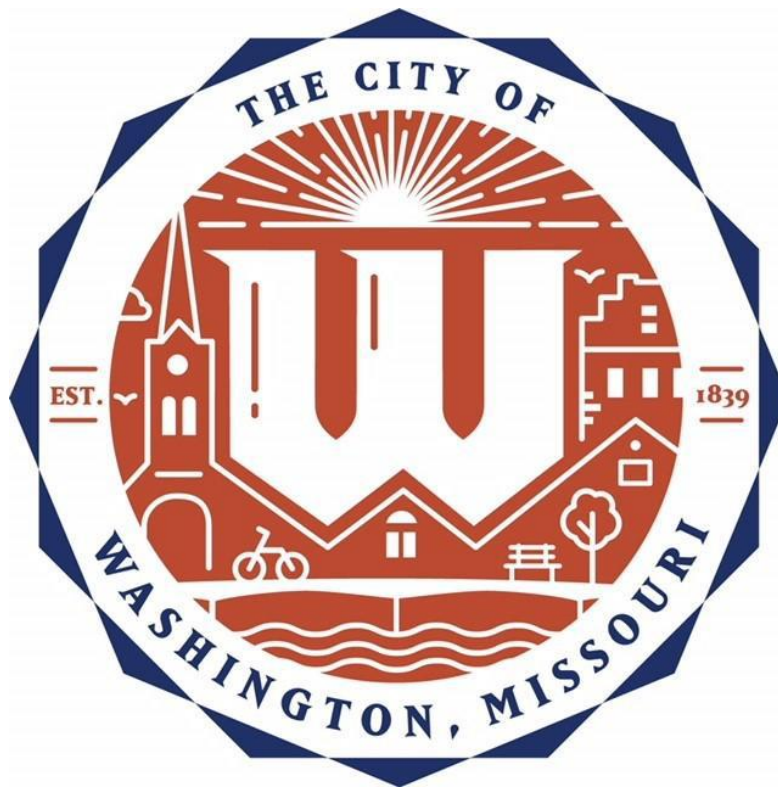


# Patio-Decks

## Building Permit Information



## City of Washington

Information in this booklet is a guideline and subject to change without notice. Informational booklet last updated 04-2006.

City of Washington • Building Department  
636-390-1010

## PATIO DECKS Building Permit Requirements

This guideline is intended to provide the homeowner/contractor with the basic information needed to apply for a building permit to construct most simple patio decks.

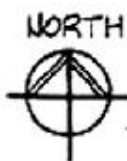
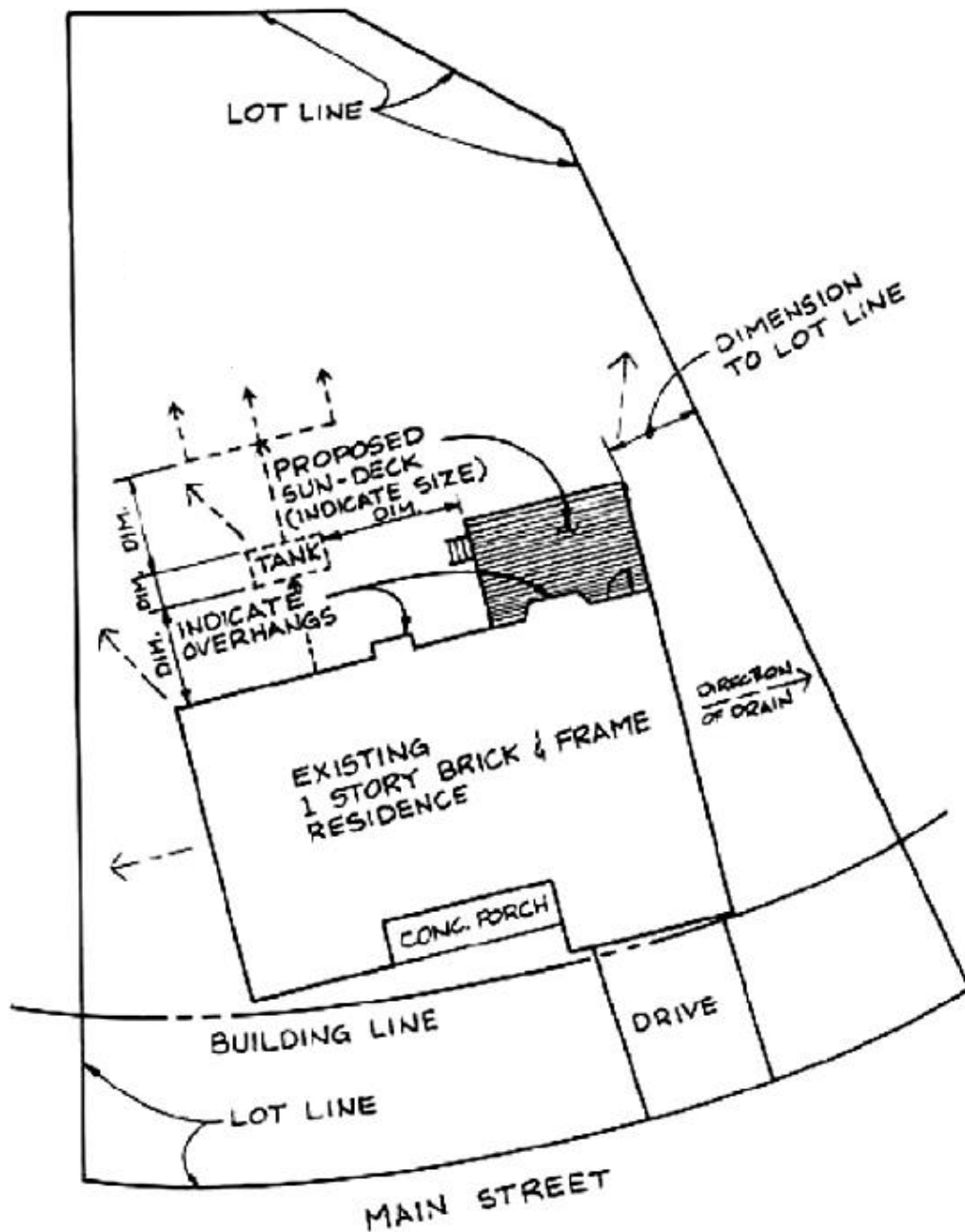
1. Fill out and sign application for building permit.
2. Submit two (2) separate copies of your plot (site) plan drawn to scale showing existing structures with the new sun deck addition and its perpendicular distances to the lot lines and from other structures on the lot, if any.
3. Submit two (2) separate complete sets of building construction plans drawn to scale containing the following:
  - a. Foundation or pier plan for patio deck @  $\frac{1}{4}'' = 1'0''$
  - b. Deck floor/framing plan @  $\frac{1}{4}'' = 1'0''$
  - c. Uniformly distributed live loads shall not be less than 40 psf
  - d. Sectional details and/or other details @ min.  $\frac{3}{4}'' = 1'0''$   
Sectional views through length and width @ min.  $\frac{3}{4}'' = 1'0''$   
Section through stairway from deck to ground level @  $\frac{3}{4}'' = 1'0''$
  - e. Elevations (views from all three sides of deck) @  $\frac{1}{4}'' = 1'0''$   
*(NOTE: If view from opposite side is identical, indicate this by drawing the side with all items such as stairways, and the note that opposite side is the same except for additional items.)*
4. All overhead electrical wires must be at least twelve (12) feet above finished deck (indicate location and height of overhead wires on site plan, if applicable)
5. Deck Piers shall extend 6 inches beyond sides of columns. i.e., 6 inch post = 18 inch diameter pier minimum 30 inches below grade.
6. All wood in contact with concrete or masonry shall be pressure preservatively treated in accordance with AWPA.CHEMICAL CHANGES IN PRESSURE TREATED WOODS: Pressure treated wood is a building material most commonly used in decks, fences and homes to protect against insects and fungal decay. For a number of years Chromated Copper Arsenate (CCA-C) has been the primary chemical treatment used in pressure treated wood. Recently, the treated wood industry voluntarily decided to phase out CCA-C due to negative publicity focused on the use of arsenic in CCA-C. New chemicals currently used to pressure treat wood are more corrosive to steel connectors, anchors and fasteners. Pressure treated wood chemical manufactures require that only chemical resistant fasteners be used. Because of the many variables involved we recommend that you consult with the lumber supplier for the type of fasteners which are approved for use with their products.
7. GUARDS REQUIRED: Porches, Balconies or raised floor surfaces located more than 30 inches above the floor or grade below shall have guards not less than 36 inches in height. Open sides of stairs with a total rise of more than 30 inches above the floor or grade below shall have guards not less than 34 inches in height measured vertically from the nosing of the treads.

