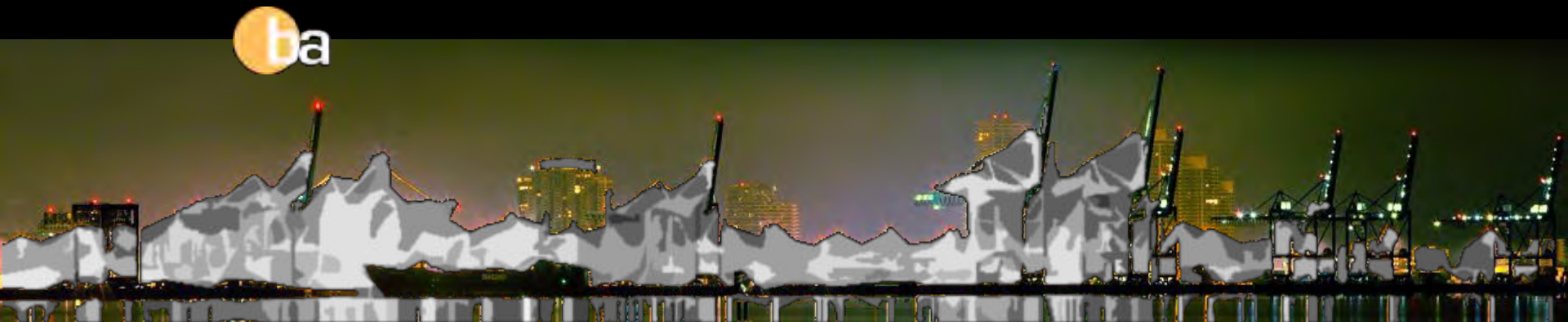
# 2035 Master Plan

# PORTMIAMI™

December 2011



the port's place in miami

# What does history tells us?

- The community was born out of its port
- The Port has had to reinvent itself as...
- The port has given way for its urban waterfront park and open space system

- The community made a conscious decision to keep the port in its central urban core
- As an island port it has permitted the two to coexist

# What have we learned?

- Waterfronts change and evolve
- The concept of the “working waterfront” has become the focal point of many communities
- The port is a very dynamic place with lots of energy – properly channeled this energy contributes to our future

- Being in the urban core – it is more challenging
- The Port must have a “sustainable” strategy and plan

# the port's role

# The Port's role

- A critical piece of infrastructure of the region
- Reducing the costs of products in Miami
- Providing transport of goods and people
- As an economic engine

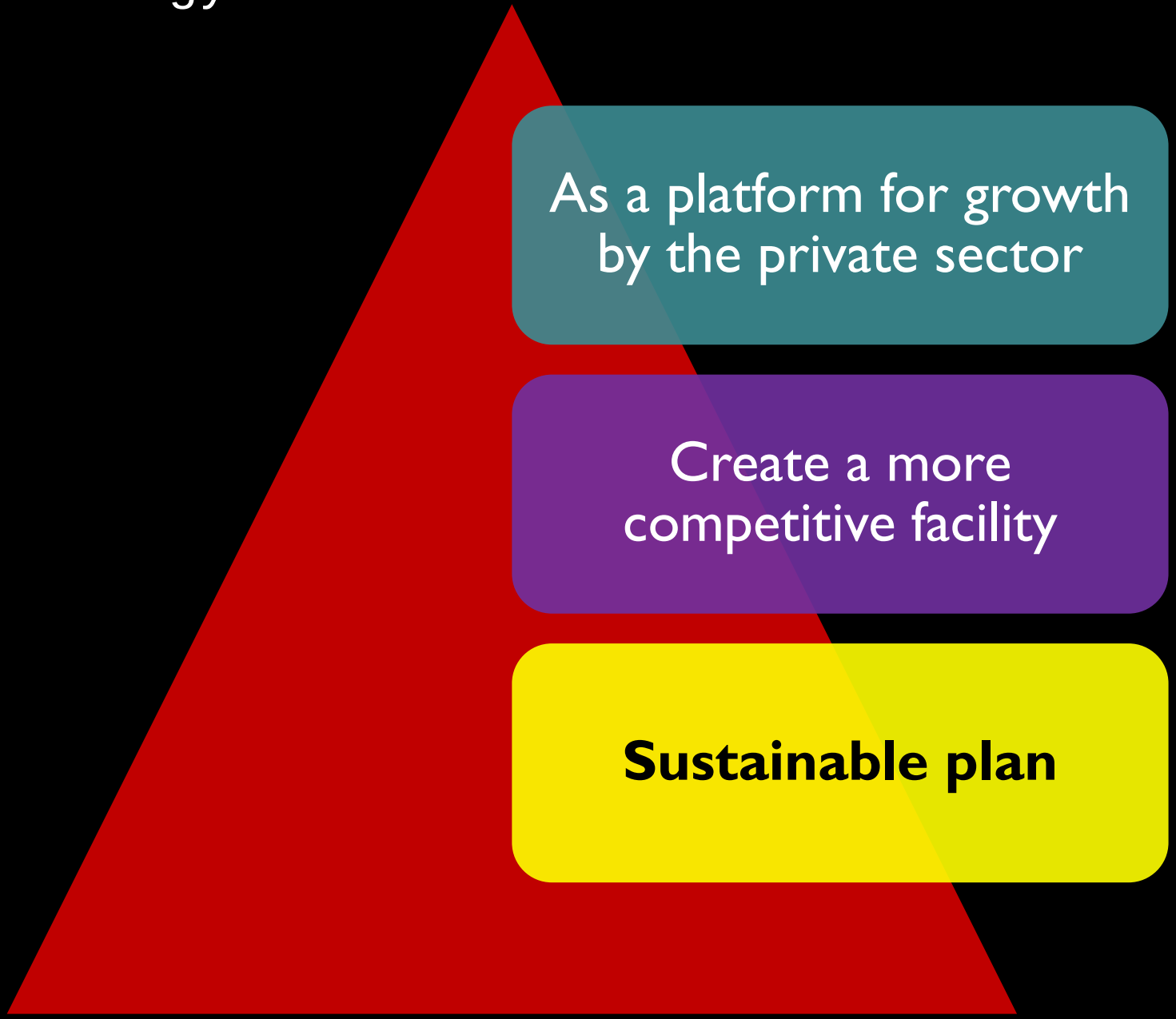
# As an economic engine

- A **platform** for companies to create jobs
  - The Port of Miami is a “landlord” – non-operating port
  - 100% of the shipping operations at the port are run by private companies
  - In this capacity the port needs to create a “competitive” platform for companies to succeed
- Responsible for Miami’s positioning in the international trade business
- Employs thousands directly and provides jobs and fees for thousands in the downtown for all types of services
- The health of the Port is paramount to Miami’s economy

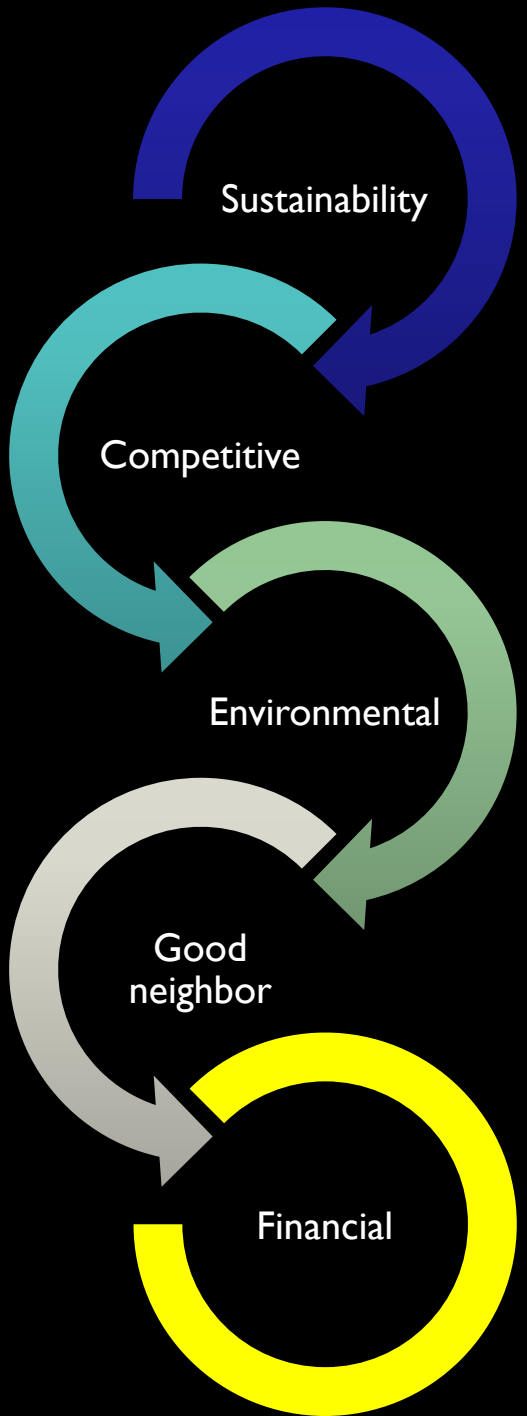
# As a business incubator

- As an **incubator** no other entity comes close
- The birth place of the cruise industry
  - Carnival
  - Royal Caribbean
  - NCL
  - Prestige
- Shipping companies to the region
  - Seaboard

# Master strategy



# Sustainability

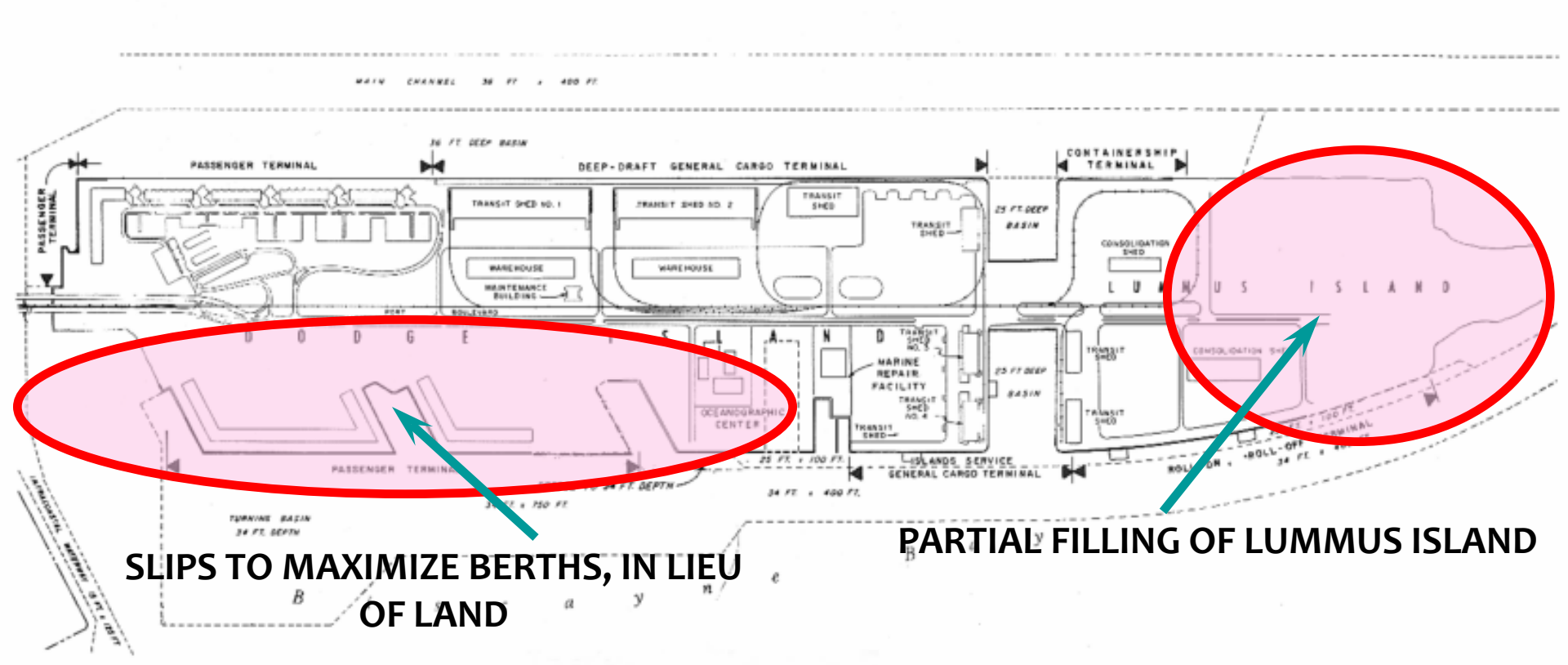


# the master plan

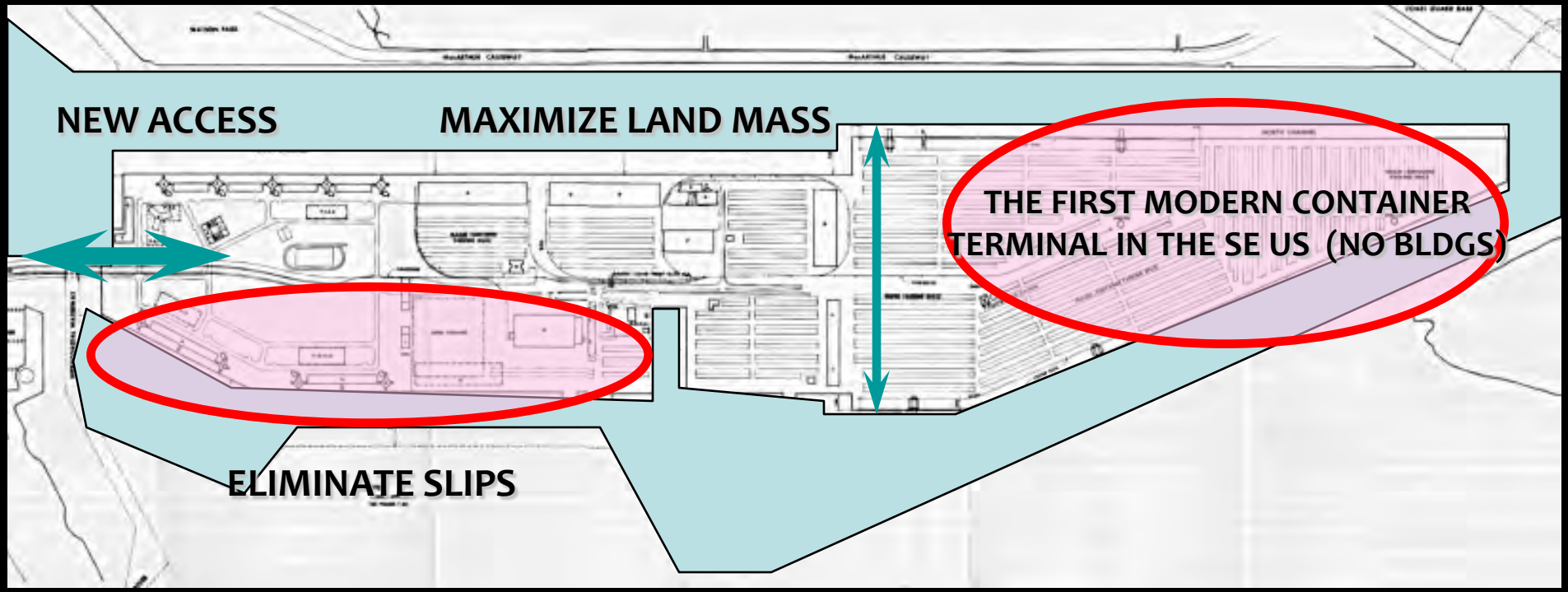
# The Master Plan

- As a Master Plan
  - Setting a vision
- As a strategic document
  - Setting direction
  - Shifting and prioritizing capital resources
  - Focusing
  - Providing flexibility
- As a tactical plan
  - Identifying specific projects or ideas
  - Creating a sequence of events

# 1969 Master Plan



# 1979 Master Plan



# 1988 Master Plan

# The Master Plan

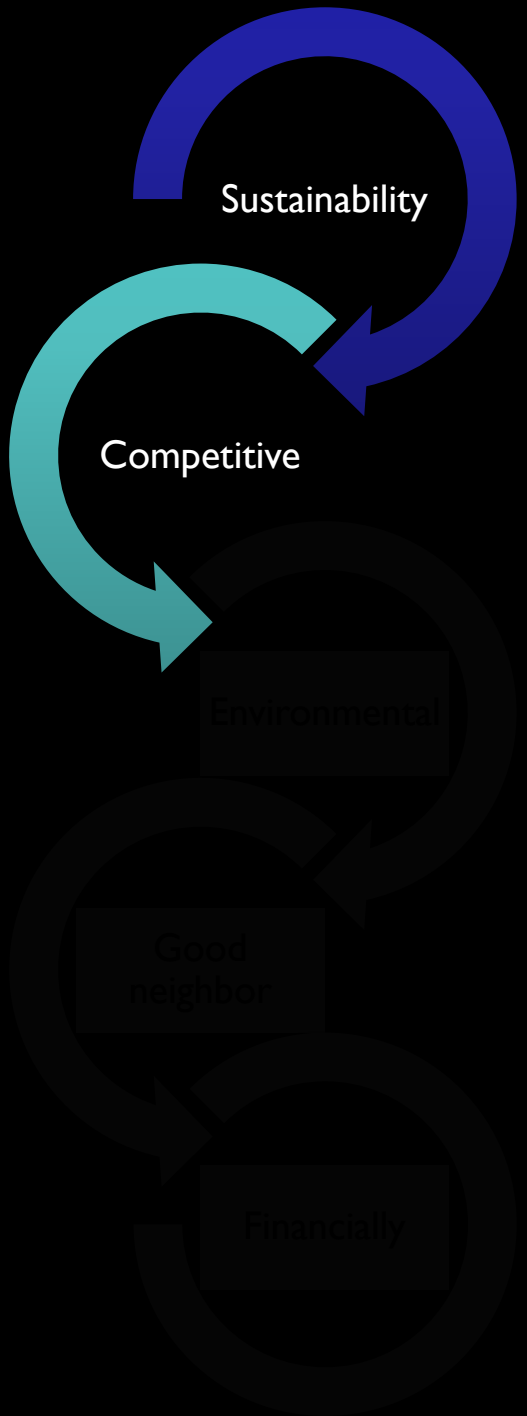
- It sets strategies and big ideas
- Each idea must subsequently meet its own tests to be implemented
  - Some pass and some do not
- The plan provides for implementation on an as needed basis
- The plan is revisited every 10 to 15 years

