



I-95 NEWARK TOLL PLAZA RENOVATION

NEWARK, DELAWARE

View Northbound

Category: Institutional Architecture

A gantry bridge to support state-of-the-art high speed scanning equipment, segregate cash and E-Z Pass traffic lanes, and develop a unique system of equipment repair access that avoids having to shut down lanes, was created to solve the traffic problems that plagued the toll plaza.

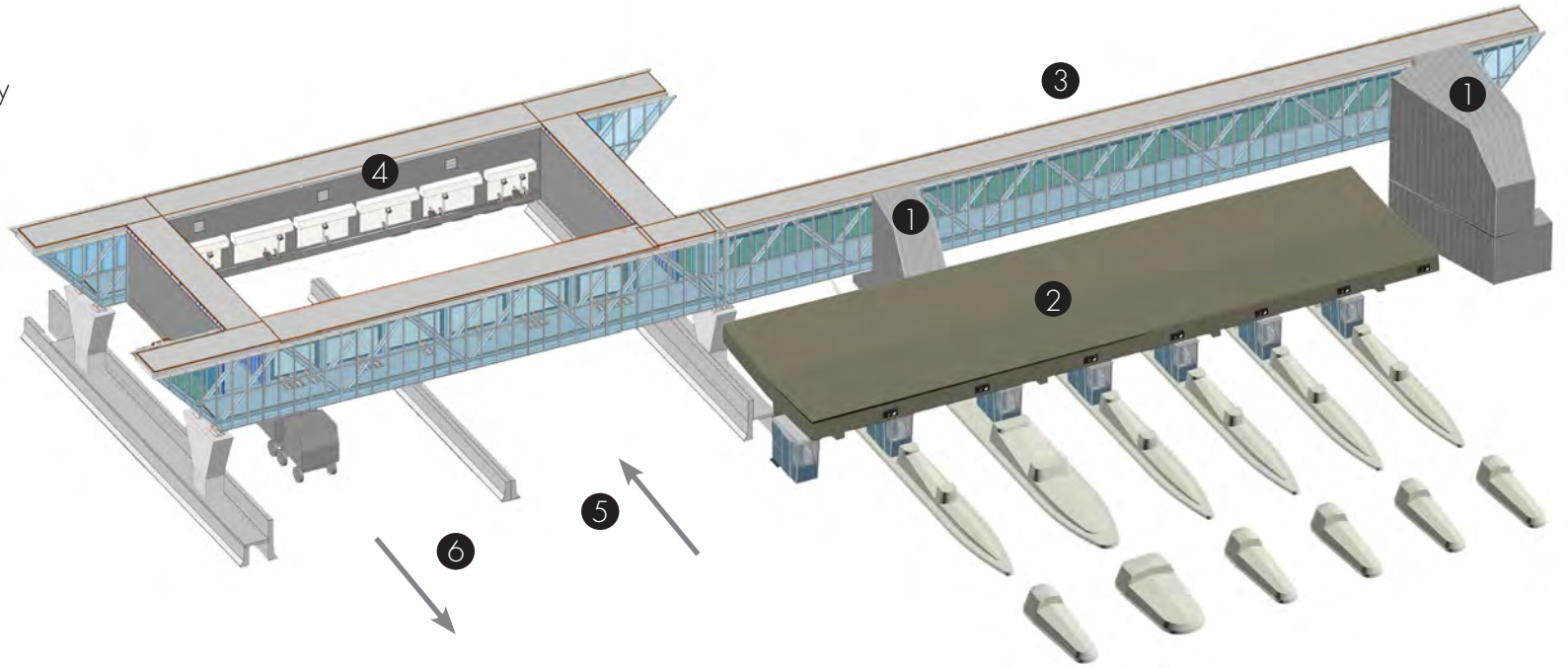
The gantry/bridge consists of 100 tons of shop fabricated steel trusses that span 250 feet over the northbound and a portion of southbound Interstate 95. To create visual interest, the trusses were triangulated and cantilevered at the ends to transition them against the sky. In lieu of standard

hammer-head capped supports, the faces of the piers taper in both directions to provide further abstraction to the composition of the bridges and adjacent angled crash walls. Two access/safety stairs and an elevator had to fit within fractions of an inch tolerance to comply with Federal Highway clearance regulations within the available rights-of-way. The angled shapes reach over the top of the truss and play off the geometry of the existing toll booths and canopies that remained. The hallmark of the project is the glowing overhead truss forms that are clad in

shoji-like staggered translucent glass panels. Fabric screens are suspended between the curtainwall and the structure to provide reflected indirect light back to the window walls that alleviates shadows and add depth to the surface.

A sculptural, surrealistic solution was able to be realized and became a gateway to Delaware. The design is intended to visually defy the facility's utility and the magnitude of its structure to become an unexpected moment experienced by millions, day and night.

- ① Stair Towers
- ② Existing Toll Booths / Canopy
- ③ Overhead Walkway
- ④ Toll Scanning Equipment
- ⑤ Northbound Lanes
- ⑥ Southbound Lanes



Site Plan



- ① Administration
- ② New Northbound Toll Plaza
- ③ Stair Tower
- ④ New Overhead Walkway
- ⑤ New High Speed Tolling Gateway
- ⑥ New High Speed E-Z Pass Lanes
- ⑦ Refurbished Southbound Toll Plaza





Continuous fabric panels are suspended between the translucent glass curtainwall and the truss structure to provide a luminous quality to the façade. The stair tower in the forefront is in stark contrast to the bridge.



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Utility Corridor

Custom roll-up doors and sliding armatures allow for the tolling sensors to be repaired without closing travel lanes and providing safety to the mechanics.



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