

2006 Port Everglades Master Plan Update



DMJM HARRIS CONSULTANT TEAM

Team Member	Role	Company
Craig Holland	Corporate Officer in Charge	DMJM Harris
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Vijay Agrawal	Port Planner	JWD / DMJM Harris
Cyndi Harris	Planner	DMJM Harris
Sheryl Dickey	Public Involvement	Dickey Consulting Services
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Sandra Walters	Environmental	Sandra Walter Consultants
John Martin Jeff Sweeney	Containerized Cargo Market Assessment	Martin Associates
Michael Sclar	Non-Containerized Cargo Market Assessment	Michael L. Sclar Associates
Mark Ittel	Cruise Analysis	Bermello, Ajamil & Partners
Lakdas Nanayakkara	Marine Structures	Lakdas/Yohalem Engineering
Keith Emery	Cost Estimating	CMS

MISSION STATEMENT

“The mission of Port Everglades is to manage the County’s port related assets to maximize the economic benefits to the citizens and businesses of Broward County and the State of Florida. The Port will manage the County’s assets in a financially responsible, environmentally sound manner, consistent with the local, state and federal rules and regulations that govern international and domestic trade, transportation and the Port industry.”

PORT EVERGLADES STRATEGIC DEVELOPMENT PROGRAM

- *Provide new container and other marine terminal/warehouse facilities, including for an intermodal container transfer facility.*
- *Improve intermodal connections (road and rail) to facilitate the transportation of cargo and provide competitive service.*
- *Expand cruise operations and construct new facilities.*
- *Expand roadway systems and parking facilities to support increased cruise growth and an on-site Convention Center.*
- *Expand Foreign Trade Zone operations.*
- *Expand role as a transshipment center for the Southeastern U.S., Caribbean, Latin American, and Far East markets.*
- *Improve petroleum distribution facilities.*
- *Pursue new trading opportunities and strengthen existing ties.*

GOAL OF 2006 MASTER PLAN UPDATE

Create a plan to maximize return on investment through a realistic 5 year facility development program within a framework of 10 and 20 year vision plans.

OBJECTIVES

- *Balanced Market-Driven Expansion*
- *Realistic Infrastructure Development Program*
- *Provisions for Market Diversification*
- *Continuing Environmental Stewardship*

WORK PLAN

Phase I – 5 Months

- *Facilities Assessment*
- *Market Assessment*
- *Facilities Needs and Throughput Enhancement*
- *Strategy Development, Tasks A-C*

Phase II – 3 Months

- *Strategy Development, Tasks D-E*
- *Final Plan (Executive Summary)*

Phase III

- *Update Deepwater Port Component of County*
- *Comprehensive Plan and Approval Assistance*

WORK PRODUCTS

- *5 Year CIP*
- *10 & 20 Year Vision Plans*
- *Updated Port Master Plan*
- *Updated Market Study*
- *Updated Comprehensive Port Plan*

PROJECT COMMUNICATION

- *www.portevergladesmasterplanupdate.com*
- *Schedule of Events / Meetings*
- *Meeting / Presentations Workshops*
- *Ask Questions / Give a Comment*

www.portevergladesmasterplanupdate.com

2006 PORT EVERGLADES MASTER PLAN UPDATE








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PORT EVERGLADES PLANS FOR FUTURE GROWTH WITH NEW MASTER PLAN DEVELOPMENT

The Broward County Port Everglades Department has retained the services of DMJM Harris, a nationally recognized engineering/planning/economic analysis consulting firm, to prepare a comprehensive five-year Master Plan, and 10- and 20-year Vision Plans.

"We know that reaching a balance between financial stability, capital development and security operations is achievable. It is our hope that the updated Port Everglades Master Plan will plot a course for how we can expand and enhance existing facilities in the most economical and efficient manner," says Port Everglades Director Phillip C. Allen.

In preparing the Master Plan, DMJM Harris will assess the changes that have taken place regionally, nationally, internationally and at the Port since 2001, when Port Everglades' presented its original 2000 Vision Master Plan. DMJM Harris will incorporate the changing business trends and adjustments that have resulted in the post-9/11 environment. In addition, opportunities and constraints that could impact the 10- and 20-year Vision Plans will be identified.

The Plan also will include recommendations stemming from a current study of the Port's petroleum facilities, which identified ways to improve the efficiency of this business sector's facilities.

Protecting the environment through structural considerations and operational practices is another initiative that the Port Department is pursuing as the Master Plan is developed. "We are also making environmental protection, maintenance and enhancement an important component of Port Everglades' future development," Allen said, adding that Port Department recently hosted a workshop to ask the local community and environmental experts for their input about how they believe the Port can progress while remaining a good environmental steward.

The new Master Plan is expected to be complete by late Spring of 2007. The port community and general public will be invited to provide input as the plan is being developed.

As one of South Florida's leading economic engines, Port Everglades is the gateway for international trade and cruise vacations. Port Everglades is one of the busiest cruise ports worldwide and the winter homeport for Cunard Line's Queen Mary 2. It is among the fastest growing container ports in the United States, according to the FIERs import/export database. And, Port Everglades is South Florida's main seaport for receiving petroleum products including gasoline and jet fuel. The Port Everglades Department is a self-supporting Enterprise Fund of Broward County government with operating revenues of approximately \$105 million annually. It does not rely on local tax dollars for operations. The Port provides more than 15,000 direct jobs and generates \$2.87 billion in business activity and \$679.5 million in personal income annually in Broward County.

More information on Port Everglades, which is governed by the Broward County Board of Commissioner, is available at:

Port Everglades Website
www.broward.org/port

MEETINGS

- Public Outreach Meetings
- Group Tenant Meetings
- Agency Meeting
- One on One Meetings with Tenants
- CBP, BSO, Coast Guard
- Bi-weekly CC/FLL/PEV Master Plan Coordination Meetings

INFRASTRUCTURE ASSETS AT PORT EVERGLADES

- Deepwater Port
- 2000 Acres of Jurisdictional Area
- Interstate Highway Connection
- Freight Rail Connection
- Proximity to Fort Lauderdale – Hollywood International Airport
- Cruise Facilities Infrastructure
- Cargo / Container Infrastructure
- Petroleum Storage Infrastructure

