

## PRECAST CONCRETE WALL PANEL ADVANTAGES AND BENEFITS

Precast concrete wall panels provide a single-source solution for supplying the exterior wall system for your building. When a precast concrete structural frame along with loadbearing panels are specified, the complete building superstructure can be supplied and installed by one certified producer. The unbeatable speed with which precast panels can be designed, produced, and erected to close tolerances and consistent uniform architectural finishes, generates time savings that can be critical to your project's success. Precast concrete wall panels provide numerous long term cost advantages with exceptional durability, lower energy costs and lower maintenance costs when compared with insulated metal panel systems.

### DURABILITY

- Precast panels are exceptionally resistant to impact, corrosion, weathering, and abrasion, making it virtually maintenance free.
- Precast panels are produced in factory-controlled environments with concrete compressive strengths in excess of 5,000 psi and low water-cement ratios which ensures a dense, exceptionally durable finish.

### AESTHETICS

- Wide variety of panel finishes are available including sandblasted, exposed aggregate, acid-etched, thin brick, and stone veneers.
- Unlimited variety of colors, forms, and textures are available.
- Form shapes can include ribs, bullnoses, reveals, chamfers, or form liner textures.

### COMMITMENT TO QUALITY

- Precast panels are produced by PCI-Certified plants under strict quality controls ensuring a uniformly high-quality façade.
- PCI-Certified producers must satisfy



an array of production, administrative, and organizational procedures along with close tolerances unique to precast concrete.

- To maintain certification, every PCI producer member must undergo two stringent unannounced inspections each year by independent auditors.

### LOWER COSTS

- Precast panels provide a durable, aesthetically pleasing exterior façade that is virtually air and watertight and does not require painting.
- Minimal maintenance provides substantial long term cost savings.
- Precast concrete's speed of erection



and ability to be produced and erected year-round shortens project schedules.

- Precast panel shop drawings and production can commence during permitting phase and as foundation work or supporting structure is completed, which improves the overall project speed of construction.
- Faster speed of construction with precast panels reduces long term overall costs and makes the use of precast panels more economical than insulated metal panel systems.
- Precast panels can be loadbearing and thereby reduce framing costs by providing a column-free building perimeter.
- Pre-glazing of punched window openings in precast panels at the precaster's plant reduces field labor costs and job site risks.

### ENERGY EFFICIENCY

- Precast panels can provide recessed window walls, vertical fins, and various other sculptured shapes as shading devices for window areas to reduce glare and solar gain, that is not possible with insulated metal panel façades.
- Precast panels may either have continuous insulation field applied to the back of panel or incorporated at the plant to create sandwich wall panels.
- The inherent thermal mass inertia of precast concrete also reduces peak heating and cooling loads, thus saving energy year-round by reducing large daily temperature swings.

### OTHER INHERENT BENEFITS

- Precast panels are inherently fire resistant which eliminates the need

and cost of additional fireproofing measures.

- Precast panels provide inherent sound attenuation properties, due to precast concrete's mass, and provide an economical acoustical barrier to exterior and interior noise penetration, unlike insulated metal panel systems where noise transmittance can be a major concern.
- Precast concrete is an environmentally sound material, produced from natural materials.
- Precast concrete has the added benefit of reflecting heat and light, thus reducing the "heat island" effect and higher temperatures in urban areas.
- Precast panels provide a barrier wall or faced-sealed system with minimal panel joints.