



BASIC DECK, STAIR AND RAMP PLANNING AND BUILDING GUIDE



DIRECTIONS

THE WORCESTER COUNTY DEPARTMENT OF DEVELOPMENT REVIEW AND PERMITTING (DRP) HAS PREPARED THIS GUIDE FOR BASIC SQUARE OR RECTANGULAR DECKS, STAIRS AND RAMPS. YOU MAY USE IT BY FILLING IN THE DECK PLAN SPECIFICATIONS ON SHEET 1 OF THIS SET WITH THE SPECIFICATIONS OF YOUR DECK OR RAMP.

THESE DOCUMENTS ARE NOT APPLICABLE TO THE FOLLOWING:

1. THE DECK IS PART OF A SET OF PLANS FOR A NEW STRUCTURE. (HOUSE, GARAGE, SHED, ETC...)
2. THE DECK HAS A ROOF STRUCTURE,
3. THE DECK IS PART OF A ROOM ADDITION TO AN EXISTING BUILDING.

NOTE: THE WORCESTER COUNTY ZONING DIVISION OF D.R.P. HAS MINIMUM REQUIREMENTS FOR SETBACK DISTANCES. CONSULT THEM BEFORE YOU MAKE ANY DECISIONS ABOUT LOCATING YOUR DECK.

THE WORCESTER COUNTY DEPARTMENT OF ENVIRONMENTAL PROGRAMS ALSO MAY HAVE RESTRICTIONS WHEN LOCATING A DECK. YOU SHOULD ALSO CONSULT WITH THEM AT 410-632-1220

DURING CONSTRUCTION YOU WILL NEED THE FOLLOWING INSPECTIONS AT A MINIMUM:

- A. FOOTING INSPECTION - To be requested after the footers are dug and before the concrete is placed.
- B. FRAMING INSPECTION - To be requested after all of the framing members and hardware have been installed, but before the deck boards and railings are installed.
- C. FINAL INSPECTION - To be requested after all construction is finished.

ALWAYS CHECK THE INSPECTION REQUEST FORM, THAT IS INCLUDED IN YOUR BUILDING PERMIT PACKAGE, FOR THE ACTUAL INSPECTIONS THAT WILL BE REQUIRED FOR YOUR PROJECT. THE PERMIT HOLDER AND / OR THE OWNER IS RESPONSIBLE FOR SCHEDULING INSPECTIONS WITH OUR OFFICE. MISSED INSPECTIONS CAN CAUSE DELAYS IN THE WORK OR CAUSE A STOP WORK ORDER TO BE ISSUED.

DECK AND RAMP DESIGN

THESE DESIGN SHEETS ARE GUIDELINES FOR A BASIC, SQUARE O RECTANGULAR SINGLE LEVEL DECK. IF A SPA, HOT TUB OR OTHER SPECIAL USE IS INTENDED, SEEK THE HELP OF A DESIGN PROFESSIONAL. (Registered Architect or Professional Engineer)

THESE DESIGN SHEETS ARE BASED ON THE PRESCRIPTIVE REQUIREMENTS OF THE 2021 INTERNATIONAL RESIDENTIAL CODE (2021 I.R.C.) AND AND THE AMENDMENTS TO THE THIS CODE ADOPTED BY THE WORCESTER COUNTY COMMISSIONERS. IN SOME CASES THESE DOCUMENTS EXCEED THE CODE BASED ON CURRENT "BEST PRACTICES" ENCOURAGED IN WORCESTER COUNTY. THIS DOCUMENT IS NOT INTENDED TO PRECLUDE THE USE OF OTHER APPLICABLE CONSTRUCTION METHODS OR MATERIALS.



NOTE: IF TYPOGRAPHICAL ERRORS AND / OR ERRONEOUS CODE REFERENCES ARE FOUND WITHIN THE PAGES OF THIS SET OF DOCUMENTS THEN THE TEXT OF THE 2021 INTERNATIONAL RESIDENTIAL CODE AND LOCAL AMENDMENTS SHALL GOVERN.