DEVELOPMENT CONSIDERATIONS

- *Access and Circulation*
- *Port-wide Dredging Program*
- *Cruise Facility Expansion*
- *Southport Expansion*
 - *Berth Requirements*
 - *Terminal Utilization*
 - *Rail Access / ICTF Development*
- *Midport Operations*
- *Petroleum Distribution Operations*
- *Airport Interface*
 - *Dynegy Property Development*
 - *People Mover Connection*
- *“Carve Out” Convention Center*
- *Dania Cutoff Canal Development*
- *FPL Discharge Canal Bridge*
- *Free Trade Zone Location*
- *Security Enhancements*

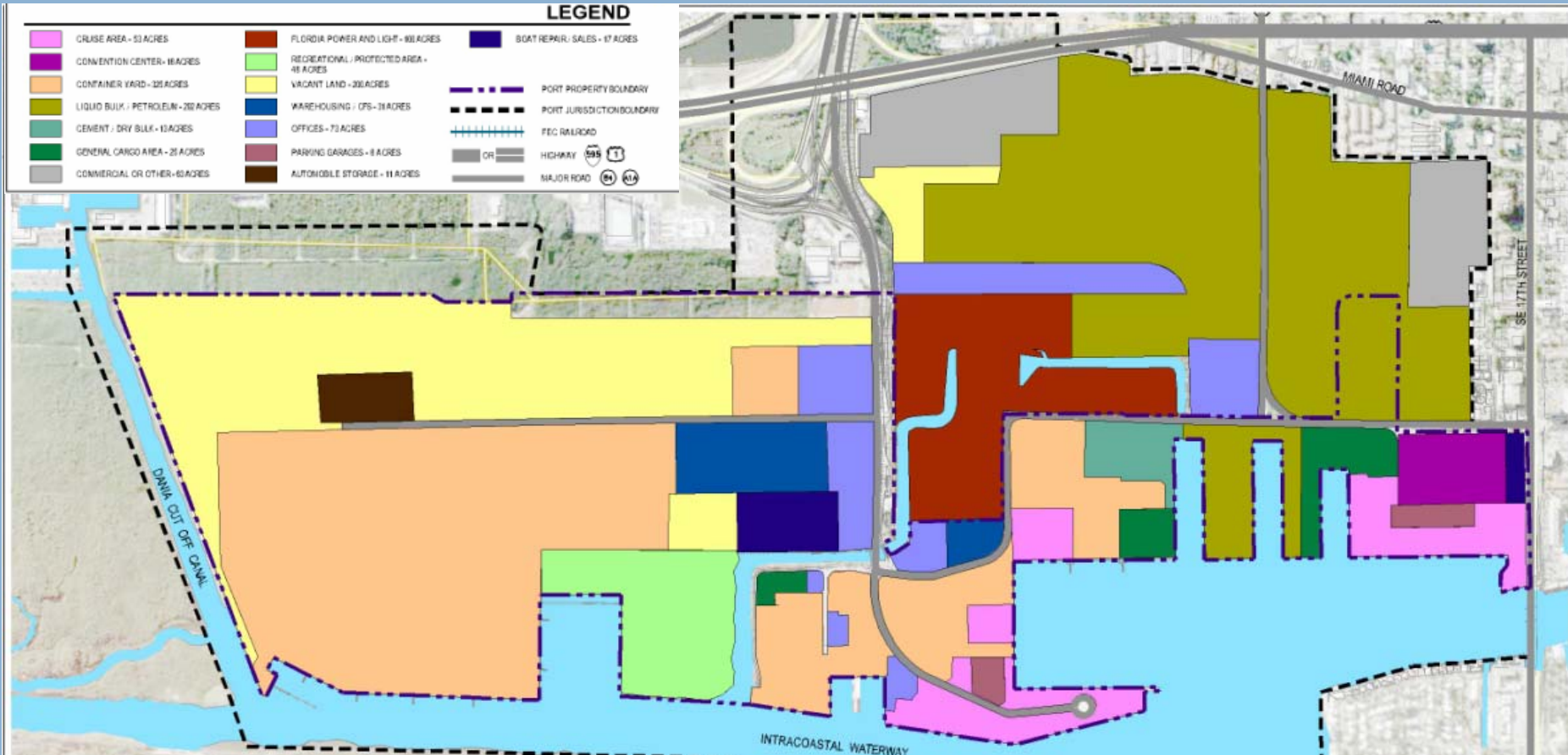
The Master Plan Team Is Currently Developing Market Forecasts for:

- Containerized Cargo
- Non-Containerized Cargo
- Cruise

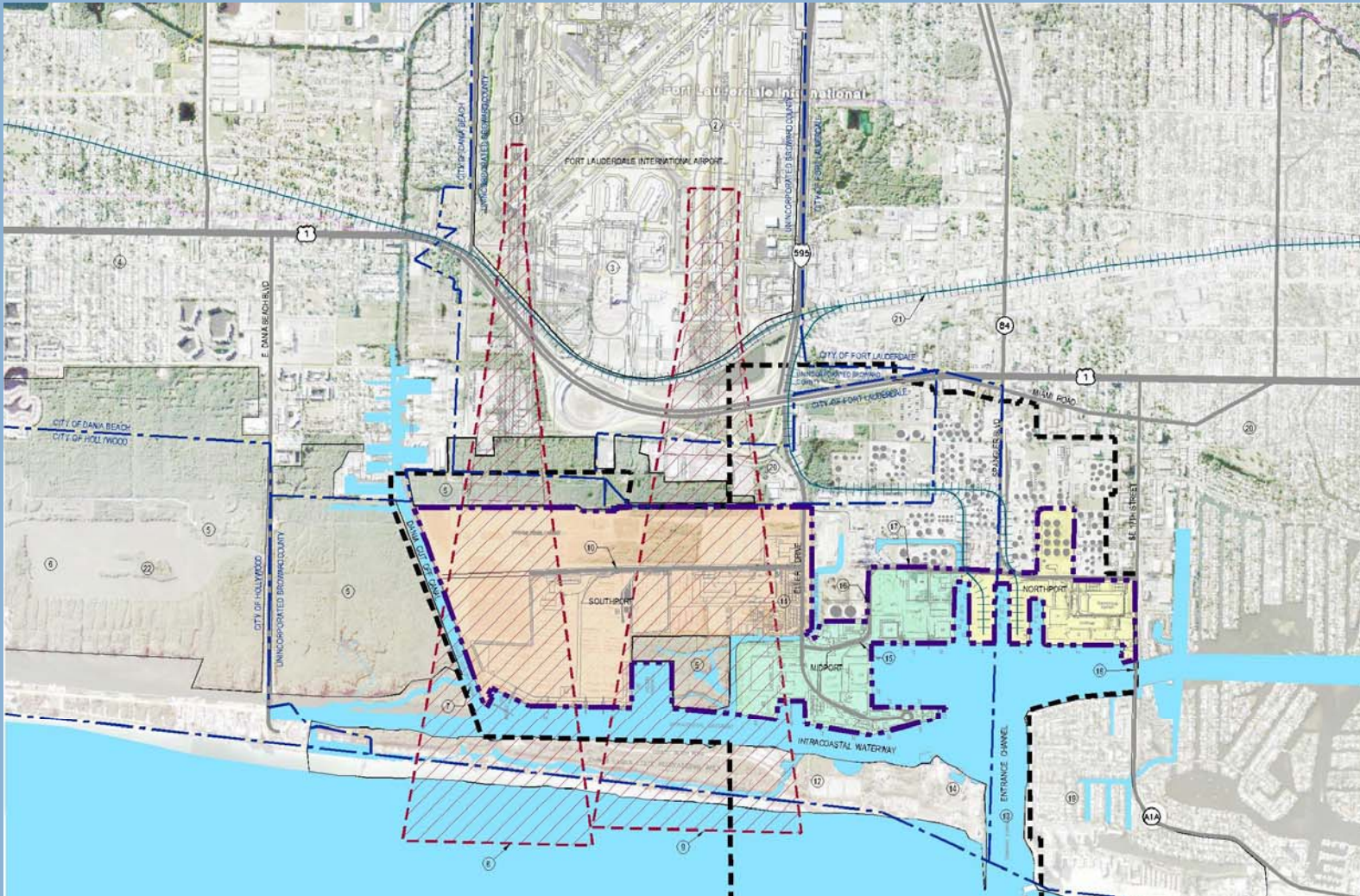
In Order to Prepare:

