# February 22 Freight Initiatives Committee Agenda

- Roll Call of Members
- Approval of Minutes
- Update on NJTPA Freight Division Activities
- Annual Rail Freight Update
  - Conrail, Ryan Hill
  - PANYNJ Intermodal Rail, Cory Wyatt
  - NJTPA Freight Rail Grade Crossing Assessment Update, Chris Lamm
  - NJTPA Freight Concept Development Program Studies, Scott Parker
- Two-minute Reports on Freight Activities from Committee Members
- Next Meeting: April 18, 2022 Annual Port and Maritime Update
- Adjournment

Please use the Chat box to ask questions during the presentations and if requesting credits, please post your name, followed with either AICP or PE with your PE license number

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# Supply Chains Remain in the Headlines

#### The Next Supply Chain Mess Is Coming for Your Morning Coffee



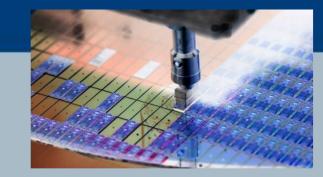


"My homework is stuck on a boat because of international-supply-chain-related port delays."

# JACK WHITE ANNOUNCES THE SUPPLY CHAIN ISSUES TOUR

# **Federal Initiatives**

# Executive Order on America's Supply Chains





#### Infrastructure Investment and Jobs Act of 2021

The Biden-Harris Administration Trucking Action Plan to Strengthen America's Trucking Workforce





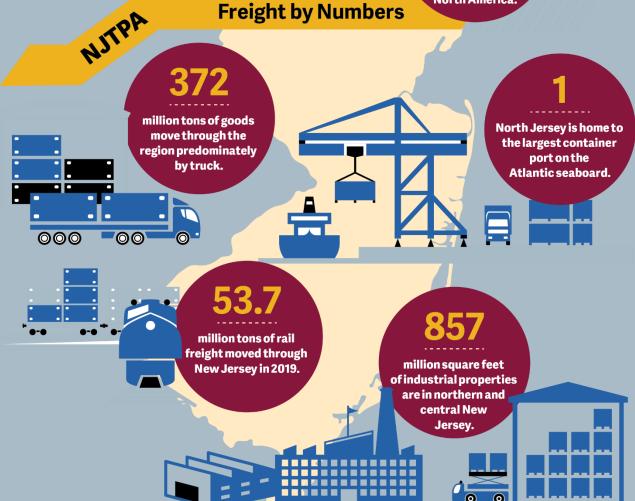
purces: University of Pennsylvania, Schneider Jobs, Port Authority of New York & New Jersey

# NJTPA Freight Division Update

Newark Liberty International Airport's rank among air cargo airports in North America.

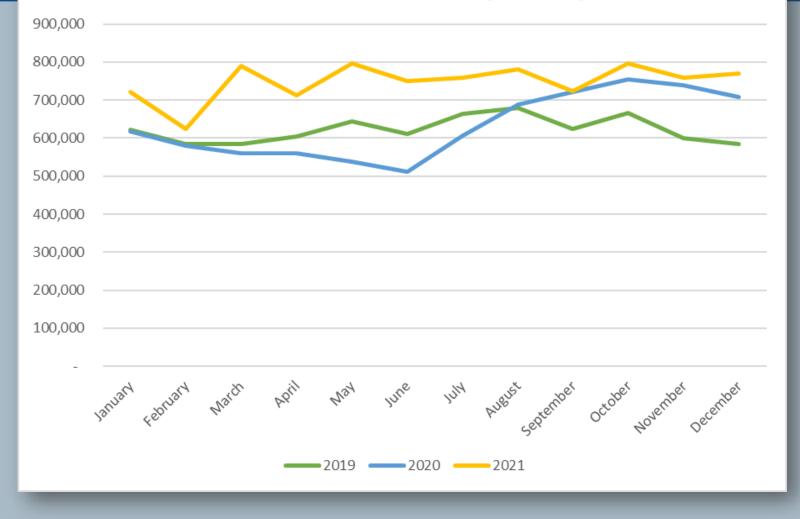
2021 Industrial Market Update:

- 164 new bldgs since end of 2016.
- Over 13 million new SF currently under construction.
- Leasing dominated by retail, wholesale and 3PLs.
- Leasing activity slowed
- Development increasingly shifting to repurposing existing properties



# Container Activity at all-time highs

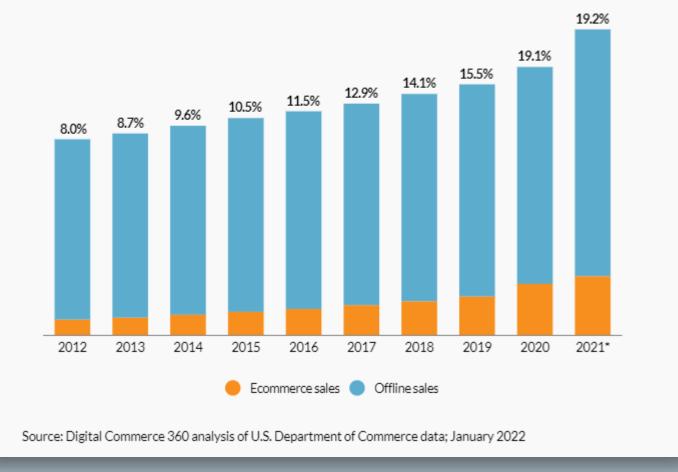
Port of New York and New Jersey Monthly TEUs



NJTPA

# **Ecommerce Market Share Continues to Grow**

Ecommerce sales as a % of total retail\* spend, 2012-2021





Source: <u>https://www.digitalcommerce360.com/article/us-ecommerce-sales/</u> February 10, 2022

# We've fundamentally shifted how we purchase groceries



Delivery includes first- and third-party providers (e.g. Amazon Fresh, Albertsons, FreshDirect, Instacart, Shipt) Pickup includes in-store, curbside, lockers, and drive up Ship-to-Home includes common (e.g. FedEx, UPS, USPS) and other parcel couriers Sources: Brick Meets Click/Mercatus Grocery Shopping Survey, Dec 2021; Brick Meets Click Grocery Survey Jan-Nov 2021; Mar-Jun, Aug, Nov 2020; and Aug 2019



Source: https://www.supermarketnews.com/online-retail/online-channel-builds-share-us-grocery-market-2021

