SHRP 2 Capacity Project C15

# Integrating Freight Considerations into the Highway Capacity Planning Process: Practitioner's Guide

*PREPUBLICATION DRAFT • NOT EDITED*

SHRP 2
STRATEGIC HIGHWAY RESEARCH PROGRAM
*Accelerating solutions for highway safety, renewal, reliability, and capacity*

TRANSPORTATION RESEARCH BOARD
*OF THE NATIONAL ACADEMIES*

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# SHRP 2 C15 Integrating Freight Considerations into the Highway Capacity Planning Process

*Practitioner's Guide*

final

**report**

*prepared for*

**Strategic Highway Research Program 2**

*prepared by*

**Cambridge Systematics, Inc.**

*November 2013*

**www.camsys.com**

*final report*

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# About the Guide

The nation's freight shippers, receivers, and carriers depend on transportation agencies to provide new highway capacity to meet the demands of growing domestic commerce and international trade. Yet, the traditional highway planning process has not broadly engaged these freight stakeholders in the planning process. As state departments of transportation (DOT) and metropolitan planning organizations (MPO) make efforts to improve the quality of their interaction with the freight community, *SHRP 2 C15, Integrating Freight Considerations in Additions to the Highway Capacity Planning Process*, offers timely guidance and best practices examples. Strategic Highway Research Program 2 (SHRP 2) C15 was developed primarily through interviews and case studies collected through discussions with public and private-sector freight stakeholders across the U.S. The case studies and other research culminated in a guide that utilizes the four-phase SHRP 2 highway planning framework to help agencies know when, how, and who to engage from the freight stakeholder community at each stage: Long-Range Transportation Planning, Corridor Planning, Programming, and Environmental Planning and Permitting.

# 1.0 Introduction

## 1.1 History of Freight Planning

The practice of freight transportation planning has evolved significantly over the last decade, catalyzed by the enhanced freight planning requirements embodied in Safe Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and a growing national concern about insufficient freight capacity. The U.S. Department of Transportation (DOT), state DOTs, and metropolitan planning organizations (MPO) – the entities largely responsible for planning, programming, and delivering transportation projects – have started to invest in personnel, training, data, and consulting expertise to build freight programs that take into account the needs of freight stakeholders. This rise of freight planning reflects a broadening recognition of the economic, social, and environmental benefits of efficient goods movement. More recently, freight planning acknowledges the risk of diminishing transportation infrastructure productivity without wise planning and reinvestment, especially in our national highway system. Legislation reauthorizing the National highway program, the Moving Ahead for Progress in the 21st Century (MAP-21), enacted in July of 2012, enhances many of the concepts relating to freight from SAFETEA-LU, including the endorsement of freight advisory groups and development of statewide freight plans. As it is implemented, the law will help institutionalize many of the recent efforts to improve freight planning practices by DOTs and MPOs and promote freight mobility and capacity as very critical issues for planners throughout the United States to consider (http://www.fhwa.dot.gov/map21/).

Since the completion of the Interstate system in the 1970s, our nation's highways have become our commercial lifeline. Even with the recent resurgence of freight-rail in the U.S., the 2007 Commodity Flow Survey (CFS) shows that trucks continue to move nearly one-half of all freight ton-miles (46 percent, the same proportion as freight-rail). More importantly, the CFS indicates that U.S. highways carry the vast majority of commodity value – over $9.5 trillion in 2007, representing nearly 90 percent of national freight value and nearly 70 percent of 2007 gross domestic product (GDP). These statistics represent unprecedented growth of freight movement across all modes – especially highways – made possible by the capacity investments of previous decades, freight modal deregulation, technology, consumer affluence, and international trade.

Interest in freight planning surged in the late 1990s as the freight industry and policy-makers realized that productivity gains from earlier investments were beginning to diminish. Around that time, the national freight system, particularly the highway and road network, began to show signs of overload as freight and passenger growth outpaced capacity. This mismatch was most

pronounced in major urban areas that suffered from heavy congestion and highway bottlenecks, slowing the movement of trucks and adding to the cost of transportation. The pace of growth also began to overwhelm some rural Interstate highways and other U.S. and state arterials as both freight and passenger traffic increased without commensurate investment in new lane-mile capacity. Moreover, it became increasingly apparent that highway system redundancy was lacking, forcing vehicles to travel, for example, on a single, critical corridor[1] and endure congestion because no reasonable alternate route was available.

To address these concerns, leading transportation organizations have developed a growing body of resources to inform and direct freight planning practice. The Transportation Research Board (TRB), the American Association of State Highway Transportation Officials (AASHTO), the Federal Highway Administration (FHWA), and other organizations have developed training materials, studies, and guides to foster expertise and to weave freight considerations into established planning processes. In addition, some states, MPOs, and other transportation planning and programming organizations have started to develop and implement sophisticated mechanisms to systematically and comprehensively address a broad spectrum of goods movement-related issues through their planning activities. While much progress has been made, there remains room for improvement as agencies place greater emphasis on the freight aspects of transportation planning in the future. This project – to synthesize and disseminate best practices of collaborative market-based highway-freight planning – comes at an important point in the country's economic and transportation history as freight and passenger demand eclipse land system capacity.

Within the guide, the term "freight" implies the transport of raw materials, production inputs and finished goods by surface transportation and includes shipments by integrators, FedEx and UPS. It does not pertain to small trucks used in service industries, such as plumbers, electricians, etc., since policy-makers generally count these trucks as passenger vehicles.

## Developing Market-Based Guidance

While this significant and growing body of work provides important insight and instruction, the freight stakeholders with whom the research team spoke

[1] Depending upon the project, the corridor under consideration can be relatively short (i.e., several miles) or quite long (hundreds of miles and possibly run through multiple states). In terms of freight stakeholder involvement, it is easier to engage representatives from the freight community on short corridors because of the relatively confined set of system users and the likelihood that their concerns are relatively homogenous. On the other hand, long corridors have a far greater number of stakeholders with more divergent views and needs.

indicated their appreciation for a comprehensive guide to integrating freight considerations into the highway planning process to enhance the work that already has been produced. In response, the Strategic Highway Research Program 2 (SHRP 2) commissioned the development of this guide specific to integrating freight considerations into highway planning. One critical element of this work is its recognition of the key role private sector freight stakeholders should have in the collaborative planning and decision-making process. Obtaining input from freight system users in the highway planning process is critical for several reasons, including:

- **Economic impacts –** Companies make decisions about cargo-handling facilities (e.g., distribution centers operated by beneficial cargo owners (BCO),[2] warehouses operated by third-party logistics service providers) based on current and future conditions and investments in transportation infrastructure, especially highways. In some cases, route selection is discretionary if alternate routes are available. These decisions affect the economic competitiveness and vitality of communities and regions. Highway planning – to sustain or grow regional economies – must account for the freight decision-making process to realize full growth potential.
- **Market forces –** Freight highway users are sensitive to dynamic market forces. To remain competitive, BCOs as well as motor carriers quickly alter supply chains and transportation patterns to adapt to changing trends, events, conditions, and costs (e.g., fuel prices, availability and cost of labor, sources of production inputs, opportunities in new and existing sales markets, or changing requirements of customers). To make wise investment decisions, highway planners must understand how market forces influence the way BCOs and motor carriers will use the highway system to ensure alignment of public investment in transportation with the needs of industry.
- **Infrastructure needs –** By considering the perspectives of motor carriers and BCOs, states and MPOs may develop a more comprehensive approach to identifying highway needs, including critical commercial flows. Motor carriers can quickly identify system bottlenecks and needed investments based on repeated experience of their drivers. Soliciting direct input from truck drives, not only motor carrier executives and dispatchers, can yield valuable information. Our recent outreach with the freight community in

[2] In the context of the guidebook, a BCO can be either the shipper/supplier/factory or the consignee/receiver/buyer, depending upon the point in time and location at which product ownership and liability transfers between the two parties according to the agreed upon sales terms. Sales terms dictate, among other things, the party responsible for determining the routing and mode of transport. International Chamber of Commerce (INCO) terms of sale are the most commonly used in international trade. Free on Board (FOB) and Free Alongside (FAS) are two common INCO terms.

Maryland suggests relative unanimity among motor carriers in identifying specific highway investment needs.

- **Forecasting flows –** Because of sensitivities to market forces and highway conditions, freight movements are difficult to forecast, especially over the long term. To account for this uncertainty, highway planning efforts should engage knowledgeable logisticians to develop more plausible future scenarios that take into account potential shifts in supply chain strategies.
- **Multijurisdictional –** Effective freight planning requires multijurisdictional cooperation to coordinate public actions and to understand how industries use the system across local boundaries and state lines. When state, regional, and local policy-makers cooperate and align their plans, programs, and outreach, better outcomes result.
- **Environmental outcomes –** Freight operations have a significant impact, both positive and negative, on air quality, land use sustainability, and local environmental conditions (e.g., the National Environmental Policy Act (NEPA)) as motor carrier fleets adapt to changing highway conditions, markets, and technologies (e.g., cleaner diesel, liquid natural gas (LNG), or idling reduction). Motor carriers and BCOs are becoming more aware and concerned about sustainability and there is growing commitment to modifying operations and equipment to improve the quality of the environment.
- **Safe operations –** Similarly, truck fleet operating characteristics must be considered as a part of any sound and realistic strategy to provide a safe operating environment for all kinds of vehicles. For example, public sector transportation agencies should work with industry to identify highway segments that should be improved to enhance safety. Ameliorating safety issues results in improved freight mobility.

## 1.2 GUIDE OBJECTIVE

While there are many aspects of highway freight planning that would benefit from improved methods and best practices guidance, this guide focuses specifically on one aspect. **The objective of this guide is to make highway capacity planning more effective through better engagement of the freight industry**. This guide will help highway planners from state DOTs and MPOs and private industry stakeholders more effectively and collaboratively plan and develop highway capacity improvements to improve goods movement. It identifies appropriate freight considerations and directs state DOTs, MPOs, stakeholders, and other decision makers on how and at which points to integrate these considerations within the transportation planning process leading from the identification of strategies, policies, and projects for highway improvements within long-range plans to final environmental clearance through the NEPA process and permitting of specific highway improvements. The guide integrates

market-based information into the planning process to reduce the likelihood of the public sector making poor project choices (e.g., funding projects that do not align with freight needs or provide little benefit to freight stakeholders). Case studies and best practice examples illustrate successful methods to integrate freight considerations at all stages and phases of project planning to sharpen decision-making leading to better investments serving passenger and goods movement.

Material from the guide – including case studies and major findings – are integrated into the SHRP 2 "Transportation for Communities-Advancing Projects through Partnerships (TCAPP)" website for broader distribution (http://www.transportationforcommunities.com/).

## 1.3 GENERAL APPROACH

To fully account for the important market-driven behavior and interests of the private sector freight community, the research team for the guide organized its actions around a proposed set of seven key freight considerations: economy; industry logistics patterns for transporting raw materials, components, and finished products from point of origin to point of consumption; freight infrastructure; commodity flows; quality of service; environment; and safety. These considerations focus on market forces appropriate to freight planning, but also take into account the six external processes outlined on the TCAPP website (http://www.transportationforcommunities.com/) established by the SHRP 2 program. Those external processes include: air quality conformity, land use, natural environment, human environment, capital improvement, and safety/security.

### Market-Based Freight Considerations

Market-based freight considerations are organized hierarchically to demonstrate a chain of influence starting with the economic demand for goods and culminating with environmental and safety outcomes. Growing demand for goods can lead to higher volume of traffic flows on a regional transportation system by trucks, but not necessarily on a particular route, potentially impacting the performance of the entire system. Economic demand for goods also underpins the logistics and supply chain decisions by industry. BCOs utilize highway infrastructure in a way that maximizes profit by minimizing cost, transit time, and distance between producers and consumers. The way in which the freight industry uses the highway freight system manifests itself through commodity flows of raw materials, production inputs, and finished goods. BCOs and motor carriers react and adjust to the travel conditions (e.g., speed and transit time reliability) to maximize operating efficiency, profits, and quality of service. Their ultimate actions affect the environment and safety outcomes.

The overall efficacy of a region or state's freight infrastructure dictates how well, from an economic and efficiency standpoint, goods and services can flow across

the system. With deficiencies in the freight transportation infrastructure on a systemic level, BCOs and motor carriers may seek out other sources of raw materials and production inputs or markets for finished goods, with rising transportation costs influencing their location decisions. Environmental considerations also play a major role in accommodating freight transportation infrastructure. Issues such as air quality, noise, bright lights, malodorous smells and other affects can contribute to environmental impacts for neighbors in the vicinity of cargo-handling facilities. Paramount to the decision-making process for freight users, safety and security issues help to drive location decisions, routes, and other operational considerations.

Figure 1.1 introduces examples of each of the market-based freight planning considerations and describes how freight interests could be affected by the public planning or project development process.

## Current Planning Practice

The guide links the considerations to the four phases of transportation decision-making of the SHRP 2 program: long-range transportation planning (LRTP); programming with fiscal constraint (PRO); corridor planning studies (COR); and environmental review merged with permitting (ENV). It includes guidance to help transportation agencies recognize when and how to integrate freight considerations into the decision-making process, identifies appropriate freight stakeholders at the most opportune points of engagement, and highlights best practices for effective types of engagement. The basis for identifying the key decision points for freight is the SHRP 2 Decision Flow Diagram, which includes 44 decision points taken by decision makers throughout these four phases of the planning process (http://www.transportationforcommunities.com/). These decision points are presented in Figure 1.2.

## Figure 1.1 Examples of Market-Based Freight Planning Considerations

| Market-Based Freight Considerations | Examples of Planning Considerations<br>*How does the planning or project activity affect….* |
|---|---|
| Economy | • Economic competitiveness (e.g., business retention or attraction)<br>• Employment retention or expansion<br>• Market composition (producer and consumer)<br>• User costs (freight transportation and warehousing)<br>• Passenger-related economic benefits |
| Industry Logistics Patterns | • Supply chain structure<br>• Regional distribution networks (multistate and urban)<br>• Mode share (highway, rail, water, air) |
| Freight Infrastructure | • Multimodal network connectivity<br>• Access to existing/new markets (e.g., to a BCO or manufacturing cluster)<br>• Physical capacity (e.g., lanes, bridges, road elevation or grade)<br>• Operational capacity (e.g., freight throughput as a function of better speed, reliability, information, or changes in truck size and weight)<br>• Corridor chokepoints |
| Commodity Flows | • Freight flows by route (long-distance, regional, and local deliveries)<br>• Commodity movements<br>• Mode choice by commodity (including intermodal movements which may utilize highway for a portion of the trip) |
| Quality of Service | • Improve speed<br>• Enhance reliability (e.g., maintaining flow along key freight corridors)<br>• Driving experience (for freight and passenger vehicles)<br>• Enhance system redundancy (choice of routes)<br>• Cost (tolls, etc.) |
| Environment | • Air quality conformity<br>• Communities (e.g., human environment, urban deliveries, livability)<br>• Land use decisions and vice versa (e.g., location, pattern, Sustainable Growth)<br>• Climate change (e.g., carbon output or infrastructure adaptation)<br>• Natural environment (e.g., water quality, soil, wildlife, NEPA) |
| Safety and Security | • Safety (e.g., crash rates, types of crashes, locations of crashes, severity of crashes)<br>• Security of critical infrastructure<br>• Hazardous materials movement<br>• Safe movement of over-dimensional cargo<br>• Human factors – Truck parking |

## Figure 1.2 SHRP 2 Decision Flow Diagram

| Decision Point | LRP | PRO | COR | ENV |
|---|---|---|---|---|
| 1 | Approve Scope of Long-Range Transportation Plan | Approve Revenue Sources | Approve Scope of Corridor Planning Services | Reach Consensus Scope of Environmental Review |
| 2 | Approve Vision and Goals | Approve Methodology for Identifying Project Costs and Criteria for Allocating Revenue | Approve Problem Statements and Opportunities | Approve and Publish the Notice of Intent |
| 3 | Approve Evaluation Criteria, Methodology, and Performance Measures | Approve Project List Drawn from Adopted Plan Scenario or Solution Set | Approve Goals for the Corridor | Approve Purpose and Need/Reach Consensus on Project Purpose (PER-1) |
| 4 | Approve Transportation Deficiencies | Approve Project Prioritization | Reach Consensus on Scope of Social, Cultural, Natural, Environmental Review and Analysis | Approve Public Notice (PER-2) Reach Consensus on Study Area |
| 5 | Approve Financial Assumptions | Reach Consensus on Draft TIP | Approve Evaluation Criteria, Methodology, and Performance Measures (Potential Solutions) | Approve Evaluation Criteria, Methodology, and Performance Measures |
| 6 | Approve Strategies (Projects) | Adopt TIP by MPO | Approve Range of Solution Sets | Approve Full Range of Alternatives/Approve Resource Agency Public Notice ( PER-3) |
| 7 | Approve Plan Scenarios | Approve TIP by Governor or his Designee and Incorporate into STIP | Adopt Preferred Solution Set | Approve Alternatives to be Carried Forward (Per-4) |
| 8 | Adopt Preferred Plan Scenario (Internal) | Reach Consensus on Draft STIP | Approve Evaluation Criteria and Methodology for Prioritization (Implementation) | Approve Draft EIS/Reach Consensus on Jurisdictional Determination (PER-5) |
| 9 | Adopt Finding of Conformity by MPO (Air Quality) | Approve STIP with Respect to Conformity and Fiscal Constraint | Adopt Priorities for Implementation | Approve Preferred Alternative |
| 10 | Adopt LRTP by MPO | | | Approve Final NEPA Document |
| 11 | Approve Conformity Analysis (Federal Conformity Determination) | | | Approve Record of Decision/Render Permit Decision (PER-6) |

Source: Cambridge Systematics, Inc. (*Note that some decision points under Environmental Review focused on government procedure were consolidated).

The guide presents strategies for engagement of freight stakeholders during each of the 44 decision points during the planning, programming, and environmental review processes that can yield the greatest benefit. At each freight decision point, the guide describes the information and techniques that planners can utilize at each decision point to integrate freight interests into the process.

## Guide Users

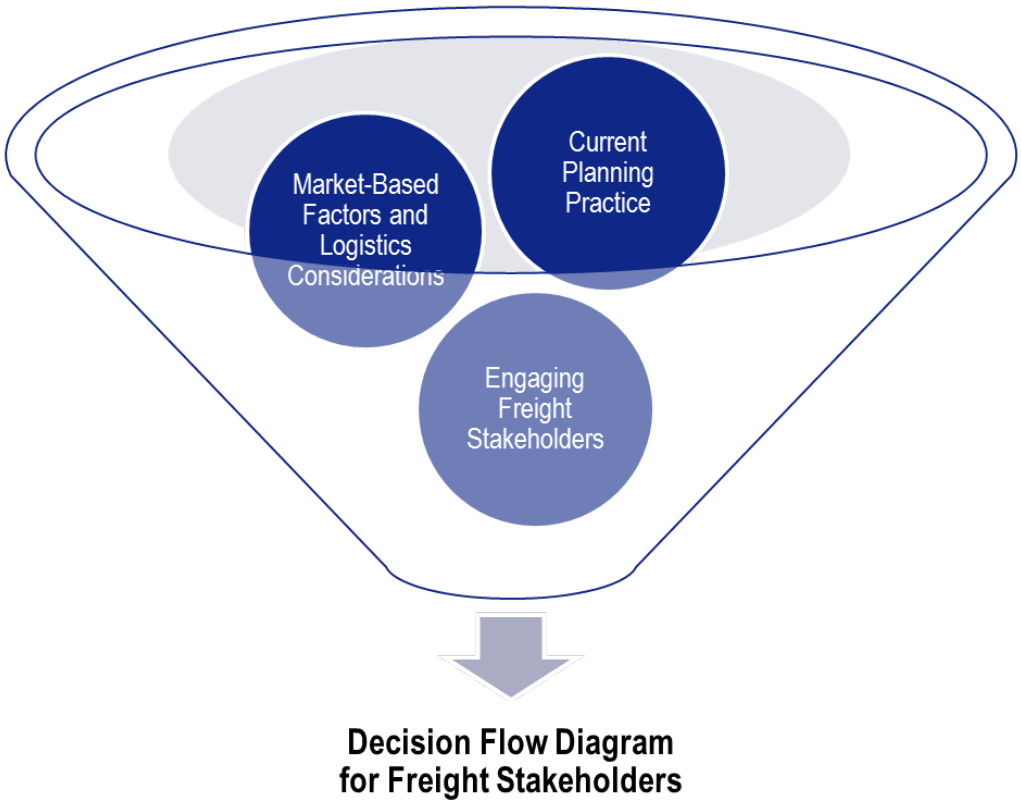
This guide is intended for the use of DOT and MPO staff planners and managers and their collaborators, including consultants, partner organizations, and local jurisdictions. However, others may find the guide helpful. Each audience will likely use it in different ways. Table 1.1 provides some ideas on how the guide might inform and be useful to various parties.

## Table 1.1 Guide Uses by Various Audiences

| Target Audiences | Guide Uses |
|---|---|
| Transportation agencies: FHWA, state DOTs, | • To provide guidance on how and when to engage different types of stakeholders during the various phases of planning processes.<br>• To help prioritize resources, staff, and actions to more effectively integrate freight into the planning process. |
| Private Sector | • To understand the various phases of the highway planning processes and at which stages input from private firms is most valuable. |
| BCOs | • To understand which points in the decision process affect shipments and to focus input to transportation agencies to improve supply chain efficiency. |
| Logisticians | • To allow third-party logistics service providers (3PL) and others involved in arranging freight to enrich their potential contributions to network planning. |
| Motor Carriers | • To illustrate how their first-hand knowledge of the system can inform project designs and studies of bottlenecks and highway system impediments. |
| Railroads | • To show how critical "last mile" connectors are between rail yards and access roads.<br>• To provide insight to railroads on when their input and involvement related to modal shifts is most important. |
| Commercial Real Estate Developers | • To improve understanding of highway planning and to better synchronize efforts of real estate and land use decision makers with transportation planning. |
| Chambers of Commerce and Business Groups | • To know how the highway planning process functions and to inform members of how they might be involved at the most important points. |
| Economic Development Agencies | • To define where their involvement might be most beneficial for the economic stakeholders (and their regional economies). |
| Port Authorities and Marine Terminal Operators (MTO) | • To understand the various phases of the highway planning processes and at which stages their input is most valuable.<br>• To show how critical "last mile" connectors are between seaports and access roads. |
| Local Governments | • To improve regional and state coordination, including transportation and land use decisions affecting goods movement. |
| Other Stakeholders | • To provide general information on the planning process related to freight and the other stakeholders involved. |

Since this guide is focused around previous SHRP 2 research on collaborative decision-making, a background in the use of the decision flow diagram and other tools is helpful, but not necessary to maximize the effectiveness of the guide tools. Figure 1.3 displays the structure of the guide, which incorporates the market-based freight planning considerations and national best practices to develop the decision flow diagram for engaging freight stakeholders in collaborative decision-making and the critical decision points.

Figure 1.3 Guide Structure



# 2.0 Current Practice

This section of the guide summarizes the current practice of integrating freight into the highway planning process. The information was developed through three research activities: 1) a review of the existing body of literature, guides, and studies; 2) interviews with national transportation agencies and associations, and 3) case studies conducted throughout the U.S.

## Existing Literature

As part of the research for this guide, the existing literature (from the organizations described above) was reviewed and interviews conducted with industry leaders and organizations involved in freight and transportation planning to inventory existing planning practice and explore the perception of how well that guidance is being applied. The literature included guides, studies, and plans that provided a cross-section of available resources and reflects existing planning practice. The following text shows the written resources reviewed for the preparation of this guide, many of which may be of interest to guide readers.

### *Library of Background Research Sources*

**TRB (National Cooperative Highway Research Program (NCHRP), National Cooperative Freight Research Program (NCFRP), SHRP)**

- NCHRP Report 594: Guidebook for Integrating Freight into Transportation Planning and Project Selection Processes.
- NCHRP Report 570: Guidebook for Freight Policy, Planning, and Programming in Small- and Medium-Sized MPOs.
- NCHRP Report 618: Cost-Effective Methods and Planning Procedures for Travel Time, Delay, and Reliability.
- NCHRP Report 606: Forecasting Statewide Freight Toolkit.
- Special Report 297: Funding Options for Freight Transportation Projects.
- NCFRP Report 1: Public and Private Sector Interdependence in Freight Transportation Markets.
- NCFRP Report 2: Institutional Arrangements for Freight Transportation Systems.
- NCFRP Report 12: Framework and Tools for Estimating Benefits of Specific Freight Network Investments.
- NCFRP Report 7: Identifying and Using Low-Cost and Quickly Implementable Ways to Address Freight-System Mobility Constraints.

- NCFRP 8: Freight Demand Modeling to Support Public Sector Decision-Making.
- NCFRP 14: Guidebook for Understanding Urban Goods Movement.

**AASHTO**

- AASHTO Freight-Bottom Line Report Series.
- AASHTO State Rail Planning Best Practices.

**FHWA**

- FHWA Freight Cross-Cutting Resource Guide (Ongoing).
- National Highway Institute (NHI) Course 139006 Integrating Freight into the Transportation Planning Process.
- NHI Course 129003 – Advanced Freight Planning.
- NHI Course 139002 – Multimodal Freight Forecasting in Transportation Planning.
- NHI Course 139001 Freight Planning Course.
- NHI Course 139005 Freight Planning and Environmental Considerations.
- NHI Course 139009 Engaging the Private Sector in Freight Planning.
- U.S. DOT Guide to Quantifying the Economic Impact of Federal Investments in Large-Scale Freight Transportation Projects.
- Building Capacity between Public and Private Sectors in the Freight Community.
- FHWA Quick Response Freight Manual Update.
- FHWA Resource Center Training on Engaging the Private Sector in Freight Planning.
- Guidebook for Engaging the Private Sector in Freight Transportation Planning.