- Capacity Analysis
- Needs Assessment
- 20 Year Vision Plan

EXISTING LAND USES



Regional Setting

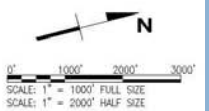


KEYNOTES

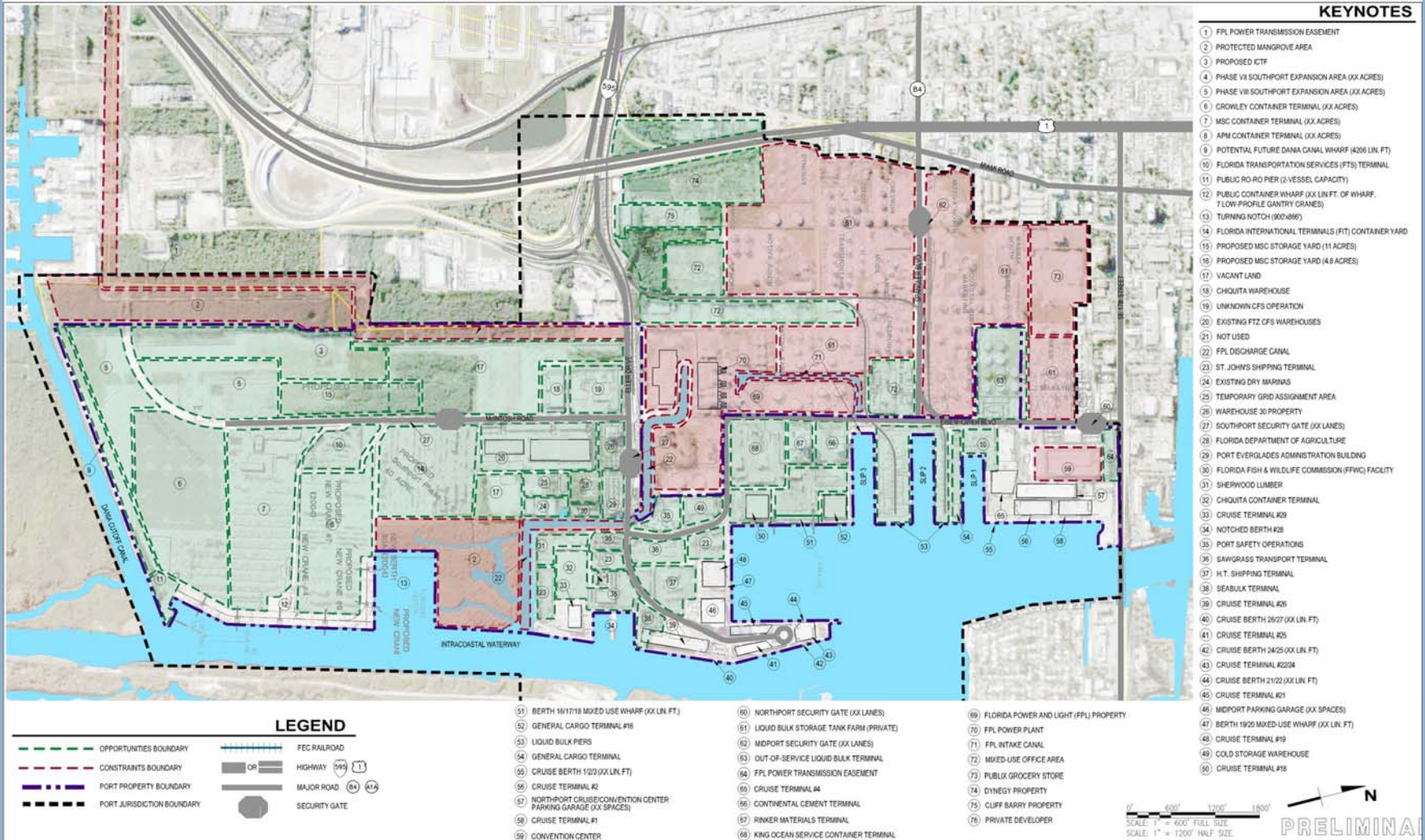
- ① FLL SOUTH RUNWAY
- ② FLL NORTH RUNWAY
- ③ FLL TERMINALS
- ④ CITY OF DANIA BEACH
- ⑤ PROTECTED ENVIRONMENTAL HABITAT
- ⑥ CITY OF HOLLYWOOD
- ⑦ DANIA CUT OFF CANAL
- ⑧ SOUTH RUNWAY DEPARTURE PATH (XX FT-MAX BLDG HT)
- ⑨ NORTH RUNWAY DEPARTURE PATH (XX FT-MAX BLDG HT)
- ⑩ NIGHTOSH ROAD
- ⑪ BROWARD COUNTY (UNINCORPORATED)
- ⑫ JOHN U. LLOYD STATE RECREATIONAL AREA
- ⑬ ENTRANCE CHANNEL (XX FT MILL)
- ⑭ U.S. COAST GUARD
- ⑮ SE 17TH AVENUE
- ⑯ SE 32ND STREET
- ⑰ EISENHOWER BOULEVARD
- ⑱ 17TH STREET CAUSEWAY BRIDGE
- ⑲ EXISTING RESIDENTIAL AREA
- ⑳ CITY OF FORT LAUDERDALE
- ㉑ FLORIDA EAST COAST (FEC) RAILROAD
- ㉒ WESTLAKE PARK

