



Transportation Improvement Program New Jersey TIP (FY2022-2025) Pennsylvania TIP (FY2021-2024)

DVRPC RTC | March 2022



Transportation Improvement Program

Electrical Cable Replacement

DRPA/PATCO | Add Project Back into the TIP

TIP Amendment

- Action: Add project back into TIP for FY22-25 Engineering/Right of Way/Construction (ERC) for \$3.85 million (M) SECT 5337/DRPA
- Reason: DRPA/PATCO anticipates additional funds from Bipartisan Infrastructure Law (BIL)

Background:

- Previous FY2020 TIP project
- \$3.85 M total cost
- Line item provides for systemwide replacement of electrical cable to improve reliability and fire resistance of PATCO Speedline



TIP ACTION | Proposed - NJ

Request RTC Recommendation of TIP Amendment: Electrical Cable Replacement Add \$3.85 M project to the TIP for FY22-25 ERC

- FY22 (\$200,000 SECT 5337/\$50,000 DRPA)
- FY23 (\$960,000 SECT 5337/\$240,000 DRPA)
- FY24 (\$960,000 SECT 5337/\$240,000 DRPA)
- FY25 (\$960,000 SECT 5337/\$240,000 DRPA)

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MOU to Amend and Modify the NJ TIP B(3)(d):

"When the cost of a Program Line Item increases by more than \$10,000,000."

Formal, Administrative, and Informational actions represent \$39.8 M overall increase to DRPA/PATCO Transit Program:

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\$10.1 M (First-Four)
\$29.7 M (Out-Years)

PATCO Station Platform Rehabilitation DRPA/PATCO | Cost Increase

TIP Modification

- Action: Increase FY22-25 ERC by \$600,000; decrease FY26-31 ERC by \$15.6 M SECT 5307/DRPA
- 10-year period: Overall \$15 M decrease from \$48 M to \$33 M
- Reason: Updated cost estimates; DRPA/PATCO anticipates additional funds from BIL

• Background:

 Line item provides for planning, design, and reconstruction activities of PATCO station platforms



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PATCO Viaduct Preservation

DRPA/PATCO | Cost Increase

TIP Modification

- Action: Increase FY22-25 Engineering/Construction (EC) by \$6.5 M and FY26-31 EC by \$6.25 M SECT 5337/DRPA
- 10-year period: Overall \$12.75 M increase from \$1 M to \$13.75 M
- Reason: Updated cost estimates; DRPA/PATCO anticipates additional funds from BIL

• Background:

• Line item to improve and protect Collingswood and Westmont viaducts



PATCO Interlocking & Track Rehabilitation DRPA/PATCO | Cost Increase

TIP Modification

- Action: Increase FY22-25 EC by \$5.3 M and FY26-31 EC by \$14.7 M SECT 5307/DRPA
- 10-year period: Overall \$20 M increase from \$7.5 M to \$27.5 M
- Reason: Updated cost estimates; DRPA/PATCO anticipates additional funds from BIL

• Background:

• Line Item to rehabilitate and replace interlockings, rail bed, and other rail improvements to ensure overall PATCO system safety, reliability, and minimal service disruptions



TIP ACTION | Proposed - NJ

Request RTC Recommendation of TIP Modifications

- PATCO Station Platform Rehabilitation
 Increase FY24-25 ERC by \$600,000 and decrease FY26-31 ERC by \$15.6 M SECT 5307/DRPA
 - FY24 (\$160,000 SECT 5307/\$40,000 DRPA), FY25 (\$320,000 SECT 5307/\$80,000 DRPA)
 - FY26 (\$2.08 M SECT 5307/\$520,000 DRPA decrease), FY27 (\$6.4 M SECT 5307/\$1.6 M DRPA decrease), FY28 (\$8 M SECT 5307/\$2 M DRPA decrease), FY29 (\$4 M SECT 5307/\$1 M DRPA decrease), FY30 (\$4 M SECT 5307/\$1 M DRPA increase), FY31 (\$4 M SECT 5307/\$1 M DRPA increase)
 - 10-year period: Overall \$15 M decrease from \$48 M to \$33 M

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TIP

TIP ACTION | Proposed - NJ

Request RTC Recommendation of TIP Modifications (continued)

PATCO Viaduct Preservation

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Increase FY22-25 EC by \$6.5 M and FY26-31 EC by \$6.25 M SECT 5337/DRPA

- FY23 (\$3.6 M SECT 5337/\$900,000 DRPA), FY24 (\$1.6 M SECT 5337/\$400,000 DRPA)
- FY29 (\$1 M SECT 5337/\$250,000 DRPA), FY30 (\$1.5 M SECT 5337/\$375,000 DRPA), FY31 (\$2.5 M SECT 5337/\$625,000 DRPA)
- 10-year period: Overall \$12.75 M increase from \$1 M to \$13.75 M
- PATCO Interlocking & Track Rehabilitation Increase FY22-25 EC by \$5.3 M and FY26-31 EC by \$14.7 M SECT 5307/DRPA
 - FY23 (\$960,000 SECT 5307/\$240,000 DRPA), FY24 (\$1.44 M SECT 5307/\$360,000

PATCO Stations Modernizations DRPA/PATCO | Cost Decrease

TIP Modification

- Action: Decrease FY22-25 EC by \$3.5 M and increase FY26-31 EC by \$15 M SECT 5337/DRPA
- 10-year period: Overall \$11.5 M increase from \$9.5 M to \$21 M
- Reason: Updated cost estimates; DRPA/PATCO anticipates additional funds from BIL

• Background:

- FY22-25 decrease from \$9.5 M to \$6 M
- Line Item to modernize all PATCO commuter stations and extend the useful life of the stations and their major components



TIP ACTION | Proposed - NJ

Request RTC Recommendation of TIP Modification

PATCO Stations Modernizations

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- Decrease FY22-25 EC by \$3.5 M and increase FY26-31 EC by \$15 M SECT 5337/DRPA
 - FY23 (\$4 M SECT 5337/\$1 M DRPA decrease), FY24 (\$400,000 SECT 5337/\$100,000 DRPA increase), FY25 (\$800,000 SECT 5337/\$200,000 DRPA increase)
 - FY26 (\$3 M SECT 5337/\$750,000 DRPA), FY27 (\$1 M SECT 5337/\$250,000 DRPA), FY29 (\$500,000 SECT 5337/\$125,000 DRPA), FY30 (\$2.5 M SECT 5337/\$625,000 DRPA), FY31 (\$5 M SECT 5337/\$1.25 M DRPA)
 - 10-year period: Overall \$11.5 M increase from \$9.5 M to \$21 M

East College Ave over PA Canal (CB #55) & Old Bethlehem Pike over Three Mile Run (CB #258) Bucks County | Add New Projects to TIP

