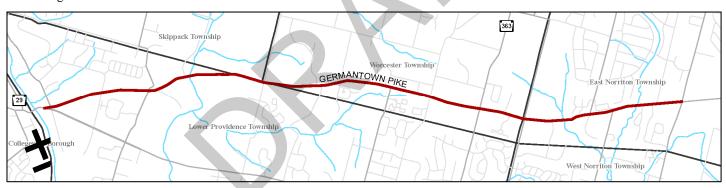




## **GERMANTOWN PIKE TODAY**

#### **STUDY AREA**

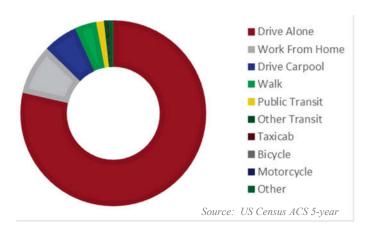
This study focuses on a 5.7 mile long segment of Germantown Pike from the intersection with Whitehall Road to the intersection with Ridge Pike; passing through East Norriton Township, Worcester Township, and Lower Providence Township. Germantown Pike functions as an east-west oriented principal arterial and supports regional mobility. To the west, Germantown Pike provides a connection to Collegeville and access to key growth areas along US 422, including Limerick. To the east, Germantown Pike provides a connection to US 202, Plymouth Meeting, and the Pennsylvania Turnpike. Germantown Pike also bisects Evansburg State Park.



Germantown Pike passes through varying communities with specific transportation needs. The demographics within one mile of this segment of Germantown Pike are as follows:

On average, commuters along Germantown Pike are more likely to

Demographic Indicator	Germantown Pike	Montgomery County Average
Commute Mean Travel Time	27.67 minutes	28.99 minutes
Housing Units without Access to a Vehicle	2.02%	5.51%



work from home and less likely to commute by public transportation than the average commuter in Montgomery County (Work from Home—7%, Public Transit—5%). Commute travel times are roughly equivalent to the county average, but there are fewer houses without access to a vehicle.

#### PREVIOUS PLANS AND ONGOING PROJECTS

Germantown Pike is referenced in various planning studies throughout the corridor. Safety, capacity, and multimodal deficiencies have been identified in municipal comprehensive plans, Act 209 (Transportation Impact Fee) Capital Improvement Plans, and special studies.

Municipality	Comprehensive Plan Year	Act 209 Plan Year
East Norriton Township	2019	2001
Worcester Township	2008	2014
Lower Providence Township	2020	2009

A high number of crashes along Germantown Pike, including instances of pedestrian crashes were noted in East Norriton's Comprehensive Plan. Congestion during peak hours is identified between Burnside Avenue and Whitehall Road and between Potshop Road and Trooper Road. In general, the need for improved bicycle (on and off-road) connections, and closing gaps within the sidewalk network are supported in all of the municipal comprehensive plans. Additionally, the plans note the need for improved connections to the SEPTA Route 91 bus service, as well as enhanced bus stop amenities.

Germantown Pike is contained within the DVRPC Congestion Mitigation Process (CMP). Very appropriate strategies for this corridor include: signal improvements, Intelligent Transportation Systems (ITS), transit infrastructure improvements, turning movement enhancements, modifications to existing transit routes or services, or new passenger rail investments.

At the time of this report, the only major transportation improvement project along Germantown pike is Ridge/Germantown Intersection Re-Alignment-Phase 1, Perkiomen Crossing (MPMS# 102273). This project will reduce congestion and improve traffic flow by replacing the current intersection of Germantown Pike, Ridge Pike, and River Road with two separate intersections—a roundabout at River Road and a reconfigured signal at Ridge Pike. The project is currently in the design phase and is expected to advance to construction by 2026.

Current configuration at Germantown Pike, Ridge Pike, and River Road intersection

#### LAND USE CONTEXT

Germantown Pike can be described as a suburban commercial / residential Principal Arterial. Commercial activity is centered around the historic villages along the corridor, with residential areas between commercial centers. Additionally, Germantown Pike bisects Evansburg State Park where it is carried by a large stone arch bridge over Skippack Creek. The roadway also passes over two tributaries to Kepner Creek. Traveling from the east to west, the roadway generally gains elevation as it travels over rolling countryside.

