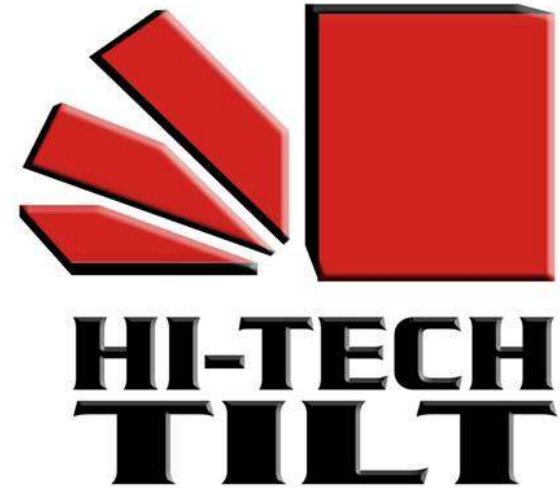




HI-TECH TILT WALL SYSTEM SOLUTIONS

Fall 2009



Multi-Story Construction

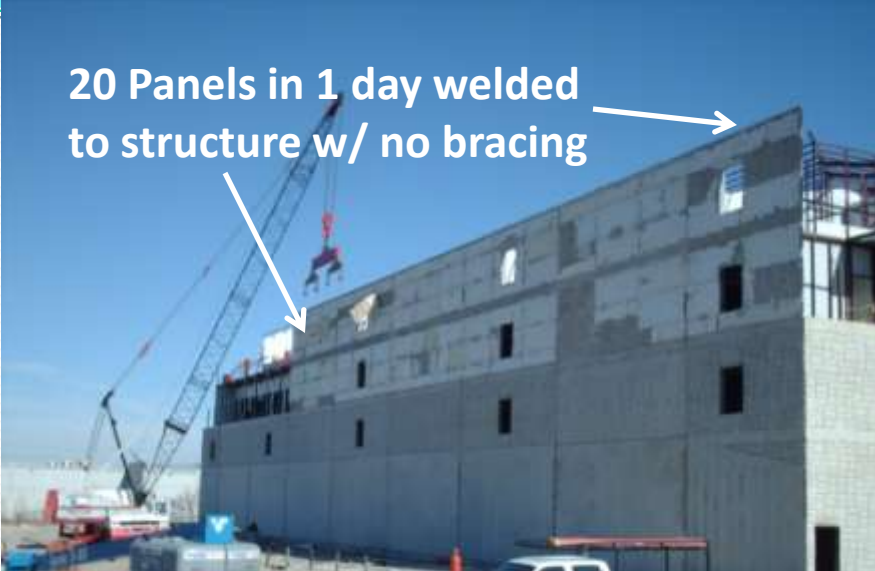


- 4" or 6" Insulated Cladding Panels
- 37 PSF in Standard Concrete
- 25 PSF in Lt. Wt. Concrete
- 15 – 20 PSF w/ Elemix Additive



Rapid Quality Construction

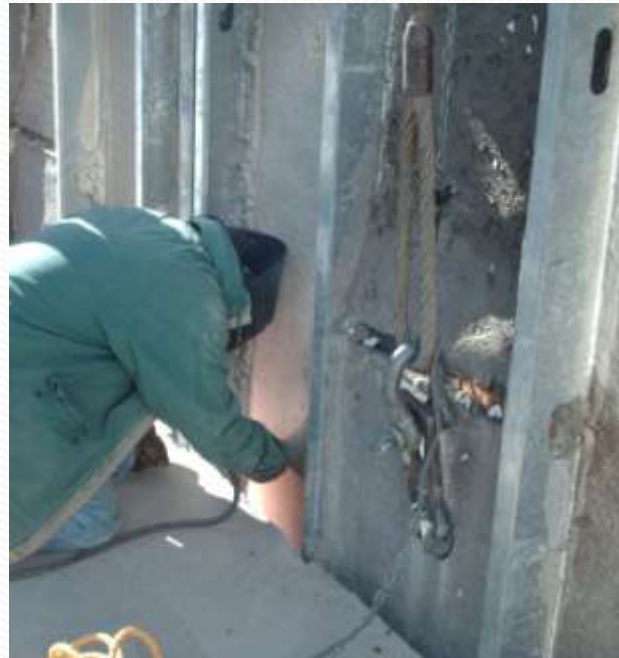
20 Panels in 1 day welded
to structure w/ no bracing