8. GUARD OPENING LIMITATIONS: Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures that do not allow passage of a sphere 4 inches in diameter. Required guards shall not be constructed with horizontal rails or other ornamental pattern that results in a ladder effect.
9. STAIR TREADS AND RISERS: The maximum riser height shall be 7 ¾ inches and the minimum tread depth shall be 10 inches. The riser height shall be measured vertically between leading edges of the adjacent treads. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. the walking surface of treads and landings of a stairway shall be sloped no steeper than one unit vertical in 48 units horizontal (2-percent slope) the greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch, the greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4 inch diameter sphere.
10. Strap stair stringer to header using ½"(inch) solid metal 1/64<sup>th</sup>"(inch) thick by 16" (sixteen inches) and fastened with 16's @ 3 nails per stringer.
11. HANDRAILS: Handrails having minimum and maximum heights of 34 inches and 38 inches respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways. All required handrails shall be continuous the full length of the stairs with three or more risers from a point directly above the top riser of a flight to a point directly above the lowest riser of the flight. Ends shall be returned or shall terminate in newel posts or safety terminals. The handgrip portion of handrails shall have a circular cross section of 1 1/4 inches minimum to 2 5/8 Maximum.
12. \*MINIMUM of 36"(inches) x 36"(inches) hard surface landing required at bottom of all stair landings.

Refer to the attached drawings for typical information and requirements that need to be indicated on your site plan and building construction plans.

