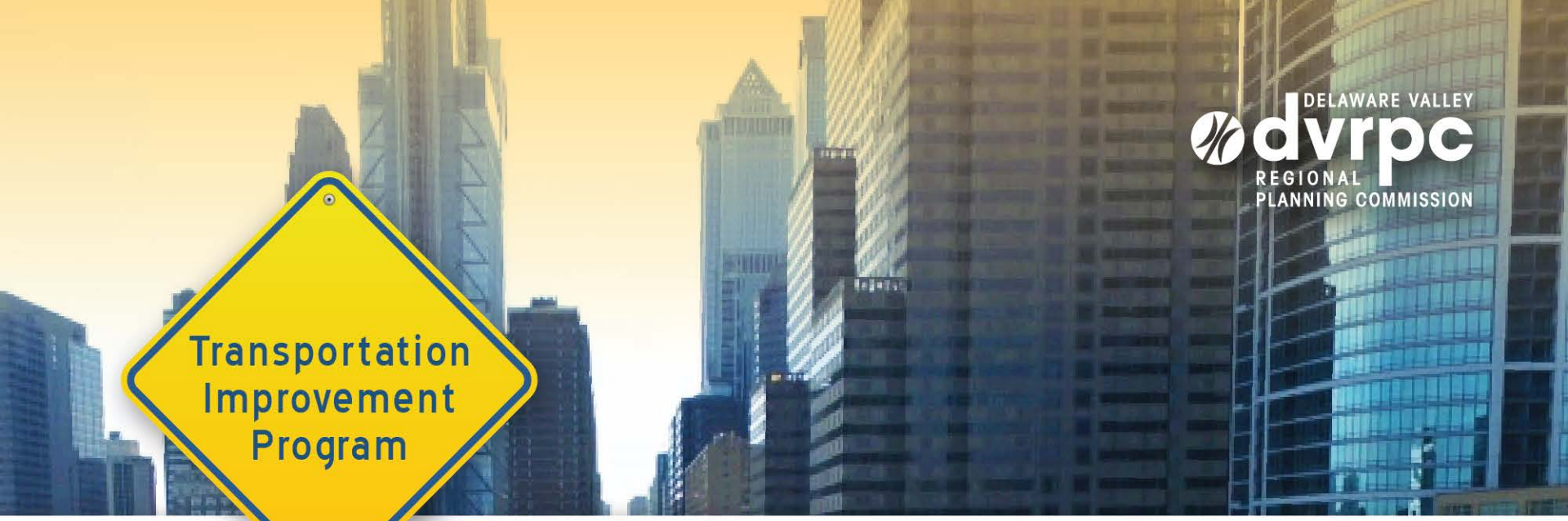

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PLANNING COMMISSION

TIP Actions

Transportation Improvement Program

New Jersey TIP (FY2018-2021)

Pennsylvania TIP (FY2019-2022)

October 2018

Kaighn Avenue (CR 607), Bridge over Cooper River (Roadway Improvements)

City of Camden (Camden County) I Cost Increase & Phase Delay

- Action Type: TIP modification
- (Local) Concept Development report approved in June 2018
- Action:
  - Delay each phase: FY18 PE to FY19; FY19 FD to FY20; and FY20 CON to FY25;
  - Increase overall cost by $4.777 Million (M) from $5.092 M to $9.869 M, accordingly:
    - Federalize & increase PE cost by $570,000 from $190,000 17-STATE-DVRPC to $760,000 STBGP-STU;
    - Increase FD cost by $1.140 Million (M) from $380,000 to $1.520 M STBGP-STU;
    - Increase CON cost by $3.067 M from $4.522 M U to $7.589 M STBGP-STU;
  - Update title to "Kaighn Avenue (CR 607), Bridge over Cooper River (Roadway and Bridge Improvements)";
  - Update description; and
  - Correct Final Design abbreviation from DES to FD in TIP program.

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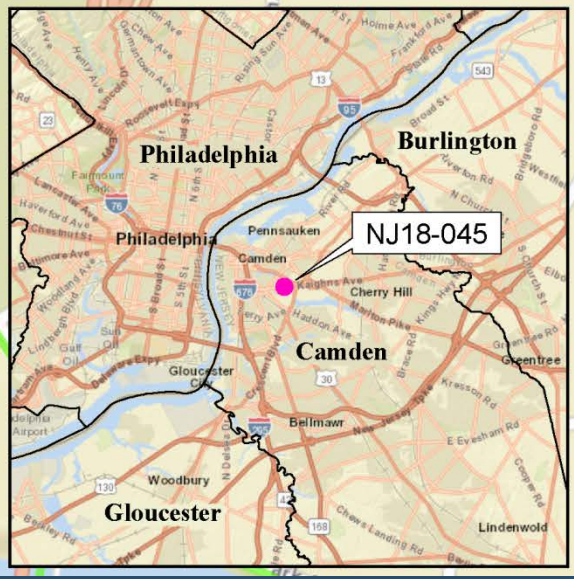
- Address frequent flooding
- Improve Kaighn Ave. (CR607) roadway from Euclid St. to North Park Dr. (CR628)
- Replace Kaighn Ave. bridge

Source: Google Streetview



The Circuit Trails
Existing
In Progress

TIP Action | Proposed – NJ

Modify the NJ TIP for the Following Project:

- Kaighn Avenue (CR 607), Bridge over Cooper River (Roadway Improvements), City of Camden (Camden County)

Modify the TIP by:

- Delaying each phase: FY18 PE to FY19; FY19 FD to FY20; and FY20 CON to FY25;
- Increasing overall cost by $4.777 Million (M) from $5.092 M to $9.869 M, accordingly:
  - Federalize & increase PE cost by $570,000 from $190,000 17-STATE-DVRPC to $760,000 STBGP-STU;
  - Increase FD cost by $1.140 Million (M) from $380,000 to $1.520 M STBGP-STU;
  - Increase CON cost by $3.067 M from $4.522 M U to $7.589 M STBGP-STU;
- Updating title to “Kaighn Avenue (CR 607), Bridge over Cooper River (Roadway and Bridge Improvements)”;
- Updating description; and
- Correcting Final Design abbreviation from DES to FD in TIP program.

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Thank You!

www.dvrpc.org/TIP

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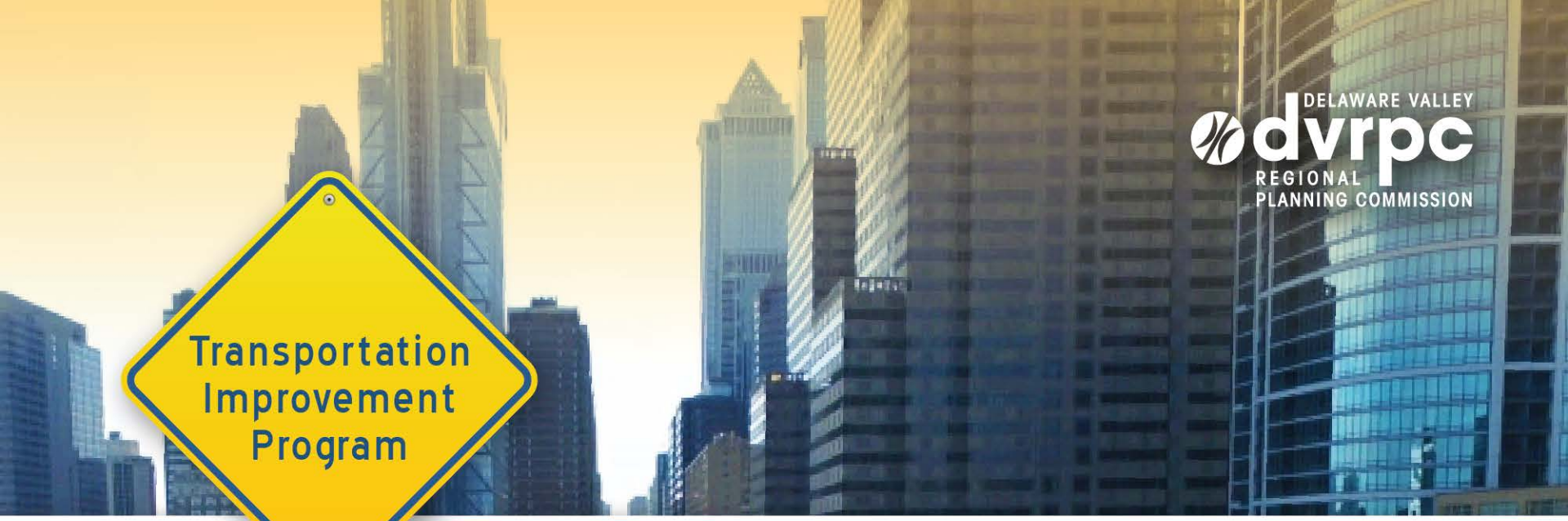

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Project Selections

PA Municipal Bridge Retro-Reimbursement Program

October 2018

PA Municipal Bridge Retro-Reimbursement Program

- Continue reducing number of local SD bridges
- 31.5% local bridges greater than 20 feet in DVRPC Region are SD
- Bridges needing rehabilitation or replacement
- Set-aside $10 million in FY2019 TIP for new round

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PA Municipal Bridge Retro-Reimbursement Program

- Last Round occurred in December 2014
  - Almost $11 M in projects approved
  - 9 of 11 bridges completed to date
  - Municipalities reimbursed at 80% of total cost of bridge

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Retro-Reimbursement vs. Traditional Process

- Retro-Reimbursement Process
  - Adheres to state liquid-fuel procedure
  - Streamlines and delegates PennDOT reviews to local sponsor
- Traditional Process
  - employ federal procedures
  - must follow full PennDOT oversight project development process

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Eligibility Requirements

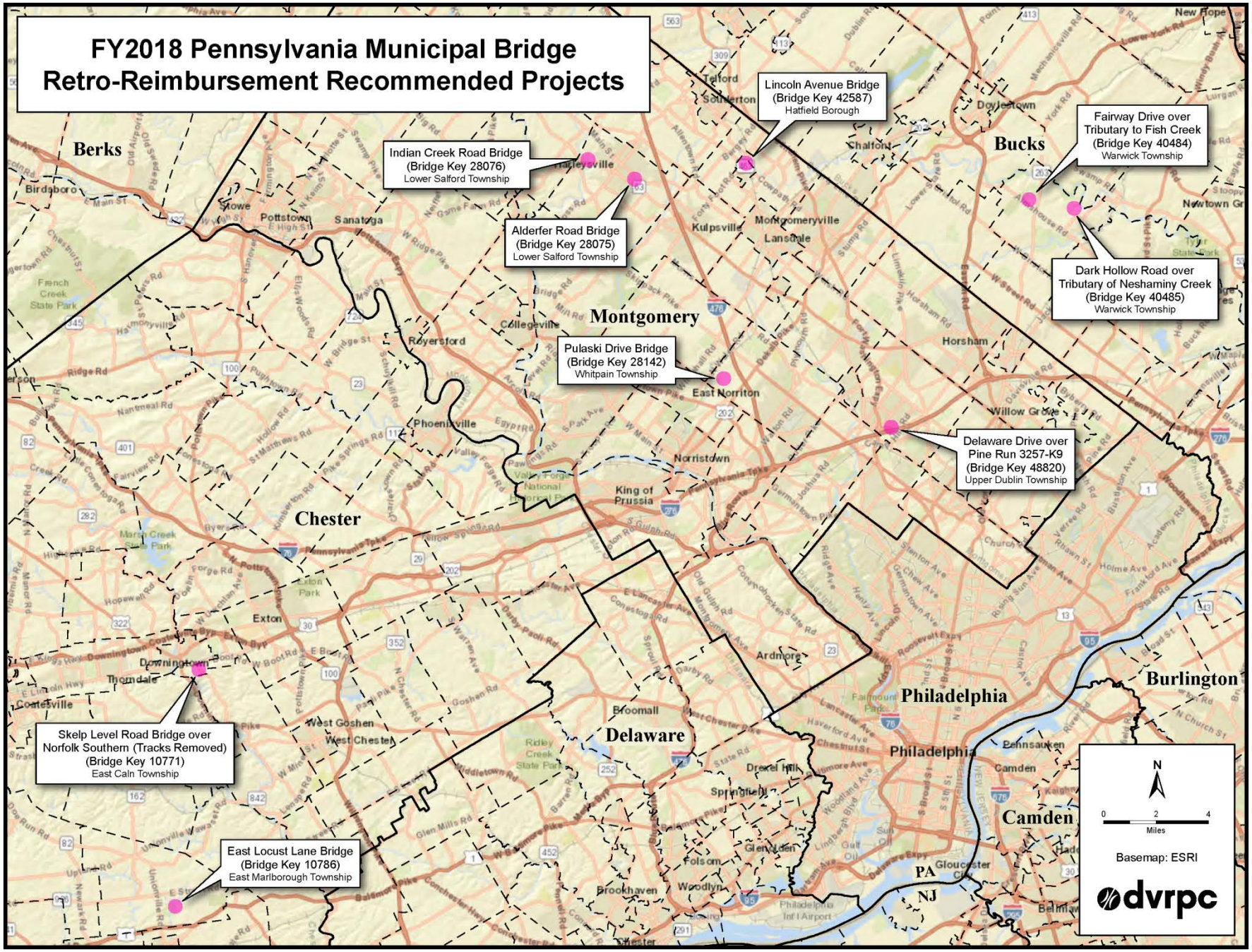
- Must be locally owned
- Must be SD
- Work must remove bridge's SD rating
- Bridge deck must be at least 20 feet in length
- Must be on PA Bridge Bill or Capital Budget
- Letter of support from County Planning Director
- Municipality must be a PennDOT ECMS & RAS Registered Business Partner
- Reasonably expects to complete project before August 1, 2021

Much Interest in Program

- 18 bridges were not eligible
  - Not listed in approved PA Capital Budget
- PennDOT 6-0 collected list of bridges to include as part of PennDOT's FY2018 Capital Budget (Bridge) submission for future rounds.

List of Bridges for Municipal Bridge Retro-Reimbursement Program – Round 2

County	Bridge Name	Municipality	Cost
Bucks	Dark Hollow Rd over Trib. of Neshaminy Creek	Warwick Twp	$134,115
	Fairway Drive over Trib. To Fish Creek	Warwick Twp	$268,694
Chester	East Locust Lane Bridge	East Marlborough Twp	$1,020,000
	Skelp Level Rd Bridge over Norfolk Southern	East Caln Twp	$1,452,200
Montgomery	Alderfer Road Bridge	Lower Salford Twp	$1,232,400
	Delaware Drive over Pine Run 3257-K9	Upper Dublin Twp	$1,250,000
	Indian Creek Rd Bridge	Lower Salford Twp	$718,200
	Lincoln Ave Bridge	Hatfield Boro	$1,287,500
	Pulaski Drive Bridge	Whitpain Twp	$2,150,000
		TOTAL	**$9,513,109**


FY2018 Pennsylvania Municipal Bridge Retro-Reimbursement Recommended Projects
Lincoln Avenue Bridge (Bridge Key 42587) Hatfield Borough
Fairway Drive over Tributary to Fish Creek (Bridge Key 40484) Warwick Township
Indian Creek Road Bridge (Bridge Key 28076) Lower Salford Township
Alderfer Road Bridge (Bridge Key 28075) Lower Salford Township
Dark Hollow Road over Tributary of Neshaminy Creek (Bridge Key 40485) Warwick Township
Pulaski Drive Bridge (Bridge Key 28142) Whitpain Township
Delaware Drive over Pine Run 3257-K9 (Bridge Key 48820) Upper Dublin Township
Skelp Level Road Bridge over Norfolk Southern (Tracks Removed) (Bridge Key 10771) East Caln Township
East Locust Lane Bridge (Bridge Key 10786) East Marlborough Township
Berks
Bucks
Montgomery
Chester
Delaware
Philadelphia
Burlington
Camden
PA
NJ
N
0 2 4 Miles
Basemap: ESRI
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Action Proposed

- That the RTC recommends that the DVRPC Board approve the list of projects recommended for funding and amend the FY2019 TIP for PA (PA19-02) by adding nine (9) new municipally-owned bridge projects to the Municipal Bridge Line Item (MPMS #102105) for retro-reimbursement to be drawn down at the appropriate time.

Thank You!

www.dvrpc.org/TIP

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Joshua Rocks
RTC
October 9, 2018

RTC Agenda Item 7a: Montgomery County Bridges - Traffic Counts

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

Background

Montgomery County has requested that DVRPC collect vehicle classification counts on county-owned bridges

Description

DVRPC's Office of Travel Monitoring will conduct and process vehicle classification counts on county-owned bridges and deliver the data to Montgomery County Roads and Bridges Department. This work updates counts taken by DVRPC in 2013.

Action Proposed

That the Regional Technical Committee (RTC) recommend that the Board amend DVRPC's 2019 Work Program to include a project to conduct vehicle counts on Montgomery County-owned bridges.

Thank You!

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Questions?
Contact: Joshua Rocks

FY 2019
WORK PROGRAM AMENDMENT

District 6 Modeling Assistance

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

October 25, 2018
Board Meeting

Matt Gates

District 6 Modeling Assistance

- Allow DVRPC to hire an additional Travel Modeler
- Would work exclusively on PennDOT traffic studies
  - I-95 corridor
  - US 422 Operations Model
  - Others, as needed
- Increase FY2019 funding by $100,000
  - MPMS # 110127
  - 80% NHPP and 20% State 581 funds

Action Requested

- That the Board amend DVRPC's FY 2019 Planning Work Program project number 19.51.040 to increase the District 6 Modeling Assistance funding to $320,000 and acknowledge that this work will be funded from MPMS number 110127.

Robert Graff
Presenting To Regional Technical Committee
October 9, 2018

RTC Agenda Item 7c:

DVRPC FY 2019 Work Program Amendment:

Community Outreach and Mitigation Strategies

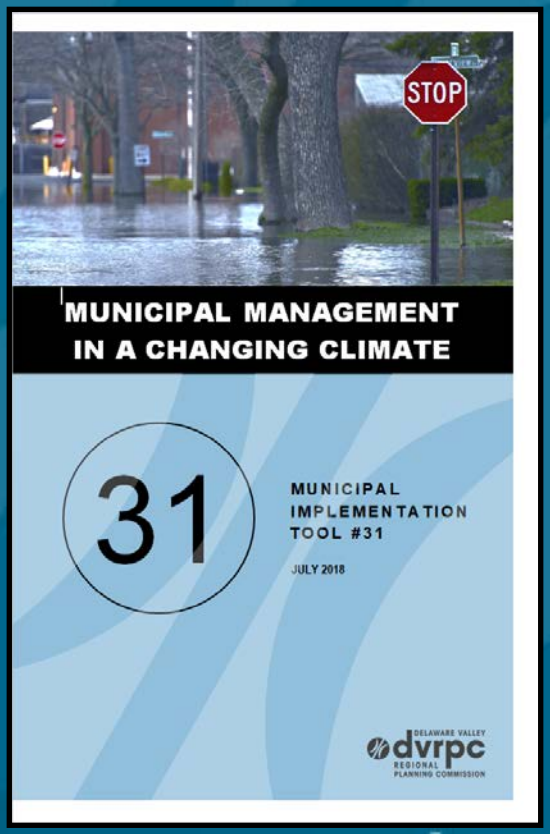
DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

Background

- Coordinating Technical Partner with FEMA since 2014
  - 2016: *Integrating Regional and County Comprehensive Planning with Hazard Mitigation Planning*.
  - This project: Direct outreach to municipalities in Bucks County and Montgomery County on extreme weather hazards to municipal operations.

Description

- Outreach to Bucks and Montgomery Counties on extreme weather hazards through two activities, coordinated with FEMA Region 3
  - **Activity 1) Design and Deliver Four Municipal Workshops on the Impacts of Extreme Weather on Municipal Operations.**
  - **Activity 2) Run Two Sessions of *The Game of Floods*, One at Each of Two FEMA-Organized and Run County Workshops, one in Bucks County and one in Montgomery County**



Action Proposed

That the Regional Technical Committee recommend the Board amend DVRPC's FY2019 Work Program to include *Community Outreach and Mitigation Strategies.*

Thank You!

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Questions?

Contact: Rob Graff / rgraff@dvrpc.org / 215-238-2826

University City District TMA Funding Request for the Mobility Alternatives Program (MAP) Grant

Presentation to the DVRPC RTC

October 9, 2018

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UCDTMA MAP Funding

Background:

* DVRPC has administered the Mobility Alternatives Program (MAP) for over 20 years
* MAP is funded with CMAQ dollars, through PennDOT
* MAP was implemented as a voluntary substitute for the former Employer Trip Reduction Program (ETRP)
* Currently seven organizations contract with DVRPC to do MAP work in SE PA: TMA Bucks, TMACC, DCTMA, PTMA-MC, GVFTMA, Clean Air Council (CAC), and SEPTA

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UCDTMA MAP Funding

Context

* UCD proposed MAP work and funding in 2016
  * UC is second largest employment center in SE PA; transit-rich
* Requires a separate 501(c)(3) TMA – UCD applied to IRS
* Status confirmed in June, 2018
* UCD's addition to MAP was approved by DVRPC's PA TMA Policy Committee in July, 2018 (available funding confirmed with DVRPC's Capital Programming staff)
* UCD developed new Work Program with City (PCPC and OTIS)
* Reviewed by PennDOT and DVRPC – revised in September

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UCDTMA MAP Funding

Proposed Work Program Tasks FY18-19

* New Bus Stop Signs for LUCY:
  * placed in additional locations (includes link to schedule information)
* Pilot Incentive Program for New Transit Riders:
  * Work with 6-8 larger employers – select current non-transit users (SOVs)
  * Offer discount on SEPTA transit and rail passes to participants for three months (will help promote Key, as well)
  * Track participant usage and satisfaction with transit commute
  * Use message from new riders and/or expand incentive to gain more riders in subsequent FY (can then possibly incorporate commuter benefit programs, too)

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UCDTMA MAP Funding

Funding

* Current funding[1] per MAP contractor:
  * TMAs (each): $ 67,500 ($ 54,000 CMAQ/$13,500 match)
  * CAC: $ 98,375 ($ 78,700 CMAQ/$19,675 match)
  * SEPTA: $165,000 ($132,000 CMAQ/$33,000 match)
  * DVRPC: $251,000 ($200,800 CMAQ/$50,200 match)

* Proposed funding for UCDTMA: $67,500 ($54,000/$13,500)

[1] **Per FY** – *each year* of the two-year contract with PennDOT (FY18-19 and FY19-20)

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UCDTMA MAP Funding

Funding, cont'd.

