SEAPORT STAKEHOLDERS ROUNDTABLE (SSR)

Meeting #2

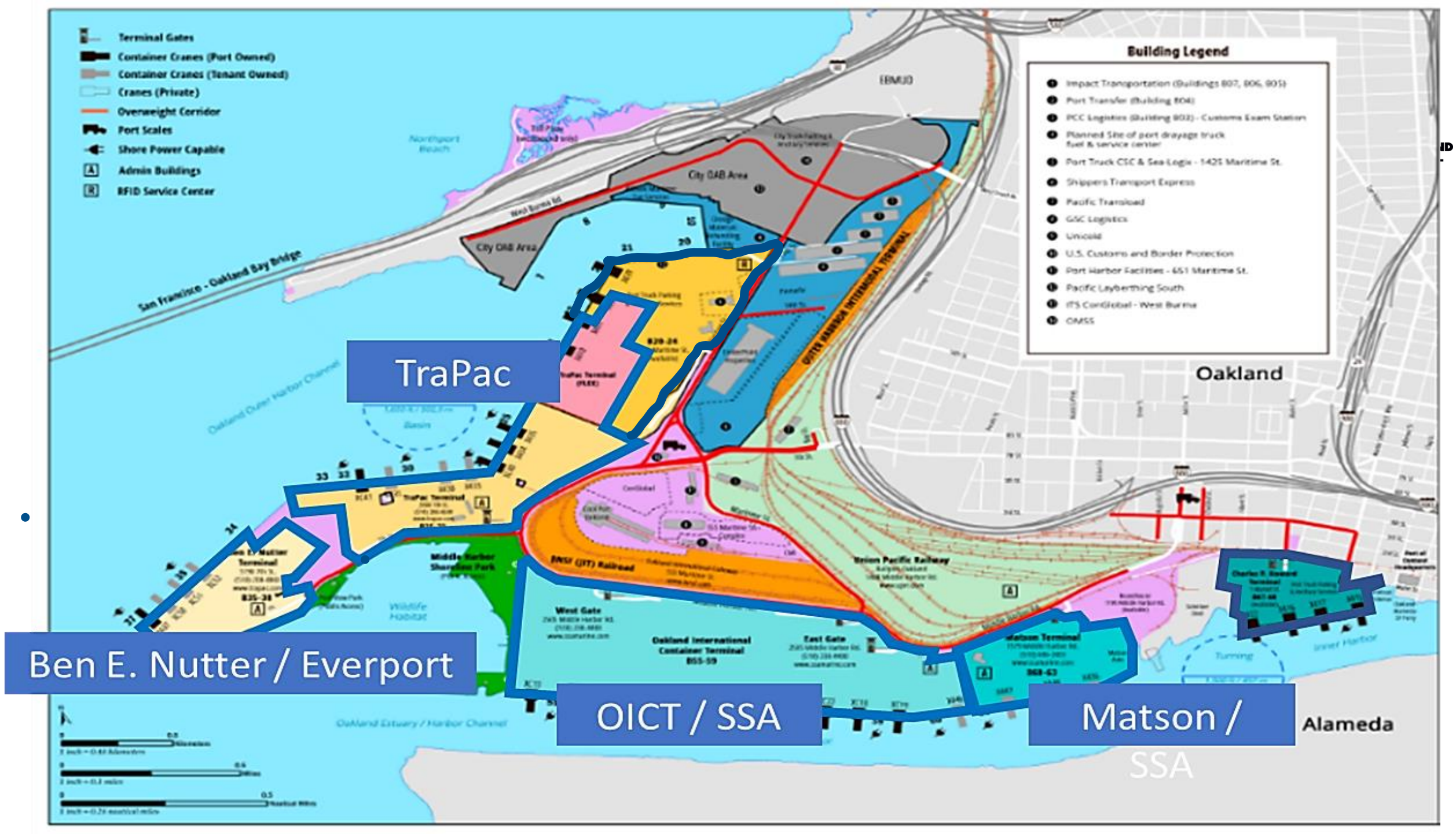
Thursday, August 26, 2021

10:00 am – 12:00 pm

PORT OF OAKLAND
SEAPORT

AGENDA

1	WELCOME & INTRODUCTIONS	Danny Wan, Executive Director, Port of Oakland Vice-President of the Board of Port Commissioners, Yui Hay Lee
2	SEAPORT PLAN FRAMEWORK APPROACH	Bryan Brandes, Director of Maritime, Port of Oakland Richard Sinkoff, Director of Environmental Programs & Planning, Port of Oakland
3	PORT 101: Liner Operations, Commodities/Markets	Andrew Hwang, Manager of Business Development and International Marketing, Port of Oakland
4	TERMINAL OPERATIONS 101: Terminal Evolution & Operations	Dan Smith, Tioga Group
5	BREAK	All
6	CURRENT MARITIME DEVELOPMENT PROJECTS/BUSINESS ACTIVITIES	Bryan Brandes, Director of Maritime, Port of Oakland Jason Garben, Sr. Maritime Projects Administrator, Port of Oakland
7	CLOSING COMMENTS/NEXT STEPS	Bryan Brandes, Director of Maritime, Port of Oakland


Terminal Gates
Container Cranes (Port Owned)
Container Cranes (Tenant Owned)
Cranes (Private)
Overweight Corridor
Port Scales
Shore Power Capable
Admin Buildings
RFID Service Center
Building Legend
Impact Transportation (Buildings 807, 806, 801)
Port Transfer (Building 804)
PCC Logistics (Building 802) - Customs Exam Station
Planned Site of port drayage truck fuel & service center
Port Truck CSC & Sea Logix - 1425 Maritime St.
Shippers Transport Express
Pacific Transload
GSC Logistics
Unicold
U.S. Customs and Border Protection
Port Harbor Facilities - 651 Maritime St.
Pacific Layberthing South
ITS CoriGlobal - West Burma
OMSS
TraPac
Ben E. Nutter / Everport
OICT / SSA
Matson /
SSA
Oakland
Alameda
San Francisco - Oakland Bay Bridge
Oakland Outer Harbor Channel
Oakland Estuary / Harbor Channel
Inner Harbor
Middle Harbor Shoreline Park
Wildlife Habitat
Union Pacific Railway
West Gate
East Gate
Oakland International Container Terminal
BSS-59
City OAB Area
Northport Beach
Turning

PLANNING APPROACH RECAP

SEAPORT PLAN GOALS

Develop long-range Seaport policy goals that will define/outline:

- Land Use;
- Development; and
- Infrastructure Improvements.

Planning Horizons: 5, 10, 30 Years

SEAPORT STUDIES & PROJECTS

1 Maritime Market Assessment
Status: Underway
Business vision, market analysis, revenue projections, customers, etc.

2 Land Use Study
Status: Kick-off Jun 2021
Identify and model land use scenarios and develop key performance indicators.

3 Transportation Study
Status: Kick-off Jun 2021
Analyze potential long -term transp. issues from cumulative growth & identify solutions.

4 Truck Parking Study
Status: Underway
Conduct analysis of current truck & chassis parking facilities, uses and forecasted future needs.

5 Economic Impact Study
Status: Kick-off July 2021
Update 2017 Seaport Economic Impact analysis for Marine Terminals, cargo type, business revenue & employment.

6 Utility Condition Assessment
Status: Underway
Conduct condition assessment of utility infrastructure & identify mid/long-term strategies.

7 Air Quality 2020 & Beyond; SLR
Status: 2020 and Beyond Underway; Sea Level rise (SLR) in planning phase
Technical committees are guiding implementation of identified strategies.

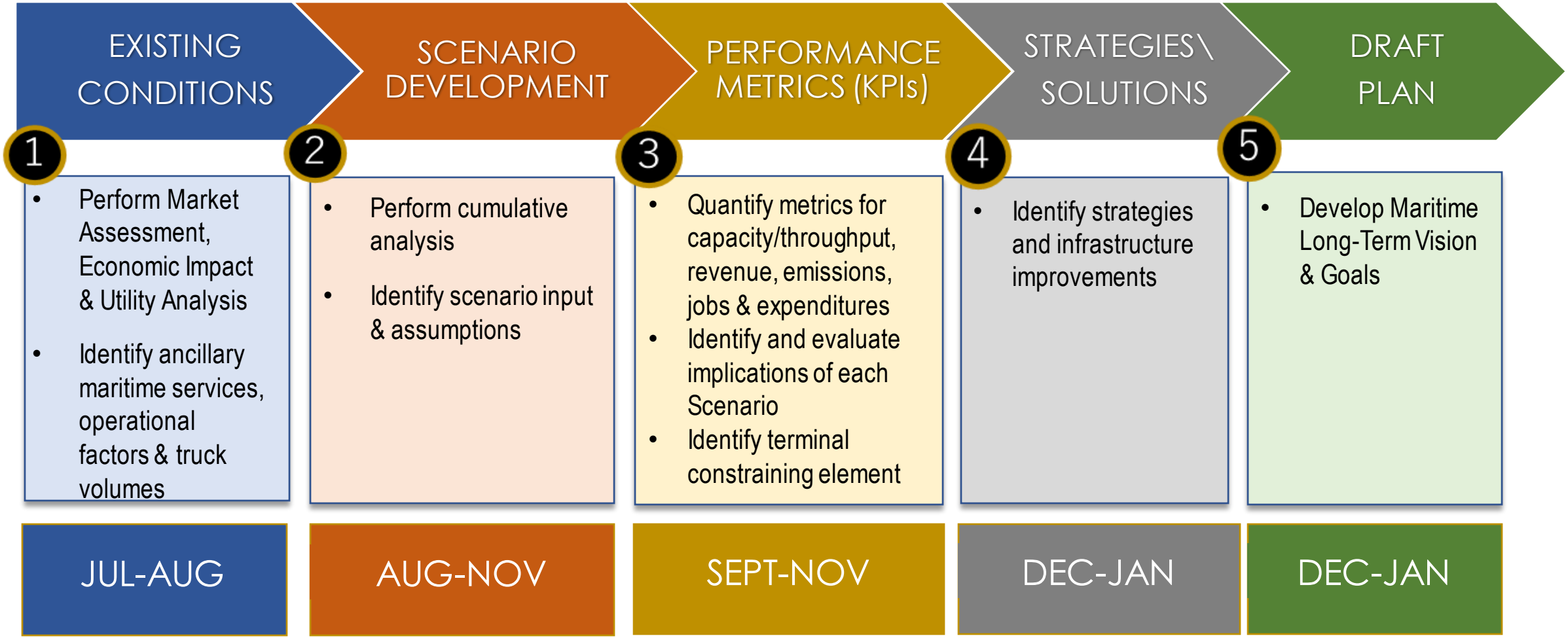
SEAPORT STAKEHOLDER ROUNDTABLE

OAKLAND SEAPORT PLAN

Status: Consultant Support through Proposal Solicitation Summer 2021

SEAPORT PLANNING APPROACH

PORT OF OAKLAND
SEAPORT



PORT 101: Liner Operations, Commodities /Markets

Port 101: Liner Operations, Commodities/Markets

PORT OF OAKLAND BY THE NUMBERS

PORT OF OAKLAND
SEAPORT

- **4 Active** marine terminals
- **3 Terminal operators** SSA, Everport, & Trapac
- **33 Cranes** of which 20 are Port-owned
- **2.46 Million TEUs** handled in 2020
- **20 Ocean carriers** with service to/from Oakland
- **1,258 Vessel calls** in 2020

I OAK

Port 101: Liner Operations, Commodities/Markets

OAKLAND VESSELS AND TRADE

Liner Services

28 scheduled vessel calls per week (2021-2022)

- 14 Trans-Pacific
- 4 North Europe and Med
- 5 Latin America
- 2 Oceania
- 3 Hawaii

New First Port of Call Services in 2021

- Wan Hai, CMA-CGM, Matson

Volume by Tradelane

- Asia – 80.5%
- Europe / Med / Middle East – 11.73%
- Americas – 4.56%
- Oceania – 2.59%
- Others – 2.21%

