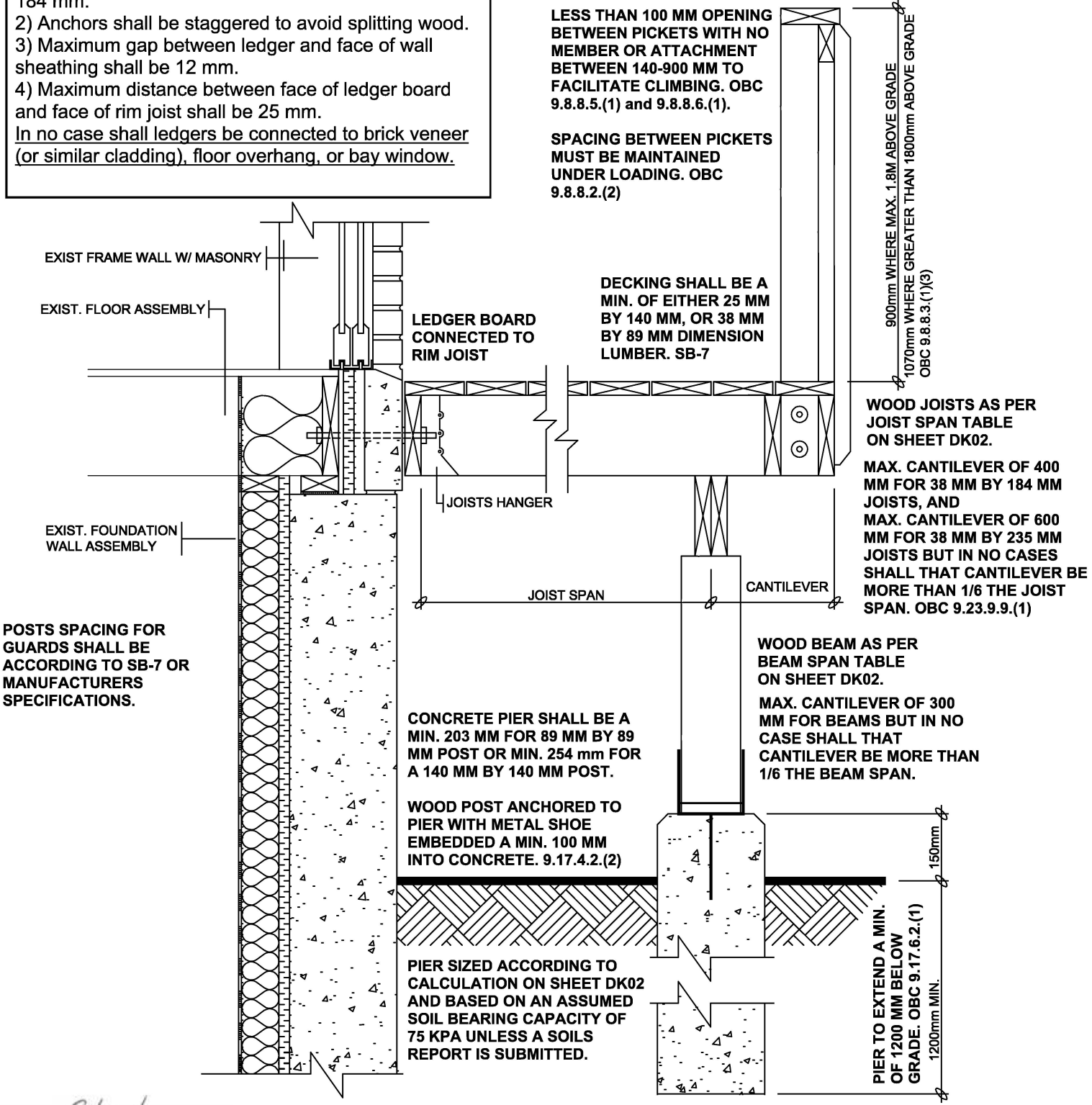
In no case shall ledgers be connected to brick veneer (or similar cladding), floor overhang, or bay window.

GUARD DESIGN

Guards are required when the distance between the walking surface of the deck and the adjacent ground exceeds 600 mm in height as per OBC 9.8.8.1.(1). They must be constructed in accordance with the OBC requirements in either:

1) Supplemental Standard SB-7, or
2) Design drawings completed by a qualified professional, such as a professional engineer registered in Ontario.

See guard detail sheets for SB-7 guard details.

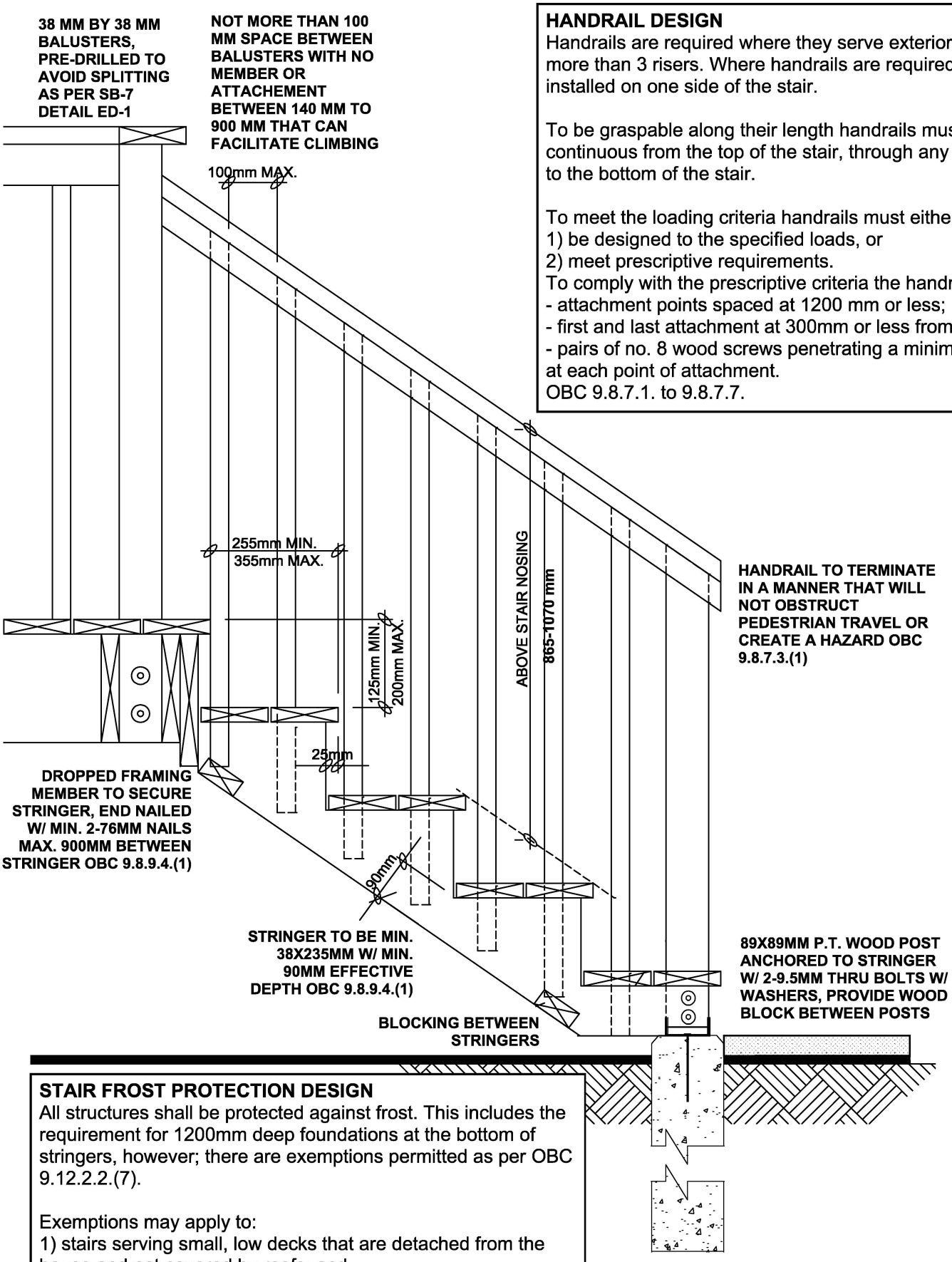


City of PICKERING
BUILDING SERVICES

DECK CONSTRUCTION DRAWING PACKAGE

SECTION DETAIL

DK04



HANDRAIL DESIGN

Handrails are required where they serve exterior stairs with more than 3 risers. Where handrails are required they may be installed on one side of the stair.

To be graspable along their length handrails must be continuous from the top of the stair, through any landings, and to the bottom of the stair.

To meet the loading criteria handrails must either:
1) be designed to the specified loads, or
2) meet prescriptive requirements.

To comply with the prescriptive criteria the handrail must have:
- attachment points spaced at 1200 mm or less;
- first and last attachment at 300mm or less from the ends; and
- pairs of no. 8 wood screws penetrating a minimum of 32 mm at each point of attachment.

OBC 9.8.7.1. to 9.8.7.7.

STAIR FROST PROTECTION DESIGN

All structures shall be protected against frost. This includes the requirement for 1200mm deep foundations at the bottom of stringers, however; there are exemptions permitted as per OBC 9.12.2.2.(7).

Exemptions may apply to:
1) stairs serving small, low decks that are detached from the house and not covered by roofs; and
2) stairs connections that demonstrate that differential movement will not negatively effect the deck structure.