# NJTPA Freight Division Update

- Updating and enhancing the Goods Movement Strategies for Communities Webtool
- Advancing the Freight Rail Industrial Opportunities Corridor (FRIO)
- Holding March 24 MAP Forum Clean Freight Workshop
- Advancing FY 2021 Freight Concept Development Program Studies



# **Rail Freight Update**

- Conrail, Ryan Hill
- **PANYNJ Intermodal Rail**, Cory Wyatt
- NJTPA Freight Rail Grade Crossing Assessment Update, Chris Lamm
- NJTPA Freight Concept Development Program Studies, Scott Parker

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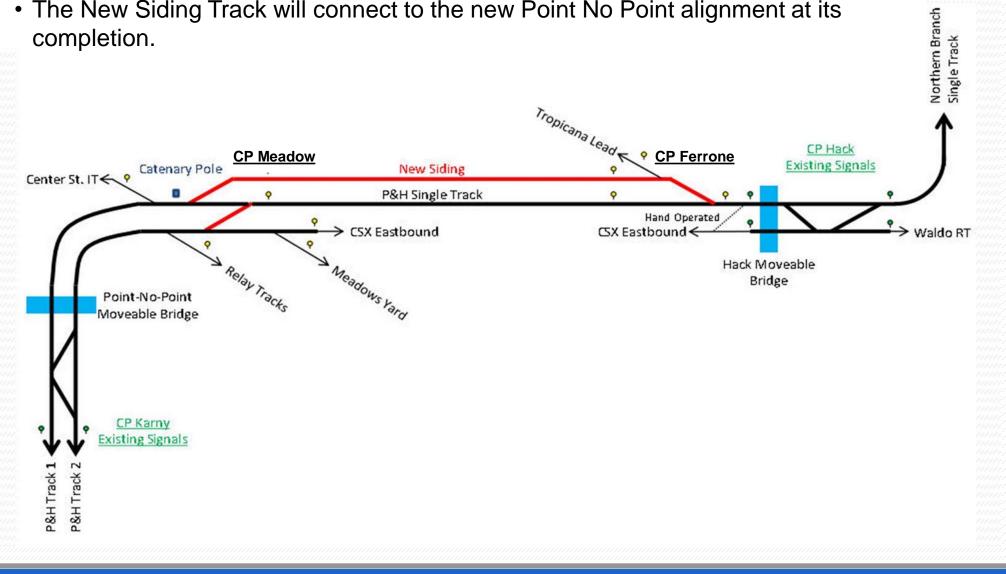
# North Jersey Project Update





### Second Main Track Expansion Hack to Kearny

- Project was completed and placed in service Oct. 2021.
- The New Siding Track will connect to the new Point No Point alignment at its completion.





# Waverly Loop



- The Waverly Loop tracks are complete and in service.
- The signal system, including switch machines, signal masts, and back office configuration will be completed in April. Once the signal work is complete, the P&H Line will be under dispatcher control along the Waverly Loop.

### Point No Point Bridge Replacement

- The project is out to bid, with bids due at the end of this month.
- Construction is scheduled to take 3 years.
- The existing swing span will be replaced by a single leaf bascule.
- The bridge will be built on a new alignment to avoid delays to train traffic during construction.
- Continued coordination with Amtrak, PATH, NJT, CSX and the USCG will all be essential through construction.

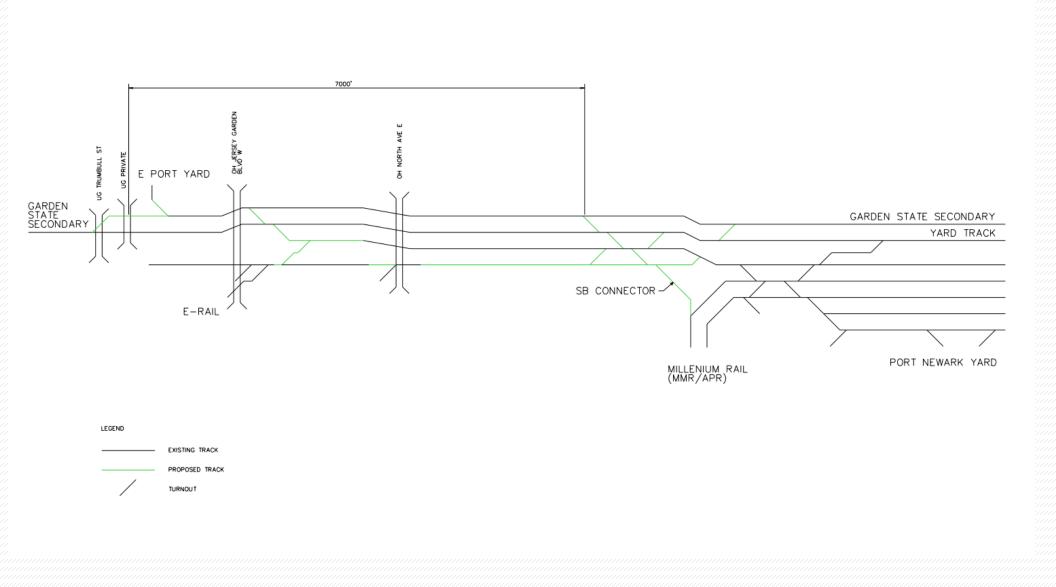
### Point No Point Bridge Replacement



# Southbound Connector & Garden State Secondary Improvements

- Conrail has been working with PANYNJ on design concepts for a Southbound Connection (SBC) out of Maher Terminals to Conrail's Garden State Secondary Track (GSS)
- Conrail has identified other improvements along its GSS necessary to realize the full benefits of the SBC
- The SBC & GSS improvements will allow more efficient use of Port Newark Yard, increasing capacity for all terminal operators
- SBC allows arrival and departure south on the GSS and out to Port Reading Junction via the Port Reading Secondary
- Project is in preliminary design with potential 2023 construction

