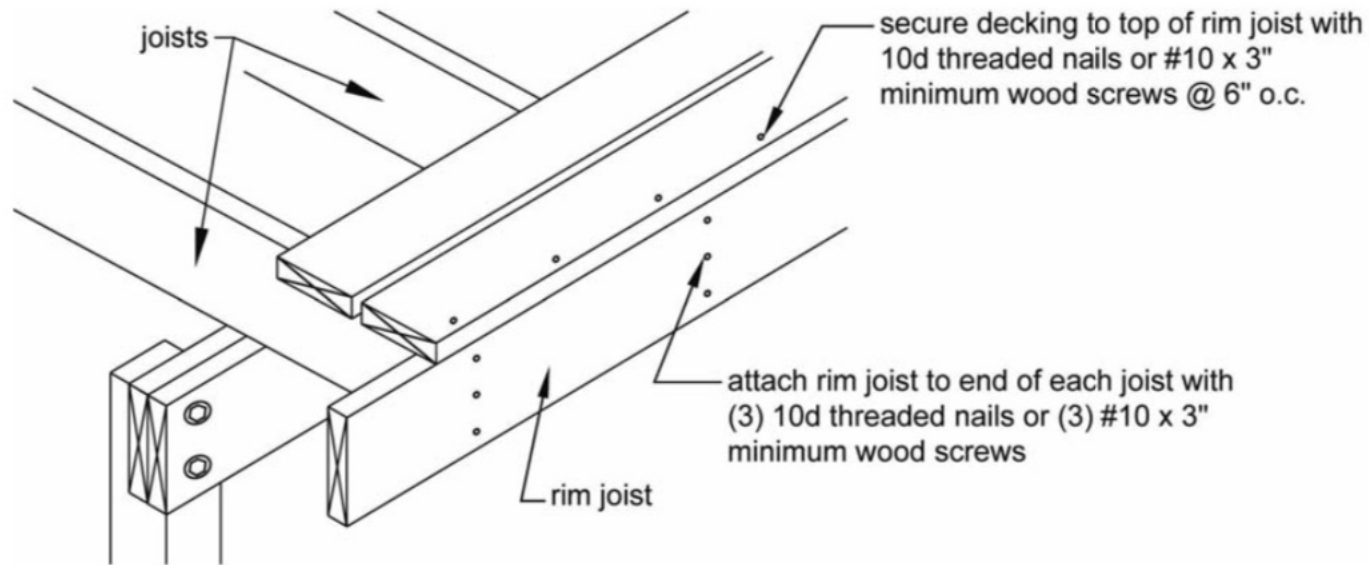
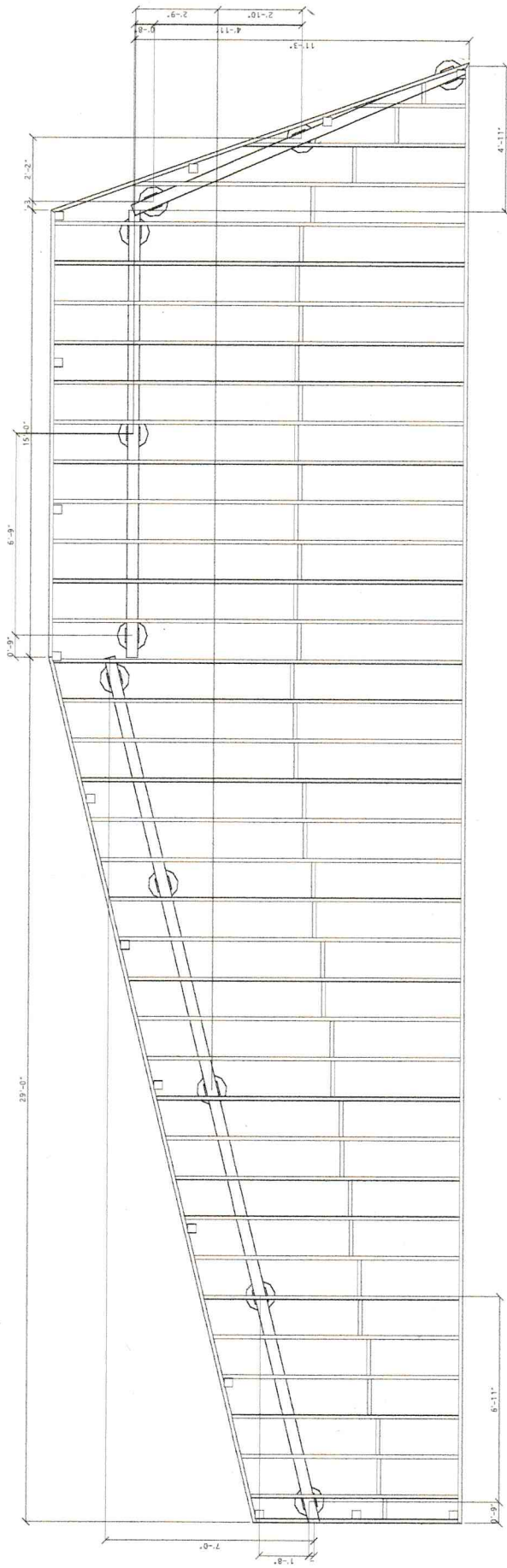


## RIM JOIST REQUIREMENTS

Attach a continuous rim joist to the ends of joists as shown in Figure 11. Attach decking to the rim joist as shown in Figure 11. For more decking attachment requirements, see DECKING REQUIREMENTS.

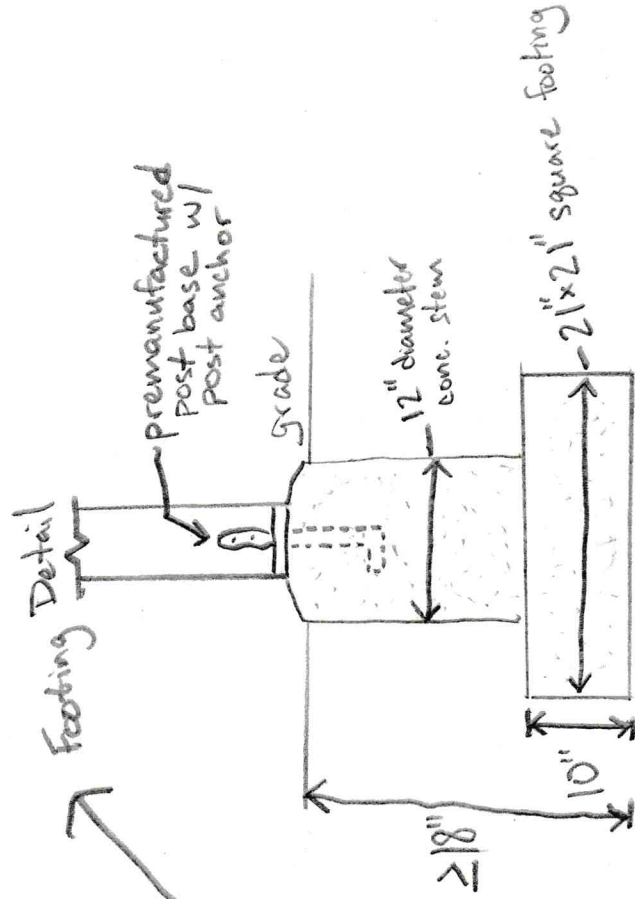
**Figure 11. Rim Joist Connection Details.**





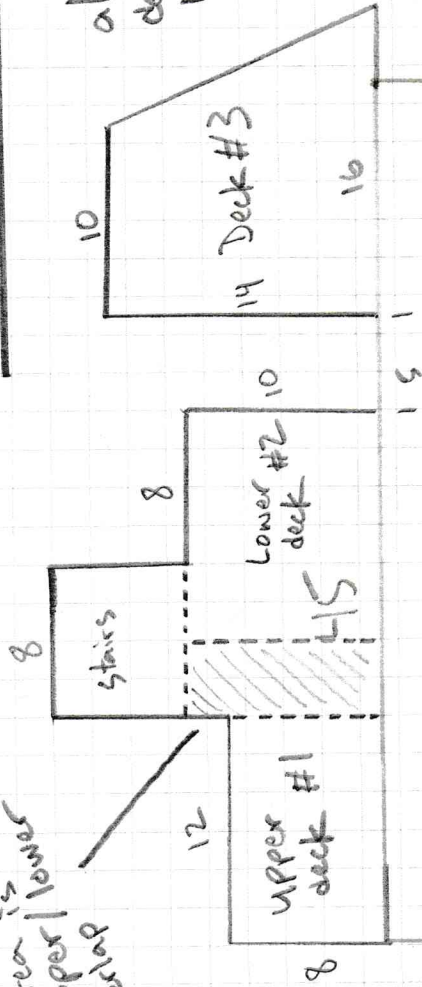
posts will be 6x6 PT  
 beams will be built up 3-ply 2x10 PT  
 joists will be 2x10 PT  
 rim joists will be 2x10 PT

All footings

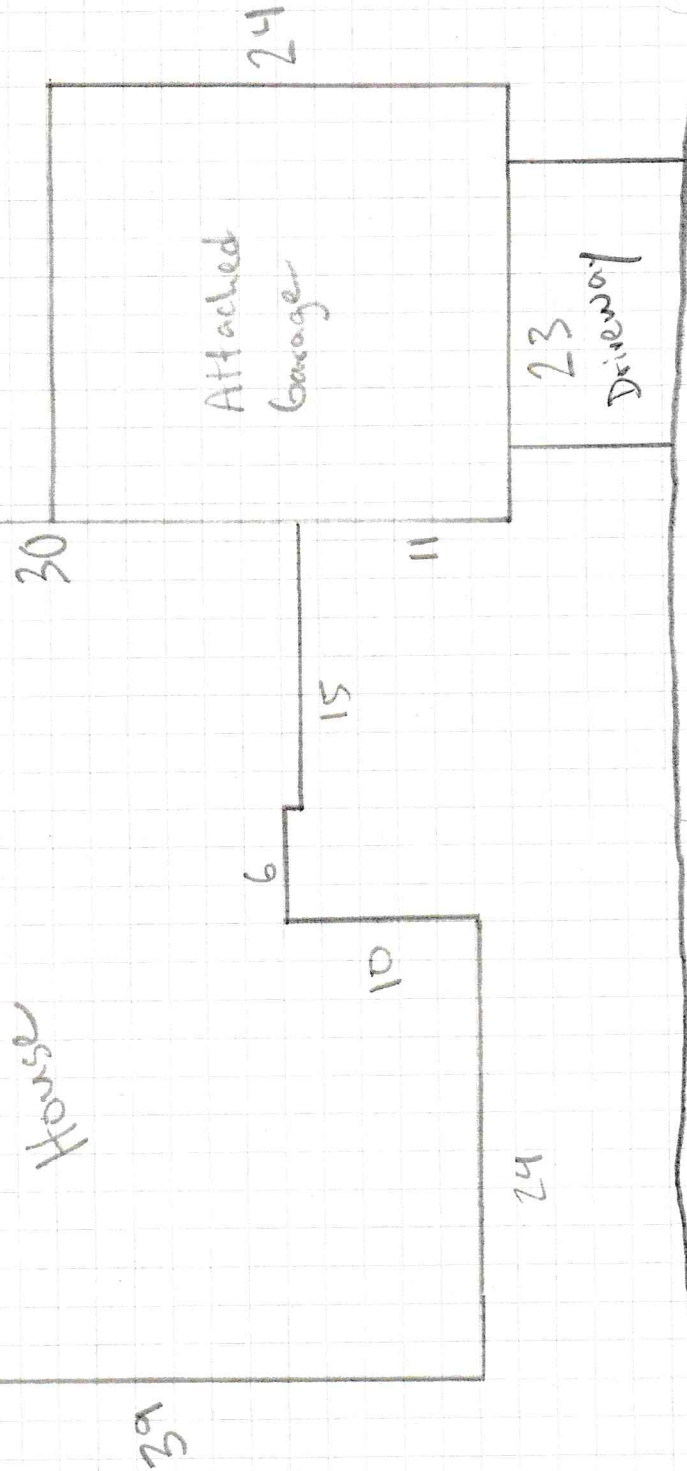


7408 92nd Pl SE

shaded area is  
where upper / lower  
decks overlapped

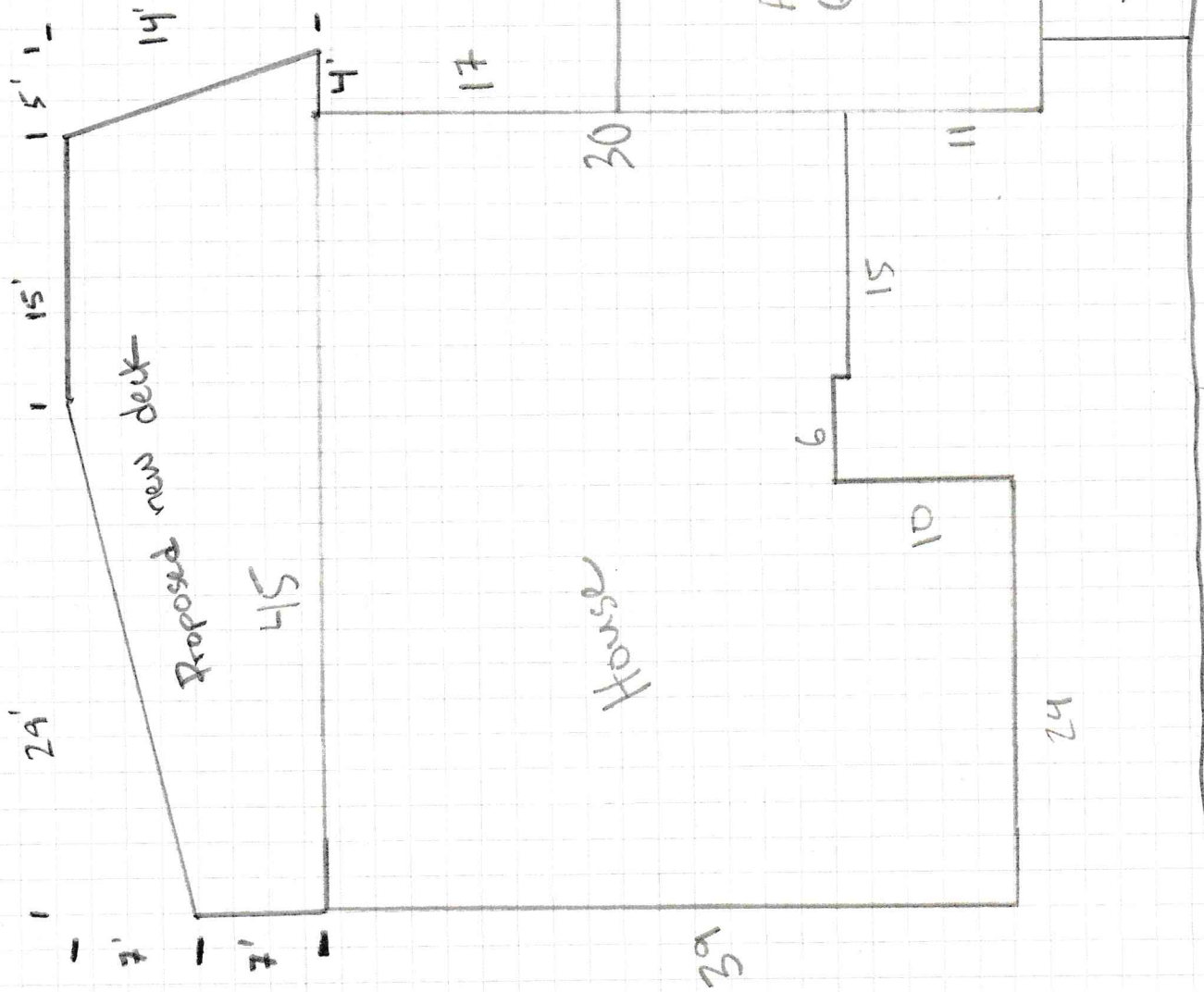


all 3 decks and stairs to be demolished and proposed, single level deck to be built in place. No stairs in new construction.



92nd Pl SE

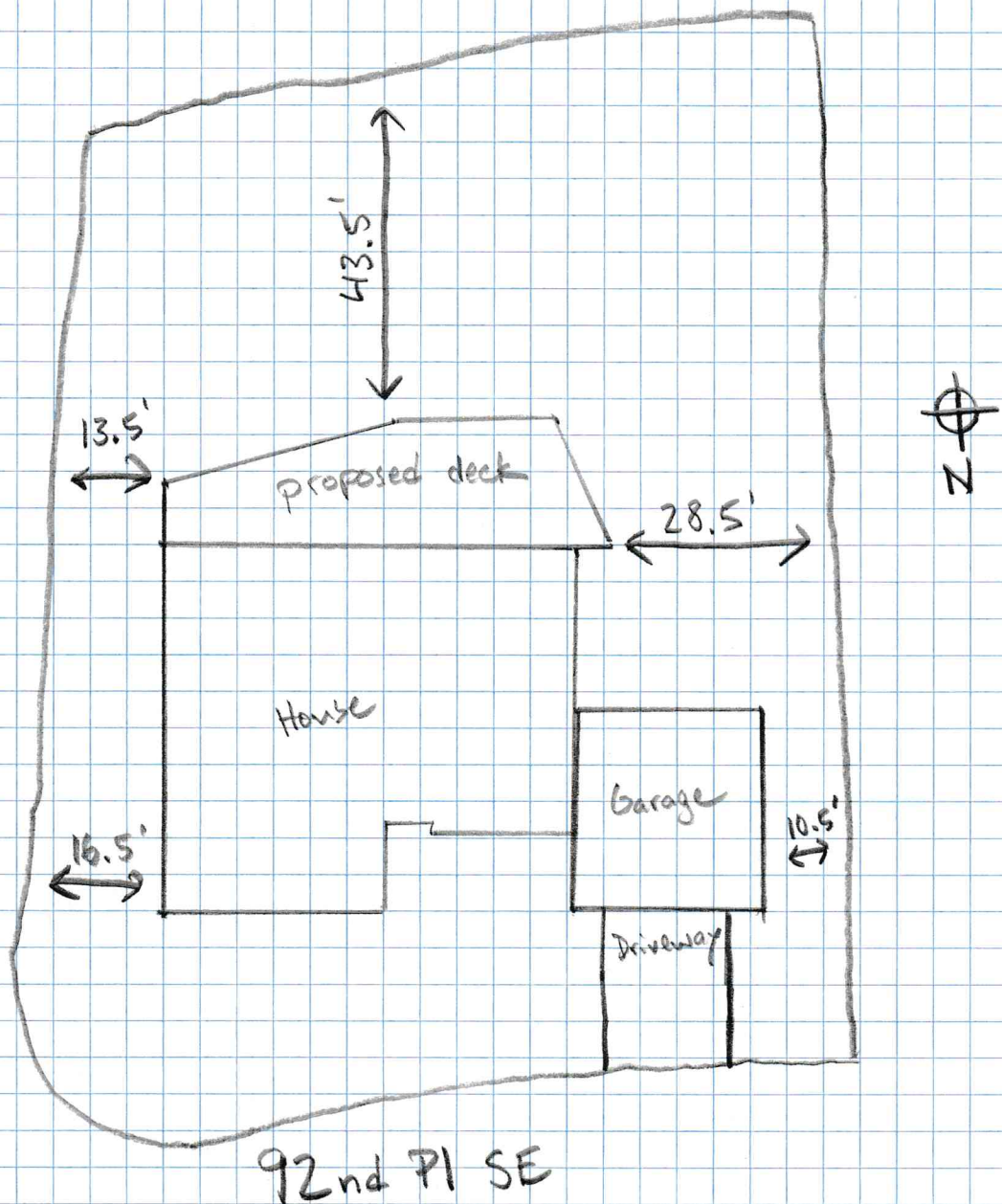
New deck to be  
same elevation as  
existing upper deck



