

June 9, 2020 | DVRPC RTC



# TIP ACTIONS

Transportation Improvement Program  
Pennsylvania TIP (FY2019-2022)  
New Jersey TIP (FY2020-2023)



# Act 13 Bridges, Philadelphia

City of Philadelphia | Add New Projects to TIP

- **TIP Amendment**
- **Action:** Add two (2) new bridges to the TIP for \$5.3M:
  - *Noble Street Bridge over 13<sup>th</sup> Street (CB #1468)*
    - FY22: \$2M for CON
  - *Pine Road over Pennypack Creek (CB #205)*
    - FY20: \$300,000 for PE; FY22: \$250,000 for FD; FY23: \$2.75M for CON
- **Background:**
  - Rehabilitate poor condition, weight-restricted (Noble St. Bridge) county bridge and bring it into a state of good repair
  - Act 13 Marcellus Shale funds are additional to the region, distributed to counties by PennDOT based on population for the replacement or repair of locally-owned at-risk deteriorated bridges

## Montgomery

MPMS 115619  
Pine Road over  
Pennypack Creek (CB# 205)



Philadelphia

MPMS 115610  
Noble Street Bridge over  
13th Street (CB #1468)

Delaware

Philadelphia

Glouce

# Noble St over 13<sup>th</sup> St

- 3-ton weight restricted
- Poor condition
- Rehabilitation includes:
  - demolition and removal of the existing superstructure,
  - construction of a single-span superstructure with a reinforced concrete composite deck,
  - construction of sidewalks,
  - edge-mounted barriers, and parapets,
  - abutment beam seat repairs,
  - minor substructure crack sealing,
  - repainting





## Montgomery

MPMS 115619  
Pine Road over  
Pennypack Creek (CB# 205)



MPMS 115610  
Noble Street Bridge over  
13th Street (CB #1468)



# Pine Rd over Pennypack Ck

- Built in 1977
- Poor condition
- Rehabilitation includes:
  - replacement of the deck, sidewalk, and parapet in the exterior bays;
  - steel girder end repairs;
  - superstructure steel painting;
  - bearing replacement;
  - pedestal and beam seat repairs;
  - approach slab and backwall reconstruction;
  - substructure concrete repairs.



# TIP ACTION | Proposed – PA

That the RTC recommend approval of City of Philadelphia's TIP Amendment request to add two (2) new bridges to the TIP for \$5.3M:

- **Noble Street Bridge over 13th Street (CB #1468)**  
- FY22: \$2M for CON
- **Pine Road over Pennypack Creek (CB #205)**  
- FY20: \$300,000 for PE; FY22: \$250,000 for FD;  
FY23: \$2.75M for CON

***These are additional funds to the region***

# US 422 Modeling and Corridor Analysis

## Various Counties | Add New Project to TIP

- **TIP Amendment**
- **Action:** Add new Study to TIP in FY20 for \$1M NHPP/Toll Credit
- **Background:** PennDOT procured consultant needed to assist with tasks which are outside of the scope of work and beyond the limits of DVRPC's resources
- A consultant would assist with the detailed Vissim analysis and modeling efforts

# US 422 Modeling and Corridor Analysis

## Various Counties | Add New Project to TIP

- **Background:**
- Look at opportunities where Flex Lanes may reduce the need for widening between PA 363 and US 202
- Prepare a comprehensive final report
- DVRPC's modeling work and deliverables would serve as an appendix to the larger report
- Look at the US 422 corridor holistically
- Set the foundation for implementation of the recommended improvements



# TIP ACTION | Proposed – PA

**That the RTC recommend Board approval of PennDOT's TIP Amendment request:**

## **US 422 Modeling and Corridor Analysis**

Add new Study to TIP in FY20 for \$1M NHPP/Toll Credit





# Thank You

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[www.dvrpc.org/TIP](http://www.dvrpc.org/TIP)



# COVID-19 Pandemic Impact on Traffic Patterns in the DVRPC Region



- Location-Based data
- Regional Travel Trends
- Mobility and Social Distancing Trends
- Roadway Corridor Speed and Travel Time Profiles

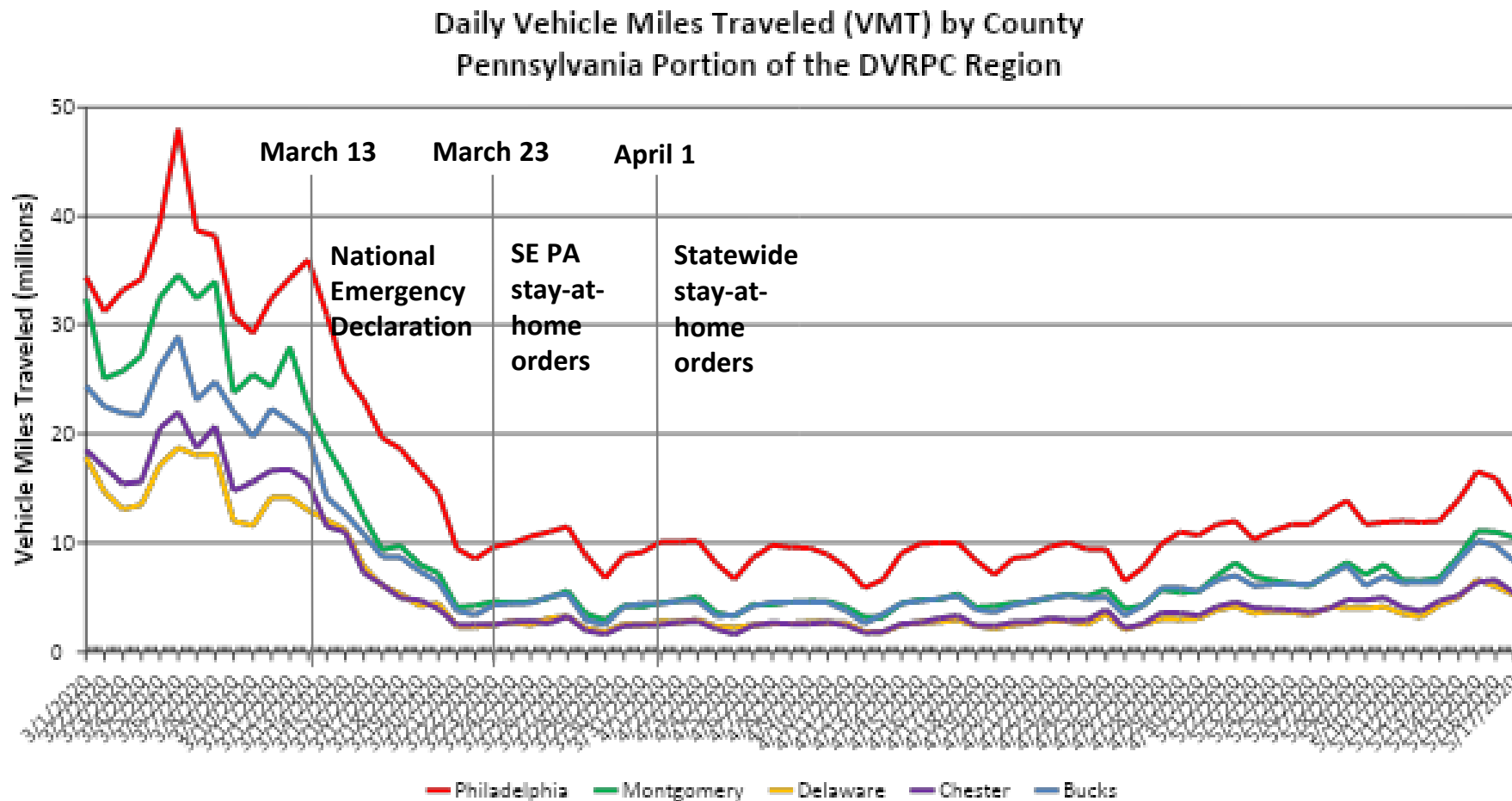


# Location-Based Data



- Anonymized aggregated geolocation data
- Connected vehicle, mobile phone and mobile phone-based location services data from millions of devices
- An unintended consequence of the COVID-19 pandemic event is that it provides the opportunity to analyze the data for potential future use in planning projects, such as setting baseline travel trends, and calibrating planning models, such as the DVRPC Travel Demand Model
- “Big data” vendors include Google, Apple, INRIX, StreetLight Data, Cubiq, Descartes Labs, Teralytics, and Unacast

# Daily VMT for PA Portion of the DVRPC Region

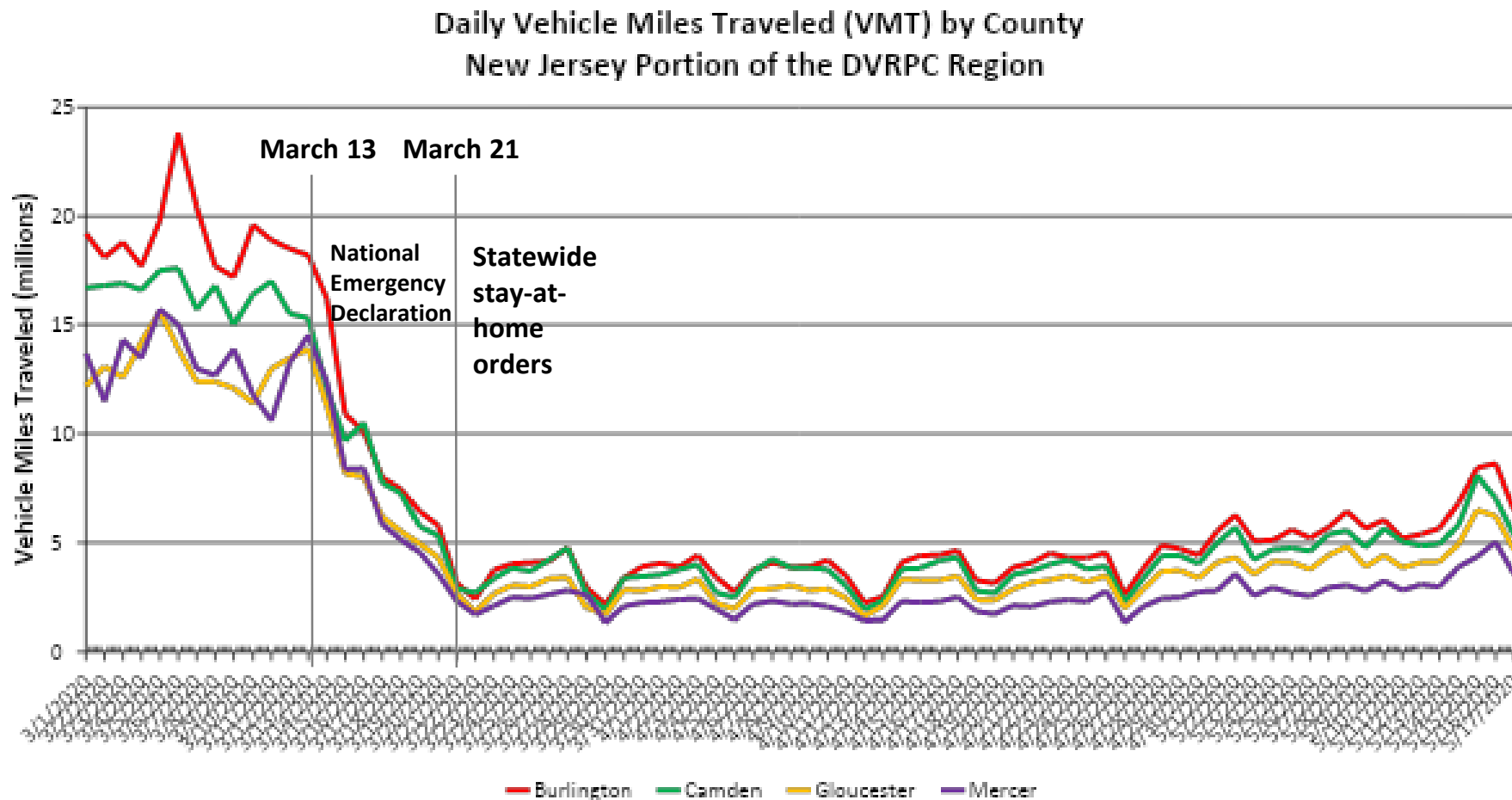


This measure indicates Daily Vehicle Miles Traveled (VMT) from March 1st through May 17th 2020 for the five DVRPC Pennsylvania counties. Daily VMT started to decline significantly even before the Governor's stay-at-home order. From March 1st to March 23rd the average Daily VMT for the five counties dropped from 25.5 million to 4.7 million. Daily VMT levels remained consistently low since the orders were issued, but have started to increase from late April. From March 23rd to the end of the analysis period, Daily VMT increased for the five counties on average from 4.7 million to 8.6 million. Generally, VMT peaks during the mid-week and decreases during the weekend over the analysis period.

Source: StreetLight [www.streetlightdata.com](http://www.streetlightdata.com); March 1st to May 17th



# Daily VMT for NJ Portion of the DVRPC Region



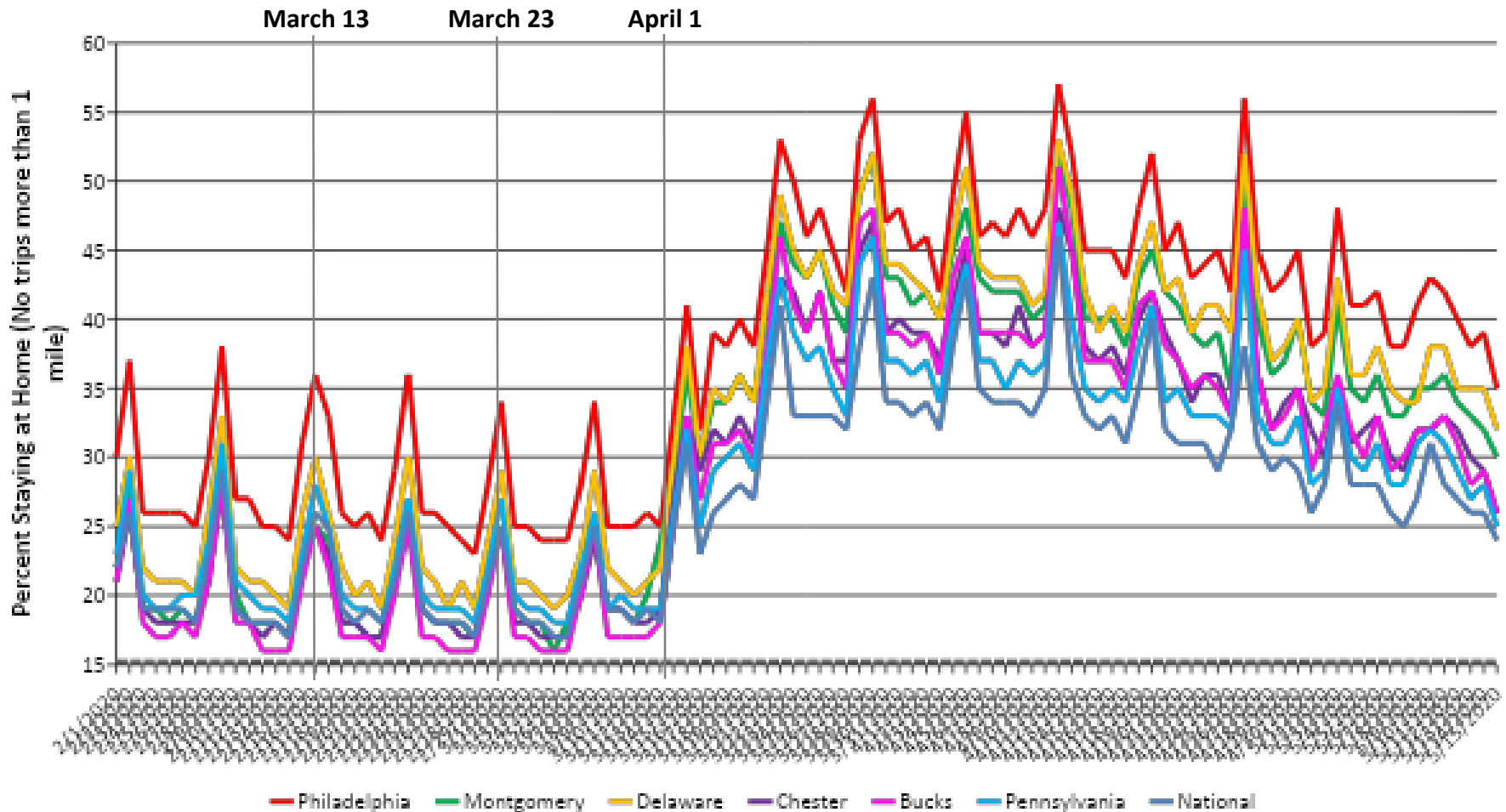
This measure indicates Daily Vehicle Miles Traveled (VMT) from March 1st through May 17th 2020 for the four DVRPC New Jersey counties. Daily VMT started to decline significantly even before the Governor's stay-at-home order, like that of PA. From March 1st to March 21st the average Daily VMT for the four counties dropped from 15.5 million to 2.7 million. Again, similar to Pennsylvania, levels remained consistently low since the order was issued, but have started to increase since the end of April. From March 21st to May 17th, Daily VMT increased for the four counties on average from 2.7 million to 5.0 million.

# RITIS PDA Suite COVID-19 Impact Analysis Platform



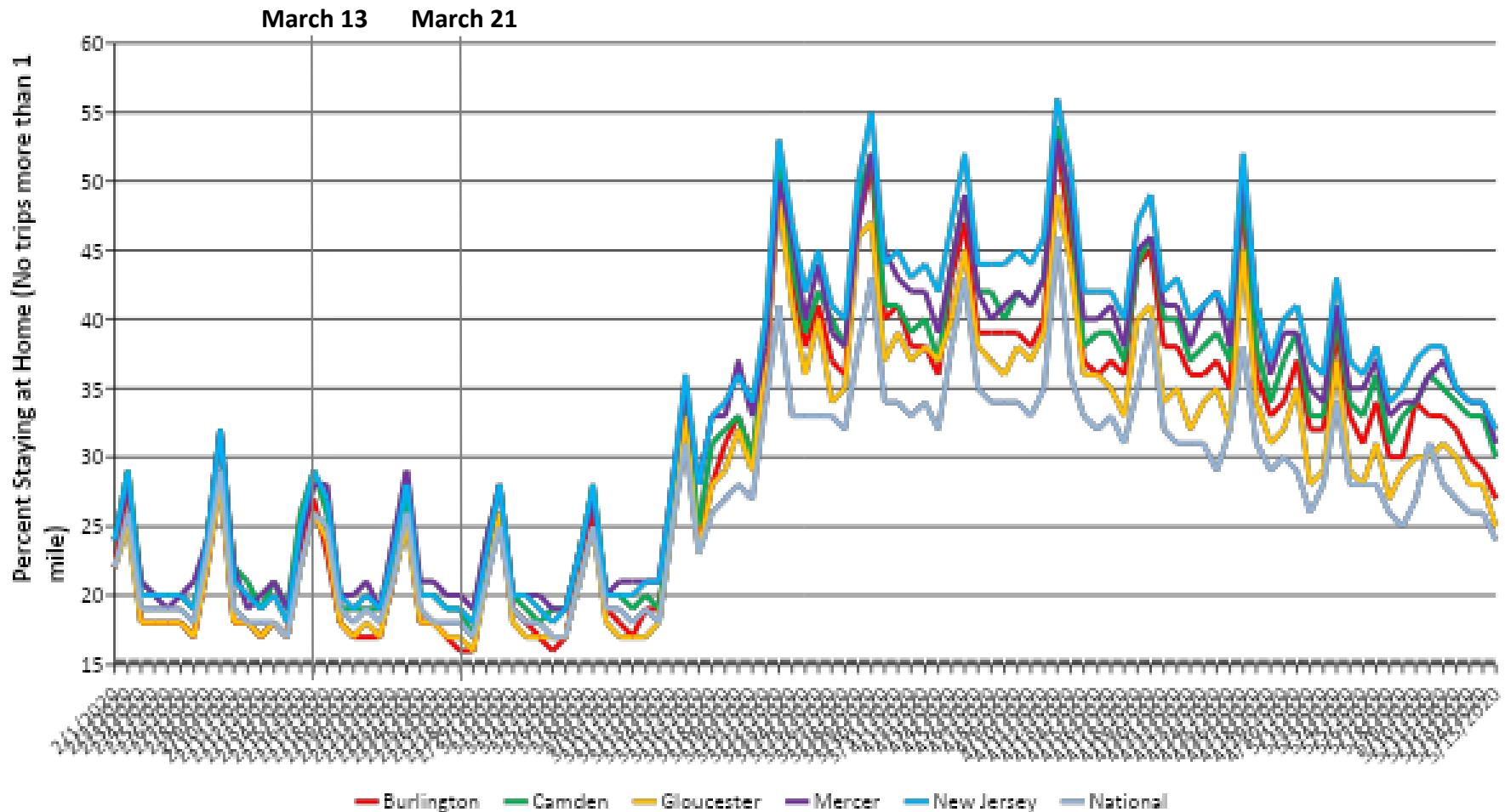
- Mobility and Social Distancing Index Measures
  - Percent Staying Home
  - Percent Out-of-County Trips
  - Average Miles Traveled Per Person
  - Number of Trips Per Person
  - Number of Work Trips Per Person
  - Number of Non-Work Trips Per Person
  - Social Distancing Index

# Percent Staying at Home for PA Portion of the DVRPC Region



This measure indicates the percent of residents staying at home (with no more than a one-mile trip from home). For the first two weeks of March, there was a low percent staying at home, but there was a significant increase beginning about March 13th (coinciding with the National emergency declaration) through March 31st, with the five counties on average increasing in percent staying at home from 22% to 43%, respectively. Beginning April 1st, the trend stayed level through mid-April, and then gradually declined over the rest of the analysis period with the five counties on average decreasing in percent staying at home from 41% to 30%, respectively. From mid-March through the end of the analysis period, the five DVRPC Pennsylvania counties consistently had a higher percent staying at home compared to the Statewide and National figures. This trend is consistent throughout the measures. The percent staying at home is higher during the weekends compared to weekdays, which accounts for the peak and valley trends, respectively. This trend is consistent throughout these measures.

