Lehigh Valley Transportation Study

OWEN O'NEIL
Chair, Coordinating Committee

RYAN MEYER
Chair, Technical Committee

BECKY A. BRADLEY, AICP
Secretary,
Coordinating Committee +
Technical Committee

Planning for the Future of Lehigh and Northampton Counties at 615 Waterfront Drive, Suite 201, Allentown, PA 18102 ■ (610) 264-4544 ■ lvpc@lvpc.org ■ www.lvpc.org

LVTS JOINT TECHNICAL & COORDINATING MEETING
Wednesday, May 20, 2026, at 9:00 am
Virtual Meeting Agenda

Roll Call

Courtesy of the Floor

Minutes

1. *ACTION ITEM:* Technical Committee approval of Minutes of April 15, 2026, Technical Committee Meeting (HM)
2. *ACTION ITEM:* Coordinating Committee approval of Minutes of March 15, 2026, Joint Technical and Coordinating Committee Meeting (HM)

Old Business

1. *ACTION ITEM:* Coordinating Committee Approval of the Trail Connection Strategy Revisions and Recommendations (EG)
2. *PRESENTATION AND DISCUSION ITEM:* Congestion Management Plan Revisions (SK, SW)
3. *INFORMATION AND ACTION ITEM:* 2025-2028 Transportation Improvement Program Administrative Actions & Amendments (JR)
4. *FORMAL PRESENTATION AND DISCUSSION ITEM:* Draft 2027-2030 Transportation Improvement Program (TIP)
    a. Public Comment Process Review (EG, HM)
    b. Next Steps (SM)
5. *PROGRESS REPORTS:*
    a. *FutureLV: The Regional Plan* (Metropolitan Transportation Plan) Update (BB)
        i. LVPC and LVTS Joint Working Group Meeting Update
        ii. Transportation Need Assessment Survey Update
        iii. Strategy Labs Update
        iv. Project Selection Process Refinement Update
        v. Open Call for Projects
        vi. Sub-Regional Meetings
    b. US 22 Safety, Mobility and Congestion Management Plan Development (SW)
    c. Lehigh Valley Passenger Rail Phase II (BB)

New Business

1. *PRESENTATION ITEM:* Hill to Hill Project (CK)

Status Reports

1. Highway Performance Monitoring System: Monthly Traffic Report
2. PennDOT District 5-0 Highway Project Status Report
3. Public Engagement, Education and Grants Report

Adjournment

Next LVTS Meetings

LVTS Coordinating Committee: Wednesday, June 17th at 9 AM

Meetings will be held virtually, unless otherwise noted. Meeting information can be found here: https://lvpc.org/lvts-committee-meetings

The LVPC/LVTS website, www.lvpc.org, may be translated into multiple languages. Publications and other public documents can be made available in non-English languages and alternative formats, if requested.

Planning for the Future of Lehigh and Northampton Counties at 615 Waterfront Drive, Suite 201, Allentown, PA 18102 ■ (610) 264-4544 ■ lvpc@lvpc.org ■ www.lvpc.org

Lehigh Valley Transportation Study
Minutes from Wednesday, April 15, 2026
Technical Committee Meeting

Prior to the call to order, Ms. Milagio stated the agenda and materials for the meeting were posted on the LVPC website. She provided directions on how to participate in the virtual meeting and protocol for the meeting to flow smoothly. The meeting was advertised in the Lehigh Valley Press on January 7, 20256. To start, Mr. Nick Raio chaired the Technical Committee portion of the agenda.

Mr. Raio welcomed the members and the public participants and called the meeting to order.

Roll Call
Ms. Milagio took Roll Call.

Attendees:
Technical Committee

Nick Raio	PennDOT Central Office
Becky Bradley, AICP	LVPC
David Petrik (Alt.)	City of Allentown
Cathy Fletcher (Alt.)	City of Bethlehem
David Hopkins (Alt.)	City of Easton
Jen Ruth	PennDOT District 5-0
Brendan Cotter	LANTA
Ryan Meyer	LNAA

Members Absent:
Technical Committee

Matthew Tuerk	City of Allentown
J. William Reynolds	City of Bethlehem
Salvatore Panto	City of Easton

Staff Present: Becky Bradley, Steven Weber, Evan Gardi, Subham Kharel, Hannah Milagio

Public Present:
Amy Unger, Craig Beavers (Palmer Township), Evan Jones (Morning Call), Brian Miller (Upper Milford Township), Anita Forrester, Brett Webber (AALV), Scott Harney (The Pidcock Company), Scott Slingerland (CAT), Lee Rackus (Whitehall Township), Toni Mitman, Kurt Bresswein, Scott Vottero (PennDOT District 5), Brian Hare, Steve Turocsy, Ryan Long, Kim Schaffer (Community Bike Works)

Courtesy of the Floor
Mr. Raio asked if there were comments for items not on the morning's agenda. There were no comments.

Minutes
Mr. Raio stated that the Technical Committee last met on March 18, 2026. Ms. Milagio noted the actions voted on:

- Minutes of the February 18, 2026 Joint Technical and Coordinating Committee Meeting
- Technical Committee Chair Election
- Lehigh Valley Trail Connection Strategy
- Memorandum of Understanding with the Delaware Valley Regional Planning Commission on coordination and planning boundaries

- Adjournment

Mr. Raio asked for a motion to approve the March 18, 2026 minutes as presented. Mr. Cotter made the motion, which was seconded by Mr. Petrik. There were no questions or comments from members of the public. Ms. Bradley to call for a vote and the motion was approved.

Old Business

***INFORMATION ITEM*: 2025-2028 Transportation Improvement Program Administrative Actions**
Ms. Ruth stated that there were four administrative actions from March 7, 2026 to April 3, 2026:

- Box Culvert Bundle Round 2, Lehigh County
- Hollenbachs Bridge, Lehigh County
- Lower Saucon Road over East Branch of Saucon Creek, Lehigh County
- State Route 512 Bango Borough Study, Northampton County

There were no comments from the LVTS members or the public.

***FORMAL PRESENTATION AND DISCUSSION ITEM:* Draft 2027-2030 Transportation Improvement Program**
Mr. Gardi explained, The Transportation Improvement Program (TIP) is the fiscally constrained, high priority list for a 4-year program of Highway, Bridge, Transit and Multimodal projects, all proposed to be implemented with Federal dollars. Throughout the Commonwealth of Pennsylvania TIPs are updated by regional planning agencies every two years. The Federal and State Governments designated the Lehigh Valley Transportation Study as the body responsible for developing and approving the TIP for Lehigh and Northampton Counties. The Transportation Improvement Program development process is by its very nature fluid and subject to change as needs and priorities change, the TIP may be modified or amended. Therefore, this guidance can change due to state or federal legislation, regulatory change or policy action. Once the TIP document has been adopted copies of the completed TIP must be provided to the Pennsylvania Department of Transportation (PennDOT) and federal agencies such as the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

Mr. Gardi continued, Once the funding amount is set, the LVTS works to develop a program designed to serve the region's needs, while following the policies of FutureLV: The Regional Plan and federal regulatory requirements. The TIP is regulated under the United States Code 49 U.S.C. 5303(j) and authorized under the Infrastructure Investment and Jobs Act (IIJA). The upcoming Federal Transportation Reauthorization bill may also lead to revised funding and regulatory changes. The TIP's goal is to preserve the region's assets, reduce congestion, increase safety and efficiency, promote partnerships and enhance mobility for everyone. The TIP is important because it strategically sets the region up for utilizing Federal funding through a very detailed and intricate process.

Mr. Gardi further explained that the LVTS is committed to maintaining and improving bridges, roads, transit and multimodal infrastructure through preservation activities, repair or replacement, rigid deck overlays, etc. In the long run, preservation saves money by extending infrastructure service life, thus deferring the need for major rehabilitation or even reconstruction in the near future. Roughly 80% of TIP funding comes through the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) with the remaining 20% coming from Pennsylvania Department of Transportation (PennDOT) and local sources. The amount the Lehigh Valley gets is primarily set by PennDOT and FHWA and Federal Transit Administration, based on population, vehicle miles traveled, or VMT for short) and asset needs.

Mr. Gardi presented guidelines stating, For a project to receive funding in the 2027-2030 TIP, it must meet a long list of state and federal guidelines for traffic safety & air quality. It also must align with the vision of *FutureLV: The Regional Plan*, and its 25-year Long-Range Transportation Plan (LRTP). Transportation project investments are then targeted to be consistent with that concept and should be identified in FutureLV before they can be programmed in the TIP. Projects are then identified by the State

Transportation Commission, PennDOT Central Office, or our local PennDOT District 5-0 office for potential inclusion on the Twelve-Year Plan (TYP) – to which the TIP is the first four years of the TYP. To note, this does not mean that a project must wait more than twenty years to actually get put on the TIP, however being on the long-range transportation plan does not guarantee a project will make it into the TIP in that timeframe either

Mr. Gardi then explained that the 2027-2030 TIP has a total investment of $544,608,953. The Lehigh Valley's regional allocation is made up of federal formula funding, along with the state and local match, and there were a few federal and state grant acquisitions. Mr. Gardi then provided information on "Mega-projects". These "Mega-projects" are very large, high cost and carry over multiple TIP cycles.

- Route 309 and Center Valley Parkway, Upper Saucon Township – This intersection has been the site of more than 100 crashes in five years, largely because the traffic volume on both roads has exploded in recent years. Development in this area has resulted in more vehicles and this investment – including $79 million in this draft TIP -- will separate the roads by creating an interchange with Route 309 bridging over Center Valley Parkway.
- Hill-to-Hill Bridge, Bethlehem – This is a very historic bridge, the only one of its design in the entire world and in need of rehabilitation. It has a history of crashes and will be improved by implementing reconfigured lanes and better pedestrian and bicycle access. The total cost is projected at nearly $100 million, including $72 million in this draft four-year plan.

Ms. Milagio outlined the Draft 2027-2030 TIP is currently out for public comment which started April 15th and will continue until May 16th. Physical copies of the drafts are available for review at the three city libraries and the offices of LANTA, the LVPC, and PennDOT District 5. The Draft TIP is also posted for digital review at the LVPC website, along with a comment box. Comments can also be made by email to planning@lvpc.org, calling 610-264-4544, or by physical mail at our new office. A list of dates for the remaining public meetings is outlined on the slide, and the next public meeting is a virtual meeting of the LVPC Transportation Committee on April 23rd at 5:30PM; you can register for that meeting at www.lvpc.org. There will also be an in-person public meeting at the Coalition for Appropriate Transportation in Bethlehem at 5 pm on May 5.

Mr. Gardi stated that Once the TIP is adopted, staff will submit the LVTS TIP to PennDOT's Center for Program Development and Management by the end of June. PennDOT will incorporate the Lehigh Valley TIP into the Statewide TIP and send it for review by the Federal Highway and Federal Transit Administrations. The TIP will be approved by federal partners in September, with the 2027-2030 TIP officially starting on October first of this year.

Mr. Raio opened the Draft 2027-2030 TIP to public comment.

- Mr. Hopkins asked: How do we update the scope of a project, particularly in the context of the completed SS4A study? Ms. Bradley responded we'll do full open call for projects in June, best way to update. MTP adoption will be the next TIP. Mr. Hopkins then asked for a project that's already on the TIP, can we redefine scope of a project on the TIP? Easton eould like to redefine the limits of work. Mr. Raio explained that scope and timeline changes happen all the time through project development, PennDOT will help coordinate that. It's not a huge concern, work with the District. Mr. Hopkins asked, should we use the call for projects? Mr. Raio responded saying, not if it's an ongoing project. If it's a new project or a project not on the TIP, then yes. Ms. Bradley asked Mr. Hopkins to keep us updated so we can update our descriptions. Public comment time is a great time to make that change.
- Mr. Beavers thanked LVTS for the inclusion of Tatamy road over Schoeneck Creek bridge. Major priority for township for bridge improvement and help with trail gap closure and ped infrastructure.
- Ms. Mitman offered a procedural comment stating she doesn't think PennDOT staff should be voting members of the LVTS. This could be perceived as a conflict of interest. Ms Bradley responded explaining that PennDOT is on the board per the bylaws, any change would be an LVTS decision. Mr. Long then explained the MPO board structure must contain local elected

officials, public transportation officials, and appropriate state officials. Federal regulation gets fuzzy on who gets to vote (vs ex officio non-voting) 23 CFR 450

ACTION ITEM: **Trail Connection Strategy Revisions and Recommendations**

Mr. Gardi explained that the Trail Connection Strategy was presented to LVTS, and also brought to the LVPC Environment and Transportation Committee's attention, where constructive feedback was received. The draft was shared with the LINK Trail Partnership as well. All comments from the meetings and LINK were addressed including:

- A few changes to the existing trail map
    - More trails both open and conceptual were added to the Upper Macungie Township Trail network from the township's plans throughout the township
    - In the City of Easton, the connection of the Karl Stirner Arts Trail to Scott Park along Bushkill Drive and 3rd Street was added
    - In The City of Allentown, a conceptual connection from the end of the MLK Drive Trail north to where the Jordan Creek Greenway Trail ends on W. Turner Street was added.
    - The map changes were carried throughout each of the maps in the remainder of the document.
- An overall critical trail gap map, before breaking them out into the inset maps, was added.
- In the update section from the 2013 trail plan, Trail Gap 5 D&L Trail: North Catasauqua, gap 5C description has been updated marking the section as complete with the finishing construction of the Lehigh St. Bridge entering Catasauqua Borough.
- There were also a few grammatical text changes throughout the document noted by partners.

Mr. Raio asked for a motion to approve the Lehigh Valley Trail Connection Strategy as presented to be forwarded for final approval at the coordinating committee. Mr. Cotter made the motion, which was seconded by Ms. Fletcher. There were no questions or comments from members of the public. Ms. Bradley called for a vote and the motion was approved.

DISCUSSION ITEM: **Draft Congestion Management Plan**

Mr. Kharel explained that the LVPC have been continuing work on developing the congestion management plan and a draft copy of the plan is available in the packet and on the LVPC website for review and feedback. Send any feedback on the Congestion Management Plan to Hannah Milagio by April 30.

Ms. Bradley added that the final plan will be brought to the May meeting for adoption. Ms. Mitman stated that the public were asked to identify bottlenecks at the last meeting, that the Valley doesn't want to increase traffic with more development. To not just widen everything because there's so much development, don't want to be the "Lehigh Valley Paving Commission". Mr. Raio explained that there are many different strategies with addressing congestion on roadways, they don't need to include widening like signal coordination/timing, changes to roadway design. Ms. Mitman thanked Mr. Raio for listing those options.

PROGRESS REPORT: **Metropolitan Transportation Plan (MTP) Update**

Mr. Weber gave a refresher explaining that the Lehigh Valley has a single plan for the region, called FutureLV. This includes the Lehigh and Northampton Counties' joint comprehensive plan balancing all aspects of the regions' needs form housing and land use to sewer and water systems, schools, parks, environmental assets and the economy. This is merged with the Metropolitan Transportation Plan requirements through the LVTS to ensure that the transportation system management, development and

improvement are aligned with the global community and economic development strategy for the Lehigh Valley.

Mr. Weber then explained where the LVPC is in the plan process, the project is at the mid-point of the planning process. One of the next steps is engaging LVPC and LVTS members through a series of workshops and engagements. These engagements serve as a platform to discuss plan progress, key data and topics, and guide the development of draft policies.

Mr. Weber continued detailing that staff are developing regional change mapping and supporting data to help illustrate how the Lehigh Valley has evolved since the last plan update. This information will be presented and discussed at the upcoming first joint LVPC and LVTS working group meeting on April 20th. Additionally in April a communitywide transportation needs survey will be launched. The survey link will be available on our website at www.lvpc.org, as well as on social media channels. The input from the survey will directly inform updates to the transportation components of *FutureLV: The Regional Plan*, helping guide future investments, projects, and policy decisions. LVPC staff will compile the results and report them to LVTS and LVPC in June.

Mr. Weber gave updates on the project selection process and the schedule for the upcoming strategy labs. The labs include:

- Monday, May 11th, 2026
    - Topic: Economy, 3-5 PM @ LVPC Office
        - Roundtable Discussions: Workforce, Economics of Land Use, Community Enhancements, Education, Mineral Extraction, Agriculture/Farmland Industry
    - Topic: Municipal Development and Land Use, 6:30-8:30 PM @ LVPC Office
        - Roundtable Discussions with Local Governments from Borough and Rural Communities
- Tuesday, May 12th, 2026
    - Topic: Municipal Development and Land Use, 9-11 AM @ LVPC Office
        - Roundtable Discussions with Local Governments from Cities and Suburbs
- Wednesday, May 13th , 2026
    - Topic: Transportation 9-11 AM @ LVPC Office
        - Roundtable Discussions: Transit, Highway and Bridge, Multimodal, Future Forces
    - Topic: Arts and Culture, 1-3 PM @ LVPC Office
        - Roundtable Discussions: Arts + Culture, Tourism, Parks and Recreation, Historic Sites and Preservation
- Monday, May 18th, 2026
    - Topic: Environment, 3-5 PM @ LVPC Office
        - Roundtable Discussions: Climate and Resiliency, including emergency management, and Natural Resources
- Tuesday, May 19th , 2026
    - Topic: Community Infrastructure 3-5 PM @ LVPC Office
        - Roundtable Discussions: Water and Sewer Systems, Stormwater, Solid Waste Management, Municipal Assets, Gas, Electric and Communications Utilities
- Wednesday, May 20th , 2026
    - Topic: Care and Crisis, 2-4 PM @ LVPC Office
        - Roundtable Discussions: Hazard mitigation, emergency services and healthcare
- Thursday, May 21st , 2026
    - Topic: Trends and Future Forces, 9-11 AM @ LVPC Office
        - Roundtable Discussions: Current and Future Societal Trends

Mr. Weber relayed that LVPC staff will also meet with communities through subregional meetings in June, to discuss local priorities, review potential projects, and gather additional feedback. Staff are in the process of scheduling a number of sub-regional meetings to gather more localized input. The schedule for these meetings will be available in May. In July and August, staff will draft policy updates based on input from surveys, Working Groups, Strategy Labs, and subregional meetings, translating feedback into draft recommendations for the Regional Plan. In August and September, the focus shifts to finalizing transportation projects and testing draft policies, refining the project list, validating recommendations with partners, and aligning with regional priorities.

Mr. Weber finished explaining that a full draft of the FutureLV update is expected by year's end, followed by coordination, modeling, and intergovernmental review in early 2027. Adoption is required by June 30, 2027. The Metropolitan Transportation Plan is approved by LVTS, incorporated by PennDOT into the State's 12-Year Program, and accepted by USDOT (FHWA/FTA), enabling federal funding starting October 1, 2027 (FY2028). The Bi-County Comprehensive Plan is adopted by LVPC and then by both Northampton and Lehigh Counties, after which it can be used for regional planning and review.

Mr. Raio opened it up for comments and questions. Mr. Petrik asked if the community-wide survey has been sent. Mr. Weber explained that it would be in a few days. Ms. Mitman commented that FutureLV is good, but it doesn't say what LV stands for or what it is. Mr. Webber asked if there are any connections in the survey about intercity rail connectivity. Ms. Bradley said yes.

PROGRESS REPORT: **US 22 Safety, Mobility and Congestion Management Plan Development**
Mr. Weber explained that LVPC have received and are reviewing the Existing Conditions and Safety Analysis Report. As well as holding a working group meeting on 4/17 with staff from corridor municipalities, both counties, and regional agencies.

PROGRESS REPORT: **Lehigh Valley Passenger Rail Phase II**
Ms. Bradley explained that a grant agreement has been sent, to be finalized at Executive Committee 4/16, can send RFP out after that, hope to have RFP out in May through Pennbid, with someone under contract in the early summer. Ms. Bradley then reviewed the next steps for the project including:

- Identification of Preferred Route and Project Sponsor
    - Developing a framework for planning, design, funding, constructing, and operations of a new proposed passenger rail service originating in the Lehigh Valley
- Feasibility Study
    - Determine technical and financial feasibility of preferred route and the partner market
- Portion of Alternatives Analysis
    - Establish goals and objectives; data –driven community impact assessment

Ms. Bradley then continued that LVTS cannot take money out of the TIP to do this and will need additional fundraising for the next phases.

Ms. Mitman asked where the funding would come from that would be raised for the additional steps. Ms. Bradley responded that it would be something the project sponsor would work with once identified. Ms. Mitman asked if it would be public or private funds, or a mix of both. Ms. Bradley stated that it depends.

Mr. Webber asked how the project fits into the schedule of transportation improvements as part of the MTP. Ms. Bradley explained that it's the goal, and it depend on how the project timeline moves forward and how it interconnects with the MTP update. Mr. Webber stated that there is a lot of interest in making sure that this project set gets included in future plans.

New Business
There was no new business.

Status Reports
Mr. Raio said the status reports on the Monthly Traffic Report and the Public Engagement, Grants and Education memo were included in the meeting packet.

Ms. Bradley explained that attaching packets to emails is a problem. Moving to links since some folks can't accept large files or dropbox links.

Adjournment
Mr. Raio stated that the next LVTS meeting will be a Joint Technical & Coordinating Committee Meeting on Wednesday, May 20. Mr. Cotter made a motion to adjourn, and the meeting was adjourned.

Planning for the Future of Lehigh and Northampton Counties at 615 Waterfront Drive, Suite 201, Allentown, PA 18102 ■ (610) 264-4544 ■ lvpc@lvpc.org ■ www.lvpc.org

Lehigh Valley Transportation Study
Minutes from Wednesday, March 18, 2026
Joint Technical and Coordinating Committee Meeting

Prior to the call to order, Ms. Milagio stated the agenda and materials for the meeting were posted on the LVPC website. She provided directions on how to participate in the virtual meeting and protocol for the meeting to flow smoothly. The meeting was advertised in the Lehigh Valley Press on January 7, 20256. To start, Mr. O'Neil chaired the Coordinating Committee portion of the meeting, and Mr. Nick Raio chaired the Technical Committee portion of the agenda.

Mr. O'Neil welcomed the members and the public participants and called the meeting to order.

Roll Call
Ms. Milagio took Roll Call.

Attendees:

Technical Committee

Nick Raio	PennDOT Central Office
Becky Bradley, AICP	LVPC
David Petrik (Alt.)	City of Allentown
Cathy Fletcher (Alt.)	City of Bethlehem
David Hopkins (Alt.)	City of Easton
Jen Ruth	PennDOT District 5-0
Brendan Cotter	LANTA
Ryan Meyer	LNAA

Coordinating Committee

Owen O'Neill	LANTA
Chris Kufro	PennDOT District 5-0
Becky Bradley, AICP	LVPC
Andrew Elliot (Alt.)	Lehigh County
Tara Zrinski	Northampton County
Michael Emili (Alt.)	Northampton County
David Petrik (Alt.)	City of Allentown
Michael Alkhal (Alt.)	City of Bethlehem
David Hopkins (Alt.)	City of Easton
Nick Raio	PennDOT Central Office
Thomas Stoudt	LNAA

Members Absent:

Technical Committee

Matthew Tuerk	City of Allentown
J. William Reynolds	City of Bethlehem
Salvatore Panto	City of Easton

Coordinating Committee

Matthew Tuerk	City of Allentown
J. William Reynolds	City of Bethlehem
Josh Siegel	Lehigh County
Salvatore Panto	City of Easton

Staff Present: Becky Bradley, Steven Weber, Evan Gardi, Subham Kharel, Hannah Milagio, Faria Urmy, Matt Assad, Corinne Ruggerio

Public Present:
Brian Miller (Upper Milford Township), Scott Vottero (PennDOT District 5), Toni Mitman (All Aboard Lehigh Valley), Brett Webber (All Aboard Lehigh Valley), Scott Harney (The Pidcock Company), Craig Beavers (Palmer Township), Gene Porochniak (Federal Highway Administration), Scott Cressman (PennDOT District 5), Lee Rackus (Whitehall Township)

Courtesy of the Floor
Mr. O'Neil asked if there were comments for items not on the morning's agenda.

Ms. Bradley introduced Cathy Fletcher, Andrew Elliot, and Ray Green as new LVTS members. Cathy Fletcher as the Alternate for the City of Bethlehem, Andrew Elliot as the Alternate for Lehigh County, and Ray Green as the representative for PennDOT Central Office.

Minutes
Mr. Raio stated that the Technical Committee last met on February 18, 2026. Ms. Milagio noted the actions voted on:

- Minutes of the January 21, 2026 Joint Technical and Coordinating Committee Meeting
- Adjournment

Mr. Raio asked for a motion to approve the February 18, 2026 minutes as presented. Mr. Cotter made the motion, which was seconded by Ms. Bradley. There were no questions or comments from members of the public. Ms. Bradley to call for a vote and the motion was approved.

Mr. O'Neil stated that the Coordinating Committee last met on February 18, 2026. Ms. Milagio noted the actions voted on:

- Minutes of the January 21, 2026 Joint Technical and Coordinating Committee Meeting
- Adjournment

Mr. O'Neil asked for a motion to approve the February 18, 2026 minutes as presented. Mr. Stoudt made the motion, seconded by Mr. Raio. There were no questions or comments from members of the public. Ms. Bradley to call for a vote and the motion was approved.

Old Business

***ACTION ITEM:* 2026-2027 LVTS Technical Committee Chair Elections**
Mr. Raio explained that Basel Yandem, the previous chair has moved on from his position in Bethlehem and therefore the Tech Committee must elect a new Chair. He noted nominations would be accepted from the floor, and each nominated member would have up to one minute to present their anticipated contributions if elected to the position.

Mr. Cotter asked clarification on the nomination process, and Ms. Bradley explained that they can either move forward with the vote or just take nominations. Mr. Meyer suggested that they moved forward with the vote. Mr. Hopkins nominated Ryan Meyer; Ms. Bradley seconded adding that Mr. Meyer did a great job as Vice Chair the last two years. Mr. Raio asked for any additional nominations, there were none.

Mr. Meyer thanked the members for the nomination and introduces himself, his job role, and that he served as vice chair, has been on LVTS a little over 12 years, enjoys working with everyone, that its nice to be part of the FutureLV update, and his goals include making sure the Technical Committee is really putting funding where it's needed throughout the region and that members of the public are really getting the infrastructure investments that are needed. There were no questions for any of the candidates.

***ACTION ITEM:* Trail Connection Strategy**

Mr. Gardi explained that The Lehigh Valley Planning Commission created the Trail Connection Strategy funded by the Lehigh Valley Greenways through the LV Greenways Mini-Grant program. This inventory of existing, planned, and future trail infrastructure in the Lehigh Valley, identifying trail infrastructure gaps to benchmark them against regional goals and prioritizing them on how the gaps can be closed; for how important trails are to our mobility, health, and economy of the Lehigh Valley. The report provides trail data to inform regional stakeholders about the status of trail infrastructure and to further support the build out of the region's trail network.

Mr. Gardi noted that there are nine sections in the Trail Connection Strategy.

- Introduction
- Trail development Update
- Trail Benefits
- Barriers to Closing Gaps
- Community & Stakeholder Engagement
- Trail Inventory
- Implementation Strategies
- Next Steps
- Appendix

Mr. Gardi noted that closing trail gaps is a complicated process; some of the trail gaps from the previous 2013 Trail Gap Plan remain, an incredible amount of work has been completed to move to closure, including many successes in receiving funding and building new infrastructure to help address these gaps. Mr. Gardi highlighted the South Bethlehem Greenway Trail to Saucon Rail Trail as a successful example of gap closure.

Mr. Gardi went through the Benefits of Trails section including:

- Trails as transportation, linking people to key recreation, open space, education, workplace, and other destinations, without the need for a vehicle and at little or no expense.
- Trails as Recreation, a physical connection to our communities natural and cultural landscapes for walk, run, roll, or even bird watch.
- Trails as Resilient Infrastructure, incorporate ecologically sensitive design that help better adapt the region to recover from natural weather events.
- Trails as Economic Generators, boosting tourism, raising property values, and increasing recreation-related spending.

Mr. Gardi followed the Benefits with the Barriers to Closing Gaps including:

- Funding and Cost Barriers, competition for already limited funds.
- Land Acquisition and Rights-of-Way Issues, Acquiring land to close trail gaps can be complex, expensive and time-consuming. Many of the conceptual trail corridors cross privately owned parcels, and negotiating easements or purchases can be contentious.
- Environmental and Regulatory Constraints, considerations can slow the development of a trail. Trails are frequently in areas that intersect with wetlands, floodplains, rivers or endangered species habitats.
- Stakeholder Coordination Challenges, Differing priorities, timelines, funding capacity

Mr. Gardi explained the Community and Stakeholder Engagement efforts, noting the surveys completed, meetings presented at, and Challenges noted including:

- Funding
- Land Acquisition
- Permitting and Environmental Constraints
- Jurisdictional Fragmentation
- Safety and Design Issues
- Lack of Political or Community Will

Mr. Gardi reviewed the compiled inventory of all trail infrastructure map. The map is broken into three trail status categories: Open, Under Construction and Conceptual. Open trails include those that can currently be utilized throughout the region. Under Construction trails include any trail projects that are in the process of being built. Conceptual trails include all potential trail connections noted in municipal, county or regional plans, and those gathered during the community and stakeholder engagement phase.

Mr. Gardi explained that Fifty-seven trail gaps were evaluated and a complex, data-driven & geospatial analysis was done determine classifications that helped set priorities for how regional leaders will work to close trail gaps in the coming years. Trail gaps in the Lehigh Valley's trail network were prioritized using a variety of different methodological factors including:

- FutureLV: The Regional Plan Alignment
- Walk/Roll: Active Transportation Plan Alignment
- Regional Specific Criteria
- PA DCNR Statewide Priority
- Connection to Public Rec. Facilities
- Length of Trail Gap Segment
- Shovel Readiness

Mr. Gardi went through the top ten Critical Gaps.

- Jordan Creek Greenway Trail – 1
- Jordan Creek Greenway Trail – 2
- Karl Stirner Arts Trail
- D&L Trail – 1
- D&L Trail – 2
- D&L Trail – Riverside Drive
- Martin Luther King Jr. Drive Trail
- Stockertown to Tatamy Rail Trail
- Two Rivers Trail Extension
- Bushkill Township PPL Trail

Mr. Gardi spoke to the Implementation Strategies section of the plan explaining , local governments can utilize various planning tools to identify current and future trail needs. Tools such as:

- Comprehensive Plans
- Trail Plans
- Active Transportation Plans
- Zoning Code
- Subdivision and Land Development Ordinances
- Official Maps

Mr. Gardi explained that the Trail Connection Strategy supports recommendations within existing initiatives such as FutureLV: The Regional Plan, the Lehigh Valley Priority Climate Action Plan for Transportation Decarbonization and Walk/RollLV: Active Transportation Plan. By identifying connection through these plans, municipalities can formalize and prioritize their intent to construct trails, which can be leveraged when pursuing funding sources for public projects.

In the Next Steps section, Mr. Gardi noted that there remain gap locations in the trail network where no conceptual trails are currently identified and identifying conceptual trail connections in planning documents allows them to be elevated in reports such as this one and makes grant applications to implement them much more competitive. He also noted that the Lehigh Valley Planning Commission will implement a process to update regional trail network data and trail gap closure status. This process will incorporate information submitted by regional stakeholders. When trail gaps are closed, the LVPC will note and update the strategy.

Mr. Gardi continued that the final part of the Trail Connection Strategy is the Appendix & Resources. Within the Appendix is a more detailed description of the Methodology used to determine the priority list. It also includes a list of Key Partners and Plans used to help with the development of the strategy. The final section is a list of Grants.

Mr. O'Neil asked for a motion to approve the Lehigh Valley Trail Connection Strategy as presented, first from the Technical Committee, then the Coordinating. From the Technical Committee, Mr. Raio made the motion and Mr. Meyer seconded. From the Coordinating Committee, Mr. Hopkins made the motion and Mr. Alkhal seconded.

Mr. O'Neil asked for any questions or comments. Ms. Bradley noted that this was Mr. Gardi's first project managed. Mr. Beavers said excellent job, as did Mr. Green. Mr. Harney said good job and highlighted the need for the connection of recreation and transportation.

Mr. Brett Weber noted that the plan was a great work product and asked, what is the most efficient way to disseminate information and update the public, is there a plan to move forward with getting this out into the general public, or is that a request to be made? Mr. Gardi responded that the LVPC wants to keep the plan as a living document and work closely with partners to ensure the document is up to date. He noted that the plan will be presented at LVPC meetings and we are looking to get public comments there as well. Mr. Gardi suggested staying involved with the LINK partnership and Lehigh Valley Greenways and staying involved with the counties and municipalities. Ms. Bradley noted that it is critical to keep getting this information out in front of everyone. Mr. Hopkins seconded Mr. Gardi and explained that the municipalities and the planning commission talk all the time and noted that the stakeholders need to take advantage of opportunities for trail gap closures when they come up; figuring out easements, land ownership, and keeping projects on the radar, regardless of barriers like litigation. Mr. Beavers noted that Palmer Township is currently working on completing their portion of a trail gap, though it is currently tied up in litigation.

***INFORMATION ITEM*: 2025-2028 Transportation Improvement Program Administrative Actions**
Ms. Ruth stated that there were four administrative actions from February 7, 2026 to March 6, 2026:

- Route 191/Hecktown Road/Hanover Road Intersection Improvement, Northampton County
- Traffic Calming + Pedestrian Accommodation Improvement, Northampton County
- Route 33 Resurfacing Project, Northampton County
- Main Street and Polk Valley Road Improvements, Northampton County

There were no comments from the LVTS members or the public.

***PROGRESS REPORT:* Congestion Management Plan (CMP)**
Dr. Kharel explained, the Lehigh Valley continues to grow, reflecting a strong economy and high quality of life. At the same time, growth increases demand on our transportation system. Because our population exceeds 200,000, the Lehigh Valley is designated as a Transportation Management Area. Collaboration is also required. MPOs must work with state DOTs, FHWA, transit providers, transportation management organizations, industry partners, and community-serving organizations to develop and implement this effort.

Mr. Karnis reported that LVTS hosted WorkshopLV as part of the CMP update process, with eight participants representing the public, employers, municipalities, and regional stakeholders.
Participants identified several causes of congestion, including poorly timed signals, lack of turning lanes, complex or outdated intersections, merging and weaving issues, and congestion near schools and shopping centers. Additional concerns included uncoordinated signals across municipal boundaries and the impact of industrial and truck traffic. Attendees noted that major institutions and commercial centers generate traffic outside traditional peak hours, contributing to unpredictable congestion patterns.
There was consensus that congestion cannot be fully eliminated; instead, improving traffic flow and reliability is a realistic goal. This aligns with PM3 performance measures focused on travel time reliability

and delay reduction. Feedback from the workshop closely matched the CMP's quantitative analysis, reinforcing identified priority locations.

Mr. Karnis explained that in November 2025, the LVTS Technical Committee evaluated three key CMP objectives:

- Enhancing system reliability and mobility
- Advancing network modernization and connectivity
- Supporting goals from *FutureLV: The Regional Plan*

LVPC staff used this framework to analyze transportation conditions and identify priority corridors and bottlenecks across Lehigh and Northampton counties. These were ranked using a scoring system applied across subcategories. Congestion mitigation strategies were identified based on Federal Highway Administration guidance.

Mr. Karnis presented priority corridors in both counties.
Lehigh County corridors include:

- Cetronia Road
- Schantz Road
- Brookside Road
- Main Street
- I-476, I-78
- Routes 309, 100, and 222

Northampton County corridors include:

- I-78
- Routes 22, 33, 378, and 512
- Airport Road
- Schoenersville Road
- Wyandotte Street
- Stefko Boulevard
- Freemansburg Avenue

Mr. Karnis explained bottleneck analysis showed strong overlap with these corridors. In Lehigh County, bottlenecks are concentrated along Route 222, Route 309, Cedar Crest Boulevard, and Tilghman Street. In Northampton County, they occur along Route 412, Route 378, Stefko Boulevard, Pembroke Road, and other arterial routes. This alignment confirms that congestion is most severe where demand approaches or exceeds roadway capacity. Mr. Kharel described some example corridors in more detail.

Mr. Steve Weber outlined how CMP findings will inform the MTP:

- Refining regional goals to reduce vehicle miles traveled during peak periods
- Improving connections between employment centers and low-income communities
- Coordinating with LANTA and Workforce Board Lehigh Valley to enhance job access
- Using identified priority corridors and bottlenecks to guide project selection

Mr. O'Neil opened the floor for questions from LVTS members and the public. Mr. O'Neil noted that the identified bottlenecks highlight that congestion is not solely driven by traffic volume, but also by roadway geometry and physical constraints. He added that, from LANTA's perspective, some locations may be suitable for transit solutions, while others are limited by surrounding land uses and roadway design.
Ms. Bradley stated that a complete draft of the CMP document will be available for review at the April Technical Committee meeting and will also be shared with the Coordinating Committee.

Mr. Brett Weber asked whether Federal Highway Administration (FHWA) standards limit the inclusion of freight as a primary dataset, particularly in the context of coordination with PennDOT and planning for multimodal investments. Ms. Bradley responded that freight movement was considered and analyzed as part of the EPFA Freight Mobility Plan, and additional details will be included in the full CMP draft. She also noted changing freight patterns and the use of HPMS data, including the placement of counters near major land developments to better track freight activity.

Mr. Brett Weber expressed interest in seeing a summary that integrates freight rail and truck traffic and asked whether that information was excluded from the CMP. Ms. Bradley explained that CMP requirements, as structured by the U.S. Department of Transportation (USDOT), focus specifically on identifying highway locations, which limits the inclusion of broader multimodal freight data in the core CMP analysis.

PROGRESS REPORT: **Metropolitan Transportation Plan (MTP) Calendar Update**

Ms. Urmy explained that over the past two months, staff have presented the purpose, process, and timeline of the MTP, and this month's focus is on engagement activities. She reminded attendees that *FutureLV* serves as the Lehigh Valley's comprehensive regional plan, integrating land use, housing, infrastructure, environment, and economic development with transportation planning requirements. This ensures alignment between transportation investments and broader regional goals.

Ms. Urmy outlined the FutureLV 2027 update engagement schedule, which includes:

- **April:** Launch of a 30-day, regionwide transportation needs survey, with results to be presented in June.
- **May:** Strategy Labs and municipal roundtables to discuss key planning topics and refine policy direction.
- **June–July:** Open call for transportation projects and subregional meetings with municipalities.
- **July–August:** Drafting of policy updates based on collected input.
- **August–September:** Finalization of transportation projects and testing of draft policies, alongside the launch of the Comprehensive Economic Development Strategy (CEDS).

Ms. Urmy detailed a series of public Strategy Lab workshops designed to encourage community participation and collaboration. These sessions will be held in a roundtable format with subject-matter experts facilitating discussions.

Key sessions include:

- May 11:
    - Economy Strategy Lab (workforce, land use economics, education)
    - Municipal development roundtables (location TBD)
- May 13:
    - Transportation Strategy Lab (transit, highways, bridges, multimodal systems)
    - Arts & Culture Strategy Lab (tourism, parks, historic preservation)
- May 18–21:
    - Environment (climate, resiliency, natural resources)
    - Community Infrastructure (utilities, stormwater, communications)
    - Care & Crisis (hazard mitigation, emergency services, healthcare)
    - Trends & Future Forces (societal trends and future conditions)

Ms. Urmy emphasized that these sessions will be open to the public and widely promoted. LVTS members and stakeholders will receive invitations, and details will be posted on the LVPC website.

Chair O'Neil opened the floor for questions from LVTS members and the public. There were no comments from the LVTS members or the public.

PROGRESS REPORT: **2027-2030 Transportation Improvement Program (TIP) Update**

Mr. Gardi reported that the draft TIP/TYP project lists have been shared on PennDOT's Conformity SharePoint site and with the Interagency Consultation Group (ICG) for review. Staff are working with PennDOT to complete transportation modeling and the Air Quality Conformity Report.

The Draft 2027–2030 TIP will be available for public comment from April 15 to May 16. Access will include:

- Physical copies at local city libraries, LANTA, LVPC, and PennDOT District 5 offices
- Digital access via the LVPC website
- Multiple comment options (online, email, phone, and mail)

Public meetings will begin with a session at the LVTS Technical Committee meeting on April 15. Following the public comment period:

- The TIP will be finalized and presented for adoption at the Joint LVTS meeting in June
- Upon adoption, it will be submitted to PennDOT and the Federal Highway Administration (FHWA)

Mr. Gardi also noted that a “TIP Made Easy” document and project map are in development to improve public accessibility. The final TIP will be completed and submitted to PennDOT and USDOT in June 2026 for approval.

Mr. O’Neil opened the floor for questions from LVTS members and the public. There were no comments from the LVTS members or the public.

New Business

DISCUSSION/ACTION ITEM: **MOU Coordinating MPO Boundaries for Transportation Planning and Programming Purposes between DVRPC and LVPC**
Ms. Bradley explained that LVPC staff have been working with the Delaware Valley Regional Planning Commission (DVRPC) to update our agreement related to where there are overlapping boundaries. A portion of Coopersburg Borough and Upper Saucon Township in Lehigh County and Lower Saucon Township, in Northampton County, extend into Bucks County. Delaware Valley Regional Planning Commission is the MPO for Bucks County. The MOU agrees on how each MPO proposes to address planning and programming for this Urban Area. An example of coordination includes the Passenger Rail Study. She noted that no state funding will be shared.

Mr. O’Neil asked for a motion to approve the Memorandum of Understanding as presented, first from the Technical Committee, then the Coordinating. From the Technical Committee, Mr. Cotter made the motion and Ms. Ruth seconded. From the Coordinating Committee, Mr. Green made the motion and Mr. Kufro seconded.

Mr. O’Neil opened the floor for questions from LVTS members and the public. Ms. Bradley added that the MOU also must go to the LVPC Executive Committee. Mr. Weber asked if DVRPC coordination is part of Passenger Rail studies. Ms. Bradley explained that the study must look at all possible routes. Mr. Weber asked where the requirement comes from. Ms. Bradley explained its from the US Department of Transportation.

INFORMATION ITEM: **PennDOT 2026 Municipal Outreach Sessions**
Mr. Raio informed the committees of a Municipal Outreach Session being held on March 26th, 2026 at the PennDOT District 5 office in Allentown. He encouraged municipalities to sign-up to learn more about the PennDOT Connects program and an update on some infrastructure projects in District 5.

INFORMATION ITEM: **Annual Report**
Mr. Steven Weber noted that the LVPC 2025 Annual report is ready and available for review. The report highlights key initiatives, projects, and accomplishments from the past year, and includes a look at what’s next for the Planning Commission and the region.

Status Reports
Mr. O’Neil said the status reports on PennDOT District 5 Multimodal Projects, the Monthly Traffic Report, and the Public Engagement, Grants and Education memo were included in the meeting packet. There were no questions or comments from the committees or public.

Adjournment
Mr. O’Neil stated that the next LVTS meeting will be a Technical Committee Meeting on Wednesday, April 15. Mr. Kufro made a motion to adjourn, and the meeting was adjourned.

LVPC
Lehigh Valley Planning Commission

LEHIGH VALLEY

TRAIL CONNECTION STRATEGY

Published March 2026

Disclaimer: This project was completed in partnership with the Lehigh Valley Greenways Conservation Landscape. Funding was provided, in part, by a grant from the Pennsylvania Department of Conservation and Natural Resources, Bureau of recreation and Conservation and the Environmental Stewardship Fund, as administered by the Delaware and Lehigh National Heritage Corridor, Inc.

The LEHIGH VALLEY PLANNING COMMISSION (LVPC) and the LEHIGH VALLEY TRANSPORTATION STUDY (LVTS) (MPO) are committed to compliance with nondiscrimination requirements of civil rights statutes, executive orders, regulations and policies applicable to the programs and activities it administers. Accordingly, the MPO is dedicated to ensuring that program beneficiaries receive public participation opportunities without regard to race, color, national origin, religious creed, sex, age, disability or economic status. LVPC's website, www.lvpc.org, may be translated into multiple languages.

Publications and other public documents can be made available in non-English languages and alternative formats, if requested. Meeting facilities are accessible to persons with disabilities and the location is reachable by public transit. The MPO will provide auxiliary services for individuals with language, speech, sight or hearing impediments provided the request for assistance is made four days prior to the meeting. The MPO will attempt to satisfy other requests, as it is able.

Please make your request for auxiliary services to planning@lvpc.org or 610-264-4544. If you believe you have been denied participation opportunities, or otherwise discriminated against in relation to the programs or activities administered by the MPO, you may file a complaint using the procedures provided in our complaint process document at www.lvpc.org or by contacting planning@lvpc.org or 610-264-4544.

Cover Photo by Evan Gardi / LVPC

This document is available in other formats upon request, in accordance with applicable state and federal laws. The LVPC will provide translation or interpretation services upon request. For more information, please call the LVPC at **610-264-4544.**

Spanish:

Este documento está disponible en otros formatos cuando se soliciten, de conformidad con las leyes estatales y federales correspondientes. La LVPC le proporcionará servicios de traducción o interpretación si los solicita. Para obtener más información, llame a la LVPC al **610-264-4544.**

Traditional Chinese:

根據適用的州和聯邦法律，本文件可按要求提供其他格式。LVPC將根據需求提供翻譯或口譯服務。如需更多資訊，請致電**610-264-4544**聯絡LVPC。

Simplified Chinese:

根据适用的州和联邦法律，本文件可按要求提供其他格式。LVPC将根据要求提供翻译或口译服务。如需更多信息，请致电**610-264-4544**联系LVPC。

Arabic:

هذا المستند متاح بصيغ أخرى عند الطلب، وفقًا للقوانين الحكومية والفدرالية المعمول بها. ستقوم لجنة LVPC بتقديم خدمات الترجمة أو التفسير عند الطلب. لمزيد من المعلومات، يرجى الاتصال بلجنة LVPC على الرقم 610-264-4544.

Vietnamese:

Chúng tôi có thể cung cấp tài liệu này theo các định dạng khác nếu quý vị yêu cầu, chiếu theo luật hiện hành của tiểu bang và liên bang. LVPC sẽ cung cấp các dịch vụ thông dịch và chuyển ngữ tài liệu khi có yêu cầu. Để biết thêm thông tin, vui lòng gọi LVPC tại số **610-264-4544.**

LVPC COMMISSIONERS

Lehigh Valley Planning Commission

Christina “Tori” Morgan, **Chair** (Lehigh County)	Armando Moritz-Chapelliquen, **Vice Chair** (Northampton County)	Phillips Armstrong, **Treasurer** (Lehigh County)

LEHIGH COUNTY

Joshua Siegel
Samantha Pearson (Alt.)
Matthew Tuerk
Jennifer Gomez (Alt.)
Ron Beitler
Bob Elbich
Phil Ginder
Kent H. Herman, Esq.
Gary Fedorcha
Craig Beavers
Steven L. Glickman RA, CSI
Michael Drabenstott
Santo Napoli
Owen O’Neil
Sunny Ghai
Stephen Repasch
John Inglis III
Ryan Mayberry
Sharon Felhinger-Ricker

NORTHAMPTON COUNTY

Tara Zrinski
Bryan Cope (Alt.)
Salvatore Panto, Jr.
Carl Manges (Alt.)
Andrew Elliott
Charles W. Elliott, Esq.
Judith Haldeman
John McGorry
Stephen Melnick
Jo Daniels
Anita Erdos Forrester-
Tung-To Lam
Eric Shamis
Dean Turner
Brett Webber
Jeff Warren

BOTH COUNTIES

J. William Reynolds
Cathy Fletcher (Alt.)*
Justin Amann

**The City of Bethlehem resides within Lehigh and Northampton counties*

Thank you to all 2025 LVPC Commissioners, Richard Molchany (alt.), Percy Dougherty, PhD, Bob Elbich, Dennis Klusaritz, Diane Kelly, Owen O’Neil, Lamont G. McClure, Jr.,Jean Versteeg, John Gallagher, Rachel Leon, Scott Minnich, Edward Nelson, Crystal Rose, Jessica Cope, Kenneth Kraft, Basel Yandem, Darlene Heller and Tina Smith

LVTS MEMBERS

Lehigh Valley Transportation Study

TECHNICAL COMMITTEE

Ryan Meyer, **Chair** (Lehigh-Northampton Airport Authority)	Nick Raio, **Vice Chair** (PennDOT Central)	Becky Bradley, AICP, **Secretary** (LVPC)

Matthew Tuerk, City of Allentown
David Petrik (Alt.), City of Allentown
Salvatore J. Panto, Jr., City of Easton
David Hopkins (Alt.), City of Easton

Brendan Cotter, Lehigh and Northampton Transportation Authority
Ryan Meyer, Lehigh-Northampton Airport Authority
Jennifer Ruth, PennDOT District 5-0

Nyomi Nonnemaker (Alt.), PennDOT Central
J. Williams Reynolds, City of Bethlehem
Cathy Fletcher (Alt.), City of Bethlehem

COORDINATING COMMITTEE

Owen O'Neil, **Chair** (Lehigh and Northampton Transportation Authority)	Chris Kufro, **Vice Chair** (PennDOT District 5)	Becky Bradley, AICP, **Secretary** (LVPC)

Josh Siegel, Lehigh County
Andrew Elliott (Alt.), Lehigh County
Tara Zrinski, Northampton County
Mike Emili (Alt.), Northampton County
Matthew Tuerk, City of Allentown

David Petrik (Alt.), City of Allentown
J. William Reynolds, City of Bethlehem-
Michael Alkhal (Alt.), City of Bethlehem-
Salvatore J. Panto, Jr., City of Easton-
Dave Hopkins (Alt.), City of Easton

Thomas Stoudt, Lehigh-Northampton Airport Authority
Ray Green, PennDOT Central
Nick Raio (Alt.), PennDOT Centra

Thank you to all 2025 LVTS Members,
Phillips Armstrong, Lamont G. McClure, Jr., Darlene Heller, Richard Molchany, Basel Yandem and Jim Mosca

LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Table of Contents

LVPC
Lehigh Valley Planning Commission

LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Introduction

LVPC
Lehigh Valley Planning Commission

People across the Lehigh Valley consistently list trails among the region's greatest assets, but successfully closing gaps in the trail network is complex and often takes many years to complete. It can require alignment among multiple stakeholders throughout the Lehigh Valley including municipalities, county agencies, state agencies, nonprofit organizations, and private partners.

Projects must comply with local, state and federal regulations, in many cases while intersecting with waterways, transportation corridors and environmentally sensitive areas. Securing funds for design, land acquisition and construction can also be a lengthy and expensive process.

Even with the many obstacles, significant progress has been made across the region since the 2013 inventory was completed.

Many of the gaps identified at the time have moved closer to closure through successful grant funding, planning efforts and construction of trail segments within the gaps. These accomplishments reflect a decade of coordinated work between regional partners and demonstrates the continued commitment to building a more connected and accessible trail network throughout the Lehigh Valley. This section highlights those original gaps and explains the work that has been done.

Trails are more than lines on a map or paths along our rivers and streams — they're how a region breathes. They give people a safe, simple way to move, connect and slow down, whether that's a morning bike commute to work, an evening walk, or a weekend escape into green space.

A strong trail network knits communities together, connects us to neighbors, supports public health and local economies, and turns open space into shared places, making a region not just easier to get around, but better to live in. Beyond recreation and mobility, trails also function as resilient infrastructure that supports ecological integrity and hazard mitigation.

In the Lehigh Valley, they are what people say they like best about living here.

For the importance of trails to our mobility, health and economy, the Lehigh Valley Planning Commission has created an inventory of existing, planned and future trail infrastructure in the Lehigh Valley. This information helps identify trail infrastructure gaps, benchmark them against regional goals and prioritize how those gaps can be closed. This report and analysis translates regional goals, shown in municipal plans across the Lehigh Valley and regional plans such as *FutureLV: The Regional Plan*, *WalkRollLV: Active Transportation Plan*, and *Livable Landscapes* into actionable locations, where the network fails to function as a true continuous system, and gives stakeholders a roadmap for fixing it.

In addition to this report, there is a complimentary interactive mapping tool at lvpc.org, that has been designed to coordinate the regional trail system and track gap closures, setting the stage for organized implementation across the region. The previous iteration of this report, the *Lehigh Valley Trails Inventory*, was completed in 2013, and many changes have occurred since then as this region grows, develops and evolves.

This report provides up-to-date trail data, which will inform regional stakeholders about the status of trail infrastructure and further support the build out of the regional trail network. This effort supports other active transportation initiatives throughout the Lehigh Valley for both commuter and recreational options. Municipalities and trail partners can use information included in this document to support funding applications for trail improvements.

LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Trail Development Update

LVPC
Lehigh Valley Planning Commission

Closing trail gaps is a complicated and intentional process that requires partnerships, funding, organization and patience. Trails cross many properties involving sometimes dozens of owners, all of whom need to agree to the addition of a recreational facility to their land or to sell it to a government agency or conservancy. Once property is acquired, investigation for contamination, threatened and endangered species, flood plains, steep slopes and other natural and manmade considerations must occur. Any protections for the community and plants, soil, water and wildlife are important to balancing recreational and natural assets, including people.

Resource identification is followed by engineering and approvals prior to any remediation or construction. With limited, but very important, grants available for trail projects, timelines to close important gaps can take decades. Fortunately, the Lehigh Valley has a multitude of deep, long-term partnerships that have resulted in more than 300 miles of trails we enjoy today. While much remains to be done, progress has been made since the Lehigh Valley Trail Inventory – 2013.

A special thanks to every dedicated, thoughtful and persistent trail advocate who has and continues to work toward a seamless regionwide and multiregional trail system.

The last trail gap analysis by the LVPC was completed in 2013 with the publishing of the *Lehigh Valley Trails Inventory – 2013 Lehigh and Northampton Counties.*

The following trails were identified in the 2013 Inventory as the Top Ten gaps in the region at that time. It is important to note that while some of these trail gaps remain, an incredible amount of work has been completed to move to closure, including many successes in receiving funding and building new infrastructure to help address these gaps.

2013 Top Trail Gaps

Trail Gap 1: Cedar Creek Trail to Little Lehigh Parkway Path
Trail Gap 2: Jordan Creek Greenway Trail
Trail Gap 3: D&L Trail to Ironton Rail Trail
Trail Gap 4: Nor-Bath Trail to D&L Trail
Trail Gap 5: D&L Trail Environmental Obstructions
Trail Gap 6: D&L Trail - Dauphin and Bradford Streets Share the Road
Trail Gap 7: South Bethlehem Greenway Trail to Saucon Rail Trail
Trail Gap 8: Karl Stirner Arts Trail to Palmer Township Bike Path
Trail Gap 9: Tatamy Rail Trail to Jacobsburg Environmental Education Center (JEEC)
Trail Gap 10: Bushkill Township PPL Trail to Appalachian Trail

Cedar Creek Trail / Photo credit: LVPC

Trail Gap 1: Cedar Creek Trail to Little Lehigh Parkway Path

Municipalities: City of Allentown, Salisbury Township
Start: Little Lehigh Parkway Path at Kline's Bridge, Allentown
End: Cedar Beach Trail at Hamilton Street, Allentown

Status update: This gap has been identified by the City of Allentown as phase two of the Martin Luther King Jr. (MLK) Drive Trail extension project. As of 2026, the design and engineering for phase two of the trail gap closure project is out for bid. Phase one construction, between the Little Lehigh Parkway Path and Fountain Park, is underway, and the two phases together will create continuous trail from the Cedar Creek Trail at Hamilton Street to the MLK Drive trailhead at South 4th Street.

Jordan Creek Greenway
Photo credit: LVPC

Trail Gap 2: Jordan Creek Greenway Trail

Municipalities: City of Allentown, Lowhill Township, North Whitehall Township, South Whitehall Township, Whitehall Township
Start: Gordon Street at Jordan Meadows Park, Allentown
End: Jordan Road at Trexler Nature Preserve, Lowhill Township

Status update: New trail has been constructed in multiple areas since 2013. Continuous trail has been constructed from MacArthur Road to Mauch Chunk Road. There has been new trail construction on both the east and west sides of Covered Bridge Park in South Whitehall Township, and there is a segment of trail that now runs from Lapp Road to Route 309, through Covered Bridge Park. Trail gaps remain on the Jordan Creek Greenway, from Mauch Chunk Road to Lapp Road, and from Route 309 to Trexler Nature Preserve.

Ironton Railtrail / Photo credit: LVPC

Trail Gap 3: D&L Trail to Ironton Rail Trail

Municipalities: Coplay Borough, Whitehall Township
Start: D&L Trail at Cementon Trailhead, Whitehall Township
End: Ironton Rail Trail at Saylor Park, Coplay Borough

Status update: Since the last plan, Lehigh County has continued to have discussions with Norfolk Southern, the entity that owns the rights-of-way needed for trail construction. The County is raising additional funds to be able to purchase the land.

Nor-Bath Trail / Photo credit: LVPC

Trail Gap 4: Nor-Bath Trail to Delaware & Lehigh Trail

Municipalities: Northampton Borough
Start: Clear Springs Drive, Northampton Borough
End: D&L Trail at Northampton Canal, Northampton Borough

Status update: The proposed alignment of the trail connection has been changed and partially constructed. The Nor-Bath Trail has been extended approximately an additional half-mile, from its 2013 terminus at Clear Springs Drive in Northampton Borough, to the intersection of Main Street and 10th Street. Planning is ongoing to determine the route of the final connection to the Northampton Canal trailhead of the D&L Trail.

D&L Trail / Photo credit: LVPC

Trail Gap 5: D&L Trail: North Catasauqua

Municipalities: Catasauqua Borough, Northampton Borough, North Catasauqua Borough
Start: D&L Trail approx. 0.5 miles south of Northampton Canal Trailhead
End: D&L Trail near Race Street, Catasauqua Borough

Status update: Trail gaps 5A and 5B from the 2013 Lehigh Valley Trails Inventory have been closed as part of the Northampton and North Catasauqua Trail Improvements Project in 2022. Trail gap 5C, at the Race Street and Lehigh Street intersection is complete.

D&L Trail / Photo credit: LVPC

Trail Gap 6: D&L Trail – Dauphin and Bradford Streets Share the Road

Municipalities: City of Allentown
Start: Kimmett's Lock, Allentown
End: D&L Trail at N. Bradford Street, Allentown

Status update: This project is in the final engineering phase. Final designs are being prepared to meet permitting needs. Projects are being led by the City of Allentown and Hanover Township.

Left to right: Basel Yandem, City of Bethlehem, Becky Bradley, LVPC, Michael Allehal, City of Bethlehem, J. William Reynolds, City of Bethlehem, Phillips Armstrong, Lehigh County, Lamont G. McClure, Jr., Northampton County and Ryan Meyer, Lehigh and Northampton Airport Authority. Photo credit: LVPC / Photo Date: 7-23-25

Trail Gap 7: South Bethlehem Greenway Trail to Saucon Rail Trail

Municipalities: City of Bethlehem, Hellertown Borough
Start: South Bethlehem Greenway at Auburn Street, Bethlehem
End: Saucon Rail Trail at Bachman Street, Hellertown Borough

Status update: A 0.9-mile gap separates the South Bethlehem Greenway from the Saucon Rail Trail, which has prevented an active transportation connection between Bethlehem and Hellertown. The gap also separates the Lehigh Valley's regional trail network, the LINK, from the Circuit Trails, greater Philadelphia's trail network. Due to the gap's local and regional significance, Pennsylvania Department of Conservation and Natural Resources (PA DCNR) identified it as a top 10 trail gap in the Commonwealth. Various funding sources have been utilized to take steps to help close the trail gap, including Transportation Alternative Set-Aside funds allocated through the Lehigh Valley Transportation Study, PA DCNR, U.S. Fish and Wildlife Service Highlands Conservation Act Grant, Northampton County Livable Landscapes Grant Program and congressional Community Project Funding. The final phase to construct the Greenway extension is now fully funded, with construction in 2026. The connected South Bethlehem Greenway and Saucon Rail Trail will provide 13.7 miles of safe and accessible trail for all users, to link together parks and open space, residential areas and commercial and cultural hubs.

Trail Gap 8: Karl Stirner Arts Trail to Palmer Township Bike Path

Municipalities: City of Easton, Palmer Township, Wilson Borough
Start: Karl Stirner Arts Trail at 13th Street, Easton
End: Palmer Bikeway at Edgewood Avenue, Palmer Township

Status update: This approximately one mile trail gap spans from the Edgewood Avenue trailhead of the Palmer Bikeway in Palmer Township, to the Karl Stirner Arts Trail trailhead in Easton, near the Easton Silk Mill. No new trail has been constructed in this segment since 2013, however, it is identified in planning documents such as Walk/RollLV and remains a priority to be connected in the future.

Factors affecting the closure of this gap include possible development of a large parcel of land on the south side of the Bushkill Creek that makes up a large portion of the gap, and high traffic and difficult sight lines for cyclists and drivers on Bushkill Drive, on the north side of the creek.

Photo credit: LVPC / Karl Stirner Arts Trail

Photo Credit: LVPC / Buskill Township - Jacobsburg Park

Trail Gap 9: Tatamy Rail Trail to Jacobsburg Environmental Education Center (JEEC)

Municipalities: Bushkill Township, Plainfield Township, Stockertown Borough, Tatamy Borough
Start: Tatamy Trail trailhead at Main Street, Tatamy Borough
End: Plainfield Township trailhead at Main Street (PA 191), Bushkill Township

Status update: This trail gap spans a handful of municipalities and separates four trails, the Jacobsburg Environmental Education Center Trails, Plainfield Township Recreation Trail and Tatamy Rail Trail. Significant progress to close the trail gap has been made since 2013. Stockertown Borough has constructed a multi-use trail (Stockertown Rails-to-Trails) from Sherman Metzgar Park to the Belfast Junction trailhead of the Plainfield Township Trail. However, to connect from one trail to the other, trail users must navigate an unmarked crossing of Route 191/Main Street. From this junction, there is a conceptual trail connection to the Jacobsburg Environmental Education Center, which has been partially constructed.

"Since 2013, the trail gap has received $654,000 in funding from both the Transportation Alternatives Set-Aside (TASA) program and from DCNR to help finalize this trail gap. In 2025, a segment of trail was constructed from the Center's southern entrance at Henry Road to Filetown Road, aligned along Route 33. The remainder of the conceptual route is anticipated to cross Route 33 at Filetown Road and continue along the Route 33 rights-of-way until the junction of the Plainfield and Stockertown trails. An additional gap remains from Sherman Metzgar Park in Stockertown, to the Tatamy Trail trailhead at Main Street. In 2025, Northampton County used Highlands Conservation Act Grant Award funding to purchase 43 acres of open space that includes the area of the trail gap in Stockertown Borough, which will help facilitate future trail construction.

Trail Gap 10: Bushkill Township PPL Trail to Appalachian Trail

Municipalities: Bushkill Township, Plainfield Township
Start: Bushkill Township Trail parking lot at East Moorestown Road (PA 512), Bushkill Township
End: Appalachian Trail near Route 33, Plainfield Township

Status update: Additional trail has been constructed, from the trailhead at E. Moorestown Road (Route 512), east along the road to Professional Drive. The Township and warehouse developers on the north side of Route 512 have agreed to allow future trail construction on the property.

To reach the Appalachian Trail, future trail development will likely be along utility rights-of-way and on-road segments of low-volume roads. Additional coordination between the Township, state agencies and property owners will be needed.

Photo Credit: Google Maps / Buskill Township - PPL Trail

LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Trail Benefits

LVPC
Lehigh Valley Planning Commission

Trails have become increasingly recognized as essential assets in Lehigh Valley communities. Trails can deliver a wide range of transportation, recreational, environmental, and economic benefits. The trail system serves as an important component of transportation networks, improving connectivity, providing accessible opportunities for physical activity, improving environmental resilience, and increasing economic activity. The wide range of benefits extend beyond the traditional belief of a strictly recreational asset.

As part of a connected network, they offer safe routes for walking and rolling that link places such as schools, workplaces, parks and transit stops, helping people travel without solely relying on motor vehicles. Trail infrastructure contributes to environmental resilience by preserving natural features, supporting stormwater management, and preserving ecological connections. Trails also generate economic value by attracting tourism and visitors, supporting local business and increasing property values. As communities look for ways to improve quality of life, investment in trail infrastructure has become increasingly valuable.

Trails as Transportation

Trails provide a critical transportation mode, linking people to key recreation, open space, education, workplace and other desired destinations, without a car and at little or no expense. They provide, reliable, safe and accessible corridors for walking, bicycling and other non-motorized forms of travel. These systems support and enhance traditional transportation infrastructure including roadways and transit, allowing for personal modal choice, supporting emerging transportation technologies such as e-bikes and providing increasing opportunities at all ages and abilities to experience the region's abundant natural and recreational resources. These transportation systems provide low cost and accessible linkages to our daily destinations, while minimizing traditional infrastructure impacts and costs. This section reviews how our trails service as an important part of the transportation network.

Trails are an integral part of the transportation system, offering an affordable, flexible and healthy option for travel. The benefits to communities and trail users are many.

Trails reduce dependence on fossil fuels and offer residents healthier, more affordable commuting options by encouraging active mobility.

Trails provide safe, accessible routes for walking, biking and largely non-motorized forms of travel. These pathways help people move between neighborhoods, schools, workplaces, and public transit stops without relying on cars, filling critical gaps in the transportation system.

Trails also bridge “last-mile” gaps to transit stations and employment centers, improving access for all users.

Connectivity is one of the greatest transportation benefits of trails. When designed as part of a regional or municipal system, trails link key destinations and form continuous corridors that make active travel both feasible and attractive. This not only benefits individuals but also reduces vehicle congestion, leading to cleaner air and less wear on road infrastructure.