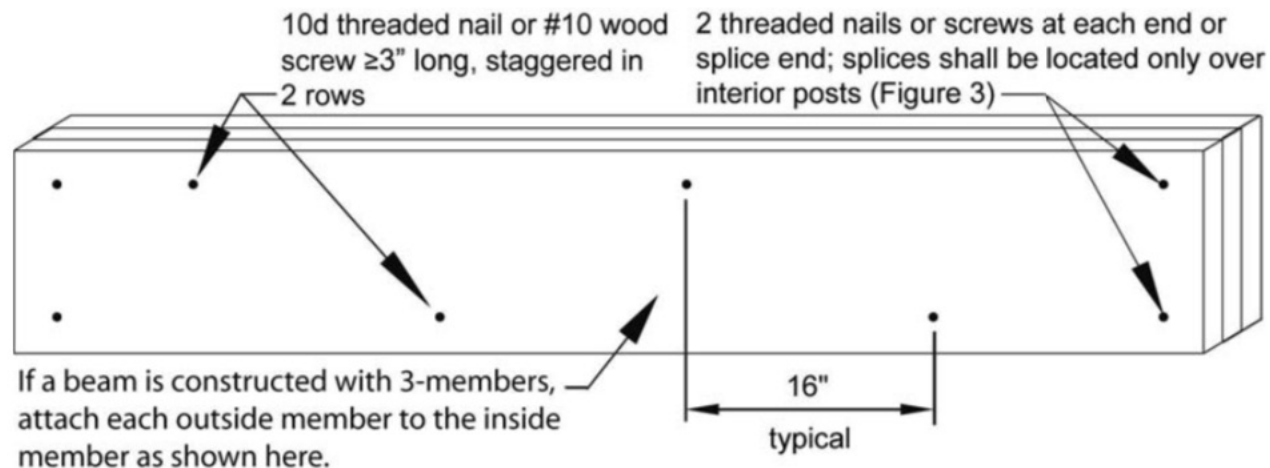
92nd Pl SE

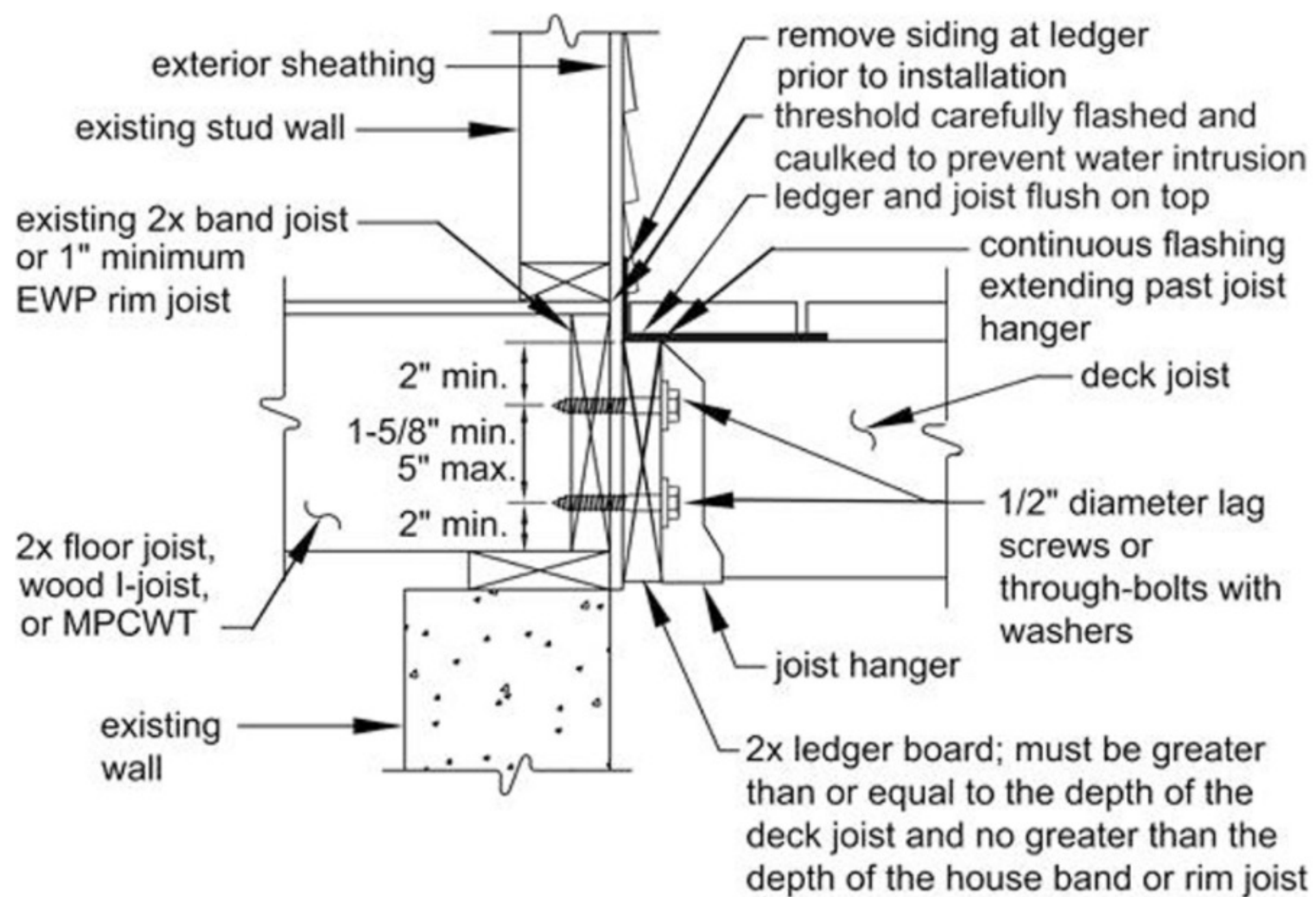


# Property Lines



Net lot area: 11,617  
Allowed Hardscape: 1045.5  
Existing Hardscape: 559  
Proposed Hardscape: 729

**Figure 4. Beam Assembly Details.**





## 10

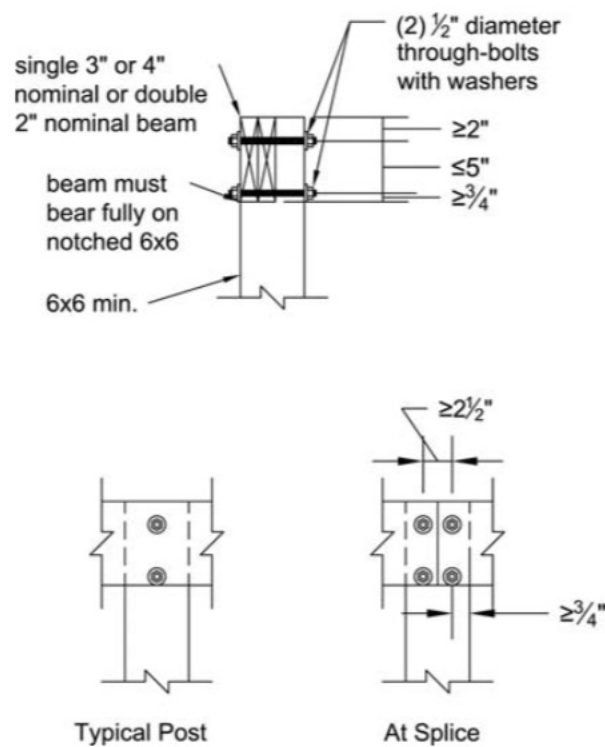
## PRESCRIPTIVE RESIDENTIAL WOOD DECK CONSTRUCTION GUIDE

**POST REQUIREMENTS**

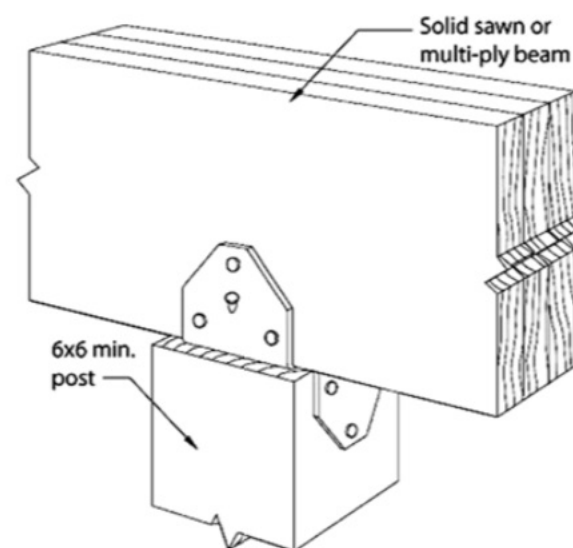
All deck post sizes shall be 6x6 (nominal) or larger, and the maximum height shall be in accordance with Table 4 and measured from grade or top of foundation, whichever is highest, to the underside of the beam. Under prescriptive limits of this document, 8x8 nominal posts can be substituted anywhere in Table 4 but are limited to a maximum height of 14'-0". Posts shall be centered on footings. Cut ends and notches of posts shall be field treated with an *approved* preservative (such as copper naphthenate) [R402.1.2]. The beam shall be attached to the post by notching as shown in Figure 8A or by providing an *approved* post cap to connect the beam and post as shown in Figure 8B. All 3-ply beams shall be connected to the post by a post cap. All through-bolts shall have washers under the bolt head and nut. Attachment of the beam to the side of the post without notching is prohibited (see Figure 9).

Provide diagonal bracing parallel to the beam at each corner post greater than 2'-0" in height as shown in Figure 10. Diagonal bracing is prohibited on center posts. Bracing shall be fastened to the post at one end and the beam at the other with  $\frac{1}{2}$ " diameter lag screws. For non-ledger decks, (see Figure 21) diagonal bracing may be omitted at the beam and posts adjacent to the house.

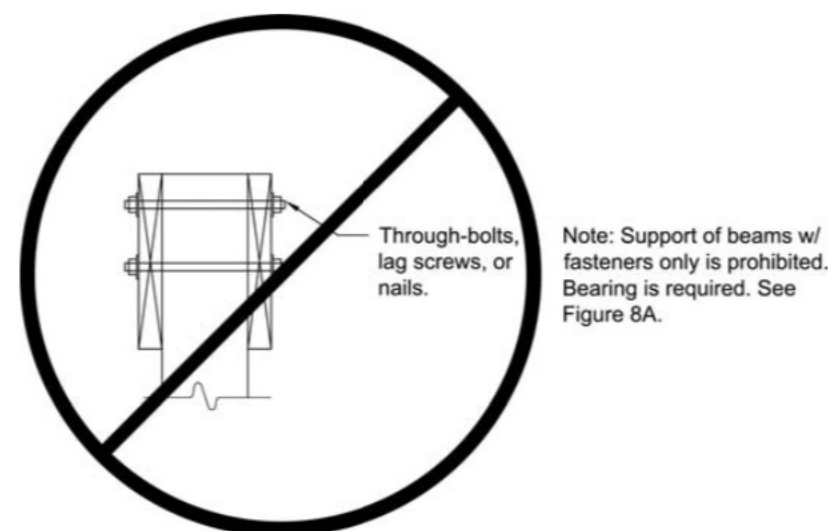
**Figure 8A. Post-to-Beam Attachment Requirements.**



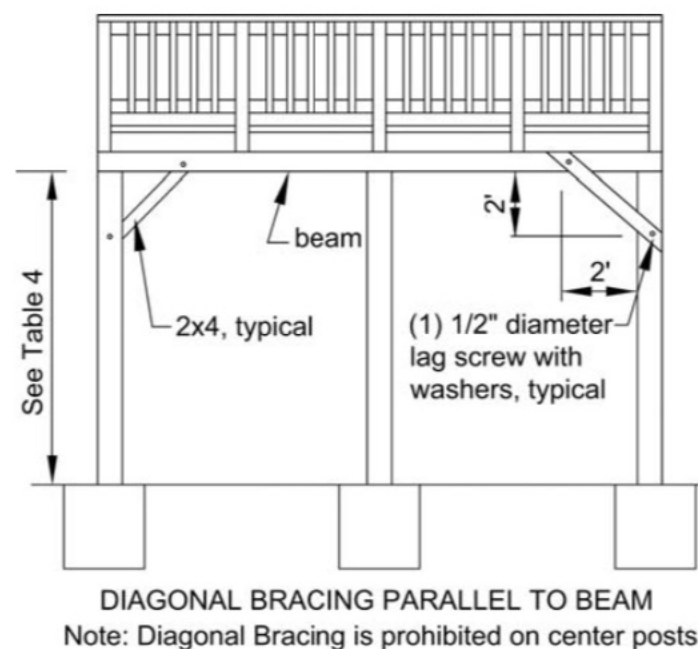
**Figure 8B. Alternate Approved Post-to-Beam Post Cap Attachment.**



**Figure 9. Prohibited Post-to-Beam Attachment Condition.**



**Figure 10. Diagonal Bracing.**





**Figure 1A. Joist Span – Joists Attached at House and Bearing Over Beam.**

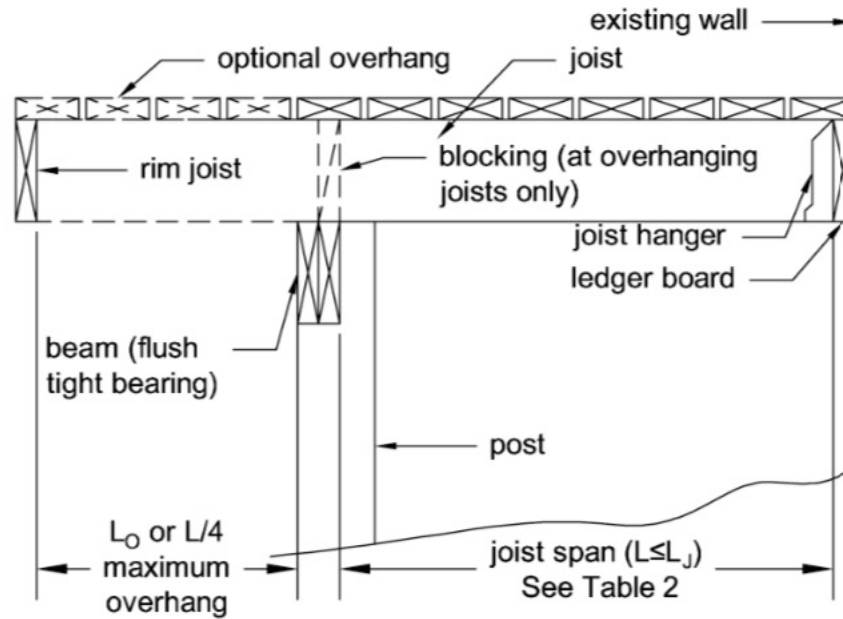


Figure 22. Lateral Load Device with Floor Joists Parallel to Deck Joists.

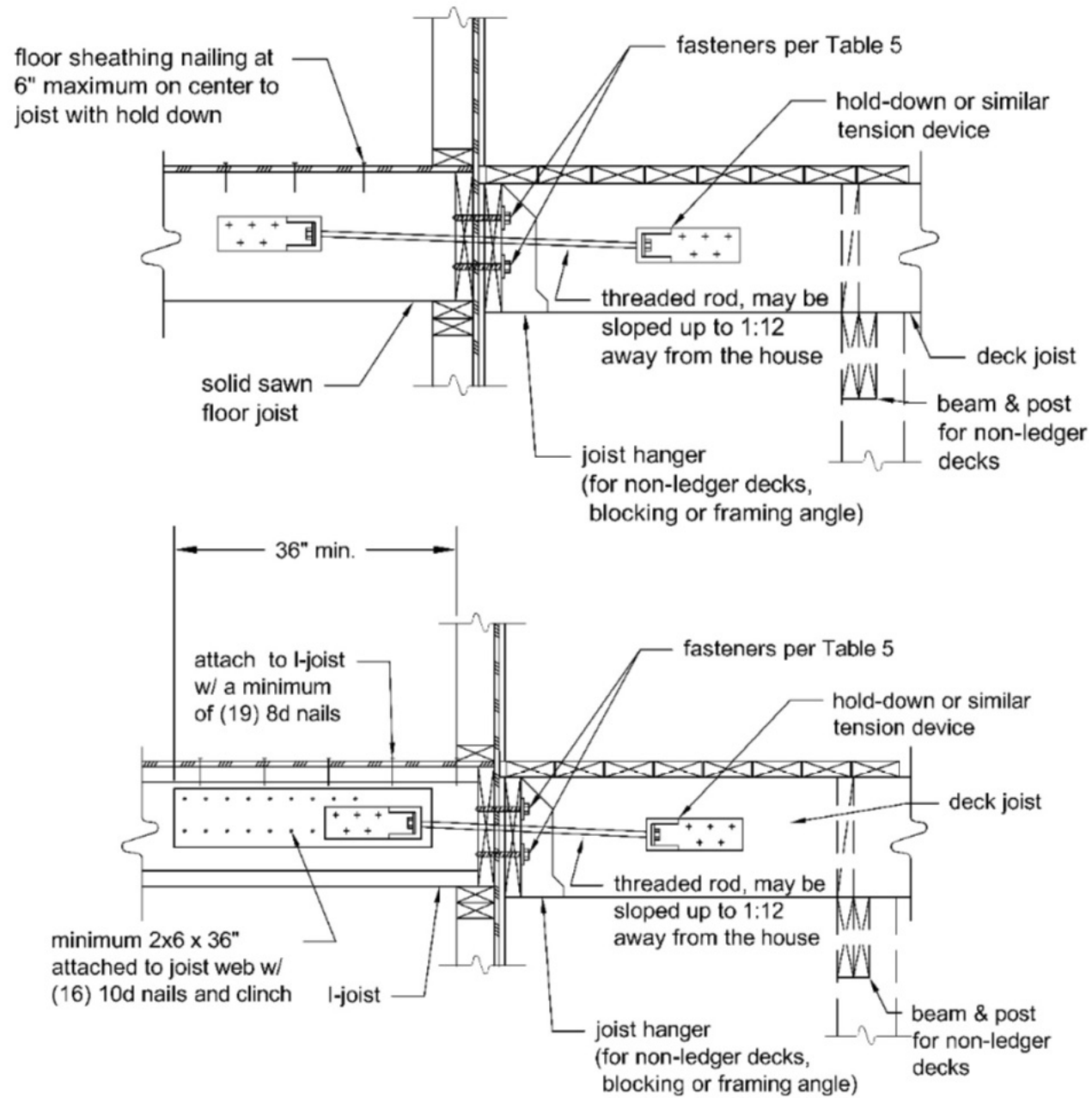
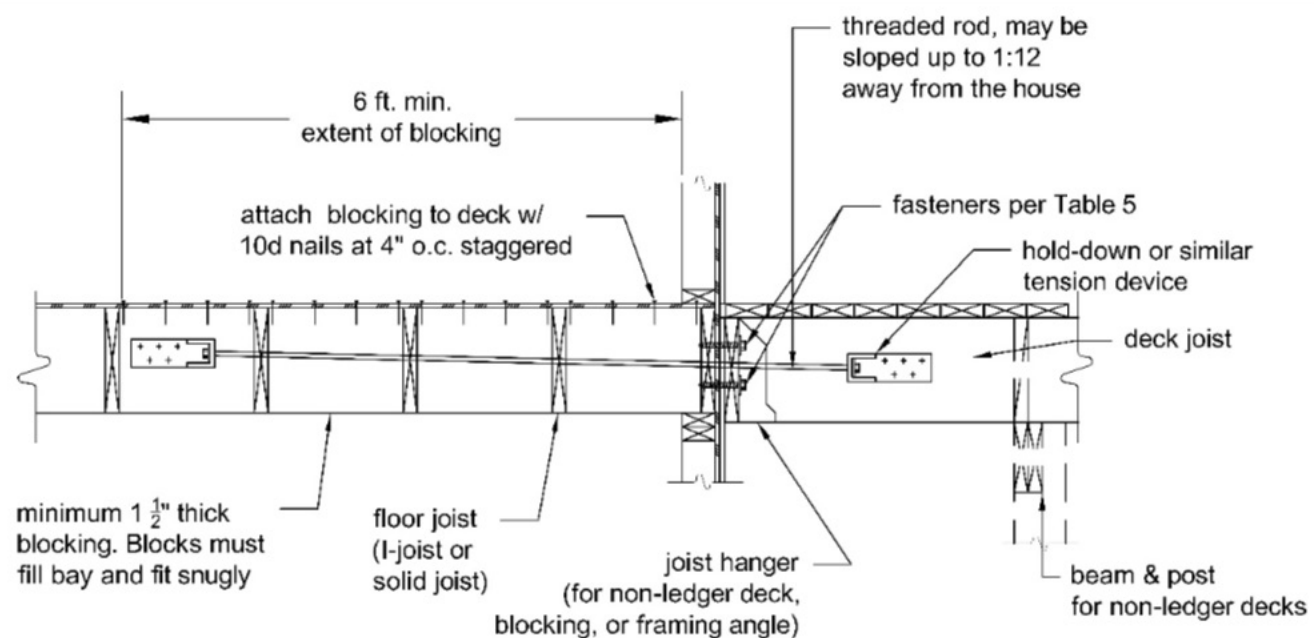


Figure 23. Lateral Load Device with Floor Joists Perpendicular to Deck Joists.