• TIP Amendment

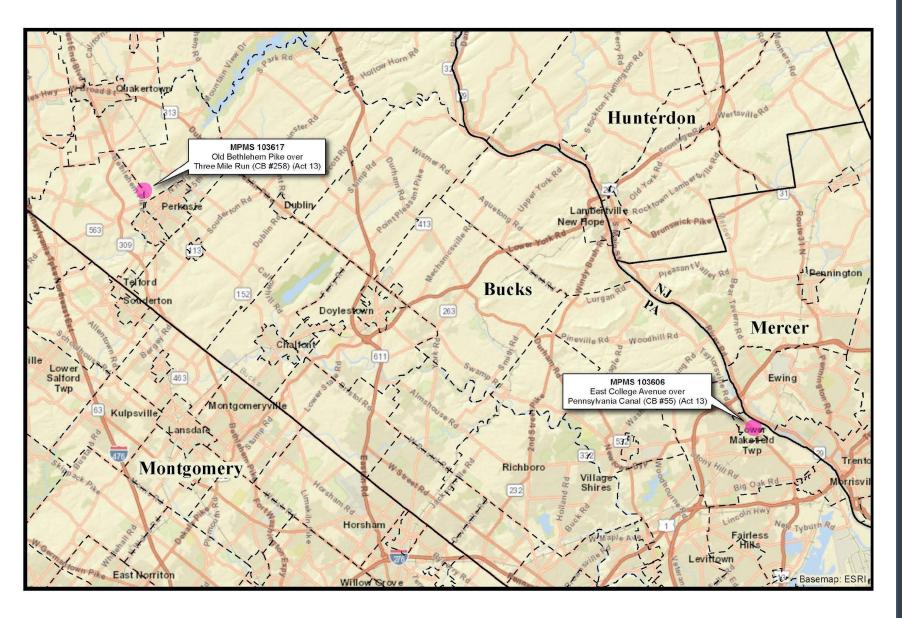
 Action: Add 2 new bridge projects to TIP using \$2.9 M of Bucks County's Act 13 allocation: FY22 PE: \$150,000 per bridge FY22 FD: \$100,000 per bridge FY23 ROW: \$25,000 per bridge FY23 UTL: \$25,000 per bridge FY23 CON: \$1.3 M for East College Ave over PA Canal, and \$1 M for Old Bethlehem Pike over Three Mile Run

 Reason: For replacement or repair of locally owned at-risk deteriorated bridges

• Background:

• Act 13 funds are additional to the region





East College Ave over PA Canal (CB #55)

- Built in 1973
- Substandard safety features at the bridge approaches
- Classified as "poor" due to condition of substructure and advanced deterioration of structural elements
- Includes safety upgrades to the bridge railing and guide rail

Old Bethlehem Pike over Three Mile Run (CB #258)

- Built in 1955
- Substandard safety features at the bridge approaches
- Classified as "poor" due to condition of super/substructure and advanced deterioration of structural elements
- Includes safety upgrades
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TIP ACTION | Proposed - PA

Transportation Improvement Program

TIP

Request RTC Recommend Board Approval of TIP Amendment

East College Ave over PA Canal (CB #55) & Old Bethlehem Pike over Three Mile Run (CB #258) Add 2 new bridge projects to TIP using \$2.9 M of Bucks County's Act 13 allocation:

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ADA Ramps

- City of Philadelphia | Add New Projects to TIP
 - TIP Amendment
 - Action: Add 2 new projects totaling \$500,000 STP/State 581 for FY22 PE:
 - ADA Ramps Center City Phila: \$400,000 (\$320,000 STP/\$80,000 State 581)
 - 2022-23 ADA Ramps Phila: \$100,000 (\$80,000 STP/\$20,000 State 581)
 - **Reason:** For repair or reconstruction of damaged/deteriorated ADA facilities
 - Background:
 - ADA Ramps Center City Phila: repair/reconstruct ~107 ADA ramps on Market, Chestnut, and Walnut Streets
 - 2022-23 ADA Ramps Phila: improve ~258 ADA ramps along Chestnut, Walnut, Fifth, and Spring Garden Streets



TIP ACTION | Proposed - PA

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Request RTC Recommend Board Approval of TIP Amendment

ADA Ramps

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IIJA/BIL FFY 2022 Funding Allocation

Various Counties | Additional Funding Availability

TIP Amendment

- Action: Add \$98.879 M in additional funds in FY22 from the Infrastructure Investment and Jobs Act (IIJA)/Bipartisan Infrastructure Law (BIL)
- Funds will be moved to existing/new line items, and to a specific project for a cost increase
- Reason: The DVRPC region is receiving \$115,259,000 in additional FY22 federal funding from the IIJA/BIL
- \$98.879M is being added to the TIP with this action

• Background:

- *IIJA/BIL funds are additional to the region.*
- Remaining FY22 IIJA/BIL funds will be added once amounts are finalized by FHWA and PennDOT

IIJA/BIL FFY 2022 Funding Allocation

Adding the following funds to a specific project:
\$43,794,000 NHPP IIJA/BIL to FFY 2022 Funding Allocations; shifted to project as part of next action (PA21-73)

Adding the following funds to their respective line items:

- \$41,313,000 Bridge Improvement Program (BRIP) in FY22 to Bridge Investment Program Line Item
- \$7,050,000 HSIP to Regional Safety Initiatives Line Item
- \$6,222,000 Bridge Off-System (BOF) to Bridge Reserve Line Item
- \$500,000 CAQ to CMAQ Line Item



TIP ACTION | Proposed - PA

Transportation Improvement Program

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Request RTC Recommend Board Approval of TIP Amendment

• IIJA/BIL FFY 2022 Funding Allocation

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- \$6,222,000 Bridge Off-System (BOF) to Bridge Reserve Line Item
 - \$500,000 CAO to CMAO Line Item

I-95 CAP/Waterfront Access

City of Philadelphia | Cost Increase and Add Breakout Project to TIP

• **TIP Amendment**

- Action: Increase CON phase of I-95 CAP/Waterfront Access project by \$94,000,000 (FY22: \$2,758,000 BRIP/\$43,794,000 NHPP/Toll Credit; FY29: \$34,949,000 STU/\$12,499,000 STP/Toll Credit) and
- Add Penn's Landing Project Development Local as new breakout project for \$105,000,000 (\$60,000,000 LOC/\$45,000,000 PRIV) CON in FY22
 - **Reason:** CON cost estimate increase as detailed on next slides; project will be delivered on 2 separate contracts



I-95 CAP/Waterfront Access

• Project Background:

- Innovative cap structure, viaduct, road, and trail to re-establish connection between Central Philadelphia and the waterfront
- Multimodal enhancements to improve experience for pedestrians, cyclists, and vehicles
- Create and develop public spaces on the bridge/cap structure
 - These elements are not eligible for Federal/State transportation funding



Park at Penn's Landing





I-95 CAP/Waterfront Access – 2 Contracts

- Contract 1: I-95 Central Access Philadelphia (CAP) / Waterfront Access
 - Foundation, substructure, superstructure, and other Federal/State funding eligible items
 - Increased CON costs associated with:
 - Increased cost for materials (incl. steel)
 - Retaining walls and deeper foundations due to soil conditions
 - Utility relocation
 - Pavement/barrier improvements; automated lane control with VSL
 - Lighting and trail improvements; external elevator
 - Relocation and restoration of Scottish and Irish memorials