LEGEND

- PORT JURISDICTION BOUNDARY
- PORT PROPERTY BOUNDARY
- CITY BOUNDARY
- FEC RAILROAD
- OR --- HIGHWAY
- MAJOR ROAD
- EXISTING RUNWAY DEPARTURE PATH



Opportunities and Constraints



KEYNOTES

- 1 FPL POWER TRANSMISSION EASEMENT
- 2 PROTECTED MANGROVE AREA
- 3 PROPOSED ICTF
- 4 PHASE VII SOUTHPORT EXPANSION AREA (XX ACRES)
- 5 PHASE VIII SOUTHPORT EXPANSION AREA (XX ACRES)
- 6 CROWLEY CONTAINER TERMINAL (XX ACRES)
- 7 MSC CONTAINER TERMINAL (XX ACRES)
- 8 API CONTAINER TERMINAL (XX ACRES)
- 9 POTENTIAL FUTURE DANA CANAL WHARF (4206 LIN. FT.)
- 10 FLORIDA TRANSPORTATION SERVICES (FTS) TERMINAL
- 11 PUBLIC RO RO RIER (3 VESSEL CAPACITY)
- 12 PUBLIC CONTAINER WHARF (XX LIN. FT. OF WHARF, 7 LOW-PROFILE GANTRY CRANES)
- 13 TURNING NOTCH (900'x80')
- 14 FLORIDA INTERNATIONAL TERMINALS (FIT) CONTAINER YARD
- 15 PROPOSED MSC STORAGE YARD (11 ACRES)
- 16 PROPOSED MSC STORAGE YARD (4.8 ACRES)
- 17 VACANT LAND
- 18 CHOQUITA WAREHOUSE
- 19 UNKNOWN CFS OPERATION
- 20 EXISTING FTZ CFS WAREHOUSES
- 21 NOT USED
- 22 FPL DISCHARGE CANAL
- 23 ST. JOHN'S SHIPPING TERMINAL
- 24 EXISTING DRY MARINAS
- 25 TEMPORARY GRID ASSIGNMENT AREA
- 26 WAREHOUSE 30 PROPERTY
- 27 SOUTHPORT SECURITY GATE (XX LANES)
- 28 FLORIDA DEPARTMENT OF AGRICULTURE
- 29 PORT EVERGLADES ADMINISTRATION BUILDING
- 30 FLORIDA FISH & WILDLIFE COMMISSION (FFWC) FACILITY
- 31 SHERWOOD LUMBER
- 32 CHOQUITA CONTAINER TERMINAL
- 33 CRUISE TERMINAL #20
- 34 NOTCHED BERTH #28
- 35 PORT SAFETY OPERATIONS
- 36 SAWGRASS TRANSPORT TERMINAL
- 37 H.T. SHIPPING TERMINAL
- 38 SEABULK TERMINAL
- 39 CRUISE TERMINAL #25
- 40 CRUISE BERTH 28/27 (XX LIN. FT.)
- 41 CRUISE TERMINAL #25
- 42 CRUISE BERTH 24/25 (XX LIN. FT.)
- 43 CRUISE TERMINAL #2204
- 44 CRUISE BERTH 21/22 (XX LIN. FT.)
- 45 CRUISE TERMINAL #21
- 46 MIDPORT PARKING GARAGE (XX SPACES)
- 47 BERTH 19/20 MIXED USE WHARF (XX LIN. FT.)
- 48 CRUISE TERMINAL #19
- 49 COLD STORAGE WAREHOUSE
- 50 CRUISE TERMINAL #18
- 51 BERTH 16/17/18 MIXED USE WHARF (XX LIN. FT.)
- 52 GENERAL CARGO TERMINAL #16
- 53 LIQUID BULK PIERS
- 54 GENERAL CARGO TERMINAL
- 55 CRUISE BERTH 11/20 (XX LIN. FT.)
- 56 CRUISE TERMINAL #2
- 57 NORTHPORT CRUISE/CONVENTION CENTER PARKING GARAGE (XX SPACES)
- 58 CRUISE TERMINAL #1
- 59 CONVENTION CENTER
- 60 NORTHPORT SECURITY GATE (XX LANES)
- 61 LIQUID BULK STORAGE TANK FARM (PRIVATE)
- 62 MIDPORT SECURITY GATE (XX LANES)
- 63 OUT-OF-SERVICE LIQUID BULK TERMINAL
- 64 FPL POWER TRANSMISSION EASEMENT
- 65 CRUISE TERMINAL #4
- 66 CONTINENTAL CEMENT TERMINAL
- 67 RINKER MATERIALS TERMINAL
- 68 KING OCEAN SERVICE CONTAINER TERMINAL
- 69 FLORIDA POWER AND LIGHT (FPL) PROPERTY
- 70 FPL POWER PLANT
- 71 FPL INTAKE CANAL
- 72 MIXED-USE OFFICE AREA
- 73 PUBLIC GROCERY STORE
- 74 D'YNEGY PROPERTY
- 75 CLIFF BARRY PROPERTY
- 76 PRIVATE DEVELOPER

LEGEND

- - - OPPORTUNITIES BOUNDARY
- - - CONSTRAINTS BOUNDARY
- - - PORT PROPERTY BOUNDARY
- - - PORT JURISDICTION BOUNDARY
- - - FEC RAILROAD
- OR HIGHWAY 999 11
- T MAJOR ROAD 999 11
- SECURITY GATE

0' 600' 1200' 1800'
SCALE: 1" = 600' FULL SIZE
SCALE: 1" = 1200' HALF SIZE
PRELIMINARY

ENVIRONMENTAL OBJECTIVE

- *Identify and quantify true environmental impacts from projected infrastructure improvements*
- *Use environmental impacts in the project decision making process*

PORT EVERGLADES ENVIRONMENTAL WORKSHOP

- Held on March 10, 2006
- Focused on:
 - Natural Habitat
 - Water Quality
 - Air Quality
 - Recycling and Green Products