## 10

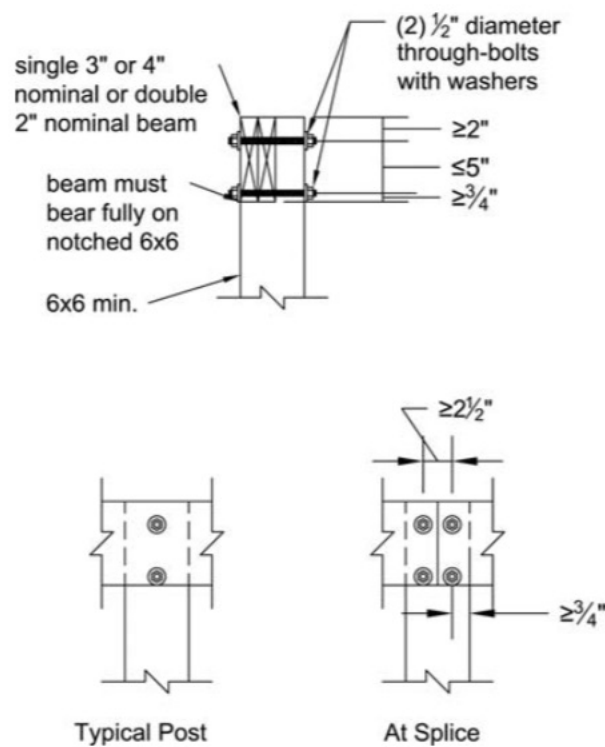
## PRESCRIPTIVE RESIDENTIAL WOOD DECK CONSTRUCTION GUIDE

**POST REQUIREMENTS**

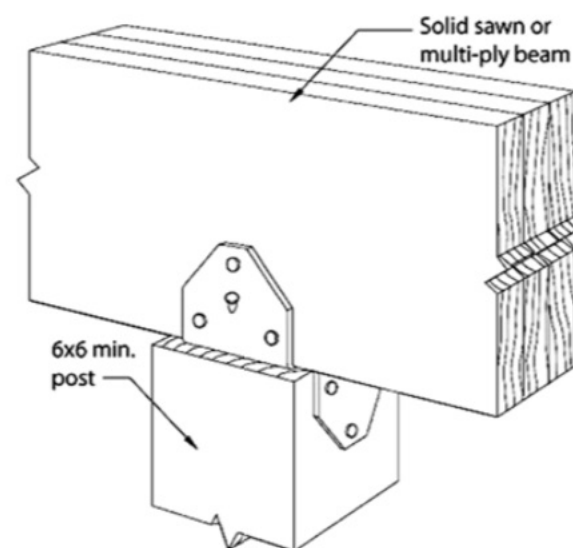
All deck post sizes shall be 6x6 (nominal) or larger, and the maximum height shall be in accordance with Table 4 and measured from grade or top of foundation, whichever is highest, to the underside of the beam. Under prescriptive limits of this document, 8x8 nominal posts can be substituted anywhere in Table 4 but are limited to a maximum height of 14'-0". Posts shall be centered on footings. Cut ends and notches of posts shall be field treated with an *approved* preservative (such as copper naphthenate) [R402.1.2]. The beam shall be attached to the post by notching as shown in Figure 8A or by providing an *approved* post cap to connect the beam and post as shown in Figure 8B. All 3-ply beams shall be connected to the post by a post cap. All through-bolts shall have washers under the bolt head and nut. Attachment of the beam to the side of the post without notching is prohibited (see Figure 9).

Provide diagonal bracing parallel to the beam at each corner post greater than 2'-0" in height as shown in Figure 10. Diagonal bracing is prohibited on center posts. Bracing shall be fastened to the post at one end and the beam at the other with  $\frac{1}{2}$ " diameter lag screws. For non-ledger decks, (see Figure 21) diagonal bracing may be omitted at the beam and posts adjacent to the house.

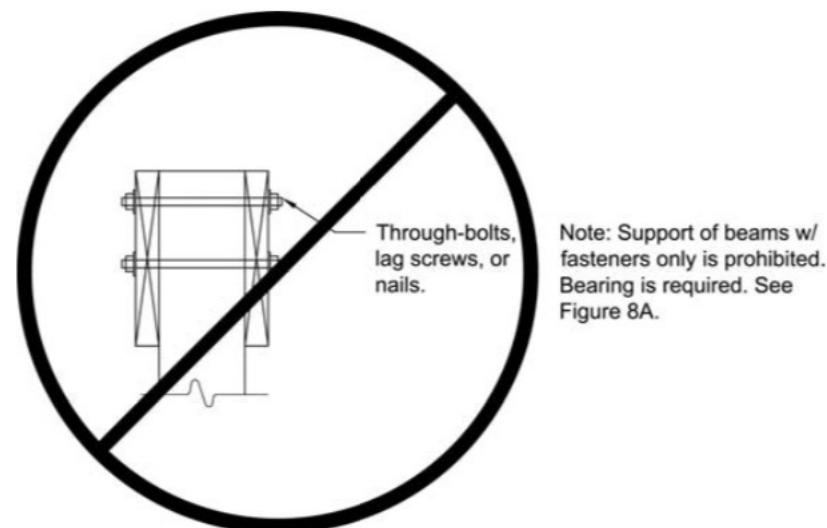
**Figure 8A. Post-to-Beam Attachment Requirements.**



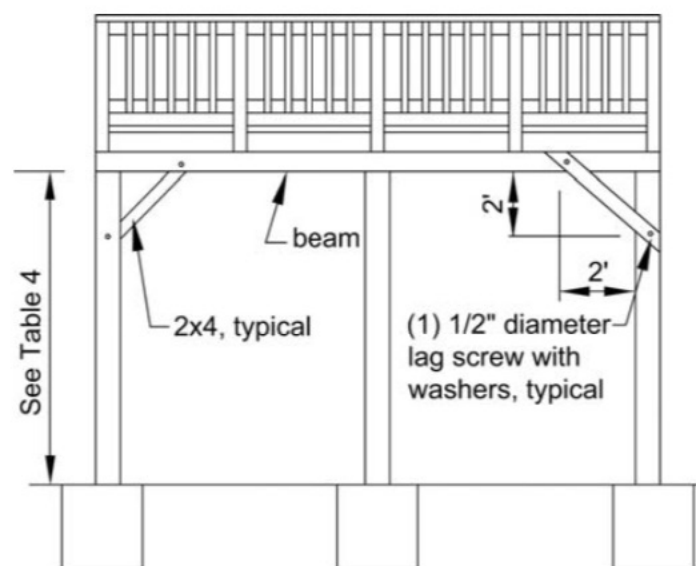
**Figure 8B. Alternate Approved Post-to-Beam Post Cap Attachment.**



**Figure 9. Prohibited Post-to-Beam Attachment Condition.**



**Figure 10. Diagonal Bracing.**



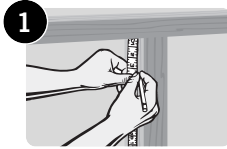
DIAGONAL BRACING PARALLEL TO BEAM  
Note: Diagonal Bracing is prohibited on center posts.



# Step-by-Step Installation

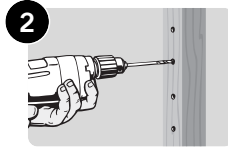
## TOOL CHECKLIST

- Safety Glasses
- Work Gloves
- Pencil
- Measuring Tape
- Electric Drill
- Drill Bits
- Hammer
- Cable Cutters
- Vise-Grip Pliers
- 7/16" Wrench
- Electric Grinder with Grinding Disk & Cut-off Disk
- Hacksaw or Electric Reciprocating Saw
- Cable Lacing Needle
- Feeney Tension Gauge



Mark drill hole locations on posts.

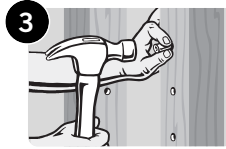
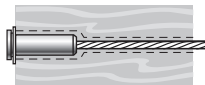
To minimize cable deflection, space cables no more than 3 inches apart and have a post or vertical spacer at least every 3 feet. Also, straight runs of cable (no turns/dips) should not exceed 70 feet. Runs with corners (2 bends at most) should not exceed 40 feet. See Basic Frame Design on back page.



Drill holes in posts. Hole diameter depends on cable size and type of fitting. See chart below.

Cable Size	Threaded Term. Post	Intermediate Posts	Quick-Connect Post
1/8"	5/16"	1/4"	3/8"
3/16"	3/8"	1/4"	9/16"
1/4"	7/16"	5/16"	9/16"

If desired, Quick-Connect® posts may be through drilled at 1/4" (5/16" if 1/4" cable) and then counter-bored with the recommended Quick-Connect® drill to countersink the fitting.



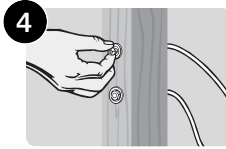
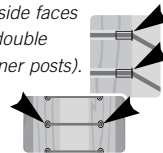
### (Metal posts only)

Insert Isolation Bushings or Grommets (optional), into their corresponding post holes. **Note: call for special drill hole sizes.**

### (Wood posts only)

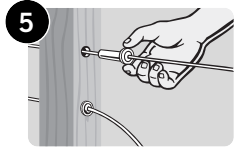
Insert Protector Sleeves at necessary locations. Tap in until flush.

Protector Sleeves prevent abrasion at angled transitions on wood posts (e.g. stair transition posts or outside faces of double corner posts).



Insert the Threaded Terminal through the Terminal end post and attach a flat washer and Snug-Grip® Washer Nut. Spin the nut 2 full turns. Strong resistance will be felt as the Snug-Grip® threads engage; so hold the Terminal shaft with pliers.

*Note: Metal assemblies have Nylon Flat Washers in both white and black. Choose the color that best matches your railing frame.*



Lace the free end of the cable through the intermediate posts and Quick-Connect® end post. Slide-on a flat washer and Quick-Connect® Inset fitting until they rest against the face of the post.

*Use a Lacing Needle if snagging becomes a problem.*

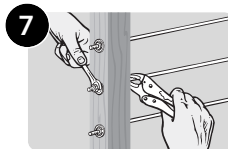


Use Beveled Washers for stair termination posts with angled holes. Available for Threaded Terminal and Quick-Connect® Inset fittings. Always install the Connect® Inset fittings in the top stair post to prevent rain water from running down the cable into the fittings.

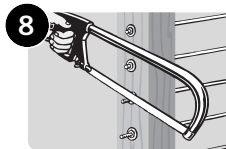


Hold the Quick-Connect® Inset fitting with one hand and pull the cable tight with the other. The fitting automatically locks when you release the cable.

*CableRail Tensioning Tool #6005-pkg may be used.*



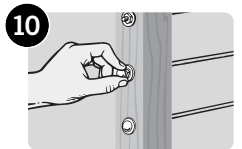
Tension the cables by holding the Threaded Terminal shaft with Vise-Grip pliers and spinning the Snug-Grip® Washer Nuts with a wrench. A Feeney Tension Gauge may be used to check uniform tension. See tensioning sequence diagram at left.



Use hacksaw, reciprocating saw, or electric grinder with cut-off disk to saw off the excess threads as close to the Snug-Grip® Washer Nut as possible. Touch-up with electric grinder. The special Snug-Grip® threads prevent the nut from loosening.



Use cable cutters or electric grinder with cut-off disk to trim the excess cable. Grind flush the exposed cable ends with an electric grinder.

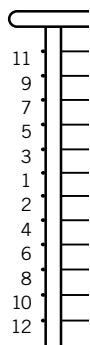


Snap on end caps over the exposed Quick-Connect® Inset fittings and the Snug-Grip® Washer Nuts. You're done.

*Feeney SteelProtect™ can be applied for lasting protection of stainless steel cable and parts.*

**Important Note: If using electric or pneumatic tools to tighten the Washer Nuts, spin the nuts very slowly otherwise they will heat up causing the threads to seize.**

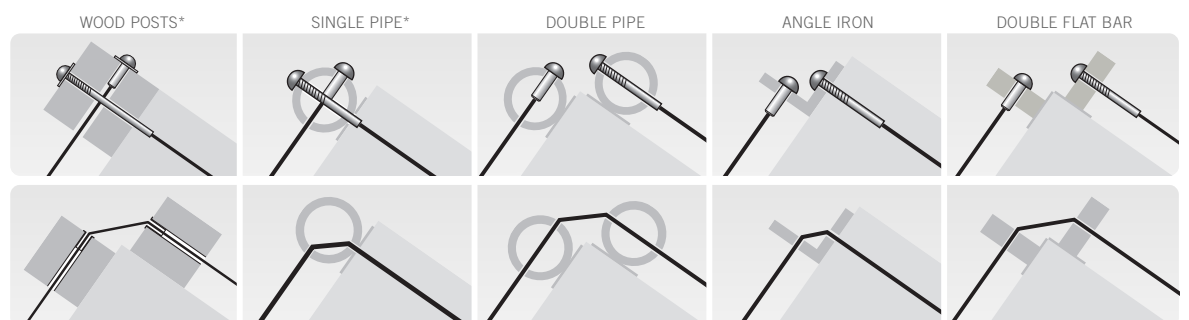
Recommended cable tensioning sequence



Terminating

Continuous

Cables can either terminate or run through corner posts



\*Offset drill holes at least 1/2" if you choose to have cables terminating at a single wood or pipe post.



# Frame Requirements

Railing frames need to be designed and built strong enough to support the tension of properly installed cables, which is a load in excess of 300 lbs for each cable. Here are some basic guidelines to help you properly prepare your railing frames. These guidelines apply whether you are using 1/8", 3/16" or 1/4" cable (1/4" cable not recommended for wood frames).

## Minimum sizes for all corner and end posts

All other posts should be sized as required for cap rail support strength or for code



**4X4 WOOD**

3-1/2" wide, 3-1/2" thick  
Note: Softer woods may require larger post sizes, especially for 42" high railings



**FLAT BAR**

2" wide, 1" thick



**ANGLE IRON**

2" wide, 1/2" thick



**EXTRA STRONG PIPE**

1-1/2" ID, 1-7/8" OD



**SQUARE TUBE**

2" wide, 1/4" wall

## The Basic Frame Design

### Spacing From Walls:

Set end posts 3 to 4 inches away from the house/wall face to allow access for attaching cable end fittings.

### End Posts:

Use minimum end post sizes noted above, and securely bolt or screw to joists or deck surface.

### Top Rail:

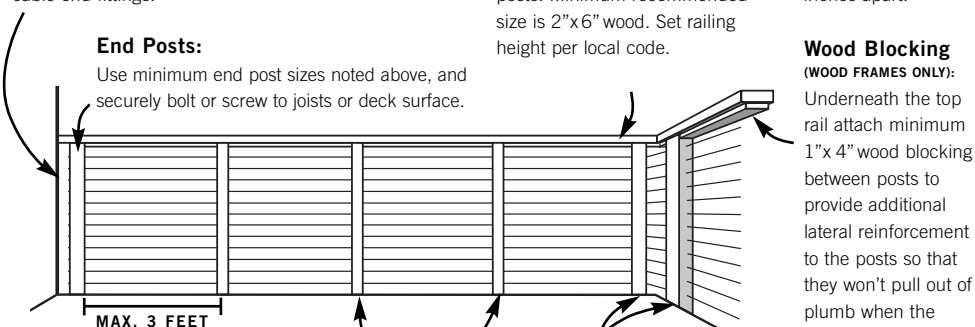
Always include a strong, rigid top rail that is securely fastened to all posts. Minimum recommended size is 2"x6" wood. Set railing height per local code.

### Cable Spacing:

Maximum 3 inches apart.

### Wood Blocking (WOOD FRAMES ONLY):

Underneath the top rail attach minimum 1"x4" wood blocking between posts to provide additional lateral reinforcement to the posts so that they won't pull out of plumb when the cables are tensioned.



### Maximum Post Spacing:

Space all posts and vertical spacers (see below) a maximum of 3 feet apart to minimize any deflection that may occur if the cables are ever forced apart.

### Intermediate Posts:

Size all intermediate posts as required for top rail support strength or for code.

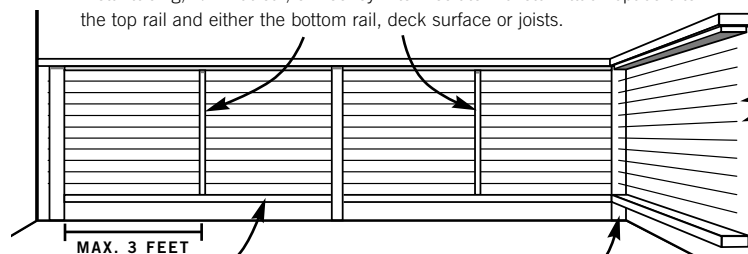
### Double Corner Posts:

If possible use double corner posts to allow the cable to run continuously through the corners without terminating (see single corner post option below). Securely bolt or screw posts to joists or deck surface and use minimum corner post sizes noted above.

## And Some Other Options

### Vertical Spacers (OPTIONAL):

Slender spacers may be used instead of some of the larger intermediate posts to achieve a more open railing design. These are non-structural members and are only intended to maintain cable spacing and minimize deflection. Examples are 2"x2" wood strips, 1" metal tubing, 1/4" flat bar, or Feeney Intermediate Pickets. Attach spacers to the top rail and either the bottom rail, deck surface or joists.



### Bottom Rails (OPTIONAL):

Bottom rails should be spaced no more than 4 inches above the deck surface, or as required by local code, and should be sized as needed for support strength and design appearance.

### Single Corner Post (OPTIONAL):

In most cases with single corner posts cables must be terminated. Exceptions are angle iron posts or tubular metal posts. When terminating on a single corner post, be sure to offset the drill holes at least 1/2" to allow internal clearance for the cable fittings. Use minimum end post sizes noted above and securely bolt or screw to joists or deck surface.

### Cable Spacing:

Maximum 3 inches apart.