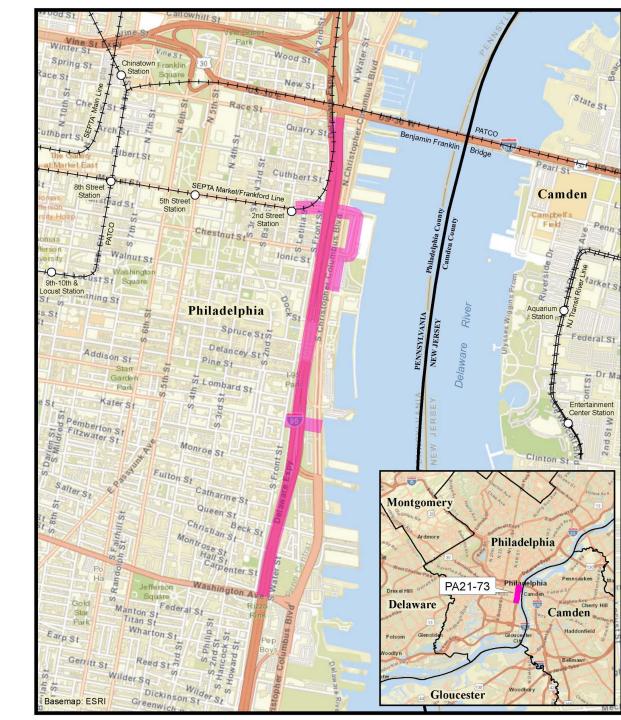


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I-95 CAP/Waterfront Access – 2 Contracts

Contract 2: Penn's Landing Project Development – Local

- Funded via Local and Private funds
- CON of essential items for public spaces that are ineligible for Federal/State transportation funding
- PennDOT only responsible for heavy infrastructure
- City and DRWC responsible for landscape, buildings, and amenities



I-95 CAP/Waterfront Access 5 Components:

- Replace/expand structure near Penn's Landing; new, extended structure spanning I-95 and CC Blvd between Walnut and Chestnut Sts
- Extend South St pedestrian bridge to Penn's Landing
- Construct section of Del. River Trail along CC Blvd.
- Repair/replace existing underwater concrete piles at Penn's Landing
- Enable creation of public spaces on bridge/cap

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South Street Pedestrian Bridge Extension



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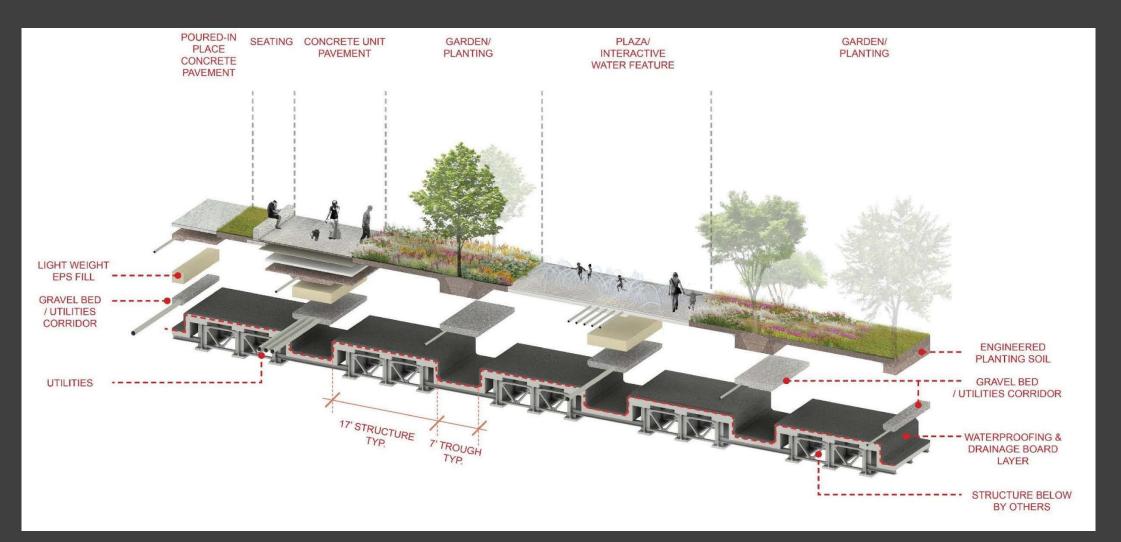
Park at Penn's Landing – Memorials



Fountain Grass Pennisetum Fairy Tails PROPOSED MEMORIAL SCHEME



Project Elements – Park at Penn's Landing – CAP Structure







TIP ACTION | Proposed - PA

Transportation Improvement Program

TIP

Request RTC Recommend Board Approval of TIP Amendment

 I-95 Central Access Philadelphia (CAP) / Waterfront Access

Increase CON phase of I-95 CAP/Waterfront Access project by \$94,000,000 (FY22: \$2,758,000 BRIP/\$43,794,000 NHPP/Toll Credit; FY29: \$34,949,000 STU/\$12,499,000 STP/Toll Credit) and Add Popp's Landing Project Development Local as new

Add Penn's Landing Project Development – Local as new breakout project for \$105,000,000 (\$60,000,000 LOC/\$45,000,000 PRIV) CON in FY22

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www.dvrpc.org/TIP

MUNICIPAL IMPLEMENTATION TOOL 34:

CULTIVATING A HOMEGROWN ECONOMY

Presentation to the Regional Technical Committee

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HOMEGROWN PRODUCE

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March 8, 2022

Introduction

Over the past two decades, society has demonstrated a shift towards greater support for homegrown economies through increased consumer prioritization of local goods and services.



Source: Spencer Gober, 2021



Introduction



Economic Environmental Social

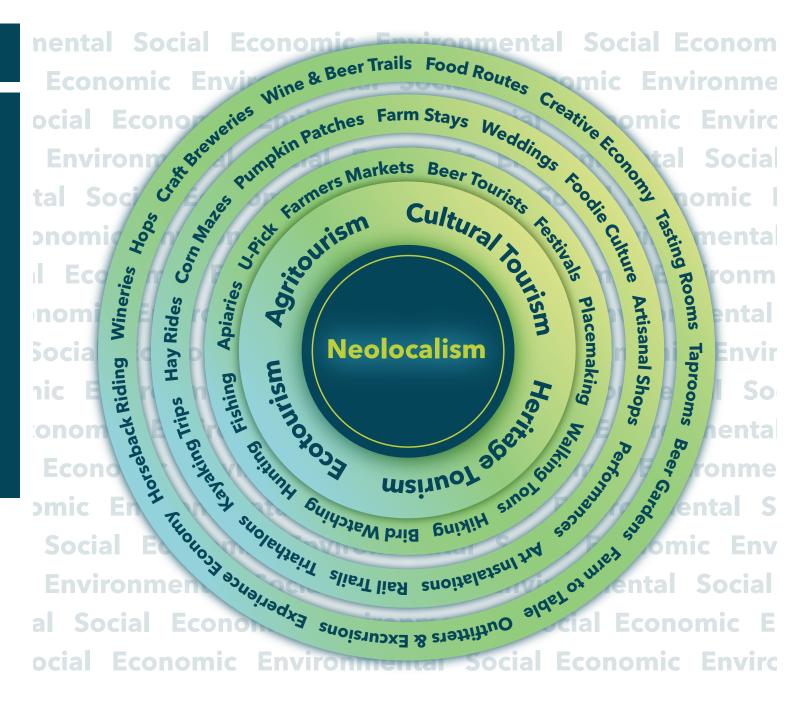
Sustainability

Source: Spencer Gober, 2021



Background

The term *neolocalism* is used to describe the deliberate and intentional seeking out of locally sourced goods, authentic cultural experiences, and more sustainable lifestyle choices as a way to offset the negative impacts that globalization has had on local identities and economies.



