

Mount Holly Township
Construction Office
23 Washington Street
Mount Holly, NJ 08060
(609) 267-6633 Fax (609) 267-6295

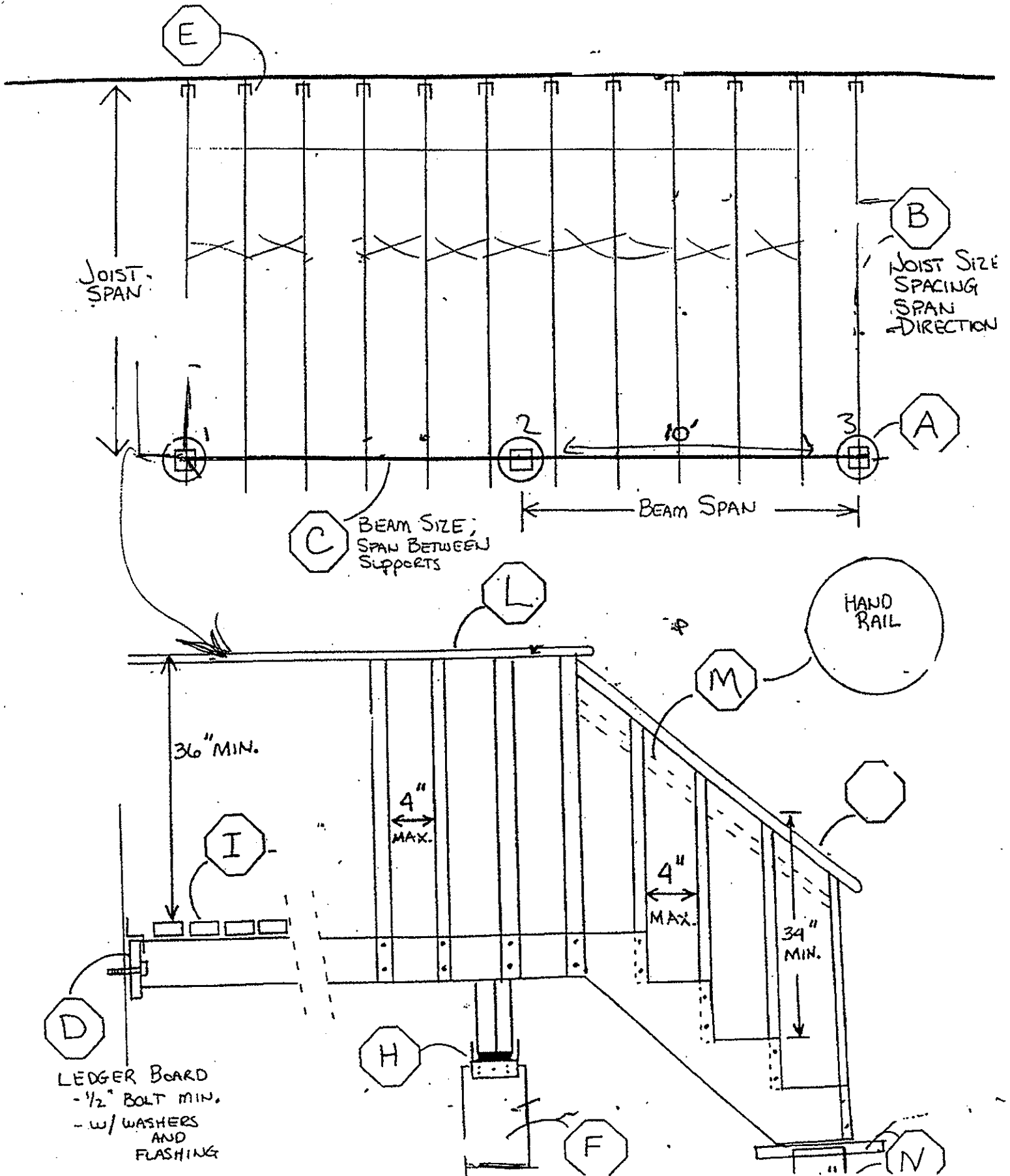
Residential Decks

- 1.) You are responsible to obtain the following inspections before proceeding to the next phase of construction:
 - A. Footings, before placement of concrete.
 - B. Framing, before the decking is started, you should have the stairways framed for this inspection.
 - C. Final, before the deck is used.

