



Freight Advisory Committee

DRAFT MEETING NOTES

February 21, 2024, 9:00 AM- 10:30 AM

In-person: 1 Park Place, Colonie, NY 12205

Virtual: contact Chris Bauer for Zoom details

1) Attendance

Dr Catherine Lawson, University at Albany
Dave Sawicz, Price Chopper/Market 32
Dave Schmitz, VP Distribution Price Chopper/M32
David Rosenberg, NYSDOT
Doug Morris, Director of Safety, Security and State Affairs - OOIDA
Jeff Wojtowicz, RPI
Jose Holguin-Veras, RPI
Kendra Hems, President - Trucking Association of NY
Gautam Mani, Senior Community Planner, FHWA NY Division
Martin Hull, Vice President, WSP USA Inc.
Michael Lalli, Albany County Executive's Office
Nate Owens, Senior Planner, Town of Bethlehem
Nora Wallace, Zoning Officer, City of Schenectady
Penny Vavura, Director of External Affairs, Port of Albany
Susan Olsen, NYSDOT Office of Policy, Planning and Performance
Tom Phelan, BHX/Gannett Fleming
George Penn, Director of Operations, Albany County
Jeff Gritsavage, NY Canal Corporation
Mike Izdebski, Plug Power
Valerie Deane, Sr. Transportation Analyst, NYSDOT Region 1
Peter Comenzo, Sr Planner, Town of Rotterdam
Louis Esposito, Supervisor, Town of Princetown, and OOIDA
Mark Landgraf, citizen
Sandy Misiewicz, Executive Director, Transportation Council
Chris Bauer, Director of Transportation Planning, Transportation Council
Jacob Beeman, Sr. Transportation Planner, Transportation Council
Chaim Simon, Transportation Planner, Transportation Council
Tess Drauschak, Transportation Planner, Transportation Council



2) Advisory Committee Operations (Sandy Misiewicz, Capital Region Transportation Council)

Sandy presented new guidelines, roles, and responsibilities for the Transportation Council's advisory committees.

3) Presentation – The Large Impacts of Small Changes: Implications for the Fight Against Climate Change (Jeff Wojtowicz, Rensselaer Polytechnic Institute)

RPI performed several pilot tests funded by USDOT about energy efficient logistics along the I-87 corridor during the pandemic.

Price Chopper Freezer Blankets- blankets are used to keep cargo cool or warm. Allows refrigerated, frozen, and dry goods to be shipped in one truck. Price Chopper used these in 16 stores with a reduction of 34.7% stops per store and a reduction of ~220,000 miles per year.

Tandem Trailer Operations- Based on 5 tandem and 5 non-tandem Price Chopper trucks. The change in tandem lots post cashless tolling has led to an additional 805,000 miles (135,000 gallons of fuel) traveled.

Cargo Consolidation- Evaluated consolidating containers into 53' trailer at the port of NY for Plug Power. Reduced the distance travelled and fuel consumed by about half.

Local Delivery Logistics- Evaluated different types of 3 axle trucks to measure fuel efficiency and carbon reduction for different fuel types. Compared ICE, BEV, and Hydrogen Fuel Cell Electric Vehicles.

4) Update – New York State Freight Transportation Plan (David Rosenberg, NYSDOT)

NYSDOT provided an update on the development of the updated NY Freight Plan, highlighting a presentation regarding the Peace Bridge international crossing in Buffalo.

5) Update – Capital District Clean Communities (Jacob Beeman, Capital Region Transportation Council)

Update about the USEPA Clean Ports program which has two different programs. Zero Emission Technology- up to \$500 million per grant. Climate and Air Quality Planning has up to \$3 million per grant.

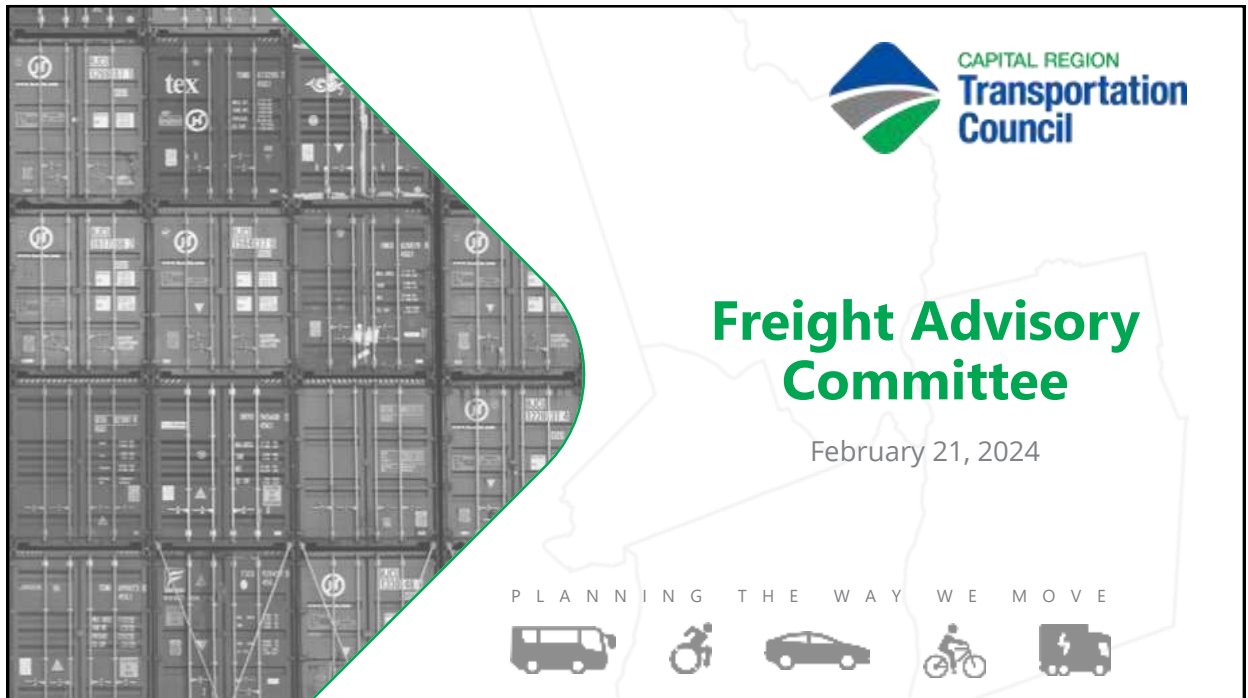


6) Update – Regional Truck Parking Study (Chris Bauer, Capital Region Transportation Council)

Public Review period was held between Jan 4-29. Will be adopted by Policy Board on March 7.