- VISIONARY
  - Evoke a positive response for the community
  - To look for opportunities

# Mega-drivers of the Master Plan

- Context
  - environmentally sensitive area highly limiting its footprint expansion
  - in the middle of the CBD creating problems and opportunities
- Cargo
  - At the farthest land transportation point from major US markets
  - A natural hinterland for cargo which determines is future
- Cruise
  - The Port has a natural glass ceiling due to industry consolidation
- Financial
  - Ability to grow on the backs of user fees
  - Competitiveness

# Sustainability



# How do we make the port more competitive?

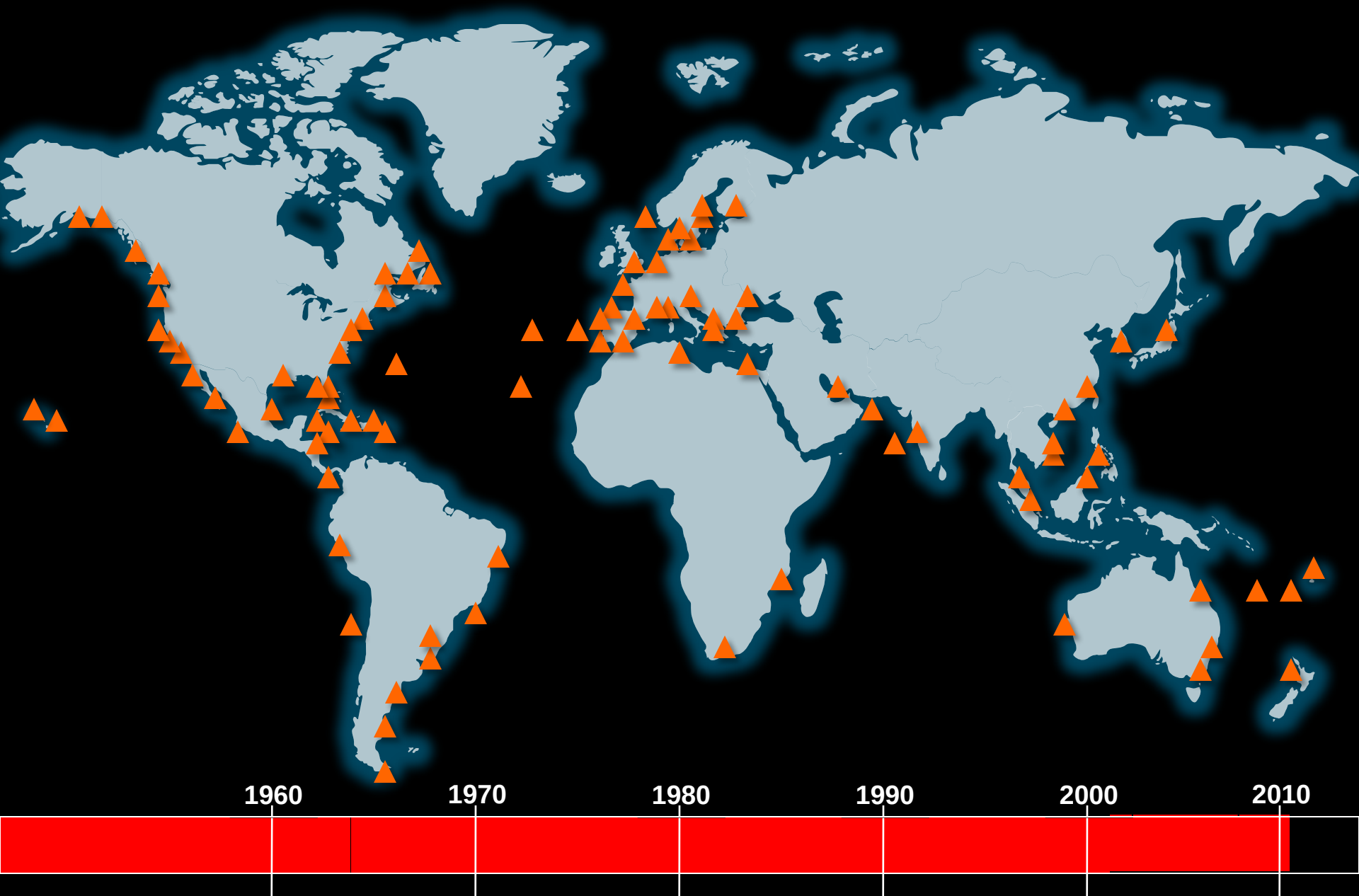
- Cruise – reduce operating costs
  - Reduce operating costs
  - Make the facilities more efficient
  - Faster turn around
  - Customer satisfaction
- Cargo - reduce transport costs
  - Shipping
  - Transport
  - Handling
- Port – control administrative costs
  - Control user fees

cruise

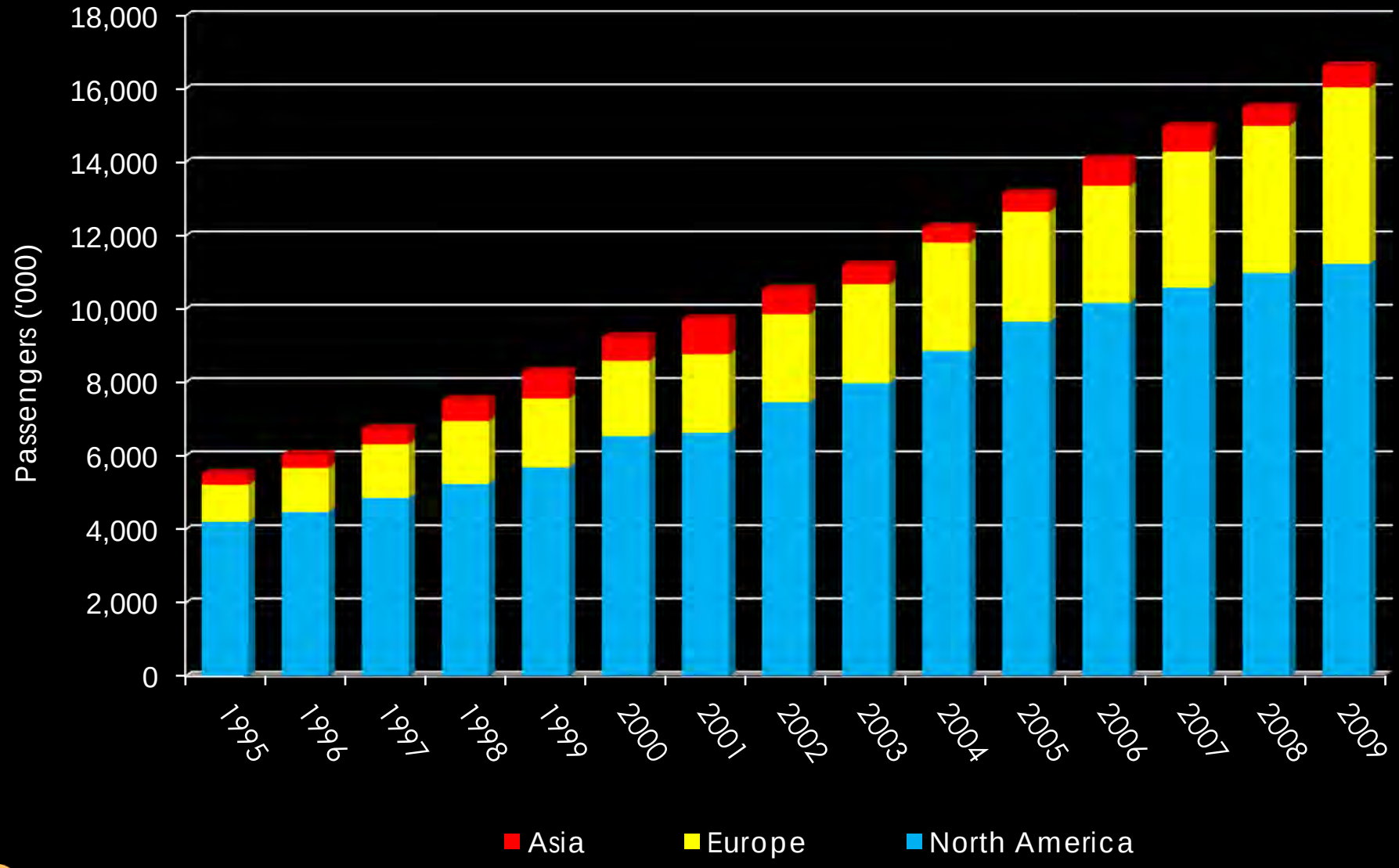
# STRATEGY

Provide the facilities for the needs of the MEGA ships

# Worldwide expansion

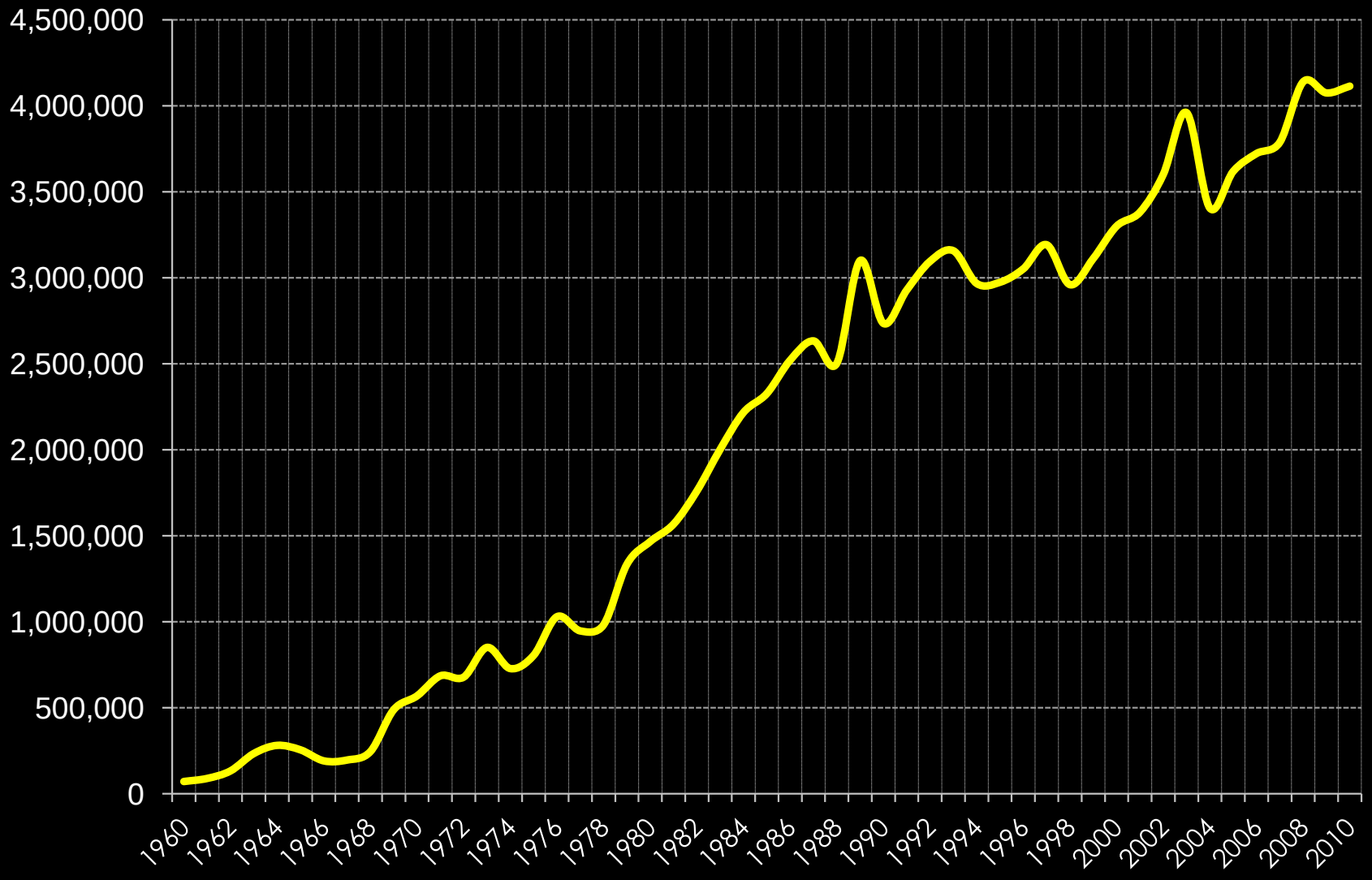


# Worldwide and regional expansion



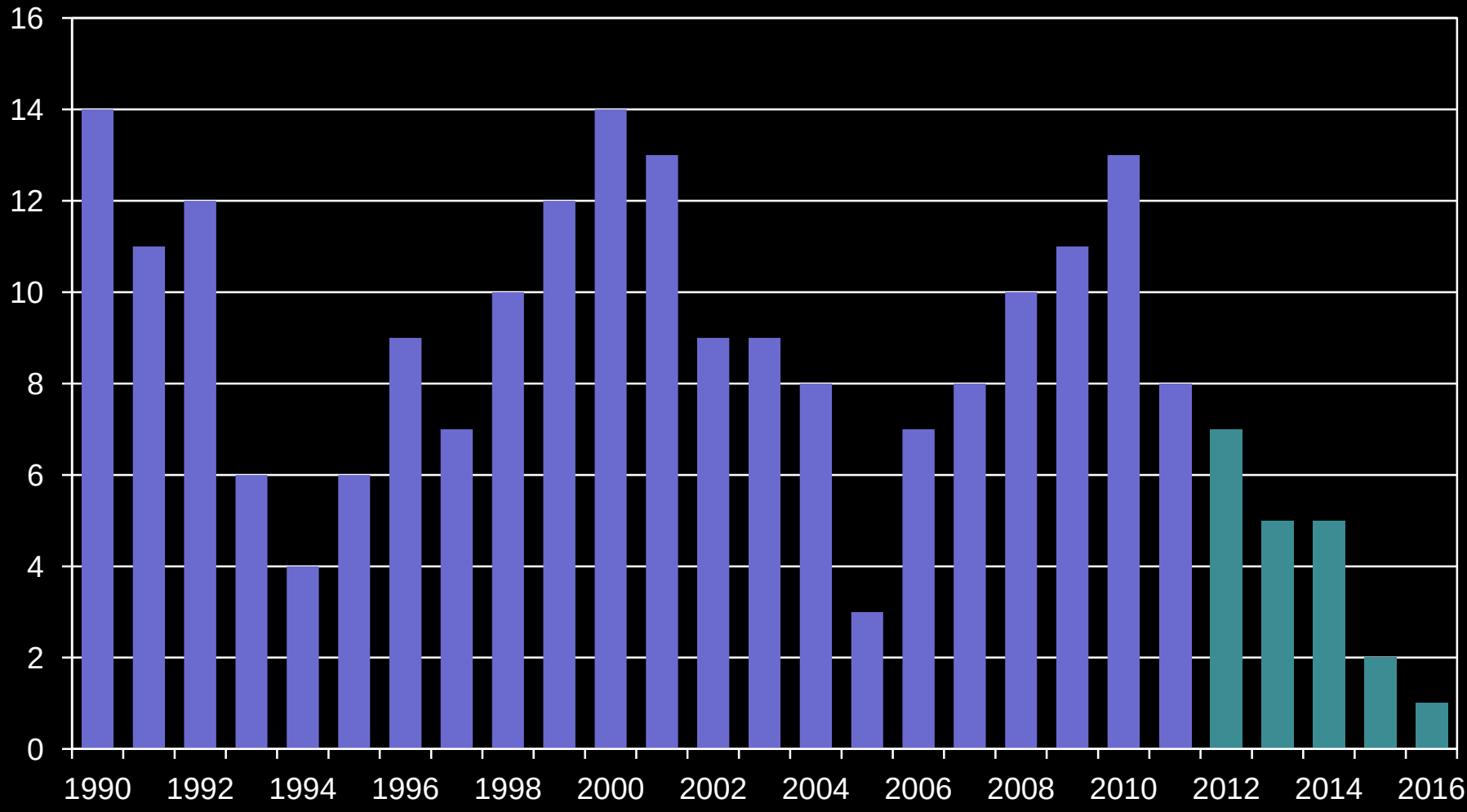

Sources: CLIA, PSA, B&A, 2010

# Port of Miami cruise growth



# Port of Miami market share of North America market

# Cruise vessel deliveries



# Keys to growth

- Maintain costs competitive
- Passenger and cruise line satisfaction
- Passenger demand for itinerary
- Broaden the customer base
- Efficient facilities