## CONSTRUCTION CHECKLIST

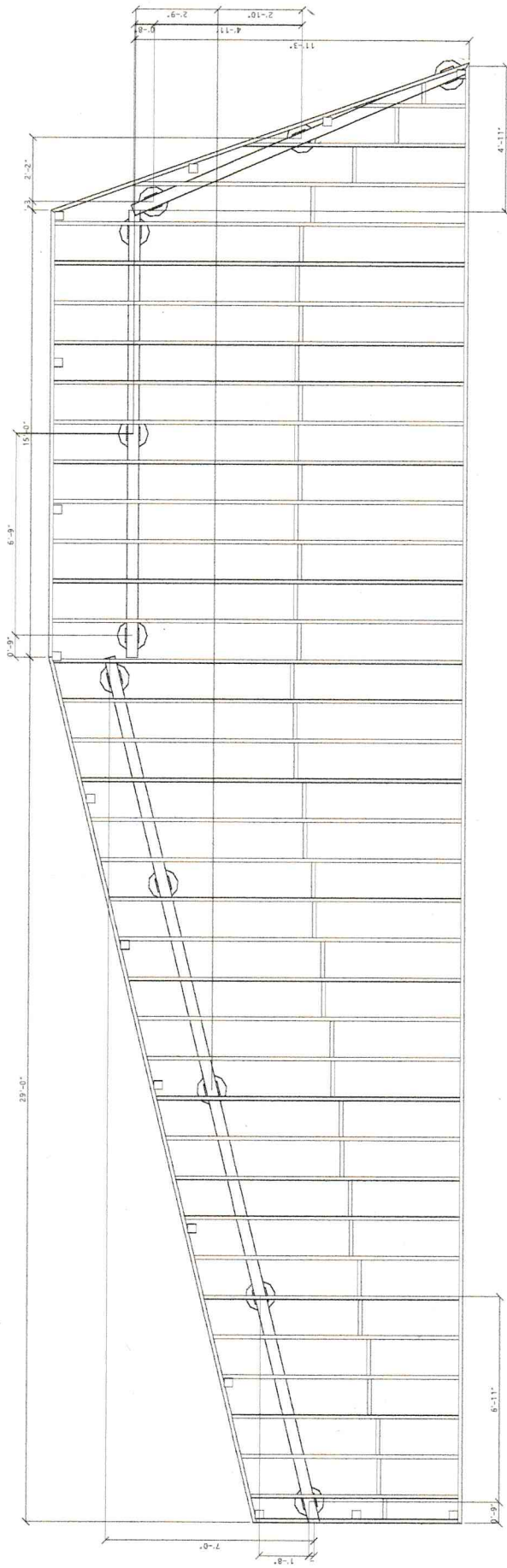
- ☐ Space cables no more than 3 inches apart
- ☐ Space posts/verticals no more than 3 feet apart
- ☐ Observe minimum end/corner post sizes shown above
- ☐ Securely fasten all posts and top rails
- ☐ Carefully plan all termination and corner posts for proper clearance, positioning, and maximum cable run lengths
- ☐ Straight runs of cable (no turns/dips) should not exceed 70 feet; runs with corner bends (2 bends at most) should not exceed 40 feet

## IMPORTANT NOTE

For railings we recommend spacing the cables no more than 3 inches apart and placing posts or vertical members no more than 3 feet apart.

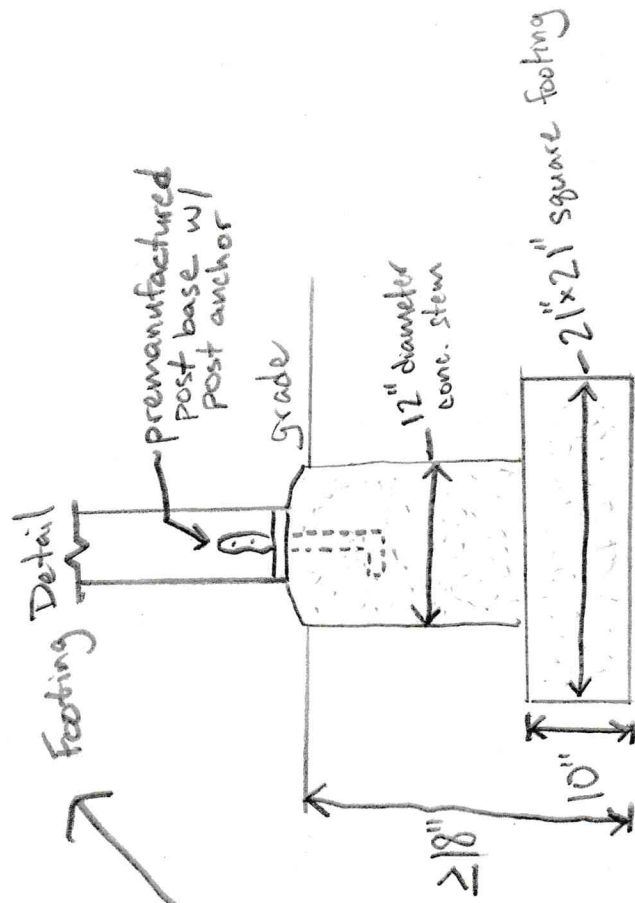
Please note that since building codes vary by state, county and city, our recommendations may not comply with code requirements in all areas.

Always consult with your local building department before starting your project.



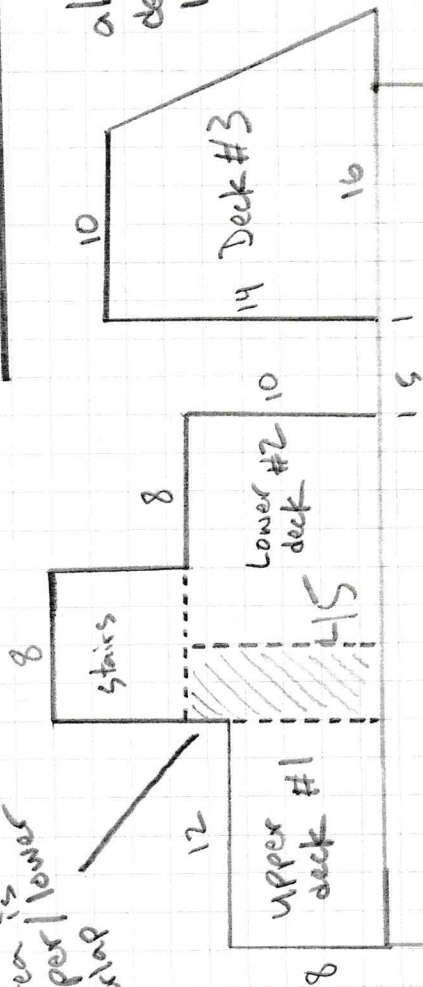
posts will be 6x6 PT  
 beams will be built up 3-ply 2x10 PT  
 joists will be 2x10 PT  
 rim joists will be 2x10 PT

All footings

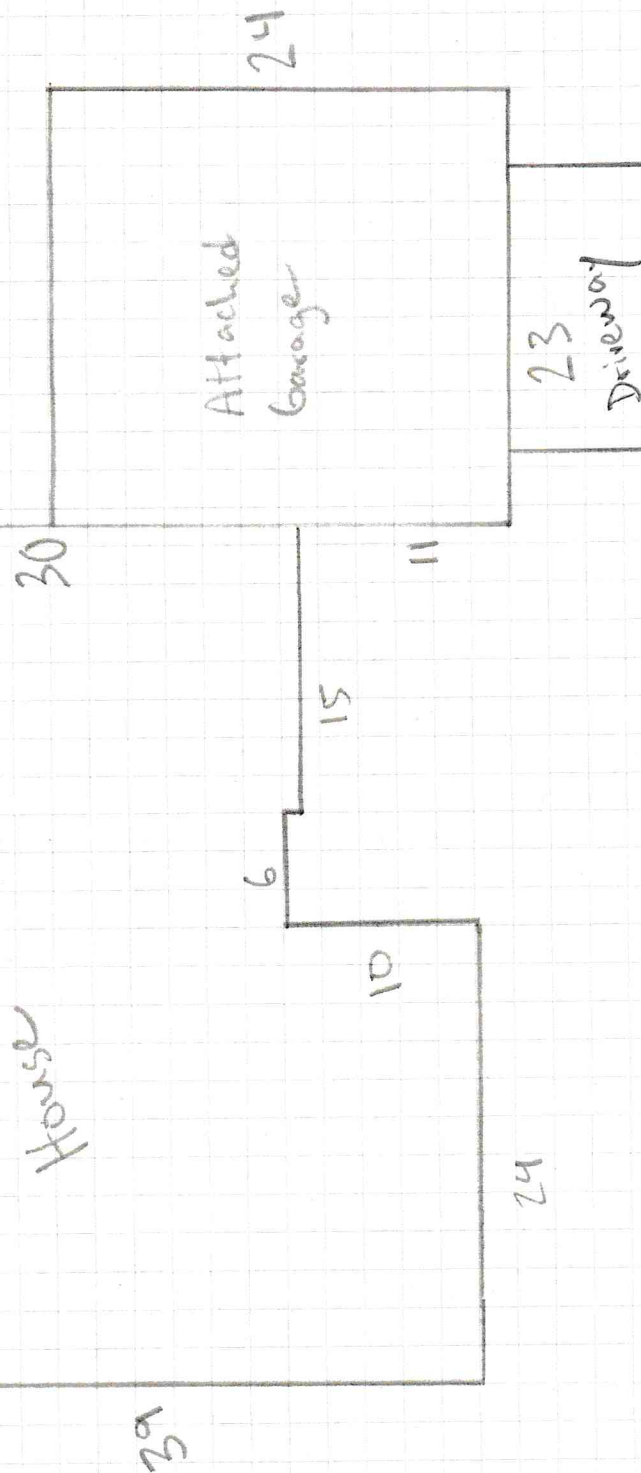


7408 92nd Pl SE

shaded area is  
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all 3 decks and stairs to be demolished and proposed, single level deck to be built in place. No stairs in new construction.

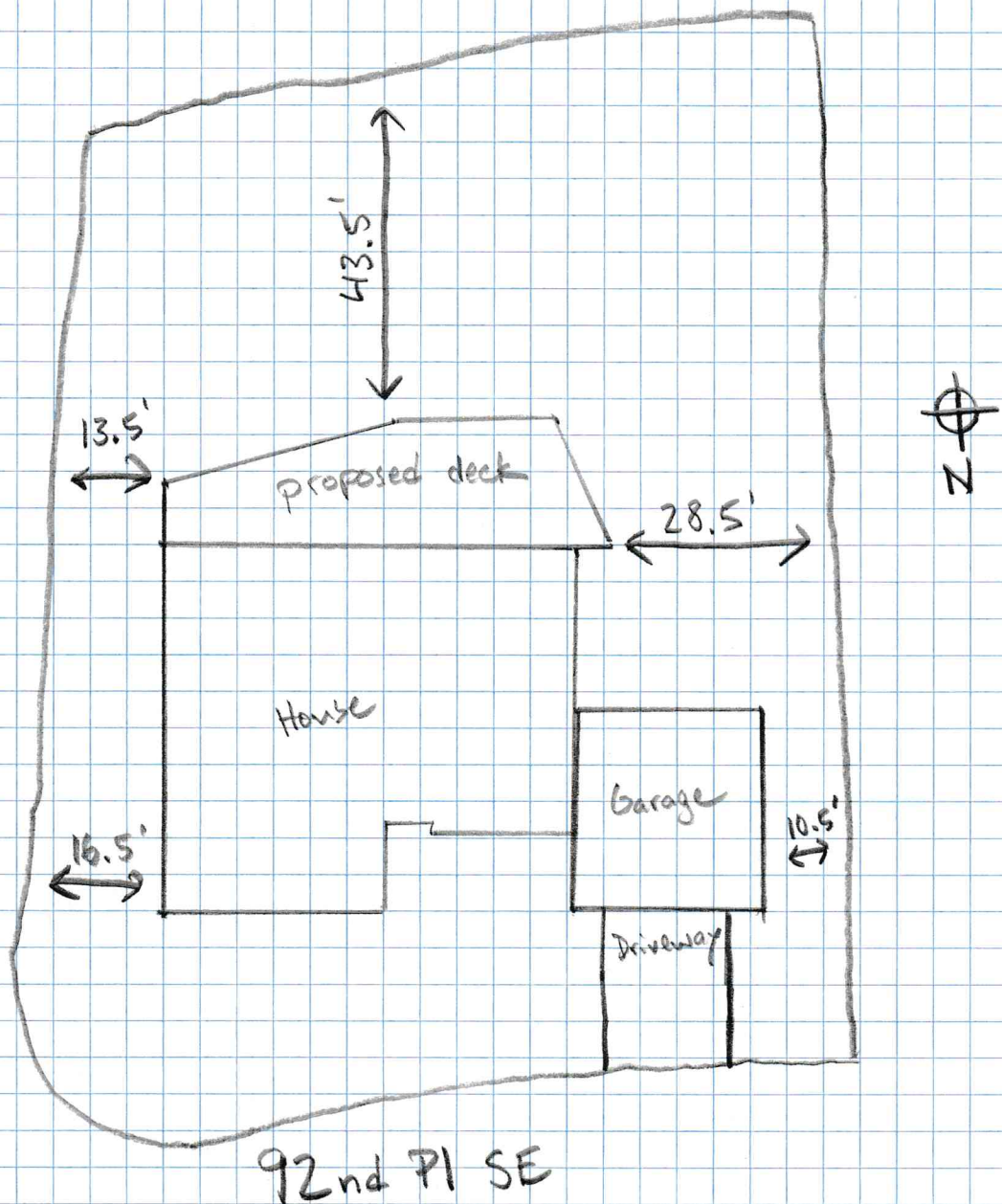


92nd Pl SE





# Property Lines



Net lot area: 11,617  
Allowed Hardscape: 1045.5  
Existing Hardscape: 559  
Proposed Hardscape: 729

Figure 22. Lateral Load Device with Floor Joists Parallel to Deck Joists.

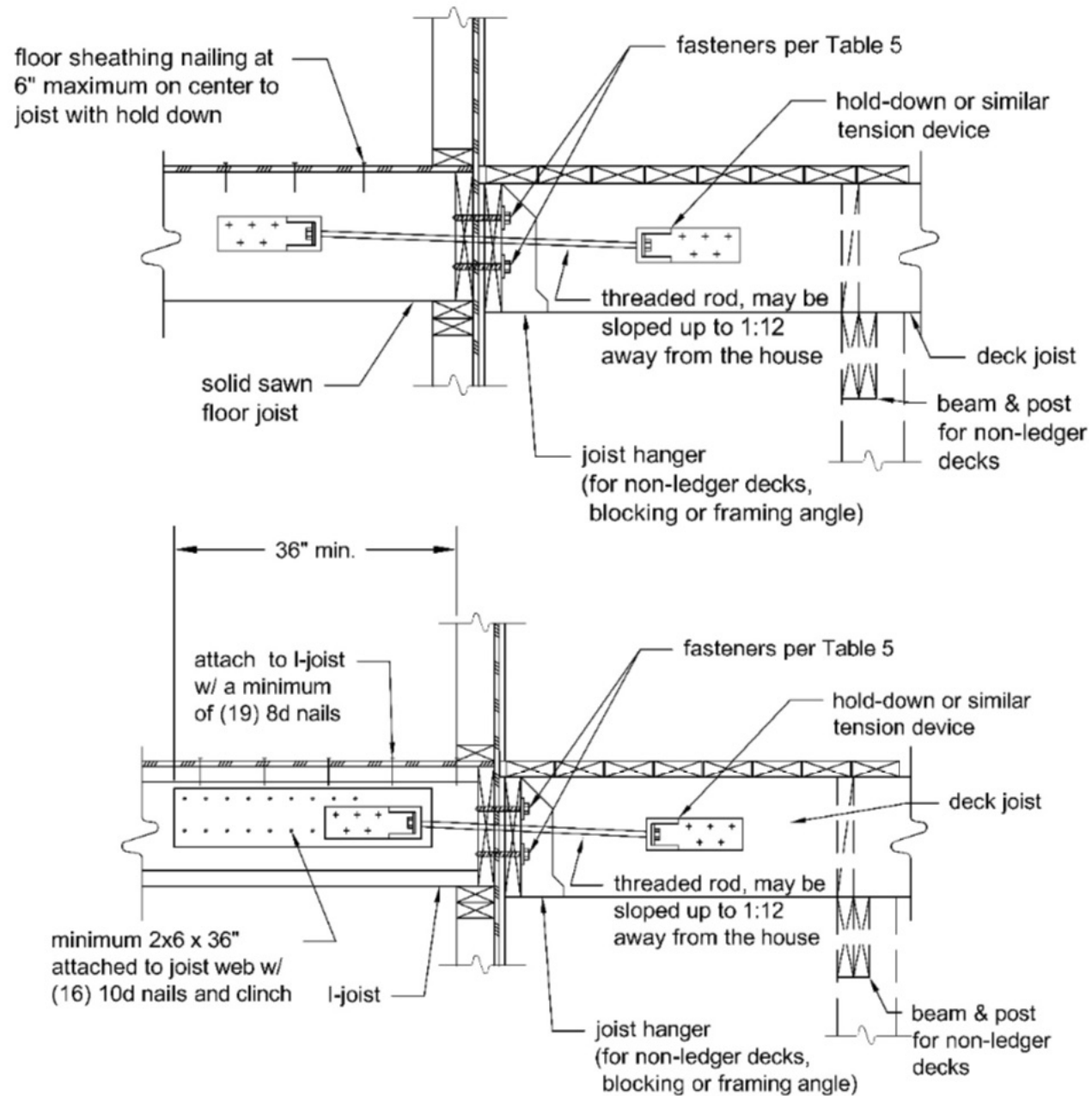
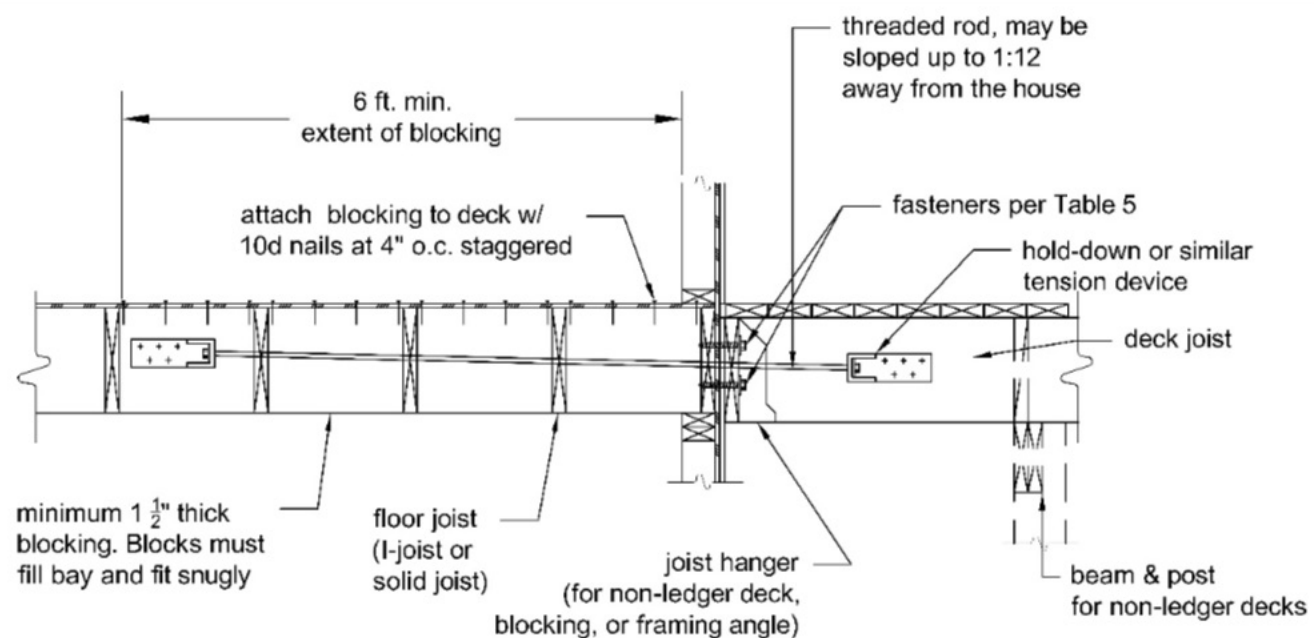


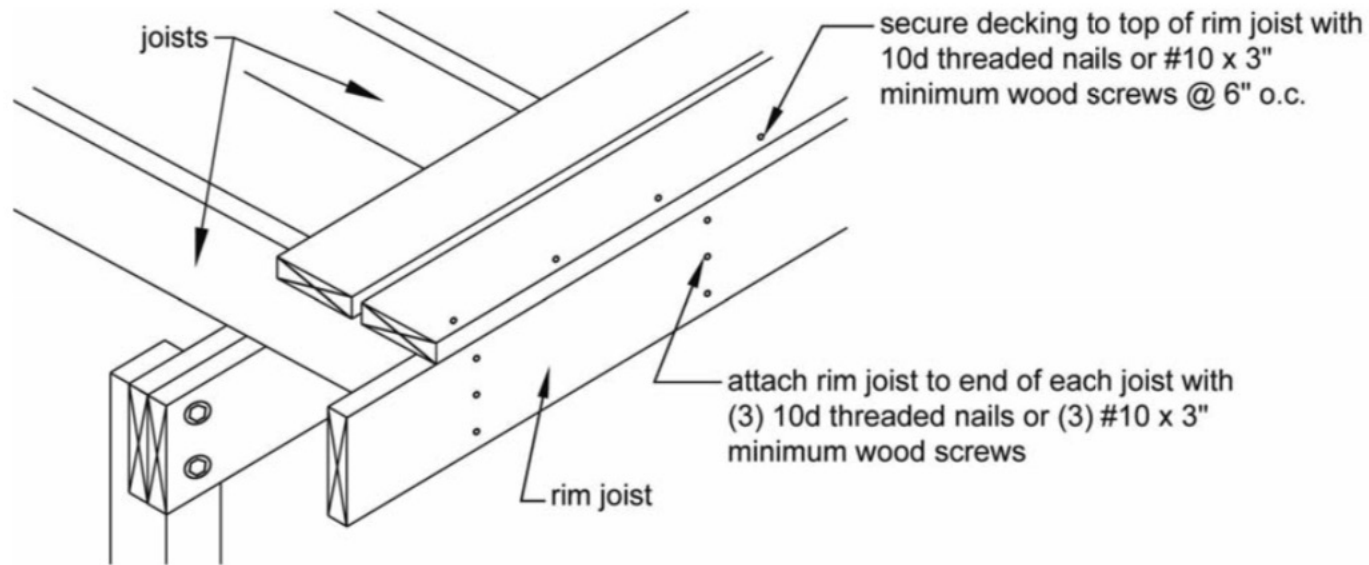
Figure 23. Lateral Load Device with Floor Joists Perpendicular to Deck Joists.



