



OGRE Supply Chain Analysis - Final Report

MOFFATT & NICHOL
APRIL 29, 2014



Project Overview

- Moffatt & Nichol was retained by California Capital Investment Group (CCIG) and Ports America to provide an analysis of the types of rail cargo that have high growth potential for attraction to move through the Port of Oakland, using proposed facilities at the OAB property.
- This analysis developed a detailed description of the end to end cost structure for these high growth potential cargoes and the value proposition for bringing them through the Oakland Army Base (OAB) property.
- Based on the market analysis, high-level site layouts of the infrastructure requirements for the target cargoes were developed.
- Using the volumes identified in the cargo analysis segment of the project, the team developed a reasonable revenue split for rail services to be provided by the Oakland Global Rail Enterprise facility. This was then used to develop a revenue model for the potential bulk rail manifest cargoes that could be generated during Phase I of the overall OAB development.

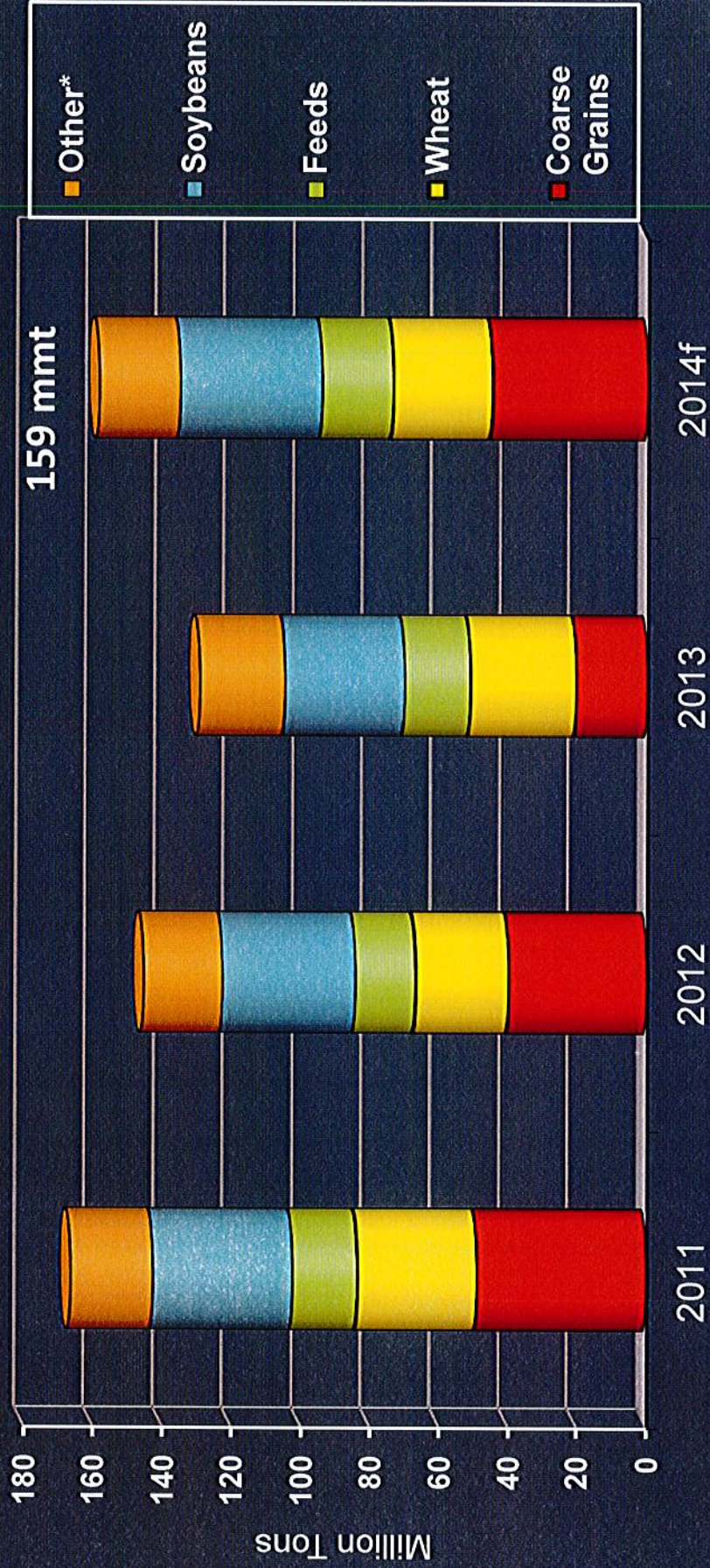


Introduction

- USDA Outlook
- Identification and Description of High Potential Cargos
 - International containerized cargo flows
 - Target Market
 - Commodities
 - Manufacturing cluster locations
 - Origins and Destinations
 - International non-containerized tonnage
 - Volumes through west coast
 - Top commodities by port
 - Origins and Destinations
- Analysis of Focus Cargo Types
 - Dry Bulk Products (Export)
 - Supply Chain Attributes, Flow Path and Cost Overview
 - Refrigerated Food Products – Meat/Poultry/Dairy (Export)
 - Supply Chain Attributes, Flow Path and Cost Overview
 - Consumer Goods – Deconsolidation and Regional Distribution (Import)
 - Supply Chain Attributes, Flow Path and Cost Overview
- High Level Overview of Building Infrastructure Requirements
- Conclusions
 - Revenue Model



USDA Outlook for Export Trade



*Other Includes cotton, rice, soybean meal, soybean oil, beef & veal, pork, beef and pork variety meats, broiler meat, and tobacco

Source: USDA Office of Global Analysis/FAS



Export Outlook for Grain & Feed Products

Revised FY 2014 Forecast: \$31.3 Billion  **\$3.2 Billion**

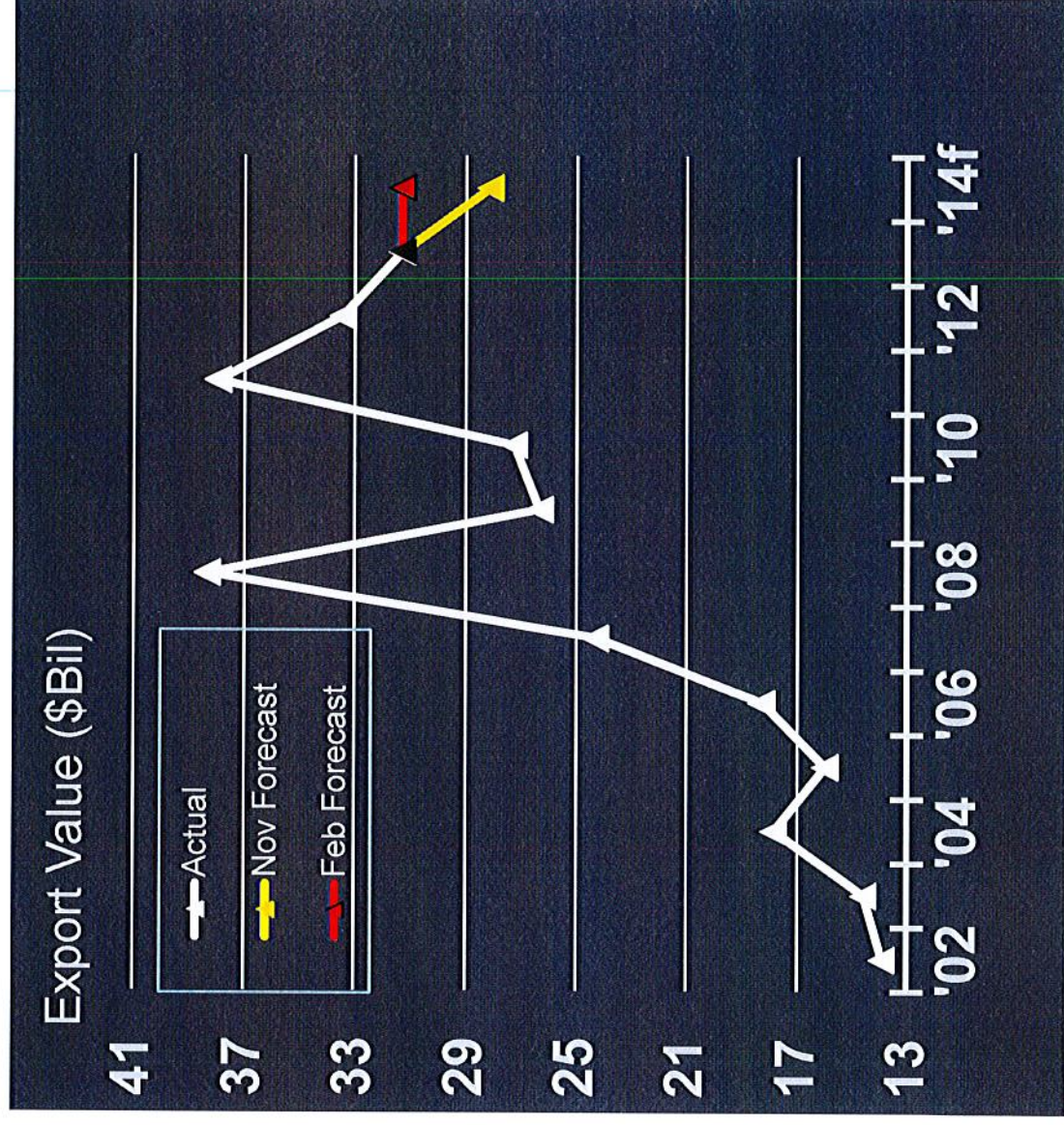
2014

Key Developments

- Corn volume up sharply, primarily on less competition from Argentina and strong demand from Mexico, Korea, and Europe
- Wheat volume up, larger exports to South America and Asia

Wild Cards

- South American corn harvest
- Chinese corn import demand
- Northern Hemisphere winter wheat crop conditions
- Wheat export policies in India and Argentina



Source: USDA Office of Global Analysis/FAS



Export Outlook for Oilseeds & Products

Revised FY 2014 Forecast: \$31.4 Billion ↑ \$2.6 Billion

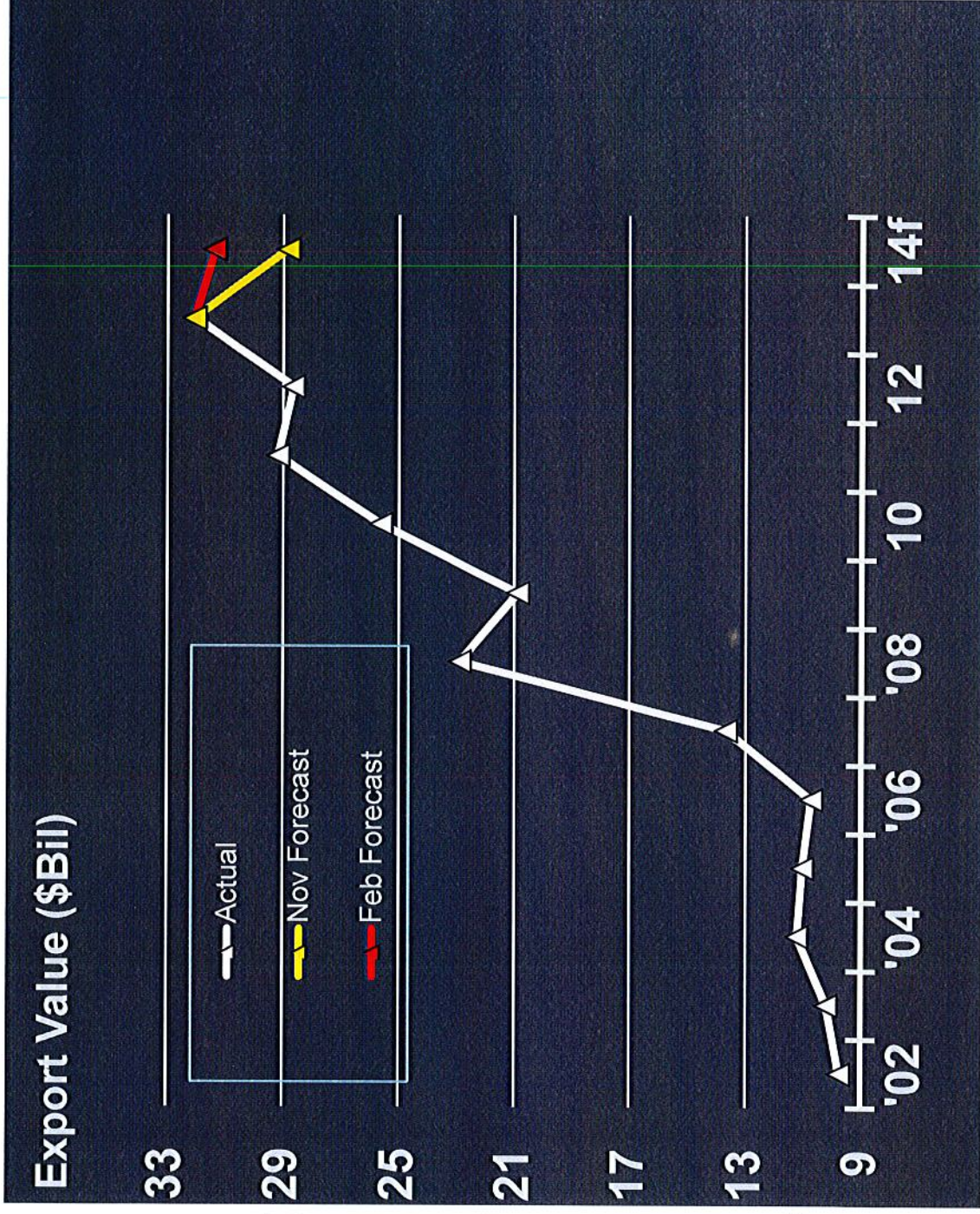
2014

Key Developments

- Soybean volume rises on record early sales to China
- Strong demand boosts soybean and soybean meal prices
- Soybean meal volume up on export pace
- Soybean oil value reduced on weakening vegetable oil prices

Wild Cards

- China's soybean import demand
- Argentina export prospects





Export Outlook for Dairy, Livestock, Poultry

Revised FY 2014 Forecast: \$31.6 Billion  \$200 Million

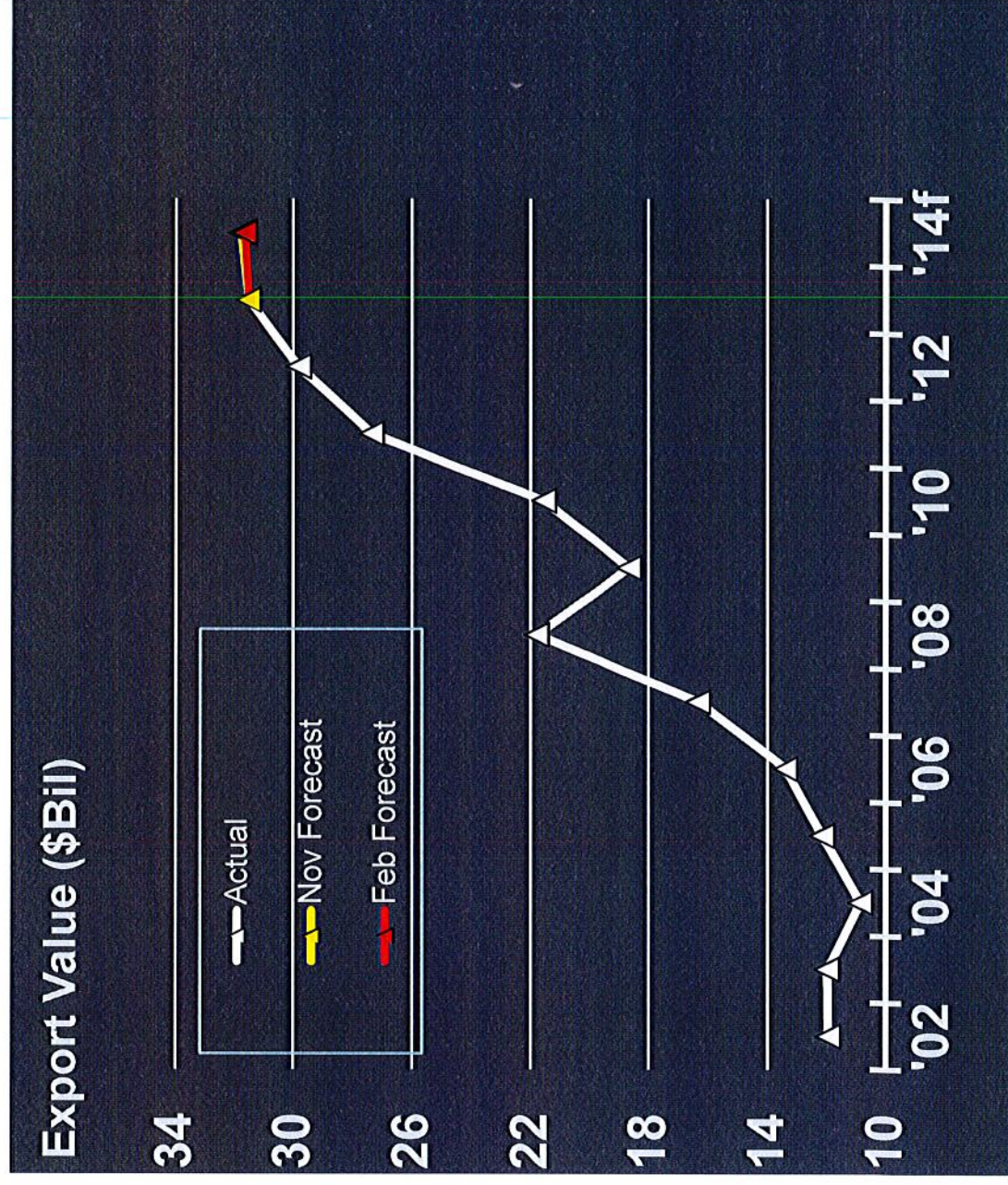
2014

Key Developments

- Broiler meat down on lower unit values
- Pork down on tighter exportable supplies
- Beef up on greater prices and volumes despite limited supplies
- Dairy higher on strong global demand