* Current Total FY18-19 MAP funding: $ 851,875
* Proposed Total FY18-19 MAP funding: $ 919,375
  * includes UCDTMA
* Proposed Total FY19-20 MAP funding: $ 919,375
* Total for two-year contract (FY18-19 & FY19-20): $1,838,750

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UCDTMA MAP Funding

Action Proposed

That the Regional Technical Committee recommends Board approval of the addition of the UCDTMA to the FY18-19 MAP grant and work, and, to amend the FY2019 TIP for PA (PA19-01) by increasing the FY19 PRA phase of the Mobility Alternatives Programs (MAP)/Share a Ride Program (SAR), MPMS #110429, by $67,500 ($54,000 CMAQ and $13,500 match).

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Transportation Performance Management:
Infrastructure and System Performance Targets

RTC
10.09.2018

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MAP-21/FAST Act Performance Measures

- Safety (PM1) (Number & Rate of Fatalities; Number & Rate of Serious Injuries; Number of Non-Motorized Fatalities and Serious Injuries)
- Infrastructure (PM2)
  - Pavement Condition (% of Interstate and Non-Interstate NHS Pavement in Good Condition; in Poor Condition)
  - Bridge Condition (% of NHS Bridges Classified as Good; Classified as Poor)
- System Performance (PM3)
  - NHS (% of Person-Miles Traveled on the Interstate/Non-Interstate System that are Reliable)
  - Freight (Truck Travel Time Reliability Index)
  - CMAQ
    - Emissions
    - Congestion
      - Percentage Non-SOV Travel
      - Annual Peak Hour Excessive Delay per Capita
- Transit
  - Assets (% of Revenue/Non-Revenue Vehicles that Have Met or Exceeded Useful Life Benchmark; % of Assets with Condition Rating Below 3.0 on TERM)
  - Safety (# and Rate of Reportable Fatalities, Injuries, and Safety Events per Total Veh. Rev. Miles; Mean Distance Between Major Mechanical Failures)

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MAP-21/FAST Act Performance Measures

MAP-21/FAST Act Performance Measures

- Safety (PM1) (Number & Rate of Fatalities; Number & Rate of Serious Injuries; Number of Non-Motorized Fatalities and Serious Injuries)
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  - NHS (% of Person-Miles Traveled on the Interstate/Non-Interstate System that are Reliable)
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  - **CMAQ**
    - Emissions
    - **Congestion**
      - **Percentage Non-SOV Travel**
      - **Annual Peak Hour Excessive Delay per Capita**
- Transit
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  - Safety (# and Rate of Reportable Fatalities, Injuries, and Safety Events per Total Veh. Rev. Miles; Mean Distance Between Major Mechanical Failures)

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What We Need To Do

TPM Requirements for States & MPOs

- Set Targets & Report on Progress
- Incorporate Measures into the Planning Process
- Develop Agreements

Implementation Timeline

Final Rule	Effective Date	States Set Targets By	MPOs Set Targets By	Inclusion in MPO and State DOT LRTP & TIP/STIP	Agreements
Safety PM 1	April 14, 2016	Aug. 31, 2017	Up to 180 days after the State sets targets, but not later than Feb. 27, 2018	Updates or amendments on or after May 27, 2018	May 27, 2018
Infrastructure PM 2	**May 20, 2017**	**May 20, 2018**	**No later than 180 days after the State(s) sets targets**	**Updates or amendments on or after May 20, 2019**	**May 20, 2019**
System Performance PM 3	**May 20, 2017**	**May 20, 2018**	**No later than 180 days after the State(s) sets targets**	**Updates or amendments on or after May 20, 2019**	**May 20, 2019**

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Pavement Infrastructure Targets

Measure	Baseline	2-Year Target	4-Year Target
PA % Interstate Pavement Lane Miles in Good Condition	67.2%	n/a	60.0%
PA % Interstate Pavement Lane Miles in Poor Condition	0.4%	n/a	2.0%
NJ % Interstate Pavement Lane Miles in Good Condition	61.25%	n/a	50%
NJ % Interstate Pavement Lane Miles in Poor Condition	1.01%	n/a	2.5%

Measure	Baseline	2-Year Target	4-Year Target
PA % Non-Interstate NHS Pavement Lane Miles in Good Condition	36.8%	35.0%	33.0%
PA % Non-Interstate NHS Pavement Lane Miles in Poor Condition	2.3%	4.0%	5.0%
NJ % Non-Interstate NHS Pavement Lane Miles in Good Condition	32.45%	25%	25%
NJ % Non-Interstate NHS Pavement Lane Miles in Poor Condition	2.38%	2.5%	2.5%

Pennsylvania

New Jersey

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Bridge Infrastructure Targets

Measure	Baseline	2-Year Target	4-Year Target
PA % NHS Bridge Deck Area in Good Condition	25.6%	25.8%	26.0%
PA % NHS Bridge Deck Area in Poor Condition	5.5%	5.6%	6.0%
NJ % NHS Bridge Deck Area in Good Condition	20.7%	19.4%	18.6%
NJ % NHS Bridge Deck Area in Poor Condition	6.5%	6.5%	6.5%

Pennsylvania

New Jersey

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NHS System Performance Targets

Measure	Baseline	2-Year Target	4-Year Target
PA % Person Miles Traveled on Interstate with Reliable Travel Times	89.8%	89.8%	89.8%
PA % Person Miles Traveled on Non-Interstate NHS with Reliable Travel Times	87.4%	n/a	87.4%
NJ % Person Miles Traveled on Interstate with Reliable Travel Times	82.0%	82.0%	82.0%
NJ % Person Miles Traveled on Non-Interstate NHS with Reliable Travel Times	84.1%	n/a	84.1%

Pennsylvania

New Jersey

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Freight System Performance Targets

Measure	Baseline	2-Year Target	4-Year Target
PA Truck Travel Time Reliability	1.34	1.34	1.34
NJ Truck Travel Time Reliability	1.81	1.9	1.95

Pennsylvania

New Jersey

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

PROPOSED ACTION

- Recommend that the DVRPC Board agree to be consistent with the PennDOT and NJDOT statewide Pavement Infrastructure, Bridge Infrastructure, NHS System Performance, and Freight System Performance targets and to support the state DOTs' efforts at achieving those targets.

SEPTA
Comprehensive Bus Network Redesign

Jennifer Dougherty, AICP
Manager of Long Range Planning, SEPTA

Regional Technical Committee, DVRPC
October 9, 2018

What is Bus Network Redesign?

- Holistic rethinking of bus systems
- Design from scratch
- More than a plan – redesigns are implemented
- Short Timelines
- Trend in the Industry

Why do a Bus Network Redesign?

- Nationwide decreases in bus ridership
- New competition – Uber & Lyft
- Moving beyond a legacy with shifts in urban growth

Who is doing Bus Network Redesigns?

Completed:

Houston, METRO

Omaha, Metro

Jacksonville, JTA

Orange County, OCTA

Columbus, COTA

Baltimore, MTA

Portland, Tri-Met

Richmond, GRTC

Austin, Cap Metro

Richmond, GRTC

Who is doing Bus Network Redesigns?

In Process:

San Jose, VTA

Anchorage, City of Anchorage

Charlotte, CATS

Dallas, DART

Los Angeles, Metro

San Antonio, VIA

Indianapolis, IndyGo

Sacramento, RT

Milwaukee, MCTS

Boston, MBTA

CBNR Principles

Create an Interconnected Network

- Encourages transfers
- Free transfers

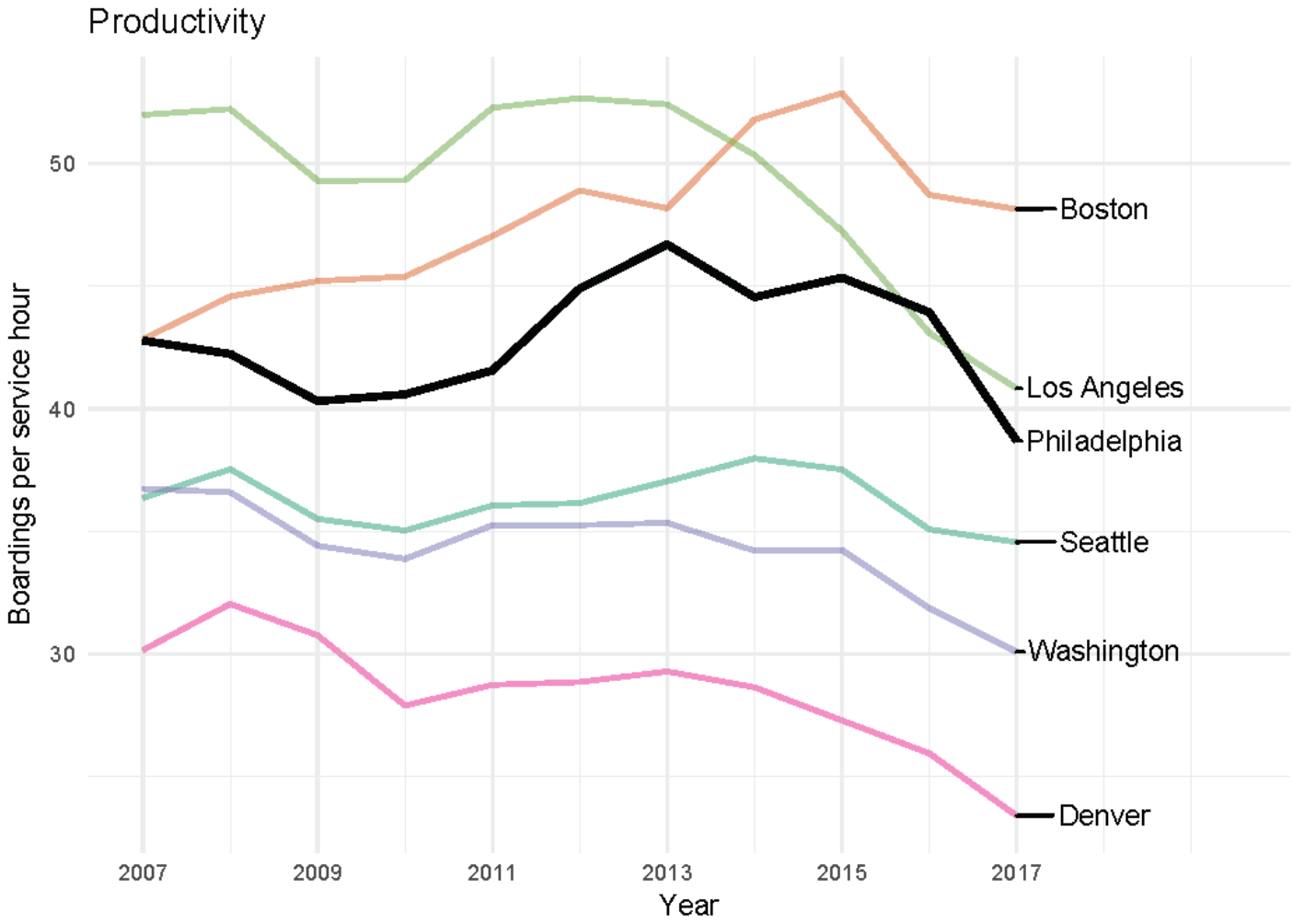
High Frequency Service

- Less peaked service
- Headway based service
- Fewer Stops

Easy to Understand Routes

- Fewer patterns
- Branding
- Straight Routes

Emphasis on Ridership over Coverage


Productivity
Boardings per service hour
50
40
30
2007
2009
2011
2013
2015
2017
Year
Boston
Los Angeles
Philadelphia
Seattle
Washington
Denver

SEPTA's Bus Network Redesign

Philadelphia Bus Network Choices Report

- Jarrett Walker +Associates (JWA)
- Released June 21st
- Online at www.septa.org/bus-network
- City of Philadelphia only, not the entire service areas
  - Shortened the Timeline
  - Better Data
  - Best Predictor of success

JWA Choices Report Main Finding

There are enough inefficiencies “waste” in the existing SEPTA bus network to recommend a Bus Network Redesign.

SEPTA's Bus Network Redesign

Request for Proposals (RFP)

- Comprehensive Bus Network Redesign
- Full Service Area

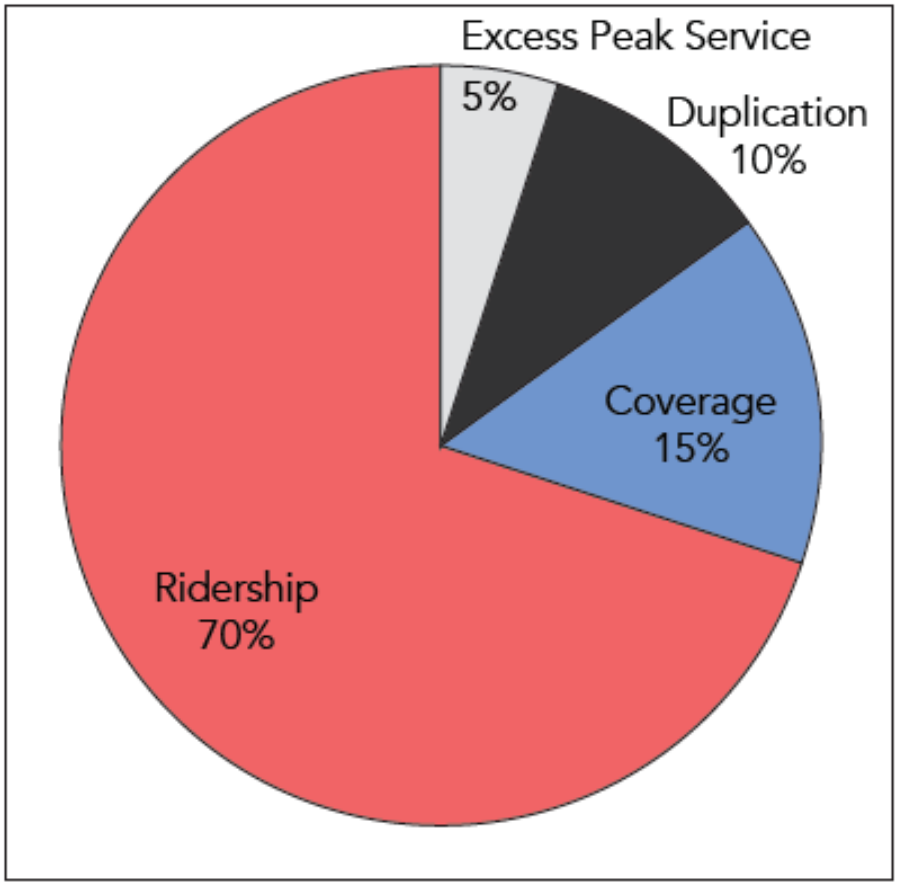
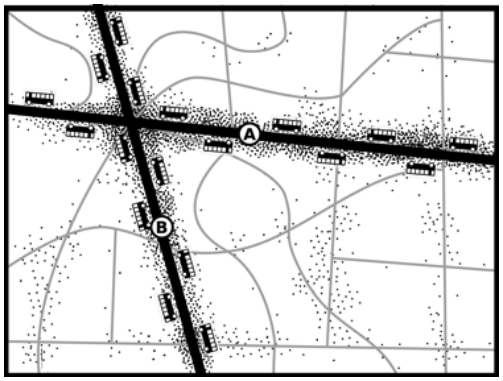


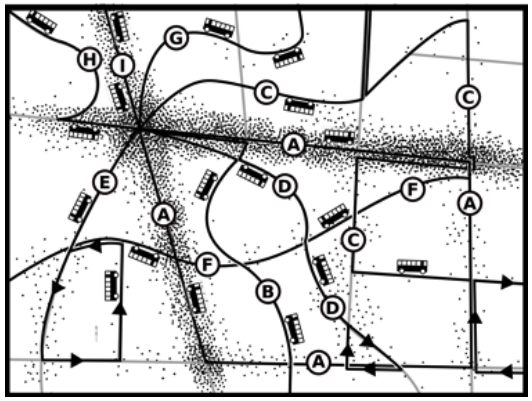
Figure 7: About 70% of the current network is focused on a ridership goal. A network redesign study would consider a different balance in how resources are split.

Ridership/Coverage



Ridership Goal

- "Think like a business."
- Better service for most but not all.
- Focus where ridership potential is highest.
- Support dense and walkable urban development.
- Environmental and congestion benefits.



Coverage Goal

- "Think like a public service."
- Some kind of service for everyone, everywhere.
- Support low-density development.
- Lifeline access for everyone.
- Service to <u>every</u> member city or electoral area.

Figure 63: North Philadelphia—good linearity and clear grid pattern of routes.

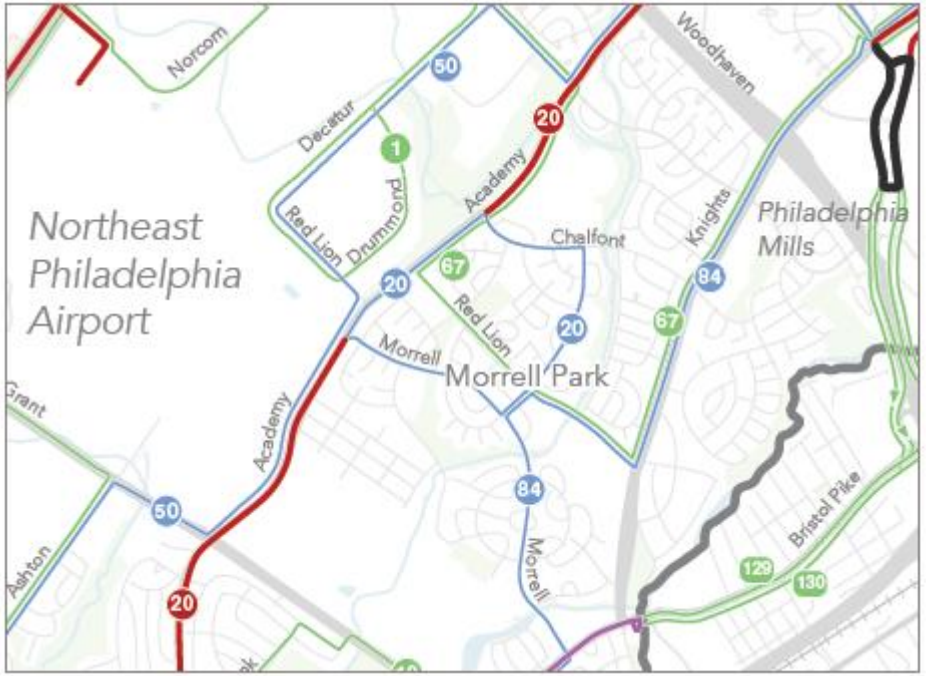


Figure 64: Morrell Park in Northeast Philadelphia—poor linearity in the street network requires inefficient, circuitous routing.

Duplication

Figure 87: Route 1 duplicates service provided by many other routes and therefore has relatively few boardings.

