Intermodal Linkage

Ports Partnering with Railroads

AAPA Facilities Engineering Seminar & Expo

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Panel VIII

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TranSystems

Thoughts, Recommendations and Reminders

- Partnership
- Operating Plan
- Tradeoffs
- Measuring Value
- Summary

East Coast and West Coast Partnership Examples

Vintage :

- The Port of Baltimore
- The Port of Oakland

In Development :

- The Port of Long Beach Pier B Yard
- Port of Miami

Commercial - “Who Pays for What”

- **Commercial Agreement**
  - Parties
  - Terms
  - Conditions
  - Liability
  - Operating Plan ?

Provide as much detail as possible in the operating plan as a portion of the commercial agreement.

Use a top down approach and add details as required or as it becomes available.

Operating Plan – "Use a Top Down Approach"

- **Do the Operations Analysis before facility design**
- **Service Plan drives facility requirements and resources**
- **Sequence and level of detail are important**
  1. Capacity Requirements
  2. Performance Expectations
  3. Performance Measures
  4. Service Plan Option Evaluation
  5. Capital Investment
  6. Resources

Operating Plan – "Who Is Responsible For What When"

- **Operating Plan Is Driven By:**
  - Freight forecast
  - Train Service
  - Hours of Operation
  - Interface between parties
    - Drayage Service
    - Documentation
    - Customs and Security
    - Tactical Planning

Who is responsible for the Box/Chassis/Information when?

An Operating Plan Includes but is not limited to:

- Train service
- Port to/from rail Drayage Service
- Rail staging capacity
- Infrastructure
- Equipment
- Technology
- Manpower
- Customs
- Security

An Operating Plan Explores Tradeoffs

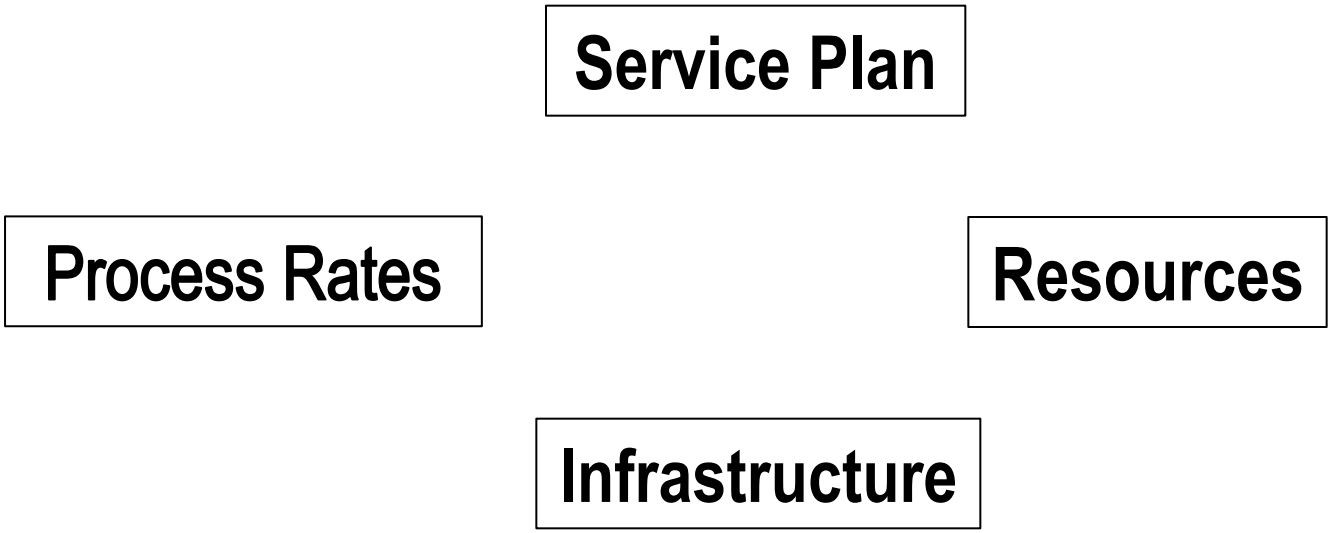
- Infrastructure
- Service
- Processes
- Technology
- Manpower

Explore tradeoffs, understand the sensitivity and risks, size accordingly, then design, build, and implement.