For people who cannot or choose not to drive, such as youths, seniors or zero-vehicle households, trails offer a safe and free means of getting around. Expanding multimodal options allows communities to create inclusive transportation systems that support all residents, regardless of income or ability.

Trails as Recreation

Trails provide a physical connection to access our community's natural and cultural landscapes, while allowing us to be physical as we use them – whether walking, running, or cycling, the experience is much different than it would be sitting in a car or bus. Trails not only serve as a means to connect us to places to recreate such as parks, playgrounds, lakes, streams, sports fields, fishing spots, boat launches or campsites, they often are the source of recreational activity.

Whether you like to walk, bird watch, ride a bike, run, or roll, trails are usually how you access these places and in so doing, you are also recreating. These experiences build appreciation for maintaining and stewarding our trail network and the many unique and special places that the network allows us to experience. This section shows the many ways trails increase our region's recreation options.

Trails offer access to outdoor environments that reduce stress and improve mental health, giving people an accessible way to experience nature close to home.

Trails encourage regular physical activity such as walking, running and cycling, which improves cardiovascular health and reduces obesity and chronic disease rates.

Trails serve as community gathering places for casual encounters, family outings and organized events like charity walks or fun runs.

Social interaction is a core benefit. This fosters stronger community ties and creates spaces that promote inclusivity and shared experiences. A well-designed trail system can also become a source of local pride and identity.

Trails showcase and protect natural, historic and cultural resources.

Finally, trails connect people to nature and cultural landscapes, rivers, forests, farmland, and historic sites,helping build appreciation for environmental stewardship and heritage preservation.

Trails as Resilient Infastructure

Resiliency is defines as, “The capacity to withstand or to recover quickly from difficulties; toughness.” Trails add that toughness to our ecological community and landscape features in locations across the region. They are often one of many “spokes” in a community’s green infrastructure network – a connected system of nature-based corridors such as trails, greenways or riparian buffers that harness the benefits of ecological design. Trails, a type of green infrastructure, are sometimes constructed in or adjacent to ecologically sensitive areas such as wetlands, woodlands and floodplains.

Trail design must incorporate systems and materials that protect habitat and provide recreation opportunities. By incorporating ecologically sensitive design such as vegetative stormwater management practices and considering site constraints, trails may be better adapted to recover from natural weather events more quickly than traditional gray infrastructure. This section shows some of the ways trails make our environment more resilient.

Trails can help minimize impacts to wetlands and streams and increase site stabilization through climate adaptive practices.

Trails can be key components of green infrastructure networks, which can incorporate elements such as permeable pavements, rain gardens and bioswales, that all work together to manage stormwater and reduce flooding.

Trails can serve a functional role during emergencies.

Because they are often continuous and separated from major roadways, trails may act as alternative routes for emergency access or evacuation during floods, storms or traffic disruptions. This makes them valuable assets for community resilience and safety planning.

From a climate adaptation perspective, trails contribute to reducing urban heat islands by maintaining vegetated corridors and shade.

They preserve open space and habitat connectivity, supporting biodiversity and ecosystem health. Integrating trails into broader greenway or watershed planning efforts ensures that infrastructure investments achieve multiple objectives, transportation, recreation, stormwater management and climate resilience, all within one project.

Photo Credit: LVPC

Trails as Economic Generators

Trails generate economic activity in the Lehigh Valley as quantified in documents such as the 2014 Lehigh Valley Return on Environment Study and the 2025 Northampton County Return on Environment update. Studies referenced in the 2020 Walk/Roll LV- Active Transportation Plan note that Americans increasingly want to live in communities that are walk, bike and roll friendly, which has led to higher property values and higher property tax revenues in communities that invest in active transportation.

Trail users spend money at nearby businesses, purchase specialized equipment and clothing, purchase parts at repair shops, and generally support local communities they visit. Ultimately, trails boost tourism, raise property values and increase recreation-related spending across a region that has a reputation as one of Pennsylvania's most visited for recreational options. This section takes a closed look at how those benefits add up.

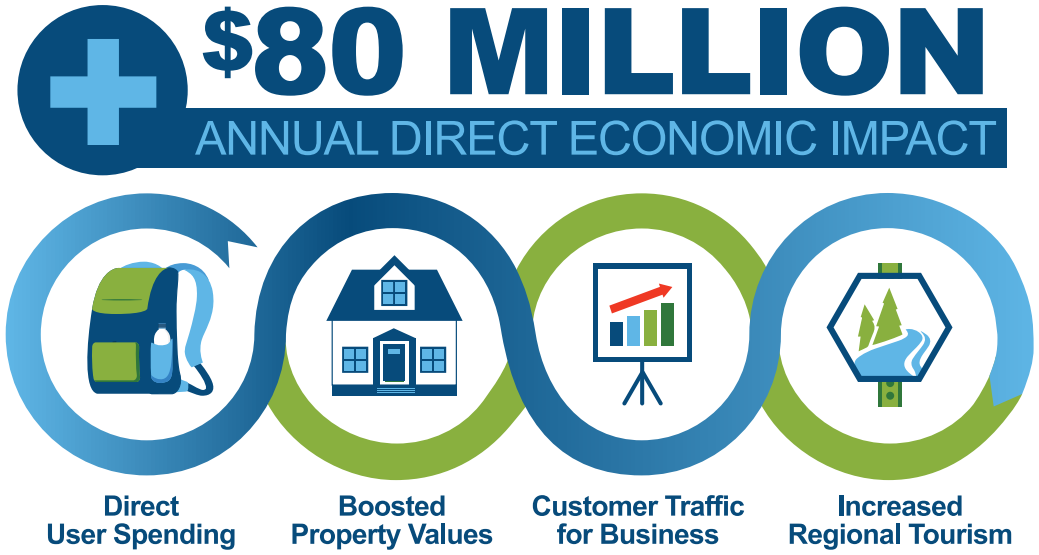
Trails provide significant direct and indirect economic and health benefits to the region.

The *2014 Lehigh Valley Return on Environment* study estimated over $80 million in direct economic impacts annually from walking and bicycling activities. This includes direct spending on outerwear, athletic wear and equipment as well as generating income for trail users and supporting businesses such as restaurants, trail side cafes, and bike repair shops. Property values are also boosted by trails, as various case studies show that homes near them are valued higher and have elevated demand.

In the Lehigh Valley, there are many greenway and trail corridors in residential areas, such as the Jordan Creek, Bushkill Creek, Monocacy Way and more, which can boost surrounding property values from 5% to 32%, according to the U.S. Department of Agriculture. The *Lehigh Valley Return on Environment* study calculated property values near a trail or park increased by $14,600.

Trails contribute to local tourism and business development.

Visitors drawn to scenic or connected trail networks often spend money on food, lodging and recreation,boosting local economies. Studies, including the *2014 Lehigh Valley Return on Environment*, show that homes and businesses near well-maintained trails enjoy higher property values and increased customer traffic.



LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Barriers to Closing Gaps

LVPC
Lehigh Valley Planning Commission

Despite broad support, closing gaps in the Lehigh Valley's trail system remains a persistent challenge.

Trail gaps are often the result of a number of factors including historical land-use decisions, natural barriers or funding shortfalls. The process of closing these gaps is complex, requiring alignment among multiple Lehigh Valley stakeholders, regulatory compliance at all levels, and substantial financial resources.

Funding and Cost Barriers

One of the most significant obstacles to closing trail gaps and completing trail networks is securing adequate funding. Trails are often considered amenities rather than transportation infrastructure. This means that trail projects must compete for already limited funds against transportation projects focused on road maintenance, bridge repairs and transit improvements. If grants are available for trail projects, they may require local matches, which can be difficult for some communities and organizations to secure.

Cost estimating can be uncertain. Overruns are common due to rising material prices, complexities in the design phase, or even unexpected environmental issues. In some cases, the per-mile cost of trail projects is higher in gap areas because of constrained rights-of-way or the need for infrastructure upgrades or unique engineering solutions. These financial barriers can delay a project for years, leaving the gaps unaddressed.

Land Acquisition and Rights-of-Way Issues

Acquiring land to close trail gaps can be complex, expensive and time-consuming. Many of the conceptual trail corridors cross privately owned parcels, and negotiating easements or purchases can be contentious. Property owners may resist providing easements due to concerns regarding liability and privacy. Property owners may also resist selling property due to concerns over perceived negative impacts to remaining adjacent property they own.

In more urban areas in the region, high land costs and dense development can complicate land acquisition even more. Gaps may also occur along railways for rails-to-trails efforts. Rights-of-way acquisition for railways may require piecemeal negotiations with multiple landowners or difficult negotiations with rail companies. Without legal access to a more continuous corridor, trail projects may be forced to pursue expensive detours or risk delays.

Environmental and Regulatory Constraints

Environmental considerations can slow the development of a trail. Trails are frequently in areas that intersect with wetlands, floodplains, rivers or endangered species habitats. These projects will require special considerations to mitigate natural resource impacts, and in most cases, trigger specific permitting requirements. Compliance with federal and state environmental regulations, such as National Environmental Policy Act (NEPA) serve important conservation purposes but often result in delays that can bring frustration to a trail project.

These considerations need to be factored early in the design and approval process to ensure successful integration with natural resources. Mitigation measures like constructing elevated boardwalks or implementing stormwater controls can significantly increase project costs. Balancing ecological preservation and easy trail connectivity is an ongoing challenge.

Stakeholder Coordination Challenges

Coordination among stakeholders can often be one of the most complex barriers to closing a trail gap. Trail gaps may span multiple jurisdictions such as counties and municipalities. This can require careful collaboration and long-term commitment. Differing priorities, timelines and funding capacity can stall or cancel projects, especially when one jurisdiction is unwilling or unable to work to advance a portion of a project.

Stakeholder conflicts may also arise, such as advocation for different aspects of a trail project. Advocates for recreation, conservationists concerned about ecological impacts, transportation planners and local residents often have differing priorities. Achieving consensus on design, alignment and maintenance is a time-consuming process that can delay a project.

Photo Credit: LVPC

LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Community and Stakeholder Engagement

LVPC
Lehigh Valley Planning Commission

In 2025 LVPC staff solicited input from municipalities, county agencies, non-profits and regional partners through a variety of methods including stakeholder meetings, interviews and surveys.

Survey participants reviewed the LVPC interactive map and provided corrections, status updates, project descriptions, and links or offers to share Geographic Information System (GIS) files. Several responses included detailed project status including design, permitting, funding, grant amounts or applications, and specific physical or jurisdictional barriers.

This engagement provided valuable information used to verify and expand the Trail Connection Strategy and to document active, planned and conceptual trail work throughout the Lehigh Valley.

The objective of the outreach was to validate existing mapped trail assets, identify and describe persistent trail gaps and the barriers to closing them, to collect information on project status, funding, permitting, and obtain available spatial data in support of the regional inventory. The surveys were sent to local governments, county staff and multiple local trail advocacy organizations. A total of 24 surveys were completed.

Left to right: Front Row > Rob Neitz, PA Department of Conservation and Natural Resources, Evan Gardi, LVPC, Brit Kondravy, D+L National Heritage Corridor, Christian Martinez, LVPC Middle > Bryan Cope, Northampton County, Scott Slingerland, Coalition for Appropriate Transportation, Brandon Sullivan and Trevor Pinho, City of Easton, Sherry Acevedo, Northampton County, Jeff Rau, PA Department of Transportation
Photo credit: LVPC

Survey participants repeatedly cited the following core challenges to implementing trail projects:

- Funding was the most frequently noted obstacle, including capital and maintenance costs for bridges, crossings and trail surfacing.
- Land acquisition and private property, including a lack of easements or unwilling landowners
- Permitting and environmental constraints, including National Pollutant Discharge Elimination System (NPDES) stream permitting, environmental review timelines and coordination with state agencies.
- Jurisdictional fragmentation. Trails that end at municipal boundaries or require multi-jurisdictional agreements create issues for securing rights-of-way and maintenance responsibility.
- Safety and design issues, including difficult or hazardous road crossings, grade and railroad obstructions and lack of Americans with Disabilities Act accessibility.
- Lack of political or community will, including occasional local resistance or competing land use priorities that prevent acquisition or trail alignment choices.

Photo Credit: LVPC

Left to Right: Evan Gardi and Clay Karnis, LVPC, Bryan Cope, Northampton County

Left to Right: Chris Strohler, South Whitehall Township and Clay Karnis, LVPC

COMMUNITY PARTNERS

The Lehigh Valley benefits from a strong base of rail-trail and greenway assets but connectivity between the networks is uneven. Major crossings and private parcels are significant constraints. Closing a relatively small number of linkages could substantially increase regional connectedness. Projects with committed funding and completed design and permitting demonstrate that the primary bottleneck for many gaps is right-of-way acquisitions and long-lead time coordination, rather than technical feasibility. In addition to the survey, the LVPC hosted and presented at two meetings of THE LINK Trail Network committee.

THE LINK is an interconnected network of multi-use trails across the Lehigh Valley and consists of over 125 miles of trails that connect into many more trail systems outside of the Lehigh Valley. These include Philadelphia, the Pocono Mountains, New York, New Jersey and various other regions. It is supported by a network of regional partners committed to enhancing this valuable resource. The partners meet often to discuss the growth of the Lehigh Valley's trail network. The LVPC presented survey results, mapping and preliminary findings at two LINK partner meetings to discuss the update to the Trail Inventory, the prioritization process and to gather input on the major trail gaps identified in the Lehigh Valley.

Left to right: Front Row > Rob Neitz, PA Department of Conservation and Natural Resources, Evan Gardi, LVPC, Christian Martinez, LVPC, Kent Baird, Brit Kondravy, D+L Heritage Corridor, Bryan Cope, Northampton County, Scott Slingerland, Coalition for Appropriate Transportation, Clay Karnis, LVPC, Brandon Sullivan, City of Easton and Sherry Acevedo, Northampton County

LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Trail Inventory

LVPC
Lehigh Valley Planning Commission

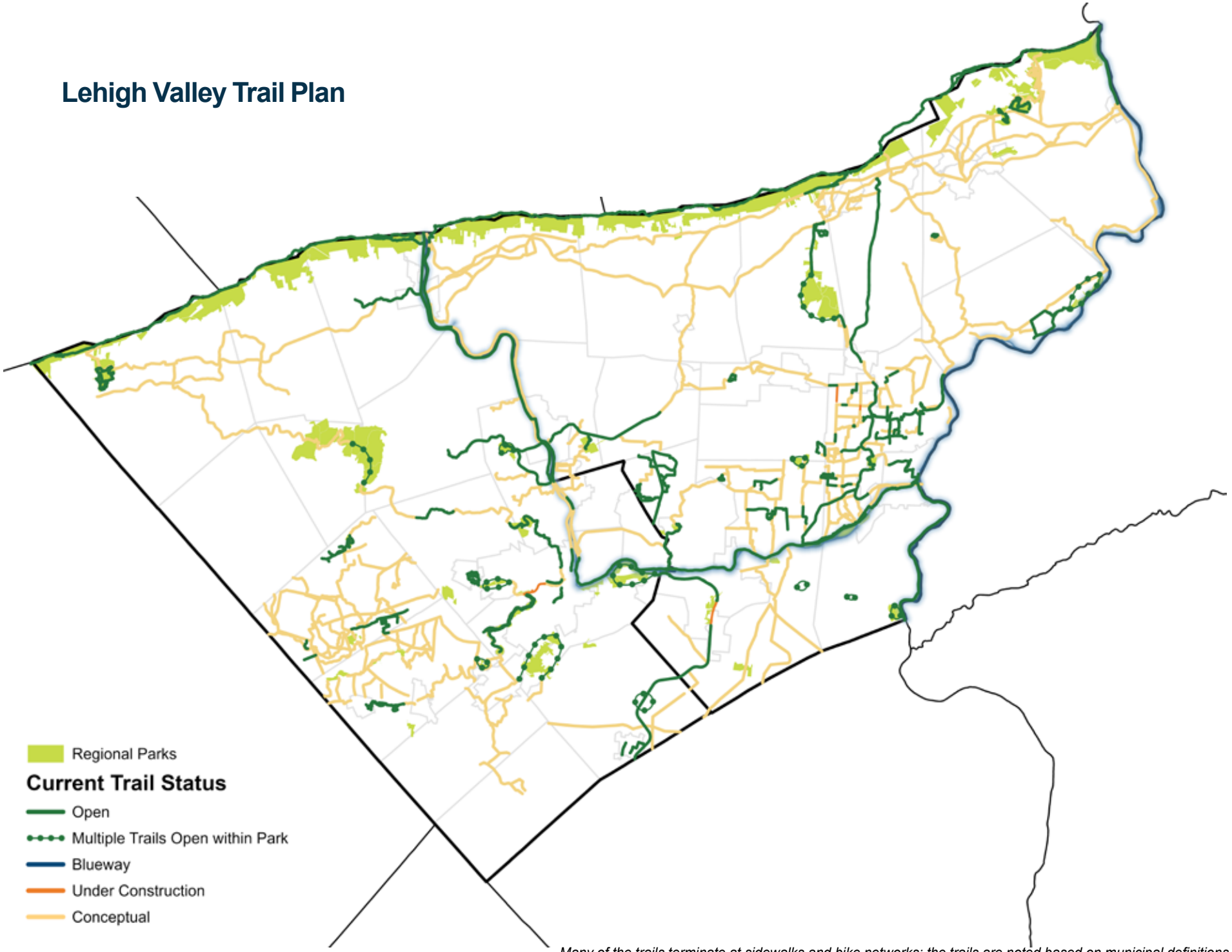
Based on information gathered, LVPC compiled an inventory of all trail infrastructure in the Lehigh Valley. The map is broken into three trail status categories: Open, Under Construction and Conceptual.

- Open trails include those that can currently be utilized throughout the region. These trails range from recreation only hiking trails, to commuter corridors, to winding pathways through the Lehigh Valley's parks and open spaces.

- Under Construction trails include any trail projects that are in the process of being built.

- Conceptual trails include all potential trail connections noted in municipal, county or regional plans, and those gathered during the community and stakeholder engagement phase of this effort.

Lehigh Valley Trail Plan

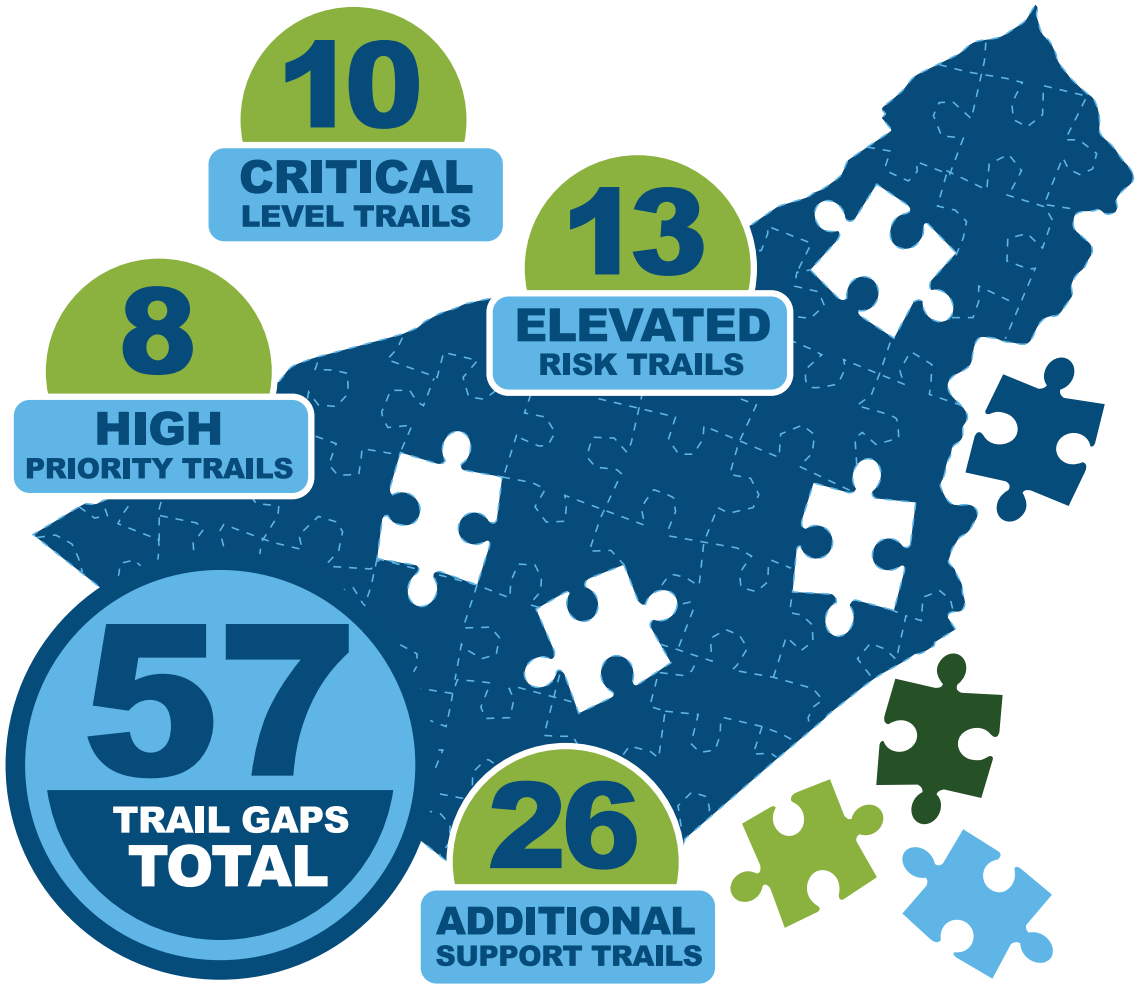


Many of the trails terminate at sidewalks and bike networks; the trails are noted based on municipal definitions.

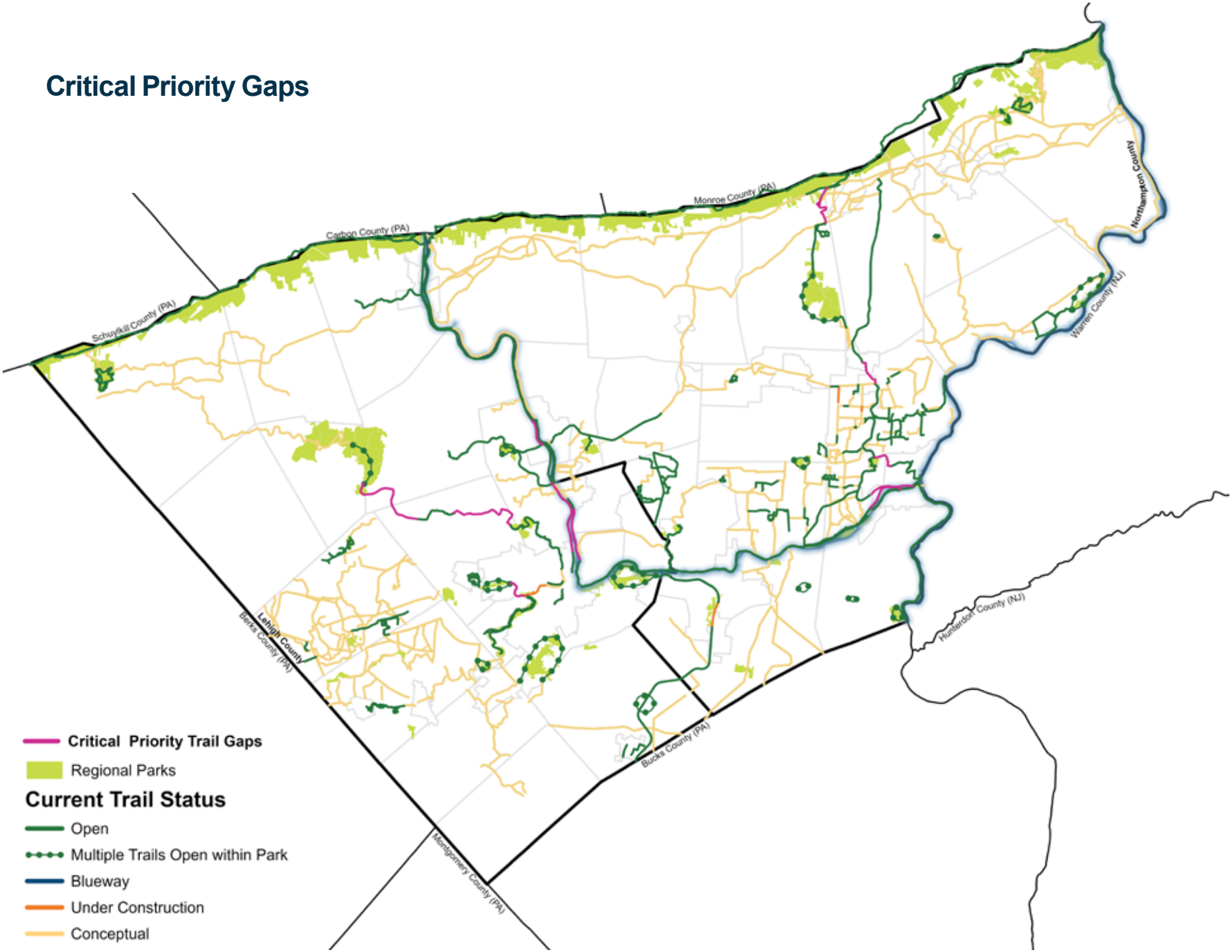
Piecing the Gaps

Fifty-seven trail gaps were evaluated and a complex, data-driven & geospatial analysis was done determine classifications that helped set priorities for how regional leaders will work to close trail gaps in the coming years.The top 10 critical gaps are those trails that have the most significant impact in the region, closing major trail gaps in the regional network.

The additional High, Elevated, and Supporting priority gaps are still important for the region overall but during the analysis did not have as high of a regional impact. A more detailed description of the methodology used to determine the trail gap rankings can be found in the appendix at the end of this document.

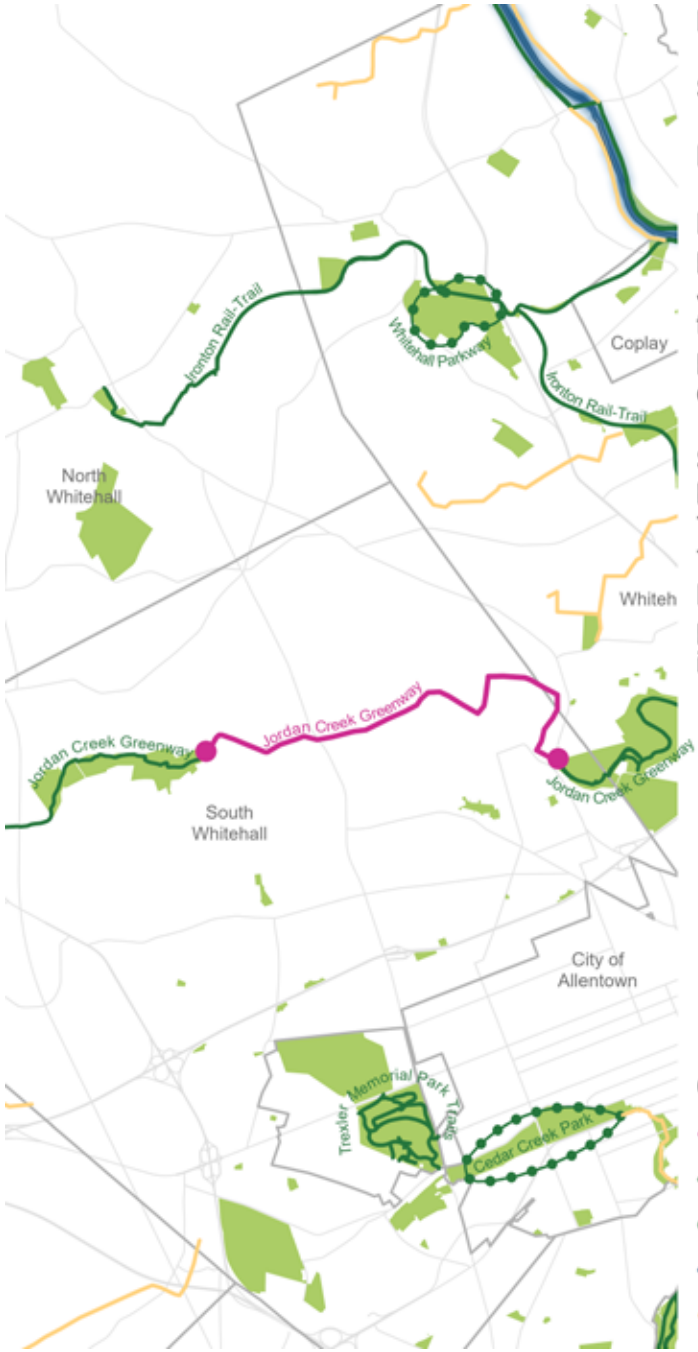


Critical Priority Gaps



Many of the trails terminate at sidewalks and bike networks; the trails are noted based on municipal definitions.

JORDAN CREEK GREENWAY TRAIL / CRITICAL PRIORITY GAP 1



Municipalities: South Whitehall Township, Whitehall Township

Start: Mauch Chunk Road at Jordan Creek Park, South Whitehall Township

End: East end of Covered Bridge Park, South Whitehall Township

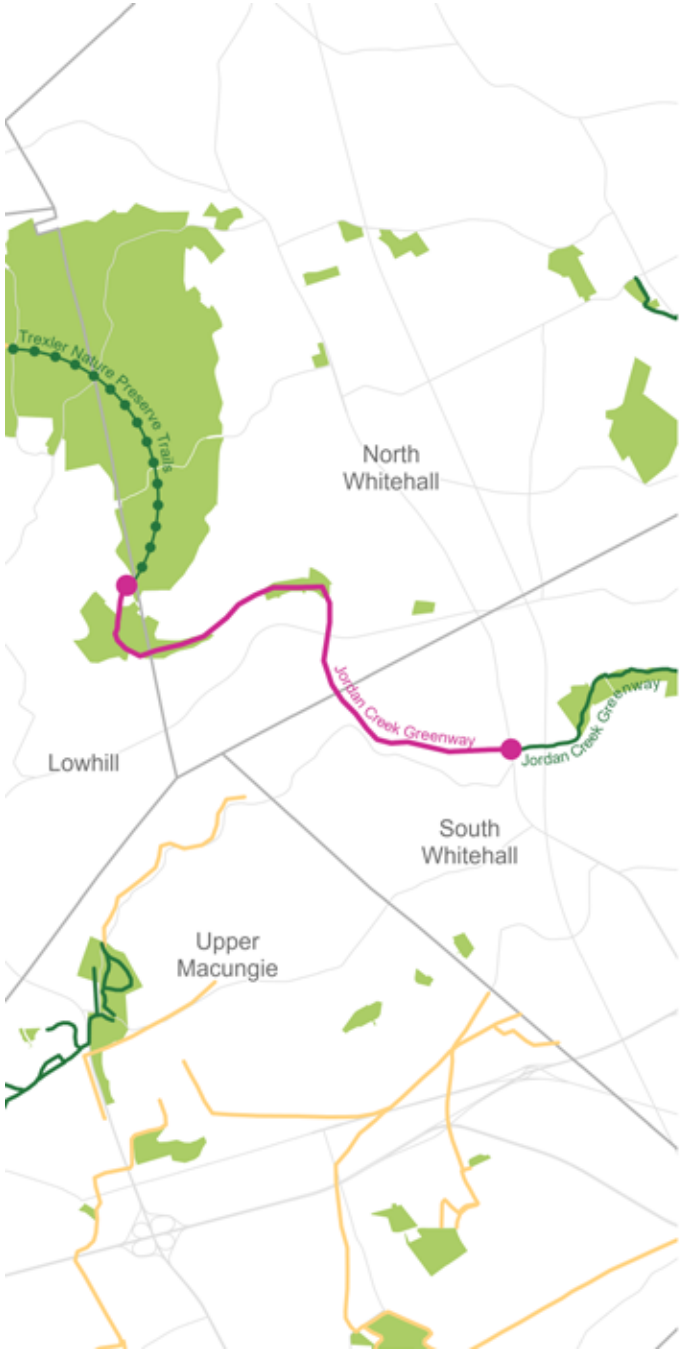
Description: The Jordan Creek Greenway & Trail aims to connect existing protected open spaces creating a continuous greenway corridor along the Jordan Creek that provides recreational and environmental benefits. Closing this gap would connect Covered Bridge Park and Parkland High School and provide a continuous trail between these locations and neighborhoods and other parks in South Whitehall, Whitehall, and Allentown.

Status: Rights-of-way have been secured, and design and engineering have been completed between N. Cedar Crest Boulevard and Covered Bridge Park. This section of trail will also serve Parkland High School. South Whitehall Township is awaiting grants for construction funding. From N. Cedar Crest Boulevard to Mauch Chunk Road, the Township is engaged in discussions with property owners, and trail development in this stretch is intended to be included in future land development plans.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Blueway
- Conceptual
- Parks, Open Space, Natural Areas

JORDAN CREEK GREENWAY TRAIL / CRITICAL PRIORITY GAP 2



Municipalities: Lowhill Township, North Whitehall Township, South Whitehall Township

Start: Route 309 bridge over Jordan Creek, South Whitehall Township

End: Trexler Nature Preserve, North Whitehall Township & Lowhill Township

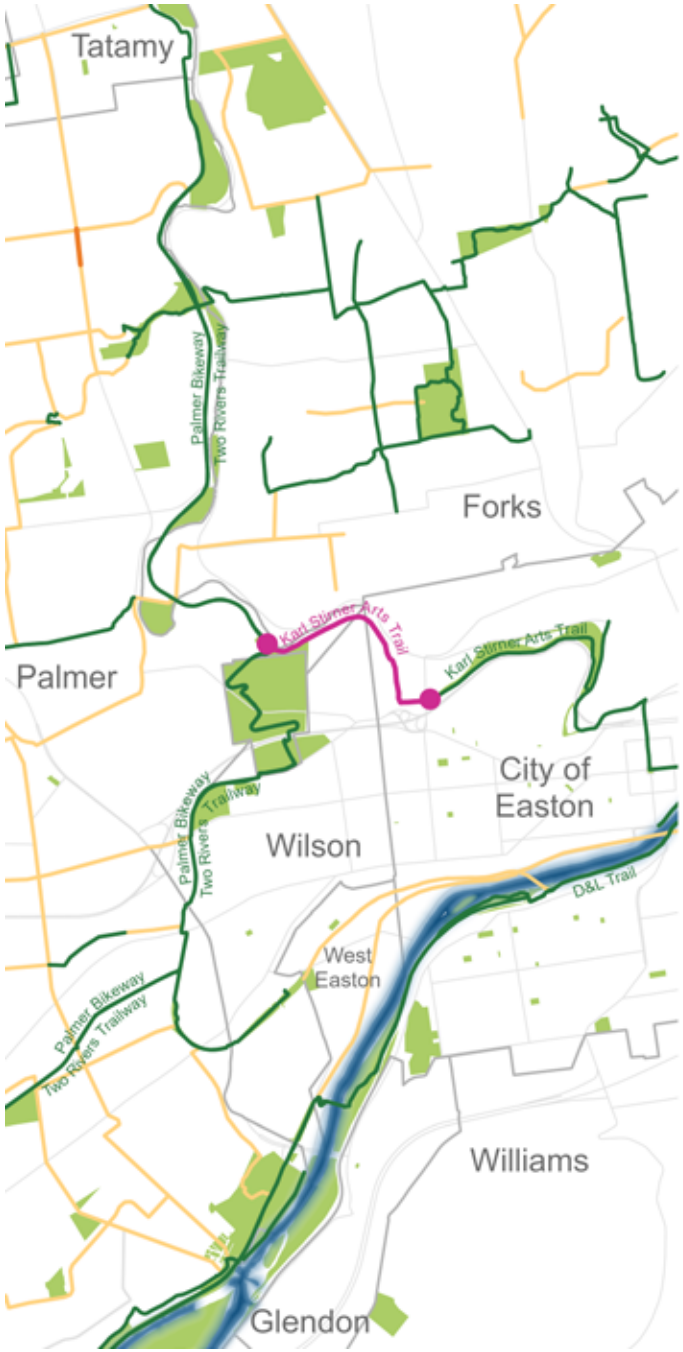
Description: The Jordan Creek Greenway & Trail aims to connect existing protected open spaces creating a continuous greenway corridor along the Jordan Creek that provides recreational and environmental benefits. Closing this gap would connect to popular outdoor recreation destinations, Trexler Nature Preserve and Covered Bridge Park. This section of the Greenway could also connect through the historic village of Guthsville, an area of cultural and recreational significance for South Whitehall Township. Closing the two critical trail gap segments in the Jordan Creek Greenway would provide continuous trail from Allentown to Trexler Nature Preserve, greatly enhancing outdoor recreation and multimodal connectivity across Lehigh County.

Status: Starting from Trexler Nature Preserve, Lehigh County is managing trail development from the southern end of the Preserve to Jordan Road, near the Rex Covered Bridge. Land has already been acquired for this segment and final engineering and permitting is occurring. From this point, east to the start of the gap at Route 309, planning is in progress, but there has been no land acquisition as of December 2025. North Whitehall and South Whitehall Townships are managing trail development efforts in these sections within their respective jurisdictions.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Conceptual
- Parks, Open Space, Natural Areas

KARL STIRNER ARTS TRAIL / CRITICAL PRIORITY GAP 3



Municipalities: Palmer Township, Wilson Borough, City of Easton

Start: N. 13th Street at Simon Silk Mill, City of Easton

End: Palmer Bikeway at Hackett Park, Palmer Township

Description: Construction of trail in this gap would make the Karl Stirner Arts Trail continuous, providing a spur route from the Palmer Bikeway to the Simon Silk Mill, downtown Easton and Lafayette College. Constructing trail in this segment would provide a safer alternative for cyclists, as the current shortest connection, Bushkill Drive, is dangerous due to high vehicle speeds and short sight lines.

Status: There are two likely routings for trail in this gap. One is for trail to be constructed along the Bushkill Creek with land development activities at the former pigment plant site. This would likely connect at the Edgewood Avenue trailhead. However, it is uncertain what will go in at the site and when. The second option is to route trail along Hackett Avenue and connect with the Palmer Bikeway/Two Rivers Trailway at or near Hackett Park. Coordination is ongoing between the municipalities and landowners.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Blueway
- Under Construction
- Conceptual
- Parks, Open Space, Natural Areas

Municipalities: Hanover Township (LC), City of Allentown

Start: North Bradford Street, City of Allentown

End: D&L Trail at Hanover Canal Park, Hanover Township (LC)

Description: This project will build out a large segment of trail on the east side of the Lehigh River, creating a continuous route on the D&L Trail through the Lehigh Valley, connecting to Carbon County in the north and Bucks County to the southeast. Construction of this trail segment will also improve multimodal connectivity in and around East Allentown and between Allentown, Bethlehem and Easton as a whole. The project is part of a broader vision, to create a 14-mile loop trail along the Lehigh River between the Hamilton Street Bridge in Allentown and the Route 329 Bridge in Cementon, Whitehall Township.

Status: This gap has one main project area in Allentown and another in Hanover Township. In Allentown, the City is leading development activities, in coordination with Delaware & Lehigh (D&L) National Heritage Corridor. Just over one mile of trail will be constructed between the N. Bradford Street trailhead and the City line, between Kimmett's Lock and St. Luke's Way. There will be a shared-use path on N. Bradford Street, from the trailhead to the intersection with N. Dauphin Street. The trail will then be off-road with a multi-use path from the intersection, along N. Dauphin Street to the city line. This segment will go through Kimmett's Lock, which will be integrated into the trail. Hanover Township, in coordination with D&L National Heritage Corridor, is leading trail development within their jurisdiction. From the Allentown/Hanover Township line to Hanover Canal Park, an off-road multi-use trail is planned along N. Dauphin Street. These projects are in final engineering stages. Additional funding for construction in the Allentown area may be needed.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Blueway
- Under Construction
- Conceptual
- Parks, Open Space, Natural Areas

Municipalities: Whitehall Township, Coplay Borough

Start: Cementon Trailhead, Whitehall Township

End: Race Street Bridge, Whitehall Township

Description: Trail development in this segment will connect the D&L Trail to the Ironton Rail Trail (IRT). There are two gaps within this project area. The north gap is between the D&L trailhead at Cementon and the IRT at Saylor Park, Coplay Borough. The south gap is between the IRT Water Street trailhead and the Race Street Bridge in Whitehall Township. This project will align the D&L Trail with a portion of the already-open Ironton Rail Trail running north/south through Coplay Borough. The project is part of a broader vision, to create a 14-mile loop trail along the Lehigh River between the Hamilton Street Bridge in Allentown and the Route 329 Bridge in Cementon, Whitehall Township.

Status: Trail construction throughout the gap area will be along railroad rights-of-way, which still needs to be acquired. Lehigh County is leading trail development efforts, and the County has had discussions with the railroad about acquisition. More discussions between the County and railroad will be needed in the future, and Lehigh County is raising funds for acquisition.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Blueway
- Conceptual
- Parks, Open Space, Natural Areas

D&L TRAIL - RIVERSIDE DRIVE / CRITICAL PRIORITY GAP 6

Municipalities: City of Allentown, Whitehall Township

Start: Riverside Drive and Furnace Street intersection, City of Allentown

End: Race Street Bridge, Whitehall Township

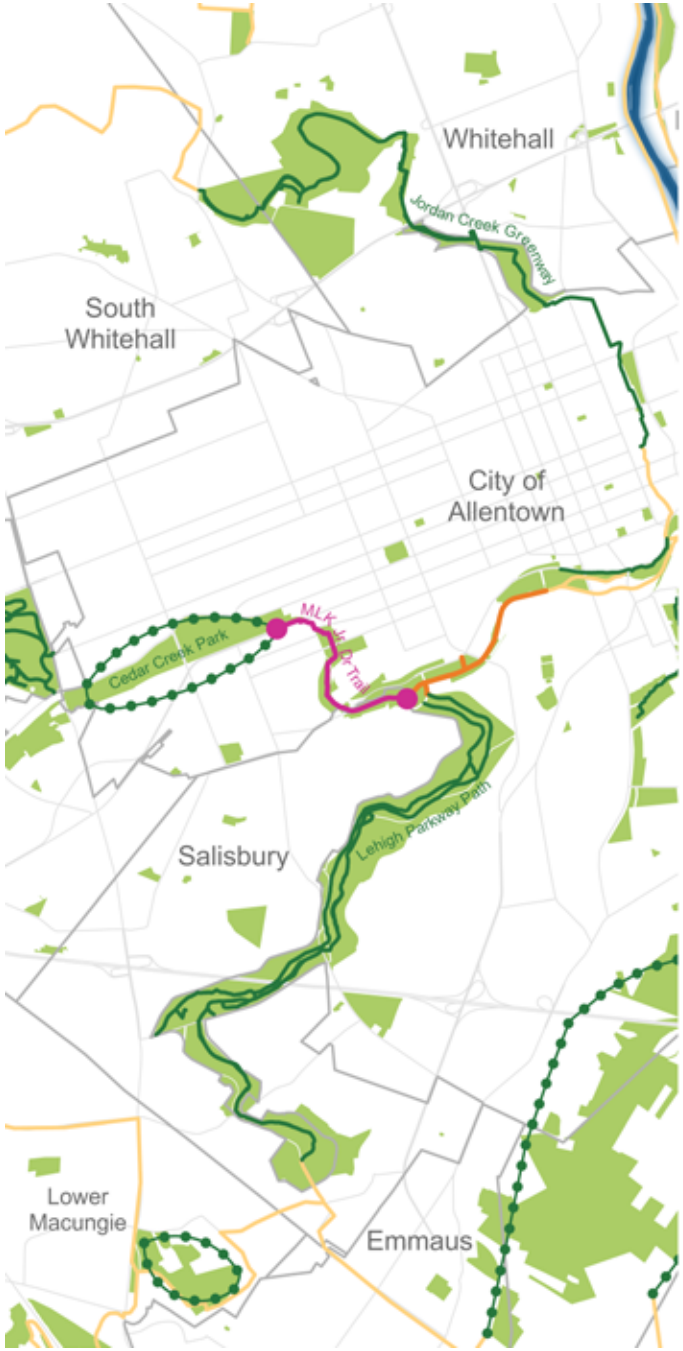
Description: The Riverside Drive Multimodal Revitalization Corridor Project will link Allentown and Whitehall Township, along the west side of the Lehigh River. The project was a successful applicant to the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant in 2021. A key goal of trail construction in this area is to create a multimodal commuting corridor, providing safe access to schools, jobs, shopping, entertainment and residential areas, where it largely does not exist currently. Trail construction from Furnace Street to Race Street will be aligned with construction of the Riverside Drive extension. The LVPC is leading planning efforts to close the gap, and is coordinating with the Pennsylvania Department of Transportation, Lehigh County, City of Allentown and Whitehall Township. The project is part of a broader vision, to create a 14-mile loop trail along the Lehigh River between the Hamilton Street Bridge in Allentown and the Route 329 Bridge in Cementon, Whitehall Township.

Status: Trail has already been constructed through the first phase of the project, as there is an off-road shared-use path along Riverside Drive, between Hamilton Street and Furnace Street. Phase Two of the project is being designed and engineered. Received Carbon Reduction Program regional funding to help close funding gap. Working to leverage additional regional funds into project.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Blueway
- Under Construction
- Conceptual
- Parks, Open Space, Natural Areas

MARTIN LUTHER KING JR. DRIVE TRAIL / CRITICAL PRIORITY GAP 7



Municipalities: City of Allentown, Salisbury Township

Start: Little Lehigh Parkway Path at Kline's Bridge, Allentown

End: Cedar Beach Trail at Hamilton Street, Allentown

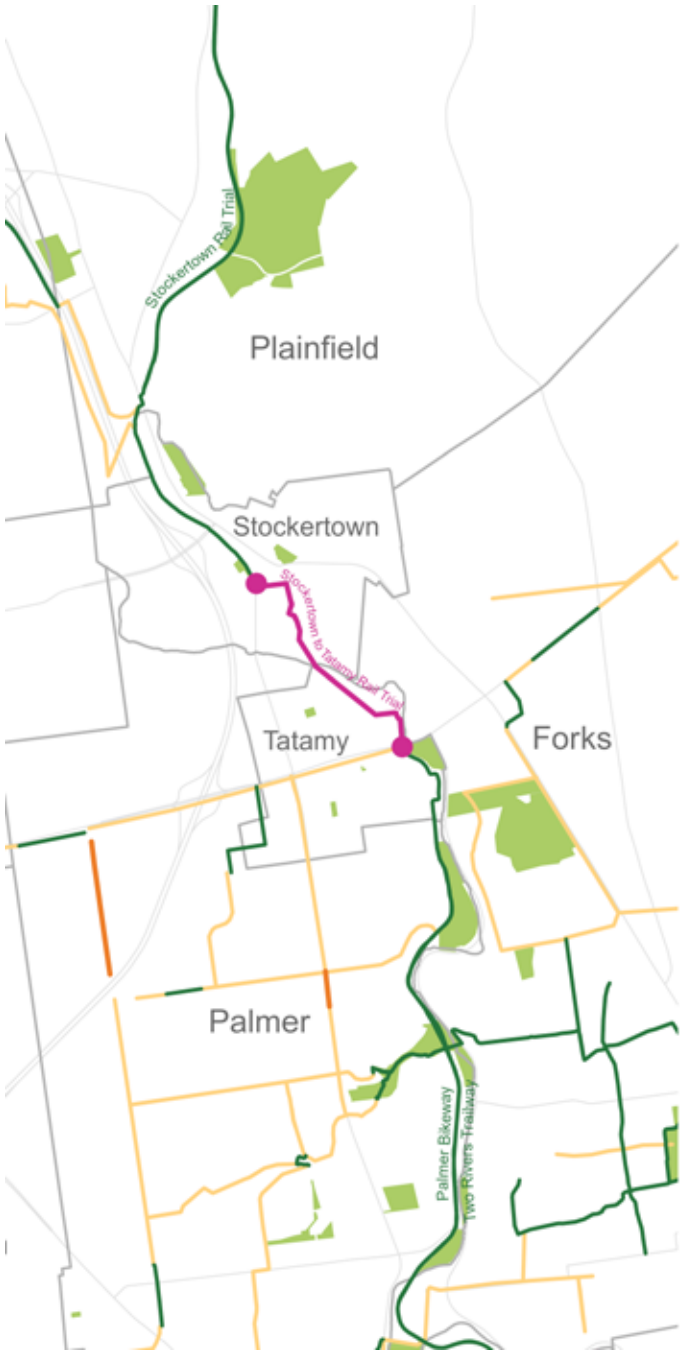
Description: This project provides a safe multimodal connection between some of Allentown's most popular recreation destinations, including the Lehigh Parkway, Rose Garden and Cedar Beach Park. This project is Phase 2 of 3 of an initiative to build out the MLK Trail, which will provide more continuity between the City's parks and create a safer environment for pedestrians and cyclists, as Martin Luther King Jr. Drive has high levels of traffic and acts as a barrier between residential and recreational areas. The projects will greatly enhance multimodal connectivity throughout Allentown.

Status: The City is leading trail development efforts, and Phase 2 is undergoing design and engineering.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Blueway
- Under Construction
- Conceptual
- Parks, Open Space, Natural Areas

STOCKERTOWN TO TATAMY RAIL TRAIL / CRITICAL PRIORITY GAP 8



Municipalities: Stockertown Borough, Tatamy Borough, Forks Township

Start: Tatamy Trail trailhead at Main Street, Tatamy Borough

End: Stockertown Rail Trail at Sherman Metzgar Park, Stockertown Borough

Description: An approximately one-mile gap between the Stockertown Rail Trail and Tatamy Trail, which is the last missing segment of continuous trail that connects Easton and the D&L Trail to the Slate Belt. Connecting this gap would provide enhanced recreation opportunities and multimodal access across Northampton County. The Stockertown to Tatamy gap has been identified as a top trail gap by both the LVPC and Pennsylvania Department of Conservation and Natural Resources.

Status: The County is leading trail development efforts in this area and coordinating with the municipalities. At the start of the gap, in Tatamy, there is a sidewalk crossing of Bushkill Creek on the Main Street Bridge, and the Borough is applying for grant funding to enhance this crossing and construct trail through Braden Park, to the Uhler Road and Bushkill Drive intersection. Within the gap area, trail routing has not been determined yet, due to environmental factors and landowner negotiations. One possible route is along Uhler Road and Sullivan Trail, then passing through the Bauer Preserve, a 43-acre parcel in the gap area acquired by Northampton County in 2025. The County is in the process of land and right-of-way acquisitions in this area, which will help determine trail routing.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Under Construction
- Conceptual
- Parks, Open Space, Natural Areas

TWO RIVERS TRAIL EXTENSION / CRITICAL PRIORITY GAP 9

Municipalities: City of Easton, West Easton Borough

Start: Two Rivers Trailway between S. 24th Street and Gerald W. Gross Community Park, West Easton D&L Trail at Glendon Hill Road, West Easton

End: Lehigh Drive and Larry Holmes Drive intersection, Easton

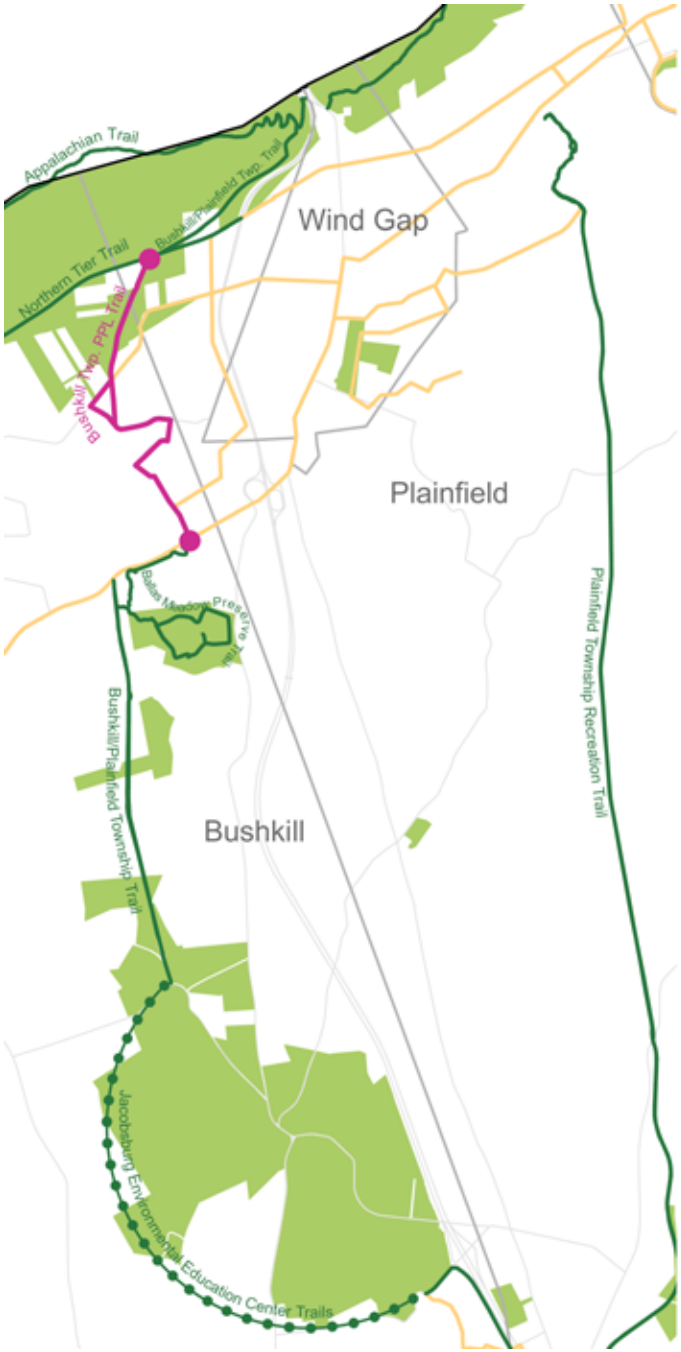
Description: Trail development in this gap area presents an opportunity to connect two of the region's most popular trails, the D&L Trail and Two Rivers Trailway, to downtown Easton and its riverfront. Easton aims to construct trail from the Lehigh Drive and Larry Holmes Drive intersection along rail rights-of-way parallel to Lehigh Drive. This right-of-way splits at the inactive Easton & Northern Railroad bridge, near the Lafayette Crew Boathouse. The rights-of-way gradually diverge, with one connecting to the D&L Trail at Glendon Hill Road in West Easton, and the other connecting to the end of the Two Rivers Trailway in West Easton, between S. 24th Street and Gerald W. Gross Community Park. Future opportunities include a Highline trail east of Lehigh Drive, using inactive railroad bridges, through Delaware Canal State Park and across the Delaware River into Phillipsburg, NJ.

Status: Easton and West Easton are in the process of acquiring properties within their jurisdictions to use for trail development. Rights-of-way from the Two Rivers Trailway to the railroad bridge at the Boathouse is owned by the municipalities, and they are seeking funding for trail development in this section.

Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Blueway
- Conceptual
- Parks, Open Space, Natural Areas

BUSHKILL TOWNSHIP PPL TRAIL / CRITICAL PRIORITY GAP 10



Municipalities: Bushkill Township, Plainfield Township, Wind Gap Borough

Start: Bushkill Township Trail parking lot at E. Moorestown Road (Route 512), Bushkill Township

End: Appalachian Trail at Wind Gap, Plainfield Township or Wind Gap Borough

Description: This gap separates the Bushkill Township Trail and Jacobsburg Environmental Education Center from the Appalachian Trail. Connecting the regional trail network to the Appalachian Trail, which draws visitors from across the country, encourages more users to visit nearby recreation areas and businesses. Trail construction in this area will extend the Two Rivers Trailway and improve multimodal connectivity in Northampton County.

Status: Bushkill Township has negotiated with landowners near the trailhead at Route 512 for trail easements. Additional trail has been constructed east of the trailhead with the warehouse development on the south side of Route 512. The trail now ends at Route 512, between the two warehouses and shopping plaza. Trail rights-of-way have been secured along the warehouse on the north side of Route 512, but additional negotiations are needed with nearby landowners to bring the trail though this area. As of December 2025, the trail connection is planned to utilize utility rights-of-ways and shared-use on low volume roadways to route the trail up to Pennsylvania State Game Lands, north of 8th Street. There are trails on the Game Lands that lead to the Appalachian Trail. These will need to be widened and improved to encourage more users. Coordination is needed between Bushkill Township, Plainfield Township, Wind Gap Borough, Pennsylvania Game Commission, Pennsylvania Department of Conservation and Natural Resources, National Park Service and private landowners. Additional connectivity opportunities exist by routing a trail east along 8th Street into Wind Gap Borough to establish a connection to the Appalachian Trail east of Route 33, which could encourage additional trail development in the Slate Belt area.

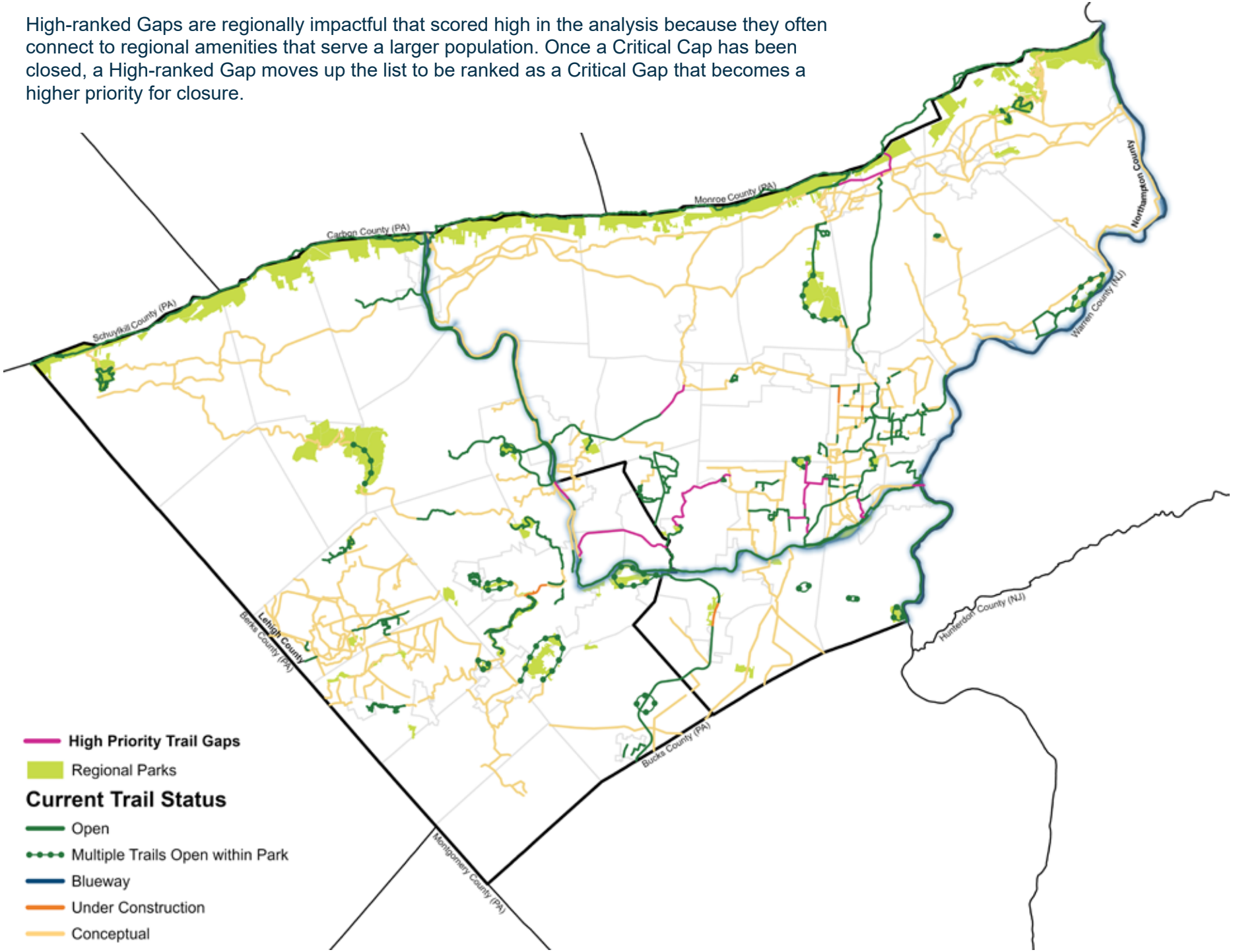
Current Trail Status

- Critical Trail Gap
- Open
- Multiple Trails Open within Park
- Conceptual
- Parks, Open Space, Natural Areas

LEHIGH VALLEY HIGH GAPS

TRAIL	DESCRIPTION	MUNICIPLALITY
Bethlehem Township Trail Network	Louise Moore County Park to Palmer Township Neighborhood Network	Bethlehem Township
Bethlehem Township Trail Network	Palmer Bikeway to Bethlehem Township Neighborhood Network	Bethlehem Township
D&L Trail	D&L from Race Street to North Catasauqua Borough Line	Catasauqua Borough
Monocacy Way	From Monocacy Park along Monocacy Creek to Housenick Memorial Park Trail	City of Bethlehem, Hanover Township (NC), Bethlehem Township
Nor-Bath Trail -Jacksonville Road to Bath	Current eastern terminus of Nor-Bath Trail at Jacksonville Rd to Mill Street in Bath Borough	East Allen Township, Bath Borough
Palmer Township Trail Network	From Palmer Bikeway on Freemansburg Avenue to D&L Trail	Palmer Township
The Highline	From the conceptual Two Rivers Trail Extension along Rail Line across Delaware River to Phillipsburg, NJ.	City of Easton
West Bethlehem Rail Trail	West Bethlehem Rail Trail from North Bradford Street to Pennsylvania Avenue and City line	City of Allentown
West Bethlehem Rail Trail	West Bethlehem Rail Trail from Pennsylvania Avenue/City Boundary to Monocacy Way	City of Bethlehem
Wind Gap / Pen Argyl Area Trail Network	From Appalachian Trail North of Pen Argyl Area High School to West Pennsylvania Ave. Trailhead and to N. Broadway continuing along 8th Street.	Plainfield Township, Wind Gap Borough, Pen Argyl Borough

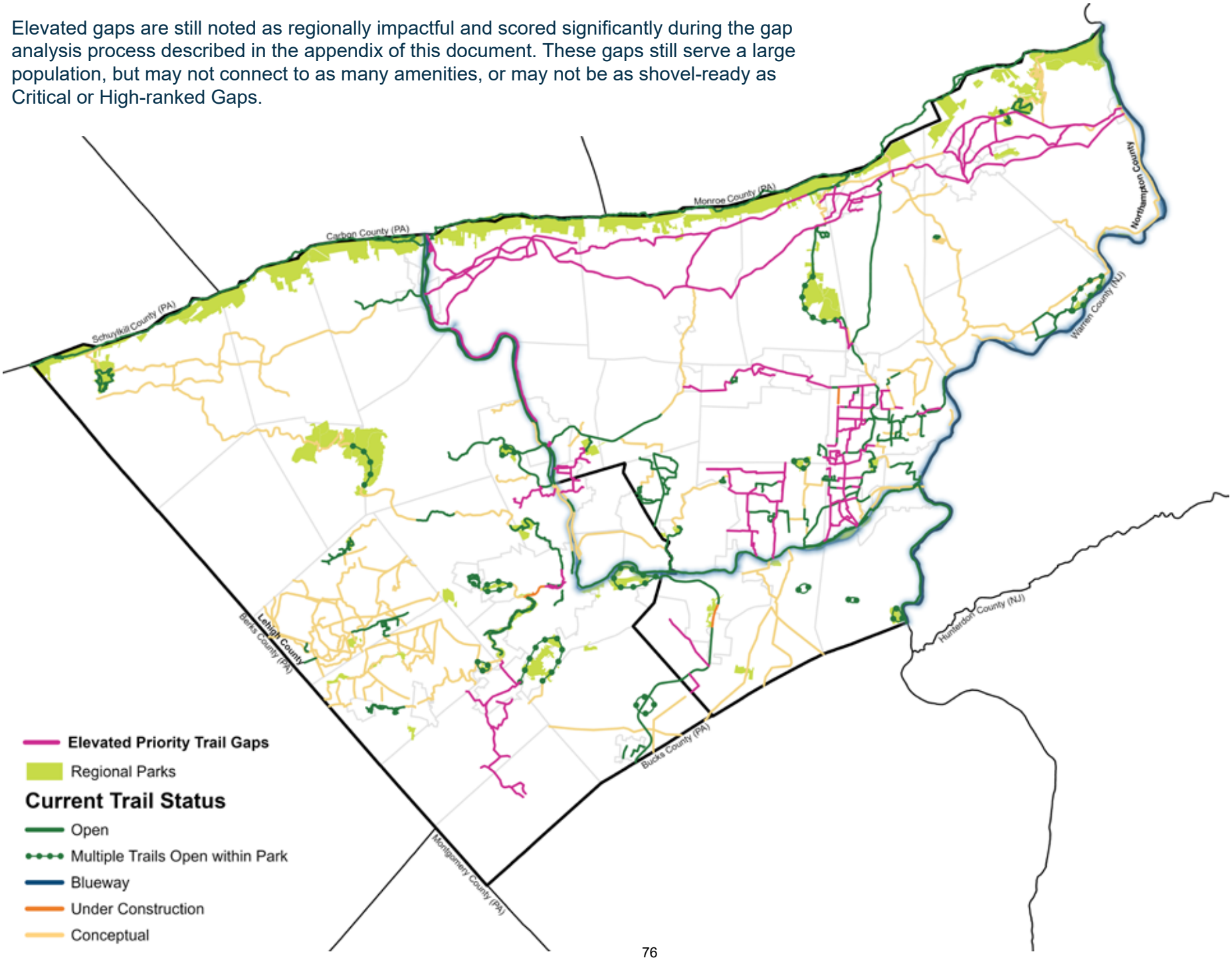
High-ranked Gaps are regionally impactful that scored high in the analysis because they often connect to regional amenities that serve a larger population. Once a Critical Cap has been closed, a High-ranked Gap moves up the list to be ranked as a Critical Gap that becomes a higher priority for closure.