- 4 Story 120KSF Climate Control Storage
- 120 Day Construction Duration
- 60 Day Reduction - \$12 Mil interim
- 25% Reduction in A/C – Omit 3rd Floor
- Owner ordered 5 more 120KSF Buildings



Labor Saving Techniques



Clip
Angle



- 2 Men rig panel for lift
- 2 men @ 3rd floor align & weld
- 2 men @ 4th floor align & weld
- Welding Clip Angles directly to steel structure
- Eliminates need for bracing
- 30 – 45 minutes per panel
- 20 panels in one day



Labor Reductions Impact Budget



STANDARD TILT

- Heavier Panels & Crane
- 10-12 Men rigging lift
- Heavy Braces – Boom required
- Longer Duration between ea. lift

HI-TECH TILT™

- Lighter Panels & Crane
- 5-6 Men rigging lift
- Lighter pre-connected braces
- Shorter Duration between ea. lift



Precast HTT Panels



- Off Site Modular Cast
- Loaded on Truck
- Stacked from Truck
- Erected from Stack



Common Sense Construction



- Precut, Punched Structural Studs screwed to elevated track

- Slab Forms w/ 2x4's or 2x6's Elevated Track screwed to forms

- 6x6 WWM reinforcing mats elevated with $\frac{3}{4}$ " – 1" chairs

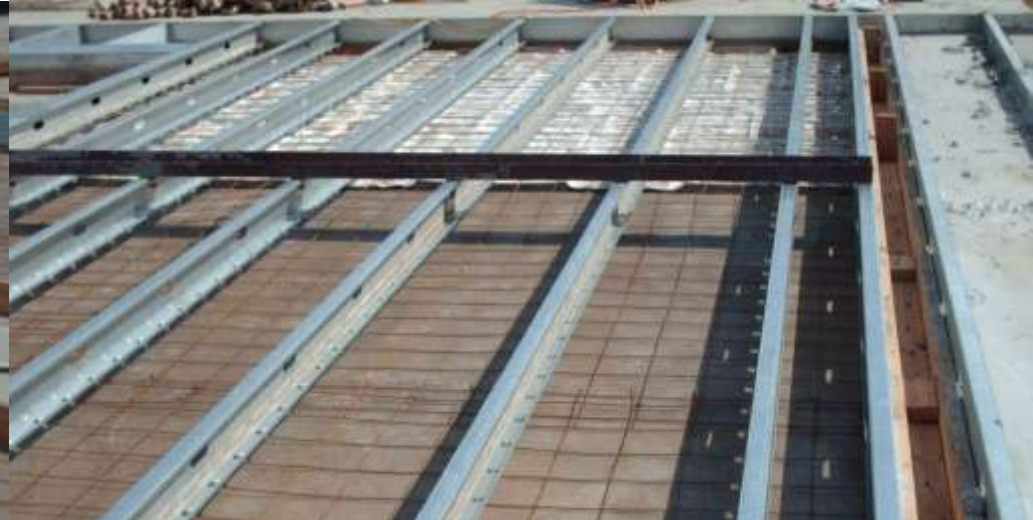
- 2" - 2.5" Typical Thickness of Concrete

- 5.1/2" Thickened Concrete @ Lift & Brace Hardware

- Vibrate & Float Concrete & Clean Studs

- 24-48 Hours to Lift.....Strength in Steel

Forming and Liners



- Set Wood Forms for perimeter & openings
- Place Chamfers and reveal strips
- Set Formliners and install bond breaker
- Place WWM reinforcing mats with laps

