

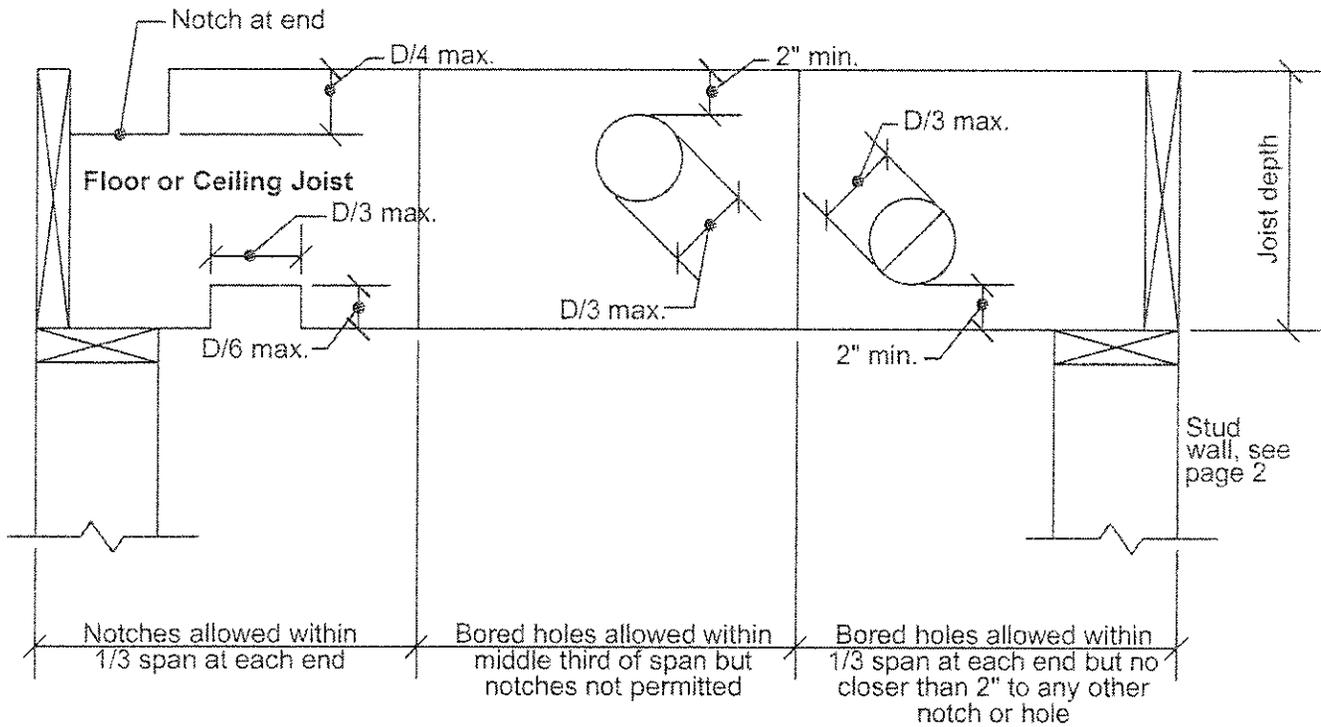
Construction Tip Sheet 11

Notching & Boring Rafters/Joists/Studs

2009 Codes

IRC R502.8 & R802.7

$D/3 = 1/3$ the depth of the joist
$D/4 = 1/4$ the depth of the joist
$D/6 = 1/6$ the depth of the joist