Source: Datamyne

VESSEL ROUTINGS

- Last Export Port of Call
- Central Valley
- I-80 corridor for meat and poultry

TOP IMPORT COMMODITIES AND ORIGIN COUNTRIES

PORT OF OAKLAND
SEAPORT

Rank	HS 2	TEUs	%
1	FURNITURE	160,830.69	16%
2	APPLIANCES	68,414.38	7%
3	PLASTICS ITEMS	64,566.45	7%
4	ELECTRONICS GOODS	60,219.67	6%
5	BEVERAGES, SPIRITS AND VINEGAR	48,041.76	5%

Rank	Country of Origin	TEUs	%
1	CHINA	409,402.32	42%
2	VIETNAM	57,355.82	6%
3	TAIWAN	54,451.25	6%
4	SOUTH KOREA	37,711.76	4%
5	THAILAND	35,532.12	4%

Source: Datamyne

TOP EXPORT DESTINATIONS AND COMMODITIES

Rank	HS 2	TEUs	%
1	WASTEPAPER	159,070.47	20%
2	FRUITS AND NUTS	134,510.70	17%
3	PROTEIN	82,704.91	10%
4	RICE	36,431.24	5%
5	SCRAP METAL	36,254.18	4%
6	HAY	36,252.88	4%
7	BEVERAGES, SPIRITS AND VINEGAR	33,256.19	4%
8	DAIRY	28,043.49	3%
9	TOMATO PASTE	22,317.37	3%
10	CARS AND CARPARTS	22,244.64	3%

Rank	Country of Final Destination	TEUs	%
1	CHINA	157,857.76	20%
2	JAPAN	132,739.11	16%
3	SOUTH KOREA	97,686.21	12%
4	TAIWAN	78,393.26	10%
5	VIETNAM	33,151.76	4%
6	INDIA	27,580.25	3%
7	MALAYSIA	21,494.76	3%
8	THAILAND	20,927.26	3%
9	HONG KONG	17,993.21	2%
10	INDONESIA	13,999.26	2%

Source: Datamyne

MARKET DRIVERS

PORT OF OAKLAND
SEAPORT

- Online shopping
- Data
- Changes in purchasing behavior
- Low cost production
- Government Regulations
- Larger vessels
- Global demand
- Changing tastes

OPPORTUNITIES AND NEEDS

PORT OF OAKLAND
SEAPORT

- Clean Bulk Commodities
- Refrigerated Commodities
- Inland Discretionary Cargo

- Additional modern rail served refrigerated transloads
- Rail served bulk and grain to container transloads
- Modern transload facilities

PORT 101:
Liner Operations, Commodities/Markets

PORT OF OAKLAND
SEAPORT

QUESTIONS?

TERMINAL OPERATIONS 101:

Terminal Evolution & Operations

BREAK BULK TO CONTAINERIZATION

PORT OF OAKLAND
SEAPORT

1893, City of Oakland wrested ownership of the Port from Southern Pacific railroad.

Late 1960s, first major port on the West Coast to build terminals for container ships, a revolutionary technology at the time.

CONTAINER TYPES

20 ft ISO
International
Dry Van

40 ft ISO
International
Dry Van

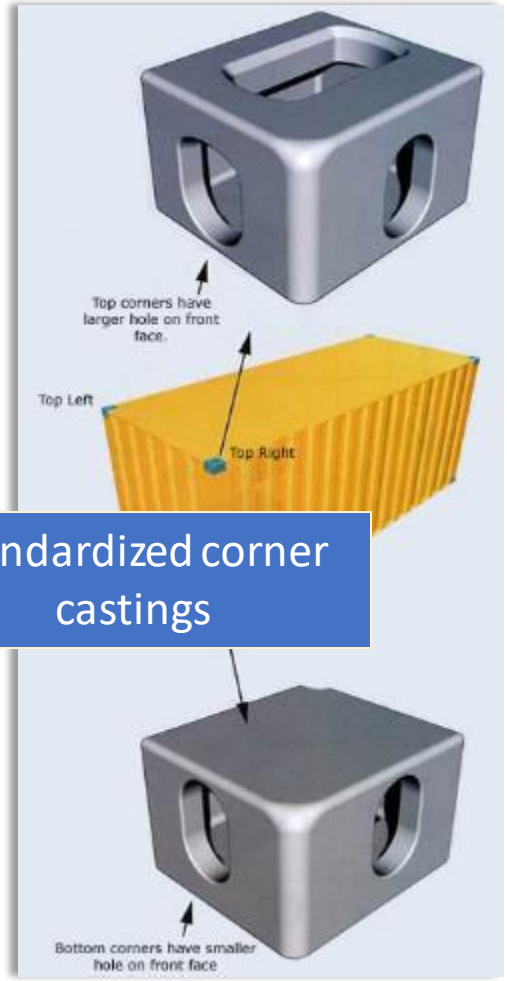
40 ft ISO
International
"Reefer"

45 ft ISO
International
Dry Van

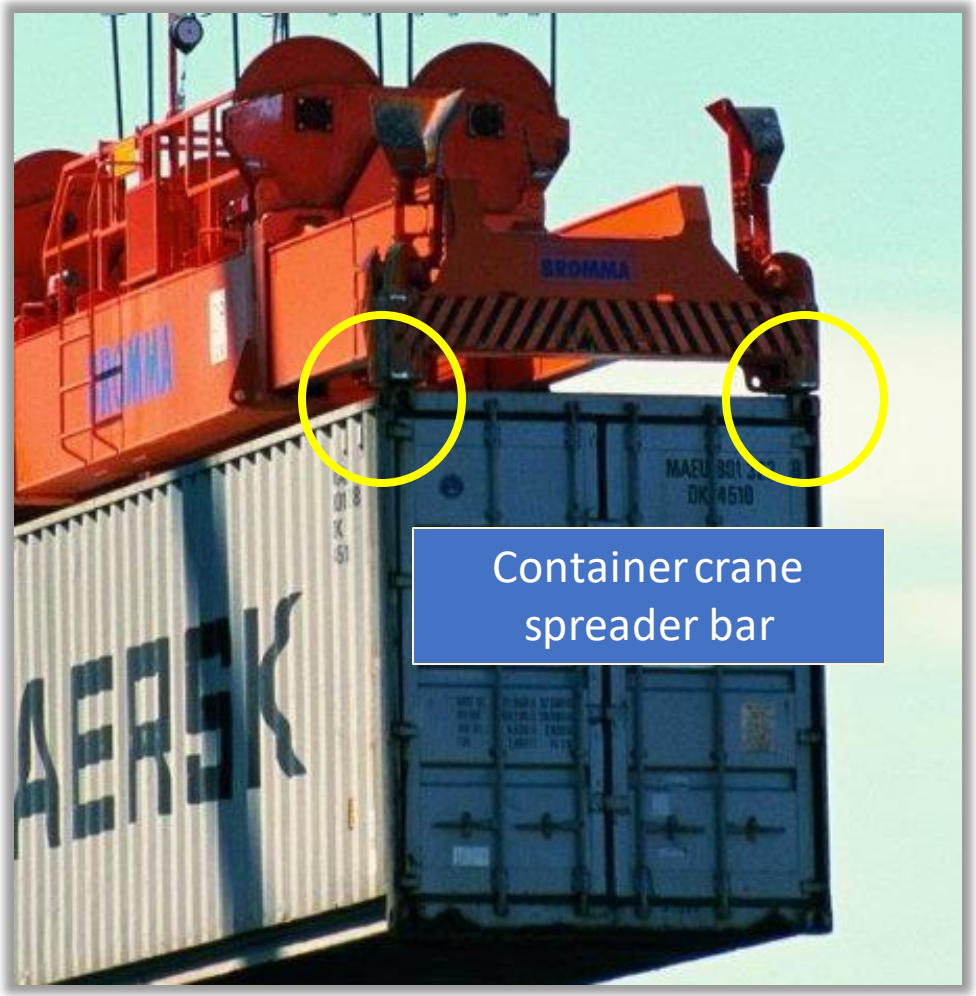
20 ft ISO
International
Tank

WHAT MAKES THE SYSTEM WORK?