Excess Peak

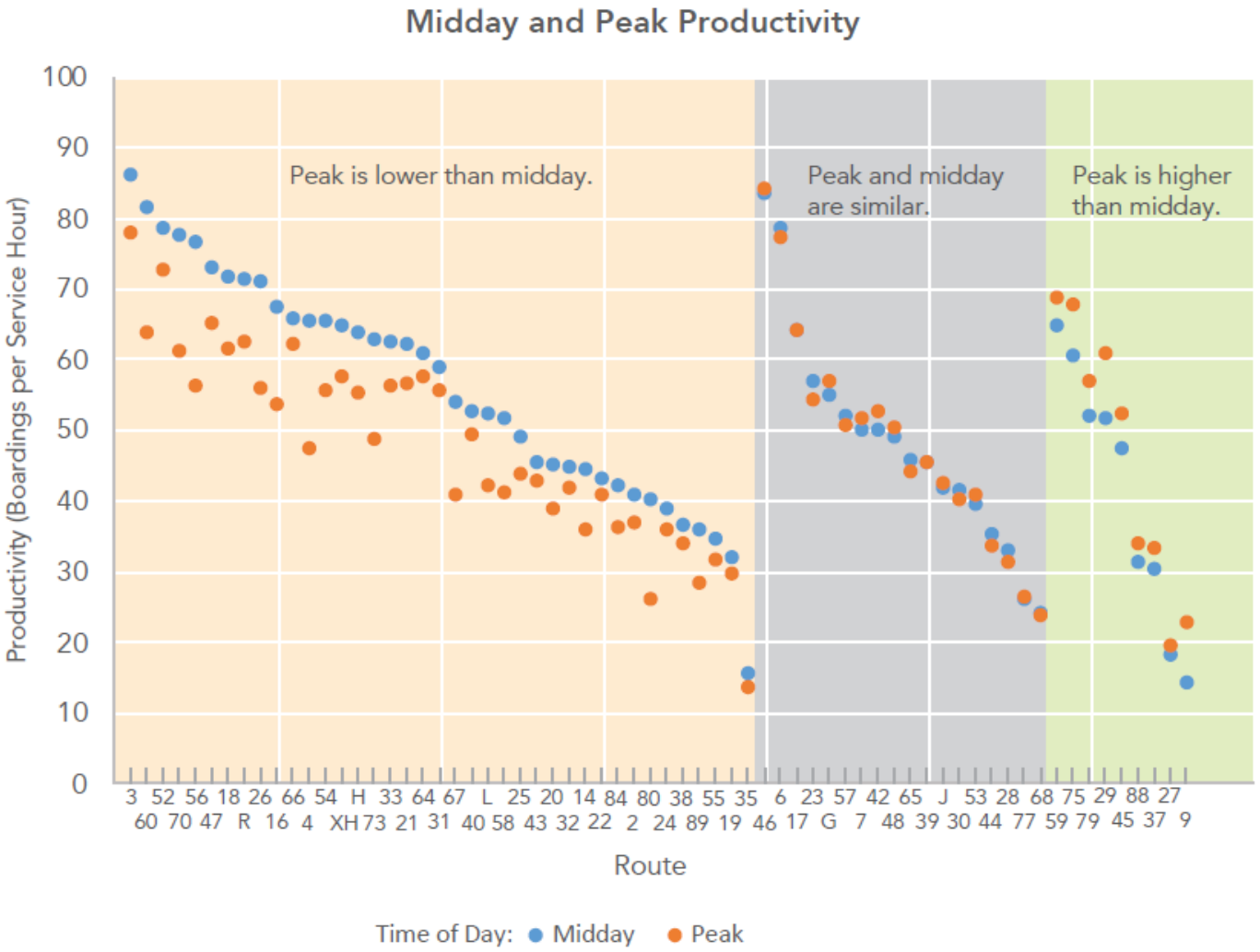
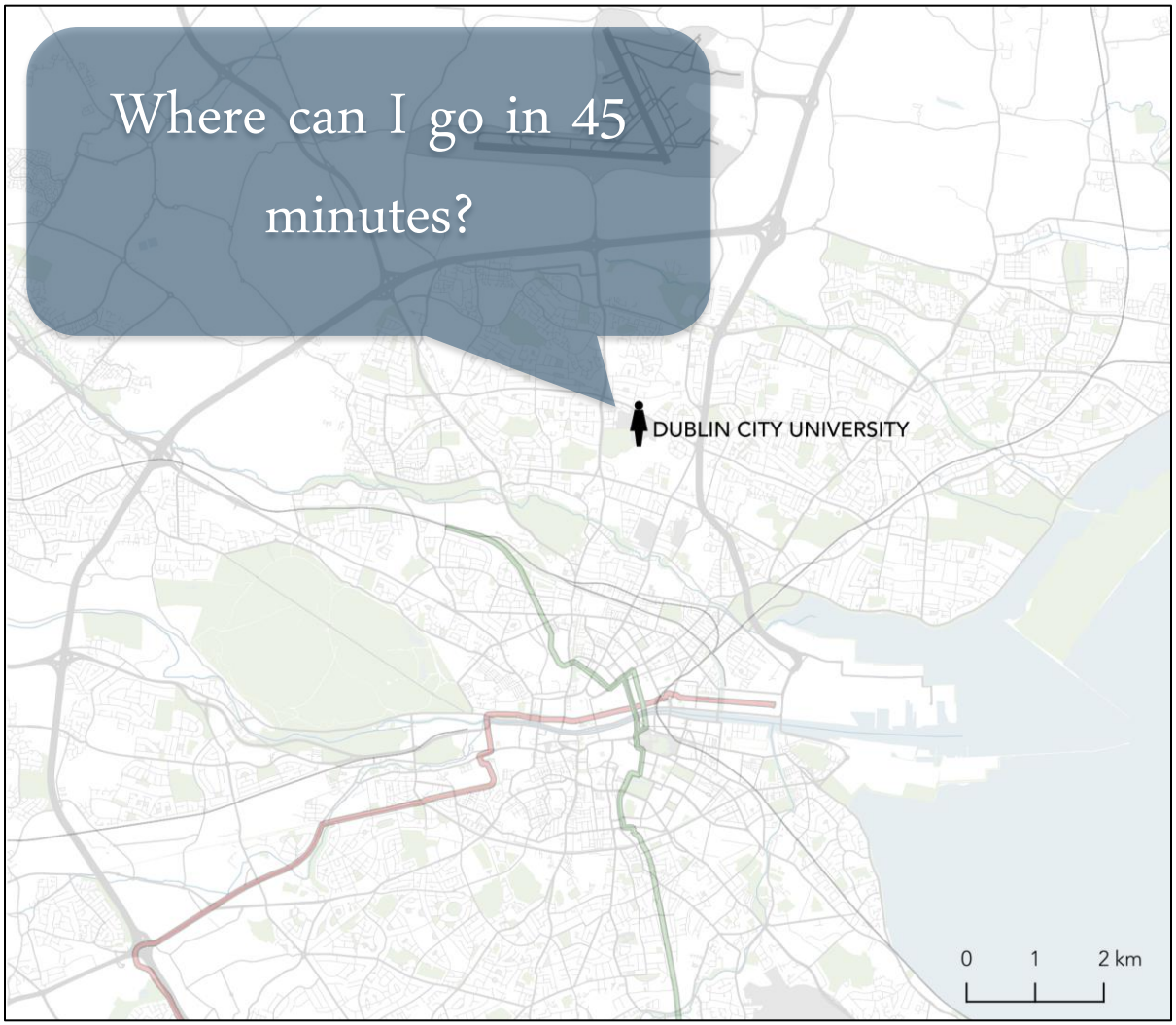
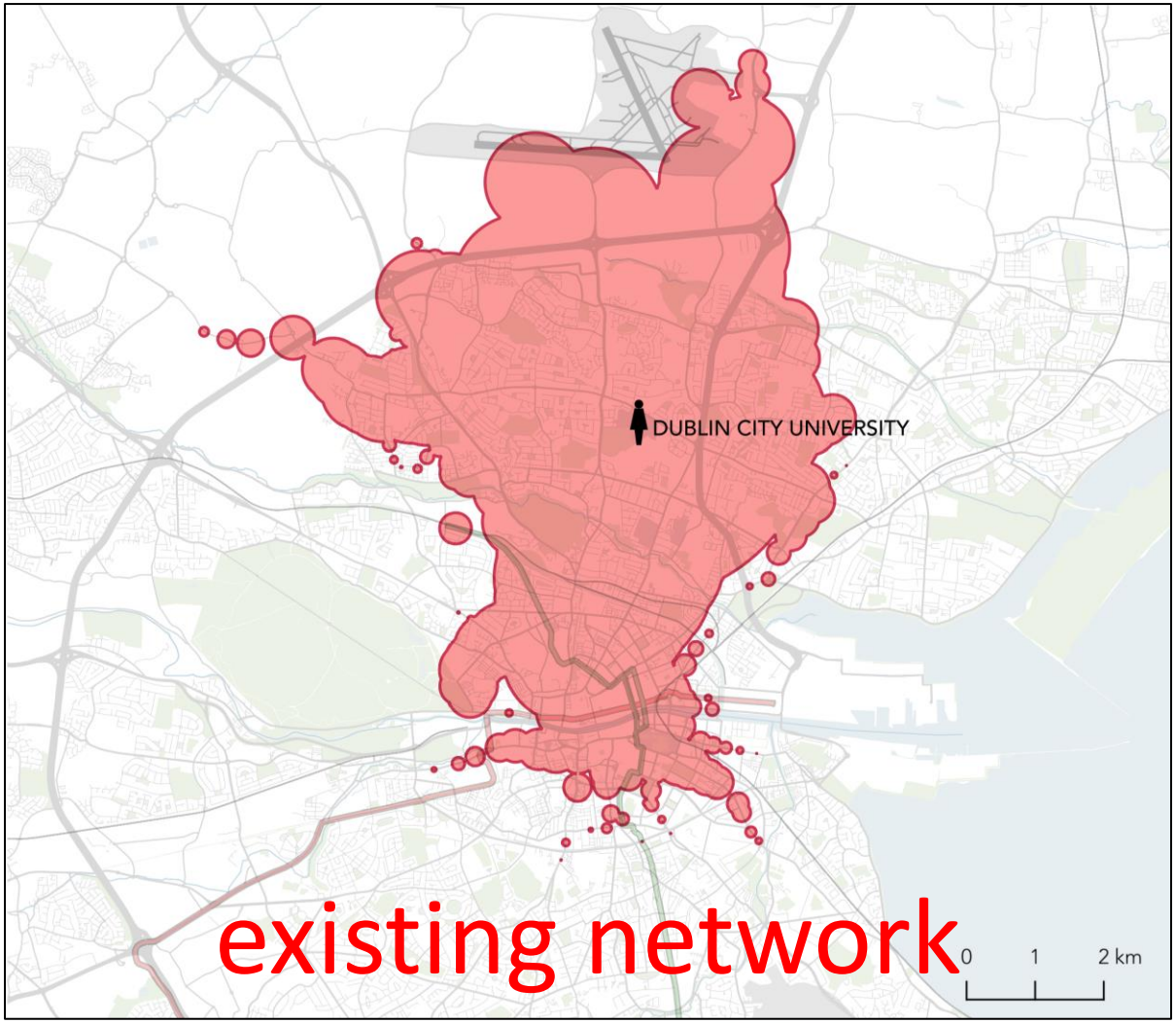
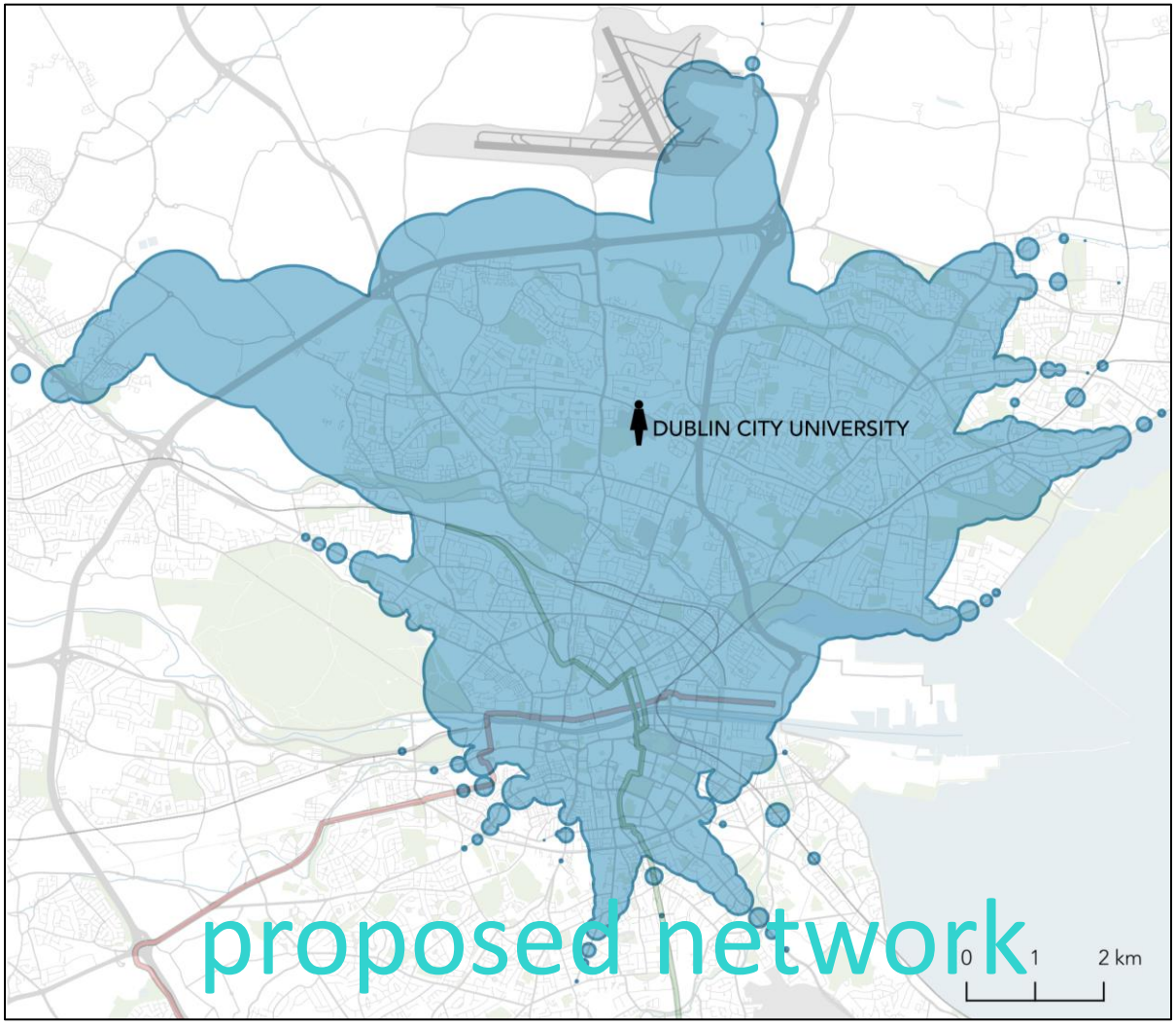
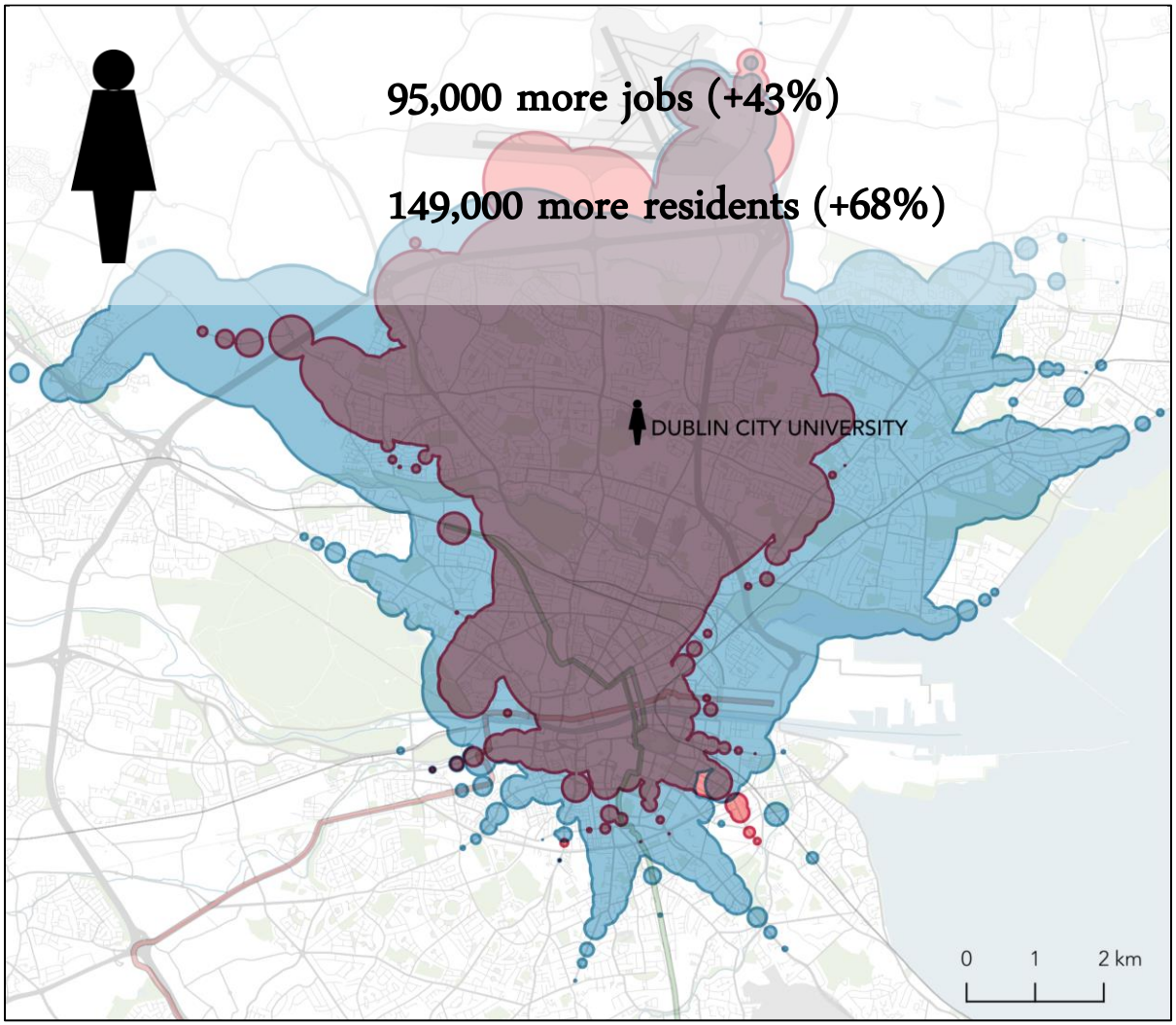


Figure 115: Most routes have lower productivity in the peak than in the midday, suggesting excessive peak service.


Where can I go in 45 minutes?
DUBLIN CITY UNIVERSITY
0
1
2 km


DUBLIN CITY UNIVERSITY
existing network
0
1
2 km


DUBLIN CITY UNIVERSITY
proposed network
0
1
2 km


95,000 more jobs (+43%)
149,000 more residents (+68%)
DUBLIN CITY UNIVERSITY
0
1
2 km

How do we get more service without more money?

Strategy	Benefits	Downsides
Strategies that Decrease Duplication and Excess Service		
1 Remove Duplicative Route Segments	Resources can be reallocated to create more useful services.	More people have to transfer during their trip, but this does not mean total travel times are longer. Sometimes they are shorter due to less waiting.
2 Remove Excess Peak-Only Service	Resources can be reallocated to create more useful services. Peak-only service is especially expensive to run, so more resources are freed.	Minor, as this would only be done only where demand does not justify added peak service and frequency is high anyway.
3 Consistent Route Spacing	Avoids partial duplication where parallel routes serve the same area. Resources can be reallocated to create more useful services.	Longer walks to service are difficult for those who have difficulty walking.
4 Wider Stop Spacing	Increase average speed. Faster trip times free resources to create more useful services. Better infrastructure is possible at each stop.	Longer walks to service are difficult for those who have difficulty walking.
Strategies that Increase Connection Opportunities		
5 Remove Fare Penalty for Transfers	Encourages connections, which are the essence of an efficient network. The more connections a route makes, the more useful it is.	Would require review of fare structure. Could increase base fare.
6 Focus Service on Transportation Centers	Expands usefulness of all routes serving a transit center. Especially important for travel between City and suburban counties.	Transit Centers must accommodate more buses. In some cases this may require infrastructure.
7 Strengthen the Frequent Grid	The most efficient form of network for dense cities.	Frequency is expensive, so can be deployed only where many people will use it.
8 Link to Regional Rail Connections	Improved travel between city and suburban counties.	Difficult, due to low frequencies and irregular schedules of regional rail, but worth doing to extent possible.

Figure 12: Budget neutral strategies for increasing service.

Request for Proposals

- Multi-Year Effort
- Full Network
- Team Approach
  - Project Management with Implementation Experience
  - Transit Specialty Firm
  - Public Outreach with Local Expertise
  - Marking/Branding Company

SEPTA
Comprehensive Bus Network Redesign

Jennifer Dougherty, AICP
Manager of Long Range Planning, SEPTA

Regional Technical Committee, DVRPC
October 9, 2018

KING OF PRUSSIA RAIL

STATION AREA PLANNING FOR THE NHSL RAIL EXTENSION

DVRPC
Regional Technical Committee

October 9, 2018

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

PENNSYLVANIA TURNPIKE
"World's Greatest Highway"

KING OF PRUSSIA INTERCHANGE

Pioneer of America's super toll roads, the Pennsylvania Turnpike spans more than one-eighth of the nation. It stretches 360 miles, from the Ohio line in the West to the shores of the Delaware River in the East. More than 150 million people have traveled over it since it was opened in 1940.

Color photo by Herbert Lanks

NATURAL Color Card

NEW YORK N Y JUN 13 3-PM 1955

HIRE THE H... ITS GOOD

UNITED STATES POSTAGE 2 CENTS

ROBERTS COLOR PRODUCTION, BERKELEY 2, CALIF.

Howard Johnson Publishing Department, Bedford, Pa.

C5520

Hello There,
We had lots
of nice curves + turns
We are going to see
the Statue of Liberty
today.
Helen

Mrs. Leno Followell
Oaktown
Indiana

KING *OF* PRUSSIA

The Growth & Development of a Regional Center

1777–78

The Continental Army, led by George Washington, spends the winter of 1777–78 encamped at Valley Forge during the American Revolutionary War.

Valley Forge would become a state park in 1893 and national historic park on July 4, 1976.

18th CENTURY Making History

1710 1720 1730 1740 1750 1760 1770 1780 1790

1713

Upper Merion Township incorporates

1784

Montgomery County created

1769

King of Prussia Inn opens

King of Prussia takes its name from an inn and tavern opened in 1769. The King of Prussia Inn itself was named after Frederick II, a Prussian monarch who was known for his opposition to British imperialism. After the construction of US 202, the original building was relocated and restored. Today it serves as the home of the Montgomery County Chamber of Commerce.

1950

The King of Prussia interchange of the PA Turnpike opens

Eight years later, the first businesses would begin locating in what would become known as the King of Prussia Business Park.