- Attach Track at Panel top & bottom
- Insert & square studs & screw to track
- Install stiff back, lift & brace hardware
- Install chairs & wire WWM to shear tabs

Pour, Cure and Prepare Rigging



- 6-7" Slump, 4,000 PSI
- Vibrate & Float
- Clean Studs
- 24 - 48 Hrs for Lift
- Strength is in the Steel
- Strong backs @ 24" oc.
- Concrete @ 1800 PSI min. to lift



Military Projects



Shaped Load Bearing Walls



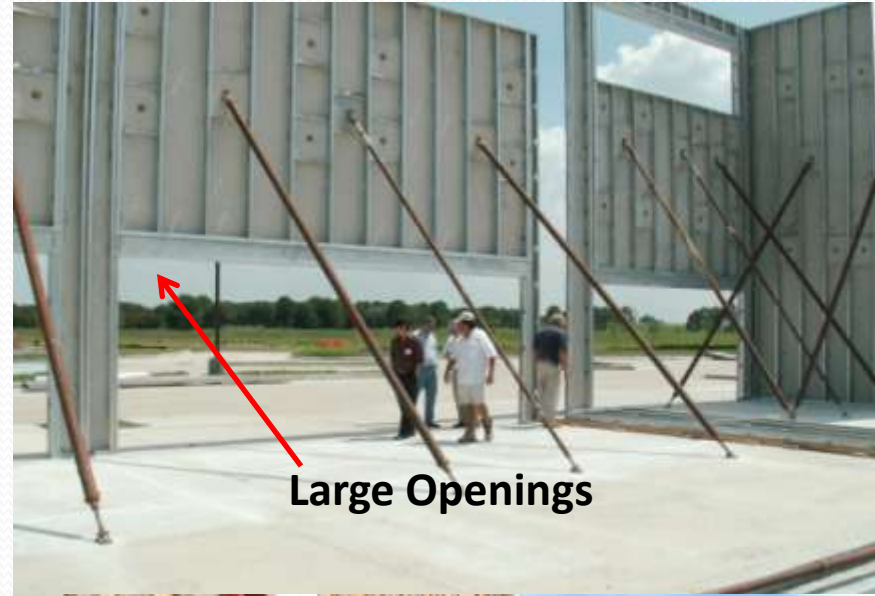
- Ready to Receive Roof Trusses or Purlins
- Slab to Roof in 1 to 2 Weeks on a Small Building
- Ready for Plumbing, Conduit, Insulation & Finishes, both Exterior & Interior