GENERAL REQUIREMENTS

1. THE DECK FRAMING DESIGN IS BASED ON 40 LBS PER SQ FT LIVE LOAD AND 10 LBS PER SQ FT DEAD LOAD.
2. ALL DECK MATERIALS SHALL BE PRESERVATIVE TREATED (P.T.) LUMBER OR COMPOSITE MATERIAL SPECIFICALLY DESIGNED FOR DECKS AND OUTSIDE USE, OR FOR USE IN CONTACT WITH THE GROUND. ALL CUT MATERIALS SHALL HAVE THEIR ENDS TREATED WITH AN APPROVED PRESERVATIVE, SUCH AS COPPER NAPHTHENATE.
3. TO RESIST CORROSION FOR USE WITH PRESERVATIVE TREATED (P.T.) WOOD , THE FOLLOWING IS REQUIRED:
 - BORATE TREATED 2X LUMBER MAY NOT BE USED IN CONTACT WITH THE GROUND.
 - ALL SCREWS, BOLTS, NAILS AND FASTENERS SHALL BE:
 - a) HOT-DIPPED GALVANIZED (HDG) IN ACCORDANCE WITH ASTM A-15, B-695, CLASS 55)
 - b) STAINLESS STEEL,
 - c) AN APPROVED SPECIAL COATED FASTENER FOR USE WITH ALKALINE COPPER QUAT (ACQ) PRESERVATIVE TREATED LUMBER.
 - WHERE A MATERIAL IS LISTED AS "HDG" IN THIS GUIDE, ANY OF THE ABOVE MENTIONED MATERIALS MAY BE SUBSTITUTED.
4. FLASHING SHALL BE A MINIMUM 19 MIL THICK CORROSION-RESISTANT METAL OR AN APPROVED NON-METALIC MATERIAL. BRIGHT ALUMINIM FLASHING IS NOT ALLOWED.
5. IF YOU ARE ATTACHING THE DECK TO THE HOUSE, THE HOUSE SHALL HAVE A PRESERVATIVE TREATED, NOMINAL SIZE, WOOD BAND BOARD ALONG THE ENTIRE LENGTH OF THE ATTACHMENT AREA. PLYWOOD IS NOT ACCEPTABLE.
6. WHERE THRU BOLTS ARE TO BE USED, COMPATIBLE SIZED WASHERS AND NUTS ARE ASSUMED TO BE PART OF THE ASSEMBLY.
7. DO NOT ATTACH THE LEDGER BOARD TO BRICK VENEER.
8. DO NOT CONSTRUCT FOOTINGS OVER UTILITY LINES. CALL MISS UTILITY AT 811 BEFORE YOU START!
9. DO NOT CONSTRUCT THE FOOTINGS OVER A SEPTIC FIELD. SEEK ADVICE FROM THE WORCESTER COUNTY DEPARTMENT OF ENVIRONMENTAL PROGRAMS.
10. DO NOT ATTACH A DECK OR PORCH TO A TRAILER OR MOBILE OR MANUFACTURED HOME. A FREESTANDING DECK IS REQUIRED.
11. WORCESTER COUNTY DOES NOT PERMIT "ON-GRADE DECK BLOCKS" TO BE USED. THESE ARE THE TAPERED SHAPED PRE-CAST CONCRETE AND HEAVY PLASTIC BLOCKS OR "PUCKS" INTENDED TO BE SET ON THE TOP OF THE SOIL. THEY HAVE SLOTS AND RECESSES IN THEM FOR WOOD MEMBERS TO BE PLACED.
12. IF YOUR NEW DECK IS EITHER FREESTANDING OR ATTACHED TO YOUR HOUSE AND THE DECK EXTENDS INTO A F.E.M.A. FLOOD HAZARD ZONE THEN, THE DECK AND THE HOUSE WILL BE CONSIDERED TO BE WITHIN THE FLOOD HAZARD ZONE. ADDITIONAL INFORMATION AND DOCUMENTATION WILL BE REQUIRED.

HOW TO USE THIS GUIDE

1. ACCURATELY SKETCH YOUR DECK, STAIRS AND / OR RAMP ON THE PROVIDED GRID LOCATED ON SHEET 1
2. AFTER SKETCHING BEGIN TO WORK YOUR WAY DOWN THROUGH THE LIST OF DECK PLAN SPECIFICATIONS LISTED ON PAGE 1. (SOME EXAMPLE ANSWERS ARE LISTED FOR YOU)
3. THE LIST STARTS WITH OVERALL DIMENSIONS AND THEN STARTING FROM THE GROUND MOVING UP THROUGH THE CONSTRUCTION YOU WILL PROVIDE THE INFORMATION REQUESTED. PAGES 2 THRU 4 ARE ALSO LAID OUT SHOWING THE INFORMATION FROM THE GROUND UP IN ORDER STARTING ON THE TOP LEFT OF EACH SHEET.
4. SOME OF THE LINES ASK FOR YOU TO CIRCLE ONE OF THE SELECTIONS. EACH OF THESE LINES HAS A REFERENCE AS TO WHICH PAGE YOU CAN FIND THE DETAIL YOU WISH TO SELECT.
5. TO MAKE IT EASY, WE HAVE PROVIDED TYPICAL CROSS-SECTION SKETCHES OF VARIOUS CONNECTIONS ON SHEETS 2 THRU 4. YOU WILL NOT HAVE TO PROVIDE ANY ADDITIONAL DRAWINGS. IF YOU ARE NOT FAMILIAR WITH CONSTRUCTION, GATHER YOUR MATERIALS REQUIRED FOR THE BUILDING PERMIT APPLICATION SUBMITTAL AND CALL TO MAKE AN APPOINTMENT TO MEET WITH A PLANS EXAMINER TO GO OVER THE PARTS THAT YOU DO NOT UNDERSTAND.
6. ONCE YOU HAVE COMPLETED YOUR SKETCH AND ANSWERED ALL OF THE QUESTIONS ON SHEET 1, YOU WILL THEN NEED TO SUBMIT, WITH YOUR BUILDING PERMIT APPLICATION, 1 COMPLETED SET OF THIS DRAWING PACKAGE INCLUDING THE COVER SHEET AND SHEETS 1 THROUGH 4 PLUS 2 ADDITIONAL COPIES OF SHEET 1. DO NOT MAKE ANY OF THE COPIES SMALLER THAN 11" x 17" AS THEY WILL BE TOO SMALL TO READ AND WILL BE REJECTED.
7. YOU WILL NEED TO SUBMIT A CURRENT SITE SURVEY OF YOUR PROPERTY WITH YOUR BUILDING PERMIT APPLICATION. YOUR SITE SURVEY IS REQUIRED TO SHOW THE PROPERTY SIZE, SETBACK LINE INFORMATION WITH DIMENSIONS, DRIVEWAYS, HOUSE AND OTHER STRUCTURES ON YOUR PROPERTY. THE NEW PLANNED WORK WILL NEED TO ACCURATELY BE ADDED TO YOUR SITE SURVEY.
8. A PROPOSED SURVEY MAY BE REQUIRED WITH YOUR SUBMITTAL; AN AS-BUILT SURVEY MAY BE REQUIRED FOR YOUR FINAL INSPECTION.

NOTE:

If you are using PVC, composite or metal materials and / or assemblies, you are to provide an ICC-ESR Report or equal for the system being used. The report should be available from the supplier or manufacturer. Include a copy of this report with the building permit submission or provide a copy to the building inspector at the framing inspection. The proposed system must be installed and mounted per the requirements of the ICC-ESR report including all necessary hardware and blocking.