### Southbound Connector & Garden State Secondary Improvements

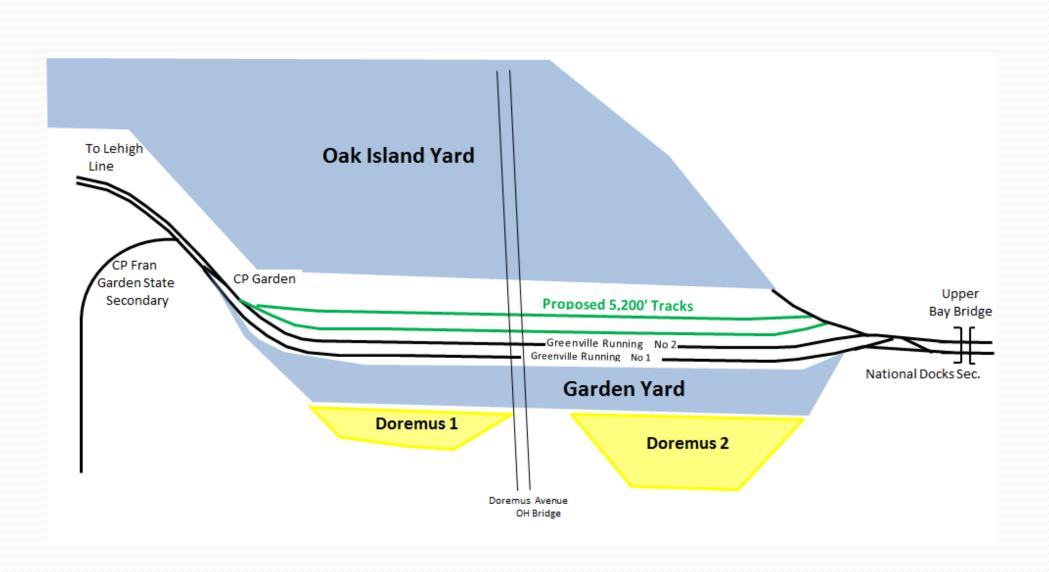


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#### Oak Island Support Tracks 5 & 6

- Conrail constructed two Oak Island Support Tracks in 2019
- Those tracks have been very effective in handling intermodal blocks
  arriving and departing various terminals within the PANYNJ footprint
- Two more tracks are proposed adjacent the original tracks within Oak Island Yard, more specifically between the Garden Crossing and Upper Bay Bridge
- These yard tracks can be built with steel ties, extending the usable life and reduce eventual cost of disposal
- Project is currently in preliminary design

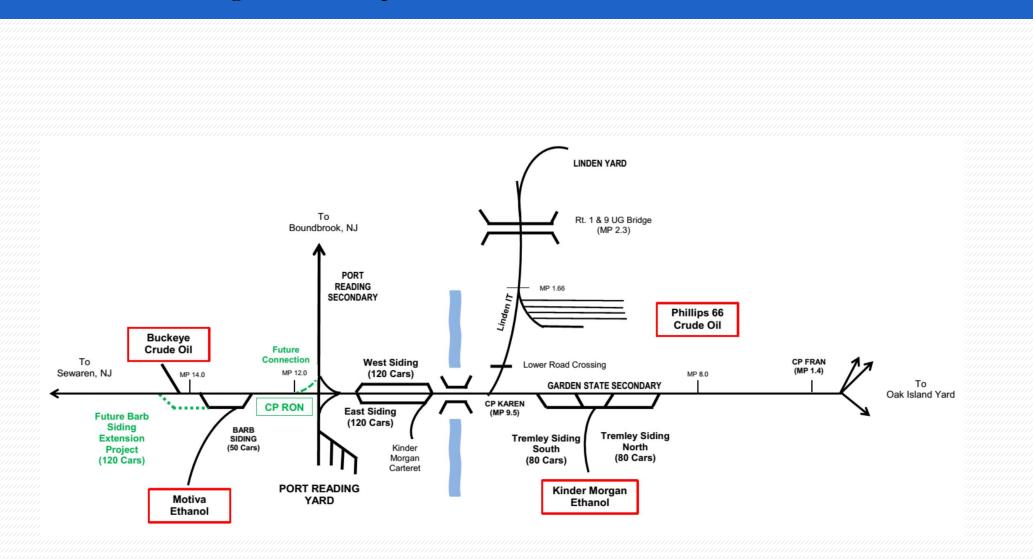
#### Oak Island Yard Track Expansion Project



### Barb Siding and Wye Track at CP Ron

- Extension of the existing Barb Siding provides 7,500' clear capacity while staying clear of NJT CP Wood.
- Presently, Barb Siding holds 40 cars. Extending the siding creates the capacity to handle 120 car unit trains.
- Barb Siding Extension supports increased volumes for crude oil and ethanol customers along the Garden State Secondary.
- A new wye track at Conrail's CP Ron outside Conrail's Port Reading Yard will provide operational flexibility to points south and east.

### Barb Siding and Wye Track at CP Ron





#### Express Rail Update-NJTPA

2/22/2022

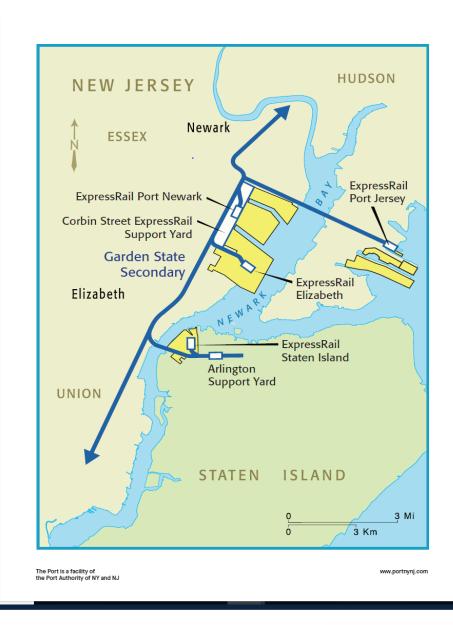


### Express Rail Overview Benefits of On Dock Rail

#### Reduces road congestion

#### Significant environmental benefits

#### Efficient movement of goods





# **Express Rail Facilities**

#### Express Rail Port Jersey



Operator: **GCT Bayonne** Formerly Known as Global ICTF Fully Completed: 2019 Capacity: 250,000 Lifts/Year Cost: \$149 Million

#### Express Rail Elizabeth



Operator: **Millennium Marine Rail** Fully Completed: 2014 Capacity: 800,000 Lifts/Year Cost: \$195 Million

#### Express Rail Staten Island



Operator: **GCT-NY\*** Fully Completed: 2014 Capacity: 200,000 Lifts/Year \$73 Million