City of PICKERING
BUILDING SERVICES

DECK CONSTRUCTION DRAWING PACKAGE

STAIR DETAIL

DK05

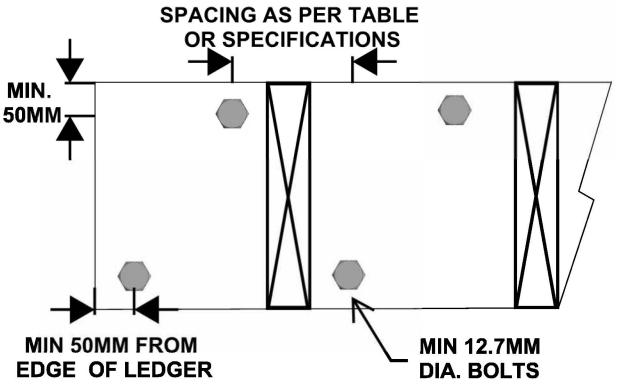
LEDGER BOARD DESIGN

LEDGER FASTENER SPACING FOR WOOD FRAMING

Connection Details	Joist Span (mm)		
	0-1850	1 851-3050	3051-4270
	On-Center Spacing of Fasteners (mm)		
12.7 mm dia. Lag screw* or Thru- Bolt**	600	355	250

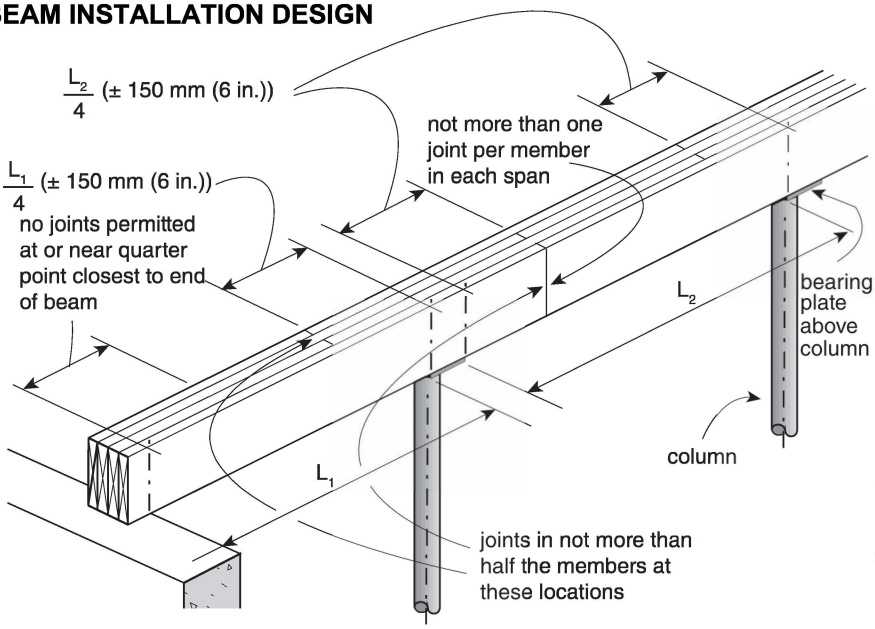
* 12.7 mm ledger pilot hole. 7.9 mm rim joist pilot hole. Lag screw to extend fully beyond rim joist. Install with washers. Do not use a hammer.

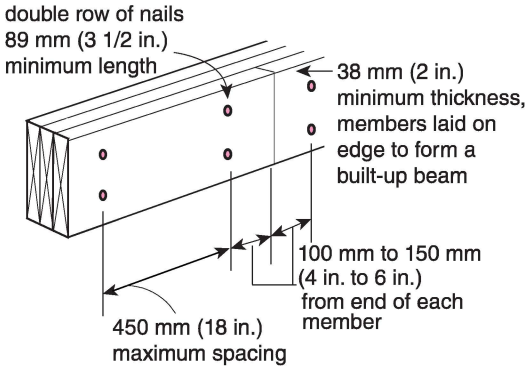
** Max. pilot hole shall be 14.5 mm. Install washers at bolt head and nut.

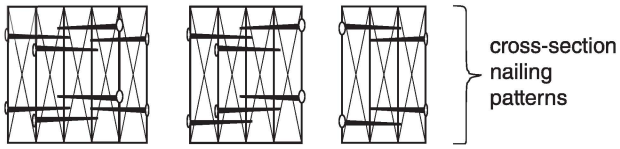


LEDGER FASTENED TO CONCRETE OR CONCRETE BLOCK:
1- USE APPROVED EXPANSION OR ADHESIVE ANCHOR WITH MIN. 12.7 MM DIA.
2 – REFER TO PER MANUFACTURER'S SPECIFICATIONS FOR SPACING, EMBEDMENT AND SIZING.

BEAM INSTALLATION DESIGN

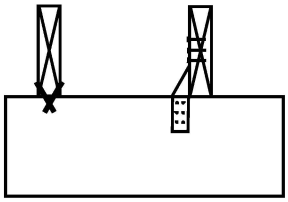




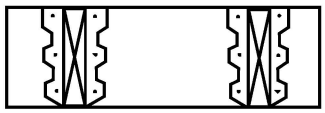


Alternatively, members can be bolted together with 12.7 mm dia. bolts (with washers), spaced at max.1200 mm oc, with end bolts 600 mm from end members. Carriage bolts shall not be used.

JOIST INSTALLATION DESIGN



DROP BEAM
JOIST INSTALL



FLUSH MOUNT BEAM
JOIST INSTALL

FASTENER SELECTION DESIGN

NAILS OR STRUCTURAL SCREWS ARE REQUIRED TO SECURE STRUCTURAL MEMBERS. DO NOT USE DECK SCREWS TO SECURE STRUCTURAL MEMBERS.

ALL CONNECTORS MUST BE CERTIFIED PRODUCTS. OBC 9.23.3.1. PRODUCTS SHALL BE CERTIFIED TO APPLICABLE STANDARDS:
ASTM F1667, “Driven Fasteners: Nails, Spikes and Staples”
CSA B111, “Wire Nails, Spikes and Staples”
CSA Z259.15, "Anchorage Connectors"

FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE ZINC-COATED GALVANIZED STEEL, SIMILARLY CORROSION RESISTANT OR STAINLESS STEEL. OBC 9.23.2.4.

REFER TO OBC FOR NAILING PATTERNS.

City of PICKERING
BUILDING SERVICES

DECK CONSTRUCTION DRAWING PACKAGE

CONSTRUCTION DETAILS

DK06

TABLE OF CONTENTS:
SB- 7 GUARD DETAILS

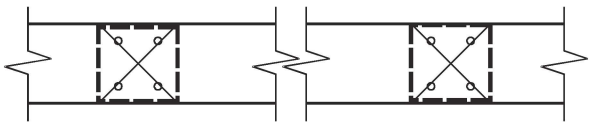
The tables below list the design options available for SB-7 compliant guards. The listed details have been included as an appendix to this package.

Table 2.2.1.
Exterior Post and Rail System Connection Details

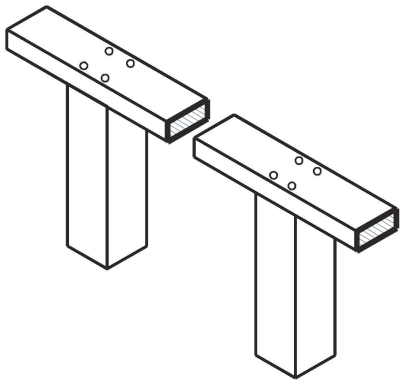
Connection Detail	Detail Number	Description
Top Rail to Post and / or Bottom Rail to Post	EA-1	Top rail nailed to post
	EA-2	Top/bottom rail skew nailed to post with 76 mm (3") nails
	EA-3	Top/bottom rail skew nailed to post with 63 mm ($2^1/_2$") nails
	EA-4	Top/bottom rail face nailed or screwed to post
	EA-5	Top/bottom rail fastened to post with framing anchors
Post to Floor	EB-1	Post nailed to rim joist
	EB-2	Post screwed to rim joist
	EB-3	Post bolted to floor joist with 8 mm ($^5/_{16}$") machine bolts
	EB-4	Post bolted to floor joist with 9.5 mm ($^3/_8$") machine bolts
	EB-5	Post bolted to 2 floor joists
	EB-6	Post fastened to floor, where guard is parallel to floor joists
Infill Picket	EC-1	Picket nailed to endcap; endcap screwed to rail
	EC-2	Picket nailed to rail
	EC-3	Picket screwed to rail
	EC-4	Picket screwed to top rail and rim joist
Column 1	2	3

Table 2.2.2.
Exterior Cantilevered Picket System Connection Details

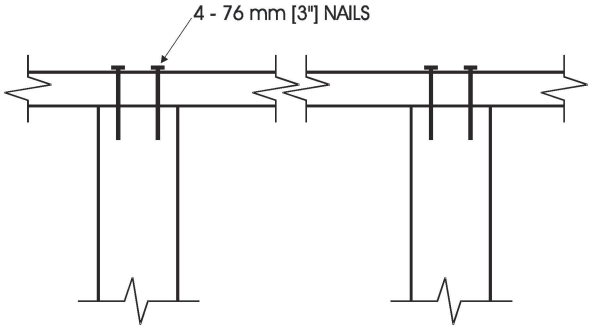
Connection Detail	Detail Number	Description
Cantilevered Picket (Douglas Fir-Larch, Spruce-Pine-Fir, Hem-Fir Species)	ED-1	Picket screwed to rim joist
	ED-2	Picket screwed to rim joist, where guard is parallel to floor joists
Cantilevered Picket (Northern Species)	ED-3	Picket screwed to rim joist and deck
	ED-4	Picket screwed to rim joist and deck, where guard is parallel to floor joists
Cantilevered Picket (Douglas Fir-Larch, Spruce-Pine-Fir, Hem-Fir Species, Northern Species)	ED-5	Corner
Column 1	2	3



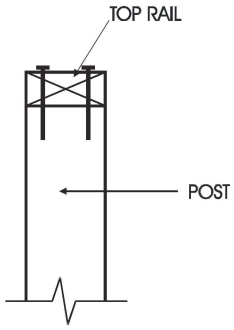
PLAN



AXONOMETRIC



FRONT ELEVATION



SIDE ELEVATION

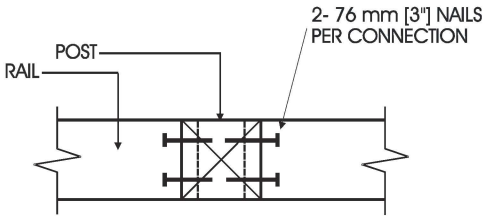
Detail EA-1

Exterior Connection: Top Rail Nailed to Post

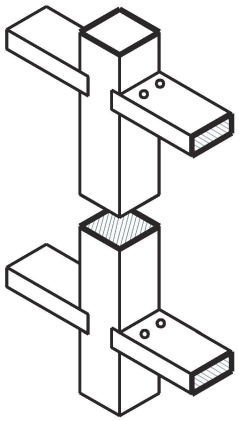
Notes:

1. The top rail must be continuous. Use Detail EA-5 at the end spans, where continuity ends.

MAXIMUM SPAN OF RAIL BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	1.52 (5'-0")
Northern Species	1.52 (5'-0")
Column 1	2



PLAN



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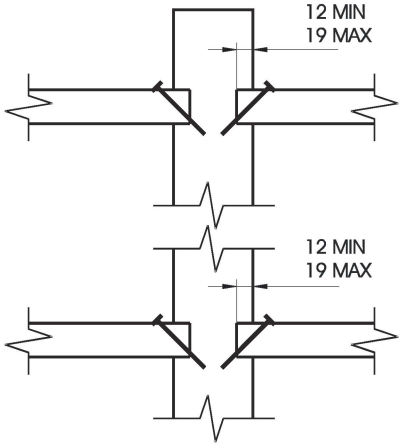
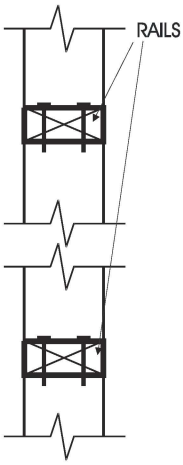


FRONT ELEVATION



SIDE ELEVATION

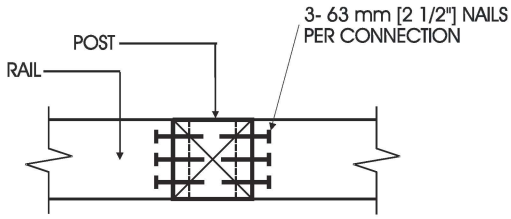
Detail EA-2

Exterior Connection: Top/Bottom Rail Skew Nailed to Post - 76 mm (3") Nails

Notes:

1. The maximum span is more often governed by post spacing.
2. Provide support to bottom rail at intervals not more than 2.0 m (6'-7").
3. The bottom rail may be bevelled as detailed in Figure 2.1.2.
4. Dimensions shown are in mm unless otherwise specified.

MAXIMUM SPAN OF RAIL BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	2.72 (8'-11")
Northern Species	2.18 (7'-2")
Column 1	2



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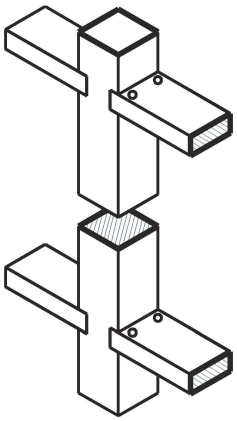
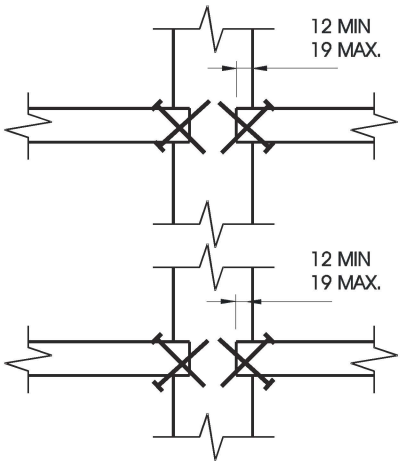
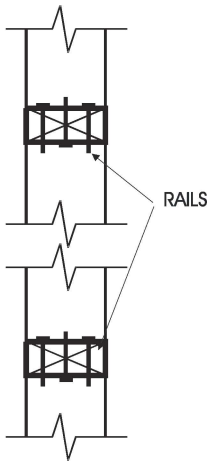


AXONOMETRIC



FRONT ELEVATION



SIDE ELEVATION

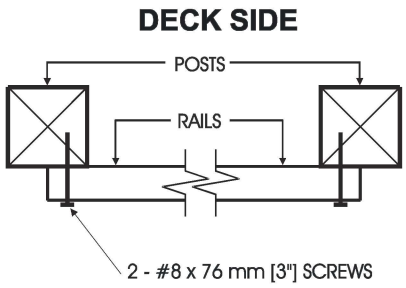
Detail EA-3

Exterior Connection: Top/Bottom Rail Skew Nailed to Post - 63 mm (2½") Nails

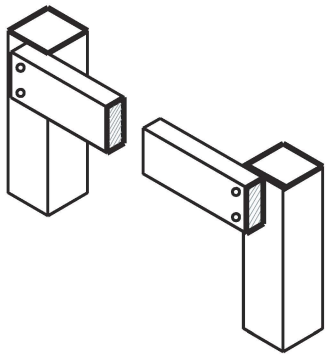
Notes:

1. Provide support to bottom rail at intervals not more than 2.0 m (6'-7").
2. The bottom rail may be bevelled as detailed in Figure 2.1.2.
3. Dimensions shown are in mm unless otherwise specified.

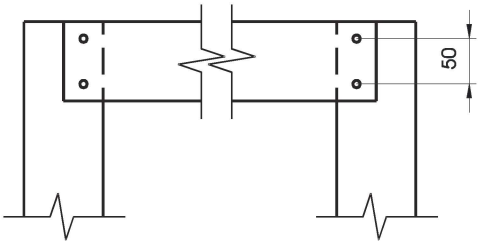
MAXIMUM SPAN OF RAIL BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	2.72 (8'-11")
Northern Species	2.18 (7'-2")
Column 1	2



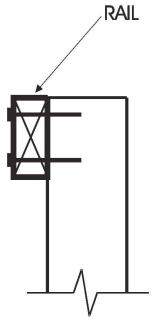
PLAN



AXONOMETRIC



FRONT ELEVATION



SIDE ELEVATION

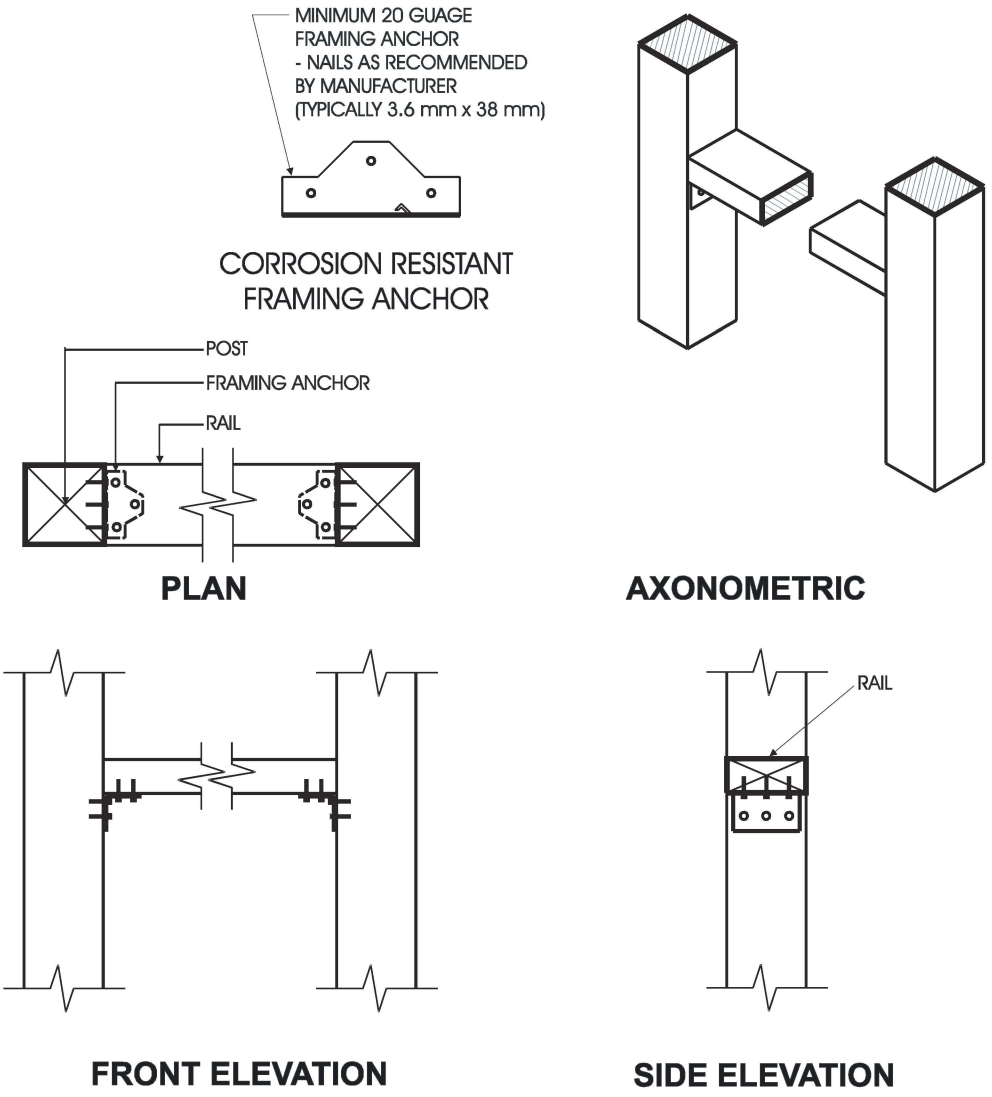
Detail EA-4

Exterior Connection: Top/Bottom Rail Face Nailed or Screwed to Post

Notes:

1. If the rails are located on the deck side of the posts, 76 mm (3") nails may be used in place of the screws.
2. Where the top rail is continuous, the top rail may be fastened to each post with 3 - #8 x 76 mm (3") screws.
3. Dimensions shown are in mm unless otherwise specified.

