

# Financing Strategies: Case Study of the Gerald Desmond Bridge



Port of  
**LONG BEACH**  
*The Green Port*

**AAPA Infrastructure Development and Financing Seminar**

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**San Diego, CA**

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# About the Port of Long Beach



**2<sup>nd</sup> Busiest U.S. Port**

**\$180 Billion in Trade**

**Gateway for clothing, toys, shoes, furniture**

# San Pedro Bay Port Complex



Port of Los Angeles

Port of Long Beach

Port of **LONG BEACH**

# Why is Southern California Goods Movement So Important to the Rest of U.S.?

Importing the Goods of a Nation

**43% of America's goods**

Extensive hwy/rail infrastructure in Southern California

Local and Regional Demand

**40% stays in the region**

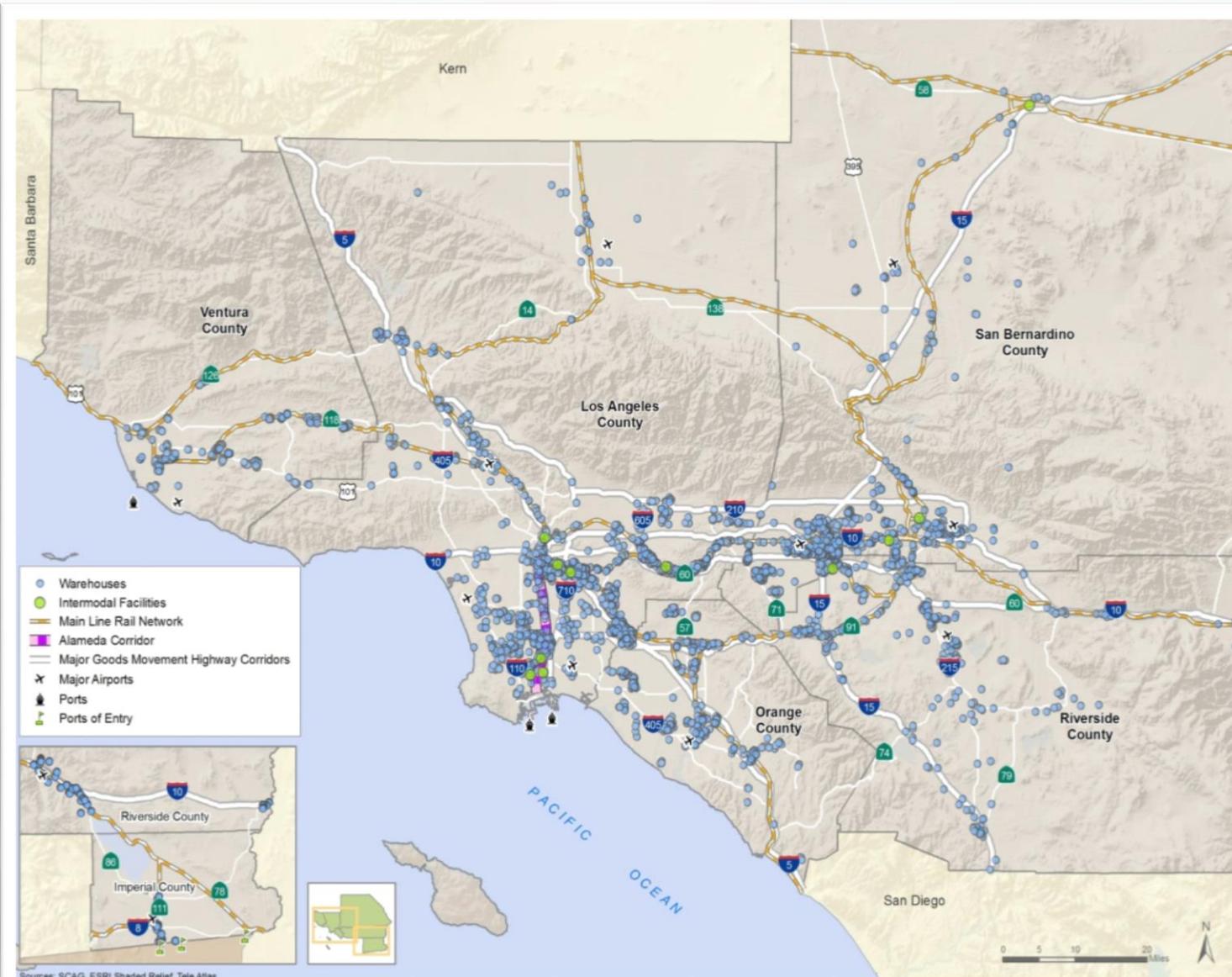
18 million consumers/producers in Southern California

National Supply Chain Logistics

**Over 1 Billion Square Feet of Warehouses**

Distribution centers in CA serve many states

# SCAG Regional Goods Movement System



- **Six Commercial Airports**
- **Four Major Seaports**
- **9,000 lane miles of freeways**
- **Two Class I railroads**
- **Three international border crossings**
- **Abundant warehousing facilities**
- **Large internal market**

# Ships Are Getting Bigger



**CMA CGM Corte Real arrived @ POLB on 11/8/2013**

**Capacity: 14,000 TEU**

**Max. Draft (water depth): 52'**

**Height (Beam): 168'**

**Width: 98' (8-Lane highway)**

**Overall Length: 1,200' (3.3 football fields)**

...and BIGGER.



