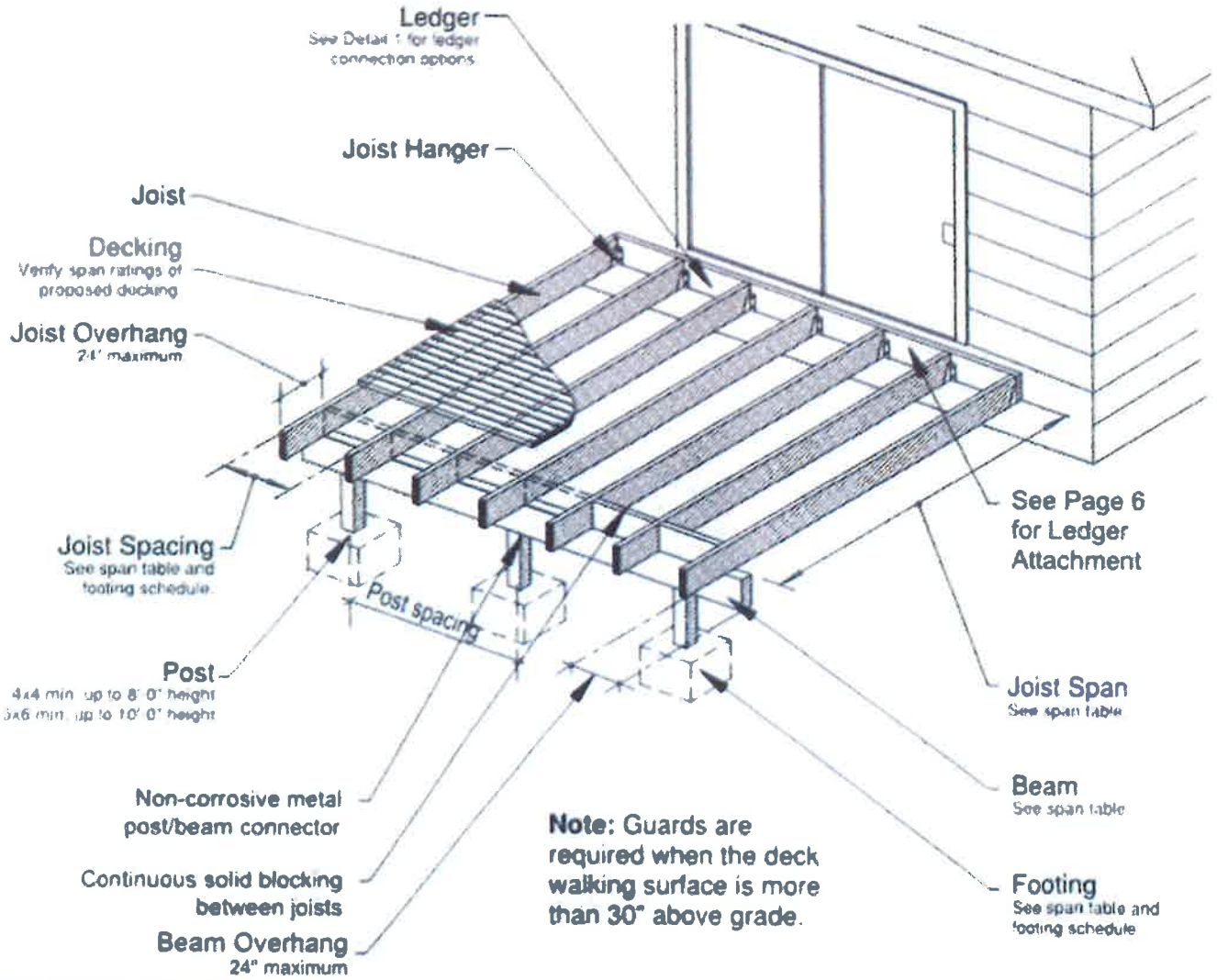
CONSTRUCTION TIP SHEET 5
Basic Decks w/ 60 psf Live Loading
September 18, 2018

This Tip Sheet reflects code requirements of the 2015 International Residential Code (IRC) with Washington State Amendments which update the live load to 60 psf.

