Solicitation R2113514P1
2018 Port Everglades Master/Vision Plan Update
Consultant Selection
August 31, 2017
PORT MASTER PLANS ALL OVER THE WORLD
RECENT PROJECTS

• Port Canaveral Cruise Master Plan 2014
• Port Canaveral Strategic Master Plan (2017)
• Port Tampa Bay Channelside Master Plan (2015)
• JAXPort Master Plan (2013)
• Port Everglades M/VP – Cruise & Cargo Market Study (2006, 2009)
• Singapore Marina Bay Master Plan (2017)
• Port of Seattle Pier 66 Multi-Use Cruise Facility & Master Plan (2017)
• Port of San Diego - General Planning and Financial Feasibility (2004-present)
• NY/NJ PA Master Plan (ongoing)
PORT RELATED ECONOMIC IMPACT ANALYSES

- All Florida Ports
- Deepening the Port Miami shipping channel to 50 feet
- Maintaining the Houston ship channel
- Channel deepening and widening for an LNG facility at the Port of Freeport
- Deepening the Port of Galveston shipping channel
- Deepening the St. John’s River in Jacksonville
- Benefit-cost analysis of maintaining the Port of Baltimore’s main shipping channel at 50 feet
- Maintaining the Port of Oakland shipping channel
- Economic impacts for the Port of Boston
HELPED SECURE OVER 1.2 BILLION IN FEDERAL GRANTS

- Port Miami Intermodal Rail Project - $22M (TIGER)
- Atlantic Gateway: Partnering to Unlock the I-95 Corridor - $165M (FASTLANE)
- I-10 Phoenix to Tucson Corridor Improvements - $54M (FASTLANE)
- Port of Savannah International Multi-Modal Connector - $44M (FASTLANE)
- Massport/Conley Terminal Modernization - $42M (FASTLANE)
- Fort Lauderdale Wave Streetcar Projects - $18M (TIGER)
- Port of New Orleans rail yard Improvements - $16.7M (TIGER)
- Dames Point Intermodal Container Facility - $10M (TIGER)
- Portland Marine Terminal Freight and Jobs Access Project - $7.3M (TIGER)
FINANCIAL FEASIBILITY

Port Tampa Bay
Port of San Diego
Virgin Islands PA
Singapore
Gibraltar

Port Canaveral
Port of Seattle
Bar Harbor Ferry Terminal
Dublin Port Company
India (Cruise Strategy)

Port Miami
New York Terminals
Tarragona, Spain
Cape Verde Islands
B&A is a pioneer in the use of drones for port master planning purposes and will integrate drones into the PEV M/VP process to assess and map critical assets within the Port and capture unique video footage for marketing purposes.

HDR and HATCH have 30 years of combined LNG experience in 150 countries.
The largest source of revenue - no longer growing reliably year-over-year

Port Miami and Port Canaveral both putting serious pressure on PEV by adding new terminal capacity for vessels up to and including Oasis-class

LNG bunkering at competing ports being developed (early stages)

PEV cruise infrastructure must keep pace
Florida Ports Remain Largest Despite Global Industry Growth

Port Everglades, Port Miami and Port Canaveral remain the three largest cruise ports in the world, despite the industry’s global expansion to Europe and Asia, according to the... 

Ship order progression

Number of ships

Year 2014 | Year 2015 | Year 2016 | Year 2017 | Year 2018 | Year 2019 | Year 2020 | Year 2021 | Year 2022

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Legend:
- orange: ships 2014
- blue: ships 2015
- gray: ships 2016
- green: ships 2017
- orange: paxs 2014
- blue: paxs 2015
- gray: paxs 2016
- green: paxs 2017
Florida homeport passengers

- 6,000,000
- 8,000,000
- 10,000,000
- 12,000,000
- 14,000,000
- 16,000,000
- 18,000,000
- 20,000,000
- 22,000,000
- 24,000,000
- 26,000,000

- 2003
- 2008
- 2013
- 2018
- 2023
- 2028

3% growth
4% growth
historical

Source: B&A
At 1 million passengers per berth over the next 20 years there could be demand for an additional 10 berths in Florida.
Additional future berth options

- **Port Everglades**
  - Current – 8 berths
  - Future ???

- **Port Miami**
  - Current - 7 berths
  - Future 9-10

- **Port Canaveral**
  - Current – 5 berths
  - Future 9

- **Port Tampa Bay**
  - Current – 3 berths
  - Future 2
Comparison of terminal efficiency (2015)

Passenger Per berth

- Port Canaveral
- Miami
- Port Everglades
- Tampa
- New York
- Boston
- Vancouver
- Seattle
- Los Angeles
- San Diego

Year round
Seasonal
Port Everglades potential

- PEV has the longest berths, but no new berths
- Terminals are updated as demand
- Agreements have locked in users to facilities, leaving little room for new customers
- Need to increase berth availability
- Need to rethink terminal operations / layouts to maximize or optimize use
  - Balance seasonal to year-round
  - Conscious of new users
CONTAINER

- Trade lanes
  - North/South key
  - Emerging markets – Africa, Mexico
  - Asian
  - Europe/Med
- Markets – Perishables
- Infrastructure
  - Channel depth
  - Cranes
  - Surface transportation access
- Operations
  - ILA/Teamsters/Non-union
  - Integrated operating systems
  - Truck retrieval
- Yard layouts
PETROLEUM

• Future demand/markets
  • Gasoline
  • Jet Fuel
  • Alternative Fuels
  • EVs

• Potential changes in vessel dimensions –

GENERAL CARGO

• Utilization of empty space:
  • Steel
  • Autos
  • Project cargo/yachts

• Revenue maximization
LNG … A FUTURE NECESSITY

- Cruise ships
- Cargo -- Crowley, SeaStar and Tote
- ECA regulations
- How to develop LNG to meet demand over time

DRY BULK

- Land leases
- Optimization of net income
Near-dock rail = opportunity to expand hinterland and reduce local truck traffic

Phase 9B container yard = options for flexible future use (chassis storage, empty storage, M&R/inspections, transloading, other?)