Seek first to understand requirements and sensitivity .

Operations Analysis Allows You To Evaluate Tradeoffs

- Evaluating the tradeoffs between service, process rates, infrastructure, and resources provides a business solution where the value of each component can be measured.



Technology Applications and Shared Use of the Information

- Inspection systems
- Lift equipment
- Drayage equipment
- Facility inventory systems
- Security systems
- Train management system
- Operating systems for movements & inventory Management

Choose the correct technology to match or enhance the operations efficiency and/or effectiveness.

Operating Plan Is A Tool for Measuring Value

- Bridging the **potential gap** between shipper, port authority, railroad, transportation organizations, engineering, and operators to determine required resources to meet expectations.
- Provides **capability** to analysis complex operations before spending large amounts of time and resources.
- Ability to measure **tradeoffs** between service, processes , and resources.
- Ability to measure **efficiency and effectiveness** of multi-discipline operations and processes.
- An approach and tool to work **across organizations**

Summary of Recommendations

- **Include an Operating Plan as part of your partnership agreement**
- **Document it, write it down, reach agreement with all parties**
- **Make your Operating Plan a living document**
- **Do the Operations Analysis before you:**
  - Design
  - Build
  - Sign up for service levels, costs, and implementation

Summary Reminders and Design Themes

- **The Operating Plan Drives the Investment for:**
  - Processes
  - Infrastructure
  - Equipment Type
  - Resource Requirements
- **Facility Design themes and focus**
  - Eliminate duplication of effort and infrastructure
  - Keep the facility design simple and operationally flexible
  - Apply technology correctly include it in the operating plan
  - Minimize points of conflicts and operational delay
    - Keep trucks away from train movement areas as much as possible

Thank You

Project Example If Requested

Port of Long Beach

On Dock Rail Support Operations Planning and Analysis

Project Site: North Harbor near I-710 Corridor

Operating Conditions and Direction from Port Rail Operations

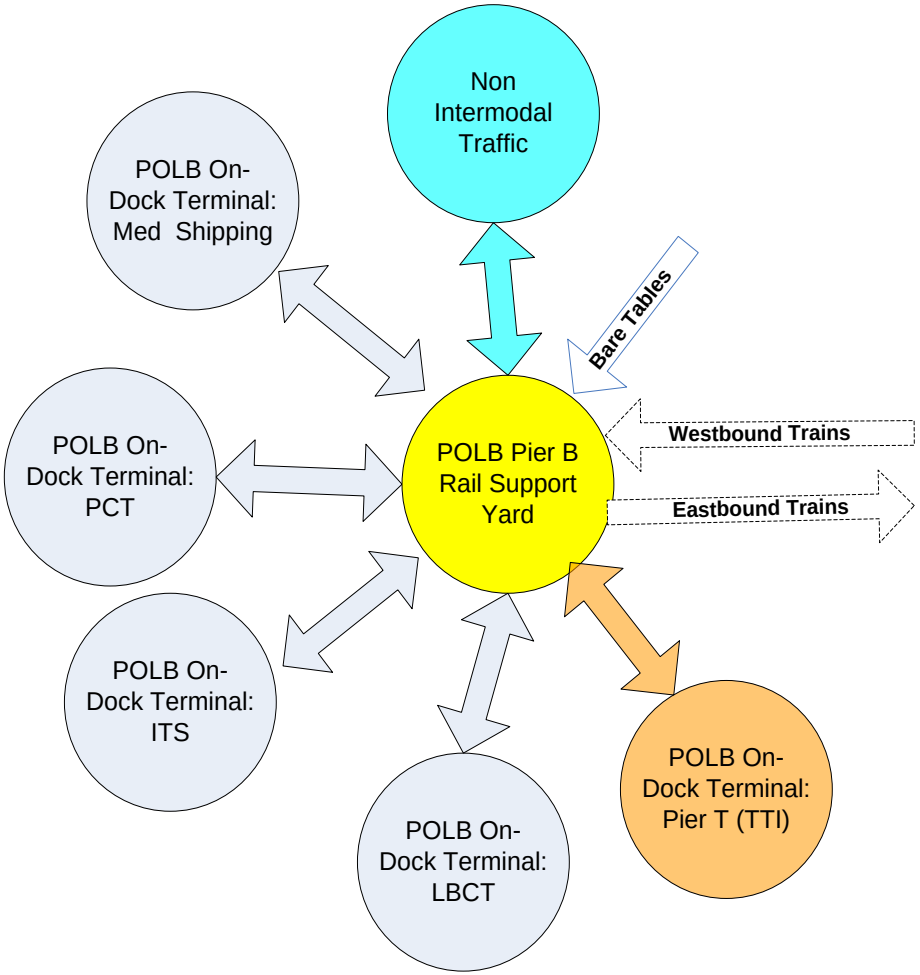
On Dock Rail Yard Operating Plan is to include

