PREPARING FOR 2014

PRESENTED MAY 2012
PortMiami Statistics

Economic Impact: Over $18 Billion

• Supports 180,000 jobs directly and indirectly
• “Cargo Gateway of the Americas”
  • Approximately 900,000 TEUs in 2011
  • Top Trading Partners: China, Hong Kong, Honduras, Dominican Republic, & Germany
  • Top Imports: tiles, textiles, fruits, & vegetables
• “Cruise Capital of the World”
  • More than 4 million passengers in 2011
Where We Are Today
Miami Harbor, Florida

- 2 ½ nautical mile channel
- Maintenance every 10 years
PortMiami Tomorrow
How We Get There

Tunnel

Rail

Dredge
PortMiami Tunnel Project

- MacArthur Cswy Bridge Widening
- Twin tunnels under Government Cut
- Modification of Dodge Island Roadway System
PortMiami Tunnel Project

Tunnels are 3900 ft. long
+40 ft. under the bottom of Main Channel
5% Grade
5 cross passages
Tunnel Progress
Restoration of Rail

- TIGER II award of $22.7M
- Partnership with Florida East Coast Railway and Florida Department of Transportation
- Project includes
  - Intermodal Yard on the Port
  - Rail Bridge Improvements
  - Upgrade existing rail track to accommodate double stack freight
Intermodal Yard

- Rehabilitation of existing rail bascule bridge (proposed action)
- Repairs on existing rail and new parallel rail 750’ (proposed action)
- 1150’ parallel rail by POM tunnel contractor
- On port intermodal yard 1,600’ parallel rail (proposed action)

Intra-Coastal Waterway

Biscayne Bay

Main Channel

South Channel
Widen seaward portion of Cut-1 from 500 to 800 feet; deepen Cut-1 and Cut-2 from 44 to 52 feet.

Add turn widener at the southern intersection of Cut-3 with Fisherman's Channel and deepen to 50 feet.

Increase Fisher Island turning basin from 1200 to 1500 feet; truncate NE section of the turning basin to minimize seagrass impacts; deepen from 42 to 50 feet.

Expand berthing area by 60 feet and widen southern edge of Fisherman’s Channel 40 ft; reduce Lummus Island turning basin to a 1500 ft dia.; deepen from 42 to 50 ft.

DEEP DREDGE

- Delivers Value
- Only 2.5 nautical miles from buoy to berth
- Mid-Bay location = Infrequent Maintenance

Component 1:
Widen seaward portion of Cut-1 from 500 to 800 feet; deepen Cut-1 and Cut-2 from 44 to 52 feet.

Component 2:
Add turn widener at the southern intersection of Cut-3 with Fisherman's Channel and deepen to 50 feet.

Component 3:
Increase Fisher Island turning basin from 1200 to 1500 feet; truncate NE section of the turning basin to minimize seagrass impacts; deepen from 42 to 50 feet.

Component 5:
Expand berthing area by 60 feet and widen southern edge of Fisherman’s Channel 40 ft; reduce Lummus Island turning basin to a 1500 ft dia.; deepen from 42 to 50 ft.
Project Scope

• Request for Proposal
  – Approximately 5,000,000 CY of dredging
    • EPA designated offshore site
    • Rock material for artificial reef habitat
    • Borrow sites for seagrass mitigation
  – Estimate 4,000,000 CY of Rock
  – Confined Blasting will be Allowed
Mitigation for Hardbottom Impacts

- Artificial Reef Creation – 9.28 acres
- Coral Relocation
  - All hard corals >25cm
  - Up to 1300 hard corals between 10 and 25 cm
Reef Mitigation Success

Adjacent Successful Previous Port Mitigation Site

Offshore Artificial Reef Mitigation Areas
- **Seagrass Mitigation Site**
  - Location is previous dredge material borrow site for causeway construction (pre 1925)
  - Select fill cap (5 to 10% fines) to -4\text{ft} MLLW +/- 0.5\text{ft}
  - Turbidity Curtains surrounding placement location
  - Restoration of 16.6 acres of seagrass, 7.15 acres to be planted
Post construction success is expected to be high because the area is surrounded by existing high density seagrass beds.
Construction Monitoring

• Turbidity Monitoring
• Sedimentation Monitoring
• Secondary Impacts - Visual with Divers Twice a Week
  • Hardbottom and Corals
  • Seagrass Beds

Natural Turbidity in the Bay
Confined vs Unconfined Blasts

3000 pounds of explosives
CONFINED

7 pounds of explosives
UNCONFINED
Monitoring Methods

- Observation techniques & data collection
- Ensure Safety of Marine Mammals and Protected Species
- Six Vessel and Aerial Observers

Aerial

Drill barge

Two small boats on water – east and west of drill barge
Typical Blast Timeline

- **2 HOURS**
  Notice to Project Team and Local Authorities

- **1 HOUR**
  Marine Mammal Watch Begins

- **15 MINUTES**
  Notice to Mariners (channel closes)

- **1 MINUTE**
  Fish Scare

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DELAY CAPSULE: If an animal is observed in either the danger or safety zones, the blast is delayed to monitor the animal until it leaves, on its own, from both the danger and safety zones.

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**BLAST DETONATION**

+ **5 MINUTES**
  All Clear Signal

+ **30 MINUTES**
  Marine Mammal Watch Ends
Project Schedule

- May 2012 Design Compete
- Summer 2012 Advertise
- Fall 2012 Award Contract
- Winter 2013 Commence Work
- Winter 2015 Complete Work
Thank You

For more information visit our website
www.miamidade.gov/portofmiami