DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

SEPTA

SEPTA BUS STOP DESIGN GUIDELINES

MAY 2026 | THIRD EDITION

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

The Delaware Valley Regional Planning Commission (DVRPC) is the federally designated Metropolitan Planning Organization for the Greater Philadelphia region, established by an Interstate Compact between the Commonwealth of Pennsylvania and the State of New Jersey. Members include Bucks, Chester, Delaware, Montgomery, and Philadelphia counties, plus the City of Chester, in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer counties, plus the cities of Camden and Trenton, in New Jersey.

DVRPC serves strictly as an advisory agency. Any planning or design concepts as prepared by DVRPC are conceptual and may require engineering design and feasibility analysis. Actual authority for carrying out any planning proposals rest solely with the governing bodies of the states, local governments or authorities that have the primary responsibility to own, manage or maintain any transportation facility.

DVRPC is funded through a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

Title VI Compliance *The Delaware Valley Regional Planning Commission (DVRPC) fully complies with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related nondiscrimination mandates in all programs and activities. DVRPC is committed to ensuring that no person is excluded from participation in, or denied the benefits of, all programs and activities on the basis of race, creed, color, national origin, age, gender, disability, sexual orientation, or income level, as protected by Title VI of the Civil Rights Act of 1964 and other related nondiscrimination mandates.*

DVRPC's website, www.dvrpc.org, may be translated into multiple languages. Publications and other public documents can be made available in alternative languages and formats, if requested. DVRPC's public meetings are always held in ADA-accessible facilities, and held in transit-accessible locations whenever possible. DVRPC will work to accommodate all reasonable requests for translation, interpretation, accommodations or other auxiliary services and encourages that requests be made at least seven days prior to a public meeting. Requests can be made by contacting the Commission's ADA and Title VI Compliance Officer Shoshana Akins via email at public_affairs@dvrpc.org, calling 215-592-1800, or while registering for an upcoming meeting.

Any person who believes they have been aggrieved by an unlawful discriminatory practice by DVRPC under Title VI has a right to file a formal complaint. Any such complaint must be in writing and filed with DVRPC's ADA and Title VI Compliance Officer Shoshana Akins and/or the appropriate state or federal agency within 180 days of the alleged discriminatory occurrence. Complaints that a program, service, or activity of DVRPC is not accessible to persons with disabilities should be directed to Shoshana Akins as well. For more information on DVRPC's Title VI program or to obtain a Title VI Complaint Form, please visit: www.dvrpc.org/GetInvolved/TitleVI, call 215-592-1800, or email public_affairs@dvrpc.org.

Last updated: January 2025

Table of Contents

Figures

Tables

Appendices

Executive Summary: How to Use This Guide

Purpose

The purpose of this report is to provide municipalities in the Southeastern Pennsylvania Transportation Authority (SEPTA) service area, local developers, and other local partners a consistent set of guidelines for designing surface transit stops. While the focus of this document is on bus stops, many of the elements addressed here also apply to trackless trolley and mixed-traffic trolley stop locations. For more specific information about trolley stop guidelines, please reference SEPTA's *Trolley Modernization: Station Design* summary or contact SEPTA for more detailed guidance.[1]

This document is the 2025 update to the *SEPTA Bus Stop Design Guidelines* published in 2012 and updated in 2019. The bus stop guidelines are intended for developing local comprehensive plans, land development ordinances, site or subdivision plans, and transportation and mobility plans. They were developed based on a review of standards and best practices applied nationally and discussions with planning partners.

SEPTA recognizes that every location in their network is unique, and that a given transit stop's jurisdictional and physical context may offer opportunities to meet these guidelines in some ways but not in others. **This guide defines what is required and what is recommended, providing templates for desirable bus stop elements wherever it is possible to provide them.** The guidelines detailed here will lead to a higher-quality, more consistent, more accessible, and better-connected network of stop facilities over time.

Structure of Guide

There are four interrelated components that together comprise a transit stop. The first chapter of this guide explains the process for creating or making changes to a bus stop. Each of the following chapters covers one component. Additionally, there is information about providing stop infrastructure in the SEPTA GO microtransit zones in Appendix A.

1. **Bus stop process.** This section gives an overview of SEPTA's considerations when creating or making changes to a bus stop. It also outlines the process for engaging with SEPTA to make bus stop changes.
2. **Stop placement.** This section helps one to identify the best location for a stop based on existing conditions. It aims to compare where it makes sense to put a stop relative to other stops, the nearest intersection, and the surrounding land and development uses.
3. **In-street configurations.** This section guides one to evaluate how much space should be allocated for the transit vehicle to pull over to the curb for passenger loading and unloading, and to exit and re-enter the flow of traffic.
4. **Curbside design.** This concerns the spatial design of a bus stop or station, which is broken up into two parts for the purpose of this report. This section helps one to understand the key components of a bus stop and how much space they require.
5. **Stop elements.** This section describes stop features and comforts that provide added convenience, comfort, and dignity for passengers.

To discuss details for a specific location or route, please email **planning@septa.org**.

What Is a Desirable Bus Stop?

A desirable bus stop is one that is connected well to the neighborhood or community it serves, accommodates the needs of all transit passengers safely and comfortably, meets ADA accessibility requirements, and permits efficient and cost-effective transit operations. Many of the plans in this guide show what elements are required for a desirable bus stop and what is recommended to create an ideal stop.

Each potential bus stop location has a set of constraints depending on space, potential users, land use density, land use context, and more. Recognizing these constraints while still creating a space that is comfortable for passengers to wait in up to the maximum time between buses (the maximum headway) is an ideal way to approach creating or relocating a bus stop.