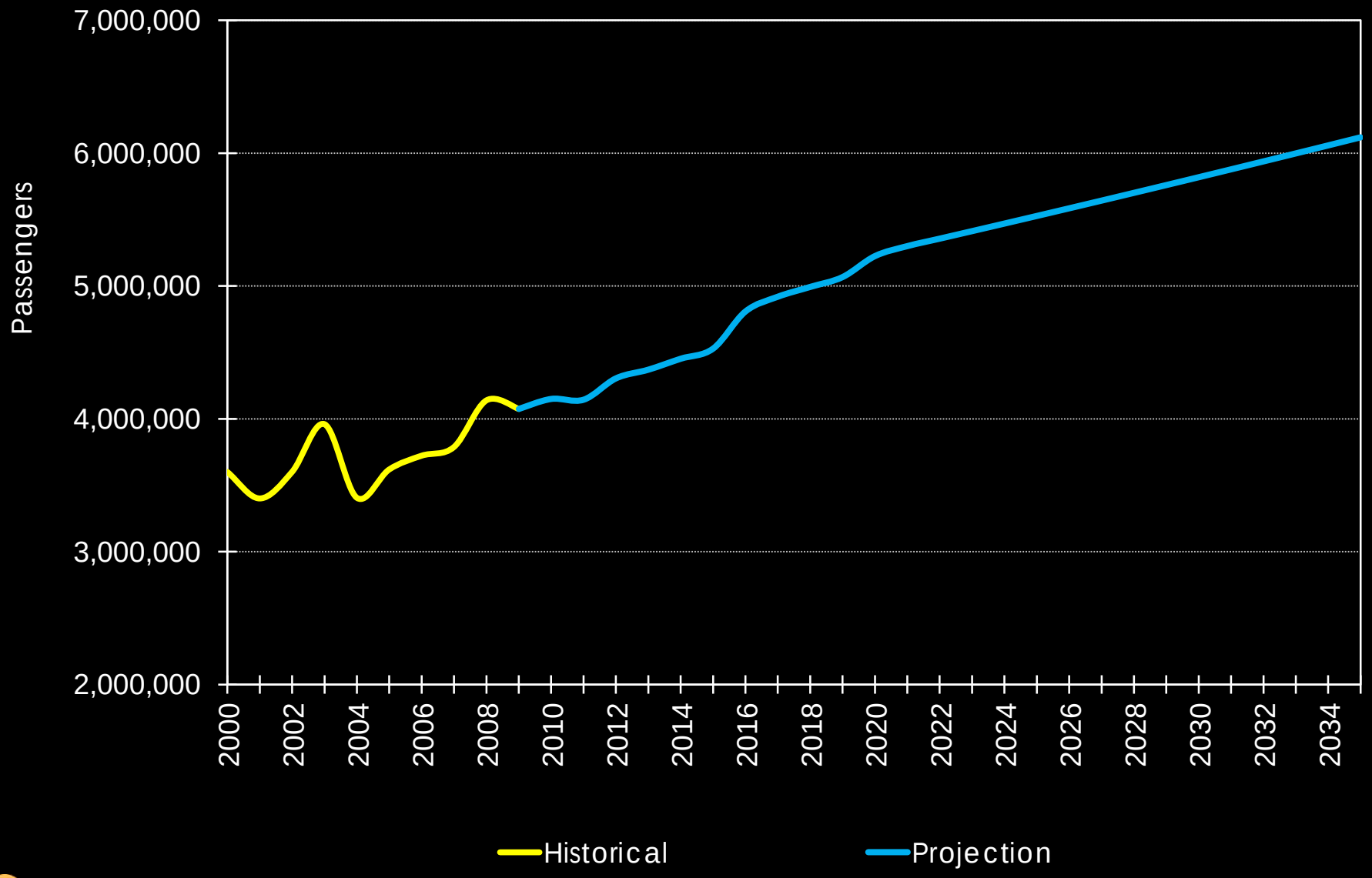
- Measure up to other port / itinerary combinations

# Asia

Singapore

Hong Kong

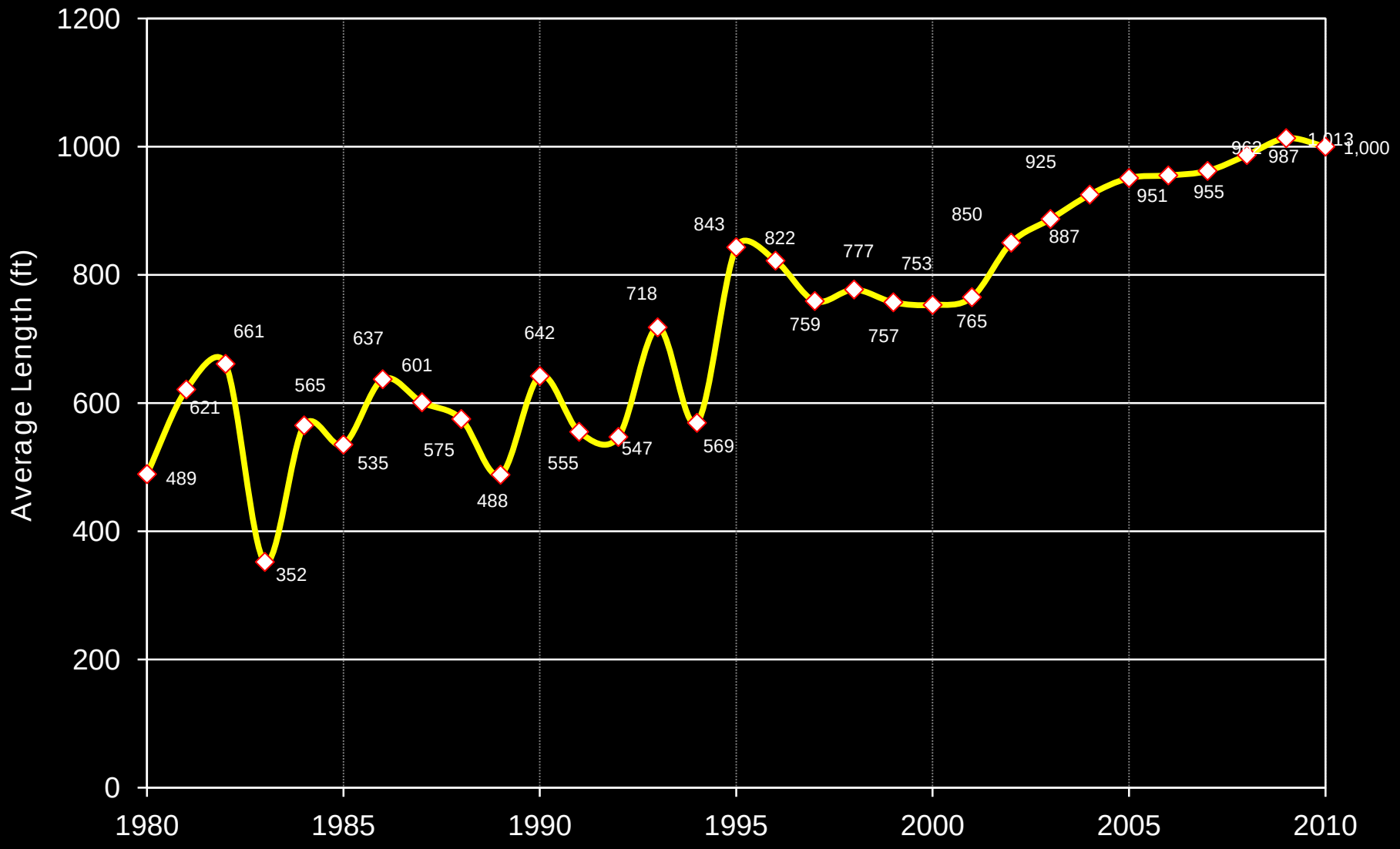
# Passengers


7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
Passengers
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
2028
2030
2032
2034
Historical
Projection

# Average passengers per ship by year of construction*


* Not counting the small unique non-recurring cruise ships

# Average ship length by year of construction

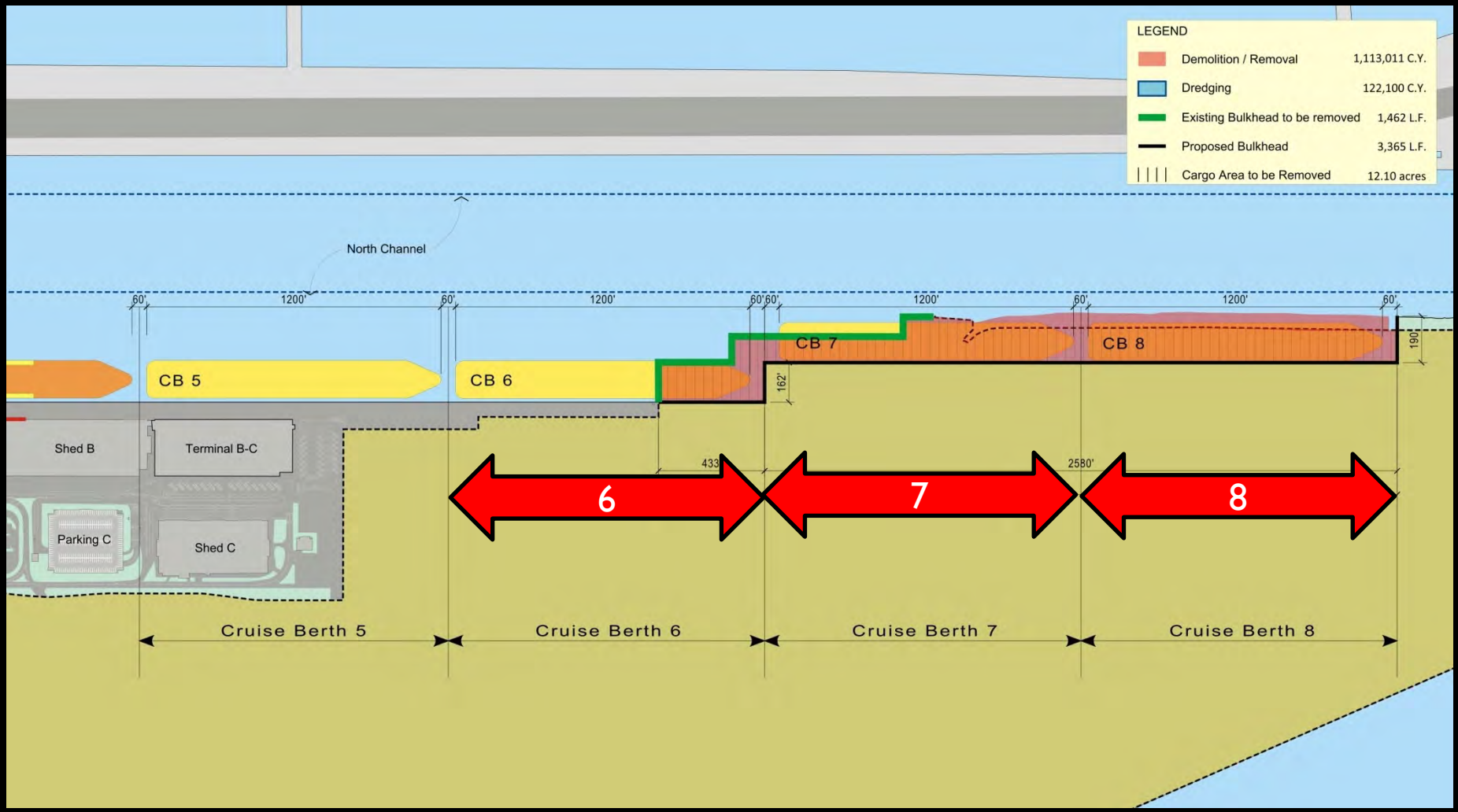


# Impact of longer ships

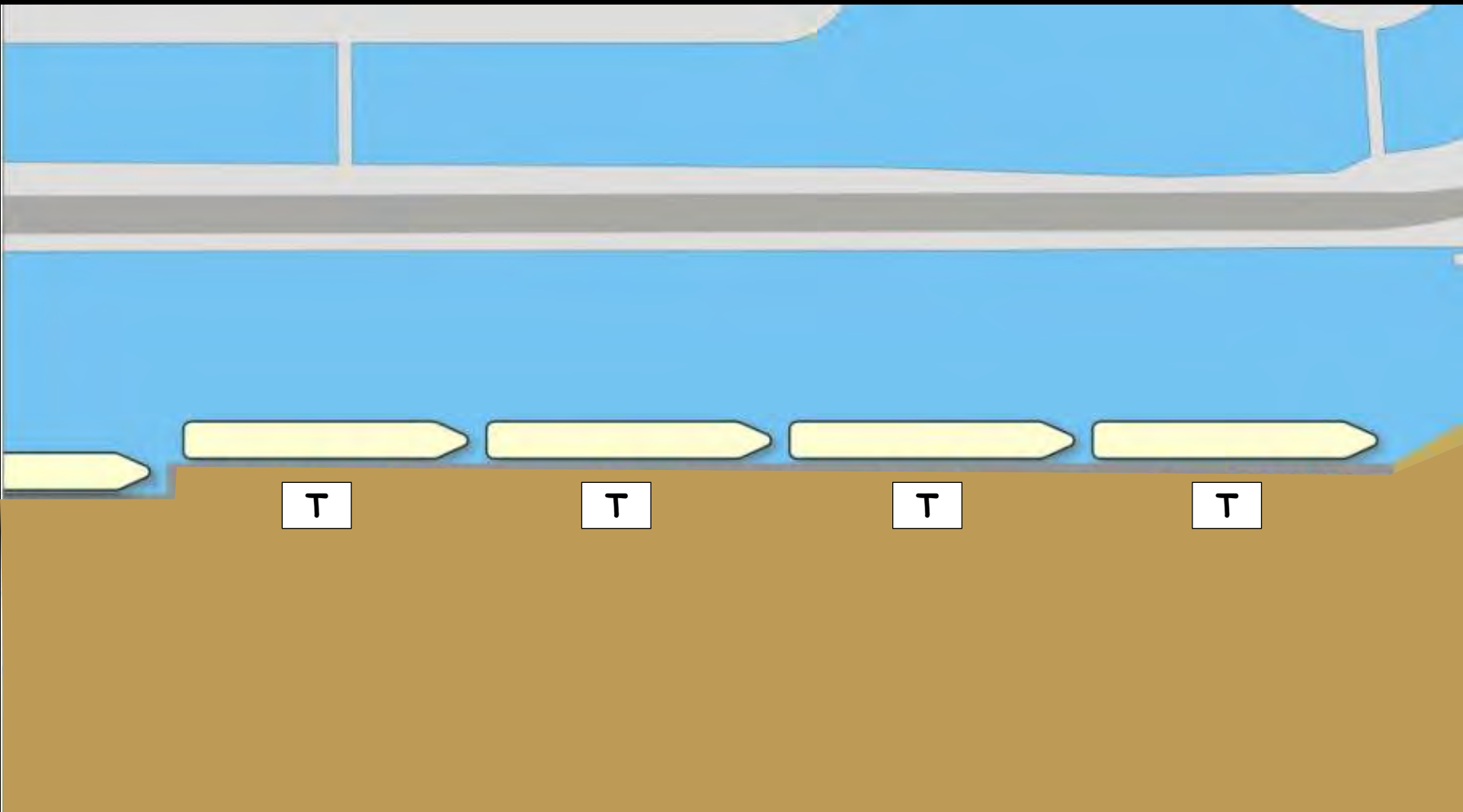
# Cruise findings

- A total demand for 9 berths during the projection period
  - 7th berth – now
  - 8th berth – 2017
  - 9th berth - 2035
- All cruise ships larger than 900’ will go to the north channel
- South terminal “J” can be the facility for the smaller ships - as the “Yacht Club” Terminal for premium cruise product