Source: DVRPC



The ABCs

Located in the Olde Kensington neighborhood, Perrystead Dairy opened in 2021, and specializes in making cheese from grassfed milk sourced from family farms within Pennsylvania.



Authentic Local Traceable Unique Transparent

Attributes

Source: Spencer Gober, 2021



The ABCs

Solebury Orchards, located in Solebury Township, Pennsylvania, offer a pick-your-own experience providing consumers with direct access to their food source through a unique experience.



Control Synergy Conservation Engagement Empowerment

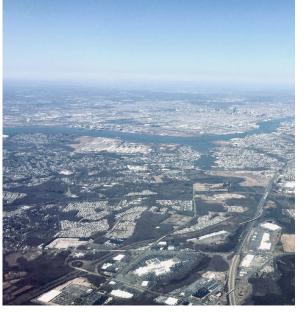
Benefits

Source: Spencer Gober, 2015



The ABCs

Economic growth often leads to increased development pressures that can undermine the very characteristics that led to success in the first place.



Degradation Displacement Homogenization Inauthenticity Strain on Services

Challenges

Source: Spencer Gober, 2015



Cultivating a Homegrown Economy | RTC Presentation 03.08.2022

Strategies

In order to be successful, strategies should address all three pillars of sustainability:

1. Economic



Source: Spencer Gober, 2021

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Develop an approach to branding and marketing.

Contract with a Brand Consultant Create Branded Trails Develop Destination Branding Evaluate New Data Sources

Leverage Visitors' Bureaus

Enable diverse opportunities for locally owned businesses.

Aid Agricultural Diversification Allow for Apiaries Anticipate Cannabis Deploy Digital Infrastructure Enable the Craft Beverage Industry Enact Local Procurement Policies Plan for Short-Term Rentals Seek Partnerships

Zone for Small-Scale Manufacturing

Find and provide funding.

Fund Facade Improvement Programs

Join Main Streets Programs

Leverage U.S. Economic Development Administration Grants

Provide Grants to Entrepreneurs

Create Branded Trails

The Bucks County Ale Trail

As of 2022, nearly 30 craft breweries across Bucks County are connected to, and promoted by, Visit Bucks County through its Bucks County Ale Trail program.

People can participate informally by simply visiting each of the breweries, or formally by signing up online for trail passport.

Participants become eligible for discounts by checking in digitally in at the breweries they visit via the digital passport makes. After checking in at five participating breweries, paricipants will automatically win a free Ale Trail t-shirt.

More information is available at: www.visitbuckscounty.com

Enable the Craft Beverage Industry

Kennett Square Borough, Chester County, Pennsylvania

The Kennett Square Zoning Ordinance identifies specific zones where brewery uses are appropriate, and even goes as far as to specify what brewery sizes are most appropriate within each zone.

Brewery sizes are outlined in the definitions section of the ordinance as either a brewpub, craft brewery, microbrewery, nanobrewery, regional brewery, or even a wine bar.

For more information visit: **www.kennettsq.org**



New Jersey Transient Accommodations Tax

In 2018, the State of New Jersey adopted legislation that defines short-term rentals as *transient accommodations*, and empowers local municipalities to impose a tax up to 3 percent of the rental price.

More information is available at: www.state.nj.us/treasury

Allow for Appiaries

Pennsylvania Model Ordinance for Beekeeping

The PA State Beekeepers Association, the Penn State Center for Pollinator Research, and the PA Apiary Advisory Board collaborated to develop a model ordinance to help guide municipal adoption of and support for policies that allow for apiaries.

More information can be found at: www.pastatebeekeepers.org



"Buy Camden"

Adopted in April 2021, the City of Camden's "Buy Camden" purchasing policy requires that at least 30 percent of the City's goods and services be contracted out from local businesses.

The policy also provides for the establishment of a Local Business Enterprise designation.

Visit the following for more information: **www.ci.camden.nj.us**

O Zone for Small-Scale Manufacturing

Philadelphia's Artisan Industry

The zoning code for the City of Philadelphia defines artisan industrial uses as spaces used by artisans to produce consumer goods, food, beverages, or wearing apparel or accessories by hand manufacturing and small-scale, light mechanical equipment. Artisan industrial uses have no discernible external impacts in terms of noise, vibration, odor, hours of operation, or traffic.

More information can be found at: **www.phila.gov**

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Strategies

In order to be successful, strategies should address all three pillars of sustainability:

Economic
 Environmental



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Preserve, improve, and utilize the existing built environment.

Activate Vacant Storefronts Adopt and Implement Complete Streets Policies Draft Form-Based Codes Make Wayfinding Easy Restore, Preserve, and Utilize Historic Landmarks and Sites

Protect agricultural, cultural, and natural landscapes.

Accommodate Electric Vehicles Ban Plastic Bags Build Trails and Connect to the Circuit Conserve Farmland Maintain Important Viewsheds Preserve Open Space Protect Watersheds Adopt Complete Streets Ordinances

Narberth Borough Montgomery County, Pennsylvania

DVRPC partnered with Narberth Borough and the Narberth Cycling Club to build a protected bike lane on Windsor Avenue as a 10-day pilot project.

The partnership was done as part of DVRPC's Experimental Pop-ups (EXPO) program, which was created as a way in which to assist community efforts to design, implement, and measure projects that apply various pedestrian, bicycle, transit, and roadway strategies that address safety and placemaking.

The Narberth pop-up demonstrated features of complete streets design, and ran for a 10 day period in November 2020.

Visit the following for more information: **www.dvrpc.org/expo**



3 Build and Connect to the Circuit

Elk Township, Gloucester County, New Jersey

In 2020, Elk Township took the first step towards connecting to the Circuit Trails when it applied for and received grant funds through DVRPC's Transportation and Community Development Initiative (TCDI) program to study, and prepare a plan for, improving bicycle and pedestrian transportation connections to the Circuit Trail Network.

More information is available at: **www.dvrpc.org/tcdi**

2 Draft Form-Based Codes

Haddonfield Borough, Camden County, New Jersey

A form-based style of zoning was used to develop the zoning regulations for Haddonfield Borough's four Downtown Zoning Districts.

The zoning was put in place in order to implement the Haddonfield Master Plan, and to "create mixed-use, walkable places that are an extension of the traditional pattern of downtown."

More information can be found at: **www.haddonfieldnj.org**



Farmland Preservation Program

Gloucester County, New Jersey, created the Farmland Preservation Program as a way in which to permanently preserve agricultural lands throughout the county.

This goal is accomplished through the purchase of development rights on active farms, which has resulted in the preservation of more than 21,000 acres of farmland across 300 farms.

Additional information is available at: www.gloucestercountynj.gov/403/Farm land-Preservation-Program



Cramer Hill Waterfront Park

The Office of Natural Resource Restoration, in conjunction with the Division of Coastal Engineering and the Camden Redevelopment Agency, worked in Camden City, New Jersey, to transform the 62 acre former Harrison Avenue Landfill into the Cramer Hill Waterfront Park. The project includes shoreline protection, landfill closure, natural resource restoration, and park construction.

