



# THE KOSCIUSZKO BRIDGE PROJECT

---

The New York State Department of Transportation

---

# THE KOSCIUSZKO BRIDGE PROJECT

Constructed 70 years ago, the existing Kosciusko Bridge serves more than 160,000 vehicles per day. NYSDOT is accelerating the bridge's replacement by nearly 18 months through a design-build delivery method. This is the largest, single infrastructure investment under Governor Cuomo's NY Works Initiative.

**NYSDOT Project X731.24 Contract # D900011**

**Contractor: Joint venture of Skanska, Kiewit, Ecco III & HNTB**

First TAPERTUBE® order 12 ea. test piles 12" x 18" x 15' x .375"

date 7/18/14

Second TAPERTUBE® order 600 ea. production piles 12" x 18" x 15' x .375"

date 11/24/14

Third TAPERTUBE® order 200 ea. production piles 12" x 18" x 15' x .375"

date 4/22/15

Total TAPERTUBE Piles ordered: **812**

## PHASE 1



*New Queens-bound bridge built beside existing bridge.*

## PHASE 1



*Removal of existing bridge, making way for new Brooklyn-bound bridge.  
All traffic is shifted to new bridge, until Brooklyn-bound bridge is constructed in Phase 2.*

## HISTORY

The Kosciusko bridge was originally referred to as the new Meeker Avenue Bridge and was opened in August 1939. The new structure of this bridge replaced the old Meeker Avenue Bridge (originally called the “Penny Bridge”, which had been in use since 1894. The history of the old bridge dates back to 1803 and was built through and Act of Legislature, authorizing the “building of a Toll Bridge over Newton Creek; this bridge charged on cent per foot passenger, which was the reason the bridge was called the “Penny Bridge”, Until 1888, the bridge was operated by private companies and then after became the property of the people. In 1896 the bridge became the property of the city of Brooklyn and in 1898, upon consolidation, it was taken over by the Department of Bridges of the Greater City of New York,

The original Meeker Avenue Bridge had been replaced several times. The Kosciusko Bridge’s 1939 design and form was vastly different than the first Meeker Avenue Bridge. The latter was a swing drawbridge and carried a two-lane roadway 20-ft wide and two sidewalks. The new bridge carried two three-lane concrete roadways each 32-ft wide and separated by a 4 foot center mall. Additionally, this new bridge structure contains 16,315 tons of steel, along 88,120 cubic yards of concrete.

## PHASE 2



*New Brooklyn-bound bridge constructed beside new Queens-bound bridge.*

## REPLACEMENT

After an 18-month study in the 1990s, State Transportation Department officials concluded that in order to relieve congestion on the busy span, a new \$100 million bridge, which included an additional three lanes, should be built next to the Kosciusko Bridge. This new bridge would be part of a renovation project planned for the existing six-lane bridge along the Brooklyn-Queens Expressway. DOT Supervisor Peter King stated that this new bridge may be required to avoid severe traffic backups on neighborhood streets surrounding the bridge during renovation of the Kosciusko. King felt that in order to resolve the increasing number of severely congested streets and intersections, “a second parallel span” may be the answer.

Plans are underway to replace the current structure with a new nine-lane bridge, which will consist of two eastbound spans, one westbound span, a bike path, and a walkway. Four designs were considered for the new structure: a cable-stayed bridge, a through arch bridge, a box girder bridge, and a deck arch bridge. The cable-stayed bridge design selected after a public review process will make the replacement bridge the first of its type in New York City since the Brooklyn Bridge (which has a hybrid suspension/cable design). Construction was originally expected to begin in 2013 but was then delayed to winter 2014. About 140 trees were removed on both sides of the bridge in April 2014 in preparation for the rebuilding, though officials say twice the number of trees will be replanted once the bridge is complete.

On May 23, 2014, a \$554,770,000 design-build contract was awarded to a team consisting of Skanska, which will be managing partner, Ecco III of Yonkers; Kiewit Corporation of Nebraska; and HNTB of Kansas as the lead design firm. It is the largest single contract ever awarded by the New York State Department of Transportation. The work will involve building a new eastbound viaduct to be completed in 2016; the existing east bound structure will then be demolished. The westbound viaduct will be replaced in a future project. The extra lanes are being built since the Kosciusko is known as a notorious traffic bottleneck; according to the New York Times, it is “perhaps the city’s most notorious {bridge}, hated and feared by drivers and synonymous in traffic reports with bottlenecks, stop-and-go and general delay.



**DFP**  
**Foundation Products, LLC**

**THE BEST  
HIGH CAPACITY  
FRICTION PILES**



WE INVITE YOUR  
INQUIRIES FOR  
SPECIFIC SITE  
APPLICATIONS

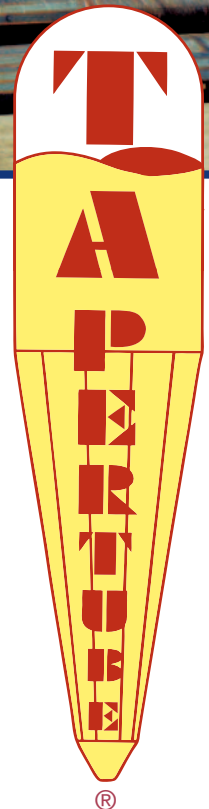
**Tapertube® ... Strength = Success!**

Project-proven Tapertubes are a dramatic leap forward in on-the-job pile performance. Superior design and robust construction means this remarkable product delivers big advantages over conventional piles or other tapered piles.