**State Freight Planning Studies**

- Maryland Statewide Freight Plan.
- Kansas Statewide Freight Study.
- Minnesota Statewide Freight Plan.
- Indiana Multimodal Freight and Mobility Plan.

**Metropolitan and Regional Freight Planning**

- Enhancing Consideration of Freight in Regional Transportation Planning. Metropolitan Washington Council of Governments.

- Puget Sound Regional Council. Integrating the Evaluation of Freight Corridor Projects into the Congestion Management Process, and Long-Range Transportation Planning.

The available guides, planning guides, and processes provide useful strategies to maintain freight's presence and voice throughout the planning process, many directly applicable to the decision-making process for highway capacity additions. The literature highlights three major elements which are critical for effective freight planning efforts and promoting efficient engagement with the freight community during the long-range planning, project programming, corridor planning, and NEPA processes:

1. **Freight Self-Assessment –** This process generally involves needs identification, development of freight policy objectives, evaluation of commodity flows and industry logistics patterns, an assessment of quality of freight service, and identification of bottlenecks and other physical and operational deficiencies and impediments. A freight self-assessment also generally includes an identification of staff or "freight experts" within an agency to shepherd freight matters through the planning process.
2. **Stakeholder Outreach –** Existing resources provide clear strategies to recognize freight stakeholder needs and promote early involvement of both public and private freight stakeholder groups throughout the planning process. The literature supports the formation of Freight Advisory Committees or Councils for ongoing collaboration and discussion. (State Freight Advisory Committees were also codified in MAP-21 Section 117). Recommended stakeholder roles within these committees include assisting in the development of goals and objectives for the freight program, project list review or refinement, project ranking and prioritization, providing data, helping identify funding opportunities, and project advocacy.
3. **Data Analysis –** The literature also suggests appropriate data sources that planners and policy-makers can utilize to better understand freight issues within their communities. For example, data describing existing and forecast transportation system conditions and freight volumes are useful in educating and engaging the private sector. Freight data are also invaluable in developing or refining existing performance measures and tracking economic growth and benefits associated with freight projects.

The existing literature and existing planning practices outline approaches for developing a freight planning program; however, the recommendations do not always translate well to the process for making decisions on highway capacity improvements. The following describes ways that current literature and practice could be improved to provide highway planning practitioners with the strategies and tools needed to properly consider freight in the highway planning decision-making process:

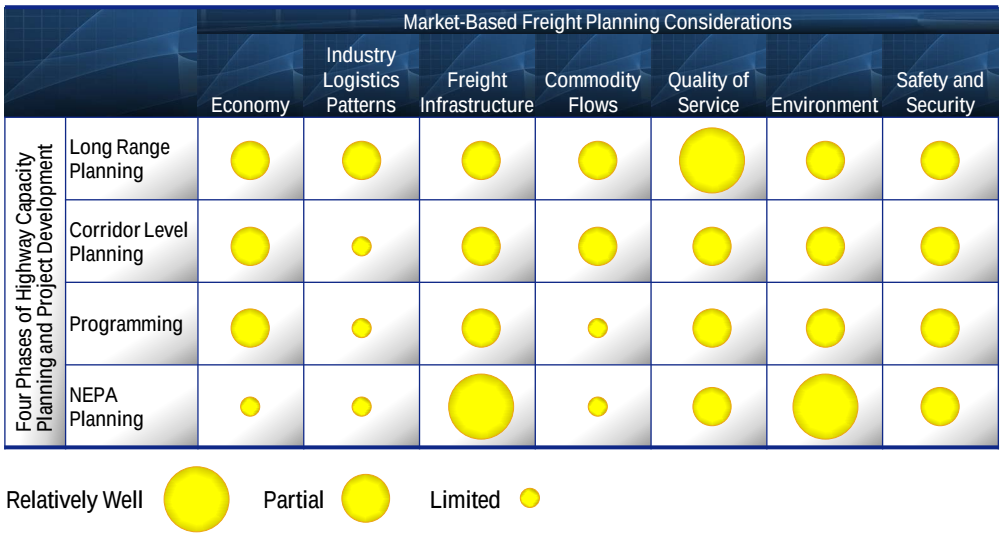
1. **Improve the evaluation methodology for assessing freight impacts during NEPA –** The literature provides detailed information on methods to develop

metrics to evaluate project benefits and costs for freight for project programming but little information on how to utilize or adapt these metrics for the NEPA process. The body of literature would be strengthened with a clearer evaluation methodology.

2. **Better integrate economic considerations, logistics, and commodity flow decisions into the process for project programming and environmental review –** There is limited information in the existing literature on how to apply the information collected during the initial planning phases on the general economy, industry logistics patterns, and commodity data into the NEPA phase.
3. **Clarify the key freight-related decision points in the highway planning process –** The literature includes useful information on the types of freight stakeholders to engage and the types of questions to ask; however, the information is less clear on the specific stakeholders (i.e., BCOs versus motor carriers) and the different level of engagement expected and required at key decision points.
4. **Direct more attention to the role of regulatory issues in freight decisions throughout all phases of the highway decision-making process –** When determining long-range goals of the freight infrastructure system, regulation (i.e., truck size and weight or hours of service rules) is a key consideration and greatly influences logistics decisions. These types of issues are rarely considered in the current long-range planning process.

Figure 2.1 summarizes the literature review findings by showing where the existing research and guides provide good, partial, or limited coverage of market-based freight planning considerations for each state in the planning process. This graphic points out some of the gaps which this guide and other emerging resources will help to fill.

Figure 2.1 Effectiveness of Existing Literature in Addressing Freight Considerations in the Highway Decision-Making Process




## Interviews with Industry Leaders

Interviews with industry stakeholders were conducted across three categories: private freight stakeholders – BCOs and motor carriers, other private and nonprofit highway planning stakeholders, and government organizations involved in freight and highway planning policy at the national level. Through the interviews the research team sought stakeholders' views on best practices in integrating freight into highway planning, including integration of the seven market-based freight planning considerations described previously and initial insight, which was later validated by the case studies into appropriate decision points for freight stakeholder engagement. The team also sought to determine what could be improved in the planning process—from the freight stakeholder perspective. A full list of interviewees as well as questions asked during the interviews is included in the appendix.

## Case Studies

The research team conducted 11 interviews with transportation agencies, private sector freight companies, and other freight stakeholders to gain perspective on best practices. The case studies were selected because they exhibited the following characteristics:

- Evidence of collaboration,
- Geographic/economic diversity,
- Projects that have not been in the spotlight previously,
- Successful integration of market-based freight planning considerations,
- Consideration of private sector concerns in the planning process,

- Diversity across highway decision-making phases (LRTP, PRO, COR, ENV), and
- Feedback from cooperative sponsors and stakeholders.

Table 2.1 lists the case studies conducted during guide development. The following section summarizes lessons learned from the case studies and the other examples of current practice. Full summaries of the case studies are contained in the guide appendices.

Table 2.1 Case Studies Completed

| Phase | Case Study | Organization | Urban/ Rural | Region | Region (W/MW/E/S) |
|---|---|---|---|---|---|
| LRTP | Baltimore MPO Freight Movement Task Force | Baltimore Metropolitan Council | Urban | Coastal | E |
| LRTP | Kansas City Regional Freight Outlook | Mid-America Regional Council (MARC)/KC SmartPort | Urban | Inland | MW |
| LRTP | Delaware Valley Regional Planning Commission (DVRPC) Goods Movement Task Force | DVRPC | Urban | Coastal | E |
| PRO | Mid-Ohio Regional Planning Commission (MORPC) "Freight" Transportation Improvement Program (F-TIP) | MORPC/Columbus Chamber | Urban | Inland | MW |
| PRO | Seattle Freight Mobility Advisory Committee | City of Seattle | Urban | Coastal | W |
| PRO | Puget Sound Regional Council (PSRC) Regional Freight Mobility Roundtable (RFMR) | PSRC | Urban | Coastal | W |
| COR | 1-70 Truck Only Lanes | Led by Indiana DOT (partnership with Missouri, Ohio, Illinois DOT) | Rural/Urban | Inland | MW |
| COR | Freight Plan Implementation[a] | Georgia DOT | Rural/Urban | Inland | S |
| COR | San Diego Association of Governments (SANDAG) State Route (SR) 905 Freeway Project | SANDAG MPO | Urban | Coastal | W |
| NEPA | 1-5 Columbia River Crossing | Oregon DOT/Washington State DOT | Urban | Inland | W |
| NEPA | 1-710 Environmental Impact Report/Environmental Impact Statement (EIR/EIS) Process[a] | Caltrans/LA Metro | Urban | Coastal | W |

[a] Projects/programs conducted or assisted by Cambridge Systematics' staff.

## The Collaborative Decision-Making Process – What Works?

The literature review, interviews, and case studies provide insight on best practices in integrating freight into the planning process and ways in which the practice could be improved. Table 2.2 catalogs best practices from these sources. The first section of Table 2.2 provides overarching best practices—applicable to the entire planning process. The remaining sections of the table describe best practices that are more specific to the four decision-making phases.

## Table 2.2 Current Best Practices to Integrate Freight into the Highway Capacity Planning Process

| Best Practices Applicable to all Phases of the Planning/Decision-Making Process |
|---|
| **Nurture "Freight Champions."** "Freight Champions" are individuals with the ability to mobilize interest in advancing freight planning. A freight champion may be a private sector leader, a policy-maker, or an individual working for a transportation agency. An important role of the freight champion is to be a face for freight and to build trust and relationships with industry stakeholders. |
| **Engage early and frequently.** Engagement should be conducted early and often, but targeted at key decision points to help conserve resources and avoid "stakeholder fatigue" which can cause participants to lose interest in the planning process altogether. |
| **Improve freight planning capacity.** Agencies should continue their efforts to improve freight planning knowledge and staff capacity. Stakeholders indicate that freight agency staff with knowledge of freight issues, trends, and operations provide additional value to the outreach and maximize the benefits of stakeholder engagement. |
| **Collaborate with other agencies.** Work with other agencies and organizations to share private sector freight stakeholder input, which sometimes makes its way into the planning process through elected officials and others with frequent and direct contact with the business community (e.g., Chambers of Commerce, economic development organizations). |
| **Improve interagency communication.** Communications can break down between local, regional, or state government institutions and the DOT and MPO planners related to the highway impacts of new development projects (e.g., BCO purchases property near a highway interchange through an arrangement with local leaders, causing a bottleneck; and DOT is instructed to "make it work"). Inclusion of the MPO in discussions is helpful. |
| **Assist policy-makers.** Build their knowledge about supply chain and logistics; helps them connect with freight constituents. |
| **Focused meetings and materials.** Stakeholders respond to plans and products that already have been prepared or summarized in a way that minimizes the time they need to spend reviewing materials. Stakeholder meetings should be focused with clearly defined agendas and action items. |
| **Institutionalize Outreach.** Establish regular meetings and outreach activities to build relationships and to improve the understanding of freight issues in the jurisdiction. |
| **Limited but creative engagement is most effective.** Utilize technology, other venues (industry events), focus groups, etc. Engagement is dependent to the scale of the freight stakeholder interest in the project. A more robust engagement strategy can be developed for a major truck route improvement versus a commuter route with few trucks. |
| **Post and integrate feedback.** Transportation agencies should assimilate feedback from private sector stakeholders, post it online, and make sure that stakeholders recognize that their valuable feedback is being integrated into the planning documents. |

| Long-Range Planning | Corridor Planning | Project Selection | NEPA |
|---|---|---|---|
| **Engage the private sector early.** Engagement during the initial stages of the Long-Range planning process is consistent with the interests of private sector stakeholders.<br><br>**Assist policy-makers.** Build their knowledge about supply chain and logistics. This helps them connect with freight constituents.<br><br>**Establish Freight Advisory Committees.** These committees have been very effective in many jurisdictions to facilitate ongoing engagement with freight stakeholders, improve knowledge sharing between DOT and MPO planners and private sector representatives, and build ongoing relationships.<br><br>**Incorporate freight data and metrics.** Stakeholders would like to see better incorporation of freight data and freight-oriented performance metrics (e.g., commodity flows, throughput) into highway planning.<br><br>**Improve multimodal planning.** The existing planning process is focused on maximizing the operations within specific modes with little network optimization across modes. Agencies should work with stakeholders to integrate other modal considerations, including cost, to reflect the realities of freight mode choice. | **Integrate freight into corridor studies.** Make sure that the freight is represented in corridor studies. Listen to transportation system user feedback in establishing the scale of those studies. Industry stakeholders prefer to be engaged at major "decision points," defined ahead of time in the development of corridor plans (e.g., before a final decision is made) to ensure that input is considered on alignments, route characteristics, and effects on freight operations.<br><br>**Work with motor carriers to address planning and truck operations issues.** Motor carriers report success in working with DOTs and MPOs on long-range corridor studies, not only on highway improvement issues but on operational issues like truck parking.<br><br>**Improve dialogue and data on multi-state and national corridor relationships.** Stronger relationships with state and national trade associations would be helpful to enable better understanding of freight stakeholder priorities and trends in trade flows along freight corridors. Differentiation between the different types of trade flows between imports and exports, and domestic shipments that pass through a state or region is also important. | **Seek input on programming.** Freight stakeholders are often engaged by non-DOT organizations (e.g., Chambers of Commerce, economic development department staff, mayors, or governor's offices) for project programming. However, they too often are asked to provide feedback on a list of projects already under development, rather than in the formulation of that list. They would prefer to be involved early in the development of the program.<br><br>**Increased freight focus during programming.** Freight stakeholders indicate a preference for even more involvement with highway planners to ensure that freight-beneficial projects are prioritized. They would like to see freight metrics incorporated into the project selection criteria. Freight stakeholders are interested in how funding is allocated to projects and are amenable to Public-Private Partnerships (PPP).<br><br>**Define freight as a programming category.** A dedicated "category" for freight-oriented projects, or a mechanism for giving additional "points" to freight-beneficial project in Statewide Transportation Improvement Program/ Transportation Improvement Program (STIP/TIP) evaluation should be developed to increase freight stakeholder interest. | **Integrate logistics and trade into NEPA.** The NEPA process has institutionalized many practical engagement points for freight stakeholders though the public comment process and other advocacy, yet there is room for improvement. Industry stakeholders believe that the NEPA review and approval process is much too lengthy to effectively consider the logistics and trade decisions for industry.<br><br>**Alternatives analysis should consider freight.** The NEPA process should incorporate logistics and freight decisions into the alternatives analysis. It also should look at counterfactual (what will happen to freight transportation if the project is not built; not necessarily only the "no project alternative").<br><br>**Make NEPA outreach substantive.** Freight stakeholders sometimes sense that NEPA outreach activities are simply procedural (e.g., box-checking exercise). Stakeholders often feel like the process does not yield effective solutions to freight issues and can raise issues for the freight community (e.g., residents trucks, noise or air quality concerns inhibiting industrial/warehouse development; community groups against distribution center development because of perceived traffic impacts). |

# 3.0 Market-Based Freight Planning Factors

Public sector representatives increasingly understand that freight is directly linked to local, regional, statewide, and national economics. As a result, the integration of market-based considerations into planning practice currently is undergoing an evolution, from a low level several years ago to a stronger focus on these issues under present circumstances. It is likely that the recent recession and the focus on infrastructure and economic development as a means to weather the economic downturn has contributed to a raised awareness of the benefits of promoting freight transportation. Several legislative efforts to boost the economy, from the American Recovery and Reinvestment Act (ARRA) to the multiple rounds of Transportation Investments Generating Economic Recovery (TIGER) grant funding programs have encouraged jurisdictions to not only begin planning for freight transportation investments if they have not already done so, but also to reorient existing planning, design, and construction programs to better accommodate freight movement. Overwhelmingly, industry representatives interviewed during this guide's development reported their support for a national freight policy – one that would help to codify freight planning at the local, regional, and national level; and help prioritize projects and programs that promote economic development. The MAP-21 transportation authorization bill makes an effort to further this process through the following actions:

- Establishment of a National freight policy to better align the goals of freight transportation system users throughout the U.S.;
- Establishment of a national freight network to strategically direct resources to improve freight system performance;
- Promotion of freight planning activities, including the development of state freight plans and engagement with freight stakeholders at the state level; and
- Prioritization of freight projects in the planning and funding allocation process by providing the opportunity for the secretary to increase the federal funding share to 95 percent on the interstate system and 90 percent for other projects.

With the enhanced focus on freight within the transportation planning process, it becomes more important for agencies to also recognize and integrate market-based factors affecting goods movement into the planning process. Based on interviews with industry representatives, the

market-based issues are *sometimes* considered in the freight planning process, generally leaving room for improvement. Table 3.1 presents the strengths and weaknesses of the current practice of integrating market-based freight considerations into the planning process.

## Table 3.1 Current Strengths and Weaknesses in Integrating Market-Based Freight Planning Considerations

| Market-Based Freight Considerations | Strengths in Existing Planning Practice | Current Weaknesses (Room for Improvement) |
|---|---|---|
| Economy | National efforts to link highway funding to a robust cost-benefit analysis framework have contributed to freight-oriented highway projects getting needed attention and prioritization. Industry stakeholders are frequently involved in these efforts, especially railroads, marine terminal operators, and motor carriers. These cost-benefit analyses are largely related to maximizing economic development associated with transportation projects. In certain jurisdictions, freight projects have been prioritized based on economic development benefits. It is clear the state of the practice is moving in the right direction. | Freight planning could be improved as public and private stakeholders reach a more comprehensive and mutual understanding of the way in which transportation decisions affect economic activity and vice versa. For example, there are challenges in reconciling the fundamental differences in timing/schedules of industry and government in project implementation (private sector works on a schedule of weeks and months, and highway planners work on a schedule of years and decades). |
| Industry Logistics Patterns | State DOTs and MPOs are making an effort to better understand the decisions made by stakeholders in the supply chain management and logistics industry. Joint participation in workshops, advisory committees, and the attendance of DOT planners at industry conferences could increase the sharing of knowledge and ideas. | While the highway planning community is improving its knowledge of supply chains and logistics patterns, there is room for improvement. For example, planners may need to apply a supply chain orientation to questions and research on how logistics affect the highway system (e.g., "What are your future export and import growth projections?" and "Where are you experiencing freight congestion in your supply chain?"). In addition, planners need to better understand how supply chains are continuously adjusted to minimize business disruptions. Policy-makers should care about what happens beyond their jurisdictional borders and take a broader view since supply chains are generally long and complex, and not limited to a city or state. BCOs and logistics service providers should recognize that agencies would greatly benefit from their involvement in freight planning. |
| Freight Infrastructure | Efforts by state DOTs, industry organizations, and the federal government to evaluate highway flows and freight infrastructure limitations have improved the base of freight planning information. For example, recent highway bottleneck research by the FHWA, has provided planners with an initial list of national highway bottlenecks for consideration in state and local planning efforts. Since commodity flows are regional, national, and international in nature, it is important to continue to track these efforts to better understand the impact of freight bottlenecks on the entire goods movement system. | Supply chains operate across borders; attention to regional efforts in highway planning is critical to developing infrastructure that meets the needs of global supply chains. If there is a bottleneck, chances are all efforts by industry to make operations more efficient (e.g., hours of service, rerouting, night operations, etc.) have already been employed to mitigate the negative impacts, and to resolve the bottleneck, the transportation agency will have to add capacity and/or implement operations improvements. Regardless, highway planners should work closely with industry (and industry with highway planners) to jointly identify potential solutions to freight infrastructure deficiencies—including changes to operations. |

| Market-Based Freight Considerations | Strengths in Existing Planning Practice | Current Weaknesses (Room for Improvement) |
|---|---|---|
| Commodity Flows | Numerous educational opportunities and a strong culture of conferences and networking are improving public sector understanding of commodity flows. Courses offered through the National Highway Institute; trainings and guides produced by TRB and FHWA, and other knowledge-sharing efforts have greatly contributed to the freight knowledge base of planners. The growing understanding of freight data and its utility in understanding commodity flows is improving. | Highway planners should continue to improve their understanding of cargo origins and destinations to know which part of the market to monitor and where transportation issues might arise in the future. |
| Quality of Service | Coordination between jurisdictions on highway planning has improved in recent years. Because freight moves across borders, this coordination is crucial to ensure that freight projects are developed in an operationally viable way. The I-95 corridor coalition (mid-Atlantic and Northeast states) and the mid-American Freight Coalition (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Ohio, and Wisconsin) are two examples of organizations that effectively promote freight planning efforts across local and state borders. | Currently, there is a lack of understanding about how freight stakeholders utilize the highway system across local, regional, and state boundaries. A greater effort in cross-border coordination is necessary (for both public sector planners and private companies making logistics and real estate decisions). |
| Environment | The NEPA process provides a codified process to assess environmental impacts from highway projects. It can provide an accounting of impacts relating to noise pollution, congestion, and other concerns relating to freight operations; and help identify appropriate mitigation strategies. This process also can provide validation to freight projects by highlighting the benefits relating to air quality improvement from an improvement in highway flows, or the quality of life benefits stemming from economic development within a depressed region. | Land use and freight connections need to be better understood (i.e., low-cost land next to highway interchanges). The environmental impacts of not completing the project should also be considered, in a multimodal context. |
| Safety | Safety plays a major role in the business decisions of freight stakeholders. Many freight organizations have worked to determine funding priorities for safety projects. Many DOTs are currently working to assess safety challenges on the highway system; however, the safety findings are not always properly communicated. | A closer connection should be forged between safety planning (i.e., Strategic Highway Safety Plans) and long-range freight highway planning (long-range plans, transportation improvement programs). |

Source: Interviews.

## How can we Increase the Attention Given to Market-Based Considerations?

A growing understanding of how the private sector market economy works and also the roles that different freight stakeholders play in that market will improve the interaction with stakeholders in freight planning.

Some key strategies could include:

- Allowing staff to participate in private sector sponsored conferences and workshops to foster mutual understanding of freight issues; and[3]
- Engaging with outside organizations that are more involved in day-to-day coordination with freight stakeholders such as Chambers of Commerce, Economic Development Department staff, or trade associations such as the state trucking associations or BCO groups.

A strong recognition of freight transportation issues in the planner's jurisdiction can go a long way to effective engagement with major freight stakeholders. Freight stakeholders need to know that they are dealing with someone who understands their issues and is serious about finding a solution that will positively impact the transportation system. Invariably, projects and programs that are designed to add capacity to a particular highway corridor will be well received by the trucking community and other users, but it is the planner's responsibility to work with them to also identify other solutions (which may be more feasible) to meet the same market-based goals. The next section provides some strategies to engage private sector stakeholders based on lessons learned from existing literature, interviews with industry leaders, and the case studies that highlight national best practices.

[3] The I-95 Corridor Coalitions' Freight Academy and the Freight Planning 101 Course offered by the FHWA can help prepare planners to better understand the perspective of private sector freight stakeholders.

# 4.0 Engaging Freight Stakeholders

Highway planning efforts have traditionally involved a wide range of stakeholders, depending on the interests and goals of the project and the needs of the individual organizations. Important stakeholders in a traditional planning process for highway capacity additions can include the following:

- Local governments;
- Residents within the study area and neighborhood associations;
- Commuters;
- Community leaders, including chambers of commerce and industry associations;
- Advocacy groups (such as those representing environmental concerns; bicycle, pedestrian, or transit users; or
- Regulatory agencies (local, regional, state, and federal).

Each stakeholder group has a role to play and generally a strong position on the desired outcome of the projects. Often their interest is limited to local impacts. By contrast, freight stakeholders often have interests that cover a much broader area (i.e., their interests and travel patterns might spread across several MPO regions or states and beyond). For example, a manufacturer whose plant is located near a proposed highway improvement may represent just one of several freight stakeholders potentially impacted by the decision. Others include the suppliers, customers, vendors, and truck drivers who deliver to and pick up from the facility.

This chapter focuses on methods to engage freight stakeholders in the highway planning process by answering the following questions:

- Who are the freight stakeholders?
- When to engage freight stakeholders?
- What are the methods to engage freight stakeholders? and
- How to improve outreach efforts?

## 4.1 WHO ARE FREIGHT STAKEHOLDERS?

The freight stakeholders in your jurisdiction are the people, firms, organizations, or agencies that are somehow affected by goods movement. Figure 4.1 illustrates—at a high level—the types of freight stakeholders directly involved in the movement of freight.

Figure 4.1 Freight Stakeholders

*Freight Stakeholders*

Private Sector Freight Stakeholders

*BCOs*

*Logisticians*

*Motor Carriers*

*Railroads*

*Industrial Real Estate Developers*

*Chambers of Commerce and other business associations*

Economic Development Agencies

Port Authorities and Marine Terminal Operators (MTO)

Local Governments

Transportation Agencies

*FHWA, state DOTs, MPOs*

Other Stakeholders

*Environmental, community groups, general public*

Given the diversity of firms, agencies, and other groups interested, there is no single approach to engaging freight stakeholders in the planning and decision-making process. The interests of each firm or organization depend on its unique characteristics: its mission, its operations, the way it moves goods, its manufacturing process, product, profitability, marketing, etc. Manufacturers, for example, are in the business of producing products and are less concerned with how these finished goods get from point A to point B, only that they do, at a low cost and in the time frame promised to the customer. Other freight stakeholders, such as motor carriers, are in the business of moving cargo from origin to destination and are often most concerned about potential routes and have a strong institutional knowledge of the highway system and its strengths and weaknesses. Still other freight stakeholders such as BCOs want the products they purchase to arrive at destination as scheduled, as per ordered, damage-free, and at the most economical cost. In order to improve collaborative decision-making, it is critical to understand what motivates different types of freight stakeholders. This section discusses the primary motivations and interests of freight stakeholders, starting with the private sector.