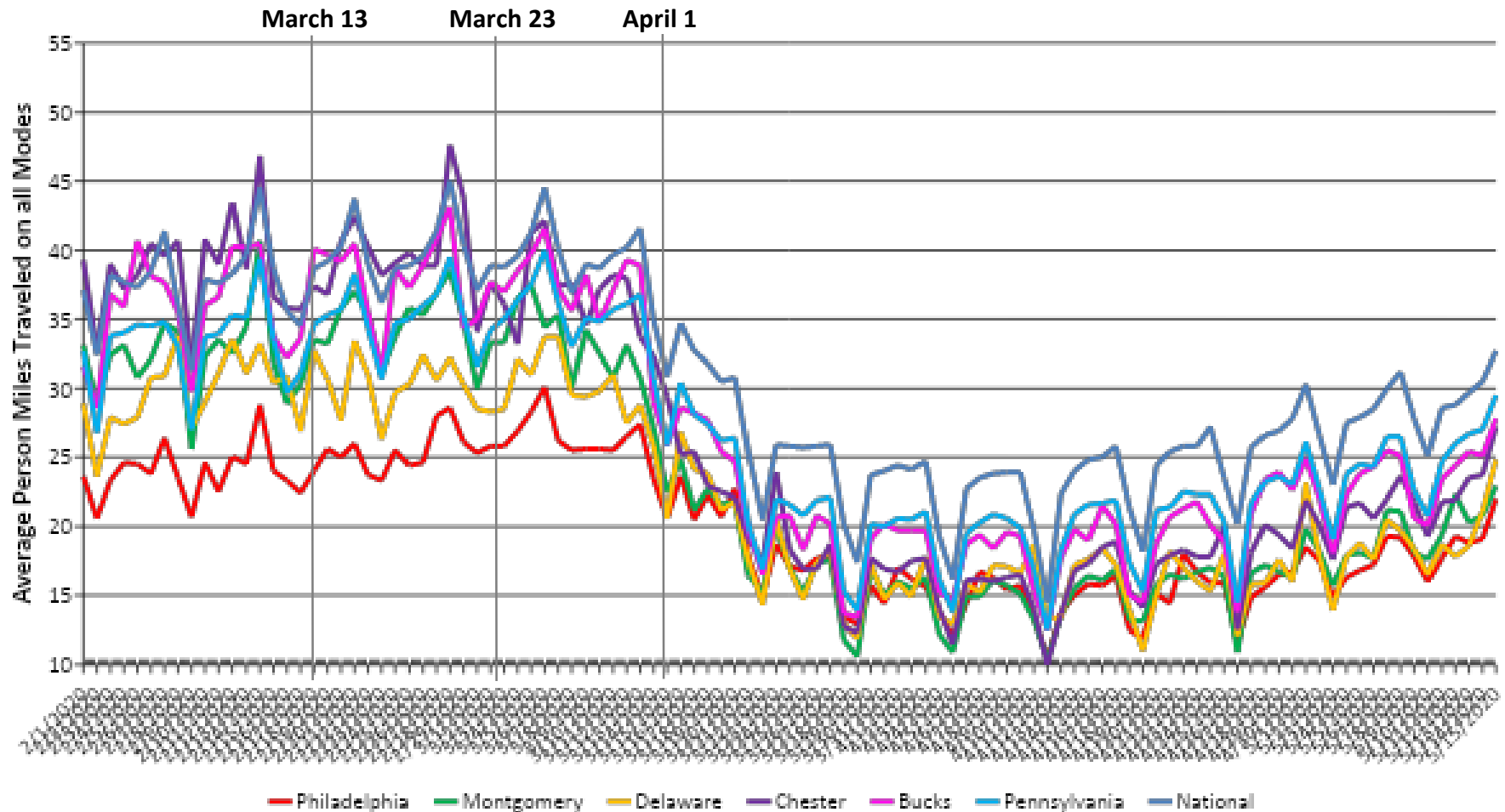
# Percent Staying at Home for NJ Portion of the DVRPC Region



This measure indicates the percent of residents staying at home (with no more than a one-mile trip from home). Like that of PA, for the first two weeks of March there was a low percent staying at home, but beginning about March 13th through March 31st there was a significant increase, with the four counties on average increasing in percent staying at home from 19% to 41%, respectively. Beginning April 1st, the trend remained level through mid April, and then declined gradually over the remainder of the analysis period with the four counties on average decreasing in percent stay at home from 39% to 28%, respectively. Beginning mid-March through the end of the analysis period, the four DVRPC New Jersey counties had a lower percent staying at home compared to statewide, but were higher than the National figure. This trend is consistent throughout these measures.

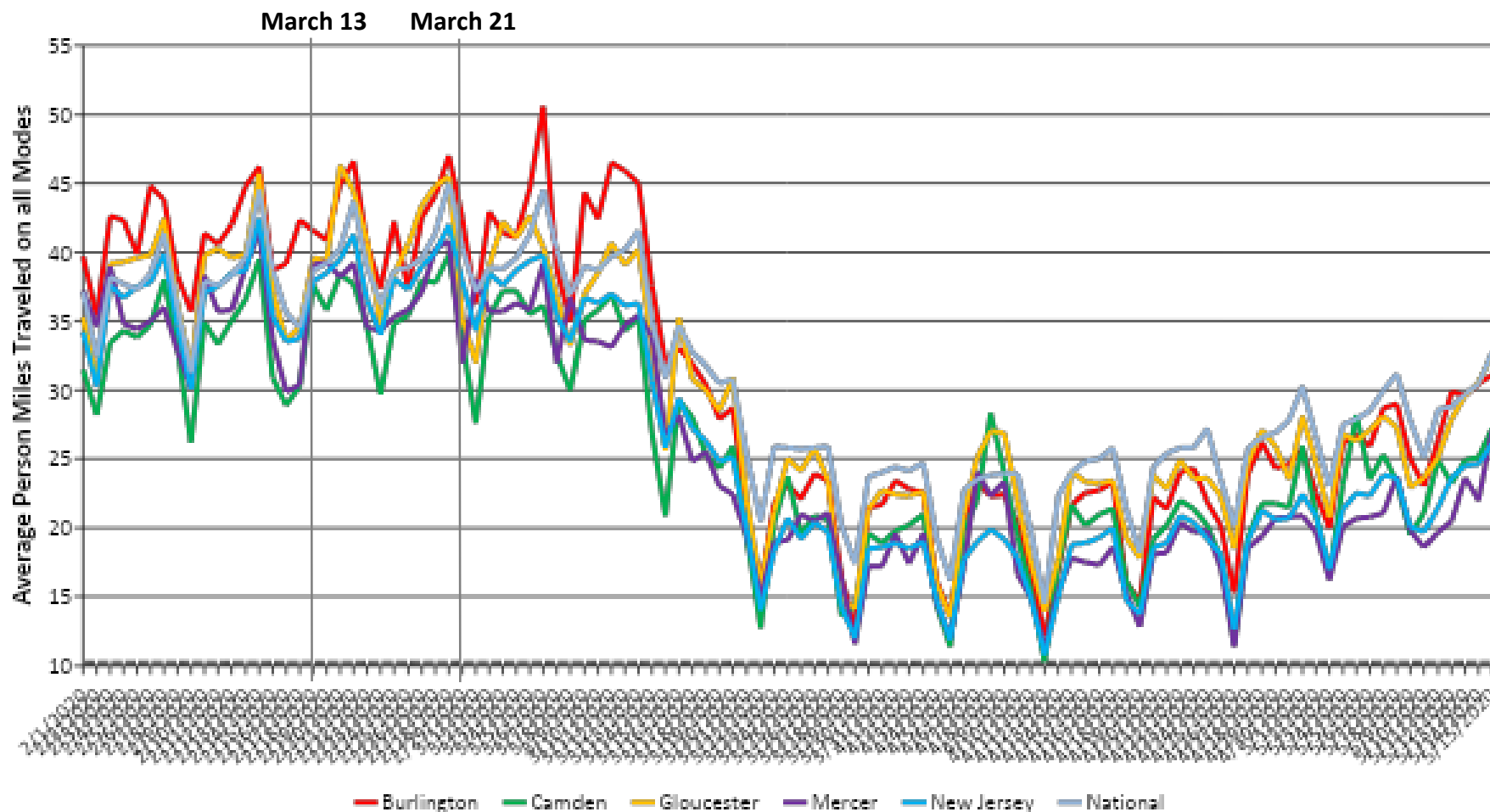


# Average Person Miles Traveled for PA Portion of the DVRPC Region



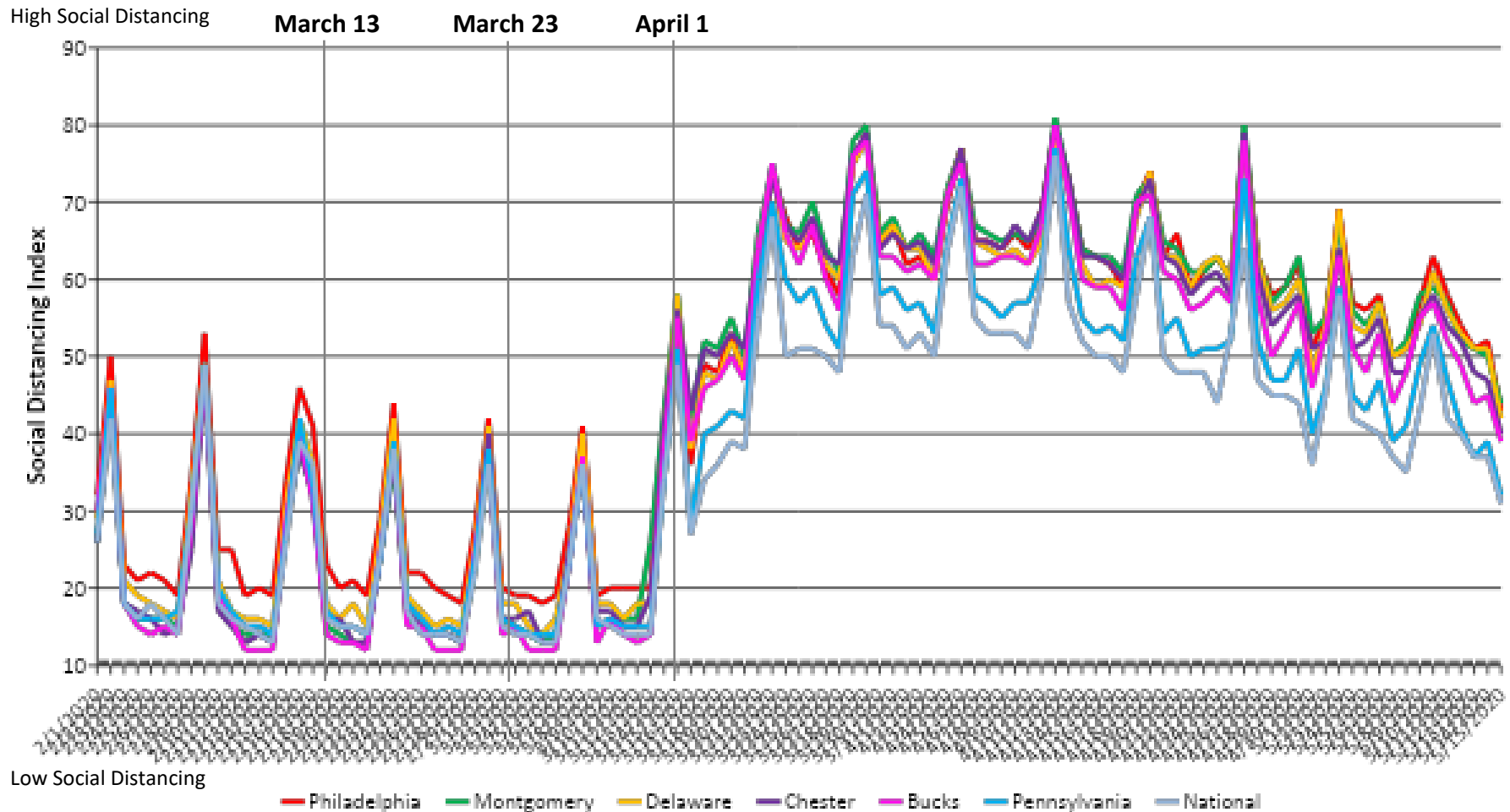
This measure indicates the average person miles traveled per day on all modes (car, train, bus, plane, bike, walk, etc.). There was a significant drop in average person miles traveled per day from about March 13th through March 31st, with the five DVRPC Pennsylvania counties on average decreasing from 32 miles to 16 miles. The average person miles traveled per day remained level from about April 1st to mid-April, and then started to gradually increase through the end of the analysis period with the five counties on average increasing from 17 miles to 25 miles, respectively.

# Person Miles Traveled for NJ Portion of the DVRPC Region



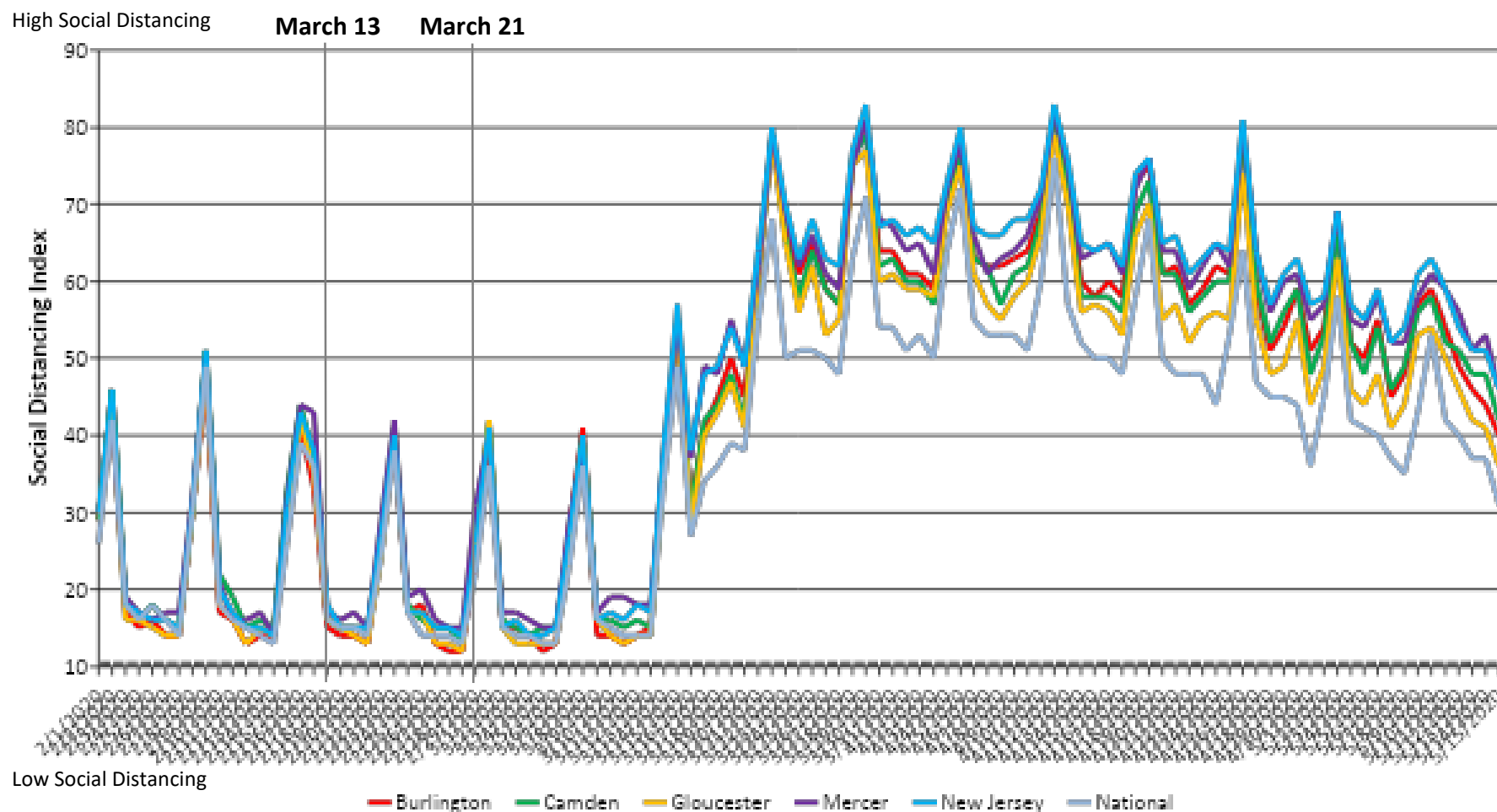
This measure indicates the average person miles traveled on all modes (car, train, bus, plane, bike, walk, etc.) per person per day. There was a significant drop in average person miles traveled per day from March 13th through March 31st, with the four DVRPC New Jersey counties decreasing from 39 miles to 20 miles, respectively. The average person miles traveled per day remained level from April 1st to mid-April, and then started to gradually increase through the end of the analysis period with the four counties increasing on average from 21 miles to 29 miles.

# Social Distancing Index for PA Portion of the DVRPC Region



This is the Social Distance Index measure. “0” indicates that no social distancing is being observed, while “100” indicates all residents are staying at home and no visitors are entering the county. There was a sharp increase in social distancing from March 13th through March 31st, with the five DVRPC Pennsylvania counties on average increasing from 19 to 66, respectively. The Social Distance Index then remained level from April 1st through mid-April and then gradually declined through the analysis period with the five counties decreasing on average from 63 to 42, respectively, indicating some social distancing fatigue.

# Social Distancing Index for NJ Portion of the DVRPC Region



This is the Social Distance Indexing measure. “0” indicates that no social distancing is being observed, while “100” indicates all residents are staying at home and no visitors are entering the county. There was a sharp increase in social distancing from March 13th through March 31st, with the four DVRPC New Jersey counties on average increasing from 16 to 64, respectively. The Social Distancing Index then remained level from April 1st through mid-April, and then gradually declined through the end of the analysis period with the five counties decreasing on average from 61 to 41, respectively.

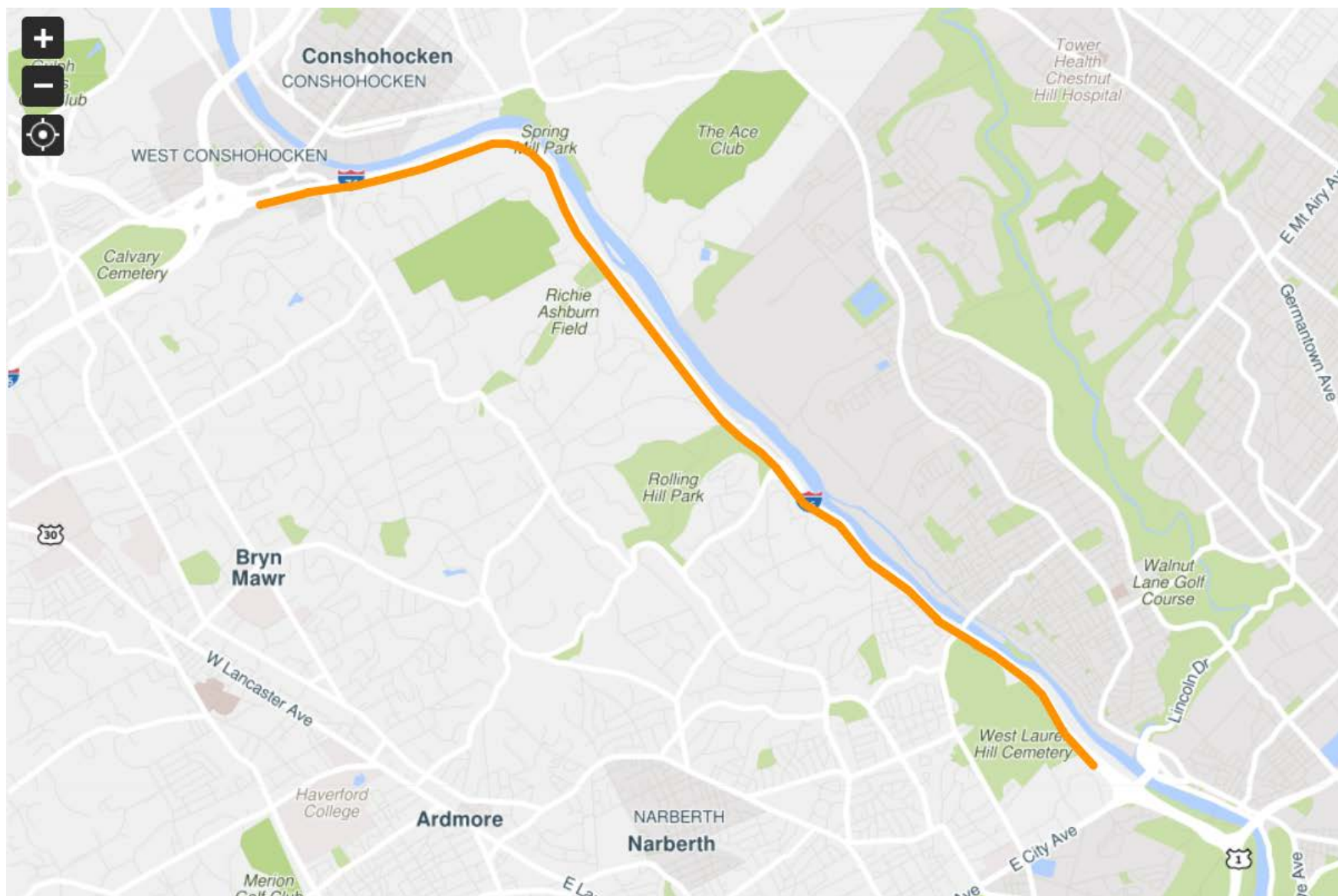


# Speed and Travel Time Profiles



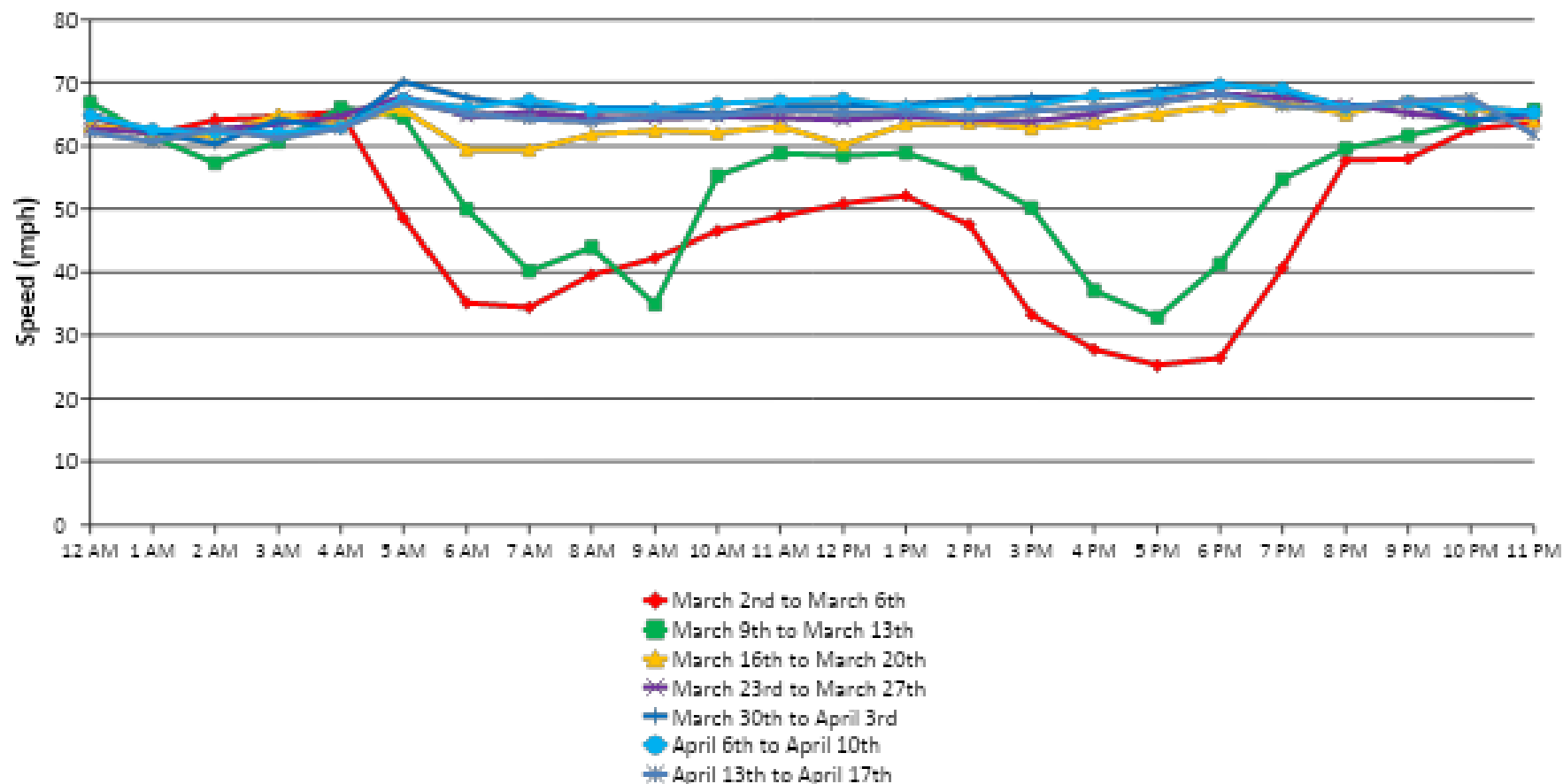
- CMP Corridor 019: I-76 from US 1 to I-476
- CMP Corridor 208: I-295 from NJ 42 to NJ 70