MAXIMUM SPAN OF RAIL BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	1.77 (5'-10")
Northern Species	1.41 (4'-8")
Column 1	2



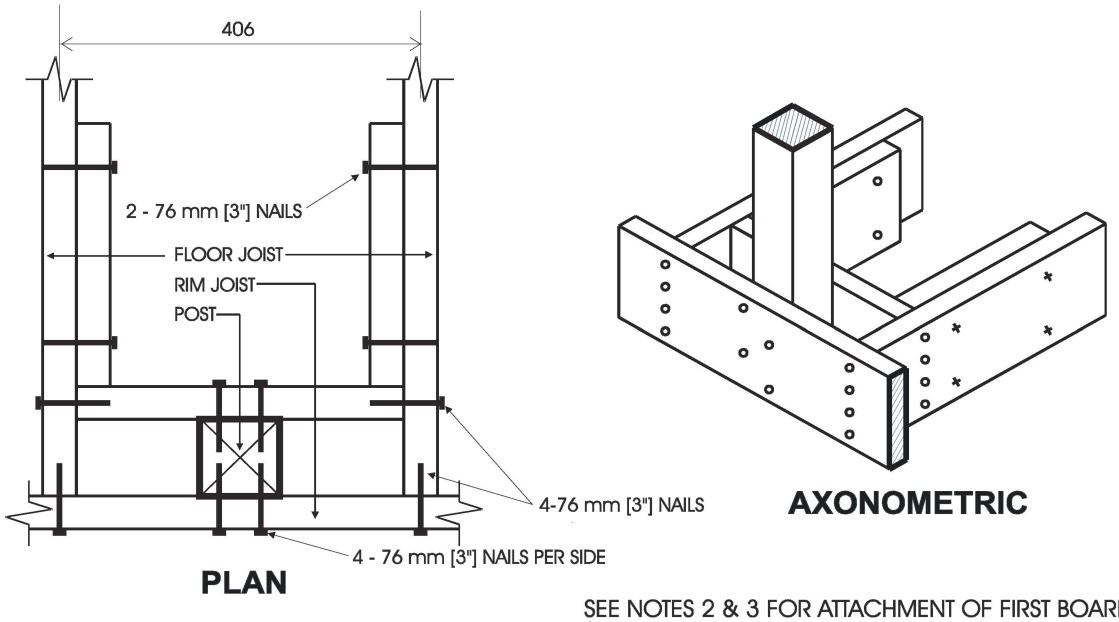
Detail EA-5

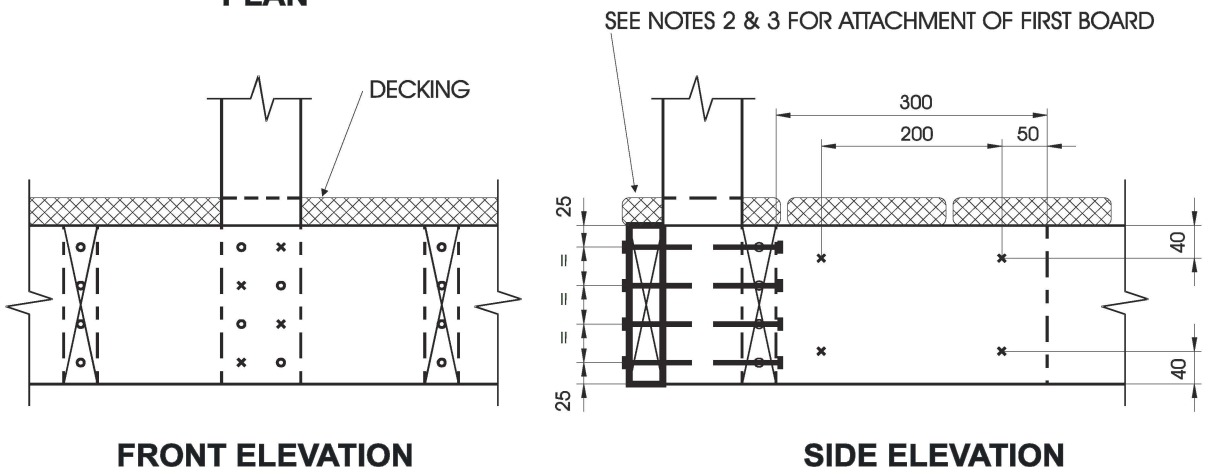
Exterior Connection: Top/Bottom Rail Fastened to Post with Framing Anchors

Notes:

1. Provide support to bottom rail at intervals not more than 2.0 m (6'-7").
2. The bottom rail may be bevelled as detailed in Figure 2.1.2.
3. Dimensions shown are in mm unless otherwise specified.

MAXIMUM SPAN OF RAIL BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	2.72 (8'-11")
Northern Species	2.18 (7'-2")
Column 1	2





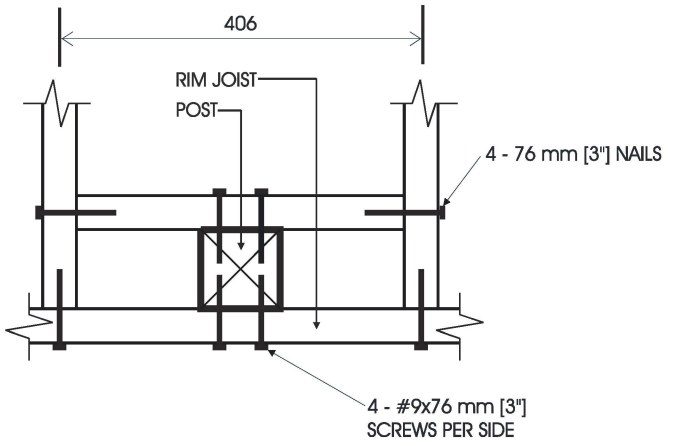
Detail EB-1

Exterior Connection: Post Nailed to Rim Joist

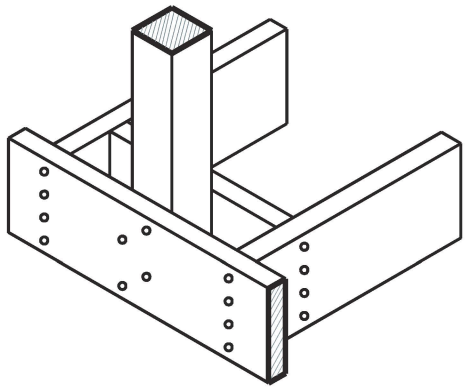
Notes:

1. Decking is omitted from the plan view and the axonometric view for clarity.
2. Fasten 25 mm x 140 mm (5/4" 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 (5/4" 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. Dimensions shown are in mm unless otherwise specified.

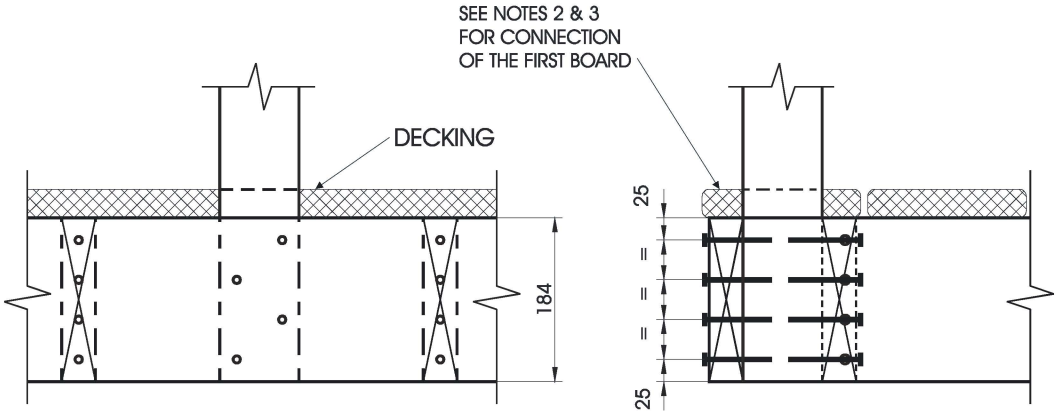
MAXIMUM SPAN OF RAIL BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	1.22 (4'-0")
Northern Species	1.20 (3'-11")
Column 1	2



PLAN



AXONOMETRIC



FRONT ELEVATION

SIDE ELEVATION

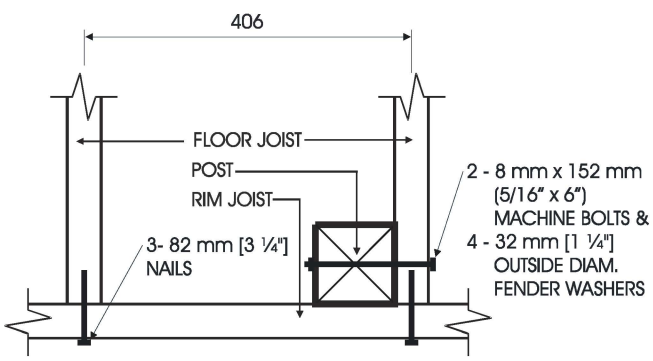
Detail EB-2

Exterior Connection: Post Screwed to Rim Joist

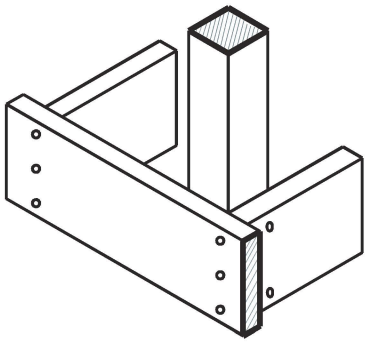
Notes:

1. Decking is omitted from the plan view and the axonometric view for clarity.
2. Fasten 25 mm x 140 mm (5/4" 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 (5/4" 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").
6. Dimensions shown are in mm unless otherwise specified.