[1] SEPTA, septa.org/wp-content/uploads/2023/10/SEPTA-Trolley-Station-Design-Summary.pdf. (2023).

Source: DVRPC (2018).

Chapter 1: Bus Stop Process

Introduction

This chapter breaks down the discrete steps necessary to create a bus stop. This chapter deals first with what factors SEPTA considers when determining whether to create or make changes to a bus stop. The next section outlines the steps for working with SEPTA to create or change a bus stop. The final section is a checklist that municipalities can include in development regulations with the most important dimensions and safety and accessibility considerations for bus stops. The following chapters have more detail on those factors.

Stop Placement Factors

Stop spacing and stop rebalancing are two factors SEPTA uses to determine when to add or remove a bus stop in a particular location.

Stop Spacing

Stop spacing refers to the distance between stops along a route and reflects a trade-off between transit accessibility (convenient access to frequent stops) and operating efficiency. Additional stops make a route more accessible for riders to walk or roll up but close stop spacing can reduce travel speeds for riders already on the vehicle. Low speeds impair the transit service's efficiency and cost effectiveness and makes it less attractive to riders.

The distance between bus stops should, in part, be determined by the physical characteristics of the area the route serves. In areas where there is strong pedestrian infrastructure (good sidewalks, crosswalks, and traffic control devices like stop signs or signals), stops can be placed farther apart because there are fewer barriers to pedestrian access. For areas less hospitable to pedestrians, stops should be placed wherever access to the stop is practical, with the safety of customers and operators as the most important inputs.

In general, stops will be spaced a minimum of 500 feet apart. The preference is to locate them at stop- or signal-controlled intersections with crosswalks whenever possible. Other factors may contribute to stop spacing along a specific route, such as frequent stop signs or the need to provide access to specific destinations.

Stop Rebalancing

Stop rebalancing is a key practice that SEPTA may use to improve reliability, travel speeds, and the overall quality of stops on a specific route or transit corridor. SEPTA's planning staff may recommend a stop rebalancing plan as part of SEPTA's regular schedule reliability evaluations, known as its Annual Service Plan. The consolidation of bus stops may be deemed appropriate based on factors including the proximity to other stops, whether existing stops meet minimum stop quality standards, Americans with Disabilities Act (ADA) access, ridership (customer boards and alights), walking distance from destinations like schools, hospitals, and grocery stores, safe bus operation, and the safety of and access to the stop (sidewalks, crosswalks, driveways, travel lanes, traffic control devices, lighting, etc.).

If for any of the above reasons it is determined that a stop should be consolidated, SEPTA Service Planning will develop a Stop Rebalancing Plan in conjunction with SEPTA Operations staff and work with local officials on the appropriate steps to take to consider customer feedback and alternative measures. Stop rebalancing is a key component in improving reliability and improving travel speeds.

Creating or Changing a Bus Stop

This section provides municipalities, developers, advocacy groups, counties, neighborhood organizations, and local residents and workers with a resource to request a new or modified bus stop. Steps to create, move, or remove a SEPTA bus stop within the existing service area are summarized in Figure 1.

Requests should be made early in the design and development process (at the 30 percent design stage or earlier) so that stop requirements can be incorporated into the site design. For detours and temporary stop impacts, like construction, requests should be made at least three months before the detour would begin. The best way to contact SEPTA about a new bus stop is to email SEPTA Service Planning at planning@septa.org.

Assessing New Stop Requests

SEPTA wants to address gaps in the transportation network to help better serve communities. Before reaching out to SEPTA, consider who this new stop will serve. Is there another stop nearby? Are there travel options that already serve the same

potential passengers? Will people use the stop, or is it in an area without sidewalks and crosswalks and dominated by personal vehicle travel?

Per SEPTA's Service Standards and Process, only requests for a stop greater than 1,000 feet from the closest existing stop will be evaluated.[2] Bus stops should be located at well-lit locations where there is a safe area to exit from both sets of doors. Any request within 500 feet of an existing stop will not be considered, unless it is a better alternative than the closest stop, a roadway is reconfigured, or a new development warrants an additional stop.

A new bus stop may be warranted if there is a new or existing trip generator. Examples include an institution (like a school or hospital) or development (office, retail, or residential).

Coordinating with SEPTA

Whether you want to make a permanent stop change, like adding or removing a bus stop, or need to make temporary changes to a bus stop, including for construction, the process starts with coordinating with SEPTA (see Figure 1). The SEPTA Service Planning department and Operations department will work with you to review the stop request. The role of both departments is to determine if the requirements are met to create or modify a stop, and if the proposed location is feasible based on its accessibility for a bus and the safety of riders and the operator. The process could include reviewing site plans, existing parking and pedestrian access, and site photos of existing conditions.

Temporary Stop and Detour Requests

For temporary impacts to SEPTA service, like construction or events, requests will be referred to SEPTA Operations and treated like other bus detours. The Operations department will follow up with the requester.

Creating or Relocating a Bus Stop

If the proposal is for a new or relocated bus stop and SEPTA approves the change to the bus route, the next step is for the requester to work with SEPTA to determine the design of the stop. This can include the placement of the stop and stop elements.

SEPTA is required to request the following to meet current ADA accessibility standards: an accessible loading pad, curb ramp, clear waiting area, and pedestrian path to the stop. More information about those elements can be found in Chapter 4.

