Build Profit with Wood Walls

In today's housing market, being a builder means being an architect, engineer, green builder, code official and salesman.





Sheathing for Profits

Today you face challenges on multiple fronts. Can you meet energy codes and reduce your exposure to mold and moisture litigation? How about reducing warranty work and insurance claims on your projects across the board? How do you offer allowable customer changes, yet still meet code bracing requirements? You can do all these things profitably by fully sheathing with wood structural panels. Seventy-eight percent of U.S. builders know that plywood or OSB walls solve a majority of design, production, code, safety, energy, and green building issues they face each day. Take a look.

Code approved continuous wood sheathing allows for window upgrades and field modifications without extensive redesign or engineering.

Wood panels provide combined shear and uplift resistance when installed to overlap rim boards and tie adjacent floors together.

Wood panels ensure a tight home, and are far more resistant to temperature transfer than metal frames and masonry materials. Overlapping the floor joists with panels helps minimize air infiltration and heat loss in this problem area.

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| 1 Callbacks | allbacks Wood panels provide the needed rigidity to prevent exterior problems under brittle surface and interior drywall cracking caused by humidity changes and uneven settling. Stiff walls re the potential for warranty work. <i>Reference: Wood Sheathing Builds Business, Form F125</i> | |
|----------------------|---|--|
| 2 Aesthetics | Plywood and OSB are the most recommended nail base for lap and shake siding made of vinyl, cement-fiber, aluminum, steel and wood. Codes permit some siding to attach to wood sheathing in addition to studs. <i>Reference: IRC 2006, Table 703.4</i> | |
| Curb Appeal | Whether high-end or starter home, during construction, wood sheathing leaves a lasting impression of strength and high quality at an affordable price. <i>Reference: Brace Walls with Wood, Form G440</i> | |
| Window Upgrades | Wood structural panels offer the widest possible latitude to change window configurations, size and placement. Make money on upgrades, minimize downtime. <i>Reference: Brace Walls with Wood, Form G440</i> | |
| Quiet Interior | The acoustical properties and tight construction of wood panels reduce unwanted exterior noise in urban environments. Reference: Industrial Noise Control, Form Y225 | |
| Allowable Changes | Make minor field changes without extensive redesign or lost time in code approvals. Reference: Brace Walls with Wood, Form G440 Improve efficiency and avoid metal connectors interfering with siding fasteners. Reference: Build Energy Efficient Walls, Form J440 | |
| Value Engineered | | |
| 8 Wall Height | Tall walls offer spaciousness and increase the "wow" factor. Wood sheathing, available in 10-foot lengths and longer, provides strength and stiffness to handle the imposed loads of gravity, lateral, transverse (wind presure) and buckling. Reference: Wood Frame Construction Manual (AF&PA) | |

| CODE / SAFETY | 9 Code Required Wall Bracing | Wood sheathing is the easiest and most economical way to meet IRC prescriptive bracing requirements. Reference: Brace Walls with Wood, Form G440 | |
|---------------|--|--|--|
| | Ocde Required Wall Strength | Code requires wall sheathing and/or cladding to resist being sucked away during high wind events. Plywood or OSB meet this sheathing requirement for any siding. Reference: Understanding the Importance of Structural Wall Sheathing as a Wall Covering, Form J430 | |
| | Code Reports | APA's long history as a code developer and technical trade association provides your building department with a credible resource for up-to-date home design code options, including special applications. Reference: Design for Combined Shear and Uplift from Wind, Form SR101 | |
| | Dinsurance | Minimize insurance losses with wood walls. Protect your customer's home against airborn debris in high wind regions, while reducing vandalism and theft. Damage assessment sturprove time again that wood sheathing reduces property loss. References: Midwest Tornac Form SP-111, Hurricane Katrina, Form SP-1125; Fortified Builders Guide (IBHS) | |

| ENERGY / GREEN | B Energy Conservation | Builders in any climate zone can easily take advantage of plywood or OSB wall sheathing to comply with stringent energy requirements, both code and beyond, using 2x4 or 2x6 framing. <i>Reference: Build Energy Efficient Walls, Form J440</i> | |
|----------------|--------------------------|--|--|
| | Green Building | Wood walls are constructed with products from a renewable, sustainable, and readily availab resource. Fossil fuel based sheathing will suffer price and supply problems as resources dimin Plywood and OSB are exempt from HUD and CARB formaldehyde regulations. Reference: Wood Sustainable Building Solutions, Form F305 | |
| | Durability | NAHB's life expectancy study indicates a lifetime of service for wood sheathing if properly protected from moisture. To prevent moisture intrusion and its subsequent decay, mold and insect problems, APA offers step-by-step construction details for roof valleys, overhangs, window flashing, house wraps, rainscreens and other home preservation elements. References: APA's Build a Better Home series; Life Expectancy of Home Components (NAHB). | |
| | 1 Sustainability | Strong homes have long life cycles and wood has the highest Life Cycle Assessment ratings for any structural building material. Trees are a renewable resource. Wood waste is used to power plywood and OSB mills. <i>Reference: Wood Sustainable Building Solutions, Form F305</i> | |

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Wall sheathing is your home's single most important element.

No other component plays such a beneficial role in the overall integrity. The sheathing contributes to the structure's ability to handle uplift loads, lateral loads, and wind pressures while providing secure connection to the roof and protecting the occupants.



"With the implementation (of fully sheathed walls) we can provide the same structural stability as prefab shear walls and also keep our costs down so that the savings can be passed along to our customers."

> – Chris Channell, P.E., Chief Structural Engineer, M/I Homes

"More people are living in harm's way than ever before, but we have to focus more on keeping the pieces in place, instead of simply and repeatedly picking up the pieces after disaster strikes."

> – Julie Rochman, CEO, Institute for Business and Home Safety

"We switched to wood walls and watched our callbacks disappear."

> – Thomas DeMilio, Wayne Thomas Group

"Rising energy costs are increasing customers' willingness to pay a premium for green homes. Home builders who are building at least 60% of their homes green are viewed as very knowledgeable and they are seeing greater sales."

> – Harvey Bernstein, VP Analytics, McGraw-Hill

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Form No. J435/Issued December 2008/0100