LIST OF DRAWINGS IN THIS DECK GUIDE:

Cover Sheet - INSTRUCTIONS
Sheet 1 - DECK SPECIFICATIONS
Sheet 2 - MEMBER SIZING
Sheet 3 - CONNECTIONS
Sheet 4 - STAIRS AND RAMPS

STANDARD ABBREVIATIONS

HDG - HOT DIPPED GALVANIZED (IN ACCORDANCE WITH ASTM A-153 OR B695, CLASS 55)
O.C. - ON CENTER
P.T. - PRESERVATIVE TREATED

ISSUED DATE: 10-08-2025

Worcester County Department of Development Review and Permitting
Building Division
1 West Market Street, Room 1201
Snow Hill, Maryland 21863 Telephone: 410-632-1200
Website: <https://www.co.worcester.md.us/departments/drps>

INSTRUCTIONS

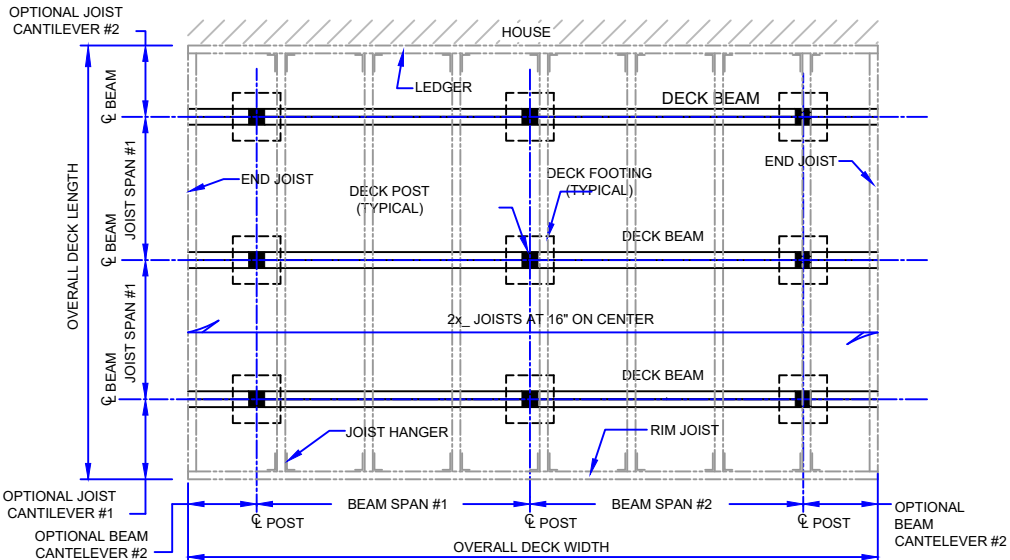
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**COVER
SHEET**

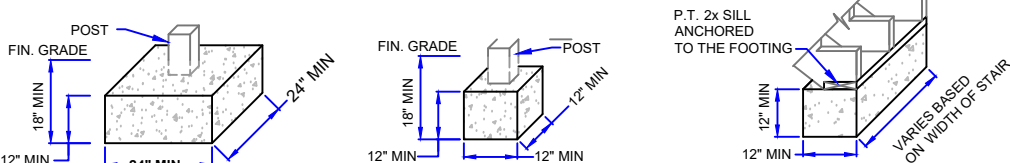


FOOTINGS

1. PER LOCAL AMENDMENT ADOPTED BY WORCESTER COUNTY, ALL DECK FOOTINGS MUST BE A MINIMUM 24" x 24" x 12" THICK.
2. FOR DECKS 25 SQUARE FEET OR LESS WITHOUT A ROOF, THE FOOTINGS MAY BE REDUCED TO 12" x 12" x 12". THIS ALSO INCLUDES THE DECK STAIR FOOTINGS.
3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL AT LEAST 18" BELOW FINISHED GRADE. IF THE FOOTING IS WITHIN 4 FEET OF THE EXISTING HOUSE FOOTING, IT SHALL BE AT LEAST AS DEEP AS THE HOUSE FOOTING, BUT NOT LESS THAN 18".



TYPICAL DECK PLAN



TYPICAL FOOTING DETAILS

SPECIAL NOTE:
ALTERNATIVE MANUFACTURED FOOTINGS ARE PERMITTED TO BE USED BUT AN E.S.R. TESTING REPORT (OR EQUAL) PROVIDED BY THE FOOTING MANUFACTURER MUST BE INCLUDED WITH THE BUILDING PERMIT APPLICATION. PAGES OUT OF A MANUFACTURERS CATALOG OR ADVERTISING ARE NOT ACCEPTABLE.

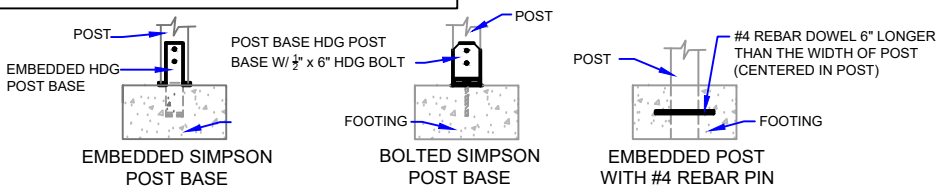
FOOTINGS

DECK POST HEIGHT LIMITATION

DECK POST SIZE	MAXIMUM HEIGHT
4X4	8'-0"
4X6	10'-0"
6X6	14'-0"

DECK POSTS

1. DECK POSTS MAY BE EITHER P.T. WOOD OR MASONRY.
2. WOOD DECK POSTS SHALL BE PRESERVATIVE TREATED AND CONSTRUCTED WITH HOT DIPPED GALVANIZED FASTENERS, NAILS, BRACKETS, ETC..
3. WOOD DECK POSTS SUPPORTING THE DECK BEAM MAY REST ON TOP OF THE CONCRETE FOOTING OR BE EMBEDDED IN THE CONCRETE. IT IS REQUIRED THAT THE WOOD DECK POSTS BE PHYSICALLY SECURED TO THE CONCRETE FOOTING. SEE THE TYPICAL POST / FOOTING ATTACHMENT DETAILS.
4. DECK POSTS THAT ARE OVER 8' IN HEIGHT SHOULD BE CROSS BRACED IN BOTH DIRECTIONS.

