Freight Transportation and Location Decisions

National Association of Development Organizations

NATIONAL RURAL TRANSPORTATION CONFERENCE

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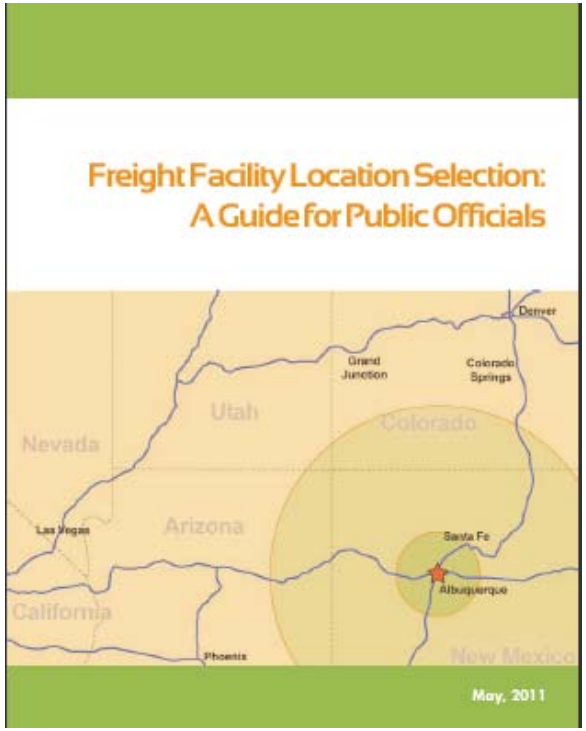
CWS Consulting Group LLC
Location Strategies for Business and Economic Development

Our Work

NCFRP Report 13 *– Economic and Transportation Drivers Impacting Location Decisions*

- informs public-sector planners and decision makers about the key criteria that the private sector considers when siting logistics facilities,
- informs the public sector about the complexity of the various facility types and the role they play
- enhances the potential for successful projects.



Why Does Freight Matter

- Freight is the lifeblood of the American Economy
- Over 60 million tons of freight moves through the U.S. freight transportation system daily, representing roughly $40 billion in goods
- Efficient movement of freight allows the best use of our transportation facilities, protects the environment, and reduce energy requirements
- Processing of freight and intermediate processing represent economic development opportunities in jobs and investment

Common Obstacles to Good Freight Transportation Policy

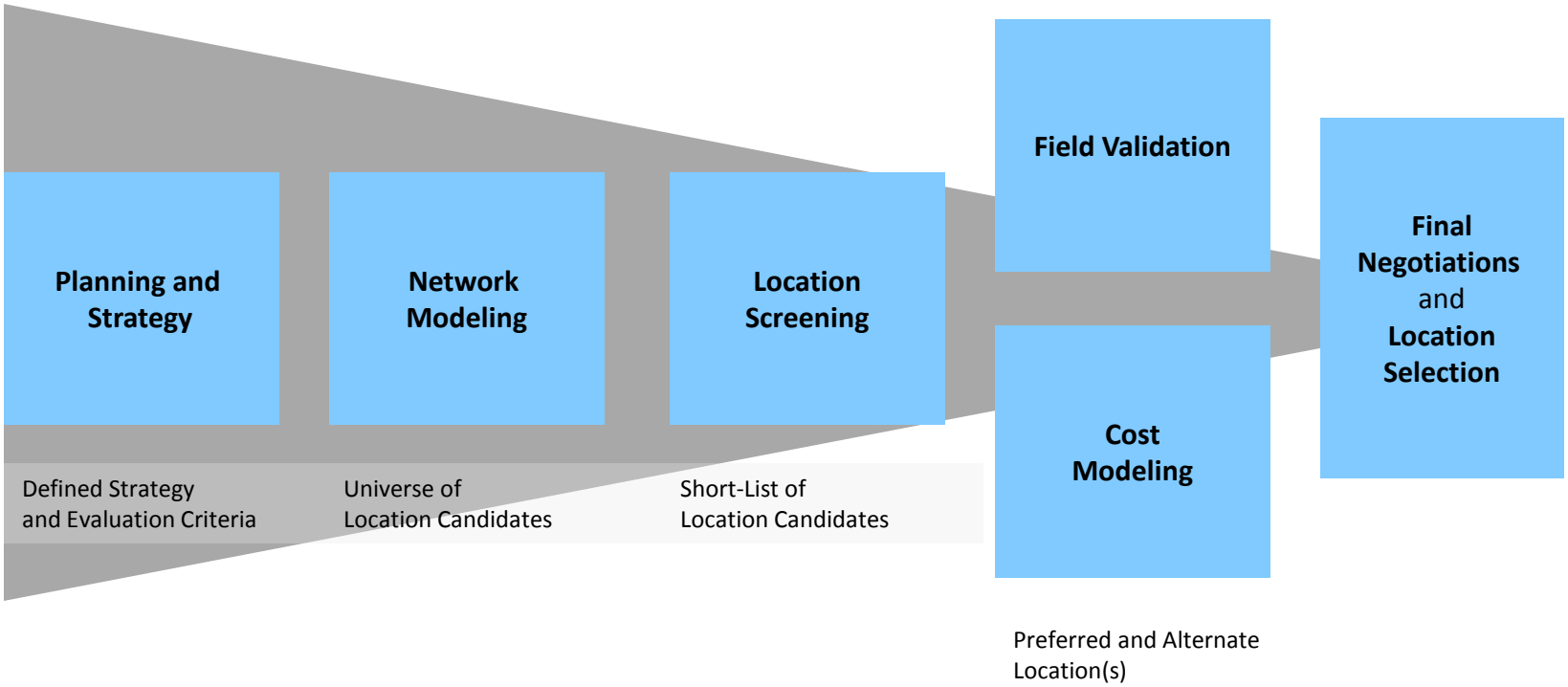
- Misunderstanding of the community's role in the global/regional/local transportation network
- Incomplete understanding of the role of freight facilities in the economy
- Lack of coordination among and between planning, economic development, and transportation agencies
- Lack of regional cohesiveness