PUBLIC OUTREACH MEETING COMMENTS – SEPTEMBER 7, 2006

- Environmental Concerns
 - Proposed Dredging and Impact on Marine Habitat
 - Port Projects and Impact on Mangroves
- Proposed Pipeline Concerns
 - Environmental Impact
 - Safety Controls
- Security Concerns
 - Cruise Related
 - Port Entry

CONVENTION CENTER “CARVE OUT” GOALS

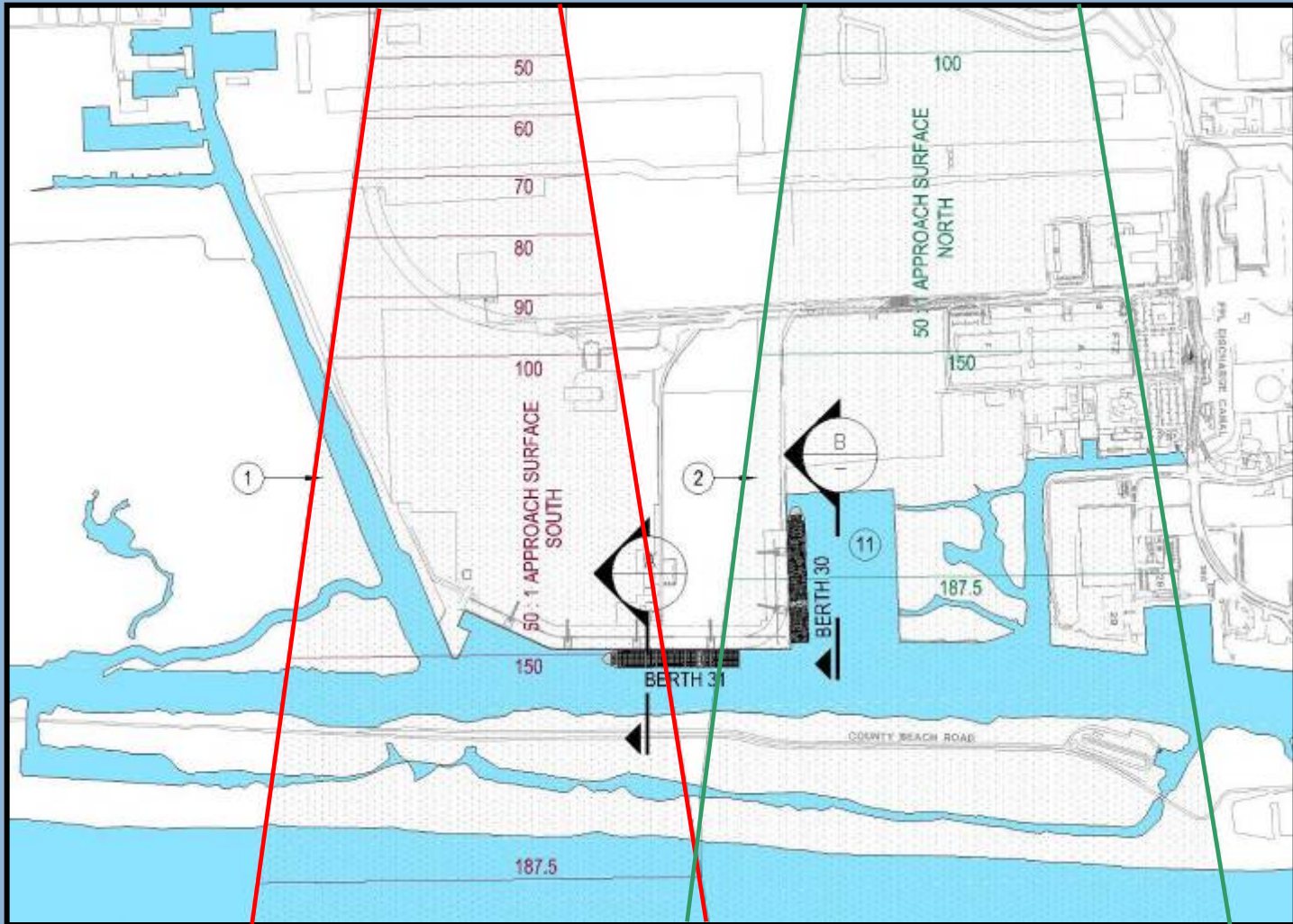
- Public Access to Convention Center/Hotel Development
- Maintain Secured Access to Port
- Allow Convention Center/Hotel to Expand
- Allow Port to Develop Mega Cruise Terminals

