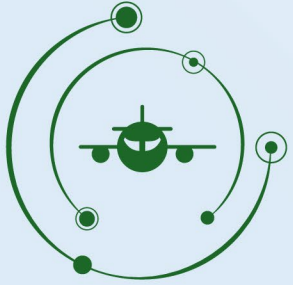


2023 Massachusetts State Freight Plan



Freight Advisory Committee #1

presented to

Freight Advisory Committee Members

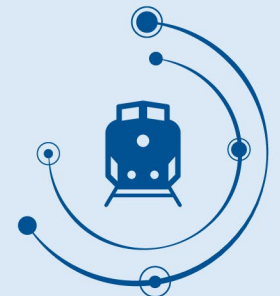
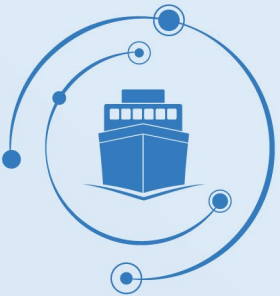
presented by

Cambridge Systematics, Inc.

City Point Partners

Toole Design

January 10, 2023



Zoom Webinar Controls for Meeting



- Ask a question and share comments



- Drop down menu to check microphone and speakers



- Raise your hand - *9 for users dialing in and Alt + Y to raise your hand



- If you are unable to access the internet or are having technical problems, please call into the meeting at 646-931-3860, Webinar ID: 825 8411 4342



- Closed captioning automatically generated by Zoom

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Raise Hand



Q&A



Interpretation



Live Transcript

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Public Meeting Notes and Procedures

Notification of Recording

- This virtual public meeting will be recorded. The Massachusetts Department of Transportation may choose to retain and distribute the video, still images, audio, and/or transcript. All parts of this meeting are considered public record.
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- Your microphone and webcam are automatically disabled upon entering this meeting.
- The meeting will be open to questions and answers at the end of the formal presentation.

Notice of MassDOT's policy on Diversity and Civil Rights

- All MassDOT activities, including public meetings, are free of discrimination.
- MassDOT complies with all federal and state civil rights requirements preventing discrimination based on sex, race, color, ancestry, national origin (limited English proficiency), religion, creed, gender, sexual orientation, gender identity or expression, or veteran's status.
- We welcome the diversity from across our entire service area. If you have any questions or concerns, please visit <https://www.mass.gov/nondiscrimination-in-transportation-program> to reach the Office of Diversity and Civil Rights.

Thank you for joining our meeting. We appreciate your participation!

Agenda

- **Welcome & Introductions**
- **Role of the Freight Advisory Committee**
- **Background on 2017 Freight Plan**
- **COVID-19 Freight Study Findings**
- **2023 Massachusetts Freight Plan**
- **2023 Plan Vision & Goals**
- **Next Steps**

Welcome & Introductions

Planning Team Introductions

Jonathan Gulliver

Highway Division Administrator
Chair, Freight Advisory Committee

Makaela Niles

MassDOT Project Manager



Freight Advisory Committee Introductions

Organization

MassDOT
Unistress Corp.
Maritime International
Port of New Bedford
NFI Industries
Cumberland Farms
Genesee & Wyoming Railroad
Connecticut Department of Transportation
Massport
Maple Leaf Distribution Services
City of Cambridge
Massachusetts Association of Regional Planning Agencies (MARPA)
Federal Highway Administration (FHWA)
Trucking Association of Massachusetts
Global Partners

Introductions

- Name
- Organization you are representing

Role of the Freight Advisory Committee

Role of the Freight Advisory Committee

Who?



- **Advisors, stakeholders, and subject matter experts**
-

Why?



- **Confirm vision and goals**
 - **Offer insight on local and regional freight-related issues, trends, and needs**
 - **Share information with institution/organization represented**
 - **Inform recommendations, solutions, and strategies**
-

When?