7) Action Items/2024 Meeting Dates

- i. Remaining 2024 Meeting Dates: May 15, August 21, and November 20



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Agenda

1) Welcome and Introductions

- In-person – sign-in sheet
- On Zoom – please put **Name, Title, Organization** in Chat

- 2) Advisory Committee Operations (Sandy Misiewicz, Capital Region Transportation Council)
- 3) Presentation – The Large Impacts of Small Changes: Implications for the Fight Against Climate Change (Jeff Wojtowicz, Rensselaer Polytechnic Institute)
- 4) Update – New York State Freight Transportation Plan (David Rosenberg, NYSDOT)
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- 7) Action Items

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Need for Policy

- Clarify Advisory Committee roles and responsibilities

Active Transportation (ATAC)
 Freight (FAC)
 Human Services Transportation (HSTAC)
 Regional Operations and Safety (ROSAC)
 Equity (EAC)

- Clarify participant roles and responsibilities – Public groups
- Provide a consistent framework for Advisory Committee operations

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Roles & Responsibilities

Review, identify issues, or provide feedback on:

- Federally Required Transportation Council products:
 - MTP, UPWP, TIP, CMP, PPP, etc.
- Transportation Council regional and community planning studies:
 - Regional planning studies (i.e., Vision Zero Safety Action Plan)
 - Community Planning/Linkage Program studies

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Roles & Responsibilities

- Consistency of proposed TIP projects with Transportation Council regional planning studies and federally required products.
- Transportation plans and programs in development by member agencies, at their request.
 - Planning and Environmental Linkages studies (i.e., I-787, NY 378, etc.)
 - State transportation plans (i.e. Freight Master Plan, etc.)
 - Regional and local community planning studies (i.e., municipal comprehensive plans, CDTA Transit Development Plan, etc.)
- Other

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May Not

- Make decisions on behalf of the Transportation Council.
- Speak to the media representing themselves as a member of a Transportation Council Advisory Committee.
- Use Transportation Council logos, letterhead, or other media for any reason without the expressed written consent of the Transportation Council's Executive Director.
 - Excludes publicly available Transportation Council products

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May Not

- Comment on transportation plans or the design details of capital projects representing themselves as a member of a Transportation Council Advisory Committee.
 - Project sponsor public participation process
- Contact Advisory Committee participants through mass email for purposes other than Transportation Council related business.
 - Participant contact information is proprietary and shall not be used for purposes of lobbying, including sharing petitions.

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Meetings

- Open to all – no appointment process (1 Planning Committee member)
- Staff manages meetings...discussion limited to agenda items
- Meeting dates will be made available via website, newsletter, social media, etc.
- Agendas and materials will be posted on website and emailed
 - 1 week prior to the meeting
- Meetings broadcasted live
- Meetings recorded and made available on our YouTube Channel.
- Anyone may register to speak during the public comment agenda item (limited to 3 minutes per speaker)
- Written comments may be submitted by calling or emailing in advance.

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Next Steps

- Share with Advisory Committees for review and comment
- Revised version to Planning Committee in February
- March 2024 - Policy Board action

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Large Impacts of Small Changes: Implications for the Fight Against Climate Change

**Capital Region Transportation Council
Freight Advisory Committee**

02/21/2024



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Introduction

■ Background:

- This work was conducted as part of the Collaborative Approaches to Foster Energy Efficient Logistics in the I-87 Corridor Project

■ Goal of the Pilot Tests:

- To examine operational concepts that reduce energy use and emissions and are business friendly

■ Challenge Faced:

- Timing of pilot tests was during the COVID-19 pandemic



Collaborative Approaches to Foster Energy Efficient Logistics in the I-87 Corridor – Pilot Test Report

JANUARY 2023

Acknowledgements

- The team is grateful for all of the public and private sector representatives that took time from their normal job duties to provide valuable insight into these pilot tests.
- Several from this FAC include:
 - **Chris Bauer** – Capital Region Transportation Council
 - **Kendra Hems** – Trucking Association of New York
 - **Mike Izdebski** – Plug
 - **Dave Schmitz** – Price Chopper / Market 32 Supermarkets
 - **Tony Vasil** – Port of Albany

Pilot Tests Considered – Public Sector

- Port of Albany
 - Container on barge service
- NYCDOT
 - Neighborhood Loading Zones
 - Green Loading Zones
 - Parking Management
 - Micro-Distribution Centers
- SoHo Business Improvement District
 - Parking management for service and delivery vehicles
- New York City Department of Citywide Administrative Services
 - Off-hour delivery or appointment systems for large city owned buildings



Pilot Tests Considered – Private Sector

- Price Chopper Super Markets
 - **Evaluation of freezer blankets**
 - **Tandem trailer operations**
- Plug Power
 - **Cargo consolidation**
 - **Evaluation of alternative fueled trucks**
- IKEA
 - Electric vehicle rental subsidy eval.
- GB Logistics
 - Routing
 - Micro-distribution
- Hudson Yards Complex
 - Loading dock management
 - Off-hour deliveries w/ trusted vendors
 - Delivery consolidation
- Manhattan Beverage
 - Evaluation of class 8 electric trucks for urban deliveries
- Starbuck Island Apartment Complex
 - Home delivery consolidation
- VIA
 - Micro-consolidation centers