This document provides building code information applicable to **prescriptive residential wood deck design**. You may need to hire a licensed architect or an engineer to design a deck where any of the following conditions apply:

- The deck serves other than a one- or two-family dwelling building
- The deck design includes more than one level
- The deck will support a hot tub, spa or other heavy object, including heavy deck covering (such as pavers)
- The walking surface is more than 10' above grade
- The deck ledger is attached to house overhangs, bay windows, bricks, stone or concrete block
- The deck is bearing on ground with a slope greater than 1' horizontal for every 1' vertical
- The deck is self-supporting (not attached to an exterior wall)

Typical Deck



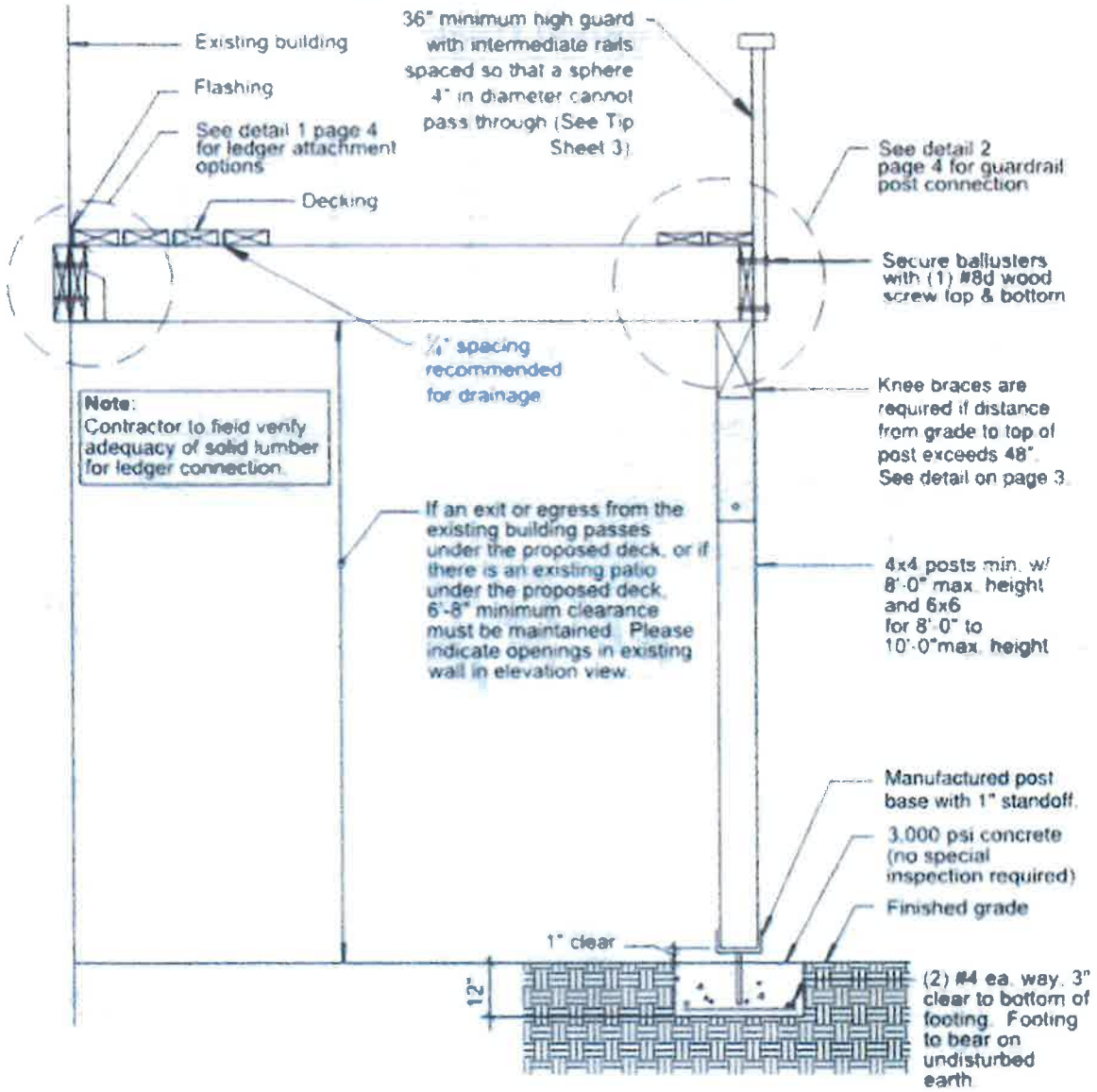
GENERAL INFORMATION:

- The intent of this Tip Sheet is to provide a general understanding of the code requirements and does not address the subject in great detail.
- Additional information can be obtained from your local participating jurisdiction

Deck Construction Notes

- **Please note that due to the new 60 psf loading, previous lumber spans and footing sizes have changed**
- The illustrations and information in this Tip Sheet may be used for decks whether or not they require a permit. See Tip Sheet 0 for when a permit is required.
- All wood must be pressure treated or naturally resistant to decay. Treat cuts, holes and notches with end-cut solution.
- Fasteners, hangers, nails, etc., must be stainless steel, hot-dipped galvanized, or as specifically required for the specified wood preservative used. The coating weights for zinc-coated fasteners to be in accordance with ASTM A 153. Provide documentation in the field showing the required fastener protection for the wood chosen for your deck.
- You may modify any components of this Tip Sheet using accepted engineering practices. Any modifications must be reviewed prior to permit issuance. All attachments must be per manufacturer's installation instructions.
- This Tip Sheet is intended to represent good construction practices for deck construction and related IRC requirements. See related Tip Sheets: 1 for stairs, 2 for handrails, 3 for guards and 11 for notching and boring.

Typical Deck Section



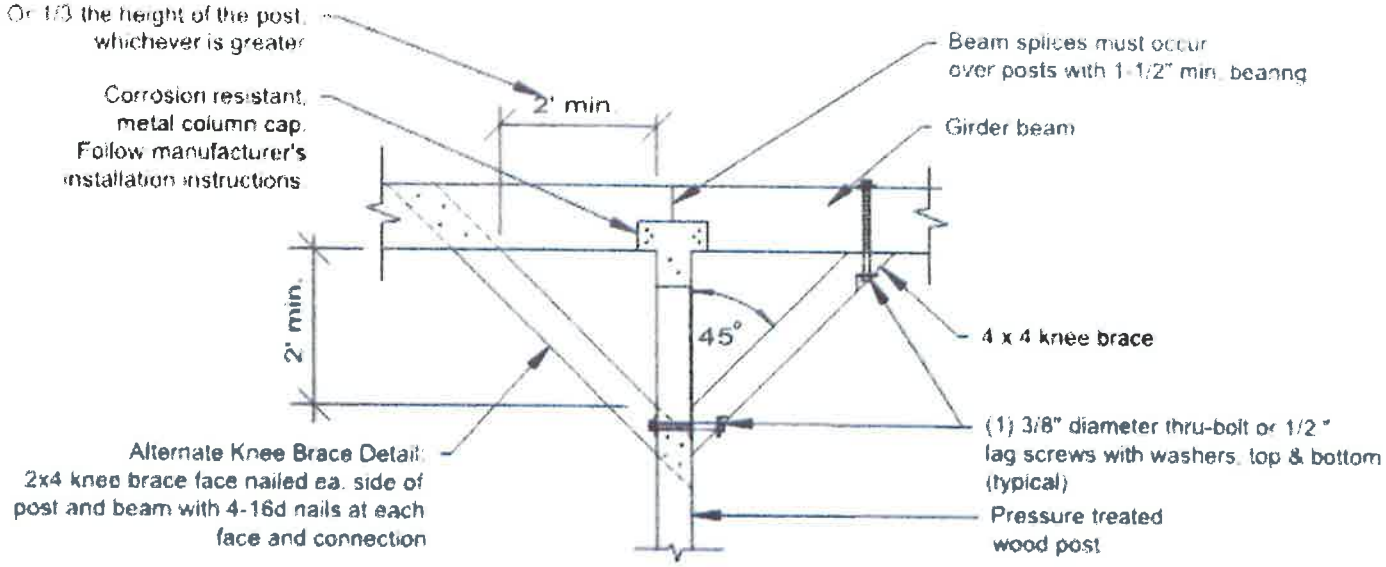
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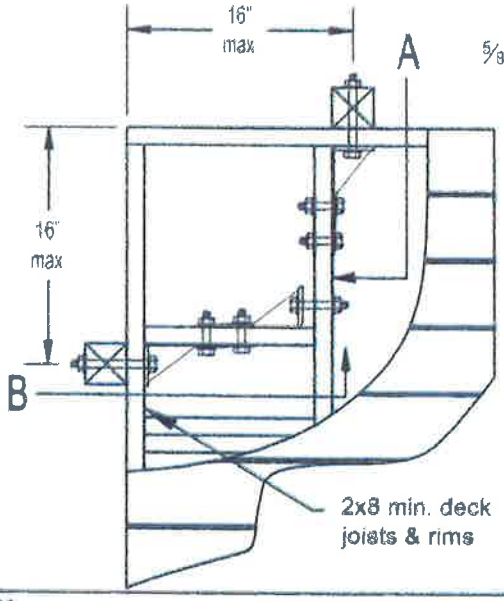
Post to Beam Connection w/ Knee Brace