## RIM JOIST REQUIREMENTS

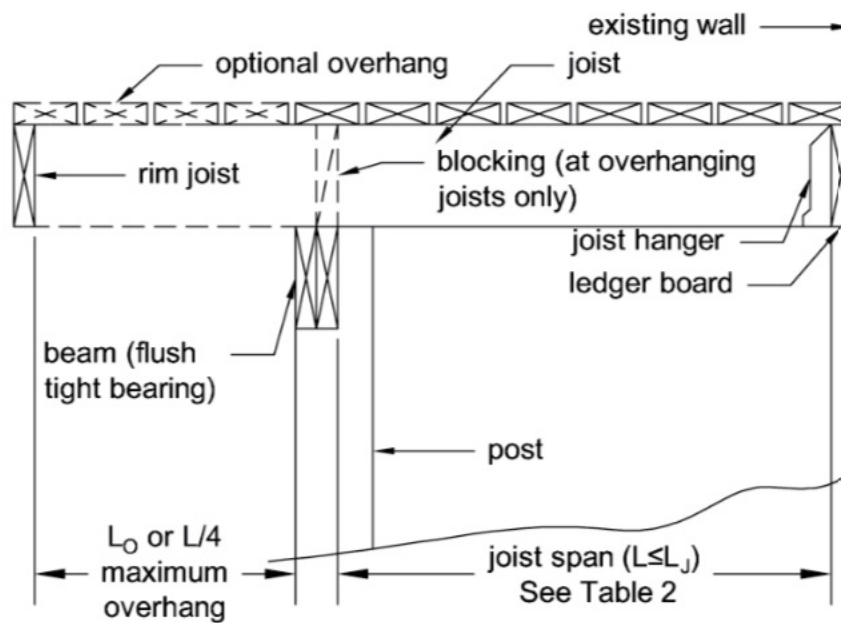
Attach a continuous rim joist to the ends of joists as shown in Figure 11. Attach decking to the rim joist as shown in Figure 11. For more decking attachment requirements, see DECKING REQUIREMENTS.

**Figure 11. Rim Joist Connection Details.**

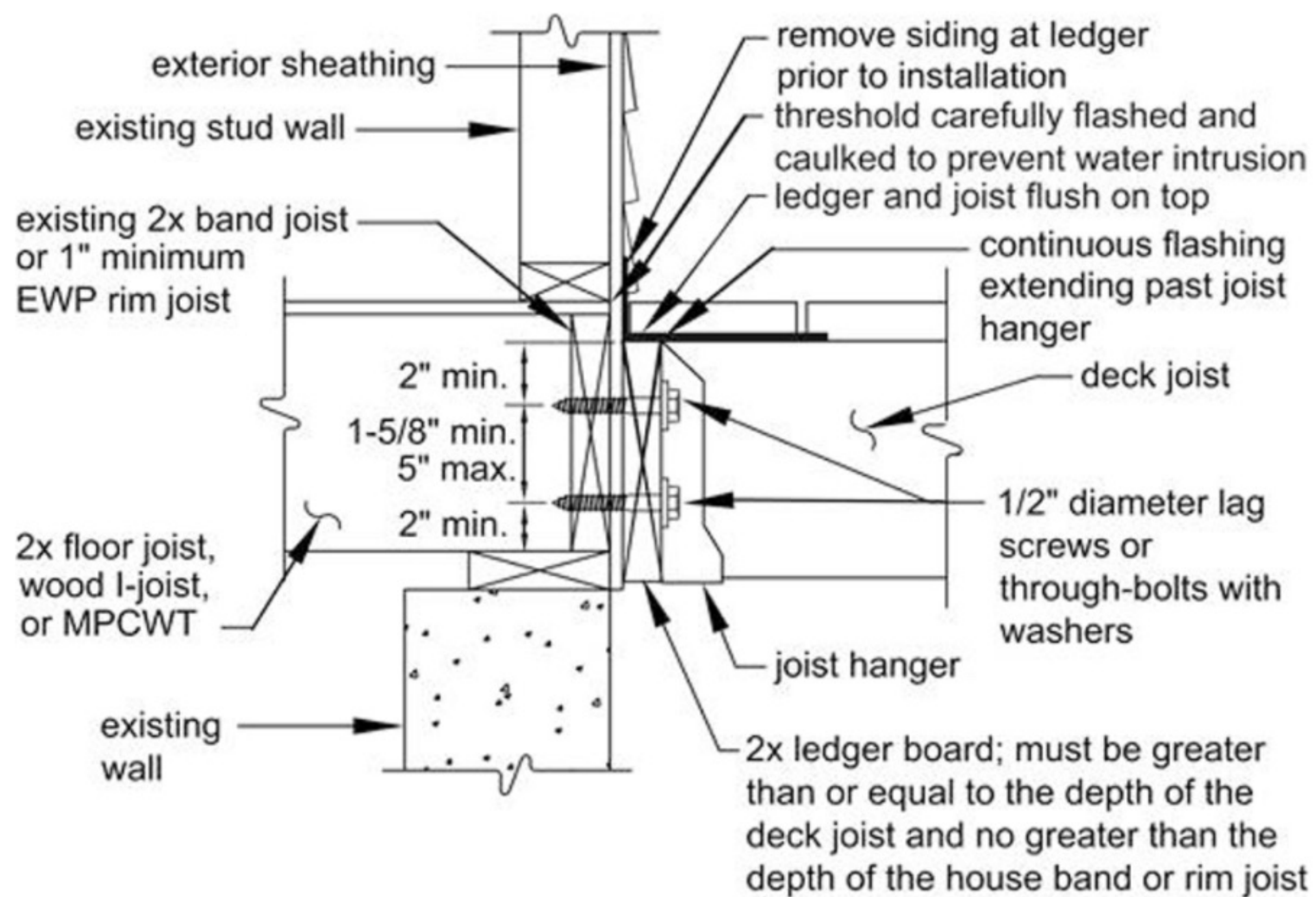


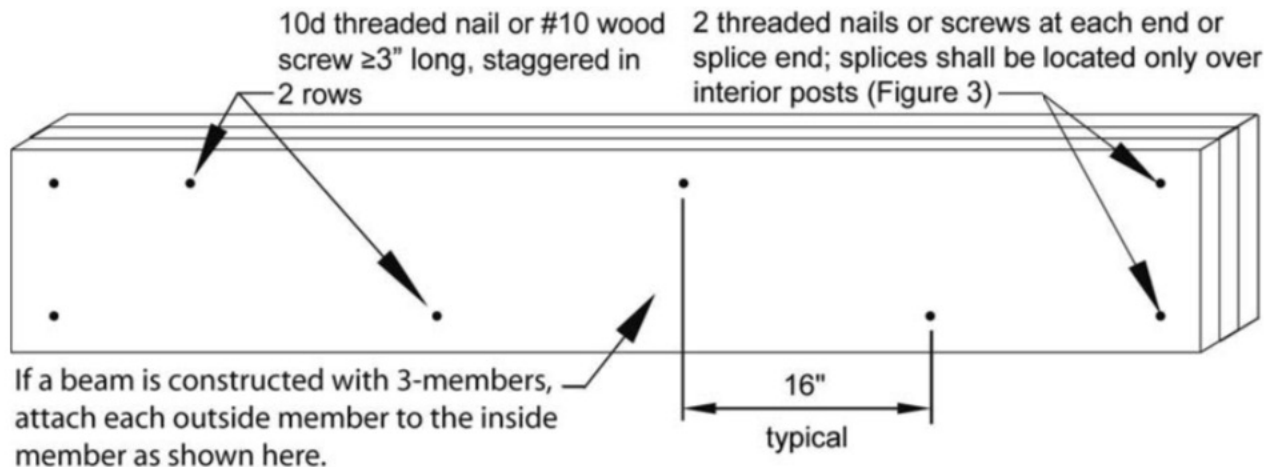


**Figure 1A. Joist Span – Joists Attached at House and Bearing Over Beam.**

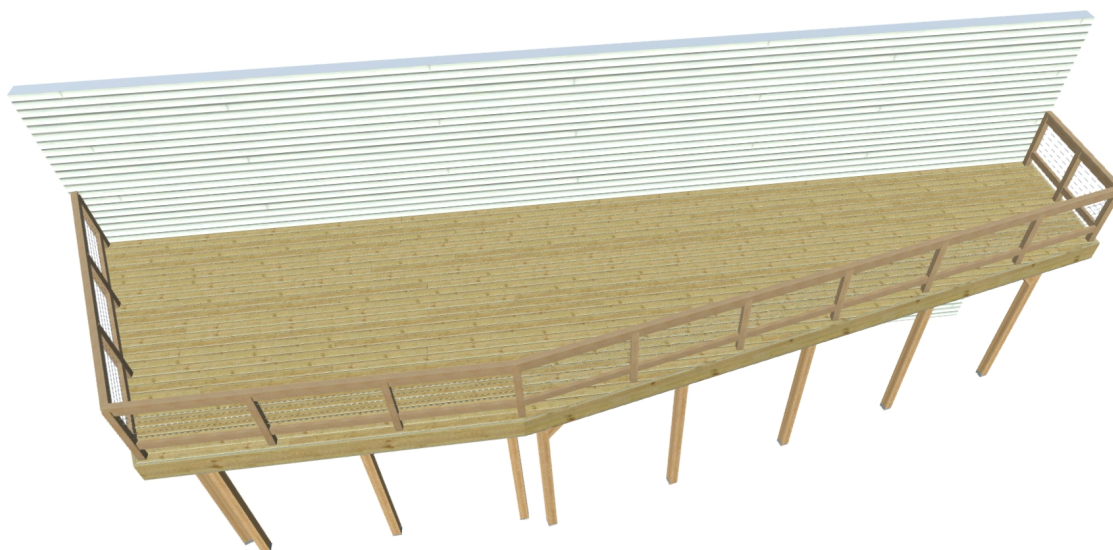






**Figure 4. Beam Assembly Details.**

3D view



## Gress

### Deck Planner Software™ Report

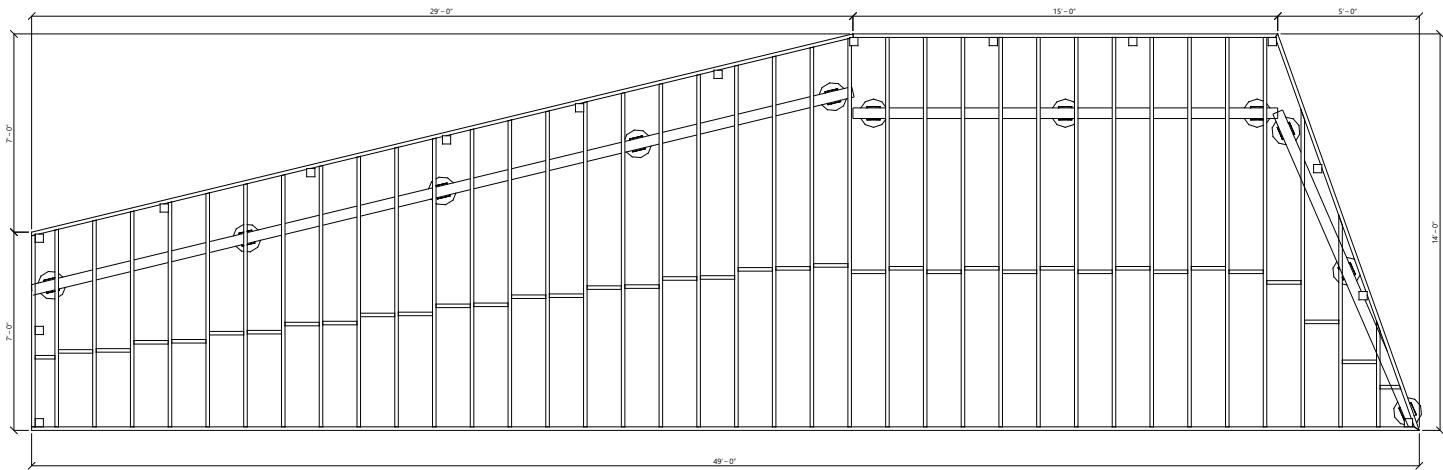
All lengths, areas, weights, masses and structural forces are expressed in U.S. Customary units unless otherwise specified.

This report was created 7/24/2021 12:07 PM by Deck Planner Software™

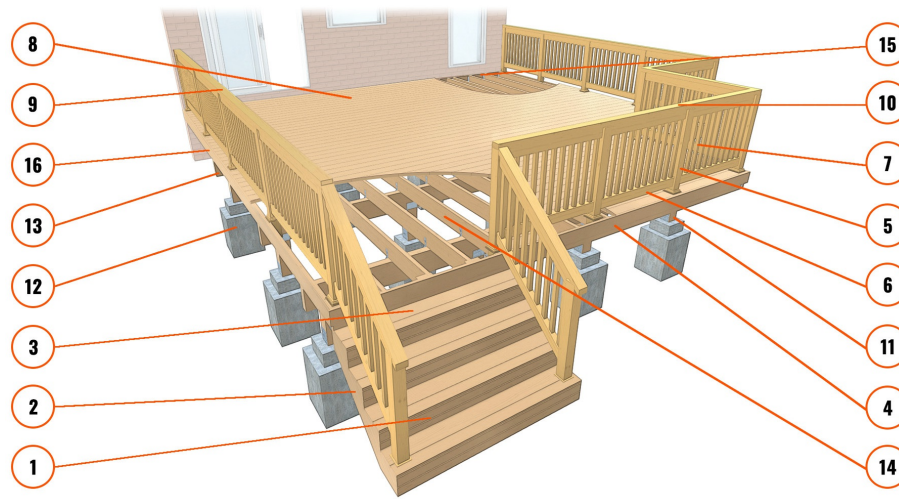


# Your Planned Deck Design

Plan view construction



## Glossary of Decking Terms



**1. Risers:** The vertical boards attached to the stair stringers. Many localities require risers to prevent possible trip hazards.

**2. Stringers:** The structural support for stairs. They have limits on how much weight they can carry, so size and spacing are important considerations. Composite manufacturers provide recommended stringer spacing to support the tread material.

**3. Treads:** The horizontal stair surfaces on which deck users walk.

**4. Rim Joist:** Also known as edge bands, the rim joist wraps the deck and keeps the joists standing on edge, while also providing a solid surface for attaching railing posts. Proper attachment is critical to installing a safe railing.

**5. Rail Post:** Vertical lumber member that supports the handrail and resists the outward force of people leaning on the railings.

**6. Bottom Rails:** Lumber members that connect to the rail posts and provide a solid surface for securing the infills.

**7. Infills:** Also known as balusters or pickets, the infills are connected to the top and bottom rails and provide a barrier against falls.

**8. Decking:** When properly attached to each joist and rim joist, the decking surface (whether wood or composite material) helps unify the entire structure.

**9. Rail Cap:** Much like the decking, the rail cap unifies the railing system and provides a decorative feature.

**10. Top Rails:** These members have the same stabilizing function as the bottom rails.

**11. Post:** Vertical structural member that supports the beams and attaches the deck to the footings using a post base.

**12. Footing:** Concrete element that serves as the foundation of the deck.

**13. Beams:** Structural members that support the decking floor joists. Beams are made of doubling 2x material and can be installed as a laminate, sandwiched, or notched into the post.

