This parking facility was constructed for the New Jersey Institute of Technology campus to provide parking for their science and tech center in Newark, NJ. The original purpose of the design was for efficient construction and expedited occupancy for students and staff to start using the parking garage by alleviating the lack of parking in the surrounding area, not to mention the very tight site conditions in this congested downtown Newark area.

The New Jersey Institute of Technology’s new parking garage is a seven level structure including 938 parking spaces and available retail space on the ground floor. The architectural panel façade utilizes architectural thin brick to complement the existing campus and surrounding brick buildings within the town. It was important to make the parking garage pleasing to the eye and match other buildings.

A structural steel frame was used to support stairs and landings behind glass curtain walls in the stair and elevator towers. The unusual challenging site and soil conditions utilized deep foundations of 4’ to 8’-6” diameter 30’ deep caissons that were very time consuming. Precast provided shortened overall construction duration as opposed to constructing a total C.I.P. structure.
It was essential to the project to have a precast concrete manufacturer who could also fabricate and erect the steel simultaneously with the surrounding precast. The precast concrete exterior uses gravity load bearing elements and lateral resisting shear walls with architectural concrete finish as well as embedded thin brick.

The precast production date started in July of 2015 and the project was completed in July of 2016. Initial erection of the parking garage began during a snowstorm that dumped two feet of snow and shut down trucking into New Jersey.

Nitterhouse Concrete Products is Precast Prestressed Concrete Institute (PCI) certified, and a member of the Mid-Atlantic Chapter. The nearly 100-year-old family-owned company designs, produces, and erects PCI-Certified precast concrete products, including NiCore hollow core plank, building systems, parking structures, office buildings, warehouses, distribution centers and multi-housing facilities for the mid-Atlantic states.

**PROJECT SUMMARY:**

» 7 Levels
» 938 parking spaces
» 250,000 SF of elevated precast double tees

**PRECAST QUANTITIES:**

» Beams: 54 (1,926 LF)
» Columns: 22 (821 LF)
» Solid Slabs: 10 (2,336 SF)
» Wall Panels: 197 (35,746 SF)
» Double Tees: 373 (252,324 SF)
» Litewalls: 36 (11,929 SF)
» Shearwalls: 36 (8,419 SF)
» Stair Panels: 69 (14,814 SF)
» Stairs: 26 Units
» Ornamental Precast: 128 LF
» Bollards: 43 Units