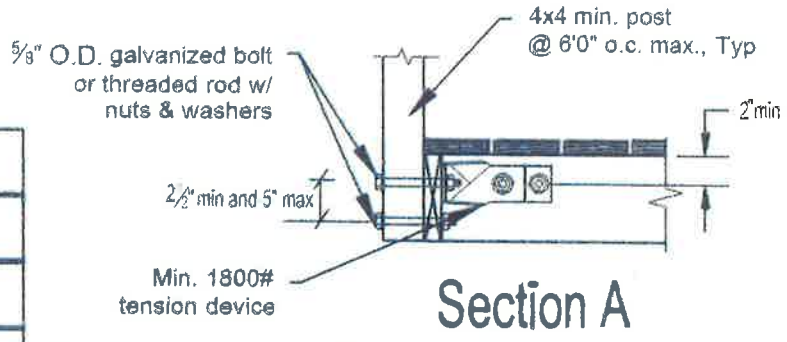
(Knee braces are required on posts greater than 4 feet in height.)



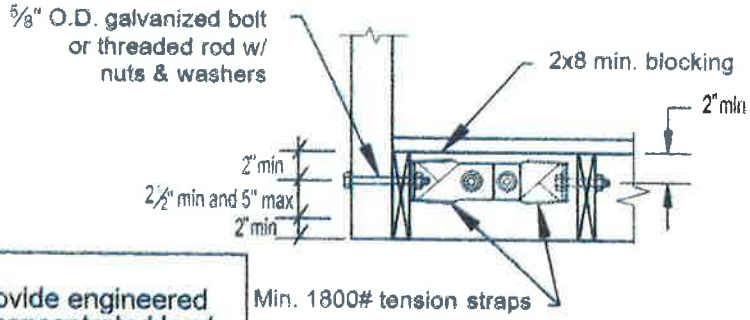
Guardrail Attachment

(Guardrails are required when the deck is more than 30 inches above grade.)