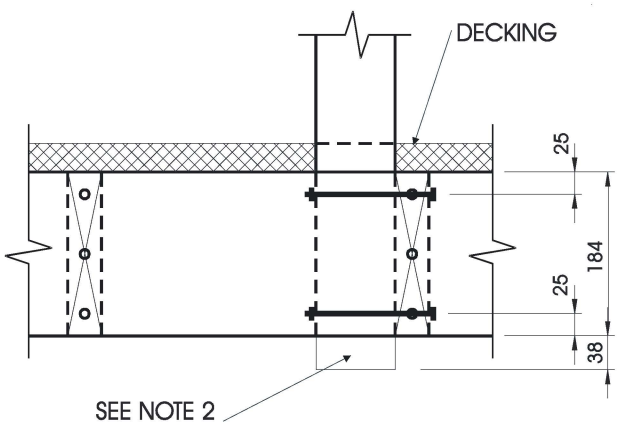
MAXIMUM SPAN OF RAIL BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	1.56 (5'-1")
Northern Species	1.20 (3'-11")
Column 1	2



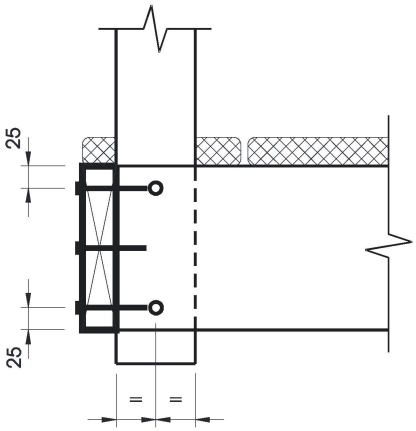
PLAN



AXONOMETRIC



FRONT ELEVATION



SIDE ELEVATION

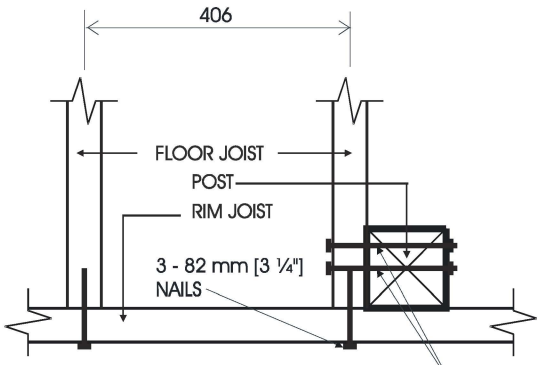
Detail EB-3

Exterior Connection: Post Bolted to Floor Joist - 8 mm (5/16") Bolts

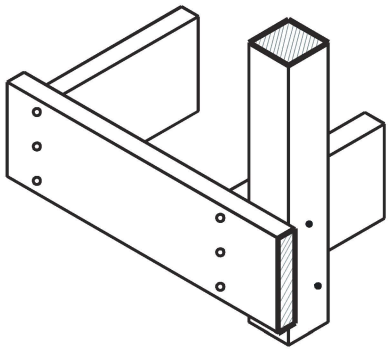
Notes:

1. Decking is omitted from the plan view and the axonometric view for clarity.
2. 38 mm (1½") 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 (1½") and shall be fastened to the floor with 2 - 76 mm (3") nails.
5. Dimensions shown are in mm unless otherwise specified.

MAXIMUM SPACING BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	1.29 (4'-3")
Northern Species	1.20 (3'-11")
Column 1	2

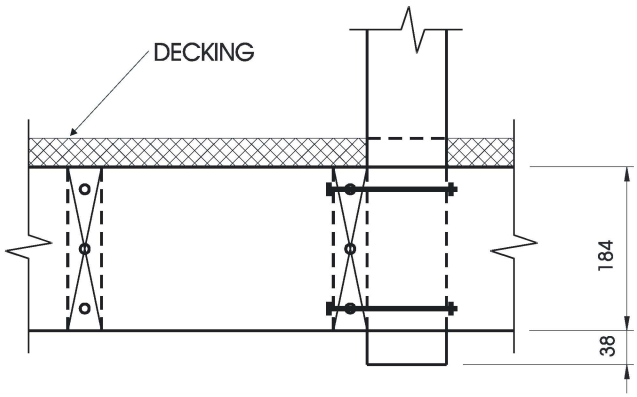


PLAN

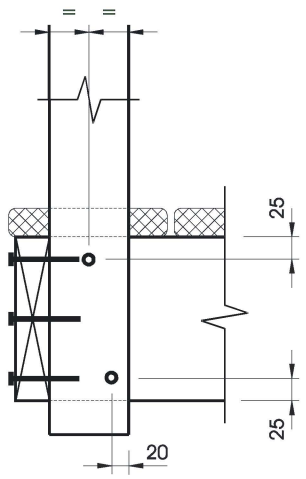


AXONOMETRIC

2 - 9.5 mm x 152 mm [3/8" x 6"]
MACHINE BOLTS &
4 - 38 mm (1 ½")
FENDER WASHERS



FRONT ELEVATION



SIDE ELEVATION

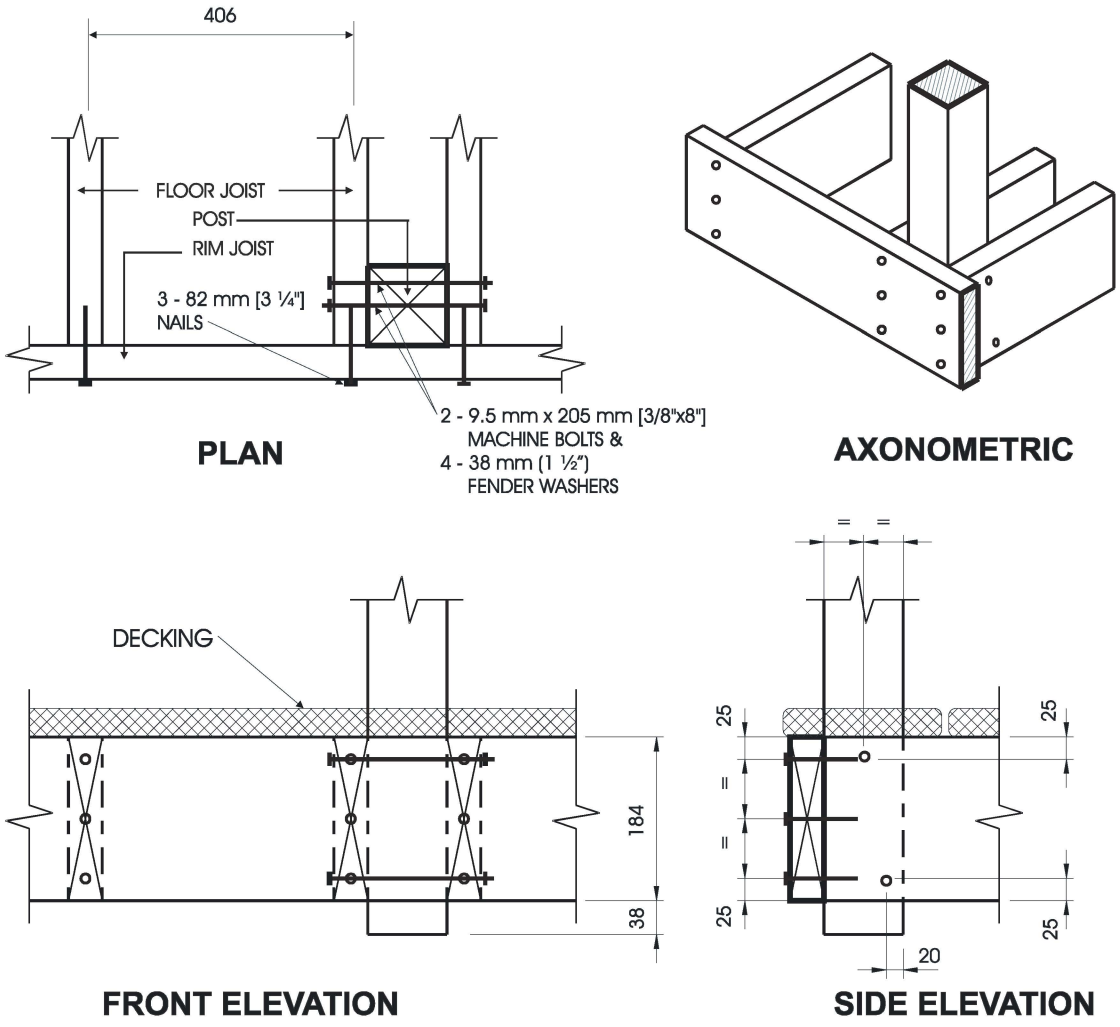
Detail EB-4

Exterior Connection: Post Bolted to Floor Joist - 9.5 mm (3/8") Bolts

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.
5. Dimensions shown are in mm unless otherwise specified.

MAXIMUM SPACING BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	1.49 (4'-11")
Northern Species	1.20 (3'-11")
Column 1	2



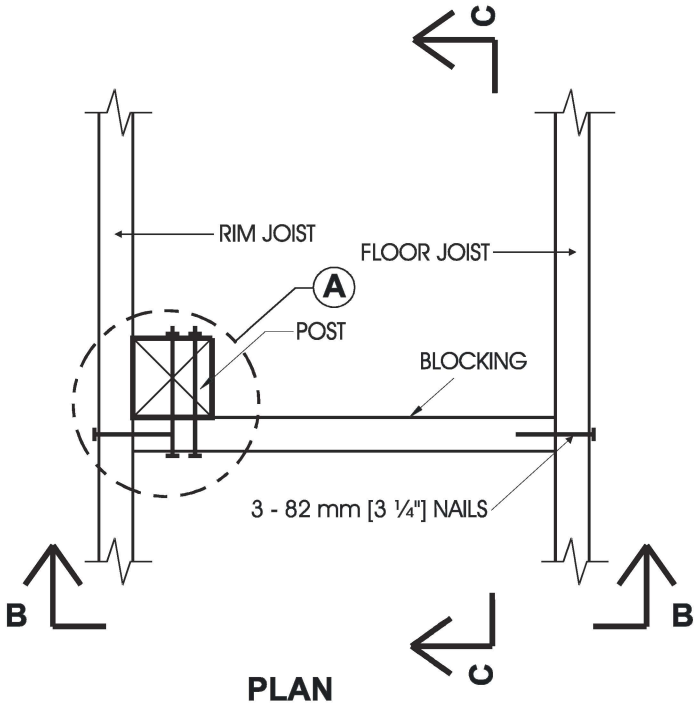
Detail EB-5

Exterior Connection: Post Bolted to 2 Floor Joists

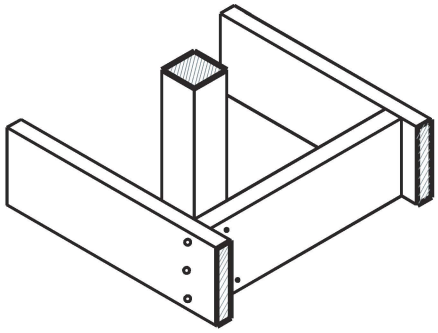
Notes:

1. Decking is omitted from the plan view and the axonometric view for clarity.
2. 38 mm (1½") 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 (1½") and shall be fastened to the floor with 2 - 76 mm (3") nails.
5. Dimensions shown are in mm unless otherwise specified.