More information is available at: www.nj.gov/dep/nrr/cramer-hill.htm



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Strategies

In order to be successful, strategies should address all three pillars of sustainability:

1. Economic 2. Environmental 3. Social



Cultiva

Celebrate and create.

Host Festivals Incorporate Local Folklore Promote and Showcase Local Artists and Artisans Support the Performing Arts

Engage all members of the community.

Be Inclusive Collaborate across **Boundaries Curate Social Media** Content Embrace and Promote Diversity Launch Surveys

Incorporate Local Folklore

The Firebird Festival

According to local lore, Phoenixville Borough, located in Chester County, Pennsylvania, got its name when the owner of the community's first iron company saw a Phoenix, or Firebird, rising from the flames of the foundary furnaces. In ancient mythology, the Phoenix represents rebirth and renewal, and after a period of economic decline, Phoenixville has enjoyed a period of renewal over the past two decades.

In 2004, the Phoenixville Arts and Entertainment Committee came up with the idea of the Firebird Festival as a way in which to cultivate an artist culture in the community by leveraging local lore and identity.

Each member of the Committee was tasked with organizing the various components of the festival:

- 1. Craft vendors,
- 2. Entertainment,
- 3. Fundraising, 4. Outreach and branding, and
- 5. Venue.

In the first year, 150 people attended, and it has grown into a 20,000 person event.

More information is available at: www.firebirdfestival.com



Showcase Local 2 Artists

Mural Arts Philadelphia

Mural Arts Philadelphia was founded over 35 years ago as a way in which to unite artists and communities around the common goal of transforming public spaces through art.

The success of the program has earned Philadelphia international recognition as the "City of Murals." The murals attract 15,000 people, locals and visitors, annually to tour the city,

Additional information can be found at: www.muralarts.org





Kennett Region Micro-Transit Study

Kennett Square Borough and Kennett Township identified that their communities faced the collective challenge of providing public transportation services to a growing, and increasingly diverse, population, thanks to success of the region's unique mushroom industry.

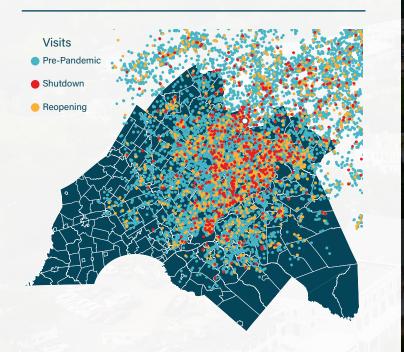
So, in 2020, the two communities submitted a joint application for, and were ultimately awarded, a TCDI grant to study this challenge. More specifically, to study possible approaches to and strategies for micro-transit as a way for the region to address current and future mobility needs.

Visit the following page for more information: **www.dvrpc.org/tcdi**

CASE STUDY

NEW HOPE BOROUGH, BUCKS COUNTY

During the pandemic, New Hope's downtown was the least-impacted in the region during the periods of economic shutdown and reopening.



Characteristics of pandemic-resilient downtowns:

- 1. Recent development activity
- 2. Economic, environmental, and social diversity
- 3. Residential populations
- 4. Connected to the region's Circuit Trails
- 5. Walkable and historic built environments.

www.dvrpc.org/communityrevitalization

Cultivating a Homegrown Economy | RTC Presentation 03.08.2022

MUNICIPAL IMPLEMENTATION TOOL 34:

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CULTIVATING A HOMEGROWN ECONOMY

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Spencer Gober

215.238.2844

www.dvrpc.org/Products/MIT034



Jeannette Brugger, Bicycle and Pedestrian Coordinator, OTIS Thom Stead, Senior Transportation Planner, DVRPC Regional Technical Committee March 8th, 2022

PennDot Connects Bike Friendly Resurfacing in Philadelphia



What is PennDOT Connects Bike Friendly Resurfacing?

PennDOT Connects is an effort to involve counties, municipalities, and communities early in the planning process of PennDOT projects.

For projects in the City of Philadelphia, DVRPC and OTIS use capacity analysis to assess how PennDOT roads can be redesigned to accommodate new facilities that improve safety for biking and walking.

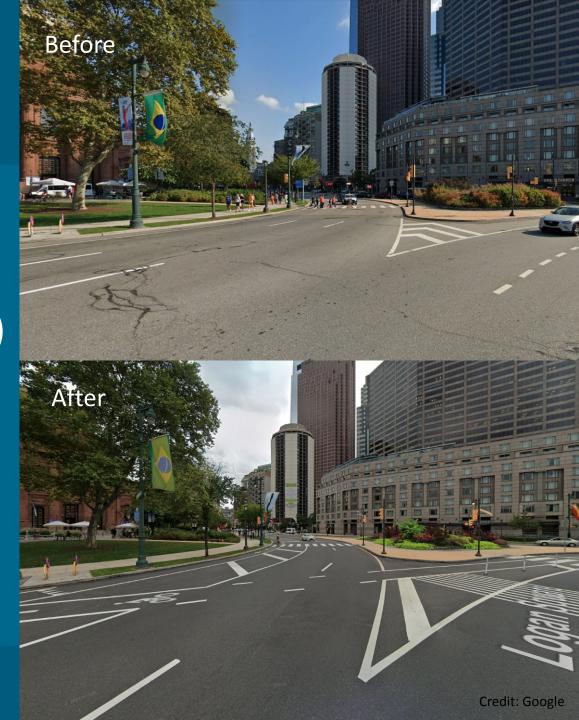
DVRPC and OTIS have collaborated on the following resurfacing projects since 2019:

- Benjamin Franklin Parkway (Arch to Eakins Oval)
- Arch Street (15th to 16th)
- Passyunk Avenue (24th to 28th)
- 16th (JFK to Arch)
- Market (30th to 34th)
- Chestnut (34th to Cobbs Creek Parkway)
- Walnut (22nd to Cobbs Creek Parkway)
- 15th (Callowhill to JFK)





Benjamin Franklin Parkway (Arch to Eakins Oval)



Process

- PennDot releases a 5-year list of roadways due to be repaved.
- DVRPC and OTIS identify roads that could either accommodate new bicycle facilities or need to have existing facilities modified to improve safety.
- DVRPC takes turning movement counts and does observation along the corridor during peak hours to collect existing conditions.
- OTIS and DVRPC develop conceptual designs based on high quality bike network goals and initial traffic observation.



Process Continued

- DVRPC and OTIS test many conceptual design iterations in Synchro to understand and mitigate potential traffic issues associated with designs.
- DVRPC develops a findings memo to share with PennDOT.
- PennDOT determines whether the analysis is acceptable or needs modifications.
- OTIS does outreach to local leaders and community.



Chestnut Street between 34th Street and Cobbs Creek Parkway



Credit: City of Philadelphia

Chestnut Street between 34th Street and Cobbs Creek Parkway

DVRPC used Synchro to do traffic analysis, optimization, and simulation, to answer the following questions about Chestnut Street:

- Do we need the existing mixing zones between 34th to 45th Streets?
- Does a 3 to 2 lane road diet work between 45th to 63rd Streets?
 - If yes, are mixing zones needed?
 - Can we use bike signals at some intersections?

