Plaquemines Port, Harbor & Terminal District
Louisiana Gulf Gateway Intermodal Complex
Development Summary
Growing Trade Demand and Opportunity

Recent Shifts in Trade Patterns

• Ocean Carrier Alliances = Fewer / Larger Vessels
  ➢ The Main Three
    ➢ 2M Alliance: MSC, Maersk, Hamburg Sud, Hyundai
    ➢ Ocean Alliance: CMA-CGM, APL, COSCO, China Shipping, OOCL, Evergreen
    ➢ The Alliance: NYK Group, “K” Line, MOL, Yang Ming, Hapag-Lloyd, UASC
  ➢ 53 vessels >20,000 TEU maximum capacity operational
  ➢ 42 vessels >20,000 TEU on order for delivery 2019-2022

• Existing Gulf Coast Ports Have Inherent Inefficiencies:
  ➢ Originally built for smaller vessels
    ➢ New Orleans 9,500 TEU
    ➢ Houston >9,000 TEU 1x/week
    ➢ Tampa 9,500 TEU
  ➢ Have limited expansion capability
  ➢ Growing dwell times and intermodal delays
Mid-West Market Summary

5th largest GDP in the world

Terminal Development Projects
- Big Ship Ready
- Deepening
- Automation & New Terminals
- Terminal Expansion & Upgrades

America’s Trade Battle Ground
- Prince Rupert, Canada: +1.5 Million TEU expansion
- Vancouver Canada: +2.4 Million TEU expansion
- Seattle
- Tacoma
- Oakland
- Los Angeles
- Long Beach
- LA/Long Beach: +2.0 Million TEU expansion
- Melford, Canada: +1.5 Million TEU expansion (New Terminal)
- New York: +1.7 Million TEU expansion
- Virginia: +2 Million TEU expansion
- Charleston
- Savannah: +3.8 Million TEU expansion
- Lázaro Cárdenas, Mexico
- Panama Canal
- Suez Canal
1. Pre-expansion only 46% of the US was serviced by ports east of line. Maximum 4,800 TEU through canal.

2. Post-expansion increased to 64% of the US was serviced by ports east of line. Maximum 14,600 TEU through canal.

3. PPHTD project increases to 75% of the US serviced by ports east of the line. Maximum >20,000 TEU into GOM with 3rd expansion of canal.

Dashed line represents preliminary feasibility study area of impact by PPHTD port project with connectivity by rail and the APH vessel on the Mississippi River and tributary system.
Inland Port Strategic Partners

- Chicago
- Louisiana Gulf Gateway
- Dallas
- Memphis
- Ft. Smith
- Jefferson City
- Kansas City
- Little Rock
- St. Louis
- Cairo
Multimodal Connection

The Louisiana Gulf Gateway facilities have access to all modes of transportation:

- **Deepwater Marine** – Direct access to Gulf of Mexico with similar aperture to Panama Canal
- **Inland Marine** – Exclusive arrangement with APH innovative Container on Vessel for Mississippi River and tributaries
- **Rail** – Class 1 access to: BNSF, CN, CSX, NS, UP, and KCS
- **Highway** – LA Hwy 23 direct ties into US I-49 at New Orleans
- **Air** – Commercial air cargo at NAS Belle Chasse – JRB New Orleans
- **Pipeline** – Comprehensive pipeline network for both raw and refined products
Plaquemines Port, Harbor & Terminal District Development Plan

- 3 primary campus (North, Central, and South) along west bank
- Intermodal connectors
  - Improved rail capacity – up to 15 unit trains per day in and out
  - 4-lane highway with direct access to US interstate highway system
- Northern campus
  - Air cargo terminal with access to existing 6,000 ft and 10,000 ft runways
  - 10M square feet of warehouse space
- Central campus
  - Plaquemines Liquids Terminal
  - Secondary handling facility - 15M square feet of warehouse space
- Southern campus
  - 1,000 acre container terminal
    - Adjacent 7M square foot logistics park
    - Expandable terminal footprint
  - Venture Global LNG facility
  - Dry bulk handing facilities
Northern Campus - Commercial Air Cargo Terminal

• 10 million square feet of warehousing
• Distribution centers
• Intermodal transfer facility
• Rail connectivity to southern campus
• NAS-JRB New Orleans
  • 10,000 ft runway
  • 6,000 ft runway
Southern Campus – Louisiana Gulf Gateway Intermodal Complex

- Modern and competitive labor agreement and work rules
- Seamless multimodal conductivity
- On dock intermodal rail integration and capacity
- Adjacent on dock logistics-distribution center park
- Minimum semi-automation
- Environmentally sustainable
- Information Technology (IT) platforms:
  - Transparency
  - Security
  - Cyber protection
  - Vertically integrated logistics solutions
  - Satisfy “Cold Iron: Low Sulphur, LNG bunkering:

RESULT: OPTIMIZED LOGISTICS SERVICE PROVIDER
UP/NOGC ROW Alignment

NOGC / Rio Grande Pacific Short Line Railroad system:

- Access to UP yard at Avondale
- Track access from Avondale to Westwego
- Tract control from Westwego through Gretna
- Current terminus within central campus
- Capacity at 3-unit trains per week
Proposed Railroad Improvements

**NOGC Expansion**

NOGC / Rio Grande Pacific Short Line
Railroad systems improvements:
- Railroad bypass around NAS New Orleans,
- Railroad extension to Plaquemines Port
- Railroad improvements, including turnout sidings, or system double track capability
- Increased capacity 4-unit trains per day

**Marsh Bridge**

Build a new railway direct around the Jean Lafitte Preserve, stilted and optimum for all current users
- Multi-lane capacity (truck and rail)
- Addition of 16-unit trains per day
COB’s Inherent Operational Shortcomings: (Currently used to Port of New Orleans)

- Hopper barges have stability issues with high loads
- Limited cargo payload capacity (250-300 TEU)
- Conventional upriver speed (4-5 mph); low capacity terminal cranes
- Potential for barge breakaways
- Propulsion via diesel engines
American Patriot Holdings

“Offering Shippers New Flexibility – Lower Cost via All Water Routing utilizing the U.S. Marine Super-Highway”

APH Inland Carrier

Proven Pre-Feasibility Commercial Viability Study

Ocean Transhipment
<table>
<thead>
<tr>
<th><strong>Liner Specifications</strong></th>
<th><strong>Mississippi River Service</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length Overall</strong></td>
<td>595+ ft.</td>
</tr>
<tr>
<td><strong>Beam</strong></td>
<td>134 ft.</td>
</tr>
<tr>
<td><strong>Height Above Water</strong></td>
<td>48 ft. at 9’ Draft</td>
</tr>
<tr>
<td><strong>Speed (Upriver)</strong></td>
<td>13 MPH</td>
</tr>
<tr>
<td><strong>Operating Draft</strong></td>
<td>Up to 10 ft.</td>
</tr>
<tr>
<td><strong>DWT</strong></td>
<td>13.7k - 15.7k LT (9-10’ Drafts)</td>
</tr>
<tr>
<td><strong>TEU Capacity</strong></td>
<td>2375</td>
</tr>
<tr>
<td><strong>Reefer TEU Capacity</strong></td>
<td>500+ Electric power as needed</td>
</tr>
<tr>
<td><strong>Crew Size</strong></td>
<td>Expect 10-12</td>
</tr>
<tr>
<td><strong>Trading Range</strong></td>
<td>Mississippi River</td>
</tr>
<tr>
<td><strong>Ballast Tanks</strong></td>
<td>Eight (8)</td>
</tr>
<tr>
<td><strong>Fuel</strong></td>
<td>LNG</td>
</tr>
<tr>
<td><strong>Fuel Capacity</strong></td>
<td>1000cm (3 trips)</td>
</tr>
<tr>
<td><strong>Power Plant</strong></td>
<td>Diesel Electric</td>
</tr>
<tr>
<td><strong>Main Generators</strong></td>
<td>Four (4) – 2880 kW each</td>
</tr>
<tr>
<td><strong>Horsepower</strong></td>
<td>14,850</td>
</tr>
<tr>
<td><strong>Propulsion Drives (Stern)</strong></td>
<td>Three (3) Drives</td>
</tr>
<tr>
<td><strong>Bow Drives</strong></td>
<td>Two (2) (1000kw Each)</td>
</tr>
<tr>
<td><strong>Deck Machinery</strong></td>
<td>Electric</td>
</tr>
<tr>
<td><strong>Gross Registered Tons</strong></td>
<td>&gt; 10,000</td>
</tr>
</tbody>
</table>
Key Attributes of LAGG Container Port Development:
• Greenfield, common user unique gateway terminal to and from Midwest and Mississippi River footprint
• Multiple mega vessel (>20,000 TEU) capacity and capability
• Innovative green solutions, fifty-year sustainability standard at competitively affordable cost
• Designed for safety in high water conditions, ocean vessel navigation, personnel and equipment
• Lowest cost provider as a result of labor work rules, technology and automation
• Ultimate conductivity, on dock rail, express gate, guaranteed chassis, air cargo and extremely competitive all water transport options
• Logistics integrations, adjacent logistic park, cross dock, 40-ft/53-ft transfers, multiple temperature FTZ, consolidation and de-consolidation facilities
• World class terminal operator
• Ocean carrier participation
• On-dock intermodal transfers and minimum dwell time
• Rural area with no NIMBY concerns and mitigation of city truck congestion
• Mitigates dray and rail cargo transit through populated areas

Conclusion:
• By participating in this project, BCO achieves lower landed transportation cost, improves reliability, mitigates environmental impact, and reduces transportation liability.
A Partnership for the Future