For its significance and volume of traffic, there has been steady redevelopment interest along Germantown Pike in recent years. Recent land development proposals have been focused near Collegeville Borough, Fairview Village, and near the Einstein Medical Campus; including two of the ten largest residential proposals in Montgomery County in 2018:

- Moscariello at Crosskeys—98 Multifamily Units
- Moscariello at Crosskeys—31 Single Family Attached Units

Established in 1687 as a vital link between Philadelphia and Collegeville, Germantown Pike has a fair amount of structures and features recognized for their historic value. Features listed on the National Register of Historic Places are listed below.

- Old Norriton Presbyterian Church—Trooper Road intersection
- Evansburg Historic District—Evansburg State Park
- Skippack Bridge—Evansburg State Park

Existing and Future Land Use maps can be found in Appendix B of this report.

#### TRANSPORTATION CONTEXT

#### **Typical Sections**

The typical cross-section of Germantown Pike varies along the corridor. The three main configurations are two-lane, three-lane with a center turn lane, and three-lane (with two lanes in the same direction). The graphics below depict the typical cross-sections that can be found along Germantown Pike. Shoulder widths vary along the corridor; with wider shoulders in areas with more recent land development activity, and narrower shoulders in historic areas.

#### Whitehall Road to Burnside Road & Valley Forge Road to Ridge Pike



#### **Transportation Features**

There are eleven traffic signals along Germantown Pike from Whitehall Road to Ridge Pike. Montgomery County owns and maintains four bridge structures along this segment of Germantown Pike. Three bridges carry Germantown Pike over a branch of Stony Creek in East Norriton Township, and a large stone arch structure carries Germantown Pike over Skippack Creek in Evansburg State Park. None of these structures have a posted weight restriction.

These transportation features are depicted on the Corridor Overview Map.