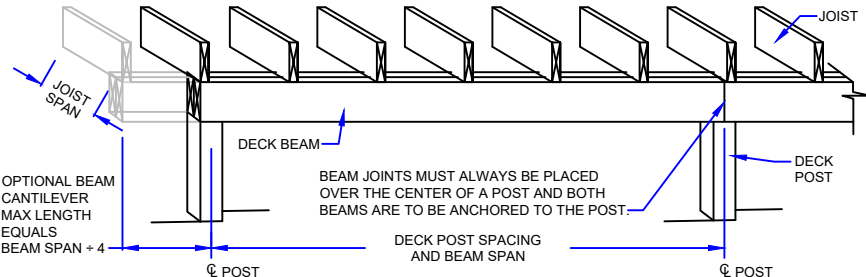


TYPICAL POST BASE / FOOTING ATTACHMENT DETAILS

TREATED DECK POSTS

BEAMS

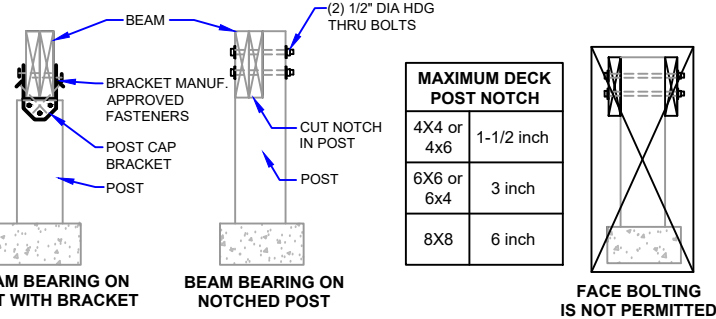
1. BEAMS SUPPORT THE DECK JOISTS. THE JOISTS EITHER BEAR ON TOP OF THE BEAM (AS FOR A CANTILEVER DESIGN), OR ARE NOTCHED INTO THE POST AND BOLTED. BOTH METHODS ALLOW FULL SUPPORT UNDER THE BEAM.
2. TWO OR THREE MEMBERS MAY BE CONNECTED TOGETHER TO FORM THE BEAM USING 10-d HDG NAILS OR #10 HDG SCREWS, STAGGERED IN TWO ROWS, AT 16" O.C.



TYPICAL BEAM SPAN DETAIL WITH OPTIONAL CANTELEVER AND BEAM JOINT

MAXIMUM BEAM SPAN (a)								
SPECIES (b)	MEMBER SIZE (c)	MAXIMUM JOIST SPANS						
		6'	8'	10'	12'	14'	16'	18'
SOUTHERN PINE (PRESSURE TREATED)	(1) 2X6	4'-7"	4'-0"	3'-7"	3'-3"	3'-0"	2'-10"	2'-8"
	(1) 2X8	5'-11"	5'-1"	4'-7"	4'-2"	3'-10"	3'-7"	3'-5"
	(1) 2X10	5'-11"	5'-1"	4'-7"	4'-2"	3'-10"	3'-7"	3'-5"
	(1) 2X12	8'-3"	7'-1"	6'-4"	5'-10"	5'-5"	5'-0"	4'-9"
	(2) 2X6	6'-11"	5'-11"	5'-4"	4'-10"	4'-6"	4'-3"	4'-0"
	(2) 2X8	8'-9"	7'-7"	6'-9"	6'-2"	5'-9"	5'-4"	5'-0"
	(2) 2X10	10'-4"	9'-0"	8'-0"	7'-4"	6'-9"	6'-4"	6'-0"
	(2) 2X12	12'-2"	10'-7"	9'-5"	8'-7"	8'-0"	7'-5"	7'-0"
	(3) 2X6	8'-6"	7'-9"	6'-8"	6'-1"	5'-8"	5'-3"	4'-11"
	(3) 2X8	10'-11"	9'-6"	8'-6"	7'-9"	7'-2"	6'-8"	6'-4"
	(3) 2X10	13'-0"	11'-2"	10'-0"	9'-2"	8'-6"	7'-11"	7'-6"
	(3) 2X12	15'-3"	13'-3"	11'-10"	10'-9"	10'-0"	9'-4"	8'-10"

(a) Assumes 40 psf live load, 10 psf dead load, No 2 grade, wet service factor.
(b) All lumber assumed to be pressure treated.
(c) Beam depth must be equal to or greater than the joist depth if joist hangers are used.



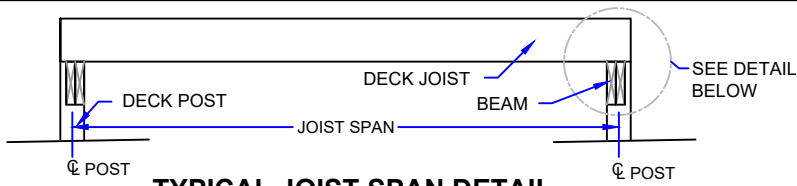
BEAM TO POST CONNECTIONS

TREATED BEAMS

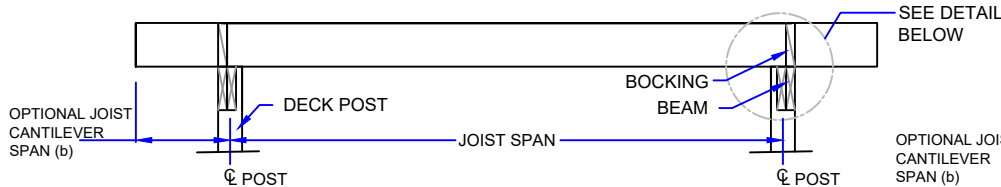
DECKING BOARDS

1. DECKING BOARDS ARE TYPICALLY 2x6, 5/4 P.T. BOARDS, OR MANUFACTURED OF COMPOSITE MATERIAL.
2. ATTACH DECKING BOARDS TO DECK JOISTS WITH 2-8d HDG NAILS, (2) #8 HDG SCREWS, OR PROPRIETARY FASTENERS INTENDED FOR P.T. WOOD.
3. DECK BOARDS SHALL BE SPACED APPROXIMATELY 1/8" APART (EDGE TO EDGE).
4. DECKING MAY BE APPLIED DIAGONALLY. 2x6 WITH JOISTS AT MAXIMUM 16" O.C. OR 5/4 BOARDS WITH JOISTS AT MAXIMUM 12" O.C..
5. EACH PIECE OF DECKING MUST BEAR ON AT LEAST 3 JOISTS.