Facility Placement & Priorities

- Locations fit in a network fulfilling a business process
- Network optimizes business drivers to serve a market franchise
- ➡ Location process is expression of network strategy

Location Process

The Location Process allows for progressive testing and narrowing of alternatives based on business drivers



Key Location Criteria

- Ability to Access Key Markets or Customers
- Interaction with Transportation Network
- Labor and Workforce
- Total Cost Environment
- Availability and Cost of Suitable Facilities
- Utilities
- Permitting and Regulation
- Tax Environment
- Public Sector Assistance and Incentives
- Climate and Natural Hazards

Site Selection Factors by Facility Type

Site Selection Criteria by Facility Type

Location Criteria	Type of Logistics Facility						
	Distribution Center	Port	Intermodal Terminal	Transload Terminal	ILC	Hub Terminal	City Terminal
Ability to Access Key Markets or Customers	●	◑	●	●	●	◑	●
Interaction with Transportation Network	●	●	●	●	●	●	●
Labor and Workforce	◑	●	◑	◑	◑	◑	◑
Total Cost Environment	◑	●	◑	◑	◑	●	◑
Availability and Cost of Suitable Facilities	○	○	○	◑	○	◑	●
Utilities	○	○	○	○	◑	○	○
Permitting and Regulation	○	○	◑	◑	○	○	○
Tax Environment	○	◑	○	○	○	○	○
Public Sector Assistance and Incentives	○	○	○	○	◑	○	○
Climate and Natural Hazards	○	◑	○	○	○	◑	○

Key
Priority of Criteria: ● Primary Factor ◑ Important Factor ○ Lesser Factor

Case Study Site Characteristics and Transportation Access

Facility Type	Case Study	Size	Transportation Access	Freight Handled
Inland Port	Virginia Inland Port (Front Royal, VA)	161 acres	One Class 1 Railroad (NS), within 5 miles of I-66 and I-81	Intermodal containers
Intermodal Terminal	Rickenbacker Intermodal Terminal (Columbus, OH)	175 acres	Two Class 1 Railroads (NS & CSX), within 5 miles of I-270 and Highways 23 and 33, Airport within 1 mile	Primarily intermodal containers
Bulk or Transload Terminal	Savage Safe Handling (Auburn, ME)	210 acres	One Shortline Railroad (SLA), within 3 miles of I-95	Chemicals, plastic pellets, liquid fuels
Distribution Center	Family Dollar	75 acres, 1.2 million sq ft for buildings	Direct ramp to I-10 Highway	Consumer retail goods
Warehouse	Murphy Warehouses	Average 250,000 to 300,000 sq ft for buildings	Rail, Interstate highways	Food, beverages, paper, plastics
Integrated Logistics Center	Alliance Texas (Fort Worth, TX)	11,600 acres	Two Class 1 Railroads (BNSF & UP), I-35W, Rtes 170 & 114 within 1 mile, Cargo Airport on-site	Primarily intermodal containers
Hub Terminal	Old Dominion (Morristown, TN)	65 acres	Adjacent to I-81	Consumer retail goods

Benefits and Drawbacks of Freight Facilities

Facility Type	Case Study	Direct & Indirect Jobs	Freight Volume	Transportation Impacts
Port	Virginia Inland Port (Front Royal, VA)	17 direct jobs, over 8,000 indirect jobs	33,600 containers (2008)	5.4 million VMT reduction, $105,000 greenhouse gas emission savings,
Intermodal Terminal	Rickenbacker Intermodal Terminal (Columbus, OH)	Approximately 150 direct jobs at Intermodal facility, projection of 20,000 jobs at freight industrial park	250,000 annual "lifts"	49 million fewer truck miles in Ohio in 10 years - $2 M in pavement maintenance savings, $2,45 M in accident reductions
Bulk or Transload Terminal	Savage Safe Handling (Auburn, ME)	100 direct jobs	500,000 tons per year – 5,000 railcars per year	$619,500 accident reduction, $506,000 pavement maintenance from using rail over truck
Distribution Center	Family Dollar (Marianna, FL)	515 direct jobs; catalyst to another 155 DC jobs	90 trucks/day – 32,000 trucks per year	
Warehouse	Murphy Warehouses	20 direct jobs	10,000+ carloads per year, throughput of 6,500 tons daily	1.3 million VMT reduced annually . 6,730 fewer greenhouse gas tons emitted
Integrated Logistics Center	Alliance Texas (Fort Worth, TX)	28,000 direct jobs ; 63,388 indirect jobs	600,000 intermodal rail lifts per year	

Suggested First Steps

Learn

- "Build it and they will come" is not an effective strategy*
- Becoming educated on freight drivers = ability to effectively plan for such facilities
- Full understanding of community impacts (both positive and negative) can lead to higher quality decisions

Examine

- Where is your community (region) located within the freight network?
- Understand which facility types and functions match their own community strengths and provide a competitive advantage

Suggested First Steps

Plan

- Coordinate economic development, land use, transportation planning
- Identify appropriate sites and areas for freight development
- Build effective zoning, regulatory and incentive policies

Talk

- Develop a regional dialogue on freight, planning, and economic development
- Educate and engage residents and the business community on costs, benefits, and goals for freight development

THANK YOU

Christopher Steele
Chris.Steele@cwsgrp.com

Telephone: 617-314-6527

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NCFRP 23/Report 13 Website
www.freightlocation.org