Wild Cards

- Government intervention for dairy products
- China's unstable food import quality regulations



Source: USDA Office of Global Analysis/Food & Agricultural Services



Commodity Analysis

- International containerized cargo flows
 - Target Market
 - Commodities
 - Manufacturing cluster locations
 - Origins and Destinations
- International non-containerized tonnage
 - Volumes through west coast
 - Top commodities by port
 - Origins and Destinations

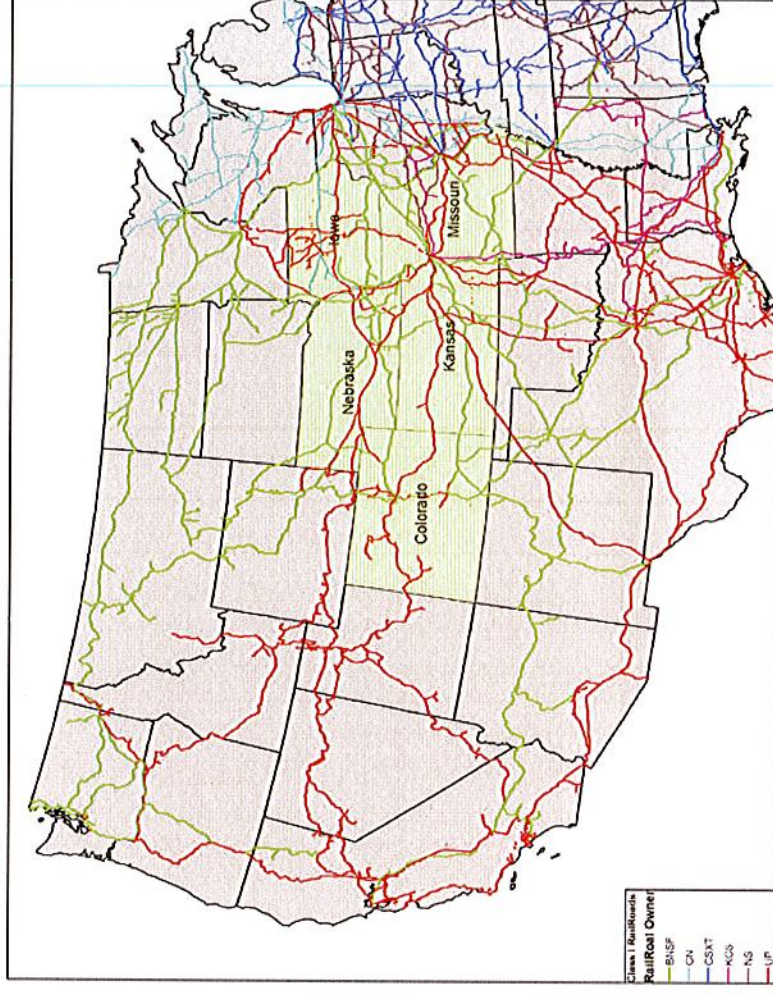


Containerized Cargo



Target Market

- Market locations being considered:
 - Colorado
 - Iowa
 - Kansas
 - Missouri
 - Nebraska
- Exports: Roughly **345,000** Loaded TEU
- Imports: Roughly **420,000** Loaded TEU



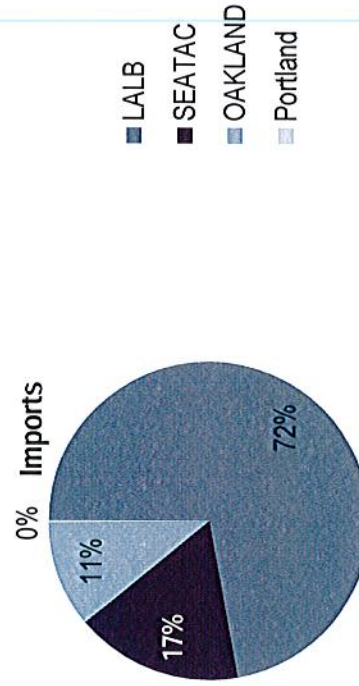
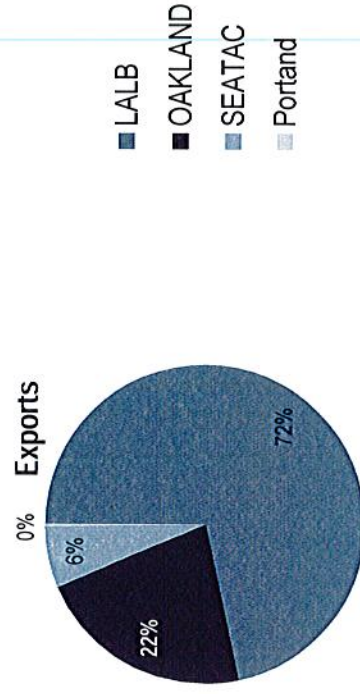


Target Market

Oakland Export Commodity/Share of West Coast

	Exports	Oakland %
Animal feed	114,566	11.5%
Waste/scrap	48,370	28.2%
Other foodstuffs	29,802	14.8%
Basic chemicals	26,579	0.3%
Other ag prods.	25,445	43.4%
Meat/seafood	18,502	68.0%
Logs	11,242	60.6%
Machinery	10,337	5.5%
Wood prods.	8,985	54.1%
Chemical prods.	7,482	11.3%
Other	42,298	17.0%
Total	343,609	21.9%

West Coast Import/Export Share





Target Market

	COLORADO	IOWA	KANSAS	MISSOURI	NEBRASKA	Total
Animal feed	20,745	10,477	45,210	15,013	23,121	114,566
Basic chemicals	129	550	24,633	924	344	26,579
Chemical prods.	717	1,019	935	4,583	229	7,482
Meat/seafood	2,596	5,006	3,215	3,391	4,294	18,502
Milled grain prods.	251	1,389	3,430	1,760	151	6,980
Other ag prods.	818	1,633	10,314	11,875	806	25,445
Other foodstuffs	1,781	2,808	17,004	3,449	4,760	29,802
Total	27,036	22,881	104,740	40,994	33,706	229,357

Animal feeds and food products account for the largest export volumes

	COLORADO	IOWA	KANSAS	MISSOURI	NEBRASKA	Total
PORTLAND	3	6	329	287	145	770
LALB	13,552	14,588	99,439	22,106	20,318	170,003
OAKLAND	11,517	6,088	3,501	14,606	8,075	43,787
SEATAC	1,964	2,199	1,471	3,995	5,168	14,796
Total	27,036	22,881	104,740	40,994	33,706	229,357
OPPORTUNITY	15,519	16,793	101,239	26,388	25,631	185,570

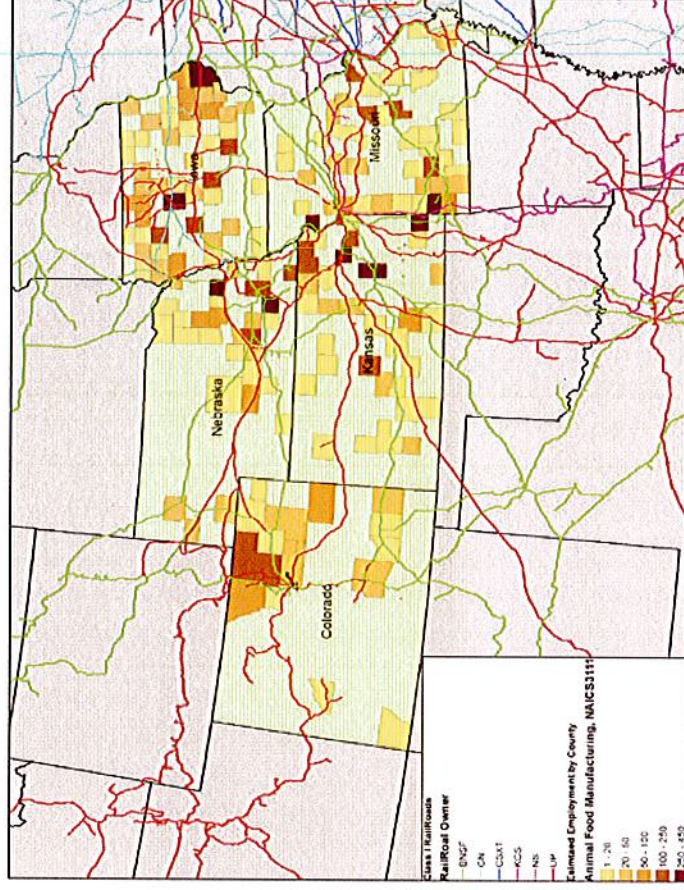
Largest Opportunity (defined as Total - Oakland) comes from Kansas, Missouri and Nebraska



Animal Feed Manufacturing Locations

Animal feed

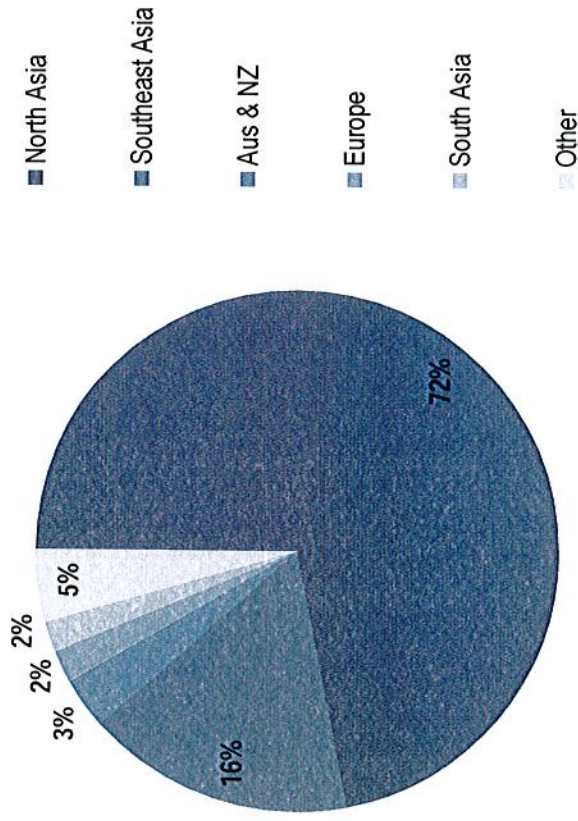
	Portland	LALB	Oakland	SeaTac	Total	Opportunity
KANSAS	5	43,579	624	1,002	45,210	44,586
MISSOURI	132	11,373	2,225	1,283	15,013	12,787
NEBRASKA	27	18,580	3,081	1,433	23,121	20,040
COLORADO	0	12,340	6,984	1,422	20,745	13,762
IOWA	0	8,816	295	1,366	10,477	10,182
Total:	164	94,688	13,209	6,504	114,566	101,357



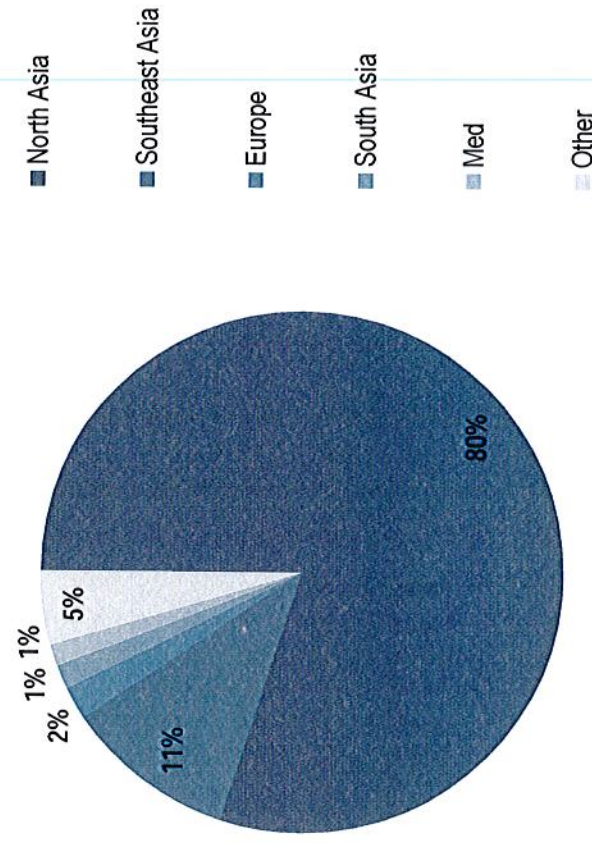


Origins and Destinations for Containerized Cargo

Export Cargo - Destinations



Import Cargo - Origins

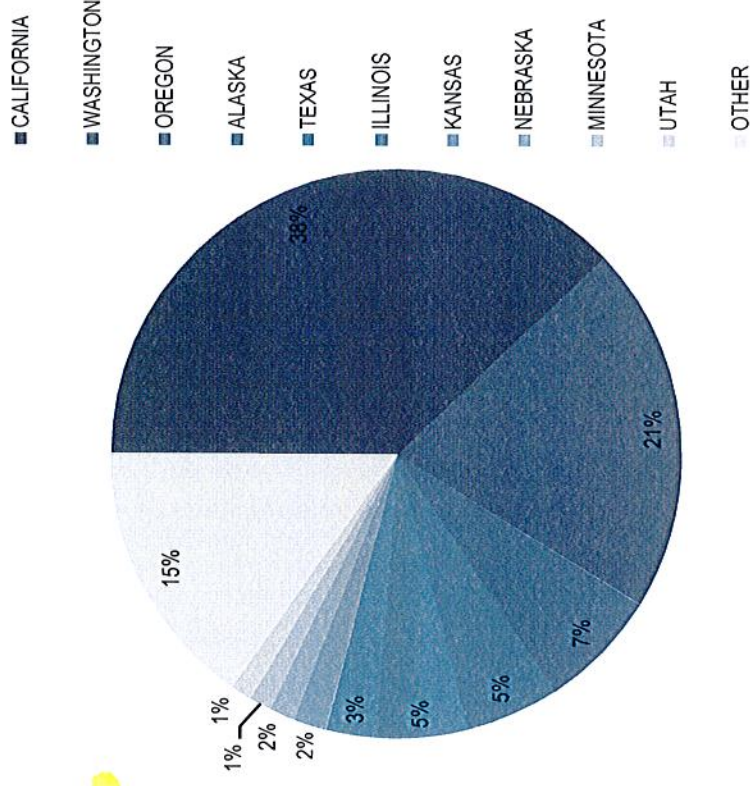




Non-containerized Volumes

Port by State (1000 Tons) TOP 10 Origin States through Pacific Ports

	LALB	OAKLAND	PORTLAND	SEATAC	OTHER	TOTAL
California	12,744	2,692	446	144	7,009	23,035
Washington	30	21	399	3,539	8,777	12,766
Oregon	16	13	1,795	395	1,930	4,148
Alaska	0	0	0	12	3,216	3,228
Texas	2,271	47	89	19	752	3,177
Illinois	1,106	101	41	351	103	1,702
Kansas	552	14	56	79	417	1,120
Nebraska	57	46	1	36	762	903
Minnesota	49	10	13	534	164	770
Utah	297	259	0	1	197	754
Other	3,762	556	2,854	521	1,584	9,278
Total	20,884	3,761	5,694	5,630	24,912	60,881