SEPTA may also ask for additional stop elements. Some are listed below, but more details can be found in Chapter 5:

- Passenger shelter (shelter need and type depends on existing/prospective ridership at stop)
- Street lighting
- Transit signage (e.g., additional SEPTA signage, real-time information)
- Other furniture (e.g., benches, trash receptacle, bicycle parking, bike share facilities)

Discontinuing Existing Bus Stops or Routing

SEPTA may approve a stop discontinuation if there is a reasonable alternative, if the stop or routing is no longer warranted, or as part of a bus stop rebalancing effort. Removing a bus stop starts with posting signage for stop discontinuation. SEPTA will coordinate with the requester to remove the bus stop and return any infrastructure (like the bus stop post or shelter) to SEPTA, if necessary.

Implementation

Once SEPTA and the requester have agreed on a design, the bus stop change can be implemented. If the new bus stop is happening in conjunction with new development, the implementation phase may be one or two years later. SEPTA requests five weeks to complete implementation, which may include adding or removing a sign and adding or removing stops from SEPTA's transit app and GTFS (the data feed used by location-based mapping apps for travel planning).

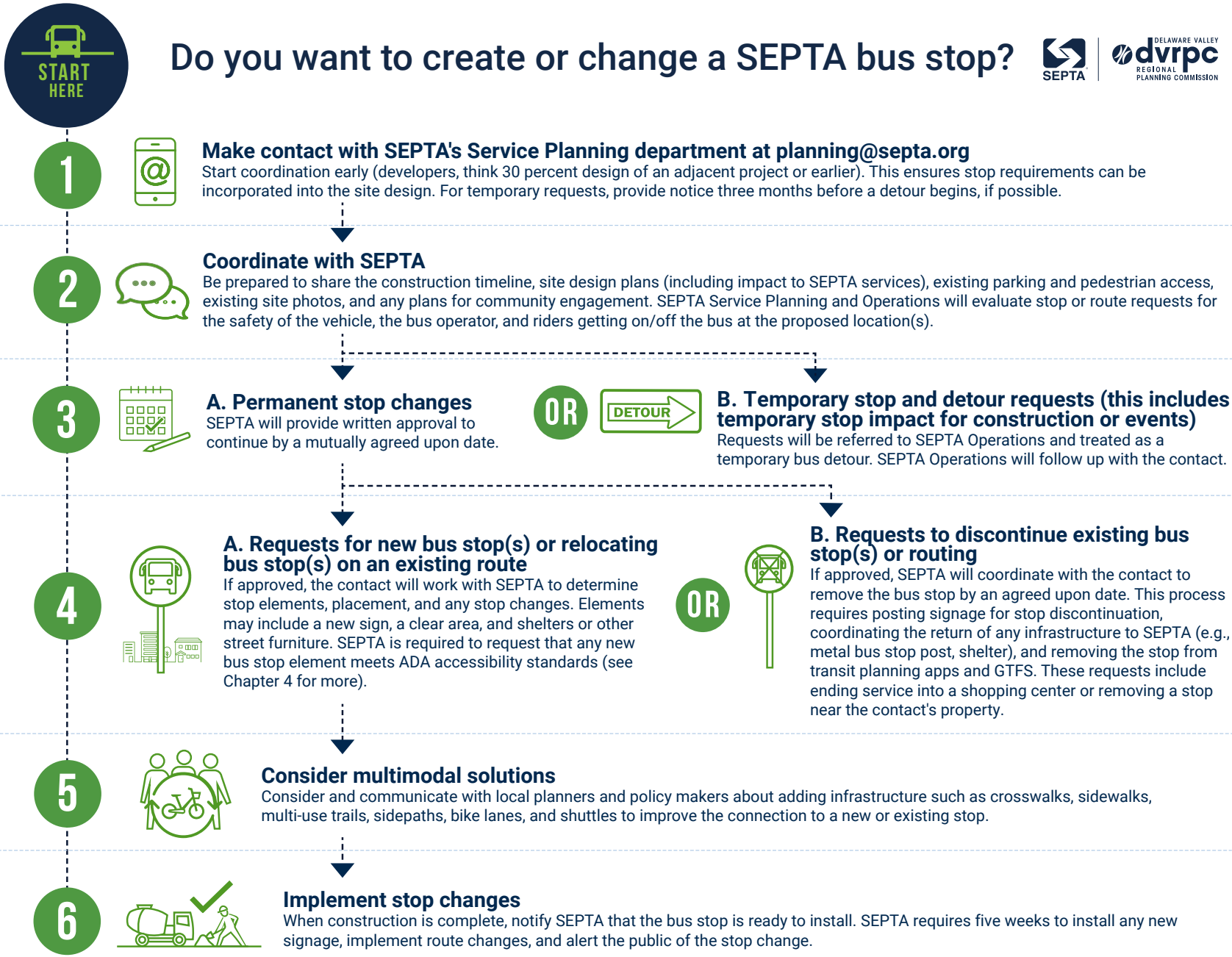
Alternatives to a New Bus Stop

Creating a new bus stop is not the only way to provide better access to public transit in a community. Providing new multimodal access can expand the reach of transit. Designing and building multimodal connections should be considered simultaneously when requesting a stop. Examples include new crosswalks, multi-use trails, sidewalks, and bike lanes. Guidance for this type of improvement can be found in a number of resources.[3]

[2] Southeastern Pennsylvania Transportation Authority, "SEPTA Service Standards and Process," 2024, septa.org/wp-content/uploads/page/planning/Service-Standards-and-Service-Development-Process-REVISED-2024-.pdf.

