The Benefits of Tilt-Up Construction

- Tilt-up lends itself to design/build construction in that wall panels can be constructed simultaneously to the rest of the building being designed, allowing for an earlier move-in and generally saving time and money.

- Upon completion of the wall panels, which are cast horizontally on the floor or casting slab, a high-capacity mobile crane tilts the panels into the final vertical position. The entire process is designed for efficiency and speed of erection.

- Pouring the floor slabs sooner allows other trades to work sooner on their portion of the project.

- Site-cast tilt-up uses ready mix concrete, which is made from readily available natural materials that have price stability.

- The speed of tilt-up panel erection and the ease of other subcontractors' work further reduce costs.

- The use of computers in the preplanning and layout process provides the opportunity to make innovative improvements before the design is finalized.

- Less heat and air conditioning are required for tilt-up buildings. Additionally, a smaller, less costly mechanical system often can be used.

- Insurance premiums are lower because:
    - Tilt-up concrete structures are more fire resistant than steel buildings or wood-frame buildings;
    - Tilt-up concrete structures have been shown to withstand wind storms and earthquakes better than buildings of other materials; and
    - Security is better with solid concrete walls.

- Tilt-up concrete buildings require less maintenance and up-keep. The exterior can be left unpainted with no damage from the elements, or can be painted, with re-painting only necessary every five to ten years. Additionally, concrete interiors are less subject to damage and are easier to wash down.

- An added benefit of a concrete structure is the sound reducing properties. The mass absorbs the sound rather than letting it through as in metal and wood-frame buildings.

- All work done on tilt-up construction is primarily done on the ground. Since walls are constructed horizontally, workers have a safer working surface as opposed to working on a vertical formwork or scaffolding.

- Architectural aesthetics are achieved through textures produced with improvised techniques and form-liner cast surfaces in a variety of patterns, including striated, fractured fin, stone, brick, and wood grains. Additionally, the finish of a panel is limited only by the creativity of the architect and the abilities of the contractor.

More than 15 percent of all industrial buildings nationwide, are tilt-up, with individual building sizes ranging from 5,000 to 1.5 million square feet.

At least 10,000 buildings enclosing more than 650 million square feet are constructed annually with tilt-up construction.

Information compiled from materials provided by the Tilt-Up Concrete Association at www.tilt-up.org.