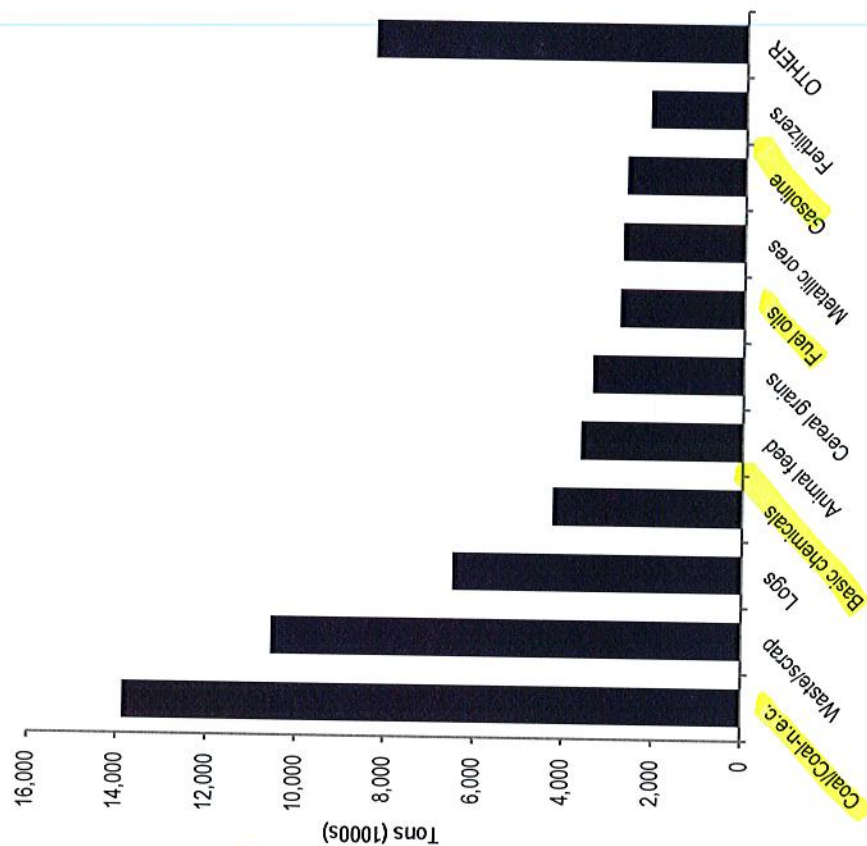


West Coast Ports by Commodity (All States)

Commodity by Port (1000 Tons)

	LALB	OAKLAND	PORTLAND	SEATAC	OTHER	TOTAL
Coal/Coal-n.e.c.	7,207	20	13	202	6,405	13,847
Waste/scrap	5,814	1,832	432	1,219	1,253	10,550
Logs	99	4	1	454	5,926	6,484
Basic chemicals	1,176	33	2,527	61	440	4,238
Animal feed	1,676	537	62	812	549	3,636
Cereal grains	120	30	105	1,261	1,884	3,400
Fuel oils	409	11	13	194	2,173	2,800
Metallic ores	1,060	0	0	1	1,695	2,756
Gasoline	409	11	0	194	2,058	2,672
Fertilizers	18	13	2,128	1	9	2,169
OTHER	2,894	1,270	414	1,233	2,518	8,329
TOTAL	20,884	3,761	5,694	5,630	24,912	60,881

TOP 10 Commodities through Pacific Ports



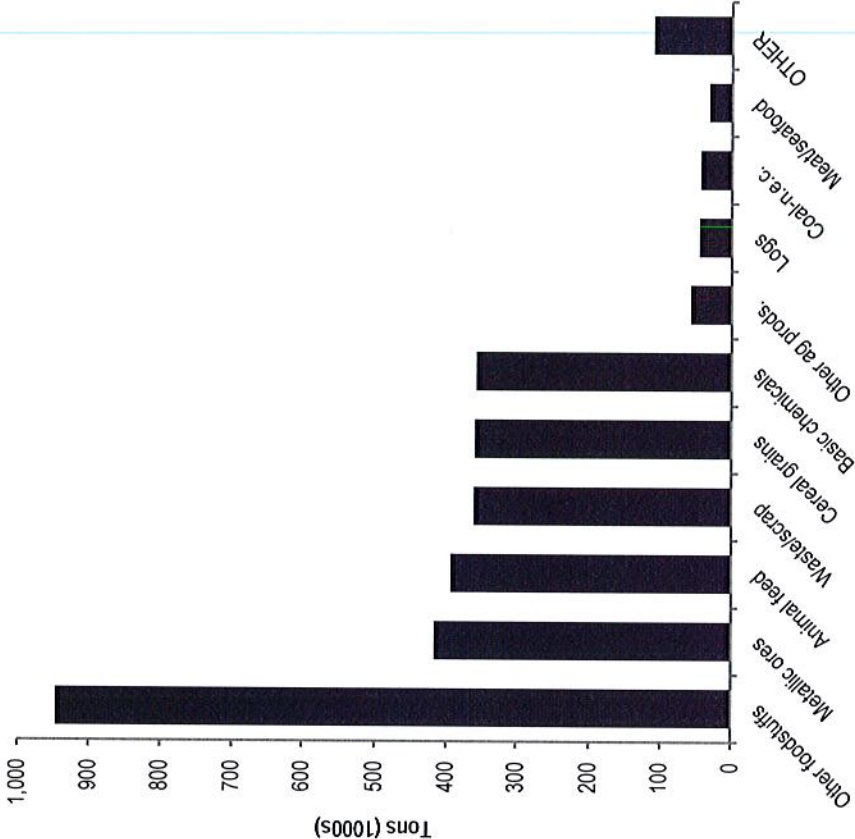


West Coast Ports by Commodity (Secondary Market States)

Commodity by Port (1000 Tons)

	LALB	OAKLAND	PORTLAND	SEATAC	OTHER	TOTAL
Other foodstuffs	61	10	0	5	871	947
Metallic ores	417	0	0	0	0	417
Animal feed	210	148	0	22	14	394
Waste/scrap	205	99	1	23	33	361
Cereal grains	2	6	2	99	250	359
Basic chemicals	251	0	53	2	51	358
Other ag prods.	17	35	2	2	0	56
Logs	39	1	0	1	2	45
Coal-n.e.c.	41	0	0	0	1	42
Meat/seafood	9	18	0	4	0	31
OTHER	67	12	2	12	16	110
TOTAL	1,319	329	61	171	1,238	3,120

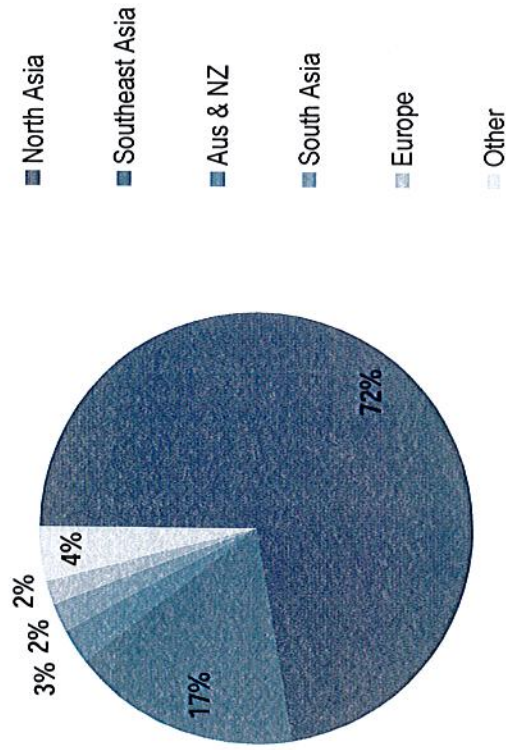
TOP 10 Commodities through West Coast Ports from Secondary Market



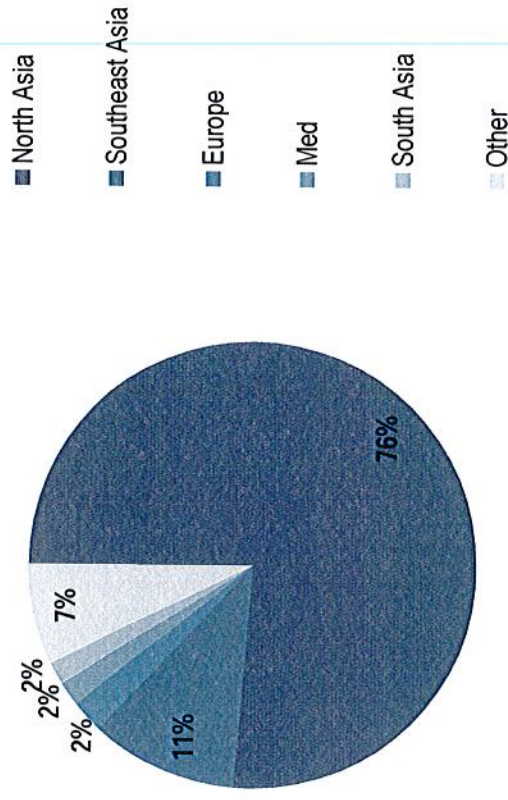


Origins and Destinations for Non-Containerized Cargo

Export Cargo - Destinations



Import Cargo - Origins





Supply Chain Cost Factors



Refrigerated Products

Global Trends

- Growth in demand for protein products – dairy, meat, poultry as income rises in developing countries
- US food products have higher level of food safety scrutiny therefore are more trusted
- Destination market quality standards and regulation can appear arbitrary
- Agricultural productivity is challenged in Asia

Supply Chain Factors

- Cost savings achieved by transloading truck to international container allowing 3 trucks to fit into 2 international container ratio (due to weight limits)
- Much of the product is moving out of Midwest points and Oakland is cost competitive from inland transport perspective
- 25 percent of the export freight for this segment is customer routed, relying on freight forwarders

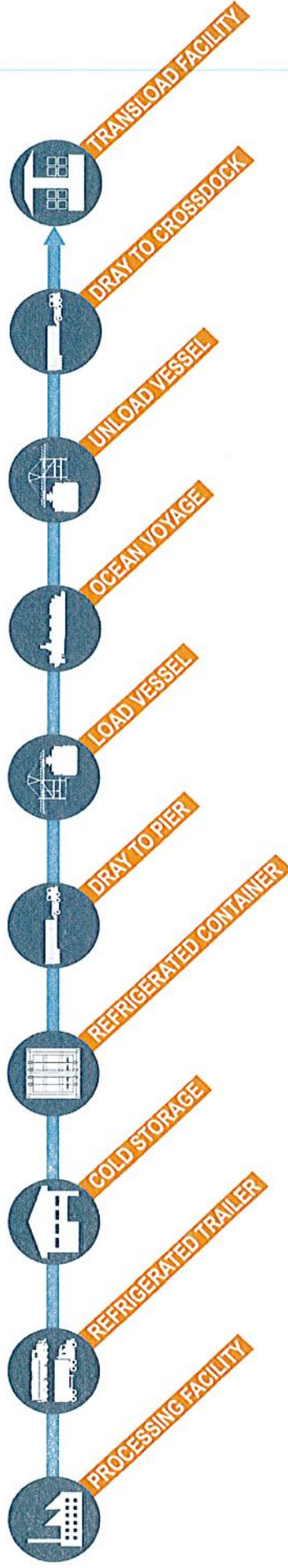
Upside Opportunities

- A purpose built, state of the art facility in the immediate port area would provide the flexibility and value added services required for this growing cargo segment
- Export transit times to multiple Asian destinations are very favorable from Oakland



Refrigerated/Frozen Cargos Flow Path

MEAT PRODUCTS (REFRIGERATED/FROZEN)



Fee Type	Fee Amount	Comments
Inland Rail Cost	Varies	See comparative rail costs chart
Revenue Split for Third Party Delivery at Port of Oakland	Estimate of \$200 - 250/railcar	Estimate based on third party rail tariff analysis
Transload from truck or rail to container	\$750/container	Approximate rate - based on interviews, includes unloading, local port dray and loading of container (usually floor loaded)
USDA Inspection fees (grading, weight verification)	\$250 - \$350 generally	Varies considerably, must pay for inspector time, cost for paperwork
Rail car detention	\$75/day	2 day free time only, after 4 days charge goes up to \$150/day
Drayage to Pier	Included in transload fee	
Chassis charge	\$25/day (in this case included in transload fee)	Can vary if chassis is needed for more than 4 days, goes up to \$85/day



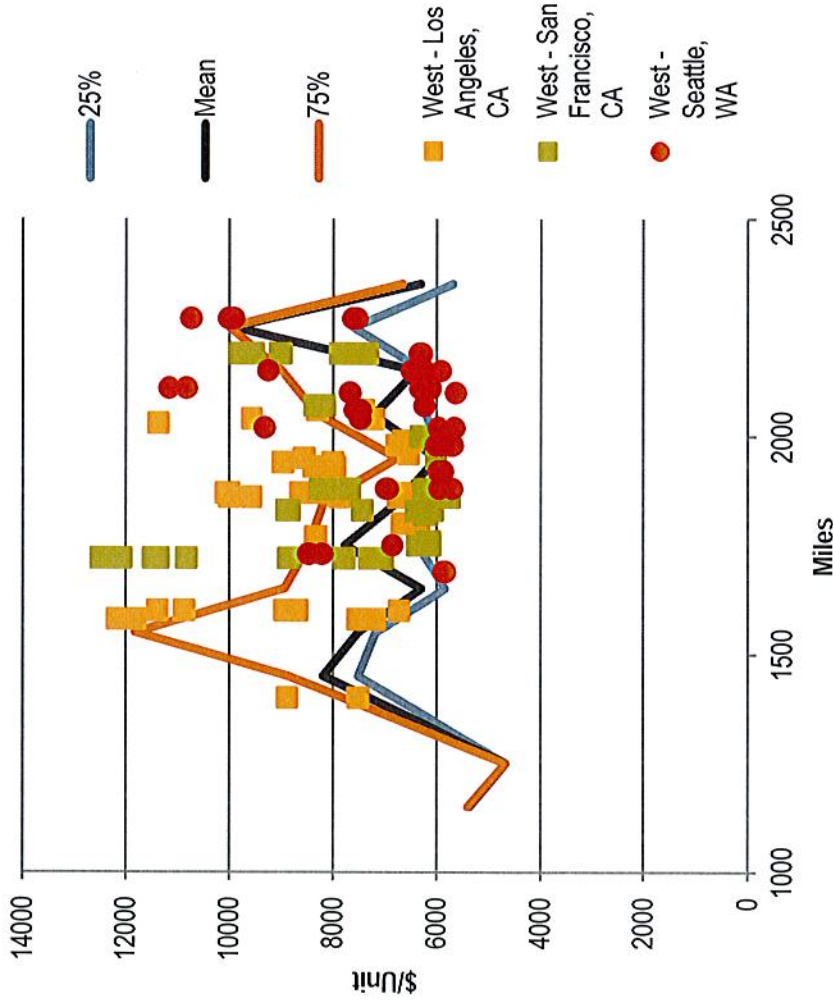
Manifest Cargo Rail Service Requirements - OGRE

- Generally, the third party rail operator is responsible for all activities required by the industrial users within the Oakland Army Base development – the revenue split with the Class I railroad covers these primary activities:
 - Interchanging the manifest cars off the main line of the Class I railroad
 - Once railcars are switched off the main, “spotting” them at the industrial user’s location
 - When the cars are empty, removing or “pulling” the cars back into the storage track area for consolidation and redelivery to the Class I railroad
- Any additional switches, weighing of cars, turning cars, storage of cars, handling of hazardous materials or any other extra services will be covered under a separate tariff as these services are not considered part of the general delivery and removal of empty railcar process
- These services cross all the different cargo segments: dry bulk, liquid bulk, dry boxcar general freight, lumber, refrigerated boxcar freight etc.



