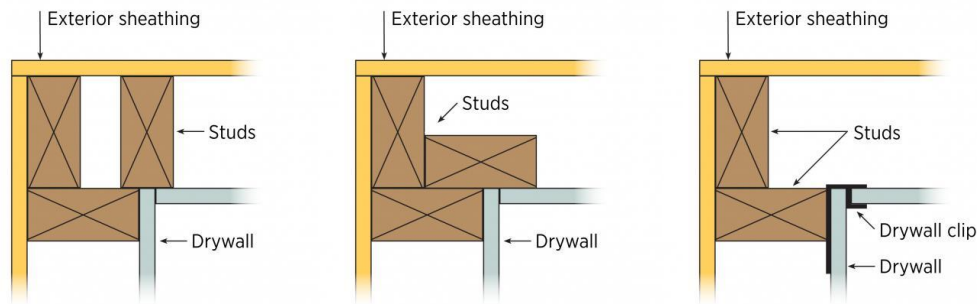


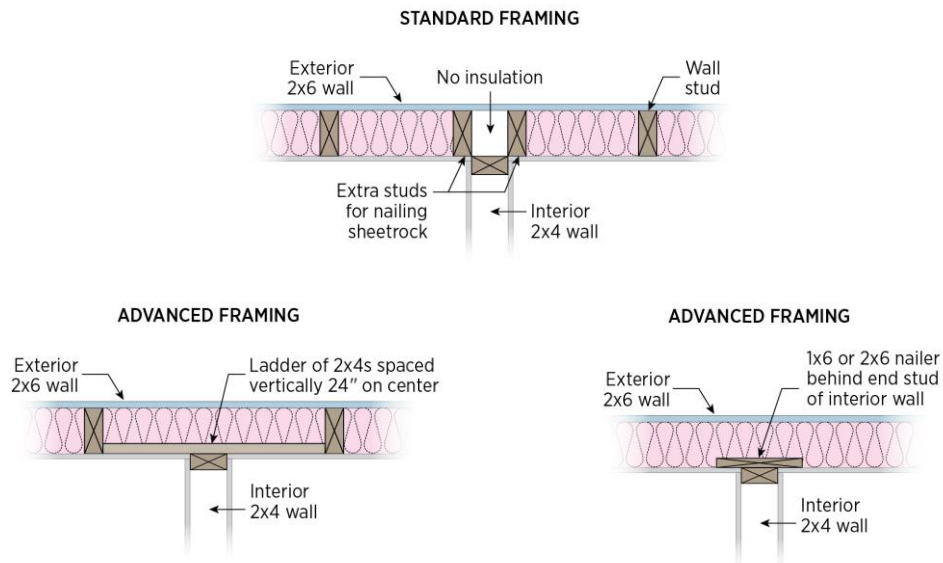
Advanced framing techniques allow builders to increase overall energy efficiency, HERO compliance, and incentives while reducing material costs. There are many ways to put advanced framing into practice. The most common methods are described below.

1. Two-stud or “California” corners: Conventional three-stud corners create uninsulated voids. California corners allow for additional insulation while providing a full drywall backer. Two-stud corners require the use of drywall clips but allow framers to use less material.



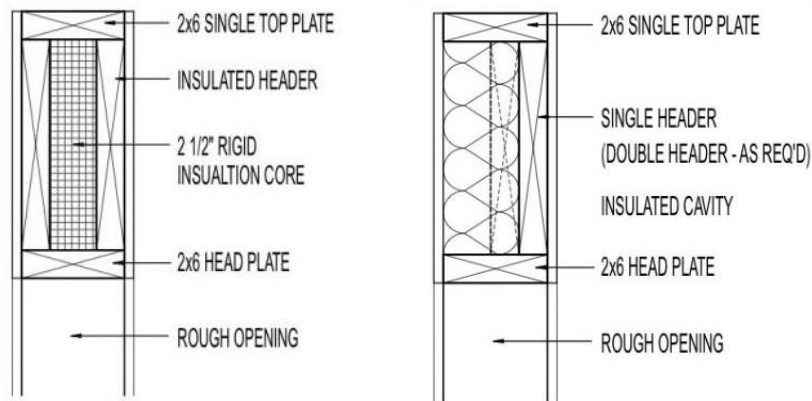
Source: [Building America Solutions Center](#)

2. Insulated T-wall intersections: Conventional three-stud T-post framing leaves uninsulated pockets behind each interior-exterior wall intersection. Ladder framing or a nailer stud allows insulation to fit between the end stud of the interior wall and the exterior sheathing.



Source: [Building America Solutions Center](#)

3. Insulated headers: Solid wood headers create a thermal 'bridge' between exterior sheathing and the interior of the home. Where permitted structurally, headers can be framed with rigid foam between boards, with a single piece of dimensional lumber, or omitted entirely.



Source: [Building America Solutions Center](#)

Case Study: Benefits of Advanced Framing in two Wake County Homes

To demonstrate the impact of advanced framing on HERO Compliance and electric savings, two homes built in the Raleigh area were modeled both with and without advanced framing features. Both homes were modeled with 2x4 walls and used air source heat pump HVAC systems. In both cases, implementing advanced framing generated around an additional 5% electric savings. In the case of Home B, advanced framing was the difference between passing and failing HERO Compliance.

	Heated Square Feet	Additional Savings (kWh)	Additional kWh Savings (Pct.)	HERO Compliance Pct. Difference	Meets HERO without Adv. Framing
Home A	2,101	90	4.6%	1.0%	Yes
Home B	2,772	126	5.3%	1.3%	No

*HERO compliance is calculated by comparing the modeled cost (\$) of operating the actual home against the hypothetical HERO-minimum version of that home. The HERO Compliance Percent Difference impacts listed in the table above describe the dollar savings attributed to advanced framing. The positive impacts indicate that the inclusion of advanced framing result in a better compliance margin.