DECKING BOARDS



TYPICAL JOIST SPAN DETAIL



TYPICAL JOIST SPAN DETAIL WITH CANTELEVERS

JOIST SPAN

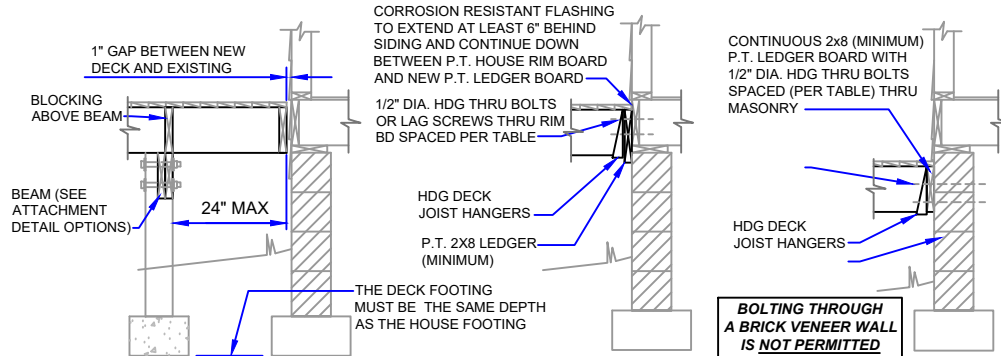
THE SPAN OF THE JOIST IS MEASURED FROM THE CENTERLINE OF BEARING AT ONE END OF THE JOIST (I.E. TYPICALLY THE CENTERLINE OF THE POST) TO THE CENTERLINE OF BEARING AT THE OTHER END OF THE JOIST, AND DOES NOT INCLUDE THE LENGTH OF THE OVERHANGS (CANTELEVERS).

MAXIMUM JOIST SPAN ^{(a) (c)}						
SIZE	12" O.C.		16" O.C.		24" O.C.	
	MAXIMUM SPAN	MAXIMUM CANTILEVER (b)	MAXIMUM SPAN	MAXIMUM CANTILEVER (b)	MAXIMUM SPAN	MAXIMUM CANTILEVER (b)
2X6	9'-11"	1'-5"	9'-0"	1'-5"	7'-7"	1'-6"
2X8	13'-1"	2'-6"	11'-10"	2'-6"	9'-8"	2'-0"
2X10	16'-2"	3'-4"	14'-0"	3'-4"	11'-5"	2'-6"
2X12	18'-0"	4'-1"	16'-6"	4'-0"	13'-6"	3'-0"

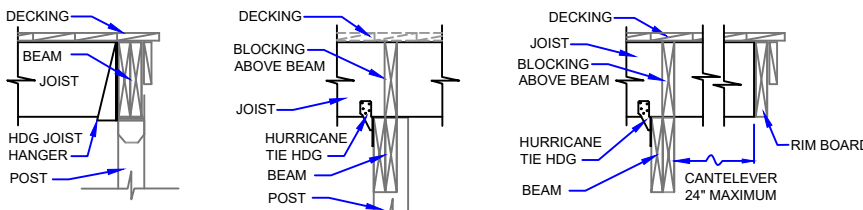
(a) BASED ON 2021 I.R.C. TABLE R507.5 FOR SOUTHERN PINE #2.
FOR OTHER SPECIES, REFER TO TABLE.
ALL LUMBER IS ASSUMED TO BE PRESSURE TREATED,
INCLUDING HOUSE BAND BOARDS THAT SUPPORT AN ATTACHED DECK.

(b) CANTILEVER LENGTH IS BASED ON JOIST SPAN.

(c) BASED ON 40 PSF LIVE LOAD AND 10 PSF DEAD LOAD.



JOIST END ATTACHMENT ADJACENT TO THE HOUSE



JOIST END AWAY FROM THE HOUSE

JOISTS

STAIRS AND RAMPS

- STAIR RISERS:**
1. THE MAXIMUM RISER HEIGHT IS 7-3/4". THE MAXIMUM VARIATION BETWEEN THE TALLEST AND SHORTEST RISER IS 3/8".
 2. OPEN RISERS ARE ALLOWED AS LONG AS THE OPENINGS DO NOT EXCEED 4 INCHES.

- STAIR TREADS**
1. THE MINIMUM TREAD WIDTH IS 10". THE MAXIMUM VARIATION IN TREAD WIDTHS BETWEEN THE WIDEST AND NARROWEST IS 3/8 INCHES.
 2. THE TREAD NOSING SHALL PROJECT AT LEAST 3/4 INCH AND NOT MORE THAN 1-1/4 INCH BEYOND ANY SOLID RISER.