LEHIGH VALLEY ELEVATED GAPS

TRAIL	DESCRIPTION	MUNICIPLALITY
Bethlehem Township Trail Network	Multiple connections within Bethlehem Township Neighborhood Network	Bethlehem Township
Catasauqua-North Catasauqua-Allen Trail	D&L Trail at Catasauqua to Catasauqua Area High School and Nor-Bath Trail	Catasauqua Borough, North Catasauqua Borough, Allen Township
D&L Trail	Northampton to Walnutport, east side of Lehigh River	Walnutport Borough, Lehigh Township, Allen Township, Northampton Borough
MLK Trail Phase 3	Current Eastern terminus of MLK trail to Hamilton St. Future goal is to connect to the D&L trail, east Allentown and north to Jordan Creek Greenway	City of Allentown
Nor-Bath Trail	Jacksonville Road to Route 946 in Moore Township via Bath Borough	East Allen Township, Bath Borough, Chapman Borough, Moore Township
Northern Tier Trail	Extensive trail network spanning northern municipalities in Northampton County	Boroughs of Walnutport, Wind Gap, Pen Argyl, Roseto, East Bangor and Portland Townships of Lehigh, Moore, Bushkill, Plainfield, Washington (NC) and Upper Mount Bethel
Palmer Township Trail Network	Multiple connections to Palmer Bikeway and D&L Trail from the Township's neighborhood network	Palmer Township
Saucon Region Trail Network	Saucon Rail Trail to Upper Saucon Township Line	Upper Saucon Township, Lower Saucon Township
Saucon Region Trail Network	Saucon Rail Trail to I-78 Overpass	Upper Saucon Township, Lower Saucon Township
Southwestern Lehigh County Trail Network	Extensive trail network spanning southwestern municipalities in Lehigh County	Salisbury Township, Emmaus Borough, Upper Milford Township, Lower Milford Township
Whitehall Township Trail Network	Schadt Ave to Ironton Rail Trail and D&L Trail	Whitehall township

Elevated gaps are still noted as regionally impactful and scored significantly during the gap analysis process described in the appendix of this document. These gaps still serve a large population, but may not connect to as many amenities, or may not be as shovel-ready as Critical or High-ranked Gaps.



LEHIGH VALLEY SUPPORTING GAPS

Allen Township Trail
Spur from Nor-Bath Trail at Savage Road North to Howertown Park and south to residential cul-de-sac at 8th Street

Allen Township

East Allen Township Trail
Housing development along Hanoverville Rd to Nor-Bath Trail at Bicentennial Park

East Alen Township

Forks Township Trail Network
- Ramblewood Drive Trail
- Uhlers Crossing Network
- Two Rivers Trailway to Forks Trail Network
- Fox Run Rd to Easton Area Middle School
- Winchester Drive Trail

Forks Township

Hanover Township Trail Network
Business park on High Point Blvd to Orchard Ln along agricultural and residential property lines

Hanover Township (NC)

Institute Road Trail
Loop from Institute Drive to natural area

Upper Mt Bethel Township

Jordan Creek Greenway Trail
Trexler Nature Preserve to Leaser Lake

Lowhill Township, Weisenberg Township, Lynn Township

Saucon Region Trail Network
Upper and Lower Saucon Network

Upper Saucon Township, Lower Saucon Township

Saucon Region Trail Network
South Mountain Preserve to Upper Milford Township Line

Upper Saucon Township, Lower Saucon Township, Upper Milford Township, Salisbury Township

Twin Lakes
Loop from Totts Gap Road to natural area

Upper Mount Bethel Township

Two Rivers Trail 9(A)
Stockertown to Jacobsburg Environmental Education Center Trail

Stockertown Borough, Plainfield Township

Upper Macungie Township Trail Network
Trail connections between residential, commercial and industrial areas

Upper Macungie Township

Washington Township Recreation Complex
Washington Blvd to Ackermanville Road through Washington Township Recreation Complex

Washington Township (NC)

Whitehall Township Trail Network
- Ringer Road to Ironton Rail Trail
- Spruce St. to D&L Trail

Whitehall Township

Lower Macungie Trail Network
Various independent trail routes in Township. Proposed trail connection between southern terminus of Lehigh Parkway and Alburtis Trail Network through Lower Macungie Township and Macungie Borough

Lower Macungie Township

Macungie Trail Network
- Hills at Lock Ridge Trail to Locust Street.
- Route 100 to Lower Macungie Trail Network

Upper and Lower Macungie Township

Martins-Jacoby Watershed Trail Network
Loop trail and spurs through numerous Slate Belt communities

Portland Borough, Upper Mount Bethel Township, Lower Mount Bethel Township, Washington Township (NC), Forks, Township, Plainfield Township, Roseto Borough, Bangor Borough and East Bangor Borough

Minsi Lake Nature Trail
Connecting nature preserves north of Minsi Lake to existing nature trail around lake

Lynn Township

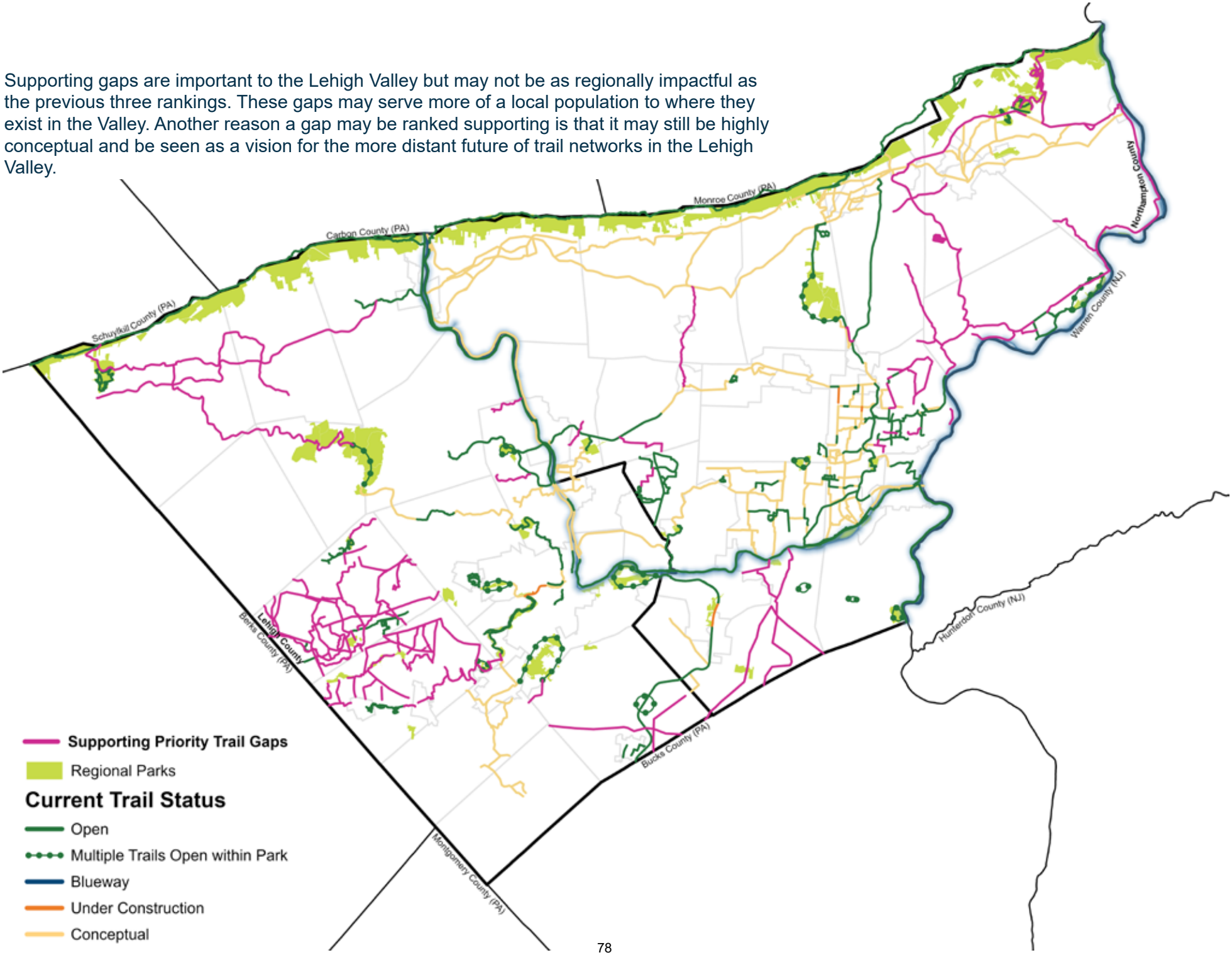
Nor-Bath Trail - Bath to Route 946
Regional connection between Bath Borough and PA Route 946 in Moore Township

Moore Township, Chapman Borough, East Allen Township, Bath Borough

Northern Lehigh Rail Trail
Allemanengel Road to Slate Heritage Trail near Emeral
Washington Township (LC) along rail right-of-way

Lynn Township, Heidelberg Township, Washington Township (LC)

Supporting gaps are important to the Lehigh Valley but may not be as regionally impactful as the previous three rankings. These gaps may serve more of a local population to where they exist in the Valley. Another reason a gap may be ranked supporting is that it may still be highly conceptual and be seen as a vision for the more distant future of trail networks in the Lehigh Valley.



LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Implementation Strategies

LVPC
Lehigh Valley Planning Commission

There are various strategies available for stakeholders to plan, finance and construct trail infrastructure.

To acquire funding, there are many grant programs available for stakeholders. Given that trails serve many purposes, from recreation to transportation, funding opportunities from a variety of agencies may be available depending on the type of project. Some potential funding opportunities for trails in the Lehigh Valley include:

Trail Funding Programs

PA Department of Conservation and Natural Resources (DCNR) Community Conservation Partnerships Program (C2P2)
(PennDOT) Transportation Alternatives Set-Aside (TASA)
(PennDOT) Multimodal Transportation Fund (MTF)
PA Department of Community and Economic Development (DCED) Greenways, Trails and Recreation Program (GTRP)
DCED Local Share Account Grant programs
DCED Multimodal Transportation Fund (MTF)
Pennsylvania Environmental Council (FEC) Pennsylvania Water Trail Mini-Grants

Before acquiring funding to design or construct trails, local governments can utilize various planning tools to identify current and future trail needs. An initial step is to update comprehensive plans, as well as other specific plans, such as trail and active transportation plans, if possible. These planning documents examine land use trends and establish goals and strategies to help guide near and long-term community decision making.

Local government plans are the foundation of how a community envisions itself in the future. Goals and strategies from plans can be implemented through zoning code and subdivision and land development ordinance (SALDO) updates, as they can provide incentives for trail construction and set aside land for open space or recreation. Communities can also require trails and sidewalks through the subdivision and land development process. Adding a trail or sidewalk requirement in SALDOs is an effective way to improve trail connectivity while minimizing costs to taxpayers.

For example, the City of Allentown's SALDO requires properties proposed for subdivision or land development approval to provide a trail easement if one is identified on the property in an adopted trails plan.

Specific locations for future trail development can be identified by municipalities through creating or updating their official map. By identifying trails on an official map, municipalities can formalize and prioritize their intent to construct trails, which can be leveraged when pursuing funding sources for public projects. Utilizing these various planning tools allows municipalities to accommodate changing community priorities or other issues. Demonstrating a community's intent to develop or enhance trails through tools like plans and official maps helps trail projects more easily go from concept to reality.

To promote trail connectivity across municipal borders, local governments, community organizations and other stakeholders can participate in collaborative efforts.

Here in the Lehigh Valley, THE LINK, is a group of local governments, non-profits and advocates that work together to promote the region's trail network. Approaching trails from a regional lens encourages greater opportunities for connectivity, grant funding and usage of trails. Educational opportunities about trail planning and infrastructure are available in-person, through PennDOT Local Technical Assistance Program (LTAP) classes, held at the LVPC's office. In addition, there are many informational guides online, provided by the LVPC, WeConservePA, Pennsylvania Department of Conservation and Natural Resources and more.

Alignment with Regional Planning Efforts

The Trail Connection Strategy supports recommendations within existing initiatives such as *the Lehigh Valley Priority Climate Action Plan for Transportation Decarbonization* and *Walk/RollLV: Active Transportation Plan*. LVPC will begin updating *FutureLV: The Regional Plan* in 2026. Data updates have already been initiated for the Regional Plan, which will reference the findings of the Trail Connection Strategy.

The Trail Connection Strategy supports recommendations within the recently adopted regional climate resiliency plan, *Pathway to a Resilient Greater Lehigh Valley*, by identifying active transportation as a strategy to reduce greenhouse gas emissions, vehicle travel and congestion, while improving local air quality.

This report also aligns with actions and strategies in the Lehigh County and Northampton County Livable Landscapes Plans, with key health and economic benefit findings of the 2014 Lehigh Valley Return of Environment Study, and the 2025 Northampton County Return on Environment Study.

LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Next Steps

LVPC
Lehigh Valley Planning Commission

This report highlights high priority conceptual trail connections, that have been identified in published planning documents. However, by looking at the regional map, there remain gap locations in the trail network where no conceptual trails are currently identified. This map can serve as a starting point for municipalities and planning agencies to identify future additional conceptual trail connections.

By first identifying future trail connections a community wishes to have in a plan, the process to eventually get it constructed can begin. Identifying conceptual trail connections in planning documents allows them to be elevated in reports such as this one and makes grant applications to implement them much more competitive.

Update of Trail Data and Gap Closure Information

The Lehigh Valley Planning Commission will implement an annual process to update regional trail network data and trail gap closure status. This process will incorporate information submitted by regional stakeholders, including, but not limited to, municipal and county governments, transportation agencies, trail advocacy organizations, land management agencies, and other relevant public, private and non-profit partners.

LEHIGH VALLEY TRAIL CONNECTION STRATEGY

Appendix and Resources

LVPC
Lehigh Valley Planning Commission

Methodology

Trail gaps in the Lehigh Valley's trail network were prioritized using a variety of different methodological factors. These factors are listed below with information about each one. Only trail gaps specifically identified within an adopted local or county active transportation or parks, recreation and open space plan were considered.

Trail Gap Evaluation Criteria

The following section outlines the full set of evaluation criteria used to assess regional trail gaps for planning, prioritization and funding purposes. Criteria draw upon federal, state, regional and local planning frameworks—including the Pennsylvania Municipalities Planning Code (MPC), Pennsylvania state transportation law, and U.S. Code Title 23—and align with adopted Lehigh Valley plans such as *FutureLV: The Regional Plan* and *Walk/RollLV: Active Transportation Plan*.

FutureLV: The Regional Plan Alignment

Statutory Alignment

- Evaluate whether the project supports the goals of the Pennsylvania Municipalities Planning Code (MPC), relevant Pennsylvania state law, and 23 U.S.C. requirements for metropolitan planning.
- Flag projects that fail to meet any applicable federal, state or regional requirements.

Commuter Trail System Consistency

- Determine whether the trail gap falls within an identified Commuter Trail corridor as mapped in FutureLV.

Movement Between Centers

- Assess whether the proposed gap closure enhances movement of people between designated Centers, consistent with the plan's place-based strategy.

"Types of Places" Framework

- Confirm the project encourages linkages across all place types in the Valley.

Walk/Roll: Active Transportation Plan Alignment

Project Consistency

- Projects listed in *Walk/RollLV: Active Transportation Plan*.
- Additional assessment ensures the project remains consistent with the region's long-range multimodal vision.

Regional-Specific Criteria

Economic Impact Area (EIA) Location

- Determine whether the gap is located in an Economic Impact Area (EIA). A composite index of need based on energy, transportation, housing, health, workforce, pollution, water/wastewater and broadband indicators.

Sidewalk Inventory Relationship

- Assess sidewalk conditions and connectivity where applicable.
- Evaluated through geospatial analysis utilizing LVPC's Geographic Information System (GIS) sidewalk inventory layer.

Lehigh and Northampton Transportation Authority Transit Integration

- Identify if the project improves access to or from the public transit network.

Safety: Suspected Serious Injuries/Fatalities

- Use PennDOT pedestrian and bicycle crash data (suspected serious injuries and fatalities) from the Commonwealth's Traffic Information Repository.
- Aligns with the *Lehigh Valley Traffic Safety Plan* goal to reduce fatalities and serious injuries by 50% in 20 years.

Employment Connectivity

• Assess whether the gap closure improves access to employment centers.

School/Educational Connectivity

• Measure the connection to schools, colleges or educational institutions.

High Population Density

• Apply federal/state planning statutes weighting population density impacts.
• Evaluate whether the project falls within 10 minutes of a trail, consistent with DCNR priorities.

Population Affected by Gap Closure

• Utilize 1/4 mile buffer-based service area analysis.
• Identify methods for calculating non-resident users (e.g., employment density, community facilities, regional draw).

Pennsylvania Department of Conservation and Natural (DCNR) Resources Statewide Priority Trail Gaps

Statewide Gap Alignment

• Determine whether the project is identified as a priority trail gap by Pennsylvania DCNR.
• Compare DCNR priorities with regional gap mapping to assess overlap.

Connection to Public Recreational Facilities

Trails

• Evaluate direct connections to existing public trails.

Parks

• Confirm linkages to public parks; define parks within the document as publicly owned or publicly accessible recreational spaces.

Length of Trail Gap Segment

Short-Segment Prioritization

• Gaps less than five miles in length feasibility and cost-effectiveness.

Shovel Readiness

Existing/Proposed Project Status

• Identify whether the project appears as a conceptual trail or in prior inventories

Engineering & Design Completion

• Assign points based on level of design completion.

Permitting Status

• Evaluate whether necessary environmental and regulatory permits have been secured.

Funding Secured

• Assess any dedicated or committed funding sources.

Rights-of-Way (ROW) Status

• Identify whether ROW is acquired, under negotiation or unknown.

Tie-Breaker Use

• Applied shovel-readiness as a criteria.

RESOURCES & TOOLS

Key Partners

Delaware & Lehigh (D&L) National Heritage Corridor

The LINK Trail Network

Coalition for Appropriate Transportation (CAT)

PA Department of Transportation

Community Bike Works (CBW)

Lehigh County Parks & Recreation

Northampton County Parks & Recreation

Lehigh Valley Greenways

PA Department of Conservation and Natural Resources

Maps and Plans Referenced for this Strategy

DCNR Trail Map
Pennsylvania Trail Plan
Lehigh County Livable Landscapes
Northampton County Livable Landscapes
Future LV: The Regional Plan

Trail Implementation Grants

Pennsylvania Department of Conservation and Natural Resources Motorized Trails Grant

Pennsylvania Recreational Trails (PRT) motorized projects. PRT motorized projects include the development, rehabilitation or maintenance of designated routes on land for all types of motorized recreation activities, as well as the purchase or lease of equipment to be used exclusively for the maintenance or construction of land and water trails and trail-related facilities.

Pennsylvania Department of Conservation and Natural Resources Non-Motorized Trails Grant

Trail projects include the acquisition, planning, development, rehabilitation or maintenance of designated routes on land or water for non-motorized recreation activities, as well as the purchase or lease of equipment to be used exclusively for the maintenance or construction of non-motorized land and water trails and non-motorized trail-related facilities.

Pennsylvania Department of Conservation and Natural Resources Park Rehabilitation and Development Grant

These projects involve the rehabilitation and development of public parks, recreation facilities, greenways and river conservation projects.

Pennsylvania Department of Conservation and Natural Resources Land Acquisition and Conservation Grant

These projects involve the purchase and/or donation of land for park and recreation areas, greenways, critical habitat areas and/or open space.

Pennsylvania Department of Conservation and Natural Resources Community Recreation and Conservation Planning Grant

Planning projects study the needs, benefits and opportunities for future land acquisition, development and/or management of parks, recreational facilities, critical habitat, open space, natural areas, greenways and river/watershed corridors.

Pennsylvania Department of Transportation - Transportation Alternatives Set-Aside Program

The federal Transportation Alternatives Set-Aside (TASA) provides funding for projects and activities defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, environmental mitigation, trails that serve a transportation purpose and safe routes to school projects.

Pennsylvania Department of Transportation Multimodal Transportation Fund Program

The program is intended to provide financial assistance to municipalities, councils of governments, businesses, economic development organizations, public transportation agencies, and ports and rail freight entities to improve transportation assets that enhance communities, pedestrian safety and transit revitalization.

Pennsylvania Department of Community & Economic Development Greenways, Trails, and Recreation Program

Projects which involve development, rehabilitation and improvements to public parks, recreation areas, greenways, trails and river conservation.

Pennsylvania Department of Community & Economic Development Multimodal Transportation Fund Program

Funds may be used for the development, rehabilitation and enhancement of transportation assets to existing communities, streetscape, lighting, sidewalk enhancement, pedestrian safety, connectivity of transportation assets and transit-oriented development.

U.S. Fish & Wildlife Service Highlands Conservation Act Grant Program

State agencies, counties and municipalities are eligible through this program to receive grant funds to acquire land that can be used for trail and greenway development.

Department of Revenue - Redevelopment Assistance Capital Program Funds

RACP projects are authorized in the Redevelopment Assistance section of a Capital Budget Itemization Act, have a regional or multi-jurisdictional impact, and generate substantial increases or maintain current levels of employment, tax revenues, or other measures of economic activity.

STAFF

Becky A. Bradley, AICP
Executive Director

David Cohen, AICP
Director of Regional Planning

Tracy Oscavich
Director of Administration

Susan Myerov, AICP
Director of Environmental Planning

Beth Ritter-Guth
Director of Research and Innovation Data

Steven Weber, AICP
Director of Transportation Planning

Vicki Weidenhammer
Controller

Matt Assad
Managing Editor

Denjam Khadka, EIT
Senior Civil/Environmental Engineer

Subham Kharel, PhD
Senior Data and Analytics Planner

Geoffrey A. Reese, PE
Master Planner and Engineer

Jill Seitz, AICP
Chief Community and Regional Planner

Faria Urmy, AICP, CNU-A, LEED AP
Regional Plan Program Manager

Chris Embert
Creative Manager

Minsoo Park
Economist

Giovanna Rizkallah
Artificial Intelligence (AI) Engineer and Innovation Planner

Evan Gardi
Transportation Planner

Peter Lantz
Environmental Engineer

Taylor Beasley
Graphic Design and Publications Coordinator

Mary Grace Collins
Community and Regional Planner

Clay Karnis
Geographic Information Systems (GIS) Planner

Hannah Milagio
Regional Planner for Community Engagement

Corinne Ruggiero, SEO
Environmental Planner

Jacob Weinberg
Community and Regional Planner

Laurie Thompson
Executive Administrative Assistant

Michele Anfuso
Office Assistant

Special Thanks to Christian Martinez for his contributions drafting the Lehigh Valley Trail Connection Strategy and to Mackenzie Geisner for mapping and analysis.

For more information
visit the LVPC website @ LVPC.org

LVPC
Lehigh Valley Planning Commission
615 Waterfront Dr / Suite 201
Allentown, PA 18102
Phone: (610) 264-4544

LEHIGH VALLEY

CONGESTION MANAGEMENT PLAN

LVPC

Lehigh Valley Planning Commission

Draft Published April 2026

The preparation of this report has been financed in part through grants from the U.S. Department of Transportation and the Pennsylvania Department of Transportation. The contents of the report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official policies of either the U.S. Department of Transportation, Federal Highway Administration, Federal Transit Administration, or the Commonwealth of Pennsylvania at the time of publication. This report does not constitute a standard, specification or regulation.

The Lehigh Valley Transportation Study (LVTS), which is the Metropolitan Planning Organization (MPO) for the Lehigh and Northampton counties, is committed to compliance with nondiscrimination requirements of civil right statuses, executive orders, regulations and policies applicable to the programs and activities it administers. Accordingly, the MPO is dedicated to ensuring that the program beneficiaries are not excluded from participation in or denied the benefits of its services based upon race, color, national origin, sex, age, disability, or economic status.

Documents will be made available in alternative languages or formats if requested. Persons requiring additional accommodation or those with questions should call Hannah Milagio, Regional Planner for Community Engagement, at 610-246-4544

TRANSLATION SERVICES

This document is available in other formats upon request, in accordance with applicable state and federal laws. The LVPC will provide translation or interpretation services upon request. For more information, please call the LVPC at **610-264-4544.**

Spanish:

Este documento está disponible en otros formatos cuando se soliciten, de conformidad con las leyes estatales y federales correspondientes. La LVPC le proporcionará servicios de traducción o interpretación si los solicita. Para obtener más información, llame a la LVPC al **610-264-4544.**

Traditional Chinese:

根據適用的州和聯邦法律，本文件可按要求提供其他格式。LVPC將根據需求提供翻譯或口譯服務。如需更多資訊，請致電**610-264-4544**聯絡LVPC。

Simplified Chinese:

根据适用的州和联邦法律，本文件可按要求提供其他格式。LVPC将根据要求提供翻译或口译服务。如需更多信息，请致电**610-264-4544**联系LVPC。

Arabic:

هذا المستند متاح بصيغ أخرى عند الطلب، وفقًا للقوانين الحكومية والفدرالية السارية. يمكن لـ LVPC توفير خدمات الترجمة أو التفسير دون أي تكلفة إضافية. للحصول على مزيد من المعلومات، يرجى الاتصال بلجنة LVPC على الرقم 610-264-4544.

Vietnamese:

Chúng tôi có thể cung cấp tài liệu này theo các định dạng khác nếu quý vị yêu cầu, chiếu theo luật hiện hành của tiểu bang và liên bang. LVPC sẽ cung cấp các dịch vụ thông dịch và chuyển ngữ tài liệu khi có yêu cầu. Để biết thêm thông tin, vui lòng gọi LVPC tại số **610-264-4544.**

COMMISSIONERS

Lehigh Valley Planning Commission

Christina V. Morgan
Chair (Lehigh County)

Armando Moritz-Chapelliquen
Vice Chair (Northampton County)

Philips Armstrong
Treasurer (Lehigh County)

LEHIGH COUNTY

Josh Siegel
Samantha Pearson (alt.)
Matthew Tuerk
Jennifer Gomez (alt.)
Ron Beitler
Craig Beavers
Michael Drabenstott
Gary Fedorcha
Sharon Fehlinger-Ricker
Sunny Ghai
Phil Ginder
Steven L. Glickman, RA
Kent H. Herman, Esq.
John Inglis III
Ryan Mayberry
Santo Napoli
Stephen Repasch
Kevin Schmidt

NORTHAMPTON COUNTY

Tara Zrinski
Bryan Cope (alt.)
Salvatore Panto, Jr.
Carl Manges (alt.)
Dr. Christopher R. Amato
Andrew Elliott
Charles W. Elliott, Esq.
Anita Erdos Forrester
Judith Haldeman
Tung-To Lam
John McGorry
Stephen Melnick
Eric Shamis
Dean Turner
Jeff Warren
Brett Webber

LEHIGH AND NORTHAMPTON COUNTIES

J. William Reynolds
Cathy Fletcher (alt.)
Justin Amann
Jo Daniels

LVTS MEMBERS

Lehigh Valley Transportation Study

This Congestion Management Plan was researched, analyzed, written and coordinated as part of the Metropolitan Planning Organization, per requirements of the US Department of Transportation.

TECHNICAL COMMITTEE

Ryan Meyer, Chair, Lehigh-Northampton Airport Authority
Nick Raio, Vice Chair (PennDOT Central)
Becky Bradley, AICP, Secretary (LVPC)
Matthew Tuerk, City of Allentown
David Petrik (Alt.), City of Allentown
Salvatore J. Panto, Jr., City of Easton
David Hopkins (Alt.), City of Easton
Brendan Cotter, Lehigh and Northampton Transportation Authority
Jennifer Ruth, PennDOT District 5-0
Nyomi Nonnemaker (Alt.), PennDOT Central
J. Williams Reynolds, City of Bethlehem
Cathy Fletcher (Alt.), City of Bethlehem

COORDINATING COMMITTEE

Owen O'Neil, Chair, Lehigh and Northampton Transportation Authority
Chris Kufro, Vice Chair, PennDOT District 5
Becky Bradley, AICP, Secretary, LVPC
Josh Siegel, Lehigh County
Andrew Elliott (Alt.), Lehigh County
Tara Zrinski, Northampton County
Mike Emili (Alt.), Northampton County
Matthew Tuerk, City of Allentown
David Petrik (Alt.), City of Allentown
J. William Reynolds, City of Bethlehem
Michael Alkhal (Alt.), City of Bethlehem
Salvatore J. Panto, Jr., City of Easton
Dave Hopkins (Alt.), City of Easton
Thomas Stoudt, Lehigh-Northampton Airport Authority
Ray Green, PennDOT Central
Nick Raio (Alt.), PennDOT Central

LEHIGH VALLEY
CONGESTION
MANAGEMENT
PLAN

Table of Contents

LEHIGH VALLEY
CONGESTION MANAGEMENT PLAN

Introduction

The Lehigh Valley is a vibrant, fast-growing region that continues to attract new residents, businesses, and investment. Its strong economy, strategic location, and high quality of life have made it one of Pennsylvania's most dynamic areas. More people are choosing to live and work here because of strong job opportunities, good schools, and a high quality of life. Growth is a positive sign of a healthy economy. But as more people use the roads, traffic congestion naturally increases. Some congestion is expected in busy areas. However, too much congestion can make it harder to get to work, school, stores, and medical care. It can slow travel, waste fuel, increase air pollution, and reduce overall quality of life. Managing congestion means finding the right balance, i.e., supporting growth while reducing the negative effects of traffic.

Growth drives opportunity, smart congestion management keeps it within reach

Because the Lehigh Valley's population is greater than 200,000, it is classified as a Transportation Management Area (TMA). Federal law requires regions like ours to prepare and maintain a Congestion Management Plan (CMP). Established under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and expanded through subsequent laws such as Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Moving Ahead for Progress in the 21st Century Act (MAP 21), The Fixing America's Surface Transportation (FAST ACT) and the Infrastructure Investment and Jobs Act (IIJA), the CMP is a core component of metropolitan transportation planning.

The CMP integrates with the Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP), and Unified Planning Work Program (UPWP) to ensure coordinated and performance-based decision-making. Under these federal frameworks, MPOs collaborate with state departments of transportation and transit agencies to track system performance.

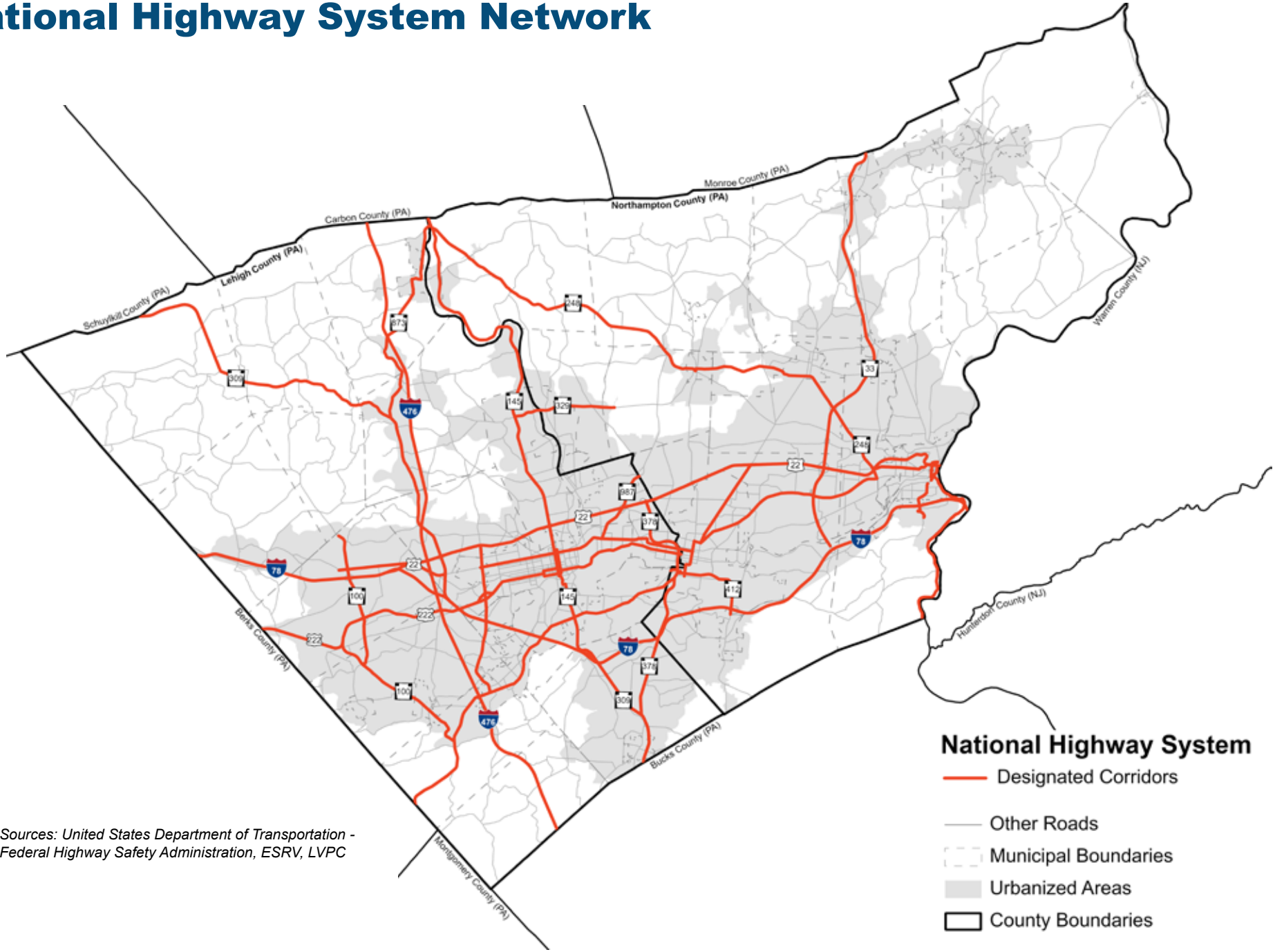
Under U.S. Department of Transportation (USDOT) and Federal Highway Administration (FHWA) performance management requirements, MPOs in TMAs are required to incorporate Performance Measure 3 (PM3) into the CMP to evaluate travel time reliability and congestion on the National Highway System, as well as the local road network. PM3 measures Peak Hour Excessive Delay (PHED), Level of Travel Time Reliability (LOTTR), and Truck Travel Time Reliability (TTTR), which assess the effectiveness of the transportation network for both passenger and freight mobility.

Congestion Management in action— reducing traffic, supporting transit, and keeping everyone connected

The Lehigh Valley Transportation Study (LVTS), housed within the Lehigh Valley Planning Commission (LVPC) creates the CMP to meet federal requirements and improve regional transportation performance. Using traffic and reliability data, it identifies congestion hotspots, analyzes causes, and prioritizes strategies that improve efficiency and safety. These strategies focus on reducing congestion, promoting transit and active transportation, and improving operations before expanding capacity.

The CMP also supports broader regional goals in the MTP, informs planning studies, policy decisions, and funding choices, including the Congestion Mitigation and Air Quality (CMAQ) program. Regular updates and coordination with regional partners allow the LVTS to proactively manage congestion, keeping the region connected, accessible, and economically strong.

National Highway System Network



Sources: United States Department of Transportation - Federal Highway Safety Administration, ESRV, LVPC

Congestion Management Plan Implementation

The CMP is a data-driven framework for evaluating and improving the Lehigh Valley's transportation network. Linking the MTP and the TIP, it uses congestion performance measures, and regional goals to identify and rank congested locations. The plan supports solutions like operational improvements, transit and multimodal options, demand management strategies, freight mobility enhancements, and selective roadway projects.

Linking Goals, Data, and Policy to Improve Regional Transportation

Federal law requires any project that adds single-occupant vehicles (SOV), which is any privately operated motor vehicle occupied solely by the driver with no passenger capacity to demonstrate consistency with the CMP to receive federal funding. Projects must also incorporate multimodal improvements from the earliest design phases and be documented in the TIP for LVTS Technical and Coordinating Committee approval before implementation.

To ensure performance-based decision-making, the CMP integrates federal PM3 measures for travel times and delays. These metrics, along with forthcoming targets for peak hour delays and non-SOV travel (trips made using modes other than a single-occupancy vehicle, such as walking, biking, public transit, carpooling, or ridesharing), support a comprehensive understanding of regional congestion. The CMP aligns with the FHWA's national guidance, linking data analysis, policy coordination and multimodal strategies to support an efficient, reliable and sustainable transportation system for the Lehigh Valley.

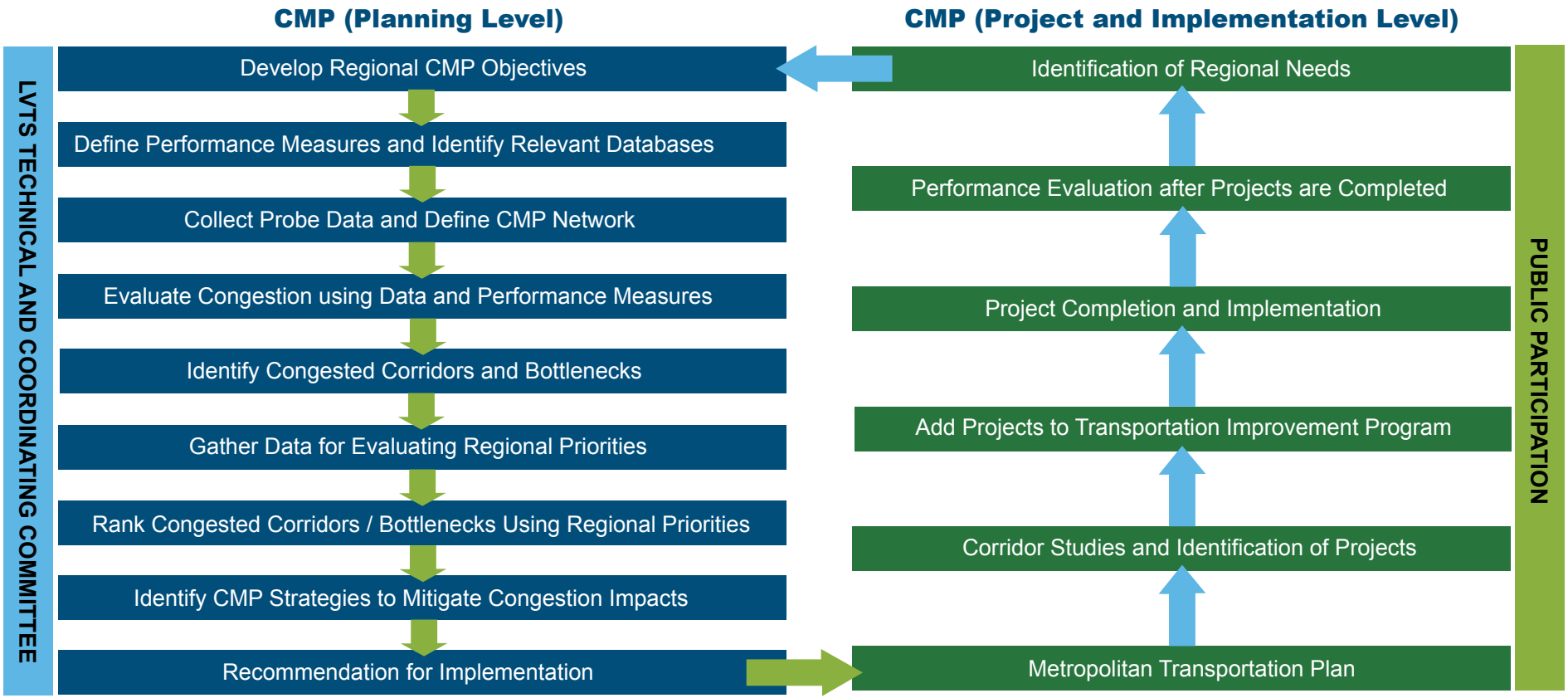
Federally mandated performance measures are used to identify, rank and visualize congested areas to guide congestion management strategies. These measures are selected in coordination with the LVTS Technical and Coordinating Committees to ensure consistency with regional objectives.

High-Priority Action for Safer, Smoother, and Smarter Travel

High-priority areas are targeted to improve reliability, reduce congestion, and integrate multimodal options, supporting goals like Vision Zero, infrastructure modernization, connectivity, resilience, and sustainability. Projects are incorporated into the MTP and guide funding, programming, and coordination with FHWA, PennDOT, and local municipalities.

Recognizing the region as a freight hub, the CMP prioritizes efficient goods movement while reducing conflicts with local travel, supporting a balanced, sustainable, and economically resilient transportation network.

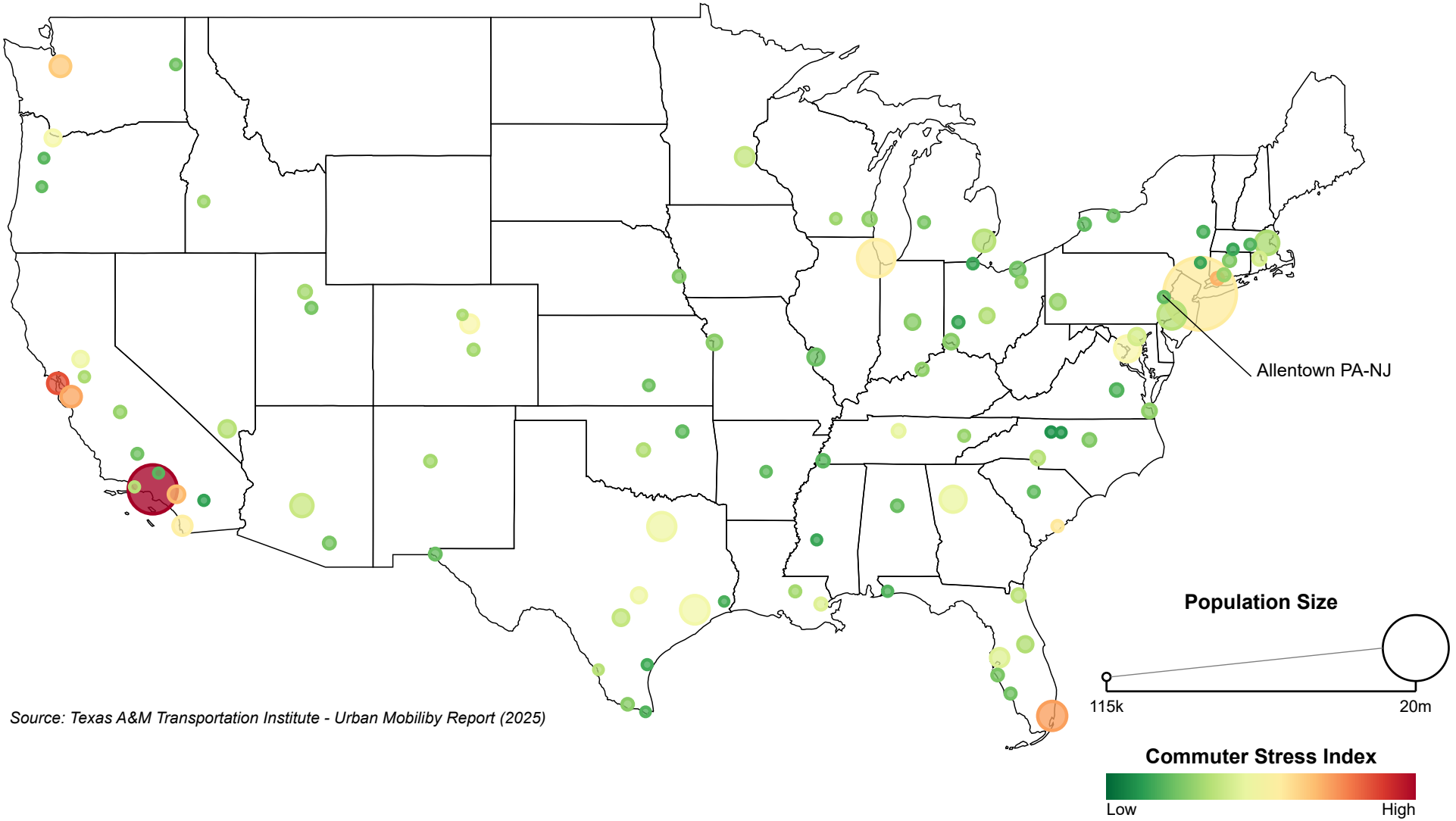
Steps to Managing Congestion



LEHIGH VALLEY
CONGESTION MANAGEMENT PLAN

Trends

Commuter Conditions Across Urbanized Areas



Source: Texas A&M Transportation Institute - Urban Mobiliby Report (2025)

Urban Area Comparisons

As part of its strategic planning, the LVTS analyzed 15 metropolitan areas with similar economic characteristics to the Lehigh Valley to understand how the region compares to other metro areas.

Eight other regions were included in addition to those 15 for comparison in this CMP because of their geographic proximity to the Lehigh Valley.

The comparison focuses on two key congestion indicators from the 2024 Urban Mobility Report by the Texas A&M Transportation Institute: Annual Hours of Delay per Capita and the Commuter Stress Index (CSI).

Annual Hours of Delay per Capita measures the total annual delay experienced by all travelers in a region divided by the population, allowing fair comparisons across regions of different sizes.

The CSI is a unitless index that measures the main flow of commuters during morning and evening peaks. A CSI of 1 means free-flow traffic, while higher values indicate longer commuting delays.

High CSI values represent longer travel times toward employment centers in the morning and toward residential areas in the evening. By using per-capita and index measures, these metrics allow comparisons of congestion across regions.

In the Allentown, PA–NJ urbanized area, Annual Hours of Delay per Capita is 22 and CSI is 1.17, both below the averages of the 15 similar metro areas (28 and 1.19), showing that Lehigh Valley commuters experience slightly better congestion conditions during morning and evening peaks than comparable and nearby regions, despite having more inbound commuters, with more people traveling into the region for work than leaving it (Longitudinal Employer Household Dynamics Dataset, US Census Bureau, 2022).

Urban Area Comparison

Urban Area	Population	Annual Hours of Delay Per Capita	Commuter Stress Index
New York-Newark, NY-NJ-CT	18,990,000	47	1.48
Philadelphia, PA-NJ-DE-MD	5,645,000	39	1.29
Atlanta, GA	5,275,000	50	1.39
Pittsburgh, PA	1,745,000	33	1.24
Indianapolis, IN	1,680,000	32	1.22
Charlotte, NC-SC	1,530,000	38	1.29
Raleigh, NC	1,100,000	26	1.21
Dayton, OH	740,000	21	1.12
Allentown, PA-NJ	708,000	22	1.17
Grand Rapids, MI	630,000	32	1.2
Albany-Schenectady, NY	605,000	27	1.14
Akron, OH	560,000	29	1.23
Palm Bay-Melbourne, FL	525,000	20	1.11
Toledo, OH-MI	505,000	25	1.12
Harrisburg, PA	495,000	31	1.17
Lancaster, PA	430,000	26	1.18
Durham, NC	405,000	36	1.2
Scranton, PA	390,000	20	1.12
Concord, NC	270,000	14	1.06
Gastonia, NC-SC	190,000	26	1.23
Binghamton, NY-PA	156,000	24	1.12
Hanover, PA	69,000	25	1.14
East Stroudsburg, PA-NJ	60,000	48	1.15

Note: *Urban areas were selected based on data analysis from LVPC and table is sorted by number of population; **Grey colored Urban Areas considered as Urban Areas near the Lehigh Valley; ***Population data as of 2024

What has caused congestion in the Lehigh Valley?

Traffic congestion can be recurring or nonrecurring. Recurring congestion happens regularly, usually during predictable peak periods like morning and evening commutes. It occurs when routine demand exceeds roadway capacity, slowing traffic.

Common causes include daily commuter travel, roadway bottlenecks, limited capacity, inefficient traffic signals, high truck volumes, seasonal variations, and long-term construction. Nonrecurring congestion is caused by unexpected events that disrupt traffic, such as crashes, vehicle breakdowns, special events, severe weather, or short-term maintenance. These events create unpredictable delays and reduce travel time reliability. An effective CMP addresses both types using operational improvements and long-term planning strategies.

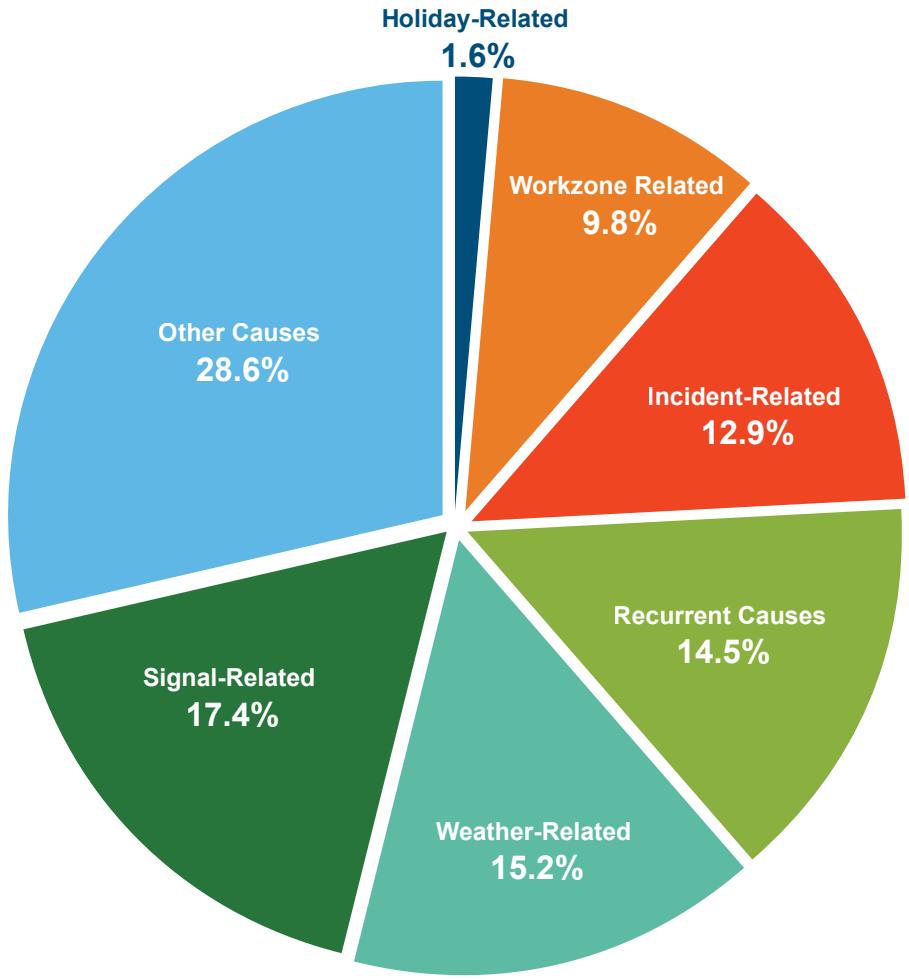
In the Lehigh Valley, the main contributors to congestion are traffic incidents and other/unclassified disruptions, which account for most delays. Incident-related congestion results from unplanned events such as crashes, stalled vehicles, or emergency responses that block lanes and disrupt normal traffic flow, while other causes include less common or unclassified disruptions, overlapping events, or temporary unusual traffic patterns that exacerbate delays.

Signal timing issues and peak-hour demand also create recurring congestion in key corridors; signal-related congestion occurs when traffic signal timing, coordination, or malfunctions impede smooth flow, and recurrent causes stem from predictable, regularly occurring factors like commuter demand or bottlenecks.

Secondary causes, such as weather, construction, or holidays, further worsening delays. Weather-related congestion arises from rain, snow, fog, or ice, workzone-related congestion comes from construction or maintenance activities that reduce roadway capacity, and holiday-related congestion results from increased travel during national or regional holidays.

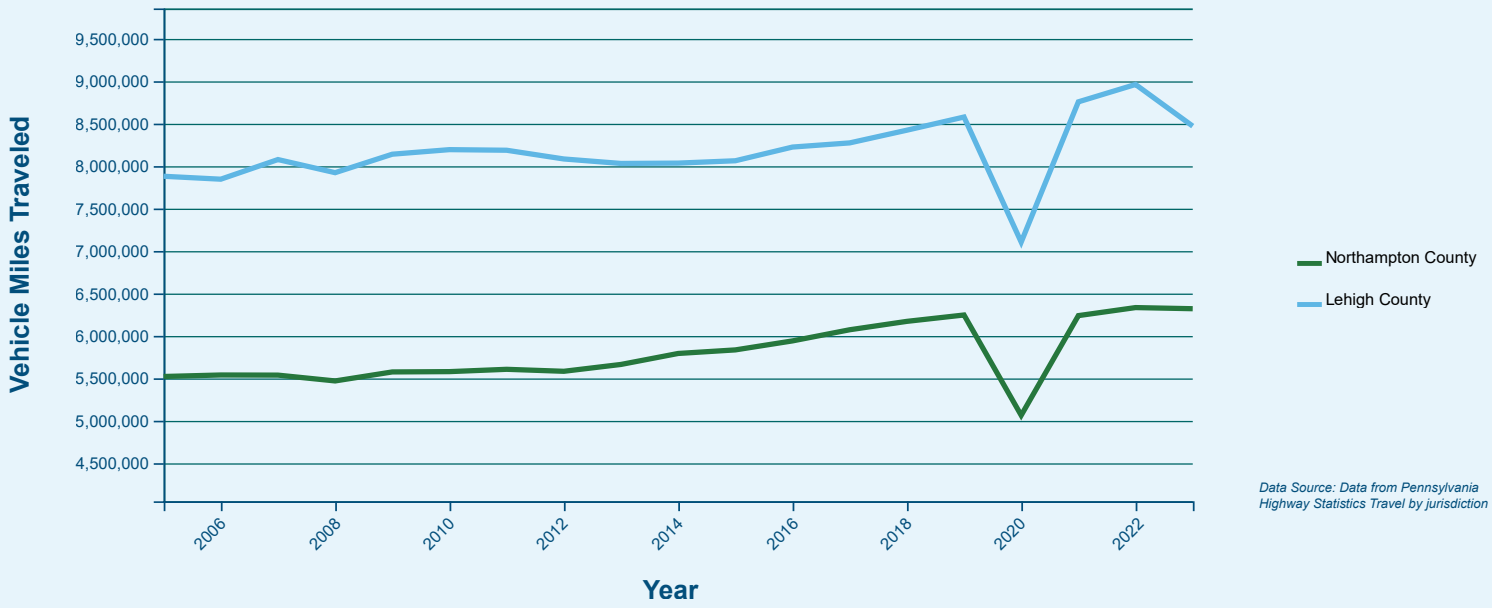
These patterns highlight the need for integrated strategies that combine better signal timing, data-driven operations, and proactive incident response to improve reliability and performance across the region.

Congestion Causes in the Lehigh Valley



Data Source: RITIS PDA Suite; Causes of Congestion Transportation Disruption and Disaster Statistics 2019

Vehicle Miles Traveled Throughout the Lehigh Valley



Data Source: Data from Pennsylvania Highway Statistics Travel by jurisdiction

Regional Transportation Performance Trends

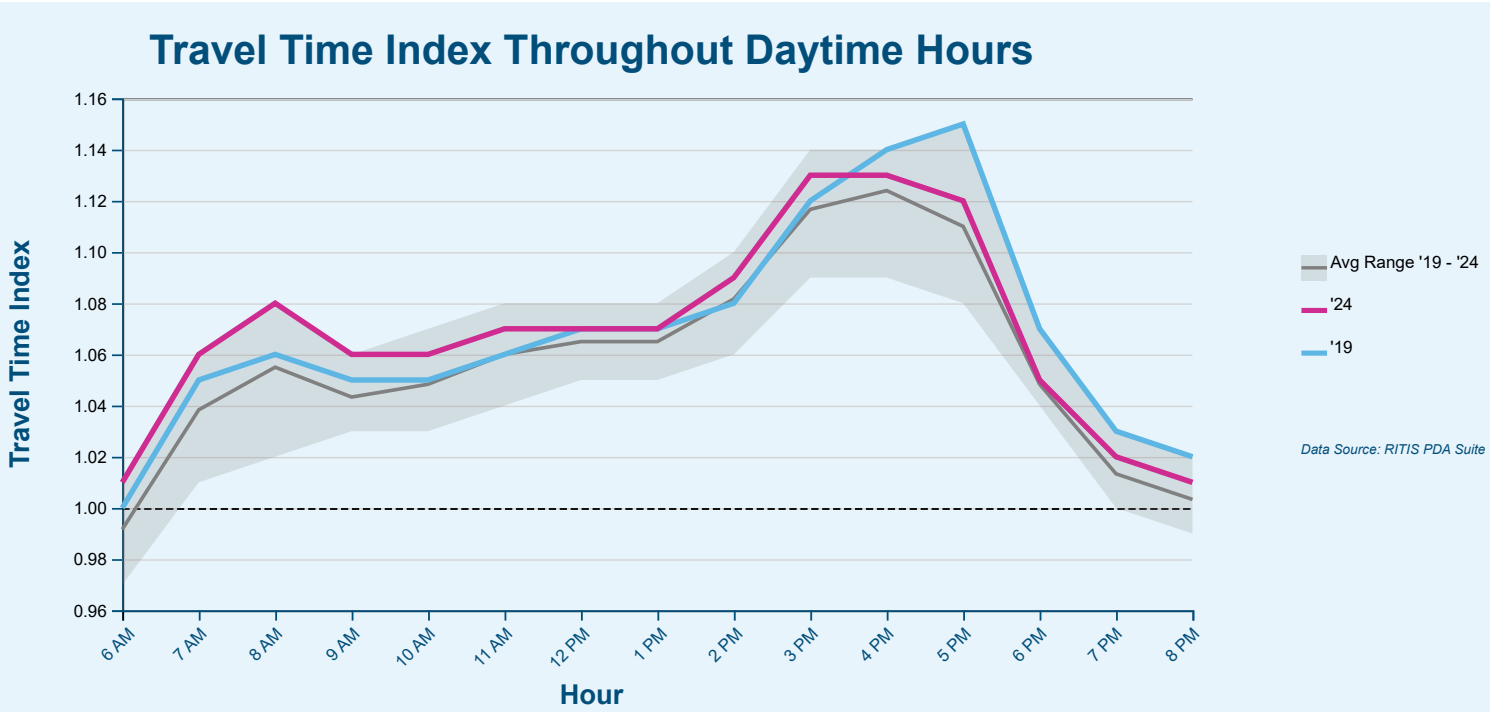
An overview of regional transportation performance trends focuses on key indicators such as Vehicle Miles Travels (VMT), Travel Time Index (TTI), ride-share travel and performance targets. These trends provide insight into how the region's transportation system is functioning and help guide future planning and investment priorities.

Vehicle Miles of Travel

VMT is the Federal Highway Administration's main measure of travel activity on roadways, calculated as the total daily miles traveled by all vehicles. Higher VMT generally indicates more congestion, making it an important metric for monitoring regional traffic. From 2005 to 2023, both Lehigh and Northampton counties saw overall VMT growth compared to 2005. Both counties experienced a sharp decline in 2020 due to the COVID-19 pandemic, then rebounded in the following years. While both counties followed similar trends, Northampton showed slightly more consistent year-over-year growth, especially from 2013 onward.

Travel Time Index (TTI)

TTI is a unitless index measures the ratio of observed travel time to free-flow travel time. In simpler terms, TTI shows how much longer a trip takes in traffic compared to if you could drive without any delays, helping quantify congestion and assess how efficiently roads are performing. A TTI value above 1 indicates congestion and longer travel times. From 2019 to 2024, TTI in the Lehigh Valley shows consistent congestion patterns throughout the day. Travel times peak in the morning (7–9 am) and again in the afternoon/evening (3–6 pm). The most significant delays occur between 3 pm and 6 pm, when travel times are 10–15% longer than free-flow conditions, making the evening commute the most congested period.



Non-SOV Travel Trends by County

Non-SOV, or non-single-occupant vehicle, travel refers to trips made using modes other than a single-occupancy vehicle, such as walking, biking, public transit, carpooling, or ridesharing. Monitoring and promoting Non-SOV travel is important because it helps reduce congestion, lower emissions, and improve overall transportation system efficiency and accessibility. From 2010 to 2024, the amount of non-SOV travel shows changing travel patterns across the overall Lehigh Valley.

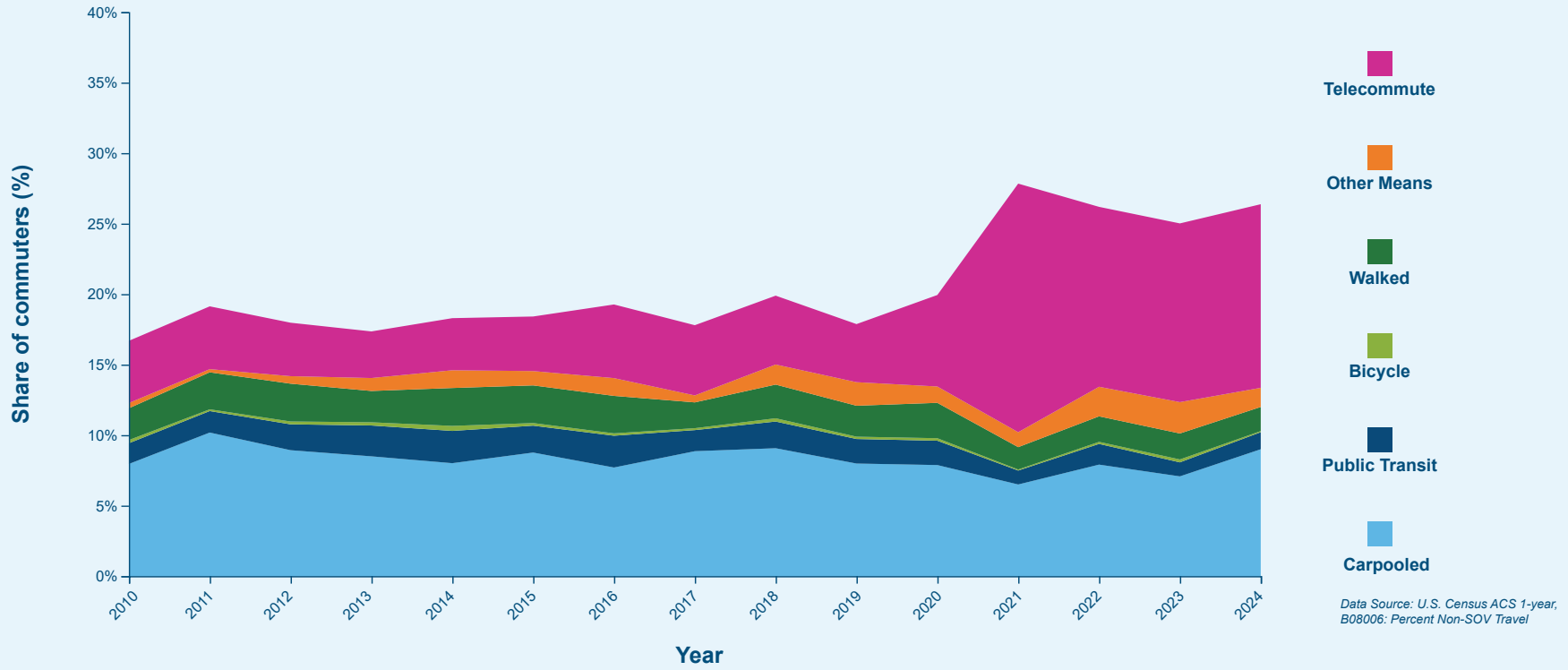
The most dramatic shift, particularly since 2020, has been the increase in telecommuting, which has grown from 4.4% (12,856 commuters) to 13% (46,032 commuters) of commuters. This reflects a lasting shift in work culture following the COVID-19 pandemic and the growing adoption of flexible work arrangements.

Carpooling, public transportation, bicycling, and walking have remained relatively stable from 2010 to 2024. In recent years, both counties have converged in their commuting trends, suggesting a regionwide shift toward flexible work and reduced use of shared transportation.

These stabilizing trends likely reflect the fact that many Lehigh Valley transit users are employed in occupations that are less amenable to telecommuting and therefore rely on these modes for their daily commute.

However, it is worth mentioning that for this trend interpretation, US Census Bureau data was used, which provides aggregate commuting statistics, but does not capture variations in individual commuting patterns within the same occupation or across different weeks. This gap warrants further investigation as additional data becomes available.