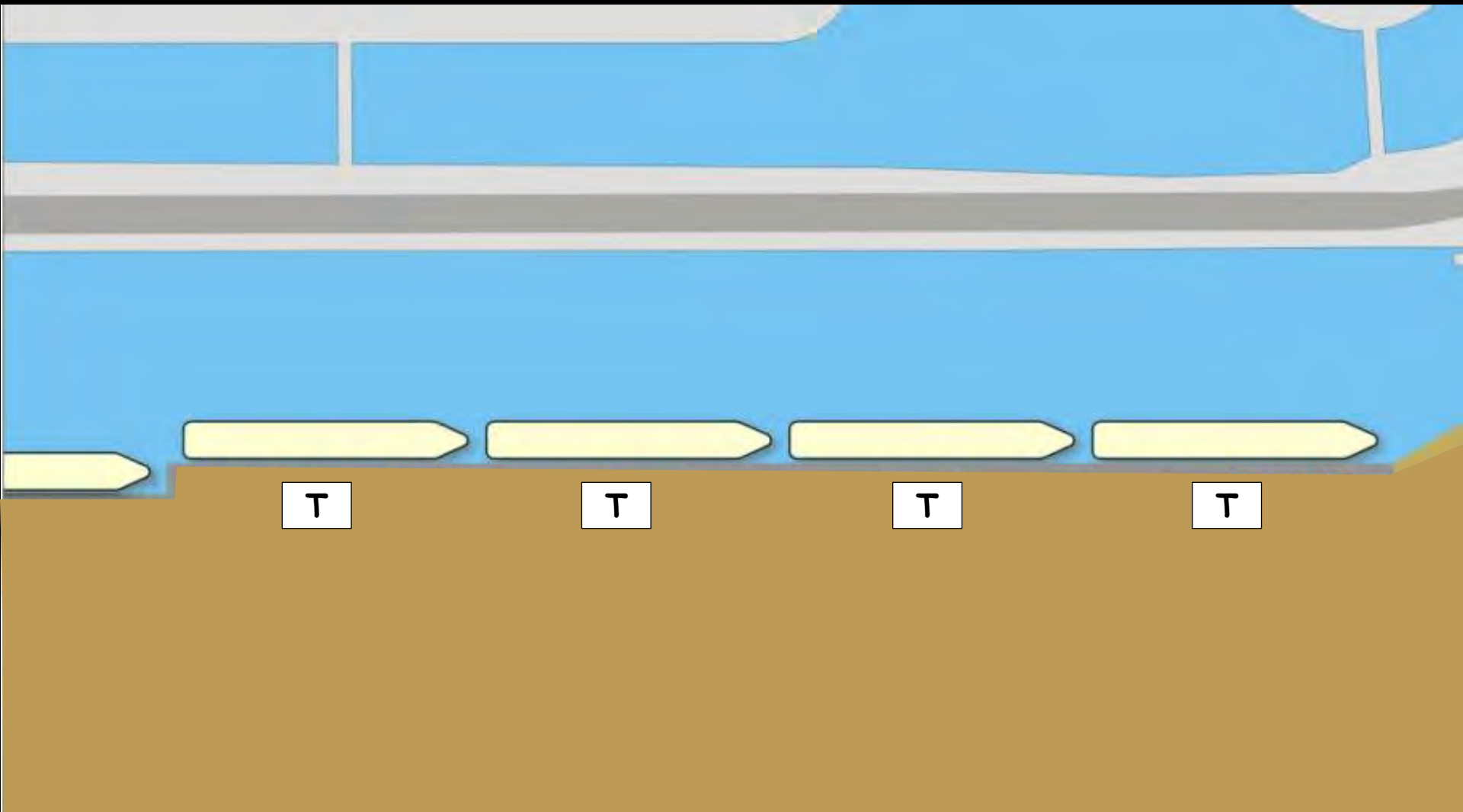
# Berths


LEGEND
Demolition / Removal 1,113,011 C.Y.
Dredging 122,100 C.Y.
Existing Bulkhead to be removed 1,462 L.F.
Proposed Bulkhead 3,365 L.F.
Cargo Area to be Removed 12.10 acres
North Channel
60'
1200'
CB 5
CB 6
CB 7
CB 8
162'
190'
433'
2580'
Shed B
Terminal B-C
Parking C
Shed C
6
7
8
Cruise Berth 5
Cruise Berth 6
Cruise Berth 7
Cruise Berth 8

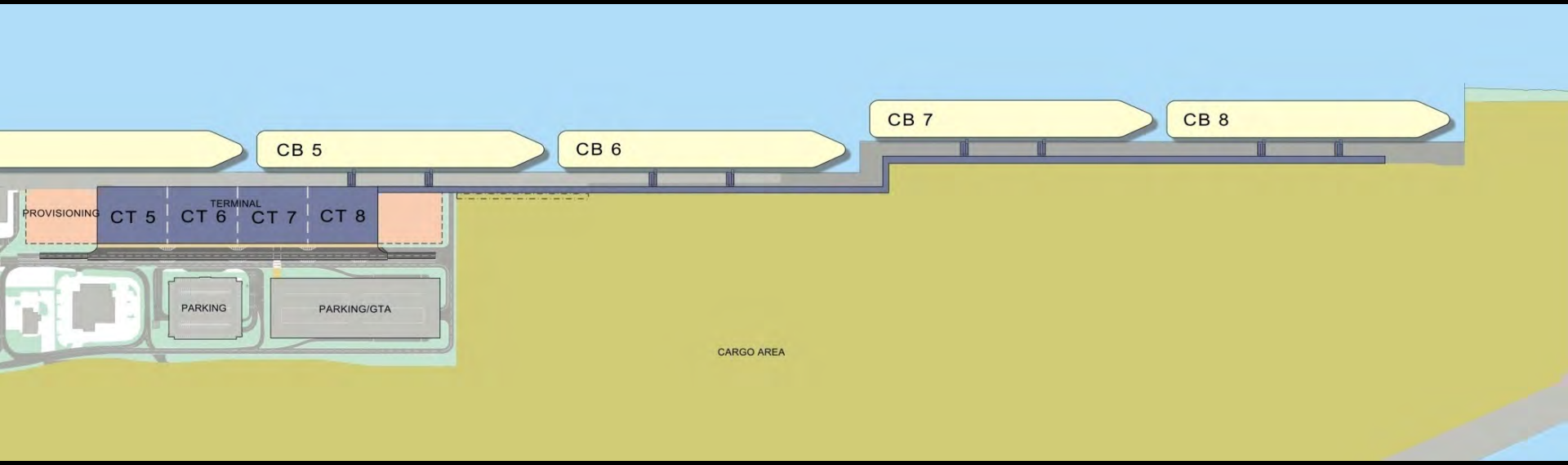
# Alternative (twin terminals)



# Alternative (multiple terminals)



# Future cruise terminal options – Super A



# The future terminal

- Focus on processing passengers at the least cost

- Lines expect better functioning terminals
  - Larger
  - More comfort
  - Two level operations
  - Multiple gangways
  - Elevators, escalators, etc

# Performance standards

- Passenger experience
  - Time
  - Flow
  - Queues
  - Spaciousness
  - Direction
  - Friendliness
- Cruise company
  - Cost
  - Efficiency
  - Labor
  - Turn around time
  - Passenger experience

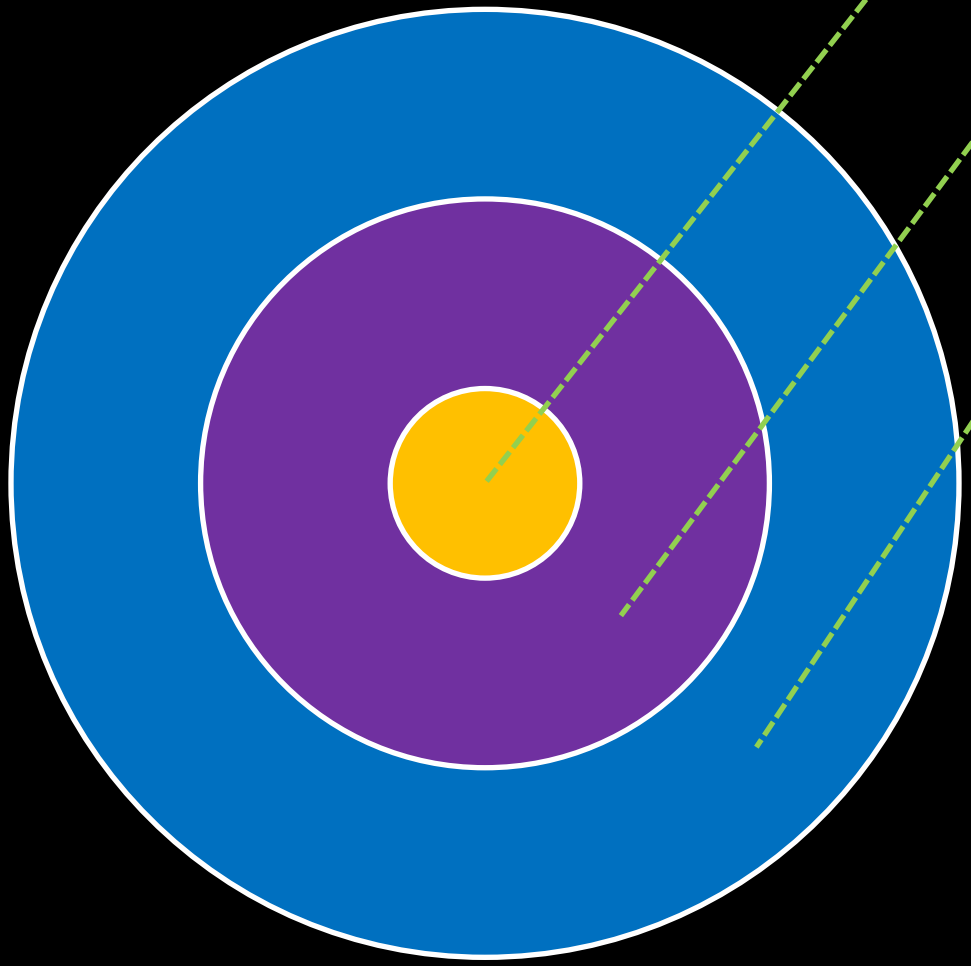
# Super terminal concept

cargo

# STRATEGY

Reduce the costs of shipping thru the Port

# Cargo moves to the lowest cost port



Two strategies – each one creating a bigger market opportunity

Lower cost of water delivery by harbor deepening

Lower cost of land delivery thru rail improvements

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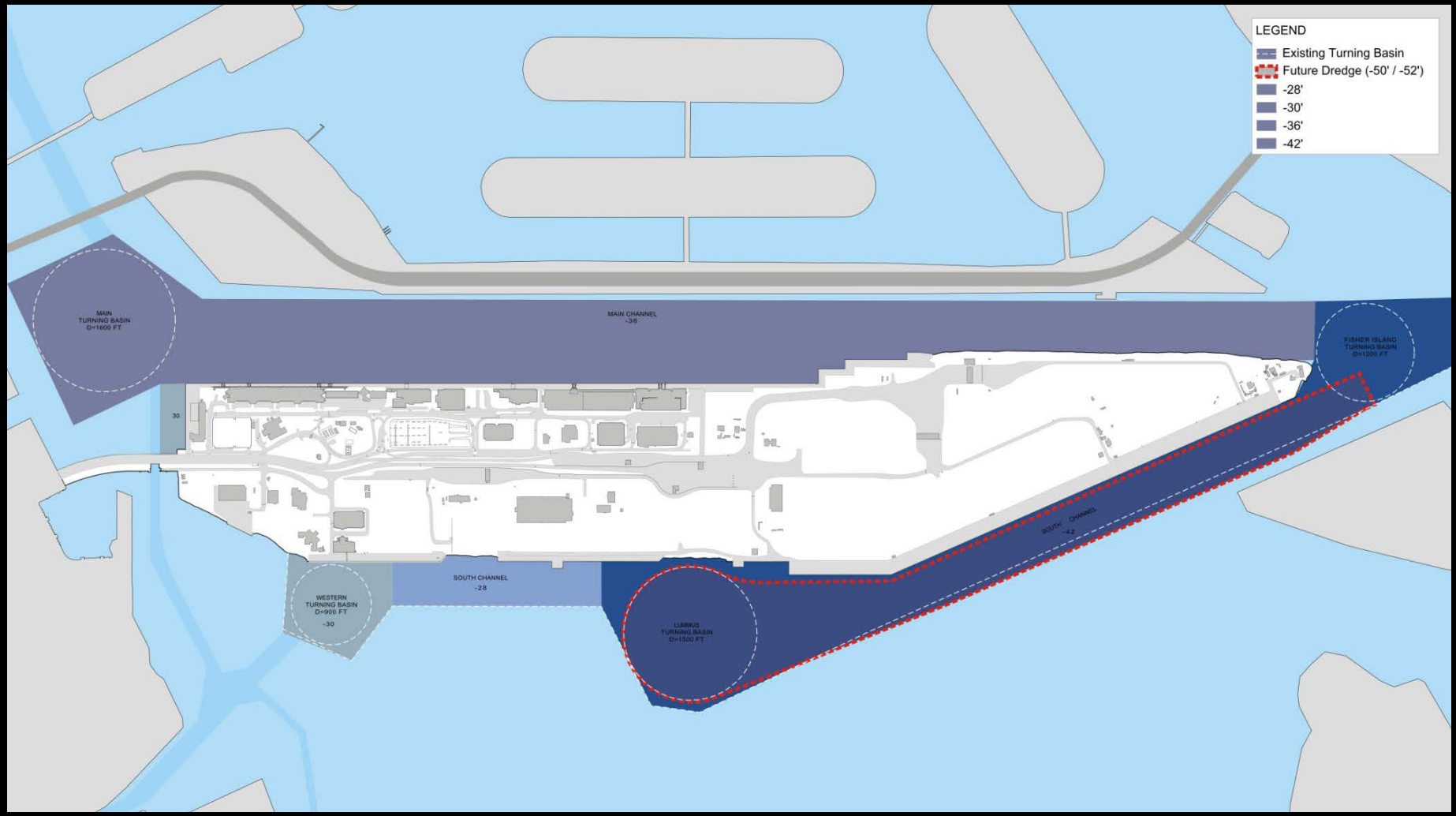
# Strategy 1 - Proposed deepening



# What difference does 8 feet make?

Deepening from 42 to 50 feet ?

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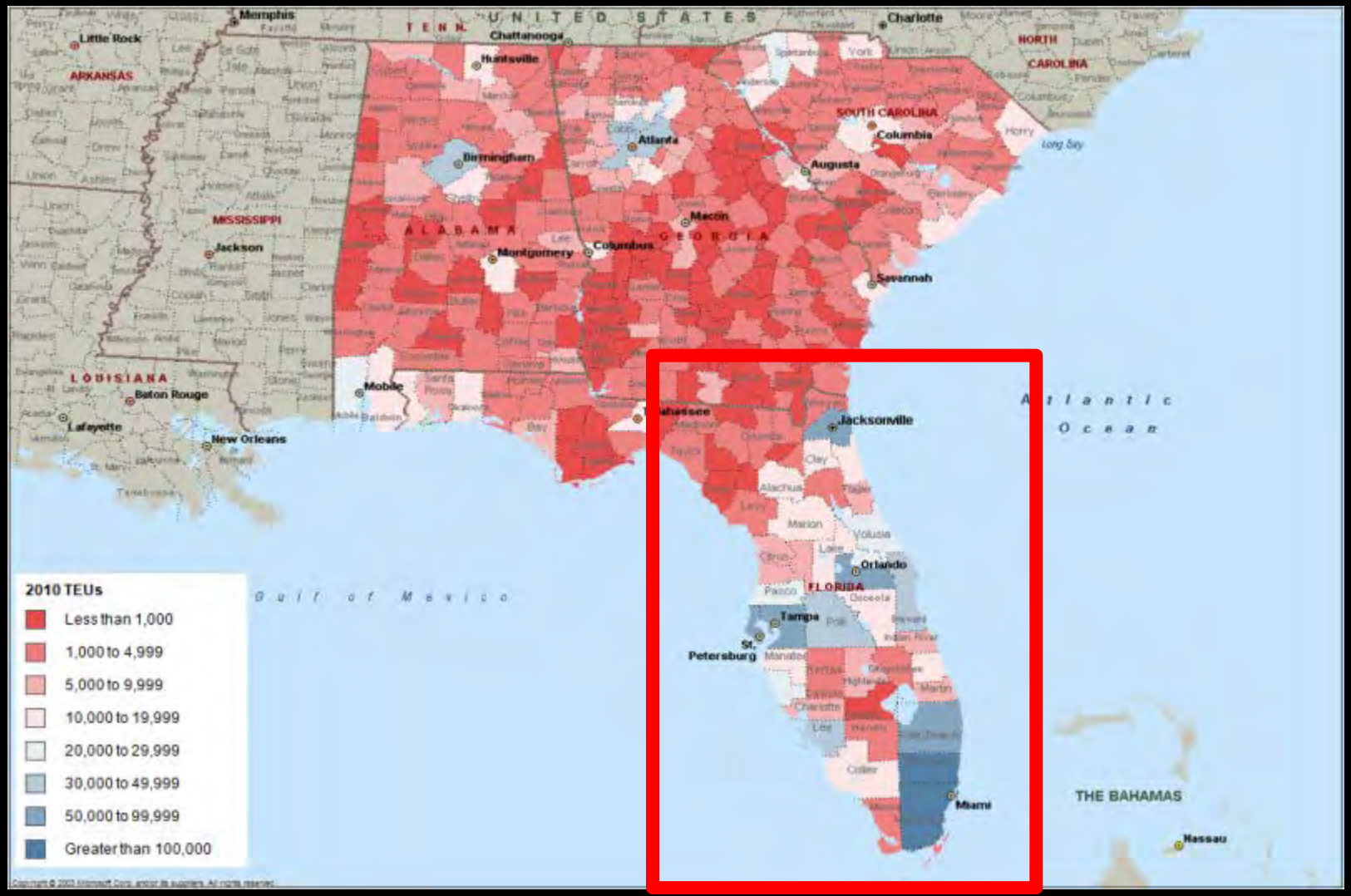
# TEU Consumption by County -FL,GA, SC and AL