- STRINGERS**
1. ALL STRINGERS SHALL BE A MINIMUM OF 2x12 P.T. MATERIAL.
 2. IF THE STRINGER IS FABRICATED BY CUTTING NOTCHES FOR THE RISERS AND TREADS, THREE STRINGERS SHALL BE PROVIDED FOR A 36" WIDE STAIR. NOTE: DO NOT OVER CUT NOTCHES. IF THE STRINGER IS FABRICATED FROM UNCUT 2x12, TWO STRINGERS ARE REQUIRED FOR A 36" WIDE STAIR.
 3. STRINGERS SHALL NOT SPAN MORE THAN THE DIMENSIONS SHOWN, OTHERWISE, AN INTERMEDIATE POST IS REQUIRED. THE POST SHALL BE SUPPORTED ON A CONCRETE FOOTING AT LEAST 12" DEEP. THE STRINGER SHALL BE ATTACHED TO A P.T. 2 x 8 BEAM BETWEEN POSTS WITH HDG TIE DOWN STRAPPING.

- GUARDRAILS (FREQUENTLY REFERRED TO AS "GUARDS")**
1. GUARDRAILS ARE AN ASSEMBLY COMPRISED OF THE FOLLOWING COMPONENTS:
 - A GUARDRAIL CAP, TYPICALLY A 2x6 OR 5/4 BOARD LAID FLAT
 - TOP AND BOTTOM RAILS TO WHICH THE PICKETS ARE ATTACHED,
 - (GUARD) POSTS, AND
 - PICKETS.
 2. GUARDRAILS ARE REQUIRED WHERE THE DISTANCE FROM THE WALKING SURFACE TO GRADE IS MORE THAN 30" MEASURED OUT 36" FROM THE FACE OF THE DECK.
 3. THE TOP OF THE GUARDRAIL CAP, WHEN USED AS A HANDRAIL, MUST BE BETWEEN 34" AND 38" WHEN WHERE MEASURED FROM THE NOSING OF THE TREAD.
 4. THE BOTTOM RAIL MUST BE LOCATED SO THAT A 4-3/8" SPHERE CANNOT PASS BETWEEN THE TRIANGLE FORMED BY THE RISER, TREAD AND BOTTOM RAIL.
 5. THE GUARDS SHALL BE ABLE TO WITHSTAND A LOADING OF 200# IN ANY DIRECTION.

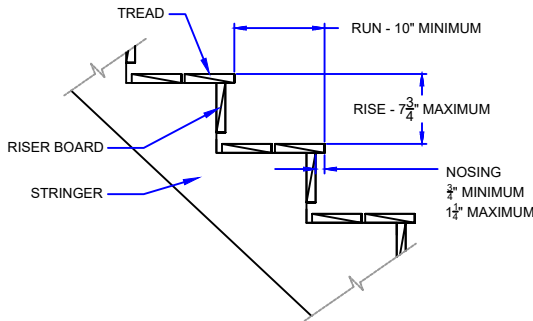
- HANDRAILS (NOT TO BE CONFUSED WITH GUARDRAILS)**
1. A HANDRAIL (TYPE 1 OR TYPE 2 PROFILE) IS REQUIRED ON AT LEAST ONE SIDE OF THE STAIR WHEN THERE ARE MORE THAN THREE RISERS.
 2. THE HANDRAIL SHOULD BE MOUNTED BETWEEN 34" AND 38" ABOVE THE NOSING OF THE TREAD.
 3. HANDRAILS HAVE TO "RETURN" TO THE POST OR WALL.

- FOOTINGS**
1. THE POST AT THE BOTTOM OF THE STRINGER MUST BE SET ON A CONCRETE FOOTING. (See sheet 2)
- CONNECTIONS**
1. THE BOTTOM OF P.T. STRINGERS SHALL BE ATTACHED TO EACH P.T. POST WITH (2) 1/2" DIA. HDG THRU BOLTS.
 2. THE TOP OF P.T. STRINGERS SHALL BE ATTACHED WITH HDG MECHANICAL FASTENERS AND HDG THRU BOLTS TO EITHER:
 - A P.T. POST EMBEDDED IN THE GROUND ON A FOOTING (PREFERRED),
 - A SAW CUT POST,
 - A RIM BOARD WITH MECHANICAL FASTENERS (BUT END NAILING IS PROHIBITED),
 - OR DECK JOIST.

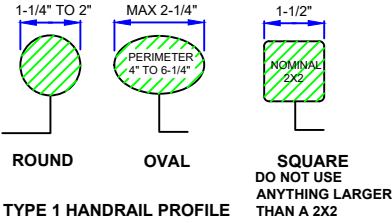
- STAIR LANDINGS**
1. WHEN A STAIRWAY EXCEEDS A VERTICAL HEIGHT OF 12', AN INTERMEDIATE LANDING SHALL BE PROVIDED.
 2. LANDINGS SHALL BE AS WIDE AS THE STAIR WIDTH IT SERVICES (TYPICALLY 36").

- STABILIZED SURFACE AT BASE OF EXTERIOR STAIRS OR RAMPS**
1. WHEN A STAIR OR RAMP EXITS ONTO AN EXTERIOR SURFACE, THAT IS NOT A SIDEWALK, A STABILIZED SURFACE IS REQUIRED TO BE INSTALLED.
 2. THE TOP OF THE SURFACE IS TO BE LEVEL AND AT THE SAME ELEVATION AS THE FINISHED GRADE.
 3. THE SURFACE CAN BE MADE FROM CONCRETE, COMPACTED STONE OR PAVER BLOCKS /STONES .
 4. THE SURFACE SHALL BE AS WIDE AS THE STAIR / RAMP WIDTH IT SERVICES AND EXTEND A MINIMUM OF 36" OUT FROM THE BOTTOM RISER OR BASE OF THE RAMP SLOPE.

- RAMPS**
1. RAMPS MAY BE STRAIGHT RUNS OR "L" OR "U" SHAPED.
 2. RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12 (THAT MEANS FOR EVERY INCH IN HEIGHT THE RAMP HAS TO CLIMB, IT SHALL BE ONE FOOT LONG). WHERE IT IS TECHNICALLY INFEASIBLE BECAUSE OF SITE CONSTRAINTS THE MAXIMUM SLOPE MAY BE 1: 8
 3. WHERE RAMPS CHANGE DIRECTIONS, A LEVEL LANDING THE WIDTH OF THE RAMP IS REQUIRED.
 4. HANDRAILS ARE REQUIRED ON AT LEAST ONE SIDE OF RAMP, AND MAY BE ATTACHED TO THE HOUSE
 5. GUARDRAILS ARE REQUIRED WHERE THE HEIGHT OF THE RAMP ABOVE GRADE EXCEEDS 30."