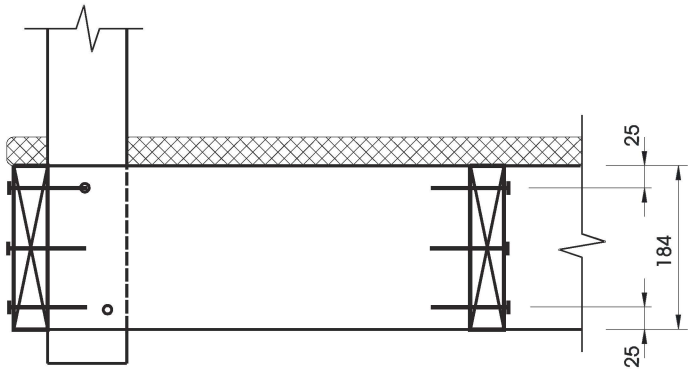
MAXIMUM SPACING BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	2.14 (7'-0")
Northern Species	1.20 (3'-11")
Column 1	2



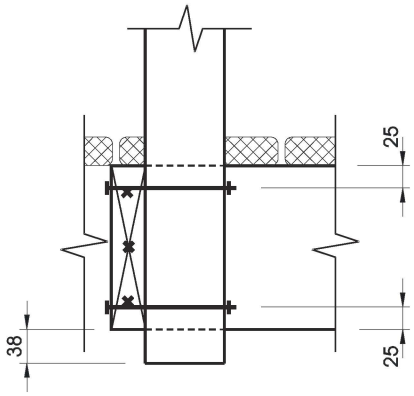
PLAN



AXONOMETRIC



ELEVATION B-B



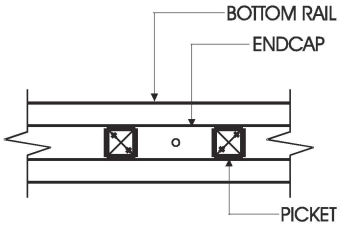
ELEVATION C-C

Detail EB-6

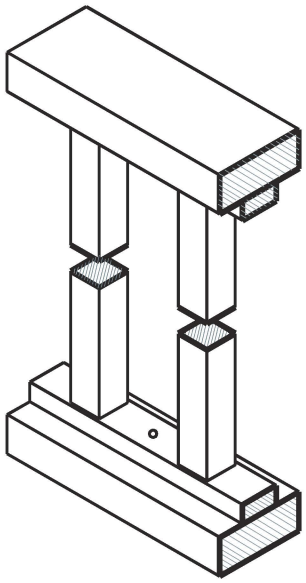
Exterior Connection: Post Fastened to Floor, Guard Parallel to Floor Joists

Notes:

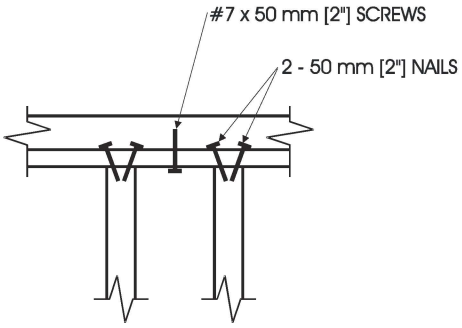
1. Use any of the connection details shown on Details EB-1 to EB-5 at location “A”. Connection Detail EB-4 is shown in this detail, as an example.
2. Maximum spacing between posts is determined from connection detail used at location “A”.
3. Decking is omitted from the plan view and the axonometric view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



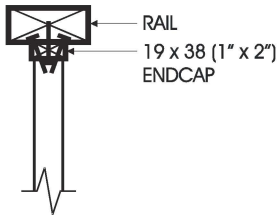
PLAN
BOTTOM RAIL



AXONOMETRIC



FRONT ELEVATION



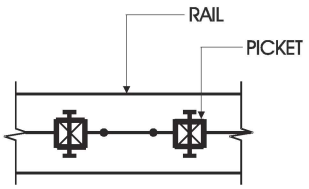
SIDE ELEVATION

Detail EC-1

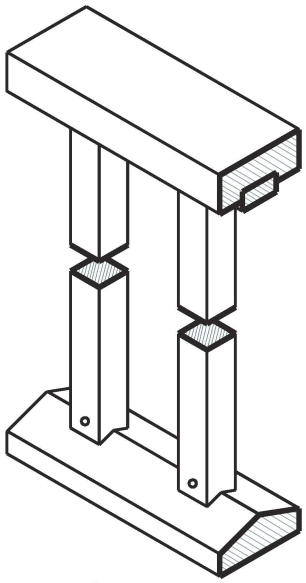
Exterior Connection: Infill Picket Nailed to Endcap - Endcap Screwed to Rail

Notes:

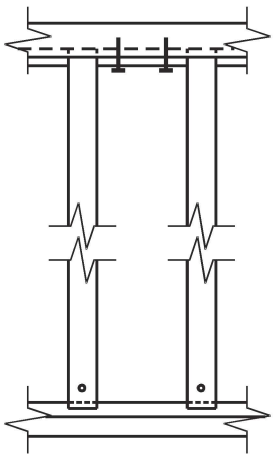
1. Fasten each end of each picket to endcaps with 2 - 50 mm (2") nails.
2. Fasten endcaps to rails with #7 x 50 mm (2") screws at 300 mm (12") o.c.
3. See Table 2.1.2. for minimum sizes of pickets.



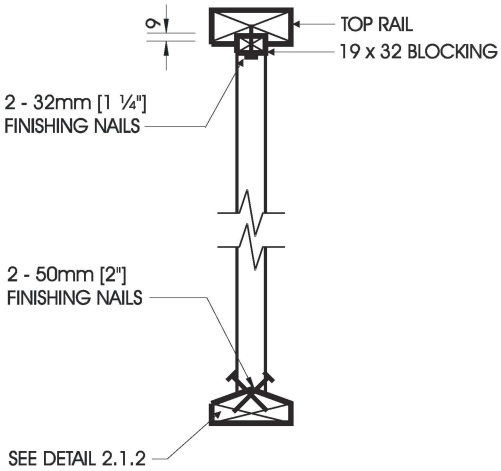
PLAN
BOTTOM RAIL



AXONOMETRIC



FRONT ELEVATION



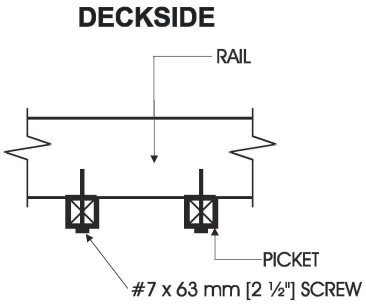
SIDE ELEVATION

Detail EC-2

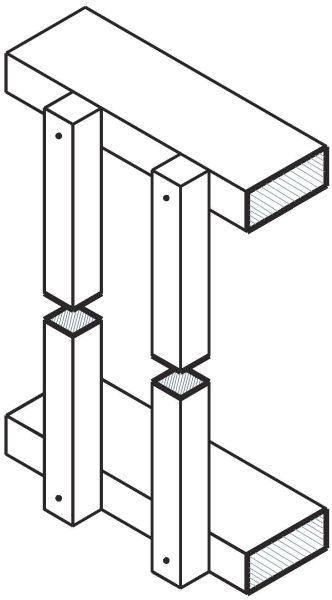
Exterior Connection: Infill Picket Nailed to Rail

Notes:

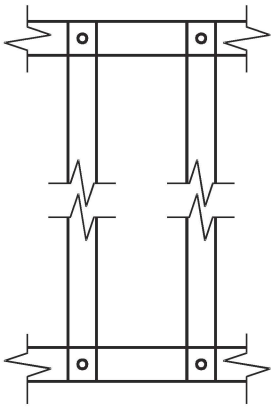
1. See Table 2.1.2. for minimum sizes of pickets.
2. Dimensions shown are in mm unless otherwise specified.