# CMP Corridor 019: I-76 from US 1 (City Ave) to I-476



# Speed Profile: I-76 from US 1 (City Ave) to I-476

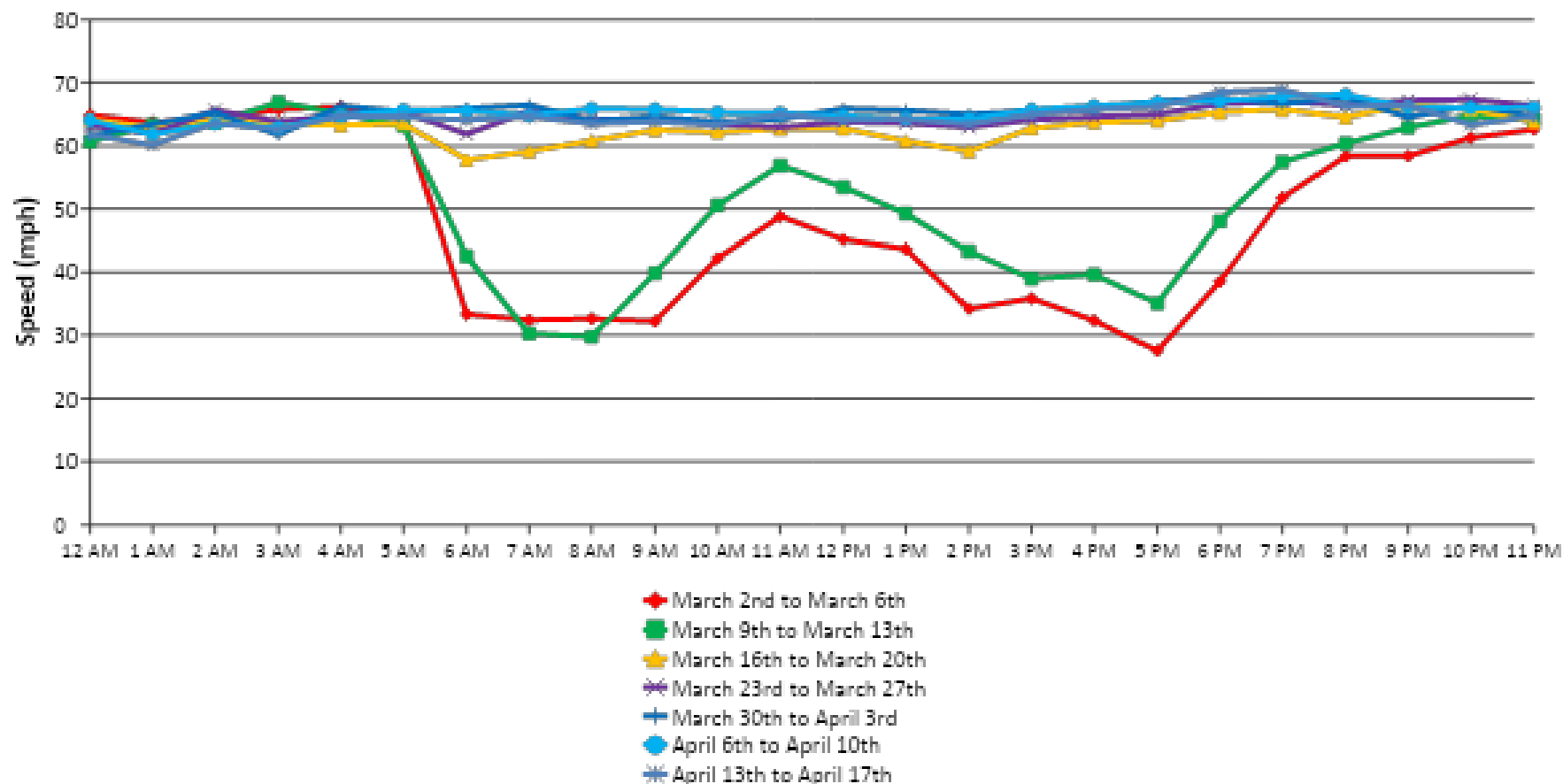
CMP Corridor 019: I-76 from US 1 (City Ave) to I-476  
Eastbound



From 5:00 PM to 6:00 PM, speeds increased on average from 29 mph to 67 mph (131%), when comparing the average speeds for the first two weeks to the average speeds of the remaining weeks.

# Speed Profile: I-76 from US 1 (City Ave) to I-476

CMP Corridor 019: I-76 from US 1 (City Ave) to I-476  
Westbound

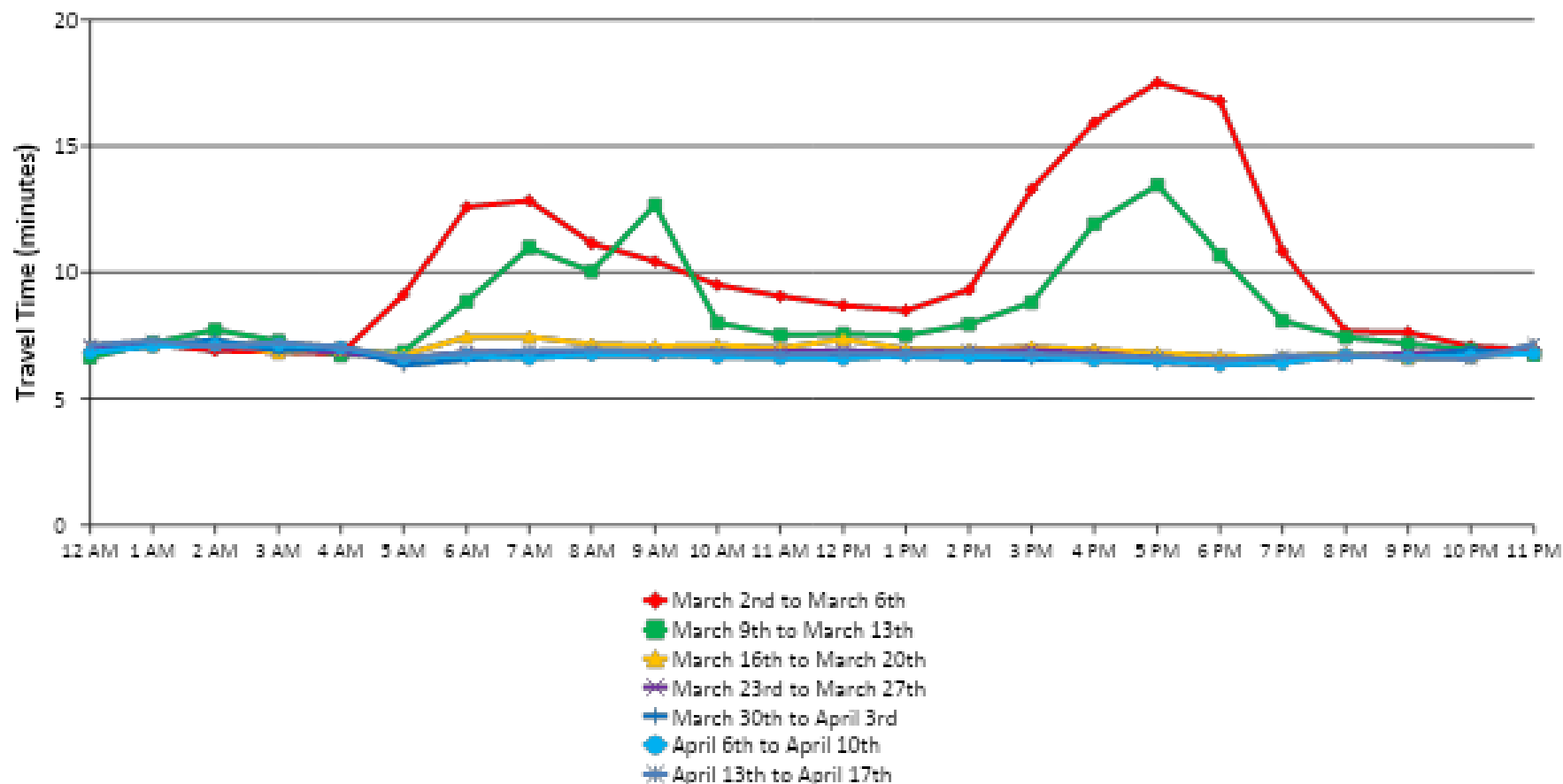


From 5:00 PM to 6:00 PM, speeds increased on average from 31 mph to 66 mph (110%), when comparing the average speeds for the first two weeks to the average speeds of the remaining weeks.



# Travel Time Profile: I-76 from US 1 (City Ave) to I-476

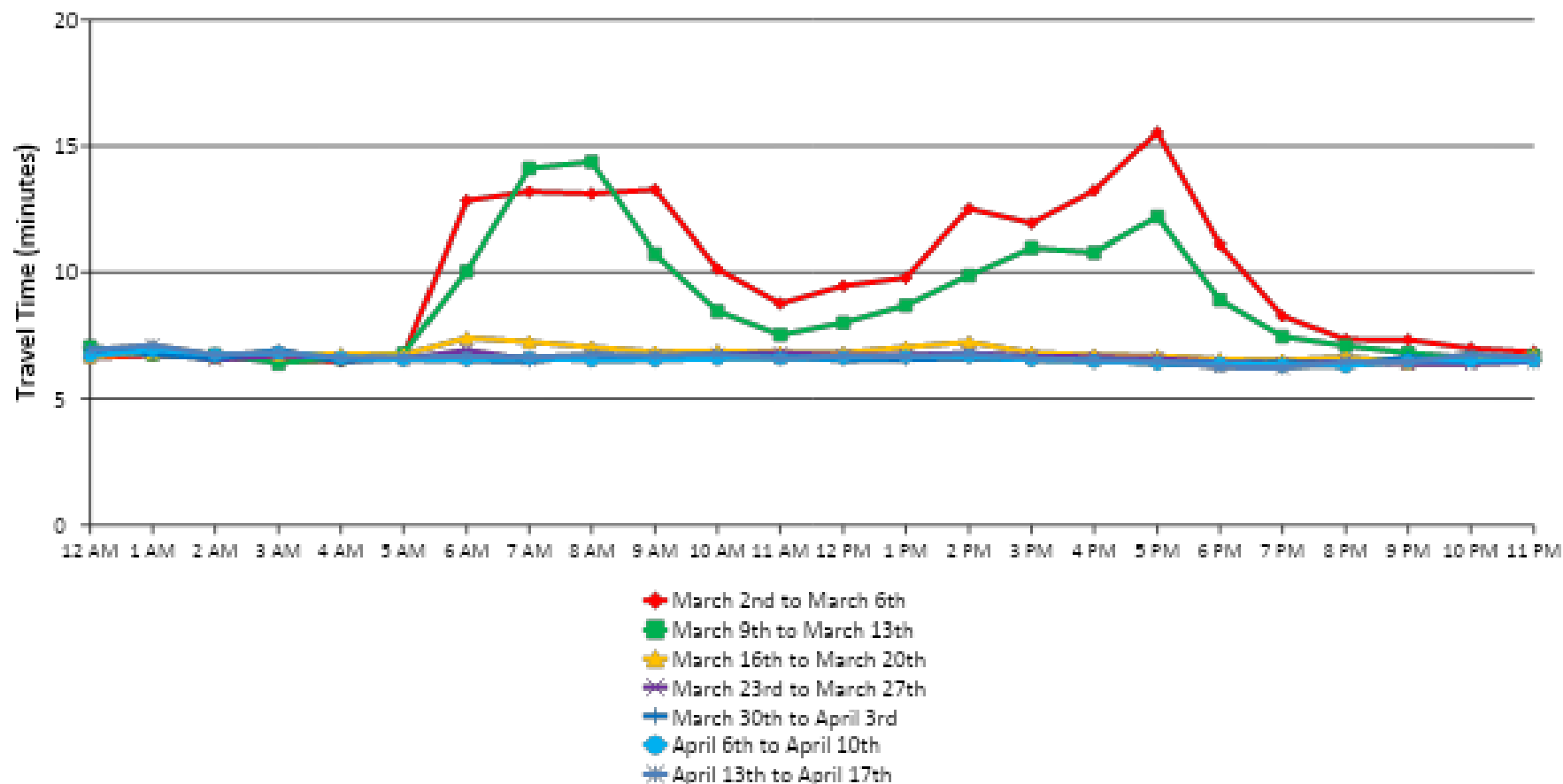
CMP Corridor 019: I-76 from US 1 (City Ave) to I-476  
Eastbound



From 5:00 PM to 6:00 PM, travel times on average decreased from 15.5 to 6.6 minutes (or 58%), when comparing the average travel time for the first two weeks to the average times of the remaining weeks.

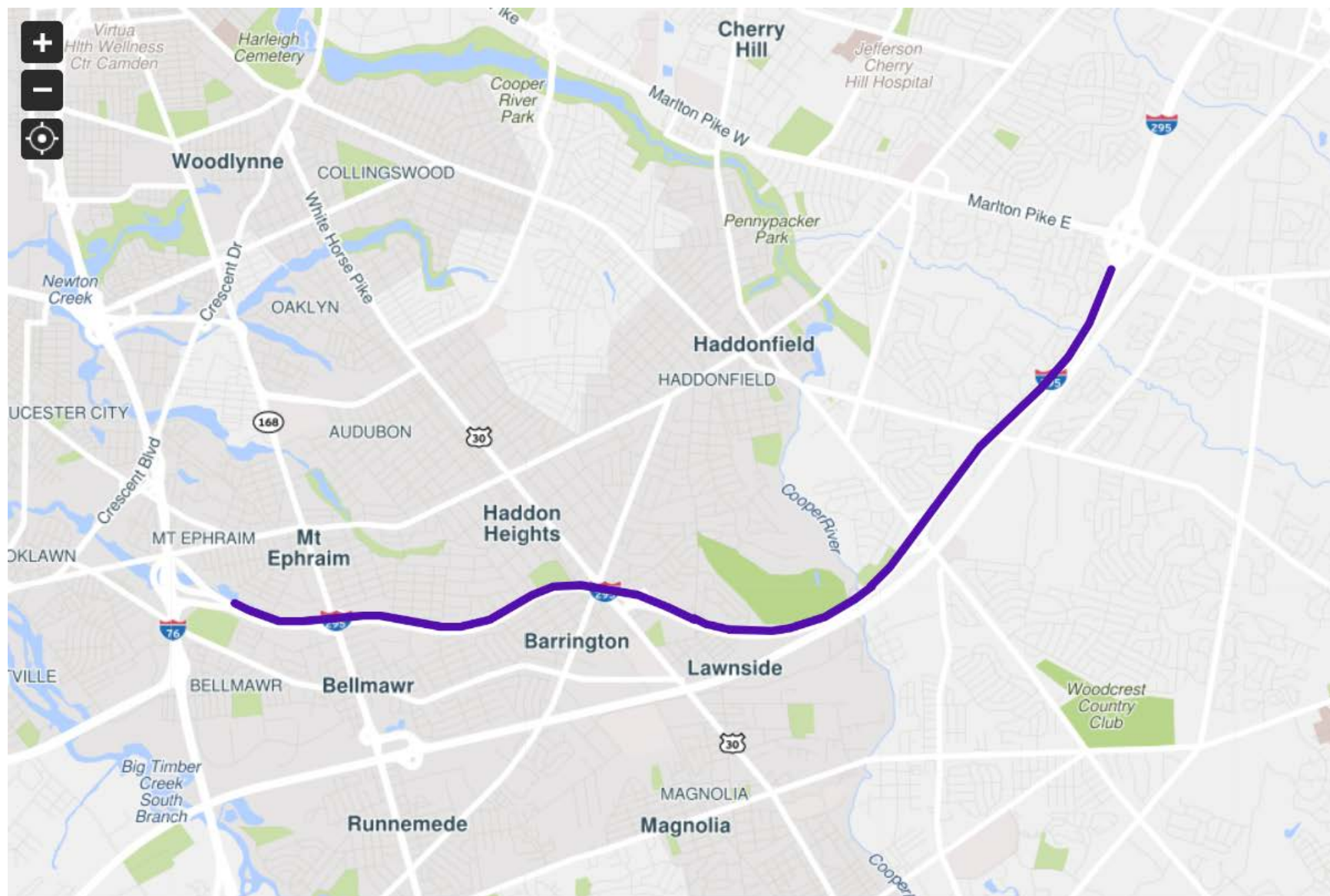
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Westbound

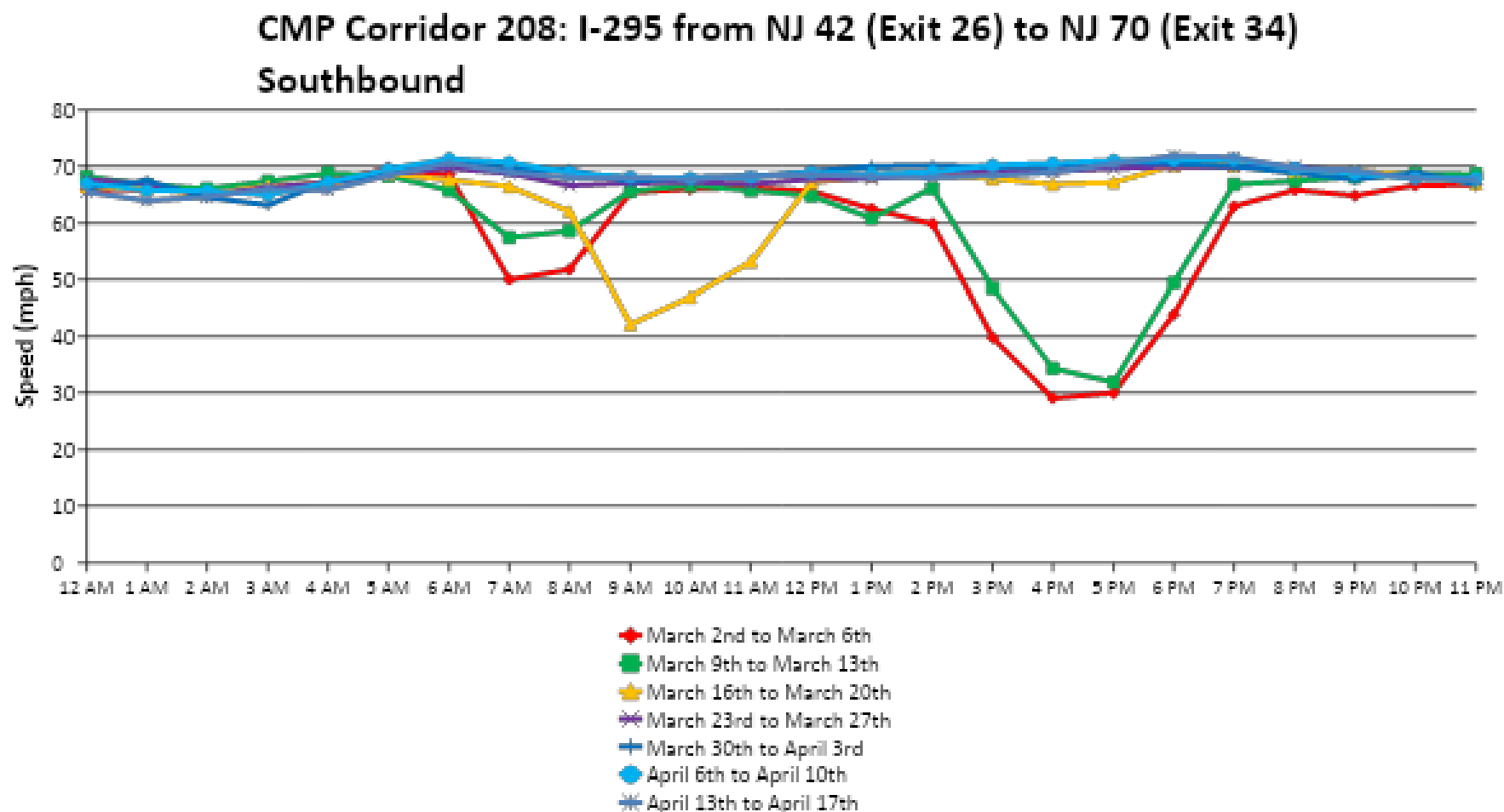


From 5:00 PM to 6:00 PM, travel times on average decreased from 13.9 to 6.5 minutes (or 53%), when comparing the average travel time for the first two weeks to the average times of the remaining weeks.