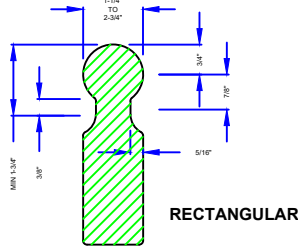


STAIR RISE AND RUN



TYPE 1 HANDRAIL PROFILE

HANDRAILS WITH A CIRCULAR CROSS-SECTION SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1-1/4" AND NOT GREATER THAN 2". IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER OF AT LEAST 4" AND NOT GREATER THAN 6-1/4" WITH A MAXIMUM CROSS SECTION OF 2-1/4"

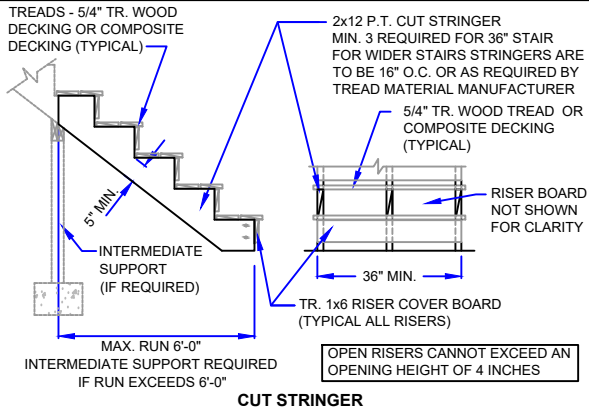


TYPE 2 HANDRAIL PROFILE

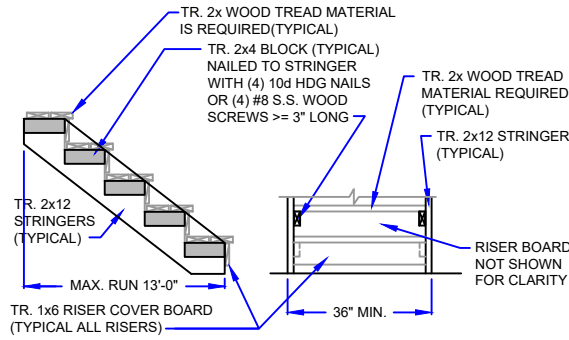
HANDRAILS WITH A PERIMETER GREATER THAN 6-1/4" SHALL PROVIDE A GRASPABLE FINGER RECESS ON BOTH SIDES OF THE PROFILE. THE FINGER RECESS SHALL:

1. BEGIN WITHIN A DISTANCE OF 3/4" MEASURED VERTICALLY FROM THE TALLEST PORTION OF THE PROFILE AND
2. ACHIEVE A DEPTH OF AT LEAST 5/16" WITHIN 7/8" BELOW THE WIDEST PORTION OF THE PROFILE. THE REQUIRED DEPTH SHALL CONTINUE FOR AT LEAST 3/8" TO A LEVEL THAT IS NOT LESS THAN 1-3/4" BELOW THE TALLEST PORTION OF THE PROFILE. THE MINIMUM WIDTH OF THE HANDRAIL ABOVE THE RECESS SHALL BE 1-1/4" TO A MAXIMUM OF 2-3/4" EDGES SHALL HAVE A MINIMUM RADIUS OF .01"

HANDRAIL PROFILES

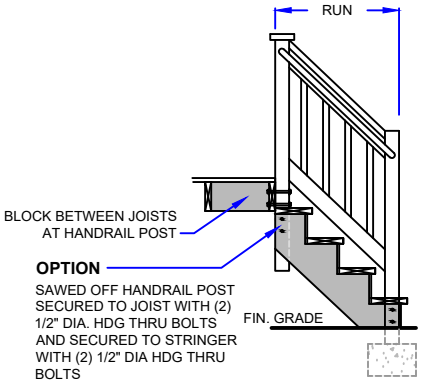
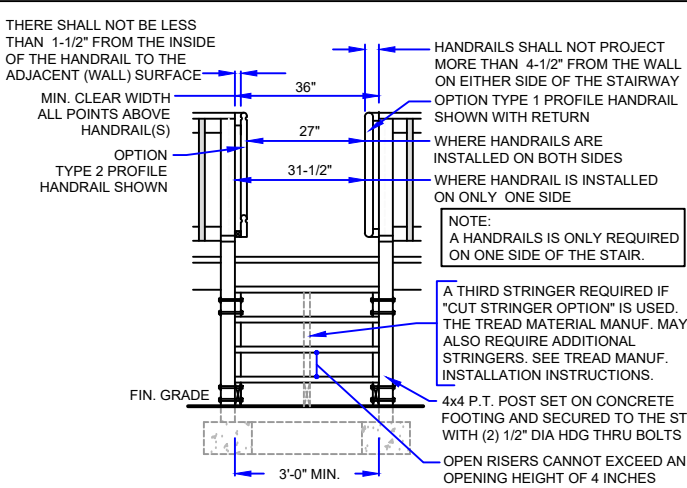