1963

The Plaza at King of Prussia opens

The Plaza was originally built as an open-air shopping mall. It was eventually fully enclosed and was later joined by an adjacent mall, known as the Court, in 1981.

2010

The King of Prussia District (KOP-BID) is founded

2016

First phases of The Village at Valley Forge open

2016

UPPER MERION 2040 COMPREHENSIVE PLAN

Upper Merion begins its comprehensive plan update.

20th CENTURY Access and Commerce

1910 1920 1930 1940 1950 1960 1970 1980 1990

1907

The Norristown High Speed Line begins service as the Philadelphia and Western Railroad.

After various extensions, the route was absorbed by SEPTA in 1969. Formerly known as the Route 100, the purple color-coded line was officially changed to its current name in 2009.

1950s

The population of Upper Merion Township grows by 167 percent to over 17,000 during this decade.

21st CENTURY Modern Times

2010 2020 2030

2016

The King of Prussia Mall connector opens

2018

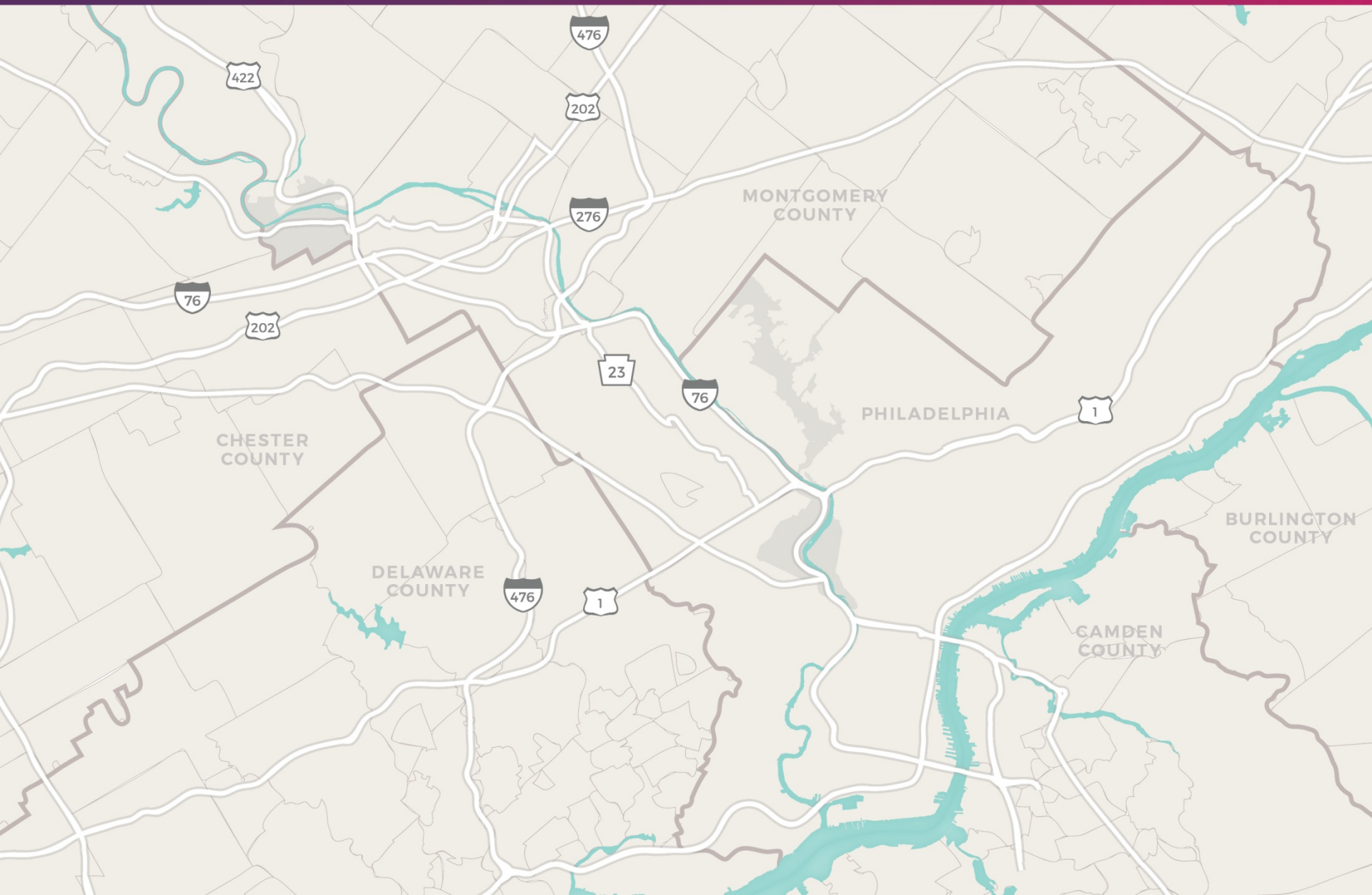
King of Prussia Business Park rebranded as Moore Park KOP

2020s

Anticipated opening of the NHSL extension to King of Prussia

Study Background: **King of Prussia Rail**

Study Background: **King of Prussia Rail**



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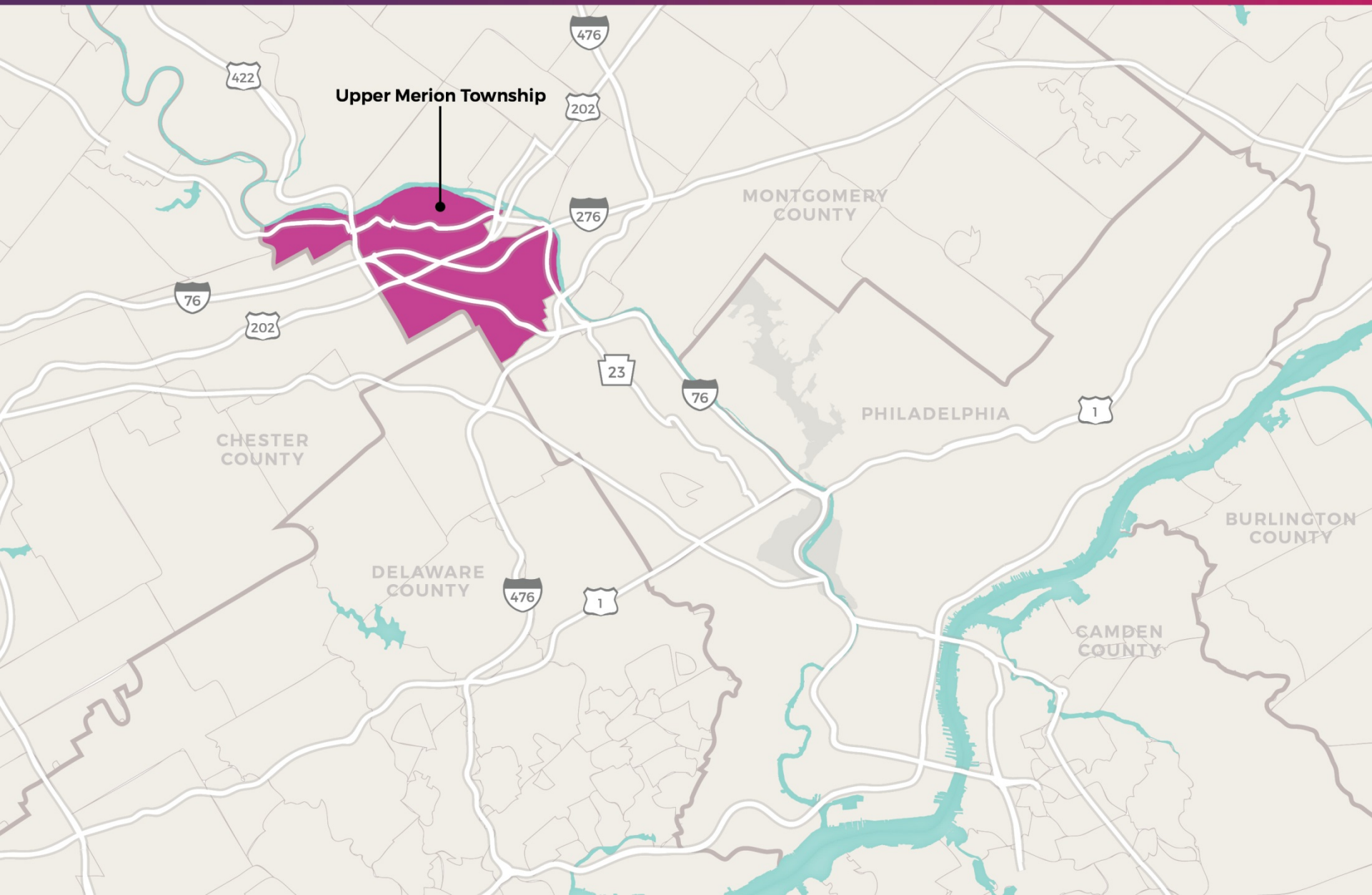

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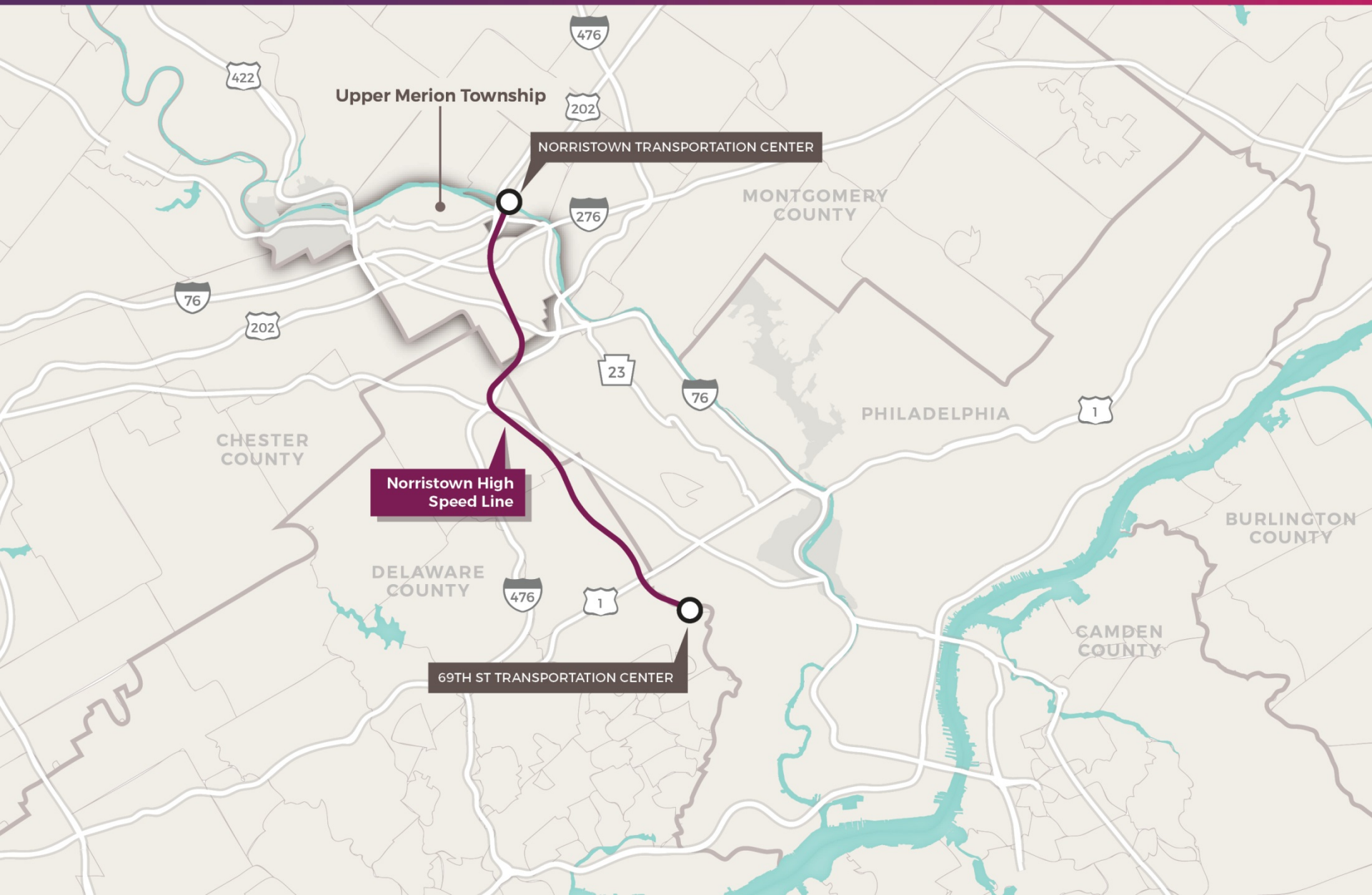

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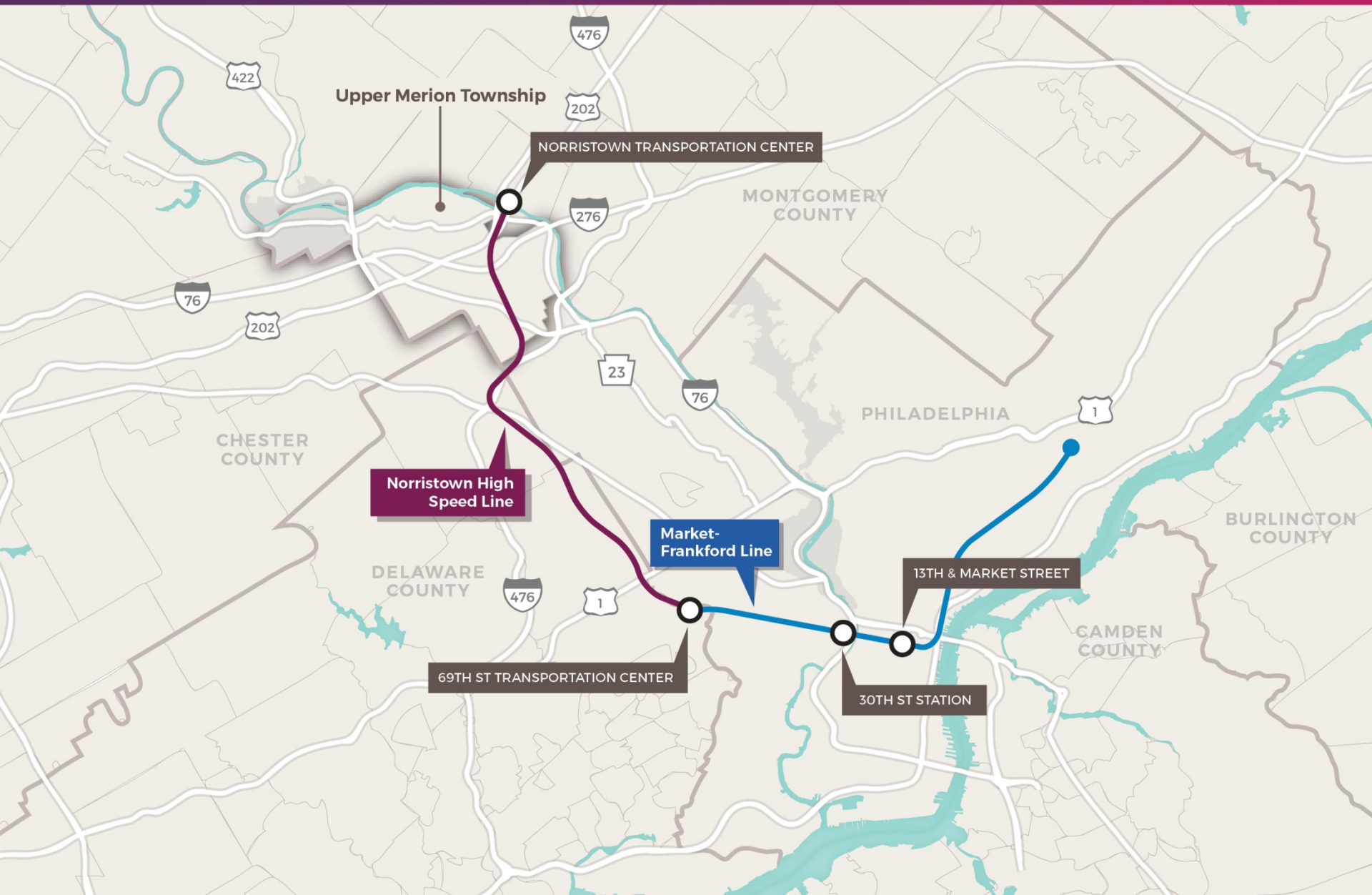

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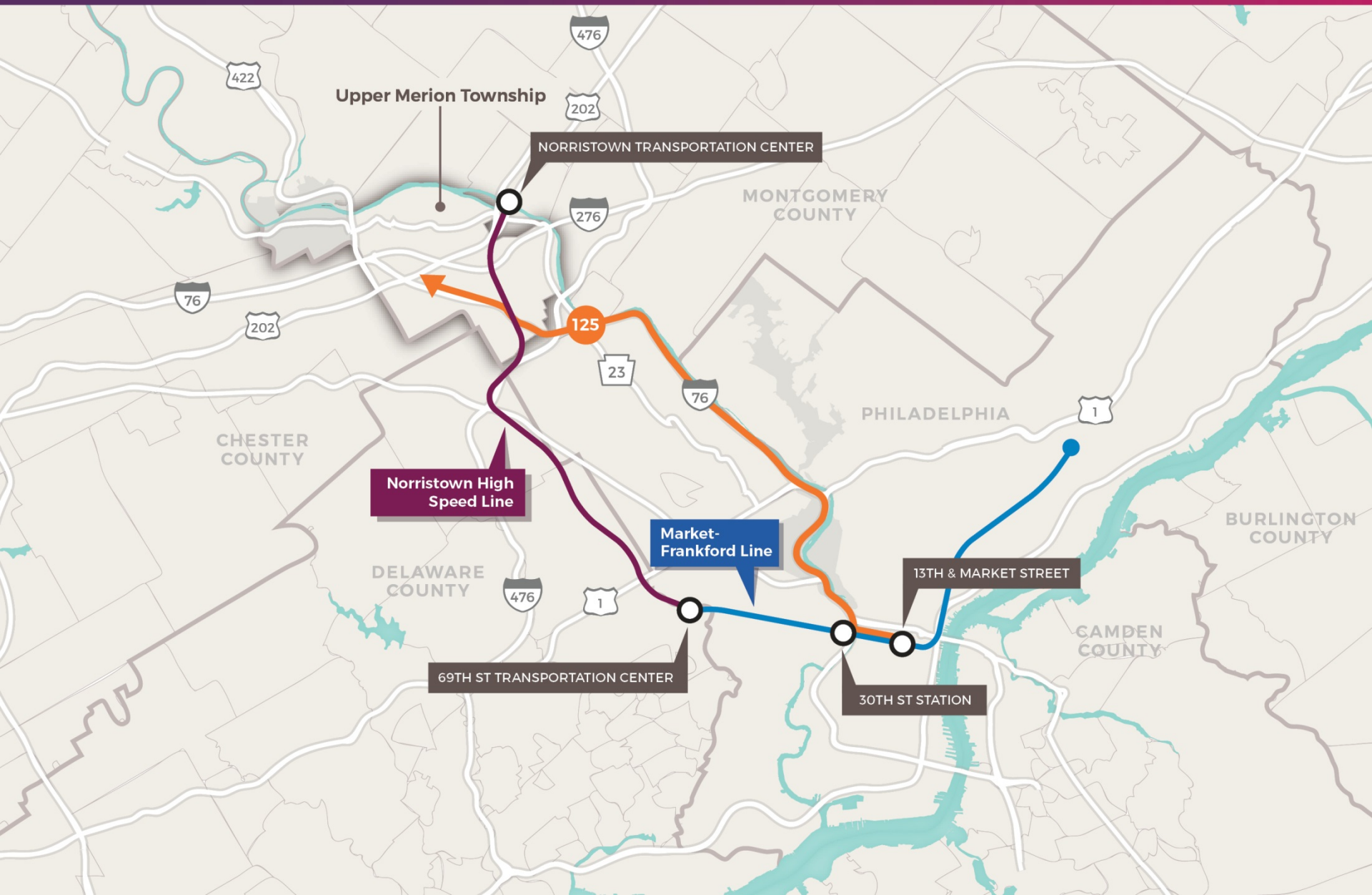