Total consumption for 4-state area is about 5.7 million TEUs

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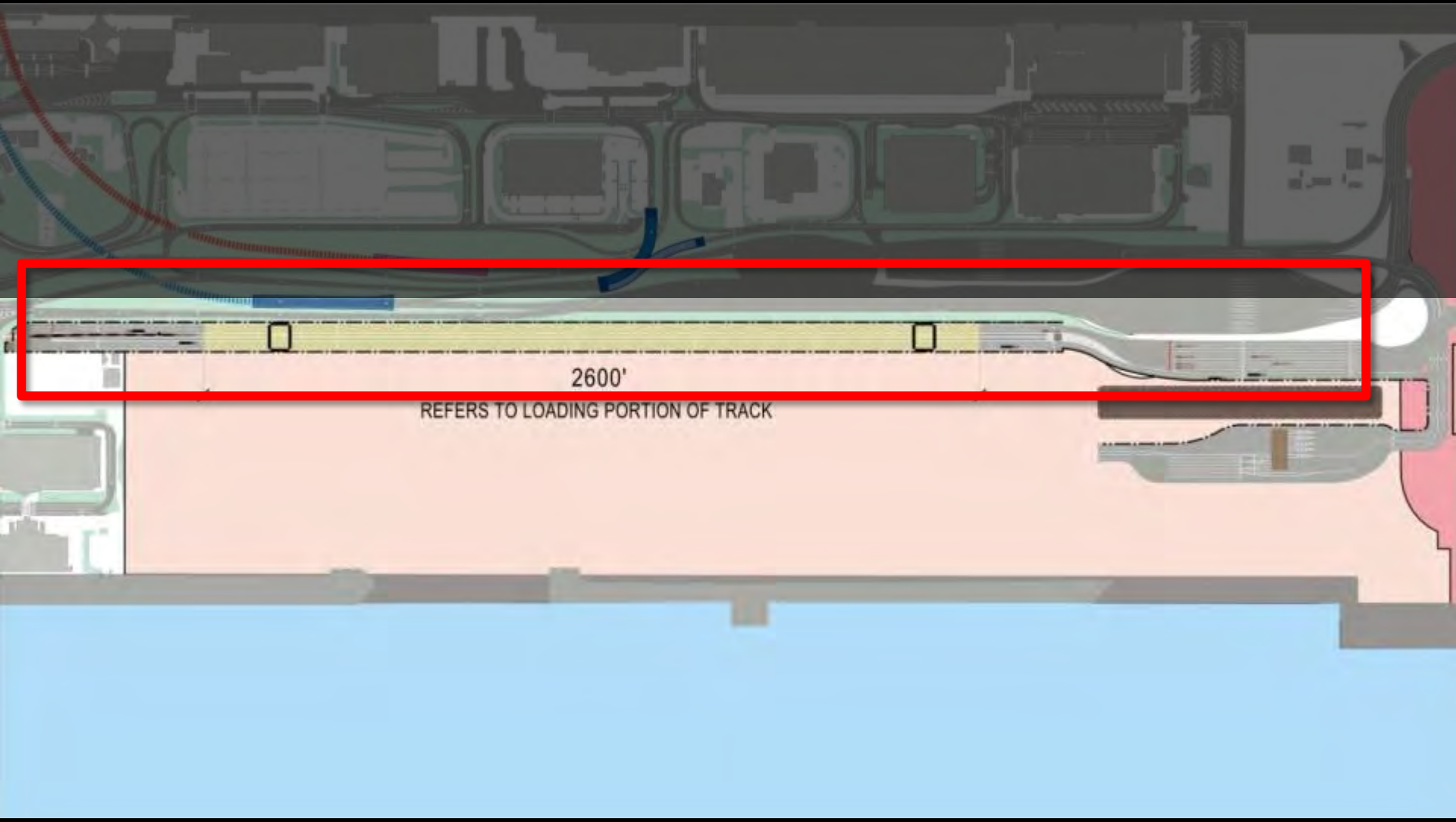
# Effect of harbor deepening

# Rail

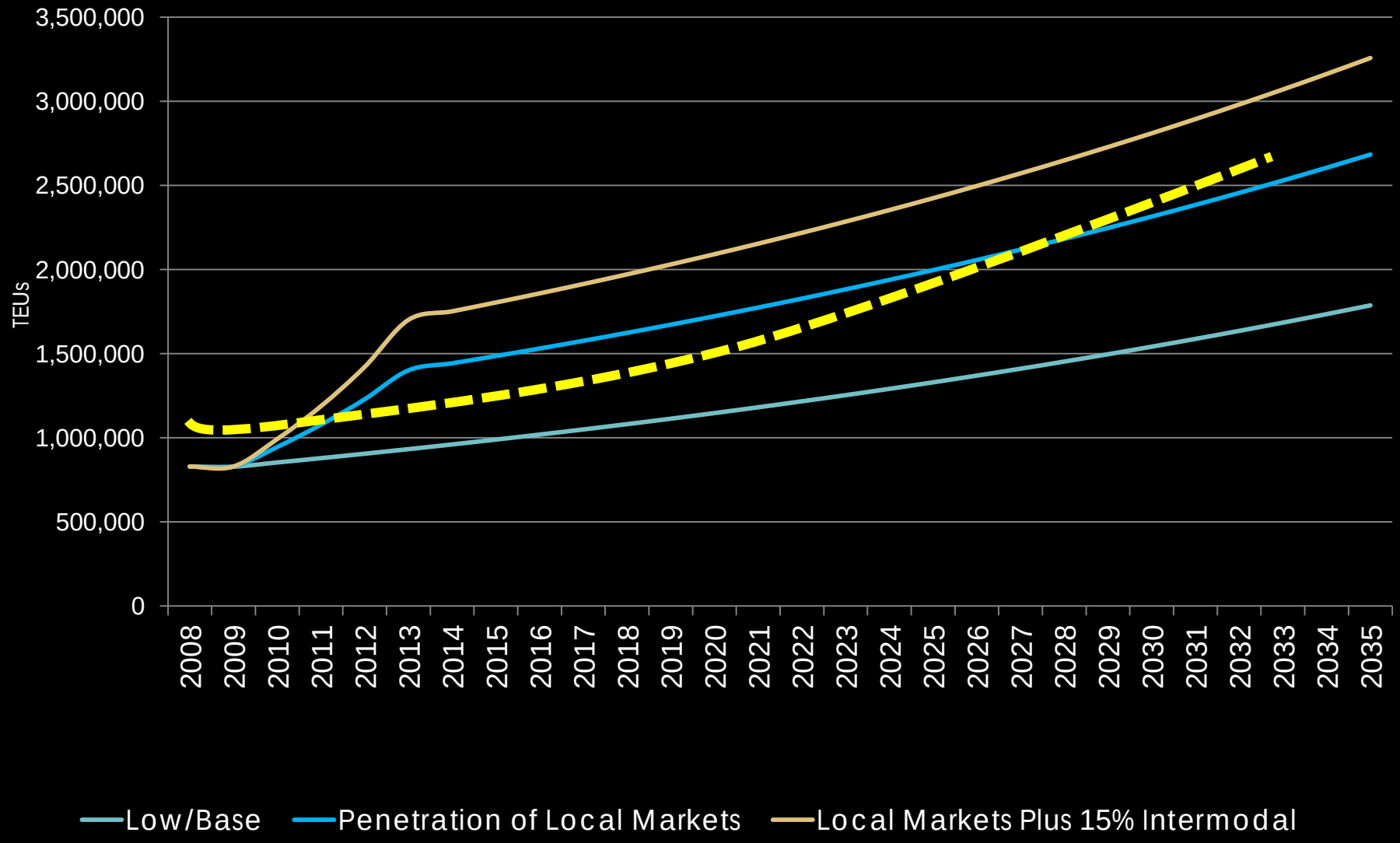

Existing FEC Active Rail Line
No work proposed
Southwest Connection at Little River
The work will include the southwest connection at Little River, which will allow trains to move from the port to FEC.s Hialeah yard without stopping and making reverse moves.
FEC Hialeah Yard
Development of warehouses within the existing Yard footprint.
Port Of Miami Intermodal Yard
Existing rail lines will be removed and a new Intermodal Yard will be constructed. The Intermodal Yard will be served by the single track that comes across the bridge and two tracks parallel to each other and 4,000 feet long each will be constructed. Apron areas on either side of the tracks will allow simultaneous loading of two trains.
Port Lead
An existing rail line runs directly to the Port. A 4.7 mile segment of the existing rail corridor will be reconstructed to allow both cargo once operable and passenger rail in the future. The work will include reconstruction of all the tracks and their placement to one side of the corridor.
Rehabilitate Existing Rail Bascule Bridge
The rail bascule bridge can only be operated manually. There are substantial repairs needed to the electrical systems, the motors, the switching system, repainting and minor structural repairs.

# On-port rail yard



# Container potential

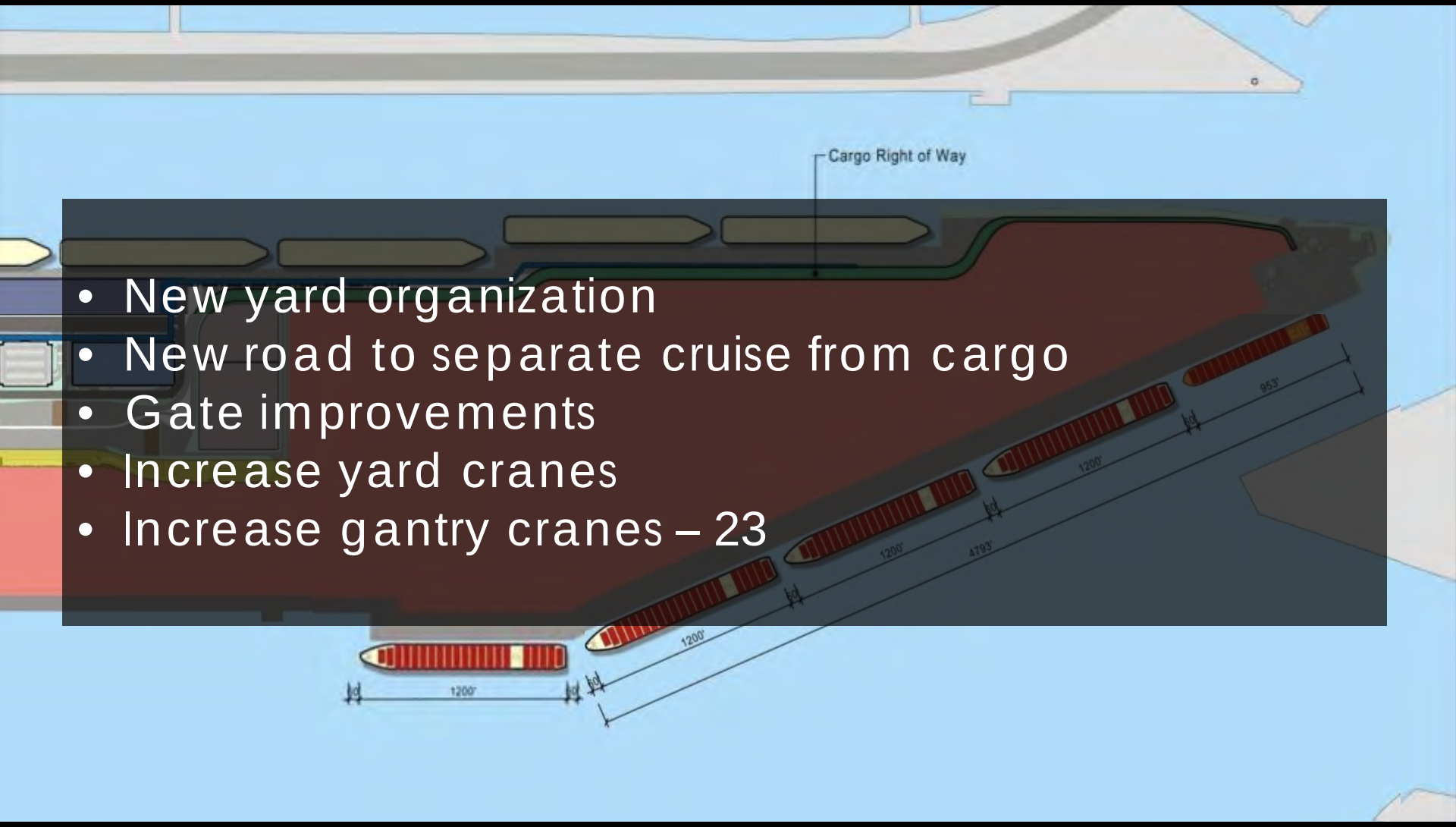
- Truck market potential = 1.4 million TEUs
- Intermodal share = 1.7 million TEUs



# Cargo opportunities

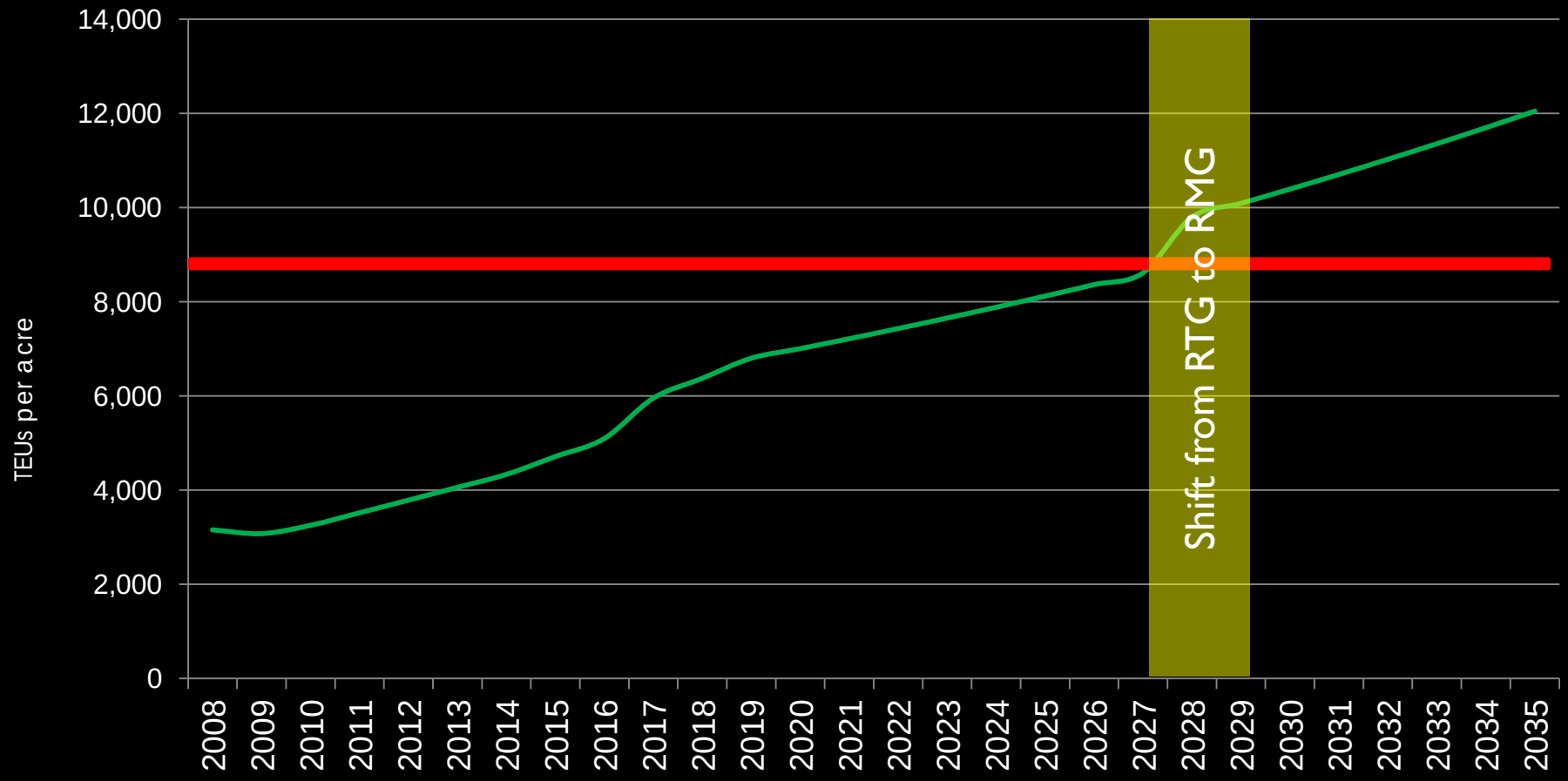
- Without better intermodal links and deepening the growth is heavily curtailed
- Deepening will lower marine transport costs and make shipping through the Port cheaper
- Further expanding market penetration in the intermodal field through rail will further make the port more competitive
- Potential exists to increase over 2 million TEU's within 15 years
  - All infrastructure dependant