Share of Non-Single Occupancy Vehicle Commuters in the Lehigh Valley



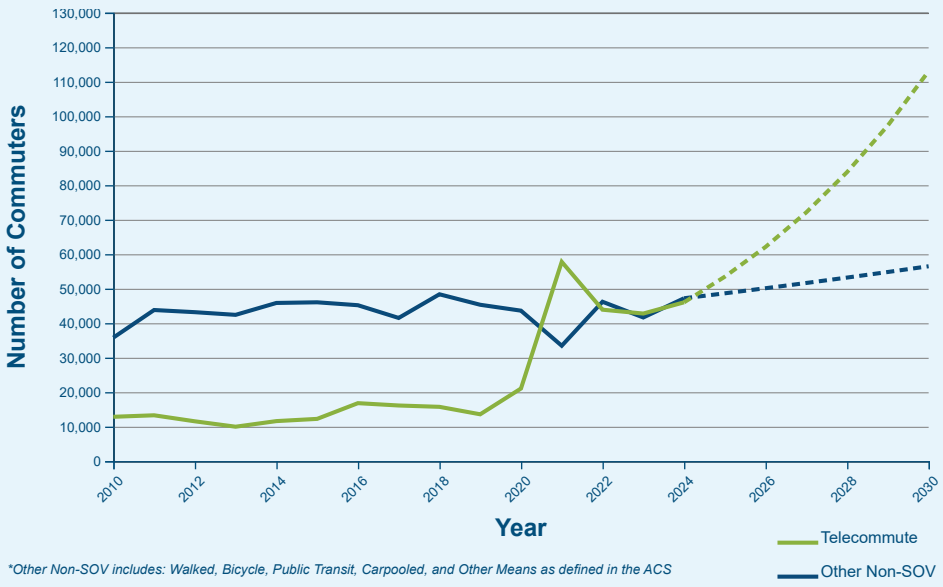
Non-SOV Travel Target Setting

The federal government tracks progress in reducing congestion by measuring how many people commute without driving alone. This is called the percent non-SOV commuter mode share, and it includes trips made by transit, carpooling, biking, walking, or working from home. Because the Lehigh Valley has an urbanized area with more than 200,000 residents, federal law under the IIJA requires LVTS to monitor this percentage and set short- and long-term improvement goals. Over the past decade, the share of people using options other than driving alone has increased across the Lehigh Valley.

In Lehigh Valley, the starting point for non-SOV travel comes from the ACS one-year estimates, which provide a reliable picture of how people commute. Factors like remote work, the economy, and shifting travel habits all affect this number, which is why ongoing monitoring is important for transportation planning. Forecasts for 2024–2030 show modest growth in non-SOV travel, while forecasts for telecommuting are expected to grow more quickly than other non-SOV counterparts.

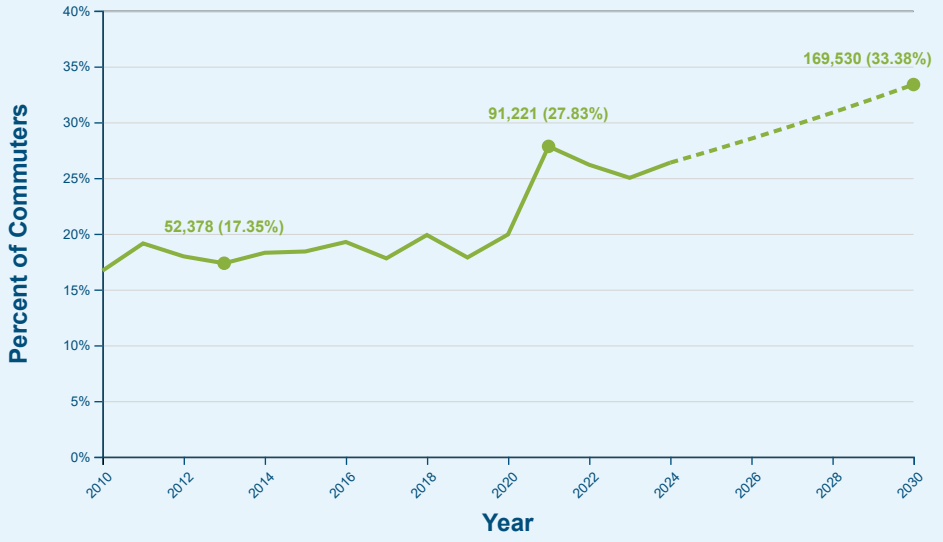
Targets were set based on the average historic year-to-year rate of change of the percentage non-SOV travel in the Lehigh Valley. The two-year non-SOV target in 2026 is approximately 28% and the four-year non-SOV target in 2028 approximately 31%. These numbers reflects a planning goal to shift travel behavior over time, encouraging more people to use transit, carpool, bike, or walk to reduce congestion and environmental impacts.

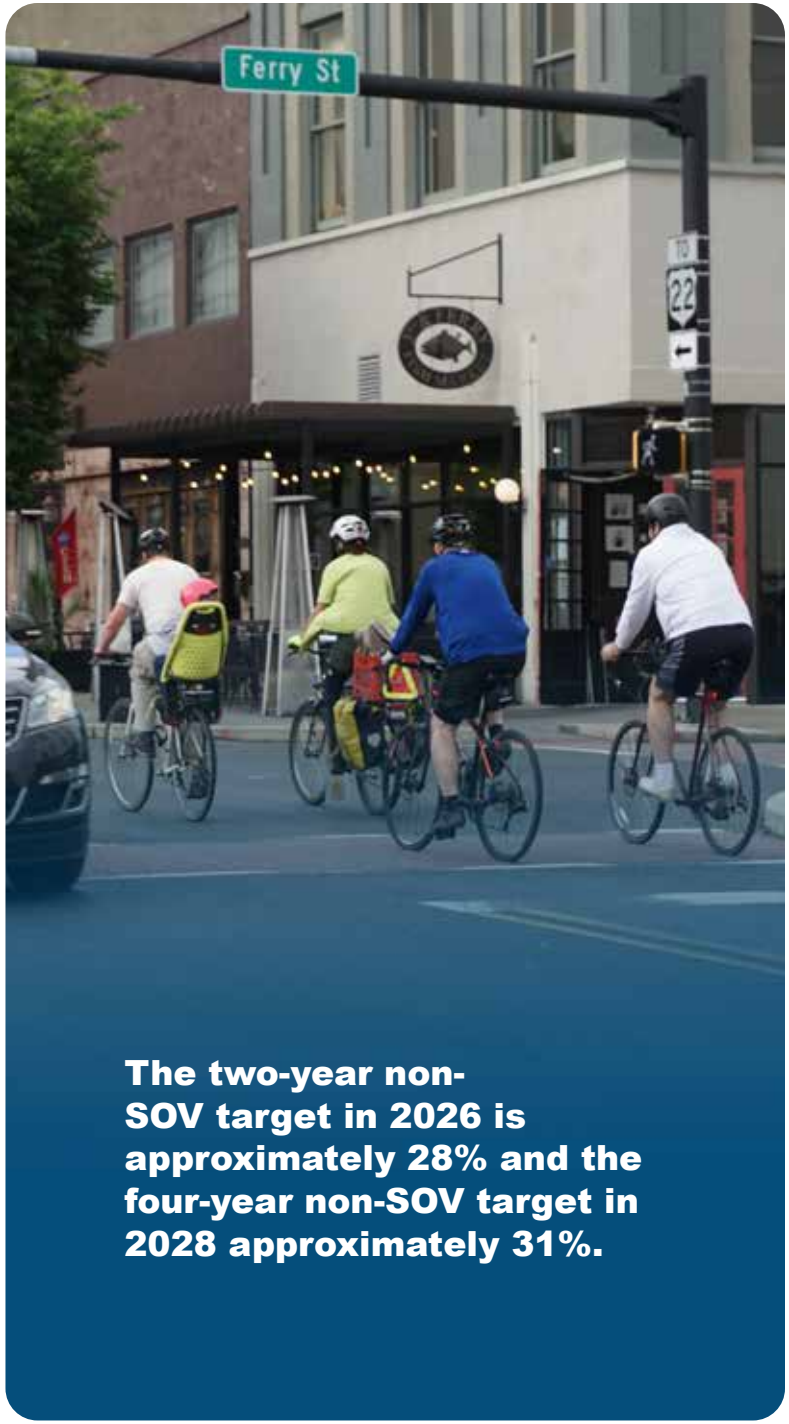
Number of Telecommuter and Other Non-SOV Commuters in the Lehigh Valley



*Other Non-SOV includes: Walked, Bicycle, Public Transit, Carpooled, and Other Means as defined in the ACS

Projected Non-Single Occupancy Vehicle Commuter Targets for the Lehigh Valley





The two-year non-SOV target in 2026 is approximately 28% and the four-year non-SOV target in 2028 approximately 31%.

Performance-Based Measurement

Performance-based Measurement required for a CMP

The LVTS studies congestion and travel reliability to understand how serious, widespread and unpredictable traffic is across the region's road network. The analysis mainly uses travel time data collected by INRIX from vehicle-based GPS systems to provide a comprehensive picture of travel speeds and delay, across the Valley's street and highway network. The FHWA outlines how the data must be collected, processed, and used to calculate PM3 congestion and reliability measures. More information on the data sources or federal regulations is provided in the Appendix.

Congestion and Reliability Measures

Congestion and reliability measures were used to evaluate how well the transportation network is performing. Each measure helps show how traffic is flowing, where delays occur, and how dependable travel times are. Free-flow travel time serves as the baseline for these measures and is based on the reference speed provided in the INRIX dataset.

Travel Time Index (TTI)

The Travel Time Index (TTI) is derived from INRIX travel time data. TTI helps to compare how long a trip takes versus how long it would take with no traffic. It represents the ratio of average travel time during peak hours to the corresponding free-flow travel time for a roadway segment. A higher TTI value reflects more severe congestion. TTI was evaluated during the weekday AM peak of 7 am to 9 am. and PM peak of 4 pm to 6 pm.

Peak Vehicle Delay

This measure expresses travel time delay for individual roadway segments, reported in seconds. Peak vehicle delay is defined as the difference between the observed average peak-period travel time and the corresponding free-flow travel time. Larger differences reflect greater levels of delay. The measure was calculated based on INRIX travel time data for weekdays during the AM and PM peak periods.

Peak Volume Delay

Peak Volume Delay measures vehicle delay during peak hours, by taking the average vehicle delay and multiplying it by the number of vehicles using a segment during the peak periods. It is expressed as total hours.

Road segments that experience both high vehicle delay and high volume-related travel time typically generate congestion with broader regional impacts, as large numbers of vehicles are affected. This measure is applied to rank peak-period travel time and volume delays along Focus Roadway Corridors, and to assess travel time volume delay at Focus Bottlenecks.

For corridor-level analysis, volume delay is normalized by producing a peak volume delay per mile measure. Peak hour delays were derived from data published by PennDOT's Bureau of Planning and Research 2024 Pennsylvania Traffic Data document.

Volume-to-capacity (V/C) ratio

The volume-to-capacity (V/C) ratio is a measure of roadway performance that compares observed traffic volumes with the estimated capacity of a roadway segment.

The Highway Capacity Manual classifies capacity conditions using the critical volume-to-capacity ratio, where values are less than or equal to (≤) 0.85 indicate under-capacity conditions, values between 0.85 and 0.95 indicate near-capacity conditions, and values between 0.95 and 1.00 indicate at-capacity conditions.

Using FHWA guidelines and functional class-based reference tables, maximum AADT values were assigned to each roadway segment according to its classification.

The resulting V/C ratios were used to identify congestion conditions. Roadway segments with ratios greater than 0.85 were classified as congested.

Level of Travel Time Reliability or LOTTR is a statewide PM3 metric used to evaluate the performance of the NHS. It is a unitless index that represents the percentage of person-miles traveled on both interstate and non-interstate NHS routes that meet reliability standards within a region.

LOTTR is calculated for each roadway segment as the ratio of the 80th percentile travel time to the median (50th percentile) travel time, with higher ratios showing less reliable conditions.

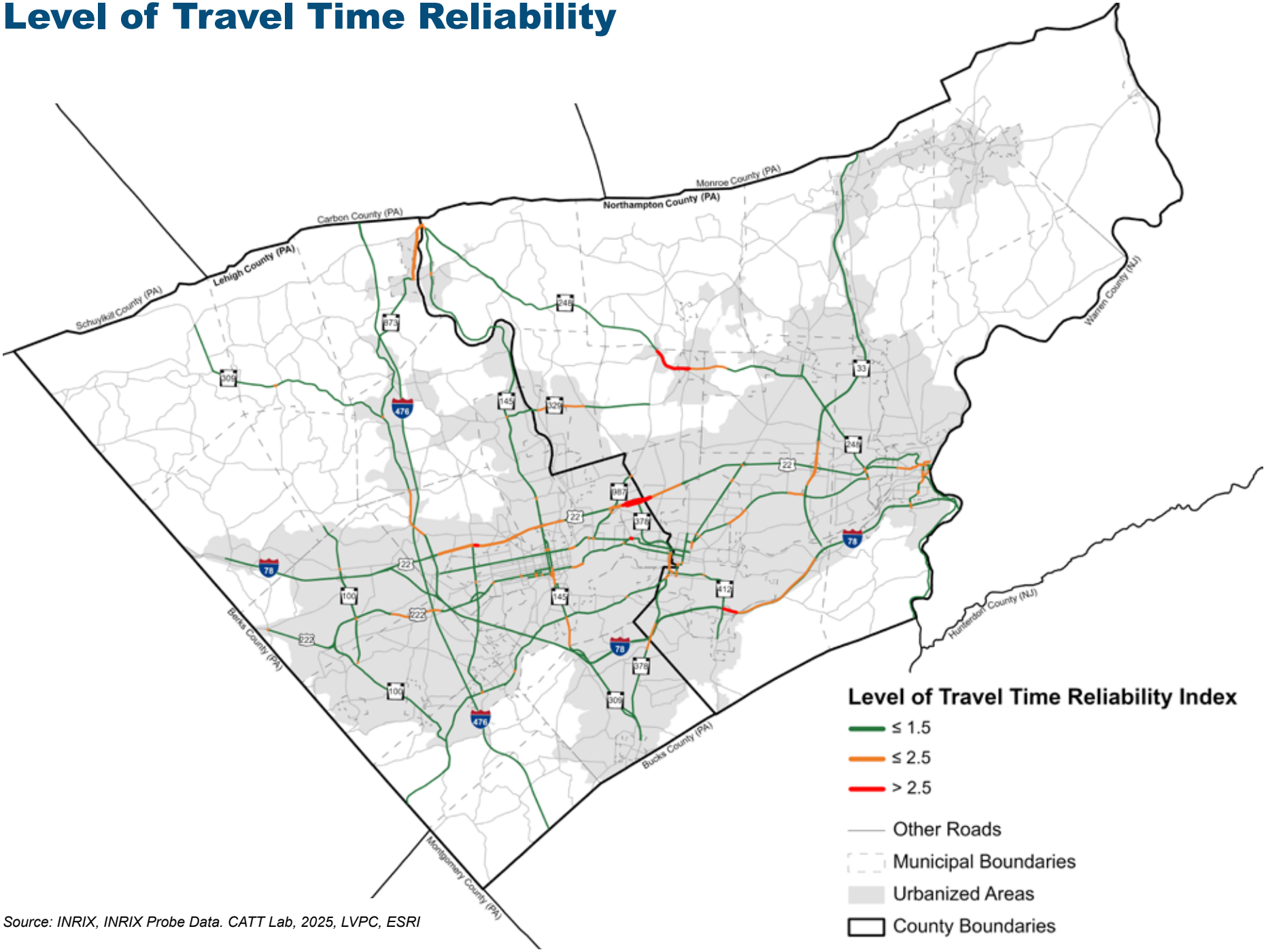
For instance, imagine a three-mile street that usually takes five minutes to drive. But sometimes it takes eight minutes instead. As eight divided by five equals 1.60, that means the trip can take 60% longer than normal. It means the street does not always take the same time to drive, sometimes it's much slower than usual, so it is not very reliable for planning your trip. This is what LOTTR measures.

In this CMP, LOTTR is computed across four peak periods: weekdays from 6 am to 10 am, 10 am to 4 pm and 4 pm to 8 pm, as well as weekends from 6 am to 8 pm. LOTTR values below 1.50 across all four periods classifies as reliable because travel times do not substantially deteriorate during peak or off-peak conditions.

Segments exceeding 1.50 in any period are considered unreliable, reflecting conditions where travelers experience frequent or unpredictable delays.

Annual traffic volume and average vehicle occupancy are incorporated into the calculation of the NHPP reliability measures presented in tables below. The NHPP reliability measure is reported separately for interstate and non-interstate routes in the tables.

Level of Travel Time Reliability



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

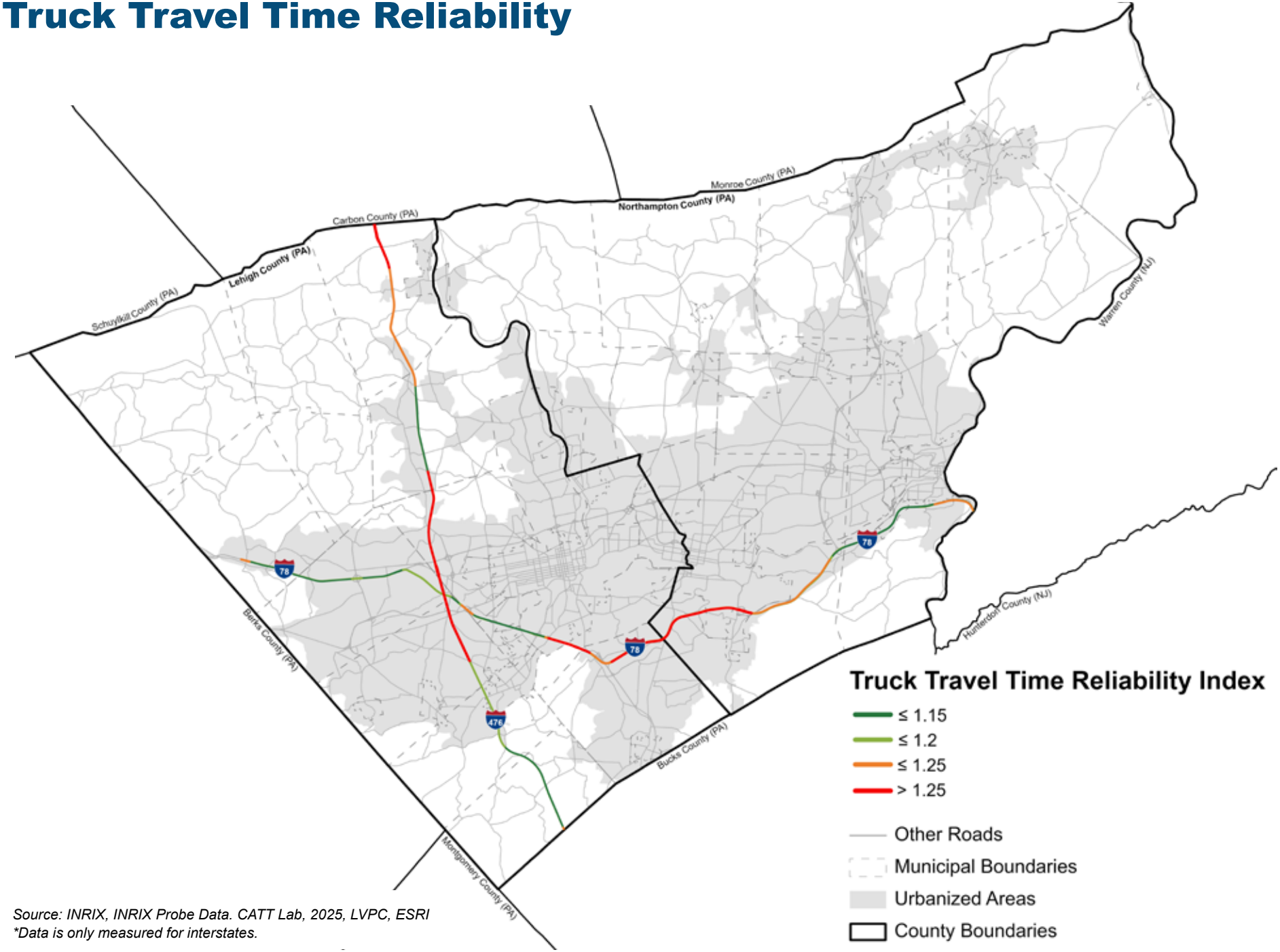
Truck Travel Time Reliability (TTTR) Index

Truck Travel Time Reliability or TTTR Index is a statewide PM3 measure used to evaluate the reliability of freight movement on the interstate system within a region. TTTR, also referred to as the freight reliability measure, is is a unitless index that is calculated for each interstate segment as the ratio of the 95th percentile travel time to the median (50th percentile) travel time.

For example, imagine a 10-mile stretch of highway. Most of the time, a truck can drive that stretch in 10 minutes. But sometimes traffic slows things down. About one out of every 20 trips, the same drive takes 17 minutes or more. So, to understand how reliable the road is, we compare the longer time (i.e., 17 minutes) to the normal time (i.e., 10 minutes). This number is called the Truck Travel Time Reliability (TTTR). A TTTR of 1.7 means the trip can take 70% longer than usual. That tells us the road is not very reliable for trucks, because travel times can change a lot. TTTR is calculated across five time periods: weekdays from 6 am to 10 am, 10 am to 4 pm, 4 pm to 8 pm, weekends 6 am to 8 pm, and each day from 8 pm to 6 am.

For analysis and mapping, the time-period with the highest TTTR for each segment is used as the reliability indicator. Freight Reliability of the whole region was calculated and presented in Reliability and TTTR Baseline and Target tables below.

Truck Travel Time Reliability



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI
**Data is only measured for interstates.*

For interstates and non-interstates, reliability is calculated by comparing the travel time people experience during rush hour to the normal or expected travel time. Roads that take longer than expected more often are considered less reliable.

Interstate reliability has remained consistently strong, staying above 95% across all reported years, though the slight decline in 2024 suggests growing pressures on the highway system that may warrant closer monitoring. Non-Interstate reliability showed a positive trend, between 2019 to 2023. However, it shows decreased reliability level, from 89.7% to 88.5%, in 2024. TTTR has fluctuated, ranging from a low of 1.31 in 2021 to a high of 1.40 in 2024.

While these values indicate that freight movement remains generally reliable, the upward trend in 2024 highlights potential challenges for goods movement that could affect regional economic competitiveness. Together, these measures suggest that while overall reliability remains strong, continued attention to freight performance and interstate trends will be essential for maintaining efficient mobility in the Lehigh Valley.

Looking ahead, the Lehigh Valley's reliability measures reflect a focus on sustaining strong performance across the region's transportation network. Interstate reliability targets are set at 95.5% for 2028, with a modestly higher 96.5% for 2026, reflecting expectations of continued high performance on the highway system.

Non-Interstate reliability is projected to remain stable, with targets of 88.8% for 2026 and 88.5% for 2028, consolidating the improvements achieved in 2024 on secondary and local roadways. Truck reliability targets are set at 1.39 for 2026 and 1.40 for 2028, indicating expectations of stable and manageable travel conditions for freight movement.

Overall, these targets emphasize maintaining strong interstate performance, sustaining gains on non-interstate routes, and preserving stable freight reliability over the next four years.

Lehigh Valley Truck Travel Time Reliability (Baseline)

Measure	2019 Actual	2021 Actual	2023 Actual	2024 Baseline
Interstate Reliability	99.4%	100%	99.6%	95.5%
Non–Interstate Reliability	85.2%	89.0%	89.7%	88.5%
Truck Reliability	1.35	1.31	1.36	1.40

Lehigh Valley Truck Travel Time Improvements (Targets)

Measure	2024 Baseline	2026 2-Year Target	2028 4-Year Target
Interstate Reliability	95.5%	96.53%	95.5%
Non–Interstate Reliability	88.5%	88.8%	88.5%
Truck Reliability	1.40	1.39	1.40

Annual Hours of Peak Hour Excessive Delay (PHED)

Peak Hour Excessive Delay (PHED) measures the total extra time vehicles spend on a roadway when travel is slower than expected during peak periods (6–10 am and 3–7 pm). The Lehigh Valley is included in the Allentown–Bethlehem–Easton, PA–NJ Urban Area geographical boundary.

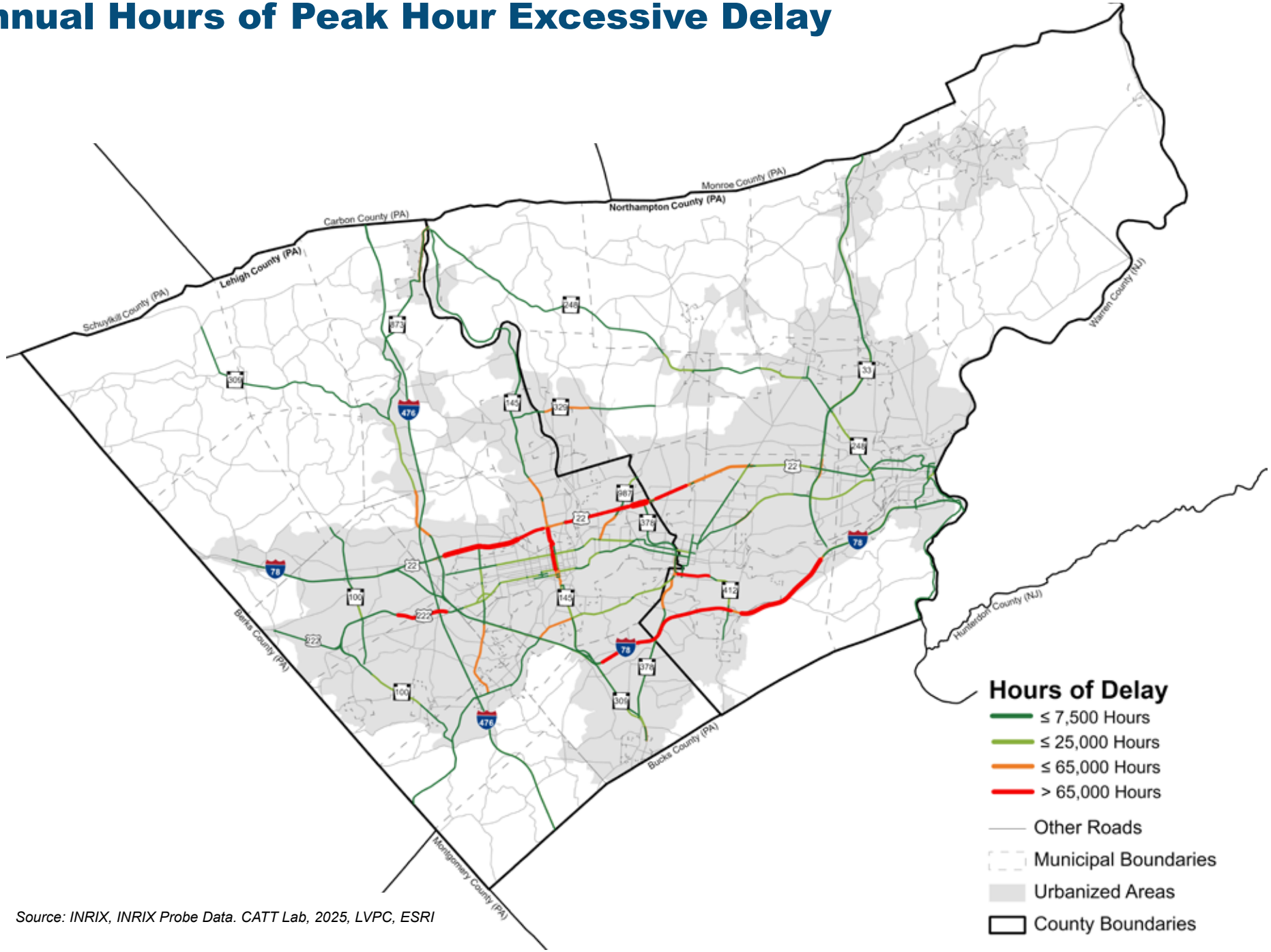
The calculation uses travel times, hourly traffic volumes, posted speed limits, mode shares (passenger vehicles, buses, and trucks), and average vehicle occupancy at the roadway segment level for the full calendar year. Mode share and vehicle occupancy data come from FHWA's Highway Performance Monitoring System and Average Vehicle Occupancy factors provided by FHWA.

Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita is calculated by dividing the total excessive delay for the entire urban area by the total population. This single value represents the average amount of delay experienced per resident, showing the shared impact of congestion across the region and the potential benefit when some trips are reduced, shifted to walking or biking, or occur outside peak periods.

PHED Measure and Non-SOV Baseline

Measure	2019	2021	2023	2024
Annual Hours of PHED Per Capita	7.30	6.81	7.78	8.00
Percent Non-SOV Travel*	18%	28%	25%	26%
Population	684,907	694,137	701,716	708,644

Annual Hours of Peak Hour Excessive Delay



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

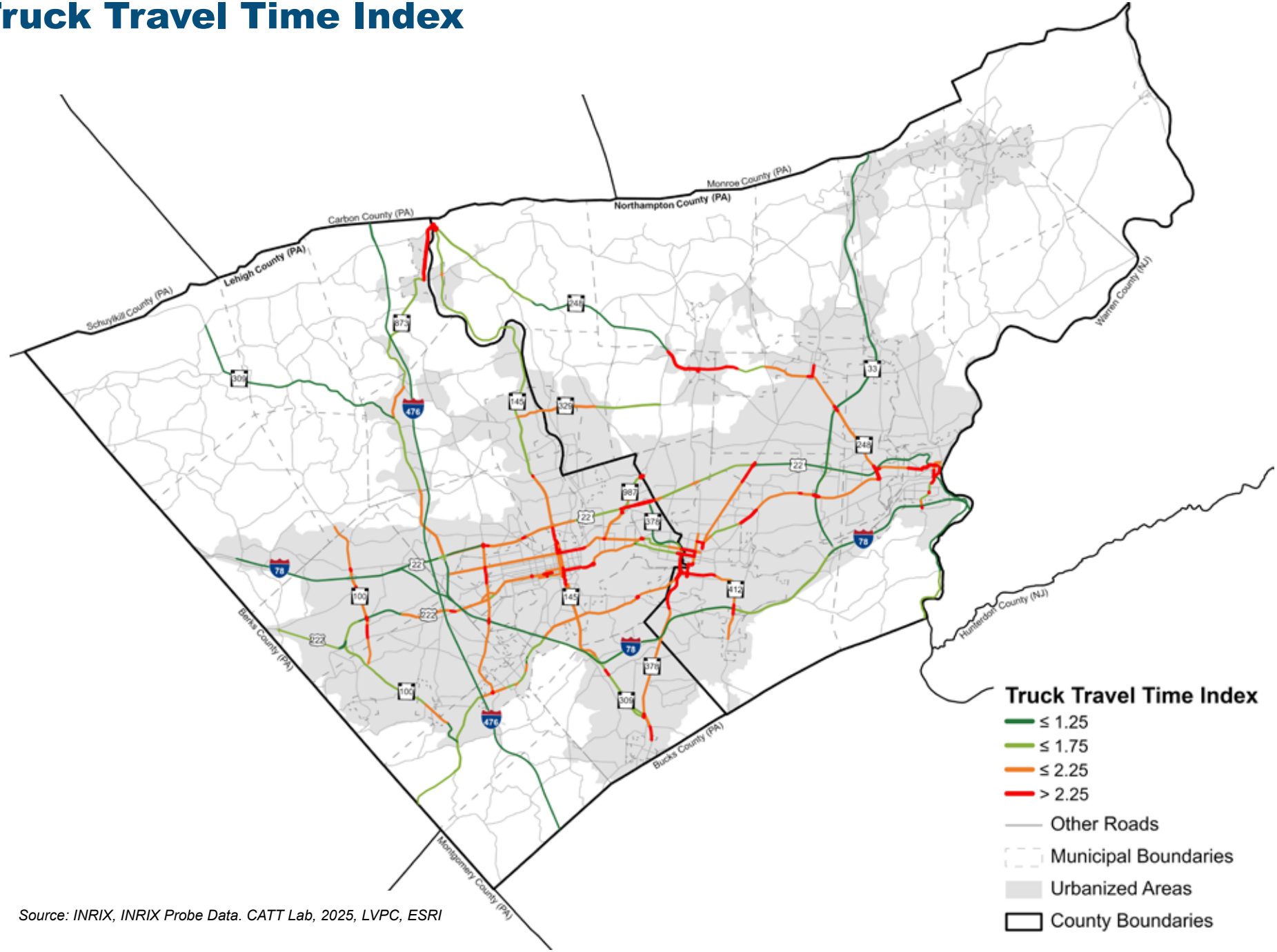
Truck Travel Time Index (TTTI)

The National Performance Management Research Data Set (NPRMDS), is a database of travel times and traffic speeds on highways across the U.S., approved by the U.S. Department of Transportation for performance management under the MAP-21 regulations.

Truck Travel Time Index, or TTTI, derived from the NPRMDS, is a measure that uses truck-only travel times on the NHS including both interstate and non-interstate routes. This measure is separate from the PM3 metrics and is used to identify locations where truck traffic contributes to congestion and unreliability.

The TTTI is a unitless index defined as the ratio of observed truck travel time to free-flow truck travel time for each roadway segment. TTTI is analyzed for weekdays during AM peak hours from 7 am to 9 am and PM peak hours from 4 pm to 6 pm. For CMP analysis, the NPMRDS truck travel data were conflated to the INRIX roadway network to align segment-level mapping and scoring.

Truck Travel Time Index



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

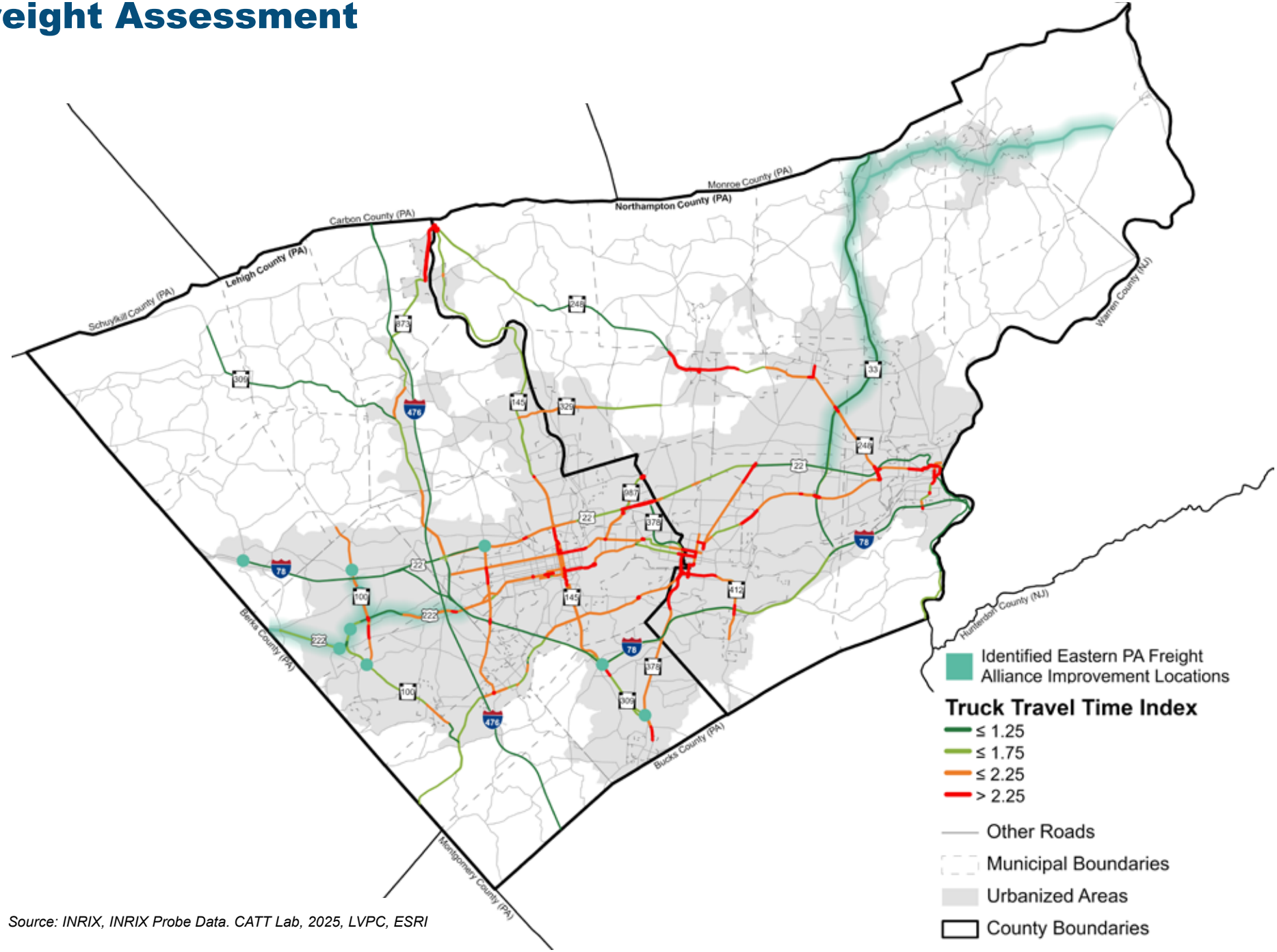
Freight Assessment

A key goal of managing congestion is to keep goods moving efficiently and support the region's economy. In 2024, LVTS completed the Eastern Pennsylvania Freight Alliance (EPFA) Infrastructure Plan, which identified important Priority Freight Corridors in the region. The recommendations from that plan are now being incorporated into the CMP to better coordinate freight planning with overall transportation goals.

Alongside, the TTTI was mapped to show where freight activity overlaps with major roadways and where truck congestion may be a concern.

This approach helps to highlight corridors that carry a large share of goods, supporting smarter strategies to improve freight movement, maintain efficiency, and direct funding where it is most needed.

Freight Assessment



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

Regional Objectives for Congestion Management

Regional Objectives for Congestion Management

The CMP sets out how the region manages congestion while supporting broader goals like livability, economic growth, safety, and access to multiple travel options. These objectives align with MTP to improve how the transportation system works.

Each CMP objective has specific performance measures, called CMP Objective Measure criteria. Some measures have multiple thresholds, with higher thresholds carrying more weight. For example, the TTI is tracked using two levels: above 1.50 and between 1.20–1.50, each counted separately.

The LVTS Technical Committee used local knowledge and regional priorities to evaluate these measures and guide congestion mitigation strategies. LVTS has assigned custom weights to each objective (adding up to 100) to ensure balanced scoring. This approach helped identify the most congested corridors and bottlenecks.

Key CMP objectives include:

1. Improve mobility and reliability – Reduce regular and unexpected congestion while working toward PM3 performance goals.

2. Maintain and modernize infrastructure – Keep roads and transit systems efficient, adaptable, and capable of supporting freight, while meeting PM3 freight targets.

3. Align with the priorities listed in *FutureLV: The Regional Plan*.

This includes:

a. Focusing transportation investments on established centers first, then redevelopment areas, and finally new growth areas, while considering the needs of disadvantaged communities.

b. Coordinating different modes of transportation and expanding transit in areas with the greatest need.

c. Improving safety and reducing delays caused by traffic incidents.

d. Strengthening the system's security and resilience to handle emergencies and daily travel needs.

CMP Objectives	Measure Type	Name of Measure	Definition	Measurement
Enhancing system reliability and mobility	PM3 (performance measures): reliability measures	Peak hour excessive delay (PHED)	PHED measures the amount of extra time drivers spend in traffic during rush hour. A corridor/bottleneck is considered highly congested if the delay is worse than the regional average.	Total hours of delay during rush hour go beyond an acceptable limit. A corridor/bottleneck is considered highly congested if its delay is above the regional average.
		Level of travel time reliability (LOTTR)	LOTTR shows how dependable travel times are from day to day. If this number is high, it means your trip time can vary a lot depending on the day.	Measures of how consistent travel times are during busy periods. A value of 2.50 or higher means low reliability; 1.50–2.49 means moderate reliability.
	Congestion intensity measures	Volume to capacity (V/C) ratio	V/C ratio compares how much traffic a road carries (volume) to how much it was built to handle (capacity). A higher ratio means the road is overcrowded.	Shows how much traffic a road carries compared to how much it was designed for. Roads/Bottlenecks are considered congested when this ratio is greater than 0.85.
		Travel time index (TTI)	TTI compares how long a trip actually takes versus how long it would take with no traffic.	Compares actual travel time to free-flow (no-traffic) conditions. The higher the number, the worse the congestion.
Ensuring Cross-Border Mobility and Network Modernization	PM3: Truck reliability and congestion intensity measures	Truck travel time index (TTTI)	Similar to TTI but focuses on trucks. A high number means trucks are heavily delayed compared to free-flow conditions.	Similar to TTI but focuses only on truck travel.
		Truck travel time reliability (TTTR)	TTTR evaluates how consistent truck travel times are. High values mean truck travel times vary widely and are less predictable.	Measures how reliable truck travel times are on major highways during peak hours.
	Network modernization	Freight centers and Lehigh Valley airport terminals	Corridors/bottlenecks are selected if they are located near major freight facilities or airports, where truck activity and deliveries are common.	Quarter-mile of major freight centers or airport terminals in the Lehigh Valley.
Supporting the goals identified in *FutureLV: The Regional Plan*	Ozone and particulate matter 2.5	Ozone and particulate matter 2.5 concentration	Identifies areas with higher air pollution levels than the regional average. These are areas more affected by emissions and poor air quality.	Census tracts where ozone or fine particulate matter levels are higher than the regional average.
	Multimodal accessibility	Near fixed-route transit system	Corridors/bottlenecks are selected if they are located close to fixed route public transit system.	Within a quarter-mile of the fixed-route transit system.
		Near population and employment centers	Corridors/bottlenecks are selected if they are located in an area with high concentrations of residents or jobs, where many people live or work.	Census blocks with high population density or within a quarter-mile buffer of employment centers.
		Near corridors identified in *FutureLV*	Corridors/bottlenecks are selected if they are close to major corridors that are part of the region's metropolitan transportation plan.	Quarter-mile buffer of a corridor identified in *FutureLV*.
	Safety	Locations with maximum crash severity	Corridors/bottlenecks are selected if they are in areas where serious crashes happen more frequently, indicating potential safety concerns.	Quarter-mile buffer of an area with high crash severity as determined through the Pennsylvania Crash Information Tool.
	Infrastructure Resilience	Near major bridges	Corridors/bottlenecks are selected if they are near bridges that carry higher daily traffic volumes.	If the Annual Average Daily Traffic on the bridge exceeds the regional average
		Located in a flood hazard area	Corridors/bottlenecks are selected if they fall within a flood-prone area as identified by FEMA. These are more likely to be impacted during flooding events.	Quarter-mile of the 2024 national flood hazard.


TRANS-BRIDGE LINES
470
TRANS-BRIDGE

LEHIGH VALLEY
CONGESTION
MANAGEMENT
PLAN

Network Analysis

Network Analysis

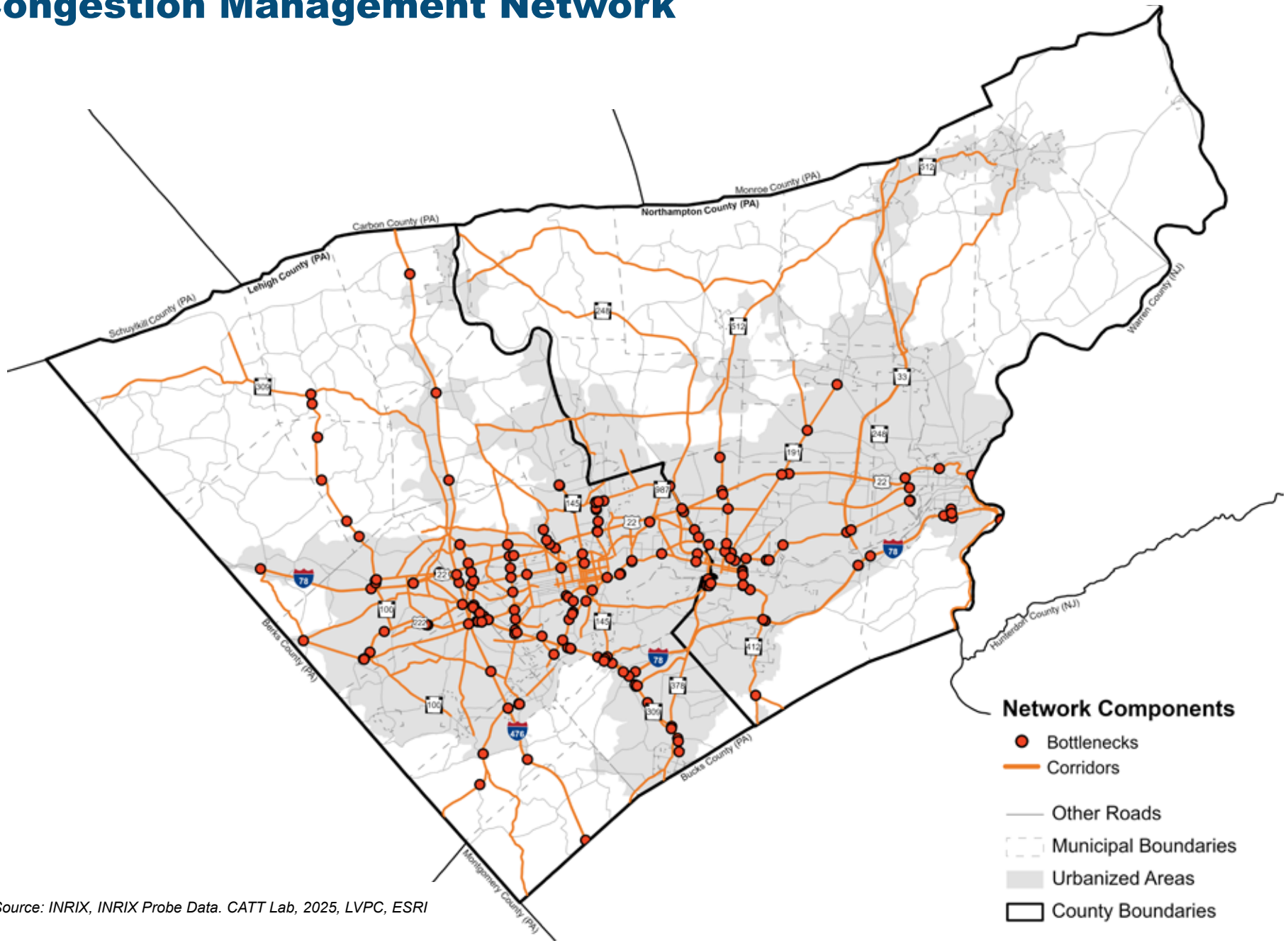
This section defines the congestion management network, identifies the significantly congested locations, and evaluates key performance measures. The congestion management network was identified, consisting of corridors and bottlenecks. Priority corridors and bottlenecks were identified based on scoring criteria created with LVTS.

Identifying the Congestion Management Network

Congestion management network corridors were then selected using thresholds from the empirical quantile distributions of key performance indicators: Annual Average Daily Traffic (AADT) > 12,622, Volume to Capacity Ratio (V/C) ≥ 0.575, or Annual Daily Truck Traffic (ADTT) ≥ 727.205 with V/C ≥ 0.401. These criteria ensured corridors represent above-average traffic, congestion or truck activity. Using this approach, the LVTS identified 326 focus corridors for analysis, considering both directions.

Focus bottlenecks were identified using the University of Maryland's Center for Advanced Transportation Technology (CATT) Lab Probe Data Analytics (PDA) Bottleneck Ranking Tool, which produced a ranked list of 1,000 bottlenecks. Segment-level congestion measures were averaged to create representative values for each metric. Bottlenecks were included if AADT > 10,685, V/C ≥ 0.61, or ADTT ≥ 427.5, resulting in 228 focus bottlenecks for analysis. Finally, consistent with HCM guidance, corridors with V/C ≥ 0.85 were highlighted during prioritization and evaluation of high-congestion locations, as described later in the document.

Congestion Management Network



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

Identifying Congested Corridors and Bottlenecks for Regional Prioritization

To identify priority corridors and bottlenecks for regional investment, LVTS developed a scoring framework linking MTP goals and performance measures with CMP objectives. The LVTS Technical Committee assigned weights to each CMP objective and sub-objectives, which measure congestion, mobility, safety, multimodal access, freight efficiency, system resilience, and long-range planning priorities.

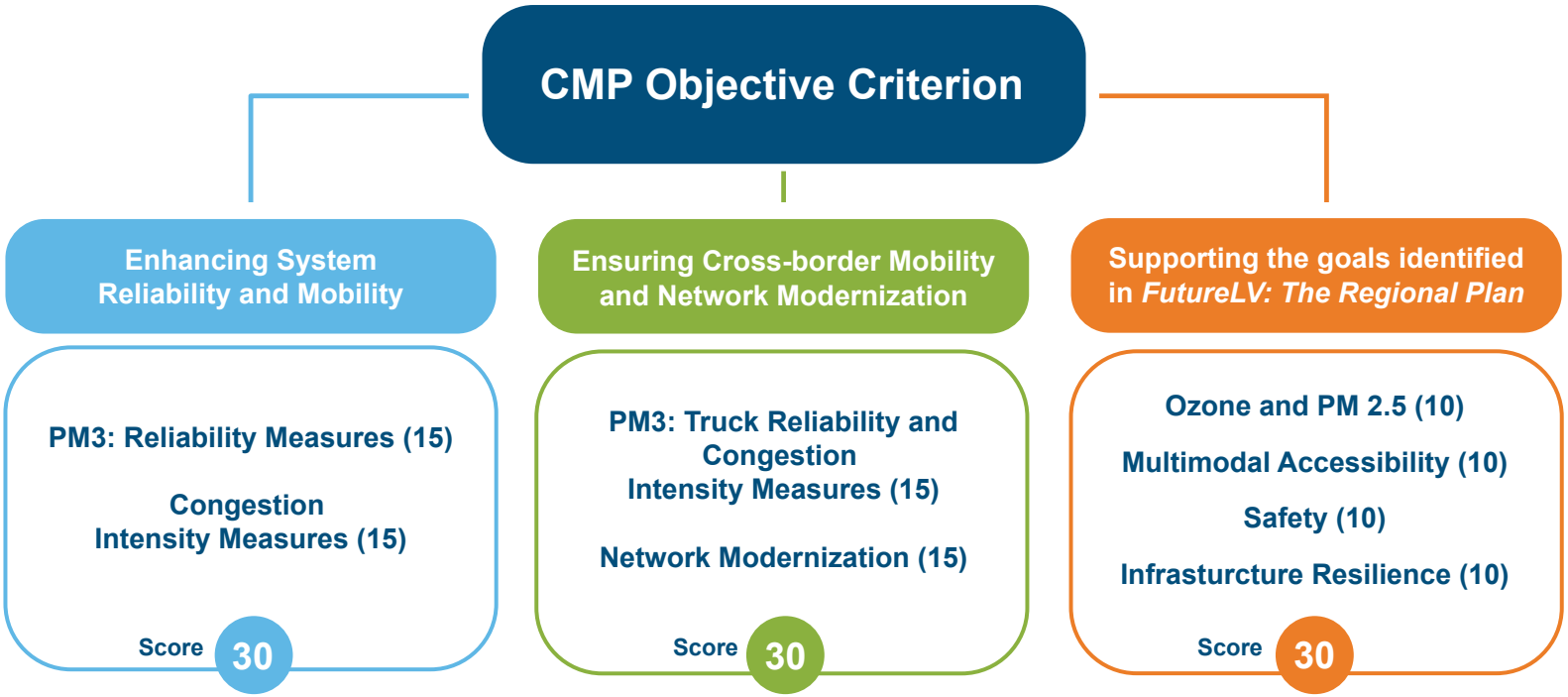
Corridors and bottlenecks were scored based on their performance across relevant CMP objectives and sub-objectives. Scores were aggregated by CMP objective and normalized to a maximum of 100 for consistent comparison. Locations with the highest cumulative scores represent the most critical areas for operational improvements and investment.

Using this process, LVTS identified the top 10 corridors and bottlenecks in Northampton and Lehigh counties. The top 10 scoring locations in both counties were identified, with volume to capacity ratio as a tie breaker to assign priority ranks.

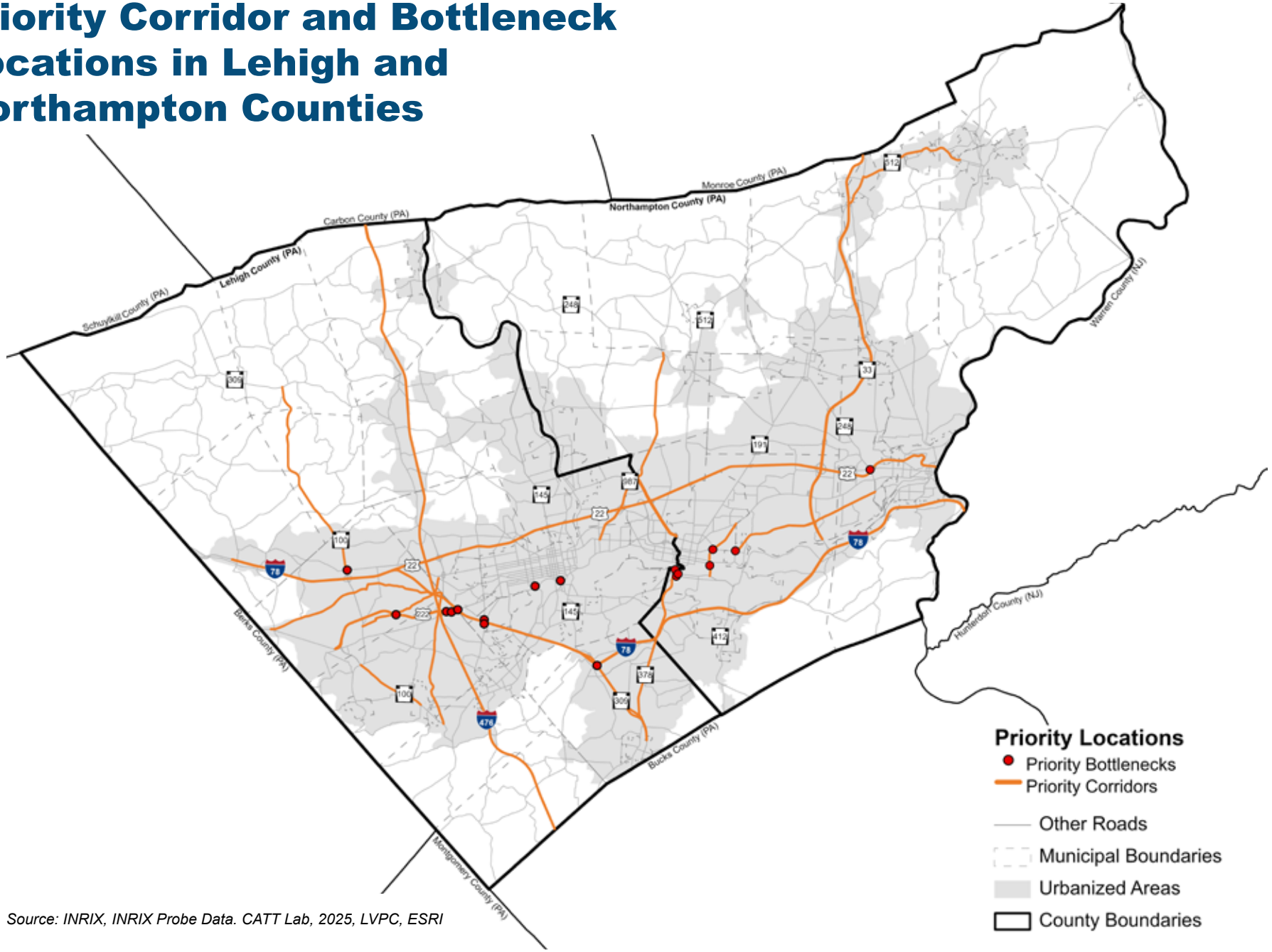
Shared corridors were given a rank for both counties. Restricted-access roadways, such as interstates, were moved to the bottom of the list to prioritize non-restricted-access roads. Lists of these priority corridors and bottlenecks are provided on the tables Priority Corridors and Priority Bottlenecks.

The LVTS Technical Committee formally adopted and weighed the CMP Objective Criteria on November 19, 2025, to guide the identification of priority corridors and bottlenecks.

LVTS staff then allocated points to specific sub-criteria to create a comprehensive score for each category. The tables in the upcoming pages show the resulting priority corridors and bottlenecks.

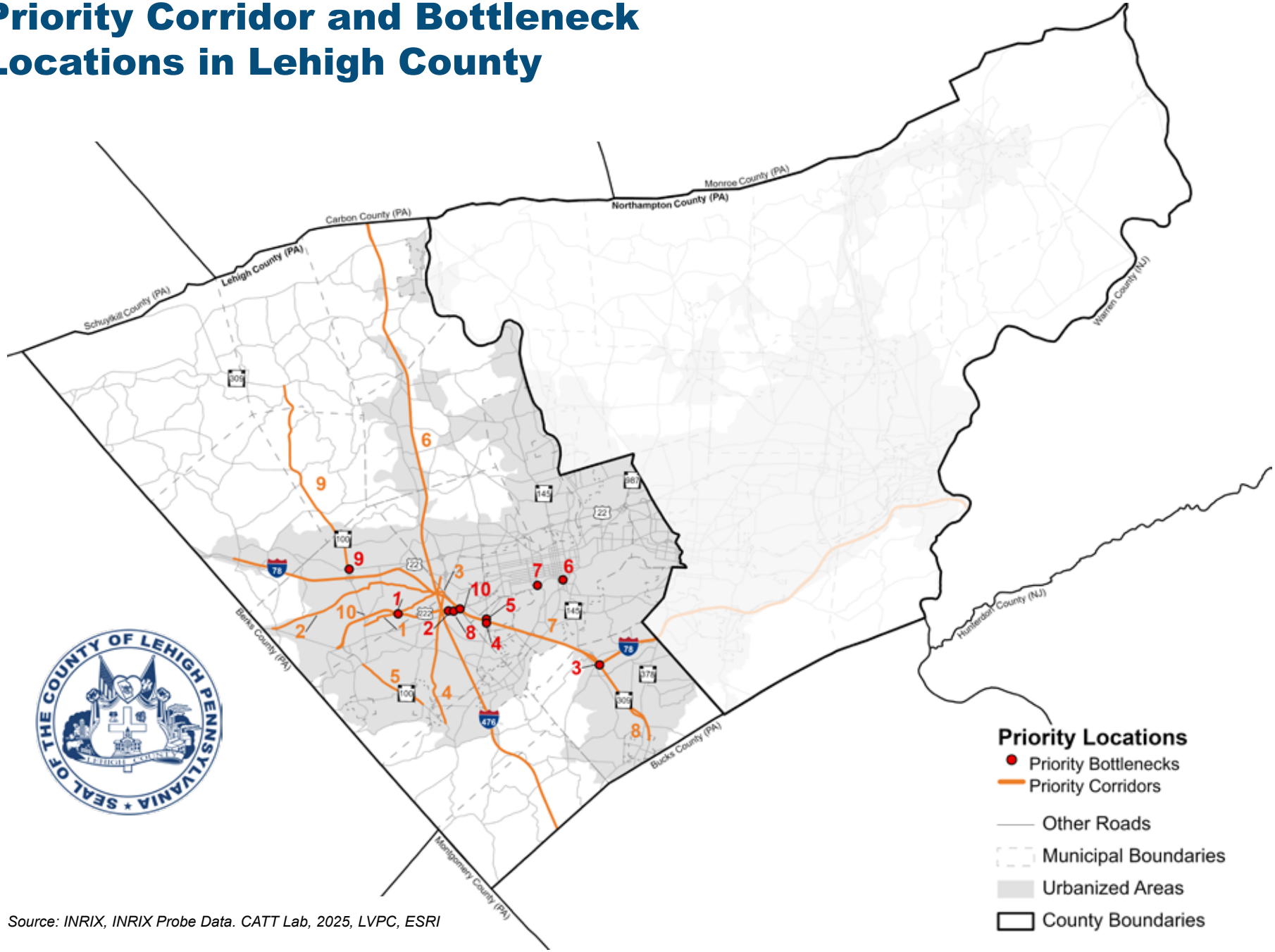


Priority Corridor and Bottleneck Locations in Lehigh and Northampton Counties



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

Priority Corridor and Bottleneck Locations in Lehigh County



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

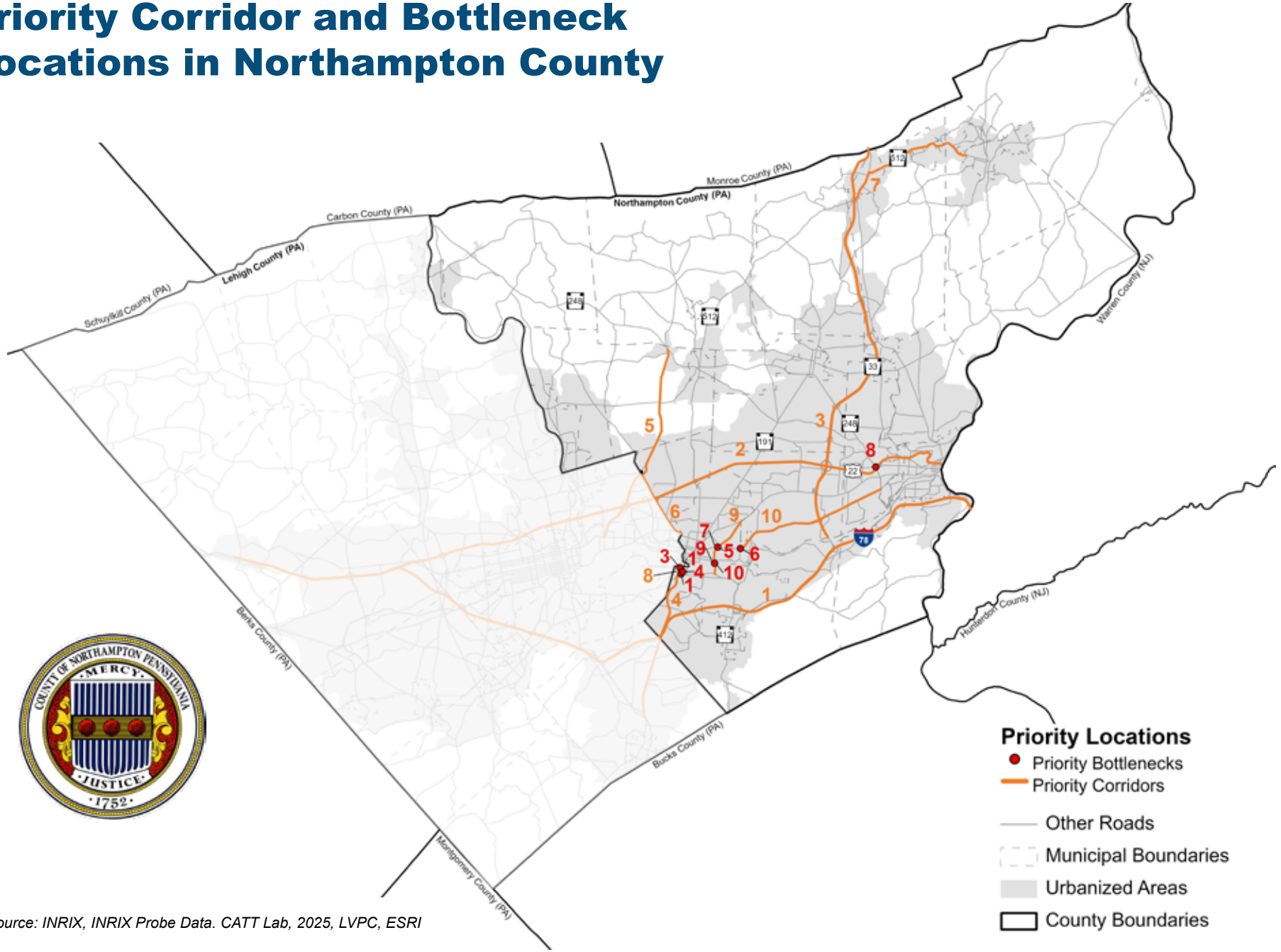
Top 10 Priority Corridors in Lehigh County

Roadway	Limits From	To	Length in Miles	AADT	ADTT	V/C	TTTI	TTTR	Objective Score	Rank
Cetronia Road	Old Route 100	Broadway	3.81	8,832	593	1.46	NA	NA	100	**1**
Schantz Road	Route 222	Cetronia Road	7.01	4,016	466	1.29	NA	NA	100	**2**
Schantz Road	Hamilton Blvd	Cetronia Road	1.21	9,755	828	1.03	NA	NA	100	**3**
Brookside Road	Kings Highway	Route 222	4.59	8,463	293	0.88	NA	NA	100	**4**
Main Street	Church Street	Spring Creek Road	2.85	9,425	888	0.88	1.54	NA	95.23	**5**
I-476	Lehigh County Line	Lehigh County Line	27.35	38,841	428	1.00	1.18	1.19	90.32	**6**
I-78	Lehigh County Line	Northampton County Line	32.40	29,594	5709	0.69	1.18	1.17	90.32	**7**
Route 309	Fairmount St	I-78	4.06	17,268	1,814	0.73	1.80	NA	89.29	**8**
Route 100	Tilghman St	Route 309	8.17	12,271	1,157	0.70	2.06	NA	89.29	**9**
Route 222	I-78	Hamilton Blvd	5.25	16,698	1421	0.670	1.48	NA	89.28	**10**

Top 10 Priority Bottlenecks in Lehigh County

Bottleneck	Municipality	County	AADT	ADTT	V/C	TTTI	TTTR	Objective Score	Rank
Route 222 (Westbound) near Mill Creek Road	Upper Macungie	Lehigh	19,400	1,248	0.73	1.62	NA	77.39	**1**
Route 222 (Eastbound) near Route 222 Bus / Hamilton Boulevard	Lower Macungie	Lehigh	16,379	1,537	0.65	1.42	NA	77.39	**2**
Route 309 (Southbound) near I-78 / Exit 60b & 20	Upper Saucon	Lehigh	26,344	3,712	0.71	1.39	NA	72.61	**3**
Route 29 (Northbound) near I-78 / Route 309	Salisbury	Lehigh	14,767	1,107	2.42	1.79	NA	71.43	**4**
Cedar Crest Boulevard (Northbound) near I-78 / 78/ Route 309	Salisbury	Lehigh	18,090	1,949	1.74	2.09	NA	71.43	**5**
Martin Luther King Junior Drive (Westbound) near Route 145 / Lehigh Street	Allentown	Lehigh	15,154	455	1.05	NA	NA	71.43	**6**
S. Jefferson Street (Northbound) near S. 15th Street / Martin Luther King Junior Drive	Allentown	Lehigh	12,728	586	0.99	NA	NA	70.67	**7**
Route 222 (Eastbound) near Route 222 Bus	Lower Macungie	Lehigh	16,178	1,497	0.66	1.53	NA	70.24	**8**
Tilghman Street (Eastbound) near Route 100	Upper Macungie	Lehigh	13,874	1,527	0.98	NA	NA	68	**9**
Route 222 (Southbound) near I-78	South Whitehall	Lehigh	12,883	1,117	0.76	1.84	NA	67.9	**10**

Priority Corridor and Bottleneck Locations in Northampton County



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

Top 10 Priority Corridors in Northampton County

Roadway	Limits From	To	Length in Miles	AADT	ADTT	V/C	TTTI	TTTR	Objective Score	Rank
I-78	Berks-Lehigh County Line	Delaware River Crossing	32.40	29,594	5,709	0.69	1.18	1.18	90.32	**1**
Route 22	I-78	Delaware River Crossing	22.66	31,466	3,590	0.58	1.52	NA	89.29	**2**
Route 33	I-78	Northampton-Monroe County Line	16.41	25,825	3,131	0.52	1.22	NA	89.29	**3**
Route 378	Route 309	Broadway Avenue	5.64	14,475	947	0.51	1.83	NA	89.29	**4**
Airport Road	Union Boulevard	West Main Boulevard	8.07	10,376	723	0.60	2.08	NA	87.50	**5**
Schonersville Road	Elizabeth Avenue	Airport Road	2.81	12,213	592	0.77	NA	NA	85.71	**6**
Route 512	Route 33	Market Street	5.51	11,592	676	0.91	NA	NA	84	**7**
Wyandotte Street	Broadway Avenue	Northampton County Rail Line	0.38	22,143	541	0.86	2.98	NA	78.57	**8**
Stefko Boulevard	Daly Avenue	Easton Avenue	2.47	13,802	774	0.93	NA	NA	76	**9**
Freemansburg Avenue	Cambria Street	Twenty fifth Street	6.14	13,640	799	0.86	NA	NA	76	**10**

Top 10 Priority Bottlenecks in Northampton County

Bottleneck	Municipality	County	AADT	ADTT	V/C	TTTI	TTTR	Objective Score	Rank
Route 412 (Westbound) near W. 4th Street	Bethlehem	Northampton	13,314	450	1.09	NA	NA	68	**1**
Route 412 (Eastbound) near W. 3rd Street / River Street	Bethlehem	Northampton	13,314	450	1.09	NA	NA	68	**2**
Route 378 (Northbound) near Hill-to-hill Bridge	Bethlehem	Northampton	17,267	852	0.62	2.37	NA	67.86	**3**
Route 412 (Westbound) near W. 3rd Street / River Street	Bethlehem	Northampton	17,832	813	0.61	2.34	NA	60.71	**4**
Stefko Boulevard (Northbound) near Pembroke Road	Bethlehem	Northampton	14,633	951	1.01	NA	NA	60	**5**
Pembroke Road (Eastbound) near Washington Street / Cambria Street	Freemansburg	Northampton	13,136	648	0.94	NA	NA	60	**6**
Pembroke Road (Westbound) near Stefko Boulevard	Bethlehem	Northampton	14,113	533	0.88	NA	NA	60	**7**
S. 25th Street (Northbound) near Route 22	Palmer	Northampton	14,039	551	0.65	2.61	NA	56.95	**8**
Stefko Blvd (Northbound) near Minsi Trail Bridge	Bethlehem	Northampton	13729	1115	1.00	NA	NA	54.67	**9**
Stefko Blvd (Southbound) near Minsi Trail Bridge	Bethlehem	Northampton	12368	996	0.98	NA	NA	54.67	**10**

LEHIGH VALLEY
CONGESTION
MANAGEMENT
PLAN

Public Participation

Public Participation

On March 2, 2026, LVTS hosted WorkshopLV: Transportation as part of the Congestion Management Plan (CMP) update process to identify congested locations across the Lehigh Valley. The workshop was advertised in the Lehigh Valley Press on February 26, 2026, and specific outreach was made to employers, private and non-profit providers of public transportation, transportation management organizations, and organizations that provide job access reverse commute projects or job-related services to low-income individuals.