**CMA CGM Benjamin Franklin arrived @ POLA on 12/26/2015**

**Capacity: 18,000 TEU**

**Height: 197'**

**Length: 1,300' (longer than the Empire State Building is tall)**

**Width: 177' (half a football field)**

**Net tonnage: 116,000**

*Photo: LA Times*

Port of **LONG BEACH**

# And Just How Big Is A Big Ship?

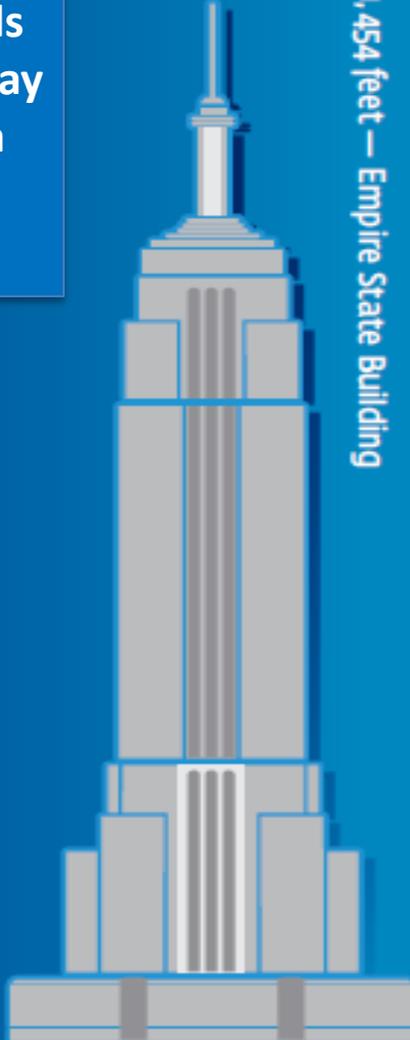
Fact: The largest container vessels calling the Port of Long Beach today are wider than the new Panama Canal locks, to be completed in 2015.



1,092 feet — USS Nimitz



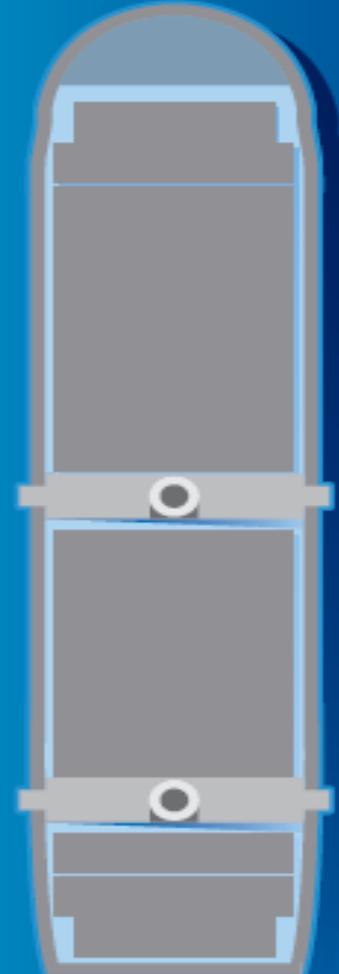
965 feet — Older Cargo Ship



1,454 feet — Empire State Building



1,392 feet — Six Boeing 747 Airplanes



1,200 feet — New Cargo Ship

# Challenges for Surface Transportation System

- Meeting Future Demand
  - Trucks serve primarily local uses and intra-regional
  - Goods movement dependent industries will drive traffic growth
  - Intermodal and rail
- Managing “Surges”
  - More congestion – truck access; crossings
  - Accelerated roads/bridges deterioration
  - Inadequate funding for O&M

# Gerald Desmond Bridge



- **Obsolete and deteriorating**
- **Low clearance**
- **Isn't capable of handling growth**
- **Needs to be replaced**

# New Bridge Features

- 
- A photograph of a modern cable-stayed bridge spanning a body of water. The bridge features two tall, white, A-frame pylons with numerous stay cables. The sky is filled with dramatic, orange and red clouds from a sunset. In the background, an industrial facility with cranes and buildings is visible. A semi-transparent blue box in the lower right corner contains a list of bridge features.
- **Design-build**
  - **Cable-stayed design**
  - **205-foot vertical clearance**
  - **3 lanes w. full shoulders (ea. direction)**
  - **Emergency lanes**
  - **Bicycle & pedestrian facility**
  - **Scenic overlooks**