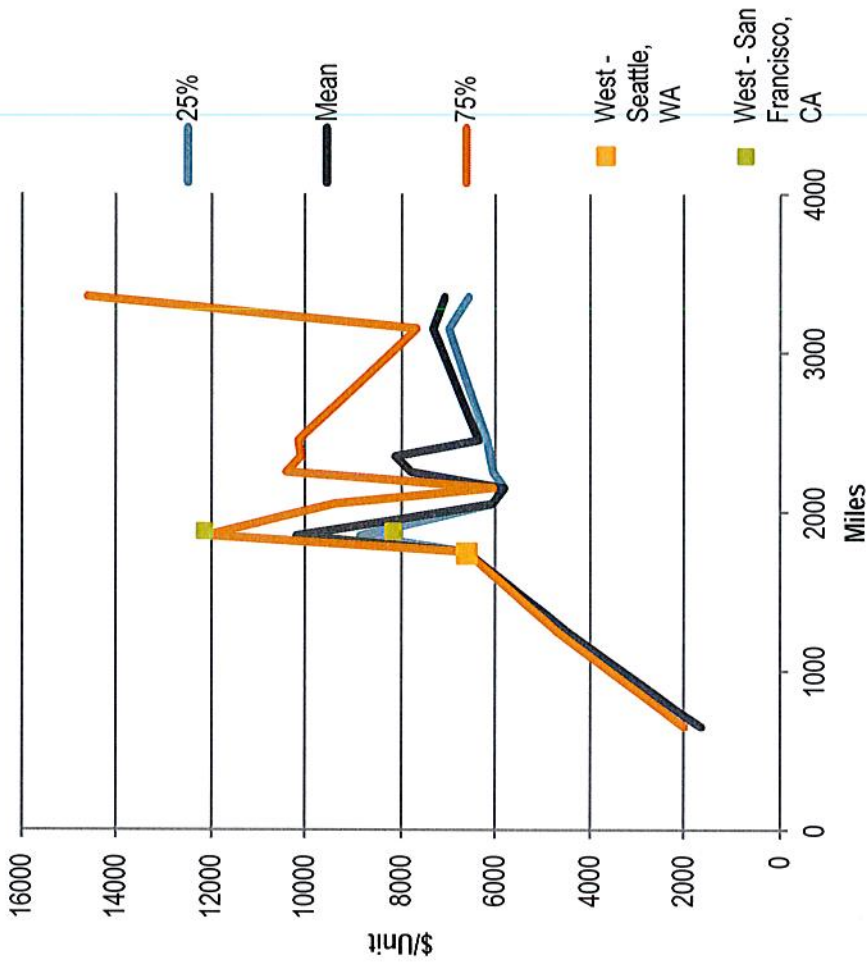
Rail Cost Comparison

Commodity: Frozen Meat in Reefer Boxcar



- This commodity has more rate variability based on different value by product
- San Francisco/Oakland generally competitive
- Seattle has advantage as it is a backhaul lane due to volume of refrigerated products exiting the area (french fries, onions and other products)

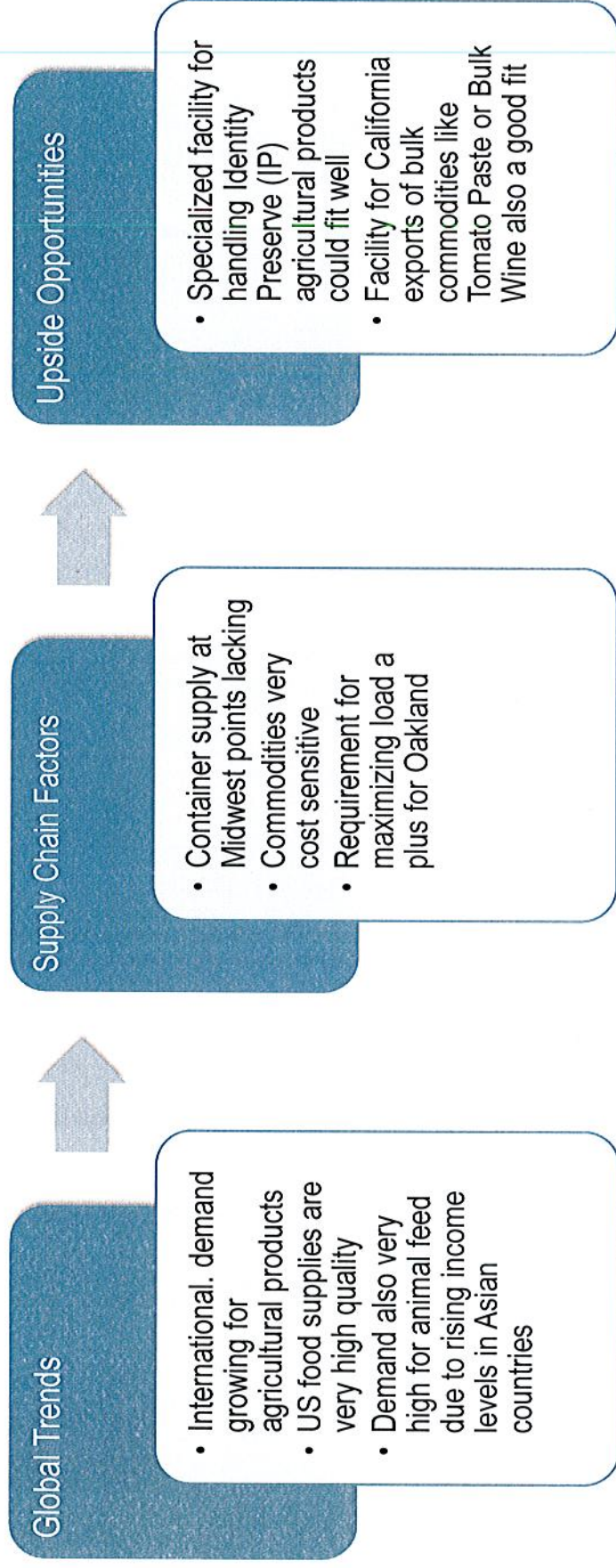
Commodity: Frozen Poultry in Reefer Boxcar



- Rates not as dispersed for this commodity
- San Francisco/Oakland rates slightly higher than Seattle/Tacoma

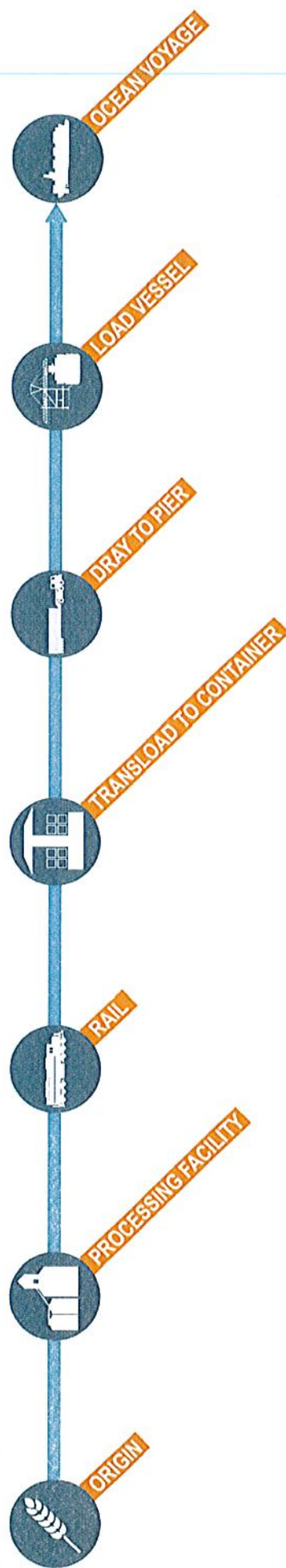


Dry Bulk Product - Agricultural Goods, Animal Feed, Other Dry Food Products



Dry Bulk Supply Chain

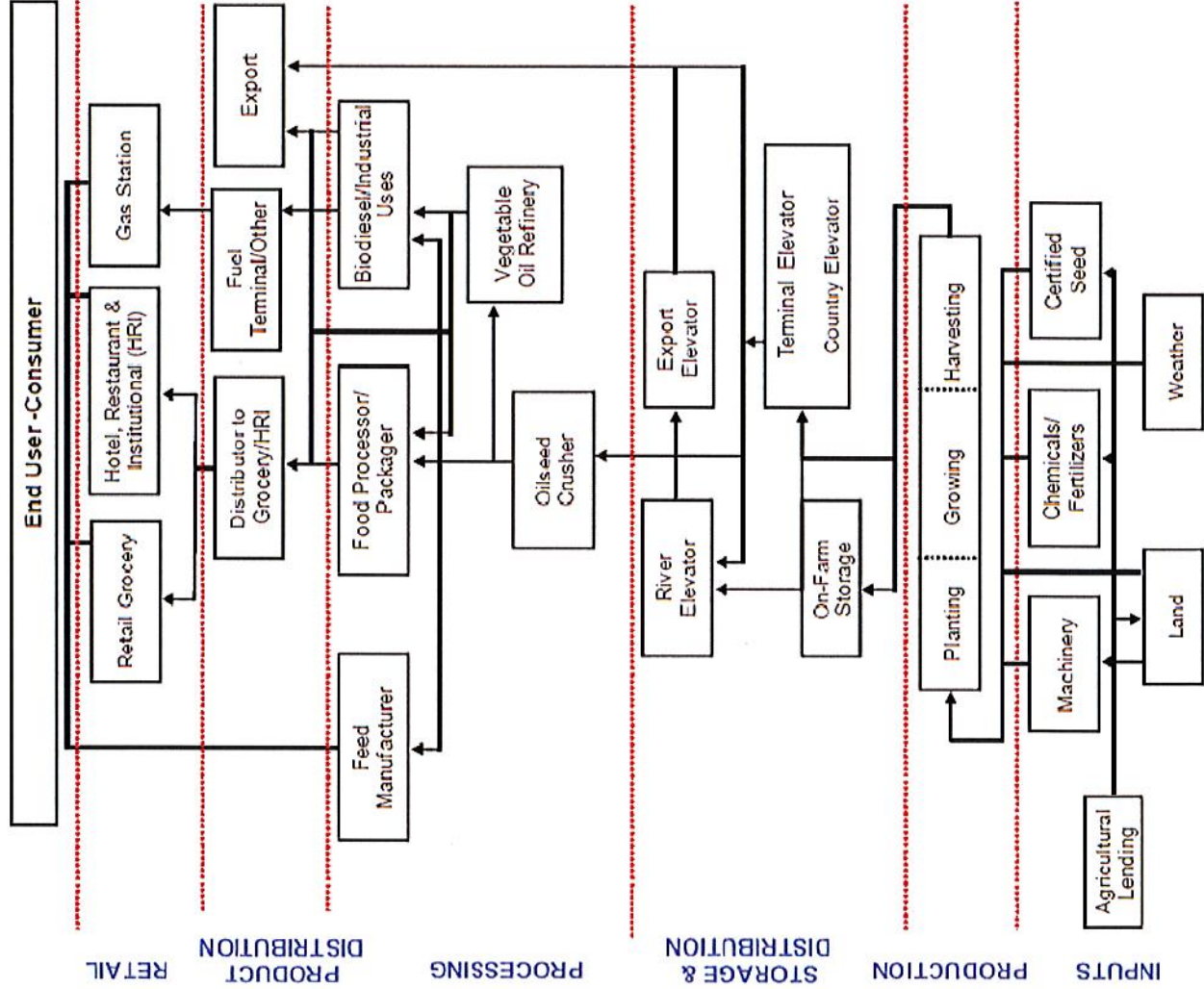
DRY BULK



Fee Type	Fee Amount	Comments
Inland Rail Cost	Varies	See comparative rail costs chart
Revenue Split for Third Party Delivery at Port of Oakland	Estimate of \$200 - 250/railcar	Estimate based on third party rail tariff analysis
Transload from bulk hopper car to container	\$350/container	Approximate rate - based on interviews
USDA Inspection fees (grading, weight verification)	\$25 - \$250 generally	Varies considerably, must pay for inspector time, cost for paperwork
Rail car detention	\$75/day	2 day free time only, after 4 days charge goes up to \$150/day
Drayage to Pier	Included in transload fee	
Chassis charge	\$25/day	Can vary if chassis is needed for more than 4 days, goes up to \$85/day