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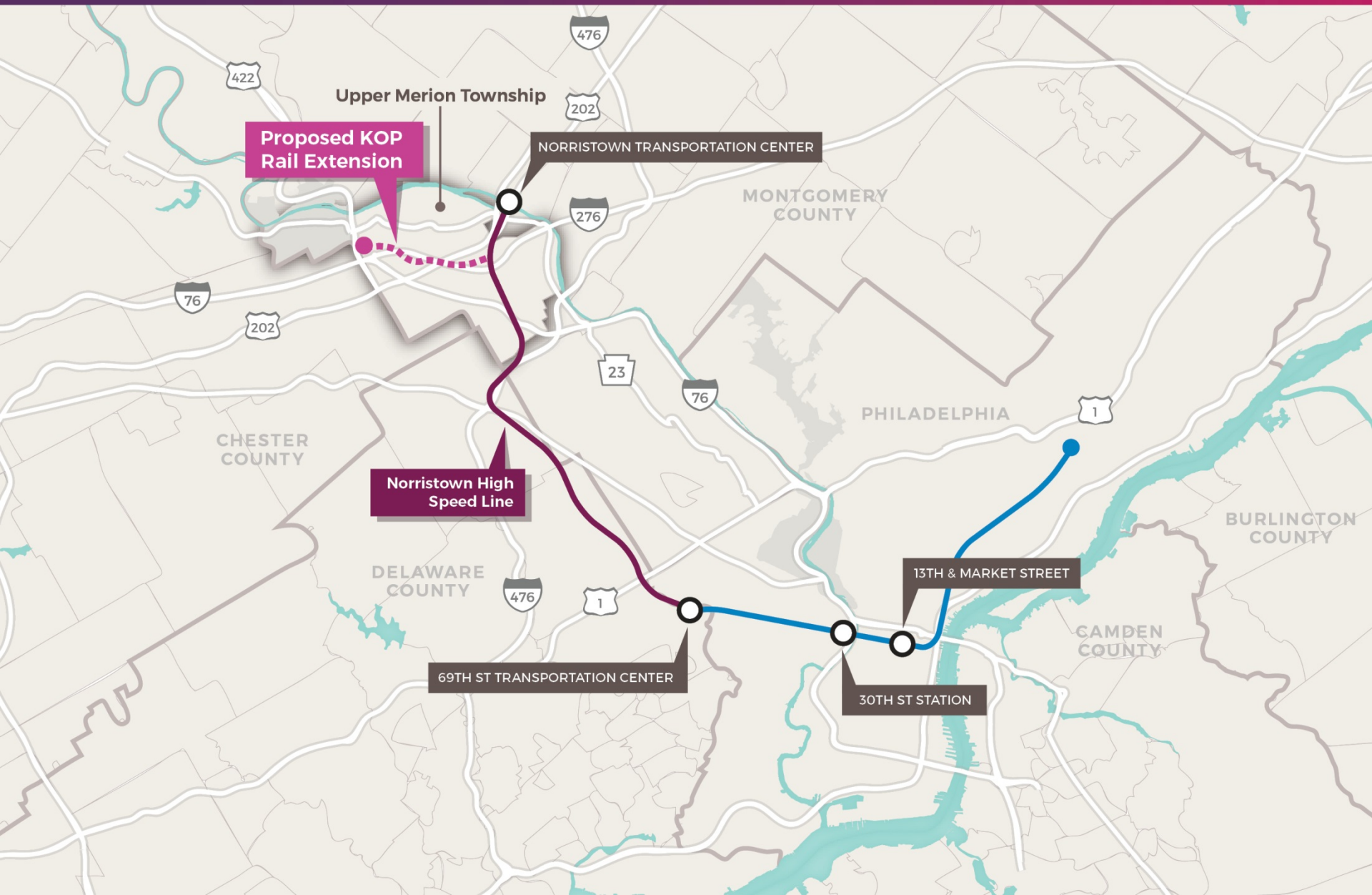
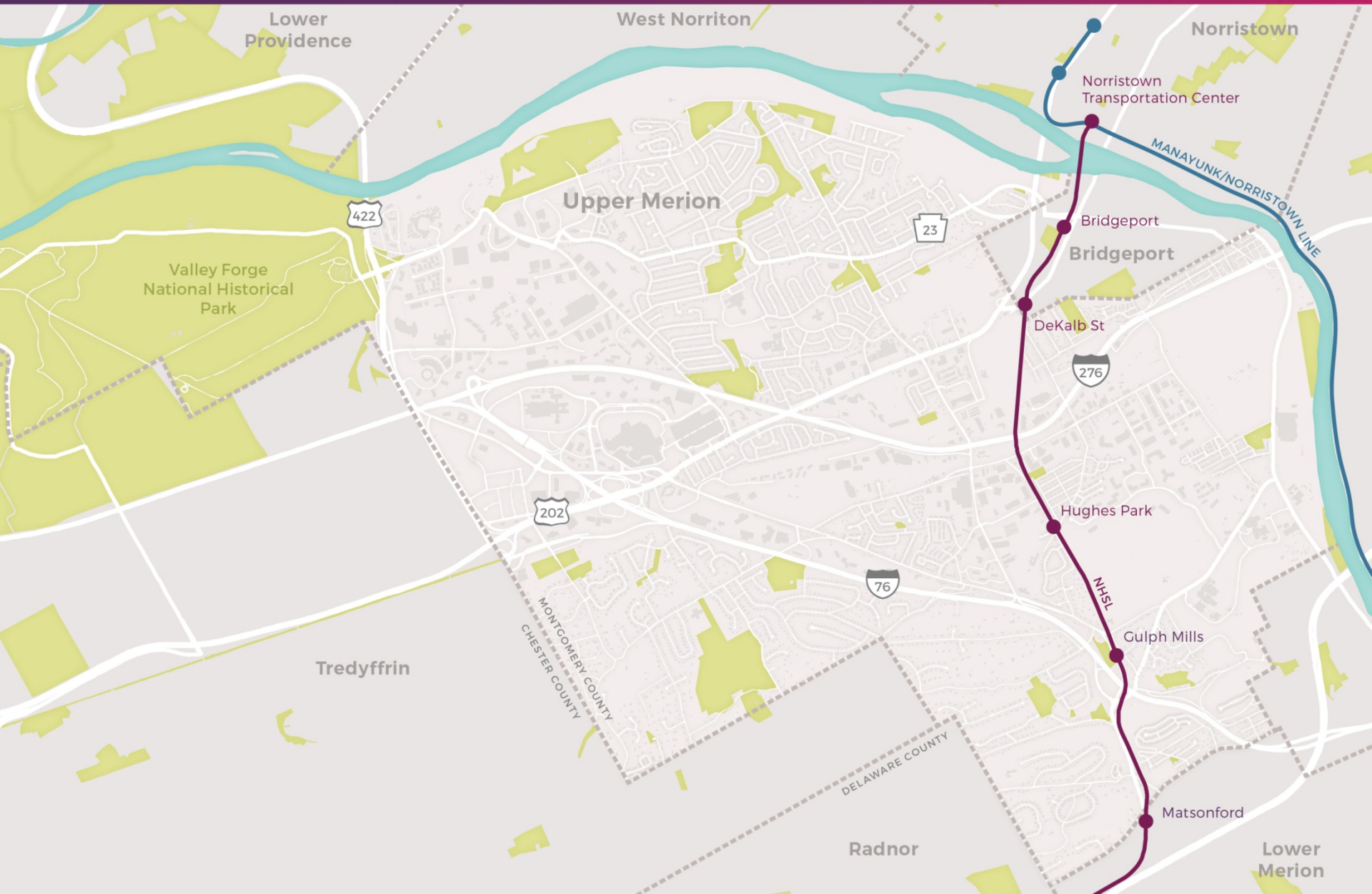
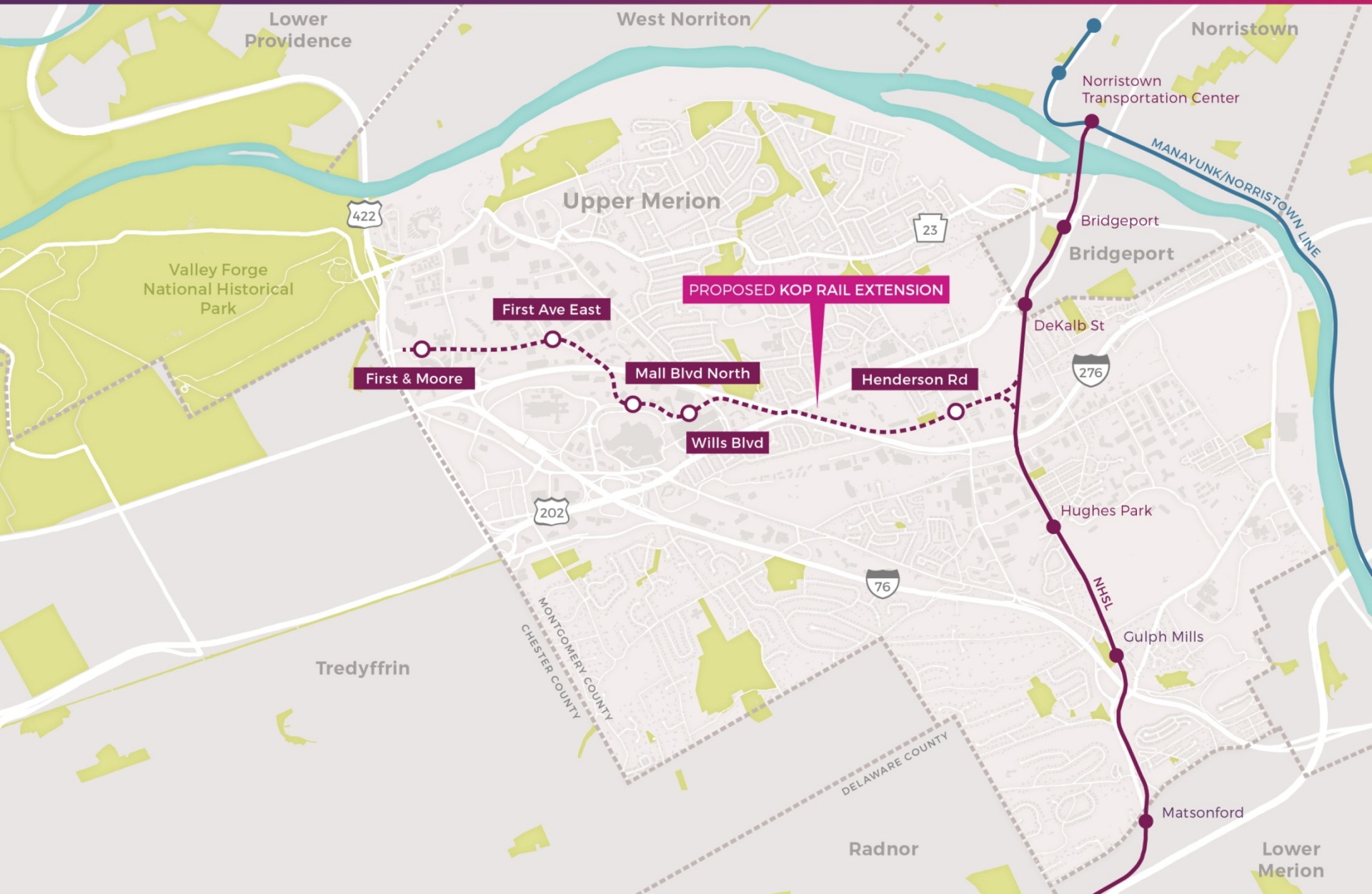


Study Background: **King of Prussia Rail**

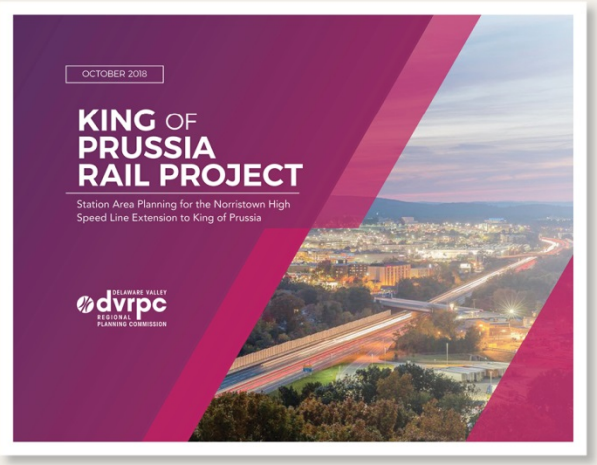
KOP Rail: **Study Corridor**



KOP Rail: **Study Corridor**



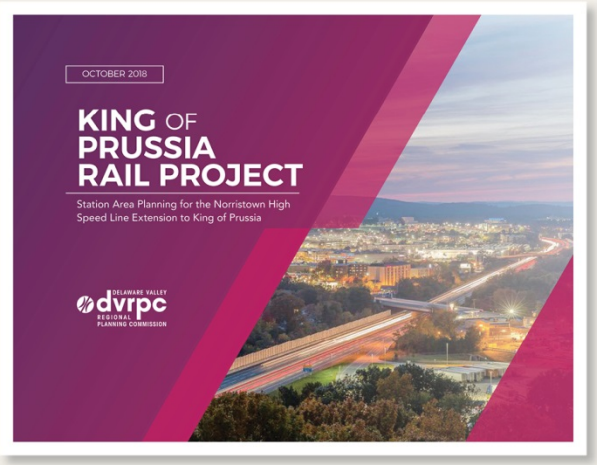
Station Area Planning for **KOP Rail**



STUDY GOALS

1. Develop strategies to enhance **pedestrian** & **bicycle access** to proposed stations
2. Identify transit-supportive development opportunities
3. Document conditions relevant to future land use and transportation planning

Station Area Planning for **KOP Rail**



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PLANNING PARTNERS

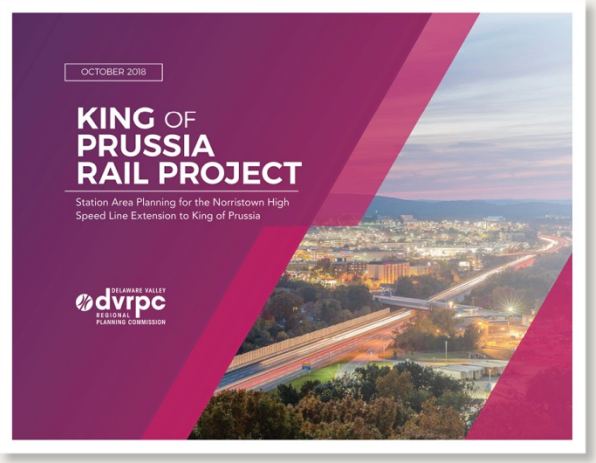
- SEPTA
- Montgomery County
- Upper Merion Township
- KOP–BID
- GVFTMA

+

Local Residents

Business Owners

Station Area Planning for **KOP Rail**



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2. Identify transit-supportive development opportunities
3. Document conditions relevant to future land use and transportation planning

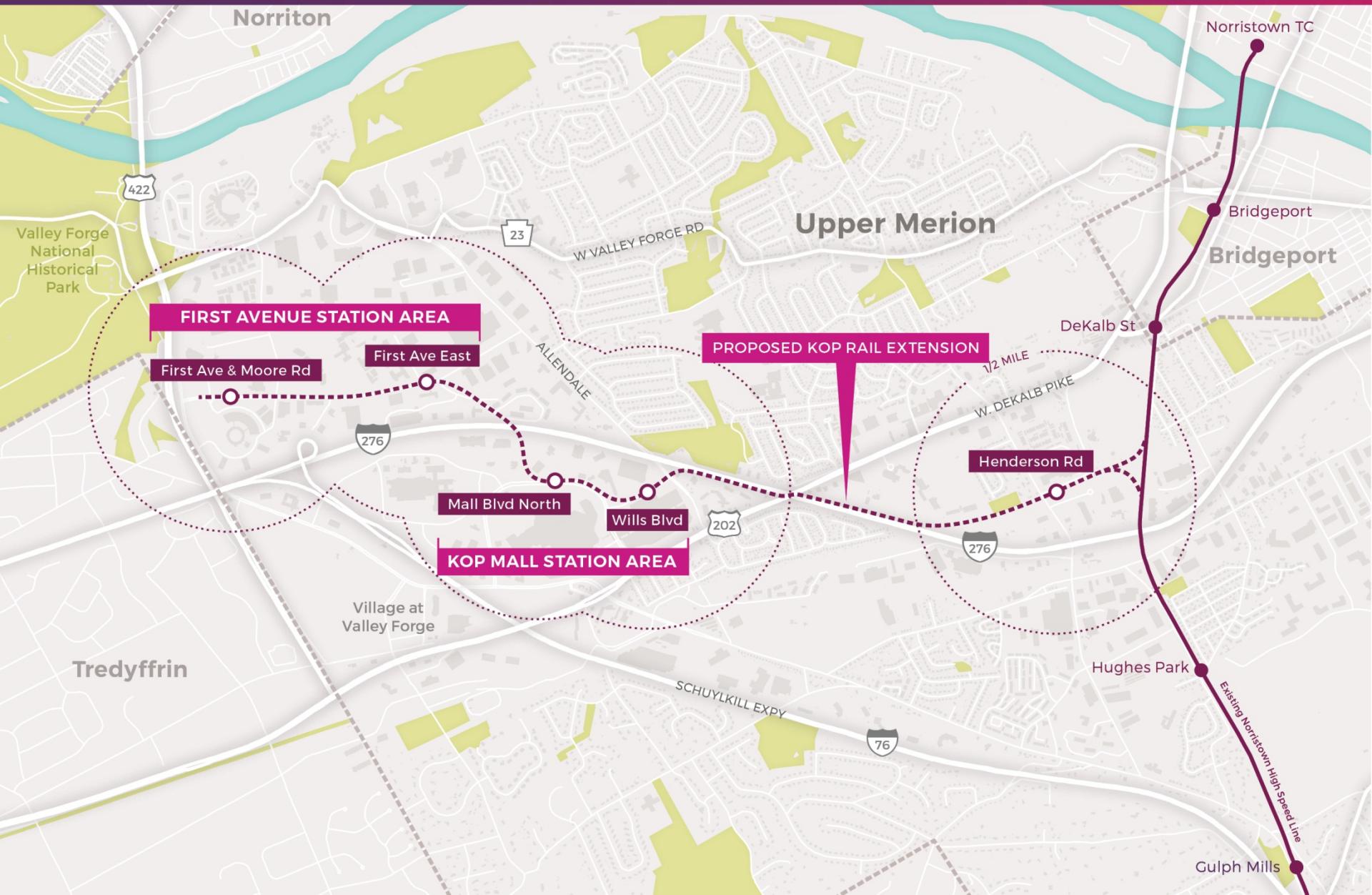
PLANNING PROCESSES

King of Prussia RAIL

NHSL

UPPER MERION 2040 COMPREHENSIVE PLAN

KOP Rail: **Defining Station Areas**



Why do we care about walking and biking in King of Prussia?

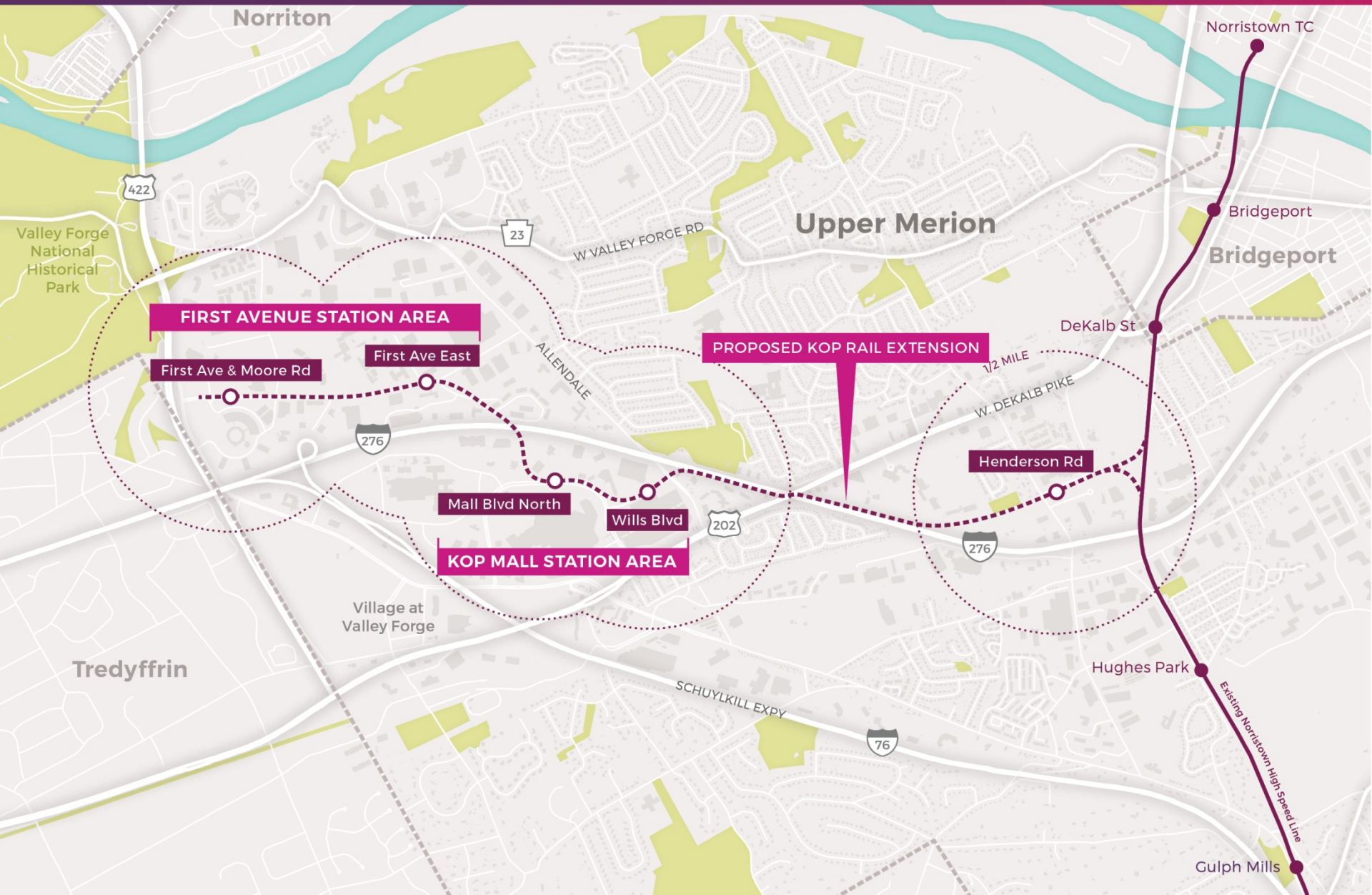
Making the case for **Active Transportation**

1. For our health
2. For the environment
3. For safer streets
4. To save money
5. For better mobility for all
6. To support the economy