Pilot Test #1: Use of Freezer Blankets

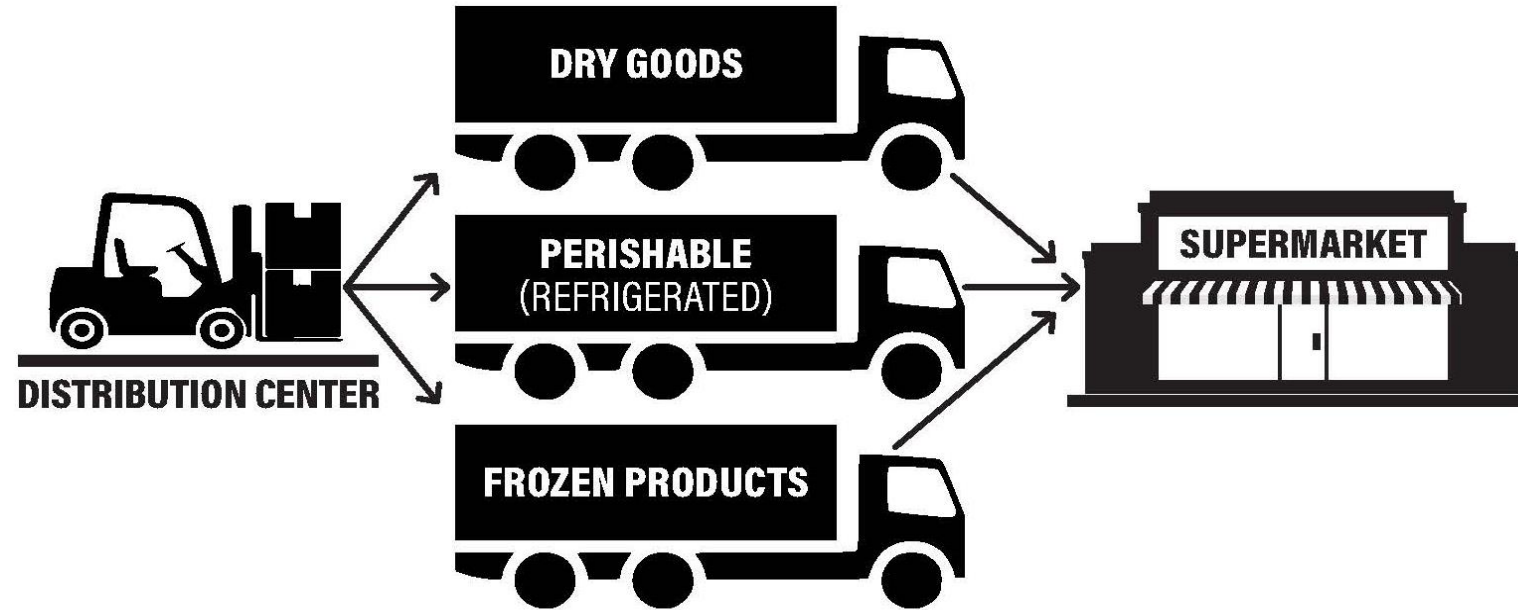
Freezer Blanket Evaluation

- **Purpose:** To investigate the feasibility of using a low cost method to reduce trips.
- **Data Collected:** Worked with Price Chopper Super Market to collect delivery data for stores using freezer blankets and study the environmental and cost impacts.
- **General Info:**
 - Blankets maintain can be used to keep cargo cool or warm
 - Can reduce trips by combining different types of goods (i.e. frozen, refrigerated, dry goods)
 - 2.5 – 3 year life span
 - Cost: ~\$600



Pre and Post Freezer Blanket Operations

PRE-FREEZER BLANKET OPERATIONS



POST-FREEZER BLANKET OPERATIONS



Sample Results for Price Chopper

- 16 stores shifted to all-in-one (AIO) deliveries (as of 2022)
- 10,000 loads per year reduced
- Reduction of delivery stops:
 - 34.7% on average per store
 - 20,000 stops per year saved
- ~220,000 miles reduced per year
- Fuel Savings:
 - 31,000 gallons of fuel saved / year
 - @ \$5.00/gallon = \$150,000 in savings

Miles per gallon (mpg)		7.15
Miles Saved		220,000
Fuel Saved (gal)		30,769
Emission reductions	CO (g)	106,436
	CO ₂ (g)	519,586,330
	NO _x (g)	684,790
	PM _{2.5} (g)	4,657
	PM ₁₀ (g)	4,868
	ROG (g)	9,300
	TOG (g)	10,588