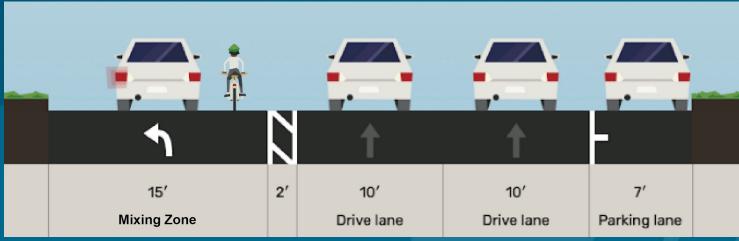
38th and Chestnut Existing Conditions



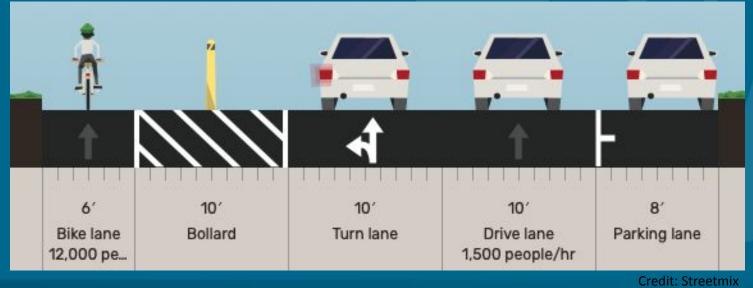
Credit: Nearmap, Google



Existing



Proposed



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- Synchro uses a map of the street grid that includes data for traffic volumes, travel lanes, traffic signal plans, pedestrian crossings, bikes, and bus stops.
- Uses microsimulation and equations from the Highway Capacity Manual to calculate delay (s), queueing (ft), and Level of Service.
- We created an existing and proposed scenario to compare how proposed changes will impact traffic.



Source: DVRPC



| | TIMING SETTINGS | EBL | → EBT | EBR | VBL | ← WBT | N BR | NBL | 1 NBT | / NBR | SBL | ↓ SBT | √ SBR | # PED | HOLD |
|-----------------|---------------------------|------|----------|------|-----------------|-----------------|-------------|---------|----------|----------|------|----------|-----------------|-----------------|------|
| Traffic volumes | Lanes and Sharing (#RL) | ٦ | <u> </u> | 1 | | | 1 | | <u>^</u> | 7 | ٦ | <u> </u> | | | — |
| | Traffic Volume (vph) | 148 | 1657 | 150 | 0 | 0 | 0 | 0 | 635 | 123 | 28 | 451 | C | - | - |
| | Future Volume (vph) | 148 | 1657 | 150 | 0 | 0 | 0 | 0 | 635 | 123 | 28 | 451 | 0 | 1000 | 1000 |
| | Turn Type | Perm | - | Perm | - | - | - | - | - | Perm | Perm | - | - | - | - |
| | Protected Phases | | 2 | | | | | | 8 | | | 4 | | | |
| | Permitted Phases | 2 | | 2 | | | _ | | | 8 | 4 | | - | | — |
| Signal Timings | Permitted Flashing Yellow | - | - | _ | | | _ | | | _ | - | | _ | _ | _ |
| | Detector Phases | 2 | 2 | 2 | | | - | | 8 | 8 | 4 | 4 | 4 | - | - |
| | Switch Phase | 0 | 0 | 0 | 1000 | 1000 | - | | 0 | 0 | 0 | 0 | - | | |
| | Leading Detector (ft) | 50 | 50 | 50 | | | - | | 50 | 50 | 50 | 50 | - | - | - |
| | Trailing Detector (ft) | 0 | 0 | 0 | | | — | | 0 | 0 | 0 | 0 | | 1000 | 1000 |
| | Minimum Initial (s) | 26.0 | 26.0 | 26.0 | | | - | - | 18.0 | 18.0 | 18.0 | 18.0 | - | - | - |
| | Minimum Split (s) | 32.0 | 32.0 | 32.0 | | | - | | 24.0 | 24.0 | 24.0 | 24.0 | - | | - |
| | Total Split (s) | 51.0 | 51.0 | 51.0 | | | | | 39.0 | 39.0 | 39.0 | 39.0 | - | - | - |
| | Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | _ | | 3.5 | 3.5 | 3.5 | 3.5 | - | - | — |
| | All-Red Time (s) | 2.5 | 2.5 | 2.5 | - | | - | - | 2.5 | 2.5 | 2.5 | 2.5 | - | - | _ |
| | Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 1770 | 100 | — | | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | Lagging Phase? | | | - | | | - | | | - | | | - | - | - |
| | Allow Lead/Lag Optimize? | 1000 | 1000 | 1000 | 1000 | 1000 | 2000 | 1000 | 15-04 | 1000 | 1504 | 1000 | 1.00 | 1000 | 1000 |
| | Recall Mode | Max | Max | Max | | | - | | Max | Max | Max | Max | - | - | |
| | Speed limit (mph) | 1 | 30 | - | | 30 | | | 30 | | | 30 | | | |
| Delay and LOS | Actuated Effct, Green (s) | 45.0 | 45.0 | 45.0 | | | _ | - | 33.0 | 33.0 | 33.0 | 33.0 | - | _ | - |
| | Actuated g/C Ratio | 0.50 | 0.50 | 0.50 | () | | - | | 0.37 | 0.37 | 0.37 | 0.37 | - | - | — |
| | Volume to Capacity Ratio | 0.20 | 1.05 | 0.26 | | | - | | 0.56 | 0.30 | 0.16 | 0.39 | - | - | - |
| | Control Delay (s) | 5.1 | 47.3 | 5.6 | 1000 | 1000 | - | | 44.9 | 41.3 | 22.1 | 22.3 | - | | - |
| | Queue Delay (s) | 0.0 | 20.1 | 0.0 | | | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | - |
| | Total Delay (s) | 5.1 | 67.4 | 5.6 | 1000 A | 1000 A | 2000 | 2528 | 44.9 | 41.3 | 22.1 | 22.3 | 255 | 2000 | 2000 |
| | Level of Service | A | E | A | | | - | | D | D | C | C | - | - | - |
| | Approach Delay (s) | | 58.0 | | | | | <u></u> | 44.3 | | - | 22.3 | - | | |
| Queuing | Approach LOS | | E | _ | - | | - | - | D | - | _ | C | - | - | - |
| | Queue Length 50th (ft) | 21 | ~593 | 22 | _ | _ | - | - | 215 | 79 | 11 | 103 | - | _ | - |
| | Queue Length 95th (ft) | m28 | m#688 | m31 | - | - | - | | 273 | 136 | 32 | 145 | - | - | - |
| | Stops (vph) | 44 | 1382 | 47 | 1000 | 1000 | | 1000 | 620 | 119 | 20 | 321 | 100 | | - |
| | Fuel Used (g/hr) | 1 | 29 | 1 | | | - | | 12 | 2 | 0 | 6 | | _ | - |

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38th Street Findings

Removing the mixing zone would:

 Would increase delay from Level of Service E to F
 Worsen Average and 95th Percentile Queues that already exceeded capacity

