



WHAT IS PRECAST CONCRETE?

Precast concrete is concrete cast into a specific shape at a location other than its in-service position.
- *American Concrete Institute (ACI)*

Precast concrete is reinforced concrete constructed by industrialized methods. It is characterized by dividing the building into components, which are manufactured in a precast concrete plant, and transported by special transportation equipment to the site. Precasting reduces construction time because the manufacturing of the elements is carried out beforehand. Precast concrete is reinforced with either reinforcing bars, strands with high tensile strength, or a combination of both.

BENEFITS

- Reduces construction time
- Manufactured in a controlled environment, so great quality control
- Aesthetically versatile
- Storm and fire resistant
- Energy efficient
- Low maintenance
- Cost effective

WHAT IS PRESTRESSED CONCRETE?

Prestressed concrete is structural concrete in which internal stresses have been introduced to reduce potential tensile stresses in concrete resulting from loads.
- *American Concrete Institute (ACI)*

Prestressed concrete is structural concrete in which internal stresses have been introduced to reduce potential tensile stresses in the concrete resulting from loads. This introduction of internal stresses is called “prestressing” and is usually accomplished through the use of tendons that are tensioned or pulled tight prior to being anchored to the concrete. Common pretensioned members in buildings and parking garages include hollow core sections and double-tee sections.

BENEFITS

In addition to all of the benefits provided by precast concrete, prestressed concrete also:

- Increases load carrying capacity
- Allows for greater spans
- Reduces cracks