

the **BENEFITS** of **STEEL**

Superior and Uniform Quality

- *Steel is roll-formed into precise, uniform shapes with exacting tolerances for consistent material quality. There is no need for sorting (culling) or special handling to inspect for crown.*
- *Steel studs are straight. They don't warp, twist, bow, split or have knots, which means straight walls, square corners and doors and windows that open and close properly.*
- *Steel is dimensionally stable and won't shrink like wood, eliminating nail popping, wall cracking or floor squeaking.*
- *Steel does not rot, promote mold or mildew and is impermeable to termites, vermin and insects.*

High Strength/Light Weight/Versatile

- *Steel has one of the highest strength-to-weight ratios of any building material.*
- *Because of its strength, steel can mean fewer framing members with wider on-center spacing, reducing material and labor costs.*
- *Steel framing can weigh substantially less when compared to traditional building materials like masonry and concrete systems.*
- *Light-gauge framing can reach spans far greater than traditional or engineered lumber, providing larger open spaces, taller walls and flexible floor plans.*
- *Steel framing lightens structures, reducing foundation requirements and often reducing or eliminating piling.*
- *Stick for stick, steel can weigh up to 50% less compared to lumber.*
- *Steel can adapt to almost any application and works well independently or in combination with other structural systems.*

BUILD with

What about Rust?

- *Steel framing members in wall cavities, attic spaces or crawl spaces that are not exposed to water will last over 300 years, per a study conducted in England.*
- *Forensic studies recently conducted on Oahu residences built over 40 years ago showed steel wall studs with no visible signs of corrosion.*
- *Zinc coating protects steel by providing a physical barrier as well as cathodic protection to the underlying steel. When the base is exposed, such as at a cut or scratch, the steel is cathodically protected by the sacrificial corrosion of the zinc coating adjacent to the steel.*

What about Cost?

- More economical than traditional masonry, concrete and other construction methods.
- Reduces or eliminates callback costs for nail pops, floor squeaks and wall cracks due to shrinkage. The NAHB estimates the average callback costs the builder over \$350.00 per call.
- Lower costs for construction and homeowner's insurance.



STEEL today...



Fire Resistance

- Steel framing is non-combustible and will not add fuel to a fire. It improves fire safety in compliance with local codes and regulations.
- Steel framing offers code approved increases in allowable floor area and/or allowable building heights compared to conventional wood framing.
- One-third of all fires start in the wall cavity.
- Actual case studies show steel houses perform very well in house fires, with little or no damage to the framing structure.



Termites

A few things you should know.

- Over \$1 billion is spent each year for prevention, control and repair.
- Steel framing provides a termite-proof solution for the structural integrity of your project.
- The most ferocious termite is the Formosan Subterranean "Super Termite."
- An average colony consists of about 3 million termites, but can be as large as 10 million. A single colony normally survives about 35 years.
- A well-fed Formosan queen can live for 25 years and lay 1,000 eggs a day.



Mold

- Steel does not promote the growth of mold and reduces the threat of staggering litigation.
- Mold requires an organic nutrient source and moisture to grow and flourish. Steel is inorganic and does not contain moisture like wood. Kiln dried lumber still has between 11-14% residual water content.
- California has already passed mold-related laws, and nine other states have legislation pending.

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What about Lightning?