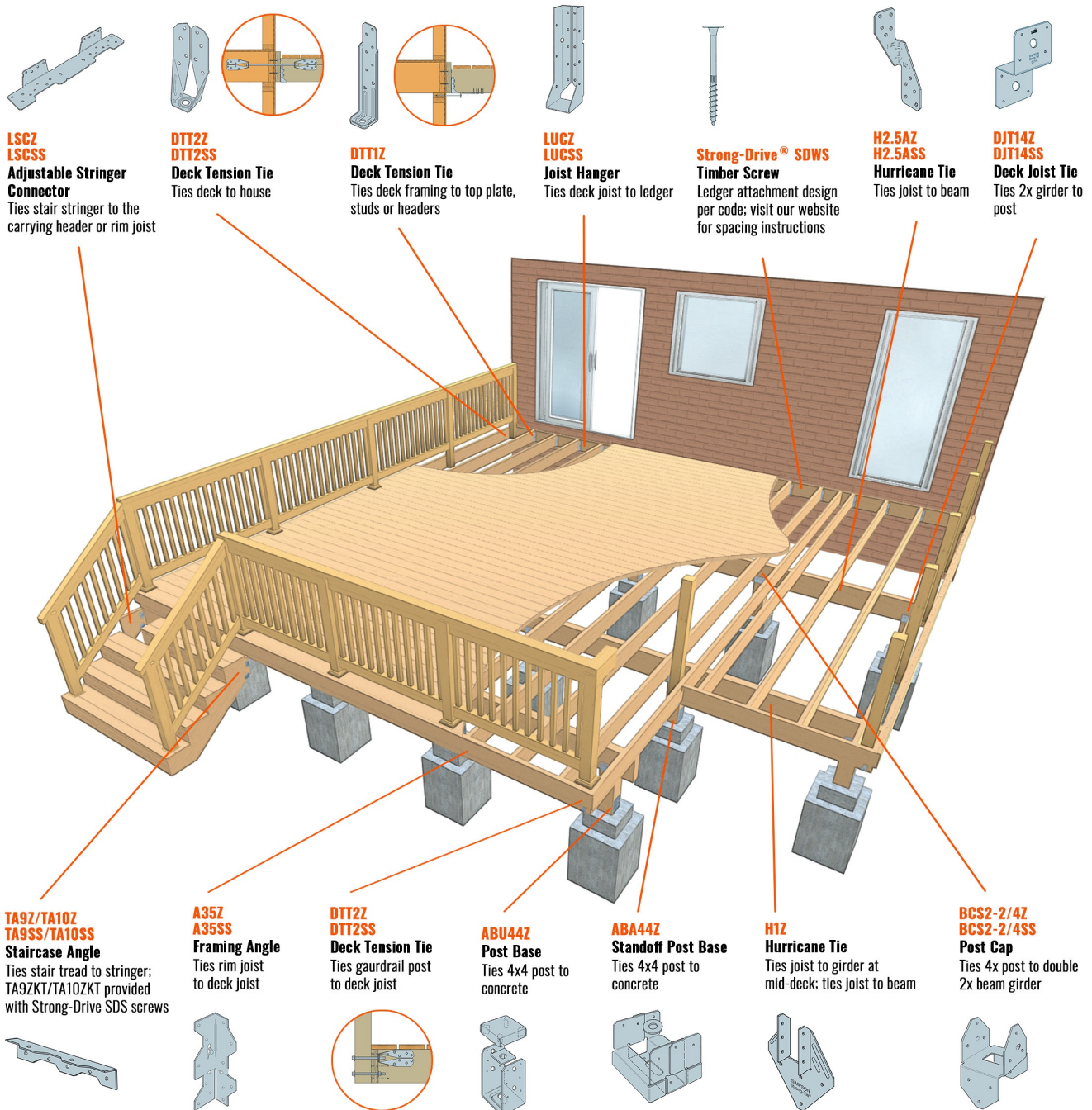
It is important to have a post of sufficient size and strength to support the beam. The beam should not be any wider than the thickness of the post, and should be secured with the correct post cap.

**14. Joists:** Wood members installed across the beams and spaced to accommodate the decking material. The joist spacing may depend on the angle at which the deck boards are applied.

**15. Ledger:** The ledger is a crucial connection because it attaches the deck to the house. The material used to construct the house may determine the type of connection. Consult local building officials on the recommended connection.

**16. Fascia:** Vertical boards that face outwards from the edges of the deck, attached to the rim joists. Fascia boards typically consist of a lumber species that matches the appearance of the decking material.

# A Complete Connector System for Building Safer, Code-Compliant Decks





# Installation Considerations

## Building Code and Zoning Requirements

Check deed restrictions, building codes and zoning laws to make sure your deck complies. The local building jurisdiction will require a minimum setback from property lines. Check with local utility companies to make sure deck construction will not disturb underground piping or wiring (**dial 811 before you dig**).

A resource for general residential deck codes and building practices is the Prescriptive Residential Deck Construction Guide, by the American Wood Council (free download from [www.awc.org](http://www.awc.org)).

The local building jurisdiction should be consulted to verify any building code requirements specific to the area.

## Deck Function

While planning your deck, consider how it will be used. Sun/shade areas and possible views are common considerations.

## Lumber

Pressure- or preservative-treated lumber, or lumber that is naturally decay resistant, should be used for durability. Cut edges should be field-treated with preservative.

## Fasteners and Connectors

To resist corrosion, fasteners and connectors in contact with treated lumber should be ZMAX®, hot-dip galvanized (HDG) or made with stainless steel.

Consult with the building code, the preservative treatment manufacturer and [strongtie.com](http://strongtie.com) to get recommendations for your conditions. Fasteners and connectors should be made of the same material (i.e. both of them galvanized, both of them HDG or both in stainless steel).

## Ledger

Proper corrosion-resistant flashing should be installed between a deck ledger and the house. The ledger should be installed directly to the framing, with any siding removed.

## Deck Area and Footing Layout

Batter boards (temporary wood supports, such as 2x4s), mason's string and a plumb bob can be used to lay out the deck area and footings. For a rectangular shape, the corners will be square when the lengths of the two diagonals are equal.

## Footings

Holes for footings will need to be dug to a depth below the frost line.

## Post Bracing

Diagonal bracing between posts and joists/beams should be installed according to the building code.

## Posts and Beams

Allow an additional margin in length to the posts. Determine the desired deck floor height on the post and then cut to the appropriate length.

## Attaching Joists

Attach joists to the ledger board with joist hangers.

## Laying Decking

Drill pilot holes into the ends of boards to prevent splitting. Allow space between boards.

## Guardrails

Guardrails must be adequately attached to the framing members of the deck. The building code has limits on the size of openings that are permitted in the guard system.

## Stairs and Handrails

Stairs should be at least 36" wide. The building code has limits on the size of openings in a flight of stairs and specific directions for providing handrails.

## Tools Required

The checklist provided should be used as a quick guide only,  
and we highly recommend consulting some additional resources listed here:

[www.strongtie.com/solutions/deckcenter](http://www.strongtie.com/solutions/deckcenter)

### Concrete Work

- Pick
- Post hole digger
- Shovel
- Wheelbarrow
- Hoe and hose (to mix concrete)
- Tamper

### Concrete Layout

- Stakes or batter boards
- String
- Transit

### Safety

- Eye Protection
- Hearing protection
- Dust mask
- Gloves
- Kneepads

### Wood Work

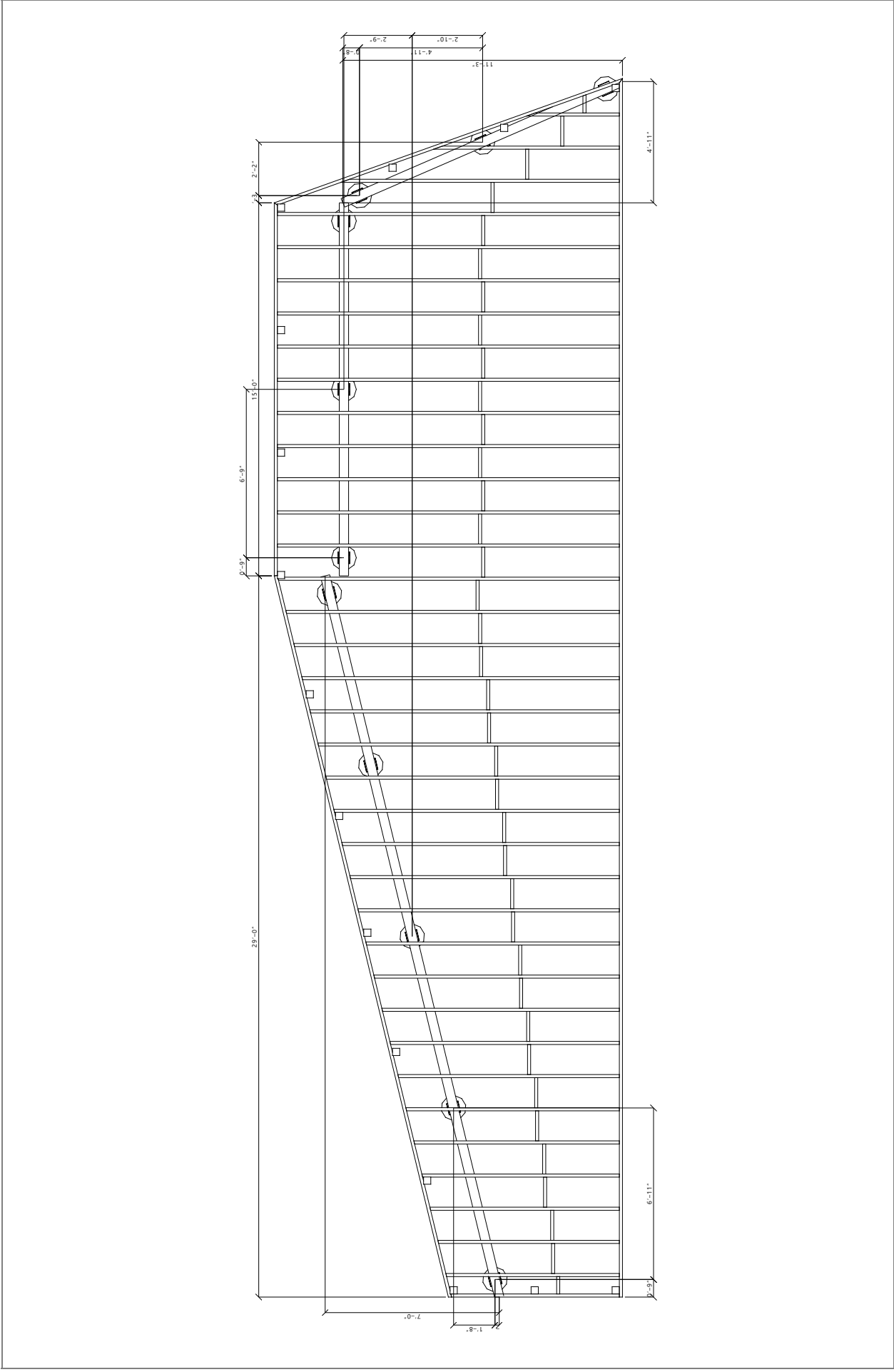
- Extension cord
- Circular saw
- Drills and bits
- Hammer
- Nail set
- Chisel
- Handsaw
- Ladder
- Mallet
- Tool belt


### Wood Layout

- Tape measure
- Squares: Rafter/Speed, Framing
- Level/Levels
- Chalk line
- Pencils
- Plumb bob

## Tips for the DIYer

- When cutting or drilling wood, always wear eye protection to prevent injury from flying wood particles.
- If cutting pressure treated material, wearing a fabric breathing mask will help to avoid ingestion of the dust.
- Wear gloves to protect from splinters.
- Invest in a pair of kneepads if you are doing floor jobs or working on a deck.
- Dispose of scraps in the regular trash or take to a landfill - do not burn pressure treated materials.

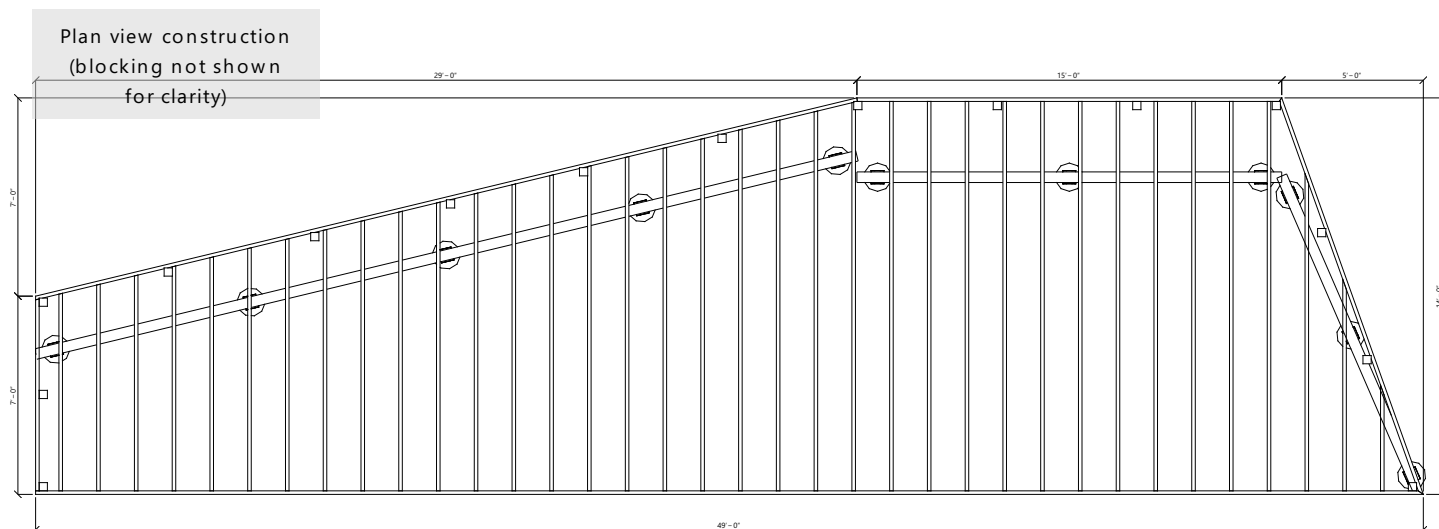


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		CUSTOMER NAME	Tom Burkhard	SCALE	NOT TO SCALE				CHECKED BY
		CUSTOMER EMAIL ADDRESS	tkbcontractors@gmail.com	DATE	7/24/2021 12:07 PM	CHECK DATE	PAGE		7
		CUSTOMER PHONE NUMBER		CREATED BY		STORE			
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## Permit Info

LEVEL 1



## Structural Information: Level 1

Height of level (top of decking)	144"
Max. joist span	35 1/8"
Max. joist cantilever	17 5/8"
Max. beam span	85 1/8"
Max. beam cantilever	6"
Footing depth	18"
Footing area (ea.)	9 1/2" ft <sup>2</sup>
Designed live load	40 lb/ft <sup>2</sup>
Designed dead load	10 lb/ft <sup>2</sup>

### Deck and Post Height

Your design height is 144" from the top of the decking to the ground level. The top of the deck support posts will therefore be 125" above ground level.

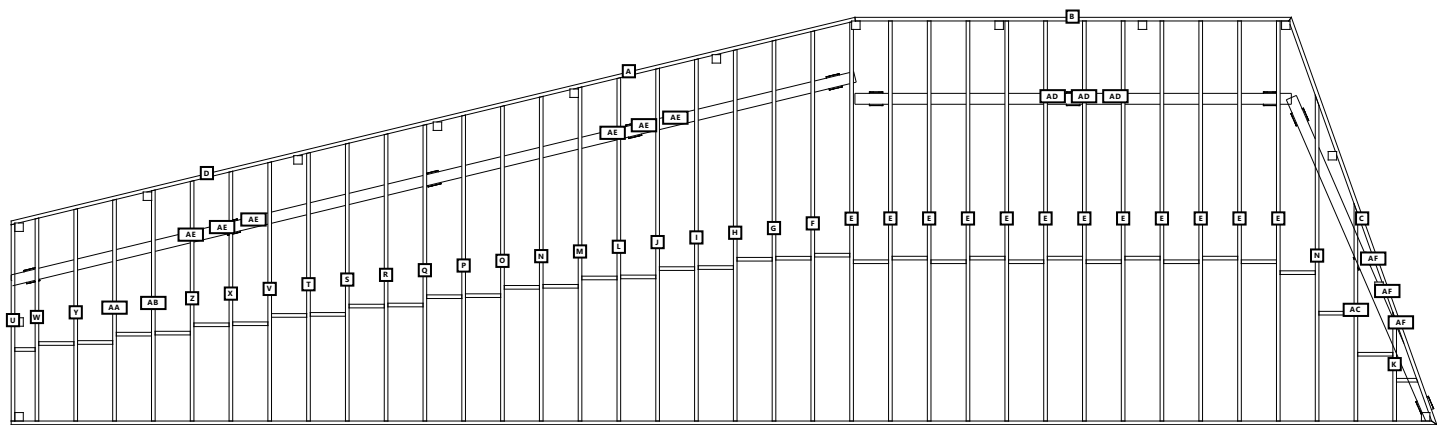
### Joists

Set joists on top of beams, 16" center-to-center.

# Materials Drawing

LEVEL 1

Plan view,  
beams and joists



## Materials Cut List

### LEVEL 1

Label	Description	Qty	Length	Usage
A	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	16' 0"	Rim Joists
B	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	14' 11"	Rim Joists
C	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	14' 9"	Rim Joists
D	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	13' 10"	Rim Joists
E	2" x 10" x 14'- Wood DF/HF/SPF (Square)	12	13' 9"	Joists
F	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	13' 5"	Joists
G	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	13' 1"	Joists
H	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	12' 9"	Joists
I	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	12' 5"	Joists
J	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	12' 2"	Joists
K	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	3' 9"	Joists
L	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	11' 10"	Joists
M	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	11' 6"	Joists
N	2" x 10" x 12'- Wood DF/HF/SPF (Square)	2	11' 2"	Joists
O	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	10' 10"	Joists
P	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	10' 6"	Joists
Q	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	10' 2"	Joists
R	2" x 10" x 10'- Wood DF/HF/SPF (Square)	1	9' 10"	Joists
S	2" x 10" x 10'- Wood DF/HF/SPF (Square)	1	9' 7"	Joists
T	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	9' 3"	Joists
U	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	6' 9"	Joists
V	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	8' 11"	Joists
W	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 0"	Joists
X	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	8' 7"	Joists



Label	Description	Qty	Length	Usage
Y	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 4"	Joists
Z	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	8' 3"	Joists
AA	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 7"	Joists
AB	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 11"	Joists
AC	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 6"	Joists
AD	2" x 10" x 16'- Wood DF/HF/SPF (Square)	3	15' 0"	Beams
AE	2" x 10" x 16'- Wood DF/HF/SPF (Square)	6	14' 11"	Beams
AF	2" x 10" x 14'- Wood DF/HF/SPF (Square)	3	12' 3"	Beams

## Railing Kit List

### All Materials

Usage	Sub Product	Qty	SKU	Description
Stick Built Items				
	Rail Caps	14/14		Rail Cap 2x4 6ft - Pressure Treated Cedar
	Top Rails	14/14		Top Rail 4x2 6ft - Pressure Treated Cedar
	Bottom Rails	14/14		Bottom Rail 4x2 6ft - Pressure Treated Cedar
	Infill	70/70		Cable Baluster - Cable
	Railing Posts	3/3		4 x 4 x 16 - Treated Cedar
	Railing Posts	1/1		4 x 4 x 12 - Treated Cedar
	Railing Posts	15/15	DTT2Z	DTT2Z Connector (ZMAX®)(Fasteners and Washers included)

## Estimated Materials List

### All Materials

Usage	Qty	SKU	Description	Type
Decking	78		1" x 6" x 16'- Wood SP (Grooved)	Lumber
Decking	1		1" x 6" x 12'- Wood SP (Grooved)	Lumber
Fascia	6		2" x 12" x 12'- Wood SP	Lumber
Rim Joists	3		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Rim Joists	1		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Ledgers	2		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Ledgers	1		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Ledgers	1		2" x 10" x 8'- Wood DF/HF/SPF (Square)	Lumber
Joists	2		2" x 10" x 10'- Wood DF/HF/SPF (Square)	Lumber
Joists	6		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Joists	16		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Joists	7		2" x 10" x 12'- Wood DF/HF/SPF (Square)	Lumber
Blocking	2		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Blocking	1		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Beams	9		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Beams	3		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Posts/Footings	11		6" x 6" x 12'- Wood DF/HF/SPF	Lumber
Bracing	1		6" x 6" x 8'- Wood DF/HF/SPF	Lumber
Bracing	1		6" x 6" x 16'- Wood DF/HF/SPF	Lumber
Joists	11	H2.5AZ	H2.5AZ Hurricane Tie (ZMAX®)	Connector
Joists	28	MTS12Z	MTS12Z	Connector
Joists	47	LUS28Z	LUS28Z Joist Hanger with Double-Shear Nailing (ZMAX®)	Connector
Joists	13	LS50Z	LS50Z Skewable Angle (ZMAX®)	Connector
Joists	22	HU28ZSKEW	HU28Z Skewable Joist Hanger (ZMAX®)	Connector
Joists	4	DTT2Z	DTT2Z Connector (ZMAX®)(Fasteners and Washers included)	Connector
Posts/Footings	11	BCS2-3/6Z	BCS2-3/6Z Post Cap (ZMAX®)	Connector
Posts/Footings	11	ABA66Z	ABA66Z Adjustable Post Base with Standoff (ZMAX®)	Connector
Bracing	12	KBS1Z	KBS1Z 4x4 Kneebrace connections	Connector