# CMP Corridor 208: I-295 from NJ 42 (Exit 26) to NJ 70 (Exit 34)

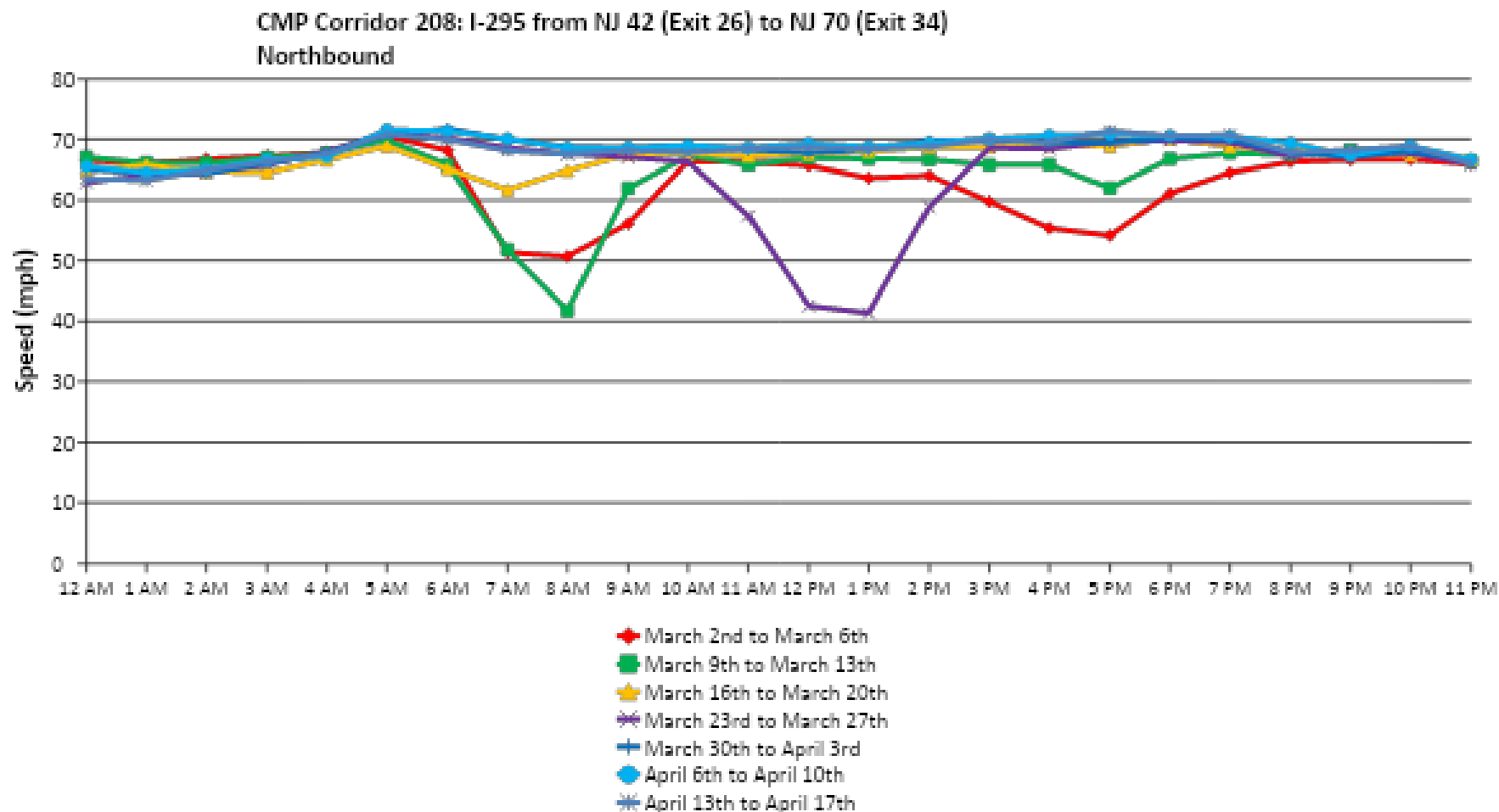


# Speed Profile: I-295 from NJ 42 (Exit 26) to NJ 70 (Exit 34)



From 5:00 PM to 6:00 PM speeds increased on average from 31 to 70 mph (or 126%), when comparing the average speeds for the first two weeks with the average speeds to the remaining weeks.

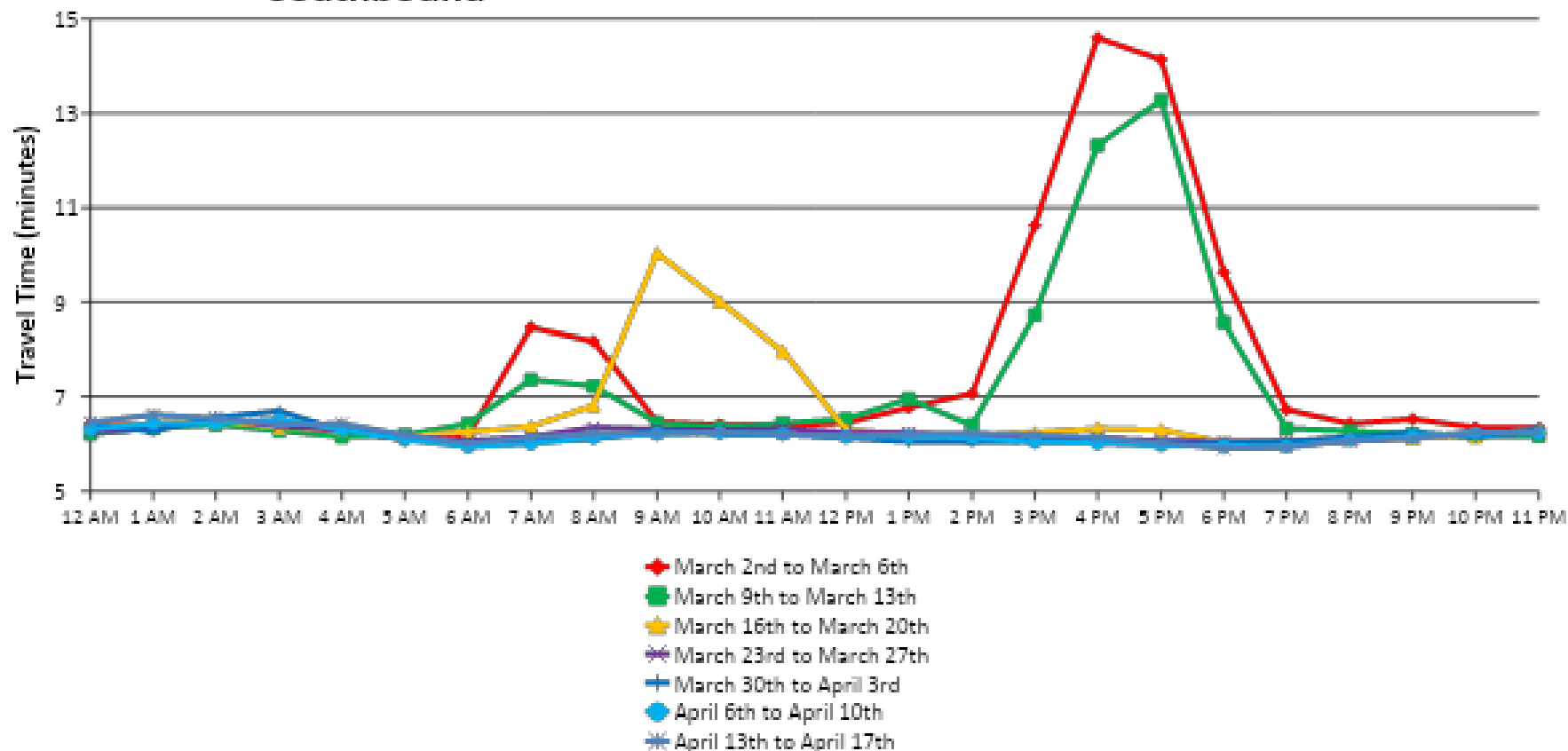
# Speed Profile: I-295 from NJ 42 (Exit 26) to NJ 70 (Exit 34)



From 7:00 AM to 8:00 AM, speeds increased on average from 52 to 68 mph (or 31%), when comparing the average speeds for the first two weeks to the average speeds of the remaining weeks.

# Travel Time Profile: I-295 from NJ 42 (Exit 26) to NJ 70 (Exit 34)

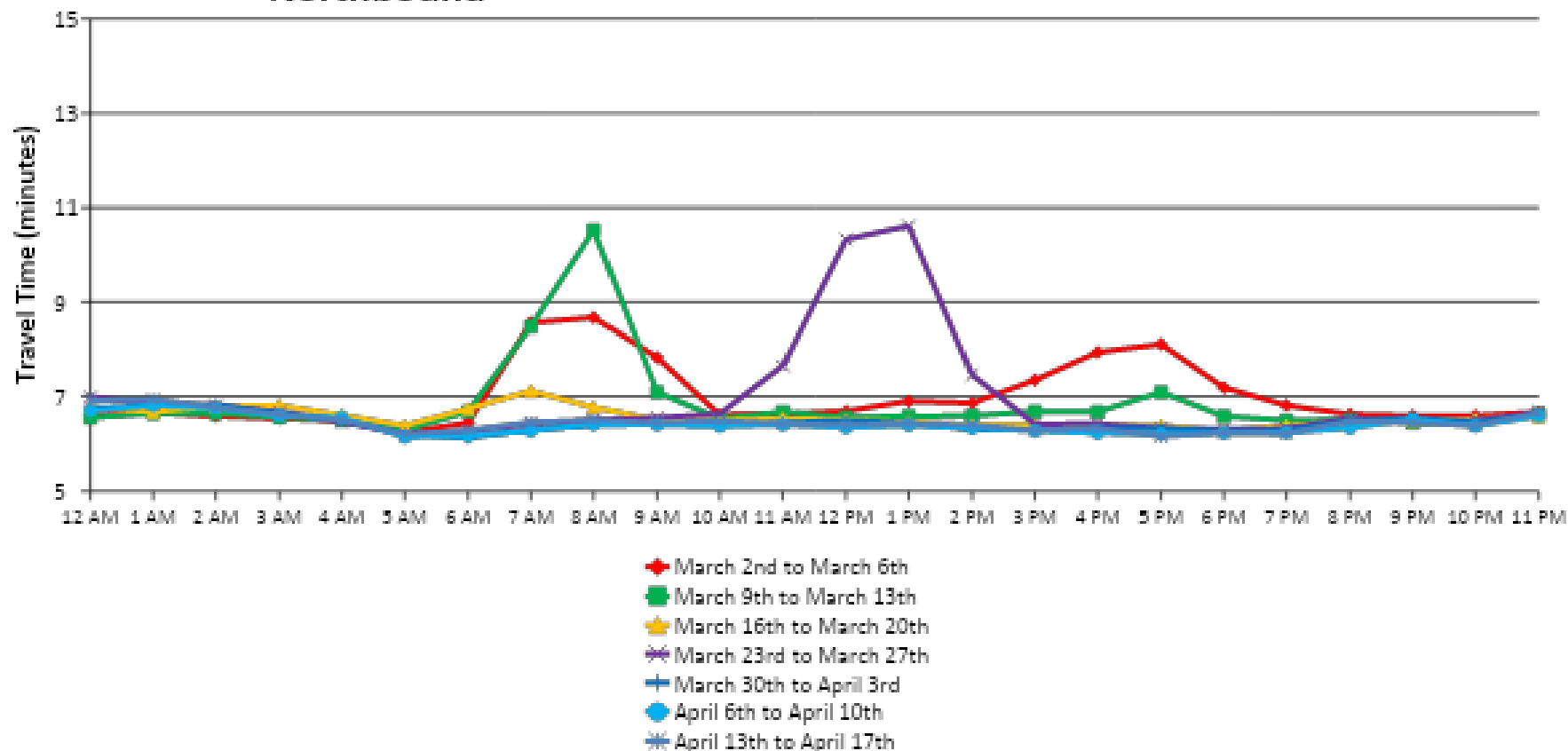
## CMP Corridor 208: I-295 from NJ 42 (Exit 26) to NJ 70 (Exit 34) Southbound



From 5:00 PM to 6:00 PM, travel times decreased on average from 13.7 to 6.1 minutes (or 56%), when comparing the average travel time for the first two weeks to the average times of the remaining weeks.

# Travel Time Profile: I-295 from NJ 42 (Exit 26) to NJ 70 (Exit 34)

## CMP Corridor 208: I-295 from NJ 42 (Exit 26) to NJ 70 (Exit 34) Northbound



From 7:00 AM to 8:00 AM, travel times decreased on average from 8.5 to 6.5 minutes (or 17%), when comparing the average travel time for the first two weeks to the average travel times for the remaining weeks.



# Questions or Comments?





# PA TURNPIKE

## Interchange Study

 **dvrpc**

# Agenda

- Background
- Project Overview and Scope of Work
- Methodology
- Findings and Recommendations
  - **Henderson Road Study Area**
  - **Welsh Road and Virginia Drive Study Area**
- 2020 Virtual Open Houses

# Study Background

2015 Turnpike Corridor Reinvestment Project

# 2015 PA Turnpike Corridor Reinvestment Study

- Encourage **economic revitalization and reinvestment** in Montgomery County's aging business parks
- Provide **more direct connections** to key employment centers
- **Better distribute** local and regional traffic
- Bring **new revenue** to the Turnpike Commission to pay for the interchanges

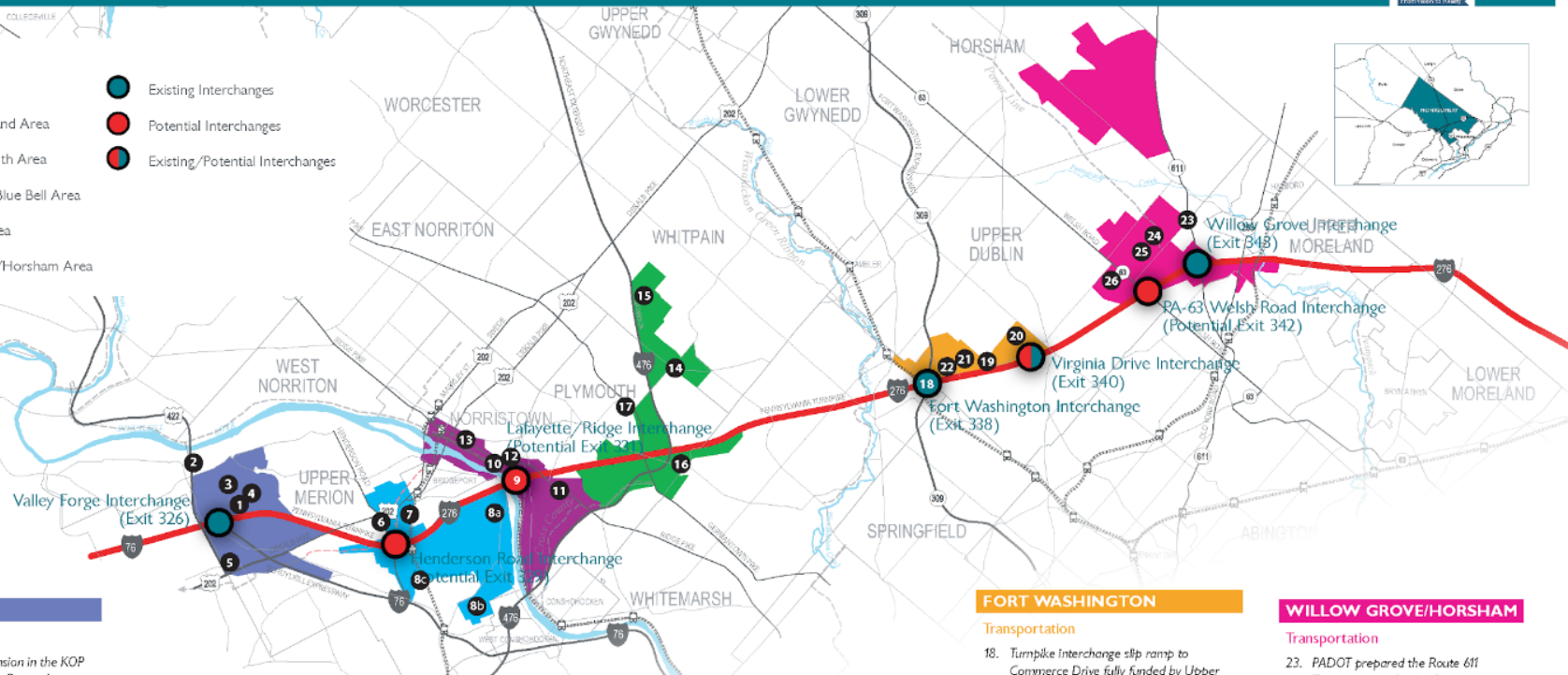
## 2015 - 2017 Progress Towards a Transportation and Land Use Vision!



### REINVESTMENT AREAS

- King of Prussia Area
- Gulph Mills/Swedeland Area
- Norristown/Plymouth Area
- Plymouth Meeting/Blue Bell Area
- Fort Washington Area
- Willow Grove Area/Horsham Area

- Existing Interchanges
- Potential Interchanges
- Existing/Potential Interchanges



### KING OF PRUSSIA

#### Transportation

1. SEPTA's KOP Rail Extension in the KOP Mall and Business Park—Route chosen, EIS drafted, public hearings scheduled
2. PADOT began widening the US 422 bridge and improving the PA 363 and PA 23 bridges in Valley Forge

#### Land Use

3. KOP Business Park rezoned for mixed-use, pedestrian- and transit-friendly redevelopment, 599 apartments and 112 hotel rooms already proposed and 110,000 SF of new office constructed
4. THE PARK completed—a demonstration project heralding the beginning of the 2.6 mile Linear Park for First Avenue
5. Village at Valley Forge—New high density mixed use town center with 2,000 apartments and 500,000 sf of commercial space approved or under construction

### GULPH MILLS/SWEDELAND

#### Transportation

6. SEPTA's KOP Rail Extension to include a station at Henderson Road
7. Chester Valley Trail connection fully funded with engineering underway and construction planned for 2019-20

#### Land Use

8. Large scale development proposed or recently constructed:
  - a. Fed Ex Distribution Center
  - b. GlaxoSmithKline campus sold for redevelopment
  - c. Luxury apartments proposed at Hughes Park Rail Station

### NORRISTOWN/PLYMOUTH

#### Transportation

9. New Lafayette St. Turnpike Interchange fully funded—Engineering begins Fall 2017
10. Lafayette Street Extension—Phases 1 & 2 complete. Phase 3 construction begins Fall 2017
11. Ridge Pike Improvement Project—design underway from Turnpike to Chemical Road with construction in 2020

#### Land Use

12. A new Wawa recently opened near the future Lafayette Street Interchange
13. Five Saints Distillery opened on Main Street in Norristown

### PLYMOUTH MEETING/BLUE BELL

#### Transportation

14. Whitpain Township received a county grant to improve walkability at the corner of Township Line, Walton, and Norristown Roads

#### Land Use

15. Arborcrest Corporate Center completed—650,000 sf office in 4 buildings
16. PARC apartments built in existing employment center at the I-476 mid-county interchange
17. Plymouth Township partners with MCPD to write new municipal comprehensive plan

### FORT WASHINGTON

#### Transportation

18. Turnpike Interchange slip ramp to Commerce Drive fully funded by Upper Dublin—construction in 2018
19. Virginia & Commerce Drive Road Diet and Cross County Trail fully funded by Upper Dublin, County and PADOT—construction in 2018
20. Upper Dublin created an authority to facilitate improvements in the Fort Washington Office Park and at the Virginia Drive Interchange

#### Land Use

21. New mixed-use zoning adopted with transfer of development rights (TDR) program—incentivizes development to move out of the floodplain with higher density and additional uses
22. Lifetime Fitness opened a new upscale fitness complex at Commerce Drive next to the future interchange slip ramp

### WILLOW GROVE/HORSHAM

#### Transportation

23. PADOT prepared the Route 611 Transportation Study—first project underway is the realignment of the former Rt. 611-New Road intersection alongside a new Wawa development

#### Land Use

24. Horsham Business Parks Master Plan adopted to spur higher-density mixed-use development in a Core Center and more amenities throughout the Park.
25. Zoning being written to implement the Master Plan
26. Mixed Use Town Center proposed on the Prudential Campus next to the future Welsh Road interchange

Source: MCPD

## Full System Investment ("Full Build")

This scenario would provide three new interchanges at Henderson Road, Lafayette Street/Ridge Pike, and PA 68 Welsh Road, add east bound off and east bound on ramps at the current Virginia Drive interchange, and construct a new Commerce Drive connector ramp at the Fort Washington interchange. It would modernize the PA-611 Willow Grove interchange and the Valley Forge interchange by providing direct ramps to First Avenue in the King of Prussia Business Park both from the Turnpike and the Schuylkill Expressway.

