

# Replacement and Upgrade of the PATH Christopher Street Substation -Project Re-authorization

**Committee on Construction** March 29, 2012

THE PORT AUTHORITY OF NY& NJ

## Replacement and Upgrade of the PATH Christopher Street Substation *Project - Scope of Work*

Project Scope:

- Replace and upgrade substation equipment
- Upgrade substation building for code compliance
- Significant structural modifications
- Utilize existing cable duct-bank





## Replacement and Upgrade of the PATH Christopher Street Substation New Duct Bank – Risks and Advantages:

#### **Identified Risks:**

- Difficulty in establishing sewer and other utility relocation.
- Impact mitigation plan required with the adjacent school.
- Prolonged community impact during construction.
- Potential station closure.

#### Advantages:

- Two diverse cable routes to the substation.
- Simplified construction staging.





## Replacement and Upgrade of the PATH Christopher Street Substation Existing Duct Bank – Risks and Advantages

#### **Identified Risks:**

- Cables entering the substation building at the same location.
- Complex construction staging and safety plan.
- Removal of abandoned cables from the existing duct bank could damage ducts.

#### Advantages:

- Eliminates utility relocation.
- Minimal impact on community.
- Minimize maintenance of traffic.
- Better defined design and construction cost.
- Improved project schedule.
- Eliminates station closure.

#### **Accomplishments:**

- Cable Removal
- Engineering Dept. Feasibility Study
- Engineer redesign and revisiting construction staging



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## Total Project Cost (TPC) Comparison Dual Duct Banks vs. Existing Duct Bank

	Authorized Plan Dual Duct Bank	Post Bid Estimate Existing Duct Bank (Recommended)	Revised Estimate Dual Duct Bank
ТРС	\$60M	\$71.0M	\$85-\$95M
Construction Duration	3 Years	5 Years	7 Years

## Replacement and Upgrade of the PATH Christopher Street Substation Contract Award

- Six Pre-Qualified Firms Solicited for Bids
- Award to Lowest Qualified Bidder
- Recommended Awardee: Mass. Electric Construction Co.
- Contract Breakdown:

 Base Amount:
 \$24,660,000
 Engineer's Estimate: \$34.8 million

 Extra Work:
 \$1,972,800

 Risk Extra Work:
 \$1,868,200

 Net Cost:
 \$3,260,000

 TOTAL:
 \$31,761,000

•Additional Authorization: \$1.8 million - Jacobs Engineering Group, Inc.

## Replacement and Upgrade of the PATH Christopher Street Substation Economic Impact

- 270 Total Job-Years:
- \$16 million in Wages
- \$98 million in Economic Activity

# Replacement and Upgrade of the PATH Christopher Street Substation Schedule

Project Re-Authorization: \$71 million

Construction Start: May 2012

Construction End: May 2017

Staff:\$11.4 millionConsultant:\$ 6.7 million