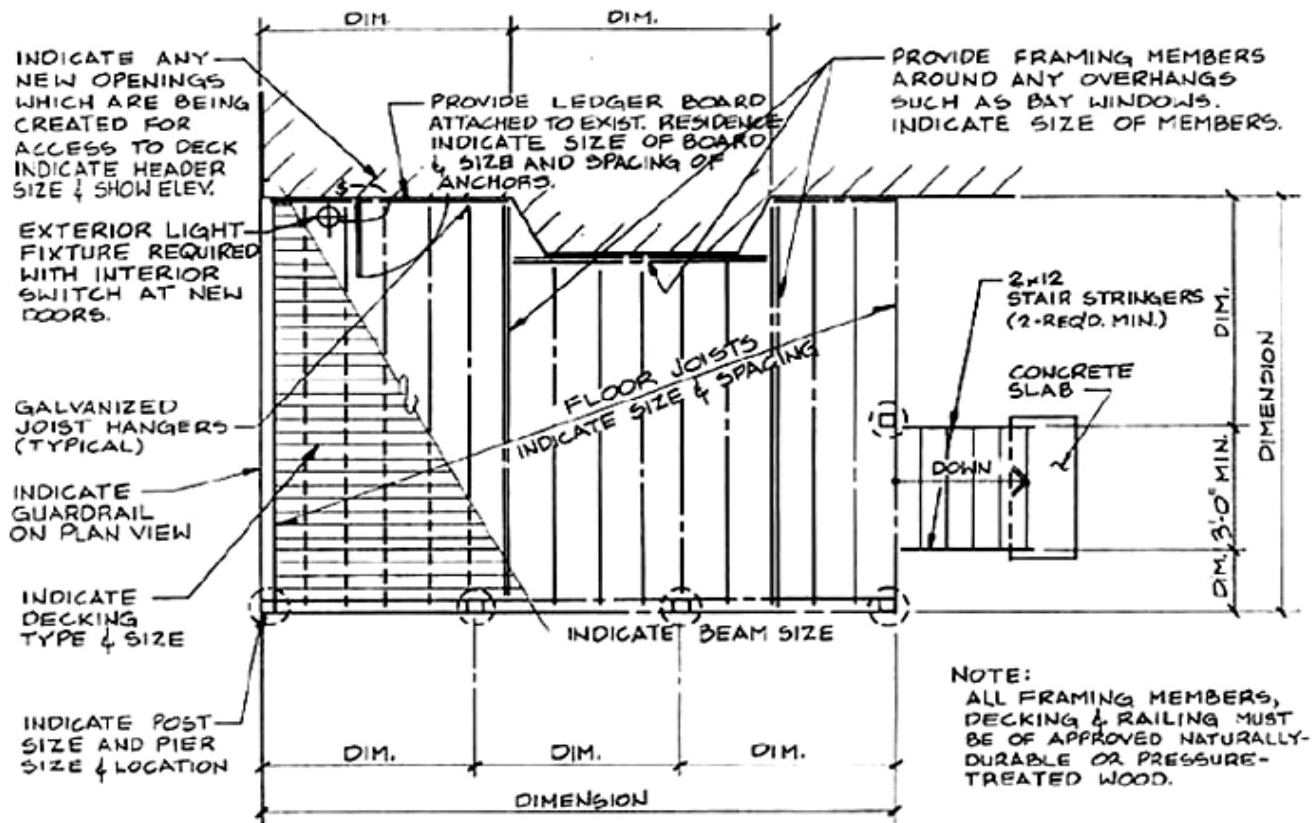
The preceding requirements apply to most simple patio deck projects; however, the Plan Reviewer may determine that unusual circumstances dictates the need for additional information on any particular project.

OWNER \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
SUBDIVISION \_\_\_\_\_ LOT NO. \_\_\_\_\_



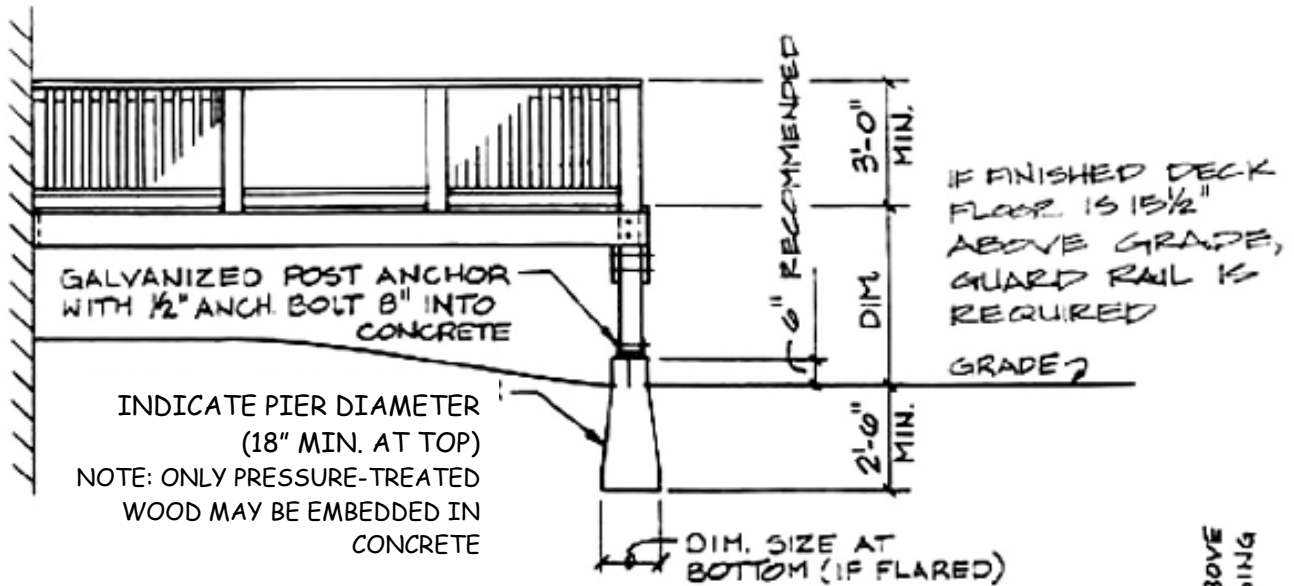
# TYPICAL PLOT PLAN FOR PATIO - DECK

SCALE: 1" = 20'-0"