PORT OF OAKLAND
SEAPORT



Standardized corner castings



Container crane spreader bar

Inter Box Connector

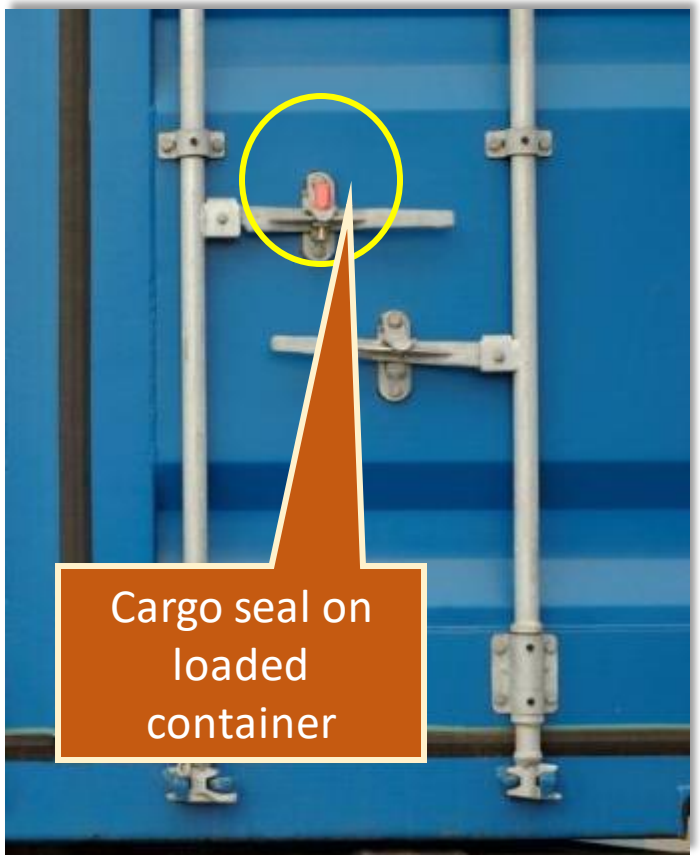
Chassis Twistlock

CONTAINERS: WHAT YOU SEE

PORT OF OAKLAND
SEAPORT

Heavy container on tri-axle chassis

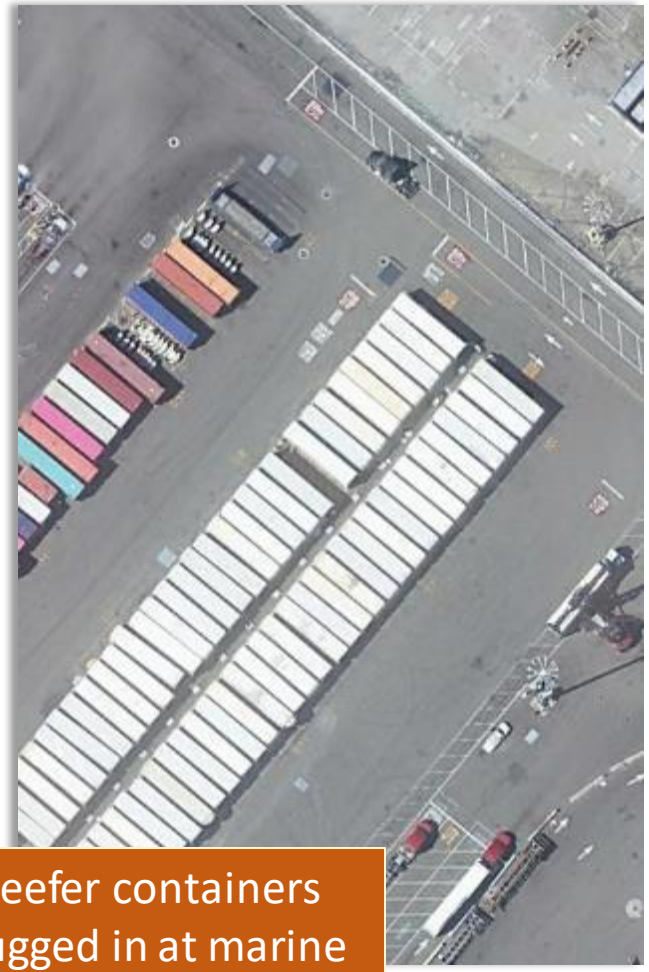
"Genset" to power reefer container



Cargo seal on loaded container

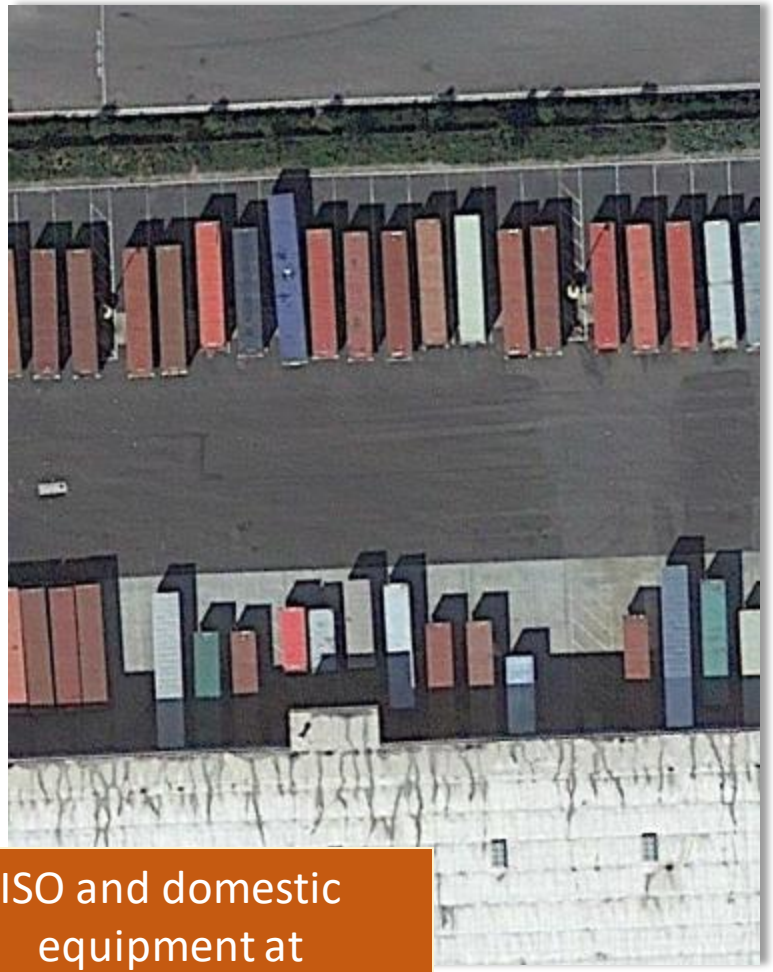
CONTAINERS FROM THE AIR

PORT OF OAKLAND
SEAPORT



Reefer containers plugged in at marine terminal

Import transloading – international in, domestic out

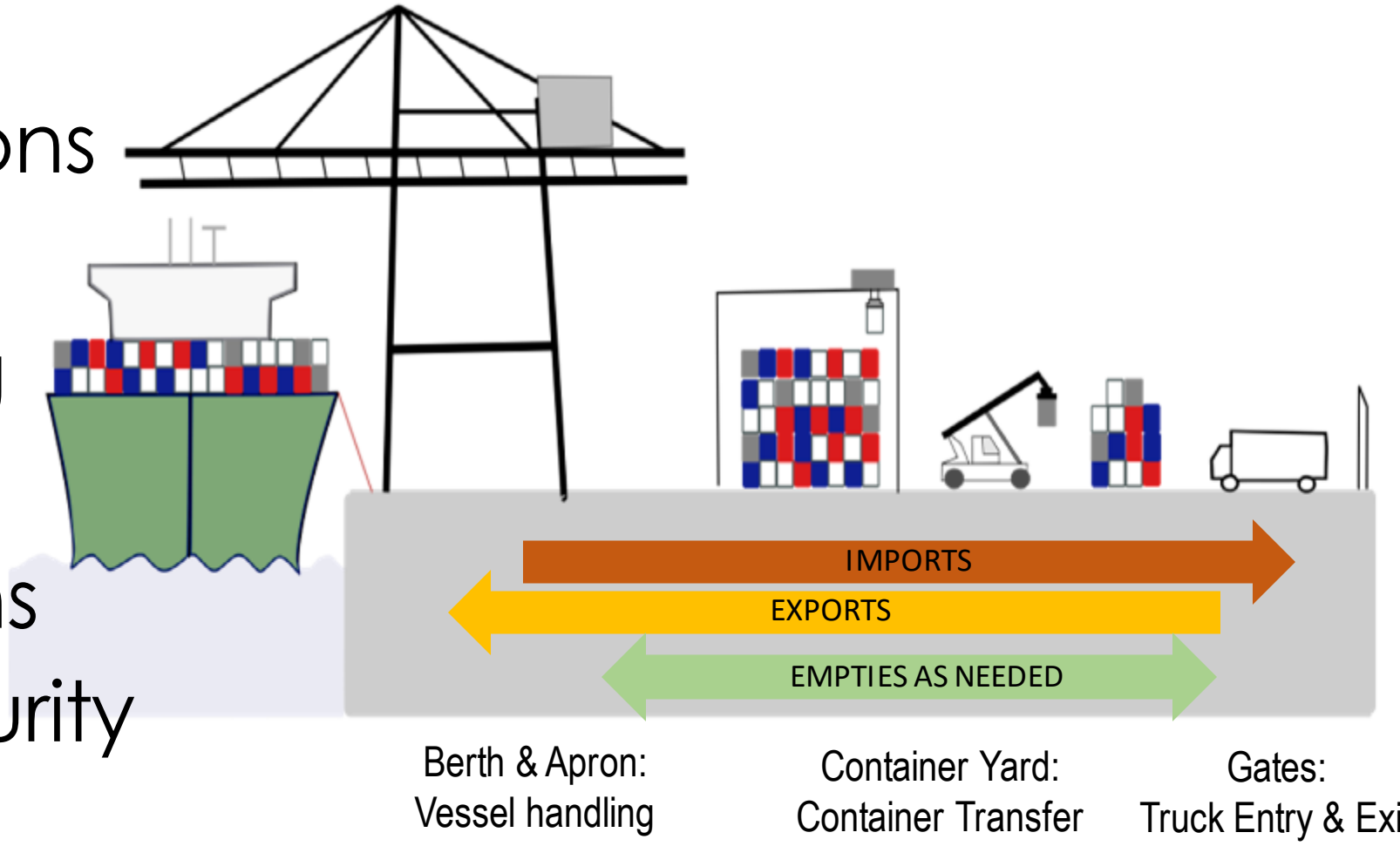


ISO and domestic equipment at Home Depot import DC

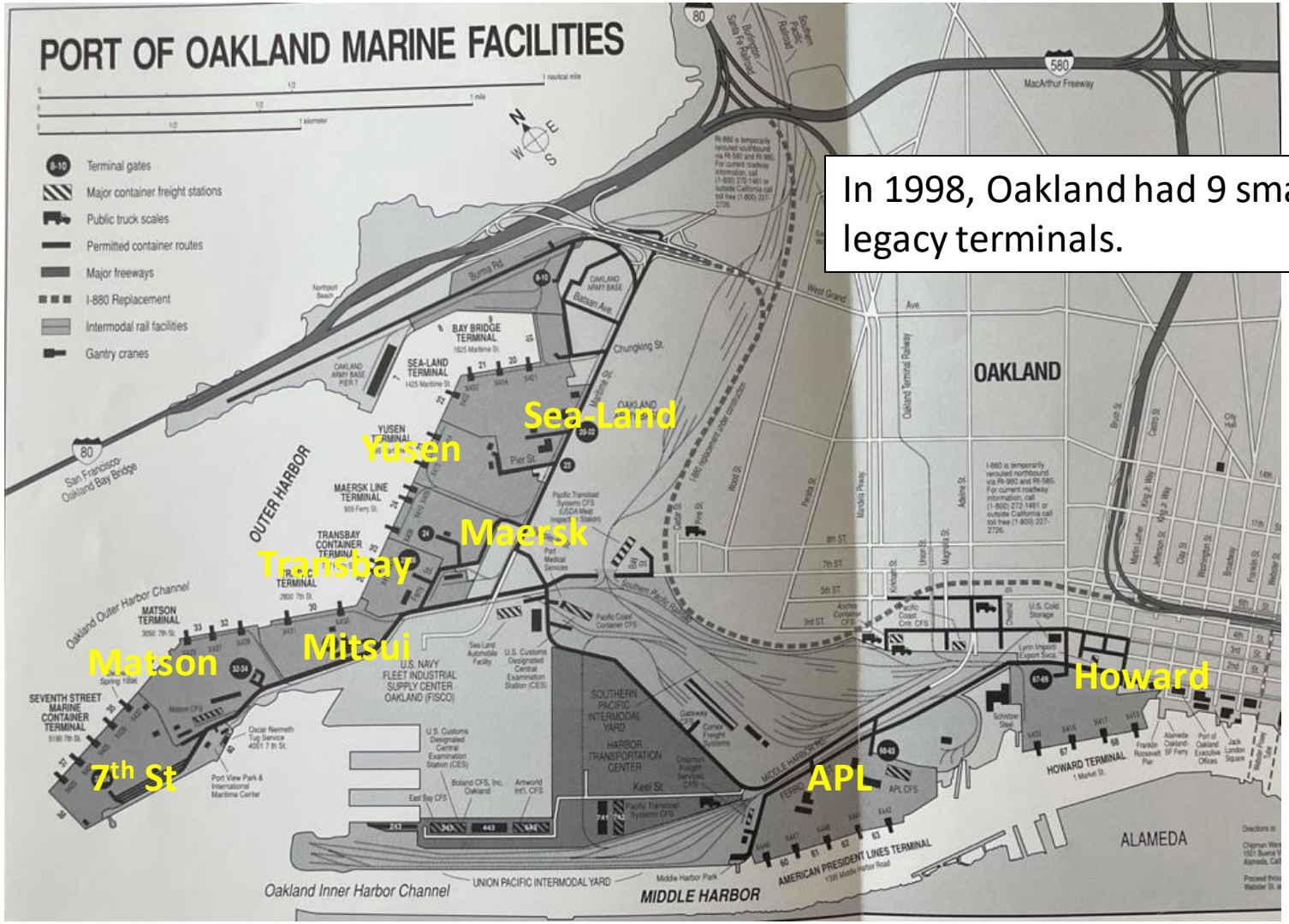
SEAPORT TERMINAL OPERATIONS

PORT OF OAKLAND
SEAPORT

- Terminal functions
- Terminal layout
- Vessel handling
- Container yard
- Gate operations
- Customs & security