## Private Sector Freight Stakeholders

### *Beneficial Cargo Owners (BCOs)*

BCOs may benefit from the time savings or other efficiencies provided by transportation improvements. BCOs are important to engage in the freight planning process because they understand the nuances and dynamics of supply chains and how those supply chains utilize multimodal transportation systems. BCOs may be especially helpful in prioritizing freight investments due to their broad understanding of the location and transportation characteristics of their business operations. BCOs can also identify transportation system deficiencies from the supply chain perspective and may offer potential solutions to address those issues.

Often BCO engagement can be difficult to obtain for a variety of reasons. This guide addresses the challenges of drawing out the voices of a certain type of freight stakeholder – BCOs and third-party logistics service providers – early and often in planning cycles, and offers some potential strategies to more effectively make these stakeholders an integral part of this process, as well as the benefits to be derived by public agencies in implementing these strategies.

### *Logisticians*

Logisticians arrange freight transportation for BCOs. Some BCOs employ their own in-house logisticians but many BCOs hire third-party logistics (3PL) service providers. Logisticians perform a number of different functions including the procurement of waterborne, rail, air, or trucking transportation required to move a product or input from production to consumption. They may also arrange transfers, warehousing, and fulfillment. The logistician's job is to design trips (as part of a supply chain) at the lowest cost or meeting other desired goals—like fast transit time. Given their detailed understanding of the costs, timing, and other variables of freight movement, logisticians can provide a clear perspective on the importance of certain corridors or proposed improvements in the context of their supply chain. However, many past outreach efforts have failed to engage logisticians, in part due to the highly proprietary nature of their intelligence about the transportation system. After all, logisticians gain a competitive advantage with this knowledge and can be reluctant to share information.

### *Motor Carriers*

Highway capacity planning efforts should engage motor carriers, not just because they represent a portion of the traffic on the highway, but because of the institutional knowledge and experience of drivers, dispatchers, and other company representatives acquired through years or decades of driving on the study corridor. More than automobile drivers – who can relate problems on a specific section of highway with which they have daily familiarity vis-a-vis their commutes or other journeys – the trucking industry understands the relative

severity and longevity of problems on the highway network and how congestion or bottlenecks on one portion of the highway can negatively impact a larger portion of the corridor. This experience enables them to provide valuable input on the potential infrastructure investments (where, what, how much) to alleviate bottlenecks and system impediments and improve freight velocity.

### *Railroads*

The trucking industry is the single largest customer of U.S. freight rail industry. The relationship between trucking and rail has become more interdependent and synergistic with the advent and proliferation of containerized shipping methods, particularly over the past two decades. International and dedicated domestic shipping containers provide a high level of modal flexibility. The rail industry currently is undergoing dramatic changes to keep pace with the growth of intermodal demand. Major intermodal yards have transformed railroad intermodal networks into hub-and-spoke systems. The multimodal nature of today's freight railroads means that planners should involve rail carriers in highway capacity planning because they have the ability to make concurrent or future investments on parallel corridors that may affect highway demand.

### *Industrial Real Estate Developers*

Industrial real estate developers and property managers build and operate facilities which support goods movement. Their assets include warehouse, distribution, transfer, and fulfillment buildings. For this group, the relationship between sites (built and proposed) and the transportation system is the most important aspect of the highway capacity process. Truck, rail, port, and airport access and proximity are key variables in the site selection process. As such, they have a vested interest in the highway planning process.

### *Chambers of Commerce and other Business Organizations*

Chambers of Commerce and other business organizations (e.g., Forestry Associations, Manufacturers Associations, and Agriculture Associations) are often interested in freight transportation projects as a means of sustaining business in a region or improving competitiveness. Chambers of Commerce are typically local or municipal in scale, but may cover broader regions (e.g., regional boards of trade), or the nation (e.g., the U.S. Chamber of Commerce).

Freight related national business organizations often focusing on federal policy (e.g., American Trucking Associations, American Associations of Railroads). In every state capital business associations represent their constituents on issues related to freight and transportation and include organizations such as state trucking associations, agricultural associations, safety groups, and highway engineering groups. These groups are often sophisticated in their understanding of transportation policies, operations, and the impacts of certain projects, including freight. Often the business organizations will collaborate with individual members (e.g., BCO) to take an official position on a proposed

improvement. Traditionally, these groups have been active stakeholders in the highway planning process and should be encouraged to participate in the future.

### *Economic Development Agencies*

Economic development organizations assist governments in sustaining and growing economic activity. These agencies are involved in the freight planning process in many jurisdictions because of the connection between transportation mobility (and investment) and economic performance. Agencies also work closely with companies which are expanding, launching, or relocating. As such, economic developers are attuned to the transportation needs of these firms and frequently work with their transportation agency partners to assist in the development of highway access to new buildings, sites, or factories. Economic development agencies are valuable not only for their understanding of the way in which highway capacity investments benefit businesses, but these agencies can also serve as gatekeepers to freight dependent firms and constituents that may be interested in the planning process.

*Insight from the Case Studies*

Involvement of the Ports in the I-710 Project

A growing recognition of deficiencies on a major truck corridor, the Interstate 710 (I-710) connecting the San Pedro Bay ports in Southern California to markets outside the region, led the Los Angeles Metropolitan Transportation Authority (LAMTA) and several other project partners to conduct a detailed Major Corridor Study (MCS) in 2005, exploring the implementation of improvements, including the potential for dedicated truck lanes. Upon completion of the MCS, the agency partnership elected to develop an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) to comply with state and Federal environmental statutes to move the project forward.

The organizations involved in both the MCS planning effort and the ongoing environmental review included, among others, the San Pedro Bay Ports (Port of Los Angeles and the Port of Long Beach), the Gateway Cities Council of Governments (consisting of nearly 30 cities in southern Los Angeles County adjacent to the I-710 corridor), also Caltrans, and California State University Long Beach (through its Metrans program). The EIR/EIS outreach built upon historical participation in corridor planning on I-710 by many regional stakeholders, each with a particular interest in the potential benefits from improving the corridor. The Ports and other stakeholders were primarily interested in truck-related issues (including congestion, air quality, safety, and access). As a result, the scope of study was better defined and it also fostered a constructive dialogue between the Ports and the local community.

### *Ports and Airports*

If the plan or project is located in an area with an active seaport, inland port, or airport, efforts should be made to engage the Port Authority and its marine terminal operator (MTO) or Airport Authority. The operations, marketing, and strategy staff associated with the port or airport can provide unique insight into needs of their users. Ports and airports are often some of the greatest generators of truck and rail traffic in a region and should be consulted on local freight projects, corridor projects, and other studies.

### *Local Governments*

Local governments should play an integral part of the discussion for highway capacity improvements. Local governments often control truck route regulations, land use, and other factors affecting local goods movement. Local governments are becoming increasingly interested in the connections between freight transportation and freight-dependent land uses.

### *Transportation Agencies*

While transportation agencies are responsible for leading the highway capacity process, there are also stakeholders in the process. To ensure that freight is integrated during the highway capacity process, the agency should make sure that its freight staff remains involved in the project, even if it is being led by another office of division. In some cases, offices or divisions of the DOT, MPO or other agency have much to offer to the freight planning process, including the ability to integrate operations, safety, or other special topics.

### *Other Freight Stakeholders*

A variety of other groups or individuals may be interested in freight planning outcomes and may want to collaborate. Depending on the scope of the project, environmental, air quality, community groups, or private individuals may which to be engaged in the process. As a rule of thumb, agencies should invite *all* the groups who are typically engaged in transportation planning, corridor studies, programming, or NEPA activities to be engaged in freight. Because many projects contain a freight element but are not necessarily freight focused, these groups and individuals may already be at the table and it may simply be a question of making sure they understand the freight dimensions of the plan or project.

## 4.2 WHEN TO ENGAGE FREIGHT STAKEHOLDERS?

To determine which projects should have a freight outreach element and the level of engagement from each type of freight stakeholder, a series of questions should be asked, which should be customized for the project or plan and existing conditions. The responses to these questions will help your agency tailor its outreach strategies and properly allocate resources for freight engagement.

### Should the agency engage freight stakeholders in the plan or study?

To determine whether or not the planning agency should engage freight stakeholders (the why?), the following sample questions could be asked:

- For projects: Is the project or program located on a major freight corridor (e.g., access to a port of entry, major interstate)?
- For plans: Is the project an independent freight study?

## Who should the agency engage?

To determine who (the who?) the planning agency should be engaging, the following questions could be asked:

- Are there key BCOs or motor carriers that operate in proximity to this highway project?
- Will the plan or project affect other stakeholders—including those located outside the study area but which utilize the infrastructure?
- For how many and what types of stakeholder engagement does the project's scope and resources allow?

## How should the agency engage freight stakeholders?

To determine the where, when, and how, the following questions could be asked:

- Does a current freight planning program or organized freight stakeholder group exist?
- What are the best ways to engage this group?
  - Through a Freight Advisory Committee (e.g., Delaware Valley Regional Planning Commission (DVRPC) Philadelphia Goods Movement Task Force) or another study advisory group.
  - Through other means, such as interviews.
  - Through existing stakeholder contacts (e.g., if some or all of the stakeholders have existing relationships with a partner agency such as the economic development authority).
- What are the agency's resources for freight outreach? How many meetings, surveys, etc. will a) meet the needs of the project and b) match agency resources (e.g., staff, travel/outreach budget, consultants)?

## What outcomes should the engagement yield?

- What are the expected outcomes from the engagement activities (e.g., better understanding of regional/statewide logistics trends, list of beneficial projects for freight stakeholders, increased industry support)?
- Does the agency have specific outreach needs and desired information from certain stakeholder groups?
  - Public versus private sector stakeholder outreach needs,
  - Intra-agency groups,
  - Different outreach methods for different groups, and
  - High-level planning versus local operational considerations.

*How to Establish a Freight Advisory Committee or Prepare a Stakeholder Outreach List in Five Easy Steps*

1. Research any previous studies that engaged the freight community and note any contacts with industry groups, trucking associations, railroads, or other "freight- dependent" organizations.
2. Identify preferences for size and scale of the group and how much you intend to use members.
3. Contact the state trucking association and regional Chamber of Commerce to request contacts from organizations in the region who might have members willing to participate in the planning action. (Note: In most areas, freight stakeholders have been engaged in one capacity or another – such as for a bridge or other mega project.) MPOs can contact local jurisdictions to connect with additional stakeholders.
4. Prepare a list of potential advisory committee members with full contact information and vet the stakeholder list with either the MPO, local jurisdictions, or a partner organization (such as a Chamber of Commerce or regional or statewide economic development organization). This advisory group can be institutionalized or ad hoc and should consist of a large or small "range" of stakeholders. Some stakeholders (such as larger organizations with greater resources, (i.e., the Class I railroads), may have ongoing involvement, while other organizations (such as small BCOs or motor carriers) may wish to be only included in mass media outreach material (email blasts, meeting announcements, surveys), that will allow them the opportunity to provide feedback on specific issues that apply to them.
5. Gauge stakeholder interest in participating in the project. Try to find an angle to explain the benefits from their participation (i.e., funding for improvements to truck routes, improved access to a warehouse, etc.).

## 4.3 METHODS TO ENGAGE FREIGHT STAKEHOLDERS

Transportation agencies can employ a wide range of strategies to engage the freight stakeholder community. Engagement activities can be conducted through a freight advisory committee (see sidebar), through creation of a project-specific ad-hoc grouping based on specific project needs, or through other methods.

In passive outreach efforts, agencies disseminate information to a large group of people with varying degrees of interest in the final outcome. However, the results of this outreach may or may not provide any specific or usable feedback.

Common outreach methods include:

- Establish freight advisory committees,
- Freight stakeholder meetings, in which the agency makes a presentation on the plan, project, or program, including detail on the project, including study area, time frame for completion, known affects on the community, time frame, and expected result;
- Workshops where public agencies assemble stakeholders to work through some issues using visual displays of information and formal and informal facilitation techniques to elicit comment and ultimately reach consensus;
- Project materials – including newsletters – can be disseminated by mail or email with a request for comment;

- Regularly updated websites update stakeholders and provide a repository of documents and other resources; and
- Interviews can be conducted with stakeholders, both in-person and via telephone or, depending on the stakeholder, through online survey tools.

These activities comprise both "passive" and "active" outreach activities. Active outreach efforts are generally where specific feedback is requested or some kind of vetting process employed, whereas passive outreach is intended generally to disseminate information and engage a large group of people at the same time. Depending on the type and complexity of project or the level of controversy, several different methods could be employed to engage these stakeholders. Specific approaches to each of these methods are detailed below.

### *Freight Advisory Committee*

For the agency to maintain freight contacts and build trust, it is helpful to have a permanent group of private sector representatives and key freight stakeholders available to advise and interact with the MPO or DOT. Committee members can rotate out as needed, but a core group should remain for some period of time for the sake of continuity and to maintain institutional knowledge. The committee should meet as regularly as makes sense, provide advice, and report to a high-level person such as a DOT director or state Transportation Commission. Committees such as these can provide ongoing technical input on formal local, regional, or state transportation plans, vet ideas and potential solutions, compel public officials to consider the multimodal transportation system beyond local jurisdictional boundaries, recognize issues from a macro view rather than a project-to-project perspective, and help ensure the public agency adequately addresses the concerns of the freight community.

### *Freight Stakeholder Meetings*

Freight stakeholder meetings can take a number of forms, but typically include at least the following components: 1) information on the plan or project provided by the agency, 2) an opportunity for stakeholders to comment. Often the agency will start the meeting with a presentation or speaker. In some cases, the agency will utilize an "open house" format with poster boards to disseminate information. Agency staff, sometimes supported by consultants, will be present to answer questions, engage attendees in discussion, and to record notes and comments from stakeholders. For example, the Commonwealth of Virginia recently hosted a freight open house with poster boards and comment card stations were attendees could sit down and record their observations on the development of a statewide freight plan.

### *Workshops*

A workshop is a type of freight stakeholder meeting, but is typically lengthier (sometimes a half day or a full day) than a traditional outreach meeting and

requires attendees to participate in a series of interactive activities. Workshops are helpful if agencies want to collaboratively engage freight stakeholders to make decisions (e.g., voting, consensus building exercises). Workshop attendees can also validate findings, strategies, and goals of the planning effort. Workshops work best if they are by invitation in order to formally invite the participants to bring together a balanced mix of perspectives. Expectations for the workshop should be spelled. Agencies might require RSVPs and provide a meal if the meeting spans several hours.

*Insight from the Case Studies*

Delaware Valley Regional Planning Commission
(DVRPC) Philadelphia Case Study

According to DVRPC staff, freight stakeholders in the DVRPC area prefer to be engaged early and often. Members are informed and aware of upcoming topics and high-interest issues and are generally prepared to offer feedback at meetings. DVRPC uses a quarterly freight stakeholder's meeting (Goods Movement Task Force) to engage the freight community through periodic presentations on regional freight-oriented topics and the development of priority project lists for the long-range planning process. One particular approach that DVRPC employs to engage stakeholders is to utilize their insight on solutions to a larger issue (such as traffic problems on Interstate 95) and develop a tangible outcome (such as a letter of support for a potential solution) that formalizes the engagement. This allows the group to build confidence and provide a useful contribution to the process, rather than just to "check a box." Getting freight projects into regional plans help DVRPC members build confidence about their contributions to freight planning efforts.

### *Focus Groups*

Focus groups are professionally facilitated meetings, often engaging a market research firm. Focus groups are designed to conduct an in-depth assessment of the perceptions, priorities, and insights of freight stakeholders. Focus groups work best in a small group format. Finding the right stakeholder mix is essential in order for the focus group to yield usable information. For example, if competing firms are involved in the meeting, they may not reveal much information.

### *Project Materials*

Project materials include documents, plans, newsletters, and other materials meant to inform and engage stakeholders. Transportation agencies have a significant expertise in developing effective documents and tools for outreach to the general public. Brevity is the most important characteristic of project materials—using graphics, maps, tables, and a format which quickly lends itself to absorption.

### *Study Websites*

Study websites are necessary to distribute project materials, to keep stakeholders informed. There is no particular formula to make a freight oriented study website successful. The same principles that apply to other project materials

should be followed (e.g., brevity, clarity, and organization to make the experience efficient). Websites must be maintained regularly to remain effective.

*Interviews*

Planners may be more successful in collecting information and feedback to inform the decision-making process by conducting in-person visits. These visits (or interviews) help build the agency's credibility and foster relationship building. Telephone interviews can also be effective. Regardless of which method is used, interviews provide an opportunity for a two-way conversation. In the absence of other stakeholders (e.g., at a group meeting), business participants often feel more comfortable in describing their operations and challenges. Interviewees appreciate the opportunity to review the document in draft form, especially if the agency develops an interview summary.

## 4.4 HOW TO INCREASE THE EFFICACY OF FREIGHT STAKEHOLDER OUTREACH?

Freight stakeholder outreach is often an example of the concept of planting seeds and harvesting later. Unlike public outreach, which can yield immediate feedback and quick results, freight engagement can require an extended period of concentrated effort before participants—especially private firms—determine that participation will be mutually beneficial. Successful freight outreach efforts often exhibits the following characteristics:

- **Develops custom outreach approaches.** Public sector agencies and project sponsors and staff must be creative when attempting to engage freight stakeholders and employ various methods, sometimes ones that differ from those used to engage private citizens and other types of stakeholders. For example, public forums and open houses are not always well attended by the freight community. Methods that work best for freight stakeholders include formal working group meetings, technical advisory committees, interviews and requests for input via phone and in-person meetings, presentations out in the field, and listening sessions.
- **Sets reasonable expectations.** Agencies should also manage their expectations and not be too ambitious when attempting to engage freight stakeholders. Some efforts, despite careful planning and footwork may not capture broad input from the freight stakeholder community. Agencies should be prepared for that possibility and expect to step back and evaluate how the program become more successful in the future.
- **Leverages freight advisory committee members.** One or more members of your Freight Advisory Committee could be recruited to participate on official planning committees and offer valuable input during the planning cycle. These participants can act as project ambassadors to advocate for the project with their colleagues.

- **Recognizes the importance of timing.** There is a perception within the private sector freight community that often they are invited to become involved too late in the planning process to have real influence on the outcome; and at times the most appropriate individuals are not targeted for participation regardless of the timing. These factors lead to a lack of compelling incentive for private industry stakeholders to get heavily involved in freight transportation discussions with DOT and MPO planners. For BCOs and motor carriers are mostly interested in participation during the project selection and alternatives analysis phase of the planning process, but especially before the settlement and allocation of funds. Once the NEPA process has begun there is less flexibility in determining project outcomes, and resources for projects have generally already been allocated.

*Insight from the Case Studies*

Role of the Columbus, Ohio Chamber in the Planning for I-70

For many years, the MPO and the Chamber had overlapping freight advisory roles. Both groups struggled to keep stakeholders engaged in freight-beneficial projects. The MPO also experienced staff turnover and shifting regional priorities. The current iteration of the Columbus Region Logistics Council has been active since 2008 and includes four specific committees including the infrastructure, workforce, technology, and business environment committees. The Mid-Ohio Regional Planning Commission (MORPC) is most heavily involved with the infrastructure committee. Committee meetings are run by the Chamber, with planning and feedback provided by the MPO. The current organizational framework enables MORPC to become more directly involved in industry collaboration. Through the Council, MORPC was able to better gain access for advocacy efforts, validate regional transportation needs, and explore funding opportunities. The region's freight planning efforts and the partnership between MORPC and the Chamber have helped create a specific success at the Rickenbacker Intermodal terminal and have expanded activities throughout the region, attracting new business and contributing to the health of the regional economy.

- **Recognizes differences in planning horizons.** Successful engagement takes into account the disparity among public and private stakeholders' operational time frames and priorities. Public sector horizons might be 20 or 30 years while private sector planning is typically short term (1-5 years). This disconnect can lead to differences in expectations and outcomes for public and private partners and can hamper participation (during busy cycles). For instance, late summer and fall are very busy periods for many shippers to prepare for the holiday season. This is not always the best time to engage stakeholders.
- **Uses freight stakeholders to identify and prioritize needs.** Carriers, shippers, and other stakeholders know the system very well and have the ability to assist in identifying general areas of congestion and bottlenecks. They are not necessarily helpful in pinpointing specific problems. However, they are good at vetting needs/deficiencies and proposed solutions based on a thorough data-based analysis. This vetting helps agencies prioritize investments.

- **Engages the freight community early.** Early involvement from the freight community is essential to address the project's purpose and needs, and to develop an evaluation framework and performance measures to ensure the designs developed meet the purpose and needs. Paying attention to freight stakeholder input at the beginning and throughout the planning process will demonstrate to them that policy-makers value their input and want them to be engaged, which will make freight stakeholders more willing to dedicate their time in participating in the future.
- **Includes freight in non-freight projects and plans.** Issues arise when key freight stakeholders are not invited to participate in the long-range transportation planning process in cases in which the project purpose is not clearly defined for freight. Regular meetings of freight advisory committees provide a means of overcoming this problem by providing a forum for both BCOs and motor carriers to discuss ongoing priorities. Including these advisory committees in public sector meetings ensures a more comprehensive private sector involvement. Examples of public sector advisory groups include Marine Transportation System National Advisory Council (MTSNAC), Puget Sound Regional Council (PSRC), Regional Freight Mobility Roundtable, and Delaware Valley Regional Planning Commission (DVRPC) Goods Movement Task Force. The case studies for the PSRC and DVRPC describe in more detail their "best practices."
- **Takes advantage of NHI and other training resources.** Agency staff can become more effective at fostering collaboration with the private sector by participating in training programs (e.g., NHI 139003 – "Advanced Freight Planning"). This also applies to top government officials who are sometimes not engaged or supportive of freight planning efforts likely due to their lack of knowledge about freight matters. It is important for top officials to be advocates of projects that will benefit the freight community and educating them one-on-one may be most effective method. Adding a component that details what motor carriers and BCOs "do" and the role they play in the freight transportation system can further broaden the understanding of industry needs. Arranging on-site learning for policy-makers offers a more complete understanding of freight operations and needs. It is critical for policy-makers to interact and learn from system users so they can make better decisions. Additionally, teaching DOT and MPO planners the appropriate questions to ask of industry stakeholders is critical in educating toward the assimilation of freight planning knowledge into the planning process. Using operations as an example, conveying to planners that industry logistics decisions are generally short term (not necessarily day to day, but frequently monthly or annually) and that freight routing decisions can change very quickly in response to trends and changing conditions can be critical to expanding the effectiveness of highway projects that serve a freight need.

- **Informs and educates public officials and the public.** It is important to educate the public, government officials, and other stakeholders about how supply chains function and the connections between trade, freight mobility and a vibrant economy in order to reach agreement on potential project designs. Freight stakeholders can be instrumental in providing technical information in this endeavor.
- **Utilizes freight stakeholders to inform highway design.** Freight stakeholders are knowledgeable about such things as truck turning radii, moving over-dimensional cargo, behavioral issues like truck acceleration and the impact of the steepness of a particular grade, etc. Therefore, establishing an official Freight Working Group (or technical committee) to be involved in addressing day-to-day operations and technical issues such as potential conceptual designs can be vital to the project's progress and enable project designers to deliver better designs and solutions.

*Insight from the Case Studies*

Baltimore Metropolitan Council Case Study

The Baltimore Metropolitan Council's (BMC) Freight Movement Task Force (FMTF) includes representatives of the Class I railroads (both Norfolk Southern and CSXT railroads), key regional BCOs (including McCormick Spices), the Maryland Motor Truck Association (MMTA), and representatives from the local jurisdictions. The railroads originally became involved through the development of rail access plans during the past decade and have remained consistently engaged. Other stakeholder involvement has centered on providing insight and feedback to origin-destination (O-D) surveys, routing, and measuring volumes of truck traffic on highway facilities for specific studies.

- **Collects and integrates critical information from the private sector.** Freight stakeholders can be reluctant to offer candid comments and proprietary business profiles, strategies and data to public sector representatives during official surveys or interviews, knowing their information will be included in a report, which will become part of the public domain. Under these circumstances it is unreasonable to expect businesses to provide information that they feel might undermine their competitive position. Yet, there are critical pieces of information on how stakeholders utilize the system that are vitally important in improving agency efforts to integrate freight into the capacity planning process. One way to potentially gain powerful insights into freight stakeholder perspectives and needs is to deploy staff with knowledge of the freight industry. This is not to say that government agencies will have no success in engaging freight stakeholders, but their staff or representatives must be knowledgeable about goods movement and supply chains to be more credible with the private sector. Staff with freight knowledge will instill confidence in the agency with stakeholders and will have a higher likelihoods of prompting helpful responses during interviews and meetings. They may be able to potentially gain access to proprietary data that would inform the planning process. And they may offer assurances that the proprietary data collected will be kept confidential.