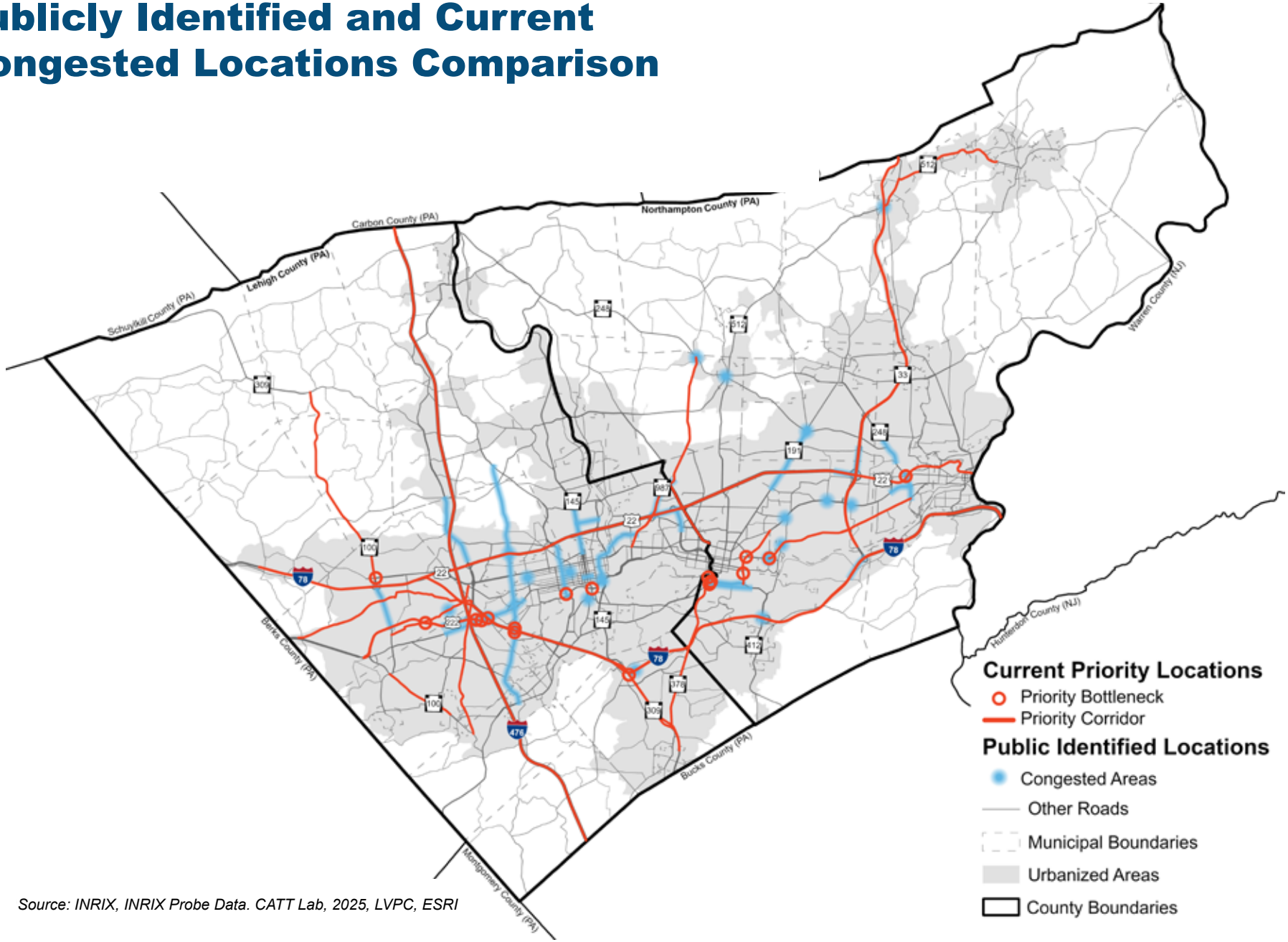
During the meeting, public participants, including employers, members of the public, local municipalities, and other stakeholders, were provided an overview of the Congestion Management Plan and invited to identify locations experiencing recurring congestion along the designated CMP network. The workshop resulted in the identification of multiple congested locations throughout the Valley. These locations were identified through a discussion at the event where participants expressed their concerns and experiences about congestion at these locations. This contextualizes qualitatively the congestion encountered throughout the Lehigh Valley.

Throughout the discussion, participants repeatedly emphasized that "schools, universities, healthcare locations, and shopping centers are recurring congestion generators, creating traffic surges at varying times of day, both during traditional peak hours and outside of them." Others noted that this is also true for truck movements, especially along western Lehigh County, which occur at irregular and often unpredictable times throughout the day. This is particularly noteworthy because the CMP analysis focused on AM and PM peak periods; the public's input suggests that congestion associated with these land uses may extend beyond those windows, indicating that time-of-day dynamics could be broader than captured in the peak-period analysis alone.

Participants noted common causes of congestion, including:

- **Badly timed lights**
- **No designated turning lanes**
- **Outdated intersections**
- **Complex intersections**
- **Lanes merging and weaving ramps**
- **Backup traffic around shopping centers and schools**
- **Non-coordinated signaling across municipalities**
- **Heavy industrial and truck traffic**
- **Driver behavior**
- **Stop signs**

Publicly Identified and Current Congested Locations Comparison



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

One participant recognized that "we can never eliminate congestion entirely." Others emphasized that "even if travel speeds are lower, maintaining steady movement without frequent stops would represent a significant improvement".

"Congestion Can't Be Eliminated, but Steady Traffic Flow Is a Meaningful Improvement"

- Participant

This perspective closely aligns with the intent of the PM3 performance measures, which focus on improving travel time reliability and reducing excessive delay rather than eliminating congestion altogether.

A third, and perhaps most significant comment we heard was that "people are recognizing the increasing pace of economic development across the region." Participants widely agreed that "planning for the future is of utmost importance," emphasizing that growth must be managed proactively.

This sentiment underscores the need for coordinated, forward-looking planning efforts such as the Congestion Management Plan (CMP) and *FutureLV: The Regional Plan* to ensure that transportation infrastructure keeps pace with development and continues to support the region's long-term mobility and economic objectives.

Together, these insights show that congestion is a complex issue, and its timely and effective management is important. By and large, the comments from the participants aligned with the data analysis.

Qualitative feedback complemented quantitative analysis, validating identified locations and highlighting areas data alone might miss. Locations identified through both methods include:

1. Route 33
2. Route 512
3. 25th Street in Palmer Township
4. Route 22
5. Route 222
6. Cedar Crest Boulevard
7. Cetronia Road
8. Krocks Road
9. Route I-78
10. Freemansburg Avenue
11. Airport Road
12. Route 100

Most of the other locations identified through the public participation process were on or in close proximity to locations identified in the plan.

Congestion Mitigation Strategies

Traffic Congestion Mitigation Strategies

FHWA encourages identification and evaluation of strategies to address congestion in a systematic and effective manner. Recommended strategies typically fall into various categories, which may be considered individually or in combination depending on the congested location under study.

1. Demand Management Strategies focus on influencing travel behavior to reduce congestion and emissions. Key approaches include promoting compact, transit-oriented and infill development, managing parking through pricing and restrictions, encouraging alternatives to single-occupancy vehicles via employer programs and flexible schedules, and supporting active transportation by completing bicycle lane/trail networks and sidewalks, and developing public awareness initiatives.

2. Traffic Operational Improvements involve optimizing the performance of the existing roadway network. Strategies may include signal timing and coordination, intersection and interchange improvements, incident management, and other operational techniques designed to enhance traffic flow and reduce delays.

3. Public Transportation Improvements aim to provide viable alternatives to driving, including expanded transit service, improved frequency and reliability, and enhanced access to transit facilities. These strategies encourage a shift from single-occupancy vehicles to higher-occupancy buses, supporting air quality goals. They may also include fare and incentive programs, demand-responsive and flexible transit options, and transit-oriented development (TOD) strategies to integrate land use with transit access.

4. Intelligent Transportation Systems (ITS) Technologies leverage technology to improve real-time traffic management, traveler information, and overall system efficiency. ITS strategies should be consistent with the regional ITS architecture and may include traffic monitoring, adaptive signal control, integrated traveler information systems, and readiness for connected and autonomous vehicles (CAVs). Regional coordination, linking ITS across jurisdictions, can further enhance corridorwide efficiency and support seamless multimodal travel.

5. Additional System Capacity may only be considered when other strategies cannot adequately address congestion. As the Lehigh Valley is in a Transportation Management Area (TMA) designated as nonattainment for ozone and maintenance for PM 2.5, federal funding for projects that significantly increase SOV capacity is restricted, with exceptions limited to safety improvements or the elimination of bottlenecks. When adding capacity, a Complete Streets approach should be applied to accommodate multimodal users, including pedestrians, cyclists, and transit riders. Environmental mitigation should also be integrated, such as green infrastructure, low-impact construction methods, and other strategies to minimize ecological impacts.

6. When additional capacity is warranted, the **CMP** requires a thorough analysis demonstrating that travel demand reduction and operational strategies cannot fully meet corridor needs. It also requires that all reasonable strategies for managing the new SOV capacity are incorporated, with public engagement and clear communication of results to decision-makers and stakeholders to ensure transparency and informed decision-making.

7. Freight and Commercial Vehicle Strategies aim to reduce congestion and improve efficiency by incentivizing delivery trucks to operate during non-peak hours, encouraging consolidation of shipments, and reducing unnecessary truck trips. These measures help minimize conflicts between commercial vehicles and general traffic while supporting smoother, safer travel for all road users.

For all strategies, the CMP includes identification of implementation schedules, responsible agencies, and potential funding sources. Additionally, a process for periodic assessment of implemented strategies is essential, with results communicated to decisionmakers and the public to guide future planning and ensure that strategies remain effective in meeting established performance and air quality objectives.

LEHIGH VALLEY
CONGESTION
MANAGEMENT
PLAN

Priority Corridors

In this CMP, priority corridors and bottlenecks are identified through performance-based data analysis and a weighting methodology developed by LVTS to establish regional priorities. These corridors and bottlenecks are ordered based on their composite CMP objective scores.

Specific strategies for each location are then developed through a comprehensive review process that includes manual screening of current conditions using tools such as Google Maps Streetview, along with data-driven evaluation of PM3 system performance, asset management conditions and safety-related indicators.

This analysis is further informed by a review of project priorities identified in the TIP and *FutureLV: The Regional Plan* to ensure consistency with regional goals, investment priorities, and long-range planning objectives.

Cetronia Road (Old Route 100 to Broadway)

Cetronia Road serves a mix of residential, commuter, institutional and freight traffic. The western segment passes established neighborhoods, while central and eastern sections provide access to major employment and activity centers.

Key traffic generators, including St. Luke's University Health Network orthopedic and dental facilities, logistics hubs like U-Line and Amazon, and commercial operations such as the Coca-Cola plant, cause congestion unpredictably throughout the day, highlighting the need for strategic traffic management and infrastructure improvements.

Participants in the CMP workshop on March 2 noted the intersection with Krocks Road, which is controlled by an all-way stop as particularly congested.

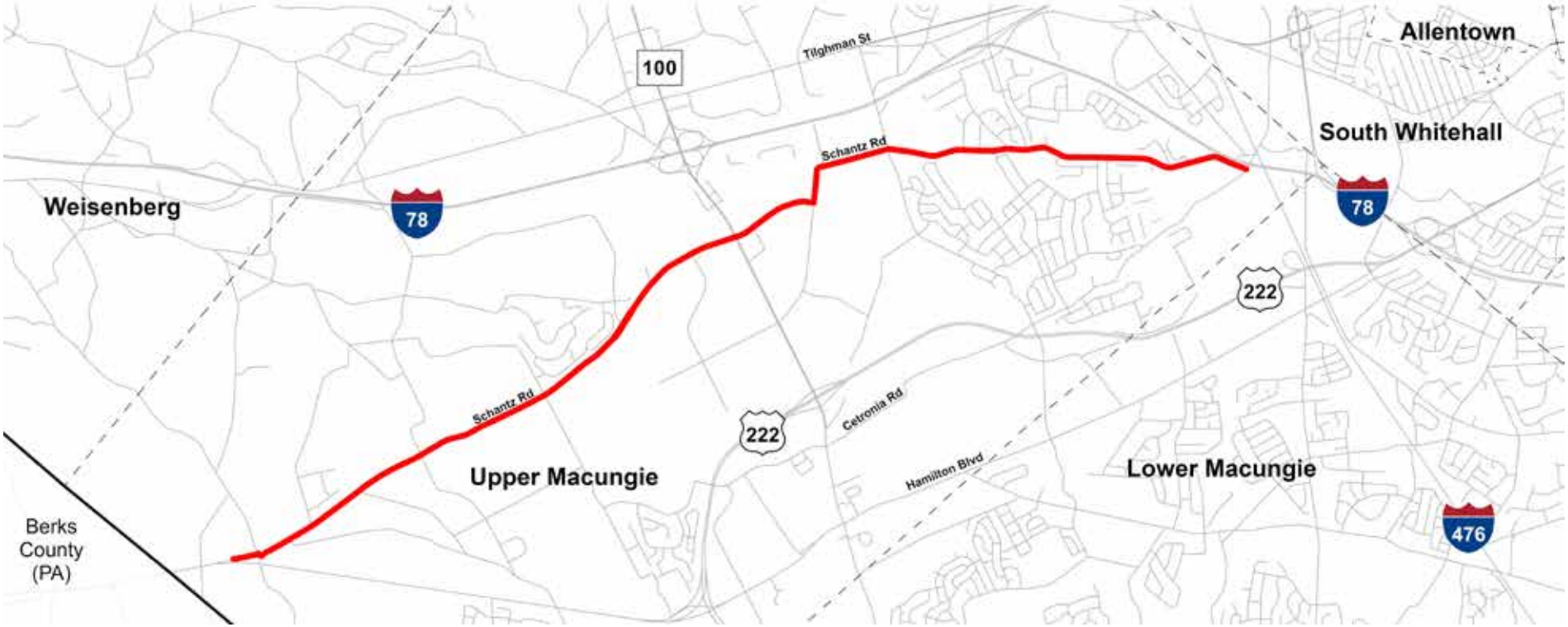
Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	593
Annual Average Daily Traffic	8,832
Land use classification	Residential, Agricultural, Commercial
Length	3.81 miles
Lanes	2
Municipalities	Upper Macungie and South Whitehall Townships
Level of Service (V/C)	1.47
PHED	N/A
LOTTR	N/A
TTTI	N/A
TTTR	N/A
High Crash Severity	Yes
Priority Rank	1

Planned Improvements

- *FutureLV: The Regional Plan*
  - Jaindl Highway (Route 222), Grim Road and Cetronia Road Intersection Improvements - Replace turn lanes with “jughandle” ramps to improve safety and capacity, project also involves multimodal infrastructure, including sidewalks.

Strategies

- Signal improvements
- Integrated Corridor Management (ICM) - Corridor wide management of freeways, transit, arterials, and parking using ITS and innovative strategies
- Walking and bicycle improvements
- Incident management and emergency response
- Accommodate residential, employment and healthcare-related travel, while reducing crash risk



Schantz Road (Route 222 to Cetronia Road)

Schantz Road is a major east-west corridor in Upper Macungie Township, linking Route 100 with Route 222 and serving agricultural, industrial, residential, and freight land uses. The western segment near the Route 863/Route 222 roundabout is primarily agricultural, transitioning to industrial and warehousing near Ruppsville Road with substantial truck activity. Eastward toward I-78, land use becomes increasingly residential, requiring the corridor to accommodate both commuter and freight traffic.

Schantz Road provides access to one of the Lehigh Valley's most economically significant industrial districts, including major manufacturing, food and beverage, medical supply, and distribution facilities.

Key employers and freight generators include Coca-Cola, Ocean Spray, Niagara Bottling, B. Braun Medical, Bimbo Bakeries, Nestlé, Sharp Corporation and Kane Logistics. High truck volumes and time-sensitive freight movements make Schantz Road a critical connector for the region's economic base.

Planned Improvements

- *FutureLV: The Regional Plan*
  - Replacement/Rehabilitation of the Schantz Road (Route 2015) bridge over a tributary of Cedar Creek.

- Nestle Way/Grim Road Corridor and Schantz Road (Route 3012) Intersection Improvements - Widen Nestle Way, including a culvert to accommodate turning lanes between Adams Road and Oldt Road, intersection improvements at Schantz Road and Grim Road/Industrial Boulevard to improve freight mobility in the area and improve safety. Project also includes pedestrian and multimodal facilities such as sidewalks.
- Schantz Road resurfacing betterment from Route 222 to Boulder Drive, improving pavement conditions along a freight-heavy section.

- Transportation Improvement Program (TIP)
  - Schantz Road over a Tributary to the Cedar Creek: Replacement/ Rehabilitation of Schantz Road (Route 2015) bridge over a tributary of Cedar Creek (MPMS 92049)*
- Past CMP actions addressing congestion and safety include new traffic signals and geometric upgrades at Schantz Road and Farmington Road (MPMS 78556); planned roundabouts at key intersections (MPMS 79554; construction programmed in the 2015 and 2017 TIPs)

Strategies

- Resurface freight-heavy segments and rehabilitate or replace bridges
- Geometric design and signal enhancements
- Prioritize heavy-vehicle accommodation while maintaining corridor connectivity
- Incorporate pedestrian facilities where feasible
- Implement adaptive signal timing for variable truck flows
- Evaluate truck parking/staging, access management
- Intersection upgrades including roundabouts
- Loading and deliveries improvement

** Multimodal Project Management System (MPMS) serves as the identification number for TIP projects.*

Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	466
Annual Average Daily Traffic	4,015
Land use classification	Industrial, Residential, Agriculture
Length	7.01 miles
Lanes	2
Municipalities	Upper Macungie Township
Level of Service (V/C)	1.30
PHED	N/A
LOTTR	N/A
TTTI	N/A
TTTR	N/A
High Crash Severity	Yes
Priority Rank	2

Schantz Road (Cetronia Road to Hamilton Boulevard)

Beginning at Cetronia Road, this segment of Schantz Road passes a mix of commercial, industrial, and institutional uses. Key generators include Rye Barker Fire & Safety, Hannabery HVAC, Green Acres Outdoor Living, U-Haul and Budget Store & Lock Self Storage, manufacturing supply operations, multiple auto dealerships and a stone quarry, along with a church and smaller businesses that contribute to steady local traffic. Approaching Hamilton Boulevard, the corridor becomes a major access point for expanding regional industrial and commercial activity. Portions lie within a designated floodplain, highlighting vulnerability to storm impacts and the need for resilient infrastructure. An off-system bridge requires structural monitoring and targeted investment to maintain safe movement for passenger and truck traffic. Sharp curves leading to a narrow one-lane bridge create bottlenecks, elevate safety risks, and combined with limited shoulders, constrain emergency access and heavy-vehicle maneuvering.

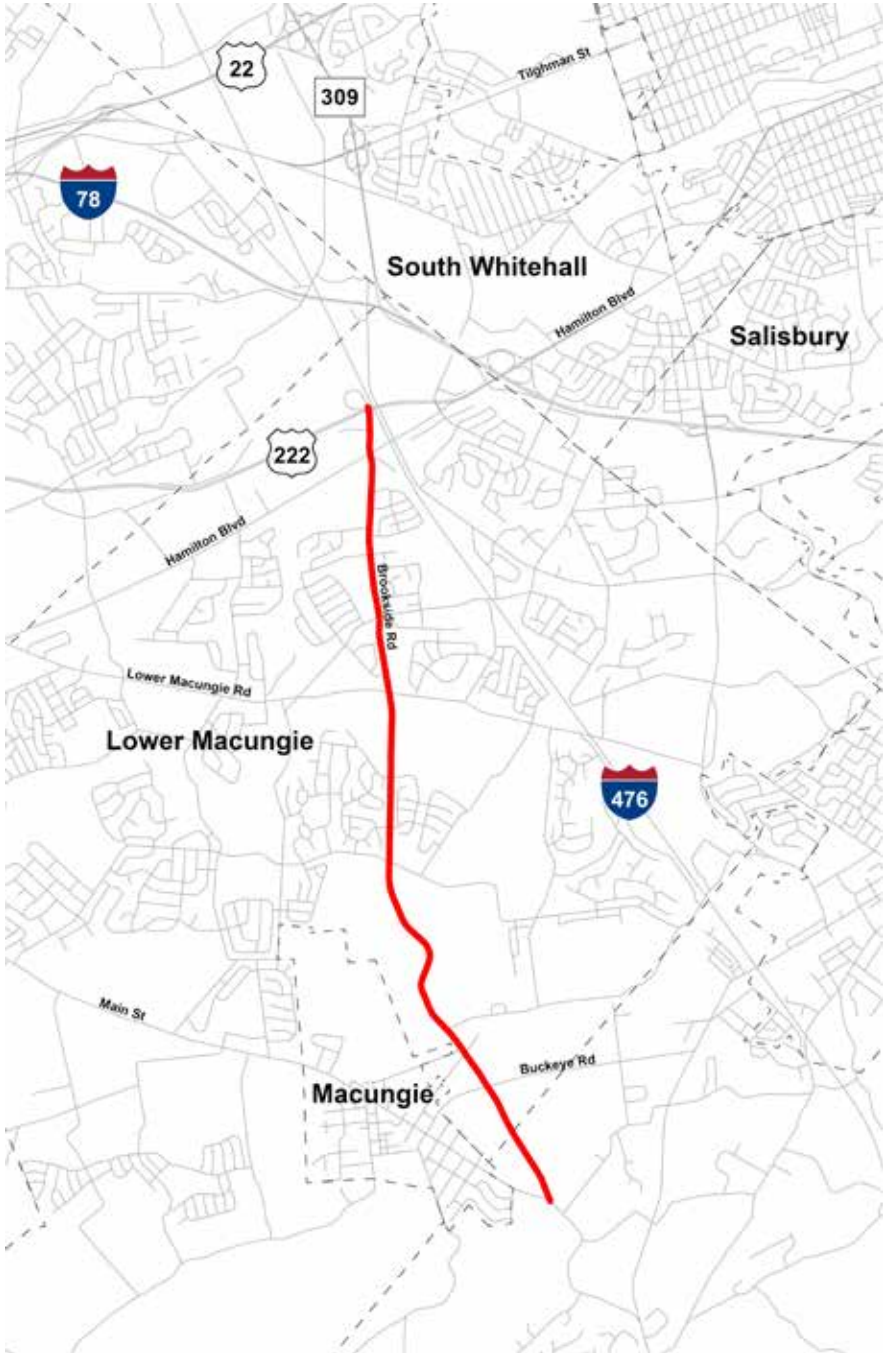
Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	828
Annual Average Daily Traffic	9,754
Land use classification	Commercial, Industrial
Length	1.20 miles
Lanes	2
Municipalities	Upper Macungie and Lower Macungie Townships
Level of Service (V/C)	1.04
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	NA
High Crash Severity	Yes
Priority Rank	3

Planned Improvements

- Transportation Improvement Program (TIP)
  - Schantz Road/Tributary of Cedar Creek: This project involves a replacement/rehabilitation of the Schantz Road bridge over a tributary of Cedar Creek in Upper Macungie Township, Lehigh County. (Project Manager Number: 6108714550)

Strategies

- Reconfigure geometric design
- Add emergency pull-offs to improve truck maneuverability
- Implement adaptive signal control and coordinated intersection upgrades
- Support freight demand
- Upgrade drainage and monitor off-system bridges
- Apply structural improvements to address floodplain risks
- Prioritize improvements that maintain reliable truck access.



Brookside Road/E. Macungie Road (Route 222 to Kings Highway North)

Brookside Road is a major north-south corridor in Lehigh County, serving Lower Macungie Township and connecting Route 222 with Route 100. It carries significant commuter traffic and provides access to residential neighborhoods, commercial centers, and institutional uses.

The corridor serves schools including Eyer Middle School, Shoemaker Elementary and Macungie Elementary, creating peak travel periods tied to student pick-up and drop-off. Portions intersect pipeline infrastructure operated by Buckeye Partners, and the road functions as an evacuation route for pipeline-related emergencies, emphasizing its role in regional safety and emergency management. Previously identified as a focus corridor in *MoveLV: The Congestion Management Process*, Brookside Road faces operational and safety challenges. Key intersections at Spruce Road, Liberty Lane and Oplinger Road lack traffic control despite increasing turning movements and school traffic, highlighting the need for CMP attention and targeted improvements.

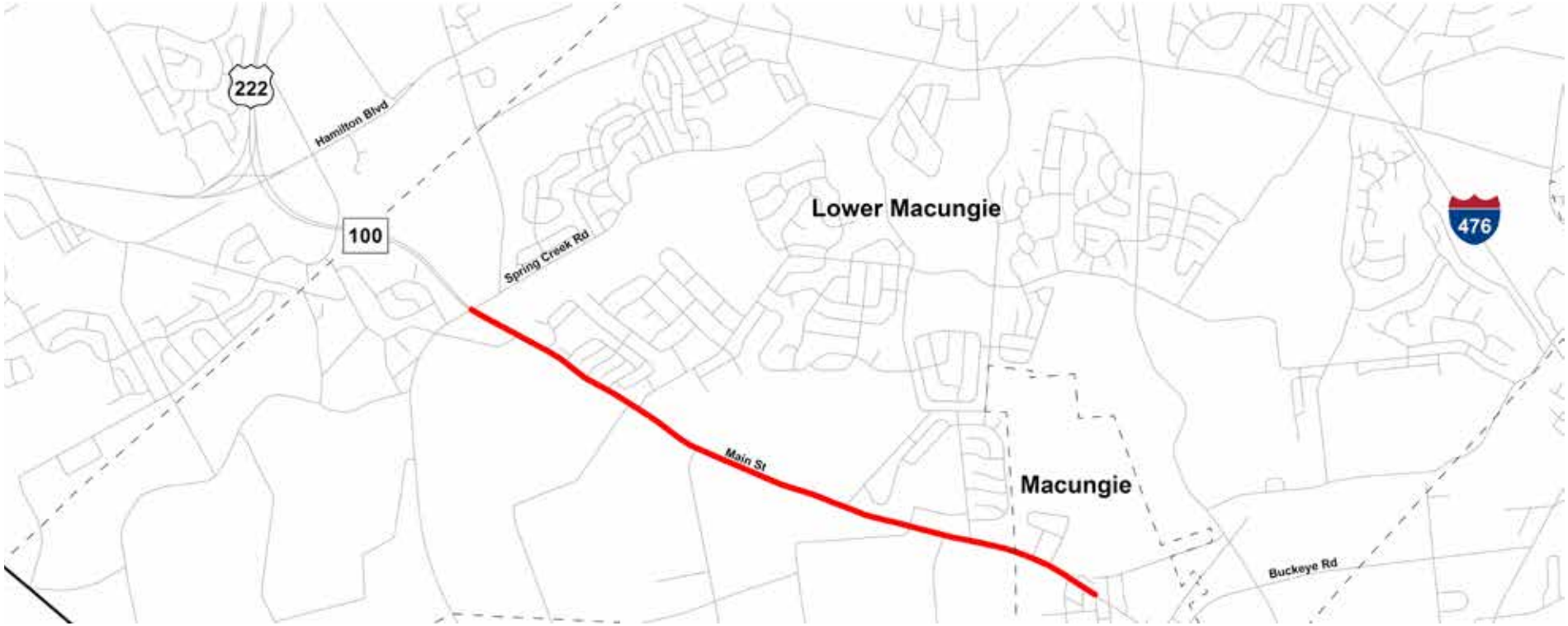
Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	293
Annual Average Daily Traffic	8,463
Land use classification	Residential, Agriculture
Length	4.61 miles
Lanes	2
Municipalities	Lower Macungie and Upper Milford Townships
Level of Service (V/C)	0.89
PHED	N/A
LOTTR	N/A
TTTI	N/A
TTTR	N/A
High Crash Severity	Yes
Priority Rank	4

Planned Improvements

- Not available currently.

Strategies

- Signal upgrades at key intersections
- Expand sidewalk connectivity near high pedestrian areas
- Strengthening traffic control and coordinating evacuation routes
- Incident and emergency management
- Integrated corridor management
- Balance residential, school, and through-traffic needs to reduce crashes and improve corridor reliability



Main Street (Church Street to Spring Creek Road)

Along this segment of Route 100, logistics and industrial facilities such as Mack Trucks, Allentown Logistics, Pratt Industries, UPS Shipping and St. Lukes Care at Macungie sit directly opposite dense residential neighborhoods, creating a corridor where heavy truck and commuter traffic routinely compete for limited roadway space.

The narrow roadway with single lanes in each direction and no usable shoulders leaves little room for emergency stops and contributes to capacity constraints and elevated volume-to-capacity ratios. Several intersections along Main Street require lighting and signal upgrades for recurring congestion and safety risks.

Portions of the corridor lie within a floodplain and include off-system bridges, underscoring vulnerability to storm events and the need for infrastructure resilience.

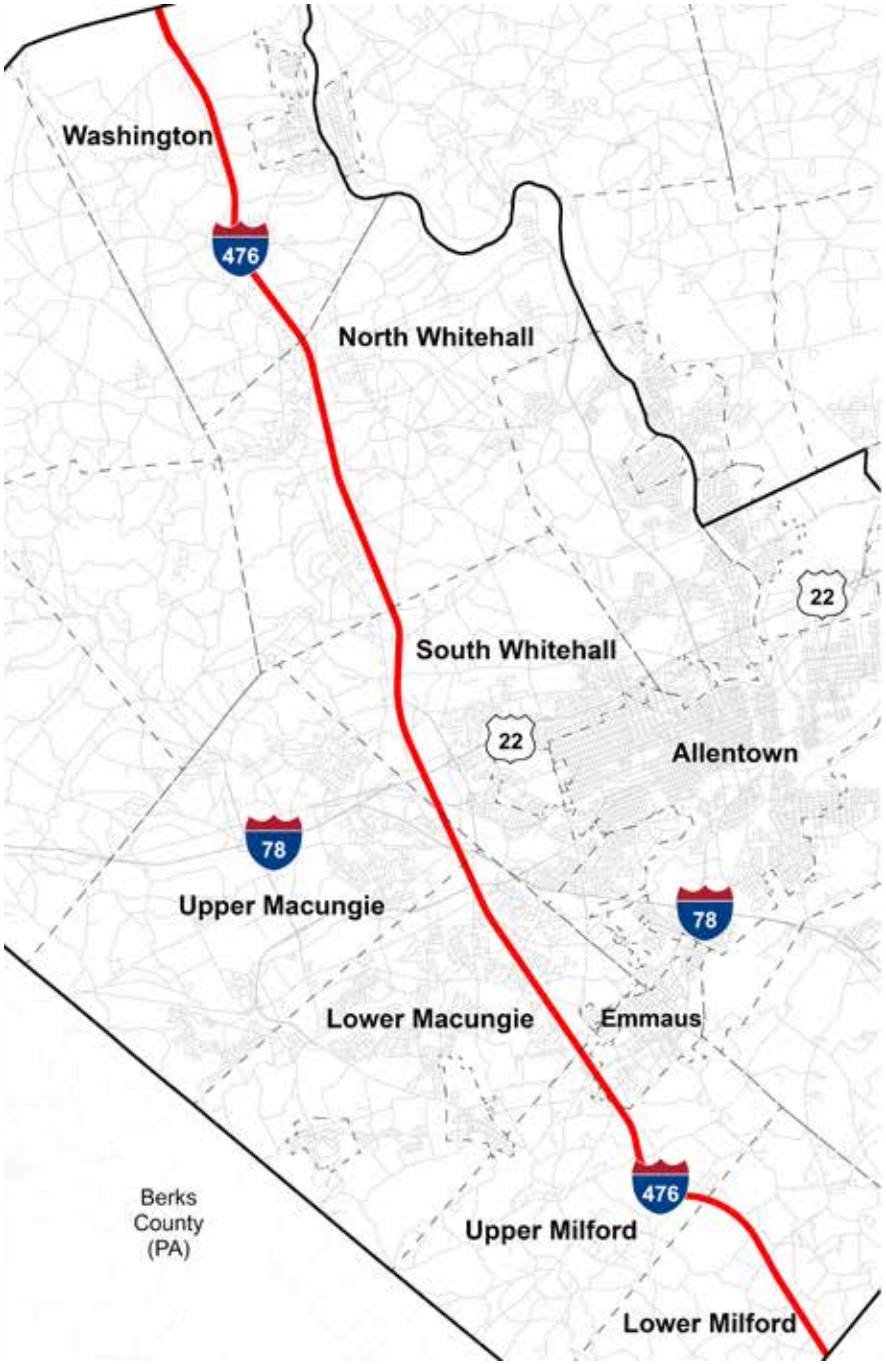
Planned Improvements

- *FutureLV: The Regional Plan*
- Schantz Road resurfacing betterment from Route 222 to Boulder Drive, supporting pavement condition improvement along a freight-heavy section.
- Resurfacing between Alburtis Road and Weilers Road.
- Targeted upgrades from Chestnut Street to Creamery Road.
- Major intersection improvements at Route 29 and Kings Highway.

Strategies

- Resurface and perform betterment along freight-heavy sections
- Implement targeted upgrades and intersection improvements
- Prioritize improvements that accommodate heavy vehicles
- Maintain connectivity between key industrial and regional routes
- Create infrastructure resilience for storm or flood related traffic response strategies

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	888
Annual Average Daily Traffic	9,425
Land use classification	Residential, Rural, Residential, Agriculture
Length	2.85 miles
Lanes	2
Municipalities	Macungie Borough and Lower Macungie Townships
Level of Service (V/C)	0.89
PHED	1828
LOTTR	1.049
TTTI	1.131
TTTR	1.205
High Crash Severity	Yes
Priority Rank	5



I-476 in Lehigh County

The Pennsylvania Turnpike (I-476) serves as a major regional and interstate freight corridor, providing critical north–south connectivity through the Lehigh Valley and linking local roadways to the Turnpike and other key arterials. It carries high volumes of passenger and heavy truck traffic, particularly for freight accessing industrial areas and regional distribution centers.

While the roadway is designed for high-capacity travel, congestion at interchanges, speed differentials between passenger vehicles and trucks, and limited merging areas can create operational challenges and safety concerns. These conditions may contribute to travel time variability and elevated crash risk, particularly during peak periods and adverse weather, affecting both mobility and freight efficiency in the region.

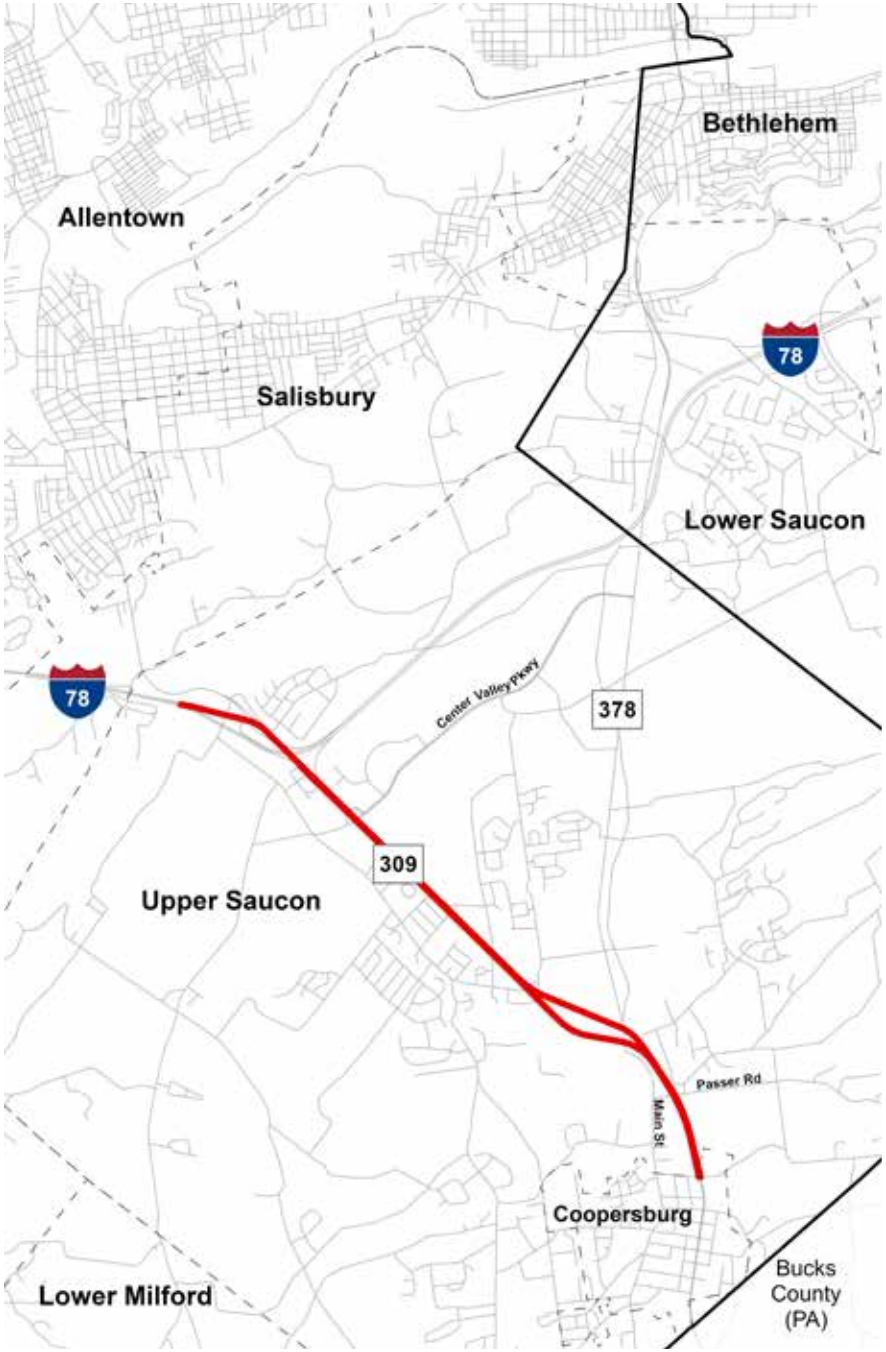
Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	427
Annual Average Daily Traffic	38,841
Land use classification	Many use types
Length	27.35
Lanes	4
Municipalities	Through Lehigh County
Level of Service (V/C)	1.01
PHED	1827.992
LOTTR	1.49487
TTTI	1.238096
TTTR	1.205507
High Crash Severity	Yes
Priority Rank	6

Planned Improvements

- *FutureLV: The Regional Plan*
  - Planned to widen section from Quakertown 663 interchange to the Lehigh tunnel from four lanes to six.

Strategies

- Reconfigure geometric design
- Add emergency pull-offs to improve truck maneuverability
- Support freight demand
- Upgrade drainage and monitor off-system bridges
- Apply structural improvements to address floodplain risks
- Prioritize improvements that maintain reliable truck access



Route 309 (I-78 to Fairmount Street)

Route 309 serves as a critical north - south arterial linking I-78 in the Lehigh Valley to Bucks County, Montgomery County, and Philadelphia, accommodating a mix of regional through traffic and substantial local access demand. Existing conditions along the corridor reflect this dual role, with high daily traffic volumes, frequent congestion during peak commuting periods, and recurring delays at major intersections and commercial access points. The roadway traverses a predominantly suburban context characterized by intensive roadside development, numerous signalized intersections and closely spaced driveways, all of which contribute to reduced travel time reliability and operational inefficiencies.

Heavy truck activity associated with regional freight movement further compounds congestion, particularly where through traffic interacts with local turning movements.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,814
Annual Average Daily Traffic	17,268
Land use classification	Residential, Agriculture
Length	4 miles
Lanes	4
Municipalities	Upper Saucon Township
Level of Service (V/C)	0.74
PHED	9430.585923
LOTTR	1.19534
TTTI	1.833575
TTTR	NA
High Crash Severity	Yes
Priority Rank	8

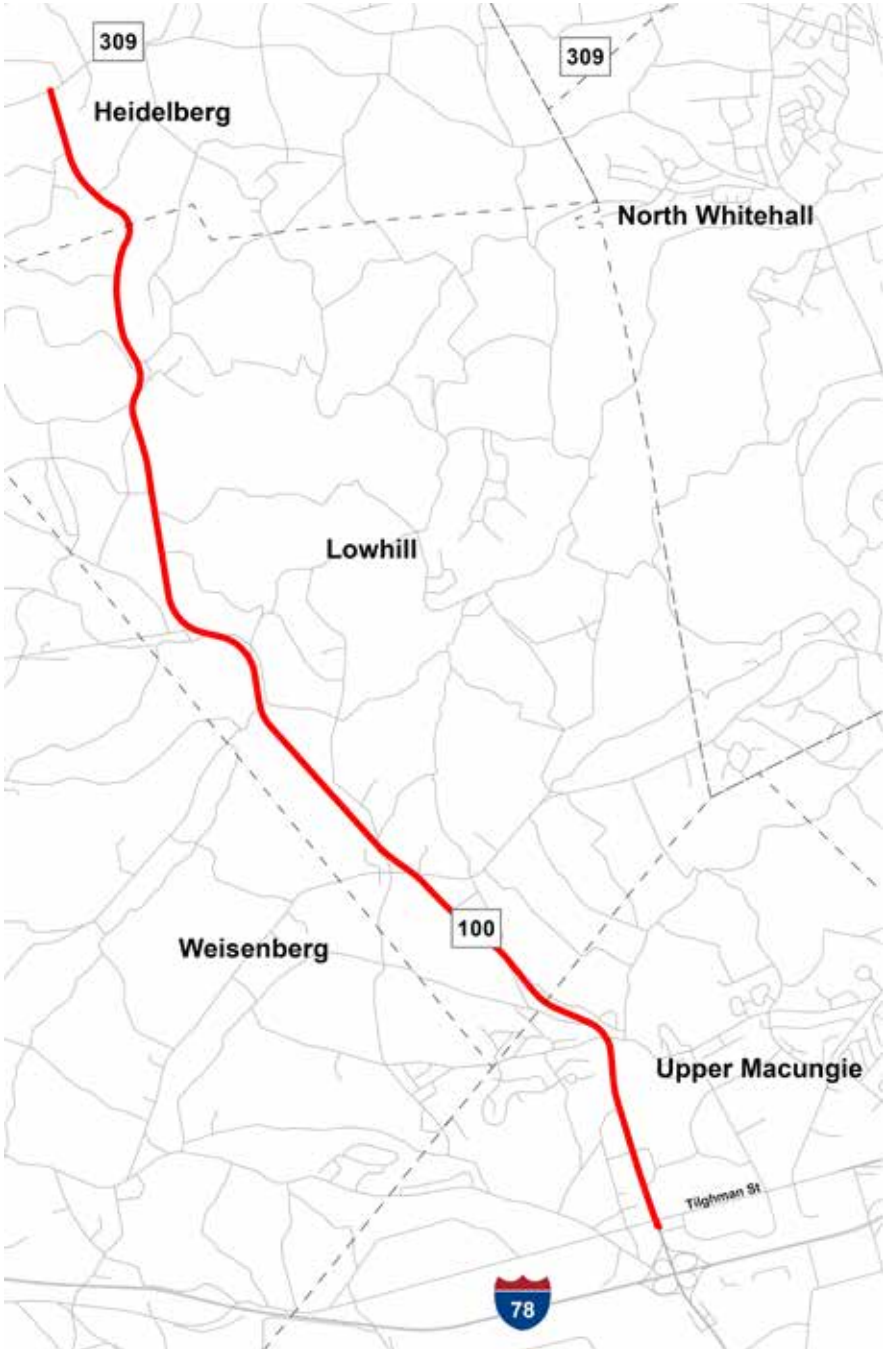
While the corridor provides important connectivity for commuters, freight, and goods movement, its current operating conditions indicate constrained capacity, limited multimodal accommodations in some segments, and heightened sensitivity to incidents and seasonal demand fluctuations.

Planned Improvements

- *FutureLV: The Regional Plan*
  - Route 309 - Rehabilitation/replacement of box culvert over tributary to Kistler Creek.
  - Route 309 Resurface Betterment Project - Resurface from Lehigh/Bucks Counties Line in Coopersburg Borough to Center Valley Parkway (Route 2044) in Upper Saucon Township.
  - Route 309 - Signal Head Reflective Backplate - The low cost safety improvement is adding signal head backplates on the northbound and southbound Route 309 signals.
  - Route 309 Center Valley Interchange - Interchange improvements.
  - Interstate 78 from Lehigh Street (Route 2005) to Route 309 South Interchange - Highway preservation/restoration, including pavement overlay and patching of existing mainline and shoulders, rehabilitation/replacement of drainage system, including access ramps.
  - Interstate 78 Corridor Safety Improvements from Emmaus Avenue (Route 2002) to east of Route 309 Interchange for Center Valley - Improvements include conversion of shoulders into a dual use lane on I-78 eastbound from the Emmaus Avenue (Route 2002) Interchange to the Route 309 southbound split. The median barrier will be updated to add glare screens, and the drainage system will be rehabilitated or replaced. Two ramps at the Route 309 interchange will also be reconstructed.
  - Route 309 Northbound Realignment - Relocated northbound traffic to southbound traffic side between Route 378 and Lanark Road (Route 2039) to improve traffic congestion, safety and the quality of life of residents along the current northbound side of Route 309.
  - Route 309 Pedestrian Bridge - Construct an alternative mode of transportation multimodal bridge over Route 309 to connect residents to recreational amenities and trails on both sides of highway.
- Transportation Improvement Program (TIP)
  - Route 309 and Center Valley Interchange (MPMS: 102160).

Strategies

- Rehabilitate and replace aging roadways, bridges and drainage assets
- Integrated corridor management
- Implement low-cost and targeted safety improvements
- Upgrade key interchanges to reduce congestion, improve ramp functionality
- Use operational and geometric improvements to better manage demand
- Expand pedestrian and multimodal connections to improve safe access across major roadway barriers.
- Apply roadway realignments and design solutions



Route 100 (Tilghman Street to Route 309)

Route 100 functions as a major north - south connector between Tilghman Street and Route 309, carrying medium levels of freight activity along its rural segments.

Despite its importance for goods movement, the corridor lacks sufficient shoulder width, creating unsafe conditions for emergency pullovers and limiting operational flexibility. Turning lane design deficiencies and outdated pavement markings further contribute to movement inefficiencies, particularly where rural cross-sections narrow.

The corridor also experiences a high Travel Time Index, indicating congestion and delay that could be mitigated through signal retiming strategies aimed at improving flow for both freight and general traffic.

South of Tilghman Street, the road provides essential access to Upper Macungie Township's extensive distribution and logistics clusters, an area that generates sustained commercial and freight volume. Its direct connectivity between I-78 and Route 309 positions

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,156
Annual Average Daily Traffic	12270
Land use classification	Rural Residential, Agriculture, Industrial
Length	8.17 miles
Lanes	2 and 4
Municipalities	Upper Macungie, Heidelberg and Lowhill Townships
Level of Service (V/C)	0.71
PHED	7096.487
LOTTR	1.409
TTTI	2.116
TTTR	NA
High Crash Severity	Yes
Priority Rank	9

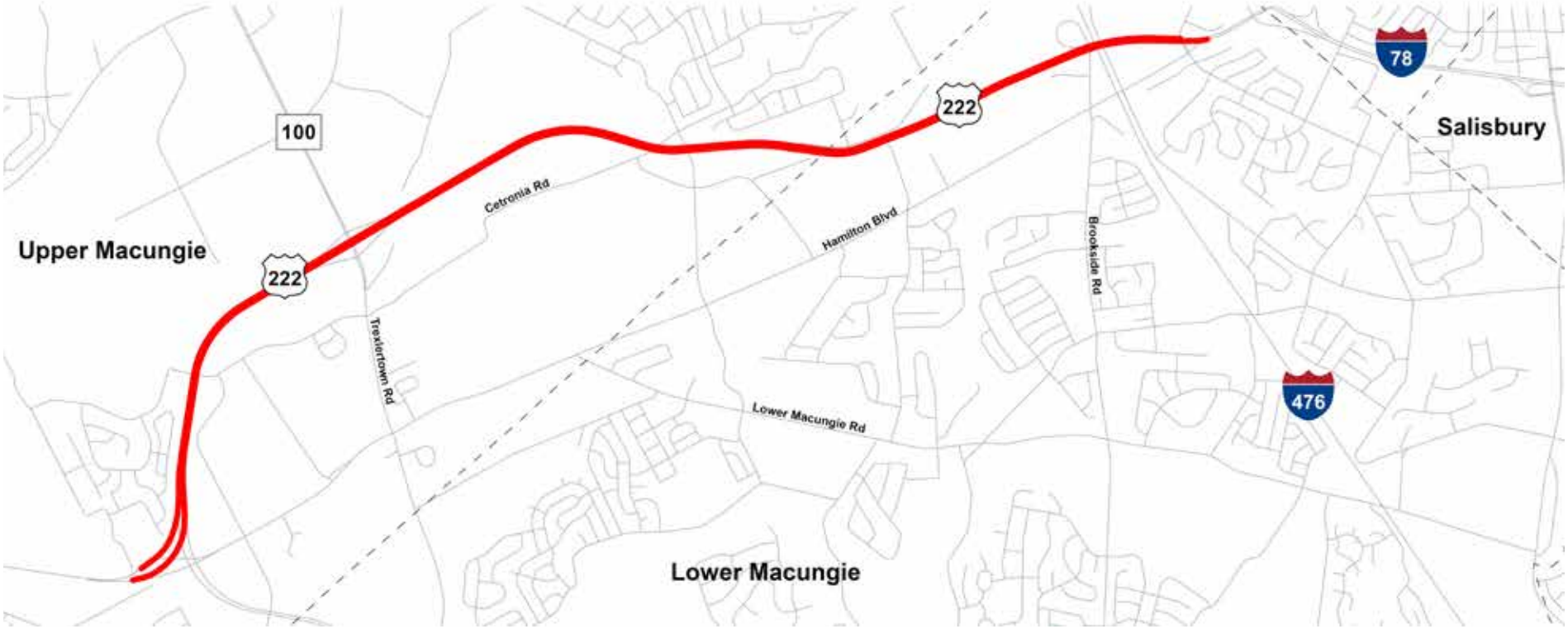
Route 100 as a preferred bypass for through-truck traffic, reinforcing its regional function as both a freight corridor and a pressure-relief route for parallel highways.

Planned Improvements

- *FutureLV: The Regional Plan*
  - Route 100 - Rehabilitation/replacement of bridge over Hassen Creek.
  - Route 100 Betterment Project - Improvements from Creamery Road to Routes 100/222 split.
  - Route 100 Betterment Project - Improvements from Chestnut Street to Creamery Road.
  - Route 100 Betterment Project - Improvements from Tilghman Street to Kernsville Road.
  - Route 100 Betterment Project - Improvements from Kernsville Road to Route 309.
  - Route 100 Turning Lane at Hollenbach Road - Construct turning lane from northbound Route 100 onto Hollenbach Road.
  - Route 100 Turning Lane at Lyon Valley Road - Construct turning lane from northbound Route 100 onto Lyon Valley Road.

Strategies

- Prioritize rehabilitation and replacement of aging bridges for long-term reliability
- Integrated corridor management
- Implement Route 100 betterment projects and intersection upgrades to improve throughput and reduce congestion
- Incorporate sidewalks and pedestrian infrastructure at key intersections
- Turning and Geometric Improvements
- Freight Operations Improvements
- Maintain and expand Freeway Service Patrol coverage to reduce non-recurring congestion



Route 222 (Hamilton Boulevard to I-78)

Route 222 between Hamilton Boulevard and I-78 in the Lehigh Valley is a principal arterial carrying commuter, freight and regional traffic, with two to four lanes per direction and auxiliary or turn lanes at major intersections.

Daily volumes are moderate to heavy, with peak-hour congestion near Hamilton Boulevard, Airport Road, and I-78 ramps due to high turning movements and merging conflicts.

The corridor has multiple signalized intersections, some outdated, and varying pavement conditions, including rutting and cracking. Pedestrian and bicycle facilities are inconsistent, with intermittent sidewalks and limited bike accommodation.

Adjacent land uses -- commercial, industrial, and residential -- generate frequent turning movements and localized congestion, while freight access adds heavy vehicle volumes.

Safety concerns are concentrated at intersections, merging areas and high-turning-demand segments, and limited stormwater management and impervious surfaces present environmental challenges.

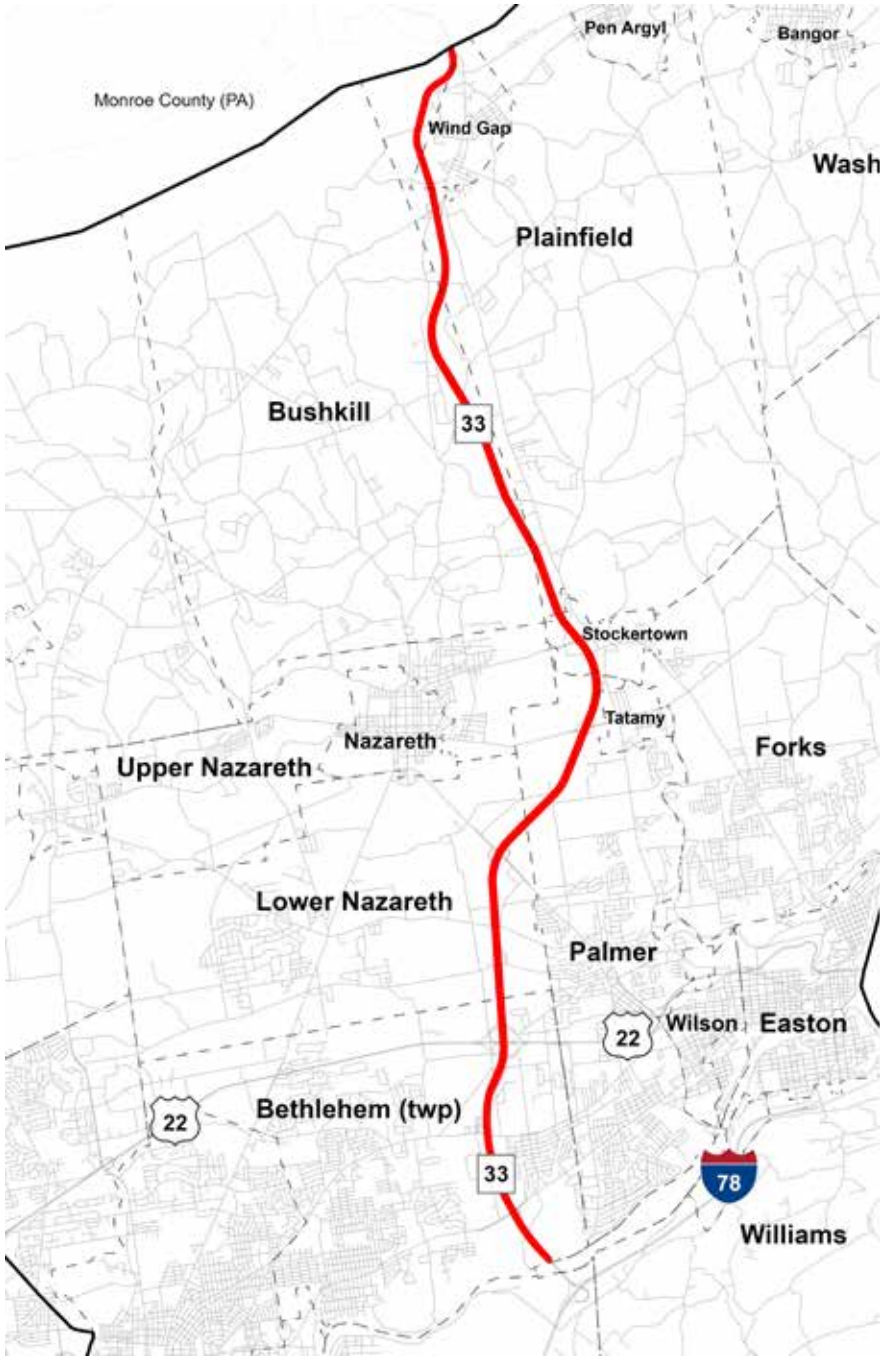
Planned Improvements

- *FutureLV: The Regional Plan*
  - Box culvert rehabilitation/replacement over Breinig Run - Route 222 north widening and betterment projects from Cedar Crest Boulevard to 15th Street, Kutztown Road to Grimm Road, Grimm Road to Cedar Crest Boulevard, west of Weilers Road to Trexlertown Road, and I-78 to 15th Street.
  - Intersection improvements at Route 222 and Shantz Road and Route 863, Jaindl Highway at Krocks, Grim, and Cetronia Roads; signal upgrades along Jaindl Highway/Hamilton Boulevard/ Hamilton Street at 17 intersections.
  - Safety and traffic management redesign in the “weave area” near Turnpike bridge and I-78 interchange, including Kessler and Cedarbrook Roads.
  - Roundabouts at Breinigsville/Newtown Roads and Hamilton Boulevard/Lower Macungie Road; I-78/Route 222 interchange improvements with lane reconfigurations, revised signals, and ramp modifications.
- Transportation Improvement Program (TIP)
  - Route 222/Schantz Road/Route 863 roundabout to improve safety, traffic operations and mobility at the intersection of Independent Road and Schantz Road.

Strategies

- Prioritize safety improvements via roundabouts, intersection redesigns and upgraded signals
- Integrated corridor management
- Expand corridor capacity with lane reconfigurations, turn lanes, and interchange upgrades
- Maintain and resurface pavement for reliability and long-term infrastructure health
- Integrate multimodal infrastructure, including sidewalks and bike facilities
- Use data-driven traffic management to optimize signal timing and monitor project performance

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,420
Annual Average Daily Traffic	16,698
Land use classification	Residential, Industrial
Length	5.3 miles
Lanes	4
Municipalities	Upper Macungie and Lower Macungie Townships
Level of Service (V/C)	0.68
PHED	16547.202
LOTTR	1.211
TTTI	1.580
TTTR	NA
High Crash Severity	Yes
Priority Rank	10



Priority Corridors in Northampton County

Route 33

Route 33 is a major north–south expressway in the Lehigh Valley, connecting I-78 in the south to the Monroe County line in the north. It serves as a critical freight and commuter route, linking Route 22 and other primary highways while providing access to employment centers, industrial areas, and residential communities.

Congestion and bottlenecks occur near major interchanges, especially I-78 and Route 22, during peak periods, increasing travel times. Undersized interchanges and ramps limit large freight vehicle movements, creating operational and safety concerns.

Pavement conditions vary, with some segments needing resurfacing or rehabilitation. High freight and commuter traffic elevate crash risk, particularly at interchanges and curves. The corridor also experiences localized flooding in low-lying areas and noise impacts affect adjacent residential neighborhoods.