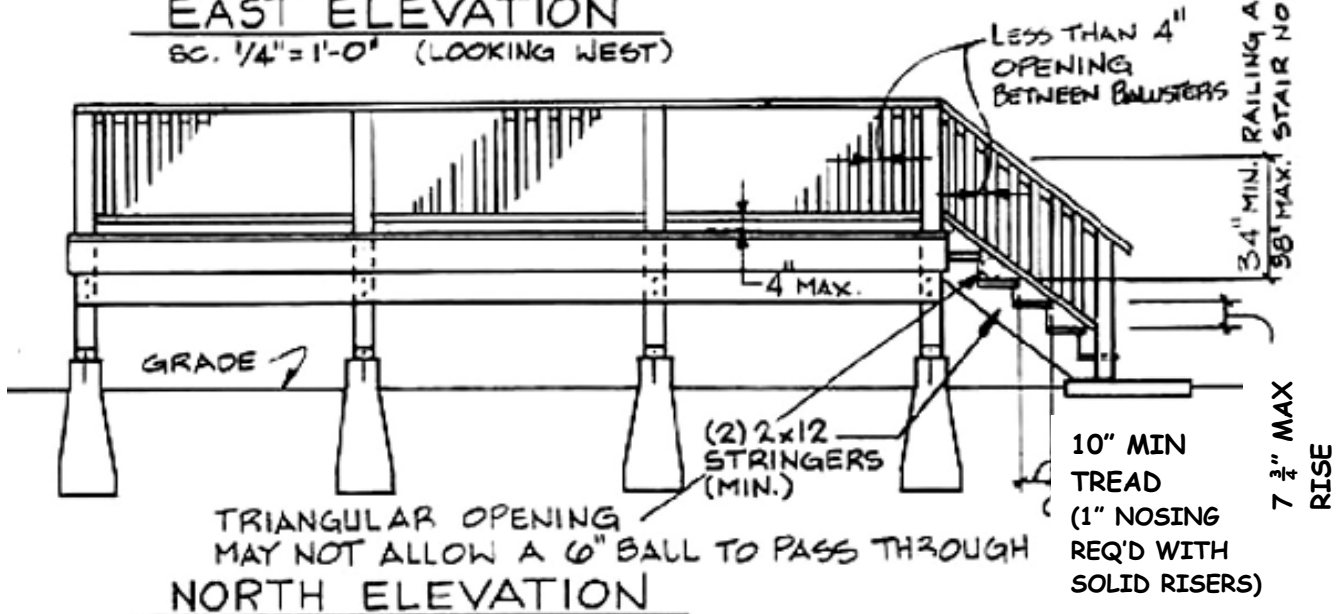
FOUNDATION AND FRAMING PLAN FOR PATIO - DECK

SCALE: 1/4" = 1'-0"



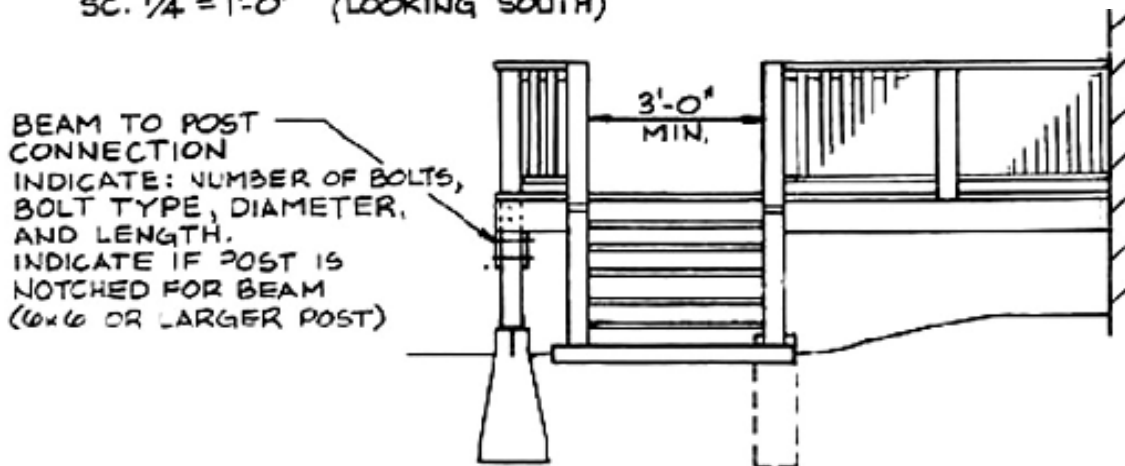
**EAST ELEVATION**

SC. 1/4" = 1'-0" (LOOKING WEST)



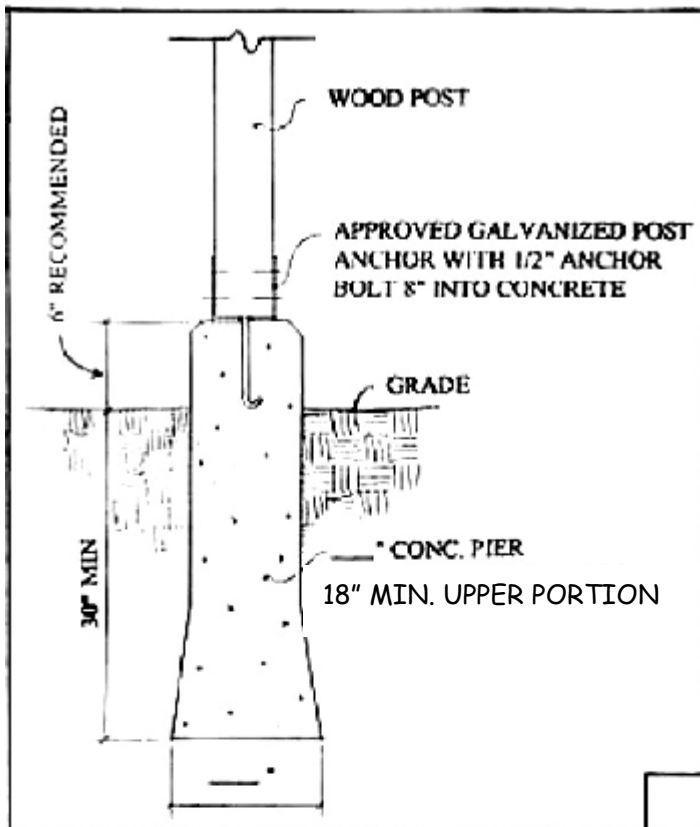
**NORTH ELEVATION**

SC. 1/4" = 1'-0" (LOOKING SOUTH)



**WEST ELEVATION**

SC. 1/4" = 1'-0" (LOOKING EAST)



**SPECIFICATIONS**

1. Pier spacing and size must be noted on foundation/framing plan.
2. Post type and size must be noted on foundation/framing plan.
3. Pier must be 30" min. below grade, min. 18" diameter.
4. Only pressure treated lumber in embedded post connection.