OAKLAND IN 1998

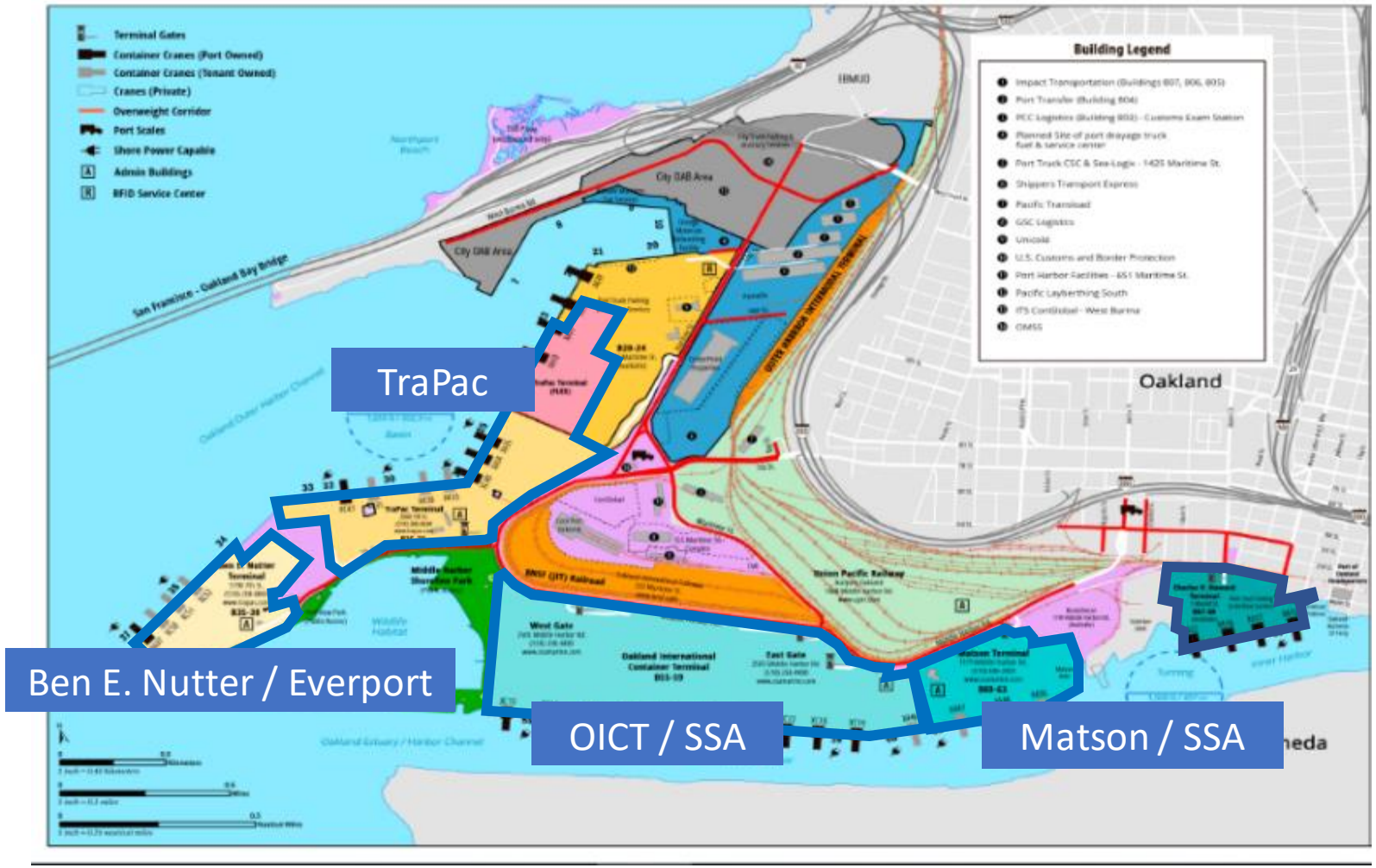


In 1998, Oakland had 9 smaller legacy terminals.

OAKLAND IN 2021

PORT OF OAKLAND
SEAPORT

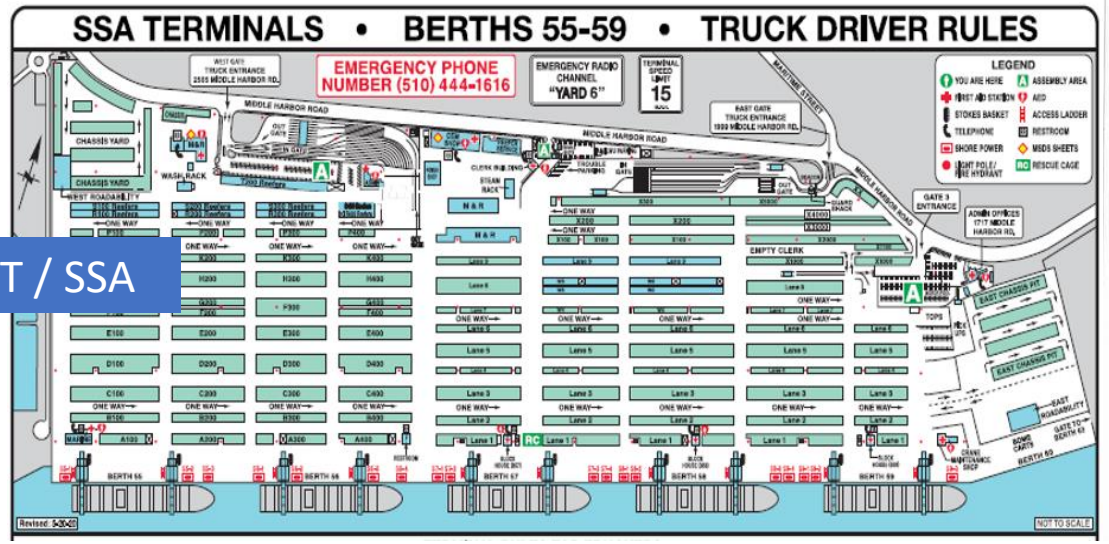
- Today, Oakland has 4 larger active container terminals.
- Oakland is a "landlord" port.
- Terminals are leased and operated by Marine Terminal Operators (MTOs).



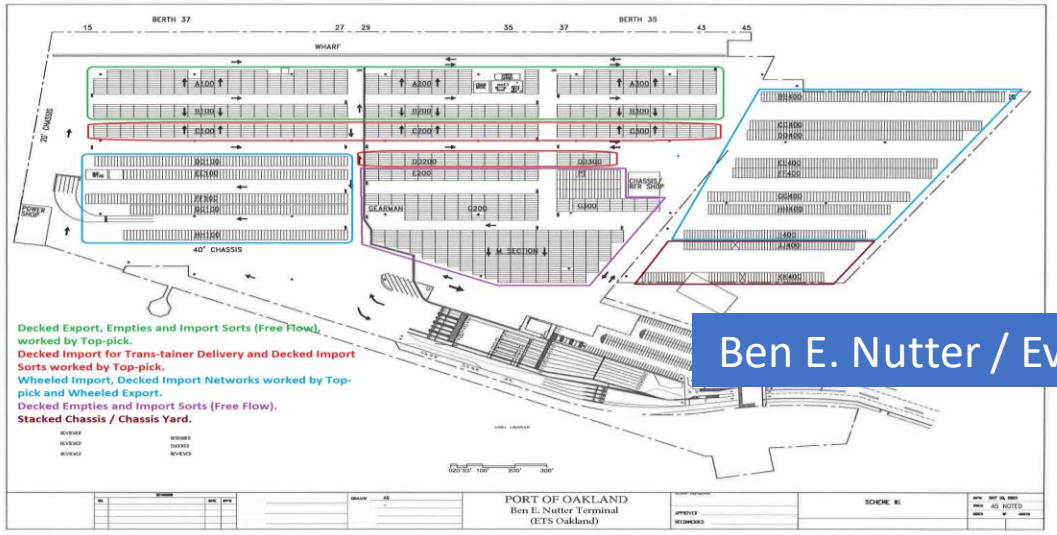
TERMINAL LAYOUT

PORT OF OAKLAND

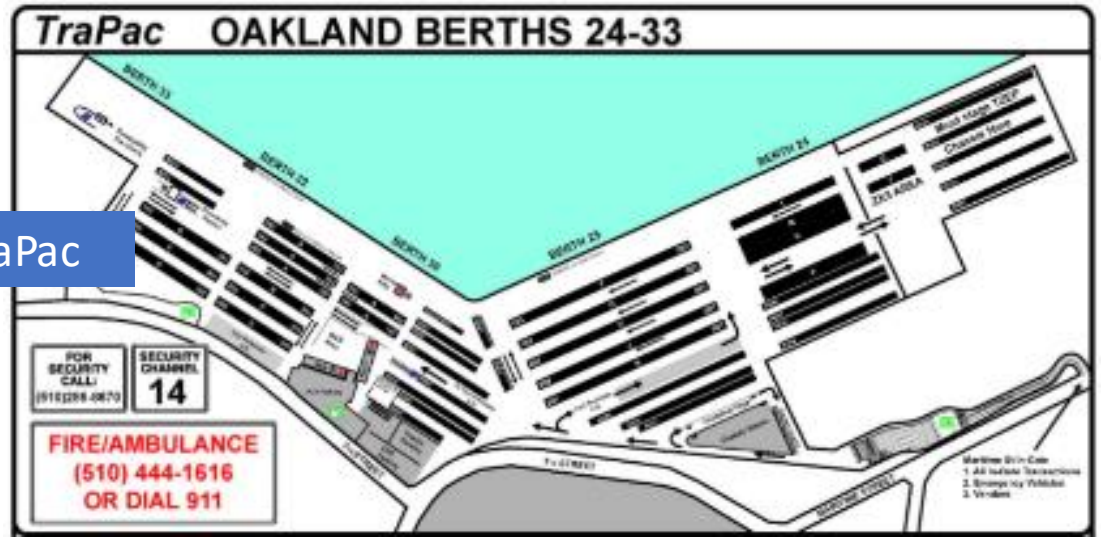
OICT / SSA



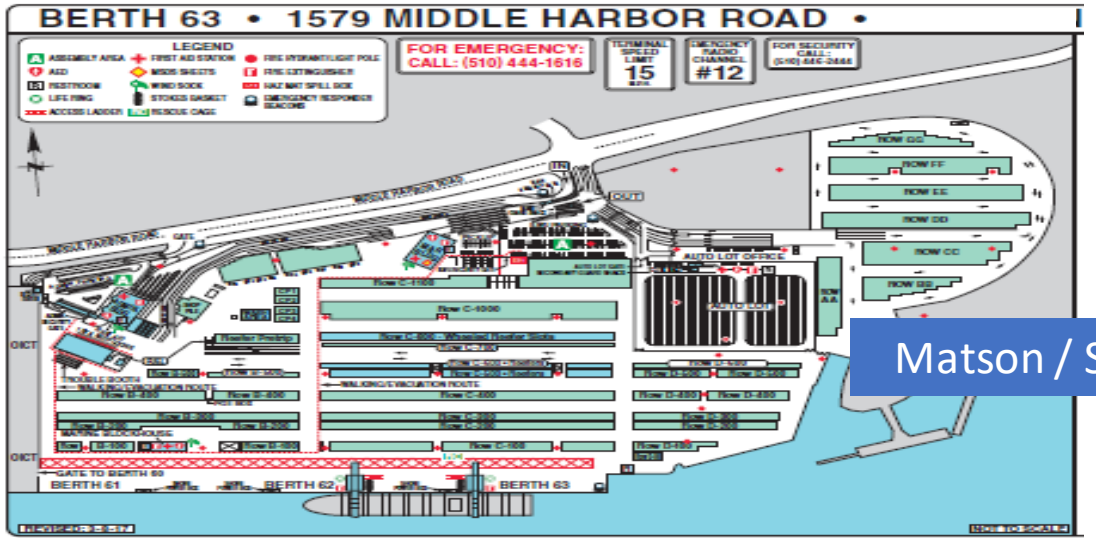
Ben E. Nutter / Everport



TraPac

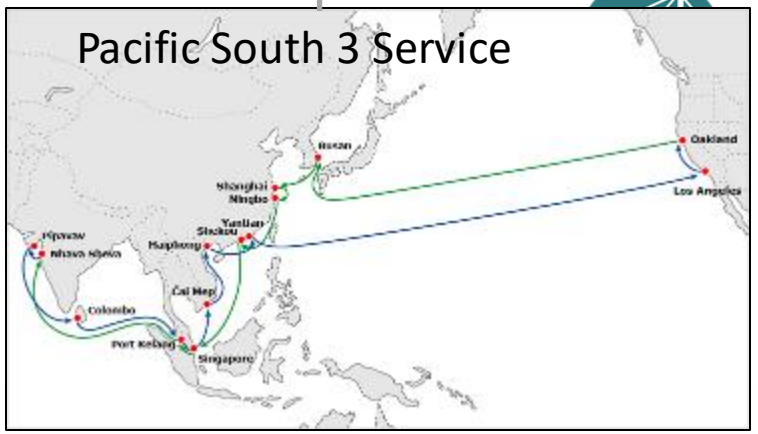


Matson / SSA



VESSEL SCHEDULES

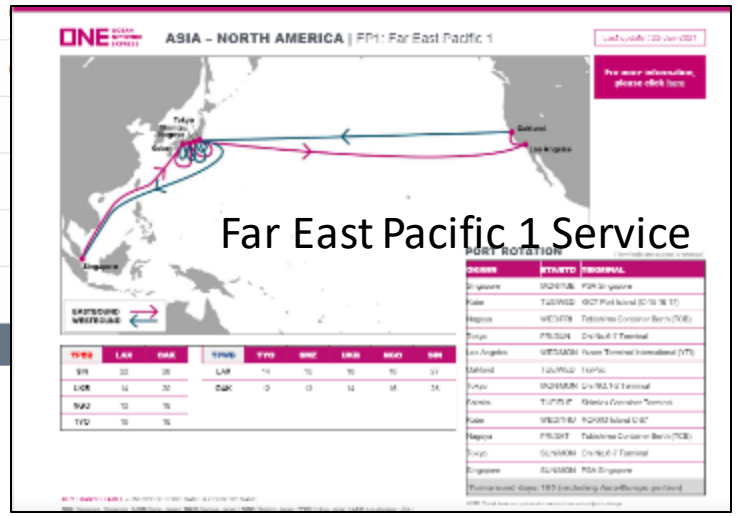
- Container services consist of a "string" of vessels on a regular route, usually with weekly calls.
- Carriers may have "blank sailings" (skipping a call) or "extra loaders" (adding an extra vessel).



