Packer Avenue Marine Terminal operator:
Channel Deepening: **85% Complete**

**Delaware River Main Channel Deepening**

**Project Details**

- **Current Depth vs. Future Depth**: 40 Feet to be deepened to 45 feet mean low water*
- **Length**: 103 Miles
- **Cost Estimate**: $392 million
- **Commonwealth Estimated Share**: $137 million
- **Material**: 16 million cubic yards of dredge materials
- **Duration**: 7 years
- **Progress**: 85% Complete
- **Targeted Completion**: January 2018

*The Delaware River has a 6 foot (1.83 meter) tide
Current Vessel Capability » 9,200 TEUs

August 2016 » Neo-Panamax vessels begin calling PRPA’s Packer Avenue Marine Terminal.
Inbound Philadelphia Hinterland Cargo*

Total inbound loaded containers moving within 200 miles of the Port of Philadelphia.

Serviced by two class-one railroads:

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*Year 2016
Includes Shippers within 200 miles radius base on Piers Data.

**Mid-Atlantic Ports include Boston, New York, Newark, Philadelphia, Delaware, Baltimore and Norfolk.
Distribution Centers » Imports

“Lehigh Valley is the *inland empire* of the East Coast.”

- David Egan\(^1\)

- 6\(^{th}\) Largest Metropolitan Area
- Over 300 Distribution Centers within the PhilaPort’s immediate hinterland
- South Jersey increasingly important nationally as a Distribution Center hub for perishable and dry commodity types

\(^1\)Head of Industrial & Logistics Research for the Americas, CBRE (Real Estate); The Journal of Commerce - Oct. 2016.
**Port of Philadelphia**

- No assessment
- 19 ILA start times
- No pension withdrawal liability
- Gross production of 32 moves an hour with individual vessel gross production reaching 48 moves an hour
- Truck turn time less than 1 hour
- 10 ILA holidays per year

**Port of New York & NJ**

- NYSA assessment – *on average an additional charge of $89 per container*
- Only 5 ILA start times
- PANYNJ CFC charge $5.51 per TEU $11.02 per FEU ($38 m annually)
- Transit times from pilot station increased to 5 hours
- Pension withdrawal liability
- Gross moves per hour less than Philadelphia – 25 moves per hour
- Truck turn time unfavorable *due to high density operation & overall congestion*
- 16 ILA holidays per year

**Port of Baltimore**

- No double stacked train service
- 5 ILA start times
- Transit time from pilot station to pier 10 hours
- Gross moves per hour less than Philadelphia – 29 moves per hour
- Can not service the NY/NJ BCO Market.
- 17 ILA Holidays
Packer Avenue Marine Terminal
PhilaPort
Gate

• Usually takes less then a minute to drive through
• Driver normally does NOT get out of truck
• Optical Character Recognition (OCR)
• Radiation Portal Monitoring (RPM)
• Truck turn times of 45 minutes including que time
On-Dock Warehouse

Facility Statistics
- 4 million cubic feet of refrigerated fresh/frozen space
- 200,000 sq. ft. of food grade dry storage space
- 5,000 pallets fresh & 10,000 pallet frozen space

Services
- Cross Docking
- USDA/ Agriculture Inspection
- Consolidation and De-Consolidation
- Storage
- Fumigation
## Container Expansion, $226M | Port Development Plan

### PhilaPort Improvements for Packer Avenue Marine Terminal

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berth Infrastructure</td>
<td>$49,720,000</td>
</tr>
<tr>
<td>Acquisition of 3 STS Cranes</td>
<td>$37,500,000</td>
</tr>
<tr>
<td>H crane electrification/K crane removals</td>
<td>$7,000,000</td>
</tr>
<tr>
<td>Demo PAMT Warehouse</td>
<td>$11,500,000</td>
</tr>
<tr>
<td>PAMT Warehouse Replacement*</td>
<td>$81,847,500</td>
</tr>
<tr>
<td><strong>Estimated Cost</strong></td>
<td><strong>$187,567,500</strong></td>
</tr>
</tbody>
</table>