- **Up to 3 times over the next 4-6 months**

Background on 2017 Freight Plan

Background on 2017 Freight Plan

- Developed through a risk-aware, scenario-based process
- Fixing America's Surface Transportation (FAST) Act-compliant
- Established strategies:
 - *Immediate* strategies (infrastructure, policies, people)
 - *Robust* strategies (infrastructure, operations)
 - *Deferred* strategies (infrastructure)
 - *Hedging & shaping* strategies (infrastructure, operations, policies, people)



Partial List of Key Actions Since 2017 Freight Plan

Mass Coastal Railroad upgrades to 286K between Mansfield and Attleboro

More Than Half a Dozen National Highway Freight Program-Funded Projects Programmed in 2019-2023

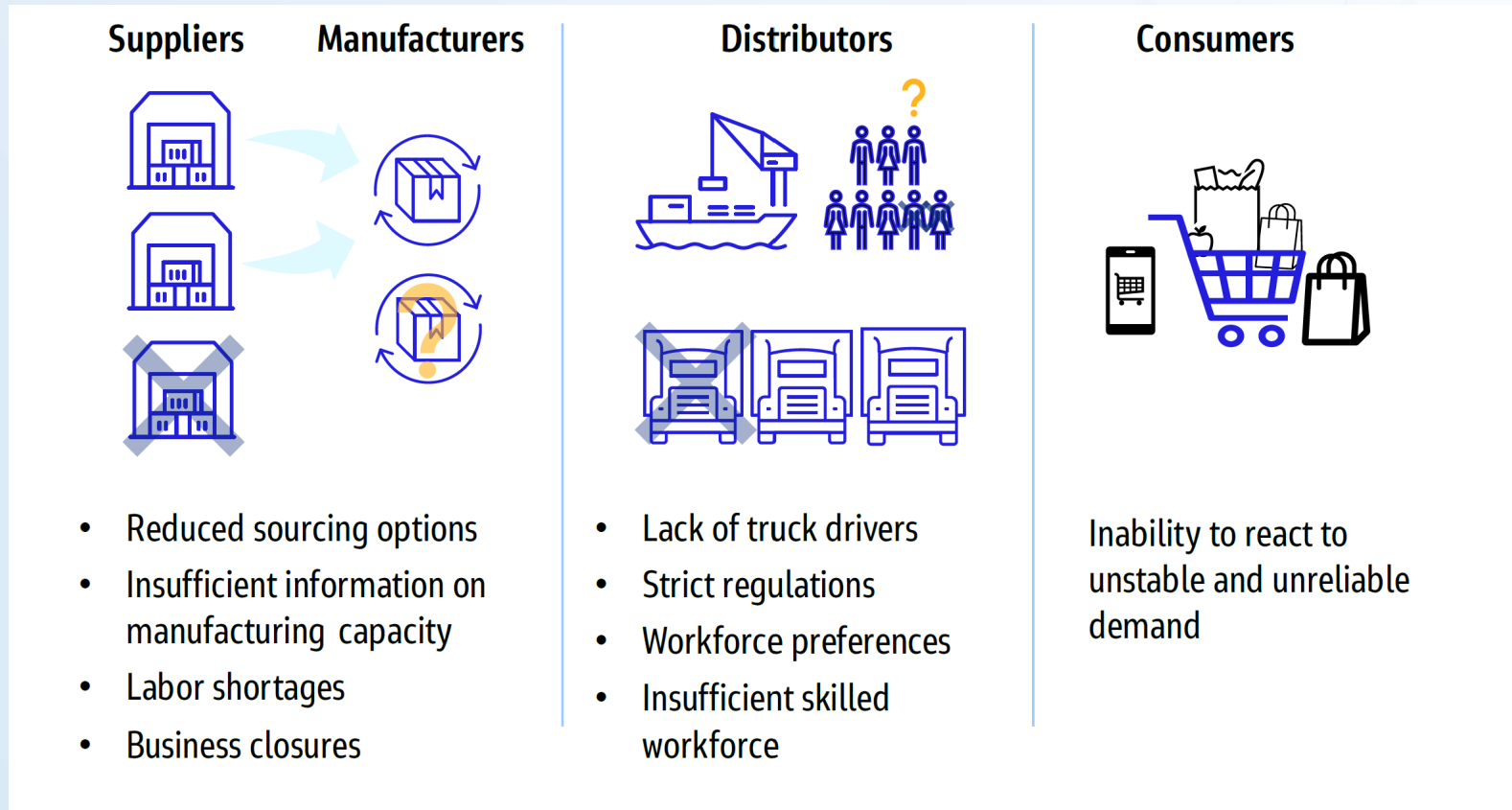
Federal Railroad Administration Better Utilizing Investments to Leverage Development (BUILD) Grant to Rehab New England Central Railroad Freight Corridor in Western MA and Upgrade to 286K