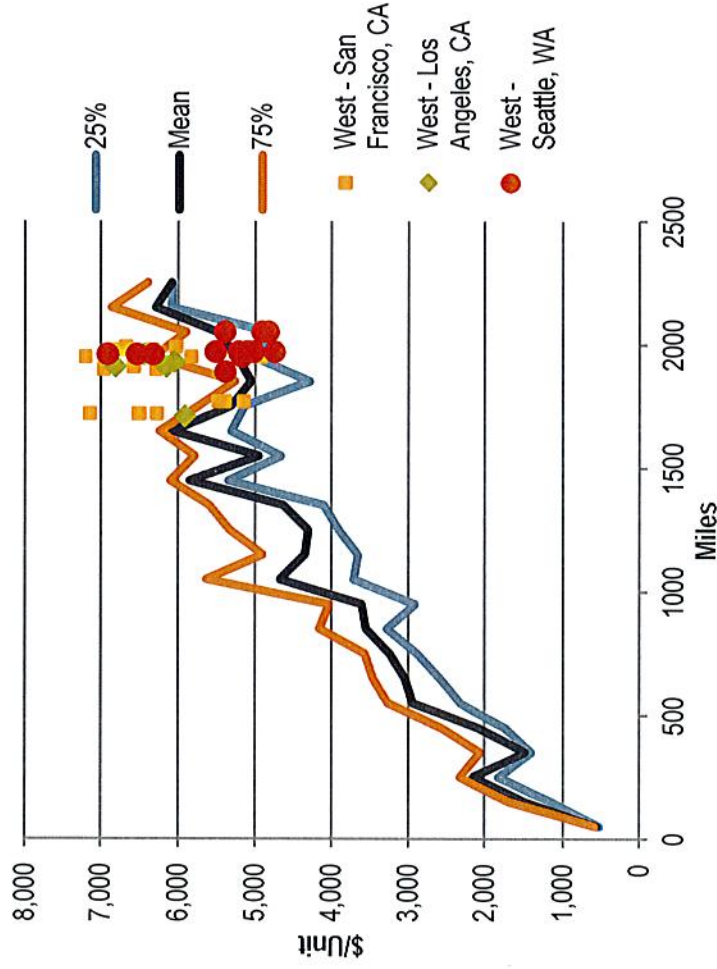
Soybean Supply Chain



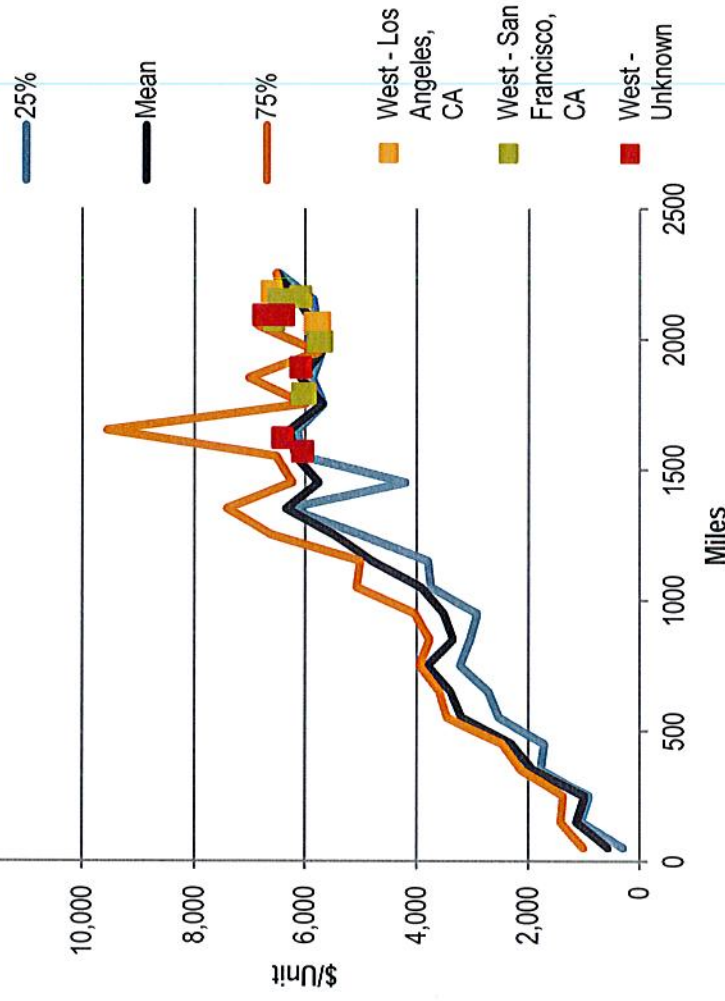


Rail Cost Comparison

Commodity : Soybean cake, meal, flour, in large covered hopper car



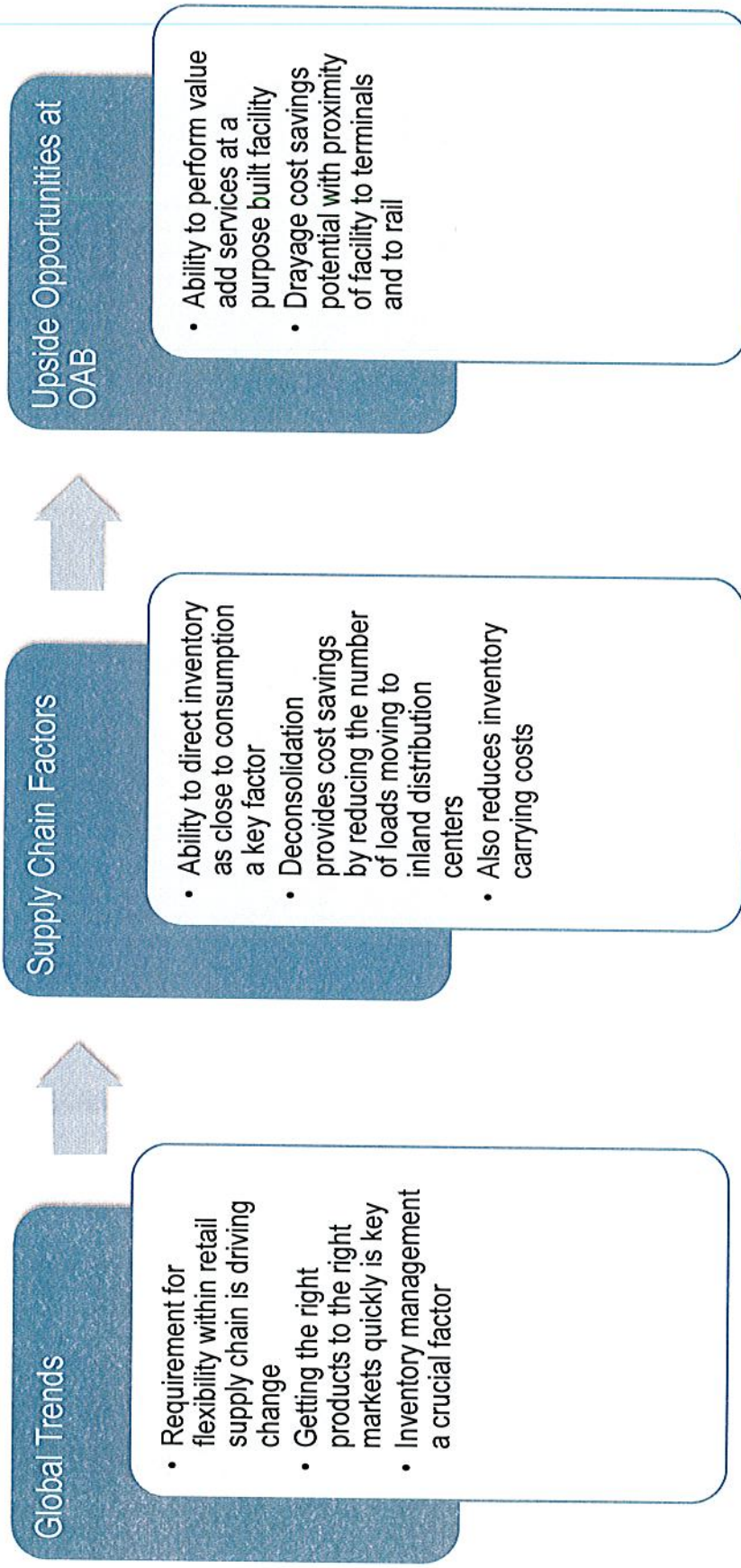
Commodity: Animal Feed in large covered hopper car



- Rail rates to Oakland area are generally competitive from Midwest origins
- Competitive rail rates will provide opportunity for market capture based on efficient rail delivery model to be implemented by OGRE



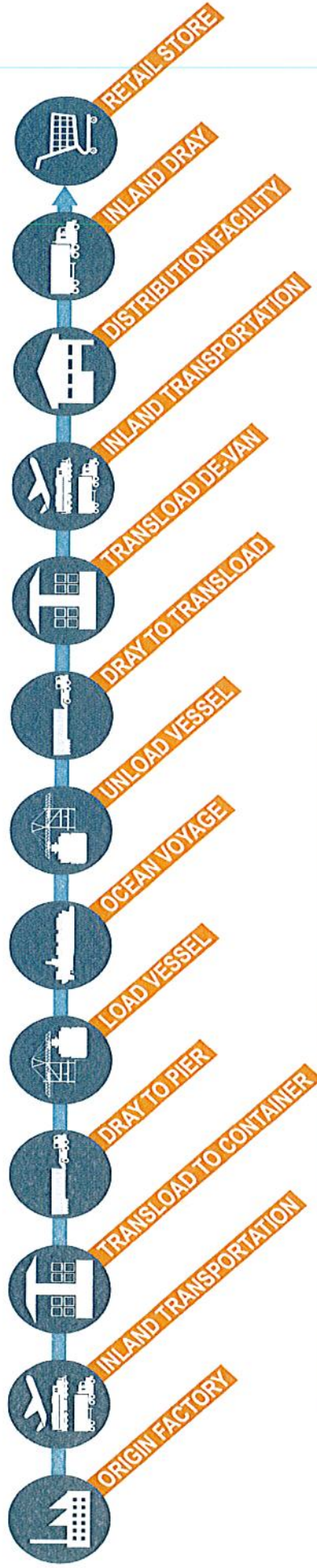
Import Consumer Goods





Import Consumer Goods Flow Path

IMPORT CONSUMER GOODS



Cost Component	Fee Amount	Comments
Drayage from pier	\$175 – 225 per container inclusive FSC	Fee varies depending on volume level
Deconsolidation/transload	TBD	
Value add (sorting, segregation)		Varies depending on service provided
Drayage to rail	\$150 – 200 per box (53' intermodal unit)	Usually included in intermodal rate
Inland Rail Cost	\$2150/53' intermodal box – LA to Chicago indicative rate	Variable depending on destination

*Note: Import consumer goods moving via domestic intermodal rail will not be part of Phase I of the OGRE development



Port Gateway Evaluation Factors – Import BCO Perspective

Priorities:

- Gateway's proximity to Distribution Centers (DC's) served
 - Could be part of a regional strategy or a national strategy
 - Using Oakland in a regional strategy could include the following destinations: Northern CA; Southern OR; Reno, NV; Denver, CO; Salt Lake City, UT
 - National strategy – gateway to serve at least half the US
- Domestic transportation network
 - Rates must be competitive, both for rail and truck
 - Evaluation of whether the location is a backhaul lane or a headhaul lane (backhaul lanes are less expensive and equipment is more readily available)
 - Is it easy to get into and out of the area by truck
- Port service
 - What carriers serve port
 - Water depth, ability to handle large ships
 - Transit times from key origins



Port Gateway Evaluation Factors – Import BCO Perspective

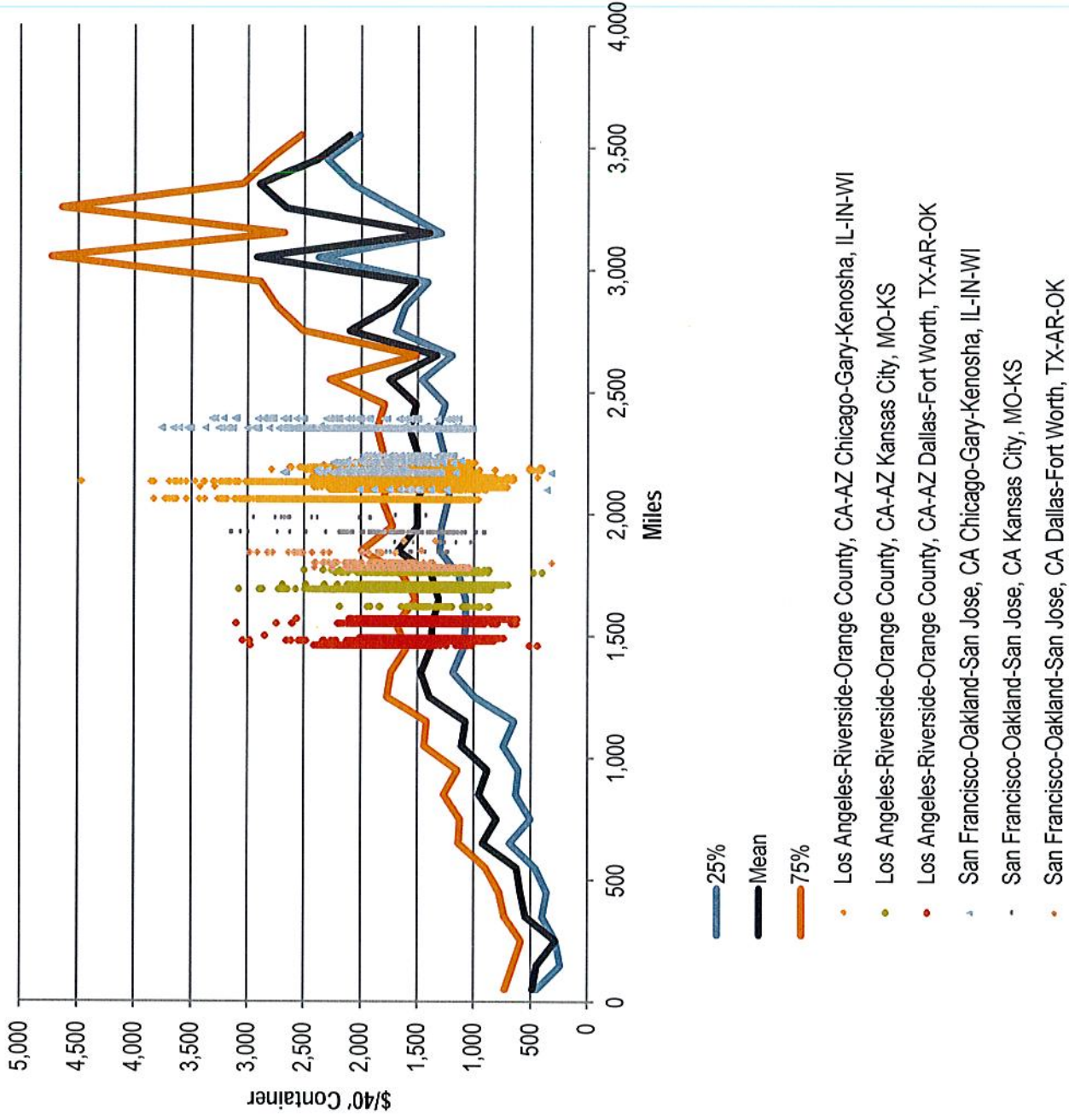
Priorities (cont.):

- Port operating model – is it a landlord or operating port
 - Who are terminal operators – relationships with operators
 - What are turn times
 - Wheeled or stacked operation, automated facilities
- What 3PL's or deconsolidators operate in market
 - Who are the major customers these 3PL's are currently serving – would there be conflict (i.e. shared facility with very large customer getting the majority of attention and therefore better service levels)
 - Are there any constraints on labor availability
 - How good are providers at this location
 - Labor availability



Rail Cost Comparison

- As with other commodities analyzed, rates from Oakland are generally competitive
- Rates will most likely be adjusted by the Class I Railroads once intermodal service is established directly from the OGRE facility in Phase II





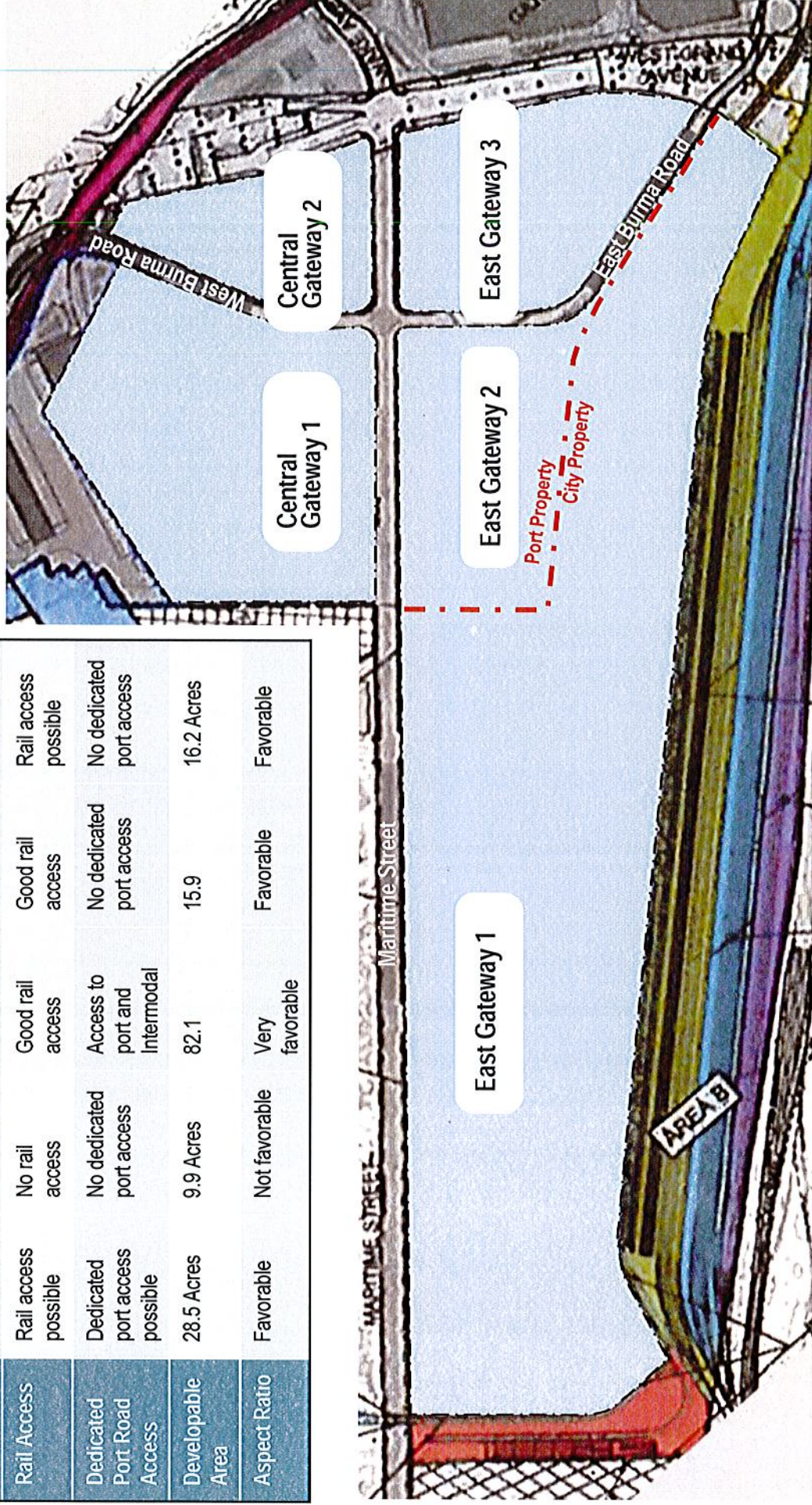
Infrastructure Overview



Oakland Army Base Development Sites

**Please note, these site layouts are based on the uses defined by the market analysis done by Moffatt & Nichol and are not from either CCLIG or ProLogis