# Optimization of cargo yard

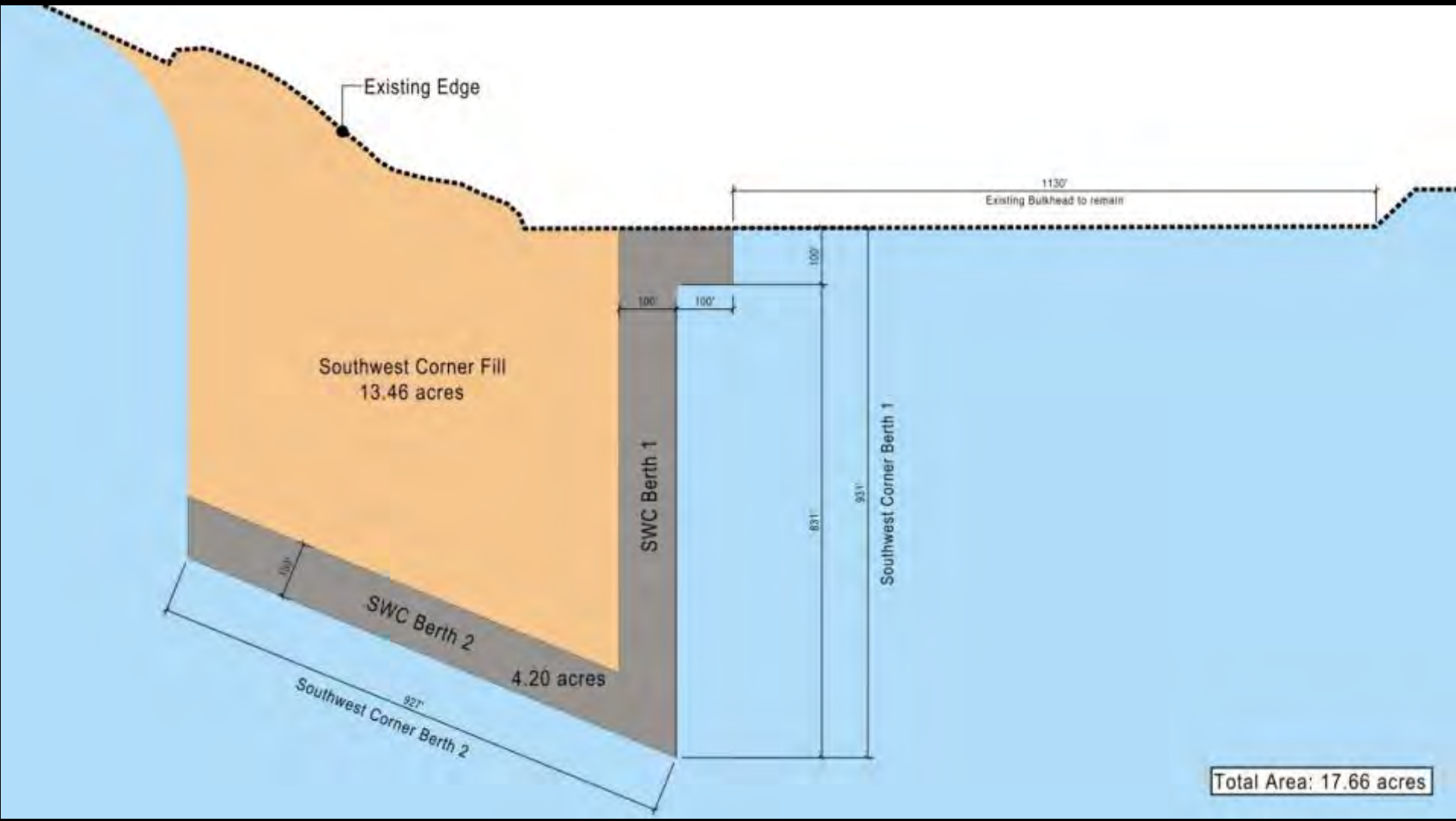



- New yard organization
- New road to separate cruise from cargo
- Gate improvements
- Increase yard cranes
- Increase gantry cranes – 23

# Future need for more cargo yard



# Southwest corner



# Optimized cargo yard

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# Optimized cargo yard

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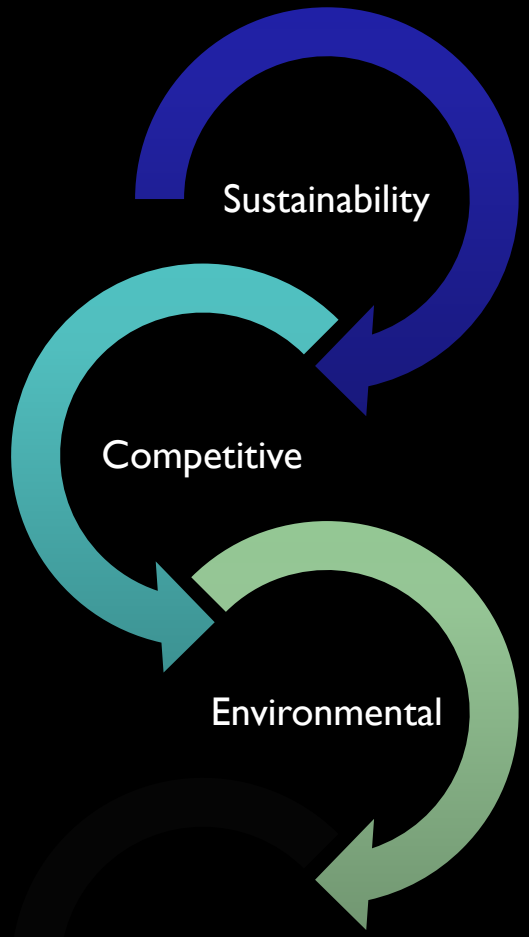



environmental

# STRATEGY

Reduce the environmental footprint of the Port

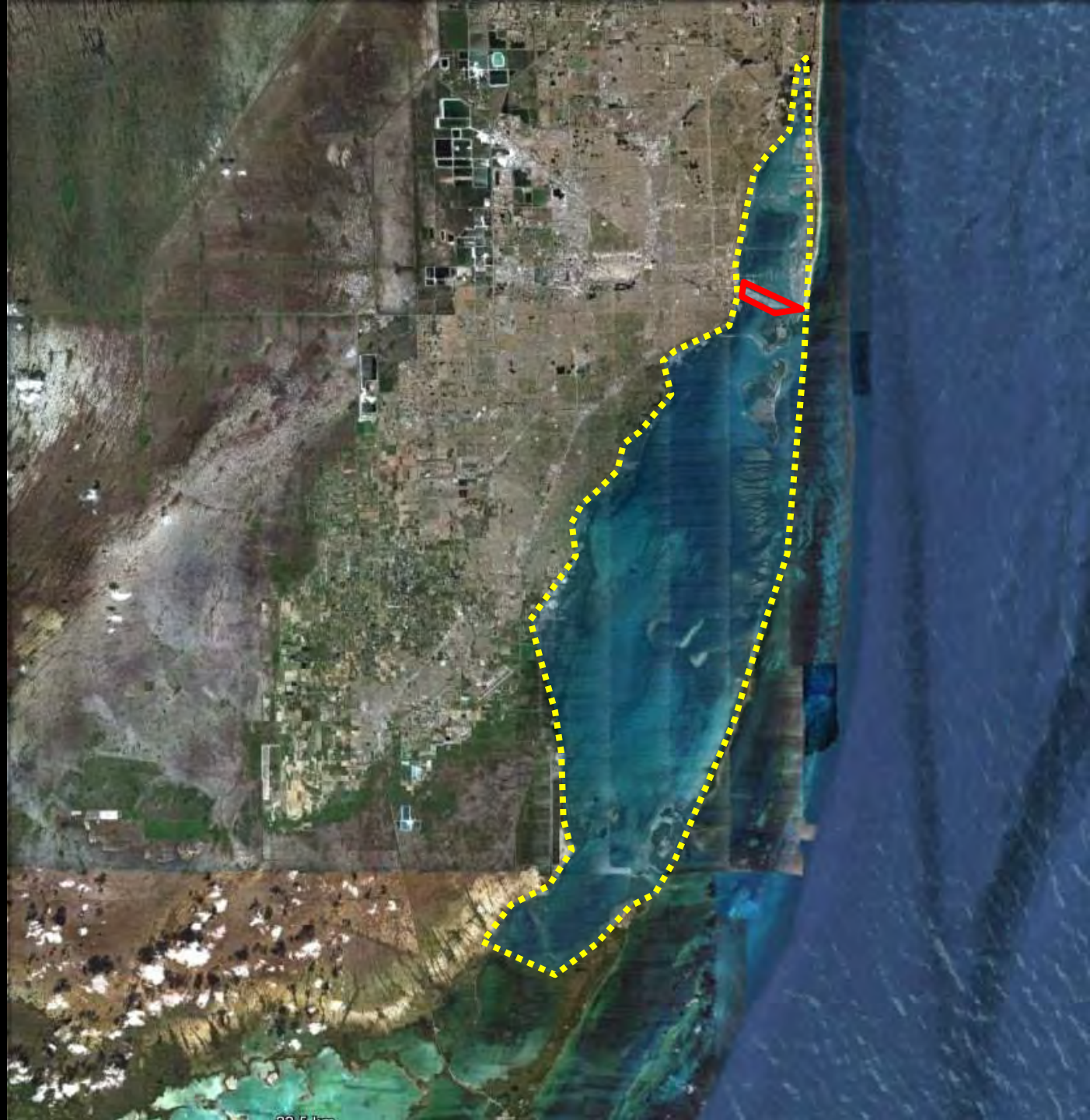
# Sustainability goals

- To be a world leader in sustainability
- To be a world leader in urban compatibility
- Stay within the ports physical footprint
  - Work within the current area to optimize water and land resources
- Minimize environmental footprint where possible
  - Energy
  - Discharges
  - Air emissions
- Traffic
  - Reduce congestion
  - Introduce mass transit

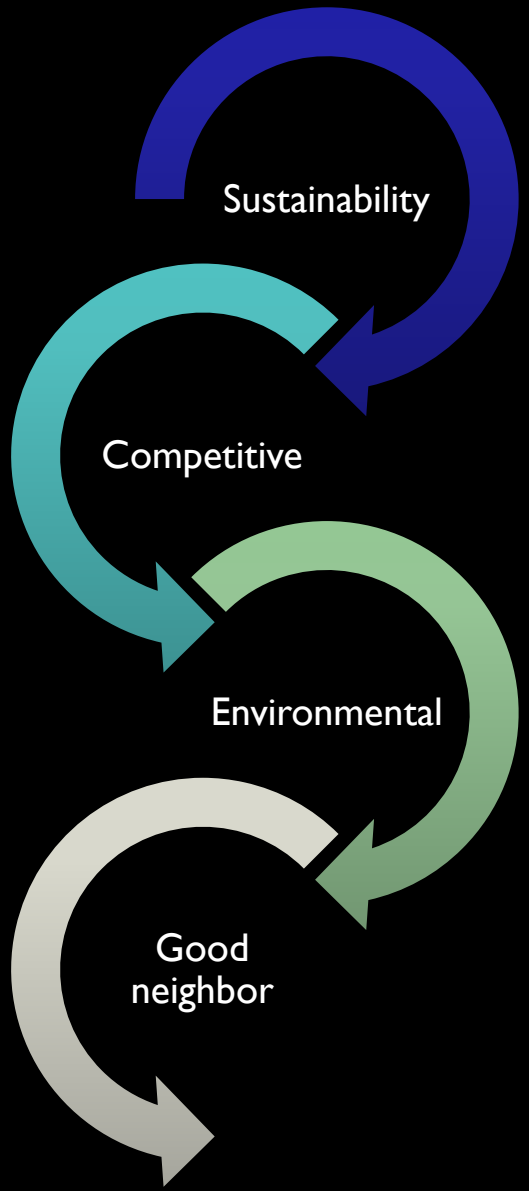
# Environmental activities

- Design all buildings LEED certified
- Electrification of all gantry cranes
- Upgrade of all drainage systems to eliminate discharges
- Future integration of Shore Power for ships
- New initiatives for energy
- Stay within the physical footprint

# The port's role



# Sustainability goal – live within the physical footprint


Sustainability
Competitive
Environmental
Good neighbor

neighbor

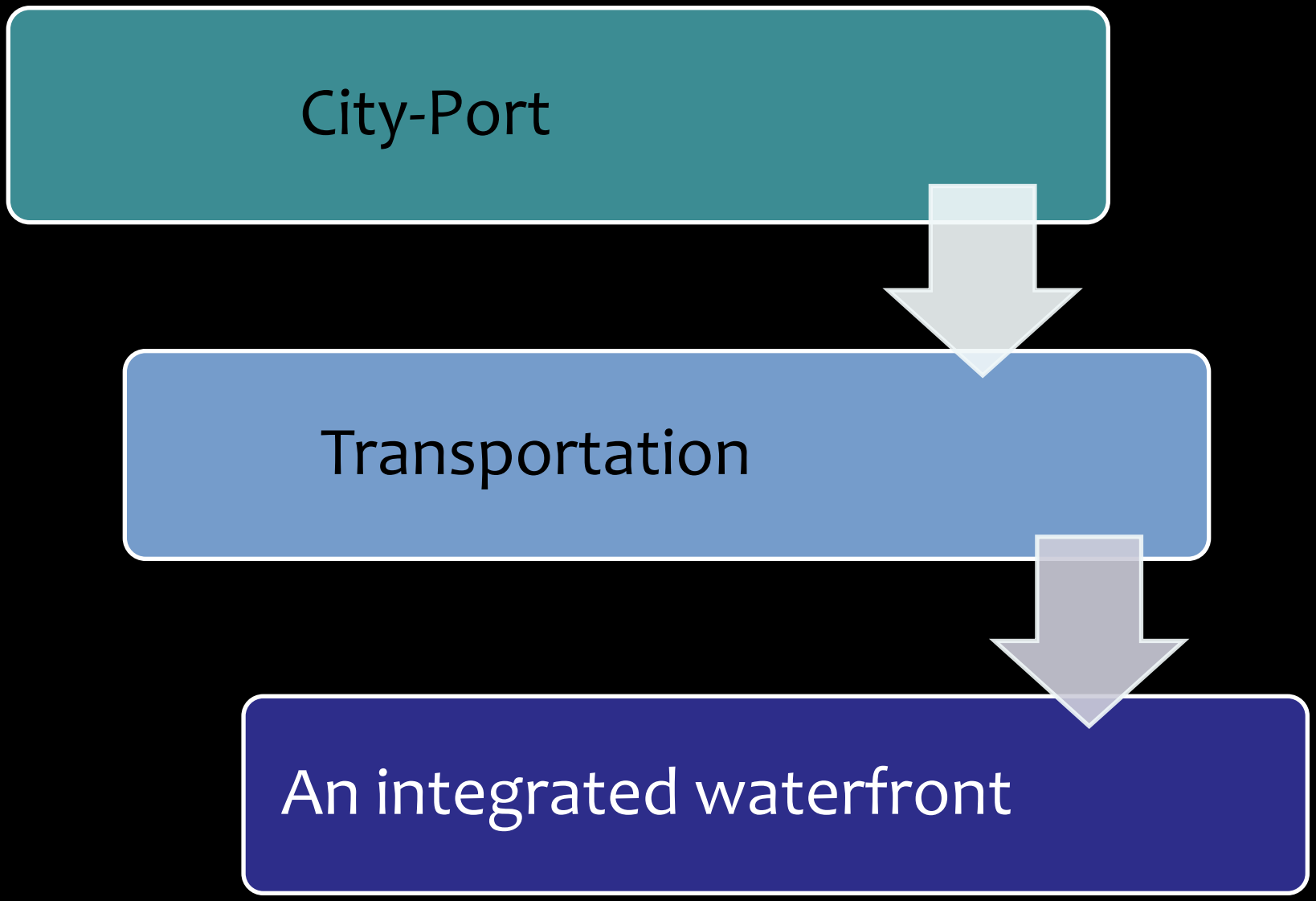
# STRATEGY

Continue to be a better neighbor to the community

# Port - City

- The Port has a long history of partnership with the City and the DWNTWN:
- It has moved twice to create urban open space
- It has spent significant resources to build a new bridge and Biscayne Blvd
  - Coordinated fully with Bayside and then the Arena
- Committed to build an attractive bridge
  - Only segmental design in DWNTWN
  - Multimillion lighting program
- Building a tunnel to remove traffic from DWNTWN
- More opportunities lie ahead