Statewide Truck Parking Improvements Study

COVID-19 Freight Study

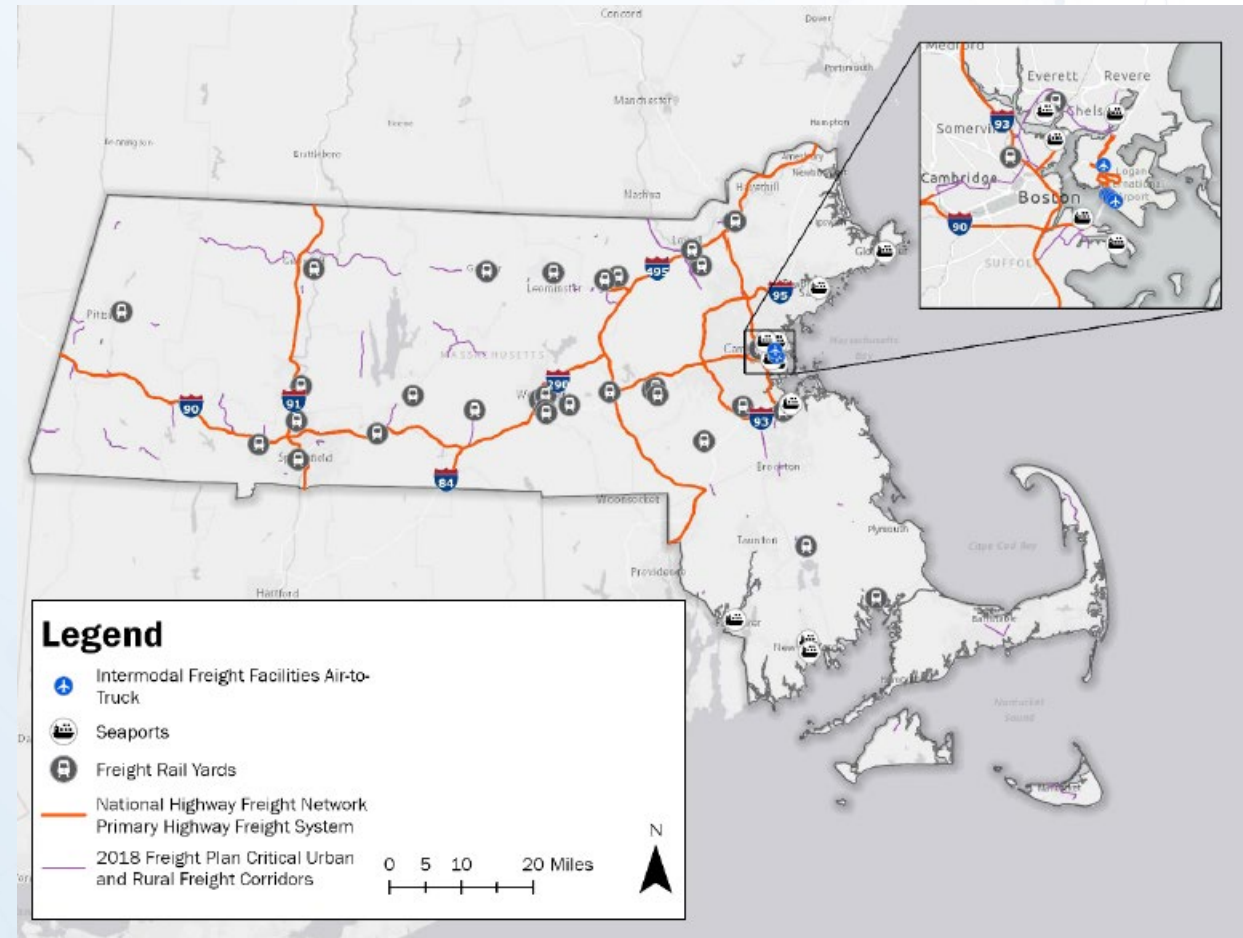
COVID-19 Freight Study Key Findings

Global Supply Chain Vulnerabilities Highlighted by COVID-19



Massachusetts' Economy & Freight

- Freight-intensive industries accounted for **24% of Massachusetts' \$531 billion real gross domestic product (GDP) in 2021**
- About 68% of domestic outbound and inbound freight by tonnage moves to and from Massachusetts and **over 90% of Massachusetts freight stays in the New England region**