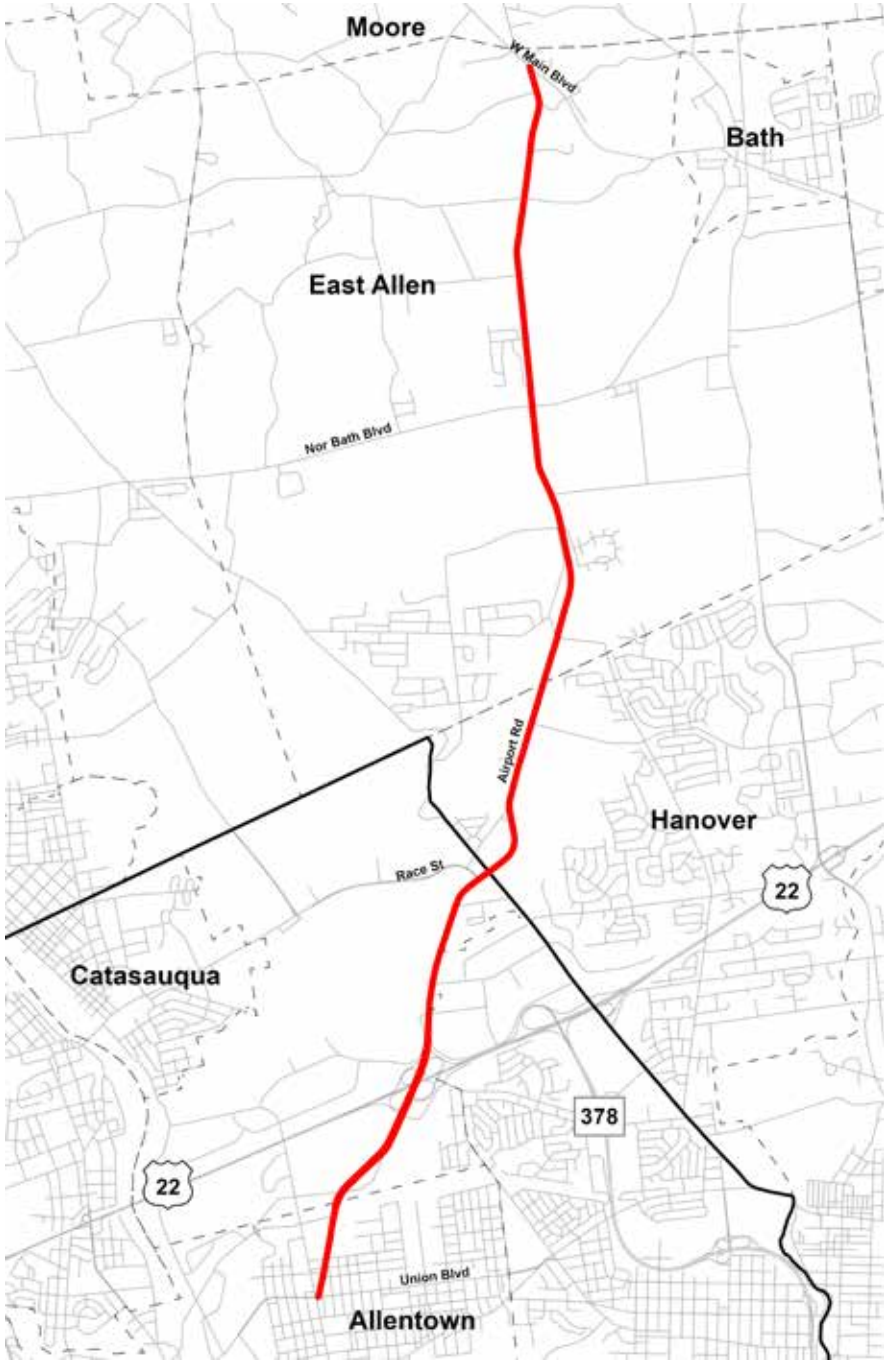
Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	3,066
Annual Average Daily Traffic	26,711
Land use classification	All
Length	16.47 miles
Lanes	4
Municipalities	Stockertown and Wind Gap Boroughs, and the Townships of Palmer, Bethlehem, Bushkill, Lower Nazareth and Plainfield
Level of Service (V/C)	0.52
PHED	7515.689
LOTTR	1.201
TTTI	1.221
TTTR	NA
High Crash Severity	Yes
Priority Rank	3

Planned Improvements

- *FutureLV: The Regional Plan*
  - Replacement of Bushkill Creek Bridges for long-term safety.
  - Route 33 pavement rehabilitation and resurfacing from I-78 to Monroe County line, including Route 22 to Tatamy Interchange, Belfast, and Route 512.
  - Route 33/I-78 interchange reconstruction to improve operations.
  - William Penn Highway (Route 2020)/Route 33 interchange converted to diverging diamond to enhance capacity.
  - Route 22, Route 33, and I-78 landscape improvements with green spaces, public art, and sustainable design.
- Transportation Improvement Program (TIP)
  - Pedestrian trail along Route 33 from Sullivan Trail to Henry Road (MPMS 119824)
  - Adaptive traffic management upgrades (MPMS 110086); Route 33 resurfacing from I-78 to Route 22 to improve pavement, safety, and operational efficiency (MPMS 96423)

Strategies:

- Replace aging bridges Bushkill Creek Bridges and reconstruct interchanges to reduce crashes and improve safety
- Implement interchange redesigns and upgrade traffic management technology for adaptive corridor control
- Prioritize resurfacing and rehabilitation along key corridors like Route 33 for safe, efficient freight and commuter travel. Incorporate green spaces, public art, and sustainable design to support community livability



Airport Road

Airport Road serves as a primary north–south arterial corridor in Northampton County, connecting Union Boulevard to West Main Boulevard while accommodating a diverse mix of commuter, commercial, retail, and freight traffic. The corridor provides direct access to major regional destinations, including Lehigh Valley International Airport, large distribution and warehouse facilities, retail centers, and hospitality uses.

Proximity to the airport, logistics hubs, and industrial operations generates consistent truck volumes, while adjacent commercial strip development and signalized intersections contribute to recurring congestion during peak travel periods.

Traffic conditions fluctuate throughout the day due to shift changes, flight schedules, delivery activity, and retail demand, underscoring the importance of coordinated access management, intersection optimization, and long-term capacity and safety enhancements along the corridor.

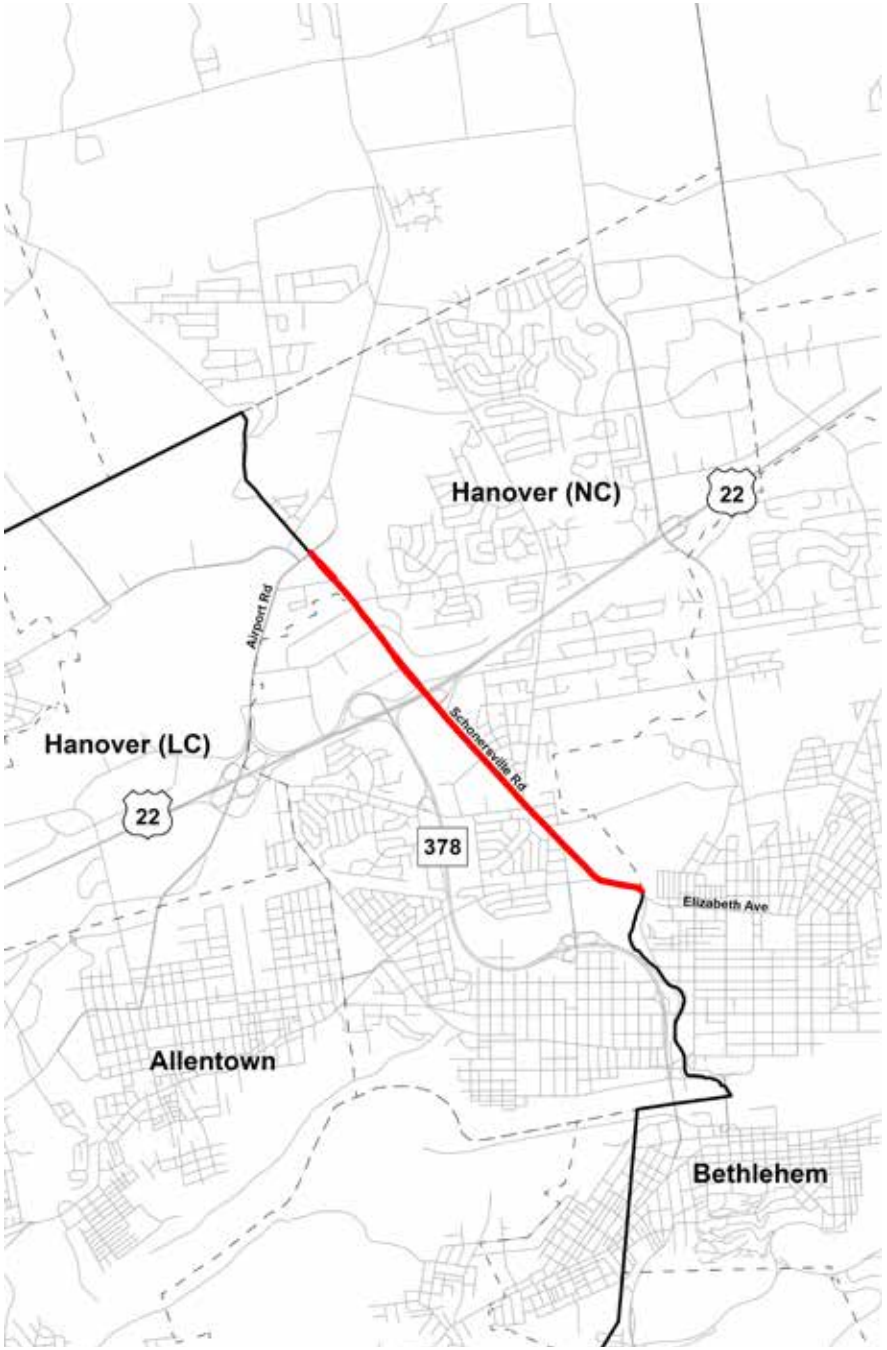
Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	723
Annual Average Daily Traffic	10,376
Land use classification	Residential, Commercial, and Industrial
Length	8.07 miles
Lanes	2
Municipalities	Hanover and East Allen Townships, and Allentown City
Level of Service (V/C)	0.60
PHED	7,943
LOTTR	1.46
TTTI	2.08
TTTR	N/A
High Crash Severity	Yes
Priority Rank	5

Planned Improvements

- *FutureLV: The Regional Plan*
  - Airport Road Bridge - Rehabilitation of bridge over abandoned railroad.
  - Airport Road (State Route 987) Betterment Project - Improvements from US Route 22 to Schoenersville Road.
  - State Route 1003 Airport Road Resurfacing Betterment Project - Repaving and traffic signal upgrades along the corridor and creating center turn lanes at Union Boulevard and Congress Street.
  - Airport Road/Chestnut St (State Route 987) Resurface Betterment Project - Resurface from county line at Schoenersville Road (State Route 1009) in Hanover Township (Northampton County) to Nor-Bath Boulevard (State Route 329) in East Allen Township and from Northampton Street (State Route 248) in Bath Borough to Community Drive (State Route 946) in Moore Township.
  - Airport Road North-bound Ramp from Route 22 Westbound Ramp to Postal Road/Avenue A - Jughandle for left turns onto Postal Road.
  - Airport Road Corridor Study - Evaluation and identification of infrastructure improvements needed to improve functionality, safety and multimodal mobility along Airport Road from American Parkway and including the interchange of Route 22, the intersection of Schoenersville Road to the intersection of Route 248.
  - Airport Road Corridor Phase 1 Infrastructure Implementation Line Item - Funding for implementation of recommendations of infrastructure improvements identified as a result of the Airport Road Corridor Study of Airport Road from American Parkway to State Route 248.
  - Airport Road Corridor Phase 2 Infrastructure Implementation Line Item - Phase 2 Funding for implementation of recommendations of infrastructure improvements identified as a result of the Airport Road Corridor Study of Airport Road from American Parkway to State Route 248.
  - Airport Center Road & Airport Road - Add traffic-calming and pedestrian crossing upgrades along Airport Road at Airport Center Shopping Center area.
- Transportation Improvement Program (TIP)
  - Route 248/Airport Road Intersection Improvements: Intersection improvements at Route 248 and Airport Road to improve safety and efficiency.

Strategies

- Rehabilitation of Bridges and Corridors wherever necessary
- Traffic signal upgrades and repaving
- Jughandle for left turns onto Postal Road
- Infrastructure improvements to improve functionality, safety, and multimobility
- Traffic calming and pedestrian crossing upgrades
- Intersection improvements



Schoenersville Road

Schonersville Road functions as an important east–west connector between Elizabeth Avenue and Airport Road, serving a blend of residential neighborhoods, commercial establishments, and institutional land uses. The corridor provides access to established housing areas while also supporting traffic destined for nearby retail centers, light industrial properties, and employment hubs in the Airport Road area. Peak-period congestion is influenced by commuter travel, school-related traffic, and commercial vehicle movements, particularly near signalized intersections and driveway access points. Its role as a feeder route to Airport Road further amplifies turning movements and corridor demand during morning and afternoon peaks.

These conditions highlight the need for targeted intersection improvements, access management strategies, and multimodal enhancements to improve traffic flow, safety, and overall corridor performance.

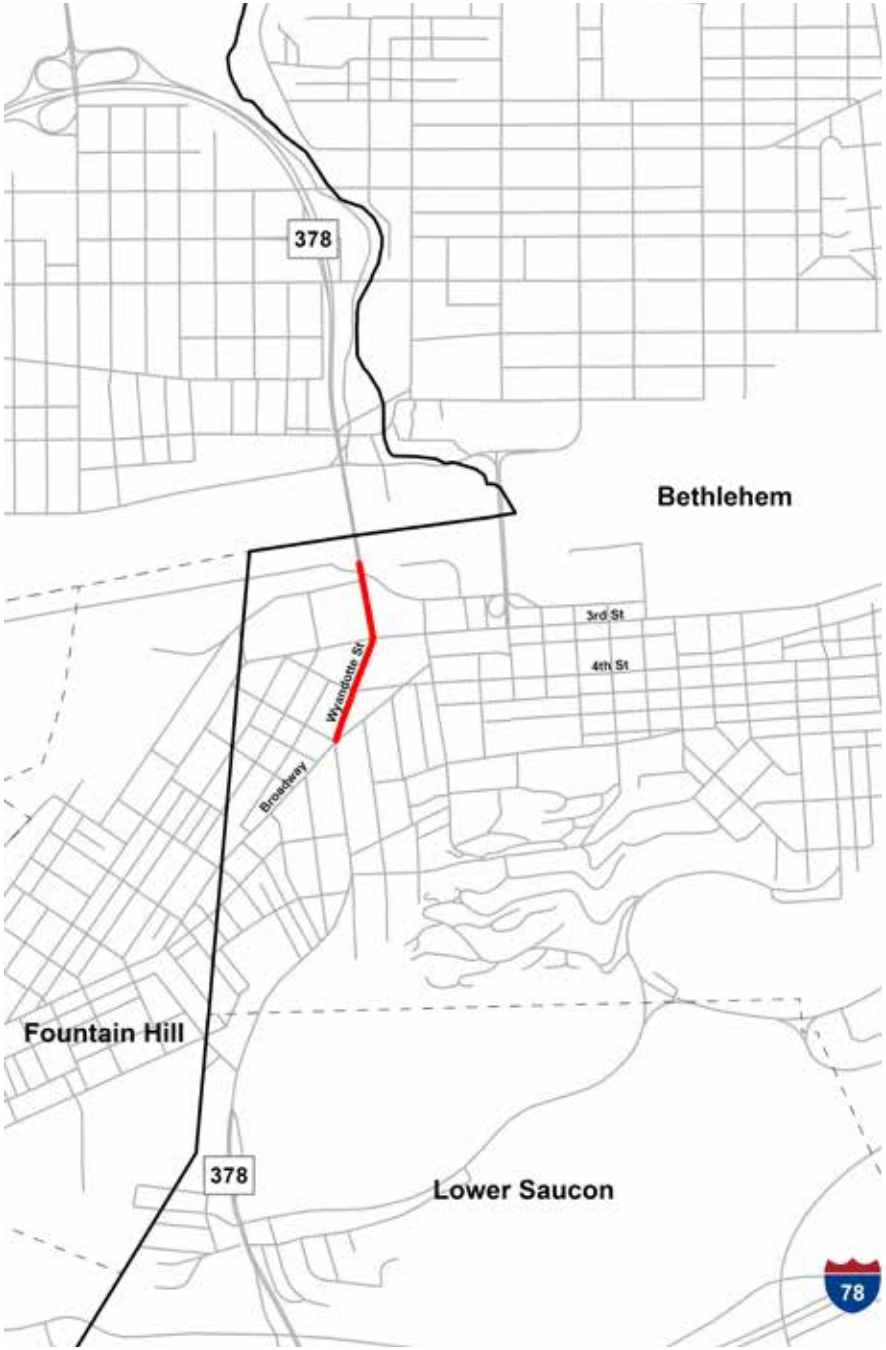
Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	593
Annual Average Daily Traffic	12,550
Land use classification	Residential, Commercial, and Industrial
Length	2.81 miles
Lanes	2
Municipalities	Bethlehem and Hanover Townships
Level of Service (V/C)	0.77
PHED	N/A
LOTTR	N/A
TTTI	N/A
TTTR	N/A
High Crash Severity	Yes
Priority Rank	6

Planned Improvements

- *FutureLV: The Regional Plan*
  - Schoenersville Road (Route 1009) Corridor Improvements.
  - Reduce congestion and improve safety along the corridor between Route 22 and Eaton Avenue.

Strategies

- Sidewalk enhancements
- Geometric redesign
- Integrated corridor management
- Safety enhancements at key intersections



Wyandotte Street

Wyandotte Street, extending from Broadway Avenue to the Northampton County Rail Line, functions as a local collector serving a mix of residential, neighborhood commercial, and light industrial land uses. The corridor provides important connectivity between Broadway Avenue and adjacent employment and service areas, while also accommodating daily neighborhood circulation.

Proximity to the rail line and nearby industrial properties contributes to periodic truck traffic and freight-related activity, which can create localized congestion and turning conflicts.

On-street parking, closely spaced driveways, and pedestrian activity further influence operational performance along the corridor. While traffic volumes are generally moderate, peak-hour commuter flows and freight movements highlight the need for intersection visibility improvements, traffic calming where appropriate, and enhanced multimodal safety measures to support balanced corridor operations.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	541
Annual Average Daily Traffic	22,143
Land use classification	Residential, Commercial, and Industrial
Length	0.38 miles
Lanes	2
Municipalities	Bethlehem
Level of Service (V/C)	0.85
PHED	0.04
LOTTR	1.37
TTTI	2.97
TTTR	N/A
High Crash Severity	Yes
Priority Rank	8

Planned Improvements

- *FutureLV: The Regional Plan*
  - Wyandotte Street (Route 378) Resurface Betterment Project - Resurface from the county line at Colesville Road in Lower Saucon Township to Brighton Street in Bethlehem.
  - Wyandotte Street (Route 378) Corridor Improvements - Reduce congestion and improve safety along the corridor between Third Street to and including the “5-points” intersection at Broadway.
- Transportation Improvement Program (TIP)
  - Hill-to-Hill Bridge: Rehabilitation of Route 378 Bridge over the Lehigh River, Norfolk Southern railroad and various city streets.

Strategies

- Adaptive signal retiming
- Adequate turning radius and sign truck movements
- Pedestrian signal enhancements and high visibility crosswalks
- Resurface corridors and rehabilitation bridges that require investments
- Detour traffic during peak periods

Stefko Boulevard

Stefko Boulevard, extending from Daly Avenue to Easton Avenue, operates as a principal urban arterial supporting a diverse mix of residential, commercial, and institutional traffic. The corridor serves established neighborhoods while also providing access to retail centers, service businesses, schools, and community facilities. Its function as a north–south connector between major east–west routes contributes to sustained traffic volumes throughout the day, with peak-period congestion influenced by commuter travel, school-related activity, and commercial turning movements.

Multiple signalized intersections, closely spaced driveways, and pedestrian crossings affect operational efficiency and safety conditions along the corridor.

These characteristics underscore the need for coordinated signal timing, access management strategies, and multimodal enhancements to improve mobility, safety, and overall corridor performance.

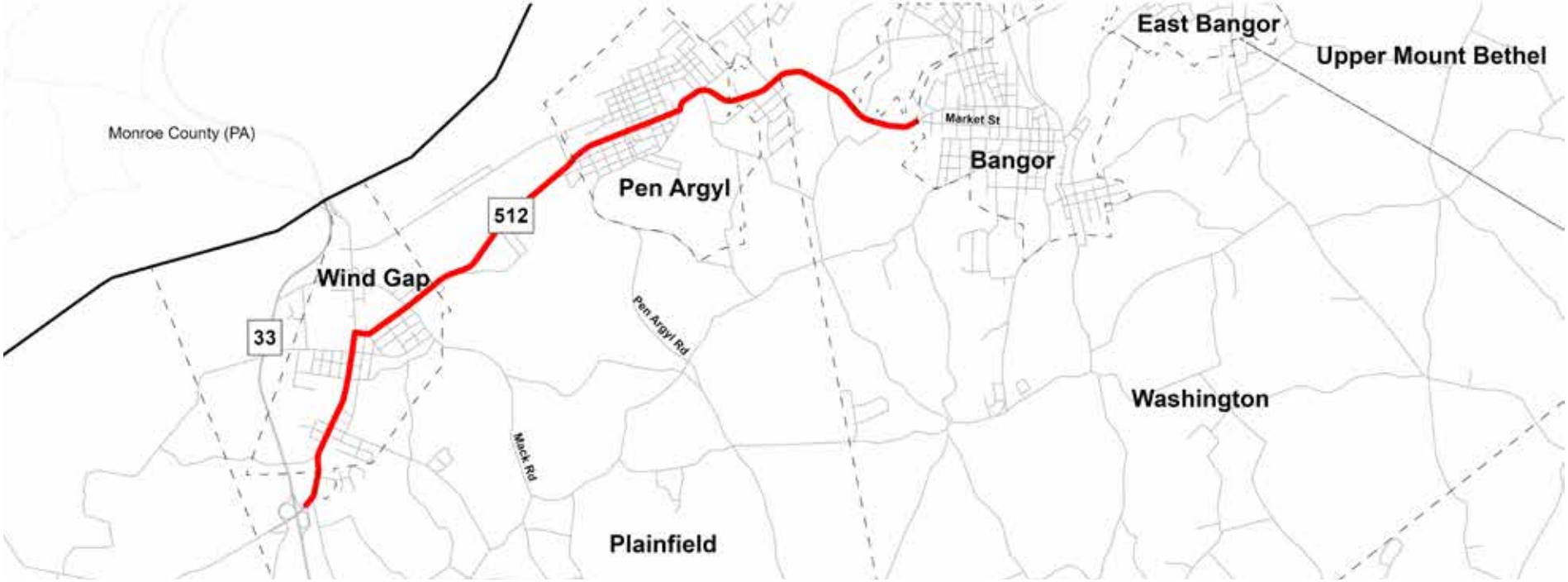
Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	774
Annual Average Daily Traffic	13,801
Land use classification	Residential, Commercial, and Institutional
Length	2.47 miles
Lanes	2
Municipalities	Bethlehem City
Level of Service (V/C)	0.93
PHED	N/A
LOTTR	N/A
TTTI	N/A
TTTR	N/A
High Crash Severity	Yes
Priority Rank	9

Planned Improvements

- None currently.

Strategies

- Signal retiming and coordination
- Intersection optimization
- Consolidate redundant commercial driveways
- Sidewalk continuities
- High visibility crosswalks and pavement marking improvements



Route 512

Route 512, extending from Route 33 in Wind Gap to Market Street in Bangor, serves as the main arterial through the borough, accommodating a mix of local residential, commuter, and small-scale commercial traffic.

The corridor provides critical connectivity between Route 33 and the borough's commercial and civic areas, supporting daily travel for residents, local businesses, and service vehicles.

Traffic volumes fluctuate throughout the day, with peak congestion occurring near key intersections and commercial access points. Its dual role as both a local access route and a connector to regional highways underscores the need for coordinated signal timing, pedestrian and bicycle safety enhancements, and context-sensitive roadway improvements to maintain efficient and safe operations along the corridor.

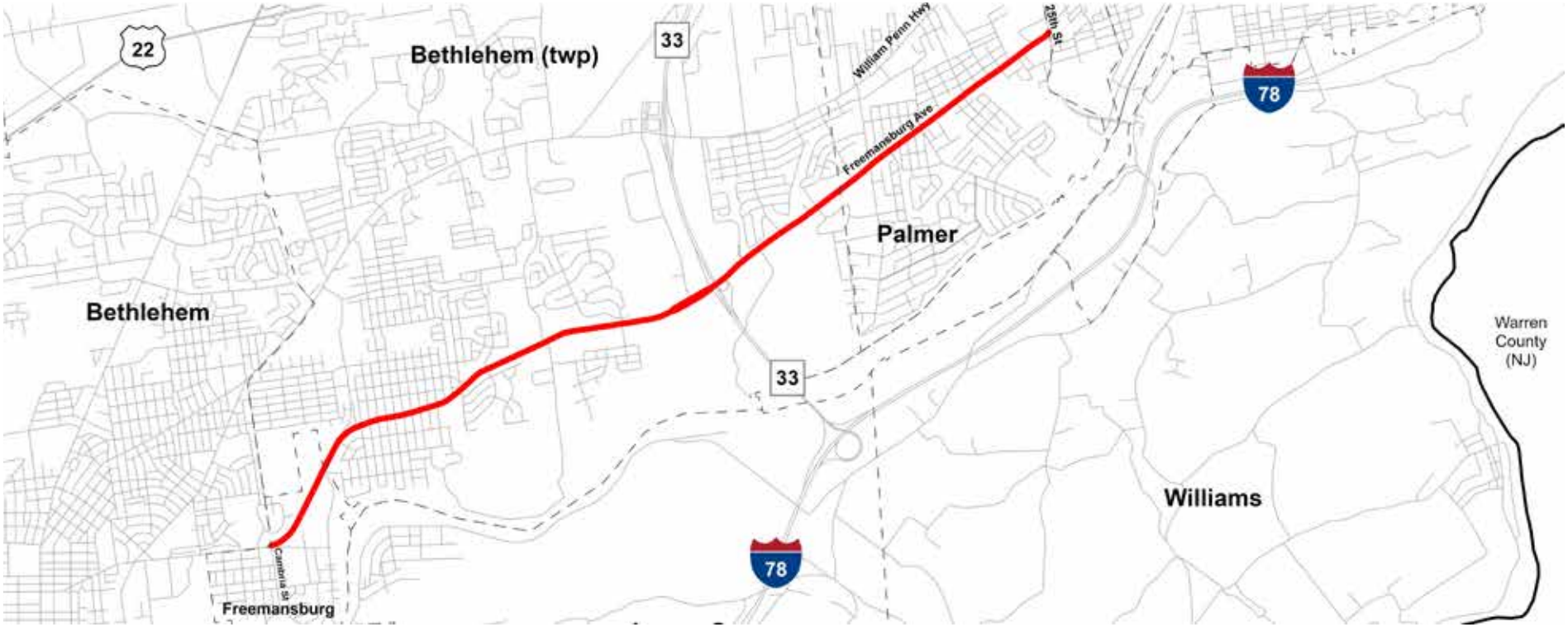
Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	676
Annual Average Daily Traffic	11,592
Land use classification	Residential and Commercial
Length	5.5 miles
Lanes	2
Municipalities	Wind Gap and Pen Argyl Boroughs and Washington and Plainfield townships
Level of Service (V/C)	0.91
PHED	N/A
LOTTR	N/A
TTTI	N/A
TTTR	N/A
High Crash Severity	Yes
Priority Rank	7

Planned Improvements

- None currently.

Strategies

- Signal enhancements
- Pedestrian infrastructure enhancements



Freemansburg Avenue

Freemansburg Avenue, extending from Cambria Street to 25th Street, functions as a key east–west arterial serving residential neighborhoods, commercial properties, and community-oriented land uses.

The corridor provides important connectivity between local streets and higher-capacity regional routes, accommodating daily commuter traffic as well as local circulation.

Adjacent retail establishments, service businesses, and institutional uses generate frequent turning movements and driveway activity, contributing to operational friction along the roadway.

Traffic volumes fluctuate throughout the day, with peak congestion occurring near signalized intersections and commercial nodes. Its role as both a neighborhood access route and a through corridor highlights the need for intersection optimization, access management strategies, and multimodal safety improvements to enhance efficiency and corridor livability.

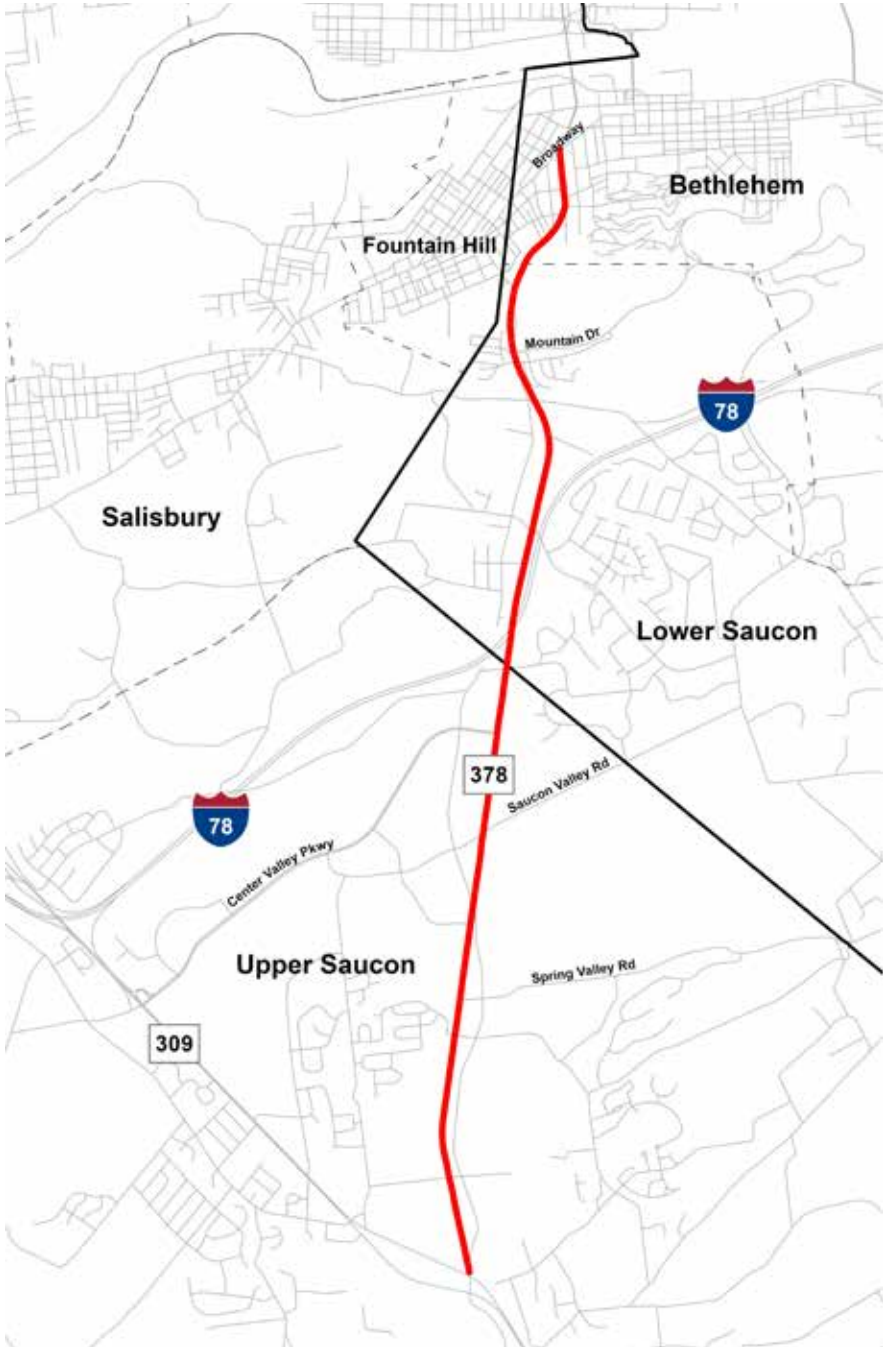
Planned Improvements

- *FutureLV: The Regional Plan*
  - Freemansburg Avenue and Willow Park Road Intersection Improvements - Project would review the challenges of the current intersection geometry and provide recommended solutions that the Township would work toward implementing with PennDOT.
  - Freemansburg Avenue (Route 2018) Safety Improvements - Intersection safety improvements.
  - Signal & Sign Installation - Freemansburg Avenue at 9th Street and 9th Street at Hamilton Street.
  - Freemansburg Avenue (Route 2018) and Willow Park Road (Route 3007) Intersection Study - Conduct study along State Route 2018 and State Route 3007 to improve safety and traffic flow.
- Transportation Improvement Program (TIP)
  - Freemansburg Avenue Safety Improvements: Reconstruction and realignment of the intersection at Freemansburg Avenue (Route 2018) and Farmersville Road.

Strategies

- Intersection improvement and geometric realignment
- Intersection safety improvement, including signal and sign installation
- Reconstruction and realignment of intersections of concern
- Pedestrian enhancements and sidewalk connectivity
- Crossroad visibility improvements

Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	799
Annual Average Daily Traffic	13,640
Land use classification	Residential and Commercial
Length	6.13 miles
Lanes	2
Municipalities	Palmer Township, Freemansburg Borough, and Bethlehem City
Level of Service (V/C)	0.86
PHED	N/A
LOTTR	N/A
TTTI	N/A
TTTR	N/A
High Crash Severity	Yes
Priority Rank	10



Priority Corridors in Both Counties

Route 378 (Route 309 to Broadway Avenue)

Route 378, between Route 309 and Broadway Avenue, serves as a principal arterial providing north–south connectivity for residential neighborhoods and direct access to downtown Bethlehem.

The corridor experiences recurring congestion, limited multimodal accommodations, and several constrained segments that affect safety and travel reliability.

As a principal arterial supporting both through and local traffic, it is particularly sensitive to outdated roadway conditions, aging structures, and high pedestrian activity at key intersections.

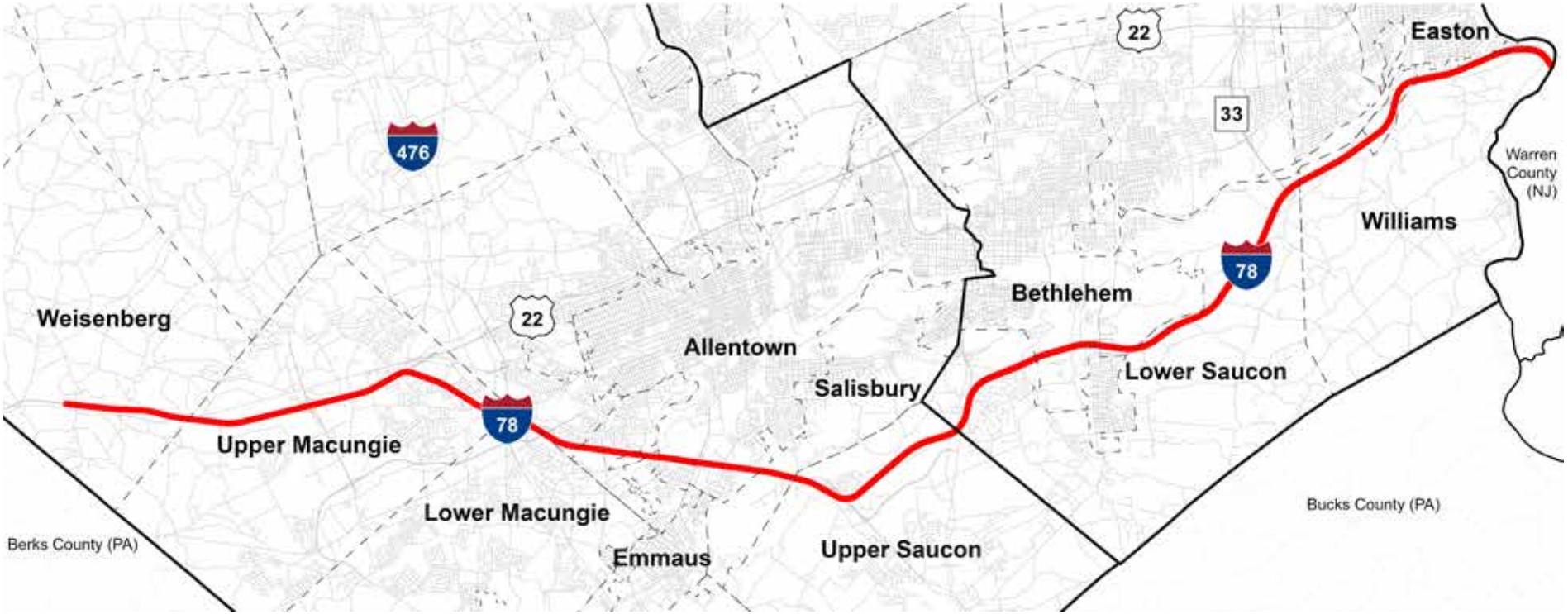
Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	947
Annual Average Daily Traffic	14,475
Land use classification	Agriculture, Rural Residential
Length	5.64 miles
Lanes	2
Municipalities	Bethlehem, Upper Saucon and Lower Saucon Townships
Level of Service (V/C)	0.51
PHED	15.9004
LOTTR	1.566
TTTI	1.718
TTTR	NA
High Crash Severity	Yes
Priority Rank	4 (NC), NA (LC)

Planned Improvements

- *FutureLV: The Regional Plan*
  - Main Street Ramp Bridge Rehabilitation - Rehabilitation of bridge to connect to Main Street from Route 378.
  - Route 378 Betterment Project - Improvements from Colesville Road to Brighton Street.
  - Route 378 Betterment Project - Improvements from Main Street to Route 22.
  - Wyandotte Street (Route 378) Corridor Improvements - Reduce congestion and improve safety along the corridor between Third Street and including the “5-points” intersection at Broadway.
  - Route 309 Northbound Realignment - Relocated Northbound traffic to Southbound traffic side between Route 378 and Lanark Road (Route 2039) to improve traffic congestion, safety and the quality of life of residents along the current northbound side of Route 309.
  - Route 378 Lighting - Route 378 street lighting upgrades.
- Transportation Improvement Program (TIP)
  - Route 378 Lighting (110398) upgrades.

Strategies

- Fully rehabilitate bridges to maintain structural integrity and support regional mobility
- Resurface and implement corridor betterments for improved ride quality
- Upgrade intersections and signals to reduce congestion and enhance operations
- Implement corridorwide lighting to improve safety and livability
- Integrate safety treatments and operational enhancements accommodating non-motorized users



I-78

I-78 is a major east–west interstate in the southern Lehigh Valley, serving as a critical freight and commuter corridor. It connects employment centers in Allentown, Bethlehem and surrounding municipalities, providing access eastward to New Jersey and the New York metropolitan area and westward to Berks and Lebanon Counties. The corridor links key north–south routes, including Routes 309, 100, 145, 412, 33 and 22, supporting regional and interstate goods movement.

Industrial, logistics and commercial development -- particularly in Upper and Lower Macungie Townships and near the I-78/I-476 interchange - generates high truck volumes and peak-period congestion. Interchanges face bottlenecks from high turning movements, closely spaced ramps, and limited auxiliary lanes, while geometric and capacity constraints reduce travel-time reliability. Stormwater, drainage, and pavement deterioration, along with noise and frequent truck-involved crashes, highlight the corridor's operational, safety, and infrastructure challenges.

Planned Improvements

- *FutureLV: The Regional Plan*
  - Interstate 78/Route 309 - Rehabilitation/replacement of bridge over Fish Hatchery Road (Route 2010) and Little Lehigh Creek (Lehigh Parkway).
  - Freeway Service Patrol - To provide two roaming tow trucks along Interstate 78 from Route 100 to the Route 309 split, and along

Route 22 from Route 100 to Route 33 for removal of disabled or accident vehicles.

- Variable Speed Limit Technologies - Implement signing to incorporate the ability to adjust speed limits on Route 22 and Interstate 78 to improve operations and safety during inclement weather or times of congestion.
- Interstate 78 from Lehigh Street (Route 2005) to Route 309 South Interchange - Highway preservation/restoration, including pavement overlay and patching of existing mainline and shoulders, rehabilitation/replacement of drainage system, including access ramps.
- Interstate 78 Corridor Safety Improvements from Emmaus Avenue (Route 2002) to East of Route 309 Interchange for Center Valley - Improvements include conversion of shoulders into a dual use lane on I-78 eastbound from the Emmaus Avenue (Route 2002) Interchange to the Route 309 south split. The median barrier will be updated to add glare screens, and the drainage system will be rehabilitated and/or replaced. Two ramps at the Route 309 interchange will also be reconstructed.
- Interstate 78 from Route 309 Interchange Ramps for Center Valley/Allentown Interchange to Saucon Viaduct Structure at Route 412 Interchange - Highway preservation overlay of existing mainline and shoulders.
- Interstate 78 from Saucon Viaduct Bridges west of Route 412 Interchange to Easton Road (Route 2006) Bridge - Highway preservation overlay of existing mainline and shoulders.
- Interstate 78 from Berks County/Lehigh County Line to East of Route 100 - Highway reconstruction to add truck climbing lanes and Route 100 interchange ramp reconfiguration.
- Interstate 78 Saucon Valley Viaduct Bridges West of Route 412 over College Drive, Silvex Road and Saucon Creek - Rehabilitation and preventative maintenance, including paint and miscellaneous substructure and drainage repairs.
- Interstate 78 Various Bridges in Glendon Borough, Lower Saucon Township and Williams Township - Bridge rehabilitation, replacement and preservation activities.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	5,708
Annual Average Daily Traffic	29,593
Land use classification	Many Uses
Length	32.400 miles
Lanes	4
Municipalities	Cities of Allentown Bethlehem and Easton, Glendon Borough and the Townships of Upper Macungie Township, Salisbury, Weisenberg, Upper Saucon, Lower Saucon, Williams, Lower Macungie and South Whitehall
Level of Service (V/C)	0.69
PHED	9244.444
LOTTR	1.130
TTTI	1.197
TTTR	1.177
High Crash Severity	Yes
Priority Rank	7 (LC), 1 (NC)

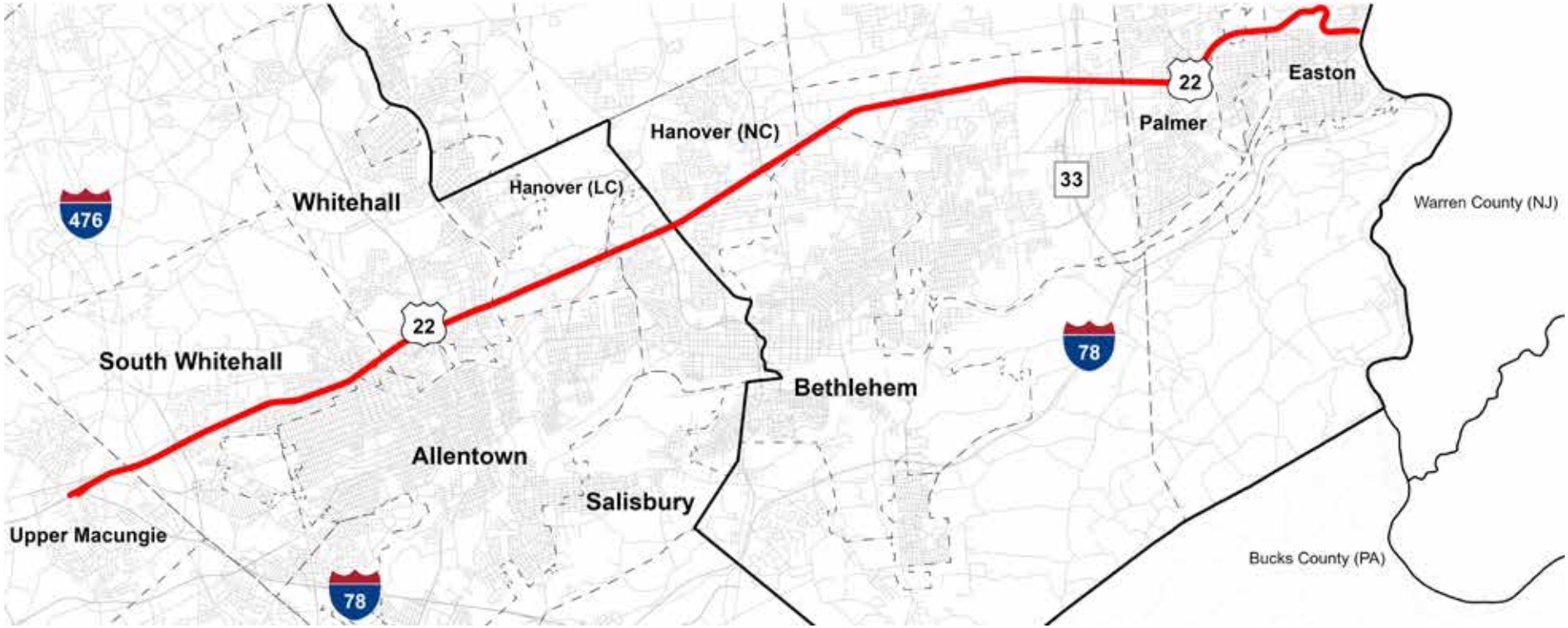
- Interstate 78 from Route 33 Interchange to Pennsylvania/New Jersey State Line - Highway preservation pavement overlay of existing mainline and shoulders and resurfacing of associated ramps.
- Interstate 78 Bridge over Fish Hatchery Road (Route 2010) and the Little Lehigh River/Lehigh Parkway - Rehabilitation of the bridge “Parkway Arches” support structures.
- Interstate 78 from Lehigh Street (Route 2005) to Route 309 Northbound Exit - Highway preservation overlay of existing mainline and shoulders.
- Interstate 78 Bridge Rehabilitation, Replacement and Preventative Maintenance at Various Locations - Rehabilitation of PennDOT bridges identified by the following bridge key numbers: 23005, 28523, 28526, 28540; replacement of bridge identified by PennDOT key number: 28545 (over Route 2014/Redington Road) and preventative maintenance at PennDOT bridges.

- Interstate 78 Various Bridges in Upper Macungie Township - Bridge rehabilitation, replacement and preservation activities.
- Interstate 78 Bridge Substructure Condition Study - Study of bridge over Easton Road (Route 2006).
- Interstate 78 over Easton Road (Route 2006) to Route 33 Interchange - Highway preservation/ restoration of concrete slab roadway.
- Route 33 and I-78 Interchange Reconstruction - Reconfigure and reconstruct the interchange and approaches to improve safety and operational functionality.

- Transportation Improvement Program (TIP)
  - Freeway Service Patrol – Two roaming tow trucks to patrol I-78 from Route 100 to Route 309 split and I-78/Route 22 from Route 100 to Route 33, for rapid incident removal to reduce congestion and improve safety.

Strategies

- Prioritize rehabilitation, replacement, and preventative maintenance of key bridges and viaducts
- Conduct resurfacing and reconstruction of mainline and ramps to support reliable travel
- Implement lane reconfigurations, ramp modifications and truck climbing lanes
- Implement variable speed limits, and Freeway Service Patrols
- Incorporate landscaping, green spaces and sustainable design
- Convert shoulders to dual-use lanes and update median barriers
- Rehabilitate drainage systems to improve safety and manage stormwater



Route 22

Route 22 is a key east–west corridor in the Lehigh Valley, running from the I-78 junction through eleven municipalities before crossing the Delaware River in Easton.

It forms the backbone of regional mobility. It connects major employment and population centers -- including Allentown, Bethlehem and Easton -- and provides links to I-78, facilitating traffic between Berks County and Warren County, New Jersey.

The corridor intersects significant routes such as Route 33, Route 512, Route 145, Route 309, and Route 100, supporting freight and commuter flows.

Heavy commercial, industrial, and residential development, along with undersized interchanges, contribute to congestion and operational inefficiencies.

Recurring flooding, stormwater management issues, and noise impacts highlight infrastructure challenges. Safety remains a concern, with 11 fatal, 51 suspected serious injury, and 2,111 crashes reported during the period of 2020-2024.

Planned Improvements

- *FutureLV: The Regional Plan*
  - Route 22 bridge rehabilitation or deck replacement over Bushkill Creek and Jacksonville Road.
  - Pavement resurfacing and betterment from Farmersville Road to Route 512 and along segments connecting to Route 33 and I-78.
  - Landscaping enhancements with green spaces, public art, and sustainable design.
  - Interchange upgrades per “22 Tomorrow” plan at Route 22/Route 191, Route 22/Fullerton, and Route 22/13th Street.
  - Widening from Lehigh River to Airport Road and Mauch Chunk Road to Route 145 (DDI).
  - Multimodal and operational improvements via Freeway Service Patrol, variable speed limits, and corridor studies
- Transportation Improvement Program (TIP)
  - Bridge preservation (MPMS 68190) for design and construction of various repairs and maintenance activities to support long-term structural integrity.

Strategies

- Prioritize rehabilitation and deck replacement of key bridges (e.g., Bushkill Creek, Jacksonville Road) and implement bridge preservation programs
- Conduct resurfacing and betterment projects along key segments to enhance safety, reliability, and operational efficiency
- Widen critical segments, upgrade interchanges
- Deploy operational improvements such as variable speed limits and Freeway Service Patrols
- Integrate landscaping improvements, including green spaces, public art, and sustainable design

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	3,589
Annual Average Daily Traffic	31,466
Land use classification	All
Length	22.7 miles
Lanes	4
Municipalities	Cities of Allentown, Bethlehem, Easton, Wilson Borough and the Townships of Upper Macungie and Hanover (NC and LC), Palmer, Bethlehem, South Whitehall and Whitehall
Level of Service (V/C)	0.58
PHED	22821.733
LOTTR	1.480
TTTI	1.543
TTTR	N/A
High Crash Severity	Yes
Priority Rank	2 (NC), NA (LC)

LEHIGH VALLEY
CONGESTION
MANAGEMENT
PLAN

Priority Bottlenecks in Lehigh County

Route 222 (Westbound) near Mill Creek Road

Congestion increases where Grange Road merges into Route 222 and uncoordinated signal timing at the Mill Creek Road intersection further contributes to delays.

Hamilton Boulevard, from Grange Road to Schantz Road was also identified as a congested corridor in CMP 2016.

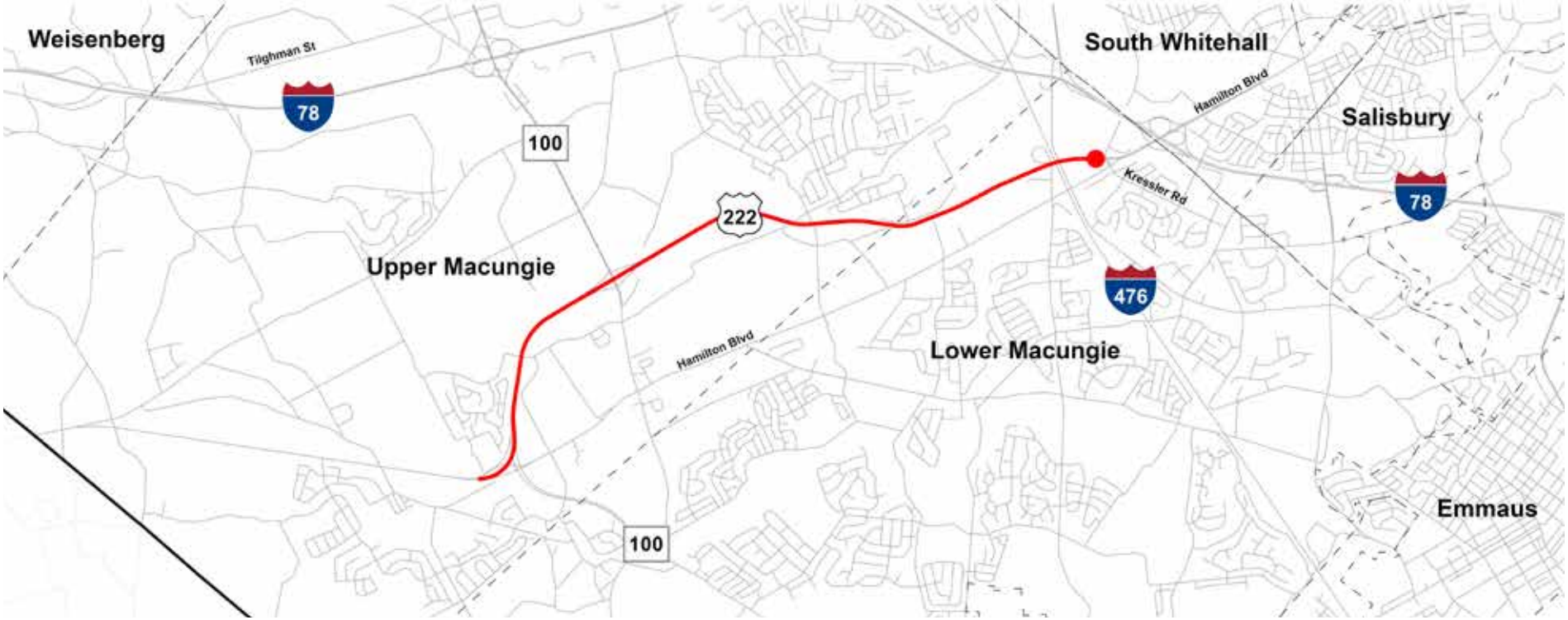
Planned Improvements

- *FutureLV: The Regional Plan*
  - Route 222 Betterment Project - Improvements from Grimm Road to Cedar Crest Boulevard.

Strategies

- Retime signals and evaluate lane configurations to reduce delays

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,248
Annual Average Daily Traffic	19,400
Municipality	Upper Macungie Township
Level of Service (V/C)	0.73
PHED	4365.131
LOTTR	1.215
TTTI	1.622
TTTR	N/A
High Crash Severity	Yes
Priority Rank	1



Route 222 (Eastbound) near Route 222 Bus/Hamilton Boulevard

Recurring congestion on Route 222, at the eastbound intersection with BUS/Hamilton Boulevard eastbound contributes to vehicle queues at the signalized intersection, creating a chokepoint and intermittent bottlenecks along Hamilton Boulevard.

Planned Improvements

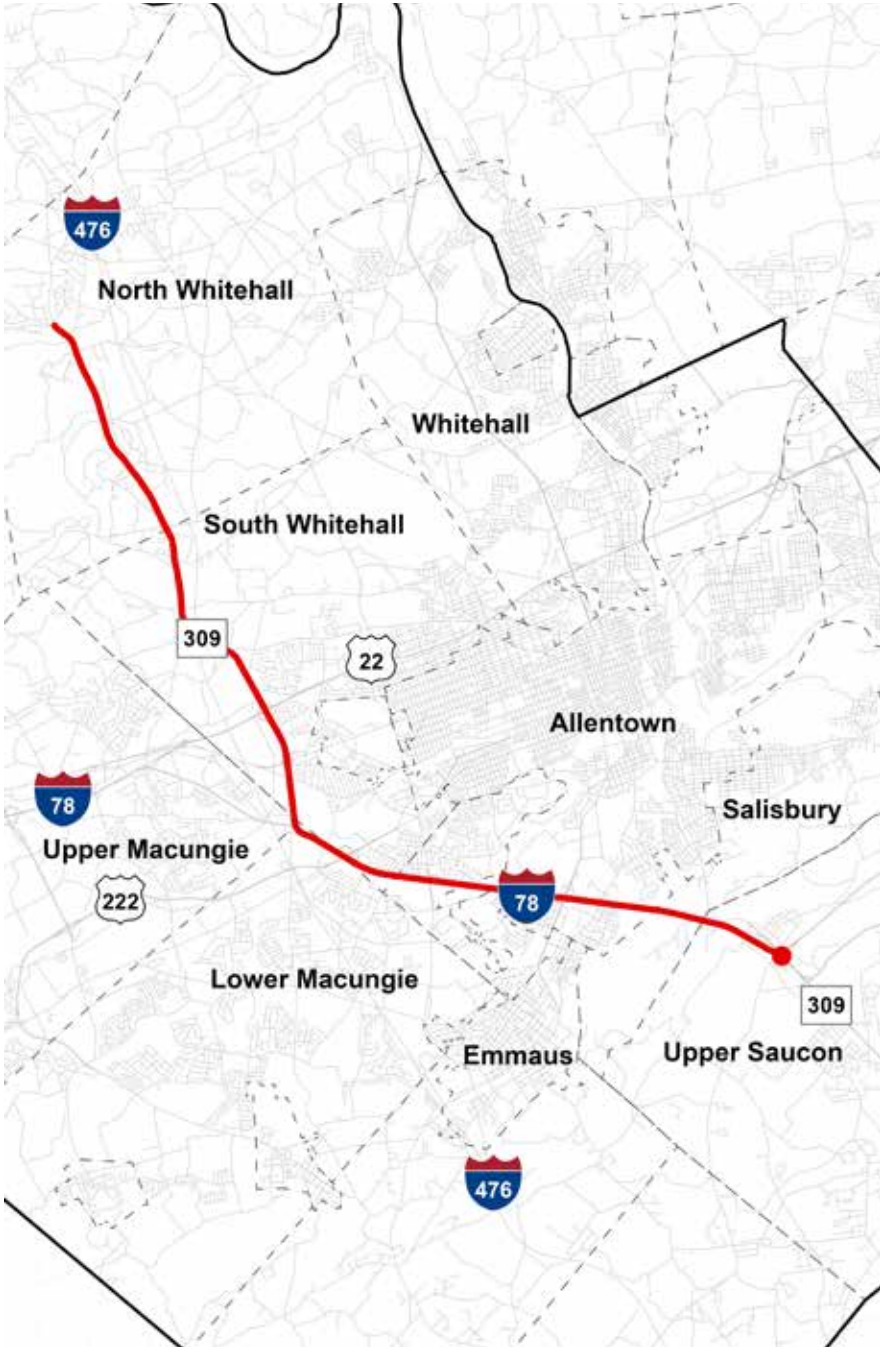
- *FutureLV: The Regional Plan*
  - Route 222 Betterment Project – Improvements from Grimm Road to Cedar Crest Boulevard.
  - Route 222/Hamilton Boulevard Betterment Project – Improvements from Route 222 to Kressler Road.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,537
Annual Average Daily Traffic	16,379
Municipality	Lower Macungie Township
Level of Service (V/C)	0.65
PHED	14665.530
LOTTR	1.169
TTTI	1.416
TTTR	N/A
High Crash Severity	Yes
Priority Rank	2

- Jaindl Highway/Hamilton Boulevard/Hamilton Street (Route 222) Signal Improvements – upgrades to traffic infrastructure and timing to implement automated traffic signal performance measures at approximately 17 intersections.
- Jaindl Highway (Route 222) Safety Improvements – Redesign and construction for safety and traffic management in the "weave area" between the Pennsylvania Turnpike Northeast Extension (I-476) bridge and I-78 interchange, including Hamilton Boulevard, Kessler Road and Cedarbrook Road (Route 2011).

Strategies

- Extend merge lanes
- Coordinate signals to reduce queue spillback



Route 309 (Southbound) near I-78/Exit 60b & 20

Route 309 South at the I-78 interchange (Exit 60B & 20) functions as a major gateway between the regional interstate system and the Route 309 corridor, carrying high volumes of commuter, regional, and freight traffic.

Conditions at this location are characterized by recurrent peak-period congestion driven by heavy merging and weaving movements between I-78 ramps and Route 309 mainline traffic, resulting in reduced speeds and travel time reliability.

The closely spaced ramps, signalized intersections and downstream commercial access intensify operational constraints, particularly during weekday commuter peaks and seasonal travel periods.

These conditions make the interchange a critical bottleneck, where minor disruptions can quickly propagate delays along both Route 309 and I-78.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	3,712
Annual Average Daily Traffic	26,344
Municipality	Upper Saucon Township
Level of Service (V/C)	0.71
PHED	4213.84555
LOTTR	1.092399
TTTI	1.394608
TTTR	N/A
High Crash Severity	Yes
Priority Rank	3

Planned Improvements

- *FutureLV: The Regional Plan*
  - Route 309 - Rehabilitation/replacement of box culvert over tributary to Kistler Creek.
  - Route 309 Resurface Betterment Project - Resurface from Lehigh/Bucks County Line in Coopersburg Borough to Center Valley Parkway (Route 2044) in Upper Saucon Township.
  - Route 309 - Signal Head Reflective Backplate - The low-cost safety improvement is adding signal head backplates on the northbound and southbound Route 309 signals.
  - Route 309 Center Valley Interchange - Interchange improvements.
  - Interstate 78 from Lehigh Street (Route 2005) to Route 309 South Interchange - Highway preservation/restoration, including pavement overlay and patching of existing mainline and shoulders, rehabilitation/replacement of drainage system, including access ramps.
  - Interstate 78 Corridor Safety Improvements from Emmaus Avenue (Route 2002) to east of Route 309 Interchange for Center Valley. - Improvements include conversion of shoulders into a dual use lane on I-78 eastbound from the Emmaus Avenue (Route 2002) Interchange to the Route 309 South split. The median barrier will be updated to add glare screens, and the drainage system will be rehabilitated or replaced. Two ramps at the Route 309 interchange will also be reconstructed.
  - Route 309 Northbound Realignment - Relocate northbound traffic to southbound traffic side between Route 378 and Lanark Road (Route 2039) to improve traffic congestion and safety.
  - Route 309 Pedestrian Bridge - Construct an alternative mode of transportation multimodal bridge over Route 309 to connect residents to recreational amenities and trails on both sides of highway.
- Transportation Improvement Program (TIP)
  - Route 309 and Center Valley Interchange improvements (MPMS: 102160)

Strategies

- Rehabilitate and replace aging roadways, bridge and drainage assets
- Implement low-cost and targeted safety improvements
- Upgrade key interchanges to reduce congestion, improve ramp functionality, and enhance traffic flow
- Use operational and geometric improvements to minimize recurring congestion
- Expand pedestrian and multimodal connections to improve safe access across major roadway barriers
- Apply roadway realignments and design solutions that improve safety and quality of life for adjacent neighborhoods

Route 29 Northbound near I-78 / Route 309

The exit lane of the Route 29 northbound interchange with I-78/Route 309 merges onto Cedar Crest Boulevard while allowing both left and right turns.

This configuration creates recurring conflicts that contribute to a continuous bottleneck along Cedar Crest Boulevard.

Traffic accumulation is further compounded by the downstream signalized intersection, exacerbating congestion along the corridor.

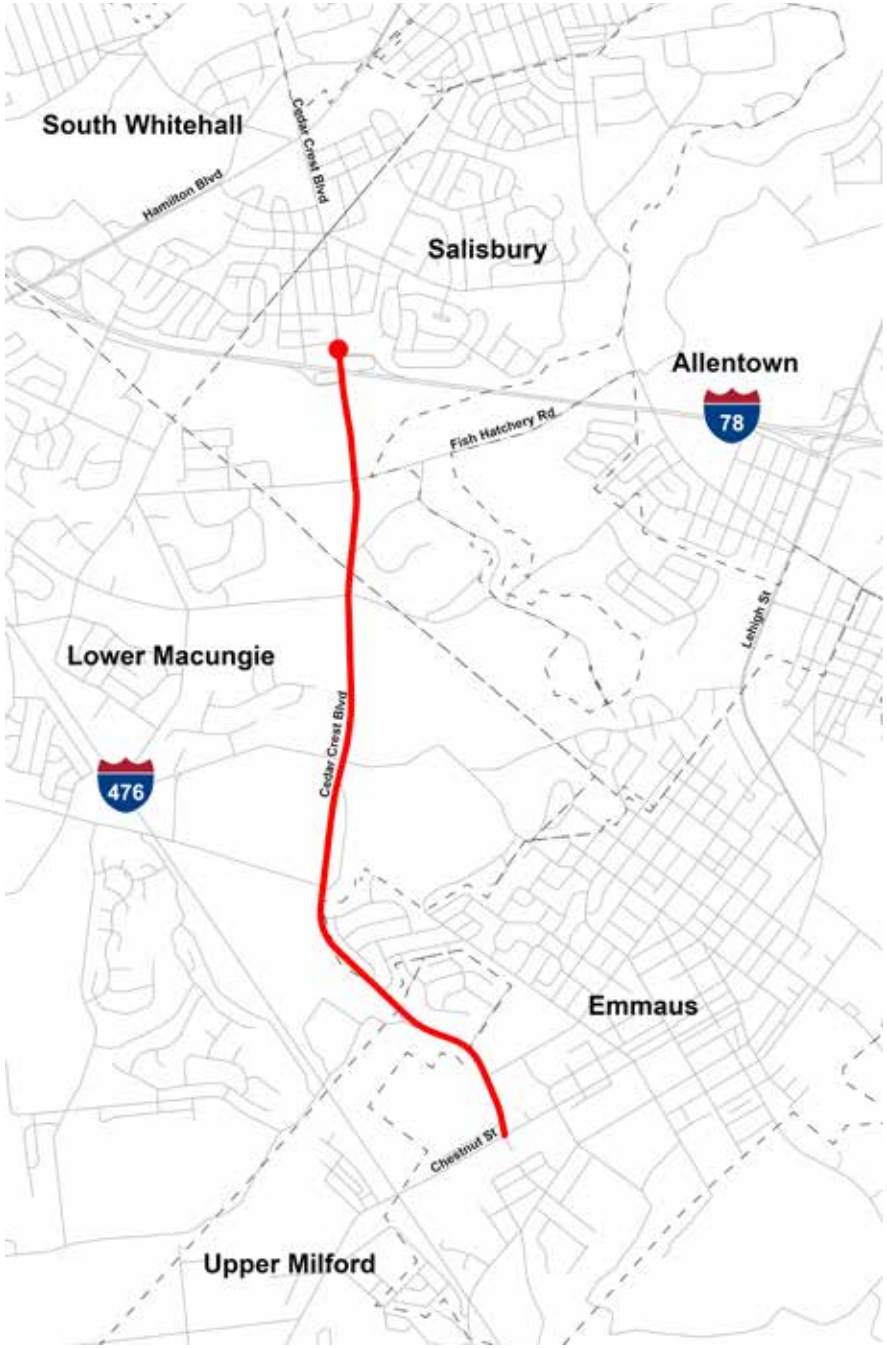
Planned Improvements

- None currently.

Strategies

- Redesign merge zones
- Add directional lanes to reduce conflict and improve flow

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,107
Annual Average Daily Traffic	14,767
Municipality	Salisbury Township
Level of Service (V/C)	2.42
PHED	29299.462
LOTTR	1.174
TTTI	1.786
TTTR	N/A
High Crash Severity	Yes
Priority Rank	4



Cedar Crest Boulevard Northbound near I-78/Route 309

The exit lane of the Cedar Crest Boulevard North interchange with I-78/Route 309 merges onto Cedar Crest Boulevard while allowing both left and right turns, creating a continuous conflict that contributes to recurring congestion.