Walk Montco

Bike Montco

KOP Rail: **Defining Station Areas**



Walking & **Biking** in KOP Today

Walking & **Biking** in KOP Today

Walking & **Biking** in KOP Today

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Walking & **Biking** in KOP Today

Walking & **Biking** in KOP Today

Walking & **Biking** in KOP Today

Walking & **Biking** in KOP Today

Walking & **Biking** in KOP Today

Level of Traffic Stress

LTS 4
"strong & fearless"

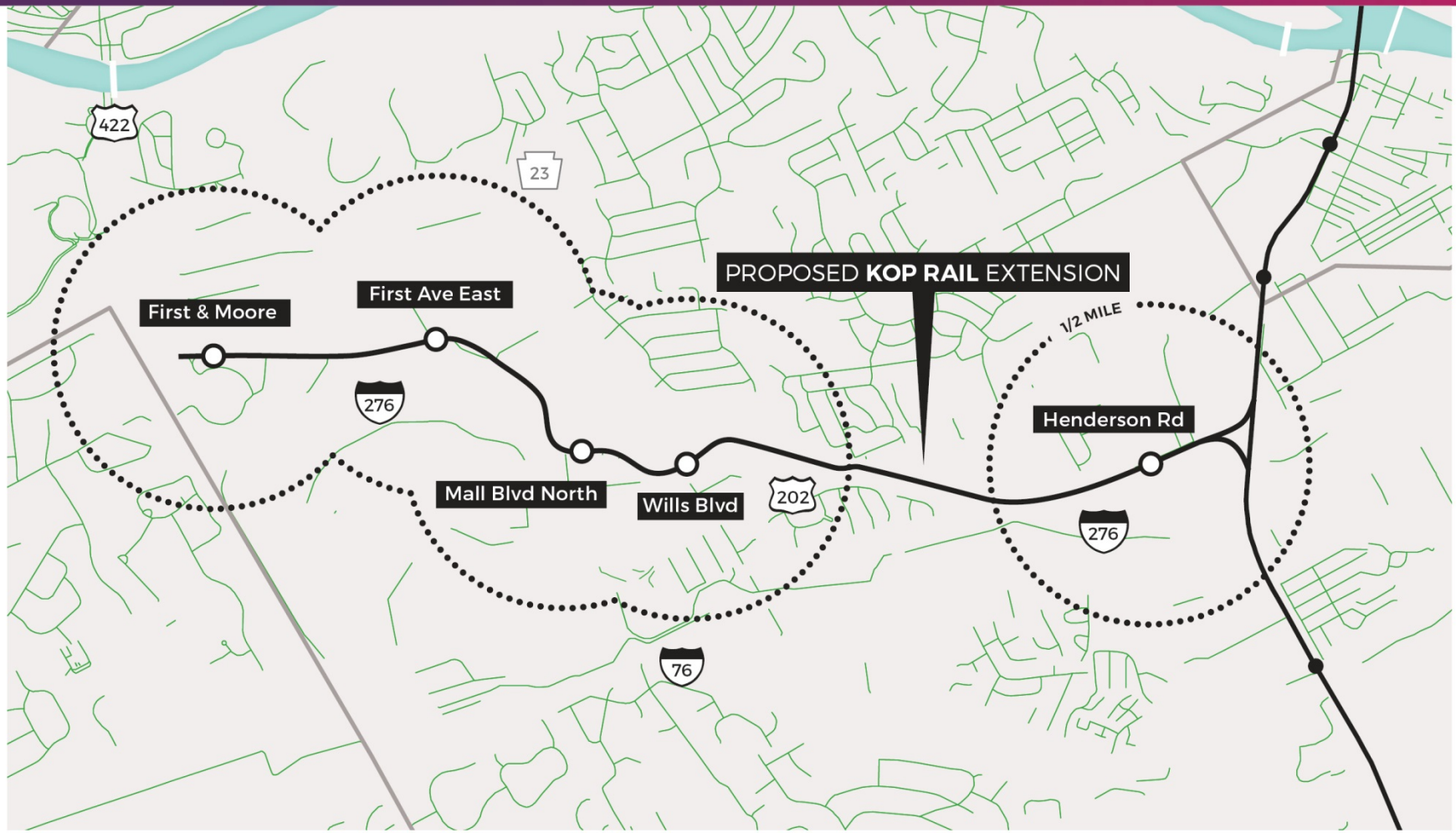
LTS 3
"enthused & confident"

LTS 2
"interested but concerned"

LTS 1
"most people"

increasing safety, comfort, and interest

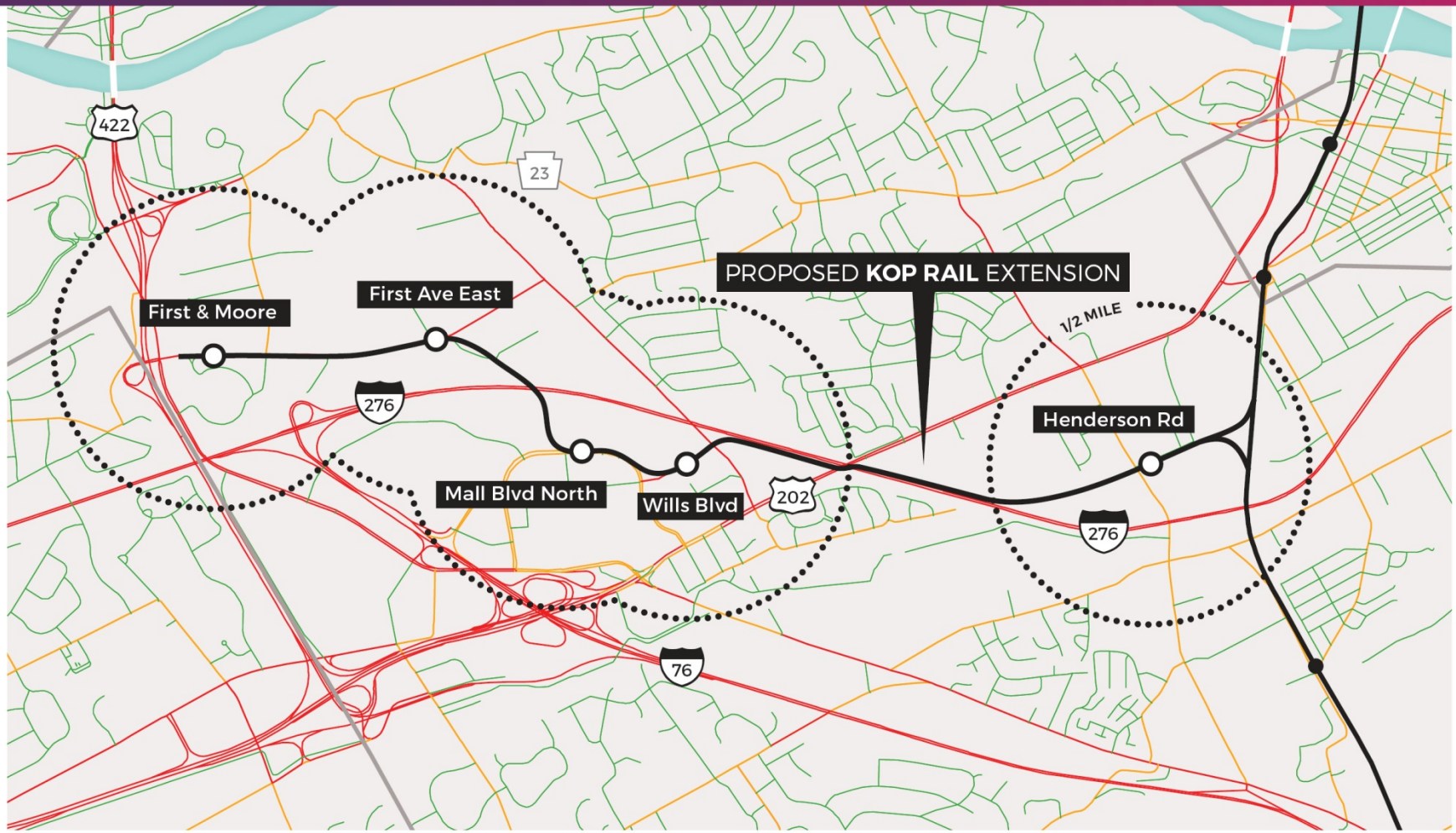
Walking & **Biking** in KOP Today



LTS Categories

- LTS 1 & 2
- LTS 3
- LTS 4

Walking & **Biking** in KOP Today



LTS Categories

- LTS 1 & 2
- LTS 3
- LTS 4

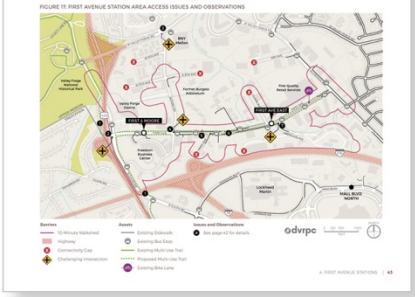
Station Area **Analysis**

Points of Interest

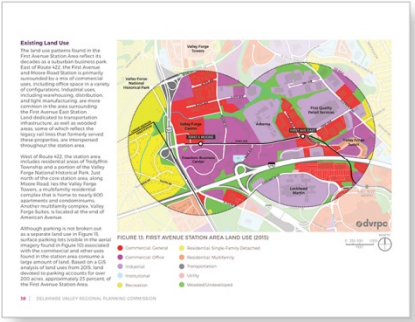
Character

Focus Areas

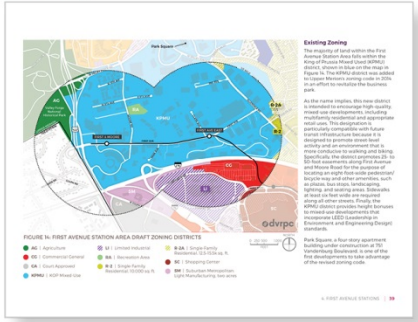
Barriers & Assets



Land Use

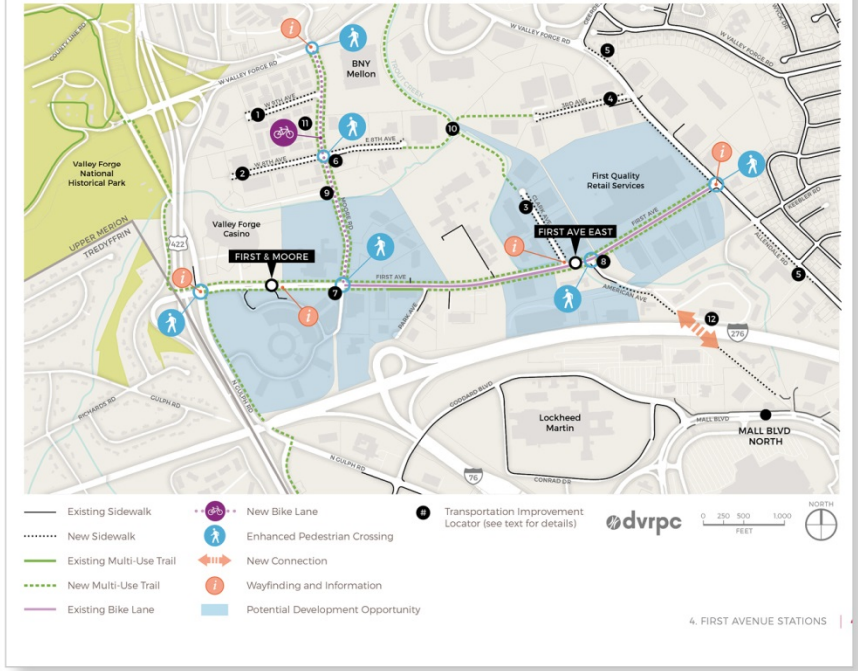


Zoning



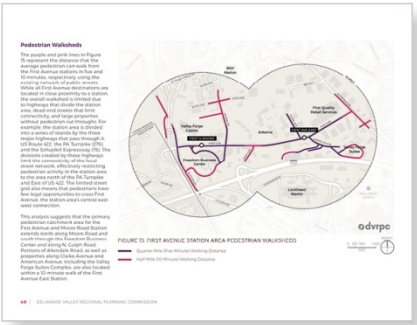
Opportunities & Strategies

FIGURE 18: FIRST AVENUE STATION AREA OPPORTUNITIES AND STRATEGIES

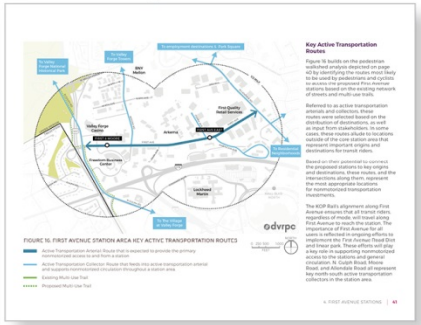


4. FIRST AVENUE STATIONS

Walk Sheds



Active Transportation Routes

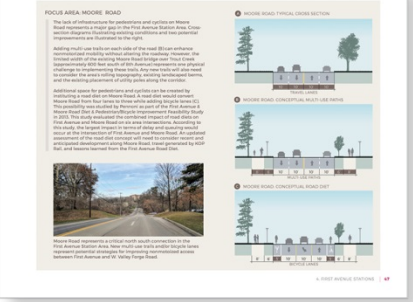


Station Area **Analysis**

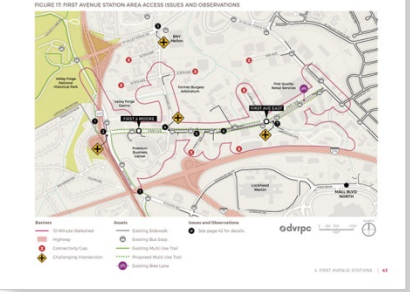
Points of Interest

Character

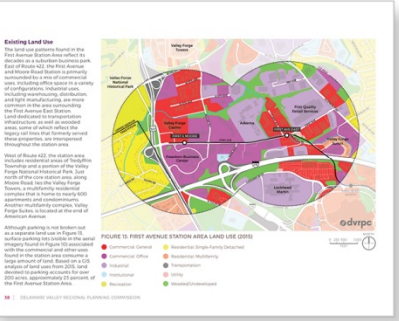
Focus Areas



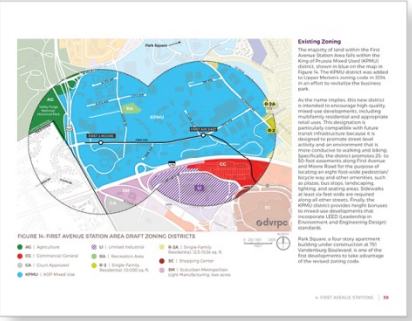
Barriers & Assets



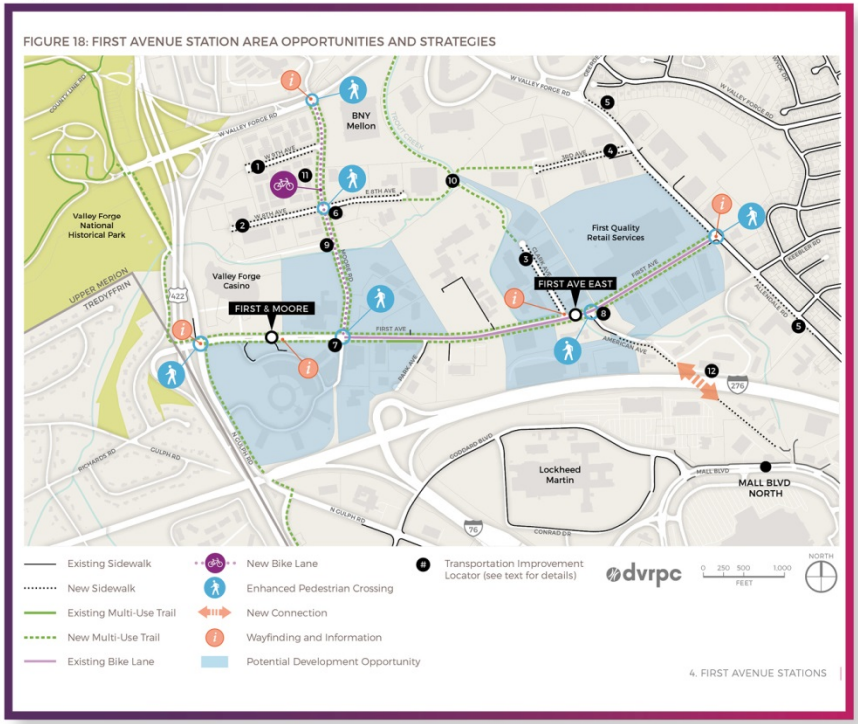
Land Use



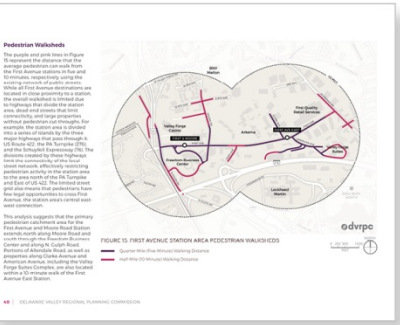
Zoning



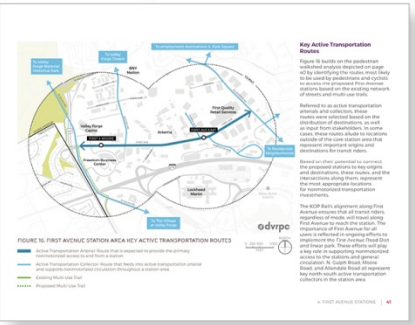
Opportunities & Strategies



Walk Sheds

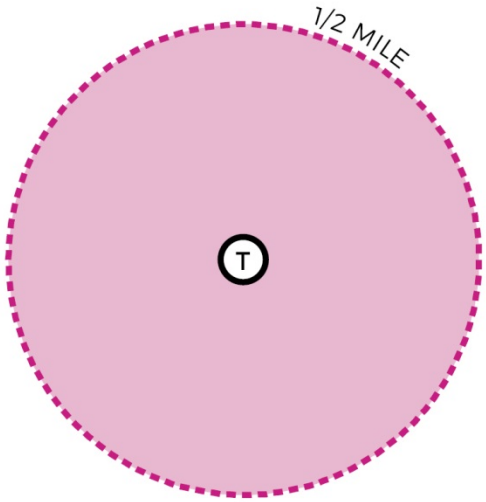


Active Transportation Routes



Access to Transit Planning: **Theory and Reality**

THEORY



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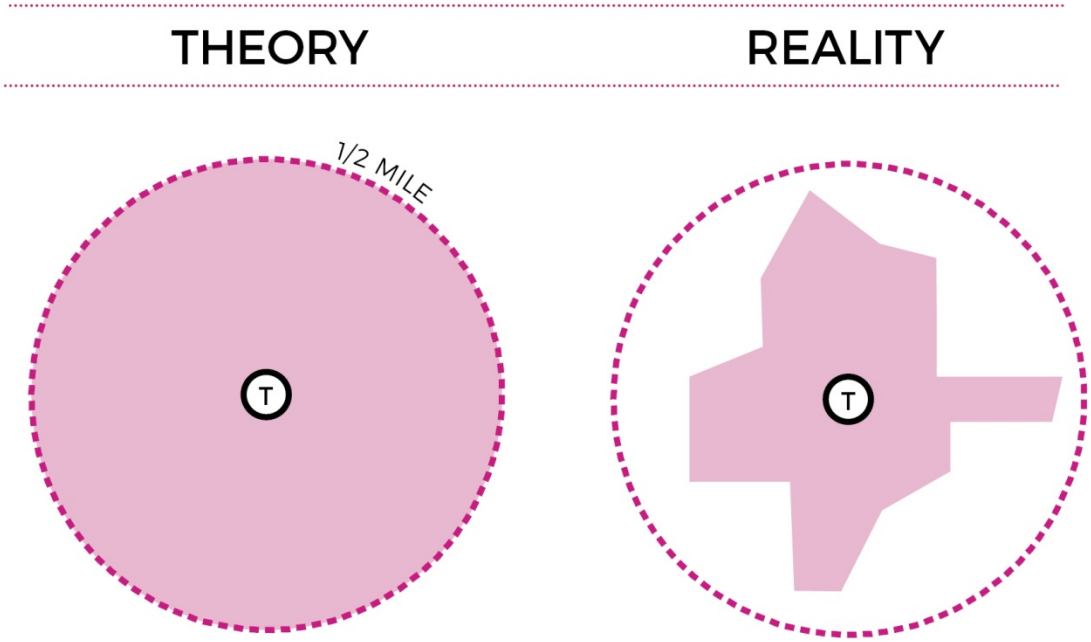
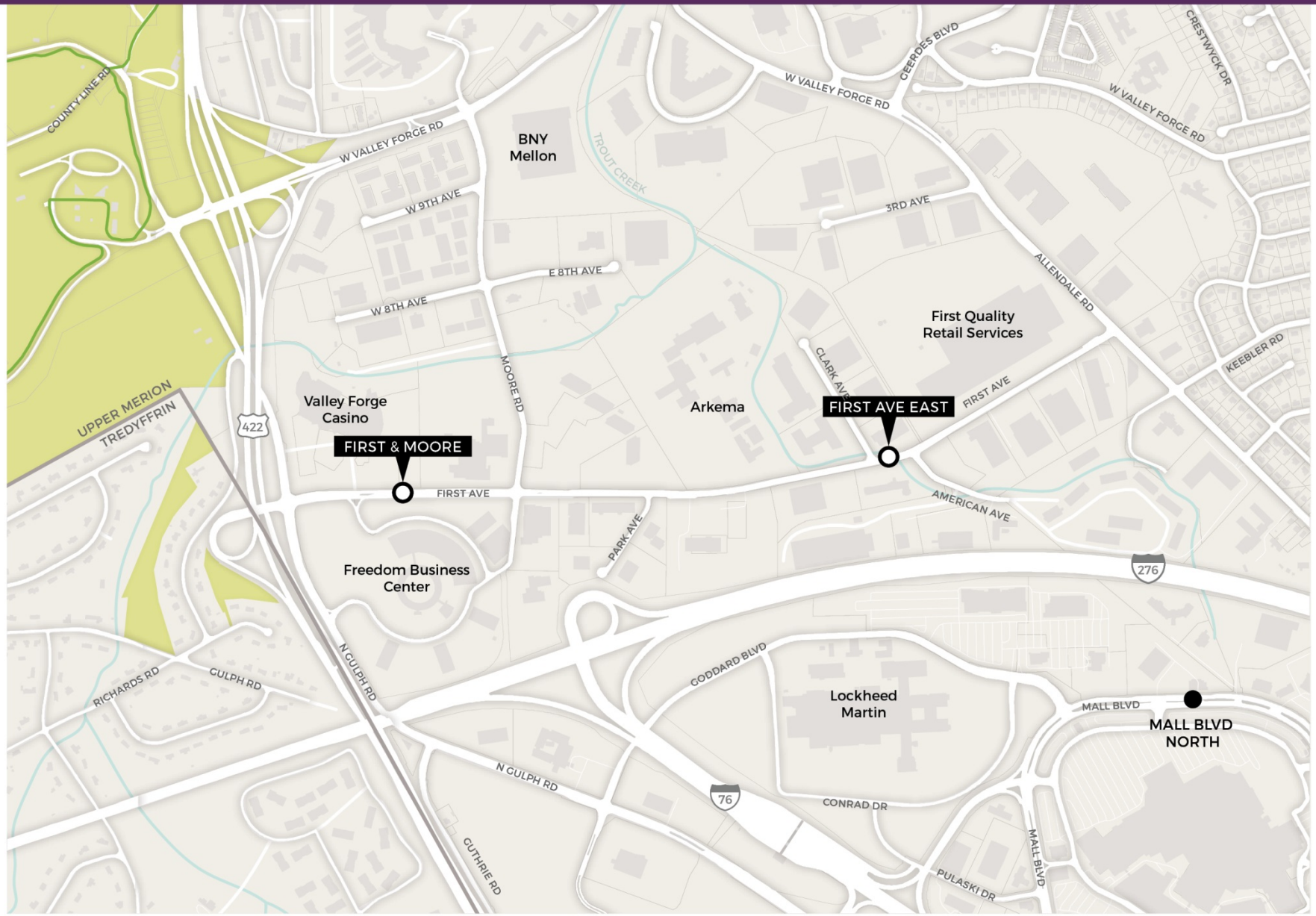