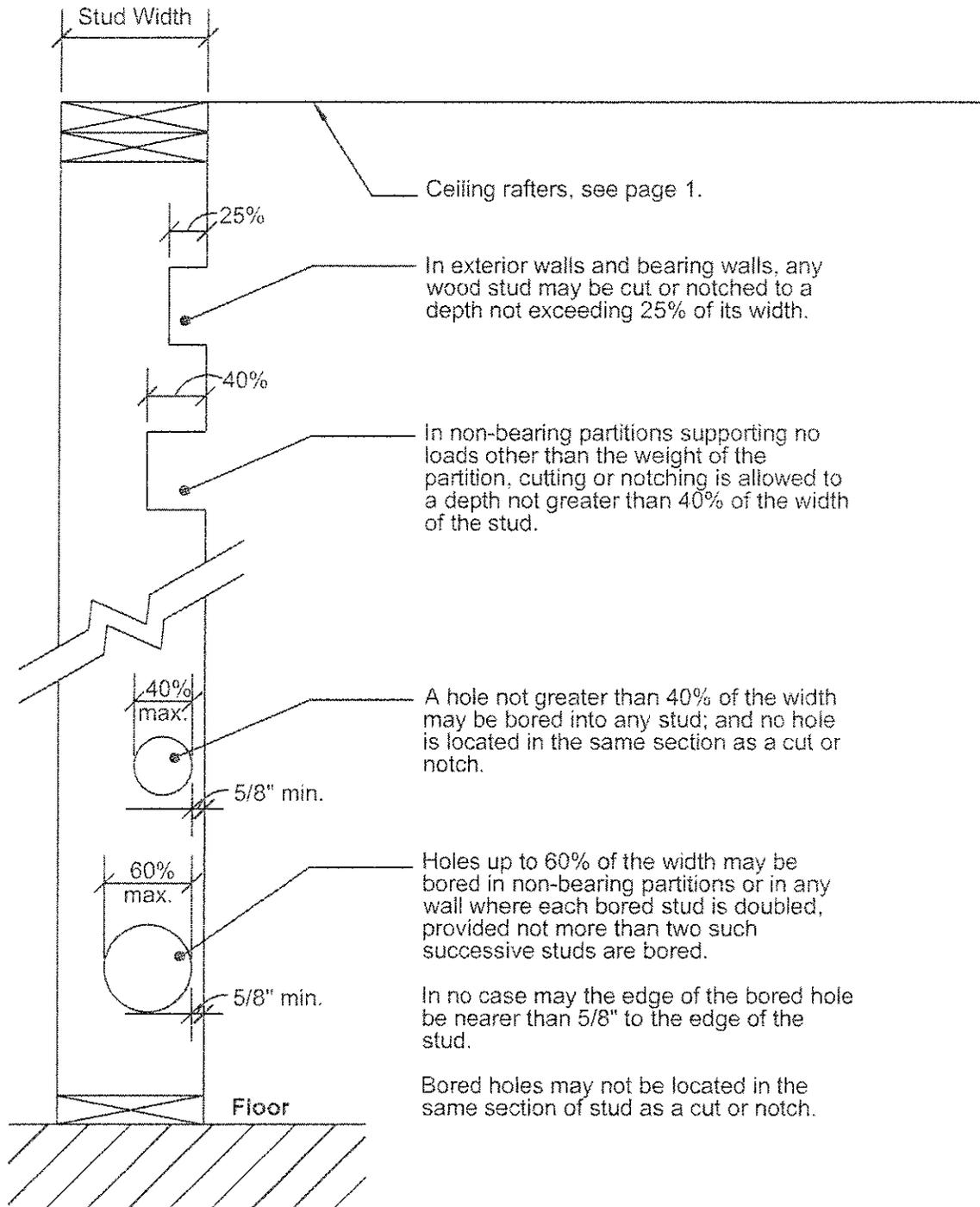
NOTE:

A notch not exceeding $1/3$ the depth of the member is permitted in the top of a rafter or ceiling joist not further from the face of the support than the depth of the member.

The tension side of members 4" or greater in thickness must not be notched except at the ends of the members.