Recommendation: Retain Mixing Zone



Findings

- Do we need the existing mixing zones between 34th and 45th Streets? Some are needed
- Does a 3 to 2 road diet work between 45th and 63rd Streets? Yes
- If extended 45th to 63rd, would more mixing zones be needed and where? Yes, 48th and 52nd

 Can we make a bike signals work at the more challenging intersections with mixing zones to replace them? No



Chestnut Street Engagement & Design Process



Process

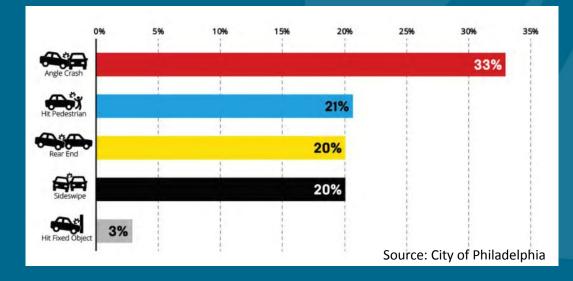
After DVRPC presented a favorable analysis in Fall of 2020, the City Team moved forward with the project

- City and agency working group
- Robust engagement process, Spring Fall 2021
- Design, Winter 2022
- City Council Legislation, Winter 2022



Crash History (2016-2020)

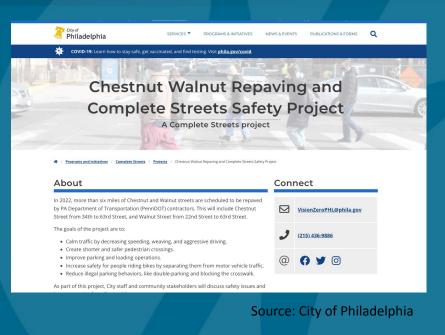
- There were 634 crashes on Chestnut & Walnut 2016-2020
- 89% of crashes were due to aggressive driving. 137 people walking were hit by drivers on Chestnut & Walnut Streets 2016-2020
- Almost 30% of people walking hit by drivers were under 18 or over 65 yrs old.
- Crashes killed 3 people, aggressive drivers killed 2 of those people.





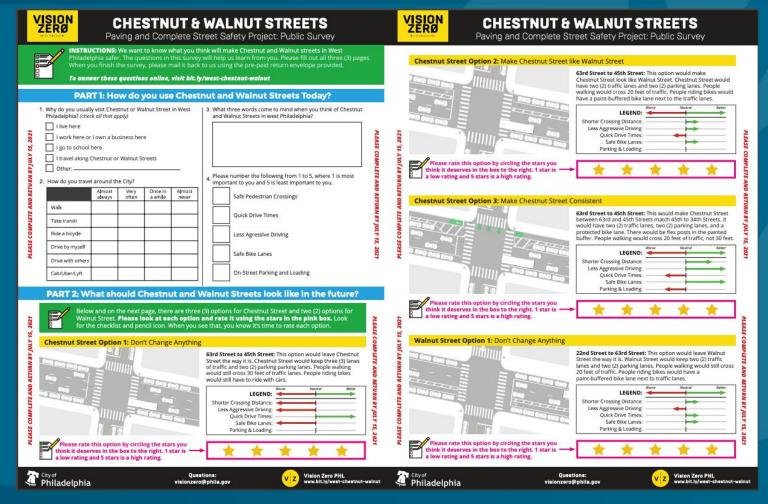
Project Timeline

- 2020, 2021 Traffic Analysis
- 2021 Engagement & Information Sharing
 - On-line civic meetings w 4 Civic Groups
 - Project Website
 - Door to door flyering & conversations
 - Posters along the corridor
 - Public open houses (outside)
 - Corner meetings
 - On-line public survey
 - In-person tabling on 60th Street
- 2022 Final Steps
 - Design
 - Parking & loading layout with PPA
 - Business loading survey for new LZs





Project Survey



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Survey Responses

- 1,763 total survey responses
- 1,569 online survey responses (89% of total)
- 194 paper survey responses (11% of total)
- 69% of all respondents living in target neighborhood
- Top 5 neighborhoods were target neighborhoods

stressful occast frees timed speedway tilly Busy crowded meas congestion travel highway not trash restaurants driving better pedestrians convenient lanes tong Wide fast people aggressive important biking Home bumpy unpredictable loud essential fast dangerous busy loud streets vital construction arterial chaotic corridors wide stopped potholes aggressive drivers congested big cars road traffic chestnut dangerous sale Busy confusing fast commercial speeding direct unsafe litter bike lanes penn Crowded University scary major shopping bustling dirty narrow double parking students parking danger drivers accidents double-parking parked cars fast cars weaving buses man artery vehicles many cars gorg one-way reckless hectic noisy thoroughfare drass businesses beautid Potential sod crazy tigtis Need university slow many

Source: City of Philadelphia

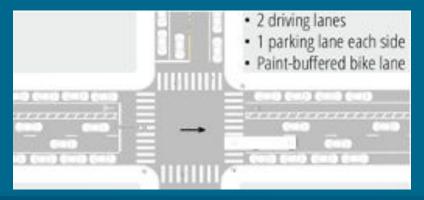
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Options for Chestnut Street

(45th - 34th) Leave As Is



(63rd - 45th) Option 2: Road Diet & Paint Buffered Bike Lane Layout



(63rd - 45th) Option 1: Existing Layout



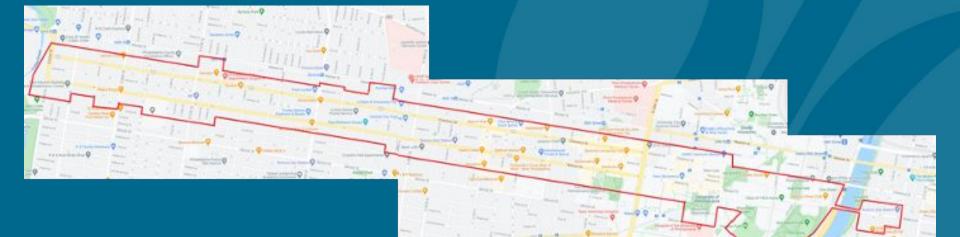
(63rd - 45th) Option 3: Road Diet & Parking Separated Bike Lane



Source: City of Philadelphia

Public Surveys in Paper

• OTIS sent 3492 surveys by snail mail along the 6-mile corridor



Source: Google



Flyers with QR Codes

Interns posted posters with QR codes to the project website and public survey link



Source: City of Philadelphia

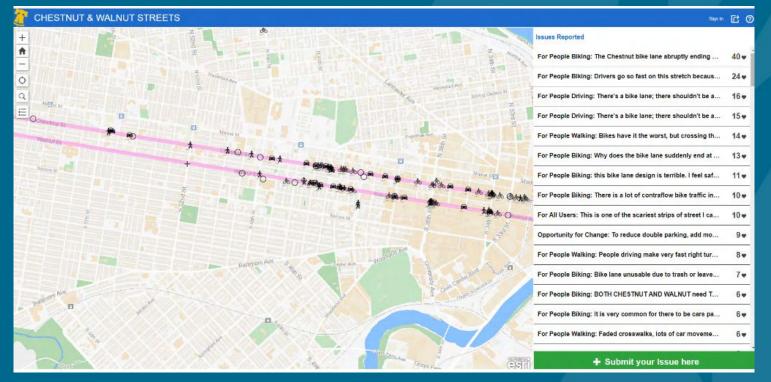


Explanatory Videos

- OTIS recorded a series of short videos explaining the project, goals, and each design option.
- 3 short videos:
 - Project Overview (3 minutes)
 - Existing Conditions (5 minutes)
 - Future Options (7 minutes)
- 1,147 combined views with an average of 382 unique views per video.
- See the videos at <u>bit.ly/cwphl-videos</u>



Interactive Web Map



Source: City of Philadelphia

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Project Next Steps

- Legislation for Chestnut Street (63rd 45th) moving forward
- City staff working on finalizing parking & loading layout
- Streets Department finalizing design
- PennDOT contractors to install in 2022 paving season



Thank You!