Current Daily Volume = 389,300

2040 Volume (No Action) = 430,900 (+10.7% increase over Current)

2040 Volume (Full Build) = 516,200 (+19.8% increase over No Action)

2040 with Full Build

New Trips Each Day: 42,650

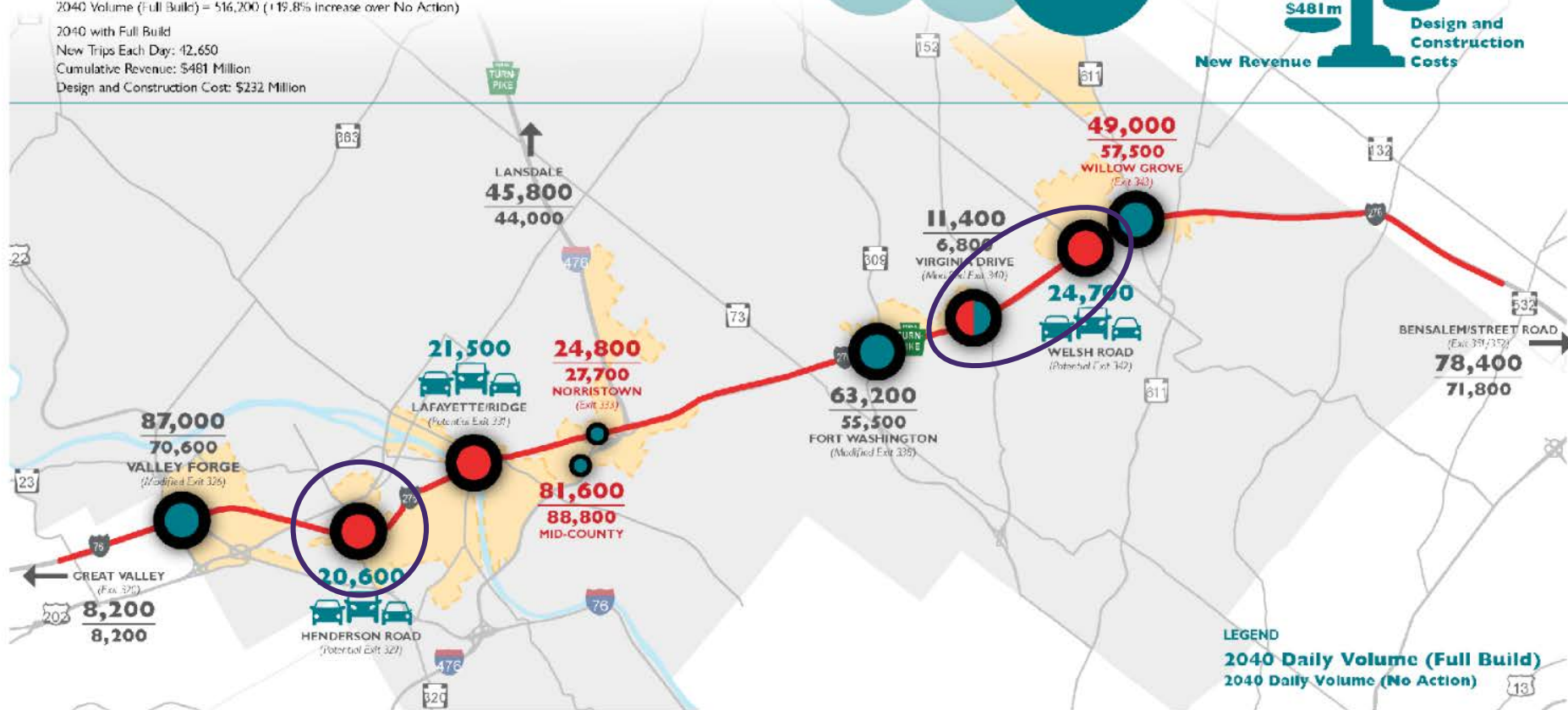
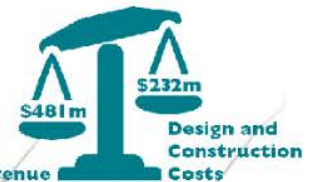
Cumulative Revenue: \$481 Million

Design and Construction Cost: \$232 Million

### Southeastern Pennsylvania Interchanges



**19.8%**  
42,650 New Trips



**LEGEND**  
2040 Daily Volume (Full Build)  
2040 Daily Volume (No Action)

Source: MCPC



# Project Overview

## Scope of Work

# Project Purpose

- Identify the potential impacts of the proposed new interchanges on local traffic
- Identify areas where traffic congestion may increase as a result of the proposed new interchanges
  - **Provide a more detailed analysis of the impacts on the new interchanges on local traffic flow**
- Develop recommendations to ease traffic congestion on local roads
  - **Peak hour traffic conditions and needs**
  - **Provide analytical support and develop supplemental strategies for the proposed new PA Turnpike Interchanges**

# Scope of Work

## Phase 1:

- Project steering committee was formed
- Traffic counts and field data were collected
- Base network of roads within the study areas were prepared with traffic simulation software

## Phase 2:

- Traffic operational modeling was conducted
- Deficiencies in the transportation networks were identified
- Solutions were modeled

2017

# Project Steering Committees

- Montgomery County
- Pennsylvania Department of Transportation
- PA Turnpike Commission
- SEPTA
- Greater Valley Forge Transportation Management Assoc.
- Boles Smyth Associates

## Henderson Road

- Upper Merion Township
- Upper Merion Transportation Authority
- King of Prussia Business Improvement District

## Welsh Road & Virginia Drive

- Abington Township
- Horsham Township
- Upper Dublin Township
- Upper Moreland Township
- BET Investments
- Partnership TMA
- Prudential

# Methodology

Regional and Local Microsimulation Modeling

# Modeling Methodology

## Traffic Counts

- Taken during the weekday AM and PM peak hours
- used to calibrate routes

## Traffic Signal Plans

- incorporated into model to simulated existing conditions
- modifications recommended in improvement scenarios

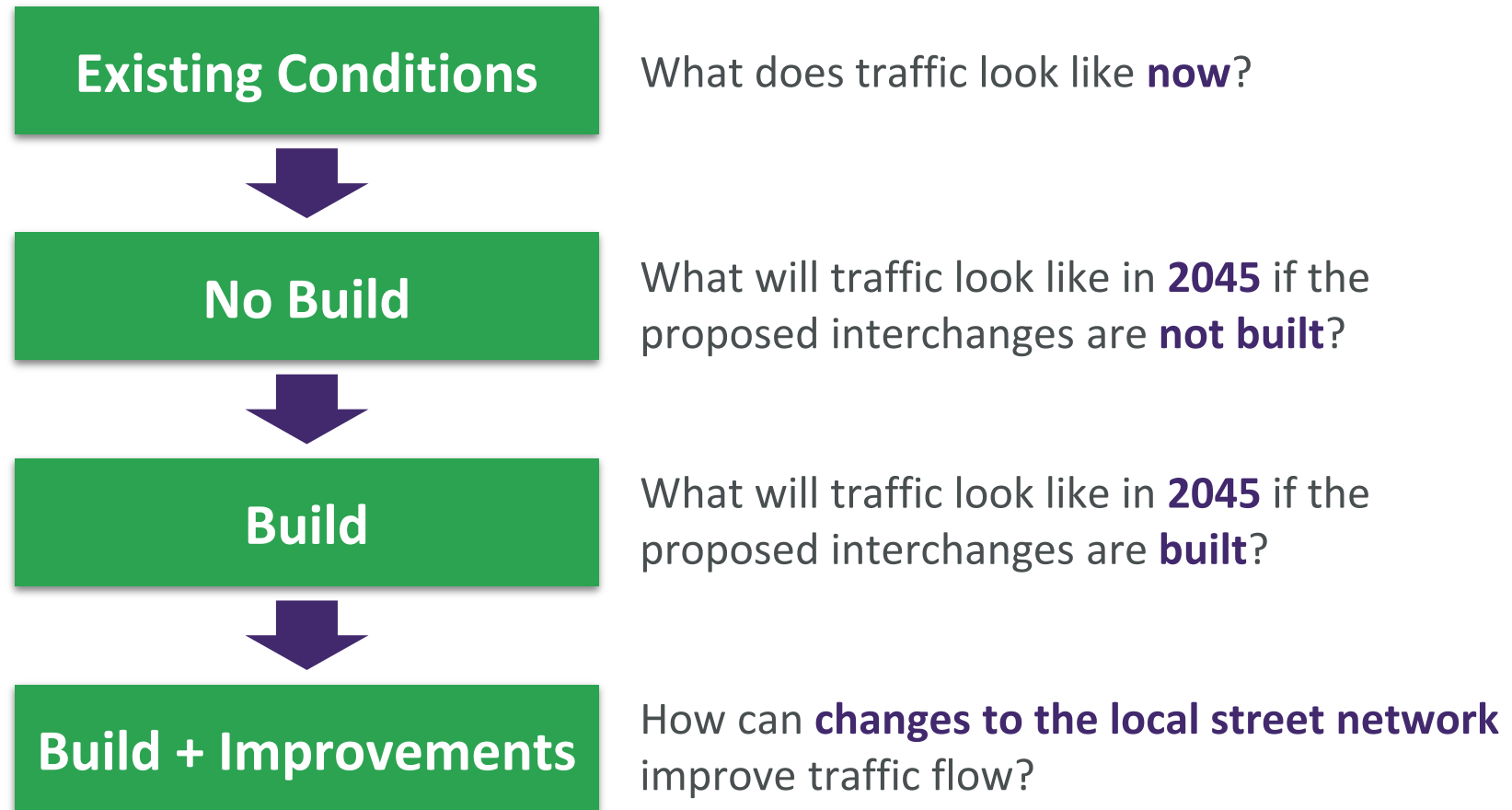
## DVRPC Regional Model (VISUM)

- used to input regional trips that might end or begin outside of the study areas

## Microsimulation (VISSIM)

- used to analyze and compare scenarios from an approach-level basis

# Modeling Scenarios





# Performance Measures

**Demand** is the total **number of vehicles** entering, or attempting to enter, the study area during the peak hour.

**Delay** is the average **amount of time**, in seconds, that it takes a vehicle passing through an intersection beyond what would be experienced in a free-flow condition.

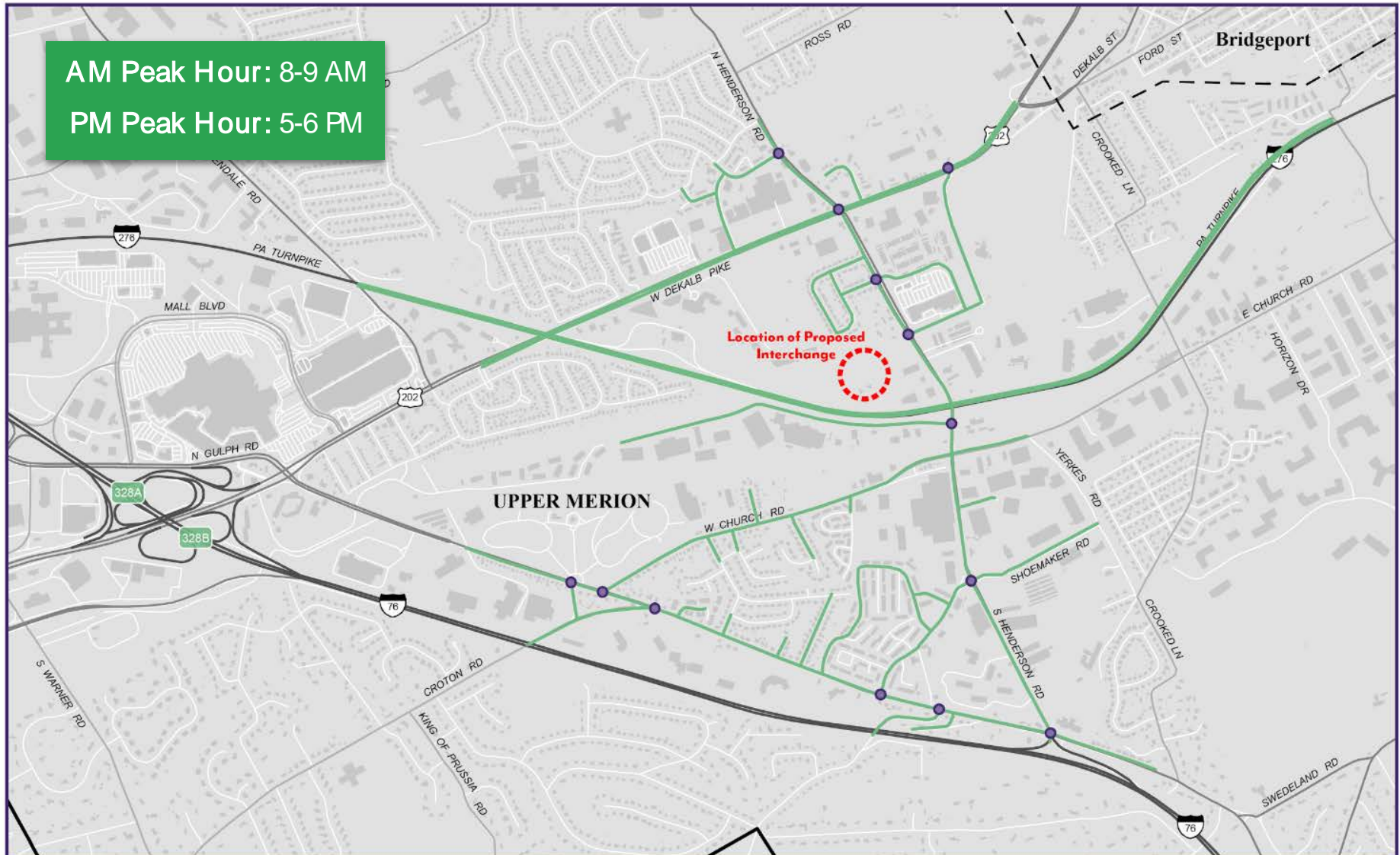
**Level of Service (LOS)** values are letter grades assigned to various degrees of delay.

# Findings and Recommendations

Henderson Road

AM Peak Hour: 8-9 AM

PM Peak Hour: 5-6 PM



**PA TURNPIKE**  
Interchange Study  
**dvrpc**

●  
Network Node

—  
Network Link

**VISSIM Microsimulation Network**

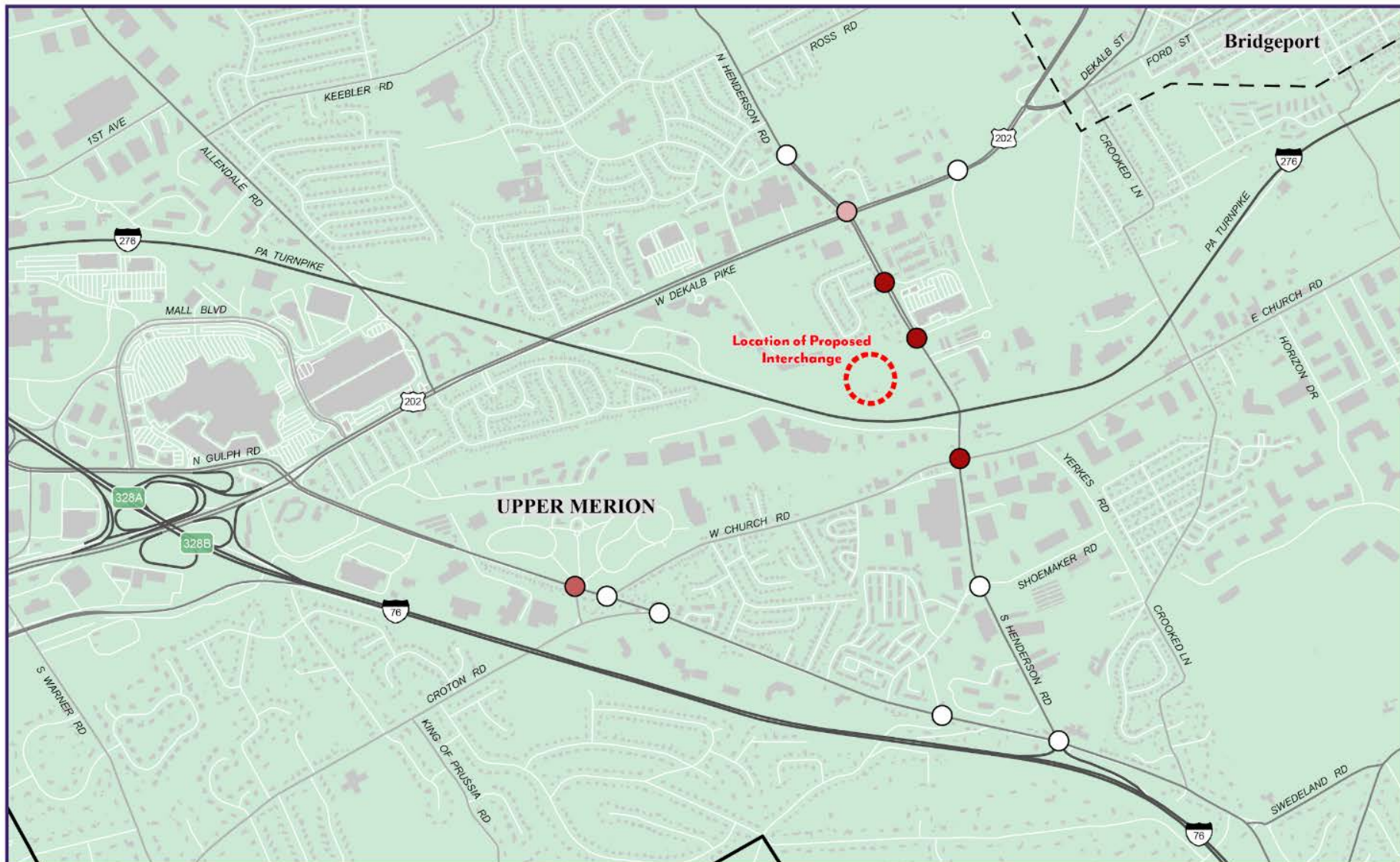
0 ¼ ½  
Miles











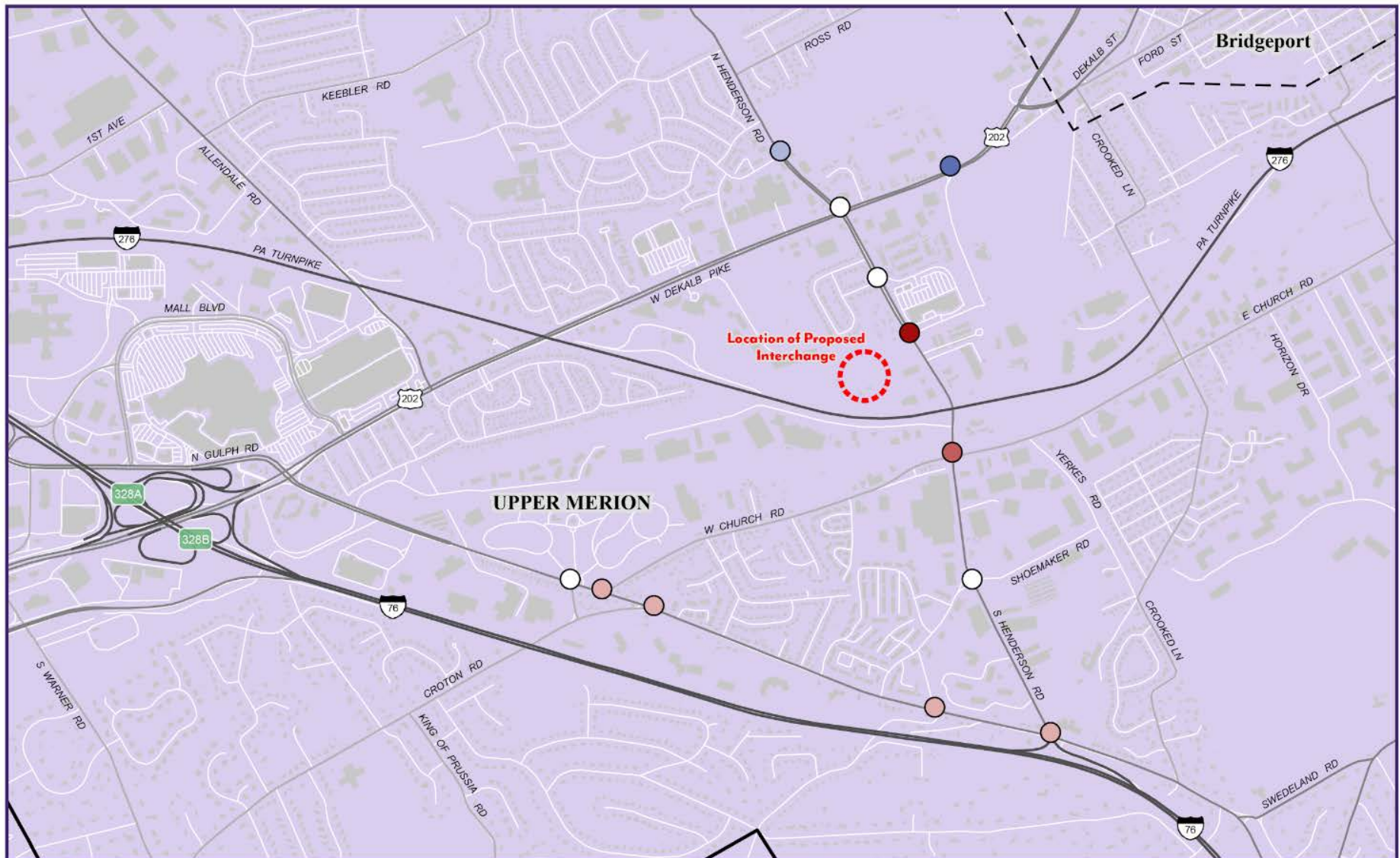
**PA TURNPIKE**  
Interchange Study  
dvrpc

- >45s decrease
- 30 - 45s decrease
- 15 - 30s decrease
- 0 - 15s increase or decrease
- 15 - 30s increase
- 30 - 45s increase
- >45s increase