Usage	Qty	SKU	Description	Type
Posts/Footings	1		5/8" Diameter Straight Shank Carbide Drill Bit for Concrete & Masonry	Concrete
Posts/Footings	72		80lbs Bag (0.60 CF) Concrete Mix	Concrete
Posts/Footings	2		12" x 12' Construction Tube	Construction Tube
Decking	1	S10300WPB	DWP #10 3IN 305SS FLAT T25 1.75M	Fastener
Decking	4	S10300WP1	DWP #10 3IN 305SS FLAT T25 1#	Fastener
Fascia	3	T08175FS75TN02	#8X1.75 316SS FASCIA SCREW T20 TN02 75CT	Fastener
Fasteners	1	fsbit	FASCIA SCREW COUNTERSINK BIT	Fastener
Rim Joists	3	SDWS16300QR75	3 IN SDWS Framing Screw 75ct	Fastener
Beams, Ledgers	3	SDWS22400DB-R50	SDWS22400DB Structural Wood Screw (50)	Fastener
Beams, Ledgers	1	SDWS22400DB-RC12	SDWS22400DB Structural Wood Screw (12)	Fastener
Joists	3	N10DHDG	Strong-Drive® SCN 1 1/2" x .148", 9 gauge, Smooth-Shank Connector Nail, Hot Dip Galvanized - 1 LB	Fastener
Joists	4	10DHDG	Strong-Drive® SCN 3" x .148", 9 gauge, Smooth-Shank Connector Nail, Hot Dip Galvanized - 1 LB	Fastener
Joists	4	1/2 MBHDGH	1/2" diameter HDG Machine Bolts: length calculated (1)	Fastener
Joists	4	NUT-1/2 MBHDG	Nut for 1/2" Bolt, Oversized Threads (Hot-Dip Galvanized) (1)	Fastener
Posts/Footings	11	THDB62600H4SSF1	5/8" x 6" Type 304 Stainless Steel Titen HD® Heavy-Duty Screw Anchor	Fastener
Bracing	1	N8DHDG	Strong-Drive® SCN 1 1/2" x .131", 10 gauge, Smooth-Shank Connector Nail, Hot Dip Galvanized - 1 LB	Fastener



## Dealer Locations

### Approved dealers local to your ZIP code.

Dealer Name	Address	Phone
Atlas Const.Spec -.Seattle	4044 22nd Ave W, Seattle, 98199-1205, US	(206) 283-2000
Limback Lumber	2600 NW Market St, Seattle, 98107-4139, US	(206) 782-3487
Salmon Bay Sand & Gravel	5228 Shilshole Ave NW, Seattle, 98107-4832, US	(206) 784-1234
Home Builders Center	1110 W Nickerson St, Seattle, 98119-1323, US	(206) 283-6060
White Cap Seattle #046	4121 6th Ave NW, Seattle, 98107-5020, US	(206) 783-8400

*Please re-enter your ZIP code in the user settings of Deck planner and re publish a report if the results are not desirable.*

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Effective Date: July 24, 2021

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You should consult with local authorities to ensure that your project complies with all applicable zoning and building codes, requirements and practices, which vary greatly depending on your location. You are responsible for ensuring that the project (including the design set forth in the Report and any substitutions or modifications you make) complies with all applicable zoning and building codes, requirements and practices (including requirements for lighting).

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# **PRESCRIPTIVE RESIDENTIAL WOOD DECK CONSTRUCTION GUIDE**

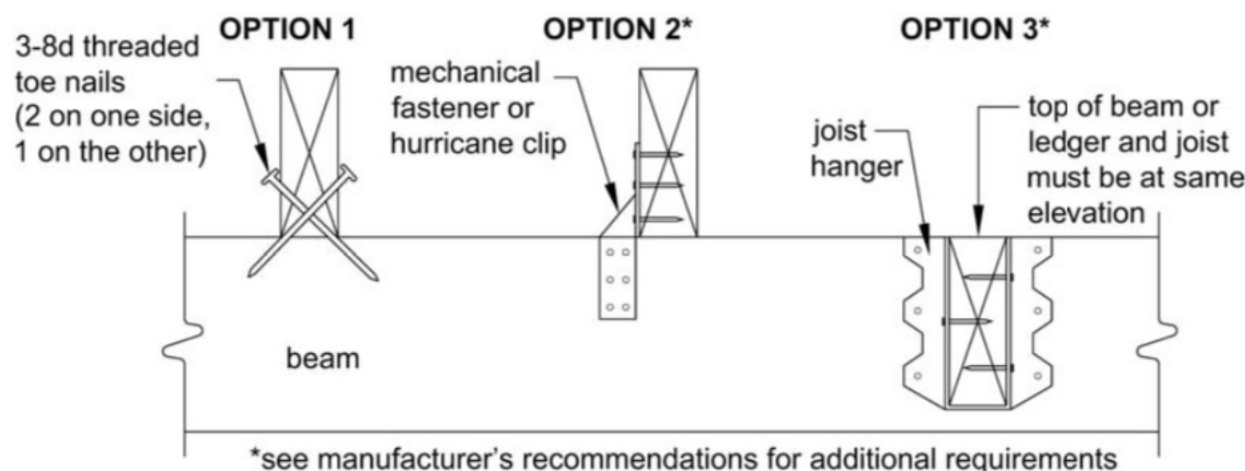
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## **JOIST-TO-BEAM CONNECTION**

Each joist shall be attached to the beam as shown in Figure 6. Joists may bear on and overhang past the beam face the lesser of  $L_0$  or  $L/4$  when Option 1 or Option 2 is used to attach the joist to the beam and blocking is provided between joists at beam bearing. Mechanical fasteners or hurricane clips used, as shown in Option 2,

must have a minimum capacity of 100 lbs in both uplift and lateral load directions. Joists may also attach to the side of the beam with joist hangers per Option 3. Joists shall not frame in from opposite sides of the same beam. See JOIST HANGERS for more information. Hangers, clips, and mechanical fasteners shall be galvanized or stainless steel (see MINIMUM REQUIREMENTS).

**Figure 6. Joist-to-Beam Detail.**

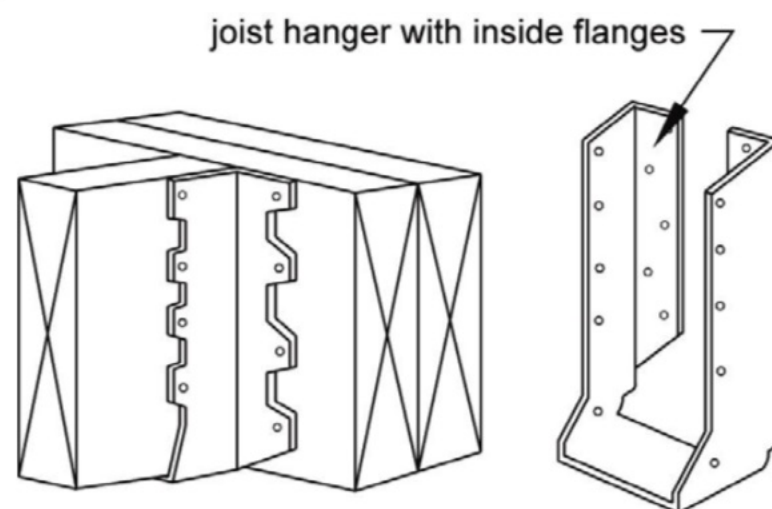


## **JOIST HANGERS**

Joist hangers, as shown in Figure 7, shall have a depth of at least 60% of ledger or beam depth. Each hanger shall have a minimum vertical capacity in accordance with Table 3A. The joist hanger shall be selected from an *approved* manufacturer's product data based on the dimensions of the joist or header it is carrying. Joist hangers and fasteners shall be corrosion resistant (see MINIMUM REQUIREMENTS).

Use joist hangers with inside flanges when clearances to the edge of the beam or ledger board dictate. **Do not use clip angles or brackets to support joists.**

**Figure 7. Typical Joist Hangers.**



**Table 3A. Joist Hanger Vertical Capacity.**

Joist Size	Minimum Capacity, lbs
2x6	400
2x8	500
2x10	600
2x12	700



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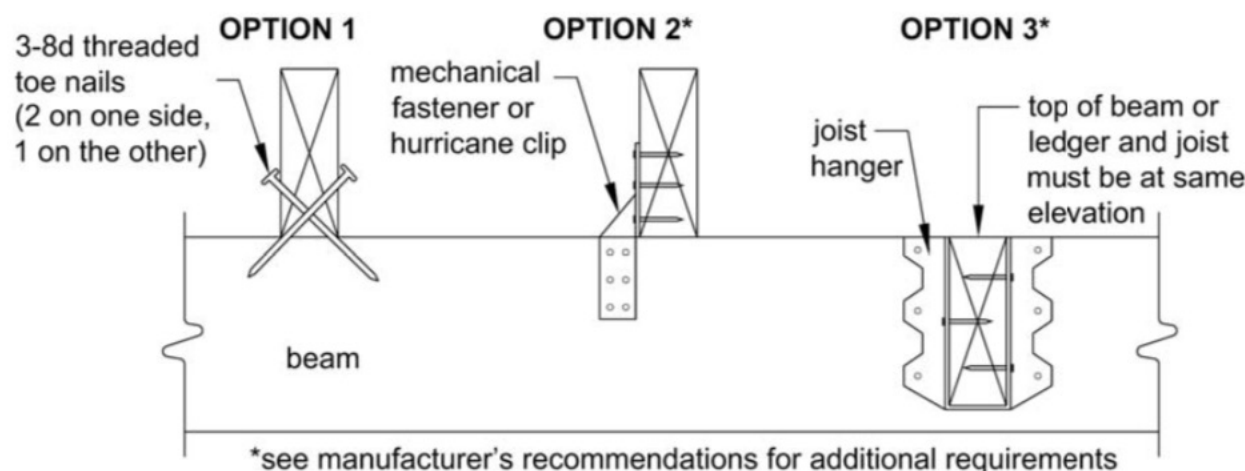
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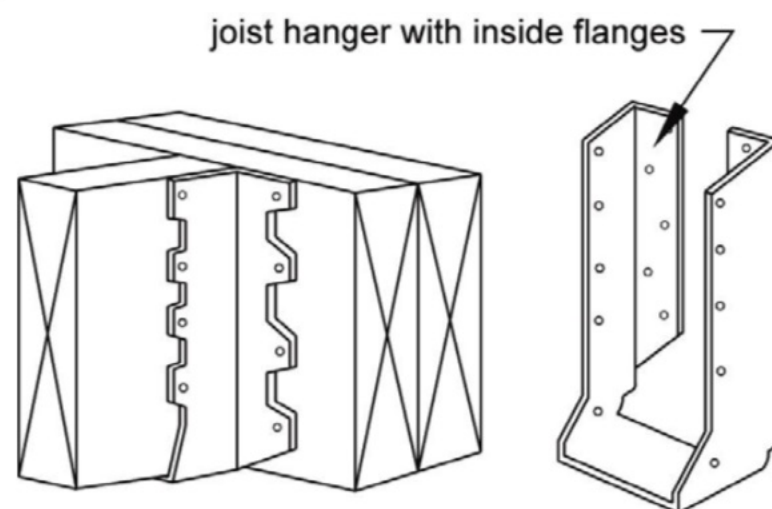


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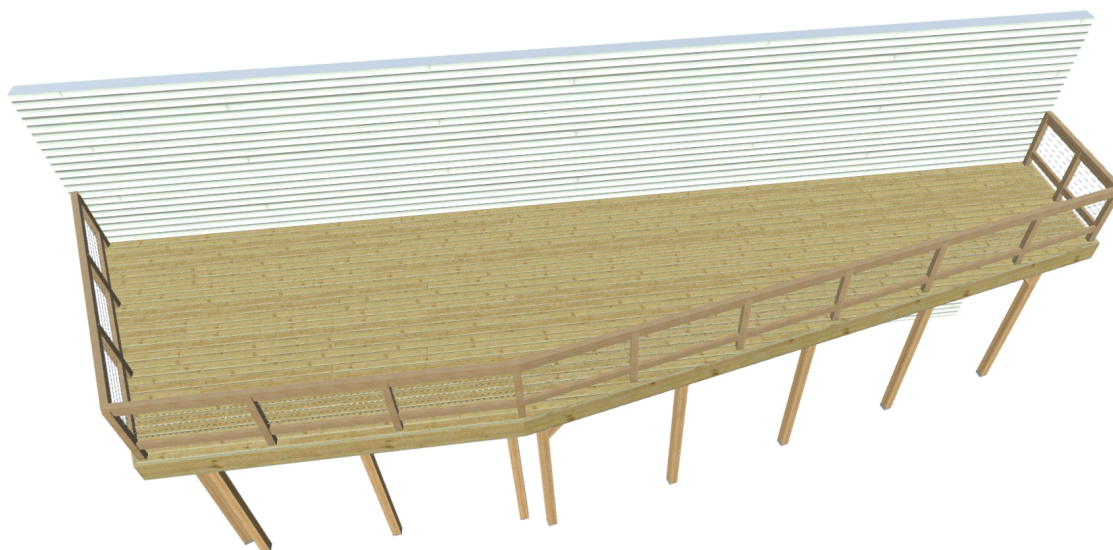
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3D view



## Gress

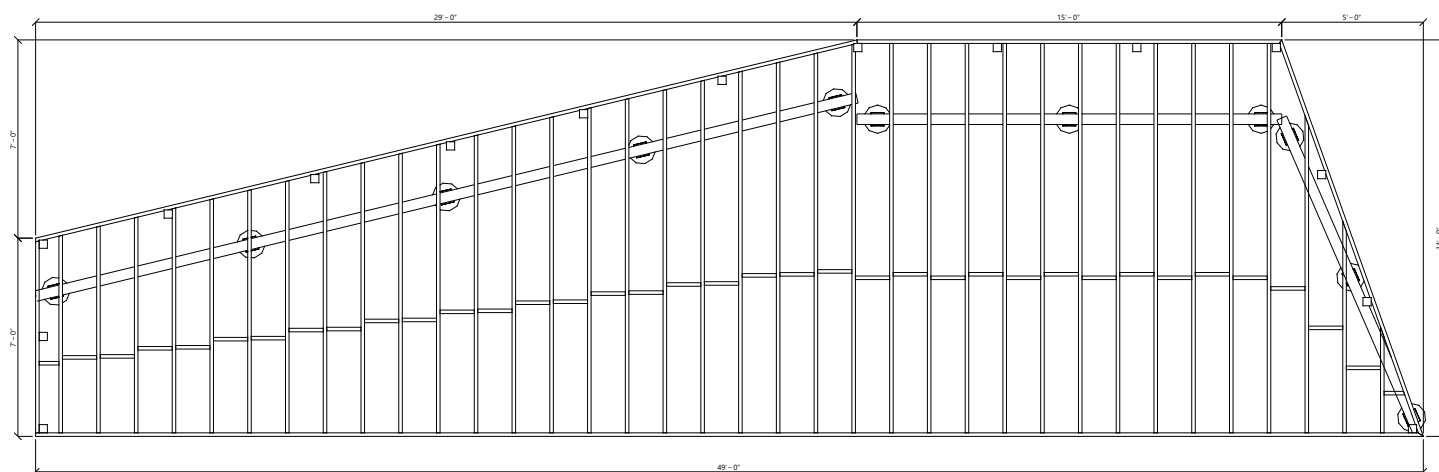
### Deck Planner Software™ Report

All lengths, areas, weights, masses and structural forces are expressed in U.S. Customary units unless otherwise specified.

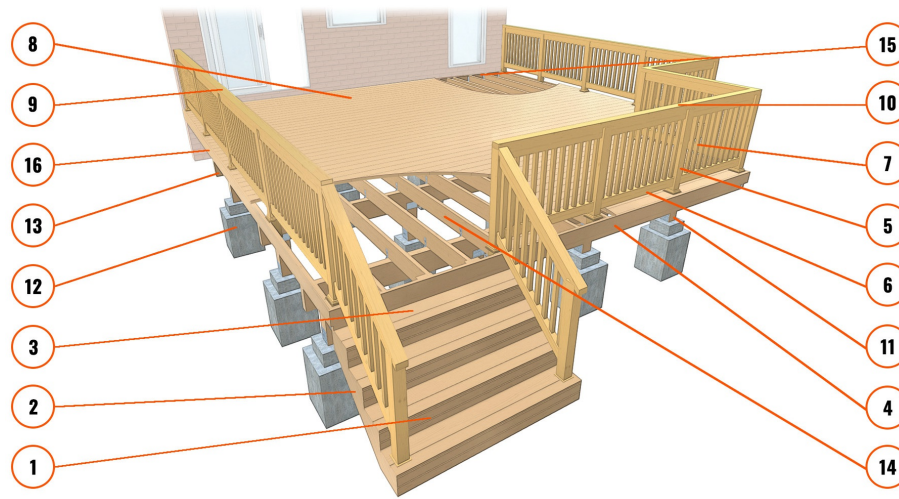
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## Your Planned Deck Design

Plan view construction



## Glossary of Decking Terms



**1. Risers:** The vertical boards attached to the stair stringers. Many localities require risers to prevent possible trip hazards.

**2. Stringers:** The structural support for stairs. They have limits on how much weight they can carry, so size and spacing are important considerations. Composite manufacturers provide recommended stringer spacing to support the tread material.

**3. Treads:** The horizontal stair surfaces on which deck users walk.

**4. Rim Joist:** Also known as edge bands, the rim joist wraps the deck and keeps the joists standing on edge, while also providing a solid surface for attaching railing posts. Proper attachment is critical to installing a safe railing.

**5. Rail Post:** Vertical lumber member that supports the handrail and resists the outward force of people leaning on the railings.

**6. Bottom Rails:** Lumber members that connect to the rail posts and provide a solid surface for securing the infills.

**7. Infills:** Also known as balusters or pickets, the infills are connected to the top and bottom rails and provide a barrier against falls.

**8. Decking:** When properly attached to each joist and rim joist, the decking surface (whether wood or composite material) helps unify the entire structure.

**9. Rail Cap:** Much like the decking, the rail cap unifies the railing system and provides a decorative feature.

**10. Top Rails:** These members have the same stabilizing function as the bottom rails.

**11. Post:** Vertical structural member that supports the beams and attaches the deck to the footings using a post base.

**12. Footing:** Concrete element that serves as the foundation of the deck.

**13. Beams:** Structural members that support the decking floor joists. Beams are made of doubling 2x material and can be installed as a laminate, sandwiched, or notched into the post.

It is important to have a post of sufficient size and strength to support the beam. The beam should not be any wider than the thickness of the post, and should be secured with the correct post cap.