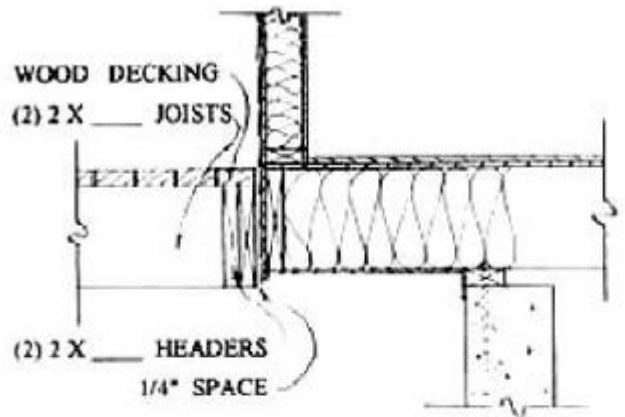
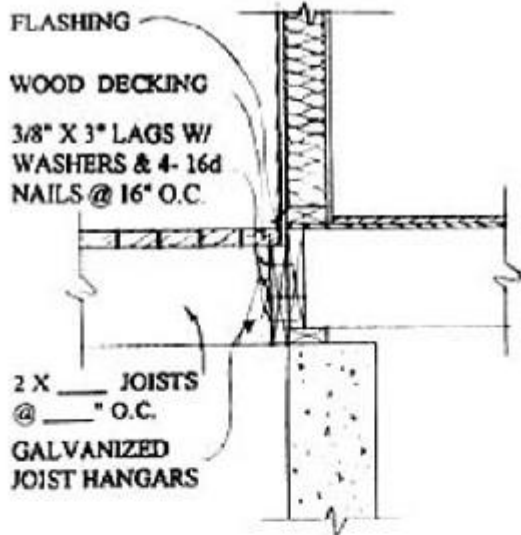
**INSTRUCTIONS**

1. Check detail to be used.
2. Indicate pertinent information for drawing used.

CITY OF WASHINGTON BUILDING DEPARTMENT

**PIER-POST DETAILS**

Patio-Deck Handout



### SPECIFICATIONS

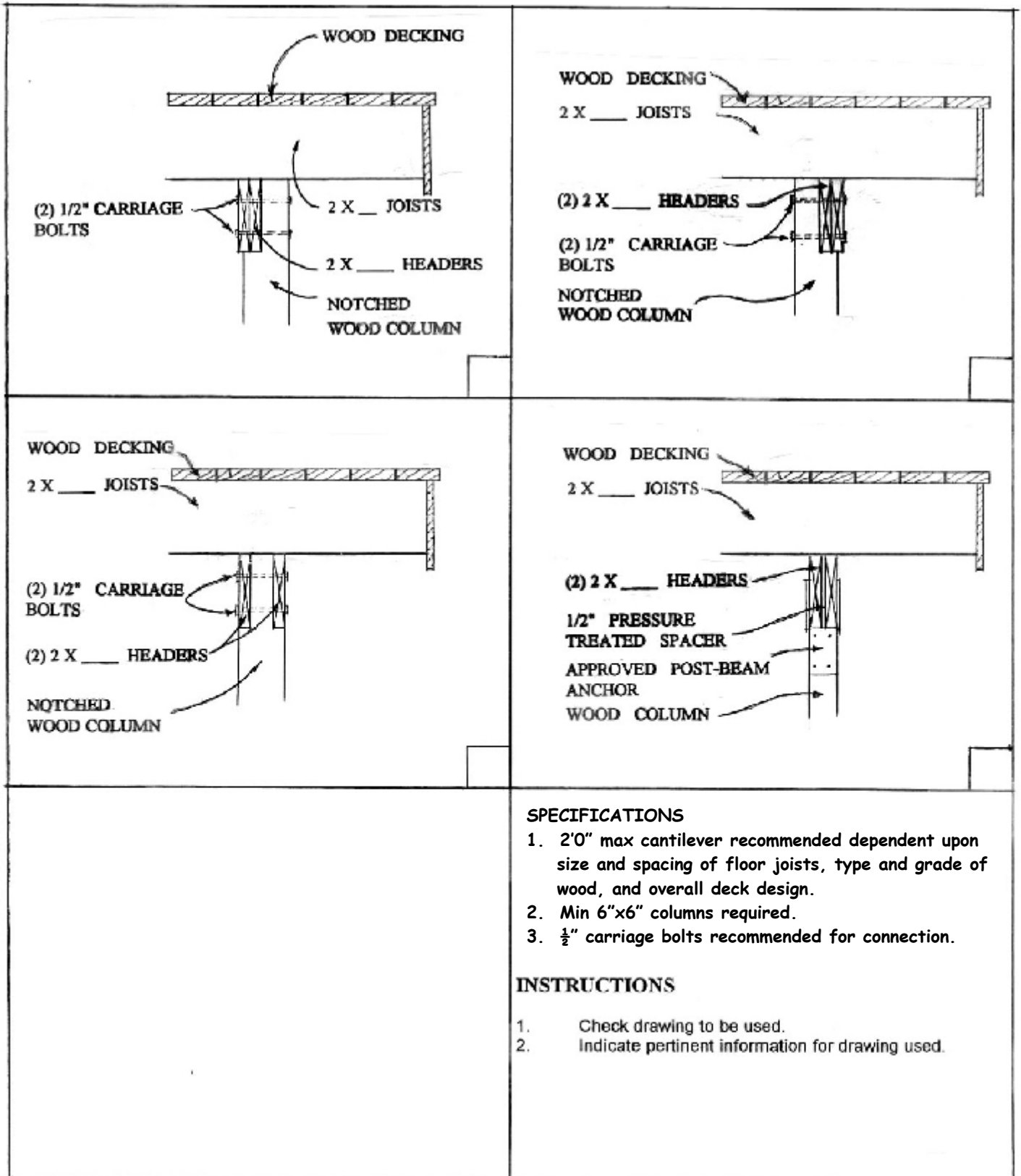
1. Must frame around any existing overhangs (ie. bay windows). Note: some designs require additional post/pier supports.
2. Top of wood decking should be 1" to 2" below finish floor level.
3. Flashing is required.
4. Indicate type, size, & spacing of floor joists on foundation/framing plan.