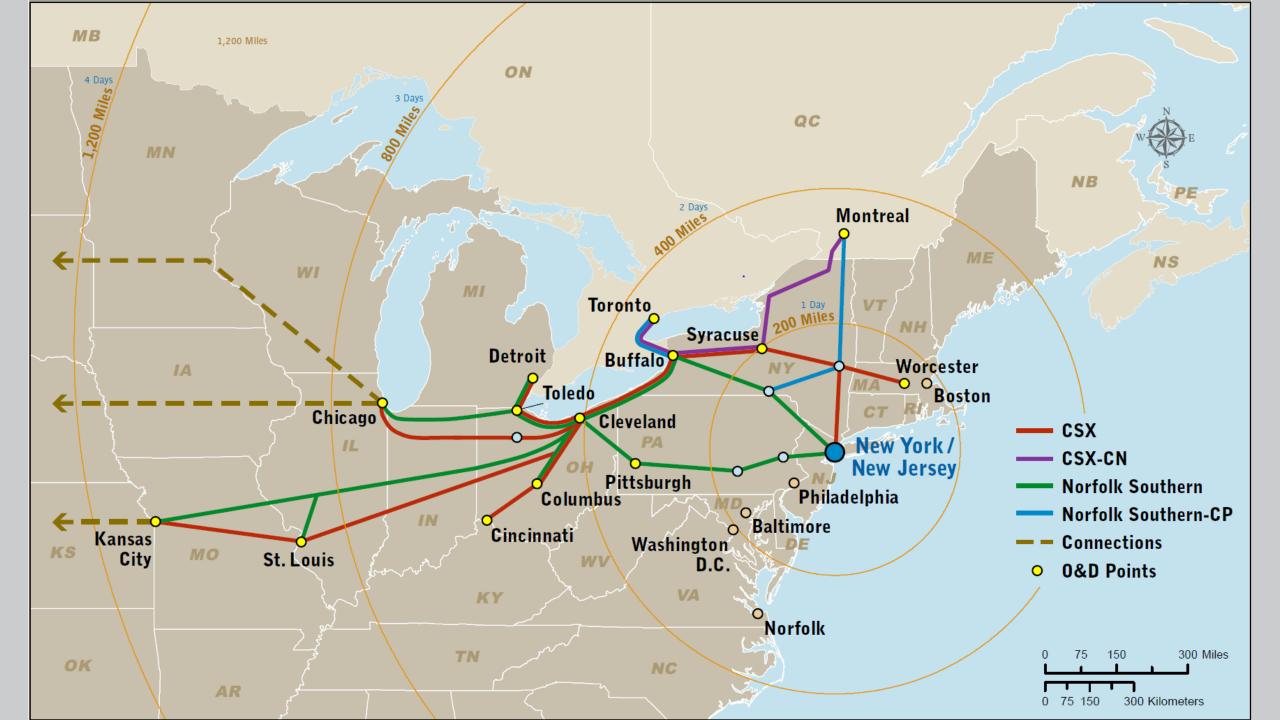
\*Uses its own railroad crew and locomotive to switch facility

#### Express Rail Port Newark



Operator: **Port Newark Container Terminal** Fully Completed: 2014 Capacity: 250,000 Lifts/Year <u>Cost: \$145 Million</u>





# Origins/Destinations served by facility \*Please note additional western US origins/destinations not listed served via interchange

Express Rail Port Jersey	Express Rail Port Newark	Express Rail Elizabeth	Express Rail Staten Island	
Chicago NS	Chicago CSX	Chicago CSX/NS	Chicago CSX	
Cleveland NS	Cleveland CSX	Buffalo CSX	Cleveland CSX	
Columbus NS	Columbus CSX	(Montreal via CSX/CN)	Columbus CSX	
Detroit NS	Detroit CSX	(Toronto via CSX/CN)	Detroit CSX	
Pittsburgh NS	Kansas City CSX	Pittsburgh NS	Kansas City CSX	
Stackbridge/Worcester CSX	St. Louis CSX	Kansas City CSX/NS	St. Louis CSX	
	Cincinnati CSX	St Louis CSX/NS	Cincinnati CSX	
	Indianapolis CSX	St Paul NS	Indianapolis CSX	
	Buffalo CSX	Columbus CSX/NS	Buffalo CSX	
	(Montreal via CSX/CN)	Cincinnati CSX/NS		
	(Toronto via CSX/CN)	Detroit CSX/NS		
		Cleveland CSX/NS		
		Indianapolis CSX		
		Syracuse CSX		
		Northwest Ohio yard CSX		
		Louisville CSX		
		Worcester CSX		

