“The Best Project Ever”
Project Overview

**Systems**
1. Diaphragm
2. Shear Walls
3. Braces
4. Rigid Joints
5. Diagonal Braces

**Basic Components**
- Column
- Hinge
- Beams
Basic Construction

“I’m having WAY too much fun with this nail-gun!”
Systems

1. Diaphragm

A horizontal (or nearly horizontal) structural element used to distribute inertial lateral forces to vertical elements of the lateral-force resisting system.

“My hand is stuck to this wood!”
Systems
2. Shear Wall

Without shear wall

A wall that resists lateral forces applied parallel with its plane.

Matt = P, the applied load.

With shear wall

“I think I can! I think I can!”
Systems
3. Braces

- A support of framing lumber used to stiffen the structure at specific points
- Reduce column lengths and increase their load-carrying capacities
Systems

4. Rigid Joints

Connections that do not allow any relative rotations to occur between the ends of the attached members, although the joints themselves may rotate as a unit.
5. Diagonal Tension Straps

- Used to resist lateral forces by anchoring one column to another.

Yes, I am this strong!