- **Continually seeks fresh perspective.** Effective freight outreach efforts should attempt to continually engage new or different stakeholders to provide fresh perspectives. The insights provided by firms and organizations who have not previously been engaged—or have not been asked for their views on a specific project—can improve an agency's ability to make decisions and can reenergize existing stakeholders. Sometimes their input will be novel; other instances it will validate existing views or data analysis. The stakeholder renewal process should reduce agency dependency on individuals or companies who consistently participate in the process or who the government calls upon on a regular basis. To renew the stakeholder pool, agencies should reach out through networking, proactive reconnaissance with partners (e.g. economic development agencies), and by working with trade associations to engage their members. This should include a mix of small and large firms and shippers with diverse goods movement needs.
- **Keeps stakeholders informed.** Keeping freight stakeholders informed about critical issues, design changes, decision points, and key milestones during the planning process is critical to keeping them involved. Throughout this process planners should be respectful of freight stakeholders' time by not overloading them with extraneous information or constantly soliciting general input. Let them focus on critical and technical issues and decisions.
- **Recognizes the linkage between transportation and economic vitality.** When a freight stakeholder testifies at a public meeting or provides input on the project, he/she actually represents numerous jobs, not only him or herself. Freight stakeholders are sometimes concerned that a few vocal voices, speaking only for themselves or a few others, can drown out the input and opinions of the business community, thereby causing potential harm to economic vitality. Freight stakeholders can provide important background information and a clear understanding of the issues and technicalities and, therefore, should be heard. Freight stakeholders agree that citizens should be afforded equal access to the planning process, but the project decision-making should be dependent on the quality and relevance of the information contributed.
- **Articulates benefits of participation.** It is important to codify the message of "what is in it for me" to provide to freight stakeholders prior to soliciting their input and support. They will be much more likely to engage, as well as be more forthcoming with information if they see direct value and personal or company benefit as a result of their involvement. Too often, freight stakeholders are asked to be involved in meetings and discussions on freight issues where public agency staff and/or their consultants do not properly express how stakeholders can benefit from involvement.
- **Recognizes that responses may be stronger for projects than for plans.** Freight stakeholders are generally more interested in discussing "real" projects once funding has already been secured, so there is actually a strong

likelihood that the projects will be completed. While engagement may be practical and substantive during earlier planning phases or conceptual project development, many freight stakeholders may be more responsive when discussing projects that will likely affect their near-term operations. For example, when soliciting feedback about projects from motor carriers, planners should clearly focus on the target area. An effective effort will take this into account.

### *Summary of Effective Methods*

Identifying how different types of stakeholders respond to various levels of engagement is critical to effective communication and feedback. Table 4.1 shows which outreach method may be the most effective by freight stakeholder type. "Effective" is defined as the ability of the activity to motivate a response or participation in the activity. The table is divided into two major sections: with "Focused Outreach" on the left and "Ongoing Dialogue" on the right. Under each of these headings are listed some (but certainly not all) the potential strategies to engage freight stakeholders in the collaborative decision-making process. Cells with open circles indicate a general interest by the stakeholder in participating. Solid circles indicate a high likelihood of success in effective collaboration with freight stakeholder. If cells are empty, it indicates that the particular outreach method is likely to yield little useful information if employed for that kind of stakeholder.

Table 4.1 Key Freight Stakeholders
*The Most Effective Outreach Methods*

| Key Freight Stakeholders | Focused Outreach | | | | Ongoing Dialogue | |
|---|---|---|---|---|---|---|
| | *Freight Meetings* | *Workshops or Focus Groups* | *Telephone and In-person Interviews* | *Surveys (e.g., online)* | *Freight Committee* | *One-on-One Meetings* |
| BCOs | ○ | ○ | ● | | ○ | ○ |
| Logisticians | ○ | | ○ | | | ○ |
| Motor Carriers | ● | ● | ○ | | ● | ○ |
| Railroads | ○ | ● | ● | ○ | ● | ● |
| Commercial Real Estate | ○ | ● | ● | | ○ | ● |
| Chambers of Commerce and Business Groups | ● | ● | ● | ● | ● | ● |
| Economic Development Agencies | ● | ● | ● | ● | ● | ● |
| Port Authorities and Marine Terminal Operators | ● | ● | ● | ● | ● | ● |
| Local Governments | ○ | ○ | ● | | ● | ● |
| Transportation Agencies | ● | ● | ● | ○ | ● | ● |
| Local Governments | ○ | ○ | ● | ○ | ● | ● |
| Other Stakeholders | ○ | ○ | ○ | ○ | ● | |
| Legend: | ● - High likelihood of success in effective collaboration with freight stakeholder | | | | | |
| | ○ - General interest by the stakeholder in participating | | | | | |
| | EMPTY - likely to yield little useful information if employed for that kind of stakeholder | | | | | |

The application of this chart might differ widely by jurisdiction, depending on the mix of stakeholders, the project/plan in question, and other variables. The constants are that:

- Public or quasi-public agencies are inclined to participate in most type of engagement methods;
- Telephone interviews—and to a lesser extent in-person meetings—are generally effective across most stakeholder types; and
- Participation in events or committees where the individual has been personally invited and the event is clearly defined is often strong.

Chapter 6 provides additional depth on several outreach topics in the "Toolkit" section.

## 4.5 WHAT ARE THE BENEFITS FOR PUBLIC SECTOR AGENCIES FROM IMPROVED FREIGHT OUTREACH?

Effective collaboration with freight stakeholders can prove beneficial to public sector agencies in the following ways:

1. The public sector agency will find more success in maintaining and enhancing the multimodal transportation system to meet the needs of freight stakeholders.
2. Highway projects with the most relevance and positive impact on freight stakeholders will be more appropriately ranked and prioritized.
3. Freight stakeholders can put forward alternative system solutions and technical input and all potential solutions will be more effectively vetted, pointing to the solution with the best cost/value ratio and that will most positively impact the movement of freight.
4. Cooperation between the freight community, other types of stakeholders, and public sector agencies will be enhanced, and project opposition will be minimized.
5. Local, regional, and state economic vitality and retention of existing and attraction of new businesses can be directly attributable to transportation infrastructure projects and public policies that reduce congestion and enable speed-to-market for products.

Freight stakeholder contributions to the collaborative decision-making process for highway capacity additions can enhance not only the advocacy for the project but provide a breadth and depth to the project evaluation process. Freight stakeholders are unique in their connection to the regional and statewide economies and can expound the importance of market-based considerations in the planning process.

# 5.0 Decision Points

## 5.1 KEY DECISION POINTS FOR FREIGHT STAKEHOLDERS

The unifying paradigm of the SHRP 2 program is the four-phase decision flow structure: Long-Range Planning (LRP); Programming (PRO); Corridor Studies (COR); and Environmental Review and Permitting (ENV). The SHRP 2 program has defined more specific steps within the Decision Flow structure. In response to the interview and case study findings, the Freight Decision Flow Diagram outlines the individual steps of the highway planning process and highlights the most important findings in a two-dimensional way. The first dimension highlights the most critical decision points for engaging freight stakeholders, among the decision points of the SHRP 2 framework. The shaded cells in the matrix shown in Figure 5.1 illustrate the relative importance of the decision points for freight. Four points stand out as the most critical and are shaded darkest blue. They include (in order of importance): identification of needs, potential improvements, development of evaluation criteria (note: potential improvements and development of evaluation criteria have equal importance), and project/plan review. More critical points are shaded medium blue while less critical points are shaded light blue. This relative rating system is intended to help transportation agencies prioritize their outreach efforts. For example, an MPO planner developing a long-range plan for his/her jurisdiction may only have available resources to engage freight stakeholders during two of the major decision points. In that case, he/she should focus the outreach during the needs identification and either the identification of potential improvements or development of the evaluation criteria.

The second dimension – illustrated by the "Consumer Reports-style" circles/ semicircles embedded to the left of each cell depict the desired level of effort for engaging freight stakeholders during the course of making each decision. The level of engagement ranges from little/no engagement to extensive engagement, where transportation agencies should ensure that the freight community offers substantial feedback – demonstrates the ideal level of engagement for the freight stakeholders.

Please note that the this guide excludes four decision points in the overall SHRP 2 decision making framework because those points are procedural and would not involve stakeholder interaction. Excluded decision points are: ENV 9: Approve Resource Agency Purpose and Need; ENV 11: Approve Final Jurisdictional Determination; ENV 12: Reach Consensus on Avoidance and Minimization for Least Environmentally Damaging Practicable Alternative

(LEDPA); ENV 15: Render Permit Decision and Approve Avoidance and Minimization.

The guide reflects the structure proposed in the SHRP 2 program, but the guidelines should not be viewed as hard and fast. For example, some policy-makers may find that combining PRO with the policy topic and placing them before the LRP process makes more sense for their regional conditions. Agencies should not be afraid to tailor these suggestions to suit their needs.

Figure 5.1 Decision Flow Diagram

| Decision Point | LRP Freight | LRP | PRO Freight | PRO | COR Freight | COR | ENV Freight | ENV |
|---|---|---|---|---|---|---|---|---|
| 1 | Minimal to Moderate Engagement (depends on previous decision points) | Approve Scope of Long-Range Transportation Plan | Little to No Engagement | Approve Revenue Sources | Little to No Engagement | Approve Scope of Corridor Planning Services | Little to No Engagement | Reach Consensus Scope of Environmental Review |
| 2 | Minimal to Moderate Engagement (depends on previous decision points) | Approve Vision and Goals | Minimal to Moderate Engagement (depends on previous decision points) | Approve Methodology for Identifying Project Costs and Criteria for Allocating Revenue | Extensive Engagement – Critical Decision Point | Approve Problem Statements and Opportunities | Little to No Engagement | Approve and Publish the Notice of Intent |
| 3 | Extensive Engagement – Critical Decision Point | Approve Evaluation Criteria, Methodology, and Performance Measures | Extensive Engagement – Critical Decision Point | Approve Project List Drawn from Adopted Plan Scenario or Solution Set | Minimal to Moderate Engagement (depends on previous decision points) | Approve Goals for the Corridor | Extensive Engagement – Critical Decision Point | Approve Purpose and Need/ Reach Consensus on Project Purpose (PER-1) |
| 4 | Extensive Engagement – Critical Decision Point | Approve Transportation Deficiencies | Minimal to Moderate Engagement (depends on previous decision points) | Approve Project Prioritization | Little to No Engagement | Reach Consensus on Scope of Social, Cultural, Natural, Environ-mental Review and Analysis | Little to No Engagement | Approve Public Notice (PER-2) Reach Consensus on Study Area |
| 5 | Minimal to Moderate Engagement (depends on previous decision points) | Approve Financial Assumptions | Minimal to Moderate Engagement (depends on previous decision points) | Reach Consensus on Draft TIP | Extensive Engagement – Critical Decision Point | Approve Evaluation Criteria, Methodology, and Performance Measures (Potential Solutions) | Minimal to Moderate Engagement (depends on previous decision points) | Approve Evaluation Criteria, Methodology, and Performance Measures |
| 6 | Extensive Engagement – Critical Decision Point | Approve Strategies (Projects) | Minimal to Moderate Engagement available through Public Comment (depends on previous decision points) | Adopt TIP by MPO | Extensive Engagement – Critical Decision Point | Approve Range of Solution Sets | Extensive Engagement – Critical Decision Point | Approve Full Range of Alternatives/Approve Resource Agency Public Notice (PER-3) |
| 7 | Minimal to Moderate Engagement (depends on previous decision points) | Approve Plan Scenarios | Little to No Engagement | Approve TIP by Governor or his Designee and Incorporate into STIP | Minimal to Moderate Engagement available through Public Comment (depends on previous decision points) | Adopt Preferred Solution Set | Minimal to Moderate Engagement (depends on previous decision points) | Approve Alternatives to be Carried Forward (PER-4) |
| 8 | Minimal to Moderate Engagement available through Public Comment (depends on previous decision points) | Adopt Preferred Plan Scenario (Internal) | Minimal to Moderate Engagement (depends on previous decision points) | Reach Consensus on Draft STIP | Minimal to Moderate Engagement (depends on previous decision points) | Approve Evaluation Criteria and Methodology for Prioritization (Implementation) | Minimal to Moderate Engagement available through Public Comment (depends on previous decision points) | Approve Draft EIS/Reach Consensus on Jurisdictional Determination (PER-5) |
| 9 | Little to No Engagement | Adopt Finding of Conformity by MPO (Air Quality) | Little to No Engagement | Approve STIP with Respect to Conformity and Fiscal Constraint | Minimal to Moderate Engagement available through Public Comment (depends on previous decision points) | Adopt Priorities for Implementation | Little to No Engagement | Approve Preferred Alternative |
| 10 | Minimal to Moderate Engagement available through Public Comment (depends on previous decision points) | Adopt LRTP by MPO | | | | | Minimal to Moderate Engagement available through Public Comment (depends on previous decision points) | Approve Final NEPA Document |
| 11 | Little to No Engagement | Approve Conformity Analysis (Federal Conformity Determination) | | | | | Little to No Engagement | Approve Record of Decision/ Render Permit Decision (PER-6) |

Little to No Engagement; Minimal to Moderate Engagement (depends on previous decision points); Minimal to Moderate Engagement available through Public Comment (depends on previous decision points); Extensive Engagement – Critical Decision Point

*Critical Decision Points*: Most Critical; More Critical; Less Critical

This section describes the role for freight stakeholders at each decision point in the planning process across the four phases. While many of the decision points optimally require extensive engagement of freight stakeholders, others require little or none to help guide the planning process and integrate freight considerations into the planning process. Since identifying an appropriate freight stakeholder group for each project can be very challenging, if there is an existing group or list of stakeholders that can be utilized for the current planning efforts, it would certainly save project resources to use it. For example, eliciting support from stakeholders is a very time consuming process as it takes time to not only identify appropriate freight stakeholders who can add value to the planning process, but even more time to build the institutional trust for their involvement. At the outset of the planning process, planners should ask the following initial questions to determine if there is value to identifying or reconvening a group of stakeholders that have previously offered support:

- *For the latest iteration of the LRP was there a separate section for freight transportation in the modal discussion and was freight integrated throughout the LRP?*
- *Has there been a recent (i.e., within the last five years) Statewide or Regional freight study that identified or engaged freight stakeholders?*
- *Who are those stakeholders? Did they provide any useful feedback?*
- *Has there been any ongoing contact with these stakeholders either through the DOT or MPO or a partner organization (i.e., economic development organization, Chamber of Commerce, etc.)?*

If a freight advisory committee or council does exist, announce the development of the LRP (or Statewide Transportation Improvement Program/Transportation Improvement Program (STIP/TIP), Corridor study, or NEPA document preparation) at a regularly scheduled meeting (or organize a new meeting if the group is inactive) and share the anticipated role for stakeholders (i.e., when they will be called upon to provide feedback – identification of needs, evaluation criteria, strategies, etc.) and the time frame. If an ongoing group does not exist, DOT/MPO staff should develop a freight stakeholder list most appropriate for the scope and scale of the study (i.e., smaller study likely would yield a smaller list of participants) of major industry participants, motor carriers (or the regional or state trucking association), the railroads, and economic development stakeholders (such as the Chamber of Commerce), among others. The FHWA Guidebook on Engaging the Private Sector in Freight Planning provides much more detail on forming a stakeholder advisory group for freight stakeholders

## 5.2 LONG-RANGE PLAN

Freight projects and issues should be included in the LRP, the scale of which should be based on the role of freight transportation in either the region or state.

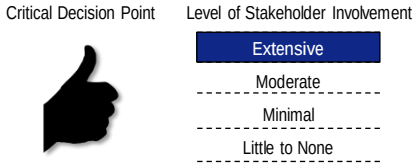
Engagement of freight stakeholders during the development of the LRP should involve the formation or activation of a freight advisory committee or other collection of stakeholders to provide feedback during each phase of the process. A kickoff meeting at the outset of the project to discuss the scope (LRP 1), vision and goals (LRP 2), and system needs (LRP 4) can help members get acclimated to the process and provide insight into the priorities of system users.

There are four critical decision points for freight in the LRP process. This is not to say that the other decision points are irrelevant, however, in a constrained environment (e.g., time, funding), engagement at these four decision points will yield the greatest value to the MPO or DOT planners to understand freight interests. The four critical decision points include:

- Approval of evaluation criteria – Decision Point #3 in the Long-Range Planning Process;
- Approval of Transportation Deficiencies (i.e., needs identification) – Decision Point #4 in the Long-Range Planning Process;
- Approve Strategies (Projects) – Decision Point #6 in the Long-Range Planning Process; and
- Approve Plan Scenarios – Decision Point #7 in the Long-Range Planning Process.

The following section outlines the role for freight stakeholders at each decision point in the long-range planning process as well as describes potential engagement activities and expected feedback from stakeholders following the engagement effort.

## LRP 1 Approve Scope of Long-Range Plan[4]



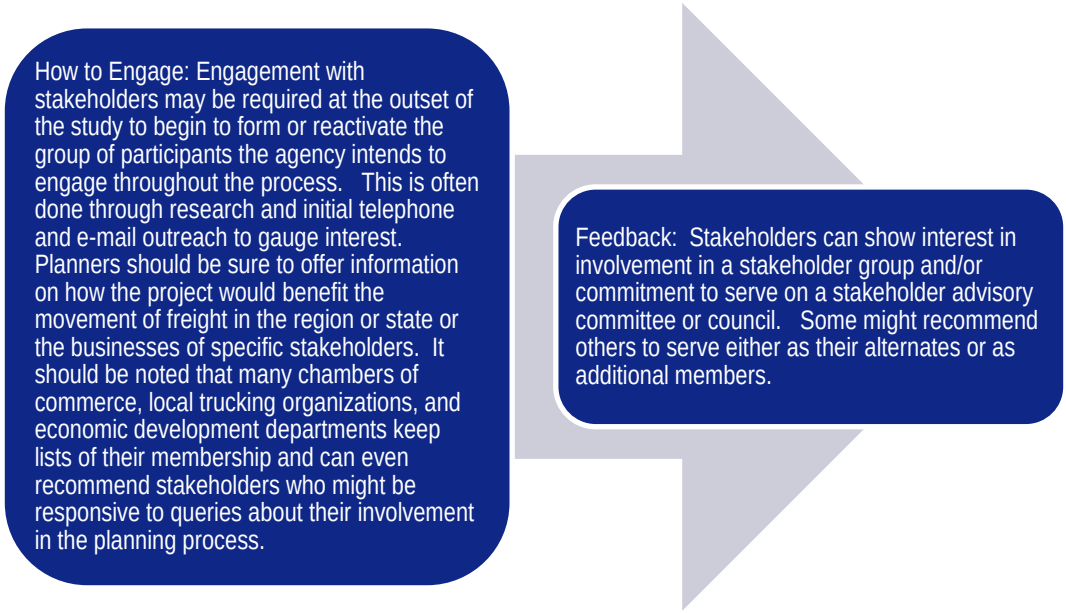

In many jurisdictions, the scope of the long-range plan includes several chapters or sections describing the role of different modes (i.e., bicycles, transit, airports, highways, rail, and pipeline) in the region or state's transportation system. The movement of freight on the transportation system (i.e., the commodity flows on trucks, trains, through the air, through pipelines, and on the water) can generally be evaluated in one of two ways:

[4] A thumbs-down symbol denotes that this is not a critical decision point for freight stakeholders; whereas a thumbs-up symbol suggests that this is a critical decision point.

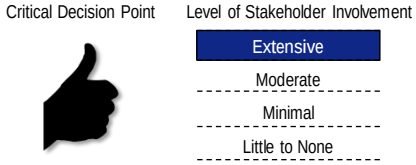
1. Separate "freight" modal section that includes a discussion of goods movement activities in the region on each mode; or
2. Discussion of how freight issues relate to travel on each mode within individual modal sections.

Whichever method is selected, discussion should be included on interconnectedness between modes. For example: The "Existing Facilities" or "Current Trends" sections of the LRP may include information on the roadway network in the state or region, including average annual daily travel (AADT) or volume to capacity (V/C) ratio data or maps and general trends or issues on the roadway network (i.e., key bottlenecks). To account for freight, the LRP could include an evaluation of data on existing truck routes, average annual daily truck travel (AADTT), location of major freight facilities, and/or tables and charts on commodity flows by truck. The freight elements of the LRP should also consider the relationship of truck trips (and planned facilities) to other modal needs and plans, including bus and bicycle plans for that section of the freight corridor.

The level of stakeholder involvement during the initial development of the scope and scale of the long-range plan is focused on marshaling resources and identifying an appropriate strategy for reaching out to the freight stakeholder community. Involvement with the freight stakeholder community during the early work is most effective in conjunction with decision points LRP 2 and LRP 4 to give the stakeholders not only a context of the study, but also give them some substantive information with which to respond. Most of the efforts at this early stage should be on establishing a diverse and potentially engaged stakeholder group that can maintain involvement throughout the planning process.



## LRP 2 Approve Vision and Goals




Freight stakeholders should also be consulted when developing the long-range transportation plan vision and goals, especially when economic development, business attraction, and quality of life are concerned. Freight system users, like business leaders, manufacturers, and consumers, are able to provide insight into their long-range goals and objectives, and freight stakeholder outreach provides a better understanding of those goals. Certain key stakeholders (such as large BCOs, manufacturers, growers and processors in the region) may provide insight into broader regional, national, or international trade and transportation trends that may affect future infrastructure needs in the MPO region or state where the LRP is being developed. It is important to recognize and account for the potential incongruence between the planning horizons of freight stakeholders, many of whom represent the private sector, and the planning horizon for the LRP. The LRP will have a planning horizon of 20 years or sometimes more, while many freight stakeholders might consider two to five years as a long-range planning horizon.

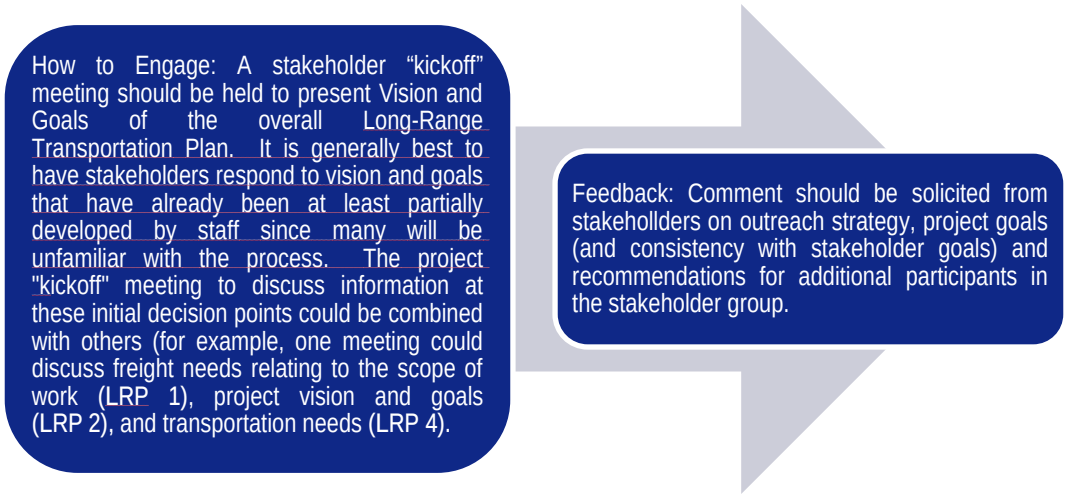
Freight stakeholder involvement at this phase can be either minimal or moderate depending on resources or if there is an existing freight advisory group that can be reengaged. As noted above, it is usually best to consolidate the engagement activities, especially when several issues can be addressed at one time. Including the discussion of the scope of work, vision and goals, and other issues can help maximize the outreach effort and maintain goodwill with stakeholders in the freight community who might feel "fatigue" at constantly being asked for information and advice.

*Insight from the Case Studies*

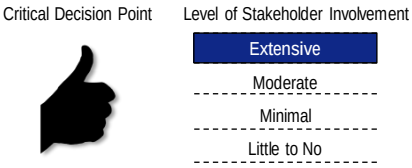
Coordinating Freight Stakeholder Engagement between MPO and State Activities

In a recent statewide planning effort, the Maryland Statewide Freight Plan, the Baltimore Metropolitan Council's (BMC) Freight Movement Task Force (FMTF) was involved in organizing the region's stakeholder response, which included helping to identify members to serve on the Advisory Task Force. The participants in the group were expected to provide insight on evaluation criteria, visioning, and project identification. For other regional or statewide projects that required insight or data from stakeholders, this information has been provided through one-on-one interviews conducted by consultants or the BMC staff themselves.

During the development of Vision and Goals some participants such as major BCOs will be more focused on "high-level" issues such as regional or national logistics and industry trends, and may be more interested in systemic highway improvements (national policies, connections between states) as opposed to motor carriers or local businesses more concerned with local access issues like truck turning radii, congestion on city streets, delivery schedules, truck parking, and other issues.