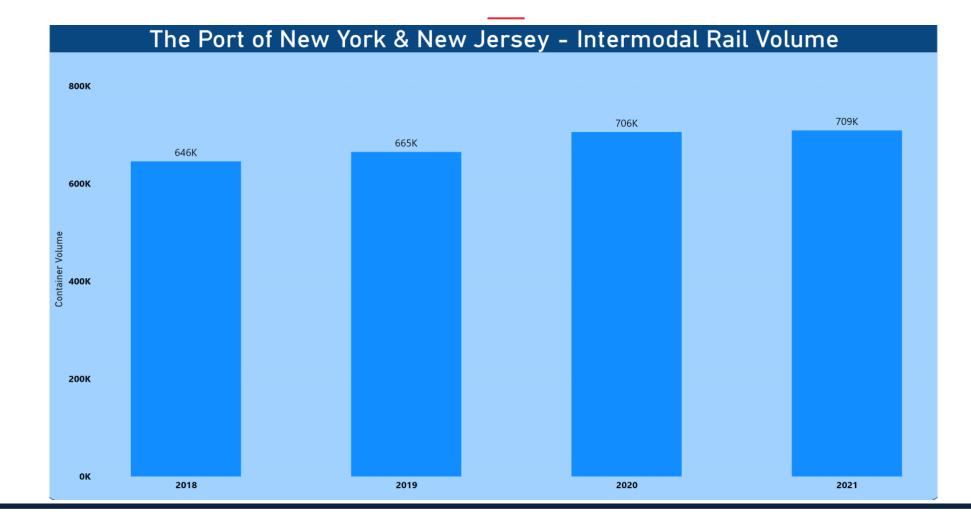


# YTD Cargo Volume 2020-21

PONYNJ Container Traffic By Month							Rail Lifts		
	YTD 2020		YTD 2021		% Change				
	Containers	TEUs	Containers	TEUs	Containers	TEUs		2020 YTD	705,895
Jan	349,196	617,024	400,400	721,284	14.7%	16.9%			
Feb	326,370	579,124	347,635	625,120	6.5%	7.9%			
March	318,521	560,830	437,479	789,776	37.3%	40.8%			
April	318,389	559,929	396,168	712,799	24.4%	27.3%		2021 TYD	709,094
Мау	304,132	537,412	442,544	796,693	45.5%	48.2%			
June	290,454	511,306	415,813	749,400	43.2%	46.6%			
July	342,124	607,463	420,847	758,810	23.0%	24.9%			
Aug	383,397	688,365	433,022	780,782	12.9%	13.4%			
Sept	399,803	720,969	400,179	724,418	0.1%	0.5%		% Change	0.5%
Oct	419,744	755,437	440,514	796,704	4.9%	5.5%			
Nov	408,482	738,885	419,240	759,390	2.6%	2.8%			
Dec	394,889	709,075	425,892	770,753	7.9%	8.7%			
Total	4,255,501	7,585,819	4,979,733	8,985,929	17.0%	18.5%			



# Express Rail Lifts 2018-2021





# **Phased Rail Network Improvement**

#### PHASE 1 (2004-2008)

#### \$25 million in Port Authority Funds \$39.1 million in Conrail Funds

- Strategic double-tracking and interlocking improvements.
- · Improved connections to mainline networks.

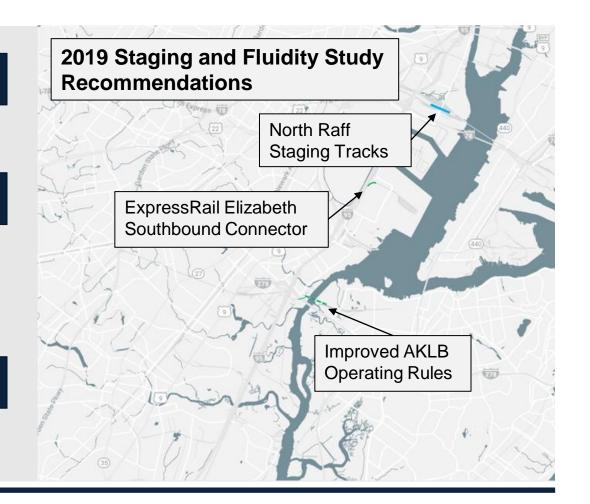
#### PHASE 2 (2016-2020)

#### \$38 million in Port Authority Funds \$21 million in Conrail Funds

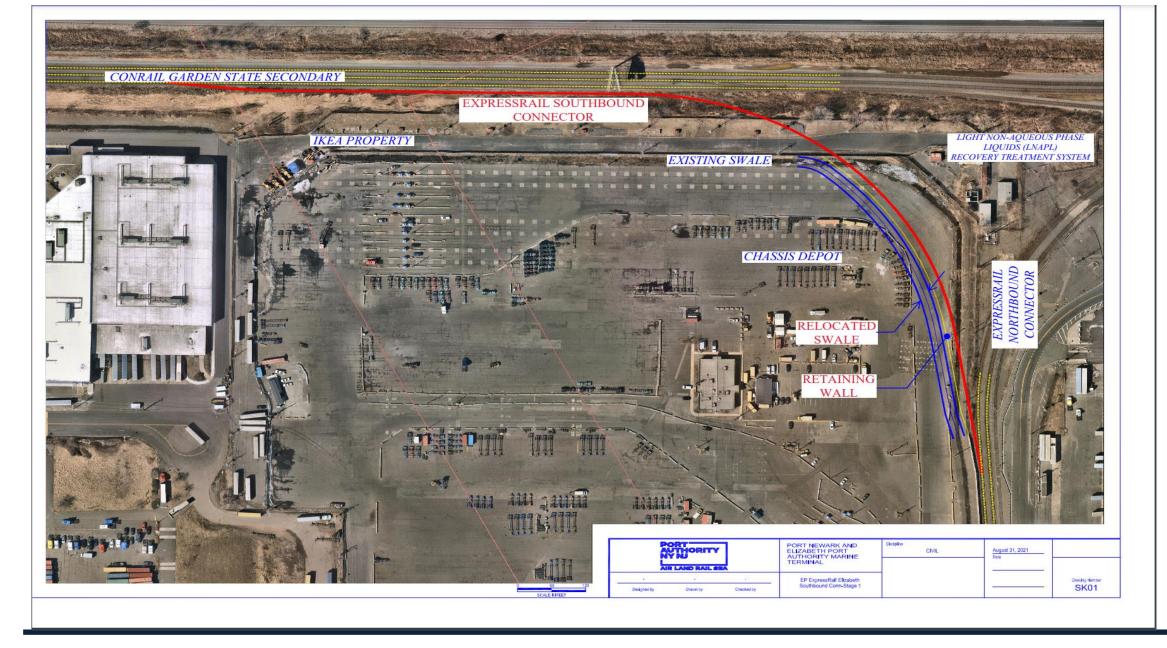
- Capacity and staging improvements to support Greenville Yard ICTF.
- Waverly Loop (2) approximately 12,000' track lengths, additional entrance/exit into Port Newark and additional staging, 2021 completion.
- Raff tracks (2) 5,200 feet of staging tracks, Completed 2019.

#### PHASE 3 (2020-Beyond)

ExpressRail Elizabeth Southbound Connector "Wye." North staging tracks at Raff Yard.









# Questions? Thank You

Cory Wyatt

Manager Intermodal Rail Development PANYNJ and Mid Atlantic Account Manager

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# Freight Rail Grade Crossing Assessment Update

# NJTPA Freight Initiatives Committee

February 22, 2022





Chris Lamm, Cambridge Systematics, Inc.