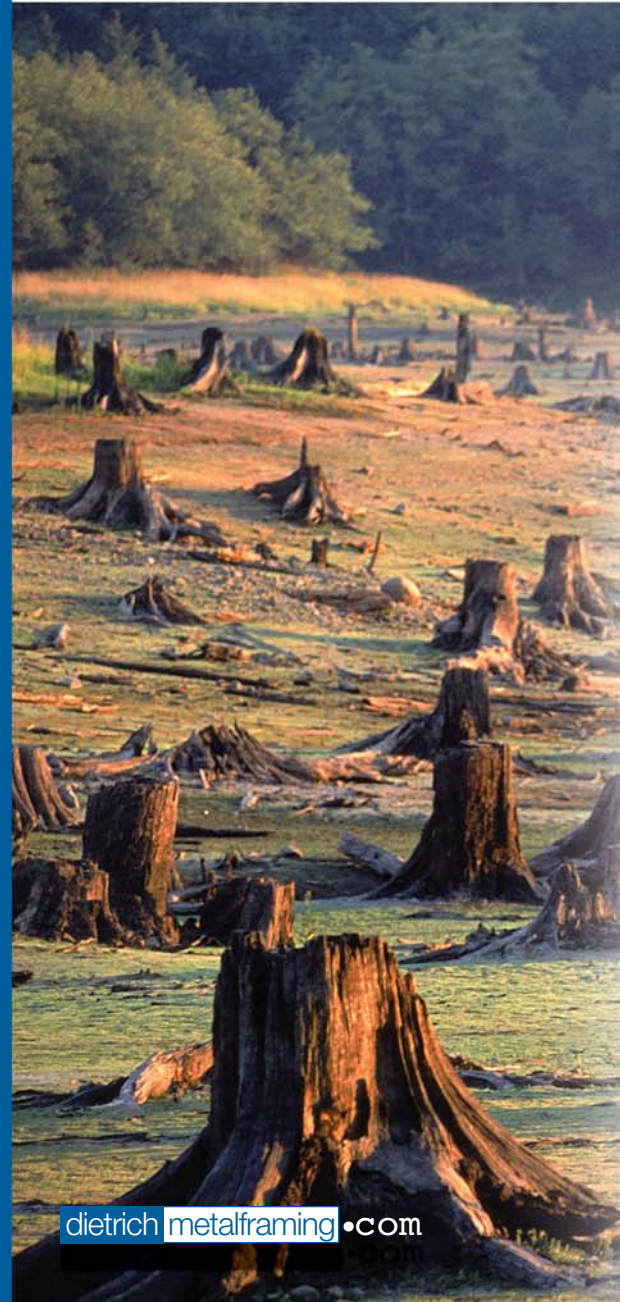
- *Steel buildings are lightning resistant because steel framing provides multiple conductive paths directly to the ground.*
- *The steel frame reduces the likelihood of explosions, secondary fires or personal injury.*
- *Steel skyscrapers have provided occupants with safe offices and residences for years.*



Earthquakes or Hurricanes?

- *Steel framing can be engineered to meet the highest seismic and wind loads prescribed by building codes.*
- *Steel has the highest strength-to-weight ratio of any framing material; a lighter structure with stronger connections results in lower damage from seismic force.*
- *Steel's strength and resiliency help it to survive earthquakes.*
- *Smaller probability of damage in high winds; stronger connections (screwed vs. nailed) can withstand greater winds.*
- *For generations we have relied on the strength and durability of steel in our commercial buildings, hospitals and schools.*

...for benefits





Easy to Use

- Interior nonload-bearing studs are cut easily with metal snips (aviator snips). They do not require the use of a circular saw.
- Simply twist metal studs into place and screw attach. Make a mistake and simply reverse the screw gun.
- Up to 50% lighter than wood.
- Pre-punched holes eliminate drilling for electrical and plumbing lines.
- Special order cut-to-length material eliminates field cutting and waste.

that will **LAST A LIFETIME.**



Environmental Benefits

- Steel offers builders an environmentally friendly alternative to wood.
- There is little waste when using steel framing materials.
- Builders can reduce their disposal costs and divert material from local landfills (2% – steel vs. 20% – lumber).
- Building an average wood-frame home generates approximately 50 cubic feet of landfill waste, while a comparable steel home generates about 1.5 cubic feet of waste.



Live and Breathe Easier

- The Healthy House Institute recommends steel framing for good indoor air quality.
- Chemically sensitive homeowners and those susceptible to asthma are exposed to fewer toxins in a steel-framed home.
- The American Lung Association encourages the use of steel framing with its Health House program.
- Steel resists mold spores that can lead to chronic illness.
- No pesticides or toxins are required to protect the framing from termites or vermin.
- No off gassing from resins, adhesives or chemicals normally used for wood construction.
- Better insulation values with EPS foam reduces outside noise pollution.



North America's Most Recycled Material

- Steel is 100% recyclable and considered a green building material.
- Steel framing materials contain on average 67% recycled steel.
- Steel can be a significant contributor to the LEED certification process.
- It takes 25 old growth trees to build a 2,500 square foot home, compared with 7 recycled automobiles for the same steel-framed home.
- 60 million tons of steel scrap are recycled each year: more than paper, aluminum, glass and plastic combined.