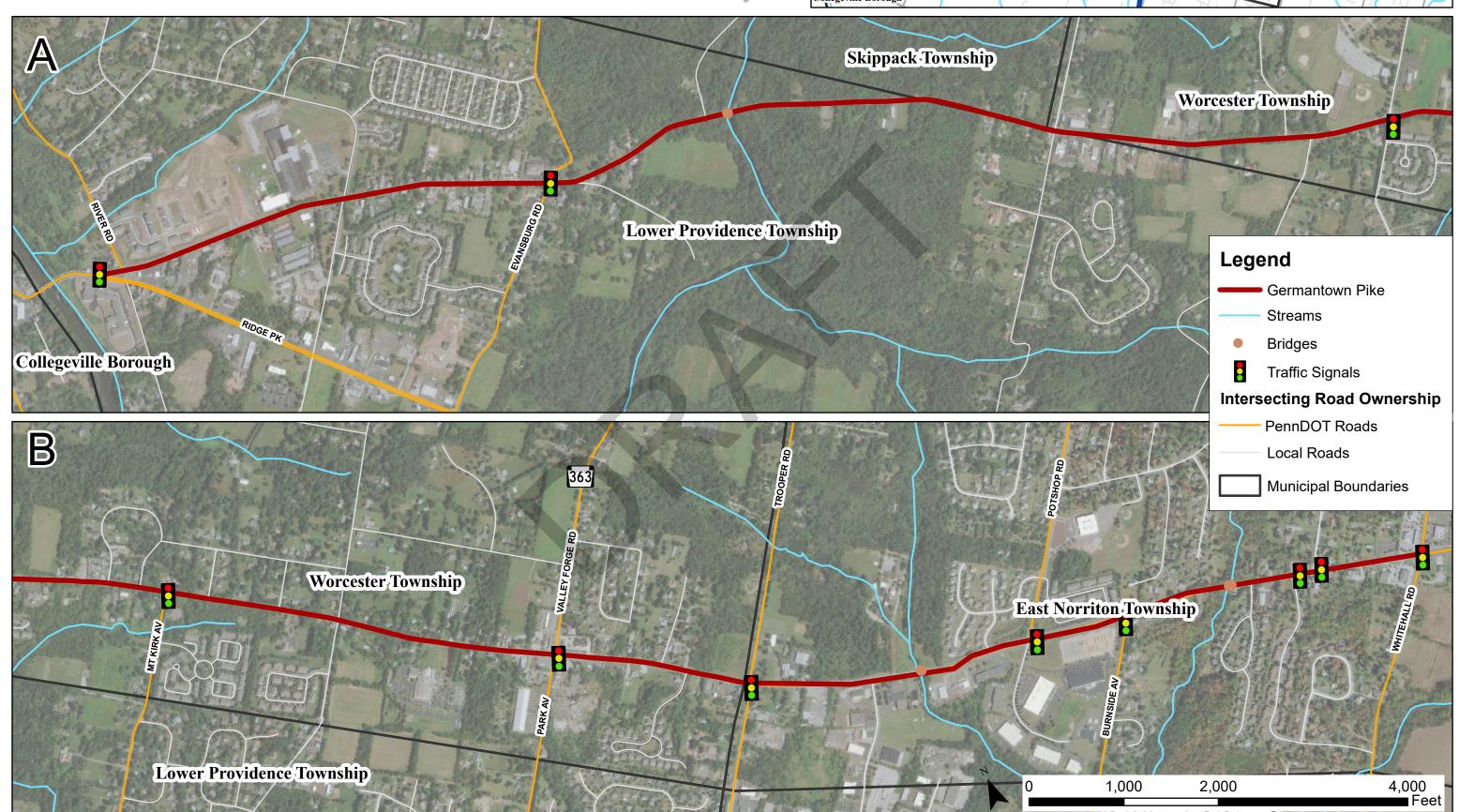


Stone Arch Bridge over Skippack Creek

# Germantown Pike, Corridor Overview







#### **Multimodal Connections**

Sidewalk connections are limited to village centers along Germantown Pike. Major regional trails do not connect to or cross Germantown Pike, but there are some local trail connections from residential communities. There are also recreational trail networks in Evansburg State Park and Norristown Farm Park; connecting to these assets is a high priority for the communities along this corridor.

Germantown Pike was identified in Bike Montco as one of the most difficult roads to bicycle on by survey respondents. Only short segments of Germantown Pike (Whitehall Road to Trooper Road and Level Road to Skippack Creek Road) are identified on the Planned Bicycle Network map in Bike Montco. Much of Germantown Pike falls within the "Recommended Areas for Sidewalks" as identified in Walk Montco.

Additional multimodal connections are depicted on the Multimodal Transportation Features Map found in Appendix B.

#### **Traffic Volumes and Congestion**

The highest traffic volumes along Germantown Pike are found east of Trooper Road. The intersections listed below have been identified by previous plans and studies for operating with moderate or high delay. High delay is characterized as intersections operating at an overall level of service E or F. Moderate delay is characterized as intersections operating at an overall level of service D. Intersections operating at a level of service A, B, or C are considered to have low delay.

- Valley Forge Road/Park Avenue—High Delay
- Kriebel Mill Road—Moderate Delay
- Ridge Pike/River Road—High Delay

A Traffic and Intersection Operations Map containing additional information about traffic volumes and intersection operations can be found in Appendix B.

#### Safety

A high concentration of vehicle crashes are documented along Germantown Pike at the intersections of Whitehall Road and Valley Forge Road/Park Avenue. The intersection with Whitehall Road saw twenty-six crashes between 2015-2019. The most common crash type at Whitehall Road was angle crashes, which could be attributed to congestion and high turning movement volumes. Valley Forge Road/Park Avenue reported a total of eighteen crashes between 2015-2019. The most common crash types at the intersection with Valley Forge Road/Park Avenue are rear-end and angle crashes, which could indicate the crashes are related to congestion and turning movements. Moderate concentrations of crashes have been documented at the intersections with Mt. Kirk Avenue, Grange Avenue, and Evansburg Road.

A Safety Map depicting Crash Densities along Germantown Pike can be found in Appendix B.

Low Delay: Overall LOS A, B, or C

Moderate Delay: Overall LOS D

High Delay: Overall LOS E or F

Intersection of Germantown Pike with Valley Forge Road/Park Avenue

#### **KEY ISSUES**

# Travel lane configuration is inconsistent and transitions in the lane configuration create safety and operational concerns

This stretch of Germantown Pike transitions between two-lane, two-lane with a center turn-lane, and three-lane cross sections. Community members noted that the change in cross section creates confusion and pinch points. Additionally, the transition and change between cross sections impact overall traffic flow along the corridor.

# Safety and operational issues at key intersections, particularly due to high traffic volumes and skewed or offset alignments

Germantown Pike intersects with several other key corridors, such as Ridge Pike, Trooper Road (Route 363) and Whitehall Road. As a result, there are heavy traffic volumes along segments of Germantown Pike and heavy turning movements at many key intersections. There are safety and operational issues at a number of key intersections that lack adequate through lanes or turning lanes or have skewed or offset alignments.