[3] Atlanta Regional Commission, "Bike To Ride: An Idea Book of Regional Strategies for Improving Bicycling Access to Transit," 2016; Federal Transit Administration [FTA], "Manual on Pedestrian and Bicycle Connections to Transit," FTA Report No. 0111, 2017; TransLink, "Bus Infrastructure Design," revised 2018; DVRPC, "Planning for New Jersey Transit Bus Service Alongside Bicycle Facilities," 2024.

Figure 1: Steps to Create or Change a Bus Stop



Source: DVRPC (2025).

Checklist for New or Relocated SEPTA Bus Stops

Table 1 is a checklist including the three categories to consider when creating or relocating a bus stop in a development. This table considers transit operating and passenger needs as part of development design and review. The language can be adopted into development regulations for municipalities interested in promoting better transit integration and transit-supportive infrastructure in development projects. Municipalities can support transit by guiding and supporting development along corridors with frequent transit service. For general questions about transit infrastructure, please contact DVRPC. For more specific questions, please email planning@septa.org.

Table 1: Checklist for New or Relocated SEPTA Bus Stops

Stop Placement	
	Has SEPTA been contacted to verify that transit service currently exists adjacent to a proposed development, or may be feasible to provide in the future?
	Has SEPTA been contacted to explore whether new or relocated transit stops can be provided on or adjacent to the proposed development?
	If new or relocated transit stops are proposed, are they located in a reasonable proximity to major destinations, as well as in a pair of stops serving the opposite direction?
Transit Circulation	
	For all intersections and driveways that will accommodate buses, are corners designed for a 50-ft. outside and 30-ft. inside turning radius?
	For all roadways and driveways that will accommodate buses, are grades 6 percent or less?
	For all roadways and driveways that will accommodate buses, are lane widths 10–12 ft.?
	For all roadways, driveways, and stop areas that will accommodate buses, have pavement cross-sections been designed to withstand the wear and tear that will be generated by heavier vehicles (ideally concrete pads at bus stop areas)?
	Will structures and landscaping outside the cartway permit sufficient vertical and horizontal clearance for buses, with all areas within 2 ft. of curbs kept clear of obstructions to a height of at least 9 ft.?
	Are proposed stops connected to primary destinations with an ADA-compliant pedestrian access path free of obstacles?
Stop Design Elements	
	If the developer is to provide stop improvements, have the proposed stop elements been designed to be consistent with the guidelines in this document and approved by SEPTA?
	If new or relocated transit stops are proposed, are they located in a safe, visible, and well-lit location?

Source: DVRPC (2025).

Source: DVRPC (2025).

Chapter 2: Stop Placement

The location of a transit stop is a function of land use, the location of other transit stops and connecting transit services, SEPTA's stop spacing standards, passenger and operator safety, and roadway and traffic conditions. This chapter deals with stop characteristics, bus stop pairs, and typical stop types, with accompanying diagrams.

Transit Stop Characteristics

Bus routes should have clearly marked stops. The placement should serve the maximum number of potential passengers without causing additional delay to the route or obstructing the intersection. The stop location should avoid sites with a high risk of collisions, like just beyond the peak of a hill or a right-turn curve.

Stops placed along a roadway are preferred when adding stops to a route. Off-line stops are out of the path of the road and often designated as "bus only" locations, such as within a shopping center or park-and-ride facility. Although off-line facilities may have more space available for the provision of amenities, bus route deviations into off-line facilities can add to a route's travel time. Off-line stops are acceptable when considering new terminus points if they provide additional space for the bus to lay over.

Bus Stop Pairs

Bus stops are typically located in pairs, one on each side of the street on two-way streets and one-way road couplets. SEPTA recommends that bus stops be in pairs and close together along the route to ensure simplicity in planning the return trip. However, it is not always possible to do this based on the conditions of the street and existing right-of-way; therefore, each location should be individually considered.

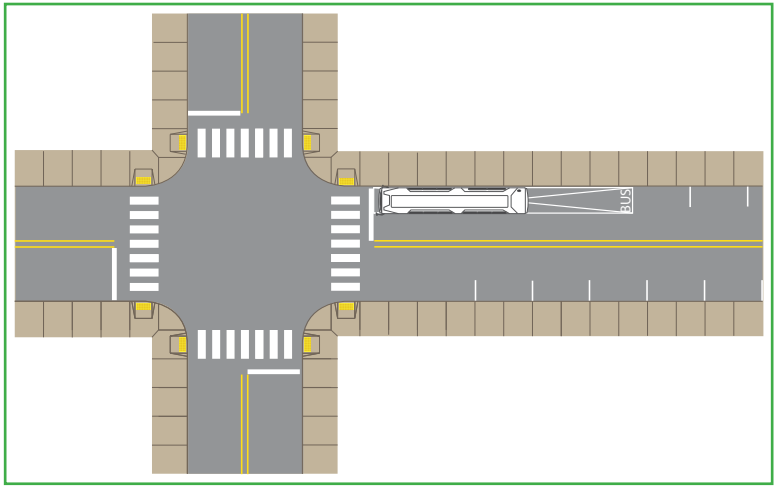
Typical Stop Sites

There are three locations along a block where a stop can be placed. All have advantages and disadvantages depending on the context.

Near-Side Stop

Occurs when the bus stops *before* the intersection (Figure 2).

Figure 2: Near-Side Stop



Source: DVRPC (2018).