Long-term need to reconfigure/densify container yards over time to increase throughput on same footprint

FTZ, cold/frozen storage to support reefer trade, cruise provisioning

Key Issues: Southport
Single access point for trucks = potential future congestion on peak pick-up/drop-off days

More, larger vessels at berth = potential for more intense daily/weekly volume peaks for container yards/gates

24/7 Container visibility

Efficiency

Resilience

Operations

Logistics

Autonomous trucks/IOT

24/7 Container visibility

More, larger vessels at berth = potential for more intense daily/weekly volume peaks for container yards/gates
How to accommodate LNG bunkering = major consideration for coming 20 years

Improve T29 (cruise) in balance with increased utilization of adjacent backlands (cargo); T19, T21, T25 and surrounding GTAs/parking

Mixed use areas increase land utilization and create complimentary revenue opportunities – has worked well historically but may come under pressure as cruise and non-containerized cargo needs grow and change over time

Other properties within and beyond PEV should be identified for potential future development and use/reuse (including office/commercial)
Vehicular access to the Midport garage and pick-up/drop-off congestion at T19, T21, T25 and T26 on multi-ship days.

Berths 19-21, Terminal 29 and the "knuckle" = constraints to growth in cruise vessel size, PAX volume.
Petroleum operations are critical to the South Florida economy and demand is likely to grow as the region grows: how and where to accommodate?

Integration of cruise operations at T2, T4 and T1 (ferry) with Convention Center activities and expansion is challenging but must be achieved as part of the broader Broward County vision for the future.

How to accommodate LNG bunkering = major consideration for the coming 20 years.
Neo-bulk = good utilization of available land but likely to be cyclical/short-term/spot market opportunities

Other properties within and beyond PEV should be identified for potential future development and use/reuse (including office/commercial)

Integration

LNG Bunkering

Resilience

New Opportunities

Cruise/Conventions

Petroleum
VALUE TO THE COMMUNITY

- Identify opportunities to grow volumes and revenues in a diversified portfolio of operations
- Balance local and regional needs
- Provide for economic, environmental and community needs

OUR APPROACH WILL...

- Build on existing strengths and current investments
- Preserve flexibility to adapt to new opportunities
- Explore opportunities to introduce technology and innovative practices
- Use dynamic financial modeling for evaluation
- Emphasize sustainability and optimization
- Engage a broad range of stakeholders
### Individual financial modules

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<td>Cruise revenues</td>
<td>$5,467,74</td>
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<td>Operating revenues before depreciation</td>
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### Financial modules

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<td>Revenue forecast</td>
<td>RCI fees</td>
<td>Other Cruise line fees</td>
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<td>Guarantees</td>
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### Statistics module

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CIP production

Historical capacity

Thousands

CIP
Maintenance
Financing - debt service coverage (using 1.75 coverage floor)
IRR of major business investments

- Cruise: -5.0%
- Parking: 0.0%
- Gaming ships: 5.0%
- Cargo: 10.0%
- PCTC: 15.0%
- Spaceport: 20.0%
- The Cove: 0.0%
- Exploration Tower: 0.0%
Set target and goals as part of the Master Plan

Revenue diversification

2017
- Cruise: 58%
- Gaming ships: 19%
- Parking and transport: 10%
- Cargo operations: 1%
- Exploration Tower: 1%
- Real estate: 1%
- Space port: 3%
- Miscellaneous: 1%

2027
- Cruise: 55%
- Gaming ships: 21%
- Parking and transport: 13%
- Cargo operations: 5%
- Exploration Tower: 5%
- Real estate: 2%
- Space port: 1%
- Miscellaneous: 1%

2037
- Cruise: 50%
- Gaming ships: 21%
- Parking and transport: 17%
- Cargo operations: 6%
- Exploration Tower: 2%
- Real estate: 2%
- Space port: 1%
- Miscellaneous: 1%

2047
- Cruise: 47%
- Gaming ships: 18%
- Parking and transport: 25%
- Cargo operations: 5%
- Exploration Tower: 2%
- Real estate: 1%
- Space port: 1%
- Miscellaneous: 1%
ENVIRONMENTAL STEWARDSHIP

• Climate Change Task Force / Sea level rise
  Resilience, adaptation and sustainability

• Energy & air quality
  Prioritize clean, renewable and efficient energy-saving alternatives

• Water quality
  Monitoring, testing, stormwater management

• Planning & environmental management
  Wildlife and habitat protection

• Pollution prevention & waste minimization
  Beneficial reuse & BMPs
STAKEHOLDER ENGAGEMENT

- Critical to set and understand expectations
- Critical to harmonize with community needs
- Elected Officials
- Broward County Administrator & Staff
- Industry Partners
- Community Partners
3D PORT PLANNING VIDEOS
THE BA TEAM

- Strong local and international experience
- Decades of successful local planning and project execution
- We know Port Everglades and share your desire to help you succeed
- We understand Port Everglades’ role in the global supply chain
- We understand its significance to the local, regional, national and global economy
- The B&A project team will bring a fresh look to the Master/Vision Plan
- Seek opportunities to innovate and enhance the value proposition across all lines of business
- We want your business and are prepared to earn it
Thank you!