Traffic is further impeded by the downstream signalized intersection, which leads to vehicle accumulation and a non-stop bottleneck along Cedar Crest Boulevard.

Participants in the CMP workshop on March 2 mentioned Emmaus High School and LHVN Cedar Crest Hospital as significant traffic generators.

Planned Improvements

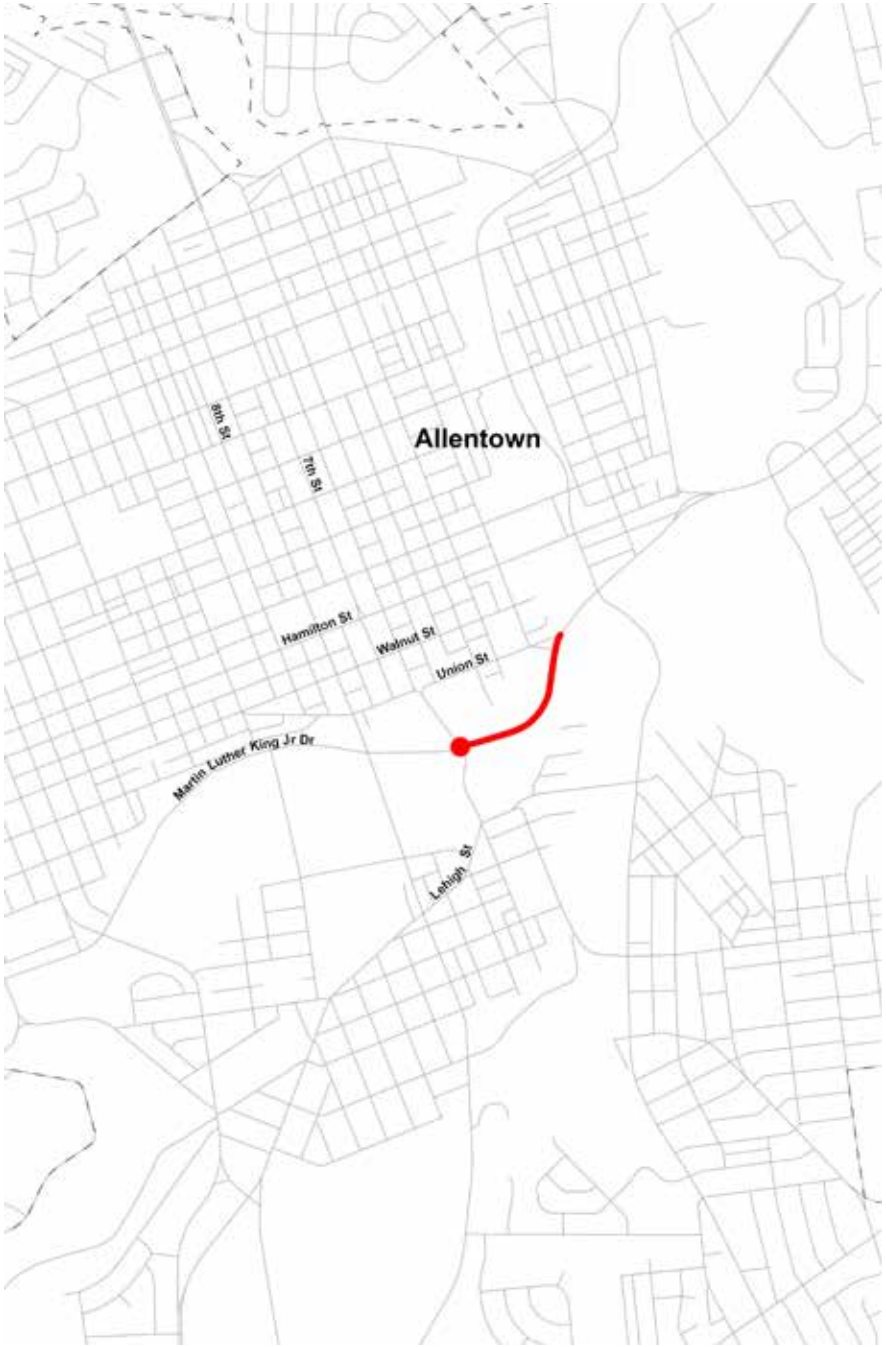
- *FutureLV: The Regional Plan*
  - Cedar Crest Boulevard (Route 29) Resurface Betterment Project - Resurface from Minesite Road in Lower Macungie Township to I-78 in Salisbury Township.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,420
Annual Average Daily Traffic	16,698
Land use classification	Residential, Industrial
Length	5.3 miles
Lanes	4
Municipalities	Upper Macungie and Lower Macungie Townships
Level of Service (V/C)	0.68
PHED	16547.202
LOTTR	1.211
TTTI	1.580

- Transportation Improvement Program (TIP)
  - Cedar Crest Signal Upgrade - Traffic signal upgrades along Route 2005 from Fish Hatchery Road to Lincoln Avenue.
  - Freeway Service Patrol - Two roaming tow trucks responding to incidents on I-78 from Route 100 to the Route 309 split and I-78/Route 22 from Route 100 to Route 33 to improve corridor reliability and safety.

Strategies

- Add dedicated turn lanes
- Optimize downstream signals to reduce vehicle accumulation



Martin Luther King (MLK) Jr. Drive Westbound near Route 145/Lehigh Street

Traffic merging from Lil Peep Street onto MLK Jr. Drive contributes to queuing at the signalized intersection, creating a recurring bottleneck. Additional factors include school bus parking and notable pedestrian activity.

Planned Improvements

- *FutureLV: The Regional Plan*
  - Allentown MLK Jr. Drive Project - Pedestrian enhancements along MLK Jr. Drive at 4th Street and Lehigh Street.
  - MLK Jr. Drive Pedestrian Improvements - Upgrade multimodal infrastructure including Americans with Disabilities Act-compliant ramps, traffic control devices, and crosswalks.
  - MLK Jr. Trail Extension - Construct the next phase of the trail network to connect the corridor to the Cedar Creek Parkway trail network.

Strategies

- Implementing roundabouts with sidewalk enhancements

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	454
Annual Average Daily Traffic	15,154
Municipality	Allentown
Level of Service (V/C)	1.05
PHED	N/A
LOTTR	N/A
TTTI	N/A
TTTR	N/A
High Crash Severity	Yes
Priority Rank	6

S. Jefferson Street/Ward Street (Northbound) near S. 15th Street at Martin Luther King Junior Drive

A mix of merging lanes, unsignalized intersections, pedestrian crossings, and nearby signalized intersections within a short distance contributes to recurring congestion and bottlenecks.

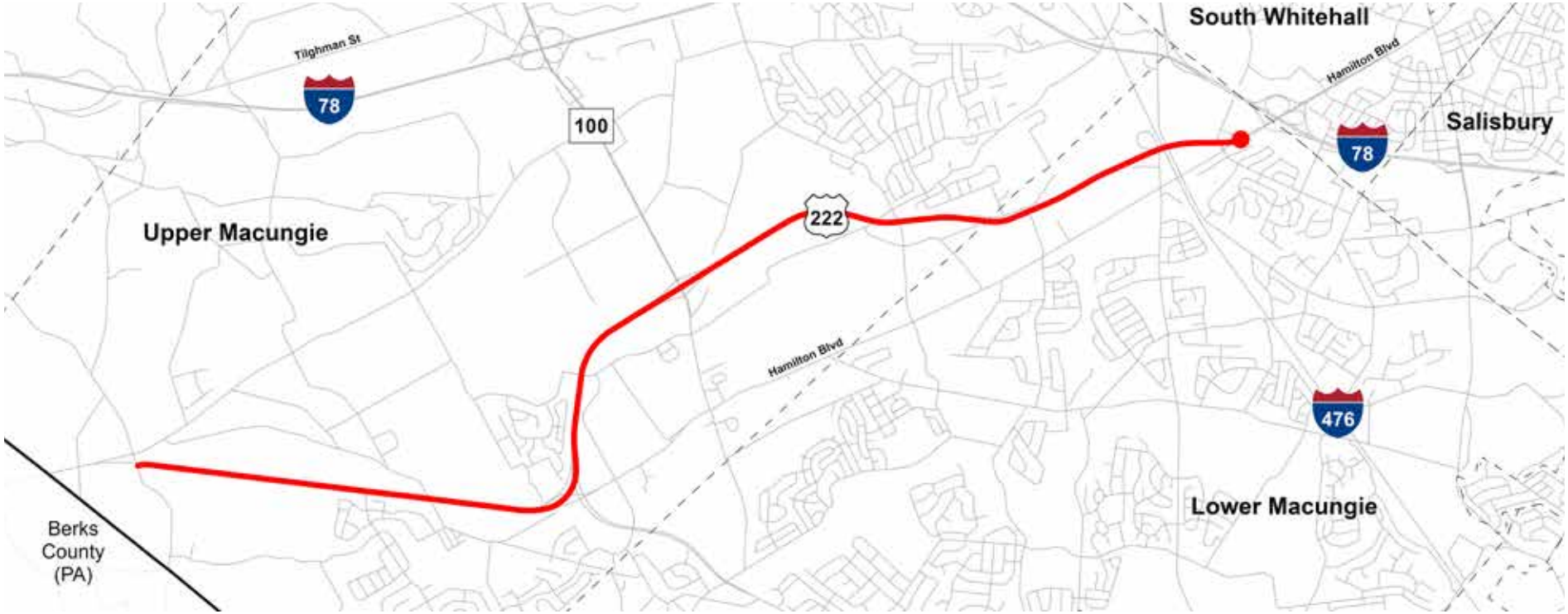
Planned improvements

- *FutureLV: The Regional Plan*
  - Jefferson Street Road Diet/Roundabout - Construction of a roundabout at the intersection of Jefferson Street and Park Drive, Lehigh Parkway East, Lehigh Parkway South and Tioga Street. Implement lane narrowing and multimodal pedestrian improvements along the corridor.

Strategies

- Enhance crosswalks and geometric redesign
- Signal enhancements to improve traffic flow and safety

Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	586
Annual Average Daily Traffic	12,728
Municipality	Allentown
Level of Service (V/C)	0.99
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	NA
High Crash Severity	Yes
Priority Rank	7



Route 222 (Eastbound) near Route 222 Business

Recurring congestion is driven by conflicting lane-changing maneuvers from both the freeway and the arterial. Vehicles exiting Route 222 eastbound toward Hamilton Boulevard and continuing to I-78 must merge across traffic entering from Hamilton Boulevard headed toward Allentown, creating turbulence in the traffic stream.

These weaving and merging conflicts reduce operational efficiency and cause recurring delays, with queues frequently extending downstream to the Route 222/Schantz Road roundabout.

The overlapping movements - drivers from Hamilton Boulevard attempting to reach I-78 and those from Route 222 attempting to reach Allentown - concentrate demand in the same limited merge area, intensifying the bottleneck.

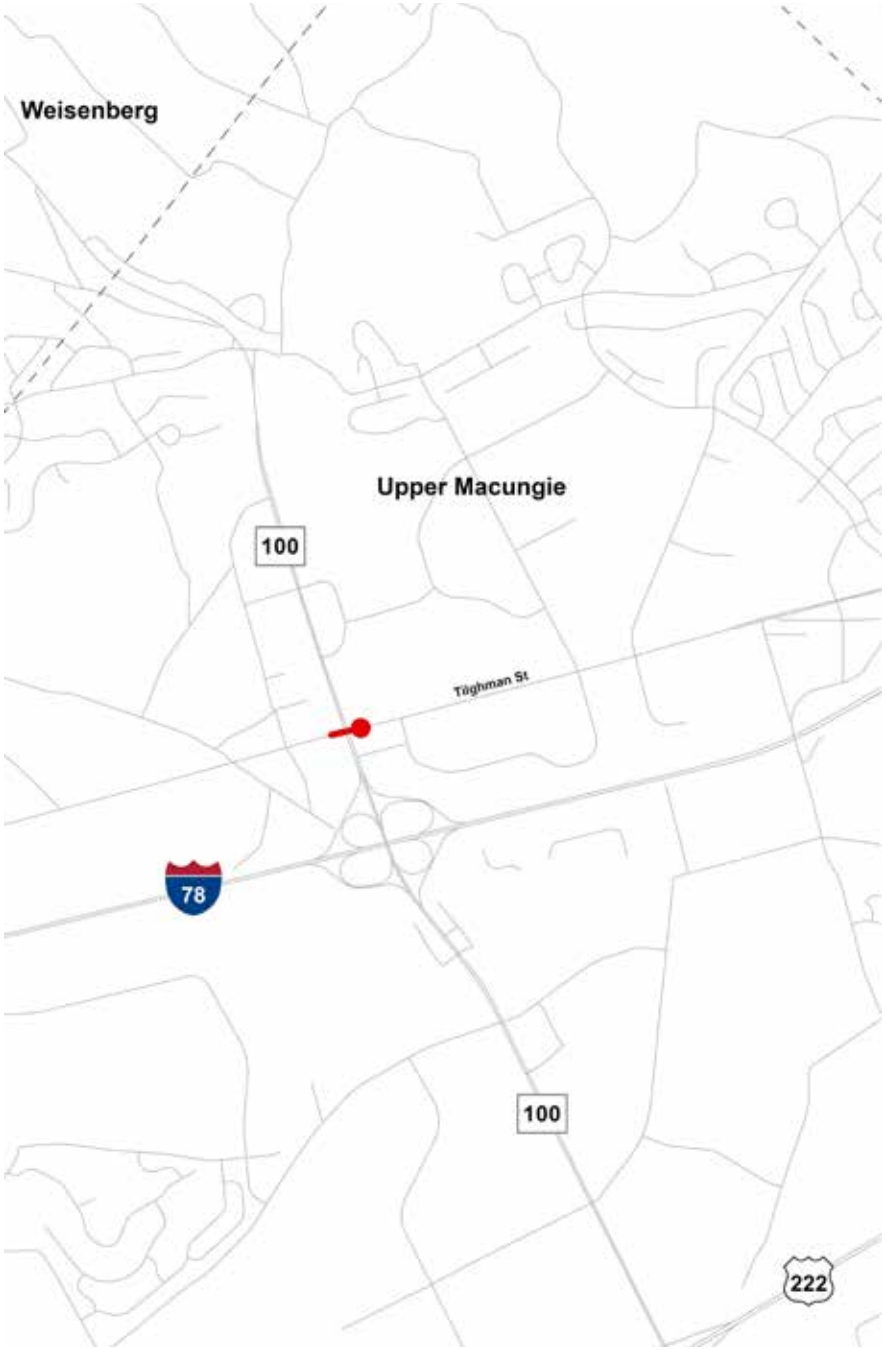
Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,496
Annual Average Daily Traffic	16,177
Municipality	Lower Macungie Township
Level of Service (V/C)	0.66
PHED	11797.806
LOTTR	1.179
TTTI	1.534
TTTR	N/A
High Crash Severity	Yes
Priority Rank	8

Planned Improvements

- *FutureLV: The Regional Plan*
  - Route 222/Hamilton Boulevard Betterment Project - Improvements from Route 222 to Kressler Road.
  - Hamilton Boulevard (Route 222) Resurface Betterment Project - Resurface from I-78 in South Whitehall Township to 15th Street in Allentown.
  - Jaindl Highway/Hamilton Boulevard/Hamilton Street (Route 222) Signal Improvements - Upgrades to traffic infrastructure and timing to implement automated traffic signal performance measures at approximately 17 intersections.
  - Hamilton Boulevard (Route 222) and Lower Macungie Road (Route 2012) Roundabout - Construction of a new roundabout at this intersection, including feasibility analysis per PennDOT guidelines.
  - Jaindl Highway (Route 222) at Krocks Road Intersection Improvements - Intersection upgrades to reduce congestion and improve safety.

Strategies

- Signalize and coordinate timings with the adjacent signals to reduce conflict and better meter flow



Tilghman Street (Eastbound) near Route 100

Tilghman Street East at Route 100 operates as a key suburban arterial intersection supporting both regional through movements and local access within the western Lehigh Valley.

Existing conditions include high traffic volumes, particularly during weekday peak periods, driven by commuter travel and commercial activity along both corridors.

The signalized intersection experiences recurring delay and queuing due to heavy turning movements, closely spaced access points, and downstream congestion along Tilghman Street.

Surrounding retail and employment land uses generate frequent ingress and egress, which, combined with limited roadway spacing, contribute to operational constraints and reduced travel time reliability at this intersection.

Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	1,527
Annual Average Daily Traffic	13,874
Municipality	Allentown
Level of Service (V/C)	0.98
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	N/A
High Crash Severity	Yes
Priority Rank	9

Planned Improvements

- *FutureLV: The Regional Plan*
  - Tilghman Street (Route 1002) Resurface Betterment Project - Resurface Tilghman Street from Route 100 in Upper Macungie Township, through South Whitehall Township to North Dauphin Street (Route 1007) in Allentown.
  - Route 100 Betterment Project - Improvements from the Routes 100/222 split to Tilghman Street.
  - Route 100 Betterment Project - Improvements from Tilghman Street to Kernsville Road.
  - Tilghman Street (Route 1002) Improvements - Widen corridor from Route 100 to Ruppsville Road (Route 3019), including betterment of traffic management through traffic signal upgrades, pavement markings, multimodal accommodations and sidewalks.

Strategies

- Resurface and perform betterment projects to enhance ride quality and corridor durability
- Upgrade and modernize intersections
- Integration with the Traffic Management Center to optimize operations
- Incorporate sidewalks and enhanced pavement markings
- Implement widening and interchange reconstruction projects
- Improve vehicle throughput and operational reliability
- Ensure Freight Operations Improvements and Integrated Corridor Management (ICM) strategies

Route 222 (Southbound) near I-78

At this location, which sees significant seasonal traffic for Dorney Park, the lack of dedicated merging lanes between the I-78 exits and Route 222 contributes to recurring congestion, as vehicles entering Route 222 must merge directly into through traffic, causing delays and safety risks.

Planned Improvements

- *FutureLV: The Regional Plan*
  - Hamilton Boulevard and I-78/Route 222 Projects – Hamilton Boulevard (Route 222) Resurface Betterment Project from I-78 in South Whitehall Township to 15th Street in Allentown.

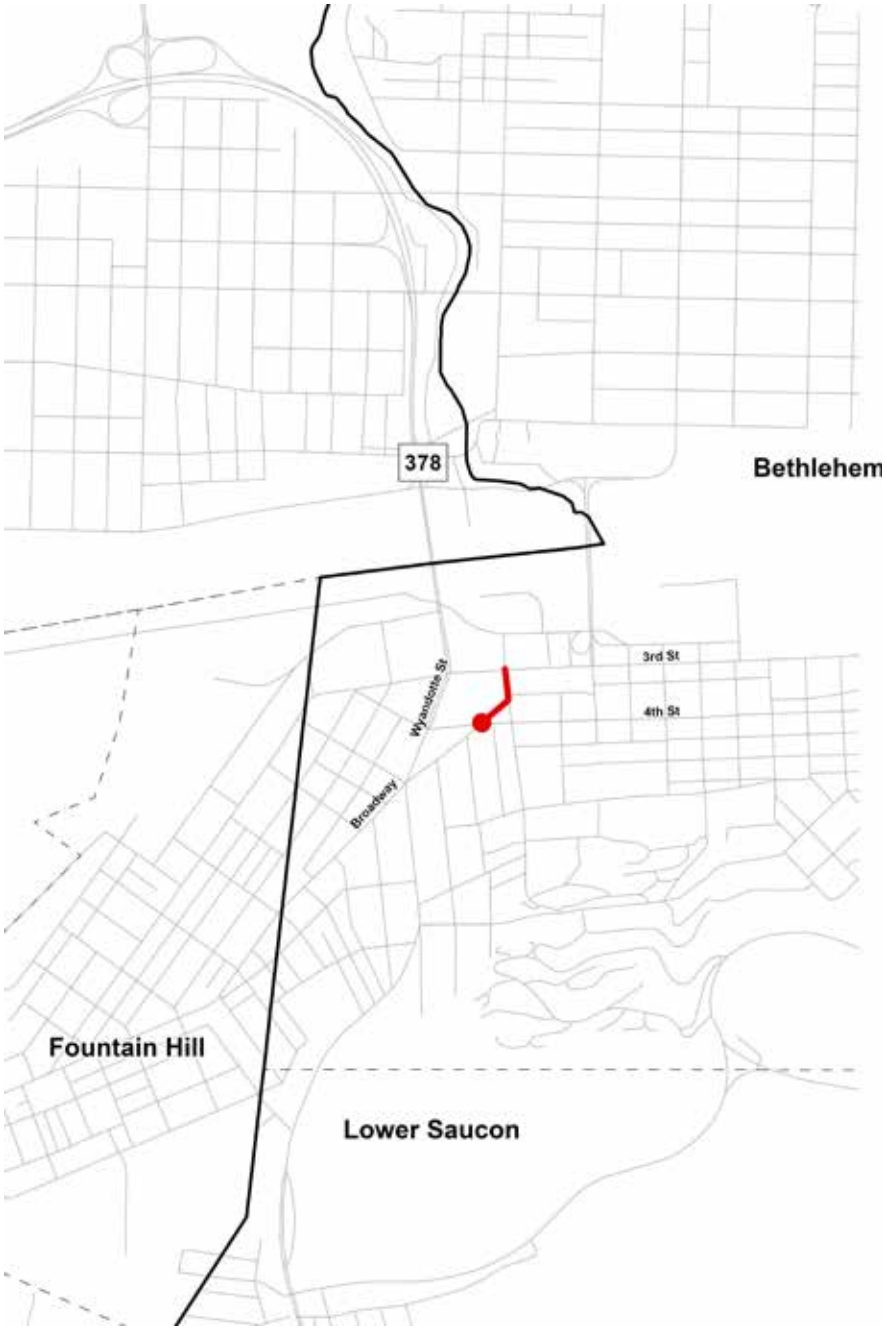
Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	1,117
Annual Average Daily Traffic	12,883
Municipality	South Whitehall Township
Level of Service (V/C)	0.76
PHED	5292.792
LOTTR	1.217
TTTI	1.838
TTTR	NA
High Crash Severity	No
Priority Rank	10

- Jaindl Highway (Route 222) Safety Improvements - Redesign and construct for traffic management in the “weave area” near the Pennsylvania Turnpike Northeast Extension (I-476) bridge and I-78 interchange, covering Hamilton Boulevard (Route 222), Kessler Road and Cedarbrook Road (Route 2011).
- Interstate 78/Route 222 Interchange Upgrades – Improvements to include lane reconfigurations, revised signalization and ramp modifications.

Strategies

- Construct continuous auxiliary lanes
- Reconfigure ramps to improve merging and reduce delays

Priority Bottlenecks in Northampton County



Broadway (Westbound) at 4th Street

Broadway Westbound at 4th Street Ramp and Broadhead Avenue operates as a key urban arterial segment within the City of Bethlehem, supporting a mix of local circulation and regional connectivity across the Lehigh River.

Existing conditions at this location are influenced by a dense urban street network, signalized intersections, and frequent pedestrian activity associated with adjacent residential, commercial, and institutional land uses.

Traffic operations are characterized by moderate to high peak-period volumes, turning movement conflicts and constrained roadway geometry, which contribute to reduced speeds and intermittent queuing.

The presence of on-street parking, transit activity and limited curb space further affect operational efficiency, making this bottleneck location sensitive to minor fluctuations in demand and requiring careful balancing of vehicle, pedestrian, and multimodal needs.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	450
Annual Average Daily Traffic	13,314
Municipality	Bethlehem
Level of Service (V/C)	1.09
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	N/A
High Crash Severity	Yes
Priority Rank	1

Planned Improvements

- Currently none.

Strategies

- Optimize signal timing and turning movements to reduce delays and queuing during peak periods
- Upgrade crosswalks, pedestrian signals and curb geometry to improve safety for pedestrians and cyclists
- Improve on-street parking management and loading zones to reduce conflicts and maintain traffic flow

Broadway (Eastbound) near W. 3rd Street

Broadway eastbound at West 3rd Street/River Street functions as an important urban connector along the Lehigh River, linking downtown Bethlehem with adjacent neighborhoods and regional routes.

Existing conditions at this location reflect a constrained urban setting with closely spaced intersections, signalized control, and a high level of pedestrian and bicycle activity tied to nearby residential, commercial, and recreational land uses.

Traffic operations are influenced by turning movements, on-street parking, and periodic curbside activity, resulting in moderate congestion and queuing during peak periods.

The corridor's proximity to the riverfront and downtown destinations increases multimodal demand, requiring careful management of vehicular flow while maintaining accessibility and safety for non-motorized users.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	450
Annual Average Daily Traffic	13,314
Municipality	Bethlehem
Level of Service (V/C)	1.09
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	N/A
High Crash Severity	Yes
Priority Rank	1

Planned Improvements

- Currently None.

Strategies

- Optimize signal timing and turning movements to reduce delay and queuing during peak periods
- Upgrade crosswalks, pedestrian signals, and curb geometry to improve safety for pedestrians and cyclists
- Improve on-street parking management and loading zones to reduce conflicts and maintain traffic flow

Route 378 (Northbound) near Hill-To-Hill Bridge

Travel slows at the Route 378, northbound approach to the Hill-to-Hill Bridge, causing delays, traffic stoppages and safety risks. Congestion is compounded by queues from upstream signalized intersections, causing a recurring bottleneck.

Planned Improvements

- *FutureLV: The Regional Plan*
  - Route 378 and Main Street Bridge Projects – Main Street Ramp Bridge Rehabilitation to connect to Main Street from Route 378.
  - Route 378 Betterment Project from Colesville Road to Brighton Street.
- Transportation Improvement Program (TIP)
  - Hill-to-Hill Bridge Improvements - Rehabilitation of Route 378 Bridge over the Lehigh River, Norfolk Southern railroad and various city streets.
  - Bridge Preservation and Repair 8 - Preservation and rehabilitation of various bridges.
  - Route 378 Lighting - Installation of lighting from Hill-to-Hill Bridge to Route 22.

Strategies:

- Bridge replacement or rehabilitation to improve traffic flow

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	851
Annual Average Daily Traffic	17,267
Municipality	Bethlehem
Level of Service (V/C)	0.62
PHED	19794.963
LOTTR	1.421
TTTI	2.367
TTTR	NA
High Crash Severity	Yes
Priority Rank	3

W. 3rd Street (Westbound) at 2nd Street Ramp

W. 3rd Street (westbound to 2nd Street ramp/Brodhead Ave)is a recurring bottleneck within the corridor due to high volumes, closely spaced intersections, and concentrated turning movements.

Westbound traffic experiences queuing during peak commuter periods as vehicles merge, turn, and navigate signalized control in a constrained urban setting.

The interaction between regional through traffic and local access movements creates operational friction, particularly where lane configurations and signal timing limit discharge capacity.

Proximity to mixed-use development and institutional destinations further intensifies short-term demand surges. These combined factors contribute to recurring delay, reduced travel time reliability,

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	450
Annual Average Daily Traffic	13,314
Municipality	Bethlehem
Level of Service (V/C)	1.09
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	N/A
High Crash Severity	Yes
Priority Rank	1

and increased rear-end and side-swipe conflict potential, highlighting the need for targeted intersection optimization, lane-use evaluation, and access management strategies to improve westbound flow and safety.

Planned Improvements

- None currently.

Strategies

- Dedicated truck routing and off-peak delivery incentives
- Corridor-wide redesign of 3rd street to avoid shifting bottlenecks downstream
- Signal Retiming

Stefko Boulevard (Northbound) near Pembroke Road

Stefko Boulevard (northbound) near Pembroke Road is a localized bottleneck driven by high directional peak-hour demand during both AM and PM peaks, signalized intersection control, and concentrated turning movements.

Northbound queues frequently develop during commuter periods as through traffic competes with left- and right-turn movements serving adjacent residential and commercial properties.

Closely spaced access points and pedestrian crossings further influence progression and reduce effective capacity along the approach. Variability in traffic flow, including school-related activity and neighborhood circulation, contributes to intermittent but recurring delays.

These conditions result in reduced travel time reliability and elevated rear-end conflict potential, indicating the need for signal timing optimization, turn-lane evaluation, and targeted operational improvements to enhance northbound performance and safety.

Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	951
Annual Average Daily Traffic	14,633
Municipality	Bethlehem
Level of Service (V/C)	1.01
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	NA
High Crash Severity	Yes
Priority Rank	5

Planned Improvements

- None currently.

Strategies

- Signal retiming and coordination
- Intersection optimization
- Redundant commercial driveways
- Sidewalk continuities
- High visibility crosswalks and pavement marking improvements

Freemansburg Avenue (Westbound) near Washington Street / Cambria Street

Freemansburg Avenue (westbound) near Washington Street / Cambria Street functions as a recurring bottleneck due to concentrated peak-hour traffic and high turning activity at the intersection.

Westbound vehicles frequently experience queuing as left- and right-turn movements compete with through traffic, compounded by closely spaced driveways serving adjacent residential and neighborhood commercial land uses.

Limited storage capacity for turning lanes and signal progression constraints further reduce corridor efficiency. These conditions result in periodic congestion, increased rear-end conflict risk, and reduced travel time reliability, emphasizing the need for signal timing adjustments, turn-lane enhancements, and targeted access management to improve westbound flow and overall safety.

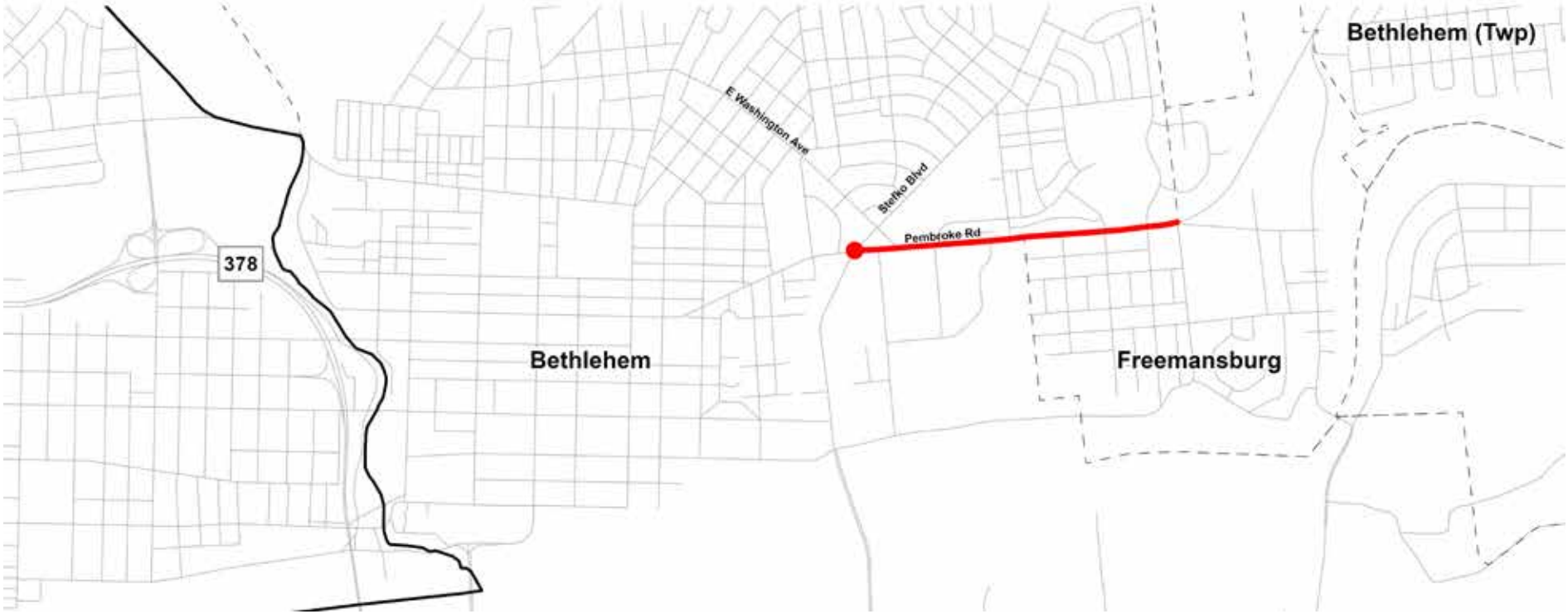
Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	859
Annual Average Daily Traffic	13522
Municipality	Bethlehem
Level of Service (V/C)	0.856
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	NA
High Crash Severity	Yes
Priority Rank	6

Planned Improvements

- Transportation Improvement Program (TIP)
  - Freemansburg Avenue Safety Improvements: Reconstruction and realignment of the intersection at Freemansburg Avenue (Route 2018) and Farmersville Road.

Strategies

- Signal timing optimization
- Off-peak delivery for truck delivery
- Sidewalk connectivity and pedestrian enhancements
- Crosswalk enhancements



Pembroke Road (Westbound) near Stefko Boulevard

Pembroke Road (westbound) near Stefko Boulevard is a localized bottleneck due to high directional AM and PM peak-hour demand and turning movements at the signalized intersection. Westbound traffic often experiences queuing and delays as vehicles navigate left- and right-turn movements serving adjacent residential and commercial properties. The combination of closely spaced driveways, pedestrian crossings, and merging traffic from side streets further reduces effective lane capacity and limits progression. These conditions create recurring congestion during morning and afternoon peak periods, increase rear-end collisions potential, and diminish travel time reliability, highlighting the need for signal timing optimization, turn-lane enhancements, and targeted access management to improve westbound corridor performance.

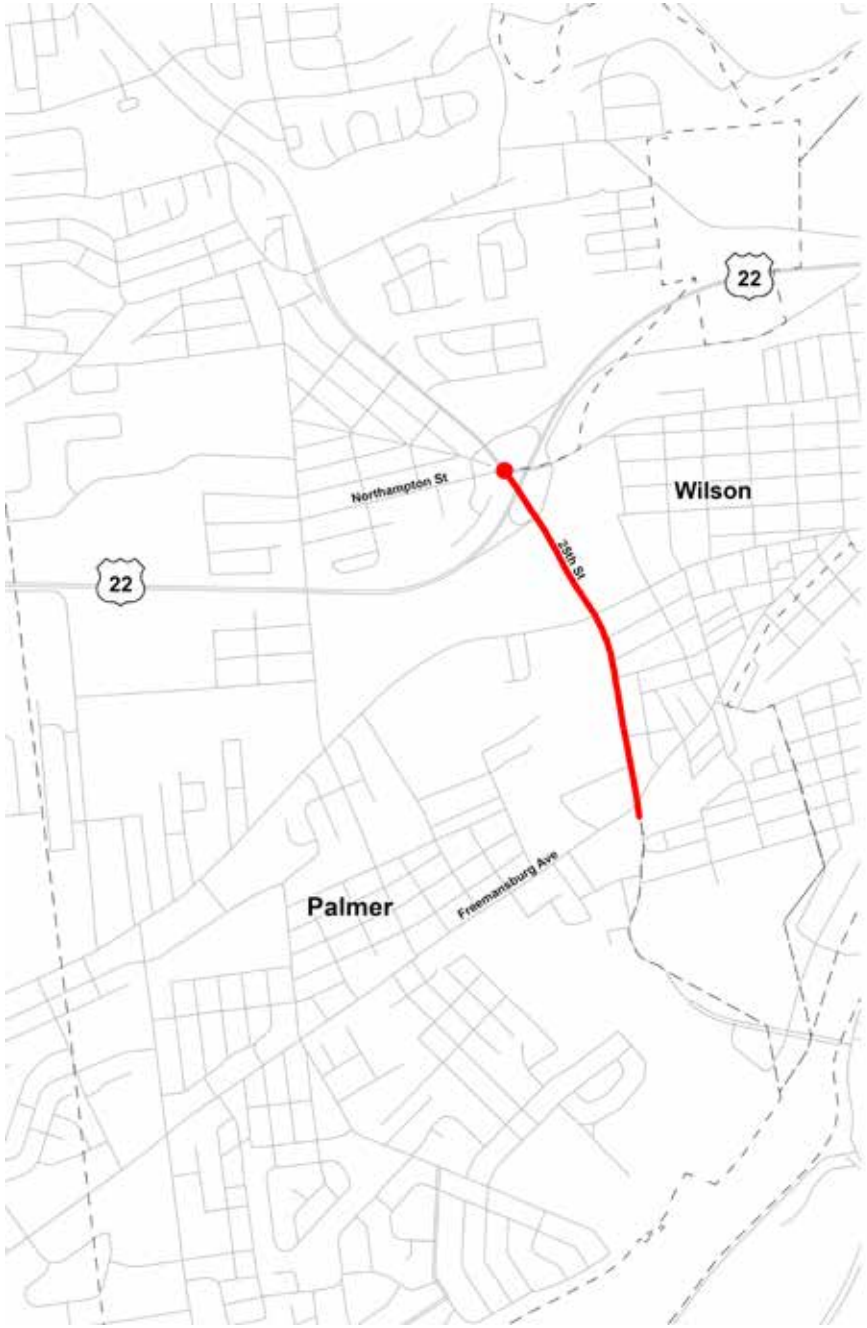
Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	533
Annual Average Daily Traffic	14,113
Municipality	Bethlehem
Level of Service (V/C)	0.88
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	NA
High Crash Severity	Yes
Priority Rank	7

Planned Improvements

- None currently.

Strategies

- Reconstruction and realignment of intersection
- Rectangular rapid flash beacon light upgrades
- Pedestrian improvements and sidewalk connectivity
- Improving transit amenities at bus stops



S. 25th Street (Northbound) near Route 22

S. 25th Street (northbound) near Route 22 is a significant bottleneck due to heavy commuter and regional traffic merging onto and off the highway. Northbound volumes peak during morning and evening periods, creating queuing at the intersection and limiting upstream progression. Frequent turning movements, closely spaced commercial access points, and interactions with adjacent traffic signals exacerbate congestion, while the mix of passenger vehicles and trucks further constrains capacity.

These conditions result in recurring delay, reduced travel time reliability, and increased potential for rear-end and turning-related conflicts, emphasizing the need for signal timing optimization, turn-lane evaluation, and strategic access management to improve northbound flow and overall corridor safety.

Attribute / Metric	Value / Description
NHS status	Yes
Annual Daily Truck Traffic	551
Annual Average Daily Traffic	14,039
Municipality	Palmer
Level of Service (V/C)	0.65
PHED	7,048
LOTTR	1.32
TTTI	2.61
TTTR	NA
High Crash Severity	Yes
Priority Rank	8

Planned Improvements

- *FutureLV: The Regional Plan*
  - 25th Street Hill Improvement - A full restoration, resurfacing and rehabilitation to South 25th Street (State Route 2012) from the intersection of Freemansburg Avenue to the divided highway at the Lehigh River Bridge near Glendon Borough.
  - Nazareth Road (State Route 248) Resurface Betterment Project - Resurface from Hollo Road in Lower Nazareth Township to South 25th Street in Palmer Township.
  - 25th Street Hill (State Route 2012) Improvements - Safety and infrastructure enhancements and reconstruction, including drainage upgrades, shoulder widening, flattening of curves, intersection improvements, signage and guiderail upgrades including embankment removal.
  - Butler Street (State Route 2020) Streetscape Improvements - Improve streetscapes along South 25th Street (State Route 2012) and South 15th Street.
  - South 25th Street Multimodal Corridor Study - Plan for three phases of future multimodal transportation improvement recommendations and designs along the corridor from Park Avenue to the Lehigh River.
  - US State Route 22, State Route 248 and 25th Street - Conduct a US Route 22 interchange study for State Route 248.

Strategies

- Restoration, resurfacing, and rehabilitation of corridors and infrastructure
- Safety and Infrastructure enhancements and reconstruction
- Drainage upgrades and geometric redesign
- Sidewalk and guiderail improvements
- Streetscape and multimodal enhancements
- Interchange studies along Route 22

Stefko Blvd (Southbound) near Minsi Trail Bridge

Stefko Boulevard (southbound) near the Minsi Trail Bridge operates as a frequent bottleneck due to high peak-period traffic, constrained bridge lane capacity, and significant turning movements at nearby intersections. Southbound queues often form as vehicles merge and navigate signalized access points, while interactions with commercial driveways and pedestrian crossings reduce effective throughput. The combination of bridge geometry, peak commuter flows, and local access demands contributes to recurring congestion, diminished travel time reliability, and elevated rear-end conflict potential. These conditions underscore the need for targeted operational improvements, including signal timing coordination, turn-lane optimization, and strategies to enhance southbound corridor flow and safety across the bridge.

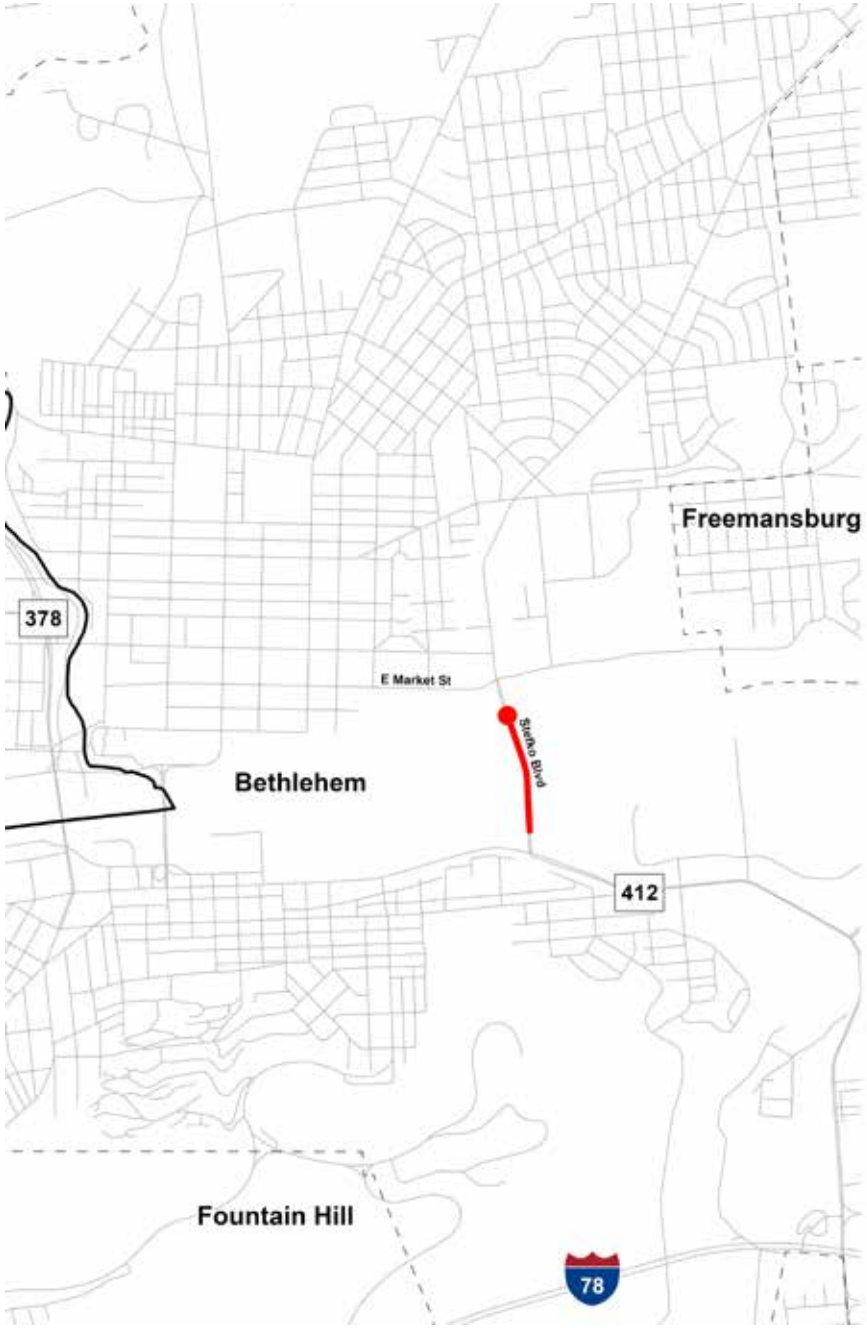
Planned Improvements

- Transportation Improvement Program (TIP)
  - Board street multimodal improvements.

Strategies

- Signal Retiming
- Left turn lane configuration coming from Stefko Road and Market Street up to Broad Street
- Pedestrian Infrastructure

Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	996
Annual Average Daily Traffic	12,368
Municipality	Bethlehem
Level of Service (V/C)	0.98
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	NA
High Crash Severity	No
Priority Rank	9



Stefko Blvd (Northbound) near Minsi Trail Bridge

Stefko Boulevard (northbound) near the Minsi Trail Bridge functions as a recurring bottleneck due to high peak-hour commuter demand, bridge-related lane constraints, and concentrated turning movements at adjacent intersections. Northbound traffic frequently experiences queuing as vehicles merge and navigate signalized approaches, with limited lane capacity on the bridge exacerbating congestion. The proximity of commercial and residential access points, along with pedestrian crossings, further reduces progression and contributes to stop-and-go conditions.

These factors create recurring delays, increased rear-end conflict risk, and reduced travel time reliability, highlighting the need for signal timing optimization, turn-lane evaluation, and operational improvements to enhance northbound flow and safety across this critical bridge segment.

Planned Improvements

- Transportation Improvement Program (TIP)
  - Board street multimodal improvements.

Strategies

- Signal Retiming
- Left turn lane configuration coming from Stefko Road and Market Street up to Broad Street
- Pedestrian Infrastructure

Attribute / Metric	Value / Description
NHS status	No
Annual Daily Truck Traffic	1,115
Annual Average Daily Traffic	13,729
Municipality	Bethlehem
Level of Service (V/C)	1.00
PHED	NA
LOTTR	NA
TTTI	NA
TTTR	NA
High Crash Severity	No
Priority Rank	10

Evaluating Performance Trends

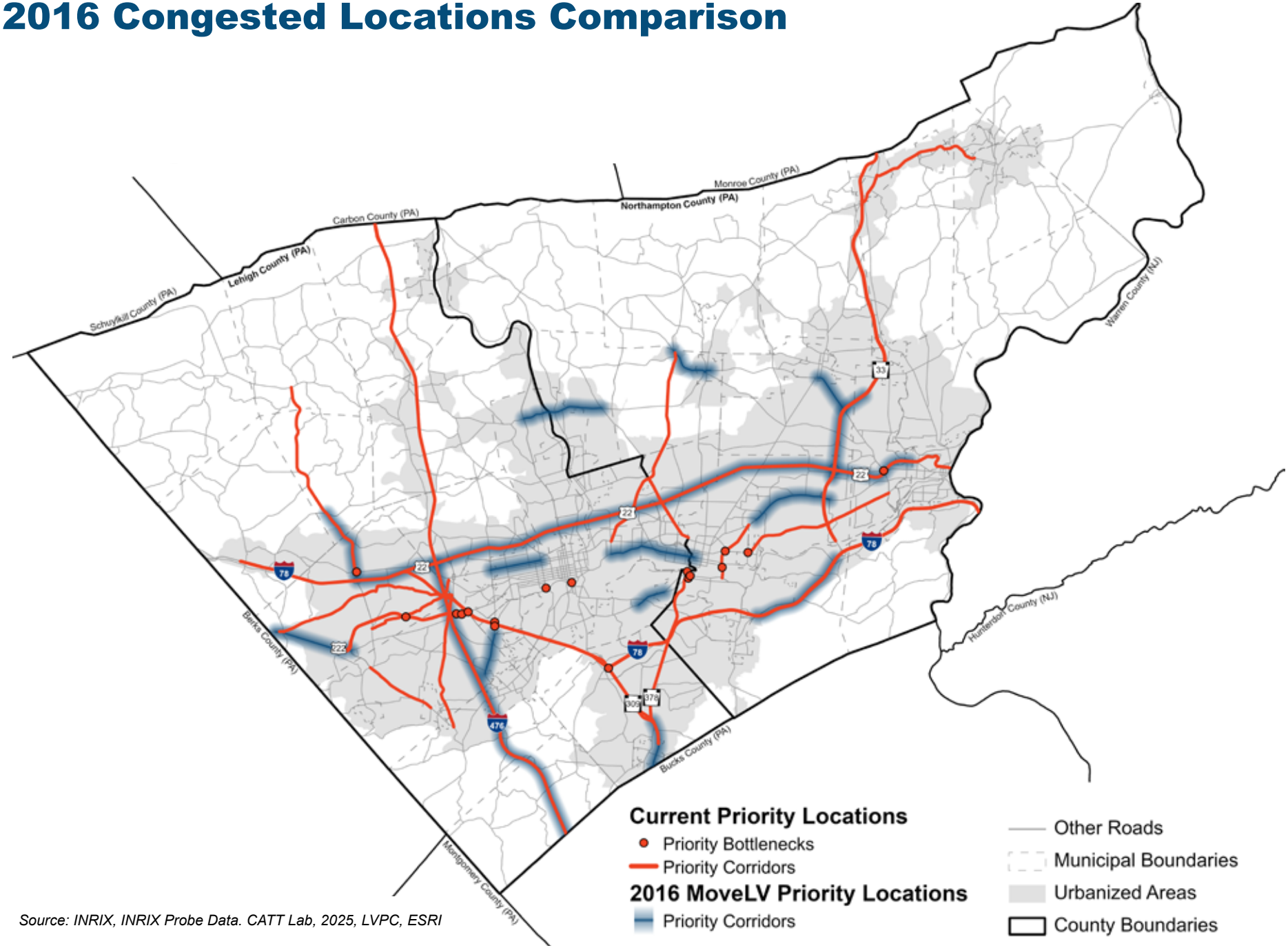
The CMP helps track how the Lehigh Valley's transportation network performs and identifies ways to reduce congestion across different travel modes. However, it does not directly measure how well implemented solutions work. Evaluating conditions before and after a project is important to see if strategies improve traffic flow, but such assessments are often limited by staffing and data availability.

Traffic patterns are influenced by factors like land use, economic shifts and travel behavior, making it difficult to measure a single project's impact. Still, estimating potential effects is critical for prioritizing investments that deliver the most meaningful improvements.

In the 2016 CMP update, LVTS identified 15 congested corridors, designating them as priorities due to their importance and severity of congestion. For this 2026 update, LVTS used INRIX to probe vehicle data for more precise congestion evaluation. The analysis compared current conditions with the 2016 list to determine if any corridors have improved enough to be removed.

The 15 priority corridors received a focused review to determine whether they remain critical congestion locations. Checked boxes indicate where previous priority corridors overlap with current ones.

2016 Congested Locations Comparison



Source: INRIX, INRIX Probe Data. CATT Lab, 2025, LVPC, ESRI

The CMP analysis shows that several corridors prioritized in the *2016 MoveLV* plan have seen measurable traffic improvements.

Of the 15 priority corridors, six – Tilghman Street, Route 29, Emmaus Avenue, Hanover Avenue, Route 248, and Easton Avenue – currently show no significant congestion at either the corridor or bottleneck level.

This suggests that the 2016 plan's mitigation strategies were effective.

Ongoing monitoring and targeted interventions on the remaining congested corridors will be important to maintain and improve traffic flow in the Lehigh Valley.

2016 *MoveLV* Priority Corridors	Current Corridors
Route 222/Hamilton Boulevard (Folk Road to Route 100)	X
Route 100 (Claussville Road to Tilghman Street)	X
Route 22 (Route 100 to Wood Avenue)	X
Route 329 (Route 145 to Weaversville Road)	X
Tilghman Street (N Cedar Crest Boulevard to N 15th Street)	
Route 476 (Route 22 to Lehigh County Line)	X
Route 29 (Fish Hatchery Road to Little Lehigh Drive)	
Route 309 (U-Turn S of Main Street to Lehigh County Line)	X
Emmaus Avenue/Broadway (Church Road to Delaware Avenue)	
Hanover Avenue/W Broad Street (N Irving Street to Guetter Street)	
Route 248 (Grouse Drive to Washington Street)	
Route 33 (Van Buren Road to Church Road)	X
Route 248 (Wambold Street to Route 33 southbound ramps)	
Easton Avenue (Nottingham Road to Hope Road)	
I-78 (Route 412 East ramps to Route 33 East ramps)	X

Lehigh Valley Congestion Management Strategies to Reduce Single-Occupancy Vehicle Travel

To address congestion and reduce reliance on single-occupancy vehicle (SOV) travel, the Lehigh Valley has advanced a range of coordinated strategies spanning transit, active transportation, pricing and regional connectivity. Examples include:

- The LVTS Coordinated Public Transit: Human Services Transportation Plan identifies transportation needs of transit-dependent older adults, low-income populations and individuals with disabilities, and evaluates service providers while also outlining strategies, projects, and activities to improve service efficiency and set implementation priorities based on funding, timing and feasibility.
- LANTA's Enhanced Bus Service (EBS) represents a key transit investment aimed at improving service frequency, reliability, and overall system attractiveness, making transit a more competitive alternative to driving alone. Reduced fare programs are also provided by LANTA which include three-hour passes, day passes, monthly passes, and special fares for seniors, people with disabilities, people with a Medicare card, and children.
- *Walk/RollLV: Active Transportation Plan* focuses on coordinating trails, bikeways, sidewalks, roadways, and public transit to create a convenient, safe, and multimodal transportation network. This effort supports reducing SOV travel and enhancing quality of life by improving air quality, health, mobility, safety, tourism, recreation, and overall environmental outcomes.
- Parking pricing strategies in the cities of Allentown, Bethlehem and Easton are being used to better manage demand, encourage turnover, and reduce incentives for SOV in high-activity areas.
- *The Lehigh Valley Trail Connection Strategy* focuses on closing gaps between existing and proposed trails to create a more continuous regional network. By strengthening these linkages, the strategy expands options for both everyday travel and recreational use without dependence on single-occupant vehicles. It also complements broader active transportation efforts across the region and provides municipalities and partner organizations with guidance and supporting information for pursuing funding for trail development and improvements.

Guidelines for Aligning Projects with the Congestion Management Plan

Under federal requirements, proposed transportation projects must be evaluated to ensure they align with the CMP. When initiating a study or advancing a project that could increase roadway capacity, project sponsors are expected to coordinate early with LVTS staff.

This coordination helps ensure that the project follows the appropriate procedures and is incorporated into the review.

LVTS staff can provide support in identifying and developing strategies for projects that introduce minor increases in SOV capacity. However, greater emphasis is placed on reviewing projects that result in substantial capacity expansion. Determining whether a project does not add SOV capacity or should be classified as a minor or major capacity increase requires careful evaluation.

Project sponsors are expected to assess their proposals using the criteria outlined in the flowchart.

1 Is the project adding single-occupancy vehicle capacity?

- Yes ▼
- No ▶ No Action Required

2 Is the project located in a congested corridor or at/near a bottleneck?

- Yes ▶ Requires further analysis
- No ▶ Discuss alternatives

3 Could the project move forward without adding capacity?

- Yes ▼
- No ▶ Document Findings

4 Is the project consistent with the Congestion Management Plan?

- Yes ▼
- No ▶ Consider alternative strategies

5 Have stakeholders been consulted and general concensus achieved?

- Yes ▼
- No ▶ Consult stakeholders and achieve concensus

6 Review and agree to strategies and set implementation timeline with the Lehigh Valley Transportation Study

Projects that do not increase SOV capacity are typically identified through their eligibility for exempt categories under regional air quality guidelines. These include safety improvements, transit investments, air quality programs, and other designated activities.

Project types not expected to increase capacity include:

- **Active transportation** - bicycle and pedestrian facilities
- **Infrastructure maintenance** - bridge repair or replacement, drainage and dam upgrades, resurfacing, routine maintenance (e.g., signal updates), shoulder and guiderail improvements, and sight distance enhancements
- **Streetscape and environment** - landscaping, historic preservation, sound barriers, and environmental mitigation (e.g., wetland restoration)
- **Roadway changes** - widening that does not add travel lanes
- **Programs and systems** - Safe Routes to School, Intelligent Transportation Systems (ITS) for monitoring, traveler information, or emergency response, and signage improvements
- **Transit and demand management** - transit projects, Transportation Demand Management (TDM), and off-roadway infrastructure like parking garages
- **Air quality and funding programs** - Congestion Mitigation and Air Quality (CMAQ) projects
- **Planning and support activities** - outreach, transit/TDM planning, regional or local studies, regulatory reviews, freight planning, and GIS data collection

The only exception is when planning or support activities directly contribute to major highway expansion projects, which are classified separately.

Minor SOV capacity projects create small, localized increases in roadway capacity without adding new through lanes or constructing new roads that would significantly alter travel patterns. They are typically implemented as stand-alone improvements and evaluated based on consistency with congestion management goals and their role within existing or planned corridors.

Common examples include:

- ITS applications that improve flow (e.g., signal coordination)
- Intersection upgrades such as added turn lanes or geometric adjustments (though widespread upgrades may be classified as major)
- Center turn lanes, acceleration/deceleration lanes, and jughandles
- Modifications to ramps at existing interchanges, including improved merging areas
- Roundabouts, traffic circle cut-throughs, and small-scale bottleneck improvements that do not significantly affect travel times or corridor performance
- Access management strategies that improve traffic flow and safety by controlling driveway access, managing turning movements, and reducing conflict points, without increasing roadway capacity (e.g., no added through lanes)

In general, these projects improve operations, including turning movements or merging, without materially changing corridor function, land use patterns, or overall travel demand.

Major SOV capacity projects substantially increase roadway capacity and are likely to influence travel behavior at the corridor or regional scale. While factors such as inclusion in air quality modeling or non-exempt study codes may inform classification, they are not determinative on their own. Projects are evaluated based on consistency with congestion management strategies, their presence in heavily traveled corridors, and their role in long-range plans and state transportation agency descriptions. Projects identified as major regional expansions in long-range plans typically receive added scrutiny.

Common examples include:

- Construction of new highways or bypasses
- Adding through lanes to existing roadways
- Coordinated corridor improvements that collectively increase capacity
- New interchanges or adding missing movements to existing interchanges
- Converting intersections to grade-separated interchanges
- Operational strategies such as shoulder running or flex lanes

Projects undergoing an Environmental Assessment (EA) or Environmental Impact Statement (EIS) or similar reviews that include high-capacity alternatives may be temporarily classified as major to support early coordination. Final classification is determined once a preferred alternative is selected.

Periodic Update and Implementation Schedule of Congestion Management Plan

Several strategic actions are recommended for future implementation to ensure the CMP remains adaptable and responsive to changing conditions.

Those include:

- **Promoting Multimodal Solutions for Capacity Projects** - Maintain ongoing dialogue with stakeholders whenever large-scale highway capacity expansion projects are proposed. The objective is to integrate multimodal and alternative transportation modes, such as public transit, pedestrian walkways, and bicycle infrastructure, to maximize the investment's long-term vision and value.
- **Evaluating Project Effectiveness and Refine Metrics** - Capitalize on historical travel time data to conduct before-and-after assessments on recently completed congestion relief initiatives. Established performance measures must be specifically used to evaluate the effectiveness of the proposed implementations. This will measure how well these projects improve traffic flow and reliability. Additionally, the metrics established in the current CMP should be refined to more systematically pair specific congestion issues with the most effective mitigation tactics at the corridor and bottleneck levels.
- **Collaborating on Targeted Interventions** - Work closely with local municipalities, PennDOT, and FHWA planning partners to assess needs at the most congested locations. This collaborative effort should focus on drafting immediate and long-range improvement strategies, complete with projected cost estimates where appropriate.
- **Tracking Year-over-Year Data Trends** - Continue the annual collection of travel time data to build robust comparative models. Analyzing year-to-year trends is vital for judging the success of past congestion strategies, guiding future financial investments, and informing PM3 performance target benchmarks.

- **Modeling the impact of economic activity on travel demand** As development intensifies, trip generation must be explicitly accounted for, since increased land use activity directly drives higher travel demand. While the intended level of service for a corridor may remain unchanged, or might decrease, the actual traffic volumes operating within that design framework will rise, placing greater pressure on the corridor's capacity, leading to increased congestion.
- **Diagnosing the Root Causes of Delay** - Deepen the analysis of why traffic builds up in priority corridors and bottlenecks. By utilizing datasets like INRIX, planners can map origin-destination patterns to see where short and long trips are concentrated. Additionally, platforms like the University of Maryland's Center for Advanced Transportation Technology Laboratory Probe Data Analytics Suite should be used to pinpoint the location, severity, and regional impact of unpredictable traffic disruptions, such as accidents, construction zones, extreme weather, or special events.
- **Enhancing GIS Mapping and Visualization** - Develop GIS web maps so users can more easily visualize congestion metrics like AADT, ADTT, V/C Ratio, and LOS that clearly link the plan's proposed mitigation strategies to their respective corridors and bottlenecks.
- **Aligning with Regional Freight Initiatives** - Continue executing the CMP in coordination with the Eastern Pennsylvania Freight Alliance (EPFA) multi-regional freight plan, ensuring that all strategies mutually support broader freight and logistics goals.

During the creation of the 2026 CMP update, the LVTS Technical Committee served as the primary driving force, receiving continuous backing from the Coordinating Committee. By convening monthly, these groups collaborated and provided steady feedback to successfully achieve a unified consensus for the new plan.

Both LVTS committees will maintain their regular meeting schedules to manage routine business, with plans to revisit the CMP frequently during subsequent revision cycles. This timeline will be closely aligned with the schedule for the update of subsequent versions of *FutureLV: The Regional Plan*. The participating organizations and entities who will actively contribute, or use the CMP for future development, project justification, and monitoring efforts include:

- Lehigh and Northampton Counties
- Local municipalities
- PennDOT
- LANTA
- Federal partners, including Federal Highway Administration and Federal Transit Administration
- Transportation Management Associations
- Other LVPC Committees, including the LVPC Transportation, Environmental and Comprehensive Planning Committees
- Other participants as invited or asked to join

LEHIGH VALLEY
CONGESTION
MANAGEMENT
PLAN

Conclusion

The CMP provides a data-driven framework for evaluating congestion, mobility and reliability across the Lehigh Valley's transportation network. Linking Metropolitan Transportation Plan (MTP) goals to measurable PM3 indicators helps planners consistently identify priority corridors, bottlenecks and other critical locations.

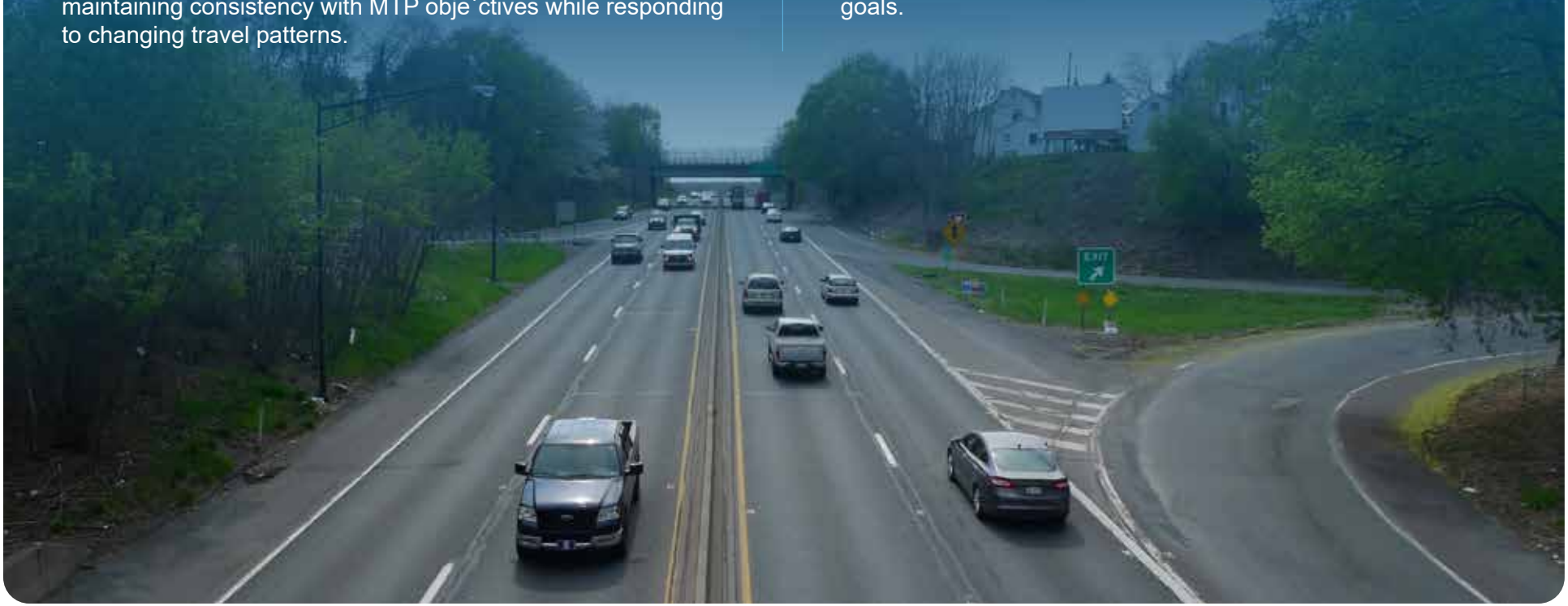
The scoring framework ensures investments and operational strategies target areas with the greatest need, considering travel reliability, safety, multimodal access, system efficiency and freight movement. Implementation relies on collaboration among LVPC, LVTS, PennDOT, transit operators, freight stakeholders, municipalities and regional partners. This coordinated approach aligns strategies across jurisdictions and modes, leverages shared data, and supports regional performance goals.

As new data and tools become available, the CMP will evolve to refine thresholds, corridor definitions and evaluation metrics, maintaining consistency with MTP obje`ctives while responding to changing travel patterns.