Advantages of Near-Side Stops

- Minimizes traffic interference during peak traffic flow hours, such as vehicles queuing into the intersection if a bus is at a far-side stop
- Allows bus operator to use the intersection for acceleration space
- Avoids double stopping for both signal and passenger movements
- Provides bus operator with a full view of intersection activity
- Can be coordinated with a far-side stop on an intersecting route to allow passengers to transfer without crossing the street
- Allows passengers to board the bus closer to the crosswalk

Disadvantages of Near-Side Stops

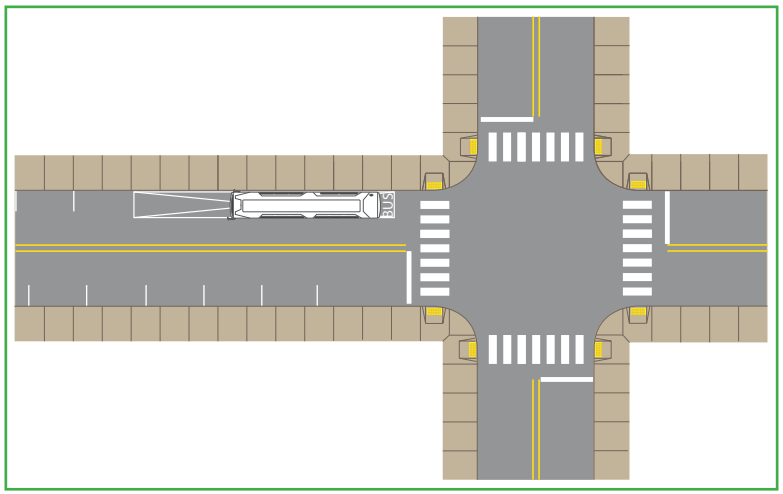
- Makes conflicts between the bus and right-turning vehicles more likely
- Can cause the bus to physically obscure sight lines to both intersection movements and signals for general traffic
- May obstruct traffic if multiple buses queue during peak hours

- Obstructs sight lines for crossing pedestrians
- May present a conflict between pedestrians crossing the intersection and passengers waiting to board the bus

Far-Side Stop

Occurs when the bus stops *after* proceeding through the intersection (Figure 3).

Figure 3: Far-Side Stop



Source: DVRPC (2018).

Advantages of Far-Side Stops

- Minimizes conflicts with right-turning vehicles
- Minimizes sight line conflicts for drivers and pedestrians
- Encourages pedestrians to cross more safely behind the bus
- Creates a shorter deceleration zone for the stop area because the intersection absorbs some of the space requirement
- Easier for the driver to pull back into the travel lane because the signal creates gaps in traffic flow
- Most effective stop location for combining with Transit Signal Priority (TSP): preferential treatment for transit vehicles at traffic signals (typically an extended green phase)
- Enables passengers to alight the bus closer to the crosswalk

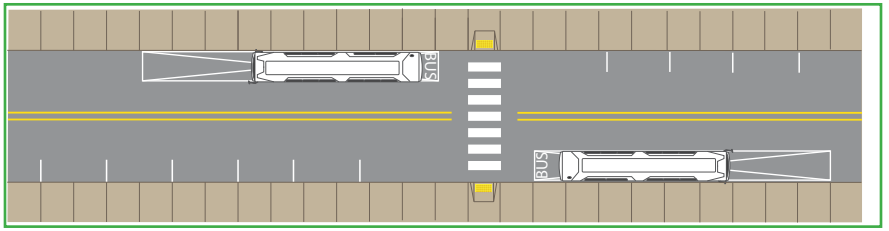
Disadvantages of Far-Side Stops

- May result in traffic conflicts ("blocking the box") if the bus is unable to fully pull through the intersection during peak hours
- Can cause the bus to double stop (once for the signal, once for passenger activity)
- May increase the frequency of rear-end crashes if distracted drivers do not realize the bus is stopping beyond the intersection

Midblock Stop

Occurs when the bus stops in between intersections, usually in a well-defined area (Figure 4). A midblock stop is only encouraged where it is necessary, such as on long blocks with high ridership or where there are major destinations midblock.

Figure 4: Midblock Stop



Source: DVRPC (2018).

Advantages of Midblock Stops

- Minimizes sight line obstructions for both driver and passengers when the bus stops on the far side of the crosswalk
- Conflicts with intersection traffic are minimized because the stop is located away from intersection activity
- Allows a more spacious waiting area to be provided because the stop is located outside intersection sidewalk congestion
- Works well when the bus has an extended dwell or layover time
- Provides convenient passenger connections to key midblock trip generators

Disadvantages of Midblock Stops

- Presents safety concerns if a midblock crosswalk is not provided (midblock crosswalks should be designed using best practices for pedestrian safety[4])
- Requires more physical space for the bus to accelerate and decelerate
- Reduces space available for on-street parking (if present) because this stop type requires a longer bus zone
- May be further from connecting routes for transfers