Fortunately, some intersection and roadway improvements are underway. In particular, PennDOT is leading the design of the reconfiguration of the Germantown Pike and Ridge Pike intersection. Planning and design are also underway for improvements at the Evansburg Road and Kriebel Mill Road intersections. Recent plans and studies and local community input identified six additional key intersections along the corridor with safety and operational issues that include: Ridge Pike, Valley Forge Road/Park Avenue, Trooper Road, Potshop Road, Sunset Avenue/Sandra Lane, and Whitehall Road.

# Congested traffic conditions, due to high traffic volumes and numerous driveways along the corridor

Traffic congestion is an issue along Germantown Pike, particularly at the western end near Ridge Pike and the eastern end between Valley Forge Road and Whitehall Road. In these areas, drivers use Germantown Pike and connecting roadways to access the regional highway network, including US 202, US 422, and the PA Turnpike. In addition, there is the potential for increases in congestion due to added traffic being generated by new development and redevelopment along or near the corridor.

# Numerous driveways along the corridor impacts safety and operations for motorists, bicyclists, and pedestrians

There are numerous residential and commercial driveways with direct access to Germantown Pike, creating a conflict between regional mobility and local access needs. Turning movements into and out of driveways can impede traffic flow and also pose safety concerns. Additionally, some of the driveways are wide and closely spaced, which impacts the safety and comfort of bicyclists and pedestrians traveling along the corridor. Redevelopment of properties along the corridor may provide opportunities over time for access management improvements.

# Buildings and structures located close to the corridor impact the feasibility of improvements

Along Germantown Pike, there are a number of homes, business, and other buildings that are located close to the roadway. Providing additional travel lanes, turning lanes, or bicycle and pedestrian infrastructure may not be feasible or desirable due to the potential significant property and community impacts. In addition, there are some structures, such as the bridge over Skippack Creek, that may limit the ability to widen the roadway or provide dedicated bicycle or pedestrian facilities.

# Bicycle and pedestrian infrastructure along the corridor is disconnected and limits access to key destinations

While there are some segments of sidewalks and trails along the corridor, overall the infrastructure for walking and biking along Germantown Pike is limited, disconnected, and inconsistent. In addition, community members noted that high traffic volumes and travel speeds can make bicyclists and pedestrians feel unsafe or uncomfortable. However, there are a number of key destinations for walking and biking on or near the corridor. Key destinations include mixed-use centers, such as Collegeville and Fairview Village, as well as local and regional parks, including Evansburg State Park, Eskie Park, and Norristown Farm Park.



Closely Spaced / Skewed Intersection of Germantown Pike with Sunset Avenue / Sandra Lane



Commercial Driveways near Intersection of Germantown Pike with Park Avenue / Valley Forge Road



Structures close to the Roadway near the Intersection of Germantown Pike with Trooper Road



Inoperable Pedestrian Signal Equipment at the intersection of Germantown Pike with Trooper Road

# Germantown Pike | Key Issues





#### **Corridor-Wide Issues**

- Inconsistent lane configuration creates pinch points and poses safety concerns
- Traffic congestion, particularly at key intersections and at the eastern and western ends of the project corridor
- Numerous driveways and curb cuts along the corridor impacts safety and operations
- Lack of continuous and connected infrastructure for walking and biking

#### **Intersection with Evansburg Road**

- Traffic congestion during peak
- Evaluation underway for the addition of left-turn advance signal phases
- Township securing right-of-way for the addition of left turn lanes in the future



#### **Intersection with Ridge Pike**

- Final design underway for Perkiomen Crossing Phase 1: Ridge Pike/Germantown Pike Re-alignment
- Proposed improvements include elimination of the Y intersection, building a connector roadway, moving the intersection east, and sidewalk connections
- Future plans for Phase 2 that include a second bridge over the Perkiomen Creek are unfunded

# Skippack Creek Crossing and Evansburg State Park Connections

- Need for bicycle and pedestrian connections and particularly connections to Evansburg State Park and the trails within the park
- County-owned bridge carrying Germantown Pike over Skippack Creek is a stone arch structure with limited options for widening rehabilitated last in 2013
- Flooding at bridge over Skippack Creek during severe weather events



