



Port Canaveral 21st Century Section 204 (f) Study Update

18 January 2017



- In March 2014, CPA commissioned the 44-foot Project study team to investigate additional channel improvements
- After the January 2016 presentation to the Commission, the study was redirected to align with near-term infrastructure planning
- Today's presentation provides an update on study findings and identifies paths forward



- Potential Improvements to the Federal Navigation Channel at Port Canaveral
 - Deepening
 - Extension out to deeper water
- Project Benefits
 - Larger vessels
 - Larger vessel loads
 - Coordinated with berth improvements



- Collaboration with Senior Staff
- Engineering Analyses
 - Hydrographic surveys
 - Embankment stability analyses
 - Hydrodynamic model set up
 - Construction and maintenance dredging analyses
 - Offshore disposal site analysis
 - In-harbor geotechnical investigations




- **Economic Analyses**
 - CPA staff and tenant interviews
 - Commodity forecast
 - Fleet forecast
 - Preliminary benefit/cost analysis
- **Likely Project**
 - Deepen to -47 or -48 feet
 - Extend channel by 2.0 or 2.7 miles



- **Current Pathway Section 204 (f)**
 - Study, Design, & Construction 100% CPA funds
 - Maintenance dredging 100% Federal funds
 - Earliest Estimated Construction Start 2020
- **Alternative Pathway Section 203**
 - Study 100% CPA funds upfront, 50% creditable
 - Design, & Construction 35% CPA funds 65% Federal funds
 - Maintenance dredging 100% Federal funds
 - Earliest Estimated Construction Start 2022
 - Greater uncertainty
 - Construction authorization (WRDA)
 - Congressional appropriations for construction

Process Components	Section 203 Approach	Section 204 Approach
Time and Schedule		
Feasibility Phase	2 - 3 years	12 - 18 months
Design Phase	2 years (includes permitting) Corps does design & controls schedule	18 months (includes permitting) Port does design & controls schedule
Construction Phase	54 months minimum, dependent of Federal funding Corps does construction & controls schedule	54 months Port does construction & controls schedule
Total Time (Present through Construction Completion)	9 years minimum	7-7 1/2 years
Non-Federal Cost Sharing Percentages		
Feasibility Phase	100% upfront, 50% credited against PED & construction	100%
PED Phase	Same as construction cost sharing	100%
Construction Phase	35% (25% +10%, if ≤ 50 ft) 60% (50%+10%, for portion > 50 ft)	100%
O& M Phase	0% ≤ 50 ft, 50% > 50 ft	0% ≤ 50 ft, 50% > 50 ft
Administrative / Procedural Burden		
Feasibility Study Standards & Requirements	Expected to meet all standards & requirements of Corps-prepared Feasibility Study	Some streamlining of requirements.



Next Steps

- Complete Technical Analyses
 - Engineering, Economics, Environmental
- Engage USACE
 - Economic modeling, NEPA coordination, & technical & policy reviews
- Evaluate Section 204 (f) vs Section 203
- Additional Funding to Complete Feasibility Phase Study



Additional Funding to Complete Study

- Existing Funding Sufficient for Study Management, Plan Formulation, & Environmental
- USACE Funding
 - Deep Draft Navigation Center \$92,000
 - Estimated Jacksonville District \$150,000-250,000
- Engineering Analyses \$999,000
 - Geotech, Ship simulations, DMMP, Impact analyses
- Total \$1,341,000



Upcoming Milestones

- Plan Selection: May 2017
- 203 vs 204 Decision: June 2017
- Section 204 (f) Report to ASA(CW): December 2017, or
- Section 203 Report to ASA(CW): March 2018



Engineering Budget Increase Request

	New Total	Original Budget	Increase
CH2M	\$ 1,544,835	\$ 1,061,358	\$ 483,477
ARC	\$ 53,155	\$ -	\$ 53,155
Ardaman	\$ 344,610	\$ -	\$ 344,610
SDR	\$ 37,500	\$ 20,000	\$ 17,500
Olsøn	\$ 82,500	\$ 43,000	\$ 39,500
Anamar	\$ 40,000	\$ 40,000	\$ -
STAR Center	\$ 60,000	\$ 60,000	\$ -
Ghyabi	\$ 20,000	\$ 20,000	\$ -
CHE	\$ 258,945	\$ 198,500	\$ 60,445
Totals	\$ 2,441,545	\$ 1,442,858	\$ 998,687

Engineering Budget Increase Request

- Surveying and mapping: \$48,400
- Ship Simulations: \$48,300
- Surge Analysis: \$79,000
- Geotechnical (Inner harbor): \$301,800
- Dredged Material Management Plan: \$395,800
- Inlet Entrance & Sediment Trap Impacts: \$42,500
- 65% design Cost Estimate: \$29,300

Alternate Plan Features & Quantities

DESIGN SUMMARY							
	PROJECT DEPTH (FT MLLW)						
	ALT PLAN 1	ALT PLAN 2	ALT PLAN 3	ALT PLAN 4	ALT PLAN 5	ALT PLAN 6	ALT PLAN 7
WAC & MTB	-45	-46	-47	-48	-49	-50	-51
CUT 2 & 3	-46	-47	-48	-49	-50	-51	-52
TTB TO JETTIES	-47	-48	-49	-50	-51	-52	-53
TURN	-49	-50	-51	-52	-53	-54	-55
OUTER REACH	-49	-50	-51	-52	-53	-54	-55
EXTENSION	-50	-51	-52	-53	-54	-55	-56
EXTENSION LENGTH (NAUTICAL MILE)	0.9	1.5	2.0	2.7	3.5	3.9	4.2
PROJECT DEPTH QUANTITIES INCL MTB (MCY)	1.73	2.73	3.81	4.98	6.23	7.55	8.93
100% OVER DEPTH QUANTITY (MCY)	1.99	2.16	2.30	2.45	2.63	2.76	2.85
TOTAL WITH 100% OVER DEPTH QUANTITY (MCY)	3.72	4.89	6.11	7.43	8.86	10.31	11.78
TOTAL WITH 80% OVER DEPTH QUANTITY (MCY)	3.32	4.48	5.65	6.94	8.33	9.76	11.21
TIDE AND LOAD RESTRICTED							
TIDE RESTRICTED							

Alternate Plan Channel Extensions