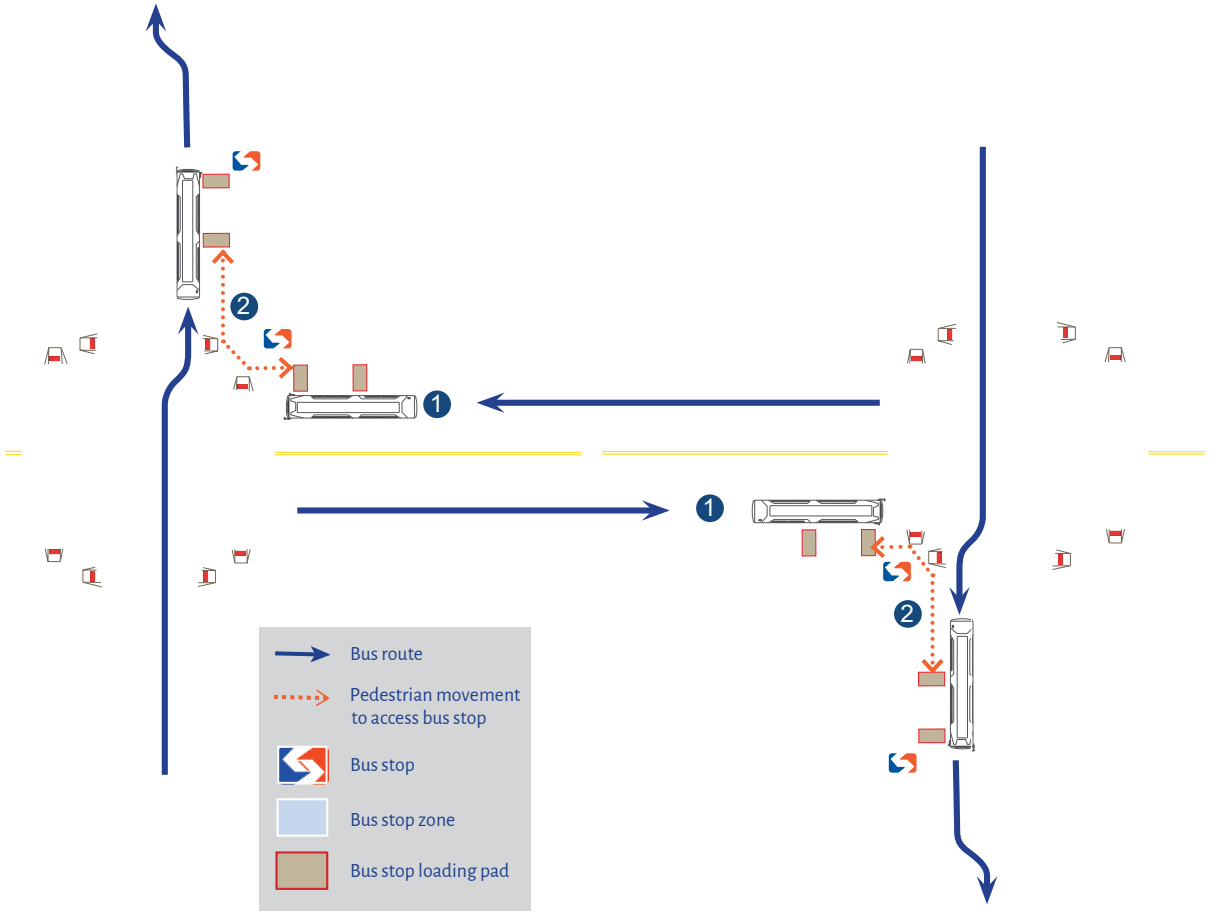
[4] National Association of City Transportation Officials, "Midblock Crosswalks," in *Urban Street Design Guide*, 2013, nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/midblock-crosswalks/.

Case Study: Stop Coordination

SEPTA provides an interconnected network of surface transit routes with frequent service in Philadelphia and many other walkable town centers in the region. This dense "grid" of routes provides good mobility for passengers between many different sets of trip origins and destinations, and this mobility is enhanced where transfers are fast, comfortable, and convenient for passengers. This example (Figure 5) illustrates how stop location and design can be coordinated to minimize transfer walking distance and enhance safety. Pairing a near-side stop for one route with a far-side stop for a crossing route can allow a passenger to make a transfer without crossing the intersection.

1. Where space permits, bus bulbs can help speed passenger boarding and alighting as well as bus travel times (because the bus avoids delays caused by leaving and re-entering the travel lane). They are most appropriate for near-side stops where there are multiple travel lanes.
2. Near-side/far-side stop coordination between routes allows for easy transfer in both travel directions.

Figure 5: Coordinating Stop Design/Location to Enhance Customer Mobility



Source: DVRPC (2012).

Source: DVRPC (2018).

Chapter 3: In-Street Configurations

Introduction

In-street configurations determine how a bus reaches a stop and where the stop is located in the roadway. The first section of this chapter explains the typical bus zone configuration options, the advantages and disadvantages of each one, and the dimensions for the configurations. Each example has dimensional specifications grouped by operating context. This section is not intended to be exhaustive since every situation has unique characteristics. Rather, it should be used as guidance to inform design decisions based on local needs.

The next section of this chapter discusses engineering considerations for SEPTA buses, including clearances, turning radii, sight lines, roadway paving, and green stormwater infrastructure (GSI). The engineering of the roadway determines whether a bus will be able to stop at a given location. The final element in the chapter is a case study about in-street considerations for a bus stop in a large commercial center.

Right-Turn Lanes at Bus Stops

To increase the capacity of a roadway, turn lanes are often added. These lanes conflict with bus stops and cause significant challenges for high-quality transit services. If PennDOT or a municipality requires a project or development to include a turn lane, SEPTA must close or relocate the bus stop because of safety concerns. Bus stops in turn lanes create conflict points between buses continuing straight from the right lane and turning vehicles. Depending on the design, adding a turn lane can increase the pedestrian crossing distance, which is especially risky for people with mobility challenges.

When proposing new turn lanes, it is strongly suggested that traffic engineers share preliminary design plans (at the 30 percent design stage or earlier) with SEPTA, which may lead to additional feedback or field inspections to determine the justification and feasibility of relocating a bus stop. Engineers should build these reviews into their plan approval and permit submittal timelines.