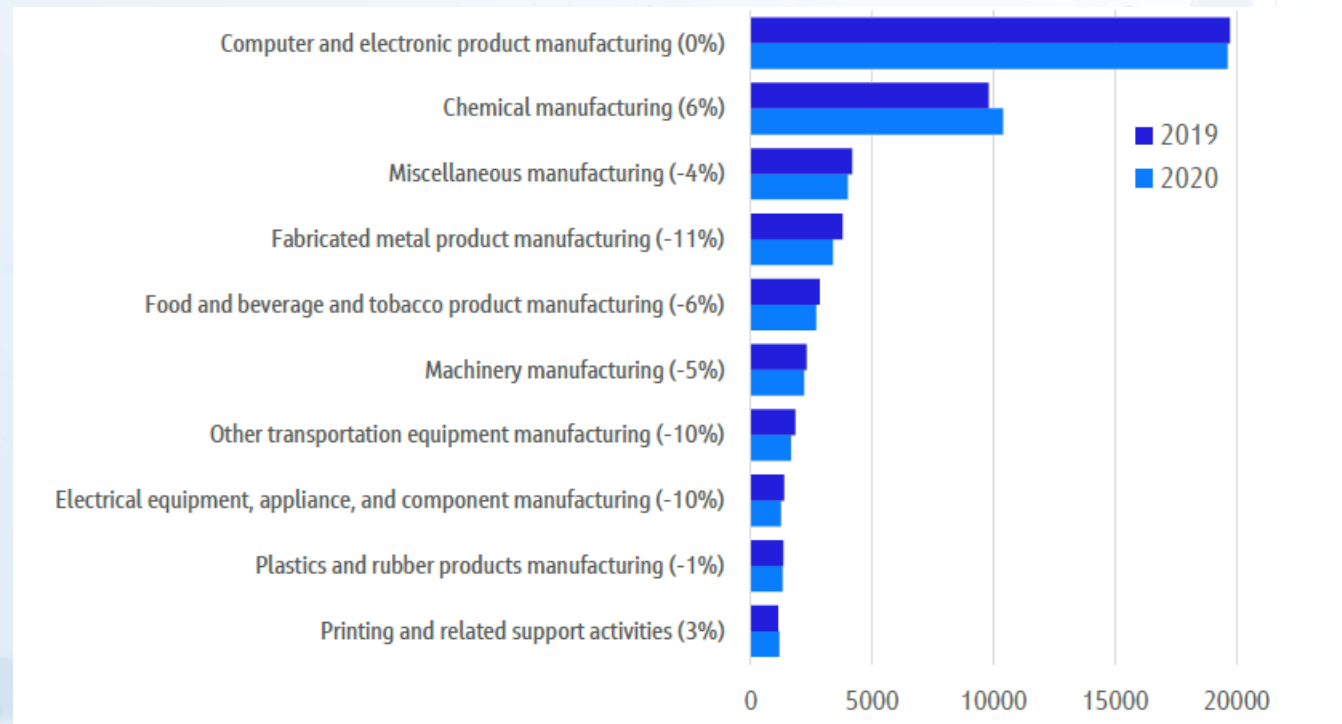


Source: Massachusetts geoDOT

Impact on Massachusetts Manufacturing, Imports, and Exports

- Massachusetts' manufacturing industry resilience during the pandemic can be attributed to **computer and electronic product manufacturing & chemical manufacturing**
- Top exports by value from Massachusetts in 2021 included:
 - Vaccines
 - Machines for semiconductor manufacturing
 - Electronic instruments
 - Medical appliances
 - Filtering/purifying machinery for liquids

Top10 Manufacturing Industries
(% Change 2019-2020)



Source: Bureau of Economic Analysis, GDP by Industry

Literature Review Key Findings



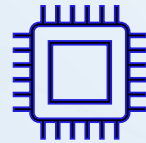
A surge in e-commerce and an increase in transportation costs were observed globally.