# Germantown Pike | Key Issues





#### **Corridor-Wide Issues**

- Inconsistent lane configuration creates pinch points and poses safety concerns
- Traffic congestion, particularly at key intersections and at the eastern and western ends of the project corridor
- Numerous driveways and curb cuts along the corridor impacts safety and operations
- Lack of continuous and connected infrastructure for walking and biking

#### **Intersection with Trooper Road**

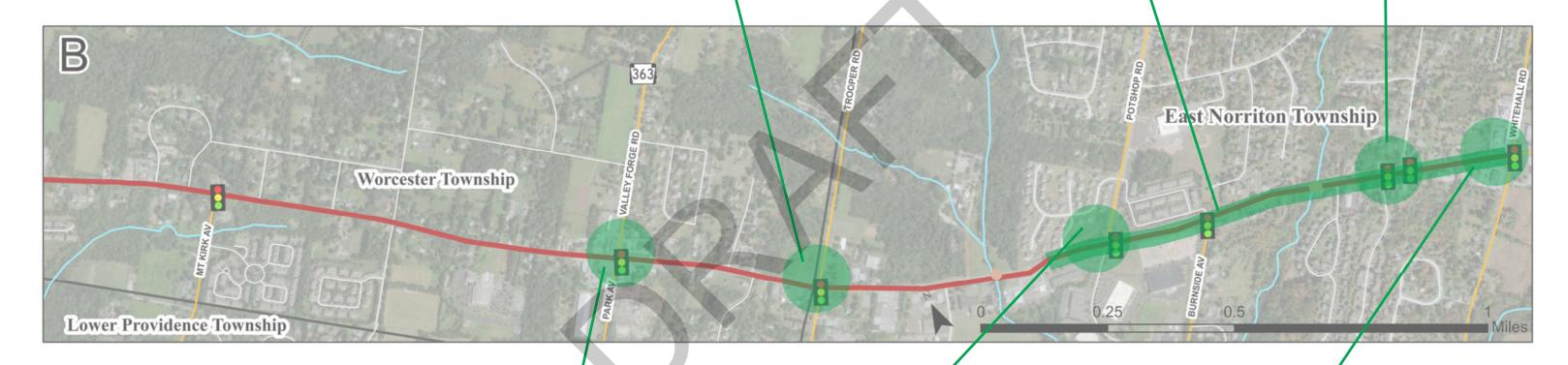
- Skewed and slightly offset alignment of Trooper Road impacts traffic operations and safety
- Need for dedicated turn lanes

#### **Between Potshop Road and Whitehall Road**

 Traffic congestion and operational issues due to heavy turning movements and changes in the cross section

# Intersection with Sunset Avenue and Sandra Lane

- Offset and closely spaced intersections
- Need for updated traffic signal equipment



#### **Intersection with Valley Forge Road / Park Ave**

- Traffic congestion due to heavy turning movements and change in cross section
- Transition between 3-lane cross section (to the west) and 2-lane cross section (to the east)
- Crash density higher than corridor average
- Limited sidewalks and bus stop infrastructure, particularly on Valley Forge Road and Park Avenue at the intersection

# Intersection with Potshop Road and Change in Cross Section

- Transition from 2-lane cross section (to the west) to 3-lane cross section (to the east) creates safety and operational issues
- Gaps in sidewalk and trail network

# Intersection with Whitehall Road and Change in Cross Section

- Transition between a 5-lane cross section (to the west) and a 2-lane cross section (to the east) creates safety and operational issues
- Crash density higher than corridor average
- Right-turn slip lanes and commercial driveways near the intersection impact traffic operations and safety
- Pedestrian crosswalks at the intersection, but limited connecting sidewalks and need for improved access to Norristown Farm Park

# Legend Germantown Pike Bridges Traffic Signals Intersecting Road Ownership PennDOT Local Roads Municipal Boundaries





## **GERMANTOWN PIKE TOMORROW**

#### CORRIDOR EVALUTION

Germantown Pike provides access to residential neighborhoods, a state park, shopping centers and office parks. In addition, the corridor connects to several regional transportation corridors such as the Blue Route (I-476) and the PA Turnpike. The evaluation of the western segment of the corridor focused on smaller scale traffic improvements and the addition of bicycle and pedestrian facilities in Evansburg. The evaluation of the eastern segment of the corridor focused on adding additional lanes to improve capacity. A more detailed evaluation of Germantown Pike can be found in Appendix C.