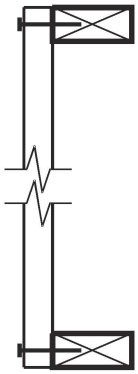
PLAN



AXONOMETRIC



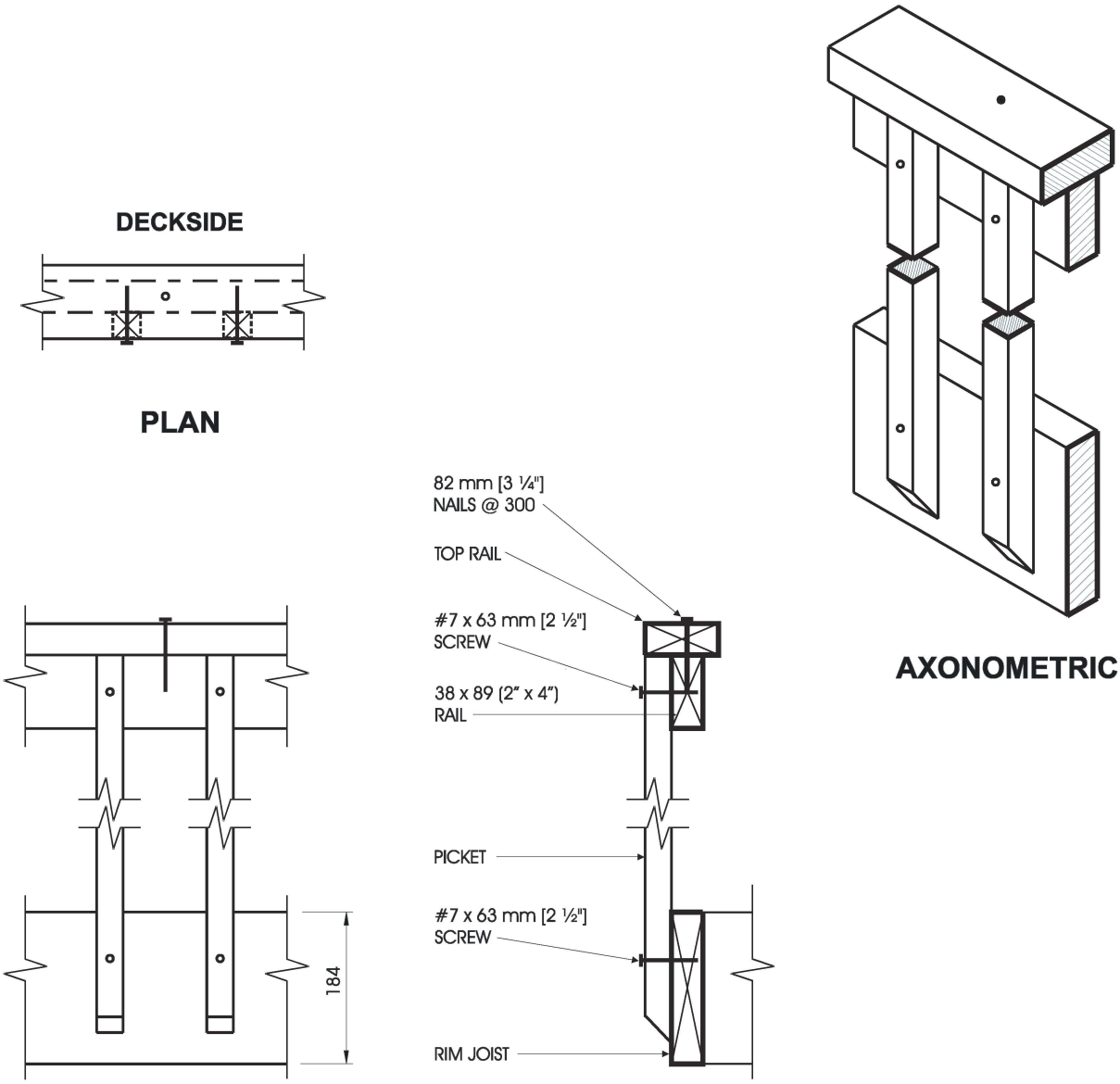
FRONT ELEVATION



SIDE ELEVATION

Detail EC-3

Exterior Connection: Infill Picket Screwed to Rail

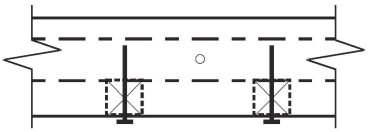


Detail EC-4

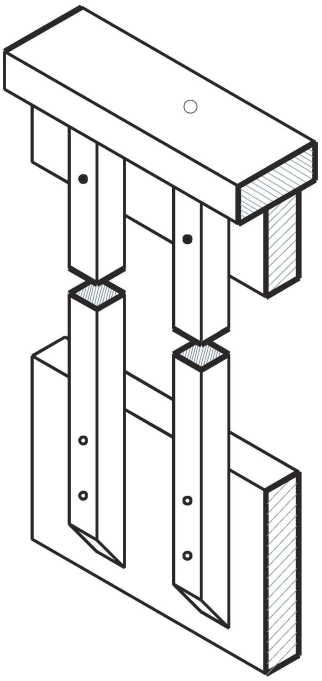
Exterior Connection: Infill Picket Screwed to Top Rail and Rim Joist

Note:

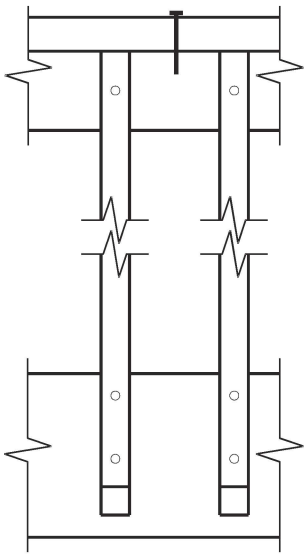
1. Dimensions shown are in mm unless otherwise specified.



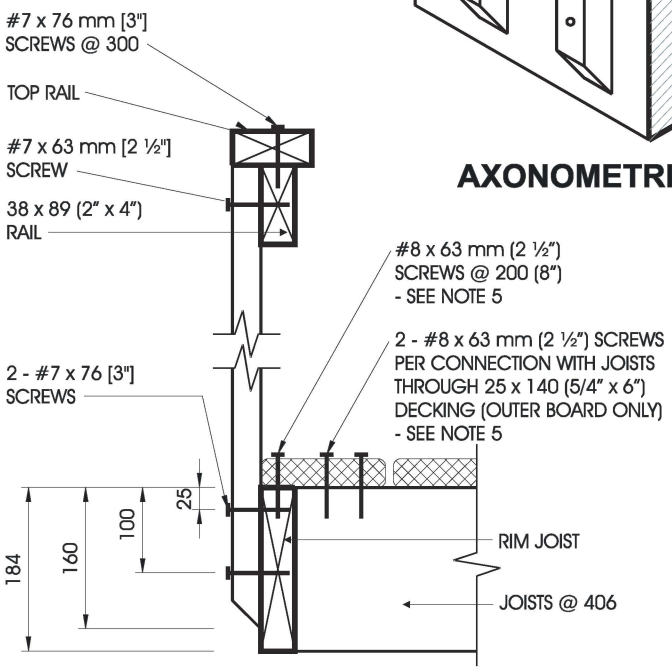
PLAN



AXONOMETRIC



FRONT ELEVATION



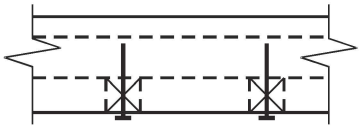
SIDE ELEVATION

Detail ED-1

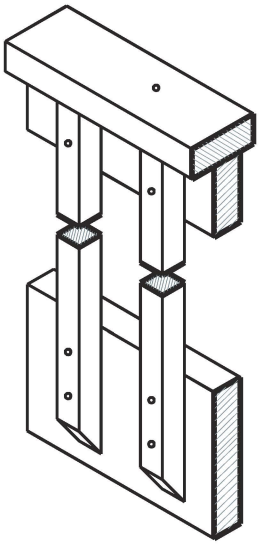
Exterior Connection: Cantilevered Picket Screwed to Rim Joist

Notes:

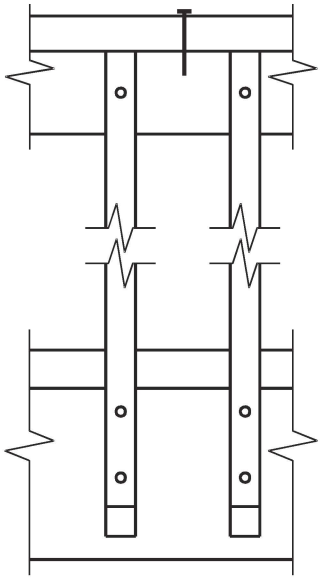
1. Provide a suitable post, return, or solid support at each end of the guard.
2. Wood for cantilevered pickets shall be Douglas Fir-Larch, Spruce-Pine-Fir, or Hem-Fir Species.
3. Fasten rim joist to each floor joist with 3 - 82 mm (3¼") nails.
4. Dimensions shown are in mm unless otherwise specified.
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").



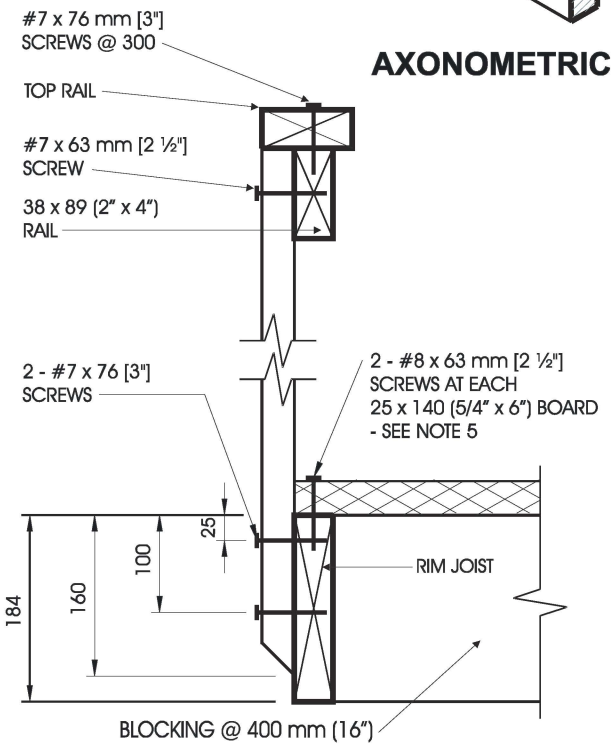
PLAN



AXONOMETRIC



FRONT ELEVATION



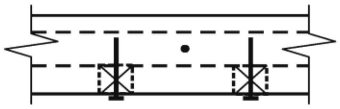
SIDE ELEVATION

Detail ED-2

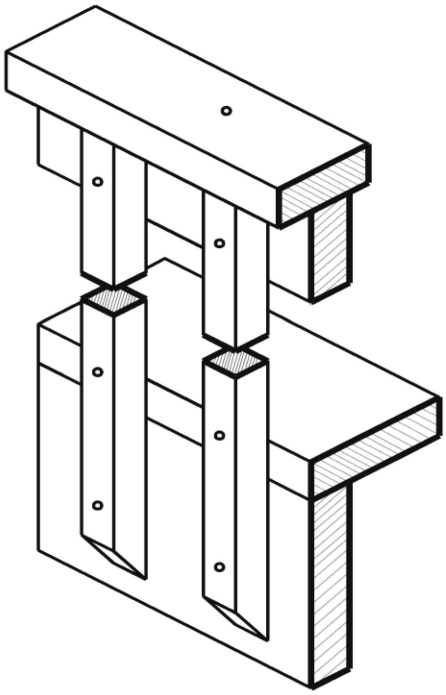
Exterior Connection: Cantilevered Picket Screwed to Rim Joist, Guard Parallel to Floor Joists

Notes:

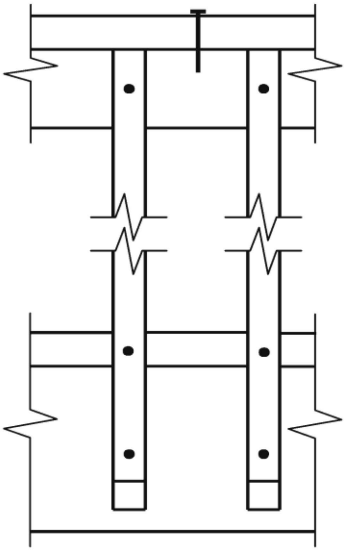
1. Provide a suitable post, return, or solid support at each end of the guard.
2. Wood for cantilevered pickets shall be Douglas Fir-Larch, Spruce-Pine-Fir, or Hem-Fir Species.
3. Fasten rim joist to blocking with 3 - 82 mm (3¼") nails.
4. Dimensions shown are in mm unless otherwise specified.
5. [illegible] thick boards are used, the length of the wood screws shall be not less than 76 mm (3").