Attribute Matrix	Central Gateway 1	Central Gateway 2	East Gateway 1	East Gateway 2	East Gateway 3
Street Access	Maritime Street and Burma Road	West Burma Road	Maritime Street and Burma Road	Maritime Street and Burma Road	East Burma Road
Rail Access	Rail access possible	No rail access	Good rail access	Good rail access	Rail access possible
Dedicated Port Road Access	Dedicated port access possible	No dedicated port access	Access to port and Intermodal	No dedicated port access	No dedicated port access
Developable Area	28.5 Acres	9.9 Acres	82.1	15.9	16.2 Acres
Aspect Ratio	Favorable	Not favorable	Very favorable	Favorable	Favorable





Targeted Cargos and Site Suitability

****Please note, these site layouts are based on the uses defined by the market analysis done by Moffatt & Nichol and are not from either CCIG or ProLogis**

Containerized Product Categories	Trans-load Needs	Rail Spur Needs	Intermodal Needs	Dedicated Port Access Needs	Commodity Description
Dry Bulk Ag Export	High	High	None	Medium	Raw Grain, milled grain, and animal feed; transloaded from truck or rail to container
Reefer Import/Export	Medium	Medium	Medium	Medium	Fruit and vegetables, dairy, meat and seafood; OTR reefer cross-dock to ISO reefer
Other Dry Bulk Export	Medium	Medium	Low	Low	Chemicals, plastic pellets, and scrap metal; containerized for export
General Cargo Export	Medium	Low	Low	Low	Logs, forest products, scrap paper, machinery, other general cargo; containerized for export
Import Logistics and Distribution	High	None	High	Medium	Merchandise cargo imported in ISOs and transloaded for domestic distribution
Container Cross-Dock	High	None	Low	High	Merchandise cargo import or export transloaded between domestic and ISO containers

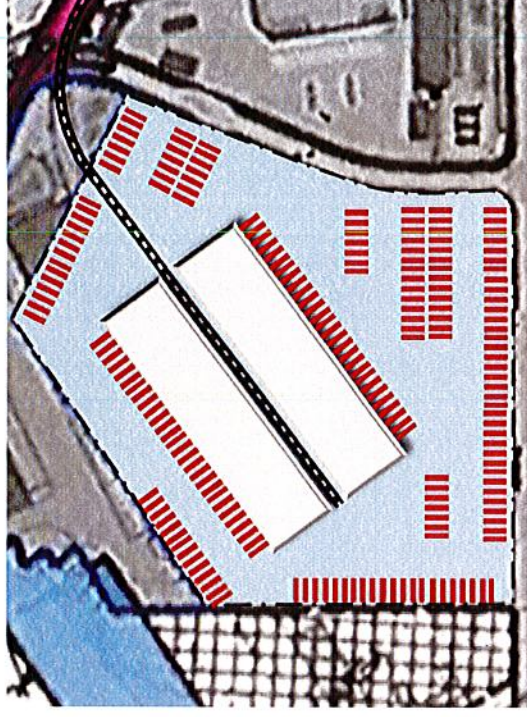
Suitability Matrix	Central Gateway 1	Central Gateway 2	East Gateway 1	East Gateway 2	East Gateway 3
Dry Bulk Ag Export	Suitable	Not Suitable	Very Suitable	Very Suitable	Suitable
Reefer Import/Export	Very Suitable	Not Suitable	Very Suitable	Very Suitable	Suitable
Import Logistics and Distribution	Suitable	Not Suitable	Very Suitable	Suitable	Not Suitable
Other Dry Bulk Export	Very Suitable	Not Suitable	Very Suitable	Very Suitable	Suitable
General Cargo Export	Very Suitable	Suitable	Very Suitable	Very Suitable	Possibly Suitable
Container Cross-Dock	Very Suitable	Not Suitable	Very Suitable	Not Suitable	Not Suitable



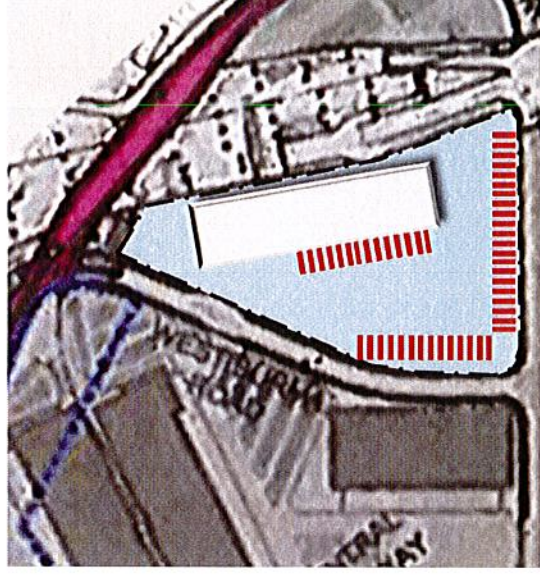
Central Gateway 1 and 2

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Central Gateway 1	General Cargo Export
Area:	28.5 Acres
Building Footprint:	290,000 Square Feet
Outside Storage:	621 FEU
Construction Cost:	\$31,500,000
Alternative Use:	Import Distribution center
Other Attributes:	• Favorable size and shape • Direct rail access • Possible dedicated port access



Central Gateway 2	Other Dry Bulk Cargo Export
Area:	9.9 Acres
Building Footprint:	100,000 Square Feet
Outside Storage:	182 FEU
Construction Cost:	\$10,300,000
Alternative Use:	General Cargo Export
Other Attributes:	• Unfavorable size and shape • No direct rail access • No dedicated port and intermodal access



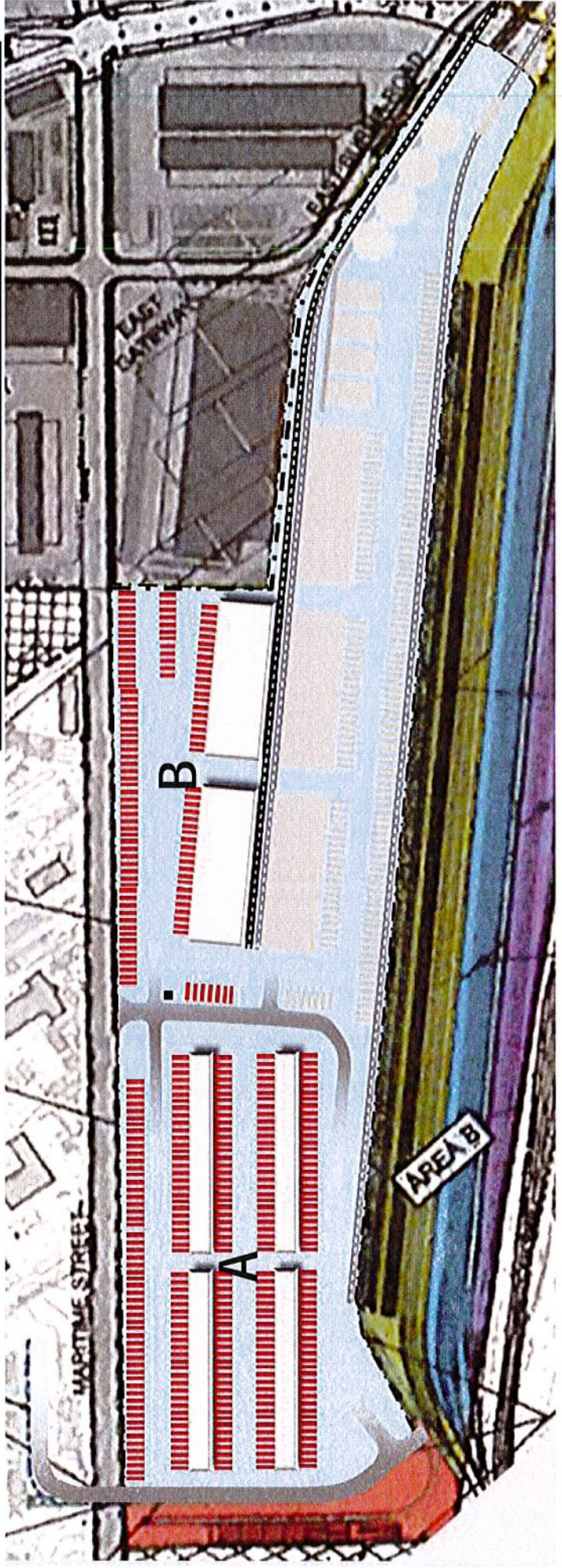


East Gateway 1 – Site A and B

**Please note, these site layouts are based on the uses defined by the market analysis done by Moffatt & Nichol and are not from either CCIIG or ProLogis

East Gateway 1	A) Container Cross-Dock
Area:	32.5 Acres
Building Footprint:	240,000 Square Feet
Outside Storage:	768 FEU
Construction Cost:	\$29,600,000
Alternative Use:	Import Distribution Center
Other Attributes:	• Favorable size and shape • Possible direct rail access • Dedicated port and intermodal access

East Gateway 1	B) Reefer Cargo Export
Area:	17.4 Acres
Building Footprint:	200,000 Square Feet
Outside Storage:	345 FEU
Construction Cost:	\$64,500,000
Alternative Use:	General Cargo Export
Other Attributes:	• Favorable size and shape • Direct rail access • Possible dedicated port and intermodal access



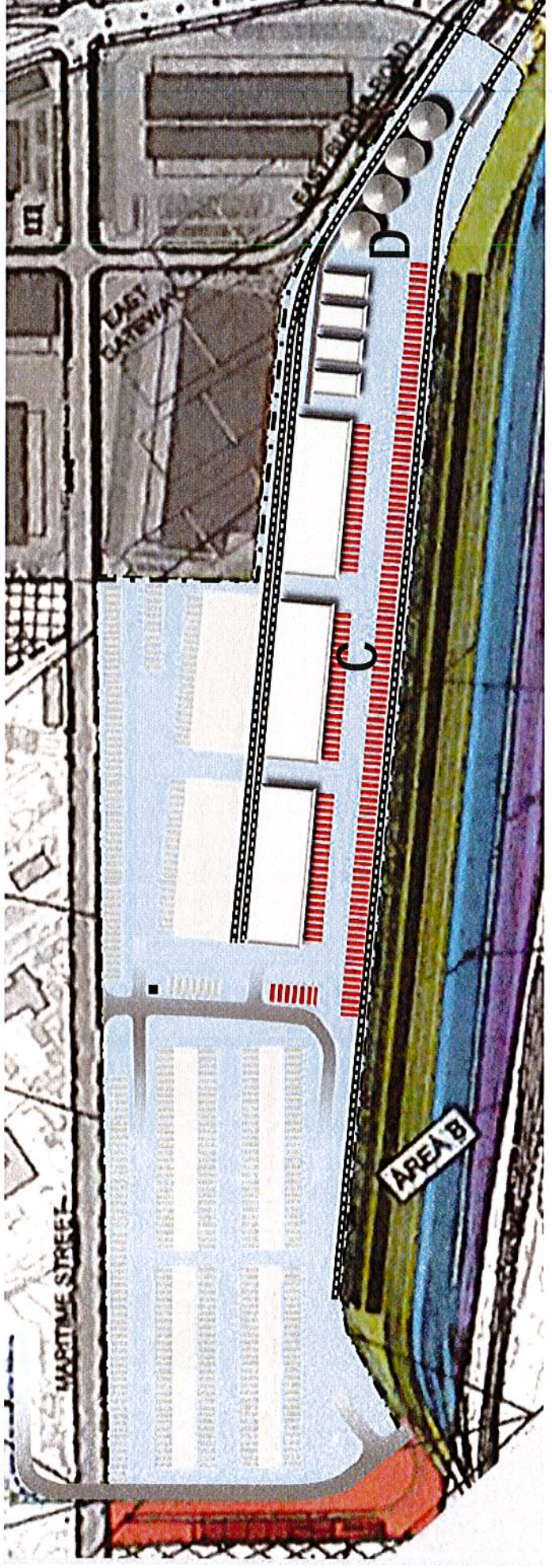


East Gateway 1 – Site C and D

**Please note, these site layouts are based on the uses defined by the market analysis done by Moffatt & Nichol and are not from either CCIG or ProLogis

East Gateway 1	C) General Cargo Export
Area:	21.3 Acres
Building Footprint:	300,000 Square Feet
Outside Storage:	412 FEU
Construction Cost:	\$29,300,000
Alternative Use:	Reefer Cargo Export
Other Attributes:	• Favorable size and shape • Direct rail access • Possible dedicated port and intermodal access

East Gateway 1	D) Dry Bulk Agricultural Export
Area:	10.9 Acres
Building Footprint:	52,000 Square Feet
Outside Storage:	218 FEU
Construction Cost:	\$13,100,000
Alternative Use:	Other Dry Bulk Cargo Export
Other Attributes:	• Favorable size and shape • Direct rail access • Possible dedicated port and intermodal access

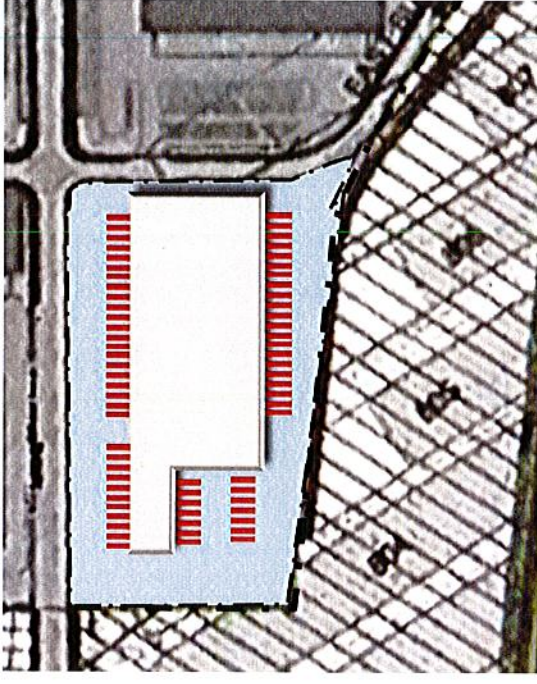




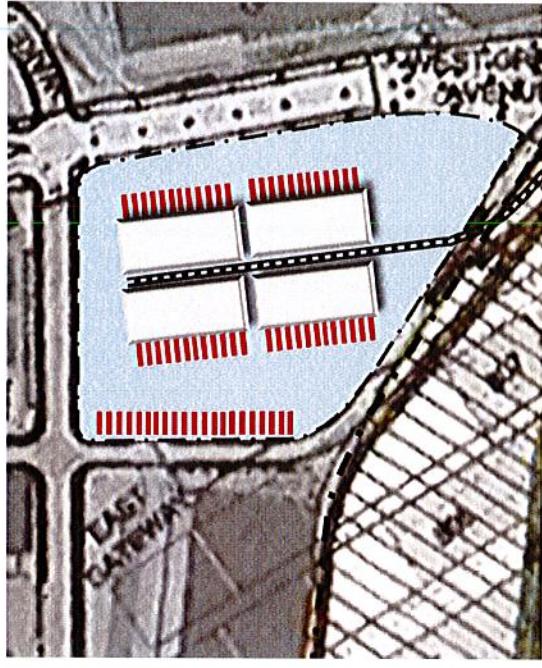
East Gateway 2

**Please note, these site layouts are based on the uses defined by the market analysis done by Moffatt & Nichol and are not from either CCIIG or ProLogis

East Gateway 2	Import Distribution Center
Area:	15.9 Acres
Building Footprint:	250,000 Square Feet
Outside Storage:	289 FEU
Construction Cost:	\$23,100,000
Alternative Use:	General Cargo Export
Other Attributes:	• Favorable size and shape • Possible direct rail access • No dedicated port and intermodal access



East Gateway 3	Other Dry Bulk Cargo Export
Area:	16.2 Acres
Building Footprint:	168,000 Square Feet
Outside Storage:	315 FEU
Construction Cost:	\$17,700,000
Alternative Use:	General Cargo Export
Other Attributes:	• Favorable size and shape • Possible direct rail access • No dedicated port and intermodal access