PART 77 ISSUES

Cross-Section Studies

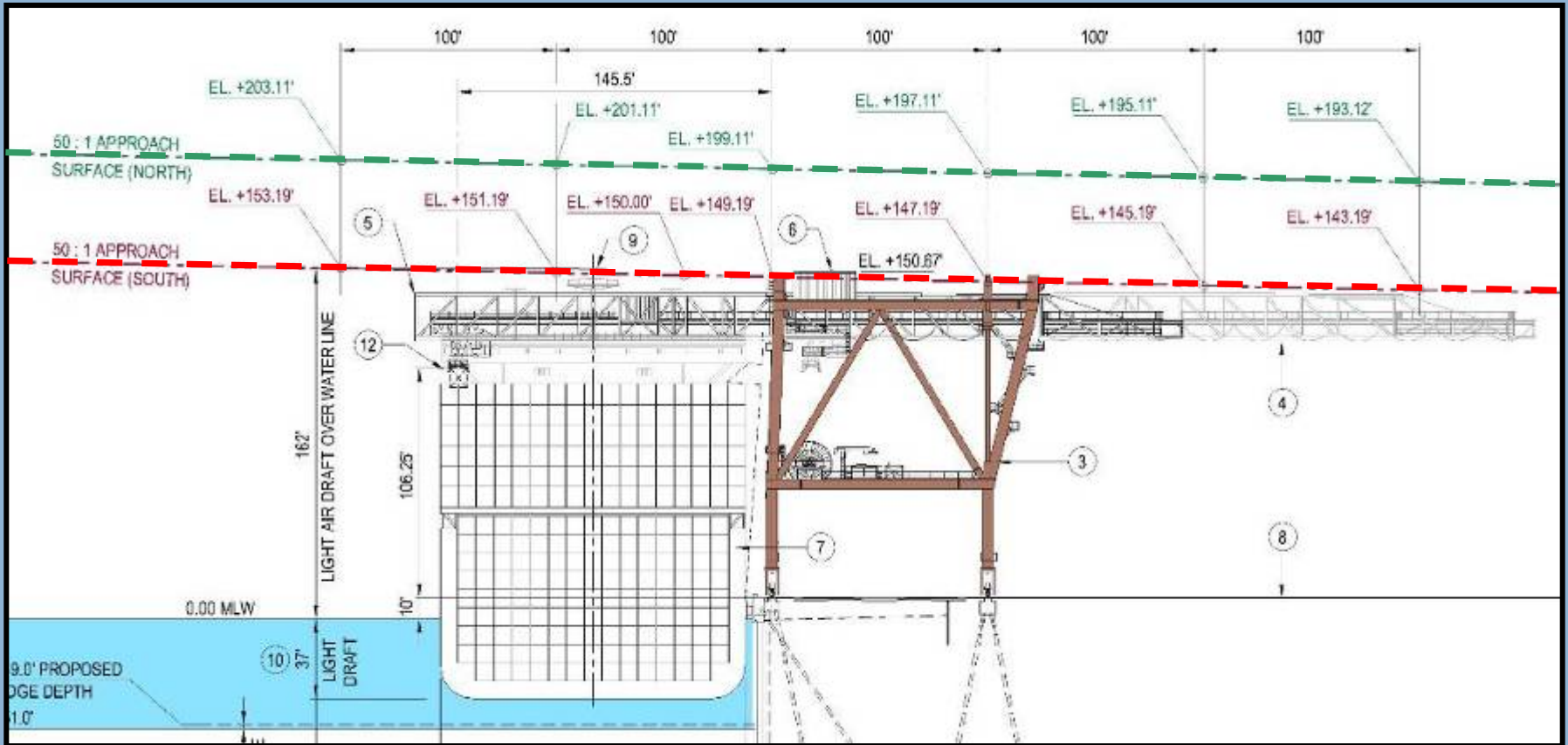
- Study both runways
- Assess operations at Berths 30 -32
- Existing Samsung Low Profile Cranes
- Maersk “S” Class vessel (1,138 FT LOA / 6,600 TEU)
- Study potential height impacts of vessel and cranes
- Identify potential spreader/boom conflicts

PART 77 MAP – PROPOSED BY FLL AIRPORT



Berth 31/32 - Cross Section Study

Part 77- Proposed South Runway & North Runway



TRAFFIC MITIGATION MEASURES

- Remote Parking for Cruise
 - Encourage POV to HOV Use
- Increase Intermodal Zone Area
 - Lengthen Drop-Off Curb
- Intermodal Rail Use
- “Empties” Located Off-Port
- Use Right-hand Turns

Dynegy Property



ACOE Dredging Program

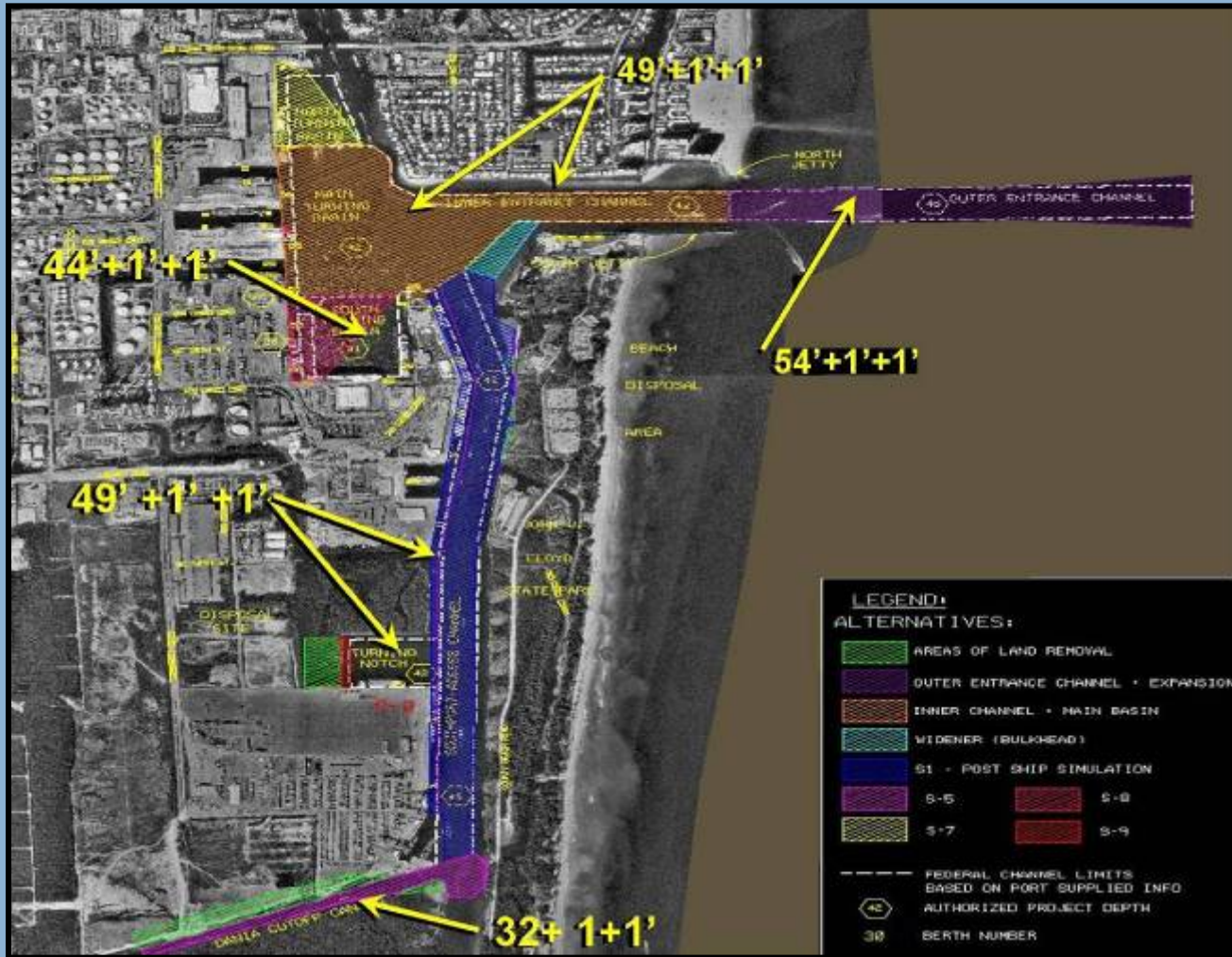
Inner Harbor Deepening:

- Allow future navigation & berthing for Maersk “S” Class container vessels
- Northport and Southport to 49 FT (+1 FT pre-maintenance dredging and +1 FT over dredge)
- Dania Cut Off Canal and Turning Basin to 32 FT (+1+1)

Approach Channel Deepening:

- Widen and deepen approach channel
- Third Reef issues
- ACOE proposed channel alignments
- Future depth; 54 FT (+1+1)

Proposed ACOE Harbor Deepening Project



CONTAINER TERMINALS CAPACITY ANALYSIS

- Berth Capacity
 - Berth utilization
 - Vessel lifts per call
 - Dock crane productivity
 - Seasonal peaking factor

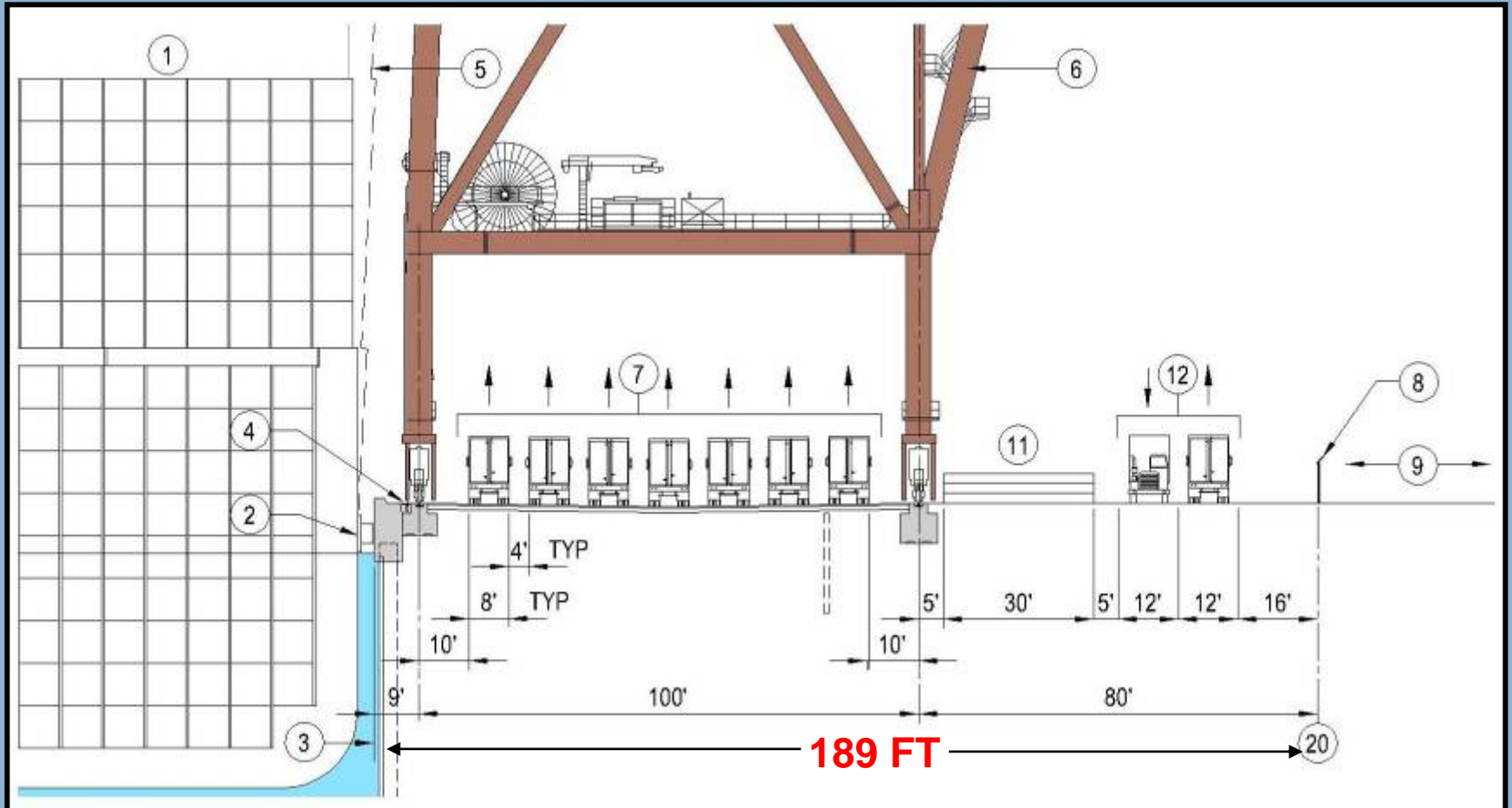
- Yard Capacity
 - Container Dwell Time
 - Storage peaking factor
 - Decking height

- Gate Capacity

PURPOSE OF WHARF OPERATIONS STUDY

- Focused on Southport container wharves
- Identify most efficient operational wharf layout
- Identify measures to improve worker safety
- Identify efficient traffic patterns
- Establish wharf operations footprint/terminal lease boundaries
- Establish future wharf cross-sections & layout
- Establish future ship-to-shore crane requirements