## LRP 3 Approve Evaluation Criteria, Methodology and Performance Measures

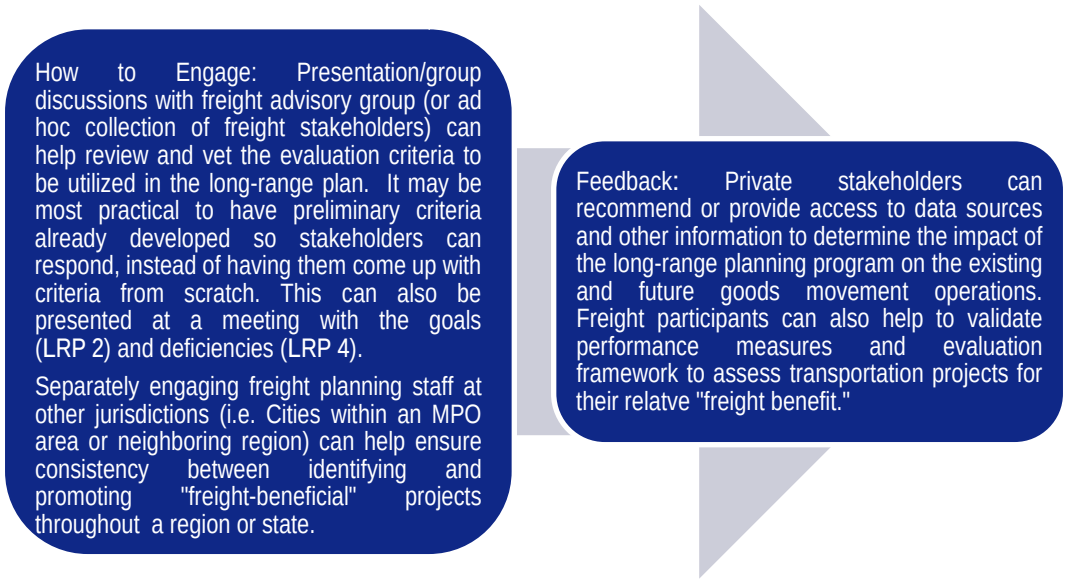



Performance measures are utilized in the development of long-range plans to prioritize projects and programs in the jurisdiction and provide ways to vet worthy projects in a constrained funding environment. Strategies for evaluating the efficiency and operation of freight-oriented facilities can differ from those used for other modes and should take into consideration the needs and goals of the freight users. Performance measures for evaluating freight projects can include both quantitative and qualitative measures. Evaluation criteria could include, among others: mobility or congestion considerations for trucks; access to clusters of manufacturing, logistics, or distribution activities; safety and security; and cost of operations.[5]

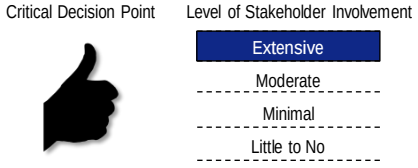
Trucking companies, railroads, and business representatives should be able to review and contribute to the development of performance criteria and evaluation methodologies. Private stakeholders may suggest new metrics or provide access to data sources and other information to determine the impact of the long-range planning program on the existing and future goods movement operations.

[5] The SHRP 2 report *Performance Measurement Framework for Highway Capacity Decision Making (http://www.trb.org/Publications/Blurbs/161859.aspx)* contains additional examples of appropriate freight performance measures. The Statewide freight plans for Maryland and Minnesota, and MPO freight studies from MARC (the Kansas City MPO) and DVRPC (Philadelphia MPO) also include some excellent examples.

Smaller scale freight stakeholders may not have a clear understanding of evaluation criteria or performance measures, but a more active freight advisory group may be able to validate the selection of specific performance measures with a relatively uniform voice. Soliciting the input of a freight advisory group at this point provides a chance to integrate the goals and requirements of system users into the planning process, hence leading to a better project outcome.




## LRP 4 Approve Transportation Deficiencies (Needs Identification)




Perhaps the most critical decision point for engaging freight stakeholders is the identification of transportation deficiencies. While it is likely that highway system deficiencies such as major interchange bottlenecks affect both the freight community and passenger community (i.e., daily commutes, leisure travel, school trips), freight stakeholders will be able to identify concerns for the transportation system as it relates to truck and other goods movement mobility, such as geometric shortcomings (i.e., turning radii for trucks exceeds the constructed turning apron), peak travel demand for freight vehicles (i.e., deliveries, through trips from region to region), safety issues, and conflicts between freight and passenger vehicles.

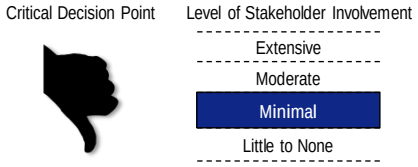
Freight users should be heavily involved in the discussion of needs to provide insight into how transportation infrastructure decisions can affect product flows, logistics, BCO supply chain strategies and decisions, shipment transit times, operating costs, and regional economic development. Some freight stakeholders such as smaller motor carriers or BCOs that only operate in a small section of the

study area may not have the resources to participate in all these discussions but should be able to review and comment on data sources and lists of identified needs once developed.

How to Engage: Data collected through telephone or in-person interviews, charrette or stakeholder workshop, detailed survey, or simple question and answer session in a meeting are effective methods. Meetings can also help validate survey/interview findings.

Feedback: Survey/interview responses can include lists or validation of infrastructure needs, specific bottleneck locations, and operational and institutional constraints that could be mitigated by transportation improvements.

## LRP 5 Approve Financial Assumptions




The discussion of financial assumptions (i.e., how the improvements outlined in the long-range transportation plan will be paid for) should take into consideration both the short- and long-term needs of the freight community. Explaining the planning and funding horizon (often at least 25 to 30 years) to freight stakeholders can sometimes be a challenge since they generally plan infrastructure and investments on a much shorter (often less than two to five years) time scale. Taking some time to explain the local, state, and federal funding and project finance processes can minimize confusion down the road (although it is probably best not to overwhelm stakeholders with all the detail of highway finance). This decision point probably does not require a separate discussion with stakeholders unless there is a key interest in exploring Public-Private Partnerships (PPP) or all new roads in the jurisdiction are toll roads (to discuss the impact on business). It may only Freight stakeholders are often amenable to discussing PPP solutions to developing projects on a quicker time frame, but generally are only interested in "real" projects (i.e., projects that have dedicated funding or are expected to be completed on a relatively short time frame – three to five years).

*Insight from the Case Studies*

**Vetting the project list with freight stakeholders at the Delaware Valley Regional Planning Commission (DVRPC)**

When the LRP is developed, the Goods Movement Task Force (GMTF) at the Delaware Valley Regional Planning Commission is presented with the opportunity to review and comment and provide an endorsement of the draft plan. This provides value to private sector stakeholders, however, it is important for the public sector organization to balance the amount of review required with the time constraints and level of interests of certain stakeholders. Many stakeholders are satisfied with a review of the final product as a final "check" as opposed to continually reviewing and providing feedback on draft plans.

One very important component in the DVRPC outreach method was the distribution of only relevant sections of the draft LRP documents rather than the entire document for the private sector freight stakeholders to review, saving participants' time and more efficiently soliciting their feedback in the process.

How to Engage: Input can be provided through the freight advisory committee or other stakeholder group as a review and comment item during regularly scheduled meetings or specific off-line discussion with key affected stakeholders.

Feedback: There may be no feedback at this stage, however, in many parts of the Country, such as in Central Ohio (MORPC), freight stakeholders have helped to identify outside funding sources (such as federal grants or partnerships) that may provide opportunities for regionally significant freight-beneficial projects to gain support from decision makers. If there are a lot of projects in the region that require private support, off-line discussion with certain stakeholders (major BCOs, railroads) may yield additional information on funding or partership opportunities.

## LRP 6 Approve Strategies (Projects)

Critical Decision Point

Level of Stakeholder Involvement

- **Extensive**
- Moderate
- Minimal
- Little to No

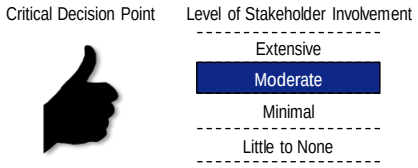
This is one of the most crucial decision points, probably the second most important behind identification of needs and the most important to many stakeholders, especially daily users of the transportation system such as motor carriers. Proposed LRP projects and strategies should meet the needs and long-range goals of stakeholders and take into consideration future economic, logistics, and other goods movement trends. This decision point provides the opportunity to ensure that projects in the LRP provide benefit to freight users as well as other constituencies such as commuters, alternative mode advocates, and smart growth

proponents. For nonconforming regions for air quality, some engagement of freight stakeholders can help planners develop alternative strategies, including projects to reach attainment goals. DOTs and MPOs tend to focus on system capacity when determining which projects to put forward. Freight stakeholders need more than adequate system capacity (e.g., a different type of intersection or grade on a highway on ramp, redundant/alternate routes). Planners should not overlook these other needs during the project design phase.

How to Engage: Review of the project list or LRP strategies might be a topic of discussion at a freight advisory group meeting. The meeting could be coupled with collecting information on needs (LRP 4) or discussing long-term financing (LRP 5). A survey might allow respondents to propose potential solutions (i.e. add additional travel lanes on roadway x between highway y and highway z) to connect to a major BCO distribution center.

Feedback: Based on the evaluation criteria (LRP 3) and identification of needs (LRP 4), freight stakeholders can provide insight into a specific project and/or improvement strategies that would enhance the movement of goods in the region or state and meet the state's or regions goals (LRP 2). Many potential solutions to meet freight mobility needs may already be included in the potential project list from previous versions of the LRP not yet constructed. Attention and recognition from the freight community can help highlight those projects with a benefit for goods movement flows. Stakeholders can also propose other projects that may not yet have been identified or considered.

## LRP 7 Approve Plan Scenarios



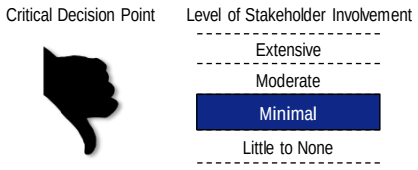

The approval of plan scenarios phase allows freight stakeholders to review the scenarios that have been developed by staff to cover all issues and constituencies in the LRP process (including transit, bicycles, commuters, land use, air quality, regulatory and other planning considerations, etc.). Agency staff involved in working with the freight community and on freight issues should review plan scenarios to ascertain if freight considerations are included before presenting the plan to stakeholders. Stakeholders should then be given the opportunity to respond to the scenarios prior to its being compiled into a draft LRP for public review. The freight stakeholder community can also use this opportunity to prepare a letter of support if there is consensus for the LRP to forward along to the decision makers.

How to Engage: Freight stakeholder groups should be encouraged to provide comment on the LRP scenarios or project list as it relates to freight to voice any concerns. This could take the form of distributing the draft plan to certain or all stakeholders who have been involved in the process and giving them a specific timeframe under which to provide feedback. Another strategy would involve conducting a workshop or meeting at which the final strategies and how stakeholder input was incorporated was explained.

Feedback: Freight stakeholders should be given ample opportunity during this phase to promote the plan scenario or project list that best meets their needs. This provides the best "last chance" for freight stakeholders to provide substantive feedback on the contents of the LRP before the administrative approval process begins.

Note: These final four decision points in the LRP process are typically administrative steps by the MPO or State Transportation Commission ensuring that the LRP is approved and adopted according to statute, with adequate public hearing. Freight stakeholders should have the opportunity and be encouraged to comment at public hearings, along with participants from the public at large. Freight stakeholders likely would have little interest in direct engagement beyond this point, however may appreciate updates on public hearing times and venues and the status of the plan approval. These updates can be made through the mailing or distribution list associated with the freight advisory committee or other ad-hoc advisory group for the LRP process.

## LRP 8 Approve Preferred Plan Scenario

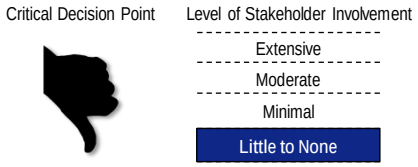



There may or may not be a public comment component to officially selecting the LRP-preferred scenario. If the public is invited to participate in public meetings during this decision point, freight stakeholders may provide feedback to support preferred scenarios or projects.

How to Engage: Freight stakeholders should be invited to provide feedback on the preferred LRP plan scenario through the traditional public comment process.

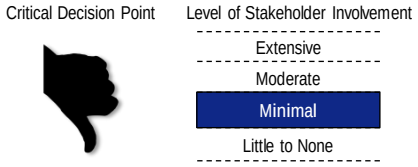
Feedback: Freight stakeholders can provide public comments to be compiled by MPO or State DOT planners, hopefully providing validation to the question – did we get it right?

## LRP 9 Adopt Finding of Conformity by MPO




The freight community is typically underrepresented in MPO and state air quality planning, except where there are major air quality issues and/or a push for additional regulation on emissions from trucks. Air Quality models may estimate truck air quality effects (mostly $PM_{10}$), but freight stakeholders are not typically consulted and the finding of conformity is a regulatory decision with no direct role for freight stakeholders. For nonconforming regions, planners should make a special effort to engage freight stakeholders, especially motor carriers, at earlier stages (especially **LRP 4** and **LRP 6)** to help strategize how to reach attainment goals as part of a broader regional or statewide transportation planning strategy.

## LRP 10 Adopt LRP by MPO

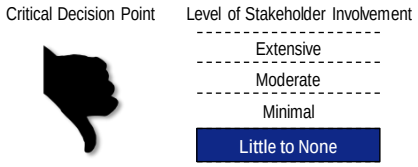



If freight stakeholders have participated throughout the planning process and provided comment during the development of the draft LRP products, and especially the approval of plan scenarios (**LRP 7** and **LRP 8**), there should be minimal engagement required, beyond encouraging stakeholders to remain involved in the public approval process through public comment. This will help ensure that freight needs are properly incorporated into the final adopted LRP.

How to Engage: Freight stakeholders should be invited to provide feedback on the final LRP through the traditional public comment process.

Feedback: Freight stakeholders can provide further public comments beyond the comments provided during the draft LRP review to ensure that freight issues are integrated into the final product.

### LRP 11 Approve Conformity Analysis (FHWA)




This is an administrative decision by the FHWA and other regulatory agencies on the air quality attainment of a particular region. If an MPO is located in a nonattainment area, there may need to be additional consultation with motor carriers if mitigation strategies would adversely affect transportation operations or costs. Otherwise, there is no role for freight stakeholders during this decision point.

## 5.3 PROJECT PROGRAMMING – DEVELOPMENT OF THE TRANSPORTATION IMPROVEMENT PROGRAM (TIP/STIP)

Building on the outreach strategies and findings from the development of the long-range transportation plan, the transportation improvement program identifies funding opportunities for projects and programs in the short and medium term. Many jurisdictions that construct the TIP or STIP directly from the LRP without much additional analysis and engagement with freight stakeholders should utilize information previously provided. That information includes outreach performed during the LRP process or from the development of freight specific plans. For example, if an MPO or state has developed a freight plan (e.g. Statewide Freight Plans), the plan may identify freight-specific projects for potential inclusion into TIP/STIP.

Sometimes, the LRP and TIP/STIP are developed concurrently. Thus, the level of involvement of freight stakeholders during this planning phase should take into consideration the scale of the involvement during the LRP. If the processes of LRP and PRO are conducted concurrently, the planner should seek to inform the stakeholders of the process and consolidate interview and survey, stakeholder meeting and workshop, and other engagement opportunities.

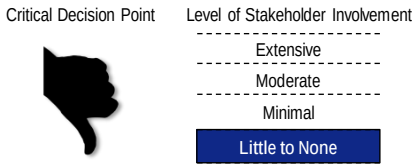
The four critical decision points for the PRO process include:

1. Approval of evaluation methodology for ranking projects – PRO 2;
2. Approval of Project List – PRO 3;
3. Approve Project Prioritization – PRO 4; and
4. Approve Draft TIP/STIP – PRO 5.

The following section outlines the role for freight stakeholders at each decision point during the project programming phase. More robust levels of engagement

during the TIP/STIP development process will likely be based on whether or not substantive information was collected from freight stakeholders during the LRP process. More substantive information collected during the development of the LRP probably will require less engagement with freight stakeholders during the development of the TIP/STIP.

## PRO 1 Approve Revenue Sources




The level of involvement during the approval of revenue sources decision point will depend largely on the type of stakeholders affected by the potential project or transportation program. BCOs may have little interest at this early stage unless the transportation improvements or revenue options will cause their freight rates to increase (through higher tolls, longer routing, transit delays, or reduced freight carrier competition). Freight carriers (including the railroads) may want to be included in the discussion at this stage to highlight their opposition or approval of alternative revenue sources, although this may be able to be addressed in conjunction with other issues such as evaluation criteria. Different types of revenue proposals such as tolling of a certain roadway, but not a parallel roadway could provide a competitive advantage for one mode/BCO/ motor carrier over another through changes in travel speed and reliability and cost of shipments. Large or very complex transportation projects might necessitate earlier coordination with key freight stakeholders to identify potential PPP opportunities. Many DOTs and MPOs begin an early dialogue with these stakeholders to solicit private sector financial support for projects beneficial to private industry. These discussions can take place in either a public or private forum, but potential solutions should be vetted by the overall freight stakeholder community.

Revenue supporting transportation projects for the TIP/STIP are based on a variety of sources (i.e., federal and state gasoline taxes, air quality improvement funds, congestion management funding sources, and local and regional sales taxes). Freight stakeholders have little role in the approval of revenue sources, however, they should be presented revenue information to help them understand a constrained funding environment and convey the importance of project prioritization. This information may best be presented in the context of the next phase, Approve Methodology for Identifying Project Costs and Criteria for Allocating Revenue.

## PRO 2 Approve Methodology for Identifying Project Costs and Criteria for Allocating Revenue

Critical Decision Point

Level of Stakeholder Involvement

- Extensive
- **Moderate**
- Minimal
- Little to None

Freight projects have the same opportunity to compete for funds as other projects; however, there are few jurisdictions nationally with a defined TIP/STIP funding category for "freight projects," as opposed to a separate category for rail, transit, bicycle, or other non-highway modal projects. Finding strategies to ensure that freight-oriented or freight beneficial projects receive the appropriate designation and attention may improve funding outcomes. Highway projects with more vocal constituencies might be prioritized over freight-oriented projects simply because they have less support from decision makers. It should be noted that all highway projects serve freight users is some form – even if it is just to improve the route for a local delivery by the U.S. Postal Service, UPS, FedEx, or other couriers. The methodology for allocating funds should highlight benefits that improve the connection between freight transportation facilities such as warehouses, manufacturing plants, and distribution centers and customers, or enhance the flow of goods on the highway network through capacity improvements and operational enhancements.

How to Engage: Outreach can be done during advisory committee meetings or through telephone interviews with key stakeholders who have relevant knowledge of or interest in the benefits of freight projects. This process can utilize similar criteria and metrics to those developed for the long-range transportation plan. For regions with a large role for private funding of transportation (toll roads), additional interviews could be conducted with motor carrier and transportation industry executives to validate toll and revenue assumptions and potential supply chain impacts.

Feedback: Recommendations of the benefits to freight users resulting from improvements to the highway system and/or validation and buy-in of the ranking criteria should be solicited.

## PRO 3 Approve Project List Drawn from Adopted Plan Scenario or Solution Set

Critical Decision Point

Level of Stakeholder Involvement

- **Extensive**
- Moderate
- Minimal
- Little to No

The decision point during the LRP process that identified a proposed project list should already have identified a list of freight needs from a combination of stakeholder outreach and data analysis. If the LRP adequately utilized available data and sought input from the private sector to develop a list for programming consideration, this decision point may not require much additional discussion of freight projects and engagement of freight stakeholders, beyond the engagement done during the LRP process. However, this is a critical decision point with extensive engagement required to ensure that the freight project needs are reflected in the project programming process and that freight stakeholders have been provided an adequate opportunity to provide their feedback on the project list.

*Insight from the Case Studies*

The "Freight" Transportation Improvement Program (F-TIP)

The Mid-Ohio Regional Planning Commission (MORPC) is the MPO for Columbus, Ohio. MORPC has focused on ways to better prioritize freight projects using the TIP. Its process has culminated in the developed of an F-TIP – or a subset listing of projects in the TIP that have a strong benefit for freight. The inclusion of projects in the F-TIP is not a particularly scientific process, rather MPO staff, with input from the private and public sector freight communities identify the roads and other facilities in the region that access key freight areas. The F-TIP is developed only after the TIP is developed so only those projects expected to be funded are included in the F-TIP. Truck counts and other readily available data including potential fuel consumption reductions from improvements may be used to validate the inclusion of certain corridors.

How to Engage: The project list should be shared with freight stakeholders at a advisory committee meeting or through surveys/ interviews. Since several months may have passed since the LRP process concluded (along with a possible transition of DOT or MPO staff, new political figures, changing regional economic needs, etc.) at this decision point, planners can reengage with freight stakeholders and provide them with a tangible "list" of freight-oriented projects from which to respond for inclusion in the TIP/STIP.

Feedback: Comment on whether all freight needs are accommodated in the existing project list will come at this point. This is especially crucial if the TIP/STIP is developed on a separate timeframe from the LRP, where worthy new projects might need to be integrated into the TIP/STIP.

## PRO 4 Approve Project Prioritization

Critical Decision Point

Level of Stakeholder Involvement

Extensive

**Moderate**

Minimal

Little to None

Stakeholders should be involved in the development of criteria and prioritization methods to ensure the process reflects economic realities during the PRO 2

decision point. PRO 4 also is a critical decision point, and is utilized for stakeholders to review how the methodology prioritized the projects. It is conceivable at this stage, that the evaluation criteria might be modified, if it appears that the ranking of worthy projects looks unreasonable. The ranking methodology also could be vetted with some "test" projects to ensure that the criteria meet the needs of constituents. Since there is often no dedicated funding stream for freight-beneficial projects, these projects need to be highlighted in other ways. Identifying other benefits of the projects, beyond the economic and mobility benefits for trucks such "as improving safety" or "promotes economic development" is important. The benefits from a freight perspective would have been captured in PRO 2.

How to Engage: The most effective outreach methods during this phase include stakeholder meetings, interviews, or surveys to understand the highway improvements that would best meet stakeholder needs. If stakeholders had previously been involved in the vetting of the evaluation criteria, they should not have any issues with the results.

Feedback: Freight stakeholders should review the selected projects most beneficial for freight against both other freight-beneficial projects and those projects less important to freight movement. This is especially important if there is no designated "freight" project category in the TIP. Freight stakeholders could help planners identify the value of projects (i.e. monetary, time) to freight movement.

*Insight from the Case Studies*

Project Prioritization for Freight

The Seattle Freight Advisory Board (SFAB), managed through the City of Seattle DOT has wrestled with properly prioritizing freight projects for many years. The "freight" project prioritization methodology differs from other modes to some extent, for example, to recognize challenges that include physical clearances and weight limitations. In this regard, the input from freight stakeholders is essential to ensure the project accommodates the special needs of certain products, such as over-dimensional cargo.

## PRO 5 Reach Consensus on Draft TIP

Critical Decision Point

Level of Stakeholder Involvement

Extensive

**Moderate**

Minimal

Little to None

One of the four critical decision points to engage stakeholders during the project programming process is the review of the draft TIP. Private sector stakeholders indicated during the development of case studies that this was the most important decision point for many of them, simply because they often not had the time or knowledge of the planning process to remain involved throughout. Stakeholders may want to review the outcome of the prioritization process to know how well the projects that are most important to them have been ranked.

This still gives them the opportunity to provide their input. While the freight community may not agree with the methods or procedures in which the approving body (generally the DOT commission or MPO board) reaches its decisions, it is important that they are able to comment prior to those deliberations. In addition, freight stakeholders should have the opportunity to review how decision makers plan to allocate any freight-specific funds available (e.g., funding for National Highway System (NHS) Intermodal Connectors, TIGER grant monies, environmental mitigation funds, etc.).

How to Engage: The draft project list should be presented at a freight advisory committee or other stakeholder meeting to gain feedback or solicit responses through direct mailings to key stakeholder groups. The list should clearly identify top and secondary priority projects and the expected timeframe for implementation as well as some background of how the project evaluation system was applied.

Feedback: Stakeholders should review and provide comment on the draft document to ensure that freight issues and other needs, identified previously are addressed by projects in the TIP/STIP.

*Insight from the Case Studies*

Avoiding Stakeholder Fatigue

The Mid-Ohio Regional Planning Commission (MORPC), in Columbus, Ohio has extensive experience in engaging the freight stakeholder community. For many years the MPO has cooperated with the regional Chamber of Commerce to promote activity and address needs at the Rickenbacker Inland Port in Columbus. The entity that facilitates this engagement is the Columbus Region Logistics Council (CRLC), of which both MPO and Chamber staff participate.

In addition to providing feedback during the long-range planning process and project prioritization during the TIP development, the CRLC plays a role in soliciting outreach for specific freight planning studies. The CRLC holds regular meetings and has initiated a range of projects in recent years including the Central Ohio Logistics Roadmap and MORPC has conducted major access studies to Rickenbacker.

Effective outreach methods with freight stakeholders have included one-on-one discussions and interviews as well as presentations during scheduled meetings. Focus groups also play a major role in providing feedback from industry, especially during recent studies. Feedback has been much more effective when the stakeholders have a specific product or issue to respond to.

Prior to the codification of these cooperative engagement efforts, MORPC sometimes received feedback from stakeholders identifying the long duration and sometime lack of focus during stakeholder meetings and a limited understanding of private sector interests. To correct this impression, the MPO set a consistent schedule for meetings, outlined expectations of membership, and developed specific agendas for meetings.

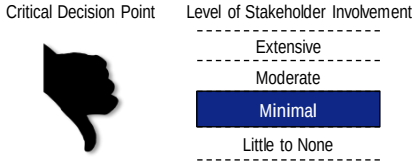
*Insight from the Case Studies*

Engaging a Broad Range of Stakeholders

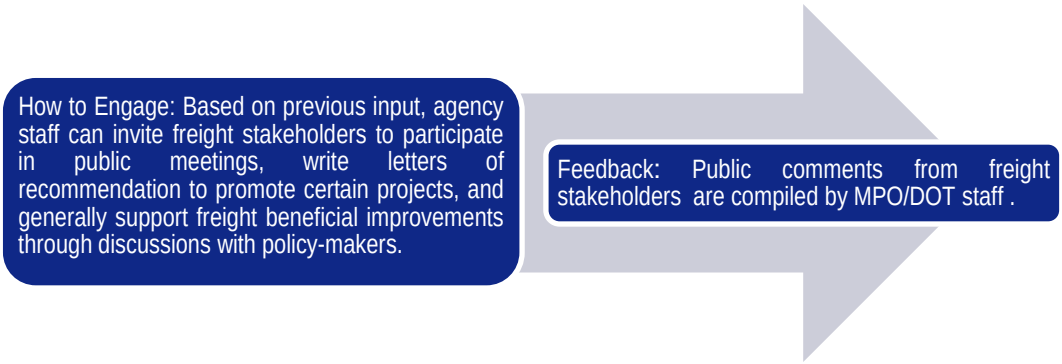
In Atlanta, Georgia, the Georgia Department of Transportation (GDOT) planning team for the Georgia Statewide Freight and Logistics Plan worked to identify appropriate freight stakeholders for their outreach efforts. Prior to the development of the plan, GDOT generally worked with a relatively small but core group of freight stakeholders including the Georgia Motor Trucking Association, Georgia Ports Authority, and representatives from the major rail and airport sectors for both their long-range and corridor planning efforts. The elevated profile of freight transportation planning throughout the latter 2000s prompted the Governor to initiate a Freight and Logistics Task Force, which expanded the scope of outreach efforts to include a broader range of stakeholders and a more formal stakeholder advisory group of high profile industry representatives.