*Acquisition and retrofit of 260,000 Square Feet Warehousing to replace warehouses at PAMT*

### Astro Improvements

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publicker Site - 40 acres +/-</td>
<td>$42,000,000</td>
</tr>
<tr>
<td>PAMT Gate Investment</td>
<td>$7,000,000</td>
</tr>
<tr>
<td>Miscellaneous Enhancements (warehouse allowance)</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>Tenant Acquisition of STS Crane</td>
<td>$12,500,000</td>
</tr>
<tr>
<td><strong>Estimated Value</strong></td>
<td><strong>$66,500,000</strong></td>
</tr>
</tbody>
</table>

*PhilaPort can purchase crane at fair market value at time of sale*

*Capacity Note: Terminal Capacity 900,000 TEUs; Foot print is scalable to over 1.2 Million TEUs with additional investment; Chart is based upon completion of improvements.*
Packer Avenue Marine Terminal
Port Development Plan

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>2017 (4th Qtr)</th>
<th>2018-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terminal Area</strong></td>
<td>106 acres</td>
<td>146 acres (+40 acres)</td>
<td>170 acres (+40 acres)</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td>480,000 TEUs</td>
<td>552,000 TEUs</td>
<td>900,000 TEUs</td>
</tr>
<tr>
<td><strong>Warehouse Capacity</strong></td>
<td>460,000 sq. ft. (on-dock)</td>
<td>460,000 sq. ft. (on-dock)</td>
<td>90,000 sq. ft. (on-dock) 365,000 sq. ft. (on-dock)</td>
</tr>
<tr>
<td><strong>Reefer Plugs</strong></td>
<td>2,210</td>
<td>2,210</td>
<td>2,210</td>
</tr>
</tbody>
</table>
| **Cranes**               | 2 · Post-Panamax container cranes  
2 · Panamax container cranes  
1 · Panamax container cranes | 2 · Super Post-Panamax container cranes  
2 · Post-Panamax container cranes  
2 · Panamax container cranes  
1 · Panamax container cranes | 4 · Super post-Panamax container cranes  
2 · Post-Panamax container cranes  
1 · Panamax container cranes |
| **Number/Size of Berths**| 3 · 1,000 ft. Berths  
1 · Ro/Ro Berths | 3 · 1,000 ft. Berths  
1 · Ro/Ro Berths | 3 · 1,000 ft. Berths  
1 · Ro/Ro Berths |
| **Berth Depth at MLW**   | 3 · 42 ft.  
1 · 38 ft. Ro/Ro | 1 · 45 ft.  
2 · 42 ft.  
1 · 38 ft. Ro/Ro | 3 · 45 ft.  
1 · 38 ft. Ro/Ro |
| **Channel Depth**        | 40 ft.           | 45 ft.              | 45 ft.            |

*The Delaware River has a 6 foot (1.83 meter) tide
### Packer Avenue Marine Terminal

#### Port Development Plan

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<td>2 · Panamax container cranes</td>
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<tr>
<td>1 · Panamax container cranes</td>
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<tr>
<td><strong>Number/Size of Berths</strong></td>
</tr>
<tr>
<td>3 · 1,000 ft. Berths</td>
</tr>
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<td>1 · Ro/Ro Berths</td>
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<td><strong>Channel Depth</strong></td>
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*The Delaware River has a 6 foot (1.83 meter) tide*
# Packer Avenue Marine Terminal

## Port Development Plan

**Terminal Area**
- 146 acres (+40 acres)

**Capacity**
- 552,000 TEUs

**Warehouse Capacity**
- 460,000 sq. ft. (on-dock)

**Reefer Plugs**
- 2,210

**Cranes**
- 2 · Super Post-Panamax container cranes
- 2 · Post-Panamax container cranes
- 2 · Panamax container cranes
- 1 · Panamax container cranes

**Number/Size of Berths**
- 3 · 1,000 ft. Berths
- 1 · Ro/Ro Berths

**Berth Depth at MLW**
- 1 · 45 ft.
- 2 · 42 ft.
- 1 · 38 ft. Ro/Ro

**Channel Depth**
- 45 ft.

---

*Green* = New Super Post-Panamax cranes; *Red* = Removal of old cranes and warehouses.