- Limitations of existing on-dock rail capacity at all 5 terminals
- Mixed terminal inbound trains
- Assembly of outbound10,000 foot sometimes mixed trains
- 20 – 40% imbalance of rail equipment from eastbound to westbound
- Operating hours and rail movement rules.
- Provide rail support for 5 Port of Long Beach on-dock terminals.
- Handle up to 10,000 foot arrival and departure trains
- Provide appropriate railcar staging capacity to meet vessel and rail service plans

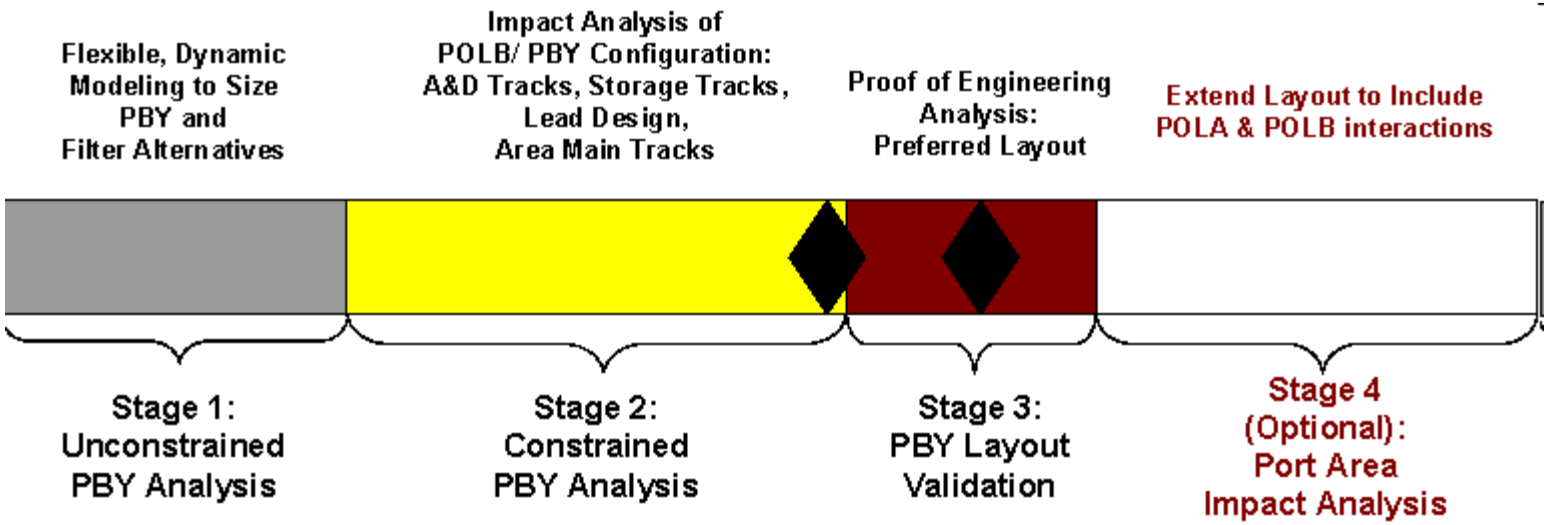
Operations Planning and Analysis Requirements

