



2017 TFG
Conference

The Workshop Roof: One Mathematical Solution

Curtis Milton & Gerald David

TFG Apprentice Training Program / GFD Woodworking, LLC

Jackson, NH / Duluth, MN

This presentation is based on the two day pre-conference workshop led by Gerald David, and will leverage the exercises and examples from that workshop; pre-printed folding models will be available for attendees to take home.

After a brief review of the graphic methods developed during pre-conference roof workshop, we will discuss and develop the calculator skills needed to work through the two-dimensional mathematical exercises. We will then reinforce the three-dimensional information required to determine the lengths and right triangles that define the angles expressed in the graphic solutions using any calculator or phone app with three memories. Any calculator that can deliver three or more decimal places will do the work; the speed of work will vary. Reinforcing the basic mantra of “stay in plan as long as you can,” we will focus on the underlying math known as trigonometry without actually using that tool set (even if your calculator does).

To maximize learning, attendees should have a conversational vocabulary of roof framing. Participants should have a good working knowledge of his/her favorite calculator or application. A learner with no roof calculation or cutting experience is encouraged to review Will Beemer’s “When Roofs Collide: A Graphical Solution for Roof Framing Geometry.” Advanced learners will likely take away some new information but can contribute personal tips and tricks in real time.

About the Speakers

Curtis Milton

Born to build, Curtis Milton took down his first barn in 1976. He started learning modern timber framing in 1983, and began teaching what he knows in 1986. He considers himself a carpenter with some experience, and a passion for life-long, self-motivated learning that improves when shared with others. Having joined the TFG in 1987, Mr. Milton became part of the itinerant force that supplied labor to a young industry, and still travels for the right work. General contracting and timber framing on residential projects in a small New Hampshire town fills the calendar.

Believing in giving back, he served as a TFG board member for 7 years, and has participated in TFG conferences, workshops, and projects as a presenter, volunteer, lead instructor, local hero, design team manager, and project manager. Mr. Milton is currently Chair of the Apprentice Training Program (ATP) Committee, a promoter of carpentry as a profession, and a registered journeyworker, which indicates a financial commitment to the ATP as well as a level of knowledge.

Gerald David

Gerald David owns GFD Woodworking, LLC, a timber framing and restoration company that helps dedicated individuals preserve and enhance their homes. With a professional background steeped in tradition, Gerald has developed a keen sense and eye for the character of a building and its place.

Having lived in many countries and worked in many cultures, Mr. David has both the experience and sensitivity that can reinvigorate any building and bring it back to past glory and make it work for modern needs. Preserving and adapting the built environment, and making it viable in a changing world spells conservation on many levels: historically, environmentally, and socially. By keeping and adapting our buildings we honor the generations that have made an effort before us and set an example for those to come.

He believes that an inseparable part of working in the trades is the responsibility to educate the next generation. GFD Wood Working is committed to passing on knowledge both ‘on the job’ and in formalized courses.