**Morning Peak Hour (7-8AM)**  
**Intersection Delay Change**  
**No Build to Build**







**PA TURNPIKE**  
Interchange Study  
**dvrpc**

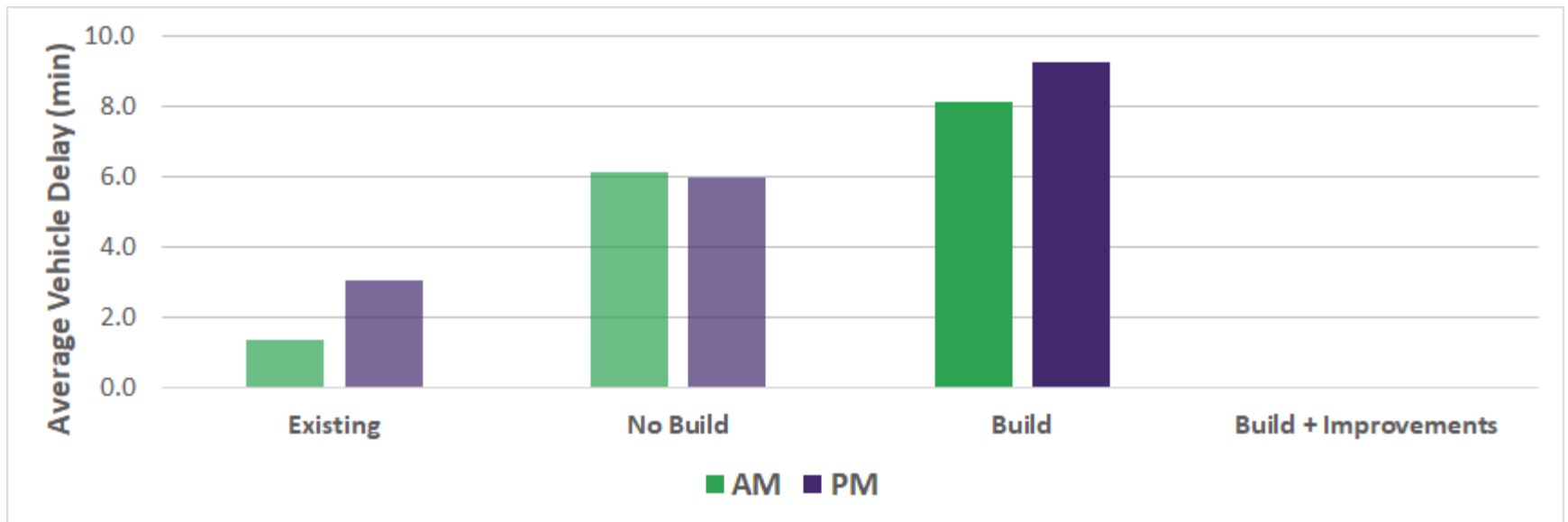
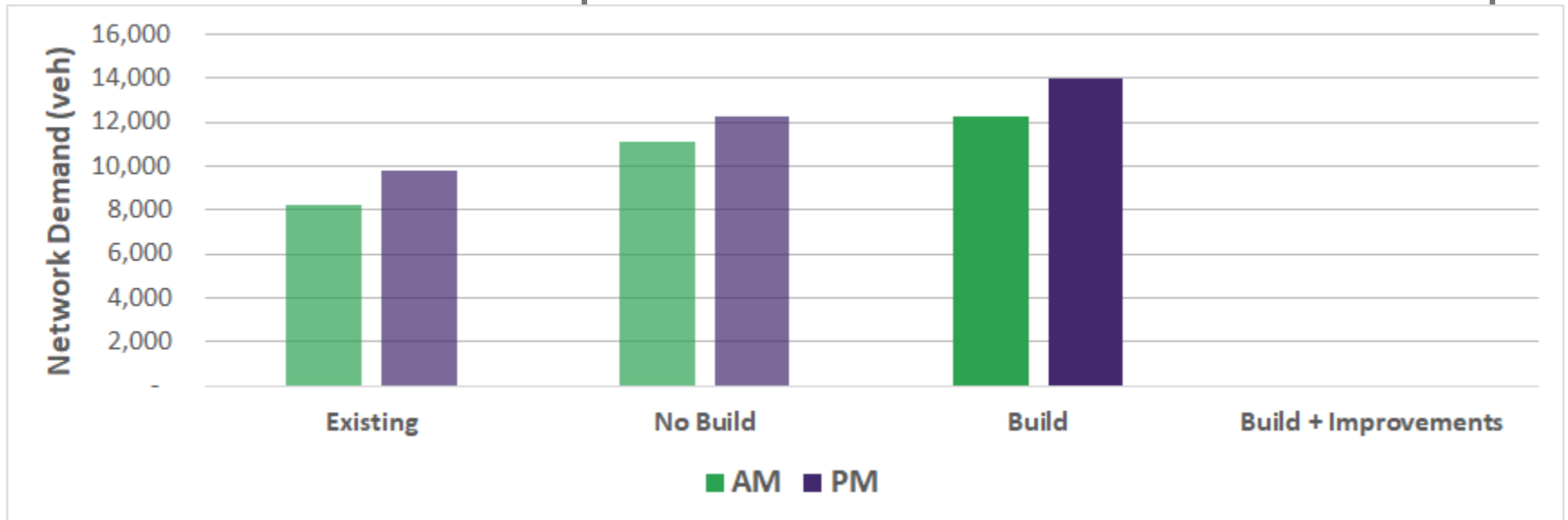
- >45s decrease
- 30 - 45s decrease
- 15 - 30s decrease
- 0 - 15s increase or decrease
- 15 - 30s increase
- 30 - 45s increase
- >45s increase

**Evening Peak Hour (5-6PM)**  
**Intersection Delay Change**  
**No Build to Build**



2019

2045





- 1 Convert shared left-turn/through lanes on Henderson Road approaches to through only, replace split phasing with lead left-turn phasing
- 2 Add capacity, turn lanes to Saulin Boulevard and Henderson Road
- 3 Add capacity to Church Road
- 4 Add cluster timing to Gulph Road & Brooks Road / Gulph Road & Church Road
- 5 Add Westbound left-turn lane on Gulph Road at Croton Road
- Network-wide signal timing improvements



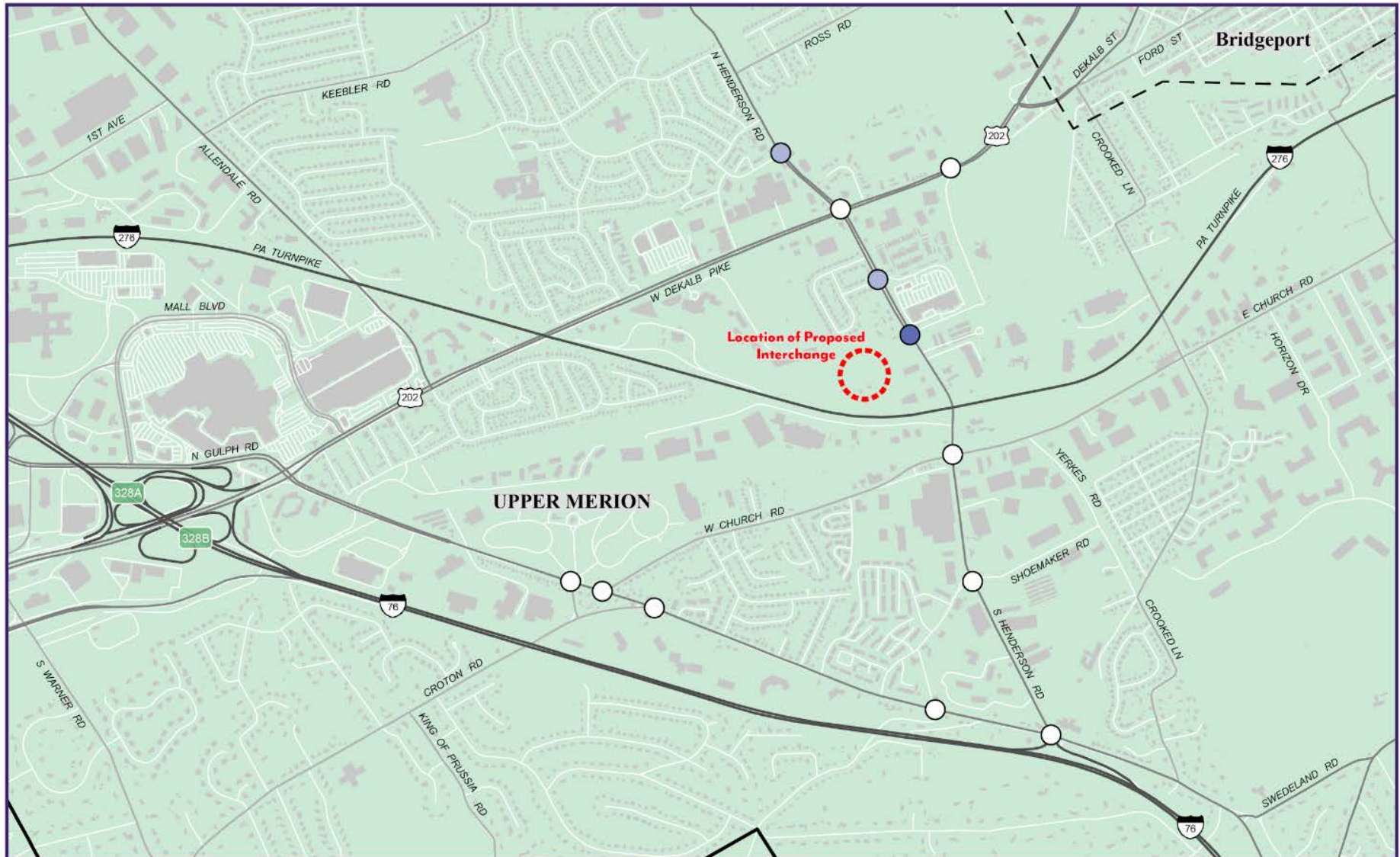
**PA TURNPIKE**  
Interchange Study  
**dvrpc**

## Build + Improvements Recommendations

0 1/8 1/4 1/2 Miles

Source: DVRPC, PennDOT  
Upper Merion Township





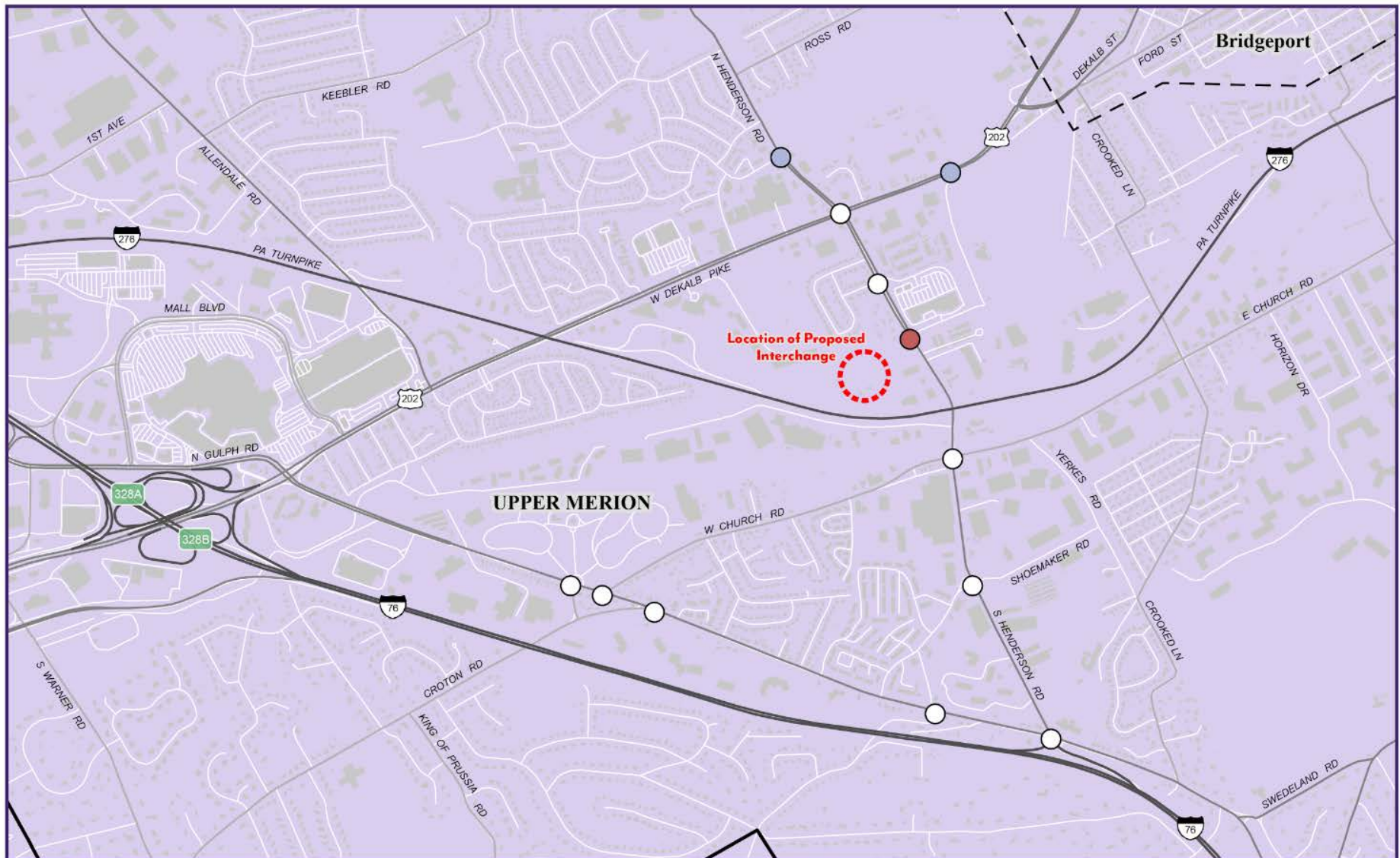
**PA TURNPIKE**  
Interchange Study  
**dvrpc**

- >45s decrease
- 30 - 45s decrease
- 15 - 30s decrease
- 0 - 15s increase or decrease
- 15 - 30s increase
- 30 - 45s increase
- >45s increase

**Morning Peak Hour (7-8AM)**  
**Intersection Delay Change**  
**No Build to Build + Improvements**







**PA TURNPIKE**  
Interchange Study  
**dvrpc**

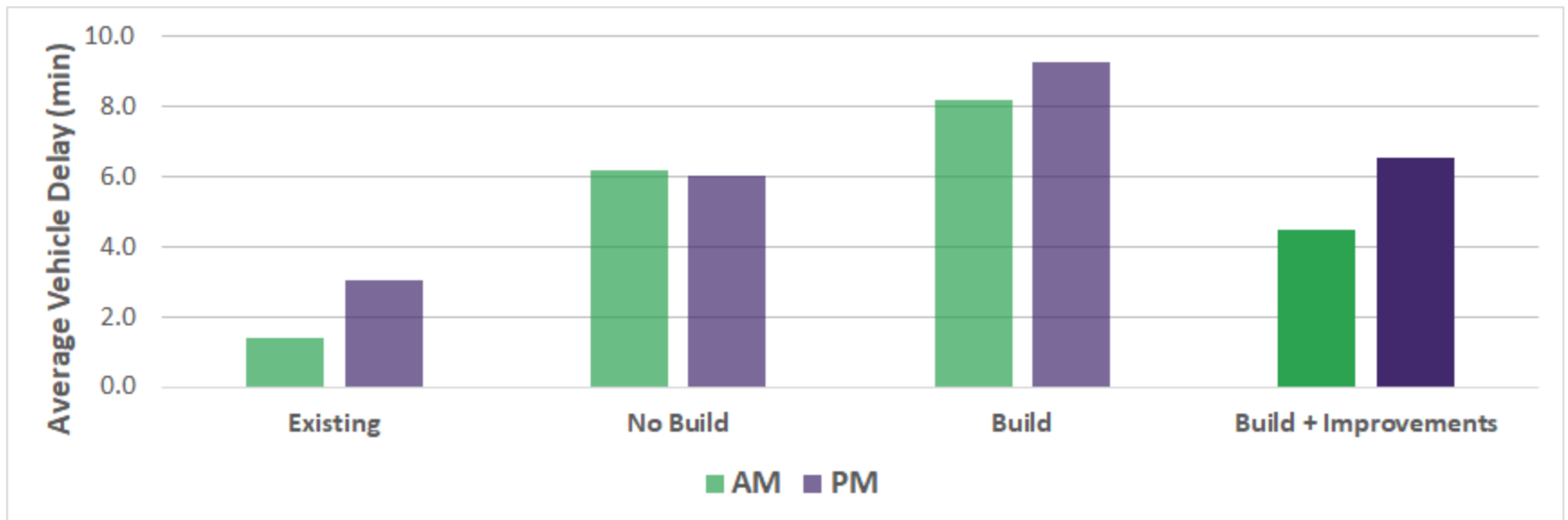
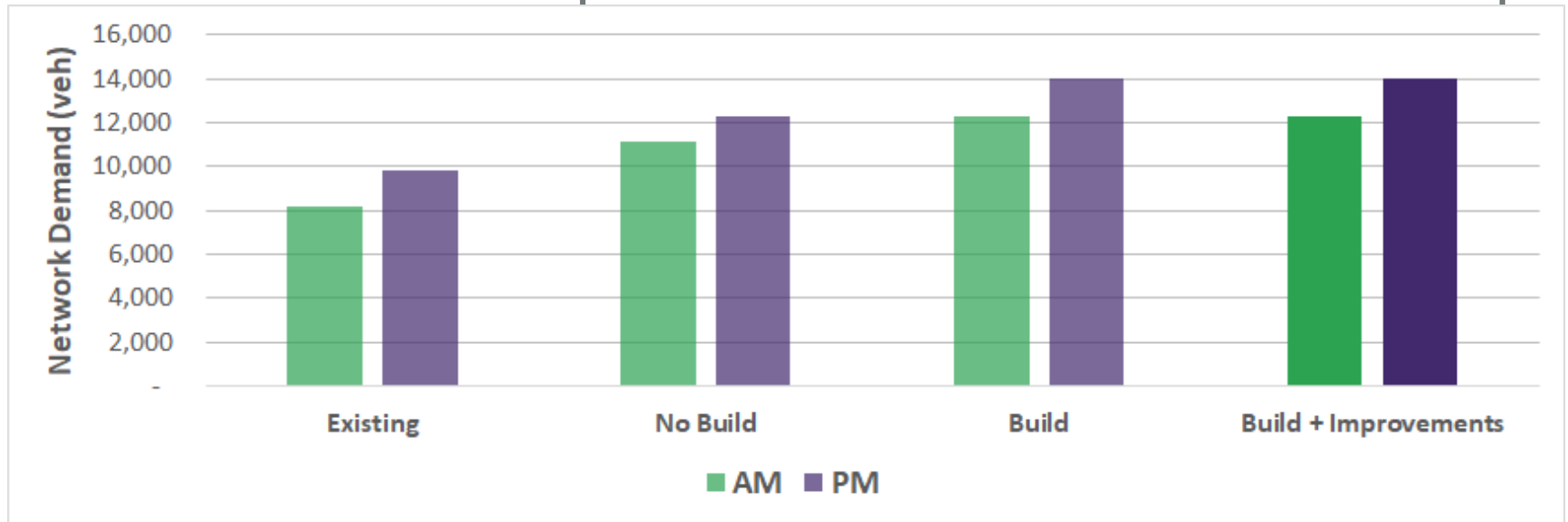
- >45s decrease
- 30 - 45s decrease
- 15 - 30s decrease
- 0 - 15s increase or decrease
- 15 - 30s increase
- 30 - 45s increase
- >45s increase

**Evening Peak Hour (5-6PM)**  
**Intersection Delay Change**  
**No Build to Build + Improvements**



2019

2045



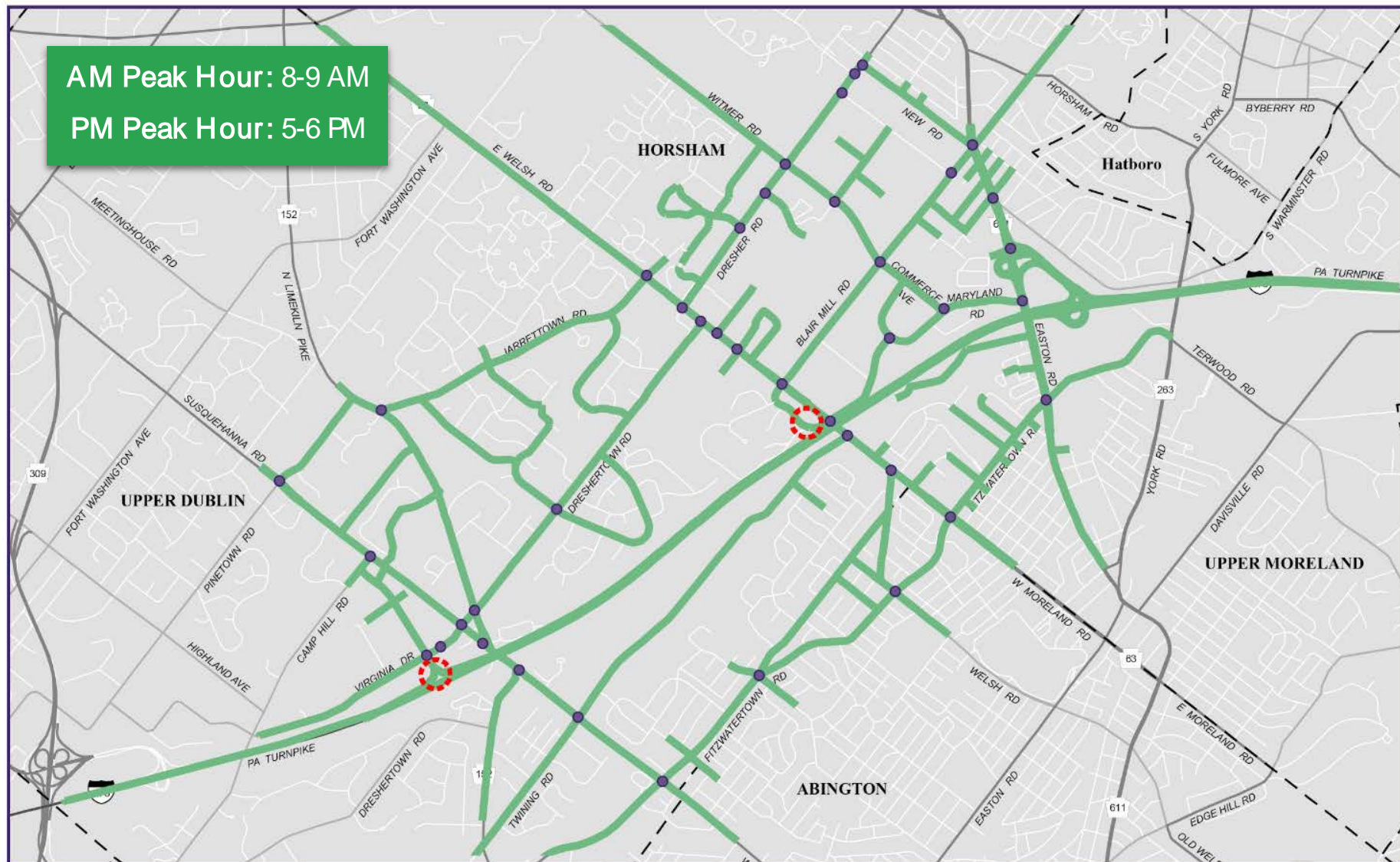
# Findings and Recommendations

Welsh Road and Virginia Drive



AM Peak Hour: 8-9 AM

PM Peak Hour: 5-6 PM



**PA TURNPIKE**  
Interchange Study  
**dvrpc**



Location of Proposed  
Interchange

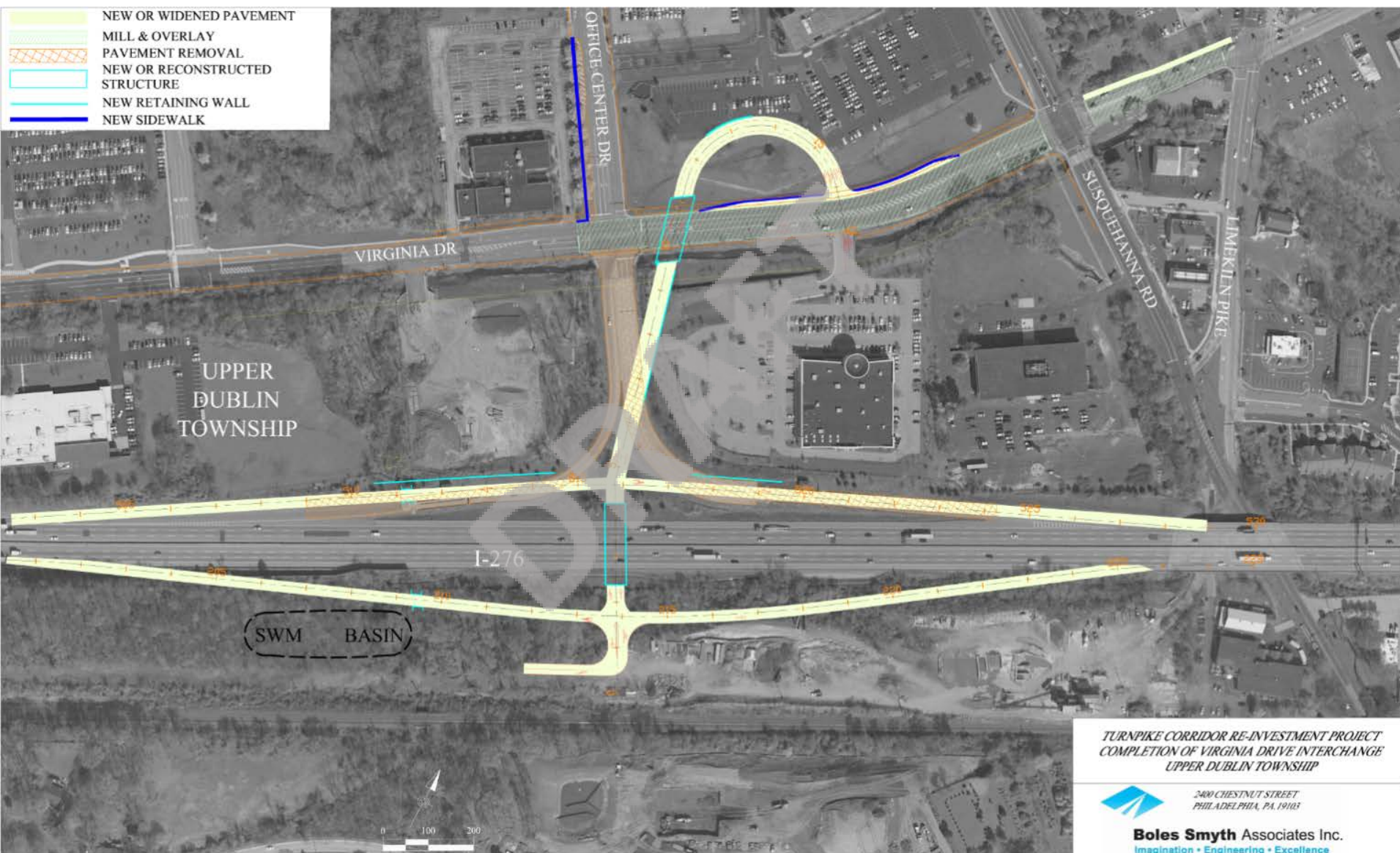
●  
Network Node

—  
Network Link



**VISSIM Microsimulation Network**

-  NEW OR WIDENED PAVEMENT
-  MILL & OVERLAY
-  PAVEMENT REMOVAL
-  NEW OR RECONSTRUCTED STRUCTURE
-  NEW RETAINING WALL
-  NEW SIDEWALK



