

Beverly Municipal Inspections

BN03

Building Notes

A series of notes to assist the homeowner/contractor through the permitting and construction process

Rev. February 7, 2012

Handrail Graspability

The International Residential Code R311.7.7.3 contains the code requirements for graspable handrails. All required handrails shall be Type I, Type II or provide equivalent graspability.

Handrails are required on at least one side of all stairs with 4 or more risers.

Type I: Handrails must have a circular cross section of at least 1¼" and not more than 2". If the handrail is not circular it shall have a perimeter dimension of at least 4" and not greater than 6¼" with a maximum cross section dimension of 2¼".

Type II: For handrails with a perimeter dimension greater than a 6¼", a graspable finger recess area must be provided on both sides of the profile. The finger recess must begin within a distance of ¾" measured vertically from the tallest portion of the profile, and achieve a depth of at least 5/16" within 7/8" below the widest portion of the profile. The required depth of the finger recess shall continue for a minimum of ¾" to a level that is not less than 1¾" below the tallest portion of the profile. The width of the handrail above the finger recess must be at least 1¼" and no more than 2 ¼", with the edges having a slight radius.

Equivalent Graspability: What constitutes equivalent graspability for handrails not meeting the specific

requirements of a Type I or Type II handrail? Unfortunately, the code is not clear on this and it is therefore left to each municipality to determine which handrail profiles provide equivalent graspability.

In order to provide some guidance to builders, the following page depicts several shapes that are deemed by the City of Beverly to be acceptable under the provisions of International Residential Code R311.7.7.3 as having equivalent graspability.

Other designs that fall within the dimensions of the rails shown may also be considered graspable, but they should be approved by the building department prior to installation.

The shapes must provide a gripping surface equivalent to the gripping surface afforded by a round or oval shape. The depth of the fluted area on handrails must provide a deep enough cut to allow the use of a power grip.

Links to electronic versions of **Beverly Building Notes (BNs)** and other helpful publications are available on our website at:
<http://www.beverlyma.gov/departments/municipal-inspections-building-department>

LEGAL DISCLAIMER: Building Notes (BN) should not be used as substitutes for codes and regulations. The applicant is responsible for compliance with all code and rule requirements, whether or not described in these BN.



HANDRAIL DESIGNS APPROVED FOR GRASP ABILITY

Beverly, MA Municipal Inspections