# Opportunities



# Transportation

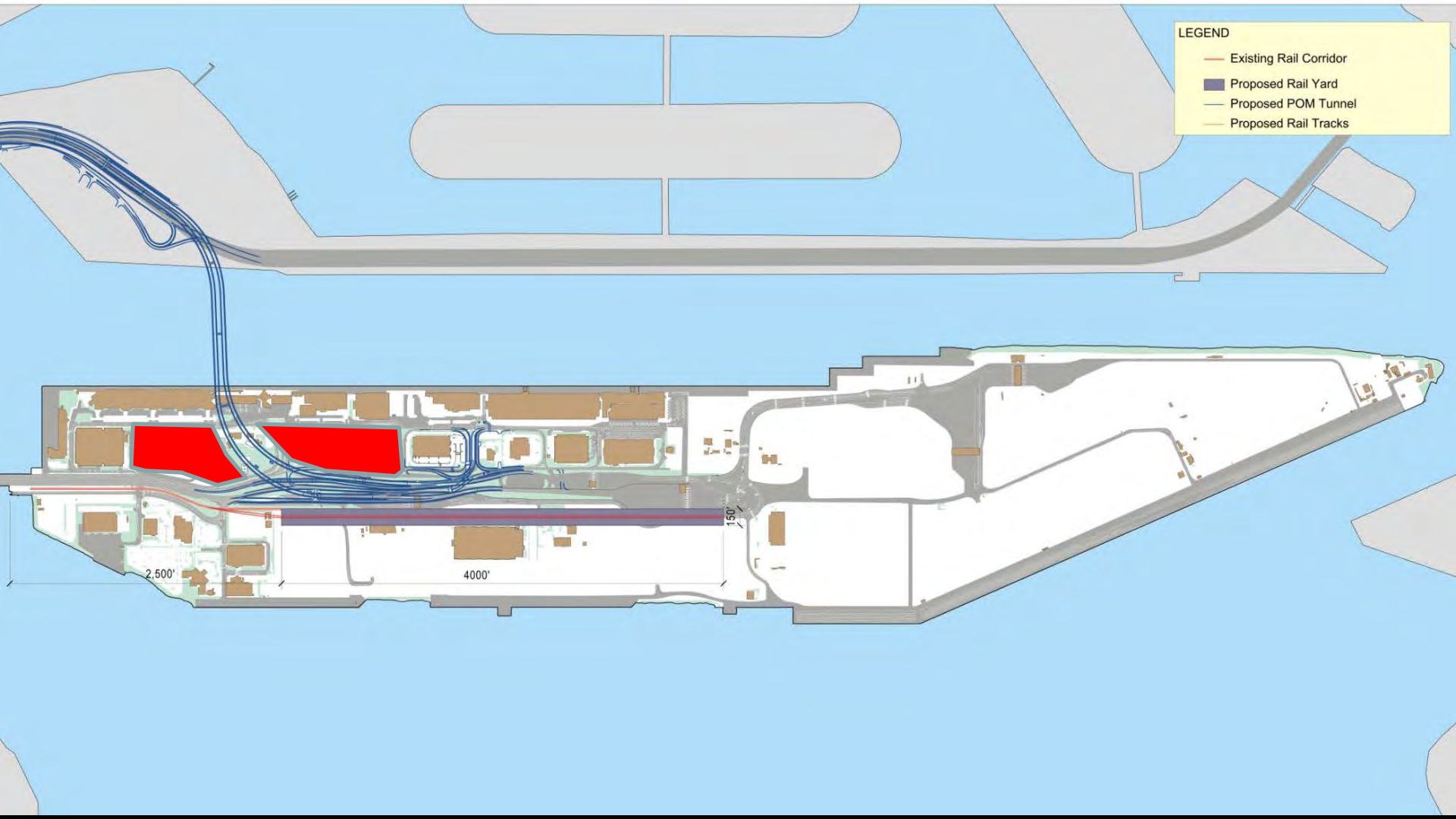
1. Tunnel

2. New transit connections

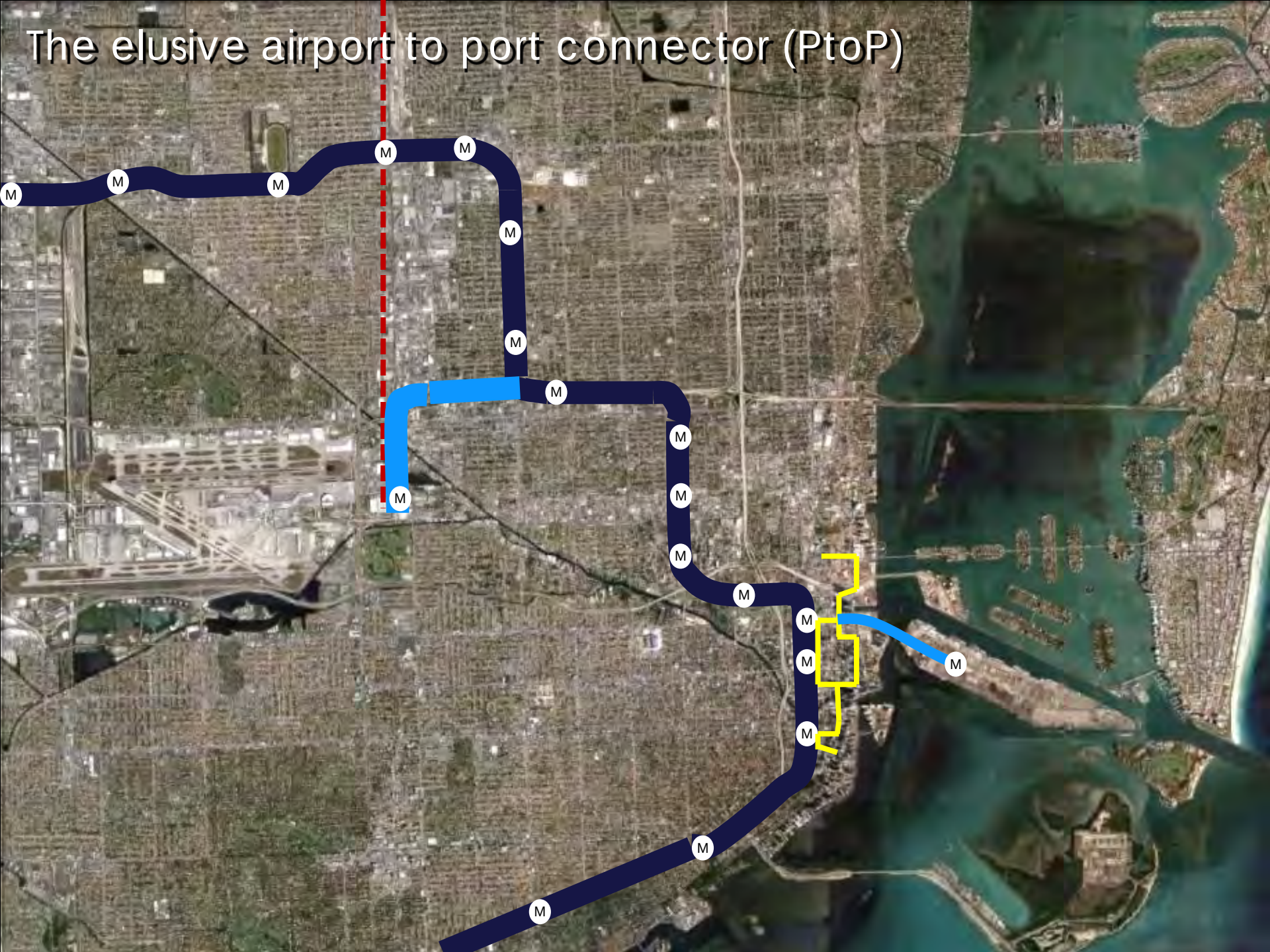
   - Passengers can easily come to town
   - Employees can easily connect to DWNTWN
   - Reduce vehicular traffic
   - Centralize parking


1 Port tunnel
tunnel

# ❷ Transit


LEGEND
Existing Rail Corridor
Proposed Rail Yard
Proposed POM Tunnel
Proposed Rail Tracks
2,500'
4000'
150'

# Isolated sites


The elusive airport to port connector (PtoP)

# Port Central

# Port Central

- The thousands of employees at the port will have access to transit
- Passengers will be able to “day trip” to DWNTWN while waiting for the ship
- Businesses will have ability to move back and forth between DWNTWN and the Port
- Certain passengers from the region will be able to travel to the ship without a car

# Port Central

- An integrated transportation center
- Consolidation of parking for terminals D, E, F and G
- GTA for adjacent terminals
- Connection with Transit
  - Metro-mover is three blocks away
  - Bridge is capable of becoming the guideway
- Elevated open space to replace Seaman's Park
- Incorporation of energy generation in park and building
- New offices for the Port and maritime tenants

# Integrated waterfront

- Opportunities exists to integrate the west face of the Port into its urban counterpart
  - Downtown
  - Bayfront Park
  - Bayside
- Create Miami's new inner harbor and waterfront