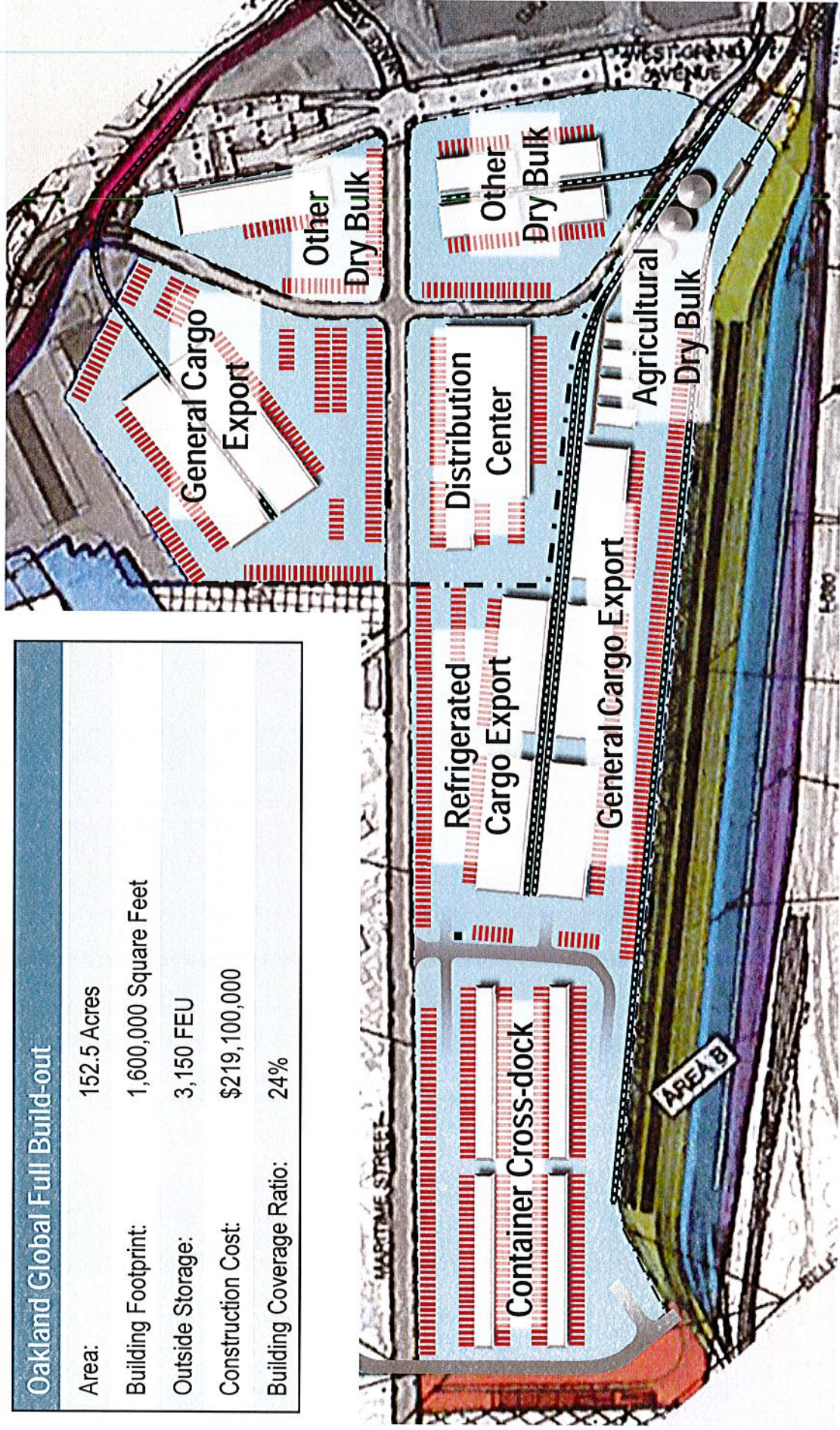




Oakland Global – Full Build-Out

**Please note, these site layouts are based on the uses defined by the market analysis done by Moffatt & Nichol and are not from either CCLG or ProLogis

Oakland Global Full Build-out				
Area:	152.5 Acres			
Building Footprint:	1,600,000 Square Feet			
Outside Storage:	3,150 FEU			
Construction Cost:	\$219,100,000			
Building Coverage Ratio:	24%			





Conclusions



Conclusions by Category

Refrigerated Logistics Facilities:

- Opportunity for OAB Attraction:
 - This is a very promising cargo segment based on the potential volumes of export meats and other protein products coming from the Midwest
 - Currently there are no “state of the art” facilities located in the Oakland area, the closest is the M&L Commodities facility in Stockton
 - Heavyweight corridor access is a plus for an OAB site
 - A provider that has good customer relationships and expertise in the regulatory side of temperature controlled cargo movement is critical
 - As last port of call with good rail connections and additional rail infrastructure being added, Oakland is in a very good position to attract cargo in this segment



Conclusions by Category

Export Oriented Facilities – Dry Bulk to Container

- Opportunity for OAB Attraction:
 - Bulk to container products are generally low value and thin margin
 - Competitive handling, rail and transload rates are required to attract this cargo
 - An efficient, third-party rail operation for manifest carload traffic is required
 - Significant volumes could be captured from Kansas, Missouri and Nebraska via UP Railroad
 - Heavyweight corridor and direct railcar to container in the port area could be very attractive for this cargo segment
 - Bulk transload process would have to be enclosed or contained to minimize dust
- Use of new technologies in a specialized facility for agricultural products such as Identify Preserved (IP) and non-GMO soybeans could provide unique market opportunity



Conclusions by Category

Import Logistics Deconsolidation Facility:

- Opportunity for OAB Attraction:
 - BCO's will require first port of call vessels at the Port of Oakland
 - Road and rail connectivity key
 - Focus attraction strategies on deconsolidation operators with similar records of success such as Cal Cartage, Damco, Yusen Logistics and others
 - Potential cost savings based on being close to the terminal facilities and to the rail (potential cost savings of approximately \$300 per container)
 - Heavy inbound cargo for BCO's like Home Depot, Lowes and Dollar General need to move within the heavyweight corridor, this could be an advantage for Oakland
- Mid size BCO's could use Oakland gateway in either a regional distribution strategy or a national distribution strategy



Revenue Model



OGRE Phase I – Manifest Rail Cargo Revenue Model

Assumptions

Growth assumptions – Containerized Volumes

- Given an efficient third party rail system and logistics capabilities in Oakland, cargoes that are currently going to other ports such as Long Beach, Richmond CA, Stockton and others in this region could potentially be attracted to move through the OGRE served facilities
- Based on the Freight Analysis Framework (FAF) data, Animal Feed and Food Products account for the largest export volumes with refrigerated Meats as another target commodity, these form the basis for the volumes in the revenue model
- Largest geographic opportunity area for target commodities comes from Kansas, Missouri and Nebraska
- Container growth takes the recent intermodal growth Compound Annual Growth Rate (CAGR) of 4% per year and assumes that it decays over the next decade to trend with overall railcar loading growth of 1.8%

Growth Assumptions - Non-Containerized volumes

- Using the historical CAGR of railcar loadings of the identified commodities from the American Assoc. of Railroads (AAR) data, the consulting team assumes these volumes will trend with the overall long-term loadings of all goods (ex energy) of 0.6% per year

Market Capture Rate

- The consulting team assumes a conservative initial capture rate of 10% of the container market – 4400 railcars or 1 train per week of roughly 85 cars
- For the non-container market which represents cargo that is harder to capture as the mode type is switching to containerized at the port, the consulting team assumes an initial capture rate of 5% or 5200 railcars per year, roughly 1 train of 100 cars per week

*Note – the model developed is meant to serve as a baseline growth model



Revenue Model – Year One Estimates

Year One Estimates				
Containerized Goods	Market Variables			Revenue Variables
	2nd Market Opp (TEU)	Railcar Conversion (TEU/Railcar)	# of Railcars	Assumed Capture %
Animal Feed	101,357	4	25,339	10%
Agricultural Products	25,445	4	6,361	10%
Other Foodstuffs (including Dairy)	25,386	4	6,347	10%
Meats - Beef, Pork	5,920	4	1,480	10%
Existing railcar volumes - annually				
Total	158,108		39,527	
				Captive Railcars
				\$Rev/Car Low \$Rev/Car High
				2,534 \$200 \$250
				636 \$200 \$250
				635 \$200 \$250
				148 \$200 \$250
				480 \$200 \$250
				4,433
				Container Revenue Estimates
				Low High
				\$506,785 \$633,481
				\$127,225 \$159,031
				\$126,930 \$158,663
				\$29,600 \$37,000
				\$96,000 \$120,000
				\$886,540 \$1,108,175
Non-containerized Goods	Market Variables			Revenue Variables
	2nd Market Opp (Tons)	Railcar Conversion (Tons/Per)	# of Railcars	Assumed Capture %
Other Foodstuff	937,000	100	9,370	5%
Animal Feed	246,000	106	2,321	5%
Meats - Beef, Pork	13,000	60	217	5%
Cereals, Grains	353,000	110	3,209	5%
Total	1,549,000		15,117	
				Captive Railcars
				\$Rev/Car Low \$Rev/Car High
				469 \$200 \$250
				116 \$200 \$250
				11 \$200 \$250
				160 \$200 \$250
				756
				Non-Container Revenue Estimates
				Low High
				\$93,700 \$117,125
				\$23,208 \$29,009
				\$2,167 \$2,708
				\$32,091 \$40,114
				\$151,165 \$188,956
				5,189
				\$1,037,705 \$1,297,131

- Revenue split (from Class I railroads) estimate of \$200 - \$250 per railcar derived based on information gathered from third party rail tariff study and confidential interviews
- Class I's will normally include this revenue split in the overall line haul rate to the end customer (BCO)



Revenue Model - Projections

Projections

Containerized Goods			
Yr	2nd Market Opp # of Rail Cars	Existing	Total Railcars
1	39,527	480	40,007
2	41,114	499	41,613
3	42,652	518	43,170
4	44,129	536	44,665
5	45,537	553	46,090
6	46,864	569	47,433
7	48,101	584	48,685
8	49,237	598	49,835
9	50,266	610	50,876
10	51,177	621	51,799

Non-Containerized Goods			
Yr	2nd Market Opp # of Rail Cars	Existing	Total Railcars
1	15,117	0	15,117
2	15,103	0	15,103
3	15,103	0	15,103
4	15,117	0	15,117
5	15,146	0	15,146
6	15,188	0	15,188
7	15,244	0	15,244
8	15,315	0	15,315
9	15,400	0	15,400
10	15,500	0	15,500

Total	2nd Market Opp # of Rail Cars	Existing	Total Railcars
Yr			
1	54,644	480	55,124
2	56,217	499	56,716
3	57,755	518	58,273
4	59,247	536	59,783
5	60,683	553	61,235
6	62,052	569	62,621
7	63,345	584	63,929
8	64,553	598	65,151
9	65,666	610	66,277
10	66,678	621	67,299

10Yr Revenue Total

Container Revenue Estimates (Today \$)

Captive Railcars	Low	High
4,433	\$886,540	\$1,108,175
5,372	\$1,074,409	\$1,343,011
6,284	\$1,256,762	\$1,570,952
7,155	\$1,431,057	\$1,788,821
7,974	\$1,594,757	\$1,993,447
8,727	\$1,745,373	\$2,181,717
9,403	\$1,880,508	\$2,350,635
9,990	\$1,997,903	\$2,497,379
10,477	\$2,095,481	\$2,619,351
10,857	\$2,171,388	\$2,714,235

Non-container Revenue Estimates (Today \$)

Captive Railcars	Low	High
756	\$151,165	\$188,956
895	\$178,997	\$223,746
1,021	\$204,173	\$255,216
1,134	\$226,762	\$283,453
1,234	\$246,819	\$308,524
1,322	\$264,384	\$330,480
1,397	\$279,482	\$349,353
1,461	\$292,124	\$365,155
1,512	\$302,305	\$377,882
1,550	\$310,008	\$387,510

Total Revenue Estimates (Today \$)

Captive Railcars	Low	High
5,189	\$1,037,705	\$1,297,131
6,267	\$1,253,406	\$1,566,757
7,305	\$1,460,935	\$1,826,168
8,289	\$1,657,819	\$2,072,274
9,208	\$1,841,577	\$2,301,971
10,049	\$2,009,758	\$2,512,197
10,800	\$2,159,990	\$2,699,988
11,450	\$2,290,027	\$2,862,534
11,989	\$2,397,786	\$2,997,233
12,407	\$2,481,396	\$3,101,745
	\$18,590,399	\$23,237,999



Present Value of Revenues

Present Value of Revenues		
	Low	High
5%	\$13,847,746	\$17,309,683
7%	\$12,417,699	\$15,522,124
9%	\$11,187,844	\$13,984,805
11%	\$10,125,170	\$12,656,463



Port of Oakland

Capital Investment

- Limited CIP program.
- Bond rating recently upgraded from A to AA-
- Use of Tiger Grant and State Prop 1-B funds for key initiatives such as the OAB Development and the Shore Power program.

Labor

- Past labor issues at port have left a negative public perception that will require substantial time and effort to be improved.
- ILWU support of Occupy movement port closure still a sore point with carriers and BCO's.
- Type of labor for planned facilities at the OAB has not been determined, threat of ILWU jurisdiction a problem.
- Living wage policy in Oakland results in higher labor rates than other port gateway regions, resulting in lack of competitiveness.

Rail Connectivity

- UPRR and BNSF connectivity to site through third party rail – cost benefit for transload cargo.
- Rail rates from Oakland to key inland markets not as competitive as from LA/Long Beach or Seattle/Tacoma.
- Improvements to transits to major inland markets from the Port of Oakland would be required to attract intact intermodal volume increases

Real Estate Facilities in Port Area

- Limited real estate available in the area immediately surrounding the port – provides great opportunity for OAB development.
- Goodman-Birtcher has recently completed a 375,000 sq. ft. Class A, speculative warehouse/distribution facility near the Oakland Airport. This is the first project of its size and quality in over a decade and indicates the East Bay region's industrial real estate sector is improving.

Leadership - Community Support

- Port of Oakland needs to show more leadership with BCO's, engaging with these important stakeholders, taking a more pro-active commercial approach.
- The Port also needs to work with state leadership to promote trade related job growth.
- City leadership needs to support Port initiatives also.
- Support from the city on the OAB project, state support via the Prop 1-B funds, Federal support through Tiger Grant funds.

Market Attributes

- Port of Oakland has deep water and two consolidated terminals with capability of handling larger vessels.
- The market area served by the Oakland gateway is considerable with approximately 6.8 million people in the greater bay area alone.
- Oakland is a great export location, serving the majority of the central valley dried fruits and nuts as well as wine, tomato paste, animal feed and other key export commodities.