Hybrid work arrangements became more acceptable in some industries.



Supply chain vulnerabilities were exposed including limited sourcing options.



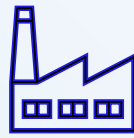
Supply chain issues persisted in 2022, particularly for electronic components and semiconductors.



Other global events, such as the Russia-Ukraine war, prolong the recovery from the pandemic.

Quantitative Analysis

Key Findings



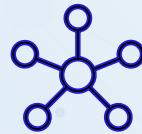
Different industries experienced different impacts due to the pandemic, with manufacturing and wholesale remaining relatively stable.



The increase in e-commerce led to a surge in the number of new warehouses and distribution centers leading to increased traffic, noise, and safety issues.



Travel restrictions led to a significant impact to passenger air and transit.



Massachusetts' diverse economy facilitated its resilience to the pandemic with manufacturing jobs in the science and technology industry remaining steady during 2020.



Increased truck volumes on major highways such as the I-90, I-84, and I-93 could be attributed to decreased port calls at the Port of Boston and increased traffic from the Ports of New York and New Jersey.



In August 2022, Amazon announced that it is closing five of its delivery warehouses. However, it plans on opening additional grocery stores around the state.

Qualitative Analysis

Key Findings



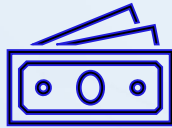
Labor shortage was a recurring theme during the peak and recovery periods of the pandemic.



Vaccination mandates impacted the transportation industry resulting in hampered growth and decreased revenue across the rail and trucking industries.



In addition to higher wages, benefits and better work-life balance became critical to hiring and retaining workers.



New COVID-19 compliance measures put in place in addition to existing safety protocols made operations more complex and increased business operating costs.



There was an uptick in reckless driving, mostly by passenger vehicles, as there were fewer vehicles on the roads.



Increased demand for curb space, and companies have begun consolidating delivery services.

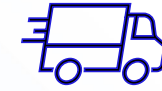
Immediate Considerations for Massachusetts



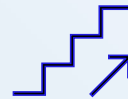
Develop and deploy a truck parking availability system that detects, monitors, and provides real-time parking availability to truck drivers.



Develop and promote a safety campaign that prepares drivers to return to normal life after long periods of lockdowns.



Collaborate with on-demand mobility service providers to ensure adequate driver training and monitoring during last-mile deliveries.



Promote workforce upskilling to meet demand and address the labor shortage.



Promote multistate collaboration in addressing interstate over-dimensional load movements.



Take advantage of recent legislation (for example, the CHIPS and Science Act and the IIJA) to favor Massachusetts' long-term economic growth.



Create and promote clear communication channels to address inquiries regarding oversized and overweight vehicle movement.

2023 Massachusetts Freight Plan

2023 Massachusetts Freight Plan

Develop a 2023 Massachusetts Freight Plan that is...

- Reader-Friendly
- Focuses on Policy, Trends, and Scenarios
- Ties into Other Plans/Programs
- Advances National Freight Goals

... For submittal to the Federal Highway Administration by mid-April 2023, approved by mid-July 2023.

FAST Act Requirements for Freight Plans

State Freight Plans shall include, at a minimum:

Identification of significant statewide **freight trends, needs and issues**

Description of improvements to reduce **roadway deterioration by heavy vehicles** (incl. mining, agricultural, energy cargo, and timber vehicles)

Description of **freight policies, strategies and performance measures** that will guide freight-related transportation investment decisions

Inventory of **facilities with freight mobility issues** and a description of the strategies the state is employing to address the freight mobility issues

Critical multimodal rural freight facilities and **rural and urban freight corridors**

Description of **significant congestion or delay** caused by freight movements and any mitigation strategies

Link to **national multimodal freight policy** and highway freight program goals

Freight investment plan that includes a list of priority projects and describes investment and matching funds

Description of how **innovative technologies and operational strategies** (including intelligent transportation systems) that improve the safety and efficiency of freight movements were considered

Consultation with the **state freight advisory committee**

Infrastructure Investment and Jobs Act (IIJA) Requirements for Freight Plans

State Freight Plans shall include, at a minimum:

Assessment of **commercial motor vehicle parking** facilities

Description of **supply chain cargo flows**

Inventory of **commercial ports**

Discussion of the impacts of **e-commerce** on freight infrastructure

Considerations of **military freight**

Strategies and goals to decrease a) the severity of impacts of **extreme weather and natural disasters** on freight mobility, b) the impacts of freight movement on **local air pollution**, c) the impacts of freight movement on **flooding and stormwater runoff**, and d) the impacts of freight movement on **wildlife habitat loss**

In carrying out activities under the State freight plan, a) enhance **reliability or redundancy** of freight transportation, or b) incorporate the ability to rapidly restore **access and reliability** with respect to freight transportation

Schedule and Key Milestones



2023 Freight Plan Vision & Goals

MassDOT Mission

Our mission is to deliver **excellent customer service** to people traveling in the Commonwealth by providing transportation infrastructure which is **safe, reliable, robust and resilient**. We work to provide a transportation system which can **strengthen the state's economy** and **improve the quality of life for all**.

2017 Freight Plan Vision

VISION & GUIDING PRINCIPLES



2017 Freight Plan

Transportation Performance Goals

- **Customer Experience.** The freight system should work for all its customers: shippers, carriers, consumers, workforce, and communities.
- **System Condition.** Optimize freight system investment decisions to best utilize limited funds to maintain and preserve the existing multimodal freight system.
- **Budget and Capital Performance.** Capital budgets should be set in part using freight performance metrics, to ensure that the benefits of projects for freight uses are properly considered in decision-making.
- **Safety.** Freight movement should be safe for operators, motorists and passengers, bicyclists, and pedestrians, in urban, suburban, and rural areas.
- **Healthy and Sustainable Transportation.** Improve the use of data, policies, or guidance to support the avoidance, minimization, and/or mitigation of impacts to natural and cultural resources on freight related projects.

Proposed 2023 Freight Plan Vision

Supporting **safe, resilient, and secure multimodal** freight movement in Massachusetts through investing in key freight assets to improve **economic competitiveness**, provide **efficient and reliable** freight mobility, and support **healthy and sustainable** communities.

Proposed 2023 Freight Plan Goals

System Condition

Support an efficient and reliable supply chain through investments in existing infrastructure and supporting technologies to maintain and preserve the existing system.

Safety and Resiliency

Improve statewide safety by funding projects that reduce injuries and fatalities, reduce vulnerability, and improve the resiliency of the system.

Mobility and Reliability

Invest in the multimodal transportation system to improve mobility, connectivity, accessibility, and reliability for people and goods.

Economic Competitiveness

Support multimodal transportation system connectivity, efficiency, and mobility to support businesses and residents and increase national and regional economic competitiveness.

Equity and Environmental Sustainability

Support initiatives and investments that improve equity across the multimodal system, improve local air quality, and minimize impacts to natural, historic, and cultural resources.

Guiding Principles



Fostering equity & collaboration.

Understanding the needs of all groups and ensuring that the right stakeholders are at the table.



Building organizational capacity. Ensuring MassDOT has the staff and systems in place to accomplish its goals.

Poll Question #1

**On a scale of low, medium, and high,
how would you prioritize each of the following goals?**

System Condition

Safety and Resiliency

Mobility and Reliability

Economic Competitiveness

Equity and Environmental Sustainability

Poll Question #2

Are there other themes that would you like to see incorporated into the 2023 Freight Plan vision or goals?

Questions and Answers



- “Raise your hand” to be unmuted for verbal questions (Alt + Y if using a phone)



- Submit your questions and comments using the Q&A button



- Please state your name before your question



- Please share only 1 question or comment at a time, limited to 2 minutes, to allow others to participate



- To ask a question via phone, dial *9 and the moderator will call out the last 4-digits of your phone number and unmute your audio when it is your turn

All questions and comments are subject to disclosure for public records. Please use these functions for project related business only.

Next Steps

Schedule and Key Milestones



Next 30 Days



Hold Public Informational Meeting #1



Draft Freight Plan chapters covering: key industries, recent supply chain developments, existing conditions & trends



Prepare for FAC Meeting #2

Thank you!



For more information on the Freight Plan,
please visit our website

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Multimodal Planning, Office of Transportation Planning

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