Pilot Test #2: Tandem Trailer Operations

Exit 25A Layout

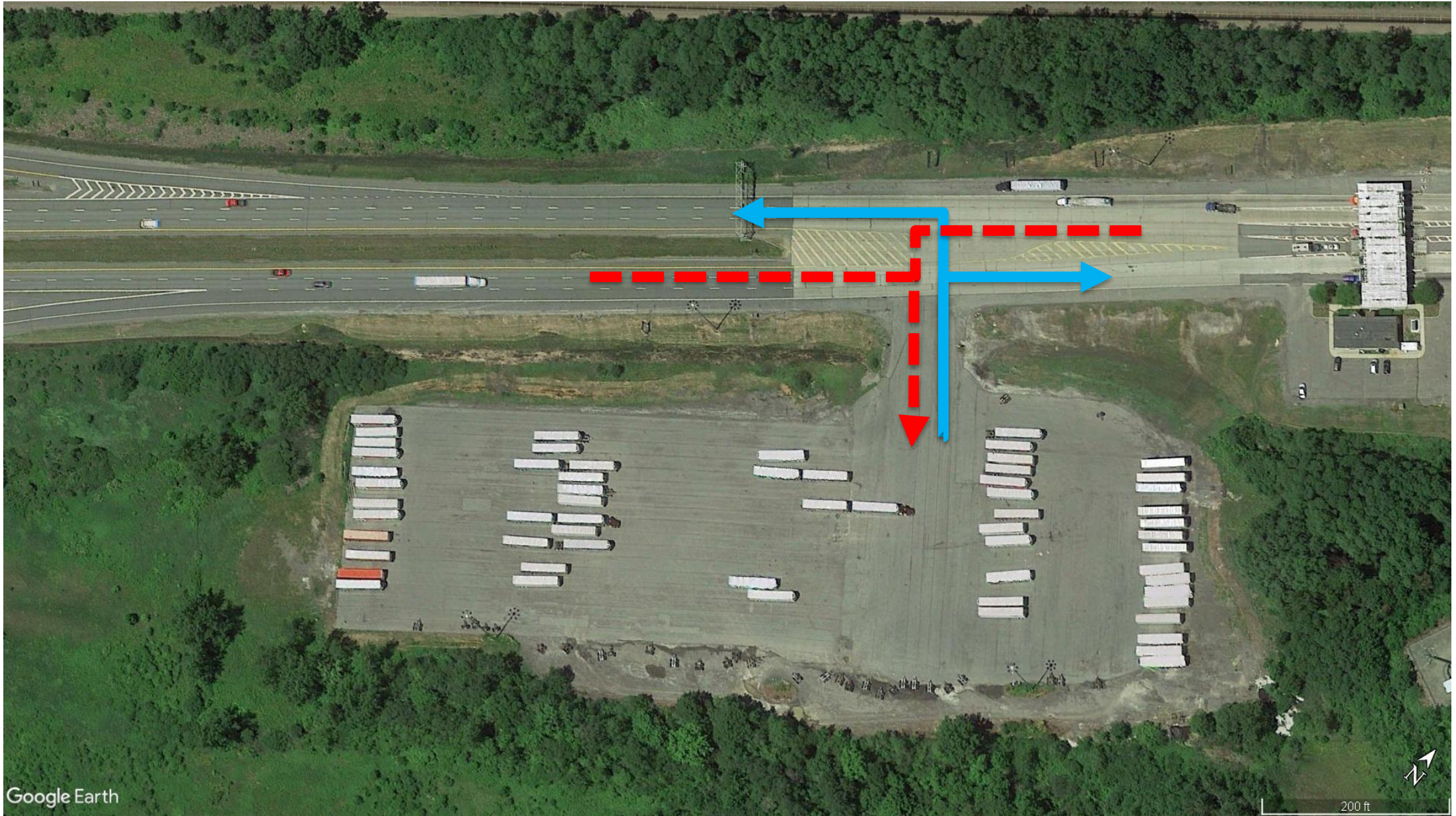
Pre Cashless Tolling



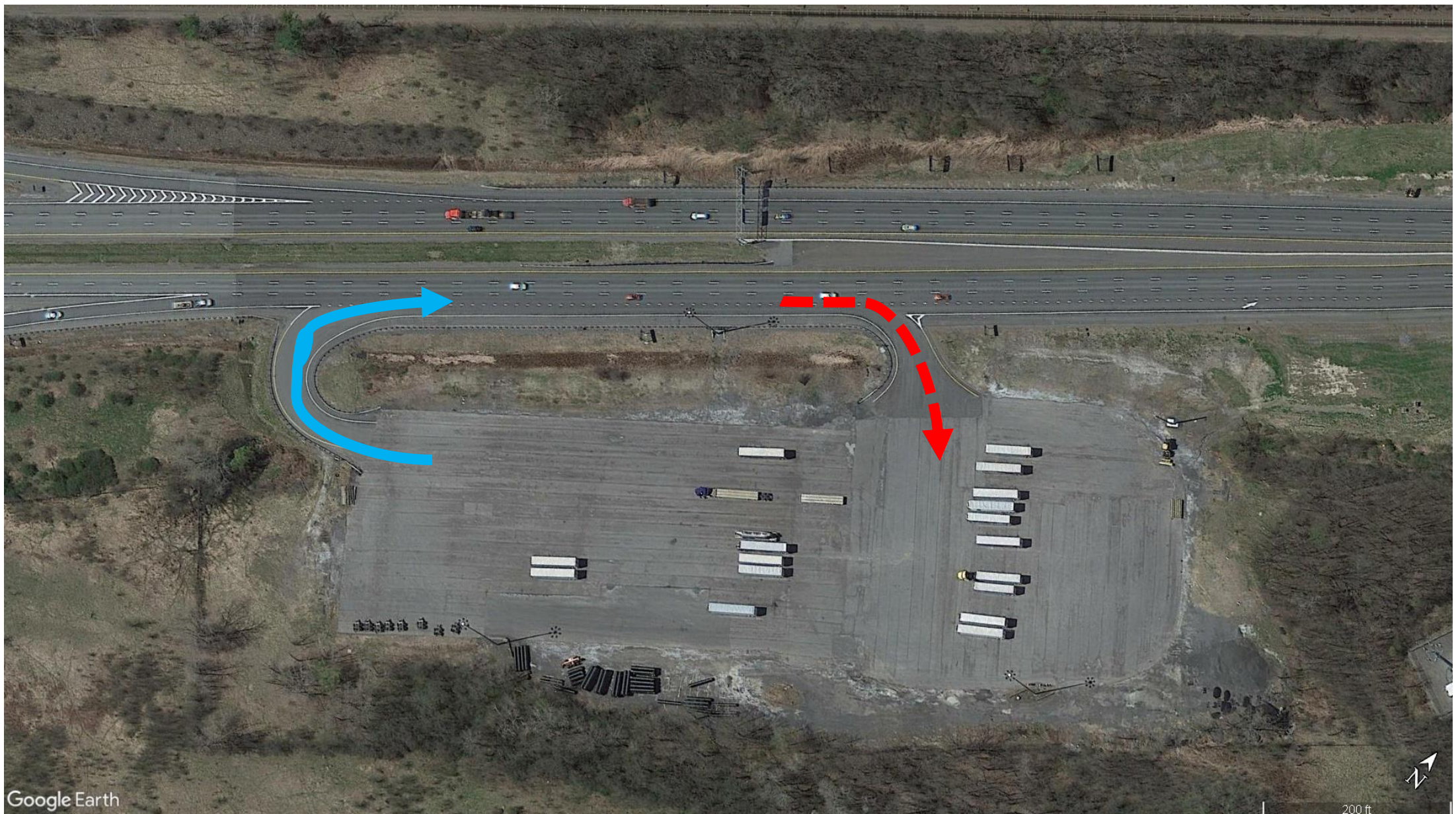
Post Cashless Tolling



Pre Cashless Tolling (2020) at Exit 25A



Post Cashless Tolling at Exit 25A



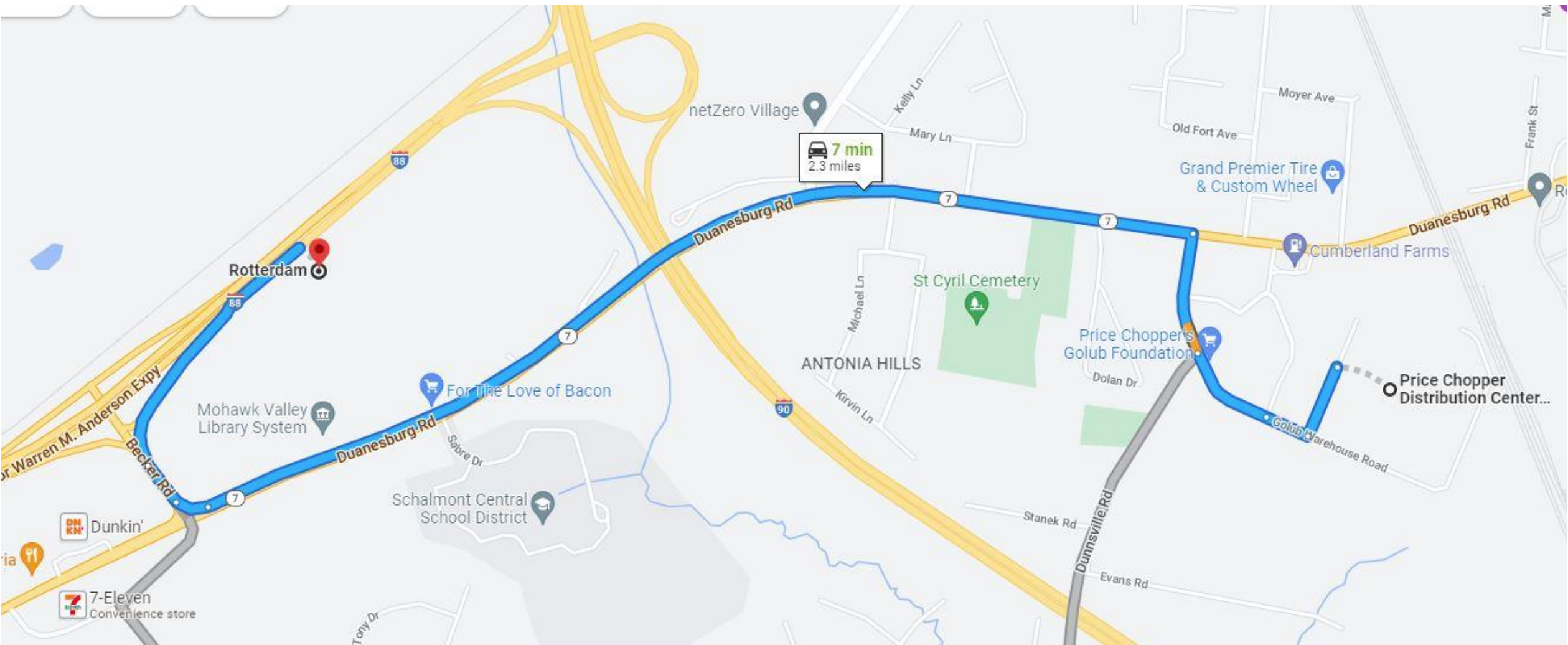
Quantitative Analysis

- Worked with Price Chopper to collect GPS data for 5 tandem and 5 non-tandem trucks for comparative purposes
- ~8 weeks of data
- 125,000 miles of data @ 1 sec. frequency = 2M data points
- Impact of extra mileage:

Fuel Consumption (MPG)		5.98
Extra Miles Traveled		805,000
Extra Fuel Consumed (gal)		134,615
Total extra emissions produced	C.O. (g)	301,460
	CO2 (g)	1,447,672,877
	NOX (g)	2,020,325
	PM10 (g)	12,590
	PM25 (g)	12,045
	ROG (g)	25,239
TOG (g)		28,733