For corridor planning in Georgia, if the corridor study includes a major freight interest or issue, GDOT might convene a separate freight stakeholder outreach initiative. GDOT has experienced more constructive stakeholder engagement when outreach methods are customized for the local environment.

## PRO 6 Adopt TIP by MPO

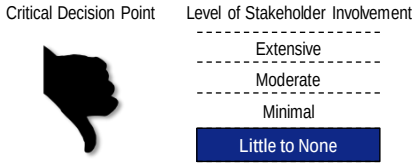



This next decision point is a procedural action by the decision-making body (generally the MPO Board or State Transportation Commission) to officially adopt the TIP/STIP. However, the adoption process by states and MPOs is sometimes driven by multiple public meetings of which freight stakeholders can take part. Their involvement can help promote desired projects and programs that have a discernible benefit for improved goods movement flows. The direct involvement by freight stakeholders at this stage is minimal, but planners can encourage and help organize the stakeholders with whom they work to turn out to provide a face to the needs of this important constituency. Some DOTs and MPOs have a specially identified transportation improvement program for freight where freight-beneficial projects have been highlighted through stakeholder input or parallel freight planning processes. Drawing attention to these projects can help not only in the project prioritization, but open up the MPO or DOT to additional outside support when freight-specific funding sources become available.



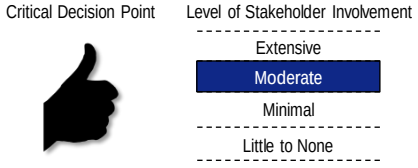

Note: These final three decision points in the PRO process are typically administrative steps by the MPO or State Transportation Commission ensuring that the TIP/STIP is approved and adopted according to statute, with adequate public hearing, similar to the adoption of the LRP. Freight stakeholders should have the opportunity and be encouraged to comment at public hearings, along with participants from the public at large, however, would likely have little interest in direct engagement beyond this point.

## PRO 7 Approve TIP by Governor or His Designee and Incorporate into STIP




During this decision point, agency staff should review the STIP or TIP to ensure that all projects included meet federal or state or regional requirements and appropriately represent freight interests in the study area. There is no role for freight stakeholders during this decision point.

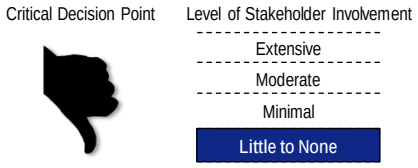
## PRO 8 Reach Consensus on Draft STIP




Planning groups at the state DOT will develop consensus on the STIP and prepare draft documents for public review and comment. Freight stakeholders can be invited to comment as well along with the general public; although they would have already had the opportunity to do so at a regional level during PRO 6 (this phase presents projects at the statewide level). Yet this decision point could provide an important opportunity to engage portions of the state (e.g., non-MPO portion of the state) in helping prioritize short-term investments

that would benefit freight. For example, agricultural and rural portions of the state could use this as an opportunity to ensure that projects represent their interests and meet their needs.

### PRO 9 Approve STIP with Respect to Air Quality Conformity and Fiscal Constraint




The decision point, PRO 9 is only a procedural action by DOT Commissions or Boards to approve the final STIP, along with the U.S. DOT. This decision point does not involve freight stakeholders.

## 5.4 CORRIDOR PLANNING

Corridor studies, especially those that explore improvements on major freight routes, provide opportunities to not only better understand the movement of goods and logistics patterns, but also to explore both capacity and operational improvements that could meet the needs of system users. Because corridors link production, processing/storage and consumption activities that can span vast geographies, corridor studies should be led by the state DOT or a consortium involving the DOT, the MPOs, or other jurisdictions on the route. These efforts may enlist the support of DOT district office staff, local governments, and other planning organizations such as land use, zoning, or economic development staff in the study. If the corridor study is focused on an important freight corridor (i.e., proposing truck-only lanes or major access improvements to facilities such as a seaport, cargo airport, or rail yard), freight stakeholders should be engaged as early and often in the process as possible. Engagement with stakeholders during the corridor planning process (COR) can build upon previous engagement efforts, although it is critical to identify stakeholders who have a defined interest within the study corridor itself (such as operators of warehouses on the corridor or a major facility operator such as an airport, seaport, or rail yard).

Sometimes corridor studies can have relatively short project limits such as a local truck corridor. When defining the freight corridor—whether it spans hundreds of miles or just a few miles—DOT and MPO planners should recognize that freight corridors are defined by use, not by arbitrary milepost cut offs. Regardless of corridor length, planners should ensure that stakeholders are involved in the corridor planning process that actually operate within the study corridor.

A kickoff meeting at the outset of the corridor study project to talk about the problem statement and opportunities (COR 2) and goals for the corridor (COR 3), can provide a solid foundation for stakeholder engagement during

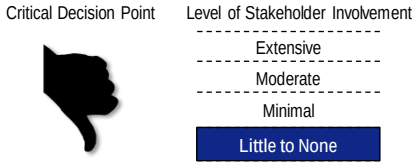
subsequent phases of the study to identify strategies and solutions for solving the corridor's issues.

There are four crucial decision points for freight in the corridor planning process. These decision points will yield the greatest value to the MPO or DOT planners to recognize freight interests and mobility concerns along the corridor in question. The four critical decision points for the COR process include:

1. Approve Problem Statements and Opportunities – COR 2;
2. Approve Evaluation Criteria, Methodology, and Performance Measures – COR 5;
3. Approve Range of Solution Sets – COR 6; and
4. Adopt Preferred Solution Set – COR 7.

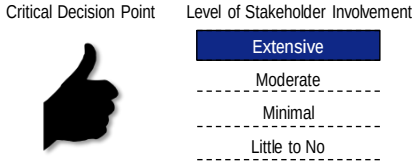
The following section outlines the role for freight stakeholders at each decision point as well as engagement activities and strategies and expected feedback from stakeholders following the engagement effort. It is important to note that attention to issues such as tolling, hours of operation, and known regional logistics trends (i.e., prominent trucking corridors or a situation where the only way a particular improvement would be funded is through tolls) could influence the scope and scale of the corridor study and may drive additional analysis. An example would be including a related tolling evaluation in the corridor study to determine stakeholders' views on the topic. Stakeholder lists from previous planning efforts can be utilized with special attention paid to coverage within the corridor plan area.

## COR 1 Approve Scope of Corridor Planning Services




The lead agency in corridor studies develops the scope of work of the corridor study based on previous analyses and traffic studies, which often were conducted during long-range planning exercises or regional freight studies, and determines that the corridor required a more extensive evaluation of specific issues or a specific improvement(s) strategy. The LRP and freight planning processes would have also helped the DOT or MPO gain a better understanding of important freight corridors in the state. Developing the scope of work will be based on previous information and freight stakeholders can ask the MPO to initiate a corridor study based on identified needs or growth potential.

## COR 2 Approve Problem Statements and Opportunities

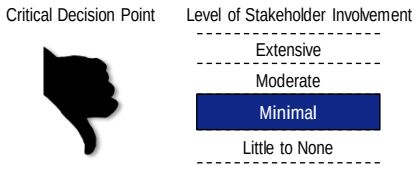



The identification of problem statements and opportunities (i.e., needs) along a particular highway corridor require extensive engagement with freight stakeholders. Based on trade issues or logistics patterns within the corridor (i.e., proximity to a seaport, distribution centers, manufacturing facilities, truck-lane corridor), freight stakeholders may provide immense value in helping define the limits of the study as well as data support to determine truck volumes at specific interchanges, future business expansion plans, and a reporting of physical and operational issues. If the corridor is expected to be a tolled facility, freight stakeholders (especially motor carriers) should also be interviewed to validate assumptions and potential supply chain reactions (i.e., will the toll impact the supply chain cost structure in a way that would lead to disinvestment on the corridor?). The identification of needs and opportunities is probably the most important role that freight stakeholders can play during the development of corridor plans and is a critical decision point.

How to Engage: Telephone or in-person interviews or survey outreach should be conducted to determine freight stakeholder needs within the corridor, recognize existing logistics patterns, planned development opportunities, and regional commodity flows.

Feedback: A list of needs and issues for freight users within the corridor plan area, including a validation of appropriate project limits, access issues, and other challenges will result. In some circumstances, freight stakeholders may be able to provide additional detail on their operations that would aid in the study of the corridor (i.e., key distribution facilities, truck traffic levels at certain interchanges, primary hours of operation for users, etc.).

## COR 3 Approve Goals for the Corridor




The goals for the corridor will be developed in consultation with planning staff as well as a broad range of stakeholder interests (including local governments, pedestrian, bicycle and transit interests, freight users, and commuters). Freight stakeholders have a role in approving those goals as willing participants in the

planning process along with other users of the system. Whether or not the corridor is a major truck route, freight stakeholders can help in the planning process and validation of goals by providing data on logistics patterns, truck volumes, and expectations for future growth in business within the project limits of the corridor plan. This information would be beneficial during the previous decision point and the engagement efforts should be combined.

*Insight from the Case Studies*

**Freight Stakeholders' Playing a Role in Defining Goals during Corridor Planning**

During the corridor planning process for the I-70 truck lanes in the States of Ohio, Indiana, Illinois, and Missouri, the lead proponents of the study made the effort to reach out to the trucking community. In 2009, after preliminary discussions on the project purpose, the State DOTs from each of the Coalition States met with representatives from each of the four state trucking associations, an owner-operator association, and one large motor carrier to introduce the project and obtain initial feedback.

Stakeholders expressed an interest in gaining more information about the project focus and how it related to individual state planning efforts. The Coalition States did not form a formal freight advisory committee for the project, instead utilizing ad hoc meetings and focus groups to identify needs and explore opportunities for the corridor such as the use of longer combination/higher productivity vehicles.

Representatives from the private sector revealed their priorities for the corridor early on in the project development process. Those priorities included the identification of operational and access issues from the project; resolving revenue and cost issues; and improving the understanding of benefits from the project such as safety benefits.

*Insight from the Case Studies*

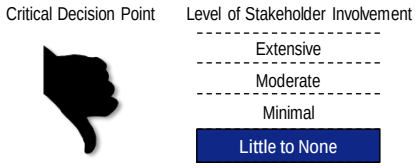
**Freight Stakeholders' Role in Evaluating Projects during a Corridor Study**

Often when the San Diego Association of Governments (SANDAG) in San Diego, California, is undergoing a corridor study (especially along a major truck route) freight stakeholders are involved in forming evaluation criteria and vetting projects. SANDAG currently utilizes evaluation criteria for projects that provide additional "points" for freight benefit(s) which allows those projects to gain increased recognition in project prioritization. Additionally, freight considerations are included in the multimodal project evaluation framework and freight projects have the opportunity to compete for Proposition 1B funds (funding source through the State) to reduce air pollution emissions in California.

How to Engage: It is important to discuss goals during the outreach efforts from COR 2 including one-on-one interviews and surveys.

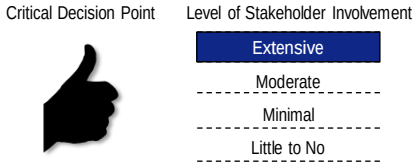
Feedback: This phase allows stakeholders to share insights into how corridor improvements might affect their cost structure and operational activities and benefit not only the freight community, but the motoring public as well. For example, freight stakeholders could guide the development of goals for a truck-only lane corridor study revolving around not only operational improvements, but also a reduced risk for truck-involved accidents. The level of engagement with freight stakeholders at this decision point depends greatly on the importance of the corridor to regional and statewide freight movement.

## COR 4 Reach Consensus on Scope of Social, Cultural, Natural, Environmental Review and Analysis



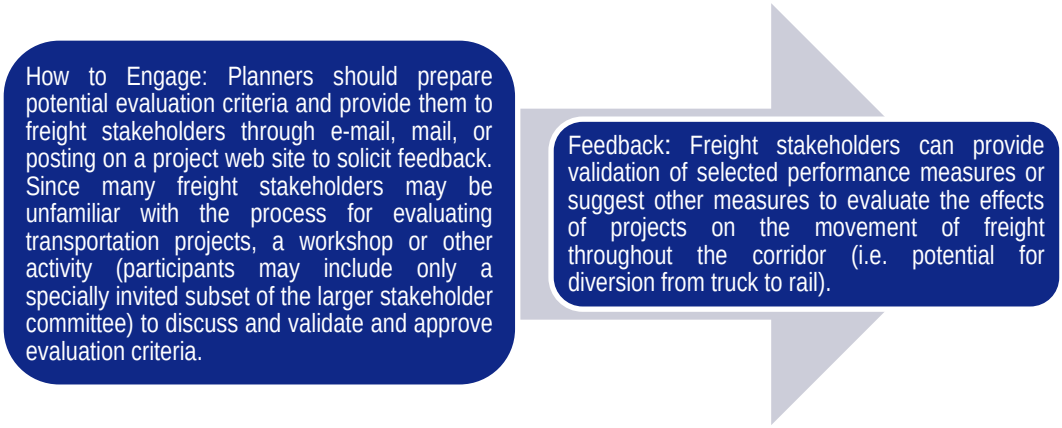

For planning staff to reach consensus on the scope of the social, cultural, natural, and environmental review does not require any engagement with the freight stakeholder community. However, during this decision point, planners should highlight those traffic operational issues, including the movement of freight that might lead to environmental impacts from noise, hazardous waste, and air quality. The decision on the scope of environmental review is made by planners based on the perceived impacts from a project.

## COR 5 Approve Evaluation Criteria, Methodology, and Performance Measures

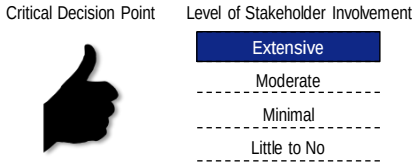



The approval of the evaluation criteria and performance measures for a corridor study is a critical decision point for freight stakeholders and requires extensive engagement. Suggested performance measures that are important to industry stakeholders include: traffic and/or truck volume, velocity (average mph), capacity (existing and future truck or rail volume), congestion levels (during normal and peak traffic periods – which, for freight may differ from traditional commute times), pollution index (carbon emissions, especially diesel particulates),

and safety considerations (crashes/fatalities or highway/rail grade crossings). Performance measures utilized by the DOT or MPO organization may not accurately account for logistics considerations or goods movement flows on major freight corridors and efforts should be made by planners to better understand the influences of logistics patterns within the corridor study area, with insight from specific stakeholders. Listening attentively to freight stakeholder input improves project outcomes.




## COR 6 Approve Range of Solution Sets




Potential solution sets to address corridor issues could include capacity improvements, intelligent transportation systems (ITS), or other safety improvements, classification upgrade or downgrade or any other combination of these solutions. Solution sets will be what drives the improvement program or allocation of funding, as well as influence the potential for PPPs. This is a critical decision point for freight stakeholders; however, distinct freight stakeholder groups may find value in different solutions based on their own operational needs. For example, some motor carriers proximate to the corridor may support a certain type of access improvement based on their own routing needs while a BCO may have more interest in a broader solution that provides mobility benefits for motor carriers traveling through the study area. There does not necessarily have to be consensus from all freight stakeholders; however BCOs and carriers may want their preferred solution(s) to be highlighted by the DOT or MPO during the next decision point.

How to Engage: If there is an active freight stakeholder group, this engagement could include a presentation to the group on the various potential solutions for improving the corridor. Surveys or other outreach tools could be utilized to allow freight stakeholders to "rank" the solutions based on the previously vetted evaluation criteria and other input collected throughout the development of the corridor study.

Feedback: Freight stakeholders can provide feedback and recommendations for the solution(s) that would best support economic development and their operations (i.e., routing, other logistics considerations). Each participant could rank the solution sets allowing planners to winnow down the list of preferred solutions and promote those most beneficial to the freight community.

## COR 7 Adopt Preferred Solution Set

Critical Decision Point

Level of Stakeholder Involvement

- Extensive
- **Moderate**
- Minimal
- Little to None

The adoption of the preferred solution set provides the final opportunity to engage freight stakeholders and also is a critical decision point. During this decision point, DOT and MPO planners would propose that the board of the organization adopt a particular solution set. This decision point takes on new urgency if previous outreach efforts have not provided the opportunity to vet all the potential solutions. The COR 7 decision point, rather, allows freight stakeholders to review those solutions promoted through the MPO and DOT staff analysis and outreach with other stakeholder groups. Freight stakeholders should be engaged again to confirm the preferred solution that would be meeting the needs of freight users. Ideally, this would be done during the approval of solution sets (COR 6).

How to Engage: In addition to validating the "preferred solutions" during COR 6, freight stakeholders should be encouraged to submit comments along with the general public when the final solution is being considered for adoption.

Feedback: Stakeholders can provide feedback on their preferred solution either during COR 6 or as a separate outreach effort. Sometimes, if the stakeholder group represents more homogenous interests, a letter can be produced to the planning board promoting a particular solution as best representing the interests of the freight community.

## COR 8 Approve Evaluation Criteria and Methodology for Prioritization

Critical Decision Point

Level of Stakeholder Involvement

- Extensive
- Moderate
- **Minimal**
- Little to None

The last two decision points require only minimal engagement with freight stakeholders. Decision point, COR 8 involves the approval of the evaluation criteria for the selected solution set. Outreach with freight stakeholders during COR 5 would have provided adequate information for determining stakeholder views on appropriate criteria. If freight stakeholders have provided adequate feedback during COR 5 (or other previous phases), there is little need for further interaction.

How to Engage: This can be a confirmation item during regularly scheduled stakeholder meetings. If there are no ongoing meetings, stakeholders do not necessarily have to be re-engaged for this decision point unless the MPO or DOT planners feel there is a particular dearth of input from freight stakeholders on evaluation criteria.

Feedback: Stakeholders can provide valuable insight into the economic impacts of decisions as well as provide background data and information on how sequencing of projects could affect logistics decisions, however, this information may be more valuable during the identification of potential solutions.

## COR 9 Adopt Priorities for Implementation

Critical Decision Point

Level of Stakeholder Involvement

- Extensive
- Moderate
- **Minimal**
- Little to None

The adoption of the solution sets recommended in the corridor study is at the discretion of the MPO or DOT staff and hopefully these agencies have considered the input, including priority areas for improvements of all stakeholder groups, including freight stakeholders. There is minimal involvement with freight stakeholders during this decision point.

How to Engage: Freight stakeholders, as part of the general public review and comment, should be invited to submit feedback on the final corridor plan.

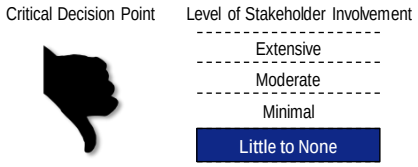
Feedback: Public comments from freight stakeholders would be compiled by DOT planners.

# 5.5 ENVIRONMENTAL REVIEW AND PERMITTING (NEPA PROCESS)

There is a growing body of literature on integrating freight into the NEPA process, most notably the FHWA planning guide, *Integrating Freight into NEPA Analysis*. These resources describe not only the data and information needed for proper evaluation of freight interests during a NEPA study, but also provide some insight into how to assimilate freight stakeholder outreach into the already robust public involvement process. The critical decision points for engaging freight stakeholders during the NEPA process correlate with those identified during the LRP, PRO, and COR phases: identifying needs and appropriate evaluation criteria, determining appropriate solutions, and reviewing and validating the draft document – in this case, a categorical exclusion, environmental assessment, or environmental impact statement.

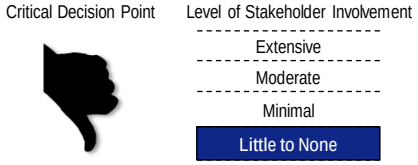
The following section outlines the role for freight stakeholders at each decision point as well as engagement activities and strategies and expected feedback from stakeholders following the engagement effort.

## ENV-1 Reach Consensus Scope of Environmental Review



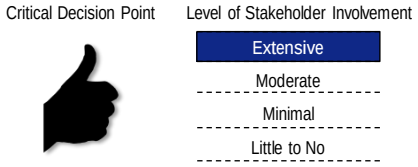

The first decision point in the environmental review process is to reach consensus on the scope of that environmental review. Although the lead agency role in the NEPA process for highway projects generally falls to the FHWA, the state DOTs play a major role in coordinating technical studies and environmental analysis. Based on the perceived level of impact of the project, FHWA and the state DOT staff will work with other participating and cooperating stakeholders (federal, state, and local historic preservation organizations, federal and state Departments of Fish and Wildlife, Army Corps of Engineers, etc.) to determine the level of environmental document and permitting approvals that will be required. While there is no legal requirement for stakeholder participation at this, it may be good practice to involve shippers, carriers, and goods receivers when determining the scope of the environmental review.

## ENV-2 Approve and Publish the Notice of Intent



This decision point involves a procedural action by the lead agency. The notice of intent (NOI) to begin the NEPA process and prepare an environmental document would be placed in the Federal Register, typically by the FHWA for highway projects. When this NOI is published, freight stakeholders should take note of the level of environmental document approved in the register to determine the time frame for approval and level of stakeholder outreach recommended during the environmental review process. Planners should advise their regional freight stakeholders of the NOI in the Federal Register. There is no additional engagement needed with freight stakeholders at this point in the NEPA process.

## ENV-3/PER-1 Approve Purpose and Need/Reach Consensus on Project Purpose




The approval of the purpose and need is a critical decision point for the engagement of freight stakeholders during the NEPA process. At this point, stakeholders of all kinds, including those representing the goods movement community can describe the importance of the project to economic development, improved regional logistics, and enhanced flows of goods and services to, from, and within the community. The purpose and need is the justification for the project and to promote worthy projects for freight, so stakeholders should be encouraged to provide feedback on what information should be included in the purpose and need to represent freight interests. Since the language in the purpose and need is sometimes composed of technical language more familiar to environmental professionals, it might help to have stakeholders respond to the purpose and need once it has been developed, rather than trying to develop a "freight" purpose and need from scratch. This is especially critical if the project is intended to support economic development or business retention and increase in jobs under a competitive funding program such as TIGER. Freight stakeholders should be engaged by the DOT or MPO planners to promote the case of industry. MPO staff can play an invaluable role in identifying appropriate stakeholders to participate in advisory committees or working groups throughout the duration of the NEPA process.

How to Engage: Especially for projects with an important freight interest such as a major trucking corridor, freight stakeholders should be involved to help the lead agency develop and review the purpose and need for the project. Since this is an early part of the NEPA process, the discussion of purpose and need can take place during a kick-off meeting or other introductory presentation associated with the NEPA process. Freight stakeholders might participate as part of a larger community advisory group for the project or as a standalone group representing goods movement interests alone.

Feedback: At this decision point, freight stakeholders can describe the importance of the project for regional economic development, as well as mobility, safety, and other benefits for freight in the region. They can provide source data, such as the number of trucks on a certain corridor or the anticipated reduction in delay from an improved highway. Stakeholders can also share insight on potential disbenefits associated with not completing the project.

*Insight from the Case Studies*

Freight Stakeholder Outreach during the NEPA Process

The Columbia River Crossing (CRC), a project of the DOTs for Oregon and Washington State in the Portland, Oregon/Vancouver Washington area, formally entered the NEPA process in 2005. As part of the public outreach process for the project, a 39-member Task Force was established to determine the project's vision, values, purpose, and needs. The Task Force was comprised of freight stakeholders on both sides of the River including the ports of Portland and Vancouver USA, motor carriers, BCOs, and business people, as well as environmental groups, neighborhood associations, municipalities, and other government agencies.

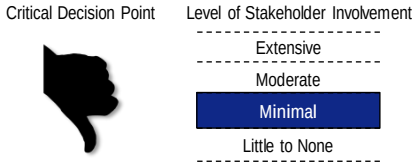
In 2007, a Freight Working Group with approximately 13 members was established to ensure freight needs were adequately addressed. Members served on the Freight Working Group until 2011 and the Group continued into 2012 on an ad-hoc basis to help inform final design and construction planning of the CRC bridge alternative. The Group helped educate CRC staff, government officials, and the public about the nuances of how freight moves in the Portland/Vancouver Metro region and how the multimodal transportation system is used.

*Insight from the Case Studies*

Freight Stakeholders Help Develop Evaluation Criteria

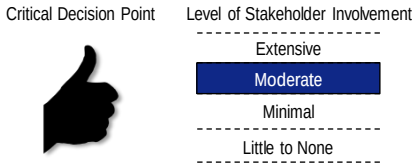
During the public outreach process for the CRC EIS, DOT and MPO staff from Oregon DOT, Washington DOT and other agencies used several different methods to evaluate alternatives to ensure they met the project's purpose and need statement including actively soliciting stakeholder feedback at meetings, encouraging official public comment, and establishing the Freight Working Group, the freight advisory committee for the project. The Freight Working Group was the first group to review early design details of the bridge and evaluation criteria for project alternatives to ensure freight needs were addressed. A focus group was also formed to evaluate various plans for the Marine Drive Interchange between I-5 and the Port of Portland and industrial areas, as well as a Performance Measures Advisory Group. Freight stakeholders participated in both of these groups.