Vessel Schedules OAK

Service(s): ALL | Line: | Local Terminal Only
Date Range: 08/19/2021 to 09/19/2021

SERVICE	VESSEL	CODE	VOYAGE	ETA	ETD	LOCAL FIRST RECEIVING	CUT OFF	EXTENDED LATE GATE
PS3	HYUNDAI HONGKONG	HHK	129E/129W	08/09/2021 11:00	08/22/2021 17:00	08/13/2021 07:00	08/17/2021 16:00	08/18/2021 16:00
FP1	ONE HUMBER	HMB	087E/087W	08/09/2021 05:12	08/21/2021 17:00	08/12/2021 07:00	08/16/2021 16:00	08/17/2021 16:00
PS4	YM UNIFORM	YUF	219E/219W	08/22/2021 04:00	08/25/2021 04:00			
FP1	ONE HARBOUR	HAB	088E/088W	08/23/2021 15:30	08/25/2021 17:00			
AL5	NYK RUMINA	NRM	055W/055E	08/25/2021 14:30	08/28/2021 03:00			
FP1	ONE HANNOVER	HNB	085E/085W	08/29/2021 05:00	09/01/2021 05:00			
FP1	NYK VEGA	NVG	072E/072W	09/03/2021 05:00	09/10/2021 05:00			
PS3	CONTI CONQUEST	CCQ	014E/014W	09/05/2021 15:00	09/12/2021 18:00			

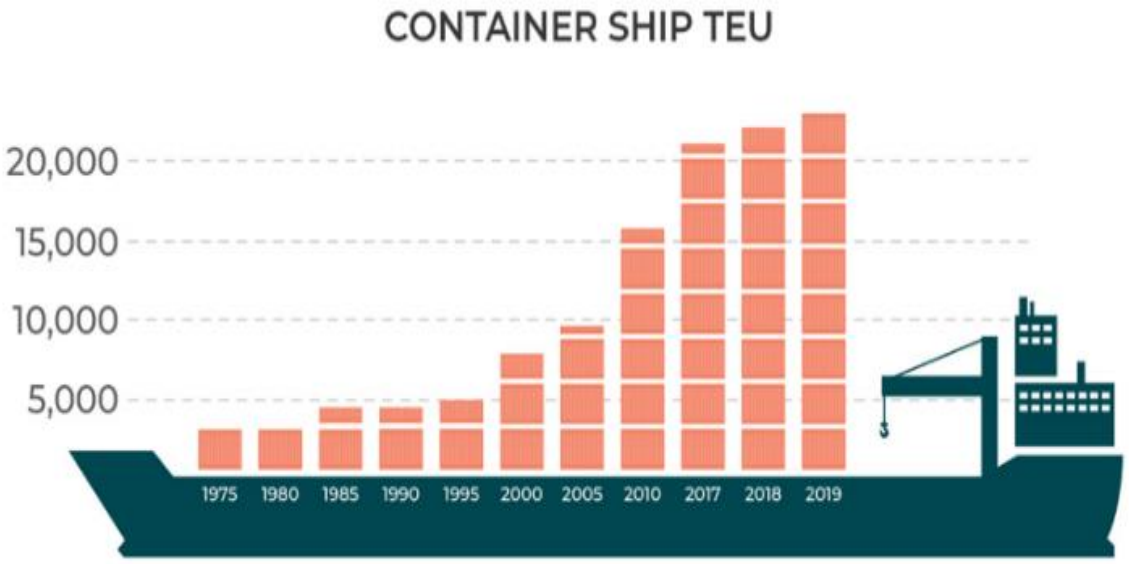


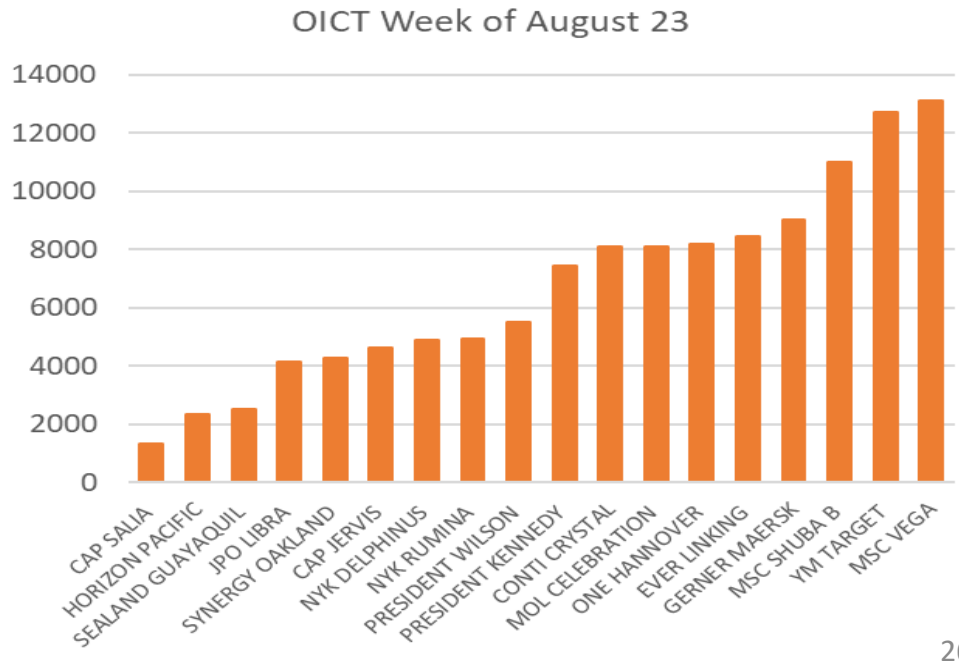
VESSEL SIZE

PORT OF OAKLAND

Over the next fifteen years, average size of the Trans-Pacific vessels calling Oakland is expected to grow by over 35%. Ships will average over 10,000 TEUs.

Increasing vessel size increases yard and berth space requirements.





25 YEARS, 6 TIMES THE CAPACITY

PORT OF OAKLAND

1995 vs 2021	Alligator Strength	MSC Anna
Length	820 ft	1312 ft
Width	105 ft	192 ft
Width	13 ctrs	23 ctrs
Height	11 ctrs	18 ctrs
Draft (max depth)	35 ft	52.6 ft
TEU	3000	19462
Containers	1714	11121
Oakland Container Estimate @ 26%	**446**	**2891**

CONTAINER YARDS

PORT OF OAKLAND
SEAPORT

- Container Yards (CYs) sort, stage, and store import loads, export loads, empty containers, and chassis.
- "Dwell time" measures how long equipment stays in the container yard – shorter is better.
- "Cargo velocity" refers to the speed of movement from origin to ultimate destination – faster is better.

CONTAINER YARD EQUIPMENT

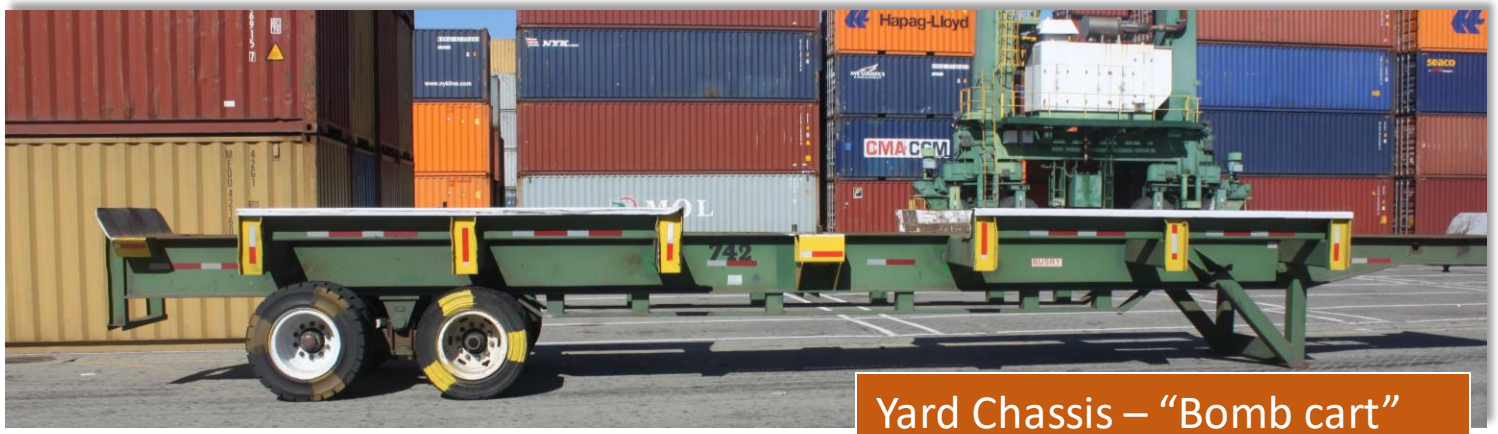
PORT OF OAKLAND
SEAPORT

Rubber-tired Gantry – "RTG"

Reachstacker

Top pick

Yard Tractor – "Hostler"