Typical Bus Zone Configuration Options

A bus zone is the primary in-street area devoted to bus movements, and allows the vehicle to pull over to the curb for the purpose of loading and unloading passengers. The geometry of the street needs to accommodate both transit and general traffic. In addition, a stop location must be designed with sufficient space for bus deceleration and acceleration (to exit and re-enter traffic flow) and a clear area within the roadway for the bus to stop to discharge and receive passengers efficiently and safely. Due to the variation of roadway geometry in SEPTA's network, there are different ways to accommodate bus stops within the bus zone.

SEPTA also operates on streets that contain both bus zones and bike lanes, particularly on dense corridors. For more considerations about roadways with bus and bicycle interactions, refer to the section Ensuring Bus and Bike Safety on page 38.

Bus zones fall into two major categories with respect to the roadway: in-line (or on-line) and off-line. In-line stops are designed as part of the street and function in the general pattern of traffic flow. The loading and unloading of passengers occurs at the roadway edge. This section illustrates and describes typical alternatives for in-street stop design.

Off-line stops are out of the path of the roadway and are often designated as “bus only” locations, such as within a transit center, shopping center, or park-and-ride facility. Passenger loading takes place in designated areas. The last section of this chapter includes a case study on how to provide an off-line stop. Although off-line facilities may have more space available and consequently permit the provision of more amenities than do in-line facilities, bus route deviations into off-line facilities can add to a route’s travel time. Therefore, in-line stops are generally preferable.

Curbside Stops

The in-line curbside, or shoulder, stop is the most common bus stop type in SEPTA's system. The bus zone is located in the roadway, usually in a parking and/or loading lane, with a typical width of 10 feet. The stop should be set back from the crosswalk by at least 10 feet to provide a safety buffer from the intersection. Ideal curbside bus zone length is 100 feet for near-side stops, 90 feet for far-side stops, and 150 feet for midblock stops. An additional 20 feet should be provided for routes with articulated buses, plus appropriate transition zones depending on the roadway context and traffic speeds. See Figures 7-9 for contextual examples, and see Tables 2-4 for detailed dimensional specifications. Bus zone decisions are made by the road owner in coordination with SEPTA. The line striping plans are signed by an engineer at the city/county/state level, depending on road ownership. The bus zone treatment typically includes painted roadway markings and a sign marking the area as a "no stopping" or "no parking" location. The parking lane should ideally be marked, such as with a white "X," in order to identify the loading and maneuvering area for transit vehicles.

ADVANTAGES OF CURBSIDE STOPS[5]

- Provides easy access for bus driver
- Results in minimal bus delay
- Simple design
- Easy and inexpensive to install or relocate

DISADVANTAGES OF CURBSIDE STOPS

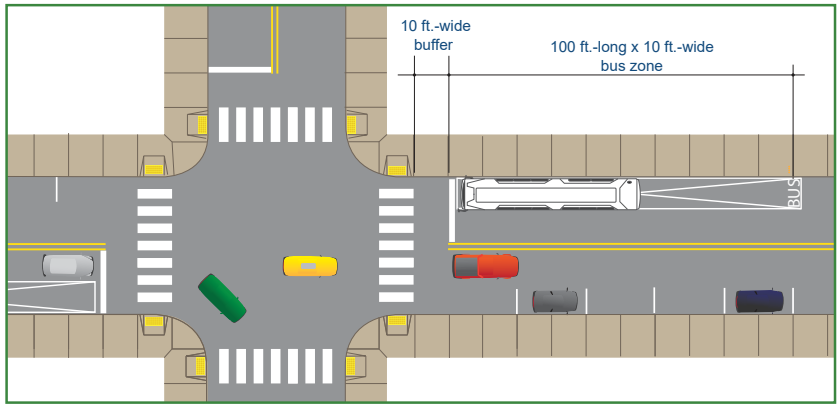
- Can cause traffic to queue behind a stopped bus when it is unable to curb, causing additional traffic congestion
- Drivers may attempt to make unsafe maneuvers around stopped buses
- Can cause delay if bus operator has difficulty getting back into traffic

Figure 6: Bus Curbing at Shoulder Bus Shelter, West Goshen, PA

Source: Chester County Planning Commission (2010).

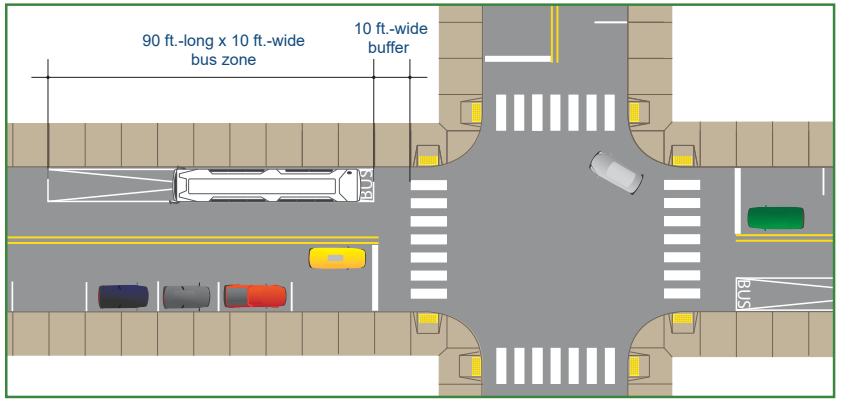
[5] *TCRP Report 19* (1996) and *FTA Stops, Spacing, Location and Design Website* (2016).