Section A



Section B

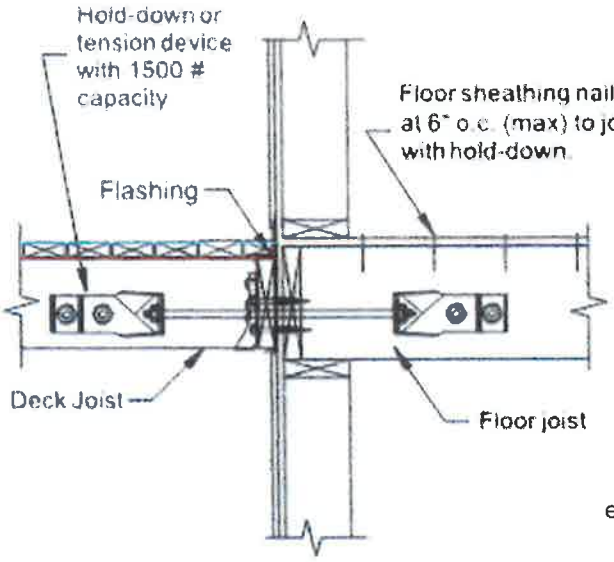
Note:
Use above details for guard connections or provide engineered design that shows Guards can resist a single concentrated load of 200 lbs applied in any direction at any point along the top and have attachment devices and supporting structure to transfer this load to appropriate structural elements of the building per IBC sec 1607.7.1.1

GENERAL INFORMATION:

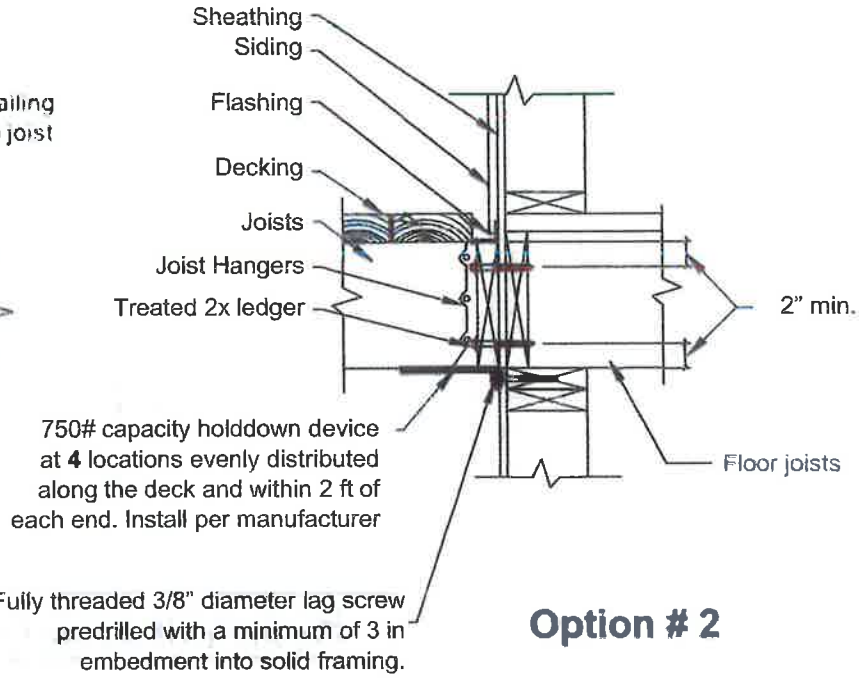
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Detail 1 – Ledger Attachment for Lateral Loads

(Knee braces are required on posts greater than 4 feet in height.)



Option # 1



Option # 2

Deck Connections

(All fasteners, nails, bolts, screws and connectors must be corrosion resistant.)

Connection:	Fastening:
Manufactured Connectors	Follow manufacturer's instructions
Post to Footing	Post base is required
Post to Footing (High Winds)	Consult with jurisdiction about additional uplift loads where wind exposure is greater than Risk Category B.
Post to Beam	Connector is required
Ledger to House Framing	See information on Sheet 5 and Sheet 6
Joist to Beam or Girder	(3) 8d – Toe nailed
Blocking or Bridging to Joist	(2) 10d –Toe nailed @ each end
Wooden Deck Boards	(2) 8d threaded nails OR (2) No. 8 screws
Composite Decking	Follow manufacturer's instructions