- **Determine what level of infrastructure investment is needed and when to meet volume projections**
- **Explore operational ways to reduce infrastructure requirements – tradeoffs and impacts**
  - Direct from on-dock terminal departures impacts
  - Share rail support tracks between rail carriers
  - 24 hour unrestricted access to on-dock terminals by railroads
  - Rail equipment management options

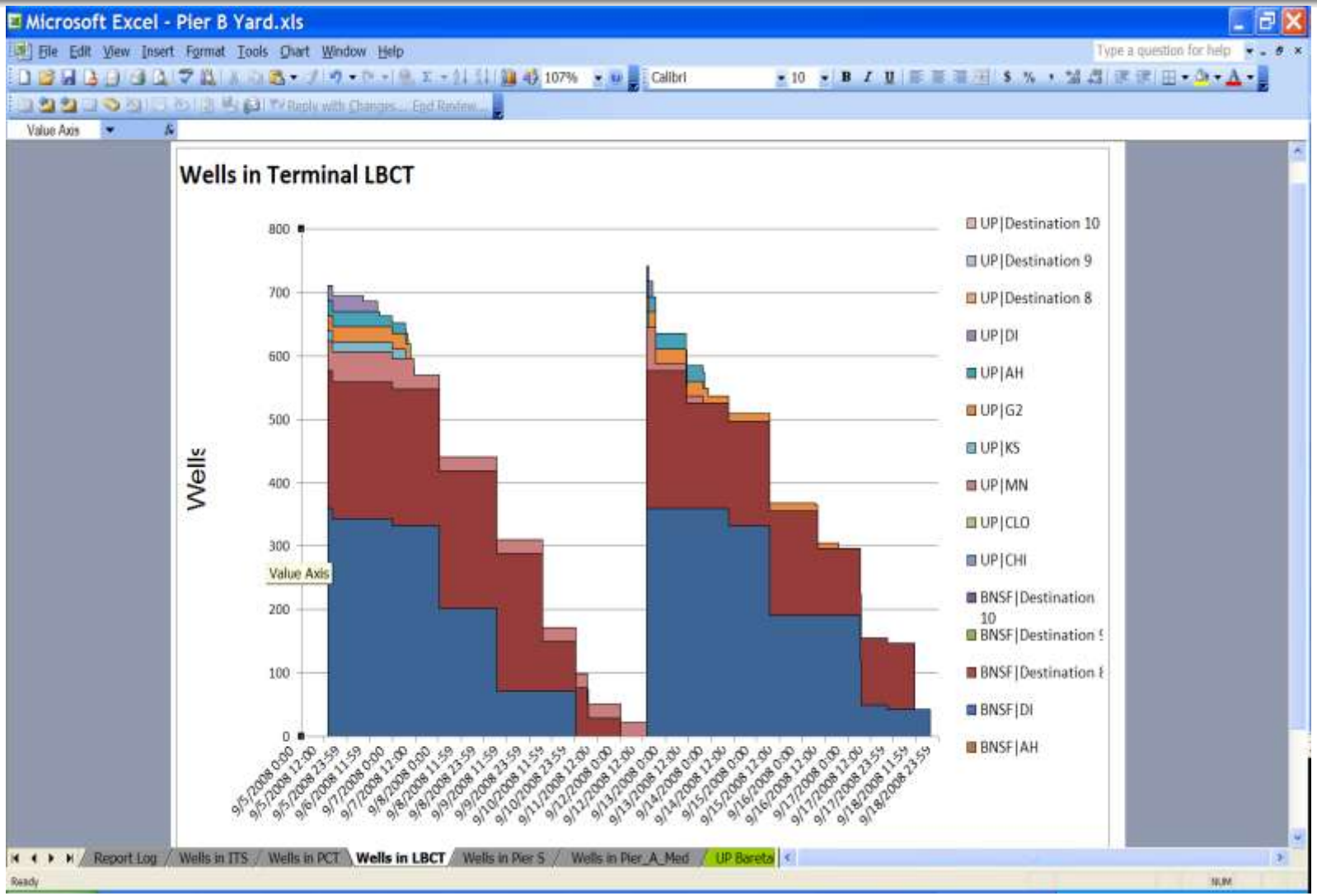
Port of Long Beach Rail support is a Network of it own