# **Presentation Outline**

- 1. Study Background
- 2. Goals and Objectives
- 3. Study Team
- 4. Overview of the Approach
- 5. Schedule and First Steps



# Study Background

NJTPA's 2008-09 Freight Rail Grade Crossing Assessment Study (in 2 phases):

- Catalogued 64 crossings
- Evaluated data and identified "top 5" crossings (10 more were added to the list in Phase 2)
- Developed a strategies "toolbox," applicable to other crossings

10. River Line - New Milford Avenue, Dumont, Bergen County





# Study Background

#### What's changed (why update the study now?):

- Some crossings have been improved since 2008
- Changes in railroad operations (more and longer freight trains)
- Increase in population in many areas along the study corridors
- More emphasis on equity across transportation planning disciplines
- Potential to tap funding via IIJA and identify candidate projects for NJTPA's Freight Concept Development Program



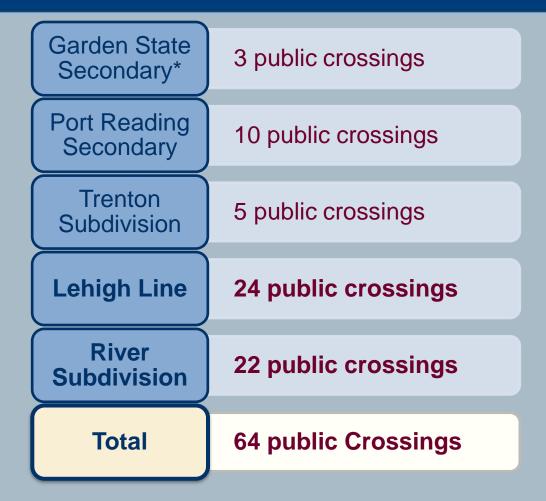
# Study's Goals

Update the 2008 Freight Rail Grade Crossing Assessment Study to:

- 1. Document the current conditions and operations of at-grade crossings along the major freight rail lines in the NJTPA region;
- 2. Score and prioritize the grade crossings in terms of need; and
- 3. Develop recommendations for addressing issues at the top 10 grade crossings.



# **Corridors in the Study Area**







### **Project Team**



#### CAMBRIDGE SYSTEMATICS

- Rail grade crossing safety
- Railroad
  operations
- Freight as a "good neighbor"
- Stakeholder engagement

# Jacobs

- Lead data collection
- Contribute to methodology, scoring, recommendations, and outreach



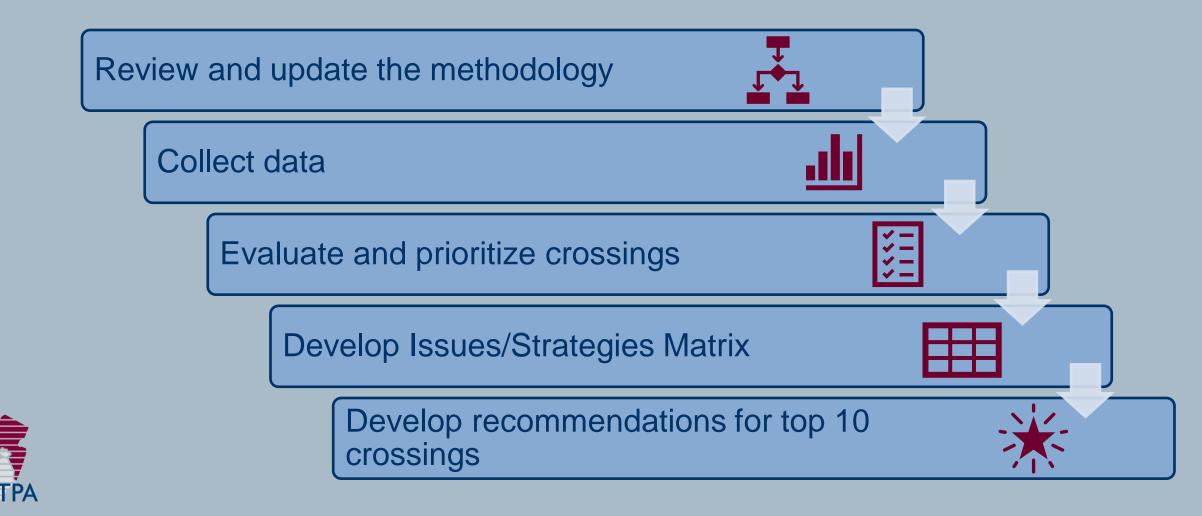
 Lead GIS database development and analysis



 Lead Miovision deployment and photography



# **Overview of the Approach**



# **Technical Advisory Committee**

- Includes representatives from: Bergen County, Hudson County, Hunterdon County, Somerset County, Warren County, NJDOT, Governor's Authorities Unit and NJTPA.
- Will meet 3 times:
  - Near the conclusion of the Methodological Review task
  - To review data analysis and proposed prioritization methodology
  - Near the conclusion of the study to review preliminary recommendations, crossing profiles, and draft final report.



# Stakeholder Engagement

#### 1. Stakeholders

- Partner agencies, railroads and subregions
- Will be engaged to provide technical information, data, and coordinate field visits.

#### 2. Local officials

- Communities where the top 10 grade crossings are located.
- Team will offer briefings, and solicit input on local issues, impacts, and needs.

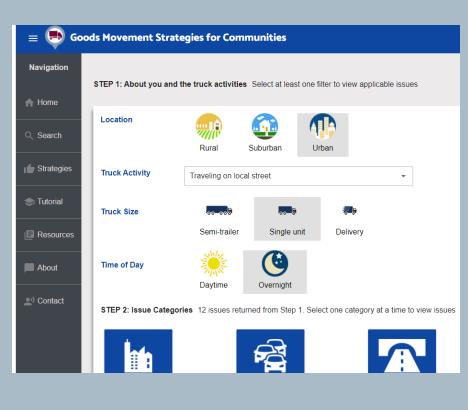




# **Products of the Study**

- 1. Geodata and photos
- 2. Crossing evaluations and list of top crossings
- One-page summaries for each of the Top 10 Crossings
- 4. One-page summaries for each issue/strategy identified as a potential solution (for inclusion in NJTPA's Goods Movement Strategies for Communities tool)

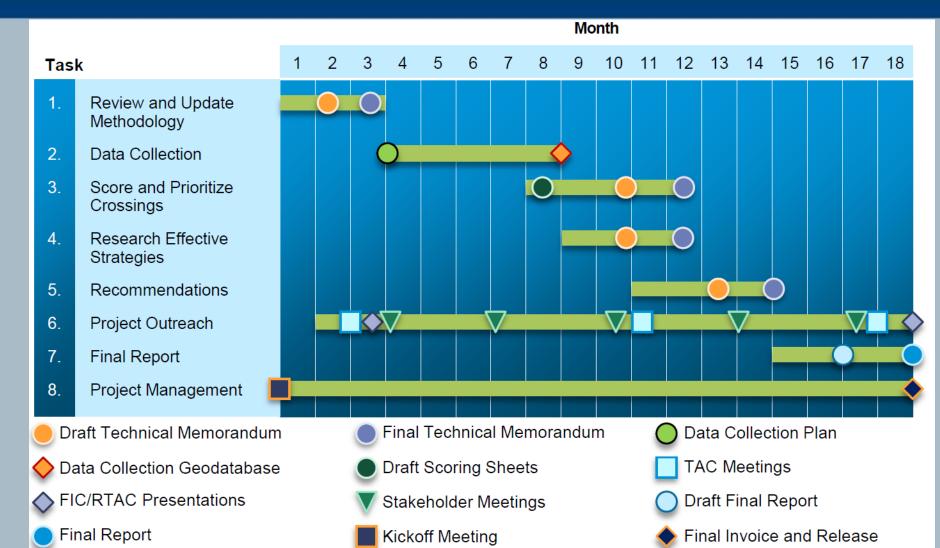
JTPA 5. Final Report and Executive Summary