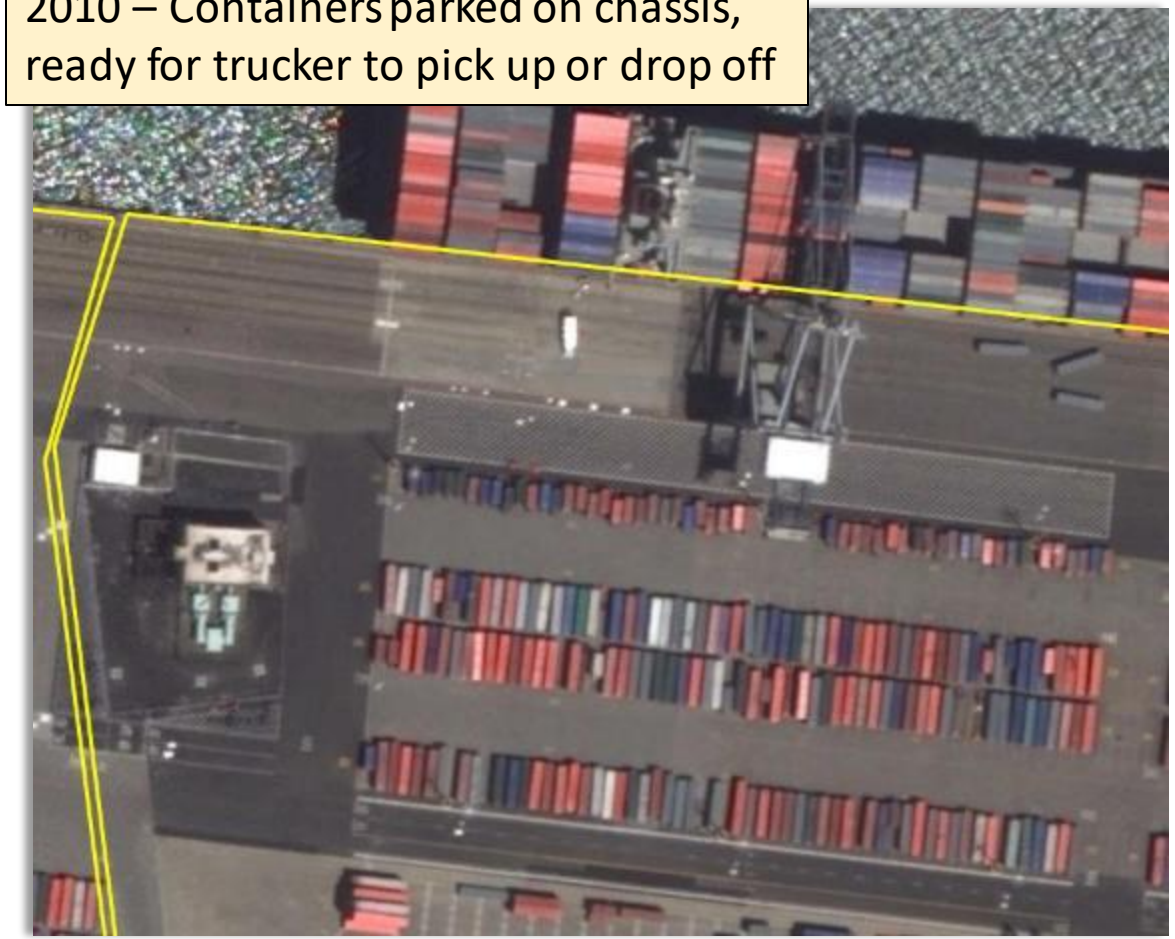


Yard Chassis – "Bomb cart"

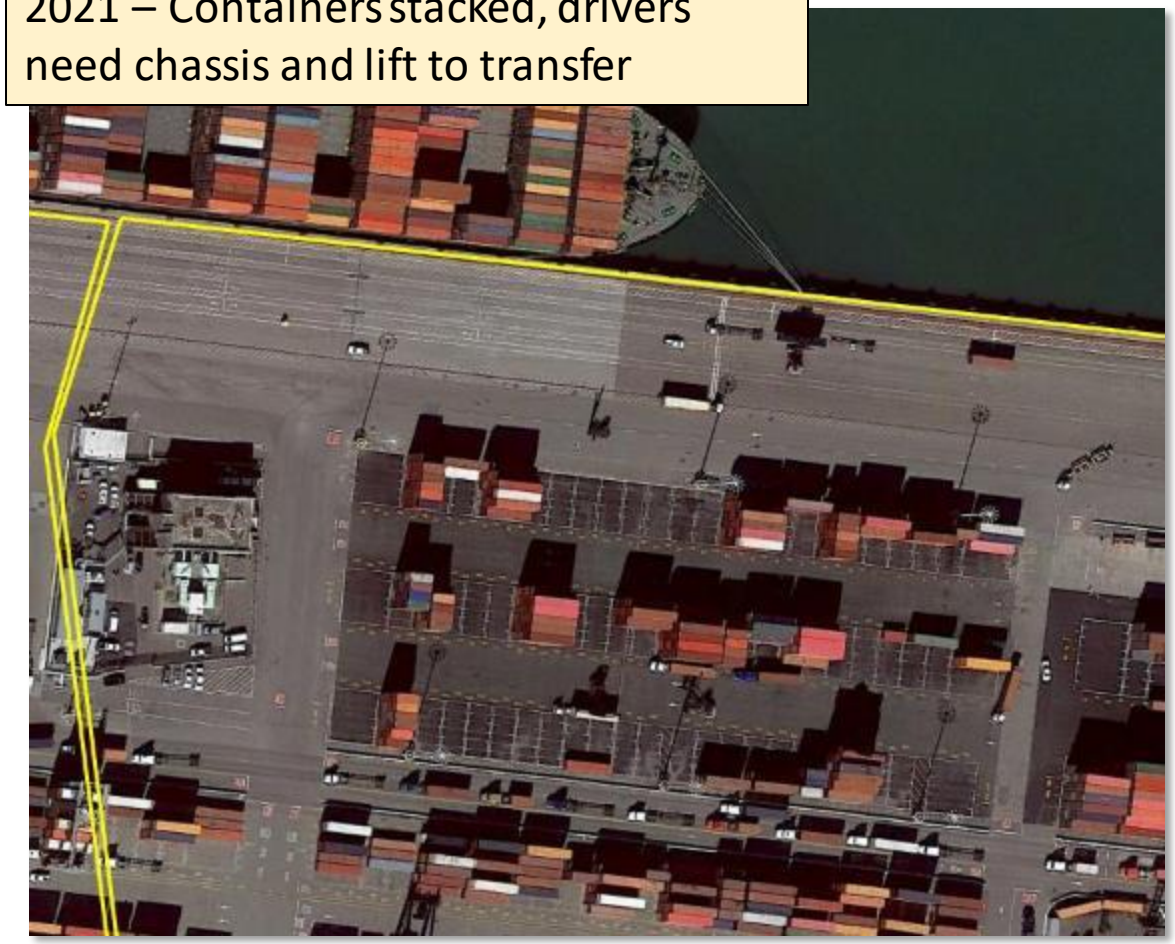
WHEELED TO STACKED

PORT OF OAKLAND
SEAPORT

2010 – Containers parked on chassis, ready for trucker to pick up or drop off



2021 – Containers stacked, drivers need chassis and lift to transfer



ENTRY/EXIT GATE OPERATIONS

PORT OF OAKLAND SEAPORT

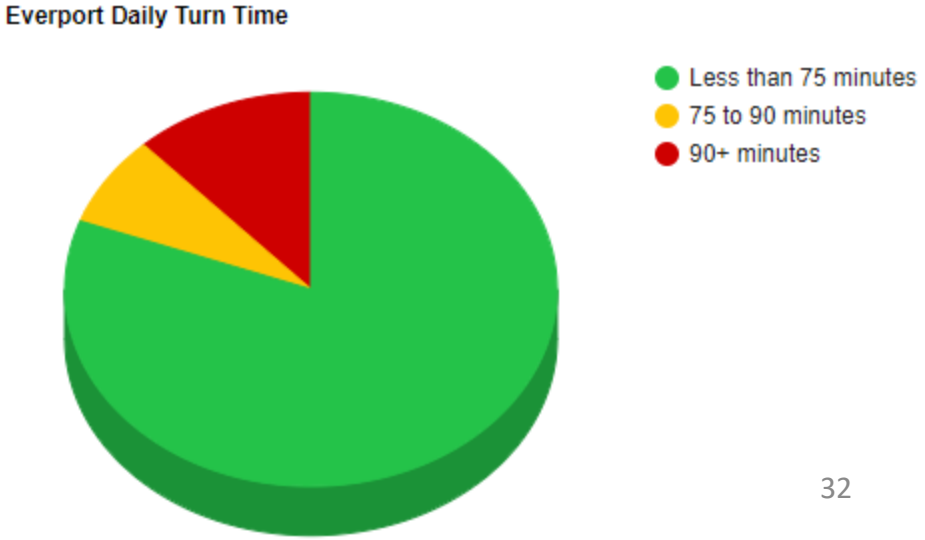
- Security – driver TWIC, truck RFID
- Ingate – driver identifies self, company, and container to be picked up, dropped off, or both.
- CBP radiation portal – container checked before exit
- Outgate – driver identifies self, company, and container being picked up.

TRUCK TURN TIMES

Truck turn times include:

- In-terminal "gate to gate" processing time, tracked on the Oakland Portal.
- Wait or queue time, not yet tracked but coming.

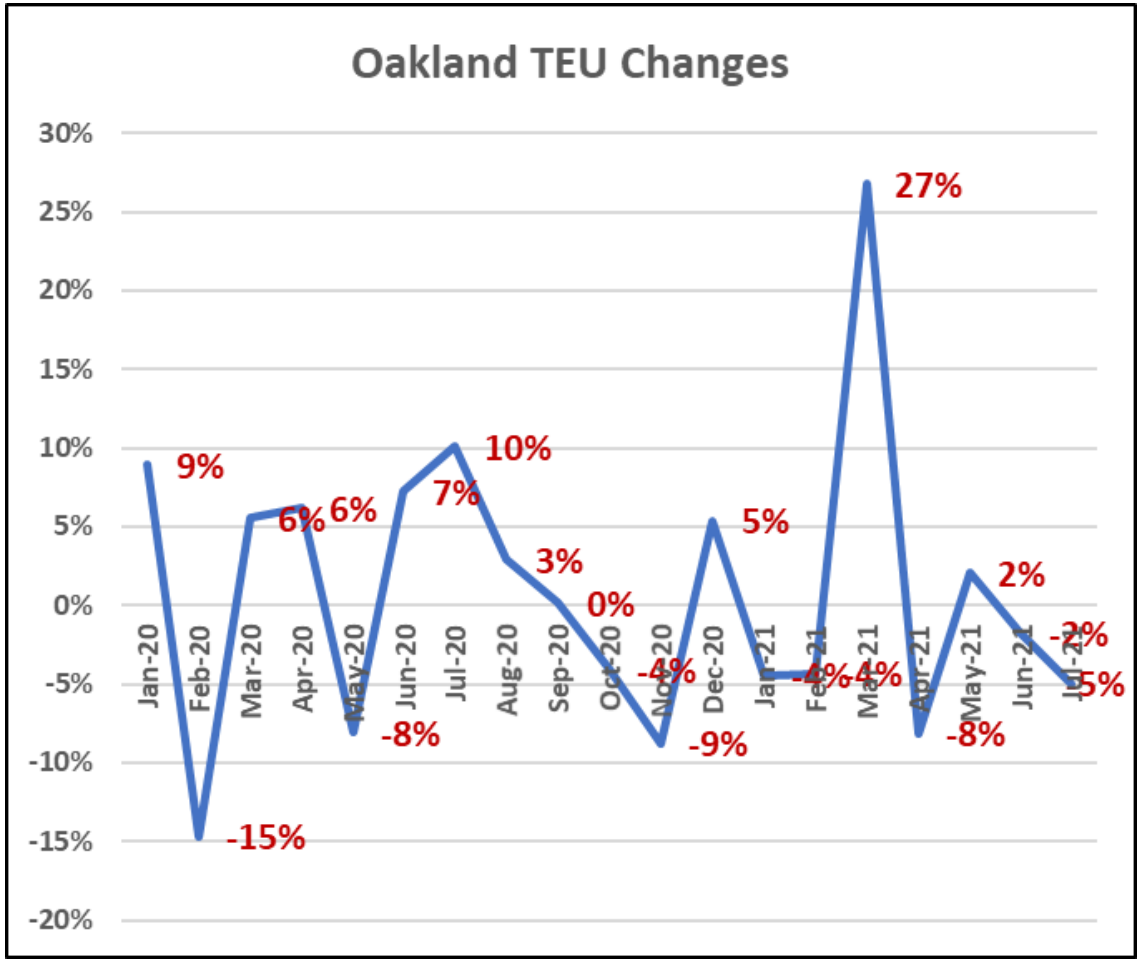
Terminal	Current Average Turn Time	Daily Average Turn Time	Daily Truck Count
Matson	0h 54m	0h 49m	214
Everport	1h 2m	0h 51m	697
OICT	0h 57m	1h 17m	1990
TraPac	1h 7m	1h 2m	695