Synthesizing Access **Issues** & **Opportunities**



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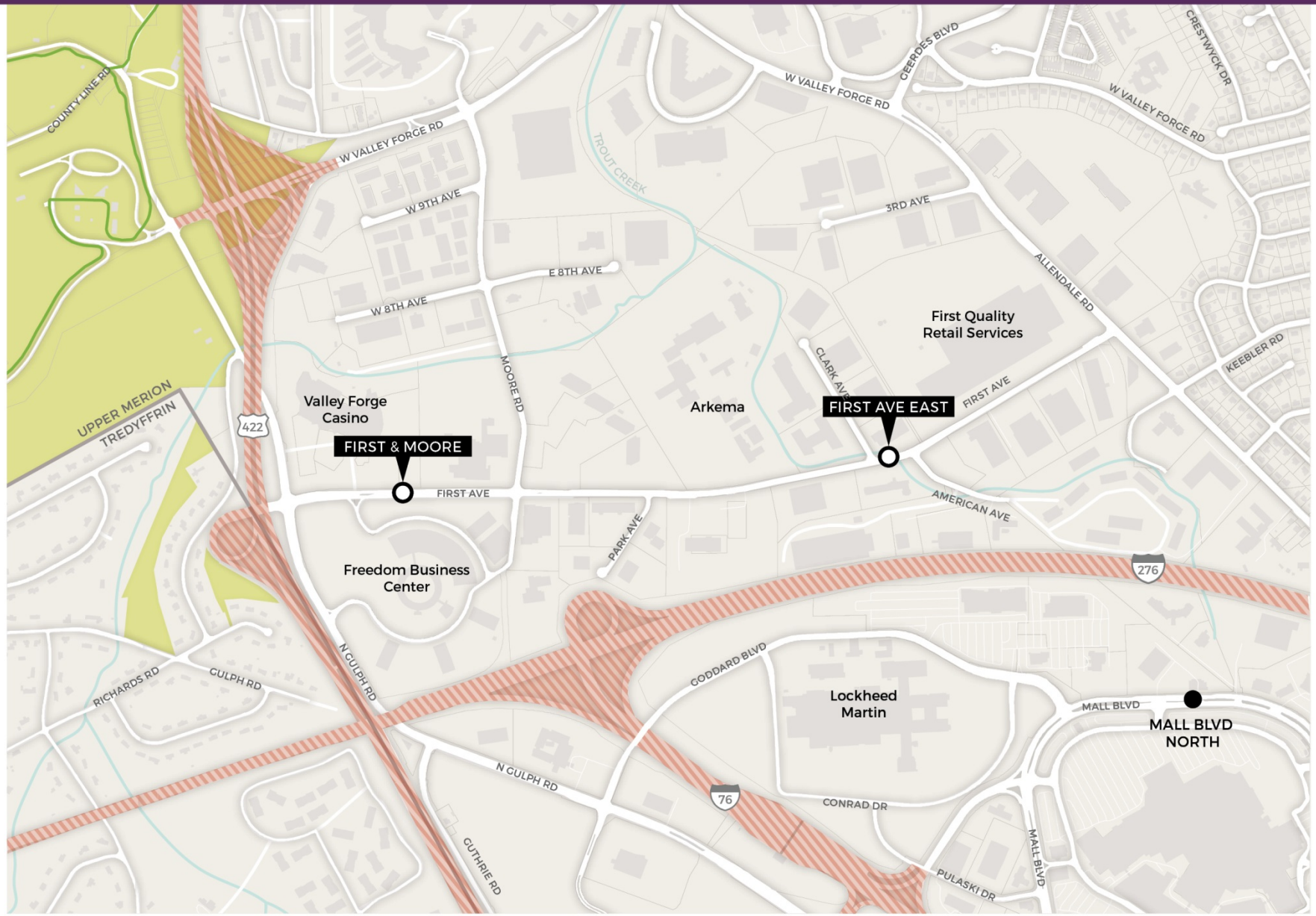

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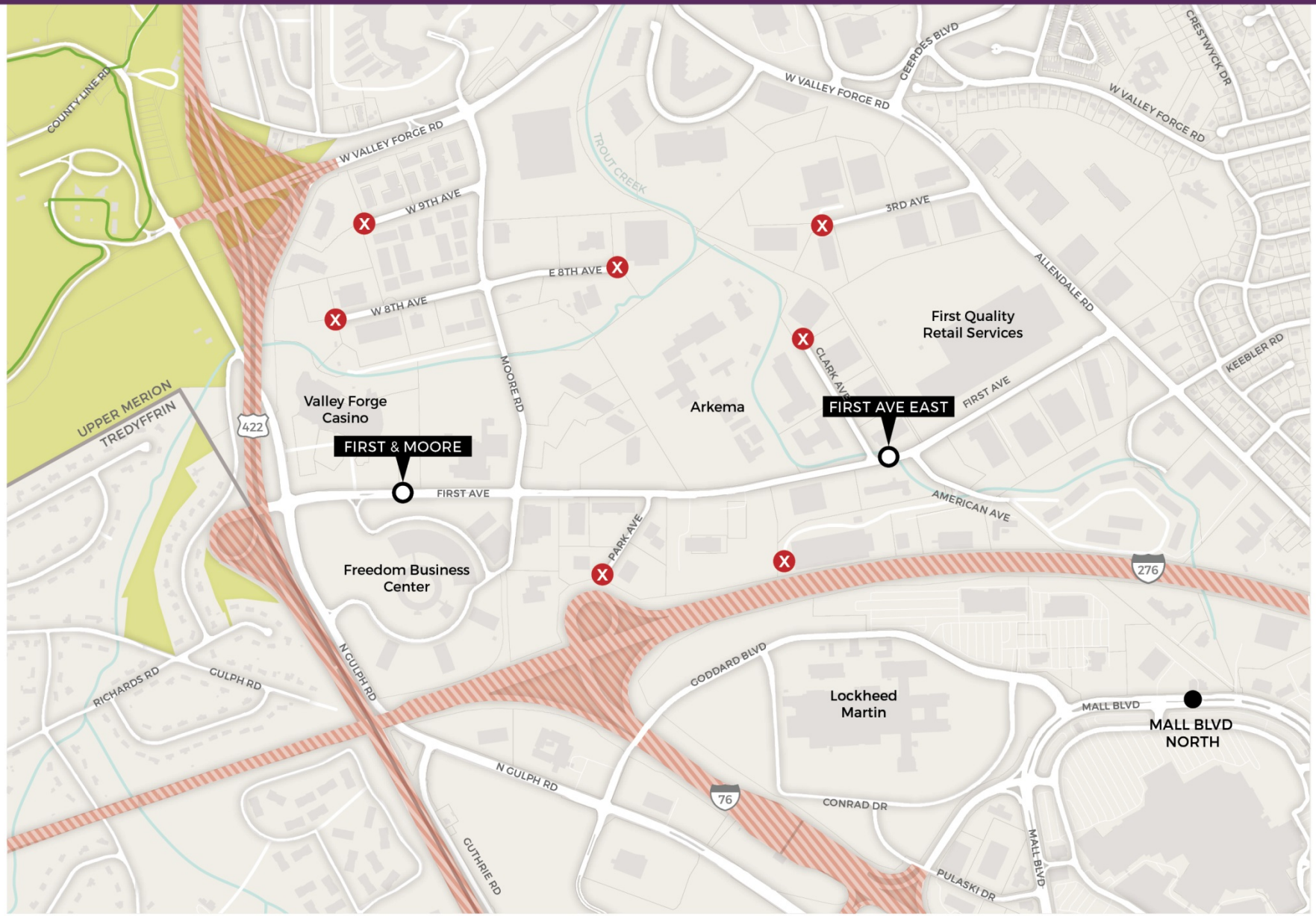
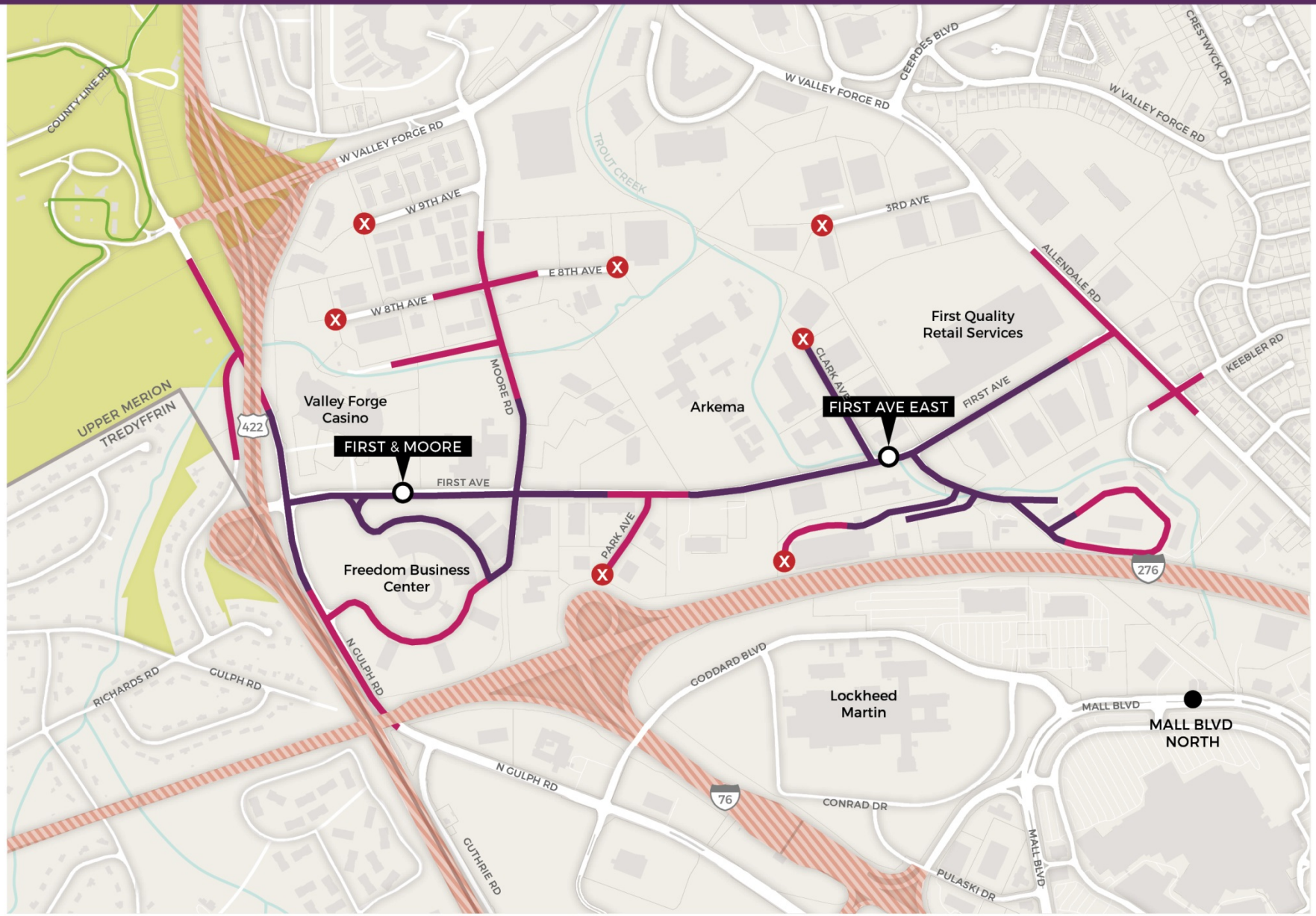
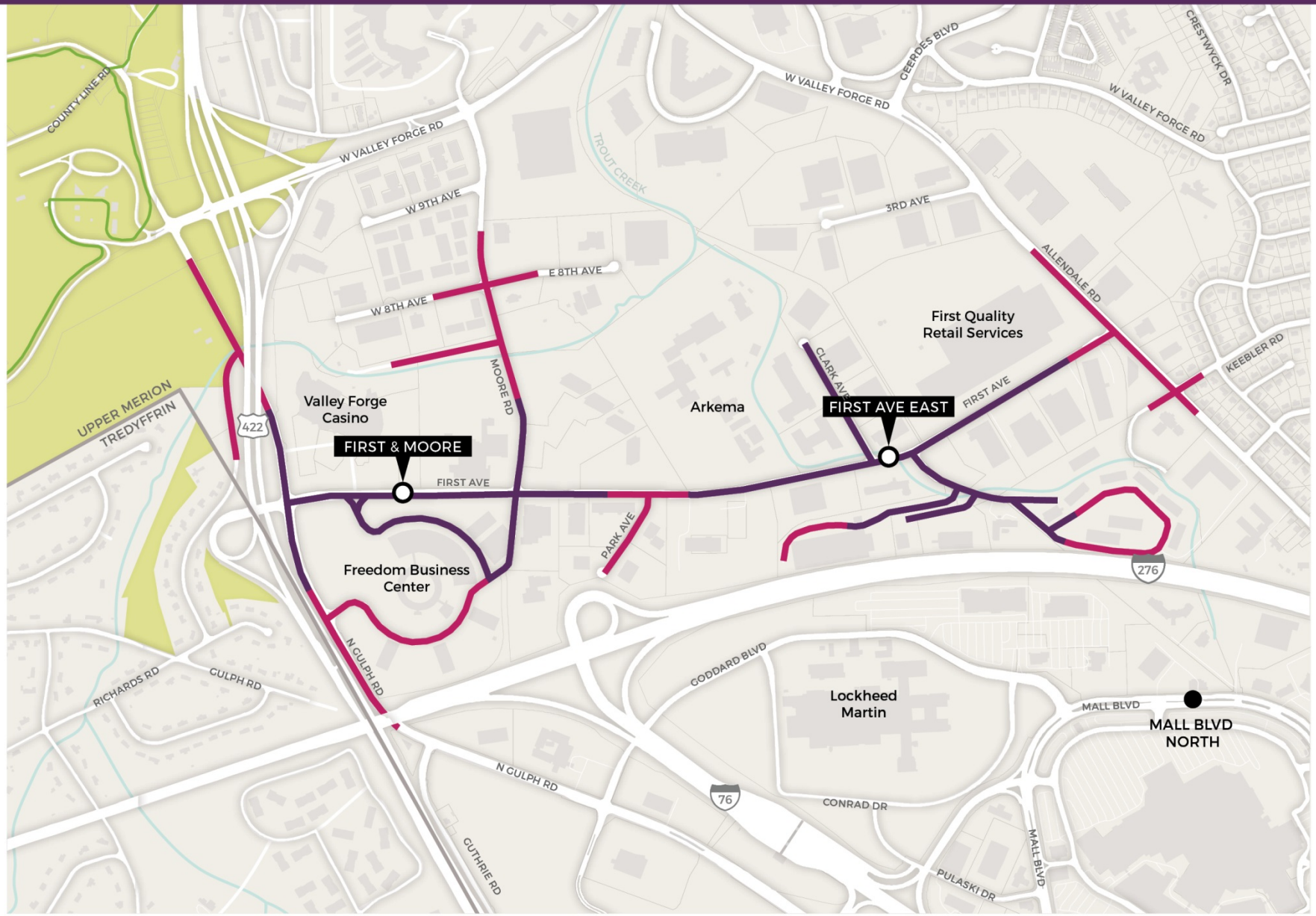


Synthesizing Access **Issues** & **Opportunities**



Five-Minute Walking Distance 10-Minute Walking Distance

Synthesizing Access **Issues** & **Opportunities**



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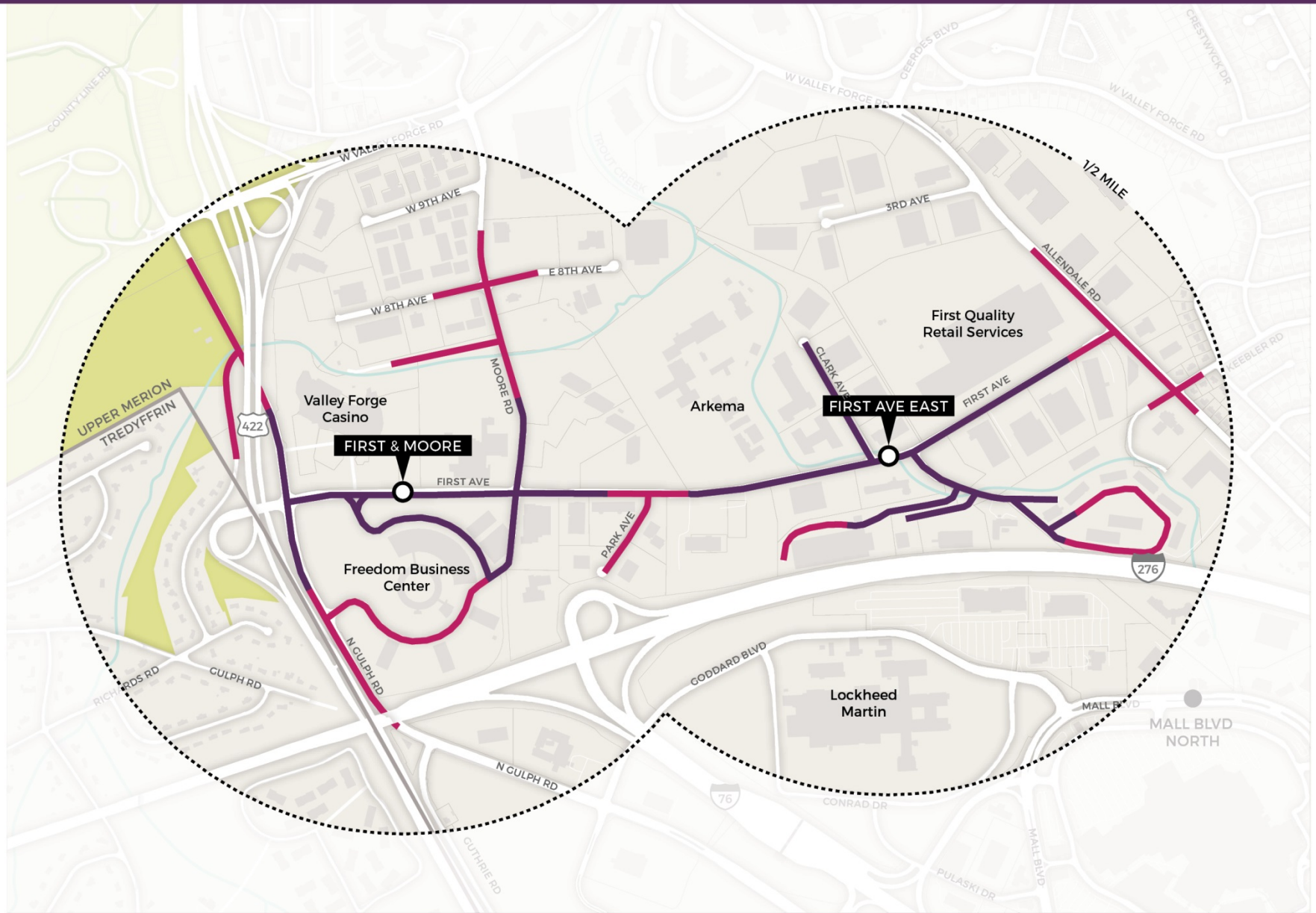