TURNPIKE CORRIDOR RE-INVESTMENT PROJECT  
COMPLETION OF VIRGINIA DRIVE INTERCHANGE  
UPPER DUBLIN TOWNSHIP



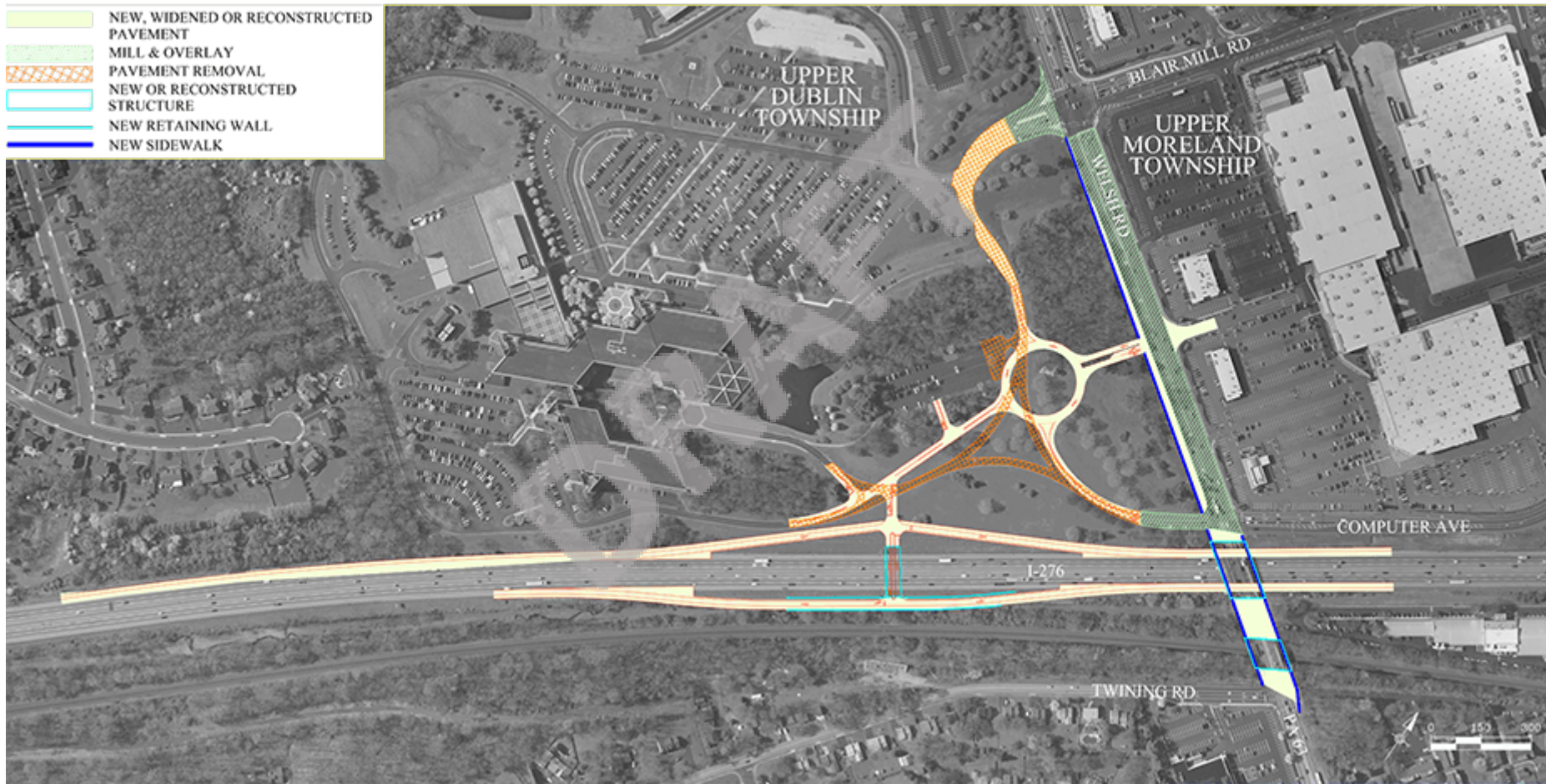
2400 CHESTNUT STREET  
PHILADELPHIA, PA 19103

**Boles Smyth Associates Inc.**  
Imagination • Engineering • Excellence

Source: Boles Smyth Associates

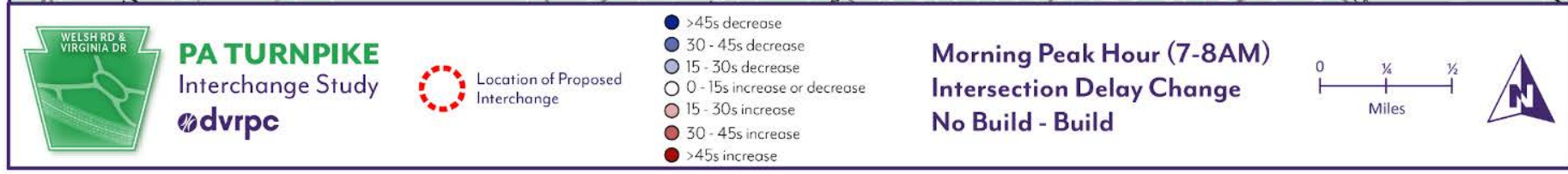


- NEW, WIDENED OR RECONSTRUCTED PAVEMENT
- MILL & OVERLAY
- PAVEMENT REMOVAL
- NEW OR RECONSTRUCTED STRUCTURE
- NEW RETAINING WALL
- NEW SIDEWALK

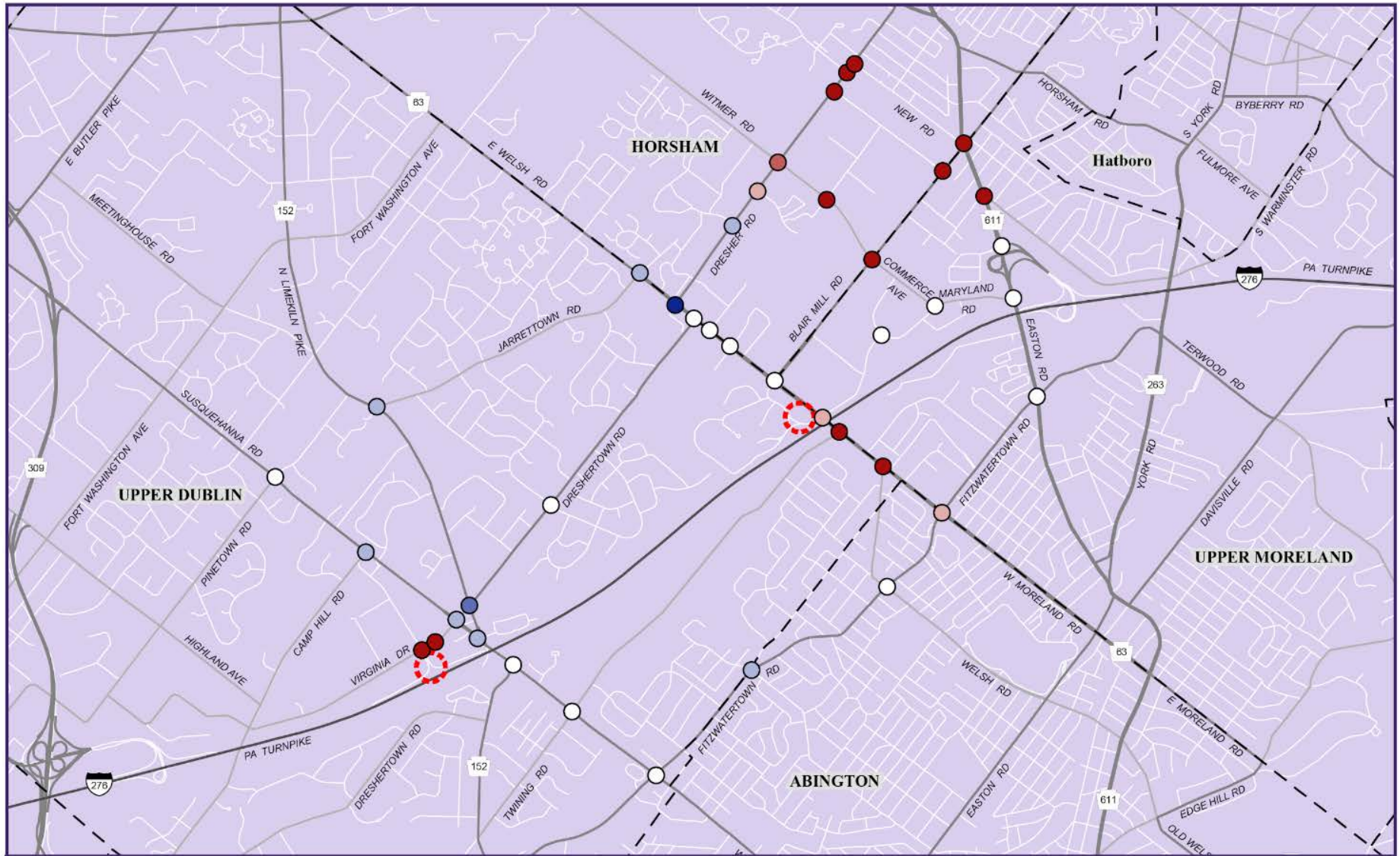


*Source: Boles Smyth Associates*









**PA TURNPIKE**  
Interchange Study  
**dvrpc**

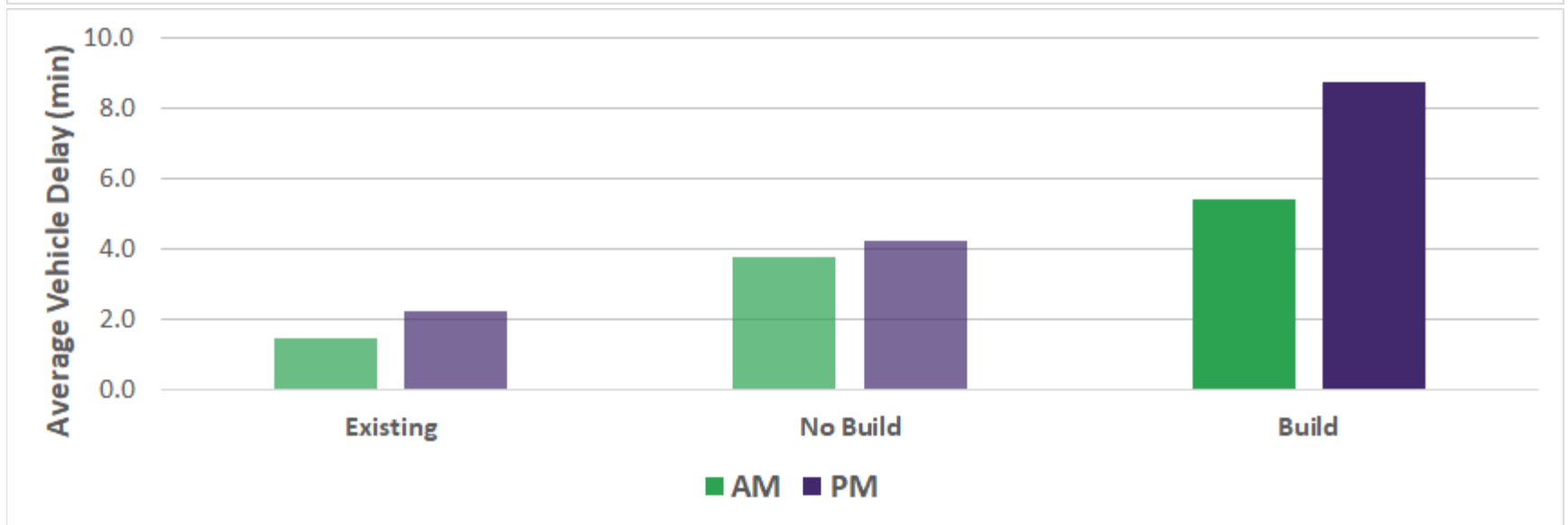
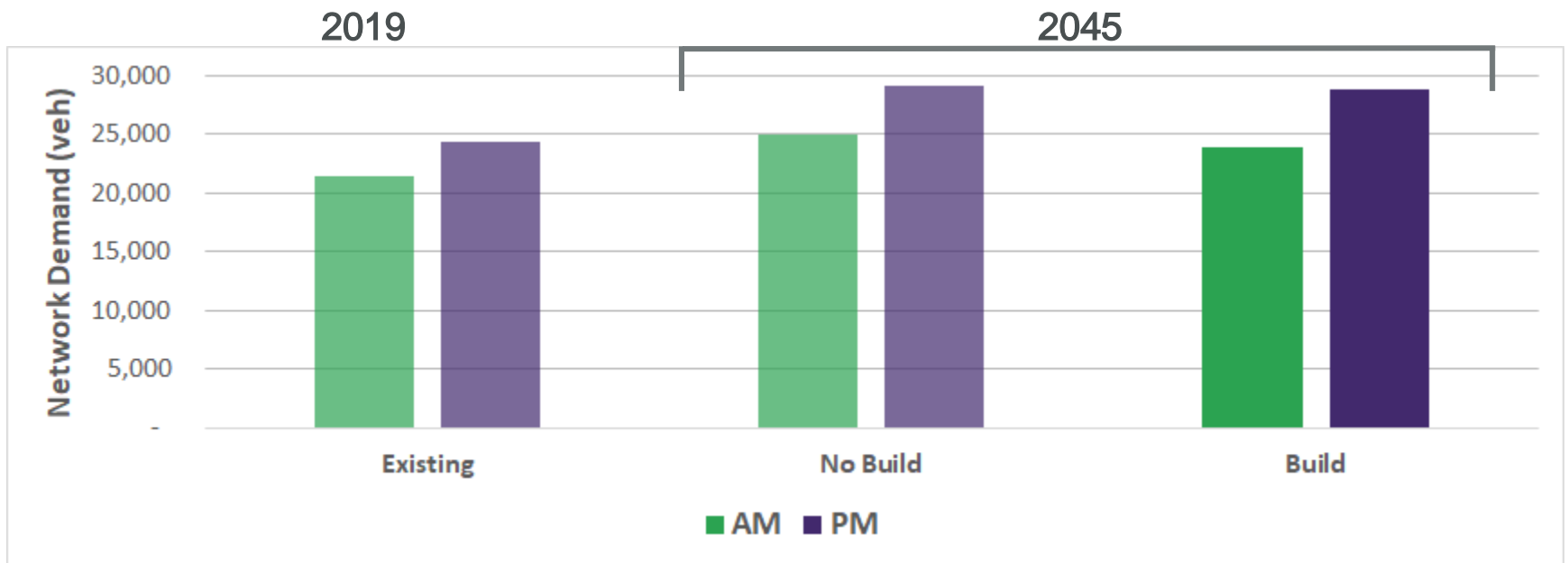


Location of Proposed  
Interchange

- >45s decrease
- 30 - 45s decrease
- 15 - 30s decrease
- 0 - 15s increase or decrease
- 15 - 30s increase
- 30 - 45s increase
- >45s increase

**Evening Peak Hour (5-6 PM)**  
**Intersection Delay Change**  
**No Build - Build**





# Virtual Open Houses

Zoom Webinars

# Henderson Road Virtual Open Houses

- Two sessions took place on May 21st at 2PM and 7PM
- Advantages of Zoom webinar
- Messaging
- Promotion
  - **online toolkit**
  - **social media, targeted ads**
- Attendees: **38** at 2PM and **9** at 7PM
- Q&A Session
  - **questions regarding study area, timeline and funding for proposed improvements**
  - **overall positive feedback, helpful and informative**

# Welsh Road & Virginia Drive Open Houses

- Scheduled for 2PM on July 8th and 7PM on July 9th
- Same messaging and promotion as Henderson Road
  - **potential addition of flyers due to moving into yellow phase**
- Larger study area, more public concern

# Thank You!

kmcelduff@dvrpc.org



Visit the PA Turnpike Interchange Study web  
page: [www.dvrpc.org/Corridors/PATurnpike](http://www.dvrpc.org/Corridors/PATurnpike)



# **FHWA Safety Performance Measures Regional Target Setting**

**Regional Technical Committee  
June 9, 2020**

Contact: [kmurphy@dvrpc.org](mailto:kmurphy@dvrpc.org)



CONNECT WITH US! @DVRPC #RSTF #VISIONZERO



# FHWA Safety Performance Management Measures

The Safety PM Final Rule requires that State DOTs **and metropolitan planning organizations (MPOs)** establish targets for five safety performance measures:

1. Number of fatalities
2. Rate of fatalities per 100 million vehicle miles traveled (VMT)
3. Number of serious injuries
4. Rate of serious injuries per 100 million VMT
5. Number of non-motorized fatalities serious injuries – people killed or severely injured while walking or biking

**Metric: 5-year rolling averages of crash data**

# What options do MPOs have for meeting FHWA Safety PM requirements?

- A. Adopt and support the state's HSIP targets
- B. Develop their own region-specific HSIP targets
- C. Or use a combination of both

Option A is what DVRPC has done so far

# Statewide Data as of January 2020 - NJ

Measure	NJ Target (2016-2020)	NJ Baseline (2014-2018)
Number of Fatalities	582.8	581.6
Rate of Fatalities (per 100 M VMT)	0.744	0.759
Number of Serious Injuries	1,167.9	1,110.8
Rate of Serious Injuries (per 100 M VMT)	1.489	1.449
Number of Non-Motorized Fatalities & Serious Injuries	407.9	392.7

# Statewide Data as of January 2020 - PA

Measure	PA Target (2016-2020)	PA Baseline (2014-2018)
Number of Fatalities	1,171.9	1,182
Rate of Fatalities (per 100 M VMT)	1.148	1.169
Number of Serious Injuries	4,400.3	3,839.6
Rate of Serious Injuries (per 100 M VMT)	4.309	3.797
Number of Non-Motorized Fatalities & Serious Injuries	781.7	679

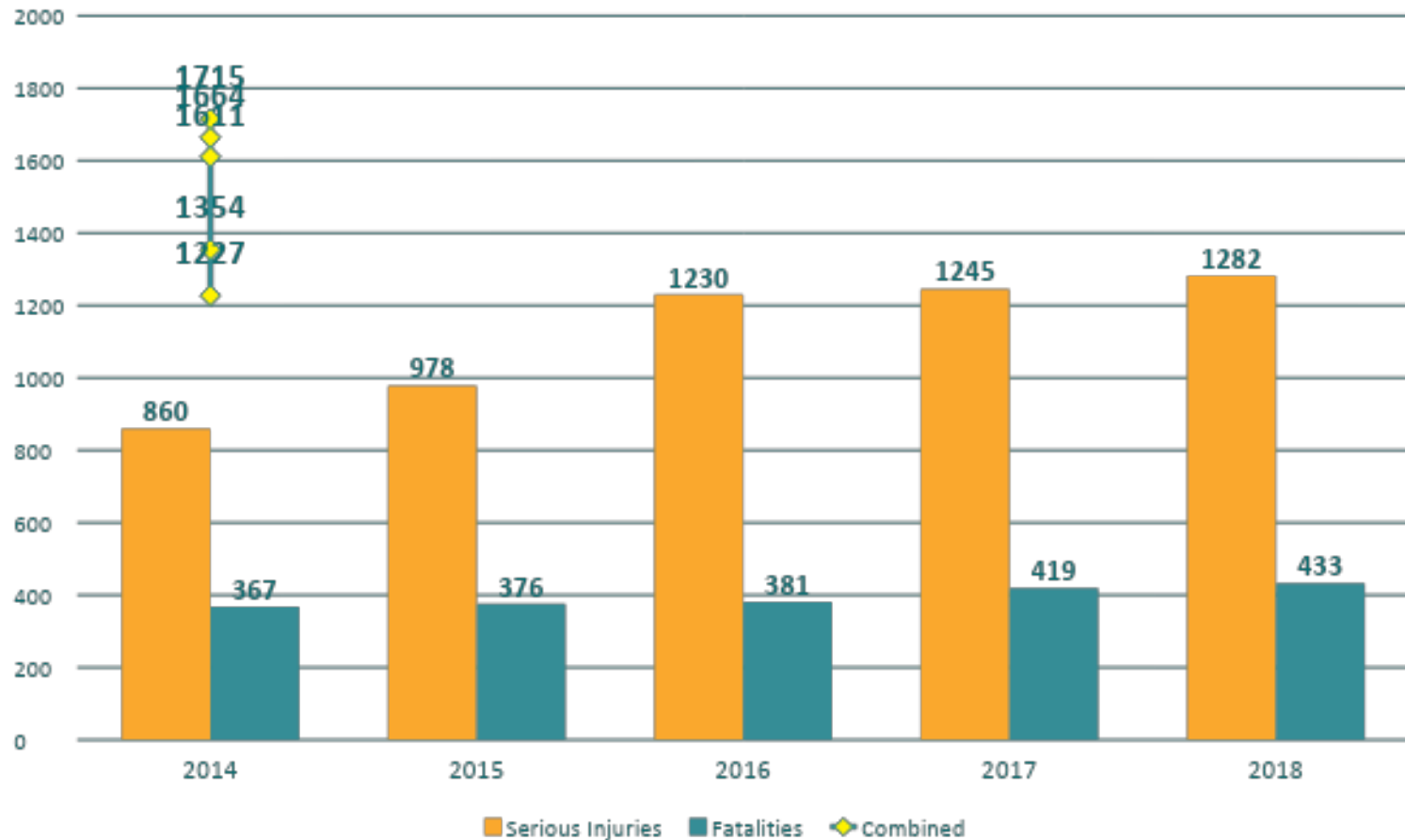
# Statewide Target-Setting Methods

- PA & NJ: reduction goals consistent with SHSP
- Use trends based on historical numbers to project future year numbers
- Problems with this method:
  - Rising KSI trends have led to targets that are higher than baseline numbers (flattening but still upward curve)
  - Although target number is lower than the projected KSI number for target year, target number is higher than the baseline number, effectively showing an increase over the baseline
  - Requires unrealistic timeline to meet meaningful safety goals