#### **Traffic Operations**

Traffic volumes and a lack of closely spaced or heavily congested intersections preclude the need for consideration of additional through travel lanes on the western end of the corridor.

A center left turn lane should be provided along Germantown Pike from Valley Forge Road (PA 363) to Whitehall Road. In addition, the segment from Trooper Road to Whitehall Road should be evaluated to provide a 5-lane cross section to accommodate high peak period traffic volumes and improve operations between closely spaced signalized intersections.

Turn lanes exist at some signalized intersections. Additional turning lanes at key intersections, especially Evansburg Road, Valley Forge Road, and Trooper Road should be considered based on turning movements and safety considerations.

#### **Multimodal Connections**

Consistent with the Lower Providence Township comprehensive plan vision for the Evansburg Village, sidewalks/trails should be added to fill in the gaps on the northern side of the roadway between Ridge Pike and Evansburg Road where facilities exist today. Within Evansburg Village, the existing sidewalk should be upgraded. Outside of Evansburg Village, a trail should be provided.

From Evansburg Road to Skippack Creek Road, a trail should be considered based on proximity to the trail network within Evansburg State Park.

From Valley Forge Road to Whitehall Road, a trail should be provided on one side of the roadway. Since the trail may need to alternate between the northern and southern sides of the road, well established crossings at signalized intersections or mid-block locations need to be identified.

A consistent shoulder width should be provided along both sides of the roadway between Ridge Pike and Valley Forge Road (PA 363) to accommodate bicycles.



Germantown Pike and Valley Forge Road, Worcester Township



Walking trail along the northern side of Germantown Pike to he east of Ridge Pike, Lower Providence Township

#### **Constraints**

Utilities are predominantly above-ground throughout the corridor and are located on both the northern and southern sides of the roadway.

It is very common throughout the Germantown Pike corridor for several types of obstructions to be located close to the paved cartway including areas of trees/heavy vegetation, fences, decorative walls, utility poles, and building structures.

The table below highlights some of key geometric, environmental, and potential historical features along Germantown Pike.

Туре	Corridor Constraint		
Geometry	<ul><li>Horizontal curve east of Evansburg Road</li><li>Horizontal curve west of Skippack Creek Road</li></ul>		
Environmental	<ul> <li>Stream crossing to the east of Skippack Creek Road</li> <li>Dense woods in Evansburg State Park</li> <li>Stream crossing to the west of East Crossings Circle</li> </ul>		
Potential Historical	Saint James Cemetery Skippack Creek bridge Funkite Cemetery Changing House Keyser's Mill Peter Williams Tavern Old Norriton Church		



Aboveground utilities at the intersection of Germantown Pike and Potshop Road, East Norriton Township



Skippack Creek Bridge, Lower Providence Township

#### **FUTURE VISION**

#### **Cross Sections**

Germantown Pike is a Community Arterial with a Suburban Corridor land use context. The standard design criteria should generally be followed except at locations when constraints limit the ability to meet the standard criteria.

#### Ridge Pike to Skippack Creek Road

The existing cross section of Germantown Pike from Ridge Pike to Skippack Creek Road will generally remain the same as existing. Pedestrian and bicycle accessibility will be improved by a trail or sidewalk with consistent widths along the northern side of the roadway, providing buffer areas, and providing a bike lane on both sides of the roadway.



#### Skippack Creek Road to Valley Forge Road (PA 363)

The existing cross section of Germantown Pike from Skippack Creek Road to Valley Forge Road (PA 363) will generally remain the same as existing. Bicycle accessibility will be improved by providing consistent shoulder widths along both sides of the roadway.





Skippack Creek Road, Lower Providence Township

#### Valley Forge Road (PA 363) to Trooper Road

Currently, two westbound travel lanes and one eastbound travel lane exist along this section of Germantown Pike. Consideration should be given to providing a two-way center left-turn along this section of the roadway. In addition, a trail should be provided with an appropriate buffer area.



