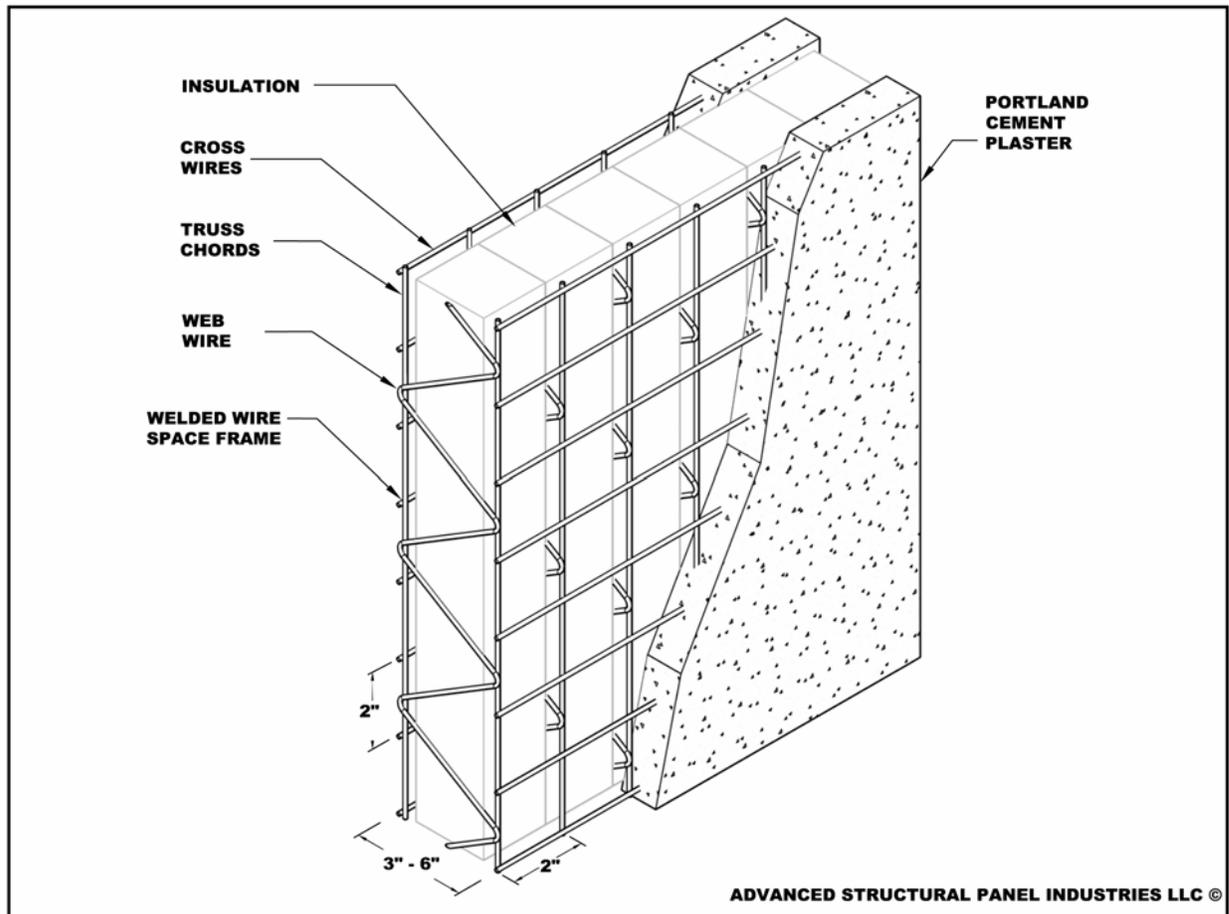


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## ASPI

### Composite Panel Building System Reinforced, Insulated, Concrete Construction



## **Panel System**

The ASPI Composite Panel Building System is used in the construction of Walls, Floors and Roofs. The Composite Panel consists of welded steel wire reinforcing, insulating foam core, and Structural Portland Cement Plaster on each face. The Welded Wire Reinforcing forms a three – dimensional space frame with a truss element as the core. Each of these components are utilized to their maximum efficiency, concrete for compression forces, steel for tensile forces, and the foam core as insulation. The foam core is placed at the center for maximum efficiency regarding acoustic, thermal and structural properties. The efficient combination of these components allows the panel to perform as a structural composite. The system reacts to applied forces with a 2" x 2" face wire grid reinforcing matrix as opposed to normal reinforcing schedules of 12" or greater.

## **Panel Structures**

The completed panel is delivered to the job site weighing approximately 1 pound per square foot. The panel is erected to form the desired structure. All panel joints and connections are lapped with joint mesh. This complies with the American Concrete Institute Code governing Reinforcing Mesh Design. These connections are wire tied by hand, or clipped with pneumatic guns. After the panels are erected, and inspected, the required concrete plaster thickness is applied. This is normally 1" to 1 ½" thickness of 2,000 psi **Structural** Portland Cement Plaster. The plaster may be applied by hand, hopper gun, plaster gun or shot Crete. The finished structure is a monolithic, reinforced, insulated concrete building that is resistant to many hazards. Beams and Columns can be formed utilizing the panel as a stay in place form.