Style and Tasteful Design



Retail & One Story Buildings



Versatile Design Options



Design Details & Finishes



Thin Brick & Tile



Faux Stone
Appliqué



Head & Jamb Detail
Options

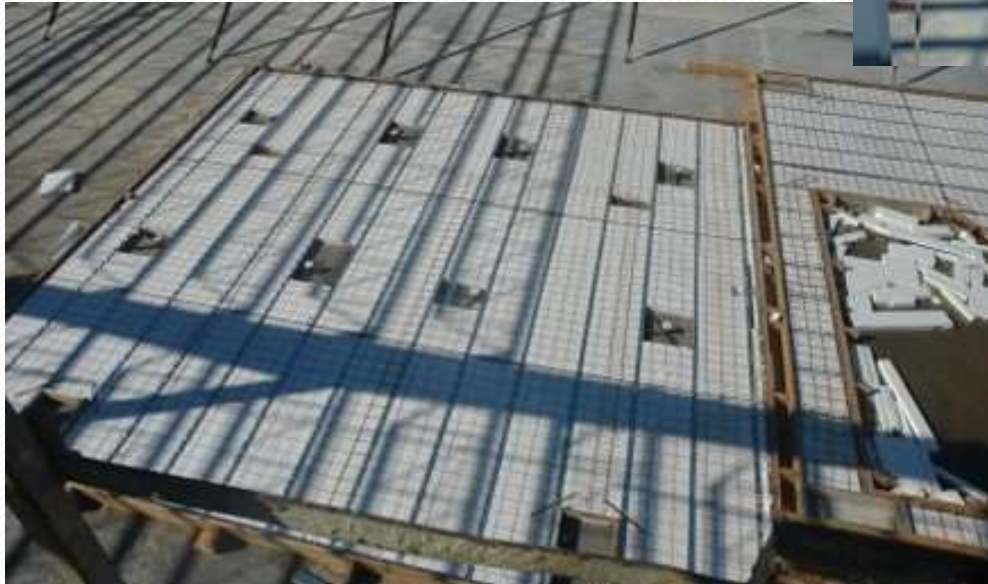
Formliner Flexibility



Office, Distribution, Education



Insulated HTT Thermo-Panel



Simplified Sandwich Panel Installation

- Studs punched both sides
- Pour bottom concrete surface
- Rigid Insulation fill between studs
- Pour top concrete surface



Thermo-Panel Applications



Thermal Coated Stud design consideration required in Colder Climates



- High R-Value walls
- Rigid & Light weight sandwich panels
- Structural load bearing capability
- Quicker Erection
- Economical Interior finish completed before erection



Load Bearing Details



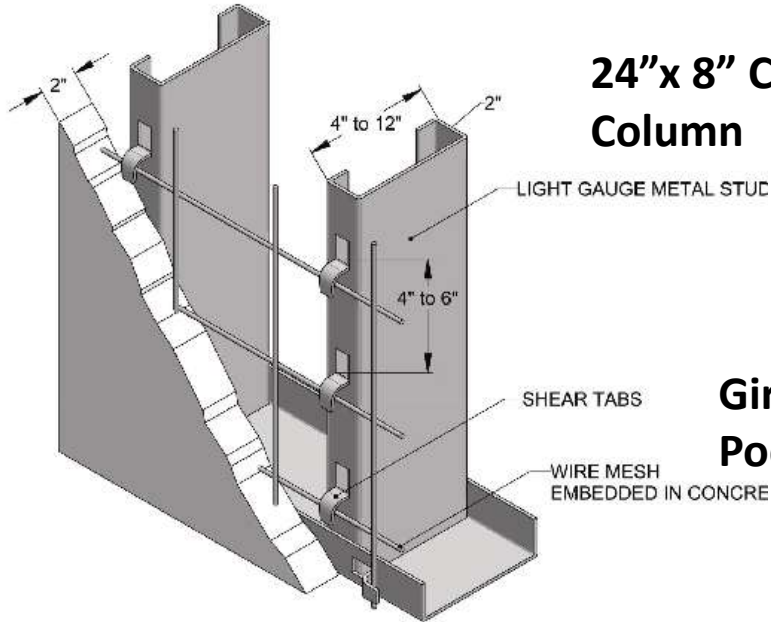
- Welded Ledger Angle
- Joist Bearing
- Purlin Bearing
- Roof Deck Bearing
- Roof D+L Loads
- Floor D+L Loads