#### Existing Cross Sections:

Whitehall Road to Burnside Road & Valley Forge Road to Ridge Pike



Burnside Road to Trooper Road



Trooper Road to Valley Forge Road



#### Trooper Road to Whitehall Road

Consideration should be given to widening Germantown Pike to provide a 5-lane cross section along this section of the corridor, providing two travel lanes in both the eastbound and westbound directions and provision of a two-way center left turn lane. It should be noted that the cartway along Germantown Pike has been widened to accommodate a future 5-lane cross section from just west of Potshop Road to Burnside Avenue, as well as in the immediate vicinity of Whitehall Road.

A trail with an appropriate buffer area should be provided on one side of the roadway. Since the trail may need to alternate between the northern and southern sides of the road, well established crossings at signalized intersections or mid-block locations, need to be identified.



#### **Corridor Improvements**

The Corridor Improvement Map for Germantown Pike identifies improvements at a total of nine intersections and corridor segments to address a variety of issues for traffic operations, safety considerations, and bicycle and pedestrian facilities. The Corridor Improvement Map identifies the improvement categories to address future needs, estimated ranges of construction costs and general priority levels.

The following general corridor-wide improvement strategies apply to Germantown Pike:

#### Add bicycle and pedestrian facilities and fill in the gaps between existing facilities

The corridor lacks bicycle and pedestrian facilities for its entire length. As indicated in the future cross sections and corridor improvements map, sidewalk or a trail should be added between Ridge Pike and Skippack Creek Road through small projects or potentially through land development projects. In other sections of the corridor, add sidewalk or trail and provide a consistent 4 to 8foot shoulders to accommodate bicycle traffic.

#### Improve access management and provide a consistent cross section on eastern end

On the eastern end of the corridor, the county and municipalities should work cooperatively to consolidate the number of driveways and improve existing driveways to acceptable design standards. Consider widening the corridor from Trooper Road to Whitehall Road to provide a 5-lane cross section that is consistent with Germantown Pike to the east of Whitehall Road.

#### Add shoulders and widen existing shoulders to preferred width

Each of the future cross sections along the corridor recommend preferred shoulder widths. Some segments of Germantown Pike may be constrained from the preferred shoulder width due to obstructions located close to the roadway In these areas, the retrofit criteria of 2 to 4 foot shoulders may be more practical and appropriate.

#### Upgrade traffic signals

Upgrade traffic signals and provide improved coordination systems between closely spaced intersections, specifically on the eastern end of the corridor. The townships and county should work cooperatively to implement upgrades.

Landing	Improvement	Potential	Relative	Relative
Location	Categories	Improvements	Priority	Cost
Ridge Pike (PennDOT funded project)		<ul> <li>Final Design underway for Perkiomen Crossing—Phase 1:         Ridge Pike and Germantown Pike realignment</li> <li>Eliminate Y-intersection, build a connector roadway, move the intersection east, and sidewalk connections</li> <li>Future Plans for Phase 2: add a second bridge over the Perkiomen Creek</li> </ul>	High	\$\$\$\$\$
Valley Forge Road (PA 363)/ Park Avenue	- di	<ul> <li>Convert climbing lane to center left turn lane</li> <li>Add turning lanes</li> <li>Traffic signal upgrades</li> <li>Add pedestrian and bicycle facilities</li> </ul>	High	\$\$\$
Trooper Road		<ul> <li>Provide a 5-lane cross section on eastern leg</li> <li>Convert climbing lane to center left turn lane</li> <li>Traffic signal upgrades</li> <li>Add pedestrian and bicycle facilities</li> </ul>	High	\$\$\$
Potshop Road and Change in Cross Section		<ul> <li>Provide a 5-lane cross section</li> <li>Traffic signal upgrades</li> <li>Add pedestrian and bicycle facilities</li> </ul>	High	\$\$\$\$\$
Trooper Road to Whitehall Road	A di	<ul> <li>Provide a 5-lane cross section</li> <li>Add pedestrian and bicycle facilities</li> </ul>	High	\$\$\$\$\$
Sunset Avenue	A	<ul> <li>Provide a 5-lane cross section</li> <li>Traffic signal upgrades</li> </ul>	High	\$\$\$\$\$
Sandra Lane	A	<ul> <li>Provide a 5-lane cross section</li> <li>Traffic signal upgrades</li> </ul>	High	\$\$\$\$\$
Whitehall Road and Change in Cross Section	A di	<ul> <li>Provide a 5-lane cross section on western leg</li> <li>Traffic signal upgrades</li> <li>Reduce number of driveway</li> </ul>	High	\$\$\$\$\$
Skippack Creek Crossing and Evansburg State Park Connections	<del>(di</del>	<ul> <li>Add/upgrade pedestrian facilities</li> <li>Provide bike lanes through Evansburg Village</li> </ul>	Medium	\$\$\$\$\$
Evansburg Road	<b>+</b>	<ul><li>Add turning lanes</li><li>Traffic signal upgrades</li></ul>	Medium	\$\$