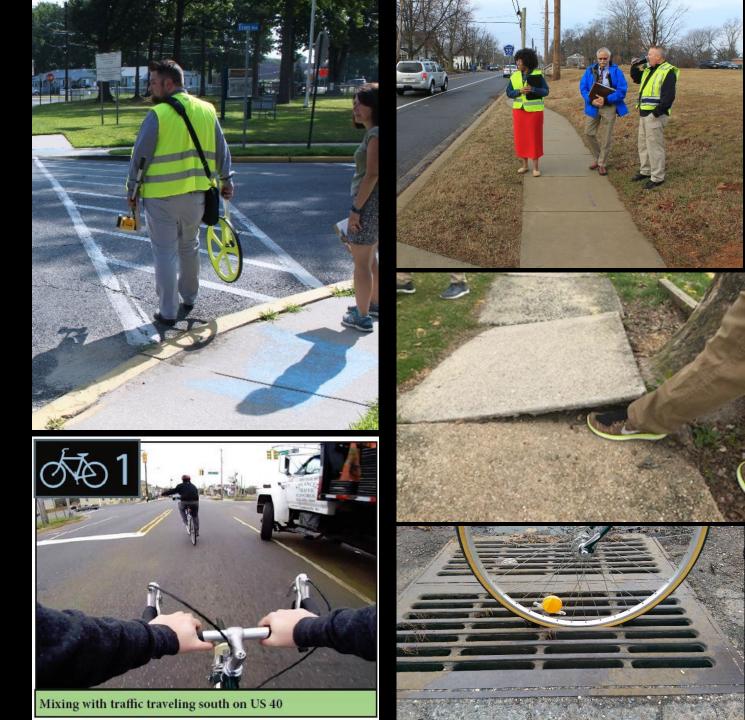
Questions? Contact: Thom Stead, <u>tstead@dvrpc.org</u> Jeannette Brugger, <u>jeannette.brugger@phila.gov</u>

CROSS COUNTY CONNECTION

Cross County Connection TMA's Safety and Sustainability Initiatives

SPORTATION MANAGEMENT ASSOCIATI

Patrick Farley, AICP, PP Program Director Farley@driveless.com (856) 596-8228 Bicycle & Pedestrian Safety Audit Program



Scope Depends on Community Need

Small scale

- Pedestrian Safety at intersections
 - Curb ramps
 - Crosswalks
 - Crossing distance
 - Signal timing

Medium Scale

- Corridor Study a few blocks
 - Can bicycle facilities be added?
 - Is streetscape safe/welcoming for pedestrians?
 - Are there places to cross the street?



Format



- CCCTMA field visit and observations
- Introductory stakeholder meeting
- Survey (optional)
- Community walking audit
- Report

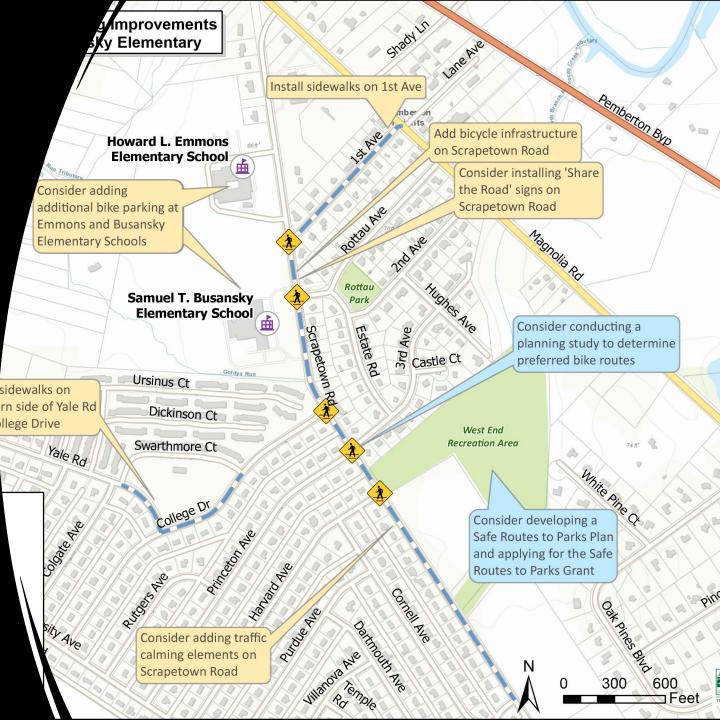
Audits during a pandemic

- Stakeholder meeting
- Virtual audit
- Field Audit
- Report



2021 Travel Plans and Safety Audits

- Travel Plans
 - Pennsville Township
 - Pemberton Township
 - Both applied for SRTS Grant in 2021 with CCCTMA assistance
 - Pennsville became a member as a result
- Audit follow-up
 - Somerdale Street Smart NJ and NJDOT cooperation
 - Hamilton Township Street Smart NJ and Sustainable Jersey certification



Electric Vehicles

- Webinars
- EV Newsletter
 - Establish CCCTMA as subject matter experts
 - Grant notifications
 - 103 distinct EV contacts
- TMA EV "Potluck"
 - Fosters collaboration and mutual support
- EV Primer



Electric Vehicle Webinars/Workshops

- Three Workshops
 - August 2020 Intro to technology & charging stations
 - June 2021 Charging station planning best practices & funding programs
 - December 2021 NJDCA Statewide Model EV Parking and Zoning Ordinance Workshop
- Speakers:
 - NJDEP
 - NJDCA
 - Charging station companies
 - Commercial real-estate companies
 - Leading municipalities



CCCTMA'S EV CHARGING STATION WORKSHOP



EV Primer

- EV Basics
- Introduction to Charging Stations
- Legislative Update
- Making Municipalities EV Friendly
- State Programs & Incentives
- Download here

CROSS COUNTY CROSS CONNECTION'S www.driveless.com **ELECTRIC VEHICLE** PRIMER A RESOURCE FOR: LOCAL GOVERNMENTS **BUSINESSES &** CONSUMERS

IMPROVING QUALITY OF LIFE IN SOUTHERN NEW JERSEY THROUGH TRANSPORTATION SOLUTIONS

One Greentree Centre, 10,000 Lincoln Drive E., Suite 102 Marlton, NJ 08053 856.596.8228 www.driveless.com ccctma@driveless.com

September 2021

Thank You!



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