### INSTRUCTIONS

1. Check drawing to be used.
2. Indicate pertinent information for drawing used.

CITY OF WASHINGTON BUILDING DEPARTMENT  
**DECK-HOUSE CONNECTIONS**





**SPECIFICATIONS**

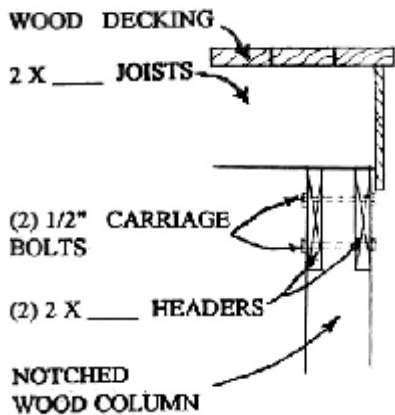
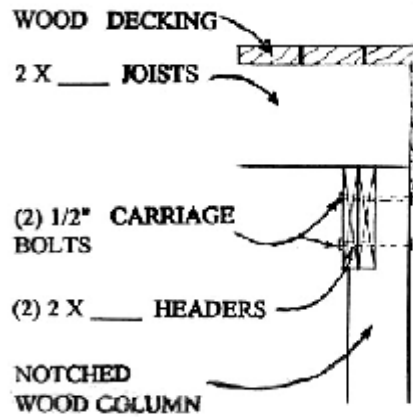
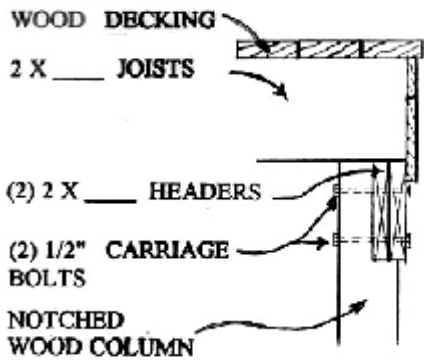
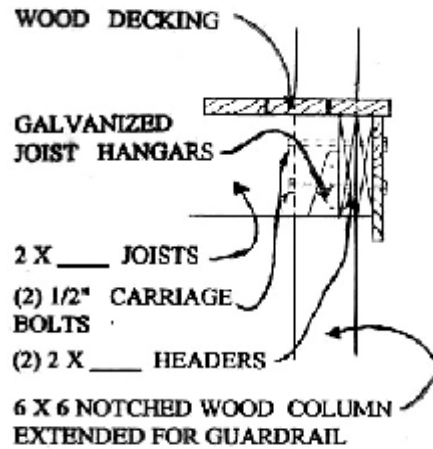
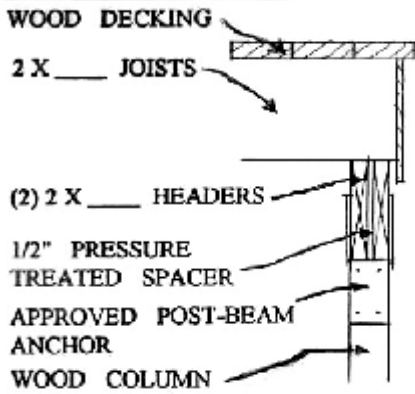
1. 2'0" max cantilever recommended dependent upon size and spacing of floor joists, type and grade of wood, and overall deck design.
2. Min 6"x6" columns required.
3. 1/2" carriage bolts recommended for connection.

**INSTRUCTIONS**

1. Check drawing to be used.
2. Indicate pertinent information for drawing used.

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**CANTILEVER POST-BEAM CONNECTIONS**



**SPECIFICATIONS**

1. 1/2" carriage bolts recommended for connection.
2. Min 6"x6" columns.