# **Germantown Pike | Corridor Improvements**





#### **Corridor-Wide Improvement Strategies**

- Add bicycle and pedestrian facilities and fill in the gaps between the existing facilities
- Improve access management Provide consistent cross-section on eastern end
- Add shoulders and widen existing shoulders to preferred width
- Upgrade traffic signals and provide improved coordination systems between closely spaced intersections on the eastern end

#### **Intersection with Evansburg Road**



Priority: Medium Cost: \$\$

- Add turning lanes
- Traffic signal upgrades



#### **Intersection with Ridge Pike**







PennDOT funded project

- Final design underway for Perkiomen Crossing Phase 1: Ridge Pike/Germantown Pike Re-alignment
- Proposed improvements include elimination of the Y intersection, building a connector roadway, moving the intersection east, and sidewalk connections
- Future plans for Phase 2 that include a second bridge over the Perkiomen Creek are unfunded

# Skippack Creek Crossing and Evansburg State Park Connections



**Priority: Medium Cost:** \$\$\$\$\$

- Add/upgrade pedestrian and bicycle facilities
- Provide bike lanes through Evansburg Village

### Legend Germantown Pike Bridges Traffic Signals **Improvement Type** Intersection Roadway Pedestrian/Bicycle Transit Parking Maintenance

**Relative Project Costs** 

\$0—\$1,000,000 \$\$

\$1,000,000—\$2,000,000 \$\$\$

\$2,000,000—\$5,000,000 \$\$\$\$ \$5,000,000—\$10,000,000 \$\$\$\$\$ \$10,000,000+

# Germantown Pike | Corridor Improvements

#### **Corridor-Wide Improvement Strategies**

- Add bicycle and pedestrian facilities and fill in the gaps between the existing facilities
- Improve access management Provide consistent cross-section on eastern end
- Add shoulders and widen existing shoulders to preferred width
- Upgrade traffic signals and provide improved coordination systems between closely spaced intersections on the eastern end

#### **Intersection with Trooper Road**



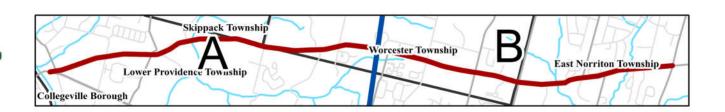




Priority: High Cost: \$\$\$

- Provide a 5-lane cross section on eastern leg
- Convert climbing lane to center leftturn lane
- Traffic signal upgrades
- Add/upgrade pedestrian and bicycle facilities

# MONTCO PIKES



#### **Between Trooper Road and Whitehall Road**





Priority: High Cost: \$\$\$\$\$

- Provide a 5-lane cross section
- Add bicycle and pedestrian facilities to fill in the gap between the existing facilities

#### **Intersection with Sunset** Avenue and Sandra Lane





Priority: High Cost: \$\$\$\$\$

- Provide a 5-lane cross section
- Traffic signal upgrades



#### **Intersection with Valley Forge Road / Park Ave**





Priority: 17
Cost: \$\$\$ Priority: High

- Convert climbing lane to center left-turn lane
- Add turning lanes
- Traffic signal upgrades
- Add bicycle and pedestrian facilities

#### **Intersection with Potshop Road and Change in Cross Section**









- Provide a 5-lane cross section
- Traffic signal upgrades
- Add bicycle and pedestrian facilities

#### **Intersection with Whitehall Road and Change in Cross Section**



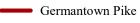




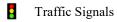


- Provide a 5-lane cross section on western leg
- Reduce number of driveways
- Traffic signal upgrades
- Add/upgrade pedestrian and bicycle facilities

#### Legend







#### **Improvement Type**



Intersection







Transit



**Parking** 



Relative Proiect Costs \$0—\$1,000,000 \$\$ \$1,000,000—\$2,000,000 \$\$\$ \$2,000,000—\$5,000,000 \$\$\$\$ \$5,000,000—\$10,000,000 \$\$\$\$\$ \$10,000,000+