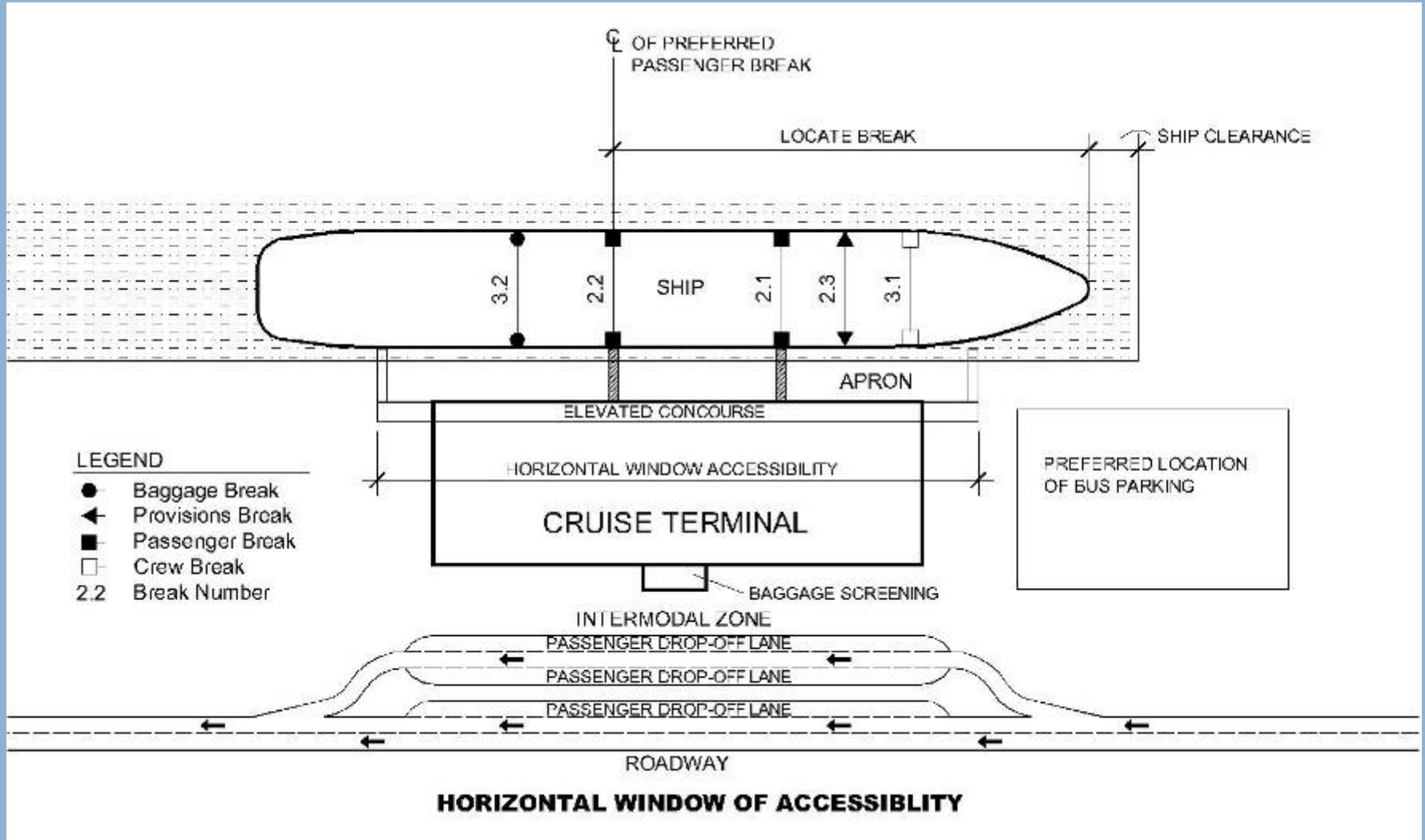
WHARF OPERATIONS STUDY – Existing Conditions (Pre-Wilma Damage)



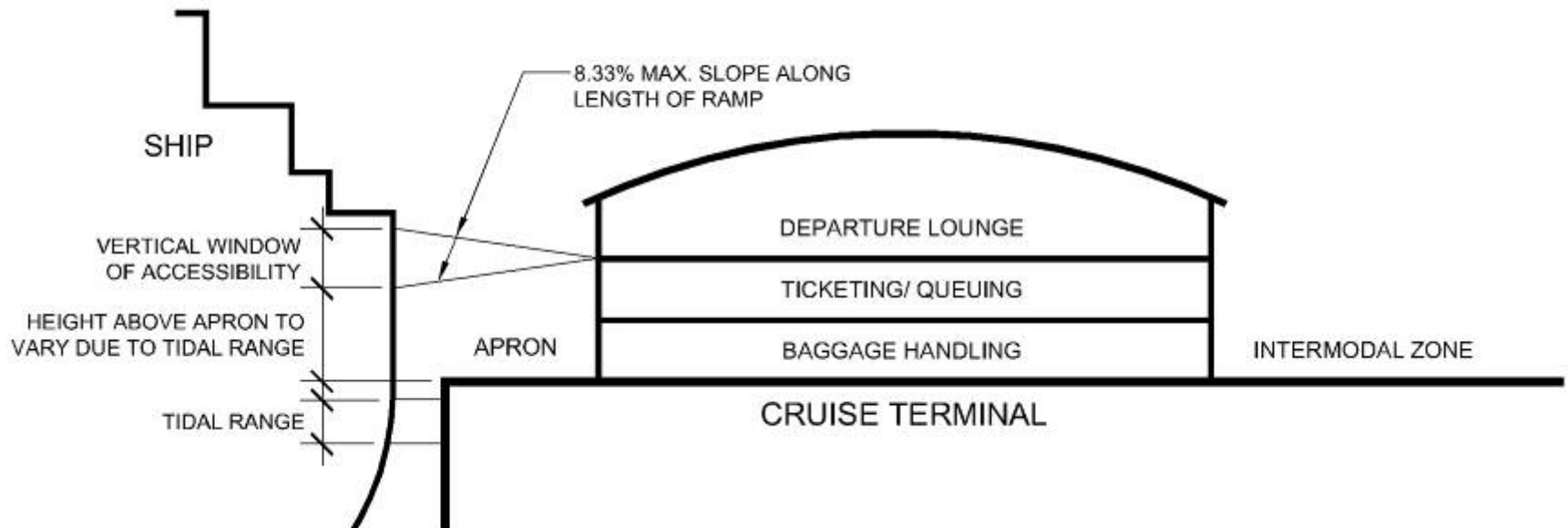
NON-CONTAINER TERMINALS CAPACITY ANALYSIS

- Analysis to be done for each terminal
- Berth occupancy study for each berth
- Future terminal capacity analysis
 - Maximum Practical Berth Utilization
 - Cargo loading speed
 - Cargo dwell time

CRUISE ANALYSIS



CRUISE ANALYSIS



VERTICAL WINDOW OF ACCESSIBILITY

REALISTIC EVALUATION

Cost

Benefits (ROI)

Capital Cost	Revenue
Operating Cost	Operational Efficiencies
Downtime Cost	Economic Impact

Constructability

- Proven Technology
- Maintenance of Operations

Permit-able

- Environmental

Funding Availability

- Cash Flow vs. Schedule

Risk Level

- Market Down-turn
- Subsurface/Marine Conditions
- Environmental Mitigation

Near-Term CIP Projects

Master Plan Interface

Midport Roadway Expansion	Intermodal Zone Efficiencies
Terminal 4 Expansion	Convention Center “Carve Out”
Terminal 18 Expansion	Expanding Window of Accessibility
Terminal 27 & Pier Extension	Adds a Terminal
Bridge over FPL - Discharge Canal	Dry Marina, FTZ, Southport Expansion
Southport Phased Expansion	Marina, FLL South Runway Expansion
McIntosh Road Realignment	Southport Expansion, ICTF
Dynegy Property Development	Remote Parking Potential, Public Works Relocation
FTZ	Relocation/Consolidation, Container Terminal Expansion

THANK YOU