Notching & Boring of Rafters/Joists/Studs

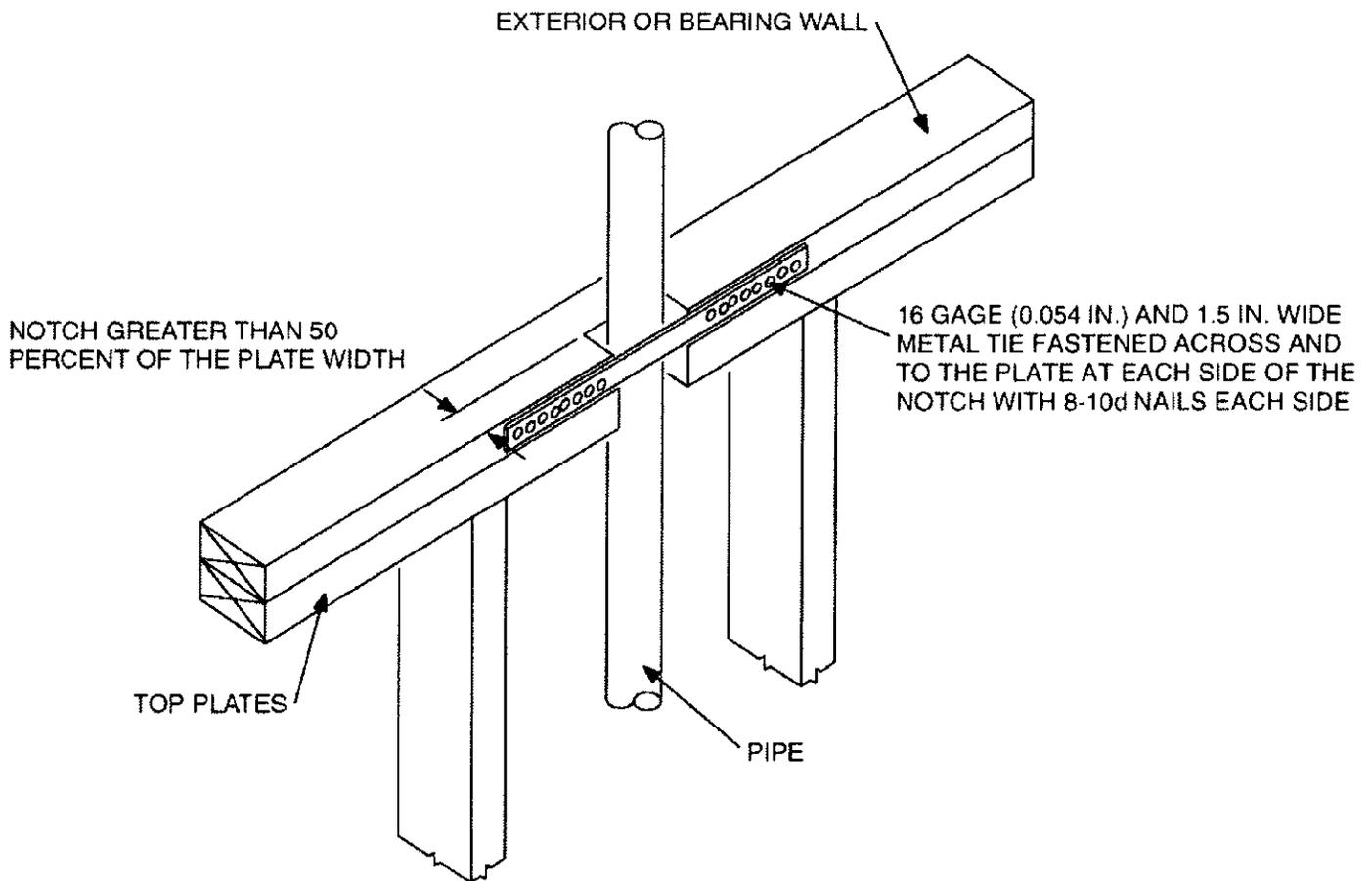
IRC R602.6



R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (16 ga) and 1½ inches (38 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1½ inches (38 mm) at each side or equivalent. The metal tie must extend a minimum of 6 inches past the opening. See Figure R602.6.1.

Exception: When the entire side of the wall with the notch or cut is covered by wood structural panel sheathing.

FIGURE R602.6.1 TOP PLATE FRAMING TO ACCOMMODATE PIPING



NOTE for all systems containing Engineered Wood Products: Cuts, notches and holes bored in trusses, structural composite lumber, structural glue-laminated members or I-joists are prohibited except where permitted by the manufacturer's recommendations or where the effects of such alterations are specifically considered in the design of the member by a *registered design professional*.