# Schedule

18 months, concluding in June, 2023





# First Steps: Confirm Data Sources

#### **Existing Sources:**

- FRA Crashes, near misses, crossing characteristics
- NJDOT Existing hazard index, roadway traffic volumes, HazMat placard fees, safety voyager
- US Census Community profiles
- NJDEP Environmental constraints
- Freight Rail Operators Train operations, expectations for growth along corridors

#### **Field Data Collection:**

- Photo Inventory Standard
  9-shot portfolio
- NJDOT Grade Crossing Inspection Forms – INSP-07B
- Miovision Cameras Selected crossing locations:
  - Roadway volumes
  - Closure times/durations



Source: Miovision

# **Thank You!**

Defining the Vision. Shaping the Future.



Jakub Rowinski jrowinski@njtpa.org

Chris Lamm clamm@camsys.com









# NJTPA Freight Concept Development Program

### NJTPA Freight Initiatives Committee

February 22, 2022



Scott Parker, Jacobs Engineering



# Agenda

- Just What is the Freight Concept Development Program All About?
- Program Cycles
  - Pilot Projects Completed
  - ➢ FY21 Projects
    - ✓ Port Reading Secondary South Main Street Grade Crossing Elimination Project
    - ✓ Berkshire Valley Road Truck Circulation Project





# Purpose of the FCD Program

- Numerous planning studies identified freight supporting infrastructure needs
- No clear path to advance design and construction
  - Privately owned infrastructure
  - Regionally beneficial but lacked benefits to the infrastructure owners to justify investment
- FCD Program provides a pathway for projects that aren't eligible for funding under other programs



# Program Cycles

- Pilot Projects Completed 2020
- FY21 Projects Initiated Jan 2021
- NJTPA Maintains a List of Candidate Projects
- Projects Selected Based on Applications/Requests from NJTPA Subregions
  - ✓ Port Reading Secondary South Main Street Grade Crossing Elimination Project – Somerset County
  - ✓ Berkshire Valley Road Truck Circulation Project Morris County



# Port Reading Secondary South Main Street Grade Crossing Elimination Project

"The purpose of this project is to eliminate the at-grade rail crossing on South Main Street in the Borough of Bound Brook, while maintaining freight rail access to existing and future customers along the Port Reading Secondary line."



# **Project Background**

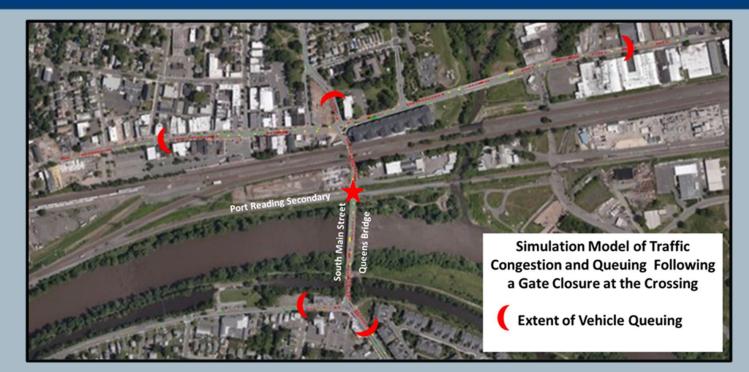
- Initially identified in the 2007 Advancing Intermodal Freight Opportunities within Central Somerset County
- Eliminating the grade crossing was identified as a project need in:
  - ✓ 2008 NJTPA Freight Rail Grade Crossing Assessment Study
  - ✓ 2017 NJDOT Statewide Freight Plan
- This study is investigating alternatives to eliminate closures at the crossing and improve the flow of vehicular traffic while maintaining freight service to customers on the Port Reading Secondary line





# **Existing Conditions**

- Conrail runs trains of up to 100 cars along the Port Reading Secondary several times daily
- Gate closures last approximately 3 minutes per crossing



Roadway traffic queues through the Bound Brook Circle, across the Queens Bridge into South Bound Brook and along Lincoln Blvd into Middlesex Borough during each train crossing

# **Potential Categories of Options**

There are three basic categories of alternatives to develop and assess to eliminate the rail crossings

- <u>Go Up</u> Elevate the rail line over South Main Street
- <u>Go Down</u> Depress the roadway beneath the rail line
- <u>Go Around</u> Divert rail traffic to alternate route



# **Berkshire Valley Road Truck Circulation Project**

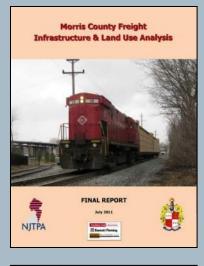
"The purpose of this project is to eliminate the height restriction that the Chester Branch rail bridge creates on Berkshire Valley Road (642), improve safety, and to improve the geometric configuration of the intersection of Berkshire Valley Road with N. Dell Avenue to efficiently accommodate large truck movements"

BerkshireValleyRoadStudy.com

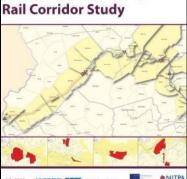
# **Project Background**

 Two previous studies identified a range of issues constraining state-of-the-industry freight rail operations on the Washington Secondary/Morristown Line Corridor and connecting branch lines