# Why Consider Regional Safety Targets?

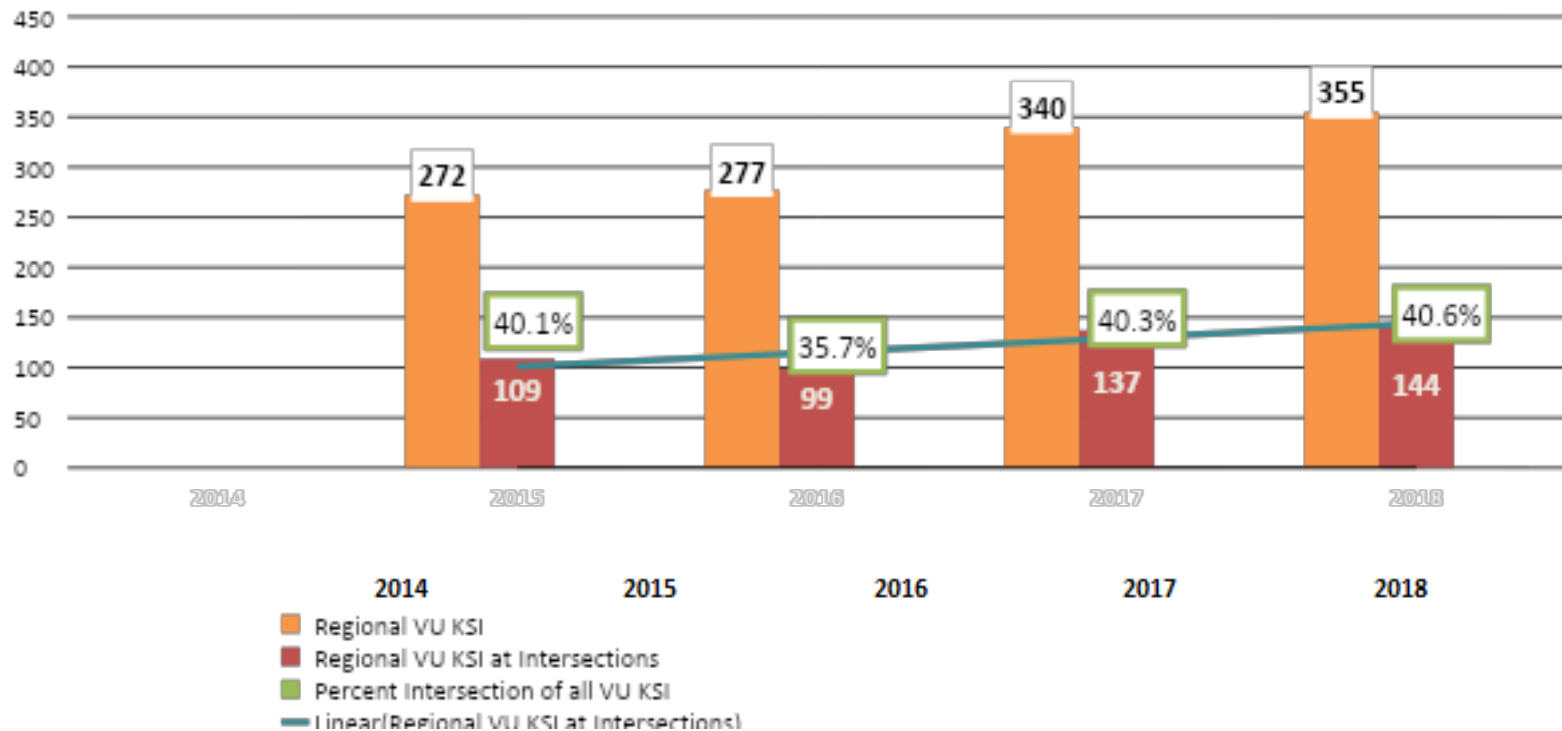
- Persistent regional crash trends
- Rising vulnerable user KSI trend
- Need for regional alignment of safety priorities at the local, city, and county levels
- Speaking with one voice reinforces objectives

# Total KSI - Regional Trend (by person), 2014-2018



# Regional KSI Crash Trend of Bicyclists and Pedestrians (VU) at Intersections, 2014-2018

VU KSI at Intersections compared to All VU KSI





# Safety Priorities and Opportunities

- DVRPC's TIP-LRP Project Benefit Evaluation Criteria:
  - Safety is the heaviest-weighted criteria
- RTSF goal: *To reduce roadway crashes and eliminate serious injuries and fatalities from crashes in the Delaware Valley*
  - RSTF 2020: Focus on Traffic Safety Culture
- PA and NJ Toward Zero Deaths goals
  - Included in current SHSP's of both states
- Philadelphia Vision Zero
- TSAP update
- DVRPC's Connections LRP update

# How do MPOs establish regional HSIP targets?

*MPOs establish HSIP targets by:*

- Agreeing to plan and program projects that contribute toward the accomplishment of the State DOT HSIP targets
- Committing to a quantifiable HSIP target for the metropolitan planning area

# Have any MPO's established regional targets?

According to FHWA, to date these MPO's set regional targets:

- Southeastern Wisconsin Regional Planning Commission (**SEWRPC**) the MPO for the Milwaukee
- **East Grand Forks MPO**, bi-state MPO in North Dakota and Minnesota
- East-West Gateway Council of Governments (**Gateway COG**) in the St. Louis Region
- Denver Regional Council of Governments (**DRCOG**) Denver, CO
- Mid-America Regional Council (**MARC**), a bi-state MPO in the Kansas City (MO/KS) area
- Fresno Council of Governments (**Fresno COG**), CA
- **Metropolitan Council** in the Minneapolis-St. Paul region, MN
- Atlanta Regional Council (**ARC**), 20 county region in Atlanta Georgia metro

# How do MPOs with multi-State boundaries establish HSIP targets?

- Coordinate with each state involved
  - Collaborate on methodology and data sources
- Establish targets for entire metropolitan planning area, not separate targets for each state sub-region

# Assessing Significant Progress

- **How is Progress Determined?**
  - 4 out of 5 targets must be met, or have better performance than the baseline
- **When is Progress Determined?**
  - MPO HSIP targets are not annually assessed for significant progress toward meeting targets (state HSIP targets are assessed annually)
- **Penalty for not meeting targets?**
  - MPO – No penalty
  - States – develop HSIP implementation plan and spend HSIP equal to the previous year's expenditure, no flex option (currently neither PA nor NJ flexes any HSIP funds)

# Timeline and Process

- **When are MPO targets due?**
  - **February 27 of each year** (*within 180 days of states' establishing and reporting HSIP targets on August 31*)
    - Would require January Board action at the latest
- **Where do MPOs report targets?**
  - MPOs *do not* report their HSIP targets directly to FHWA
  - States and MPO mutually agree on how MPO targets are reported to respective DOTs

# Next Steps

- Form a working group of RTC members
- Develop a methodology in coordination with state partners
- Present draft to RTC
  - *Please use the Chat Pod to indicate your interest in the working group using the prefix #targets*

# Thank you!





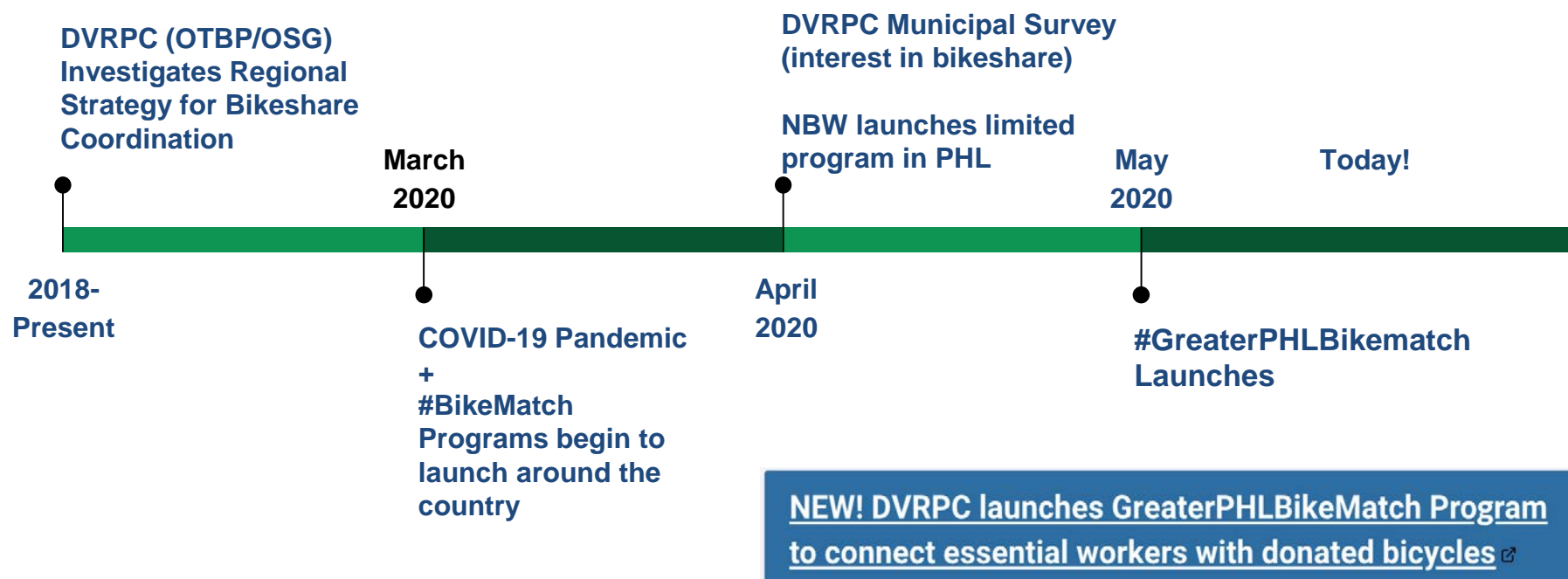
GREATER  
PHILADELPHIA  
**BIKE**  
MATCH PROGRAM

#GreaterPHLBikeMatch



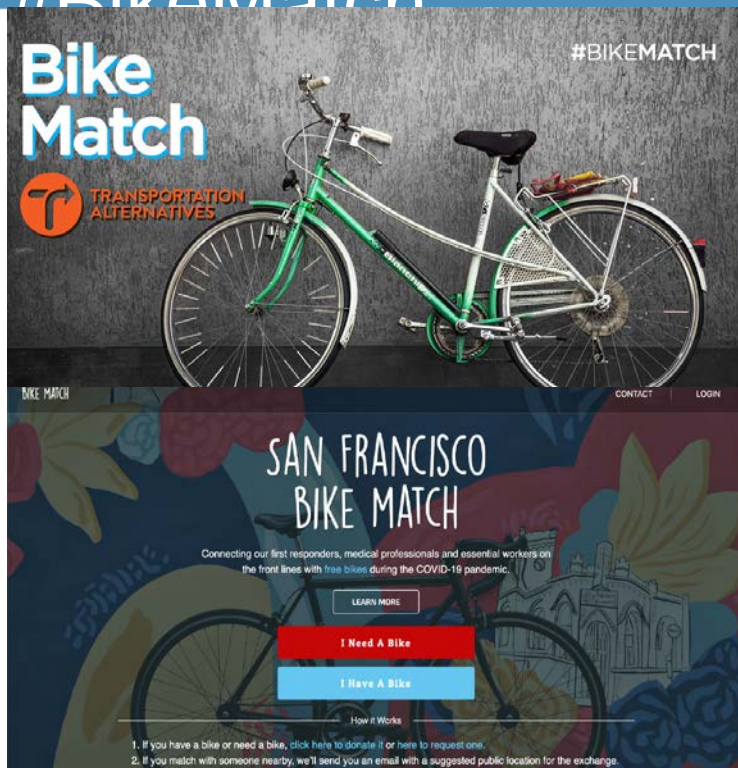
#GreaterPHLBikeMatch

# Timeline





## #BikeMatch



### BIKES FOR NEIGHBORS

We're connecting essential workers and caretakers of youth in our programs to refurbished bikes. We know that many essential workers rely on public transit to get to and from work and that social distancing on SEPTA can be impossible. Add to that, SEPTA service has been reduced.

THANK YOU FOR YOUR INTEREST! DUE TO AN OVERWHELMING RESPONSE TO THIS PROGRAM WE HAVE PAUSED ANY NEW REQUESTS FOR BIKES UNTIL FURTHER NOTICE. WE ARE WORKING ON OUR EXTENSIVE BACK LOG OF BIKE REQUESTS AS QUICKLY AS POSSIBLE. PLEASE FILL OUT THE FORM IF YOU WOULD LIKE TO BE ADDED TO OUR LIST SHOULD WE HAVE MORE BIKES!

Bikes are refurbished by our shop mechanics and supplied to those who request them at no cost. When the bike is ready, we will coordinate a no touch pick-up at our shop at 3539 Lancaster Ave.

Please help us spread the word about the Bikes for Neighbors program to family and friends who need a bike. We hope that caretakers of the youth we serve will request a bike and ride together as a family. Outdoor exercise and exploration in keeping with social distancing protocols can help relieve stress and boost the immune system.

If you would like to support this program, please consider making a donation to Neighborhood Bike Works. Financial contributions and bike donations support this project.

- Matches essential workers/individuals in need of a bike w/those who have a bike to donate during COVID-19 pandemic.
- Contactless exchange of bikes between individuals.
- Remotely managed by a program administrator.

## Open Source Materials

medium.com/@TransAlt/how-to-start-a-bikematch-7a3f109778e0

NP | B

Apps ★ Bookmarks DreamBox Learnin... Google Search Work DVRPC Ridership...



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ⓘ Anyone can publish on Medium per our [Policies](#), but we don't fact-check every story.  
For more info about the coronavirus, see [cdc.gov](#).

## How to Get Bikes to People During COVID-19

TransAlt Follow  
Mar 27 · 4 min read



## How it Works

1. Donors/donees complete online form. Asks for height, style of bike, geography, need
2. Confirmation email sent to verify information
3. Info provided to program admins
4. Admins match based on geography, height, need
5. Once match is made, auto-generated email is sent to connect donor/donee



GREATER  
PHILADELPHIA  
**BIKE**  
MATCH PROGRAM

## BikeMatch Guidelines



- Bikes must be in “ready-to-ride” condition
- Bikes must be cleaned before handoff
- No-contact exchange w/social distancing
- Don’t participate if sick
- Bike exchanges are permanent

# GREATER PHILADELPHIA BIKE MATCH PROGRAM

## #GreaterPHLBikeMatch

SUPPORT

# GREATER PHILADELPHIA BIKE MATCH

The Delaware Valley Regional Planning Commission is connecting our first responders, medical professionals and essential workers on the front lines with free bikes during the COVID-19 pandemic.

[LEARN MORE](#)

[I Need A Bike](#)

[I Have A Bike](#)

How it Works

1. If you have a bike or need a bike, click [here](#) to donate it or [here](#) to request one.
2. If you match with someone nearby, we'll send you an email with a suggested public location for the exchange.
3. Determine a time to meet.
4. Exchange the bicycle (Don't forget to observe cleaning and social distancing guidelines!)
5. Take a picture and send it to [greaterphlbikematch@dvrpc.org](mailto:greaterphlbikematch@dvrpc.org) and post it online with [#greaterphlbikematch](#)
6. Happy (and safe) riding!

- #GreaterPHLBikeMatch went live May 14th by DVRPC
- Open to all nine counties
- Prioritize essential/frontline workers
- Serve our partners by gauging interest in biking and bike libraries

# Bike Match Community

BIKE MATCH NETWORK

STORIES

SUPPORT

FAQS

ADMIN

LOGOUT

## BIKE MATCH NETWORK

We are a network of bike shops and advocacy organizations connecting our first responders, medical professionals and essential workers on the front lines with [free bikes](#) during the COVID-19 pandemic.

LEARN MORE

- ✓ Select a City
- Boston, MA
- Buffalo, NY
- Denver, CO
- Indianapolis, IN
- Marin County, CA
- New Orleans, LA
- Pittsburgh, PA
- Greater Philadelphia, PA
- St. Louis, MO
- Sacramento, CA
- San Antonio, TX
- San Francisco, CA

1. When someone requests a bike you assign at your organization
2. Your email is also used in the "info" email
3. The requests & donations are logged in our database
4. You login and match people based on their location, age, height, bike type preference etc.
5. Confirm the match and we send the recipient with next steps to facilitate the exchange.

information email and cc you or someone else. All information we receive will go directly to you. We will not share your city / region. We will not share their height, bike type preference etc. We will not share your name and recipient with next steps to

Partners





# Open Source Platform

BIKE MATCH

SUPPORT

ADMIN

LOGOUT

## GREATER PHILADELPHIA BIKE MATCH

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3. Determine a time to meet.
4. Exchange the bicycle ([Don't forget to observe cleaning and social distancing guidelines!](#))
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6. Happy (and safe) riding!

# Bike Match Community

BIKE MATCH



ADMIN

LOGOUT





# Bike Match Stories

BIKE MATCH NETWORK

STORIES

SUPPORT

FAQS

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LOGOUT

## STORIES

We've been working around the clock to help our essential workers get to where they need to go via free bicycles donated by people like you. These are just a few of our heroes on the front lines of the COVID-19 pandemic risking their lives to care for us in hospitals, service us in grocery stores and keep our communities moving.

Your kindness and generosity is what makes our work possible.  
Thank you for everything you're doing to make our cities healthier and safer for everyone.

[SUPPORT OUR WORK](#)**01**  
JUNE**CHUCK W. + MICHAEL W.**

ST. LOUIS, MISSOURI

*"I am a health care worker (radiation oncology) and would love to be to bike to work. I live in an area that biking is a great way to travel to many destinations. Not sure if a road/hybrid/mountain bike is ideal, but any time would be great!"*





# Ken W. & Chris N.



29  
MAY

## KEN W. + CHRIS N.

GREATER PHILADELPHIA, PENNSYLVANIA

*"Thanks for doing this! I'm starting in a few days as a first-year general surgery resident in Philly, and will use a bike or SEPTA to get to/from the hospital. I'm trying to avoid public transportation, and was unable to bring my bike from med school with me when I moved to Philly. If I could avoid buying a new bike and use that money to help pay down my student loans it would be hugely helpful! Any working bike (road, mountain, or otherwise) in any condition would be greatly appreciated!"*




# GREATER PHILADELPHIA BIKE MATCH PROGRAM




## Spreading the Word




 Delaware Valley Regional Planning Commission  
May 26 at 4:18 PM · 🌐

Have a bike you aren't using? Consider donating to **#GreaterPHLBikeMatch**.  
<https://kywnnewsradio.radio.com/articles/news/greater-phl-bike-match-donates-bikes-to-essential-workers>



 2 10 Shares

 Like  Comment  Share

 Write a comment...   

- Social Media
- DVRPC Newsletter
- Radio Ads - 96.5 fm
- Radio web ads - 96.5, 101.1, WIP
- Bike Match Community
- YOU!



# #bikematch Findings from other Cities/Regions

MATCH NETWORK

STORIES

SUPPORT

FAQS

ADMIN

LOGOUT

## SUPPORT BIKE MATCH

Thank you so much for supporting our work! We are a small team and every dollar helps us keep the servers on and our lean operation running. Your generous donation directly supports the ongoing development of our platform as well as our advocacy partners and bike shops in the field connecting our essential workers with bikes in this time of need. Thank you for everything you're doing to make our cities healthier and safer for everyone.

### Our Impact To Date

560

Bikes Requested

98

Bikes Donated

70

Matches Made

### Our Supporters

Erica Lennertson \$25  
Denver, Colorado

Edward Gunderson \$100  
Creswell, Oregon

Peter Belden \$250  
San Francisco, California

### Your Donation: \$25

\$5

\$10

\$25

\$50

\$100

\$250

\$500

Other

## What We're Seeing...

- 21 requests / 5 donations
- 2 completed matches, 2 in the progress
- 11 in Philadelphia
- 2 donations in NJ, no requests
- To get to work, decrease stress, caregiver, exercise, children
- Travel to school for free lunch pick ups



## Where They Work...

Dental school  
Whole Foods  
Dunkin Donuts  
Mental health worker  
Canada Dry  
Hospice Nurse  
Pharmacy Technician  
OB/GYN office



# GREATER PHILADELPHIA BIKE MATCH PROGRAM

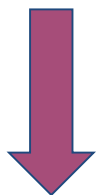
## Future Possibilities for #GreaterPHLBikeMatch



- Find sponsor w/ multiple bikes
- Hand off to TMAs, munis, or bike shops to store, work on, or match bikes
- Expand to:
  - childrens bikes
  - recreational use
- Gather information on bike needs in the region and provide feedback to partners interested in bikeshare



Donate that ol' bike here!



[bikematch.safelanes.org/greater-philadelphia](http://bikematch.safelanes.org/greater-philadelphia)

Please promote  
via social media!

**#GreaterPHLBikeMatch**



# THANKS!

GREATER  
PHILADELPHIA  
**BIKE**  
MATCH PROGRAM