Tapertube piles are the only tapered piles available with heavier wall thicknesses ranging up to 0.500" produced from 50 ksi steel.

Directly driven, no mandrel or butt reinforcement required. Cast steel conical driving points supplied.

Tapertube size and geometry can be configured to most effectively meet capacity requirements and soil conditions.



**DFP** Foundation Products, LLC

PO Box 688 | Franklin Lakes, NJ 07417-0688  
201-337-5748 | fax: 201-337-9022 | [www.pileline.com](http://www.pileline.com)

## Key Activities Since Last Stakeholders Advisory Committee Meeting

- Progressing final design of the project
- Coordinating with key agencies and private utilities
- Test pits and soil borings to obtain data for design
- Pre-construction condition surveys of buildings
- Restriping beneath the BQE for additional parking
- Revised permit from NYCDOT - WB Meeker Avenue daytime operations and single lane closure
- Removal of buildings and relocation of utilities
- Local street realignment and reconstruction
- Drilling shafts for Main Span Pylon (or tower)
- Assembly and installation of rebar cages
- Driving test piles for Approach foundations
- Communication with local police Precincts 108 & 94
- Coordination with NYPD Community Liaisons
- Truck enforcement on local streets
- Traffic Enforcement Agents
- Coordination and implementation of traffic management measures
- Deliveries to work site

## Tapertube Piles



## Tapertube Piles Ready for Installation



## Preparing the Tapertube Pile



## Lining up the Tapertube Pile

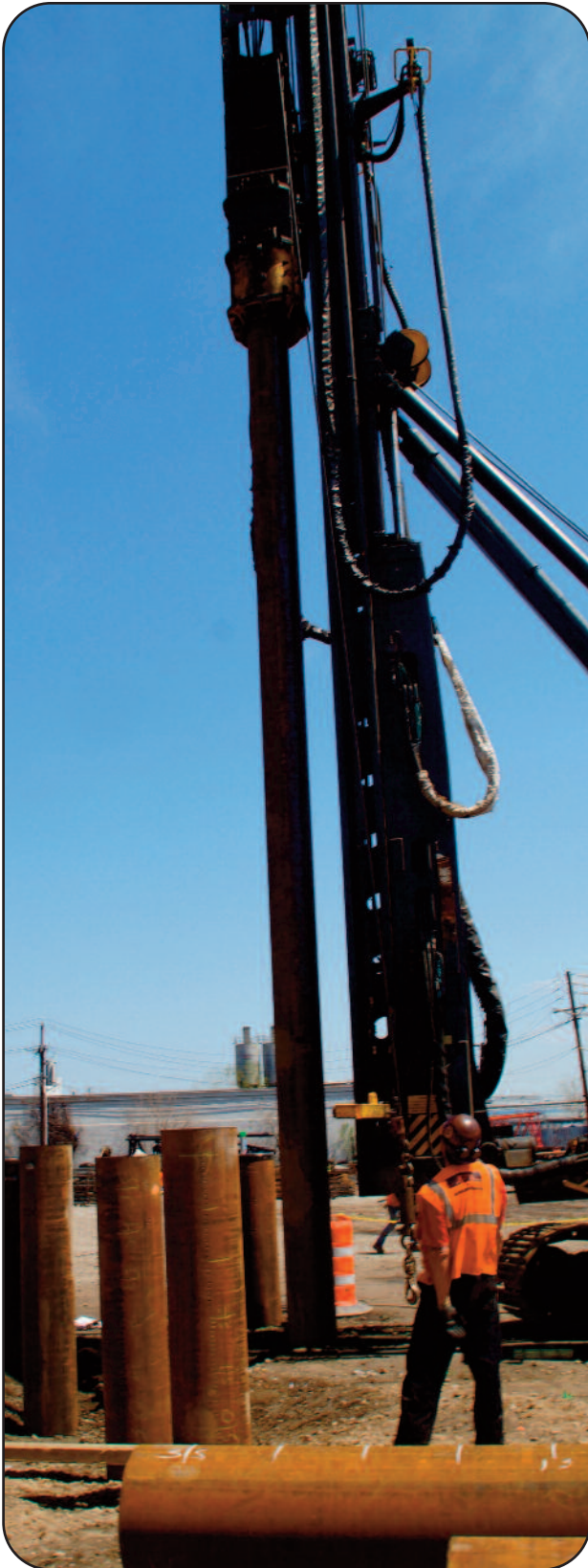


## Final Inspection Before Driving





## Driving the Tapertube Pile



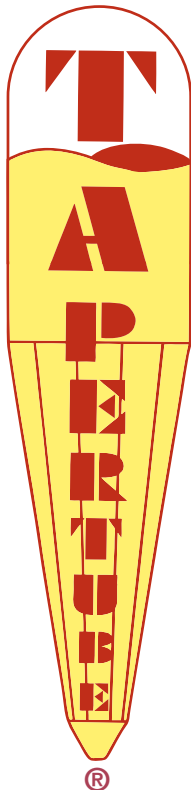
## Driving the Tapertube Pile



## Finished Tapertube Pile Installation



## Finished Tapertube Pile Installation



**DFP** *Foundation  
Products, LLC*

PO Box 688  
Franklin Lakes, NJ 07417-0688  
t: 201-337-5748  
f: 201-337-9022  
[www.pileline.com](http://www.pileline.com)  
[jack@tapertube.com](mailto:jack@tapertube.com)