The CMP provides transparent, repeatable methods for planning, prioritizing investments and monitoring performance. Priority corridors and bottlenecks identified through this process guide targeted operational improvements, demand management, and capital investments. Ongoing monitoring of congestion, reliability, safety and multimodal access will inform future MTP updates and ensure accountability.

Overall, CMP implementation benefits all system users. Commuters gain more reliable travel and improved safety, freight operators benefit from reduced delays and more efficient goods movement, and multimodal travelers see better access and connectivity for transit, walking and biking.

By linking performance metrics to clear objectives and coordinated action, the CMP supports a safer, more reliable and more efficient transportation system that advances the Lehigh Valley's mobility, economic vitality and quality-of-life goals.



LVPC STAFF

Lehigh Valley Planning Commission

Becky Bradley, AICP
Executive Director

David Cohen, AICP
Director of Regional Planning

Tracy Oscavich
Director of Administration

Susan Myerov, AICP
Director of Environmental Planning

Beth Ritter-Guth
Director of Research & Innovation

Steven Weber, AICP
Director of Transportation Planning

Vicki Weidenhammer
Controller

Jill Seitz, AICP
Chief Community and Regional Planner

Matt Assad
Managing Editor

Denjam Khadka, EIT
Senior Civil/Environmental Engineer

Subham Kharel, PhD
Senior Data and Analytics Planner

Geoffrey Reese, PE
Master Planner and Engineer

Faria Urmy, AICP, CNU-A, LEED AP
Regional Plan Program Manager

Chris Embert
Creative Manager

Minsoo Park
Economist

Giovanna Rizkallah
AI Engineer and Innovation Planner

Evan Gardi
Transportation Planner

Peter Lantz
Environmental Engineer

Taylor Beasley
Graphic Design and Publications Coordinator

Mary Grace Collins
Community and Regional Planner

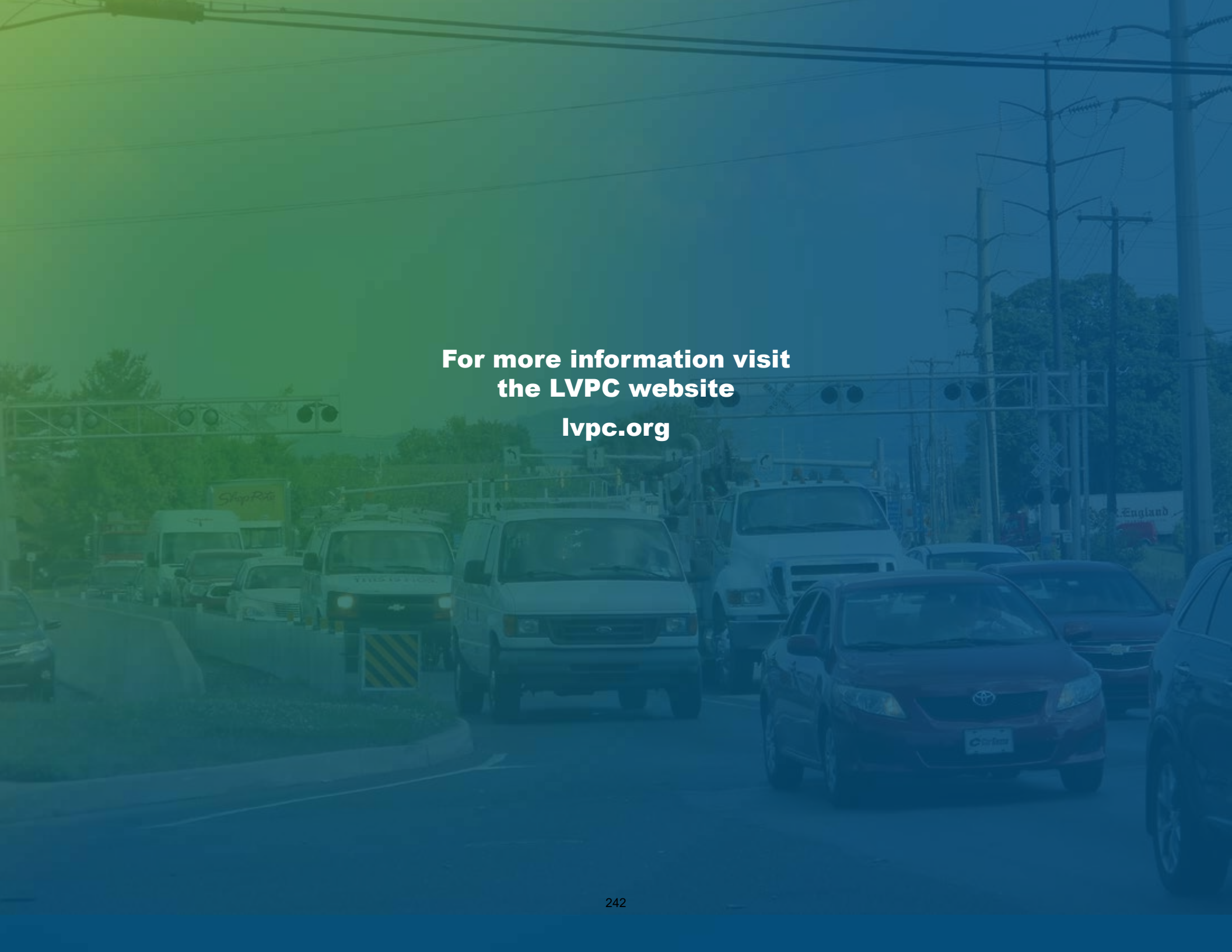
Clay Karnis
Geographic Information Systems Planner

Hannah Milagio
Regional Planner for Community Engagement

Corinne Ruggiero, SEO
Environmental Planner

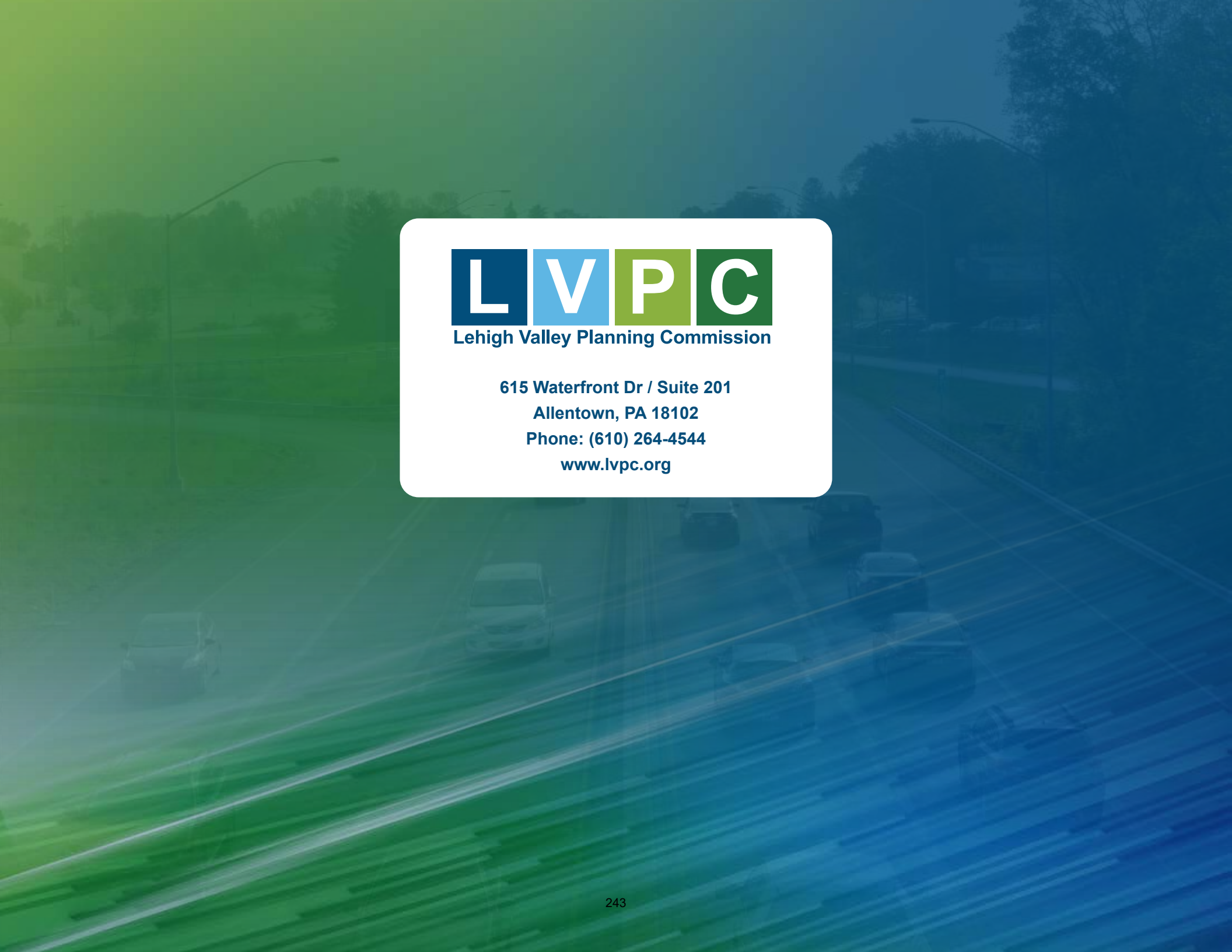
Jacob Weinberg
Community and Regional Planner

Michele Anfuso
Office Assistant



For more information visit the LVPC website

lvpc.org



LVPC

Lehigh Valley Planning Commission

615 Waterfront Dr / Suite 201
Allentown, PA 18102
Phone: (610) 264-4544
www.lvpc.org

LVTS Metropolitan Planning Organization

FISCAL CONSTRAINT TABLE

FFY 2025-2028 TIP Highway and Bridge Element

Technical and Coordinating Committees

TIP Modifications from March 7, 2026 through May 8, 2026

MPO Tech Meeting: April 15, 2026 & May 20, 2026

MPO Coord Meeting: May 20, 2026

Administrative Action #1				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
Box Culvert Bundle-Round 2			Before		185		768,910			204,538											973,448.00	Increase to cover supplement to provide additional SOW to obtain authorization through joint permit application for SR 2038.
143 - BC2	110066	FD	Adjust		185					34,552											34,552.00	
Lehigh County			After		185		768,910			239,090											1,008,000.00	
			Before	BOF	185				992,465	606,980		81,280	599,558		755,016	1,942,654		27,377,555	37,380,461		69,735,969.00	Source.
			Before	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
LVTS Highway & Bridge LI			Before	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			Before	STP	581				154,118	1,537,982		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,725.00	
	102201	CON	Adjust	BOF	185					(34,552)											(34,552.00)	
			After	BOF	185				992,465	572,428		81,280	599,558		755,016	1,942,654		27,377,555	37,380,461		69,701,417.00	
			After	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
Lehigh County			After	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			After	STP	581				154,118	1,537,982		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,725.00	

Administrative Action #2				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
Hollenbachs Bridge			Before	BOF	185				750,000	187,500		719,984	179,996								1,837,480.00	Toll Credit to release 185 funds and increase to cover current estimate.
4009 - 02B	11390	CON	Adjust	BOF	185				870,016	(187,500)			(179,996)								502,520.00	
Lehigh County			After	BOF	Toll				1,620,016	0		719,984	0								2,340,000.00	
Mosserville Road over Ontelaunee Creek			Before																		0.00	Deobligation returned to region for reassignment.
4024 - 01B	85692	FD	Adjust	BOF					(155,309)												(155,309.00)	
Lehigh County			After																		0.00	
Meadows Road Bridge (Co Br 15)			Before																		0.00	Deobligation returned to region for reassignment.
7210 - MRB	12286	UTL	Adjust	BOF					(327,512)												(327,512.00)	
Northampton County			After																		0.00	
			Before	BOF	185				992,465	572,428		81,280	599,558		755,016	1,942,654		27,377,555	37,380,461		69,701,417.00	Partial source and balancing source to maintain fiscal constraint.
			Before	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
LVTS Highway & Bridge LI			Before	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			Before	STP	581				154,118	1,537,982		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,725.00	
	102201	CON	Adjust	BOF	185				(387,195)	187,500			179,996								(19,699.00)	
			After	BOF	185				605,270	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,681,718.00	
			After	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
Lehigh County			After	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			After	STP	581				154,118	1,537,982		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,725.00	

Administrative Action #3				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
Lower Saucon Road over E. Branch of Saucon Creek			Before	BOF	Toll	682,440			0												682,440.00	Increase to cover negotiated agreement plus internal costs.
2001 - 01B	119940	FD	Adjust	BOF	Toll				297,047												297,047.00	
Lehigh County			After	BOF	Toll	682,440			297,047												979,487.00	
			Before	BOF	185				605,270	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,681,718.00	Source.
			Before	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
LVTS Highway & Bridge LI			Before	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			Before	STP	581				154,118	1,537,982		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,725.00	
	102201	CON	Adjust	BOF	185				(297,047)												(297,047.00)	
			After	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	
			After	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
Lehigh County			After	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			After	STP	581				154,118	1,537,982		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,725.00	

Administrative Action #4				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
SR 512 Bangor Borough Study			Before		581					212,180											212,180.00	Increase to cover negotiated agreement amount.
512 - 05S	117511	Study	Adjust		581					53,742											53,742.00	
Northampton County			After		581					265,922											265,922.00	
			Before	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	Source.
			Before	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
LVTS Highway & Bridge LI			Before	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			Before	STP	581				154,118	1,537,982		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,725.00	
	102201	CON	Adjust	STP	581					(53,742)											(53,742.00)	
			After	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	
			After	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
Lehigh County			After	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			After	STP	581				154,118	1,484,240		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,114,983.00	

LVTS Metropolitan Planning Organization

FISCAL CONSTRAINT TABLE

FFY 2025-2028 TIP Highway and Bridge Element

Technical and Coordinating Committees

TIP Modifications from March 7, 2026 through May 8, 2026

MPO Tech Meeting: April 15, 2026 & May 20, 2026 — **MPO Coord Meeting: May 20, 2026**

Administrative Action #5				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
PA 309 Resurface			Before	NHPP	Toll	4,000,000			11,985,000												15,985,000.00	Cashflow to align with anticipated need and increase to cover PS&E estimate.
			Before	STP	Toll				2,295,000												2,295,000.00	
309 - 14M	102312	CON	Adjust	NHPP	Toll	2,290,000			(782,072)												1,507,928.00	
Lehigh County			After	NHPP	Toll	6,290,000			11,202,928												17,492,928.00	
			After	STP	Toll				2,295,000												2,295,000.00	
309 Center Valley IC			Before	CAQ	581				212,180	53,045											265,225.00	Increase to cover current estimate and Toll Credit to release 581 funds.
309 - 19M	102160	UTL	Adjust	CAQ	581				557,820	(53,045)											504,775.00	
Lehigh County			After	CAQ	Toll				770,000												770,000.00	
309 Center Valley IC			Before	CAQ	581	1,388,400			0												1,388,400.00	Cashflow to align with anticipated need.
			Before	NHPP		2,290,000															2,290,000.00	
309 - 19M	102160	ROW	Adjust	CAQ	581				2,290,000												2,290,000.00	
			Adjust	NHPP		(2,290,000)															(2,290,000.00)	
Lehigh County			After	CAQ	Toll	1,388,400			2,290,000												3,678,400.00	
			After	NHPP	Toll																0.00	
			Before	CAQ	581				5,950,000	1,487,500		6,000,000	4,937,500		6,000,000	4,437,500		5,000,000	2,929,200		36,741,700.00	Flip CAQ funds for NHPP funds and cashflow to align with anticipated need.
			Before	NHPP								8,250,000			5,750,000			1,216,800			15,216,800.00	
309 Center Valley IC			Before	STP								5,500,000			6,000,000			5,500,000			17,000,000.00	
			Before	STU																	0.00	
			Before	PRTCT	Toll	1,480,999			1,519,001												3,000,000.00	
309 - 19M	102160	CON	Adjust	CAQ	581				(2,847,820)												(2,847,820.00)	
			Adjust	NHPP					1,247,820			1,300,000			300,000						2,847,820.00	
			After	CAQ	581				3,102,180	1,487,500		6,000,000	4,937,500		6,000,000	4,437,500		5,000,000	2,929,200		33,893,880.00	
			After	NHPP					1,247,820			9,550,000			6,050,000			1,216,800			18,064,620.00	
Lehigh County			After	STP								5,500,000			6,000,000			5,500,000			17,000,000.00	
			After	STU																	0.00	
			After	PRTCT	Toll	1,480,999			1,519,001												3,000,000.00	
			Before	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	Partial source and balancing source to maintain fiscal constraint.
			Before	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
LVTS Highway & Bridge LI			Before	NHPP					775,622			1,519,940			319,000			65,076,480			67,691,042.00	
			Before	STP	581				154,118	1,484,240		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,114,983.00	
	102201	CON	Adjust	NHPP					(465,748)			(1,300,000)			(300,000)						(2,065,748.00)	
			Adjust	STP	581					53,045											53,045.00	
			After	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	
			After	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
Lehigh County			After	NHPP					309,874			219,940			19,000			65,076,480			65,625,294.00	
			After	STP	581				154,118	1,537,285		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,028.00	

Administrative Action #6				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
Williams Twp Canal Wall Replacement			Before	NHPP	581	80,000	20,000		0	0											100,000.00	Increase to cover inspection through the completion of the project.
611 - WCW	79468	CON	Adjust	NHPP	581				188,716	47,179											235,895.00	
Northampton County			After	NHPP	581	80,000	20,000		188,716	47,179											335,895.00	
			Before	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	Source.
			Before	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
LVTS Highway & Bridge LI			Before	NHPP					309,874			219,940			19,000			65,076,480			65,625,294.00	
			Before	STP	581				154,118	1,537,285		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,168,028.00	
	102201	CON	Adjust	NHPP					(188,716)												(188,716.00)	
			Adjust	STP	581					(47,179)											(47,179.00)	
			After	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	
			After	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
Lehigh County			After	NHPP					121,158			219,940			19,000			65,076,480			65,436,578.00	
			After	STP	581				154,118	1,490,106		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,120,849.00	

Statewide Administrative Action #1				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
			Before	CAQ	581				3,102,180	1,487,500		6,000,000	4,937,500		6,000,000	4,437,500		5,000,000	2,929,200		33,893,880.00	Cashflow to align funds with anticipated need. Carried on draft 2027 TIP.
			Before	NHPP					1,247,820			9,550,000			6,050,000			1,216,800			18,064,620.00	
309 Center Valley IC			Before	STP								5,500,000			6,000,000			5,500,000			17,000,000.00	
			Before	STU																	0.00	
			Before	PRTCT	Toll	1,480,999			1,519,001												3,000,000.00	
309 - 19M	102160	CON	Adjust	PRTCT	Toll	(1,480,999)			(1,519,001)			3,000,000									0.00	
			After	CAQ	581				3,102,180	1,487,500		6,000,000	4,937,500		6,000,000	4,437,500		5,000,000	2,929,200		33,893,880.00	
			After	NHPP					1,247,820			9,550,000			6,050,000			1,216,800			18,064,620.00	
Lehigh County			After	STP								5,500,000			6,000,000			5,500,000			17,000,000.00	
			After	STU																	0.00	
			After	PRTCT	Toll	0			0			3,000,000									3,000,000.00	
PROTECT Reserve			Before	PRTCT		0			13,795,598			32,670,900			52,039,000						98,505,498.00	Balancing source to maintian fiscal constraint
Line Item	118322	CON	Adjust	PRTCT		1,480,999			1,519,001			(3,000,000)									0.00	
Central Office			After	PRTCT		1,480,999			15,314,599			29,670,900			52,039,000						98,505,498.00	

LVTS Metropolitan Planning Organization

FISCAL CONSTRAINT TABLE

FFY 2025-2028 TIP Highway and Bridge Element

Technical and Coordinating Committees

TIP Modifications from March 7, 2026 through May 8, 2026

MPO Tech Meeting: April 15, 2026 & May 20, 2026 — **MPO Coord Meeting: May 20, 2026**

Amendment #1				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
			Before	BOF											1,500,000			1,500,000			3,000,000.00	Increase to cover current estimate.
Hill to Hill Bridge Rehabilitation			Before	BRIP		1,832,400			5,500,000			2,917,600						5,000,000			15,250,000.00	
			Before	NHPP	581	4,250,000	1,770,600			1,750,000			3,041,900		2,500,000	3,500,000			4,151,500		20,964,000.00	
			Before	STU		1,000,000			1,500,000			9,250,000			11,500,000			11,606,000			34,856,000.00	
			Adjust	BRIP					450,000									4,980,632			5,430,632.00	
378 - 03B	93630	CON	Adjust	NHPP	581					962,500					1,704,000	613,500		3,699,368	2,170,000		9,149,368.00	
			Adjust	STU					3,400,000						750,000						4,150,000.00	
			After	BOF											1,500,000			1,500,000			3,000,000.00	
Lehigh County			After	BRIP		1,832,400			5,950,000			2,917,600						9,980,632			20,680,632.00	
			After	NHPP	581	4,250,000	1,770,600			2,712,500			3,041,900		4,204,000	4,113,500		3,699,368	6,321,500		30,113,368.00	
			After	STU		1,000,000			4,900,000			9,250,000			12,250,000			11,606,000			39,006,000.00	
			Before	NHPP	581	7,424,300	4,750,000			5,375,000			708,745								18,258,045.00	Source due to August Redistribution.
309 & Tilghman I/S Recon			Before	STP		4,806,000															4,806,000.00	
			Before	STU		8,500,000			5,296,782			2,834,980									16,631,762.00	
309 - 12M	96432	CON	Adjust	STU					(3,400,000)												(3,400,000.00)	
			After	NHPP	581	7,424,300	4,750,000			5,375,000			708,745								18,258,045.00	
Lehigh County			After	STP		4,806,000															4,806,000.00	
			After	STU		8,500,000			1,896,782			2,834,980									13,231,762.00	
			Before	NHPP	581										1,704,000	613,500		24,796,000	8,128,100		35,241,600.00	Reduce to match current estimate, including YOE. Phase is fully carried on draft 2027 TIP.
SR 22 / Fullerton Interchange			Before	STU											750,000			7,716,400			8,466,400.00	
			Adjust	NHPP	581										(1,704,000)	(613,500)		(3,699,368)	(924,842)		(6,941,710.00)	
22 - WD1	117610	CON	Adjust	STU											(750,000)						(750,000.00)	
			After	NHPP	581										0	0		21,096,632	7,203,258		28,299,890.00	
Lehigh County			After	STU											0			7,716,400			7,716,400.00	
Race Street over Lehigh River			Before																		0.00	Deobligation returned to region for reassignment.
1004 - 03B	108134	CON	Adjust	BRIP					(35,309)												(35,309.00)	
Lehigh County			After																		0.00	
Kernsville Road Bridge			Before																		0.00	Deobligation returned to region for reassignment.
4003 - 01B	89627	CON	Adjust	BRIP					(223,126)												(223,126.00)	
Lehigh County			After																		0.00	
Richmond Bridge			Before																		0.00	Deobligation returned to region for reassignment.
611 - 06B	12084	CON	Adjust	BRIP					(108,642)												(108,642.00)	
Northampton County			After																		0.00	
			Before	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	Partial source.
LVTS Highway & Bridge LI			Before	BRIP					2,896,800			757,472			431,680			48,710,904			52,796,856.00	
			Before	NHPP					121,158			219,940			19,000			65,076,480			65,436,578.00	
			Before	STP	581				154,118	1,490,106		468,588	77,694		842,768	128,685		31,204,252	93,754,638		128,120,849.00	
			Adjust	BRIP					(82,923)									(4,980,632)			(5,063,555.00)	
	102201	CON	Adjust	STP	581					(962,500)									(1,245,158)		(2,207,658.00)	
			After	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	
Lehigh County			After	BRIP					2,813,877			757,472			431,680			43,730,272			47,733,301.00	
			After	NHPP					121,158			219,940			19,000			65,076,480			65,436,578.00	
			After	STP	581				154,118	527,606		468,588	77,694		842,768	128,685		31,204,252	92,509,480		125,913,191.00	

LVTS Metropolitan Planning Organization

FISCAL CONSTRAINT TABLE

FFY 2025-2028 TIP Highway and Bridge Element

Technical and Coordinating Committees

TIP Modifications from March 7, 2026 through May 8, 2026

MPO Tech Meeting: April 15, 2026 & May 20, 2026 — **MPO Coord Meeting: May 20, 2026**

Amendment #2				Fund Type		FFY 2025			FFY 2026			FFY 2027			FFY 2028			FFYs 2029-2032 and Beyond			Total	Remarks
Project Title	**MPMS**	**Phase**	**Amts**	**Fed.**	**Sta.**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**	**Fed. ($)**	**State ($)**	**Loc/Oth ($)**		
PA 33 Bushkill Creek Bridges			Before	BRIP	185	3,377,600	844,400		0	0											4,222,000.00	Incease due to extend field office and
33 - 05B	96431	CON	Adjust	BRIP	185				2,800,000	700,000											3,500,000.00	MPT costs, delay costs, and
Northampton County			After	BRIP	185	3,377,600	844,400		2,800,000	700,000											7,722,000.00	escalation/renegotiation of replacement pump water filter bags.
			Before	BOF	185				308,223	759,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		69,384,671.00	Source
LVTS Highway & Bridge LI			Before	BRIP					2,813,877			757,472			431,680			43,730,272			47,733,301.00	
			Before	NHPP					121,158			219,940			19,000			65,076,480			65,436,578.00	
			Before	STP	581				154,118	527,606		468,588	77,694		842,768	128,685		31,204,252	92,509,480		125,913,191.00	
	102201	CON	Adjust	BOF	185					(700,000)											(700,000.00)	
			Adjust	BRIP					(2,800,000)												(2,800,000.00)	
			After	BOF	185				308,223	59,928		81,280	779,554		755,016	1,942,654		27,377,555	37,380,461		68,684,671.00	
			After	BRIP					13,877			757,472			431,680			43,730,272			44,933,301.00	
Lehigh County			After	NHPP					121,158			219,940			19,000			65,076,480			65,436,578.00	
			After	STP	581				154,118	527,606		468,588	77,694		842,768	128,685		31,204,252	92,509,480		125,913,191.00	
Before FFY Totals						42,593,138	8,153,910	0	87,558,598	27,687,404	0	107,911,704	20,303,633	0	123,680,712	29,559,212	0	1,448,024,896	1,065,973,634		2,961,446,841	Actions do not affect the project delivery schedules or air quality conformity.
FFY Adjustment Totals						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
After FFY Totals						42,593,138	8,153,910	0	88,408,496	27,687,404	0	107,911,704	20,303,633	0	123,680,712	29,559,212	0	1,448,024,896	1,065,973,634		2,962,296,739	

NOTES:

TIP Amendment #1

Hill to Hill Bridge Rehabilitation – Construction Increase of $18,730,000

This increase is due to increase in construction costs and additional items to accelerate the work and/or minimize traffic impacts.

Funding Sources:

a. $3,400,000: Route 309 & Tilghman Interchange Reconstruction (MPMS #96432) due to the project receiving August redistribution in Federal Fiscal Years 2024 and 2025.
b. $7,691,710: Route 22 / Fullerton Interchange (MPMS #117610) due to the project let date being pushed out to Federal Fiscal Year 2030 and the current project estimate. This project is carried on the draft 2027-2030 LVTS Transportation Improvement Program.
c. $367,077: Various (3) deobligations returned to the region for reassignment.
    a. Race Street Bridge over Lehigh River (MPMS #108314)
    b. Kernsville Road Bridge (MPMS #89627)
    c. Richmond Bridge (MPMS #12084)
d. The LVTS Highway & Bridge Reserve Line Item (MPMS #102201)

TIP Amendment #2

Route 33 Bushkill Creek Bridges – Construction Increase Total $3,500,000

This increase is due to extended staffing and delay costs, and escalation/renegotiation of replacement pump water filter bags.

Funding Sources:

a. LVTS Highway & Bridge Reserve Line Item (MPMS #102201) $3,500,000

2027-2030 Lehigh Valley Transportation Improvement Program
Public Comments and Responses
April 15th through May 17, 2026

Comment #	Date	First	Last	Organization	Comment	Response
1	15-Apr	Dave	Hopkins	City of Easton	How can the scope of a project get updated, particularly in the context of a completed Safe Streets and Roads for All study?	Project scope and timeline changes are not uncommon. If the project is already on the TIP, PennDOT District 5 will coordinate with the municipality on the changes. If the project has not yet made it onto the TIP, then the municipality should submit those changes as part of the open call for projects for the Metropolitan Transportation Plan.
2	15-Apr	Craig	Beavers	Palmer Township	On behalf of Palmer Township, thank you for including the Tatamy Road over Schoeneck Creek bridge. This project is a major priority for the township not only for vehicle traffic, but also as a priority trail gap in the township.	Thank you for your comment.
3	15-Apr	Toni	Mitman		I don't think PennDOT should have voting membership on the Lehigh Valley Transportation Study(LVTS) because PennDOT is a major beneficiary of the funding obligated by the LVTS. This could be perceived as a conflict of interest.	United States Code requires that Metropolitan Planning Organization boards include local elected officials, public transportation officials, and appropriate state officials. The LVTS bylaws require that both the Technical and Coordinating Committees include a representative from PennDOT District 5 and PennDOT Central Office.
4	15-Apr	Lee	Rackus	Whitehall Township	It doesn't really seem appropriate that 4 out of the 6 places to view the document are in Allentown. There are other public libraries that could also make it available.	The LVTS' Public Participation Plan requires that public comment materials be physically available at the three city libraries and the offices of LANTA, PennDOT District 5, and the LVPC. Materials are also available to be reviewed online at www.lvpc.org. If you would like a copy emailed to you, this can also be arranged. This comment will be considered as the LVTS updates its Public Participation Plan.
5	16-Apr	Stephen	Reider	Bangor Borough	Under Bridge Replacement and Rehabilitation, Bridge Preservation #7 there is $50,000 allocated for Federal Fiscal Year(FFY) 2027 and nothing for FFY 2028-2030 with 8 projects listed including Map# 26e in Bangor Borough. I believe there should be more money allocated to these projects as I do not believe that $50,000 is adequate to sufficiently rehabilitate all of these bridges.	Funding is capped each federal fiscal year. Some projects start and then wait for funding in future years. This is often the case for bundled projects, where final cost per bridge is estimated by PennDOT upfront, and then final costs determined as each bridge goes through the investment process. Additional funds are typically moved to these bundled projects. This bridge bundle is expected to begin in this TIP cycle.
6	16-Apr	Stephen	Reider	Bangor Borough	Two projects that should be considered as part of Road Construction Modernization, Automation project grouping should be the realignment of PA Route 512 in Bangor Borough which I believe is in the Long Range Transportation Plan, and the modernization of the signalized intersection at the intersection of State Routes 191 and 512 in Bangor Borough. The current signals at the intersection are from the 1960's and are obsolete. Upgrades are needed for both pedestrian safety and traffic calming because of the traffic volume that is experienced on these major thoroughfares.	These projects are in the Long-Range Transportation element of *FutureLV: The Regional Plan*. As other projects are completed, these projects may move up the list.
7	15-Apr	Kim	Schaffer	Community Bike Works	Is there anything proactive that Community Bike Works or the Coalition for Appropriate Transportation need to do at this point to be included in the next round of the TIP? Please let me know if there's anything you need from us.	There's nothing specifically that you need to do or anything we need from you currently. You should have received an email from the LVPC detailing the public comment process for the TIP and the upcoming meetings. As always, reach out if you have any additional questions.

2027-2030 Lehigh Valley Transportation Improvement Program
Public Comments and Responses
April 15th through May 17, 2026

Comment #	Date	First	Last	Organization	Comment	Response
8	20-Apr	Nicholas	Csorba		I am not an engineer but when it comes to this area and the high traffic volume we now have and is likely to increase; I would suggest an out of the box brainstorming for this area. My vision sees the current Hill to Hill Bridge in place for local traffic on the south side - to the right for hospital access improved and local fountain hill traffic - to the left for south Bethlehem traffic. The out of the box comes in with the high volume (currently unsafe practice of accessing the 378 hill south of the bridge /meaning cutters and high volume with trucks). Need to consider quite the modernistic approach for the near future outlook. We see a straight away access to the hill from 378 on the northern side by a high tech build...no stop roadway. The current Hill to Hill is for local access while a high tech build is for the southern 378 corridor. The high tech build can be over the local access bridge or the entire bridge reshaped to provide for this enhancement and 'elimination' of a big headache/sore spot in Bethlehem travelling. You see the NY bridges done in this fashion - the duplex style. Really, consider the current unsafe traffic situation (cutters) to Wyandotte hill after exiting the Hill to Hill on the south side and the (cutters) on the bridge itself to access the Wyandotte stretch on the bridge itself. This has to be entirely reinvented and redesigned in a thoroughly encompassed modern engineering feat....good for 100 years.	In order for a project to be included on the TIP, it must first be included in the Metropolitan Transportation Plan (previously called the Long Range Transportation Plan). LVPC is currently updating its MTP as part of the update of Future LV: The Regional Plan. LVPC will be conducting an Open Call for Projects later this year. This comment has been forwarded to the MTP project team. The commenter is welcome to introduce this proposal when the Open Call for Projects is conducted.
9	20-Apr	Ken	Abruzzese		Here is my opinion on what needs to be done to make traffic in the Lehigh Valley run smoother. 1- (top priority) make I-78 three lanes from the NJ border to PA Route 100! This was planned to be three lanes when it was originally finished! What happened? 2- (top priority) make PA Route 33 three lanes from PA Route 248 to I-78. The bottleneck at US Route 22 and PA Route 33 is enough reason. 3- Install solar powered flashing caution arrows on US Route 22 around cemetery curve in Easton to warn drivers to slow down! 4- Longer on and off ramps on all US Route 22 and PA Route 309 exits. 5- Use Artificial Intelligence to synchronize the stop lights along all the exits from I-78, US Route 22, PA Route 33 and PA Route 309 for smoother traffic flow. 6- Fix the bridge and restore the road on Bushkill St. (by The Widow's Tavern in Stockertown) to alleviate traffic on Uhler Rd and Sullivan Trail. Longer term (but still needed badly) 7- Add exit and entrance from I-78 directly onto PA Route 378 in south Bethlehem. 8- Add exit and entrance ramps from I-78 onto 25th street in Easton via the Glendon Bridge. Why does the Lehigh Valley constantly get kicked to the bottom of the list when it comes to road projects in this state? US Route 22 has been scheduled to be widened to three lanes in both directions since the 70's, but every budget it gets extended or tabled to later years. 50 years this project has been delayed?!!! We need stronger political representation in Harrisburg to make these projects happen.	In order for a project to be included on the TIP, it must first be included in the Metropolitan Transportation Plan (previously called the Long Range Transportation Plan). LVPC is currently updating its MTP as part of the update of *Future LV: The Regional Plan*. LVPC will be conducting an Open Call for Projects later this year. This comment has been forwarded to the MTP project team. The commenter is welcome to introduce this proposal when the Open Call for Projects is conducted.

2027-2030 Lehigh Valley Transportation Improvement Program
Public Comments and Responses
April 15th through May 17, 2026

Comment #	Date	First	Last	Organization	Comment	Response
10	20-Apr	Ken	Abruzzese		Great example is the reconstruction on I-78 right now. Heaviest traffic on the entire stretch of highway is NJ state line to PA Route 33. But every other section of this road in PA was fixed first, except the heaviest traveled part, the Lehigh Valley! Do we not have anyone looking out for the Lehigh Valley's needs in Harrisburg? How does the Lehigh Valley end up on the short end of road funding every year for over 50 years??? I travel extensively in the state and the entire northeast and we consistently have the worst traffic. Even when fixed, the funding and engineering is short-sighted and just barely covers what needs to be done! Please get the funds we need approved and used on the road projects stated above instead of going into someone's pockets!	Please see comment #9 above.
11	20-Apr	Justin	Zuberka		I have read though most of the transportation and improvement program draft. I do support many of these programs and projects I just wanted to voice my further opinion and concerns on the topic. Much of our infrastructure in the valley is in a state of disrepair to put it kindly and disregard to speak truthfully. This budget will not come close to being what is needed to even fix many of these bridges roads and issues. The only sustainable solution to begin the process of solving our infrastructure nightmare is light passenger rail(LPR). I have witnessed many months-long projects to repair road surfaces causing frustration, delays, and accidents only for that same surface to have the exact same potholes with a matter of weeks after completion. We can redo every highway every road in the county ever single year and waste hundreds of millions just on basic upkeep of infrastructure that is already outdated and over loaded. The definition of insanity is repeating the same thing over and over again, expecting a different result. I am urging the committee to immediately take action and prepare and implement a comprehensive plan for an East-West light passenger rail corridor connecting Easton, Bethlehem, and Allentown. The only way to accomplish the goals of this committee and the needs of the public is rail. Decisive action is needed. The public already holds city planners in low regard due to previous generations' lack of leadership and failure in vision.	The LANTA operated transit service from Allentown-Bethlehem-Easton and has begun the first phases of the Enhanced Bus/Bus Rapid Transit Corridor between these cities, north into Whitehall and west into the Macungie area. This enhanced bus service is essentially a light rail service with buses. Additional improvements, including station stops, dedicated rights-of-way where possible, queue-jumps for transit at traffic lights and many other enhancements are in the planning stages. This project is partially funded and additional details are available on page 43 of the TIP Made Easy document.

2027-2030 Lehigh Valley Transportation Improvement Program
Public Comments and Responses
April 15th through May 17, 2026

Comment #	Date	First	Last	Organization	Comment	Response
12	20-Apr	Justin	Zuberka		Please do not make the same mistake. It would be better to shut US Route 22 down and build passenger rail in its place (though this is not my proposal) versus continuing down the path of insanity. Every year brings more drivers, more buses, more commuters, more commercial trucks and freight. There is only one way to fix the infrastructure problems that the valley is experiencing. The Lehigh Valley is the second largest metro area in the state and one of the fastest growing areas in the entire US. Property values are soaring. We all live in one of the most desirable places to live in the world. It is far past the time where our infrastructure should support our community. The only long term path forward is LPR. All road expansion projects should be immediately halted until there is an operational LPR east-west network. Every dollar spent on road repairs and renewals until that point is a dollar stolen from the public and five dollars stolen from our children and grandchildren. The cost of a LPR system would be very significant, but the returns would more than offset the initial investment. Let us not repeat the mistakes of previous failed generations. We need to care for the future of the valley as well as the present. I ask this committee in the strongest way possible to please consider this comment for future consideration. When it is a hot summer day and you are in need of shade the best time to plant a tree was 25 years ago; the second best time is today. I would be willing to assist in any way I could to help in regards to planning advocacy or discussing this further in a more complete and detailed way.	Please see comment # 11 above. In addition, the LVPC is working with PennDOT, communities along Route 22, both counties, LANTA and the Lehigh and Northampton Airport Authority to develop a practical and forward thinking strategy for Route 22. This planning project is underway now and you are welcome to learn more by attending any or all the LVTS meetings where the plan progress and recommendations will be discussed.
13	20-Apr	Lawrence	Dusold		Thank you for a well presented plan. As someone who uses the Center Valley interchange at PA Route 309 at least 4 days per week, the congestion in this area is overdue for improvement. Although I may not be working when it is completed (I'll be 70 years old), it will be a great benefit to those in the area.	Thank you for your comment.
14	21-Apr	Donald	Brandt		Please replace Church Rd from William Penn Highway to Country Club Road in Bethlehem Township . It was been torn up multiple times by utilities and construction crews. It's a bumpy nightmare.	This project would be considered a resurfacing/repaving project. Church Road is a local road maintained and operated by Bethlehem Township. This comment will be forwarded to the townhip for further consideration. In order for a project to be included on the TIP, it must first be included in the Metropolitan Transportation Plan (previously called the Long Range Transportation Plan). LVPC is currently updating its MTP as part of the update of Future LV: The Regional Plan. LVPC will be conducting an Open Call for Projects later this year. Bethlehem Township has the ability to submit this project during that time if they feel it is considerable as a repaving project.

2027-2030 Lehigh Valley Transportation Improvement Program
Public Comments and Responses
April 15th through May 17, 2026

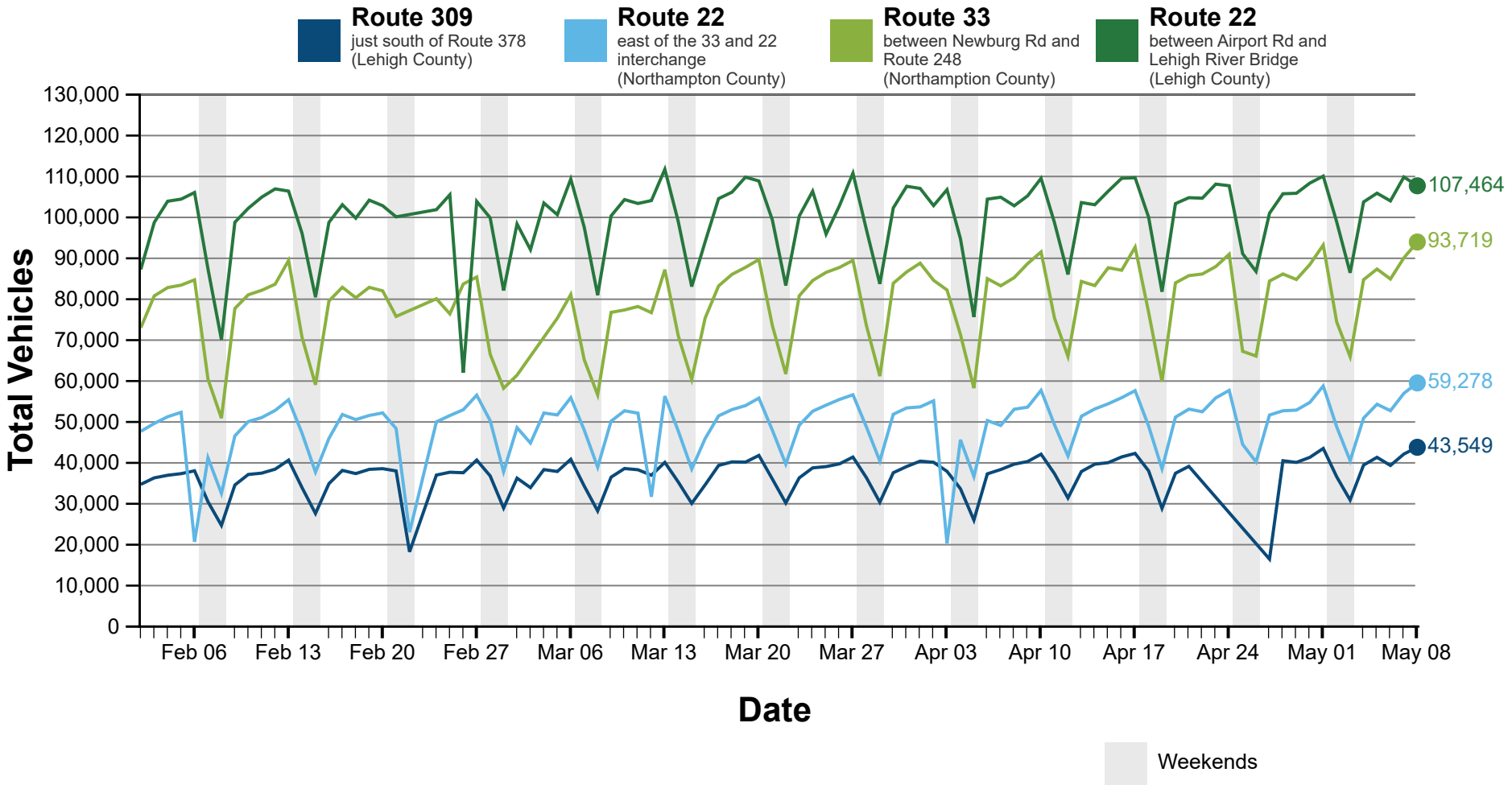
Comment #	Date	First	Last	Organization	Comment	Response
15	22-Apr	Matthew	Epstein		I reside in Bethlehem and frequently cross the Hill-to-Hill bridge to get to South Side. The pedestrian walkway is extremely uncomfortable to walk on because it is 1) too close to traffic, and 2) too noisy. The noise issue is by far the biggest issue, but the two are related because it's the sound of traffic right next to you that is making the noise. Because this area in general is very pedestrian friendly and is frequented by a fair number of pedestrian traffic, runners, and bikers, I think adding some type of acoustic barrier would be really transformative and make walking between historic Bethlehem and South side much more comfortable and encourage more pedestrian traffic. I think maybe the simplest way to do this would be to install a hybrid opaque and transparent acoustic panel, with the bottom 4 feet being concrete as there is already a small concrete raised barrier here, and then 4 feet extending above this either transparent laminated glass or coated polycarbonate. I'm not an engineer so don't know the perfect solution, but thought it might be helpful to float an initial idea. Since the Hill-to-Hill bridge is already going to be updated during this plan, I think this is the perfect time to do it!	PennDOT has hosted several project meetings with their design for this bridge rehabilitation project. At these meetings comments similar to yours were discussed and PennDOT is planning enhanced pedestrian, ADA and bicycle accessibility and mobility. However, this comment is being forwarded to the PennDOT project team. Thank you.
16	23-Apr	Julie	Wright		Is there any plans to address I-476(PA Turnpike) in the Lehigh Valley? We could really use slip ramps in Emmaus. To go south on I-476 from Emmaus, you have to either go 15 minutes north to get on in Allentown, which adds 20-25 minutes to the commute. Or you have to take dark, windy, steep back roads for 25 minutes to Quakertown. At rush hour, these back roads have so many cars on these winding back roads all trying to get to the Lehigh Valley, which can be unsafe, especially at night, in rain, and in snow. As someone who commutes to the Philadelphia area for work, there has to be a better way to get there. Happy to discuss more.	I-476 is managed by the Pennsylvania Turnpike Commission who analyzes expansion projects or new interchanges. This comment is being forwarded to the Turnpike Commission. Thank you.
17	23-Apr	Craig	Beavers		Great job developing the TIP. I think the TIP and the FutureLV update should consider a complete streets resurfacing plan. Similar to the projects in the DVRPC region, this would be a great opportunity to evaluate the feasibility of implementing a complete streets resurfacing program. Here is a link with more information: https://www.dvrpc.org/completestreetsresurfacing/	Thank you for your comment. The Delaware Valley Regional Planning Commission (DVRPC) utilizes Congestion Mitigation Air Quality and Transportation Alternatives Set Aside funds primarily for their complete streets resurfacing program. We admire DVRPC's program as well, and will consider it as part of the update of *FutureLV: The Regional Plan* .
18	23-Apr	Armando	Moritz-Chapelliquen		Is the TIP funding by category pretty standard, as far as the breakdown between project types?	The funding per category varies based on the regulations on the funding source. PennDOT prepares financial guidance with USDOT, which we are required to follow, and that sets how much funding is available for each category. These rules limit what each type of funding can be utilized to do.

2027-2030 Lehigh Valley Transportation Improvement Program
Public Comments and Responses
April 15th through May 17, 2026

Comment #	Date	First	Last	Organization	Comment	Response
19	23-Apr	Kevin	Schmidt		How is the proposed cost of a project developed? Especially for something large like the Hill to Hill Bridge	Cost estimates are developed in several stages. In the first stage, before any engineering or examination of right of way issues, an order of magnitude estimate is developed based on the cost of comparable projects in other parts of the state. These costs are refined during the environmental review phase, which develops more detail on the project elements. Once a project moves into preliminary engineering and then final design, the cost estimates get more precise. The project is then competitively bid and the contract goes to the lowest bid, which establishes the construction cost, which is final, unless there are change orders. This can happen when an unforeseen condition complicates the project. Any adjustments made to a TIP project where the change is under $2 million can be made by PennDOT; adjustments of $2 million or more must be voted on by the LVTS.
20	28-Apr	Larry	Green		With the evolution of the numerous warehouses, the roadways are inadequate for the loads that these trucks are putting on and also the restriction of traffic flow as most of our roads are single lane roads	The LVTS in partnership with Lackawanna/Luzerne Transportation Study (LLTS), Lebanon County Metropolitan Planning Organization (LEBCO), , Northeastern Pennsylvania Alliance (NEPA), and Reading Area Transportation Study (RATS) formed the Eastern Pennsylvania Freight Alliance and created a joint freight infrastructure plan. This region has joined to address the unique opportunities and challenges associated with freight industry growth, focused on impacts to mobility, safety, land uses, and overall state of good repair of the transportation infrastructure. The 10-County EPFA region (Berks, Carbon, Lackawanna. Lebanon, Lehigh, Luzerne, Monroe, Northampton, Pike, and Schuylkill Counties) is among the largest and fastest-growing freight handling regions in the country, with rapid development and redevelopment for warehouse and distribution functions. The plan is available here: https://epennfa.org/.
21	5-May	Jason	Mauger	Clubhouse LV	A lot of people don't know how to learn more about this stuff, is there a way our organization could contact you so we could learn more?	Yes, please contact the LVPC, we'd be happy to engage with the community members and groups to get more information on planning and transportation.
22	5-May	Scott	Slingerland	Coalition for Appropriate Transportation	Public transit funding was cut in the budget last year; LANTA service will be reduced by 7%. Is there any way to advocate for additional transit funding on the TIP? Does the TIP cover capital funding or operations?	The Transit TIP is currently set at $193,152,767 per FTA guidance. That includes funding that is flexed from the Congestion Mitigation Air Quality program (CMAQ). Project descriptions on the Transit TIP include the type of project (capital, operational etc.). You may also choose to advocate for transportation finance to the Lehigh Valley's state and federal delegations, who jointly provide transit and overall transportation funding.
23	5-May	Scott	Slingerland	Coalition for Appropriate Transportation	There are a lot of projects that don't specifically focus on pedestrians or bicyclists. It would be great if all of those projects would take those folks into consideration, 8-10 foot sidewalks. Are there any restrictions on funding that can't cover the funding needed for these elements?	Projects are funded through different programs, which each have their own requirements. When the Metropolitan Transportation Plan and TIP are drafted the LVPC and LVTS look to incorporate multi-modal elements, check if proposals are listed as local and regional multimodal priorities and generally attempt to coordinate all possible modes as part of the projects selection process. When funded projects begin design, those managed by PennDOT, go through he Connects process which invites stakeholders to collaborate on needs across various modes.

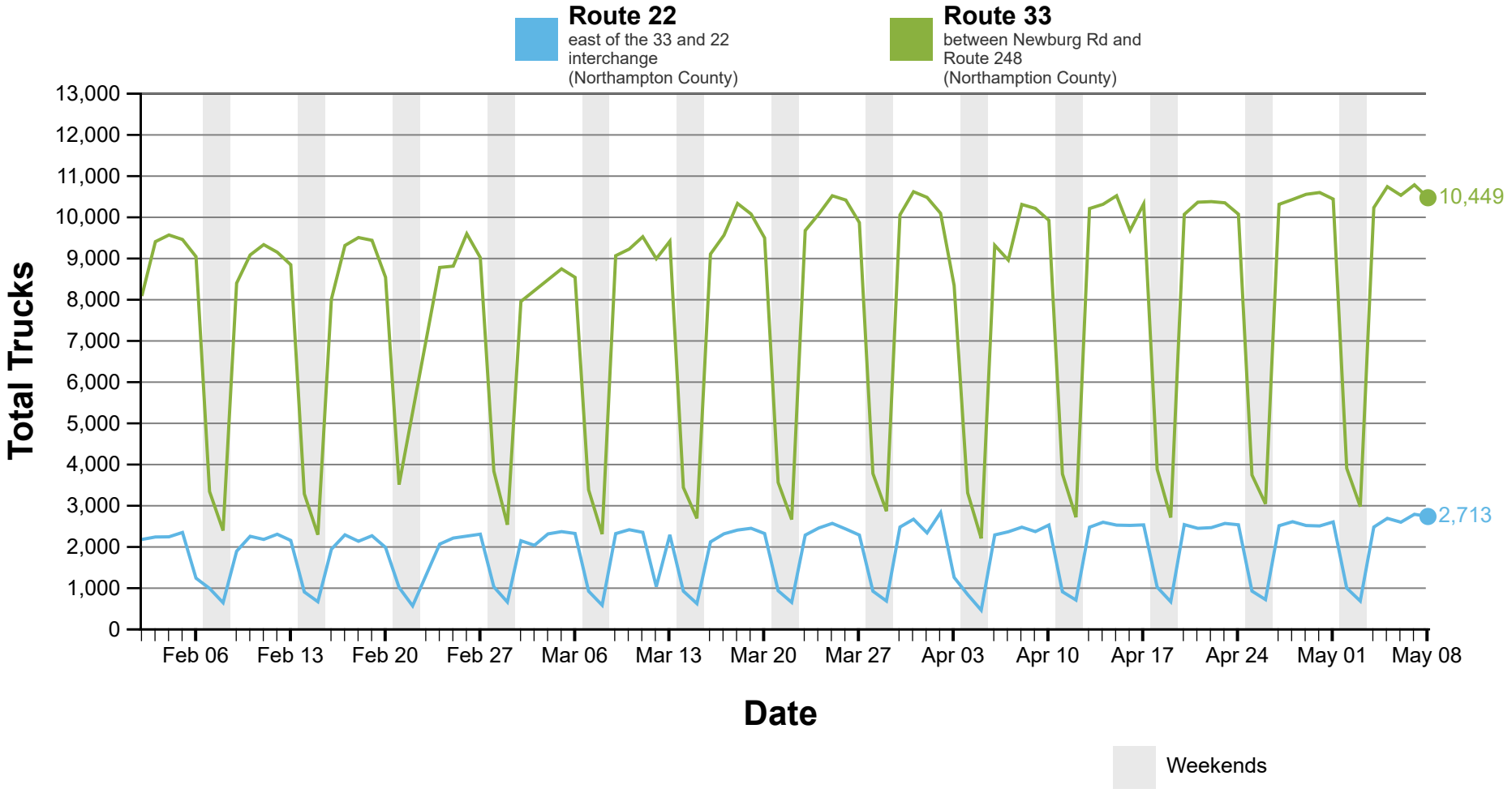
Comment #	Date	First	Last	Organization	Comment	Response
24	5-May	Scott	Slingerland	Coalition for Appropriate Transportation	Mega projects, especially those $80 million, they should include high functional multimodal facilities.	See answer to question #23 above.
25	5-May	Jason	Mauger	Clubhouse LV	What's the status on the Hill to Hill Bridge construction? Does this one have to be restored with specific requirements?	The Hill-to-Hill Bridge Rehabilitation project (Route 378) involves the comprehensive rehabilitation of the bridge spanning the Lehigh River, Norfolk Southern Railroad, and several city streets in Bethlehem, Lehigh County. Construction is scheduled to begin in Fall 2026, and the project spans approximately 1.35 miles. The work focuses on extending the bridge's service life and ensuring structural safety. Rehabilitation efforts will include structural repairs and updates to meet current safety and design standards. The project will support safe and reliable transportation along Route 378 while maintaining connectivity for vehicles, bicycles, and pedestrians in the region. The project is funded through a combination of federal and state programs, including National Highway Performance Program (NHPP), Bridge Replacement and Improvement Program (BRIP), Surface Transportation Program – Urban (STU), State Bonding/Bridge Fund (BOF), and State Infrastructure Funding Program (Act 581) funds, reflecting a coordinated investment in maintaining this critical infrastructure.
26	14-May	Michael	Levitsky		I recently attended a meeting on May 6 for the I-78 widening project from Berks County line to just beyond PA Route 100. I was very disappointed as I thought it would be more of a discussion than a show and tell, especially when some of the presenters had no clue when you tried to have a discussion with them. Others were quite helpful. My concerns are: Why is this section on the fast track on being done when other corridors in the Lehigh Valley are in much more need? This section is proposed to be widened to 6 lanes, yet the traffic count is only 41,000 compared to US Route 22 which has a range of 66,000 to 97,000 from I-78 to PA Route 33. The I-78 corridor traffic count from the PA Route 309 split at PA Route 145 to the New Jersey line ranges from 57,000 to 74,000. These two corridors are in much more need of attention and of widening to 6 lanes before what is proposed in Upper Macungie Township. Another concern is the proposed interchange with Adams Road. If this interchange is put in, it will create more traffic and congestion from opening it up to more development much like the US Route 22 bypass is creating now. It has not diminished traffic on Hamilton through Wescosville, which it was promised to do. The proposal of the Adams Road interchange is faulty as well. Since the developers are the ones who want and are pushing for this interchange, then they should pay for it, like the precedent set by the Tatamy interchange with PA Route 33, which the developers paid for.	The I-78 project is part of PennDOT's Interstate program, which is a statewide effort separate from the LVTS TIP; though the LVTS must report on them. This comment has been shared with the project's management team.
27	14-May	Michael	Levitsky		Also, design wise, the relocation of Adams Road should go in between the Olympus building at 871 Nestle Way and the DSC building at 861 Nestle Way/ This will keep everything away from Iron Run Creek, which has some protected species in it, as well as keep truck traffic off the currently residential Adams Road.	See answer to question #26 above.

Traffic Volumes Throughout the Lehigh Valley



*Data from Feb/2/2025 - May/8/2026 at daily intervals

Truck Volumes Throughout the Lehigh Valley



*Data from Feb/2/2025 - May/8/2026 at daily intervals

LEHIGH VALLEY TRANSPORTATION STUDY
HIGHWAY STATUS REPORT
MEETING MAY 20, 2026

US 22, Section WDN Widening (C-C. Frey)
Whitehall, South Whitehall, and Hanover Townships, and City of Bethlehem Lehigh County; Hanover Township, Northampton County
MPMS 96384 – est. let N/A

- Conceptual POA approved December 10, 2025
- Preliminary Noise Analysis is being revised to current project limit just west of Airport Road and break-out project strategies discussed with CO and FHWA as well as the 2058 design year noted above, supplement in process for design year change
- Project-specific air quality assessments warranted due to projected 2058 design year Annual Average Daily Traffic exceeding 125,000 vehicles. A supplement is in process to add scope for a quantitative hot spot analysis for Carbon Monoxide (CO), a Level 3 Interagency Consultation Group (ICG) Screening for Particulate Matter (PM), and a qualitative analysis for Greenhouse Gases (GHG)
- Design team completed efforts to identify community leaders in preparation of public involvement process
- Upon environmental clearance, US 22 Widening will be advanced via a series of breakout projects. First breakout project will be SR 22/Fullerton Interchange (MPMS 117610) and/or SR 22 Lehigh River Bridge to Airport Road (MPMS 119690) anticipated to be let in April 2030

SR 145, Section MLT 7th Street Multimodal Corridor (C-C. Frey)
City of Allentown and Whitehall Township, Lehigh County
MPMS 99697 – est. let April 1, 2029

- Final Design will be completed under an Open End agreement, Work Order in process to get consultant under contract, NTP anticipated in June 2026

SR 309, Section 14M Betterment (C-M. Fallon)
North and South Whitehall Townships, Lehigh County
MPMS 102312 – est. let let June 4, 2026

- NPDES permit approved March 10, 2026
- JPA permit resubmitted to DEP March 26, 2025; remaining comment received June 3, 2025, is to include NPDES approval; resubmitted January 29, 2026
- Traffic Control Plans approved April 13, 2026
- Railroad resubmitted January 28, 2026, received PUC secretarial letter March 6, 2026
- Signing Plans and Pavement Marking Plan approved February 10, 2026
- Final Plan Check approved February 5, 2026
- Right-of-Way conditional clearance received March 10, 2026
- Utility clearance received March 2, 2026
- Final Traffic Signals waiting on North Whitehall Township (South Whitehall Township plans signed and completed)
- Constructability approved February 18, 2026
- Contract management submission April 13, 2026

SR 378, Section 04M SR 378 Lighting (M. Patel)
City of Bethlehem, Lehigh County
MPMS 110398 – est. let April 1, 2027

- Subconsultant advancing Final Lighting Plans, calculation, and Report on going
- Preparing lighting agreement, on going

LEHIGH VALLEY TRANSPORTATION STUDY
HIGHWAY STATUS REPORT
MEETING MAY 20, 2026

SR 1017, Section 02S Mauch Chunk Signal Improvements (C-M. McGuire)
South Whitehall Township, Lehigh County
MPMS 110174 – actual let December 11, 2025

- Right of way clearance issued on December 8, 2025
- Awarded to J.D. Eckman, Inc. on December 19, 2025
- Notice to Proceed anticipated to be issued on January 26, 2026
- Anticipated completion is September 3, 2027

SR 22, Section 15M SR 22/SR 191 Interchange Improvements (C-B. Brawand)
Bethlehem Township, Northampton County
MPMS 117606 – est. let April 1, 2030

- Alternatives Analysis approved, moving forward with selected alternative
- Public Meeting Dry Run completed
- Public Officials Meeting tentatively scheduled for June 9, 2026
- Public Meeting tentatively scheduled for June 23, 2026
- Coordinating the possibility of down scoping environmental document level from an EA to a CE2
- Working on Preliminary Engineering Supplement

SR 191, Section 04S SR 191 Lower Nazareth Intersection Improvements (C-R. Himmelwright)
Lower Nazareth Township, Northampton County
MPMS 116936 – est. let January 14, 2027

- Utility Coordination Ongoing
- Working towards NPDES permit application
- Roadway Borings Completed April 14 and 15, 2026; Lab Testing requested
- Final ROW Plan Submitted March 2026

SR 248, Section 07S SR 248/Airport Road Intersection Improvements (C-M. Fallon)
East Allen Township, Northampton County
MPMS 120952 – est. let March 23, 2028

- Alternative analysis completed
- Converting project to digital delivery

SR 2018, Section 02S Freemansburg Ave (SR 2018) Safety Improvements (C-J. Besz)
Bethlehem Township, Northampton County
MPMS 117509 – est. let July 16, 2026

- Resolution of utility conflicts continues
- ROW acquisition is ongoing
- The stormwater management/drainage design and the NPDES Permit application has been completed and submitted to DEP on April 20, 2026
- Pavement Design was approved on January 20, 2026
- Final Traffic Signal Plans were prepared, submitted, reviewed and returned with comments on February 26, 2026; revisions are ongoing
- ADA Submission was approved on February 27, 2026
- Final Signing and Pavement Marking Plans were submitted on March 8, 2026; comments were returned on March 26, 2026; revisions are ongoing
- Preparation of Final Maintenance and Protection of Traffic Plans are ongoing
- The Sidewalk Maintenance Agreement was sent to the Township for review and execution on March 12, 2026
- The DM-3 Plan Check was submitted on April 2, 2026; comments were returned on April 7, 2026
- The 90% Constructability Review submission will be made upon completion of resolution of utility conflicts and preparation of a DRAFT D-4181

LEHIGH VALLEY TRANSPORTATION STUDY
HIGHWAY STATUS REPORT
MEETING MAY 20, 2026

ACRONYM REFERENCE	
ACM/LBP	ASBESTOS CONTAINING MATERIAL / LEAD BASED PAINT
ADA	AMERICAN WITH DISABILITIES ACT
BRPA	BRIDGE AND ROADWAY PROGRAMMATIC AGREEMENT
CE	CATEGORICAL EXCLUSION
CEE	CATEGORICAL EXCLUSION EVALUATION
CO	CENTRAL OFFICE
CRP	CULTURAL RESOURCES PROFESSIONAL
DCNR	DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DFV	DESIGN FIELD VIEW
DO	DISTRICT OFFICE
E&S	EROSION AND SEDIMENTATION
EJ	ENVIRONMENTAL JUSTICE
ESA	ENVIRONMENTAL SITE ASSESSMENT
FD	FINAL DESIGN
FHWA	FEDERAL HIGHWAY ADMINISTRATION
H&H	HYDROLOGIC AND HYDRAULIC
HOP	HIGHWAY OCCUPANCY PERMIT
HRSF	HISTORIC RESOURCE SURVEY FORM
JD	JURISDICTIONAL DETERMINATION
JPA	JOINT PERMIT AGREEMENT
L&G	LINE AND GRADE
LCCD	LEHIGH COUNTY CONSERVATION DISTRICT
LGTS	LINE, GRADE AND TYPICAL SECTION
LOMR	LETTER OF MAP REVISION
MPT	MAINTENANCE AND PROTECTION OF TRAFFIC
NCCD	NORTHAMPTON COUNT CONSERVATION DISTRICT
NOITE	NOTICE OF INTENT TO ENTER
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
NTP	NOTICE TO PROCEED
PE	PRELIMINARY ENGINEERING
PHMC	PA HISTORICAL AND MUSEUM COMMISSION
PNDI	PENNSYLVANIA NATURAL DIVERSITY INVENTORY
POA	POINT OF ACCESS
PS&E	PLANS, SPECIFICATIONS AND ESTIMATE
ROW	RIGHT OF WAY
RSGER	RECONNAISSANCE SOILS AND GEOLOGICAL ENGINEERING REPORT
SEPS	SUBSURFACE EXPLORATION PLANNING SUBMISSION
SFV	SCOPE AND FIELD VIEW
SHPO	STATE HISTORIC PRESERVATION OFFICE
SPMP	SIGNING AND PAVEMENT MARKING PLAN
SUE	SUBSURFACE UTILITY ENGINEERING
T&E	THREATENED AND ENDANGERED SPECIES COORDINATION
TCP	TRAFFIC CONTROL PLAN
TIF	TECHNICALLY INFEASIBILITY FORM
TIP	TRANSPORTATION IMPROVEMENT PROGRAM
TS&L	TYPE, SIZE AND LOCATION
USFWS	UNITED STATES FISH AND WILDLIFE SERVICE