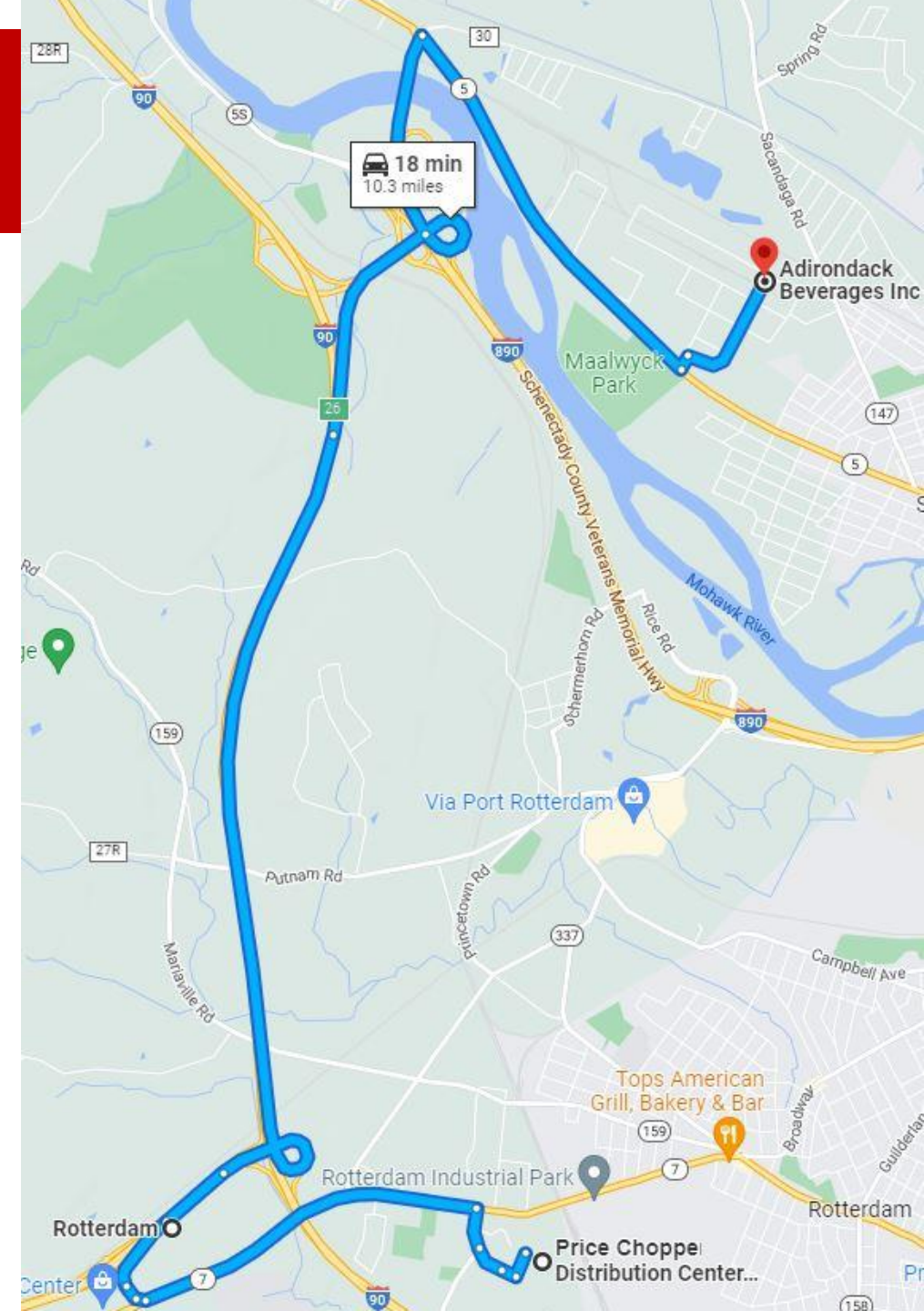


Base Case: Previous Price Chopper Route at Exit 25A



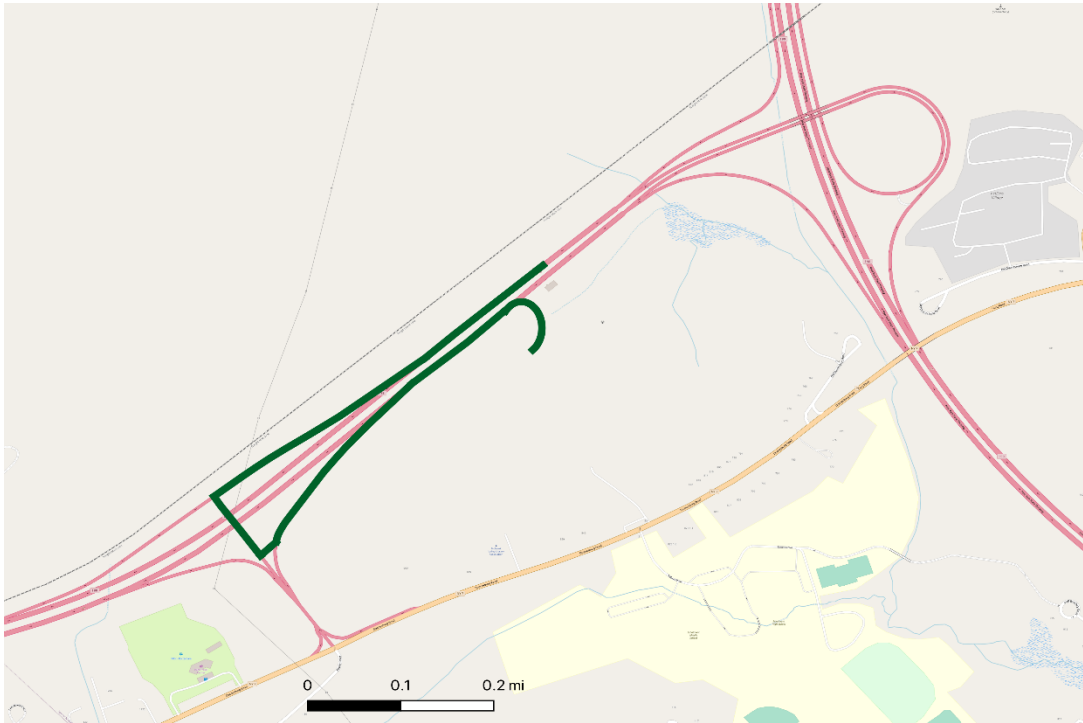
Current Case: Price Chopper Route – Post Cashless Tolling

- Previous facility still allowable as a makeup only facility (DC to highway)
- Breakup facility is now 10.3 miles away
 - 23.5 extra miles per trip