OAB Development – Phase I

- Approximately \$500 million in funds have been identified for Phase I of the Oakland Army Base Redevelopment project, sources include:
 - \$242 million in State of California Trade Corridor Infrastructure Funds (TCIF)
 - \$54 million from the City of Oakland
 - \$16 million in Port of Oakland Funds
 - \$15 million in Federal Tiger Grant Funds
 - \$172 million in private funds from CCIG, ProLogis, California Waste Solutions and CASS

Capital Investment

Labor

- Master Developer Project Labor Agreement
- City of Oakland Project Labor Agreement
- City of Oakland Small/Local Business Enterprise Program
 - 25% of contracts to local businesses
 - 25% of contracts to small local businesses
- Project-funded Community Job and Resource Center
- Construction Jobs Policy for Public Infrastructure Improvements
 - 50% of hours performed by residents
 - 20% of hours performed by apprentices
 - 25% apprentice hours performed by disadvantaged workers
- Operation Jobs Policy for Central, East and West Gateways
- OGRE final mile operations will use union labor

Rail Connectivity

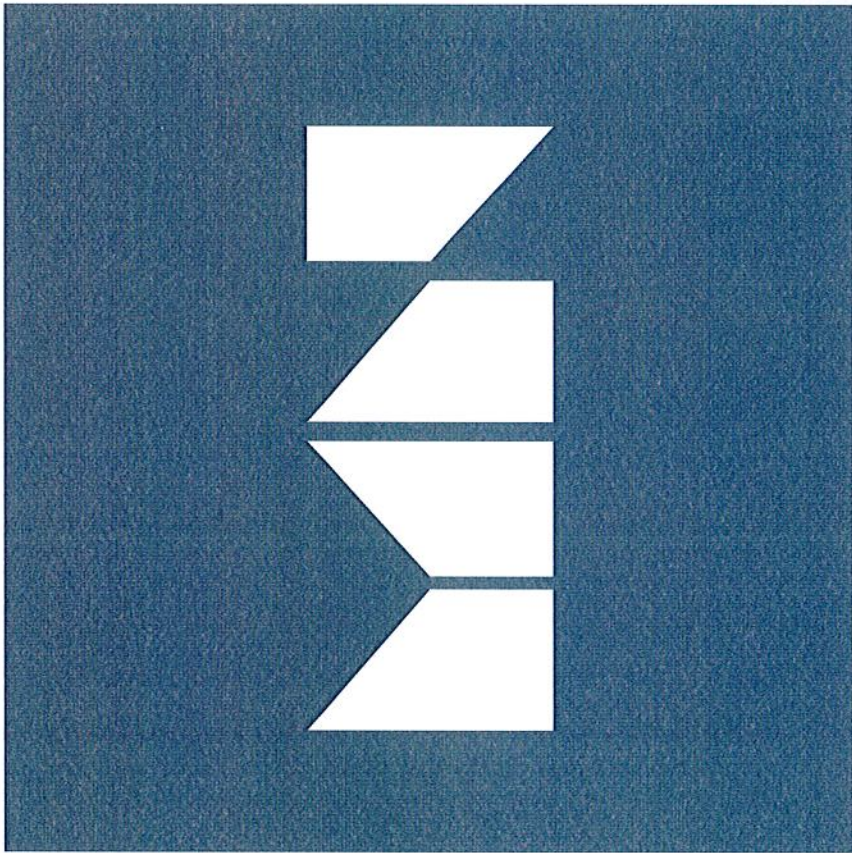
- Oakland Global Rail Enterprise (OGRE) will serve as the final mile rail operator, providing connectivity between UPRR and BNSF for manifest railcar deliveries to logistics facilities within the Oakland Global Trade and Logistics Center
- OGRE will also provide service for unit trains of bulk cargo moving to the planned Oakland Bulk and Oversize Terminal

Leadership - Community Support

- Project Team has conducted 200+ public hearings and community outreach events
- Ongoing quarterly Air Quality Monitoring updates to community groups and project stakeholders
- Project Cooperation Agreement between City, Unions and Community Based Organizations
 - Establishment of OAB Jobs Oversight Commission
 - Establishment of Jobs Policy Implementation Committees

Market Attributes

- Rail services provided by OGRE will create a more comprehensive, integrated rail transportation network, allowing the Port of Oakland to compete for large, potential movements of bulk to container, export commodities
- The combination of rail, deep water, state-of-the-art logistics facilities and major interstate roadways at the Oakland Global Trade and Logistics Center, served by OGRE as well as access to major populations centers in the greater Northern CA region provide market differentiation for this project.





Source Materials

- “Oakland Global Rail Enterprises (OGRE) Business Case Executive Summary” - CCIIG, March 2013
- “Oakland Bulk and Oversize Terminal (OBOT) Executive Summary” - CCIIG, March 2013
- “Oakland Army Base Rail Yard Consultation Study” – Steven Lautsch and Alan Davis for the Port of Oakland, May 2013
- “Evaluation of OGRE Projects” - Railroad Industries Inc., April 2014
- “Oakland Army Base Rail Master Plan Report” - HDR Engineering Inc., February 2012
- Confidential Interviews conducted with Freight Forwarders, Transload Operators, BCO’s, Ocean Carriers and other industry experts



Appendix



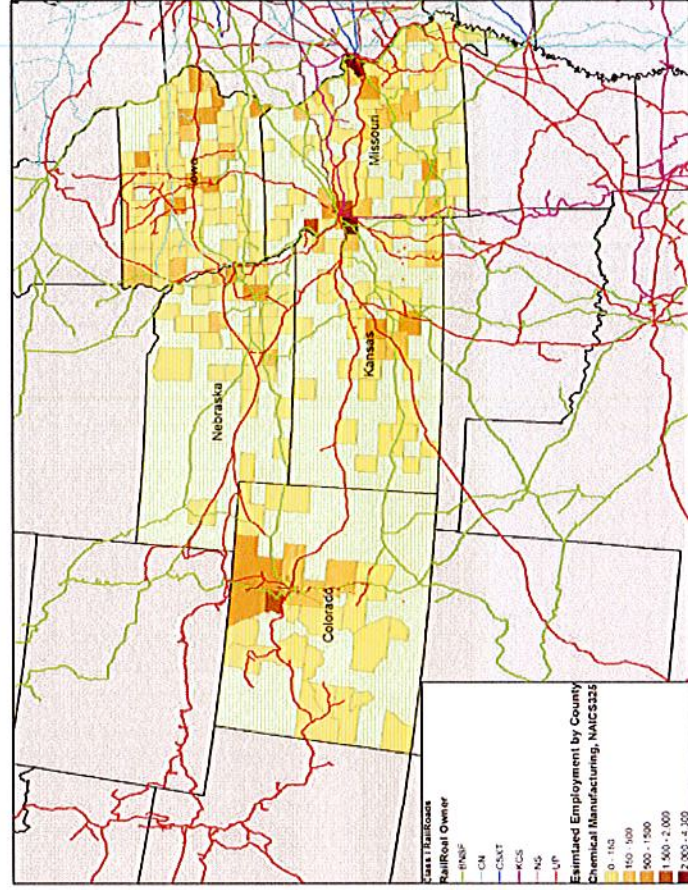
Chemical Manufacturing Locations

Basic Chemicals

	Portland	LALB	Oakland	SeaTac	Total	Opportunity
KANSAS	121	24,473	0	38	24,633	24,633
MISSOURI	0	786	2	135	924	922
NEBRASKA	0	289	30	25	344	314
COLORADO	0	101	22	5	129	107
IOWA	0	516	12	22	550	538
Total:	121	26,166	66	225	26,579	26,513

Chemical Products

	Portland	LALB	Oakland	SeaTac	Total	Opportunity
KANSAS	0	847	2	86	935	933
MISSOURI	3	3,726	557	296	4,583	4,025
NEBRASKA	0	190	11	28	229	218
COLORADO	0	276	116	326	717	601
IOWA	0	818	156	45	1,019	863
Total:	3	5,857	842	781	7,482	6,640

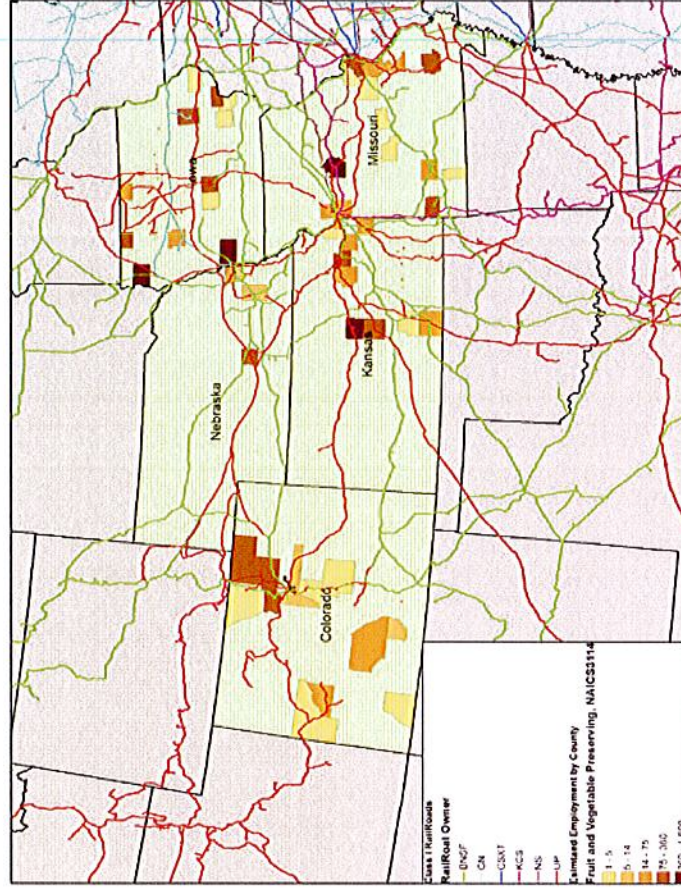




Other Foodstuff Manufacturing Locations

Other Foodstuff

	Portland	LALB	Oakland	SeaTac	Total	Opportunity
KANSAS	11	16,271	680	42	17,004	16,324
MISSOURI	27	2,826	266	330	3,449	3,183
NEBRASKA	0	772	1,130	2,858	4,760	3,630
COLORADO	0	392	1,345	44	1,781	436
IOWA	6	1,391	995	416	2,808	1,813
Total:	44	21,652	4,416	3,690	29,802	25,386

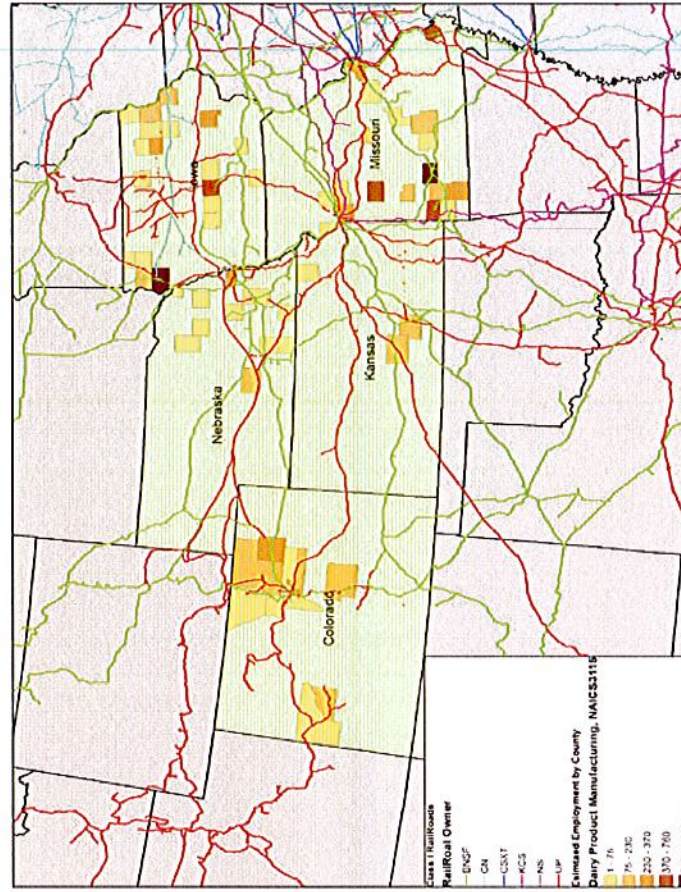




Dairy Product Manufacturing Locations

Other Foodstuff

	Portland	LALB	Oakland	SeaTac	Total	Opportunity
KANSAS	11	16,271	680	42	17,004	16,324
MISSOURI	27	2,826	266	330	3,449	3,183
NEBRASKA	0	772	1,130	2,858	4,760	3,630
COLORADO	0	392	1,345	44	1,781	436
IOWA	6	1,391	995	416	2,808	1,813
Total:	44	21,652	4,416	3,690	29,802	25,386

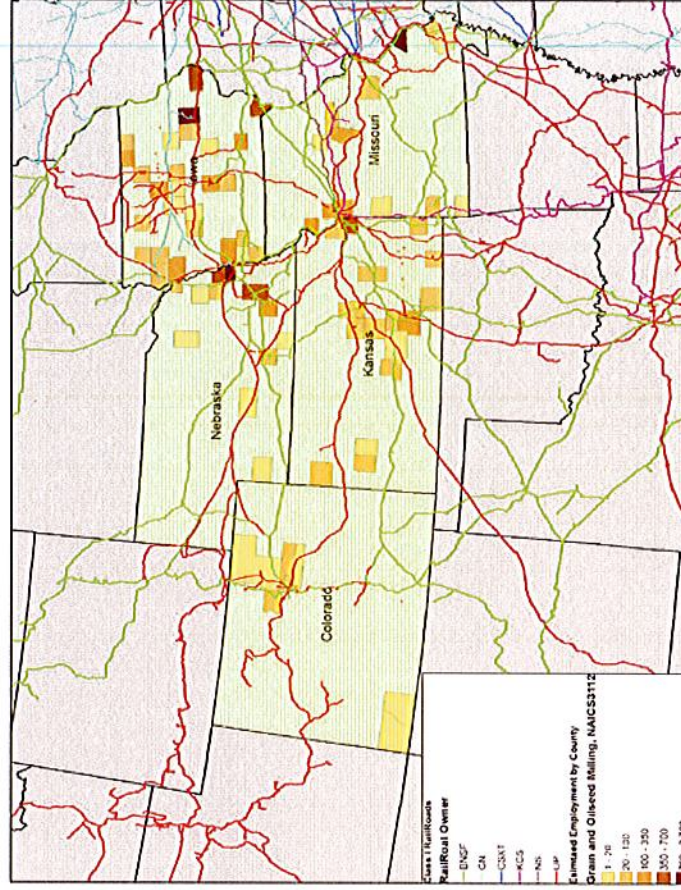




Grain and Oilseed Milling Locations

Milled grain prods.

	Portland	LALB	Oakland	SeaTac	Total	Opportunity
KANSAS	51	3,162	132	86	3,430	3,298
MISSOURI	0	606	828	326	1,760	932
NEBRASKA	0	26	113	11	151	37
COLORADO	0	14	226	10	251	24
IOWA	0	1,044	336	9	1,389	1,053
Total:	51	4,852	1,635	442	6,980	5,345

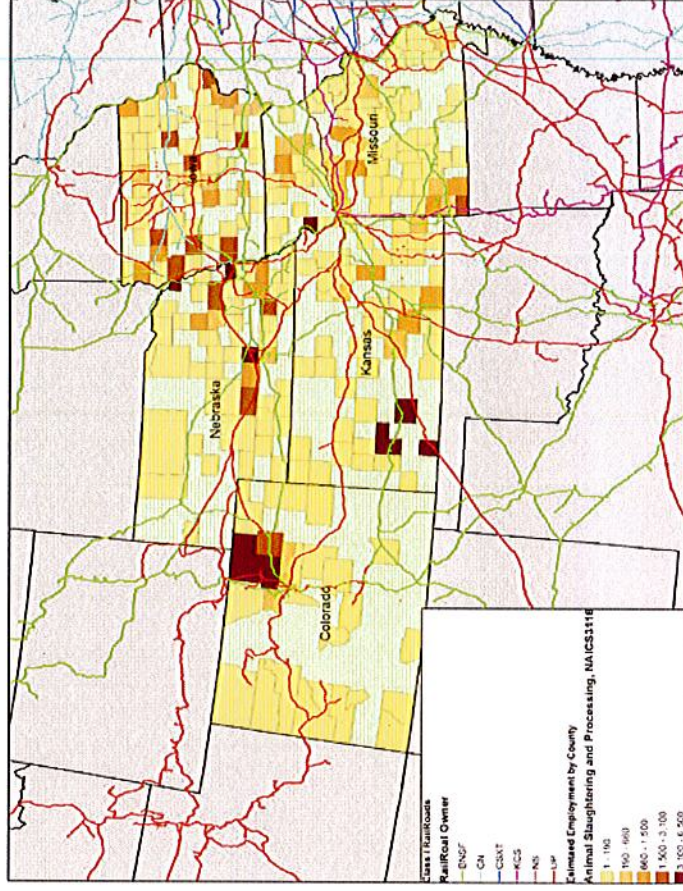




Animal Slaughtering and Processing Locations

Beef/Pork

	Portland	LALB	Oakland	SeaTac	Total	Opportunity
KANSAS	0	1,232	1,830	153	3,215	1,385
MISSOURI	0	823	1,643	924	3,391	1,747
NEBRASKA	0	416	3,516	362	4,294	778
COLORADO	3	337	2,104	151	2,596	492
IOWA	0	1,326	3,488	192	5,006	1,518
Total:	3	4,134	12,582	1,782	18,502	5,920





JOC Top 100 Exporters – 2012 for Target Commodities

Exporter	Commodity	JOC Ranking	TEU Shipped
Cargill	Fertilizers	15	69,100
ADM	Agricultural Products	16	63,300
Delong	Animal Feed/Grain	18	61,600
JBS USA	Refrigerated Meats/Poultry	19	60,500
Tyson Foods	Refrigerated Meats/Poultry	32	42,300
Lansing Trade Group	Grains/Oil Seeds/Chemicals/Frac Sand	34	42,000
Scoular	Agricultural Products/Foodstuffs	36	38,700
Gavilon	Animal Feed/Grain	40	32,900
AJC Intl.	Refrigerated Foods/Poultry	41	32,400
Smithfield Foods	Refrigerated Meats/Foodstuffs	44	30,700
Conagra Foods	Foodstuffs	45	30,600