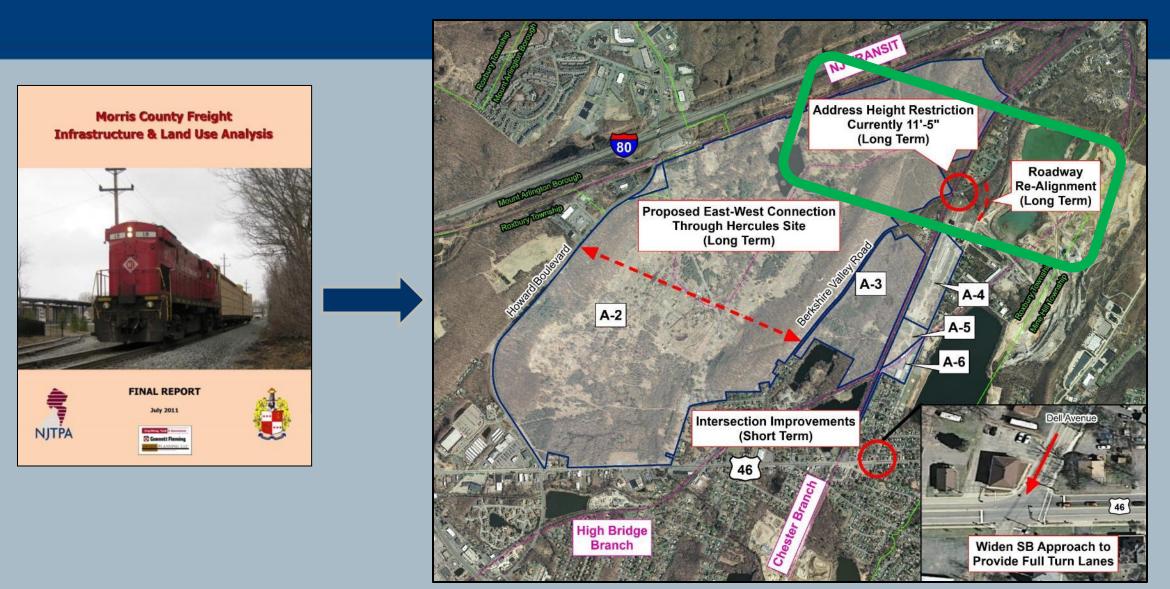






# **Project Overview**

NJTPA



# **Project 1 – Eliminate Height Restriction**

- Existing Clearance: 11'-5"
- Standard Semi-trailers: 13'-6"
- Target Clearance: 14'
- About 10 crashes in the last three years.





# **Project 1 – Eliminate Height Restriction**

#### Potential Categories of Options

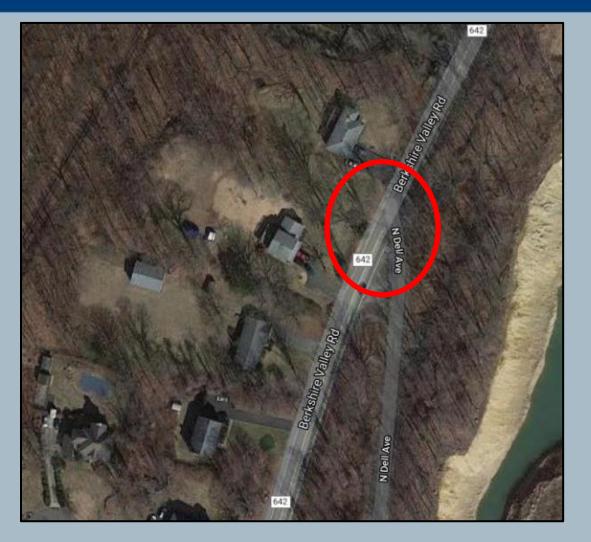
There are three basic categories of alternatives to develop and assess to provide additional vertical clearance below the structure

- <u>Undercut</u> the existing roadway
- <u>Raise/Replace</u> the existing rail bridge superstructure
- <u>Realign</u> the existing rail or roadway alignment to eliminate the convergence of the two corridors.



# Project 2 – Realign Intersection of N. Dell Avenue with Berkshire Valley Road

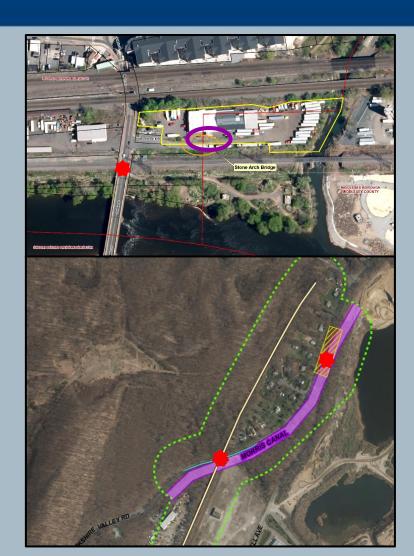
Alignment of the intersection of N. Dell Avenue with Berkshire Valley Road is not conducive to truck movements





# **Potential Issues and Constraints**

- Adjacent and Proximate Land Uses
- Historic and Cultural Resources
- Community Profile & Environmental Justice/Title VI
- Section 4(f)
- Wetlands
- Floodplains & Aquifers
- Threatened & Endangered Species
- Stormwater
- Hazardous Materials



# Stakeholder Outreach

### **Stakeholder Involvement is Critical**

- Local Officials Briefings
- Municipal Council Presentations
- Board of Transportation Presentations
- Public Information Meetings
- Study Websites



### **Activities to Date – Both Projects**

- Developed Purpose and Need Statement
- Performed Environmental Screening Foundation for Constraints Mapping
- Developed Community Profiles
- Assembled Available Existing Data from Project Stakeholders and Other Sources
- Developed Preliminary Engineering Alternatives and Assessment Scoring



# **Future Activities – Both Projects**

- Refine / Finalize Engineering Alternatives
- Coordination with Affected Stakeholders and Property
  Owners
- Alternatives Assessment / Scoring
- Construction Cost Estimates
- Selection of Preliminary Preferred Alternative
- Value Engineering / Constructability Review



Alternative Analysis Documentation

# Thank You/Questions?

Defining the Vision. Shaping the Future.

**NORTH JERSEY** TRANSPORTATION **PLANNING AUTHORITY** 

Jakub Rowinski jrowinski@njtpa.org **Scott Parker** scott.parker@jacobs.com



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# **Rail Freight Update**



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# February Freight Initiatives Committee Agenda

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- Approval of Minutes
- Update on NJTPA Freight Division Activities
- Annual Rail Freight Update
- Two-minute Reports on Freight Activities from Committee Members
- Next Meeting: April 18, 2022 Annual Port and Maritime Update
- Adjournment

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