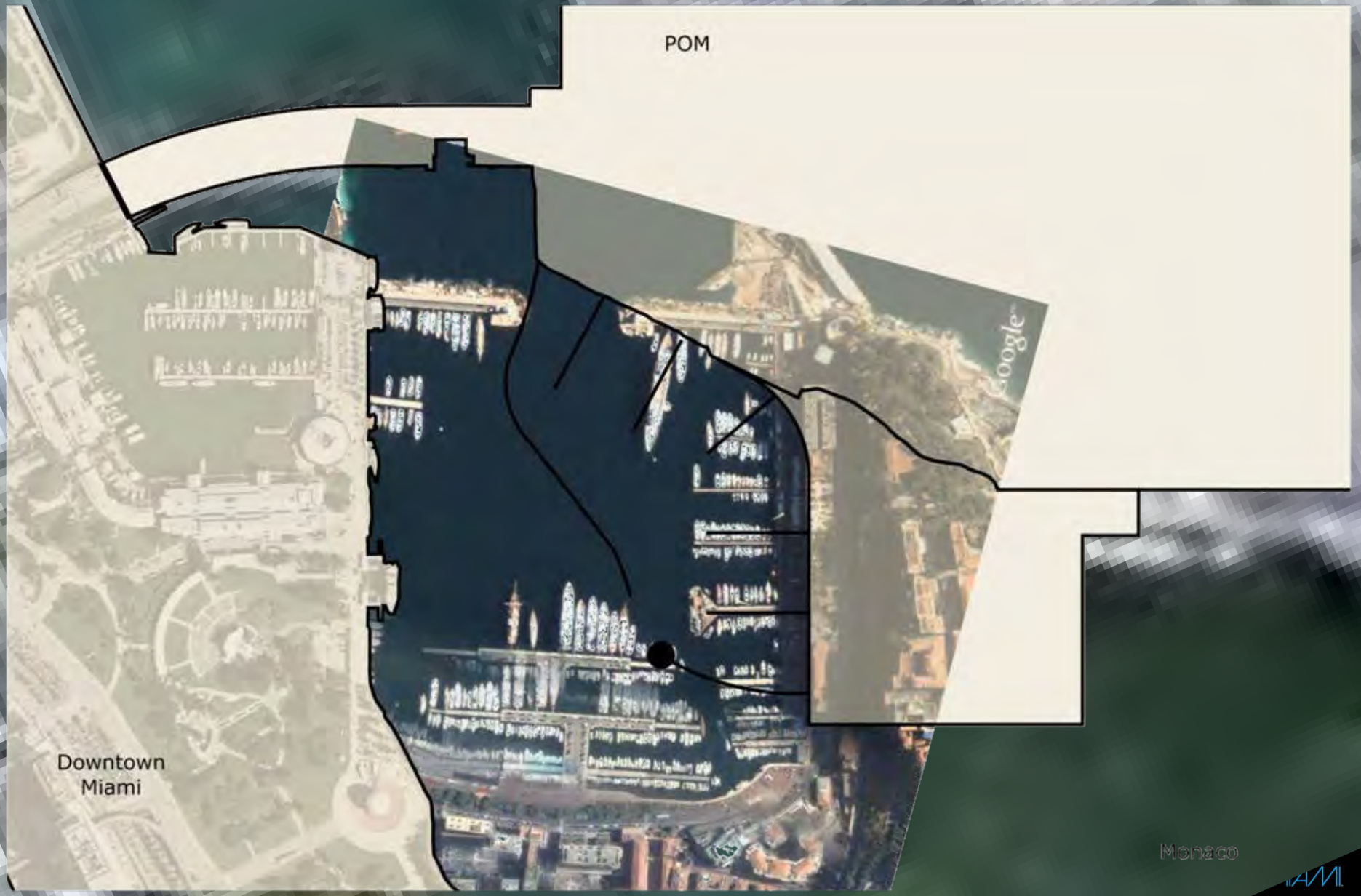
# City - port

# Northwest corner

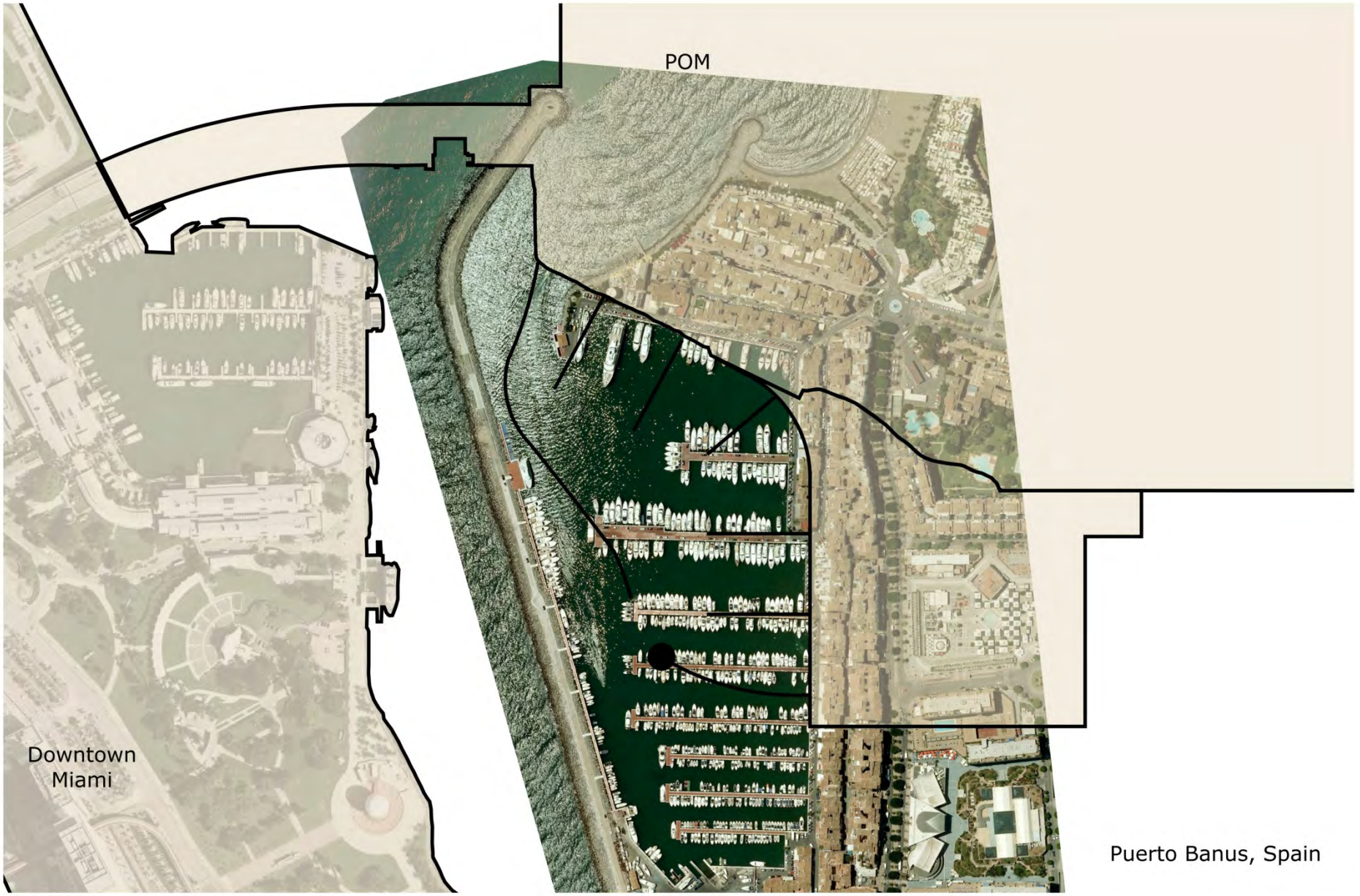
# Southwest corner

# City-port

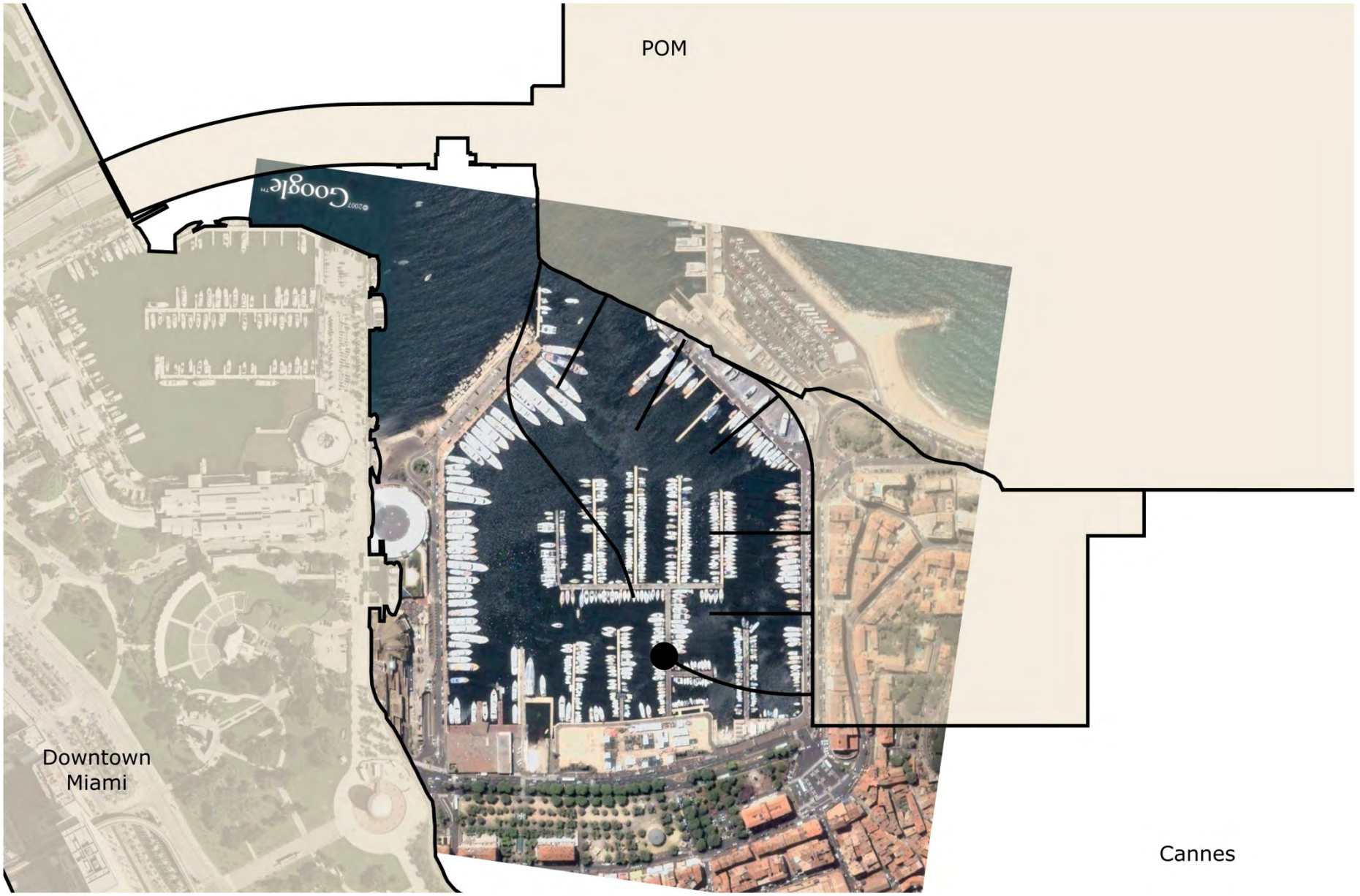
# Miami – Monaco



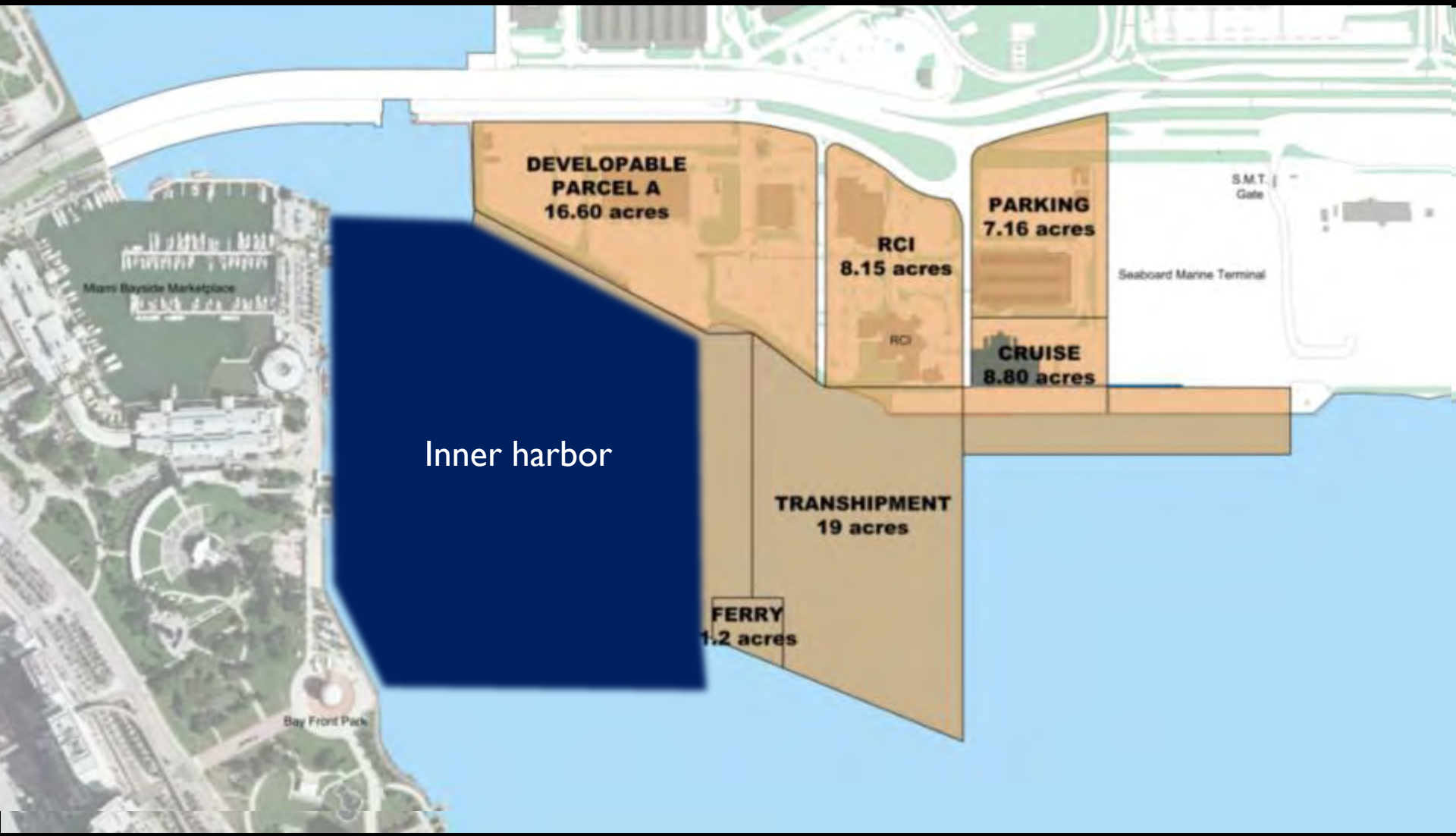
# Miami - Nice



# Miami - Cannes



# City-port


DEVELOPABLE
PARCEL A
16.60 acres
RCI
8.15 acres
RCI
PARKING
7.16 acres
S.M.T.
Gate
Seaboard Marine Terminal
CRUISE
8.80 acres
Inner harbor
TRANSHIPMENT
19 acres
FERRY
1.2 acres
Miami Bayside Marketplace
Bay Front Park


Sustainability
Competitive
Environmental
Good neighbor
Financial
financial

# STRATEGY

Make the Port financially sustainable while more competitive

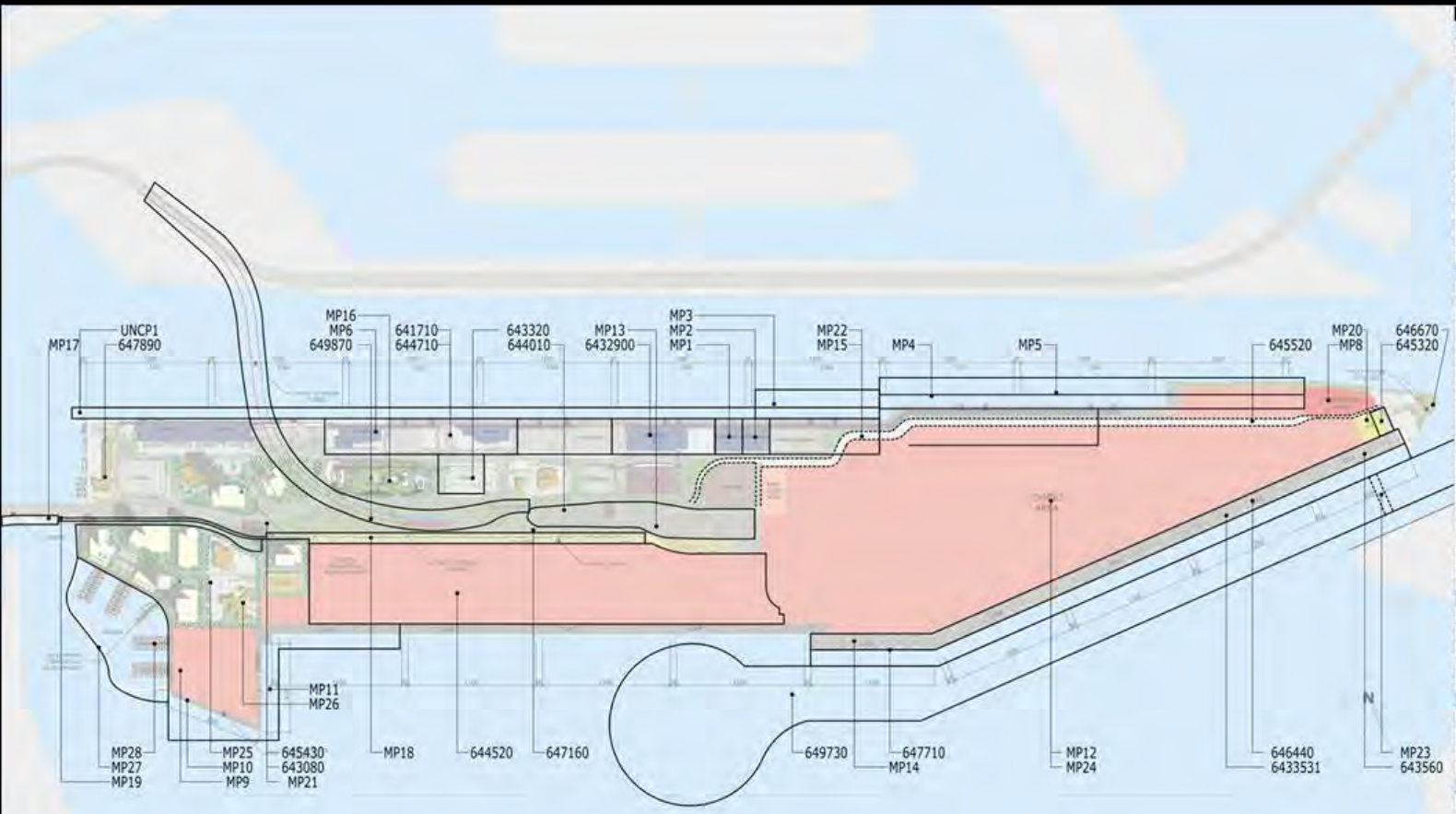
# Financial sustainability

Sustainability = Being able to pay for the plan

While staying competitive = lowest user fees

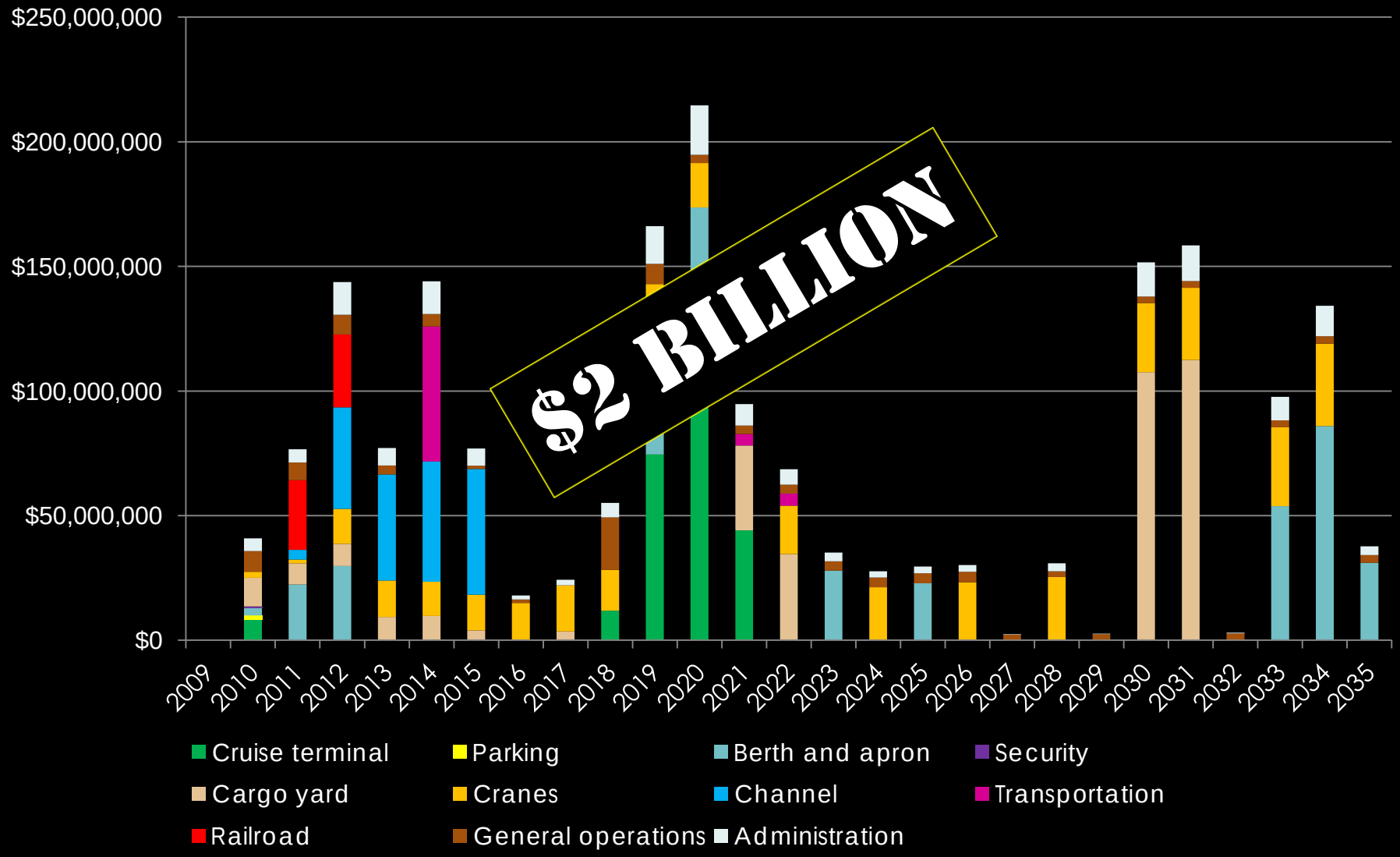
Without tax money

# Capital plan




| Project | ID | Start | End |
|---|---|---|---|
| ***Cruise*** | | | |
| ***Existing capital plan*** | | | |
| Improvements to Terminals B & C | 6432900 | 2010 | 2010 |
| Improvements to Terminals D & E | 644710 | 2010 | 2010 |
| Security upgrades to Terminals D & E | 641710 | 2010 | 2010 |
| Parking garage D | 643320 | 2010 | 2010 |
| Shore power for cruise ships (1) | UNCP1 | 2010 | 2033 |
| ***Master plan projects*** | | | |
| Cruise Terminal 7 | MP1 | 2017 | 2018 |
| Cruise Terminal 8 | MP2 | 2017 | 2018 |
| Cruise berth 6 | MP3 | 2013 | 2014 |
| Cruise berth 7 | MP4 | 2013 | 2014 |
| Cruise berth 8 | MP5 | 2017 | 2018 |
| Improvements to terminals D & E | MP6 | 2016 | 2017 |
| ***Cargo*** | | | |
| ***Existing capital plan*** | | | |
| Reinforce gantry crane area | 643560 | 2010 | 2011 |
| Security improvements | 644010 | 2010 | 2010 |
| Electrification of cranes | 645320 | 2010 | 2013 |
| Gantry crane refurbishment | 646440 | 2010 | 2010 |
| TLM improvements | 645520 | 2010 | 2015 |
| Seaboard improvements | 644520 | 2010 | 2014 |
| Strengthen bulkheads for deepening | 647710 | 2010 | 2013 |
| Deepening south channel | 649730 | 2010 | 2015 |
| Gantry cranes | 6433531 | 2014 | 2016 |
| ***Master plan projects*** | | | |
| New fumigation yard | MP8 | 2021 | 2021 |
| Fill southwest corner | MP9 | 2021 | 2022 |
| New berth sw corner 1 | MP10 | 2023 | 2023 |
| New berth sw corner 2 | MP11 | 2025 | 2025 |
| Yard improvements | MP12 | 2021 | 2022 |
| Improvements to gate complex | MP13 | 2017 | 2017 |
| Gantry cranes (2) | MP14 | 2028 | 2033 |
| ***Transportation*** | | | |
| ***Existing capital plan*** | | | |
| Tunnel | 649870 | 2014 | 2014 |
| ***Master plan projects*** | | | |
| New cargo road | MP15 | 2021 | 2022 |
| Central multimodal | MP16 | - | - |
| ***Rail*** | | | |
| ***Master plan projects*** | | | |
| Bascule Bridge | MP17 | 2011 | 2012 |
| On-port rail yard | MP18 | 2011 | 2012 |
| On-port rail improvments | MP19 | 2011 | 2012 |
| ***General*** | | | |
| ***Existing capital plan*** | | | |
| General infrastructure improvements | 645430 | 2010 | 2016 |
| Electrical feeder upgrades | 643080 | 2011 | 2011 |
| Central communication center | 647890 | 2010 | 2010 |
| Upgrade water and sewer | 647160 | 2010 | 2014 |
| Riprap around pilot house | 646670 | 2010 | 2010 |
| ***Master plan projects*** | | | |
| New electrical transformer substation | MP20 | 2017 | 2017 |
| Wastewater upgrades | MP21 | 2017 | 2017 |
| Water upgrades for new roadway | MP22 | 2017 | 2017 |
| New water main crossing | MP23 | 2018 | 2018 |
| Drainage | MP24 | 2018 | 2018 |
| ***Real estate*** | | | |
| ***Master plan projects*** | | | |
| Civil work southwest corner | MP25 | 2018 | 2018 |
| Miscellaneous development costs (3) | MP26 | 2010 | 2018 |
| Marina bulkhead | MP27 | - | - |
| Marina slips | MP28 | - | - |

# Capital needs by project type



# Financial challenges

- How will the Port support this $2 billion capital program
  - Currently $500 million has identified funding
- POM does not receive any financial support other than:
  - Grants
  - Credit enhancements / loans
- POM is a new Port with 100% of the facilities having been built since 1960
  - 100% of the POM is reclaimed new land
- It is hard to spend for the future when using historical revenues to sell bonds
- The port and its users are under heavy competitve pressures

# Financial strategies

- Extend capital plan until use is at hand
- Control port operating costs to maximize EBITA
- Aggressively look for PPP opportunities
- Time new bond issues to coincide with defeasance of past bonds
- Create a diversified funding mechanism independent of user fees

# Strategy – diversify revenues

- Identify land not suitable for cargo or cruise activities
- Identify maritime related uses
  - Generate income
  - Provide private sector opportunities
- Most major Port “authorities” have a major component of their operations and income from secondary uses
  - San Diego
  - San Francisco
  - Seattle
  - New York
- Provides for a new revenue source without user fee increases making the port more competitive

# Recommendations

- Cruise
  - Fix the existing terminals for the long term
  - Create the new terminals
    - Start planning now
- Cargo
  - Rail
  - Deepening
  - New north roadway
  - Detailed study of entrance gate house
- Transportation
  - Rail
  - New multi-modal center
  - Future Metro integration
- Environmental
  - Develop a long-term sustainability strategy
  - Create a master plan and permitting strategy
  - Take the time to do it right
- Commercial
  - Begin to position the port for the next business boom
  - Master plan all excess properties for development
    - Maritime / cruise related
  - Develop the business model

# Sustainability