*The Delaware River has a 6 foot (1.83 meter) tide*
Packer Avenue Marine Terminal
Port Development Plan

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<tbody>
<tr>
<td>Terminal Area</td>
<td>170 acres (+24 acres)</td>
</tr>
<tr>
<td>Capacity</td>
<td>900,000 TEUs</td>
</tr>
<tr>
<td>Warehouse Capacity</td>
<td>90,000 sq. ft. (on-dock)</td>
</tr>
<tr>
<td></td>
<td>365,000 sq. ft. (on-dock)</td>
</tr>
<tr>
<td>Reefer Plugs</td>
<td>2,210</td>
</tr>
<tr>
<td>Cranes</td>
<td>4 · Super Post-Panamax container cranes</td>
</tr>
<tr>
<td></td>
<td>2 · Post-Panamax container cranes</td>
</tr>
<tr>
<td></td>
<td>1 · Panamax container cranes</td>
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*Green* = New Super Post-Panamax cranes; *Red* = Removal of old cranes and warehouses.

*The Delaware River has a 6 foot (1.83 meter) tide*
Port Development Plan | PhilaPort

$300 Million Investment

Present | Future
---|---

Containers
455,900 TEUs | 900,000 TEUs

Jobs
10,341 | 17,020 65% increase

Diesel Operated

Clean Air

Cars
155,000 Units | 350,000 Units

Small Panamax

Large Super Post Panamax

Cranes

Tax Benefit

$49.6m Annually | $108.4m Annually

Forest Products
350,000mt | 425,000mt

Increased Depth to 45’
Containers Cargo Performance (Past 7 Years: 2010-2016) | PhilaPort

*PIERS – Port Importing/Exporting Reporting Service.
Growth at Capacity

Direct Jobs

- Future: 5,378
- Current: 3,124

72% Increase

Containers

- Future: 900,000
- Current: 455,900

2x Increase

Automobiles

- Future: 350,000
- Current: 155,000

2x Increase

Breakbulk

- Future: 425,000
- Current: 350,000

21% Increase
Upon completion of the Port Development Plan, Packer Avenue Marine Terminal will be able to handle 14,000 TEUs.
Pennsylvania Intermodal Cargo Growth Incentive Intermodal Program

• Economic incentive for all existing and potential new container shipping lines.

• Volume benchmark is established based upon the carrier’s prior six-month cargo volume; or a carrier starting a new service to a Commonwealth port.

• $25 incentive per new container unit for containerized cargo loaded or discharged from vessels moving through Pennsylvania's Ports.

Information on the Intermodal Cargo Growth Incentive Program and the application is available at: www.penndot.gov/Doing-Business/RailFreightAndPorts
Philadelphia Auto Port $93 Million | Port Development Plan
### Philadelphia Auto Port

#### Port Development Plan

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<thead>
<tr>
<th></th>
<th>Present</th>
<th>2017 (4th Qtr)</th>
<th>2018-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capacity</strong></td>
<td>155,000 Autos (Import)</td>
<td>300,000 Autos (Import/Export)</td>
<td>350,000 Autos (Import/Export)</td>
</tr>
<tr>
<td><strong>Terminal Area</strong></td>
<td>149 acres</td>
<td>235 acres (+116 acres)</td>
<td>240 acres (+5 acres)</td>
</tr>
<tr>
<td><strong>Number/Size of Berths</strong></td>
<td>1 Ro/Ro Berths</td>
<td>2 Ro/Ro Berths</td>
<td>2 Ro/Ro Berths</td>
</tr>
</tbody>
</table>

### $93 Million Investment • Philadelphia Auto Port
Philadelphia Auto Port
PhilaPort
Thank you!