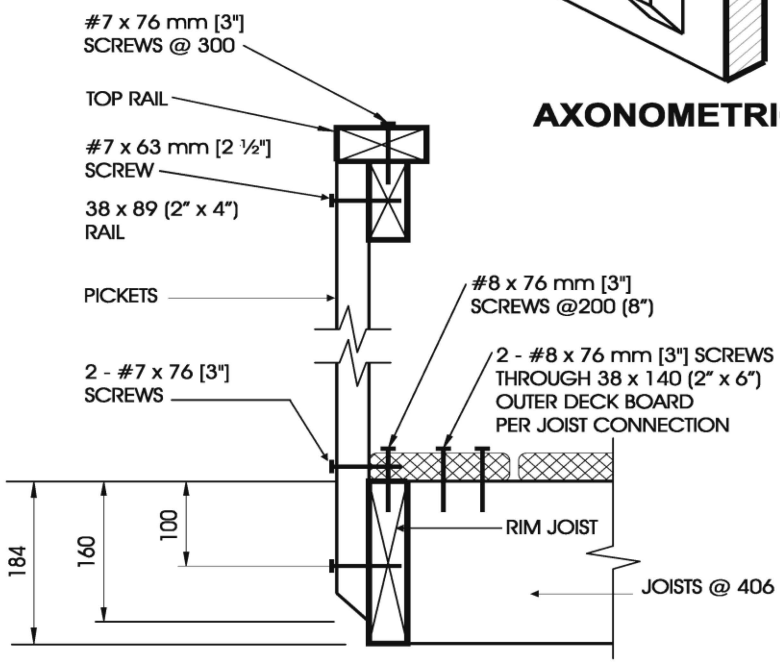
PLAN



AXONOMETRIC



FRONT ELEVATION



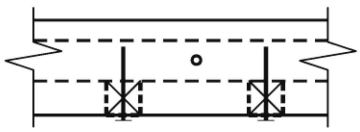
SIDE ELEVATION

Detail ED-3

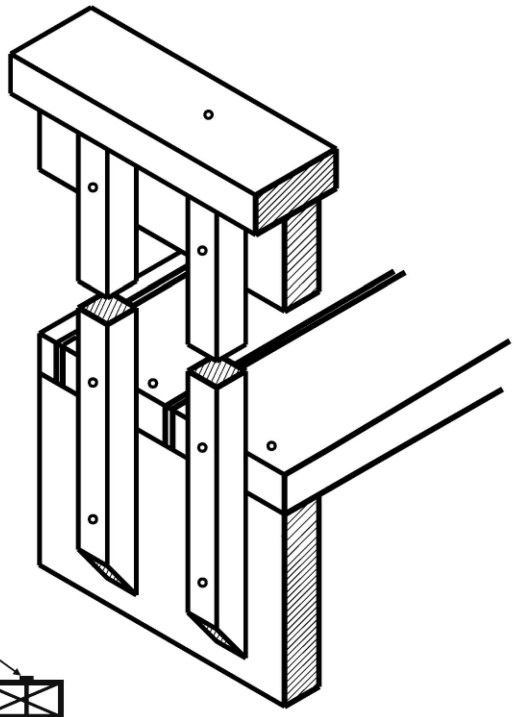
Exterior Connection: Cantilevered Picket Screwed to Rim Joist and Deck

Notes:

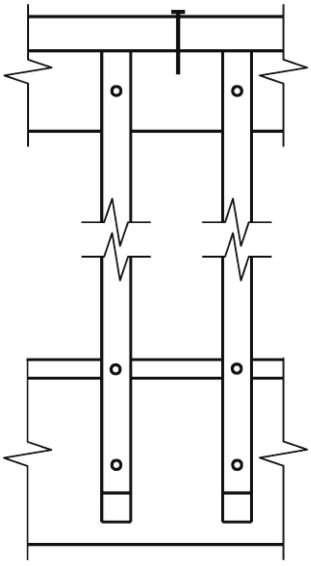
1. Provide a suitable post, return, or solid support at each end of the guard.
2. Wood for cantilevered pickets shall be Northern Species.
3. Fasten rim joist to each floor joist with 3- 82 mm (3¼") nails.
4. Dimensions shown are in mm unless otherwise specified.



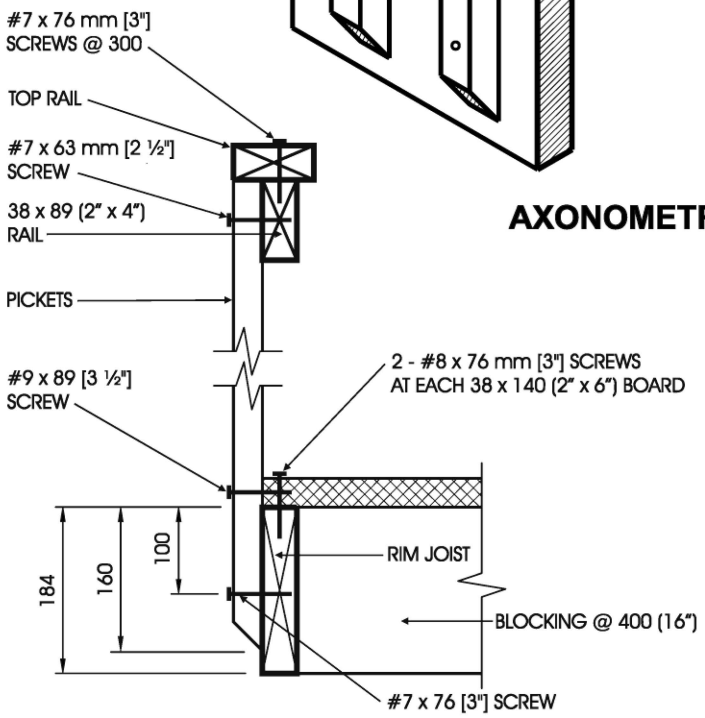
PLAN



AXONOMETRIC



FRONT ELEVATION



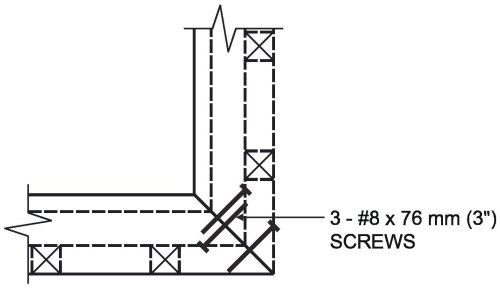
SIDE ELEVATION

Detail ED-4

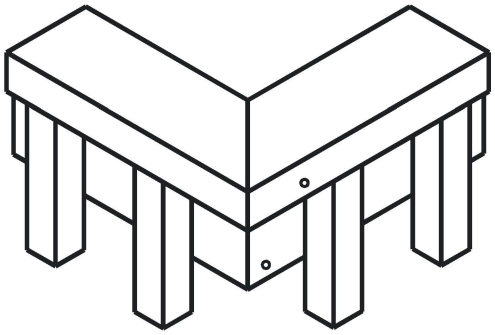
Exterior Connection: Cantilevered Picket Screwed to Rim Joist and Deck, Guard Parallel to Floor Joists

Notes:

1. Provide a suitable post, return, or solid support at each end of the guard.
2. Wood for cantilevered pickets shall be Northern Species.
3. Fasten rim joist to blocking with 3 - 82 mm (3¼") nails.
4. Dimensions shown are in mm unless otherwise specified.

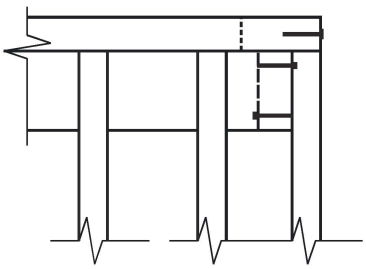


PLAN TOP RAIL

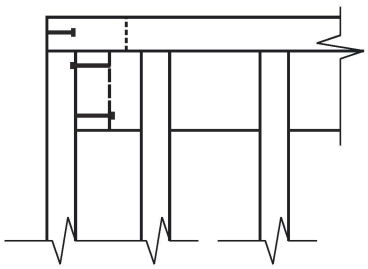


AXONOMETRIC

ONE FASTENER IN HORIZONTALLY ORIENTATED PORTION OF TOP RAIL
AND TWO IN VERTICALLY ORIENTATED PORTION.



FRONT TOP RAIL



SIDE TOP RAIL

Detail ED-5

Exterior Connection: Corner Joint

Notes:

1. Screws fastening pickets are omitted for clarity.
2. Provide a minimum of 10 pickets beyond the return if end restraint of the guard is provided by this return detail only.