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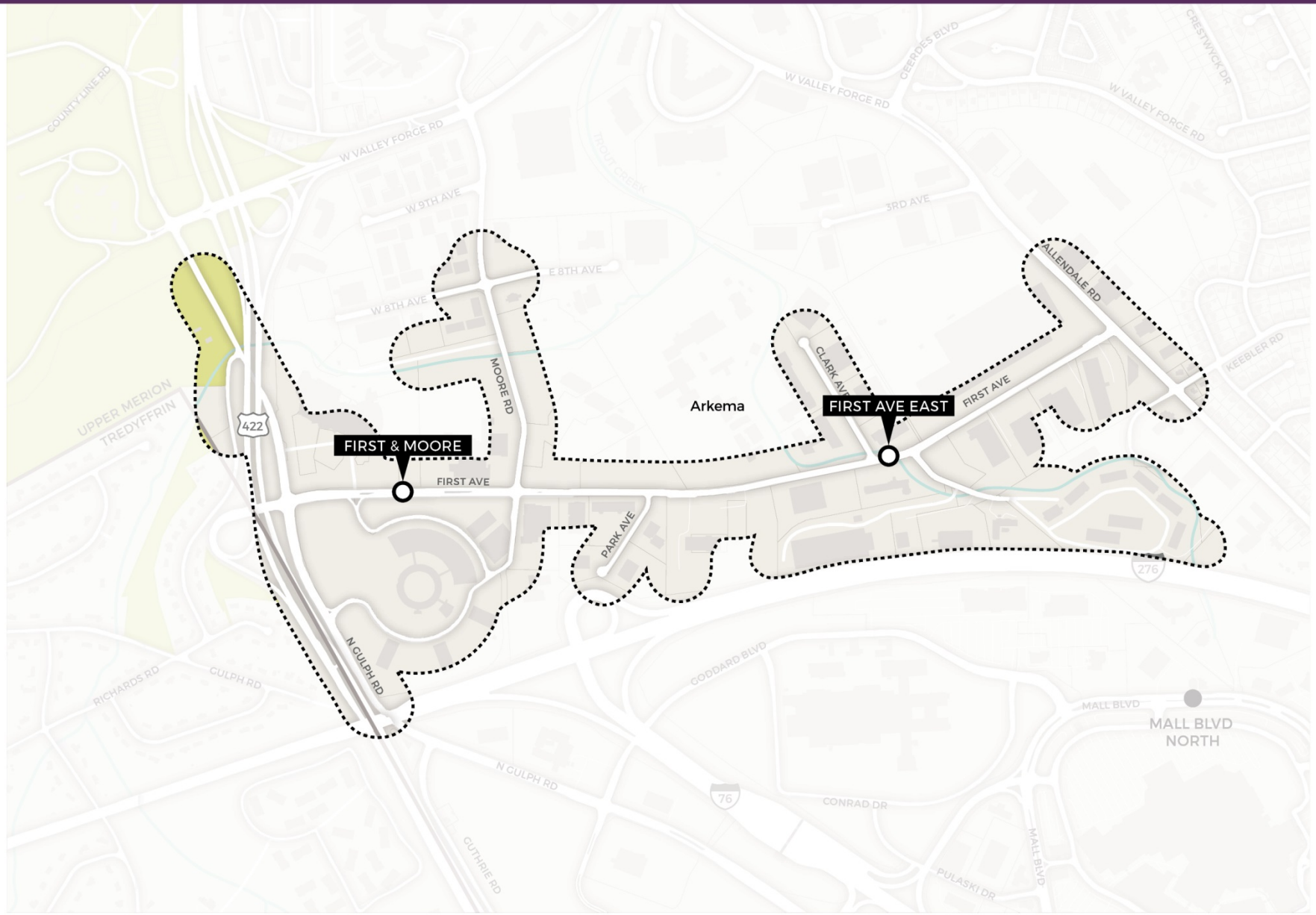
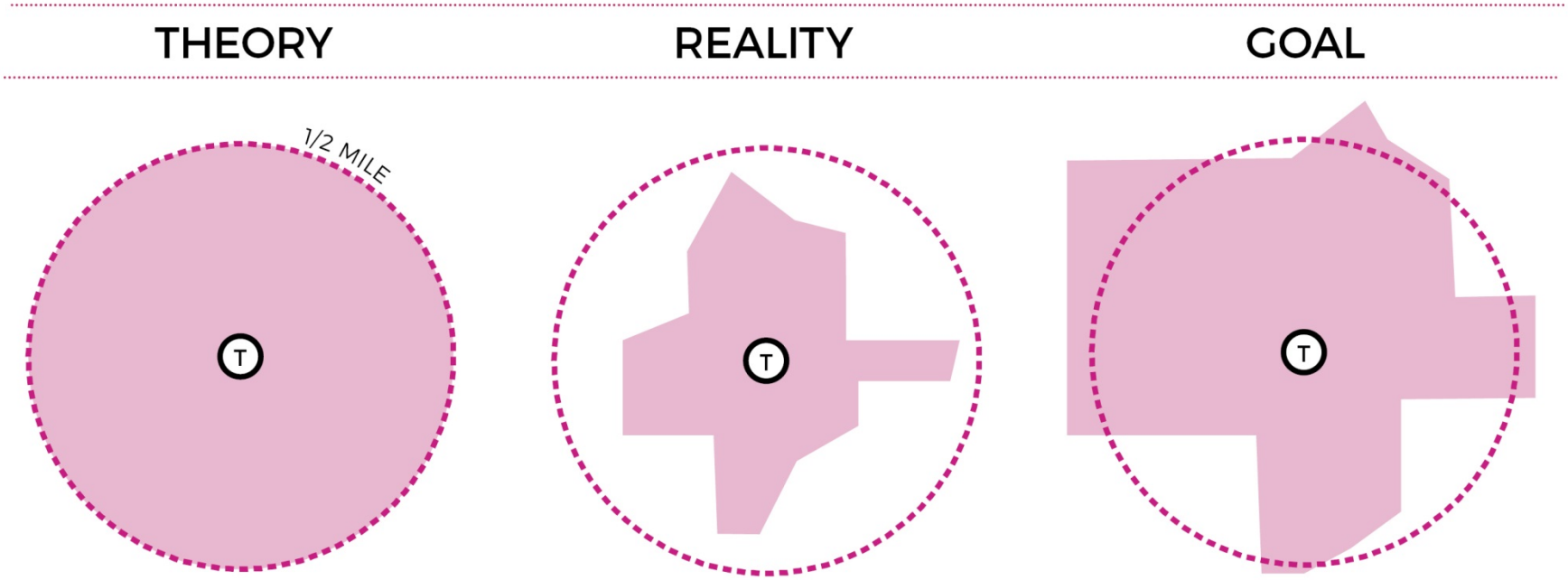


Access to Transit Planning: **Theory and Reality**



Pedestrian & Bicycle **Toolbox**

Sidewalks

Bike Lanes

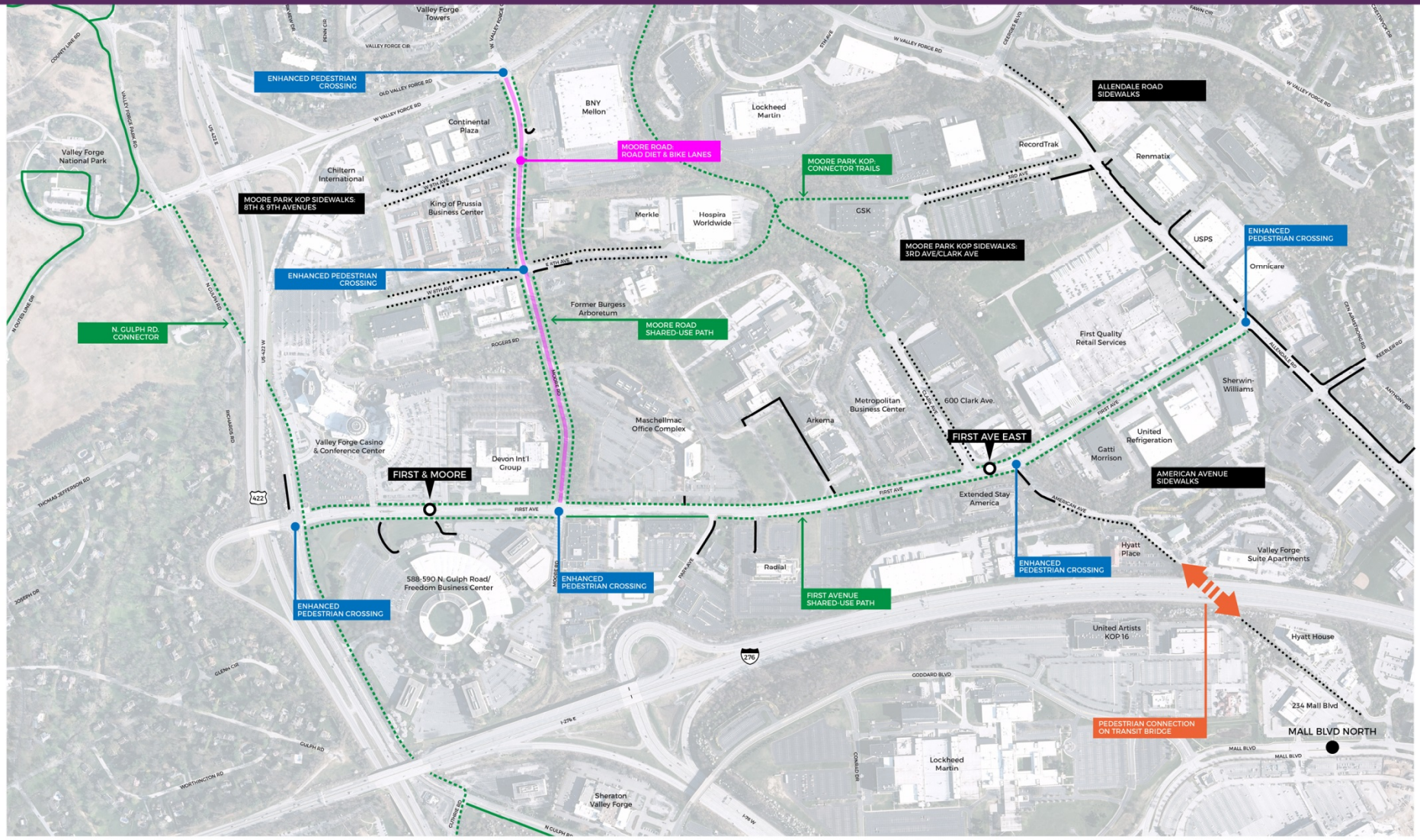
Crosswalks

Multi-Use Trails

Curb Extensions

Sidepaths

Active Transportation **Strategies**



Sidewalks
- Existing Sidewalks
- New Sidewalks

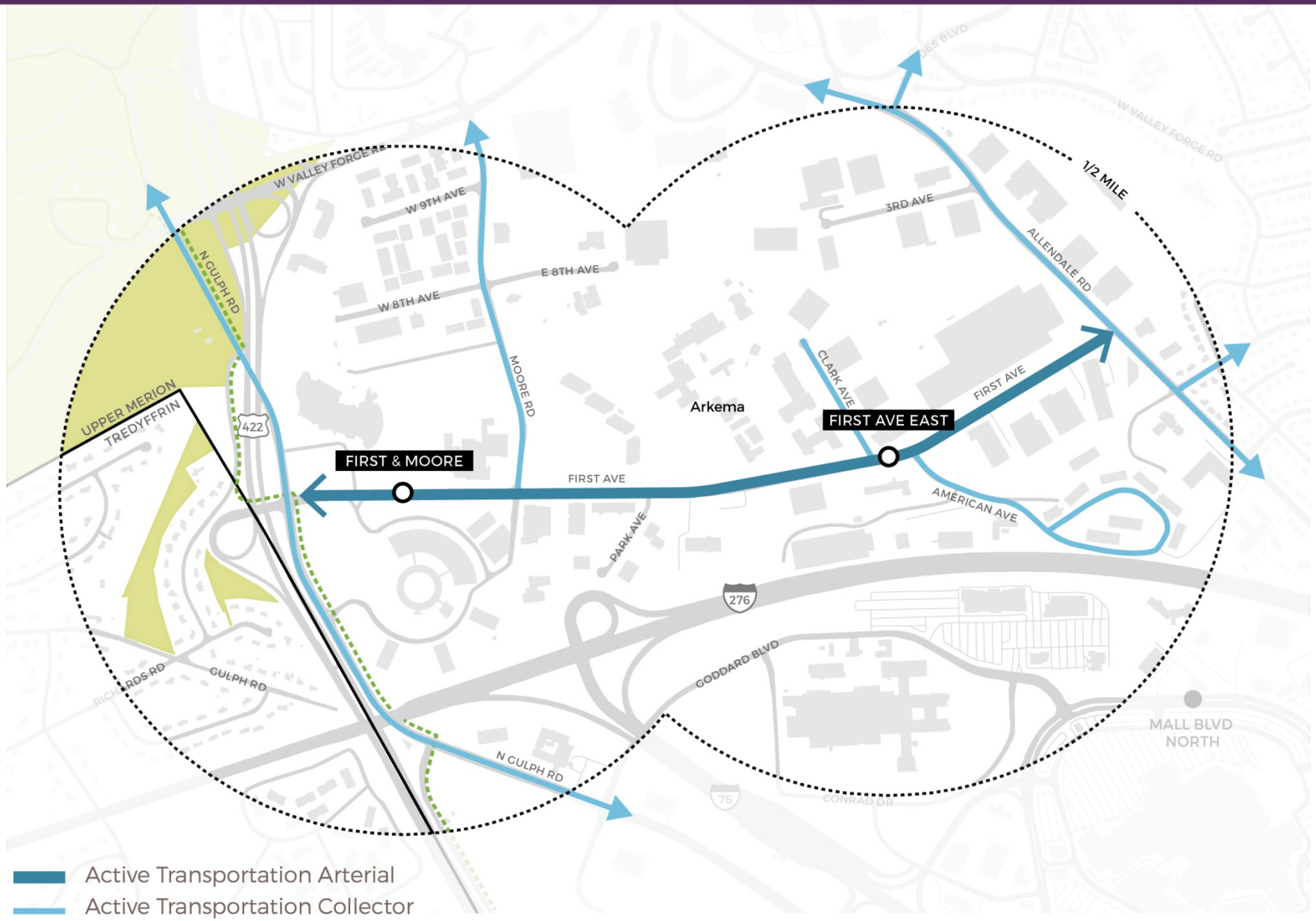
Multi-use Trails
- Existing Trails
- New Trails

Pedestrian Intersection Improvements

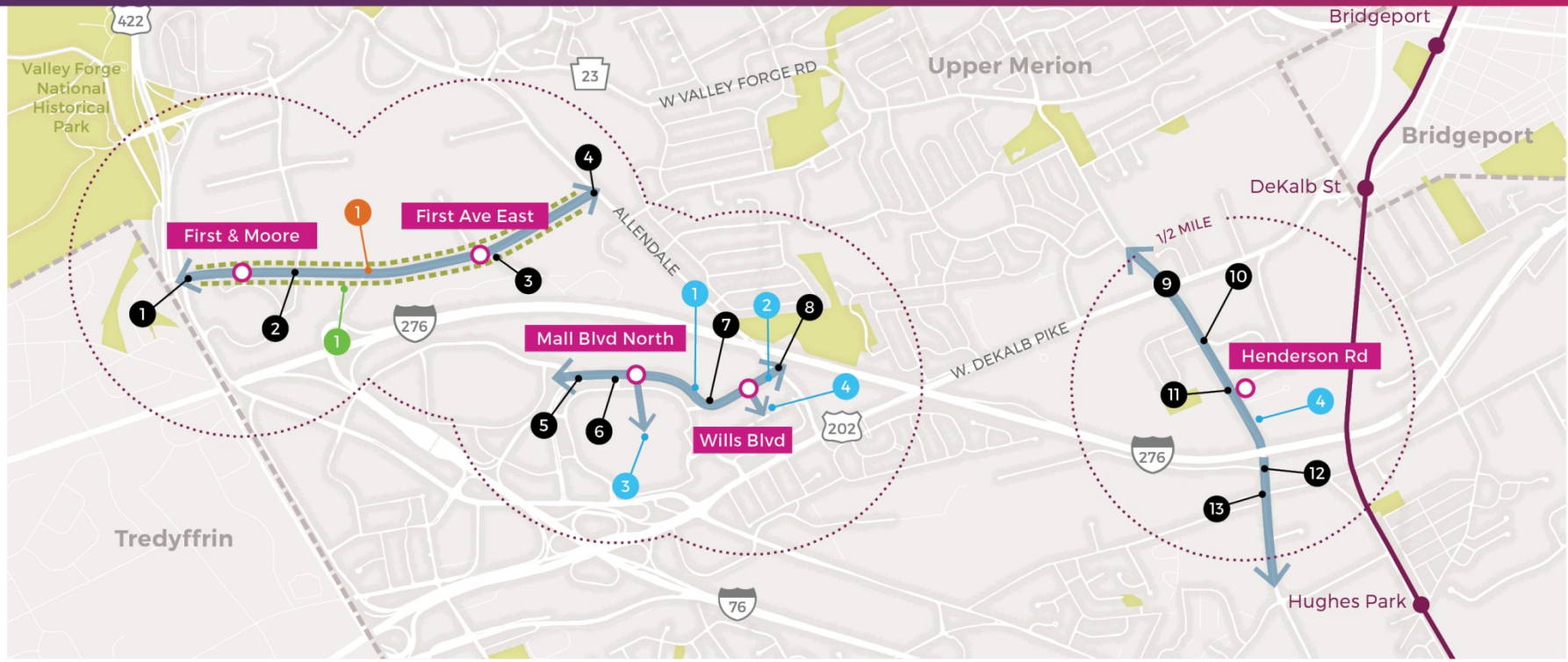
Road Diet with On-street Bike Lanes

Conceptual New Connections

Synthesizing Access **Issues** & **Opportunities**



Prioritizing Infrastructure Improvements



Active Transportation Arterial: Route that is expected to provide the primary nonmotorized access to and from a station

dvrpc 0.5 MILE NORTH

Priority Nonmotorized Transportation Improvements

NEW SIDEWALKS/PEDESTRIAN CONNECTIONS

1. Mall Blvd. sidewalks
2. Wills Blvd. sidewalks
3. KOP Mall parking lot connection
4. KOP Mall direct connection

NEW MULTI-USE TRAILS

1. First Avenue Linear Park

NEW BICYCLE FACILITIES

1. First Avenue On-Street Bike Lanes

ENHANCED PEDESTRIAN CROSSINGS

1. First Ave. & N. Gulph Rd.
2. First Ave. & Moore Rd.
3. First Ave. & American Ave.
4. First Ave. & Allendale Rd.
5. Mall Blvd. & Goddard Blvd.
6. Mall Blvd. & King of Prussia Plaza
7. Mall Blvd. & Wills Blvd.
8. Wills Blvd. & Allendale Rd.
9. Henderson Rd. & DeKalb Pike
10. Henderson Rd. & Monroe Blvd.
11. Henderson Rd. & Saulin Blvd.
12. Henderson Rd. & Hansen Access Rd.
13. Henderson Rd. & Church Rd.

Designing for **Walkability**

FACTOR	WHAT WORKS	WHAT DOESN'T
Street Layout	▲ Small blocks ▲ Grid system	▼ Long, winding streets ▼ Dead-ends
Mix of Uses	▲ Mixed-use	▼ Single use
Pedestrian Environment	▲ Wide sidewalks ▲ Street trees ▲ Slow traffic speeds ▲ Frequent crossings ▲ Well-marked intersections	▼ Narrow or no sidewalks ▼ Fast moving traffic ▼ No intersection markings ▼ Long wait times
Site Design	▲ Shallow setbacks ▲ Entrances near sidewalk	▼ Large setbacks ▼ Surrounded by surface lots
Parking	▲ Limited ▲ Managed parking	▼ Abundant ▼ Free

Guiding Principles

Which principles should guide the planning and design of these station areas?

Guiding Priciples

1. **Make walking and bicycling as comfortable as possible.**
2. Encourage development that supports transit.
3. Capitalize on placemaking opportunities.
4. Elevate the transit experience.

- Intersections
- Driveways
- Mid-Block Crosswalks
- Road Diets
- New Streets

Guiding Principles

1. Make walking and bicycling as comfortable as possible.
2. **Encourage development that supports transit.**
3. Capitalize on placemaking opportunities.
4. Elevate the transit experience.

- Land Use
- Building Design
- Parking

Guiding Principles

1. Make walking and bicycling as comfortable as possible.
2. Encourage development that supports transit.
3. **Capitalize on placemaking opportunities.**
4. Elevate the transit experience.

- Public Space Design
- Streetscaping

Guiding Principles

1. Make walking and bicycling as comfortable as possible.
2. Encourage development that supports transit.
3. Capitalize on placemaking opportunities.
4. **Elevate the transit experience.**

- Station Design
- Wayfinding and Information Systems

KING OF PRUSSIA RAIL

STATION AREA PLANNING FOR THE NHSL RAIL EXTENSION

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DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

KOP Rail: **Defining Station Areas**

FIRST AVENUE STATIONS

KOP Rail: **Defining Station Areas**

KOP MALL STATIONS

KOP Rail: **Defining Station Areas**

HENDERSON ROAD STATION