1. Check drawing to be used.
2. Indicate pertinent information for drawing used.

CITY OF WASHINGTON BUILDING DEPARTMENT  
**POST-BEAM CONNECTIONS**

WOOD DECKING  
 (2) 2 X \_\_\_\_ JOISTS

(3) 2 X \_\_\_\_ HEADERS  
 1/2" PRESSURE TREATED SPACERS  
 APPROVED POST-BEAM ANCHOR  
 WOOD COLUMN

WOOD DECKING  
 (2) 2 X \_\_\_\_ JOISTS

(2) 2 X \_\_\_\_ HEADERS  
 1/2" PRESSURE TREATED SPACER  
 APPROVED POST-BEAM ANCHOR  
 WOOD COLUMN

WOOD DECKING  
 2 X \_\_\_\_ JOISTS

(2) 1/2" CARRIAGE BOLTS  
 (2) 2 X \_\_\_\_ HEADERS  
 NOTCHED WOOD COLUMN

WOOD DECKING  
 2 X \_\_\_\_ JOISTS

(2) 2 X \_\_\_\_ HEADERS  
 (2) 1/2" CARRIAGE BOLTS  
 NOTCHED WOOD COLUMN

WOOD DECKING  
 2 X \_\_\_\_ JOISTS

(2) 1/2" CARRIAGE BOLTS  
 (2) 2 X \_\_\_\_ HEADERS  
 NOTCHED WOOD COLUMN

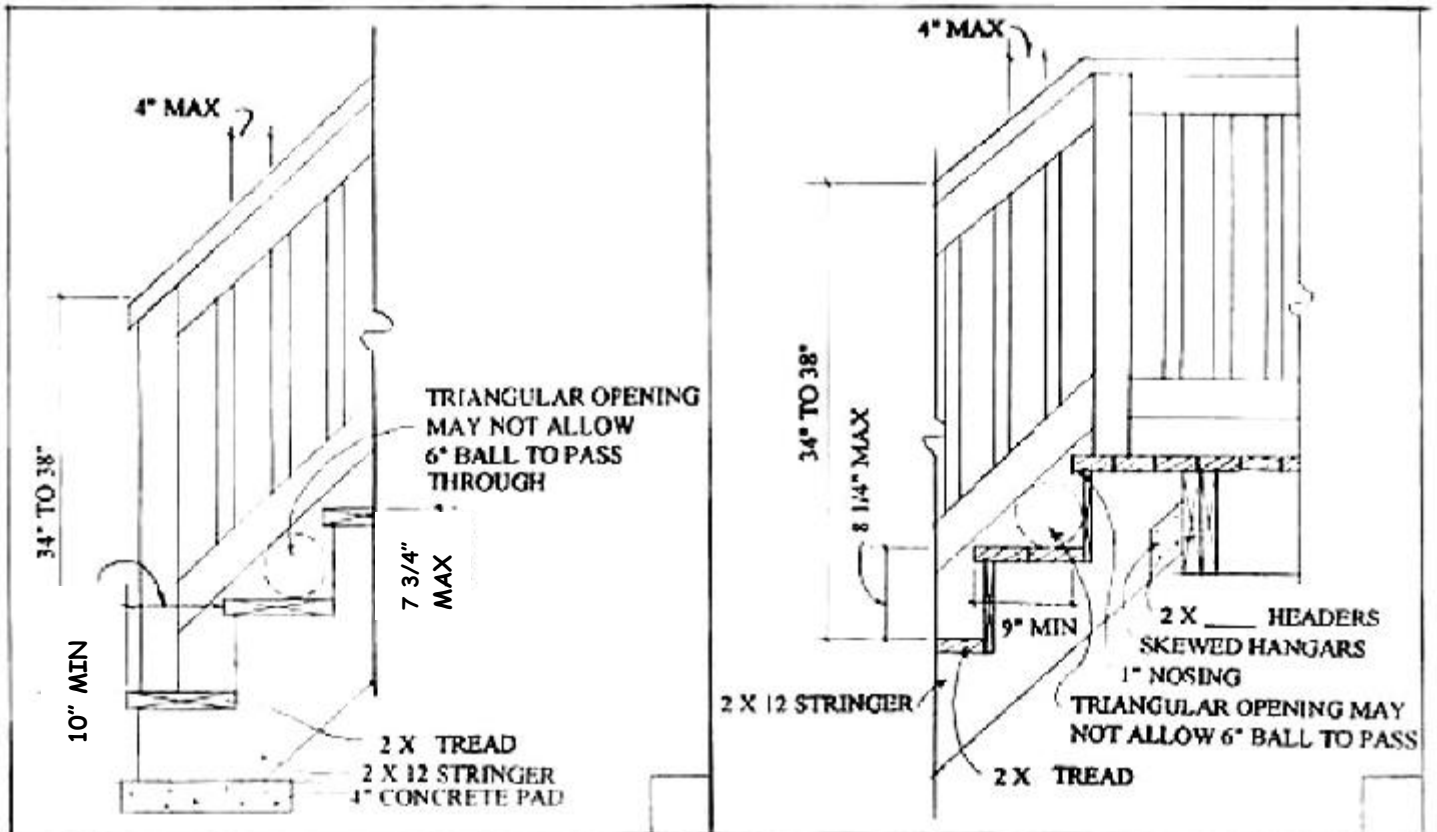
**SPECIFICATIONS**

1. 1/2" carriage bolts recommended for connection

**INSTRUCTIONS**

1. Check drawing to be used.
2. Indicate pertinent information for drawing used.

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**CENTER BEAM CONNECTIONS**

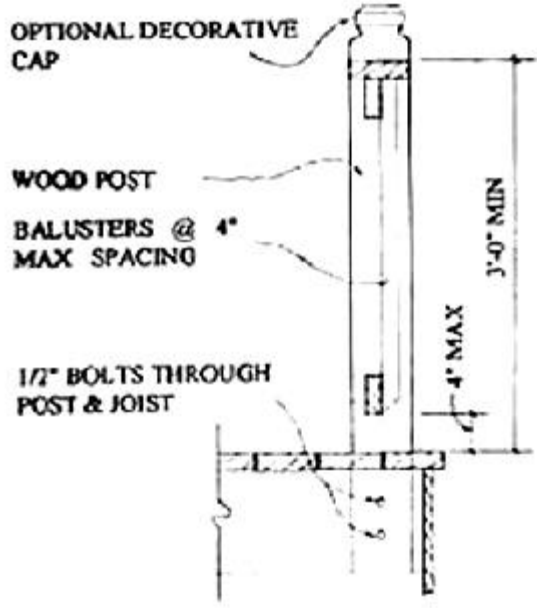
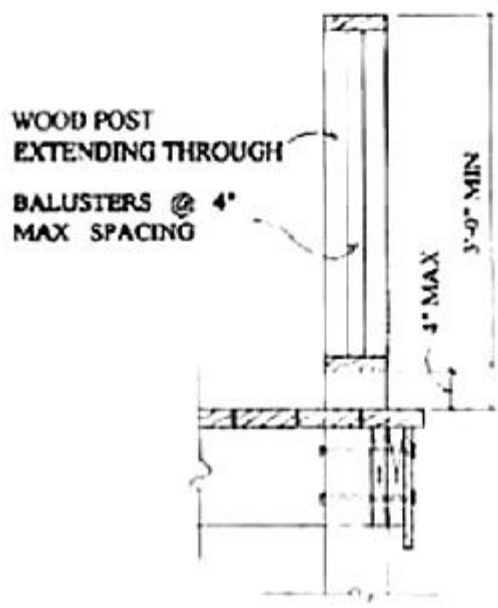
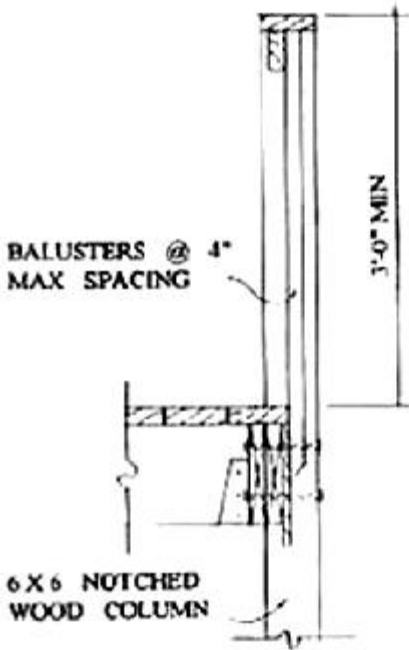


- SPECIFICATIONS**
1. Deck floors less than 15 ½" above grade having stairs with 3 or more risers need a continuous handrail on only one side of stair 34" to 38" in vertical height.
  2. Combination hand and guardrail (with vertical balusters) 36" to 42" vertical from tread nosing is required on sides of stairs where the vertical drop from any tread exceeds 15 ½".