To schedule one of the required inspection listed above, call (609) 267-6633. Please have the permit number ready so your request can be scheduled. The field copy of the plans must be on site for all inspections.

- 2.) All wood members exposed to the soils or to weather shall be Naturally Durable (Redwood, cedar, black locust, black walnut etc.) or pressure treated wood.
- 3.) All builder's hardware, nails and screws shall be galvanized or equally protected. All builder's hardware shall be used and installed per the manufacturer's instructions.
- 4.) The footings shall be at least 32" (inches) below grade and a minimum of 8" by 8" square or 8" in diameter for a 4 X 4 post, and for 6 X 6 or 6 X 4 posts, a minimum of 12" by 12" square or 12" in diameter.
- 5.) Listed or code approved post bases shall be used to anchor the posts to the pier footing. All beams shall be lagged or bolted to posts.
- 6.) Ledgers shall be secured to the house by the use of ___ X 3/8" diameter lag bolts spaced ___ inches on center, or ___ x 1/2" lag bolts spaced ___ inches on center. Minimum thickness of the ribbon board is assumed to be 1 1/2 inch thick. All ledgers shall be flashed to the house before the siding and decking is started.
- 7.) Stairs. All stairs must meet these minimum requirements of the New Jersey Edition of the 2000 International Residential Codes subsection R314
 - A. All treads must have a minimum depth of 9 inches, measured horizontally from nose of tread to nose of tread. All tread depths shall be equal and uniform within 3/8 of an inch.
 - B. The maximum height of each riser shall be 8 1/4 inches. All risers shall be equal and uniform within 3/8 of an inch, no opening greater than 4" shall be permitted in any riser.
 - C. The minimum width of each step shall be 36 inches.
 - D. A graspable handrail shall be installed on at least one side of any stairway having three or more risers and being less than 44" wide. For those stairways wider than 44", a graspable handrail shall be provided on both sides of the stairway. Handrails shall be mounted between 30 and 38 inches high, measured vertically from the nosing of the treads. A graspable handrail is one that has a circular cross section between 1 1/4" to 2 5/8". Handrails shall be continuous the full length of the stairs. The ends of the handrails shall be returned or shall terminate at the newel post.
- 8.) Guards shall be provided on open sides of the walkway (porches, balconies, raised floor surfaces, decks) that measure more than 30 inches from the walking surface to grade. The top of the guard shall measure at least 36 inches vertically above the walking surface and have no openings greater than 4".

TYPICAL PLAN VIEW (2)



You can
FIX
it

INSTALLING BRACKETS

The height of the handrail is specified for safety. The top of the handrail (not the brackets) must be between 34 and 38 in. above the front edge of the stair tread (Photo 2). Therefore, the brackets must be mounted between 31 and 35 in. from that point to allow for the handrail and the angle of the bracket.

Install a bracket about every 3 ft. The top and bottom brackets should be attached 12 to 16 in. from the ends of the handrail.

Tip: Most handrail brackets are 1-1/4 in. wide with 7/8 in. between the two upper screws. The 2x4 stud is 1-1/2 in. wide so you should be able to get both upper screws into the stud. To make sure both screws get a good bite, angle them inward slightly as you drive them.

According to code, the length of a new handrail can be the same as the one it's replacing. But be sure the railing is long enough to extend about 12 in. beyond the top step and all the way to the bottom step.

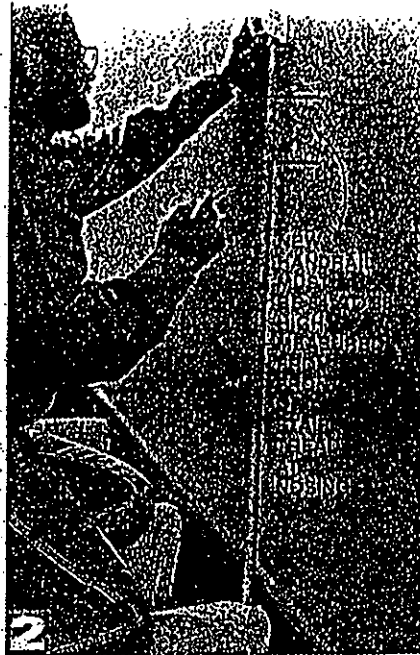
CLOSING OPEN ENDS

All new and remounted handrails must, by code, have a "return" on both ends (Photo 5). They're a bit fussy to build, but not difficult.