- Concrete Pilaster Columns in stud spaces for Concentrated Loads

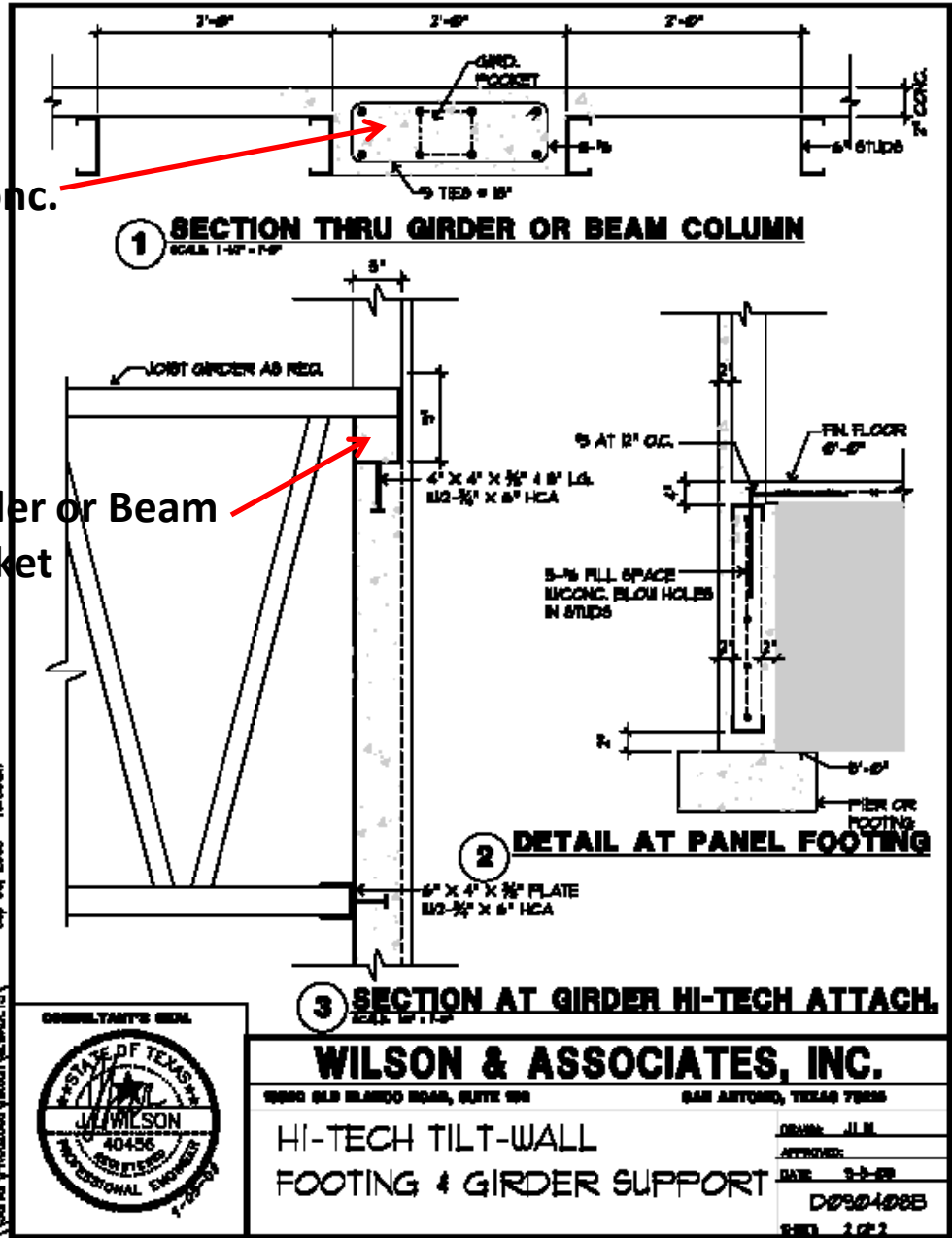


Structural Details



24"x 8" Conc. Column

Girder or Beam Pocket



Sep 05, 2008 - 10:08am

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WILSON & ASSOCIATES, INC.
 5900 OLD BLANCO ROAD, SUITE 900 SAN ANTONIO, TEXAS 78205

HI-TECH TILT-WALL FOOTING & GIRDER SUPPORT

DATE: 9-3-08
 DRAWN: J.W.
 APPROVED: [Signature]
 SHEET: 2 OF 2

- 16 or 14 Ga Steel Studs @ 24" oc & Track
- Patented Punched Shear Tabs @ 6" oc
- 6 x 6 WWM + 2"- 2.5" – 4000 psi Conc.
- Vertically reinforced Girder Column
- Imbeds for top bearing & bottom weld
- Solid Concrete below dock floor to foundation
- Either Pier to pier or Continuous Footing

Reduce Weight, Time & Labor



Elemix Concrete Additive by Nova Chemical can reduce panel weight to under 20 PSF



13 x 15 Spandrel Panels
3800 lbs. per Panel



Unique Features



HTT Architectural Statements