NATIONWIDE PORT CHALLENGES

PORT OF OAKLAND SEAPORT

- Rollercoaster cargo volumes
- Vessel unreliability and bunching
- Supply chain back-ups
- Empty return complexity
- Container chassis shortage
- Railcar shortage
- Labor shortage
- Truck driver shortage



TERMINAL OPERATIONS 101: Terminal Evolution & Operations

PORT OF OAKLAND SEAPORT

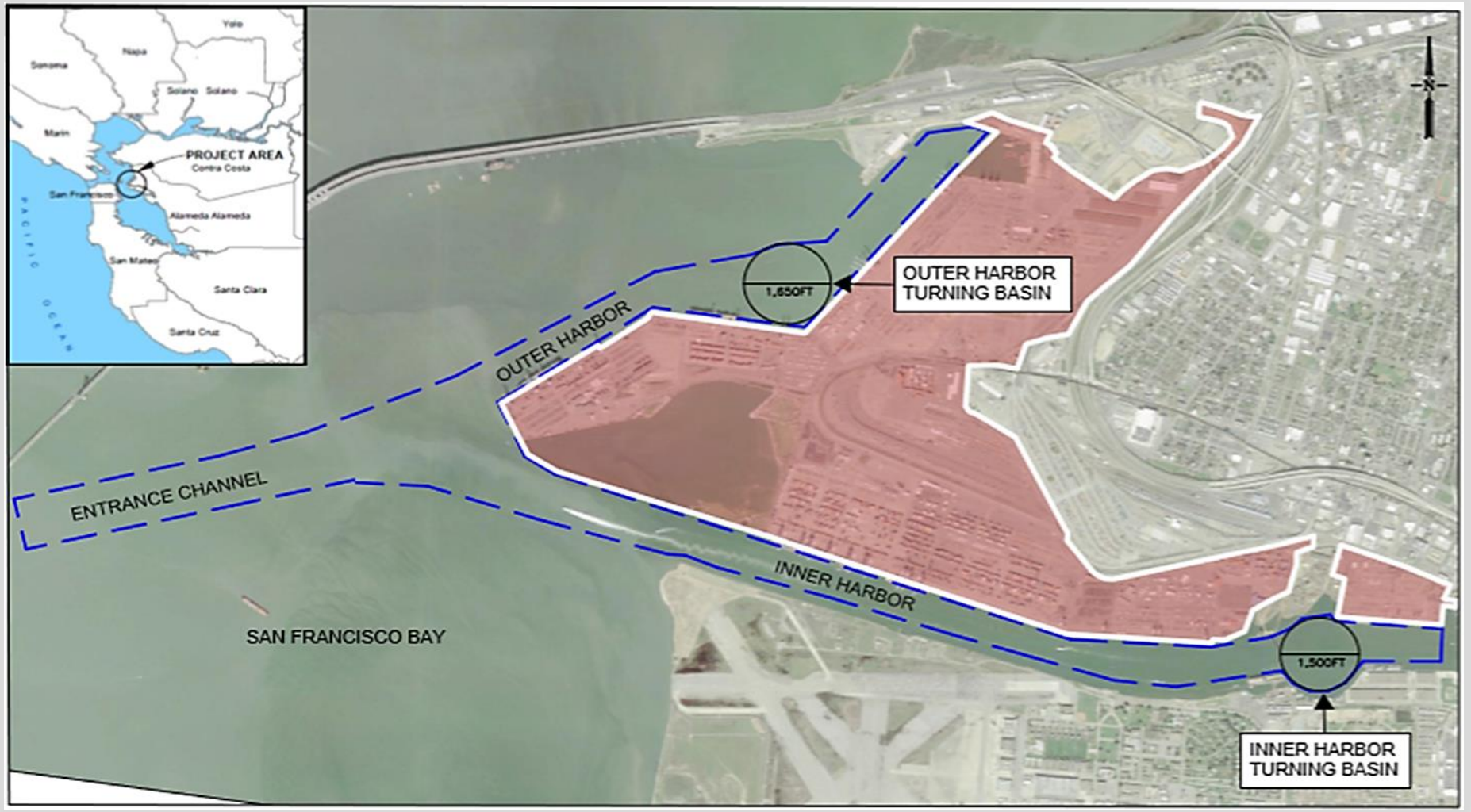
QUESTIONS?

CURRENT MARITIME DEVELOPMENT PROJECTS/ BUSINESS ACTIVITIES:

Inner &Outer Harbor Turning Basins

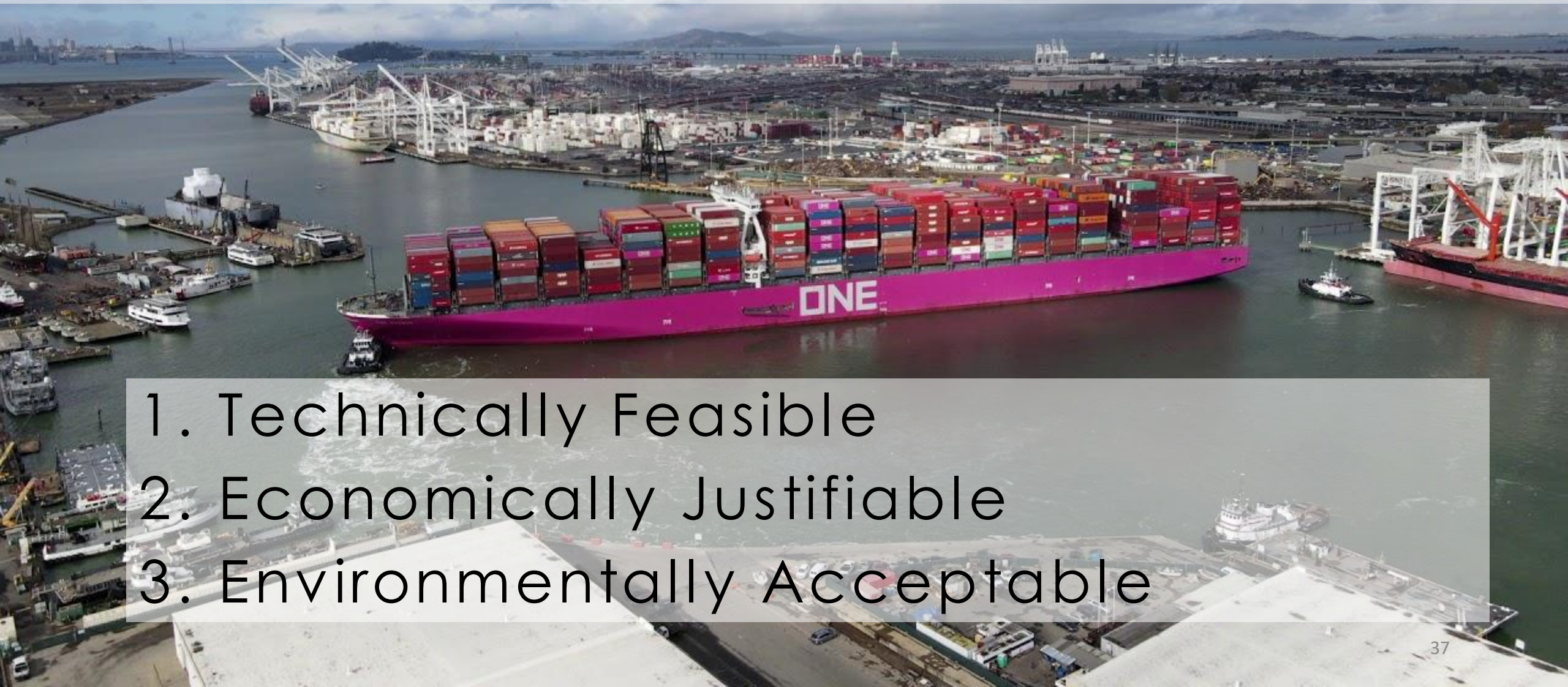
Turning Basins Widening Study

PROPOSED PROJECT OVERVIEW



Turning Basins Widening Study

FEASIBILITY STUDY PURPOSE

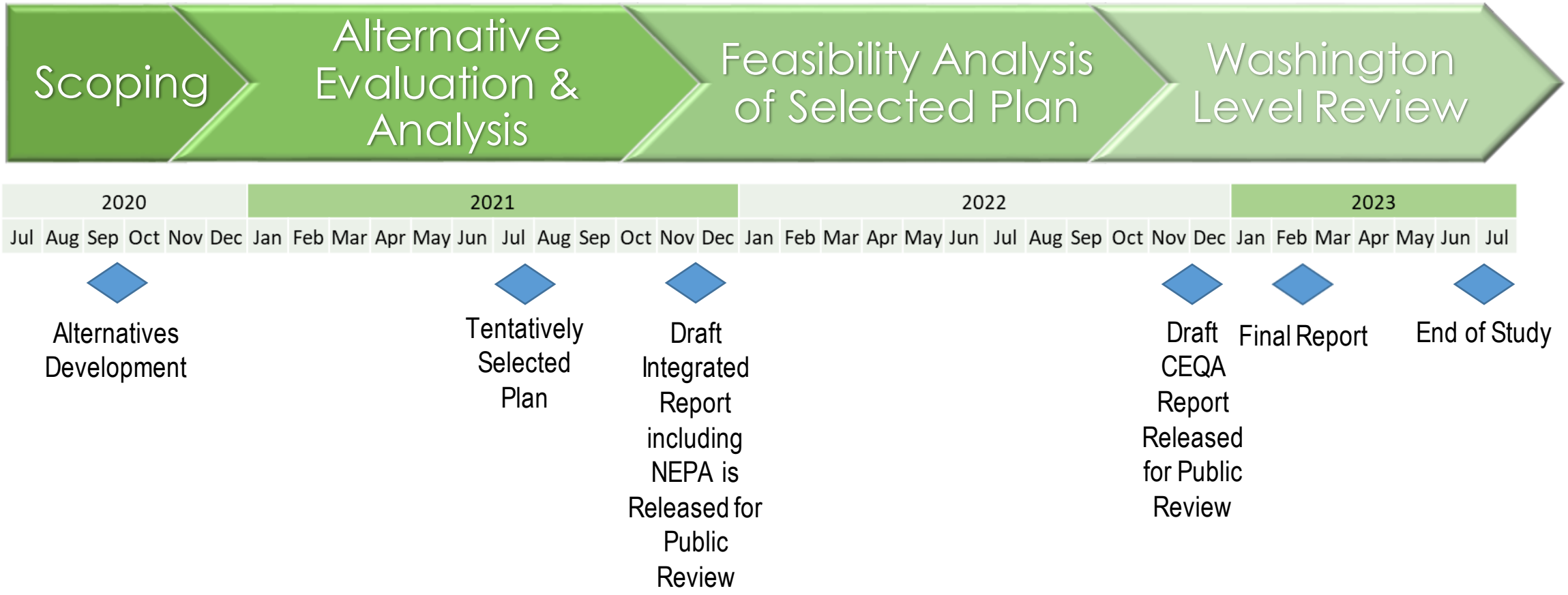


1. Technically Feasible
2. Economically Justifiable
3. Environmentally Acceptable

Turning Basins Widening Study

FEASIBILITY STUDY PROGRESS & TIMELINE

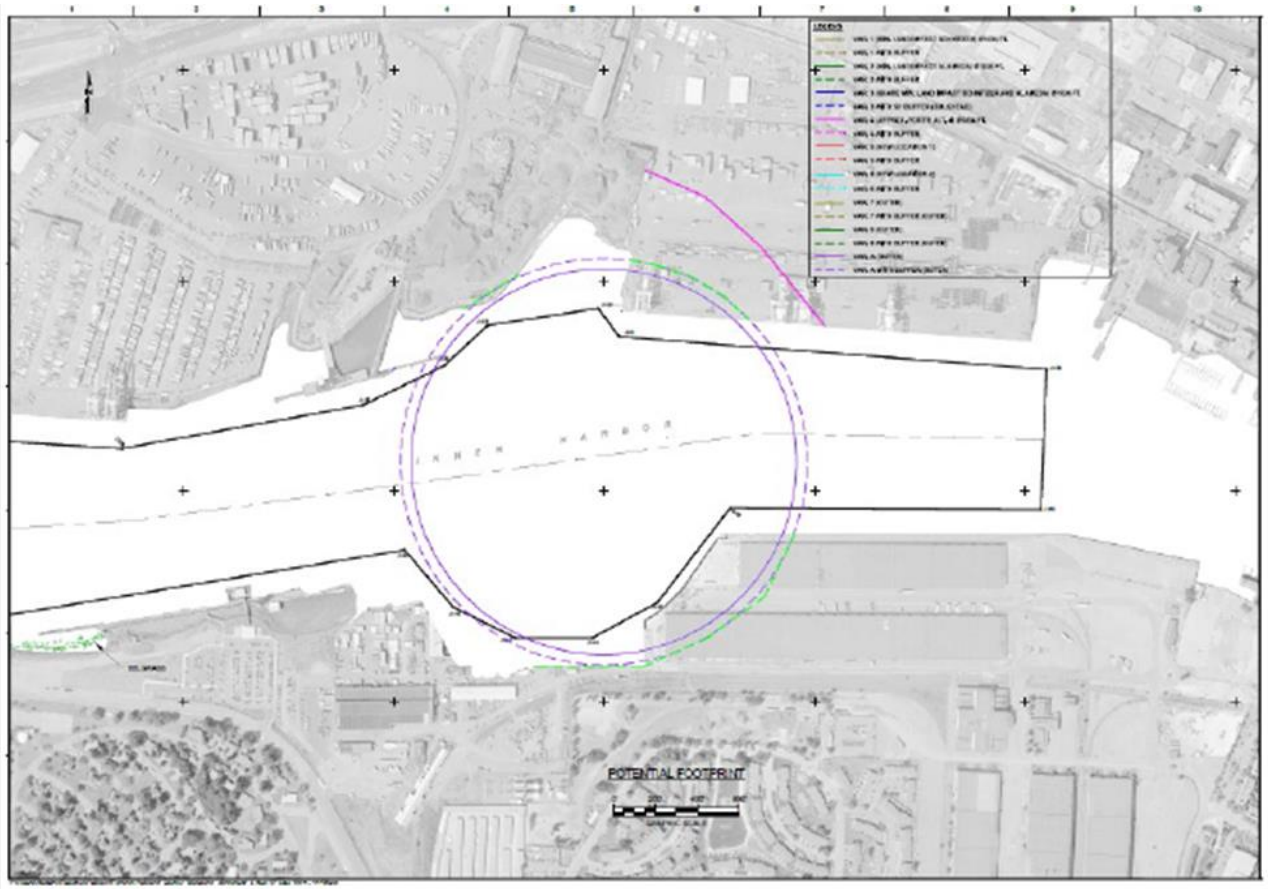
PORT OF OAKLAND SEAPORT



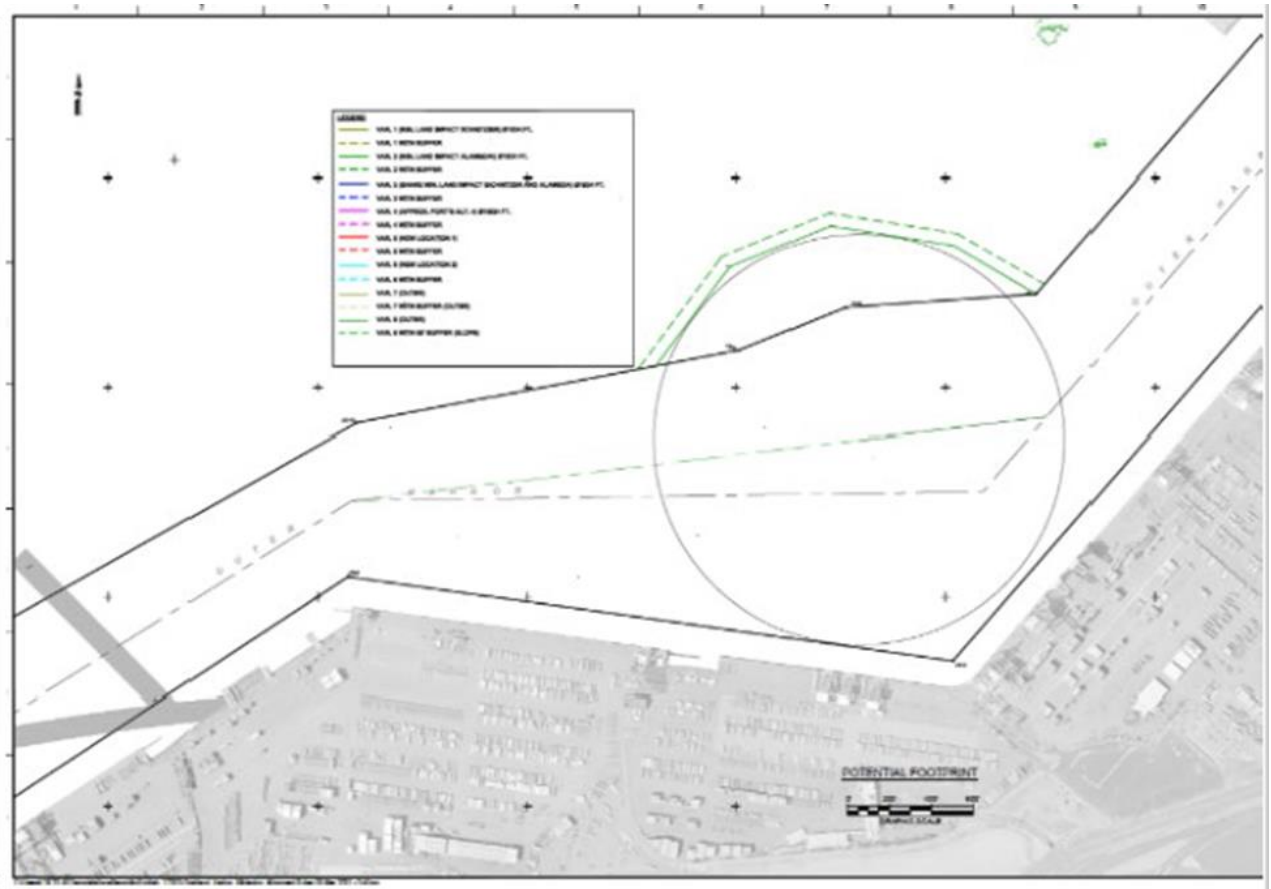
Turning Basins Widening Study

TENTATIVELY TENTATIVE SELECTED PLAN

PORT OF OAKLAND SEAPORT



Inner Harbor



Outer Harbor

TURNING BASINS WIDENING STUDY

PORT OF OAKLAND
SEAPORT

QUESTIONS?

CURRENT MARITIME DEVELOPMENT PROJECTS/ BUSINESS ACTIVITIES:

Eagle Rock Aggregates

Eagle Rock Aggregates

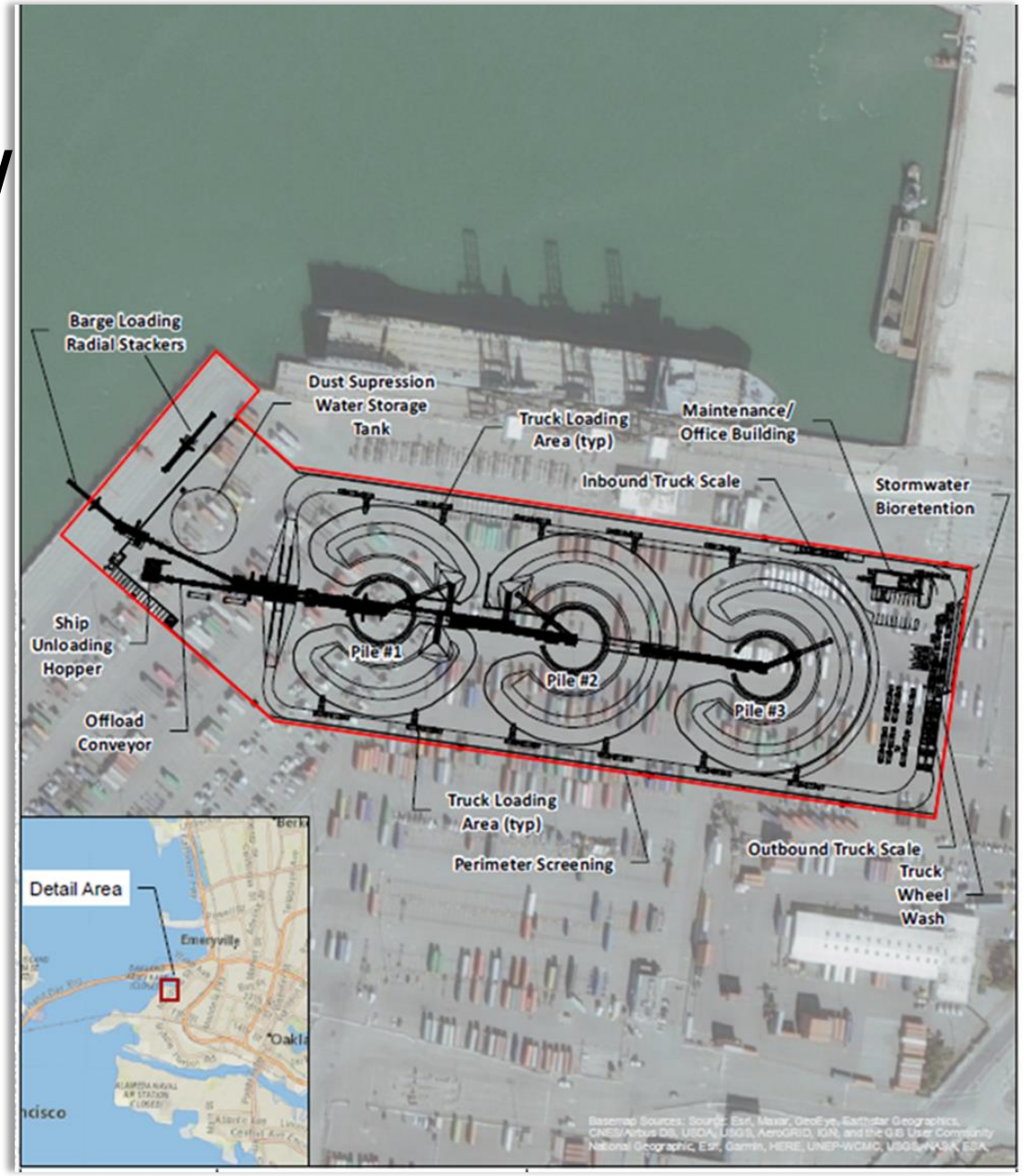
PROPOSED PROJECT DESCRIPTION

PORT OF OAKLAND SEAPORT

Eagle Rock Aggregates

PROJECT OVERVIEW

Premises:	18-acre site at Berths 20-22
Lease Term:	12, 10, and 5 years = 27 years
Use:	Bulk Marine Terminal
Improvements:	$30M-$35M



Eagle Rock Aggregates

PROPOSED PROJECT HIGHLIGHTS

- Electric Trucks
- Truck Tire Wash Station
- Hybrid Electric and Electric Yard Equipment
- Dust Control Measures
- Community Benefits and Jobs

NEXT STEPS

- Anticipated Board consideration Fall 2021

Questions/Feedback?

CLOSING COMMENTS & NEXT STEPS

CLOSING COMMENTS | NEXT STEPS

PORT OF OAKLAND SEAPORT

- Seaport Stakeholder Roundtable Microsite (Underway)

https://www.portofoakland.com/seaport-stakeholders-roundtable/?test=1

Next Meetings

Meeting #3	September 22, 2021
Meeting #4	October 27, 2021
Meeting #5	November 17, 2021
Meeting #6	December 15, 2021