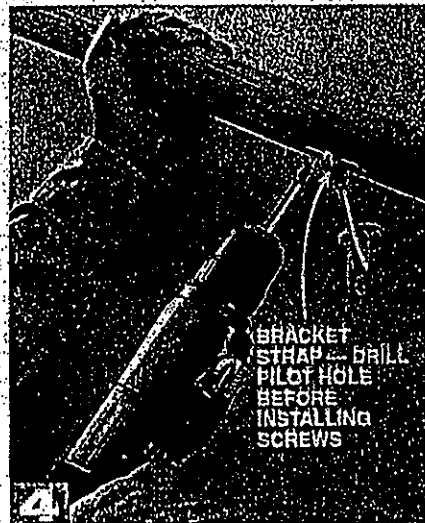
Here's how:

- Cut a 5-1/2 in. long piece of handrail, and cut one end at a 45-degree angle.
- Make a corresponding 45-degree angle cut on the end of the long handrail.
- Test-fit the cuts to make sure they form a tight, 90-degree angle. This is the best time to do any fine-tuning.
- To determine the length of the return (it's usually between 4-1/2 and 5 in.), measure from the wall to the outer tip of the 45-degree cut on the handrail. Cut the return to this length.

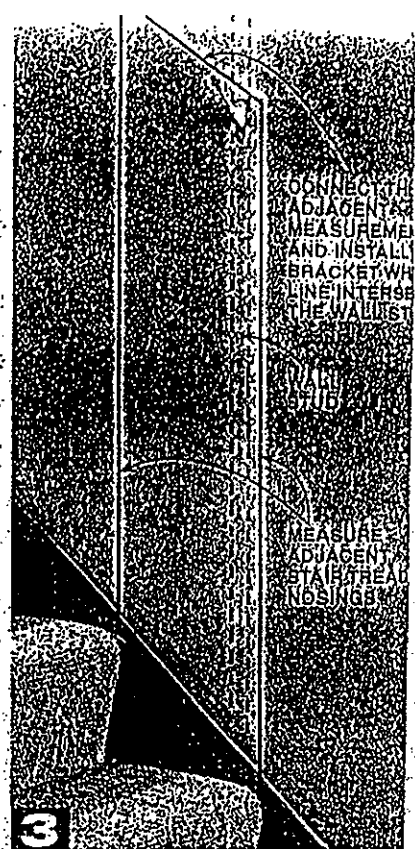
Finally, apply wood glue to the 45-degree cuts and fasten the return to the handrail with two 4d finish nails (Photo 5). Pre-drill for the nails so the wood will be less likely to split.



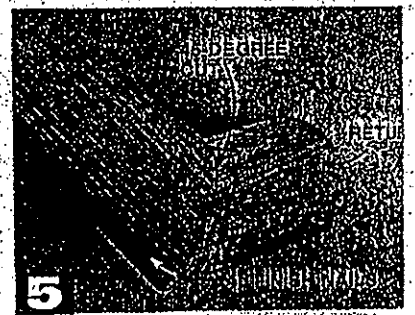
CHOOSE a wall stud that's located right at the front edge of one of the stair treads. Measure up from that stair tread and mark the wall somewhere between 31 and 35 in. You'll attach one of the brackets to this wall stud. Remember, the top of the handrail must be between 34 and 38 in. from the front of the tread to meet current building codes.



SECURE the handrail to the wall brackets on the underside of the handrail using the strap piece. Have a helper steady the handrail while you attach it to the brackets.



HERE'S HOW to position a bracket directly above the front edge of a stair tread. Pick the wall stud that you want to mount a bracket to. Now go to the step just above the stud, and measure up from the front of the stair tread to the desired bracket height. Repeat for the step just below the stud. Draw a straight line between these marks. Mount the bracket where the line intersects the wall stud.



ALL new handrails are required to have a return at both ends. The return prevents you from catching a sleeve on the open end of the railing, which could cause you to lose your balance and fall. Secure the return with two 4d finish nails. Drive one nail in following the length of the handrail; drive the other nail in the direction of the return. Attaching the return is easier if you do it after the handrail is mounted to the brackets.

Art Dangelon • HOME LIFE
Photography • BILL ZIMMER
Illustration • GARY THOMPSON
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