  3. 4" max opening between vertical balusters.
  4. 7 ¾" max riser height.
  5. 10" min tread depth.
  6. Triangular opening between stairs and guardrail may not allow 6" ball to pass through (as drawn).
  7. Min of two(2), 2x12 stringers required for stairs.

- INSTRUCTIONS**
1. Check drawing to be used.
  2. Indicate pertinent information for drawing used.

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## STAIR DETAILS



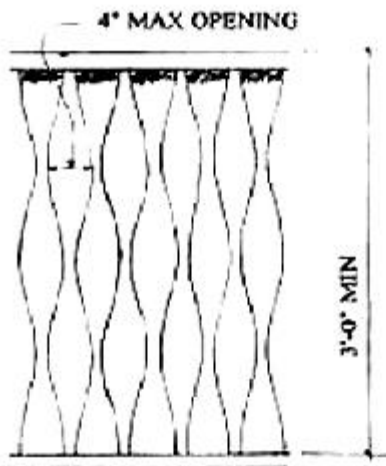
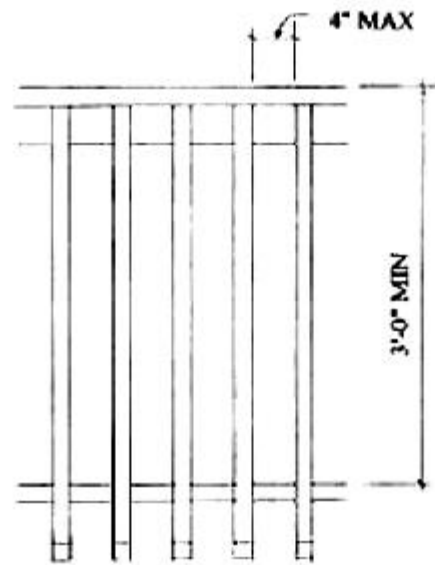
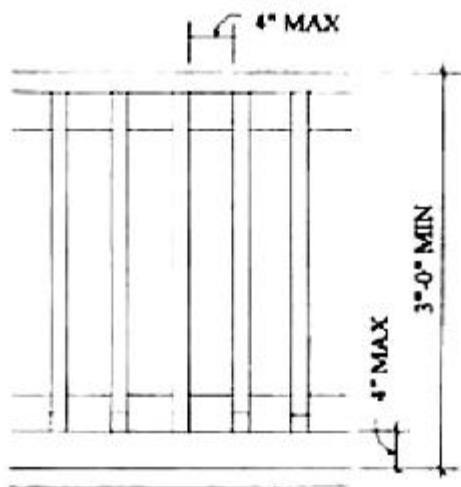
**SPECIFICATIONS**

1. Deck floors 15 1/2" or more above grade or lower deck levels, guardrails must be provided around perimeter 36" to 42" in height.
2. 4" maximum opening between vertical balusters and also between decking and bottom rail.

**INSTRUCTIONS**

1. Check drawing to be used.
2. Indicate pertinent information for drawing used.

CITY OF WASHINGTON BUILDING DEPARTMENT  
**GUARDRAIL SECTIONAL DETAILS**



### SPECIFICATIONS

1. Deck floors 15 1/2" or more above grade or lower deck levels, guardrails must be provided around perimeter 36" to 42" in height.
2. 4" maximum opening at any point between vertical balusters and also between decking and bottom rail.

### INSTRUCTIONS

1. Check drawing to be used.
2. Indicate pertinent information for drawing used.

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## GUARDRAIL ELEVATIONS