

**1999 NOVA AWARD WINNER****Tru-Frame™ Special Steel Truss Moment Framing System**

Tru-Frame™ is a moment resisting steel truss frame design that reduces earthquake damage to steel structures. The design is based on "A Draft Guide for Designing Special Moment Resisting Steel Frames" that resulted from a University of Michigan study. This truss system contains several diagonal elements that are designed to absorb seismic energy and yield at prescribed stress levels. After a quake, the diagonals are easily accessible for repair or replacement. The standard moment frame design using rolled steel sections requires ultrasonic testing. This is eliminated when using the Tru-Frame™ system since its connection requires only a single pass fillet weld at the bottom chord that does not need preheating nor a full penetration moment weld. This advantage is achieved by moving the inelastic deformation of the frame to a special link element at the midspan of the truss. Since all Tru-Frame™ connections are single pass fillet welds and tension control bolts, they can be visually inspected any time after completion without the need for additional testing. Tru-Frame™ has striking advantages over the traditional moment frame structures and offers both substantial cost and time savings while providing a high level of performance.

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