# Project Partners





**\$1.47 billion**

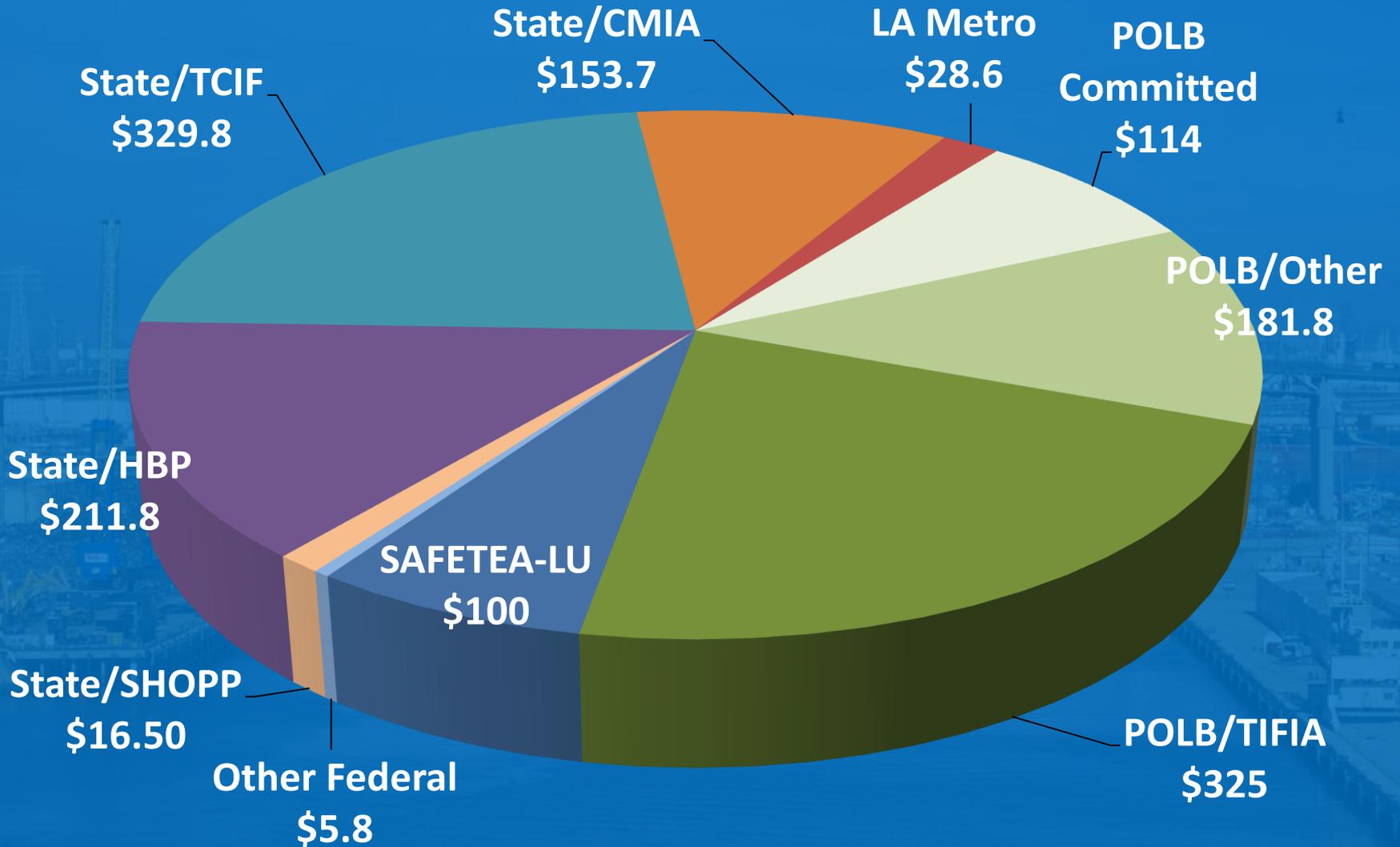
# Iconic Bridge

**Gerald Desmond Bridge Replacement Project**

# Project Budget: \$1.49 Billion



# Funding Sources (\$ millions)



# Funding Arrangements

- Partnership is key
- Internal grants management capacity
  - Satisfying conditions of multiple grants
    - Matching
    - Reporting
    - invoicing
    - Schedule
    - QA/QC reviews
    - Audits

# Funding Arrangements (cont.)

- Unique conditions of funding
  - Design Build
- Multiple grants on one project, or multiple projects on one grant?
  - FASTLANE and TIGER – bundling/components
  - End-to-end, systems, scaled benefits
  - Project development timeframes

# Final Remarks

- Mega projects are being delivered at POLB
- Funding gaps to be resolved
- Competition among trade gateways remains fierce
- Environment of great infrastructure need and limited funding
- Sustainable/equitable funding for freight infrastructure and on-going O&M

**Thank you!**

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