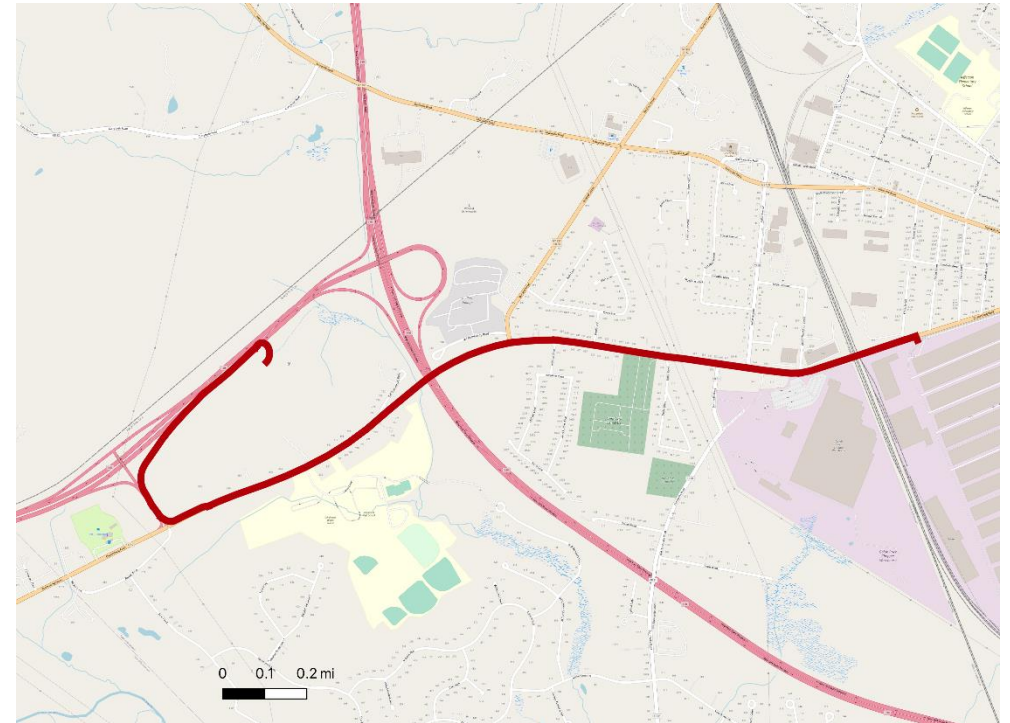


Possible Scenarios

Scenario 1: Allow U-Turn at Exit 25A



Scenario 2: Allow local access



Emission Results Compared to Base Case

		Actual Base	Increase from Base Case		
			Current	Scenario 1	Scenario 2
Total Miles for Staging Trailers		15.0	23.50	1.00	(10.00)
Fuel Consumed (gal)		2.36	3.36	0.27	(1.51)
Total emissions produced	C.O. (g)	5.38	7.74	0.54	(3.48)
	CO2 (g)	25,819.45	37,154.18	2,570.86	(16,713.23)
	NOX (g)	36.03	51.85	3.59	(23.32)
	PM10 (g)	0.22	0.32	0.02	(0.15)
	PM25 (g)	0.21	0.31	0.02	(0.14)
	ROG (g)	0.45	0.65	0.04	(0.29)
	TOG (g)	0.51	0.74	0.05	(0.33)



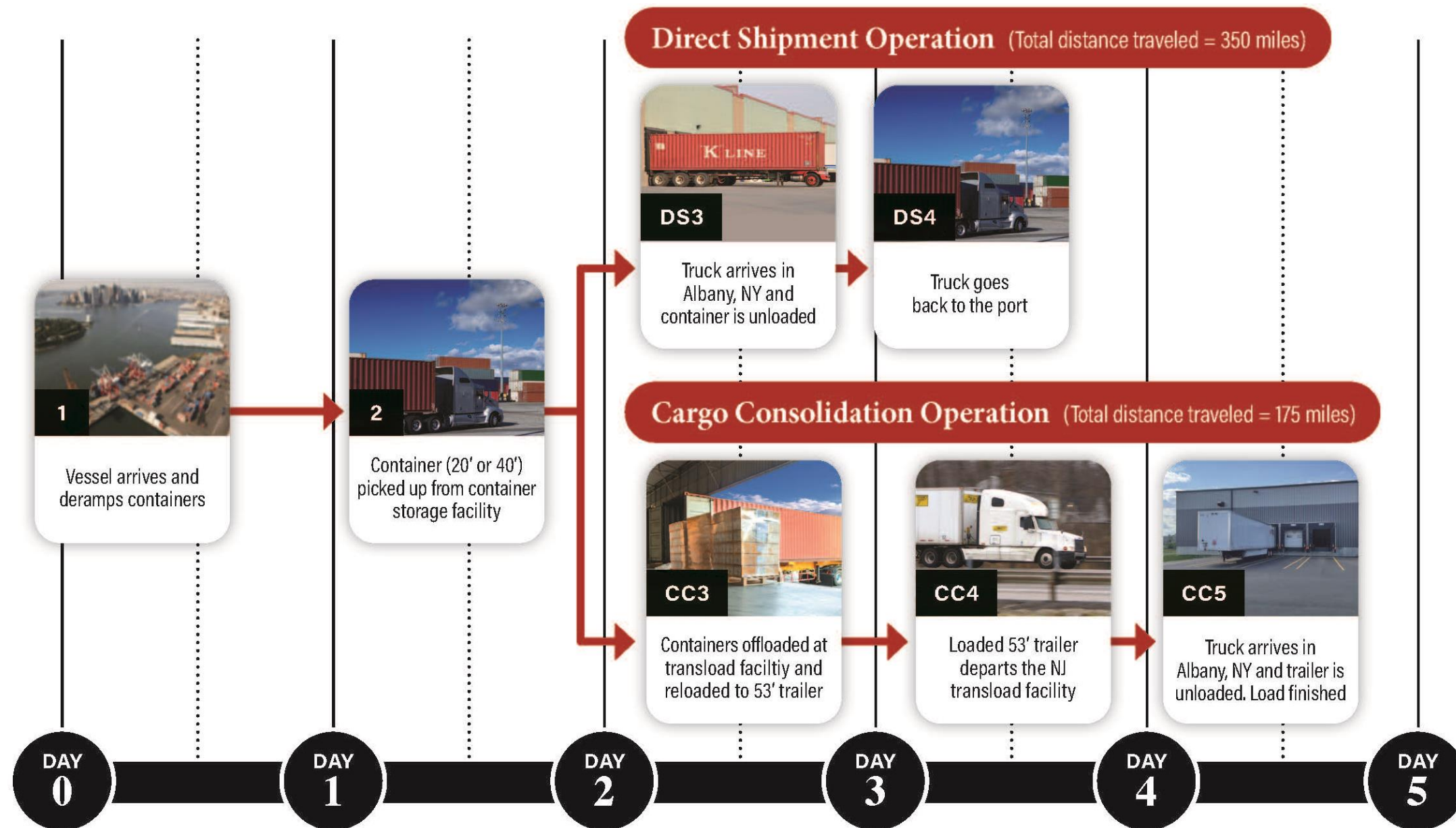
Pilot Test #3: Cargo Consolidation

Cargo Consolidation with Plug Power

- **Purpose:** To assess the consolidation of cargo arriving in 20' and 40' containers at the port into 53' trailers
- **Pre-Pilot Operations:**
 - Cargo arrives at the Port of New York and New Jersey in 20' and 40' containers
 - The cargo is then transported directly to the Albany region, where the warehouses are located