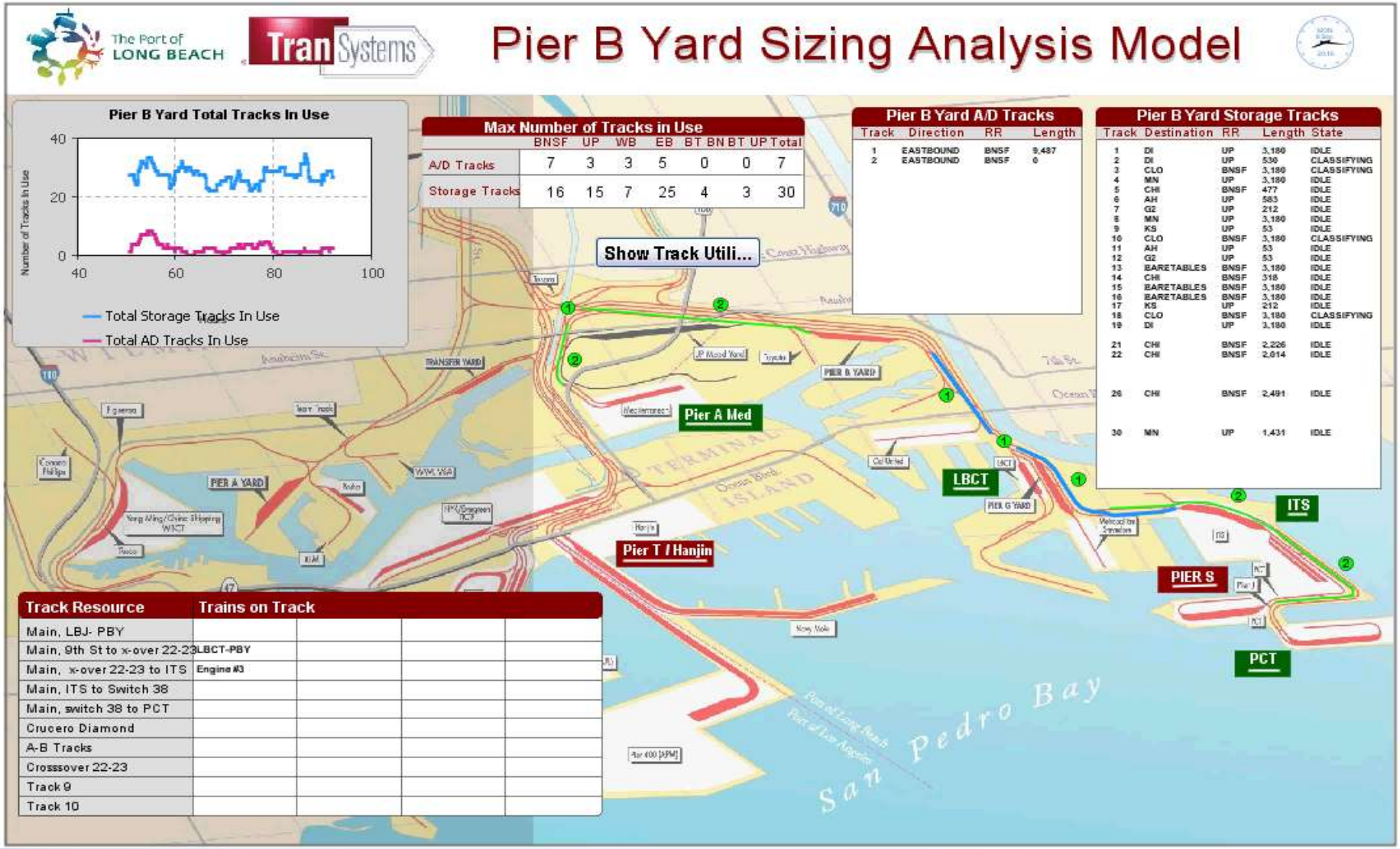
Multi-Stage Analysis Plan



The Goal - Move all targeted On-Dock rail volumes through the POLB East Basin



Concept Iterations Modeling using a Dashboard



Operations Planning and Analysis To Support the Rail and Port Industry

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