CUT STRINGER



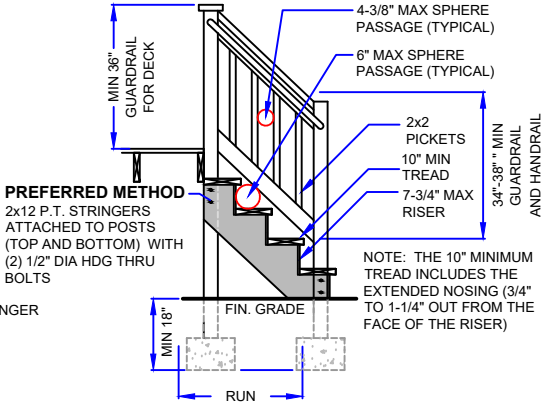
SOLID STRINGER

STRINGER TYPES

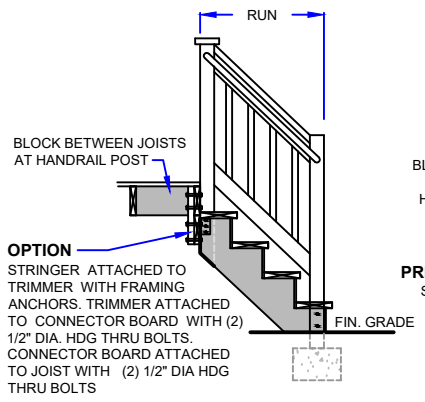


- OPTION**
- SAWED OFF HANDRAIL POST SECURED TO JOIST WITH (2) 1/2" DIA. HDG THRU BOLTS AND SECURED TO STRINGER WITH (2) 1/2" DIA HDG THRU BOLTS

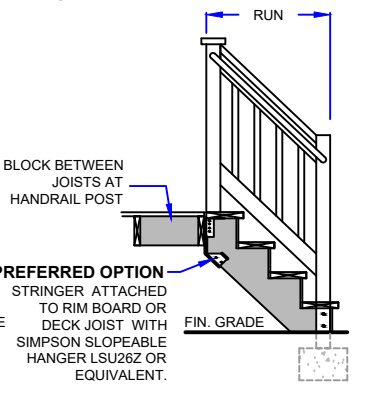
STAIR DETAILS



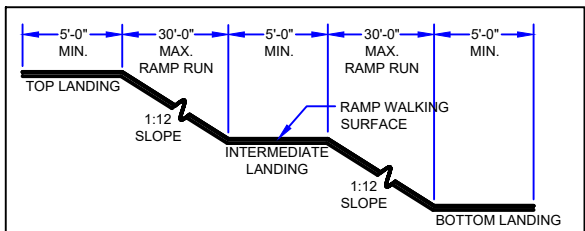
PREFERRED METHOD



- OPTION**
- STRINGER ATTACHED TO TRIMMER WITH FRAMING ANCHORS. TRIMMER ATTACHED TO CONNECTOR BOARD WITH (2) 1/2" DIA. HDG THRU BOLTS. CONNECTOR BOARD ATTACHED TO JOIST WITH (2) 1/2" DIA HDG THRU BOLTS

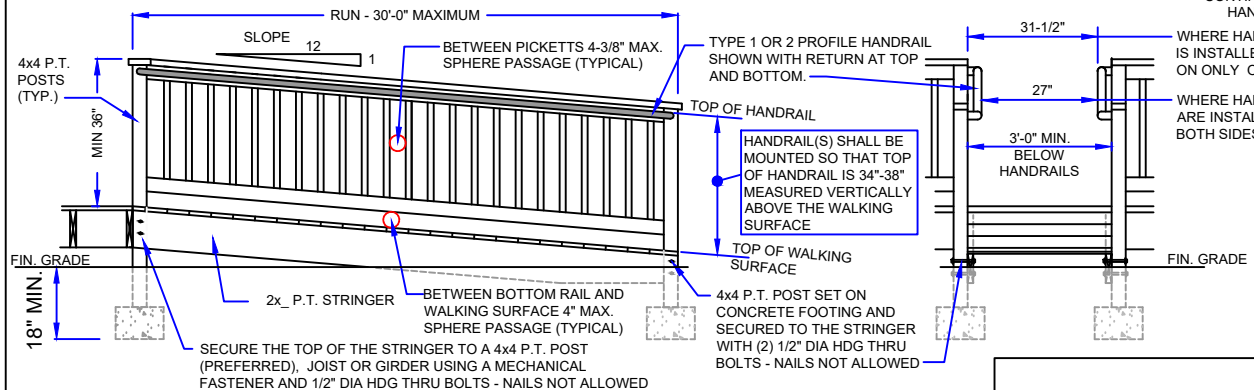


- PREFERRED OPTION**
- STRINGER ATTACHED TO RIM BOARD OR DECK JOIST WITH SIMPSON SLOPEABLE HANGER LSU26Z OR EQUIVALENT.



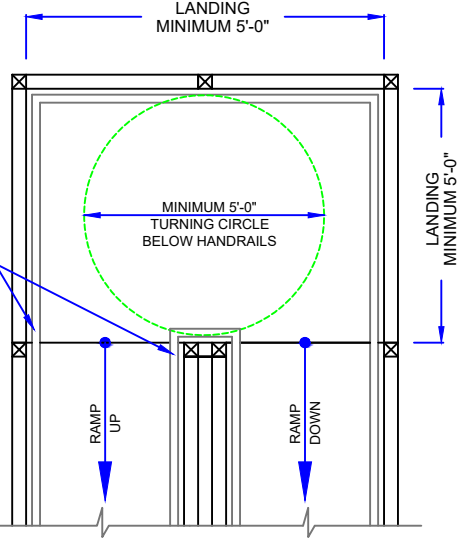
LINEAR RAMP LANDING SPACING

RAMP STRINGER DESIGN		
RUN LENGTH	MATERIAL	NUMBER OF SUPPORTS
0 FT - 12 FT	(2) 2x8	SUPPORT TOP AND BOTOM
12 FT - 16 FT	(2) 2x10	SUPPORT TOP AND BOTTOM
16 FT - 19 FT	(2) 2x12	SUPPORT TOP AND BOTTOM
OVER 19 FT	na	ADD INTERMEDIATE POST TO REDUCE RUN LENGTH



RAMP DETAILS

ACCESSIBILITY RAMPS



TYPICAL RAMP LANDING