Direct Shipment and Cargo Consolidation Operation Timeline



Key Results

		Direct Shipment Operation	Cargo Consolidation Operation
Distance travelled (miles/load)		346.1	177.9
Transportation cost (\$/load)		\$2,456 - \$2,759	\$2,521
Total time (days/load)		2 – 3.5	4 - 5
Total fuel consumption (gal)		38.0	20.2
Total emissions produced	CO (g)	45.86	27.84
	CO ₂ (g)	42,2073.03	22,3966.70
	NO _x (g)	403.20	235.91
	PM ₁₀ (g)	4.79	2.37
	PM _{2.5} (g)	4.59	2.27
	ROG (g)	4.99	2.77
	TOG (g)	5.68	3.15

Cargo consolidation:

- Reduces empty miles
- Improves freight network efficiency
- Offers cost competitiveness
- Decreases emissions

The total distance traveled in the cargo consolidation scenario is about half that of direct shipments operation, reducing environmental impacts by approximately 50%

Pilot Test #4: Assessment of Local Deliveries Using Various Vehicle Types

Local Delivery Logistics

- **Purpose:** To evaluate existing delivery practices with standard diesel trucks and evaluate other more energy efficient options
- **GPS Data:**
 - (2) 3 axle HD box trucks (2021 International HV513)
 - GPS and engine performance @ 1 second
 - ~8 weeks (May & June 2022)
- **Analysis:**
 - Compare energy consumption in diesel-powered trucks, battery electric vehicles (BEVs), and hydrogen fuel cell electric vehicles (FCEVs)



Fuel, CO₂, and Cost for a Sample Route (137 miles)

	Internal Combustion Engine (ICE)	Battery Electric Vehicle (BEV)	Hydrogen Fuel Cell Electric Vehicles (FCEV)
Fuel economy	7.19 mi/gal	0.438 mi/kWh	17 mi/kg
Total Fuel	19.05 gal. (diesel)	312.19 kWh	8.05 kg (hydrogen)
Total CO ₂ emissions per mile	1392.5 g/mi	1176.6 g/mi	930.3 g/mi
Total CO ₂ emissions	190.8 kg	161.2 kg	127.4 kg
Fuel cost	\$5.27/gal	\$0.22/kWh	\$5.00/kg
Total Cost (fuel)	\$100.39	\$68.68	\$40.25

- FCEVs offer the highest efficiency in fuel, emissions, and cost, reducing CO₂ emissions by over 30% and fuel costs by 60%.
- BEVs improve environmental impact and fuel costs by 15% and 32%, respectively.



Questions?

Jose Holguin-Veras – jhv@rpi.edu

Jeff Wojtowicz – wojtoj@rpi.edu

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EPA's Clean Ports Program Update

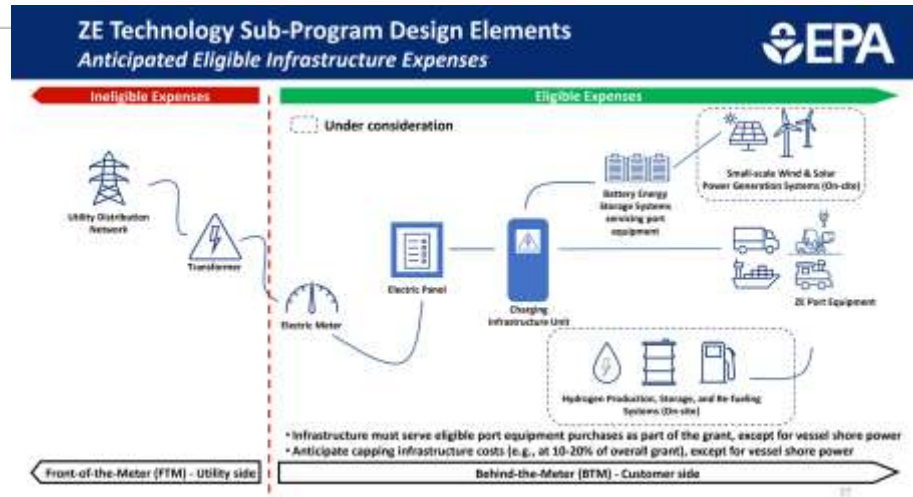
- NOFO released around end of February 2024 and is expected to close in the late Spring of 2024. Applicants to be selected in Fall of 2024, with funding awarded in Winter 2024.
- \$3 billion in grants with 25% (\$750 million) to be spent in nonattainment areas.
- Eligible applicants:
 - Port authority
 - State, regional, local, or Tribal agency that has jurisdiction over a port authority or port
 - Air pollution control agency
 - Private entity that:
 - i. Applies for a grant in partnership with an eligible entity above, and
 - ii. Owns, operates, or uses facilities, cargo-handling equipment, transportation equipment, or related technology of a port.
- More information on cost sharing, evaluation criteria, resources, and complementary funding opportunities can be found in EPA Webinar slides [here](#) or on [this webpage](#).
- Once NOFO is released, contact cleanports@epa.gov with any questions.

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EPA's Clean Ports Program Update

- Two sub-programs for funding opportunity:

- Zero Emission (ZE) Technology – ~\$2.6B total, with up to ~\$500M per grant
- Climate and Air Quality Planning (Planning) – up to ~\$300M total, with up to ~\$3M per grant



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EPA's Clean Ports Program Update

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Regional Truck Parking Study Update

- January 3 – Planning Committee release draft report for public review
- January 4 to January 29 – public review period
 - Two substantive comments addressed in final report
- February 7 – Planning Committee recommended approval to Policy Board and incorporate findings and recommendations into the MTP update
- Next steps –
 - Policy Board March 7
 - Final report and toolkit on website

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Action Items/Next Meeting

- Next Meeting: May 15, 2024, at 9:00 AM

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Freight Advisory Committee



Thank you for attending!

Sign up for E-News: <http://eepurl.com/ivx946>

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