## ENV-4/PER-2 Reach Consensus on Study Area/Approve Public Notice




This decision point involves an administrative action by DOT or MPO planners and is a regulatory requirement for Section 404 (Clean Water Act) permitting. There is no role for freight stakeholders during this decision point, however during the approval of the purpose and need, freight stakeholders will have had the opportunity to review the study area limits for the environmental review to ensure that logistics considerations are accounted for (i.e., the study area for the project encompasses or is directly adjacent to key regional or statewide freight transportation facilities such as bridges, rail yards, or major manufacturing activity clusters).

## ENV-5 Approve Evaluation Criteria, Methodology, and Performance Measures




As with the other three phases in the highway planning process, Long-Range Planning, Project Programming, and Corridor Planning, the confirming of the evaluation criteria and performance measures is a critical decision point for freight stakeholders. If available, information should be collected from previous planning efforts on evaluation criteria that have been utilized in the jurisdiction during other phases of the planning process. Moderate engagement of freight stakeholders will provide insight on appropriate data sources that would allow planners to properly evaluate project alternatives and costs and benefits.

How to Engage: Freight stakeholders should be invited to provide feedback on already developed performance measures and data that could be utilized to evaluate construction and traffic impacts, as well as long- term routing decisions resulting from the highway improvement. This can be done during ongoing stakeholder advisory committee discussions or a targeted outreach (letters, surveys) to potentially affected freight stakeholders. Many organizations utilize a subgroup of freight stakeholders who may have a clearer understanding or more experience with the public planning process to vet performance measures and evaluation criteria.

Feedback: Validation on the performance measures and data used in the alternatives evaluation will result.

## ENV-6/PER-3 Approve Full Range of Alternatives

Critical Decision Point

Level of Stakeholder Involvement

- **Extensive**
- Moderate
- Minimal
- Little to No

This decision point is one of the most crucial and provides freight stakeholders the opportunity to review and comment on the proposed project alternatives before they have gone through the process of winnowing down to a few to be carried forward for detailed evaluation. Freight stakeholders may have a unique ability to identify project alternatives that would hold a key interest for goods movement that might not be recognized by other stakeholder groups or planning staff. Stakeholders can then provide a range of project preferences and justification as to the benefits and impacts associated with one alternative or another.

How to Engage: During both the alternatives analysis and development of a preferred alternative, the lead agency should identify a group of freight stakeholders representative of a variety of interests (i.e. BCOs, motor carriers, alternative modes such as rail and ports) and conduct direct engagement activities such as charettes or workshops on project benefits to help the group understand each alternative.

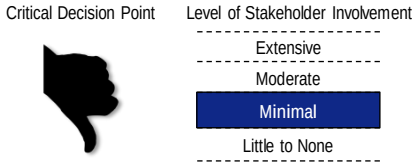
Feedback: Ideally, stakeholders would be able to classify those alternatives that have the greatest benefit for freight interests to help planning staff consolidate the list of alternatives. Stakeholders might also simply identify acceptable alternatives to meet their needs.

*Insight from the Case Studies*

**Developing "Goods Movement Alternatives" for the I-710 Corridor in Los Angeles County, California**

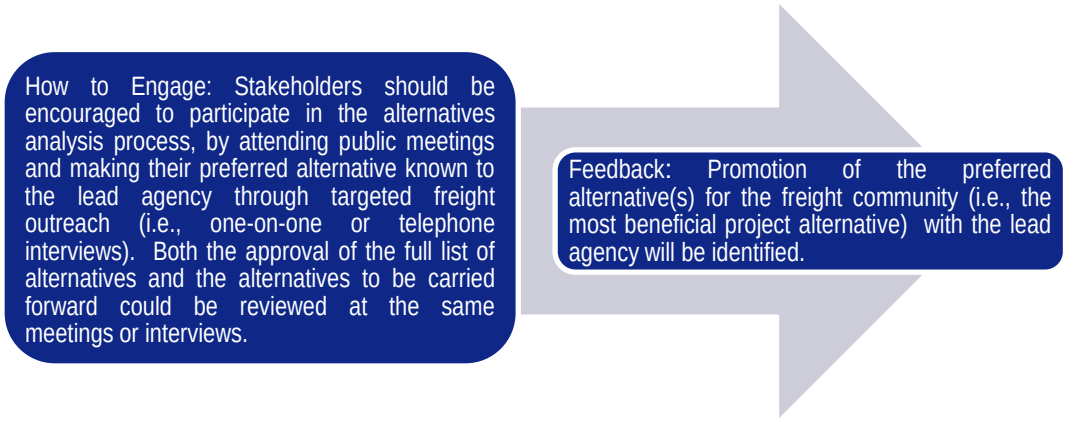
During the course of developing the I-710 Major Corridor Study (MCS) in 2005 (a precursor to the NEPA document), the study team conducted interviews with private sector freight stakeholders to help identify traffic/air quality impacts, and screen alternatives. Their input helped create several "Goods Movement" alternative scenarios to be evaluated in the environmental analysis. These scenarios maximized "goods movement" benefits within the corridor through both capacity enhancements and transportation system management and technology alternatives.

## ENV-7/PER-4 Approve Alternatives to be Carried Forward

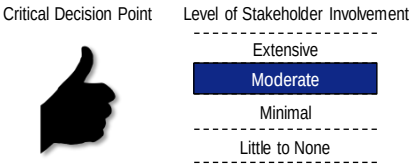



The decision point to approve alternatives to be carried forward for full environmental review takes into consideration feedback from the lead agency, participating and cooperating organizations, including resource agencies, and interest groups and stakeholders. Often, the lead agency would start with a very large list of distinct alternatives, some having strong similarities with one another and with a range of implementation strategies, costs, perceived impacts, and benefits. In order to provide a more comprehensive evaluation of project alternatives, planners will often screen a list of full alternatives (ENV 6) and develop a more manageable list of alternatives for the comprehensive environmental review. For example, the full list might include eight different project alternatives, but only three, including a no-build alternative, might receive the full environmental evaluation "treatment."[6] In order to determine the alternatives desired by the widest group of people, freight community representatives could continue to be engaged in a freight advisory committee or have representation within a larger community advisory committee.

[6] More information on the NEPA process for alternatives analysis can be found on FHWA's website at: http://environment.fhwa.dot.gov/projdev/index.asp.



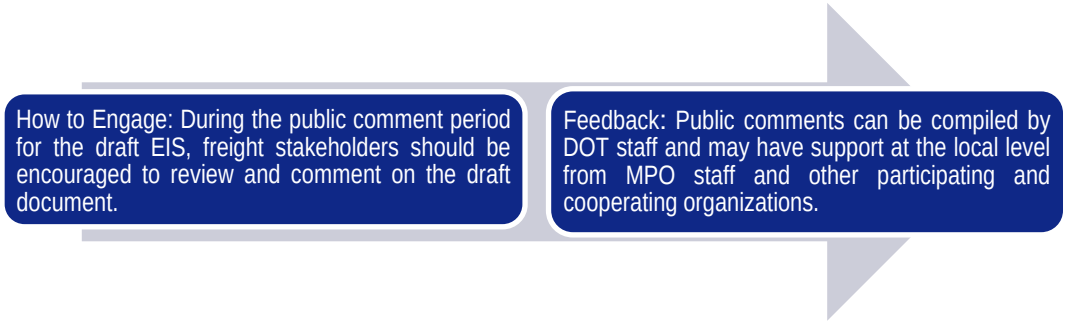

## ENV-8/PER-5 Approve Draft EIS/Reach Consensus on Jurisdictional Determination



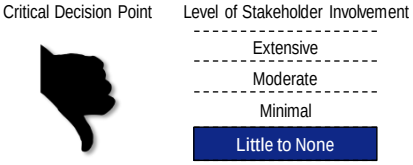

During the development of the Draft EIS, Environmental Professionals should continue to engage freight stakeholders to help properly measure the costs and benefits associated with the preferred and/or other alternatives. The draft EIS will include an explanation of the environmental impacts, as well as the recognized costs and benefits associated with each alternative and recommend a preferred alternative from the lead agency's perspective that best meets the needs of the organization and considers input from all constituents. The public review period for the draft EIS is generally anywhere from 30 to 90 days, depending on the complexity of the project and the range of issues. Freight stakeholders have no role in determining the appropriate jurisdiction for permitting purposes (PER 5) because the responsibility for securing permits lies with the lead agency. However, if there are issues related to right-of-way, encroachments, or other constraints that might affect a freight stakeholder representative, DOT staff would be best served to engage those stakeholders early. An example of this would be a bridge or overpass improvement that crosses over a railroad right-of-way.

Environmental impacts (in the example above) would have to include the potential impacts on rail operations during design, staging, and construction with this information being included in the environmental document. The publishing of the draft EIS provides not only directly engaged stakeholders but also gave the general public the opportunity to comment on potential impacts from the project that may or may not already have been addressed. The review of the draft EIS is a critical decision point for freight and it is important for the DOT to engage stakeholders to ensure that the project alternative most beneficial

for freight is properly highlighted. It is possible that during the alternatives screening that the alternatives with the most benefit for freight did not "make the cut," however this decision point still provides the opportunity to review and comment on the conclusions of the environmental document.

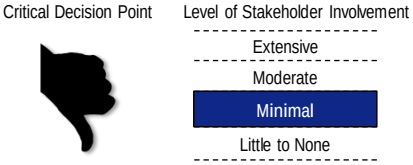



## ENV-9 Approve Preferred Alternative

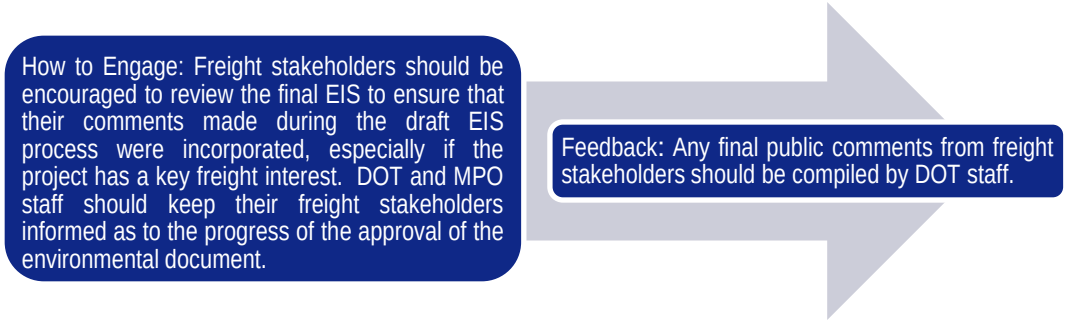



The approval of the preferred alternative following the production of the draft environmental document is the responsibility of the lead agency. By this point, freight stakeholders would have had several opportunities to offer recommendations for the alternatives that would b best meet their needs (i.e., ENV6/ENV8). There is no additional role for freight stakeholders during this decision point.

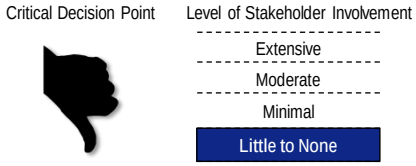
## ENV-10 Approve Final NEPA Document




Similar to the previous decision point, for the approval of the final environmental document, the lead agency provides responses to the comments from stakeholders, including freight and the public at large, incorporates comments into the document, including whether or not the conclusions of the environmental document were changed as a result, and publishes a final NEPA document for final approval. The final environmental document should include copies of the public comment along with any feedback from freight stakeholders. Once the final document has been prepared with all the constituent parts, it can be approved by the lead agency.




### ENV-11/PER-6 Approve Record of Decision (ROD)/Render Permit Decision




The ROD for the final approval of the NEPA document is issued by the lead agency, generally the state DOT or FHWA for highway projects. Included in the ROD is the alternatives considered (ENV 7), selected alternative (ENV 9), and justification for the selection, and provides information on the strategies to mitigate identified environmental impacts from the project. Following this approval, permits can be collected from regulatory agencies and the freight community may play a small role in the approval of permits if there are private property right-of-way concerns. There is generally no other role for freight stakeholders during this decision point and no engagement activities necessary.

The review and approval process proscribed by NEPA provides the opportunity for DOT Environmental Professionals to engage freight stakeholders and understand how their interests are met by different project alternatives. Since public engagement during this process can sometimes be a very large undertaking especially if the project is extremely complex or impacts diverse interest groups, engaging freight stakeholders at the four critical decision points will help Environmental Professionals conserve resources and maximize the interest and availability of the freight community. If the process is handled properly, freight stakeholders can provide valuable insight on not only the need for the project and the effect of the project on local and regional businesses and supply chains, but also the most appropriate strategies to promote the project's benefits from a perspective that is not always evident, that of private sector transportation users.

## 5.6 PRIVATE SECTOR PERSPECTIVE

To effectively engage the private sector freight stakeholders in the collaborative decision-making process, it is critical to understand their preferences and

perspectives. Throughout the case studies were examples of where engagement provided the desired results and other times where it was less successful. Building upon the critical decision points for each phase in the highway planning process, the following "day in the life" of a typical BCO supply chain executive describes the decision points for the NEPA process from her own perspective.

This fictitious, but highly realistic representation was prepared by one of the consultants to illustrate why and at what points in the planning processes it is important for public sector officials to gain the input of BCOs. This consultant previously managed international supply chain activities for two large importers of fast moving consumer goods and has participated on tasks forces and committees involved in large public sector transportation infrastructure projects.

## A Year in the Life of a Freight Stakeholder

*I am Jane Smith, Vice President of Supply Chain and Logistics, at Rainbow Kids Apparel Inc., a 15-year old privately held company located in an urban center in the Pacific Northwest, which sells high-end products in over 400 children's boutiques across the U.S. Due in large part to economical labor rates, our company contracts with suppliers in China and Vietnam to produce our designs, which we import through the ports of Portland, Tacoma and Seattle as well as San Francisco International Airport, Portland International Airport and Sea-Tac International Airport. Last year we imported 5,000 forty-foot equivalent units (FEU) via ocean and 100,000 kilos of air freight. Our sales are growing rapidly; imports are forecasted to increase 25 percent annually during the next five years.*

*We control selection of logistics service providers and pay the international transportation costs because of our buying terms with suppliers'. We negotiate service and rate agreements with three containerized ocean carriers, two airfreight forwarders, and two motor carriers that transport the ocean containers after clearance by U.S. Customs and Border Protection from the West Coast marine terminals to our only distribution center (DC) adjacent to our headquarters. Orders from our retail customers are fulfilled by our distribution center staff. Outbound shipments are moved via truck or UPS Ground or UPS Air based upon on the routing decisions of our customers, since they pay the domestic shipping costs from our DC to their facilities.*

*For five years I've served on my city's Freight Committee, an organization comprised of business people across a wide range of industries, all having a great interest in advocating for freight mobility. My Committee colleagues work for local manufacturers (i.e., electronics and computers); importers (i.e., footwear, apparel, and department store merchandise); exporters (i.e., recycled metals and agricultural products); logistics service providers (i.e., motor carriers, ocean carriers, airfreight forwarders, warehouse operators, ports, barge operators, and railroads); business and industry trade associations; transportation consultants; commercial real estate companies; and local government agencies (i.e., the City transportation bureau, the regional MPO, and economic development agency). A representative of the state DOT usually attends the monthly two-hour meetings. The Freight Committee, which was established eight years ago by the Mayor, provides advice and service to the Mayor, City Council, and City Bureaus on multimodal transportation issues affecting the region. Some issues we've recently*

*weighed in on include recommending how and when lanes should be closed on a critical freight route to minimize truck delays during construction, suggesting where a lane should be added to a stretch of highway to increase freight mobility, how truck turning radii should be considered when repairing and constructing new intersections, and analyzing whether establishing a travel demand management (TDM) policy in the city center would reduce congestion during peak periods.*

*Initial members were proposed to the Mayor by his staff and community business leaders. New potential members are usually recruited and voted onto the Committee by existing members. The organization often submits letters of support to the Mayor on various initiatives that would improve freight mobility and furnishes input during the planning phases of public transportation infrastructure projects within the city limits. Moreover, members provide testimony on behalf of the Freight Committee at public hearing on projects, and educate government officials and private citizens whenever possible about the importance of freight mobility and its positive impact on the regional economy.*

*Because of my reputation as a supply chain and logistics expert, two years ago, the state DOT director invited me to serve on the Freight Advisory Committee, which advises the DOT director and State Transportation Commission on issues, policies and programs that impact multimodal freight mobility across the state. This includes identifying high-priority freight mobility projects for consideration in the DOT's Statewide Transportation Improvement Program. The Freight Advisory Committee also advises on transportation policy related to goods movement. The Freight Advisory Committee is a high-visibility group that is well-respected by the Transportation Commissioners, DOT director and staff, and has the ability to positively influence transportation-related decisions that are made at the state level. Two-hour meetings are held every other month. Similar to the city Freight Committee, members of the State Freight Advisory Committee are leaders in their industries and are primarily BCOs, logistics service providers, and business and trade association representatives. Recently, the Freight Advisory Committee was enlisted to determine the most crucial highway corridors in the state for freight and identify the top road and highway bottlenecks that cause delays in transporting freight.*

*The CEO and CFO of my company support my participation on these two committees and believe that through my service and advocacy, the multimodal transportation system in our region, the Pacific Northwest, and further afield will be enhanced. We hope that freight mobility will be improved and our firm's profitability will be positively impacted over time through reduction in highway congestion. Peak-period congestion has had a detrimental effect on our company, driving up our transportation costs. We've had to make adjustments in our operations as a result. Because our headquarters and DC are located between the port and downtown where road congestion is heavy, we decided last year to start operating our DC round-the-clock four days per week so that we could meet the stringent on-time delivery demands of our customers. We'd prefer to only operate during the day shift, but I've expressed my opinion to executive management that this will not be efficient until such time as traffic flows improve through such methods as better signal synchronization, creation of alternate truck routes that trucks can use if their primary route is congested, and expansion of lanes on critical freight corridors, especially on the city's east side.*

*During our regular biweekly meetings, I report to our CEO about the activities and initiatives on which both freight committees are working. He likes being informed about the progress being made as a result of my committee work and also gains a better understanding of where the impediments to freight mobility continue to exist. His key interests lie in improving traffic flow on the major highways on which our inbound goods travel to the DC. He realizes congestion also impacts the ability of our workers to get to work on time.*

*Though I derive satisfaction from serving on the freight committees, I have a great deal of responsibility within my company, so I must carefully budget my valuable time on activities where some benefit to my company will likely result. I can't waste time sitting in endless freight project meetings where mind-numbing data is presented, but few positive outcomes result.*

*The beginning of 2011, the DOT director invited me and three other members of the Freight Advisory Committee to participate on a 26-person task force charged with providing input during the NEPA process for the redesign of Port Road which connects the port with the interstate highway. This is a critical connector heavily traveled by trucks and is located not far from my company's headquarters and DC. Because this is a big public works project governed under NEPA regulations, the state DOT understood that soliciting public input was not only required, but beneficial to the entire process and would result in a road design more acceptable to a wide range of users.*

*The state DOT succeeded in recruiting task force members from varied stakeholder sectors to ensure the most diverse opinions, experiences and expertise were represented. The task force was comprised of the local MPO, environmental groups, and neighborhood associations. I, and my Freight Advisory Committee colleagues, were the voices of the business community, which was important because, through our participation, we gave freight stakeholders a seat at the table.*

*When the state DOT director wrote potential task force members inviting them to participate, we were given background information on the project and informed of the critical roles we would play in moving the NEPA process through to the stage where the draft Environmental Impact Statement (EIS) was approved and submitted to the federal government. The task force was charged primarily with helping create the Purpose and Need Statement, laying out metrics by which the project would be measured, vetting a range of potential alternatives, determining and voting on the most favorable one – the locally preferred alternative – and finally, reviewing the draft EIS. Expectations were set in the invitation letter: meetings were to be held once a month for three hours and the time in which the task force was to be engaged was anticipated to be a year and a half.*

*During the first task force meeting, which was held about a month after invitation letters were sent, the project director and staff furnished additional project details and elaborated on what was expected of members. They showed us the project planning process timeline and key decision points in which the task force would be involved. The project director introduced the project coordinator, who would function as the formal liaison between task force members and project staff. Staff also made it clear that all task force meetings would be held in a public forum and videoed for airing on the local public TV station, and towards the end of each meeting, time would be allotted for public comment. We were told that if we needed to miss a meeting, we could assign an alternate to attend on our*

*behalf to take notes and provide comments. However, the alternate would not be allowed to vote on critical decisions.*

*The task force was assembled after the first two decision points of the NEPA process – Reach Consensus on Scope of Environmental Review, and Approve and Publish Notice of Intent – had been completed, since these decision points were more administrative in nature and didn't require the input of the task force.*[7]

*The third decision point – Approve Purpose and Need/Reach Consensus on Project Purpose (PER-1) – was the most critical for freight stakeholders to be involved, particularly because freight stakeholders like me prefer to be engaged in planning public infrastructure projects as early in the process as possible so the end product is of actual benefit to our companies. This part of the process, however, was a bit challenging for me, as the environmentalists and several neighborhood association representatives on the task force had their own agendas and sometimes seemed disinterested when freight stakeholders explained why this project is so important to BCOs, logistics service providers, and the regional economy. Freight stakeholders felt we clearly identified the issues that exist on Port Road from a freight user's perspective and what we thought the project goals and desired outcomes should be. DOT staff seriously listened to our input and as a result of lots of discussion during the first three meetings, the task force finally reached consensus and adopted a Purpose and Need Statement that, for the most part, addressed the freight industry's concerns and will guide the entire project over the next five years as it moves from planning through NEPA to completion of construction. Before the third meeting, the project coordinator emailed task force members a draft Purpose and Need Statement formulated from our discussions, which we revised slightly before voting for its adoption.*

*The task force was not involved in the fourth decision point – Approve Public Notice (PER-2) Reach Consensus on Study Area. However, the DOT staff solicited our feedback during the next two meetings on decision point five – Approve Evaluation Criteria, Methodology, and Performance Measures. As business professionals and freight stakeholders, we are used to having metrics assigned against which our performance is measured. Often our personal compensation rests, at least in part, on meeting those standards. 'Task force members appreciated that the DOT staff recognized the importance of establishing criteria and methods to evaluate how well the project will meet the Purpose and Need Statement and asked us to be part of this decision step. A couple of metrics that we felt were important for the project were: reduction in congestion during peak travel times and reduction in the traffic crash rate.*

*Decision point six – Approve Full Range of Alternatives/Approve Resource Agency Public Notice (PER-3) – was also an important decision step in which the DOT engaged the task force. Once the engineers produced 10 potential alternatives, task force members had the opportunity to vet these alternatives, which occurred over the course of three*

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[7] Although the SHRP 2 C15 decision flow diagram and planning framework was not utilized in the outreach directed to this task force, the research team was involved in many of the same steps to meet the project's goals.

*meetings. We all spent a great deal of time learning about the alternatives and analyzing them based upon our experiences and needs. We were shown drawings and data on the computer screen and were invited to ask questions. In addition, project staff prepared binders containing the basic technical specifications and sketches of each design so we could review the materials outside the meeting. This was the decision point during which freight stakeholders on the task force were able to provide valuable technical input during the meetings about how freight actually moves in the corridor and educate DOT staff and other stakeholders about BCO supply chain dynamics. We provided information such as the necessary turning radii needed for trucks as well as how grade elevation impacts truck acceleration. I was even asked by project staff to present a 20- minute primer of my company's supply chain flow from Asia to our DC and on to a large customer in Chicago.*

*Though there was lots of material to wade through and three formal meetings where staff presented technical design data, I was glad to have the time to gain understanding and form my own opinion about the best potential alternatives. A few times I emailed the project coordinator to request an explanation of some finer engineering points related to one alternative and was satisfied with the explanations provided. I did hear two freight stakeholders complain that we were bombarded with too much information, but in the end, these people were glad they had the opportunity to weigh in on the final alternative selections. Each of us was asked to rank the 10 alternatives in order of most- to least-favorable on an Excel spreadsheet template before the meeting where the vote for the three highest ranked alternatives would be taken. At that meeting, the project coordinator displayed our individual rankings on the computer screen and collated our voice votes. The task force ultimately voted to discard six that likely wouldn't be feasible or desirable, and recommended the three most promising alternatives that warranted further study. At this point, it was up to the DOT on its own to complete decision point seven – Approve Alternatives to be Carried Forward (PER-4).*

*The task force had a chance to weigh in during decision point eight – Approve Draft EIS/Reach Consensus on Jurisdictional Determination (PER-5) – which we felt was important to ensure the DOT had thoroughly addressed the concerns of all stakeholders. The project coordinator emailed us the entire draft EIS and asked us to embed comments directly into the document and email our revisions back. If an individual only had a few comments to make, he or she was invited to simply email them to the project coordinator. As far as I know, the coordinator received written feedback from at least 20 task force members. We asked that the Draft EIS be revised in several areas to provide more clarity and correct some glaring errors. The freight stakeholders particularly wanted the connection between freight mobility and a healthy economy emphasized in the draft EIS as well as specifying Alternative #6 provided the highest chance for increased velocity and improved safety for trucks.*

*It was not the job of task force members to engage in decision point nine – Approve Preferred Alternative – since that was the responsibility of other project stakeholders such as the MPO, which met on their own to discuss and approve the Preferred Alternative. At our most recent task force meeting, the project coordinator explained to us that the task force had no official authority to be part of this design approval step.*

*Once that took place, we arrived at decision point 10 – Approve Final NEPA Document – and the task force was called upon to officially vote whether the final document addressed all concerns. This was the last official act performed by the task force. Now that we reviewed the Final NEPA Document, the task force was sunsetted and the DOT will shepherd the project to decision point 11 – Approve Record of Decision/Render Permit Decision (PER-6). Soon after that, construction should commence.*

*Overall, I found participating on this task force rewarding and know my contribution of time and expertise was valued by project staff. But the project was lengthy and intense at times. Because of the diversity of stakeholders, needs and views, we encountered some rough patches where consensus among task force members was difficult to reach. However, the project director, coordinator, and staff did a great job in keeping the task force members on track to meet the timeline milestones; smoothing over bruised egos of certain members; and ensuring every task force member had opportunities to ask questions, provide feedback and raise concerns, whether during task force meetings or privately via phone or email. Staff kept us informed of how the task force was doing along the way against expectations and made some suggestions about how we could help make the process more efficient. They also were quick to answer our technical and administrative questions.*

*Even though I knew when agreeing to serve on the task force that the process would take a lot of time and effort and would not always be easy, I must admit that during these many months of meetings, analysis and discussion, I occasionally wondered if the process would ever end. The sheer volume of technical data presented was often overwhelming. My sentiments were shared by other task force members, but each of the 26 people who joined the task force stayed on till we completed decision point 10. Project staff seemed to sympathize with our frustrations, but in the end, I don't think there was much that could have been done to shorten the time the task force was engaged in the NEPA process, due to the nature of the decision steps and amount of information we had to review because of the project's complexity. All the task force members genuinely wanted the NEPA process to be done right and the best possible alternative identified and carried forward. I firmly believe the final outcome will be better than if the DOT had not engaged a task force and that freight stakeholders will benefit from the task force's efforts to improve freight mobility through this important freight corridor.*

Taking into account the perspective offered by "Jane" and other research conducted for this project, Figure 5.2 presents the decision-making process from the private sector viewpoint.