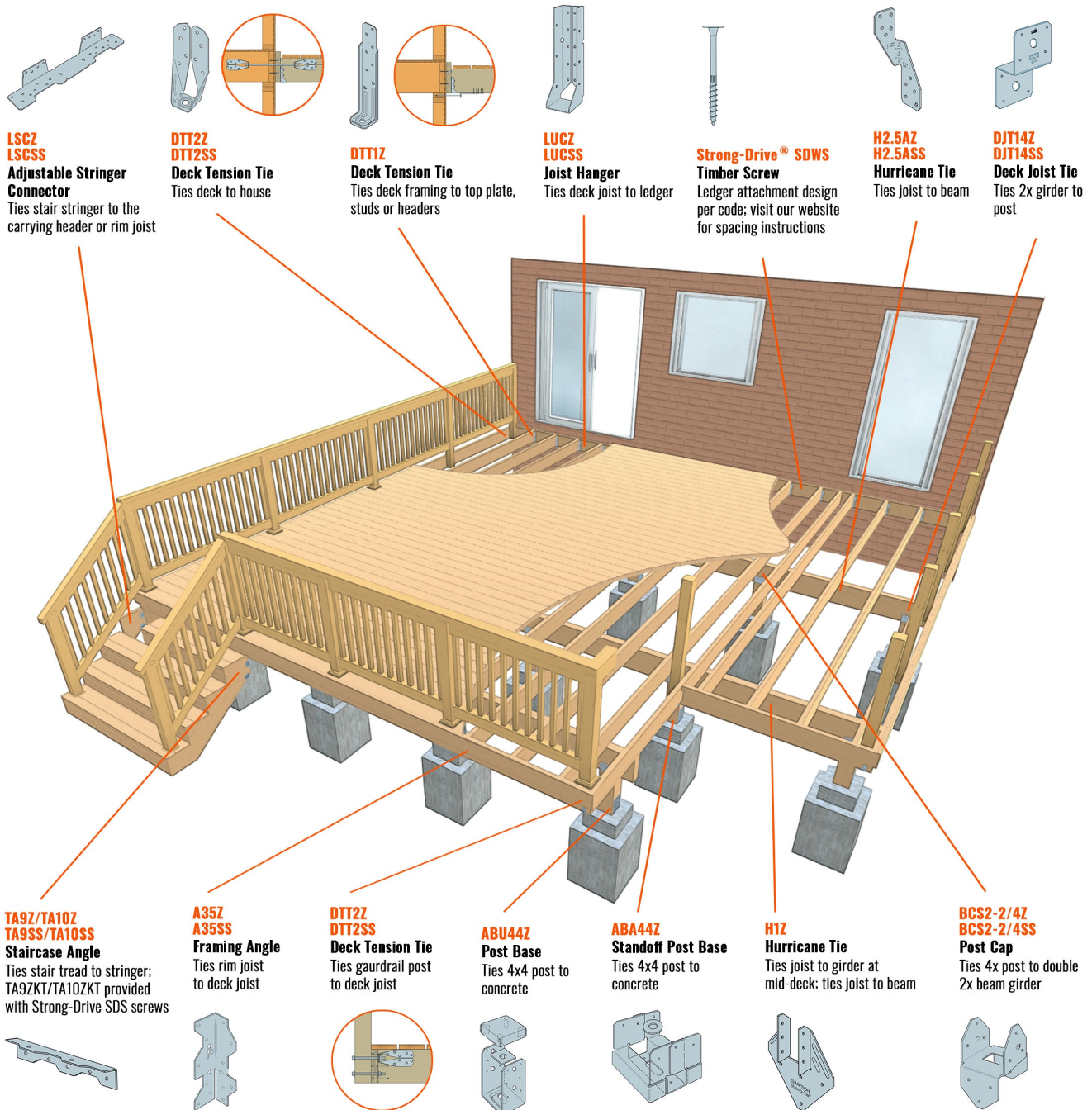
**14. Joists:** Wood members installed across the beams and spaced to accommodate the decking material. The joist spacing may depend on the angle at which the deck boards are applied.

**15. Ledger:** The ledger is a crucial connection because it attaches the deck to the house. The material used to construct the house may determine the type of connection. Consult local building officials on the recommended connection.

**16. Fascia:** Vertical boards that face outwards from the edges of the deck, attached to the rim joists. Fascia boards typically consist of a lumber species that matches the appearance of the decking material.



# A Complete Connector System for Building Safer, Code-Compliant Decks



# Installation Considerations

## Building Code and Zoning Requirements

Check deed restrictions, building codes and zoning laws to make sure your deck complies. The local building jurisdiction will require a minimum setback from property lines. Check with local utility companies to make sure deck construction will not disturb underground piping or wiring (**dial 811 before you dig**).

A resource for general residential deck codes and building practices is the Prescriptive Residential Deck Construction Guide, by the American Wood Council (free download from [www.awc.org](http://www.awc.org)).

The local building jurisdiction should be consulted to verify any building code requirements specific to the area.

## Deck Function

While planning your deck, consider how it will be used. Sun/shade areas and possible views are common considerations.

## Lumber

Pressure- or preservative-treated lumber, or lumber that is naturally decay resistant, should be used for durability. Cut edges should be field-treated with preservative.

## Fasteners and Connectors

To resist corrosion, fasteners and connectors in contact with treated lumber should be ZMAX®, hot-dip galvanized (HDG) or made with stainless steel.

Consult with the building code, the preservative treatment manufacturer and [strongtie.com](http://strongtie.com) to get recommendations for your conditions. Fasteners and connectors should be made of the same material (i.e. both of them galvanized, both of them HDG or both in stainless steel).

## Ledger

Proper corrosion-resistant flashing should be installed between a deck ledger and the house. The ledger should be installed directly to the framing, with any siding removed.

## Deck Area and Footing Layout

Batter boards (temporary wood supports, such as 2x4s), mason's string and a plumb bob can be used to lay out the deck area and footings. For a rectangular shape, the corners will be square when the lengths of the two diagonals are equal.

## Footings

Holes for footings will need to be dug to a depth below the frost line.

## Post Bracing

Diagonal bracing between posts and joists/beams should be installed according to the building code.

## Posts and Beams

Allow an additional margin in length to the posts. Determine the desired deck floor height on the post and then cut to the appropriate length.

## Attaching Joists

Attach joists to the ledger board with joist hangers.

## Laying Decking

Drill pilot holes into the ends of boards to prevent splitting. Allow space between boards.

## Guardrails

Guardrails must be adequately attached to the framing members of the deck. The building code has limits on the size of openings that are permitted in the guard system.

## Stairs and Handrails

Stairs should be at least 36" wide. The building code has limits on the size of openings in a flight of stairs and specific directions for providing handrails.

## Tools Required

The checklist provided should be used as a quick guide only,  
and we highly recommend consulting some additional resources listed here:

[www.strongtie.com/solutions/deckcenter](http://www.strongtie.com/solutions/deckcenter)

### Concrete Work

- Pick
- Post hole digger
- Shovel
- Wheelbarrow
- Hoe and hose (to mix concrete)
- Tamper

### Concrete Layout

- Stakes or batter boards
- String
- Transit

### Safety

- Eye Protection
- Hearing protection
- Dust mask
- Gloves
- Kneepads

### Wood Work

- Extension cord
- Circular saw
- Drills and bits
- Hammer
- Nail set
- Chisel
- Handsaw
- Ladder
- Mallet
- Tool belt

### Wood Layout

- Tape measure
- Squares: Rafter/Speed, Framing
- Level/Levels
- Chalk line
- Pencils
- Plumb bob

## Tips for the DIYer

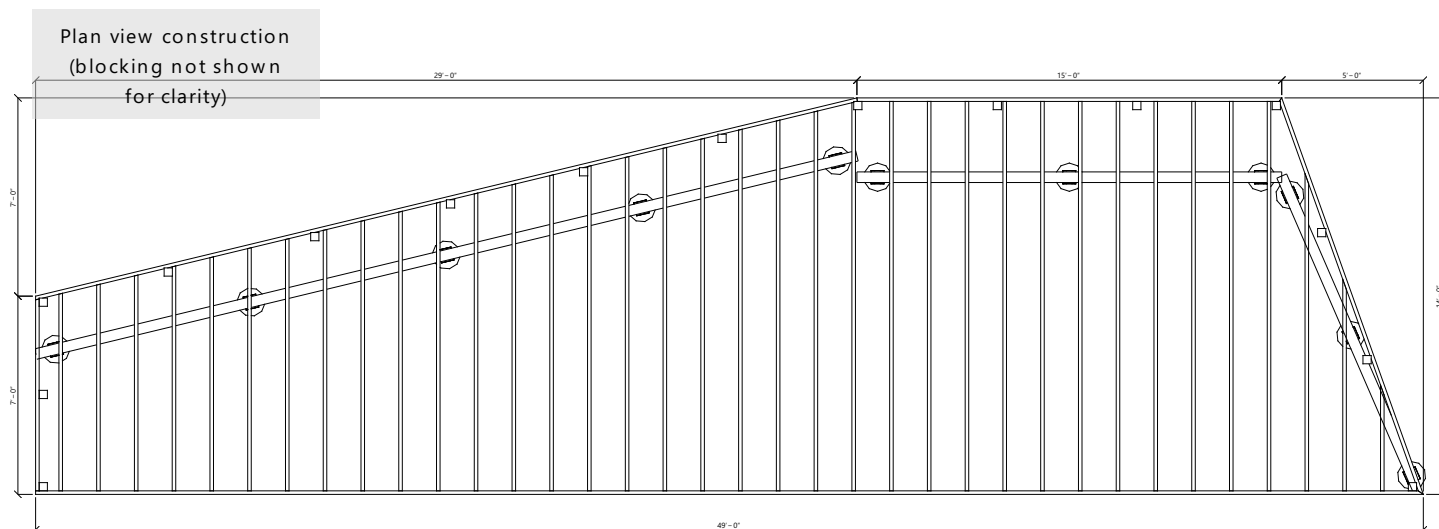
- When cutting or drilling wood, always wear eye protection to prevent injury from flying wood particles.
- If cutting pressure treated material, wearing a fabric breathing mask will help to avoid ingestion of the dust.
- Wear gloves to protect from splinters.
- Invest in a pair of kneepads if you are doing floor jobs or working on a deck.
- Dispose of scraps in the regular trash or take to a landfill - do not burn pressure treated materials.





## Permit Info

LEVEL 1



## Structural Information: Level 1

Height of level (top of decking)	144"
Max. joist span	35 1/8"
Max. joist cantilever	17 5/8"
Max. beam span	85 1/8"
Max. beam cantilever	6"
Footing depth	18"
Footing area (ea.)	9 1/2" ft <sup>2</sup>
Designed live load	40 lb/ft <sup>2</sup>
Designed dead load	10 lb/ft <sup>2</sup>

### Deck and Post Height

Your design height is 144" from the top of the decking to the ground level. The top of the deck support posts will therefore be 125" above ground level.

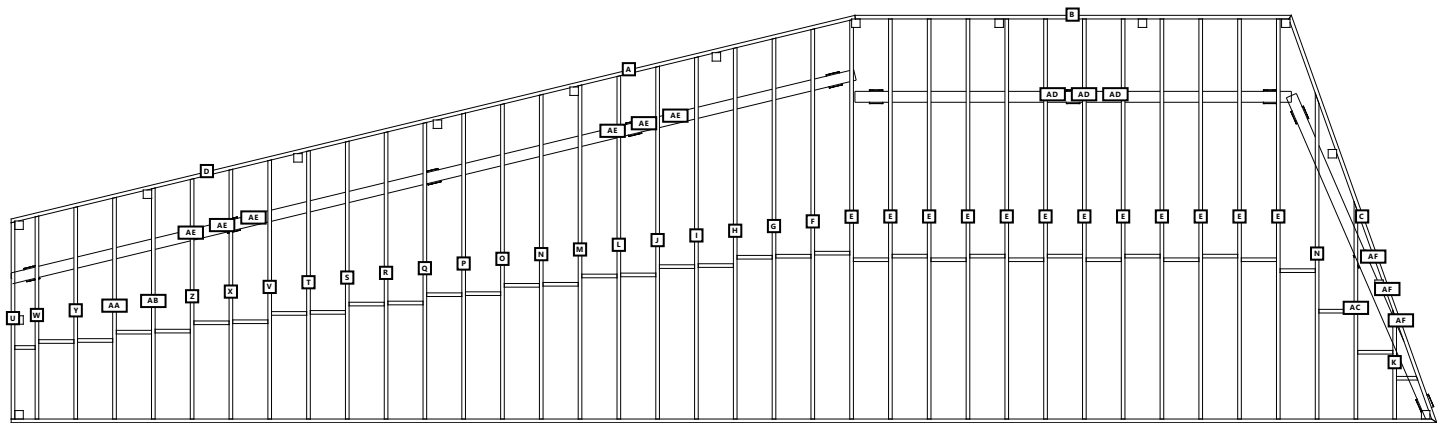
### Joists

Set joists on top of beams, 16" center-to-center.

# Materials Drawing

LEVEL 1

Plan view,  
beams and joists



## Materials Cut List

### LEVEL 1

Label	Description	Qty	Length	Usage
A	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	16' 0"	Rim Joists
B	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	14' 11"	Rim Joists
C	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	14' 9"	Rim Joists
D	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	13' 10"	Rim Joists
E	2" x 10" x 14'- Wood DF/HF/SPF (Square)	12	13' 9"	Joists
F	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	13' 5"	Joists
G	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	13' 1"	Joists
H	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	12' 9"	Joists
I	2" x 10" x 14'- Wood DF/HF/SPF (Square)	1	12' 5"	Joists
J	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	12' 2"	Joists
K	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	3' 9"	Joists
L	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	11' 10"	Joists
M	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	11' 6"	Joists
N	2" x 10" x 12'- Wood DF/HF/SPF (Square)	2	11' 2"	Joists
O	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	10' 10"	Joists
P	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	10' 6"	Joists
Q	2" x 10" x 12'- Wood DF/HF/SPF (Square)	1	10' 2"	Joists
R	2" x 10" x 10'- Wood DF/HF/SPF (Square)	1	9' 10"	Joists
S	2" x 10" x 10'- Wood DF/HF/SPF (Square)	1	9' 7"	Joists
T	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	9' 3"	Joists
U	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	6' 9"	Joists
V	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	8' 11"	Joists
W	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 0"	Joists
X	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	8' 7"	Joists

Label	Description	Qty	Length	Usage
Y	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 4"	Joists
Z	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	8' 3"	Joists
AA	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 7"	Joists
AB	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 11"	Joists
AC	2" x 10" x 16'- Wood DF/HF/SPF (Square)	1	7' 6"	Joists
AD	2" x 10" x 16'- Wood DF/HF/SPF (Square)	3	15' 0"	Beams
AE	2" x 10" x 16'- Wood DF/HF/SPF (Square)	6	14' 11"	Beams
AF	2" x 10" x 14'- Wood DF/HF/SPF (Square)	3	12' 3"	Beams

## Railing Kit List

### All Materials

Usage	Sub Product	Qty	SKU	Description
Stick Built Items				
	Rail Caps	14/14		Rail Cap 2x4 6ft - Pressure Treated Cedar
	Top Rails	14/14		Top Rail 4x2 6ft - Pressure Treated Cedar
	Bottom Rails	14/14		Bottom Rail 4x2 6ft - Pressure Treated Cedar
	Infill	70/70		Cable Baluster - Cable
	Railing Posts	3/3		4 x 4 x 16 - Treated Cedar
	Railing Posts	1/1		4 x 4 x 12 - Treated Cedar
	Railing Posts	15/15	DTT2Z	DTT2Z Connector (ZMAX®)(Fasteners and Washers included)



## Estimated Materials List

### All Materials

Usage	Qty	SKU	Description	Type
Decking	78		1" x 6" x 16'- Wood SP (Grooved)	Lumber
Decking	1		1" x 6" x 12'- Wood SP (Grooved)	Lumber
Fascia	6		2" x 12" x 12'- Wood SP	Lumber
Rim Joists	3		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Rim Joists	1		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Ledgers	2		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Ledgers	1		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Ledgers	1		2" x 10" x 8'- Wood DF/HF/SPF (Square)	Lumber
Joists	2		2" x 10" x 10'- Wood DF/HF/SPF (Square)	Lumber
Joists	6		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Joists	16		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Joists	7		2" x 10" x 12'- Wood DF/HF/SPF (Square)	Lumber
Blocking	2		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Blocking	1		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Beams	9		2" x 10" x 16'- Wood DF/HF/SPF (Square)	Lumber
Beams	3		2" x 10" x 14'- Wood DF/HF/SPF (Square)	Lumber
Posts/Footings	11		6" x 6" x 12'- Wood DF/HF/SPF	Lumber
Bracing	1		6" x 6" x 8'- Wood DF/HF/SPF	Lumber
Bracing	1		6" x 6" x 16'- Wood DF/HF/SPF	Lumber
Joists	11	H2.5AZ	H2.5AZ Hurricane Tie (ZMAX®)	Connector
Joists	28	MTS12Z	MTS12Z	Connector
Joists	47	LUS28Z	LUS28Z Joist Hanger with Double-Shear Nailing (ZMAX®)	Connector
Joists	13	LS50Z	LS50Z Skewable Angle (ZMAX®)	Connector
Joists	22	HU28ZSKEW	HU28Z Skewable Joist Hanger (ZMAX®)	Connector
Joists	4	DTT2Z	DTT2Z Connector (ZMAX®)(Fasteners and Washers included)	Connector
Posts/Footings	11	BCS2-3/6Z	BCS2-3/6Z Post Cap (ZMAX®)	Connector
Posts/Footings	11	ABA66Z	ABA66Z Adjustable Post Base with Standoff (ZMAX®)	Connector
Bracing	12	KBS1Z	KBS1Z 4x4 Kneebrace connections	Connector

Usage	Qty	SKU	Description	Type
Posts/Footings	1		5/8" Diameter Straight Shank Carbide Drill Bit for Concrete & Masonry	Concrete
Posts/Footings	72		80lbs Bag (0.60 CF) Concrete Mix	Concrete
Posts/Footings	2		12" x 12' Construction Tube	Construction Tube
Decking	1	S10300WPB	DWP #10 3IN 305SS FLAT T25 1.75M	Fastener
Decking	4	S10300WP1	DWP #10 3IN 305SS FLAT T25 1#	Fastener
Fascia	3	T08175FS75TN02	#8X1.75 316SS FASCIA SCREW T20 TN02 75CT	Fastener
Fasteners	1	fsbit	FASCIA SCREW COUNTERSINK BIT	Fastener
Rim Joists	3	SDWS16300QR75	3 IN SDWS Framing Screw 75ct	Fastener
Beams, Ledgers	3	SDWS22400DB-R50	SDWS22400DB Structural Wood Screw (50)	Fastener
Beams, Ledgers	1	SDWS22400DB-RC12	SDWS22400DB Structural Wood Screw (12)	Fastener
Joists	3	N10DHDG	Strong-Drive® SCN 1 1/2" x .148", 9 gauge, Smooth-Shank Connector Nail, Hot Dip Galvanized - 1 LB	Fastener
Joists	4	10DHDG	Strong-Drive® SCN 3" x .148", 9 gauge, Smooth-Shank Connector Nail, Hot Dip Galvanized - 1 LB	Fastener
Joists	4	1/2 MBHDGH	1/2" diameter HDG Machine Bolts: length calculated (1)	Fastener
Joists	4	NUT-1/2 MBHDG	Nut for 1/2" Bolt, Oversized Threads (Hot-Dip Galvanized) (1)	Fastener
Posts/Footings	11	THDB62600H4SSF1	5/8" x 6" Type 304 Stainless Steel Titen HD® Heavy-Duty Screw Anchor	Fastener
Bracing	1	N8DHDG	Strong-Drive® SCN 1 1/2" x .131", 10 gauge, Smooth-Shank Connector Nail, Hot Dip Galvanized - 1 LB	Fastener

## Dealer Locations

### Approved dealers local to your ZIP code.

Dealer Name	Address	Phone
Atlas Const.Spec -.Seattle	4044 22nd Ave W, Seattle, 98199-1205, US	(206) 283-2000
Limback Lumber	2600 NW Market St, Seattle, 98107-4139, US	(206) 782-3487
Salmon Bay Sand & Gravel	5228 Shilshole Ave NW, Seattle, 98107-4832, US	(206) 784-1234
Home Builders Center	1110 W Nickerson St, Seattle, 98119-1323, US	(206) 283-6060
White Cap Seattle #046	4121 6th Ave NW, Seattle, 98107-5020, US	(206) 783-8400

*Please re-enter your ZIP code in the user settings of Deck planner and re publish a report if the results are not desirable.*

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Effective Date: July 24, 2021

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