## **Project – Crystal Beach Texas**

All Walls, Floors, and Roof are constructed with 3" Panel, 14 Ga. Wire (.080"). The house was designed to withstand Hurricane Force Winds and Tidal Surges. This structure survived Hurricanes Rita and Ike. As you can see the majority of the neighboring structures did not. Wood is used for Doors - Frames and Cabinets.

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From Ron Bell, Builder,  
Inspection After Hurricane Ike

"Here are some pictures of the House, no major damage to the house. Just a little water got in around the doors. Water came up to about one foot from the bottom of the house, then we had 20 to 30 foot waves with over 110 mph.

The waves were washing over the top deck and on part of the roof, one house smashed into the front of the house and only caused minor damage to the front wall and railings. I tested all electrical and ran the air conditioners with a generator all working fine. The lower unit had the line set cracked so we will add gas and they will be fine. The other damage is to the plumbing under the house."

## Project Photos

### 1. Foundation, Engineered Slab, Grade Beams and Bolts for Columns



### 2. Completed Foundation, Slab



3. Panel Erection



4. Roof Installation



5. Wall To Roof Detail



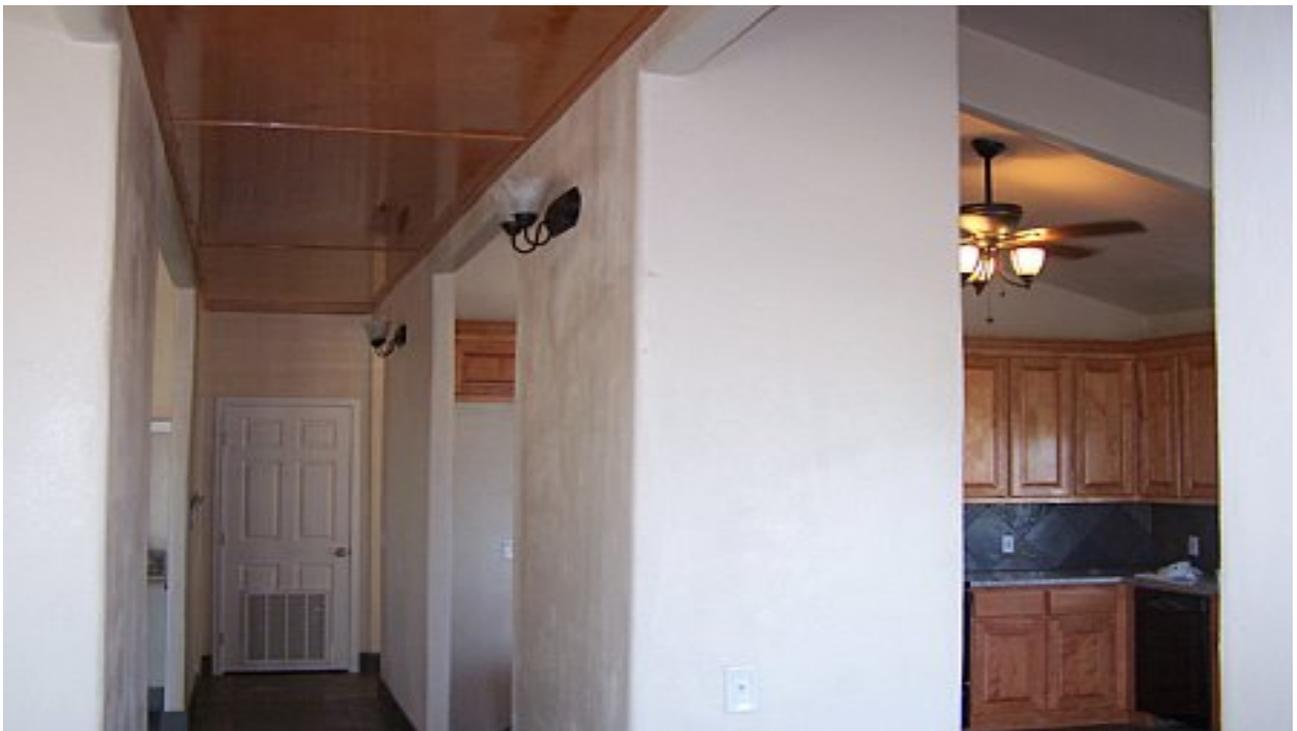
6. Completed Unit



7. Exterior Upper Deck, Completed



8. Interior Hallway, All Walls Portland Cement Plaster



9. Kitchen Area, Note, Panel Beams



10. Crystal Beach, After Hurricane IKE



11. Crystal Beach Before and After Hurricane IKE