Figure 5.2 Key Decision Points from a Hypothetical BCOs' Perspective

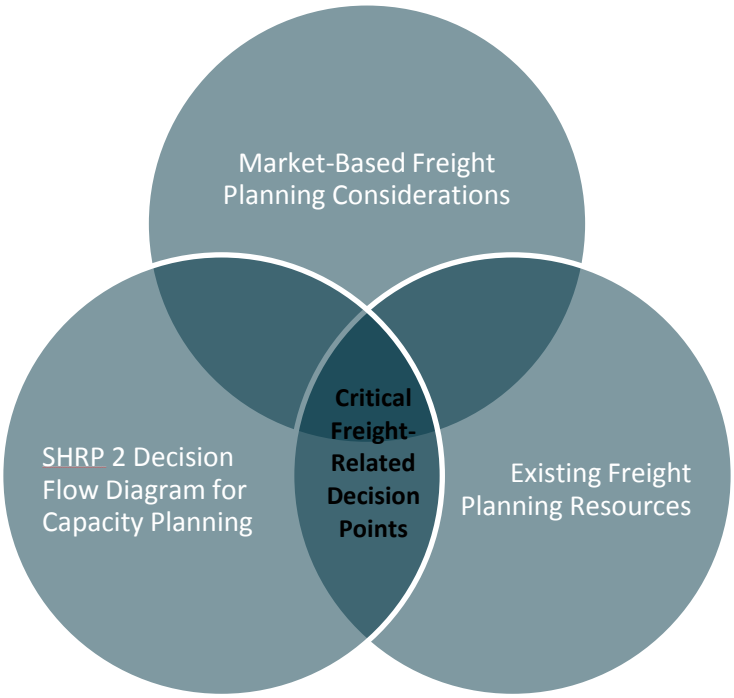
| Decision Point | Decision Points for Environmental Review (ENV) | Stakeholder Actions (critical decision points) |
|---|---|---|
| 1 | Reach Consensus Scope of Environmental Review | Task Force or Freight Advisory Committee Assembled |
| 2 | Approve and Publish the Notice of Intent | |
| 3 | Approve Purpose and Need/Reach Consensus on Project Purpose (PER-1) | Attend kick-off meeting to better understand advisory committee or task force role, and discuss and vote to approve Purpose & Needs Statement (previously developed by staff). |
| 4 | Approve Public Notice (PER-2) Reach Consensus on Study Area | |
| 5 | Approve Evaluation Criteria, Methodology, and Performance Measures | Attend meeting to discuss, agree and vote to adopt Evaluation Criteria, Methodology & Performance Measures (draft evaluation criteria would have already been prepared by staff and stakeholder meeting would validate). |
| 6 | Approve Full Range of Alternatives/Approve Resource Agency Public Notice (PER-3) | Review materials describing alternatives in preparation for attending a meeting to learn more about, discuss and vote to approve Full Range of Alternatives (staff would disseminate information on project alternatives to stakeholder group). |
| 7 | Approve Alternatives to be Carried Forward (PER-4) | More active groups might also discuss and vote on the alternatives to be carried forward but this is not a critical decision point. |
| 8 | Approve Draft EIS/Reach Consensus on Jurisdictional Determination (PER-5) | Review Draft EIS and attend meeting to discuss and vote on approval of Draft EIS (staff would have highlighted the most pertinent sections for review by stakeholders including preferred alternative, impacts to freight facilities, etc). |
| 9 | Approve Preferred Alternative | |
| 10 | Approve Final NEPA Document | Task Force or Freight Advisory Committee Sunsetted<br>More active groups might also discuss and approve a final NEPA document but it is not a critical decision point. |
| 11 | Approve Record of Decision/Render Permit Decision (PER-6) | |

Note: Critical decision points are consistent with the Figure 5.1; this diagram reflects a more active stakeholder group that might have greater resources for engagement during additional decision points. If the Freight Advisory Committee was convened to address a specific project, then it will likely be sunsetted once the NEPA phase has been completed. Sometimes an existing freight advisory group is brought in to provide advice and service, while the group continues to perform its routine advocacy work.

# 6.0 Applying the Guide Tools

Planning practitioners can utilize the decision flow diagram to guide their engagement of freight stakeholders. Key elements of the engagement process include the utilization of freight advisory committees, interviews and surveys, and focus groups and ad hoc meetings to guide the long-range planning and programming process, corridor planning, and NEPA analysis to ensure that freight considerations and interests are properly included. Although many planning processes evolve organically from previous efforts, applying the freight decision flow diagram at any point in an ongoing process will enhance the practitioners' ability to elicit valuable insight into BCO, motor carrier, and economic development needs within regions and states and expand on existing stakeholder dialogue. Figure 6.1 illustrates how market-based planning considerations, the SHRP 2 decision-making diagram, and existing planning resources converge to identify the critical freight related decision points.

Figure 6.1 Where We Have Been




## Where to Begin – Toolkit

This section provides more depth on several topics introduced in the guide. These "Toolkit" topics are designed to help agencies implement and sustain some of the more difficult elements of a freight stakeholder outreach program. Appropriate outreach methods for freight stakeholders can help transportation

planning practitioners conserve resources and maximize the value of the feedback offered by private sector stakeholders in the highway planning process. Users of the guide may have noted that many of the most effective outreach strategies can be utilized during the development of several of the key decision points in the planning process. These strategies include many of the same tools that practitioners use during the conventional public outreach process, but customized to freight. The toolkit topics in this section include:

1. **How to Initiate a Freight Advisory Committee?**
2. **How to Sustain a Freight Advisory Committee?**
3. **How to Leverage Existing Contacts in Your State?**
4. **How to Find and Collaborate with a Freight Champion?**
5. **How to Attract and Maintain Freight Stakeholder Participation?**
6. **How to Use Freight Data to Support Freight Outreach?**

## 1. How to Initiate a Freight Advisory Committee?

Planners can obtain valuable project-specific and ongoing feedback from knowledgeable freight stakeholders by forming a Freight Advisory Committee. To increase the likelihood of success and maximize the value to policy-makers, the following are suggested techniques that have worked well in locations around the nation:

- Define the mission, meeting schedule (i.e., monthly, every other month, or quarterly on the same day of the week), and critical priorities and projects.
- Determine governance structure including minimum and maximum number of members and nonvoting ex officio members; type of person for chair and assistant chair roles (from private or public sector); sponsor agency representative; terms of service for the chair and assistant chair; and whether members have term limits or serve at their will.
- Develop a list of potential members from a cross-section of the freight industry. The committee might be comprised of representatives from BCOs, motor carriers, port authorities, airport authority, marine terminal operators, ocean carriers, ocean and airfreight forwarders, railroads, integrators (FedEx and UPS), city transportation bureau, local economic development agency, Mayor's office, state DOT, Chamber of Commerce, industry and trade associations, etc.
- Identify an appropriate regular meeting venue that is convenient and pleasant for members.
- The letter of invitation to serve sent to potential members should be signed by a high level policy-maker, such as the governor, mayor, state DOT director, or state Transportation Commission chair.

## 2. How to Sustain a Freight Advisory Committee?

Transportation agencies sometimes struggle with sustaining an advisory committee once it is established. The following ideas might help to sustain the committee.

- Limit the meeting to two hours or less; distribute an agenda and meeting materials in advance; and adhere to the agenda.
- Provide food and nonalcoholic beverages.
- Identify the most critical freight infrastructure projects on which the committee should focus advocacy efforts.
- Invite various external speakers to make short presentations during each meeting on topics of interest (e.g., introduce mayoral candidates to learn of their perspectives on transportation, state DOT director to explain programs and projects, representative of the bicycle association to communicate the needs of that stakeholder group, representative of an environmental group to provide perspective on how transportation projects negatively and positively impact the environment, etc.). This fosters open-mindedness and cooperation.
- Develop a communication plan and calendar for periodic meetings with key policy-makers to educate them on supply chain dynamics and advocate for critical freight infrastructure projects that will benefit the freight community.
- Craft position papers on critical freight-related subjects for distribution during advocacy efforts.
- Write letters and provide public testimony in support of critical freight projects.
- Provide opportunities for networking among members.
- Communicate via email with members during the month as important issues arise and their input is desired, but be careful not to bombard members with too many requests for input or involvement.
- Consistently remind members how the sponsor agency values their participation and feedback.

## 3. How to Leverage Existing Contacts in Your State?

When establishing a plan to engage freight stakeholders, instead of starting from scratch, find the organization that already has good contacts and relationships with members of the freight community and work with them to initiate efforts. The agency with freight industry contacts could be the local MPO, state DOT, Chamber of Commerce, trucking association, or other public agency. Then align your efforts with theirs to reduce duplicative outreach, otherwise it may overwhelm and confuse freight stakeholders, and also lead to stakeholder fatigue and loss of interest in engagement.

## 4. How to Find and Collaborate with a Freight Champion?

Find a freight champion, someone widely respected and dynamic who can advocate for freight interests among public sector agencies. For example, this freight champion can help DOT and MPO staff understand how and why it is important to incorporate freight issues into their plans and programs and solicit input from freight stakeholders on transportation infrastructure projects early in the planning stages. This person might be a high-level executive in a state organization (even the DOT director) or a private sector leader. Regardless of his or her station or employer, the freight champion should be effective in catalyzing action and inspiring firms and individuals to collaborate on freight transportation planning.

## 5. How to Attract and Maintain Freight Stakeholder Participation?

Freight stakeholders generally want to participate in the decision-making process, but policy-makers have a limited number of opportunities in which to engage them before they lose interest. Stakeholders can lose interest if they feel the process is not advancing with clear goals and outcomes or that their corporate bottom line will not be improved through continued involvement. Planners call this "Freight Stakeholder Fatigue." Because large infrastructure projects take a long time to plan and complete, engaging public sector stakeholders over the course of the project can be difficult. Moreover, the time horizons of the public and private sectors differ greatly.

### *Challenges of Attracting and Maintaining Freight Stakeholder Participation*

Freight stakeholders often perceive that public sector transportation infrastructure projects are highly complex and take far too long to plan and execute, often in excess of a decade, sometimes resulting in only marginal tangible benefits for their businesses. They find the public sector planning process to be tedious and are reluctant to spend much of their limited time sitting at tables listening to presentations and offering feedback, which they believe is not always taken to heart and incorporated into the plan. Their frustration grows when they see infrastructure projects completed with little net gain in system capacity and/or freight velocity, particularly if transit, commuter, bicycle, and pedestrian solutions are perceived to be a greater priority than freight mobility enhancements.

In particular, BCOs and logistics service providers may be reluctant to become involved in transportation infrastructure planning activities for several reasons (listed below). Public agencies can help stakeholders overcome hesitancy using the following methods.

1. **Challenge: Concerns about confidentiality –** Public sector agencies cannot assure freight stakeholders that the proprietary information they provide will be kept confidential because official documents produced during the study

become part of the public domain, and hence, discoverable under the Freedom of Information Act (FOIA). BCOs consider their supply chains to be a strategic advantage and, therefore, often decline to participate in outreach sessions because they do not wish proprietary strategies and operational profiles to be made public. Logistics service providers also do not want their competitors to know how they manage their businesses, who their customers are, and the volume of cargo they handle. These risks can outweigh any potential benefit to be derived by the stakeholder's company.

**What can the agency do?** If stakeholders are hesitant to participate because they do not want to share information, transportation agencies can focus their inquiries to the highway corridor (or broader geographic level) to avoid disclosure of corporate strategy or operations. For example, instead of asking for the number of trucks, the DOT can work with the firm to identify, in more general terms, the types of operations that utilize the corridor (commodities) and the problems they face on the highway.

2. **Potential negative outcomes –** Conclusions drawn by public agencies from stakeholder information collected might negatively impact 'the shareholder value of their companies. Once gathered, freight stakeholders cannot control how the public agency uses or interprets the information.

   **What can the agency do?** One way of limiting this fear is by volunteering to allow the stakeholders to review any materials that utilize information they provided before it is publicly released—even in draft form.

3. **Limited impact –** The freight stakeholder may perceive that the infrastructure project may not deliver enough specific benefits to the stakeholder's company to warrant participation in the planning process, particularly on projects with long planning and execution timelines. It is the "law of diminishing returns."

   **What can the agency do?** Agency staff should remind their stakeholders that their involvement in the highway planning process will yield much better long-term results with their input. Agencies can also assuage these concerns by focusing on short-term projects (e.g., quick fix) that provide immediate benefit to stakeholders—such as access improvements, road repairs, and traffic signal improvements. This type of activity promotes trust and incentivizes willingness on the part of the stakeholders to endure longer term planning processes.

4. **Lost in the noise –** Because there are usually many types of stakeholders, including private citizens, neighborhood associations, bicyclists, public transit users and promoters, and environmental groups for any given transportation infrastructure project, freight stakeholders may believe their voices will be drowned out by other types of stakeholders who are more vocal and willing to and have more time to speak out in public forums.

   **What can the agency do?** This challenge can be overcome by engaging stakeholders in the development of a prioritization process—where they help

set the criteria and weighting for the projects. The use of benefit-cost analysis is also helpful in this respect as it tends to provide high benefits to freight projects.

5. **Disparate timeframes: public versus private sector –** Often projects progress in fits and starts, and lack a clear direction. This is frustrating to freight stakeholders who are responsible for achieving rapid results in their own businesses, unlike public agencies whose planning and implementation horizons can be decades long. Stakeholder fatigue can set in if policy-makers are not creative in stimulating and maintaining interest over the course of the planning process.

   **What can the agency do?** Agencies can schedule meetings at a reasonable frequency, have a specific and limited agenda, stay on task during the meeting, explain the progress that has been made thus far, offer food and beverages, and make the meeting an opportunity for networking.

6. **Lack of public sector and private citizen understanding –** The majority of private citizens and legislators do not have a clear understanding and possess limited knowledge of how supply chains function, the myriad ways products move from origin to destination, and the economic value of freight mobility. Freight stakeholders might believe that the solutions developed will not be relevant or address their concerns because of this lack of understanding. Transportation is not taught in schools, so policy-makers have to obtain their knowledge of how freight stakeholders use the multimodal transportation system in other ways.

   **What can the agency do?** This guide, freight advisory committees, industry experts, universities with transportation and logistics programs, and other sources can be helpful in terms of providing that valuable education. Policy-makers also need to be careful in approaching public citizens and take time to explain transportation and logistics concepts and terminology to help them broaden their perspectives.

7. **Including private citizens in Freight Stakeholder Meetings –** Inviting private citizens to freight stakeholder meetings can be beneficial in terms of building bridges between these groups that often have very different views and interests, and providing a forum for BCOs and other freight stakeholders to educate the public about supply chain dynamics and freight movement. This can lead to more citizen support for freight projects. However, depending upon the circumstances, planners should be aware that BCOs do not always welcome the attendance of citizens because they may sidetrack the meeting's agenda in an effort to advocate for their own interests rather than listen to the information that BCOs provide.

   **What can the agency do?** Planners should proceed cautiously and tightly control meetings to keep on task if citizens are invited.

## 6. How to Use Freight Data to Support Freight Outreach?

Agencies use freight data to evaluate the economic effects of highway projects and to paint a general picture of the regional freight system. Freight data can be a powerful tool to engage the freight stakeholders in the planning process: its careful use can raise the credibility of the DOT and provide freight stakeholders with broad market information that may benefit their firms.

Several guides recommend utilizing data from a variety of sources, both private and public, so analysts can evaluate the nature of the overall economy, the direction in which the economy is moving (i.e., robust growth, stagnant, or in decline), and the types of industries and firms that exist in a particular region. Private firms are accustomed to "triangulating" between data sets and will typically respect this approach.

- *The Guide for Integrating Freight into the Transportation Planning and Project Selection Processes* recommends identifying "corridors or facilities of statewide or regional significance" during the long-range planning or corridor planning phases. National corridors or facilities of statewide or regional significance have been highlighted by FHWA and additional local corridors of significance (for freight flows) can be identified by analyzing a variety of economic, mobility, or strategic metrics to identify concentrations of warehouse and cargo handling facility space or a disproportionate number of freight-oriented firms located within a particular highway corridor. The MAP-21 legislation further promotes the identification of freight corridors at a National level. This identification of key corridors and concentrations of freight activity is especially critical during the long-range planning process. Challenges associated with the understanding and sharing of freight data include the following:
- **Identification of Sources and Use –** Some available data is free, such as the FHWA's Freight Analysis Framework (FAF) and trade data from the U.S. Department of Commerce. The FHWA's FAF assists planners in determining trade trends and freight flows. Additionally, some data is available from private sources, including trade associations or research organizations. Another data source on imports that can be further utilized is customs entry information on imported goods collected by the U.S. Bureau of Customs and Border Protection.
- **Nonproprietary –** Often, planners need access to data retained by the private sector. In order for DOT and MPO planners to access proprietary data from BCOs and motor carriers, they need to know how to clearly describe the need and purpose for the data; timing (both duration of collected data and when they need to receive it); and the required format (file type, size restrictions). Too often, planners are unaware of the sensitivities associated with certain types of data and/or how to formally request only the data they need, which may not include the proprietary data elements.

- **Proprietary –** Private sector data generally contains proprietary information that companies are often reluctant to share; however, private industry representatives often discuss and share trends in freight movement at industry forums and conferences. Some key examples are the Retail Industry Leaders Association (RILA) Logistics Conference and the Intermodal Association of North American Conference (IANA). These types of venues may provide a valuable source of data to attending public sector planners, as well as aid in establishing industry contacts for future data collection efforts. Obtaining proprietary data from BCOs can be challenging because BCOs recognize that once data is provided to a public sector agency there is no way to protect that data from dissemination in the public realm. DOT and MPO planners must be cognizant of the sensitive nature of BCO proprietary data. BCOs may be more inclined to furnish some data rather than none if planners carefully approach BCOs for specific and limited data while providing explanations about how the data will be used.

Potential recommendations for improving the freight planning process include:

- **Expanding the recognition and understanding of freight data sources –** Some freight stakeholders familiar with the FAF data indicated interest in seeing more funding allocated to improving and refining the database for purposes, such as gaining a better understanding of day-to-day freight operations and routing. Other private data sources, such as TRANSEARCH[8] or PIERS,[9] are generally familiar to the private sector and use proprietary methods to develop freight information databases. These are readily available for purchase by public sector planners, but the cost can discourage the use of this data.
- **Promoting the sharing and expanded use of freight-specific data –** Trade or business organizations can act as intermediaries between firms and the public sector for the sharing of freight data. Similarly, DOT planners could gain insight through participation in industry forums to better understand industries' decision-making processes, as well as the data used to make transportation decisions. The value of data is only recognized through its proper application. It is critical that public sector planners understand and respect the confidential nature of BCO supply chain data and implement safeguards to prevent the unintended, unauthorized dissemination of such proprietary data. To this end, the importance of educating DOT and MPO planners to use the data properly should be a shared priority of both private and public sector stakeholders.

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[8] TRANSEARCH is a commercial data product developed by IHS Global Insight, Inc., which incorporates a mix of public sector and proprietary data to estimate freight flows.

[9] PIERS is a database of U.S. waterborne trade activity for both imports and exports.

Figure 6.2 Key Decision Points from a Hypothetical BCOs' Perspective

| Decision Point | Decision Points for Environmental Review (ENV) | Stakeholder Actions (critical decision points) |
|---|---|---|
| 1 | Reach Consensus Scope of Environmental Review | Task Force or Freight Advisory Committee Assembled |
| 2 | Approve and Publish the Notice of Intent | |
| 3 | Approve Purpose and Need/Reach Consensus on Project Purpose (PER-1) | Attend kick-off meeting to better understand advisory committee or task force role, and discuss and vote to approve Purpose & Needs Statement (previously developed by staff). |
| 4 | Approve Public Notice (PER-2) Reach Consensus on Study Area | |
| 5 | Approve Evaluation Criteria, Methodology, and Performance Measures | Attend meeting to discuss, agree and vote to adopt Evaluation Criteria, Methodology & Performance Measures (draft evaluation criteria would have already been prepared by staff and stakeholder meeting would validate). |
| 6 | Approve Full Range of Alternatives/Approve Resource Agency Public Notice (PER-3) | Review materials describing alternatives in preparation for attending a meeting to learn more about, discuss and vote to approve Full Range of Alternatives (staff would disseminate information on project alternatives to stakeholder group). |
| 7 | Approve Alternatives to be Carried Forward (PER-4) | More active groups might also discuss and vote on the alternatives to be carried forward but this is not a critical decision point. |
| 8 | Approve Draft EIS/Reach Consensus on Jurisdictional Determination (PER-5) | Review Draft EIS and attend meeting to discuss and vote on approval of Draft EIS (staff would have highlighted the most pertinent sections for review by stakeholders including preferred alternative, impacts to freight facilities, etc). |
| 9 | Approve Preferred Alternative | |
| 10 | Approve Final NEPA Document | Task Force or Freight Advisory Committee Sunsetted<br>More active groups might also discuss and approve a final NEPA document but it is not a critical decision point. |
| 11 | Approve Record of Decision/Render Permit Decision (PER-6) | |

Note: Critical decision points are consistent with the Figure 5.1; this diagram reflects a more active stakeholder group that might have greater resources for engagement during additional decision points. If the Freight Advisory Committee was convened to address a specific project, then it will likely be sunsetted once the NEPA phase has been completed. Sometimes an existing freight advisory group is brought in to provide advice and service, while the group continues to perform its routine advocacy work.

# Glossary

**Beneficial Cargo Owner (BCO) –** A BCO can be either the shipper/supplier/factory or the consignee/receiver/buyer, depending upon the point in time and location at which product ownership and liability transfers between the two parties according to the agreed upon sales terms. Sales terms dictate, among other things, the party responsible for determining the routing and mode of transport. International Chamber of Commerce (INCO) terms of sale are the most commonly used in international trade. Free on Board (FOB) and Free Alongside (FAS) are two common INCO terms.

**Class I Railroad –** The U.S. Surface Transportation Board has three classifications for railroads: Class I, Class II and Class III. Class I railroads are those with operating revenues of at least $378.8 million (USD) in 2009. Class I carriers typically operate in many different states and concentrate largely on long-haul, high-density intercity traffic lanes. There are seven Class I railroads: Burlington Northern Santa Fe (BNSF), CSX, Canadian National, Canadian Pacific, Kansas City Southern, Norfolk Southern, and Union Pacific (UP).

**Third-Party Logistics Service Provider (3PL) –** A 3PL is a company that provides a variety of transportation and logistics services to shippers such as airfreight forwarding, ocean freight forwarding, trucking, warehousing, and value-added services. 3PLs can be asset-based where they own warehouses and trucks, or nonasset-based where they lease facilities and equipment.

**Transloading –** This is the process by which a 3PL transfers the contents of an import ocean container directly into a 53 foot domestic truck or rail container at a U.S. gateway port for onward movement to a store or distribution center. The 3PL typically arranges for the inland transportation with the motor carrier or intermodal marketing company (IMC) on behalf of the importer. Importers select transloading into domestic equipment to reduce the per unit cost of inland transportation from the U.S. gateway port to the inland destination because the contents of three ocean containers can generally fit into two 53 foot domestic truck or rail containers. Transloading usually takes place at large gateway ports including the ports of Los Angeles, Long Beach, New York and New Jersey, and Savannah where ocean carriers make first vessel calls on their vessel itineraries.

**Value-added Services (VAS) –** 3PLs perform VAS for BCOs, usually those with higher value cargo, to make the products floor-ready for sale. VAS activities include:

- Picking and packing specific cartons or units from cartons per the BCO's allocation and assembling the cartons or units into a customer order for onward movement by truck;
- Applying and/or scanning barcode labels;

- Applying price tickets to products;
- Performing product quality control;
- Reboxing and relabeling; and
- Kitting individual components into an assembled product for retail sale (i.e., combining a cell phone, case, and charger).

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