Figure 7: Typical Near-Side Curbside Configuration



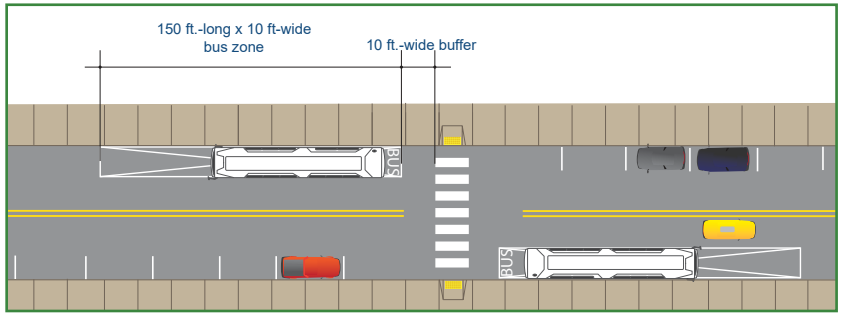
Source: DVRPC (2012). Not to scale.

Figure 8: Typical Far-Side Curbside Configuration



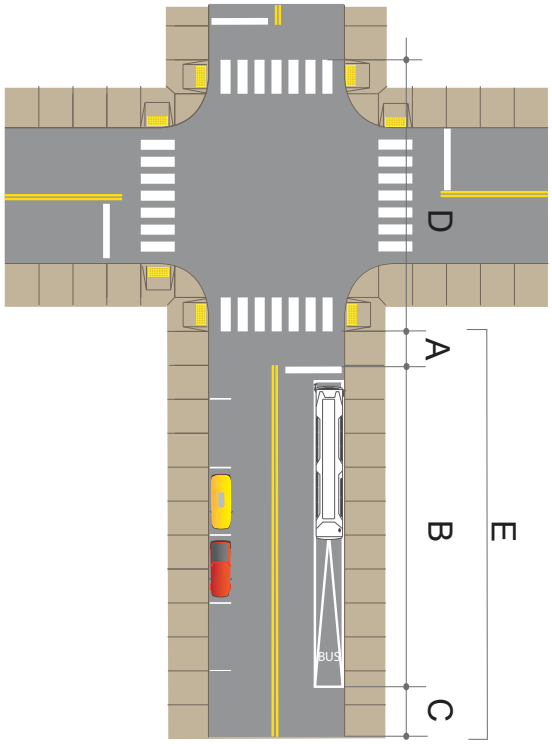
Source: DVRPC (2012). Not to scale.

Figure 9: Typical Midblock Curbside Configuration



Source: DVRPC (2012). Not to scale.

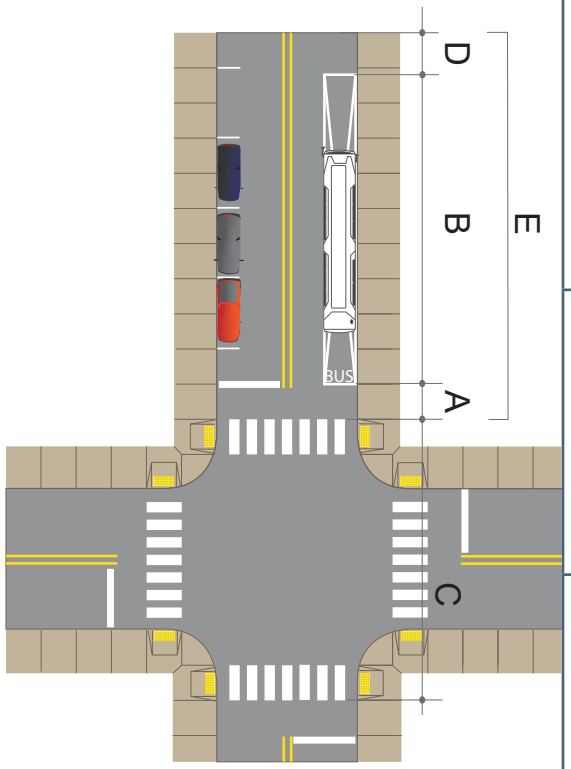
Table 2: Dimensional Specifications for Near-Side Curbside Stop

Stop Configuration	Roadway Characteristic	Minimum Safety Buffer	Primary Bus Zone Length	Additional Deceleration Space	Additional Acceleration Space	Equivalent Parking Spaces
Near-Side Curbside Stop		**A**	**B**	**C**	**D**	**E**
	**Urban street with on-street parking:** · Typical posted speeds 25–30 mph · Bus enters stop area at 10 mph	10-ft. safety buffer behind crosswalk	· 100-ft. length x 10-ft. width in parking lane · Add 20 ft. for articulated bus*	No additional space required	N/A: Uses intersection to accelerate	Up to 5 spaces needed to create bus zone
	Minor road with no on-street parking: · Typical posted speeds 25–35 mph · Bus enters stop area at 15 mph		· 100-ft. length x 10-ft. width in shoulder · Add 20 ft. for articulated bus*	50-ft. transition		None; road shoulder or travel lane is used
	Major road with no on-street parking: · Typical posted speeds 35–45 mph · Bus enters stop area at 20 mph		· 100-ft. length x 11-ft. width in shoulder · Add 20 ft. for articulated bus*	100-ft. transition		

**The standard bus zone length in the City of Philadelphia has been 60 feet for standard buses and 90 feet for articulated buses. This practice will remain in place for city stops, with new bus zones meeting the standards in this table wherever possible.*

Source: DVRPC (2012). Not to scale.

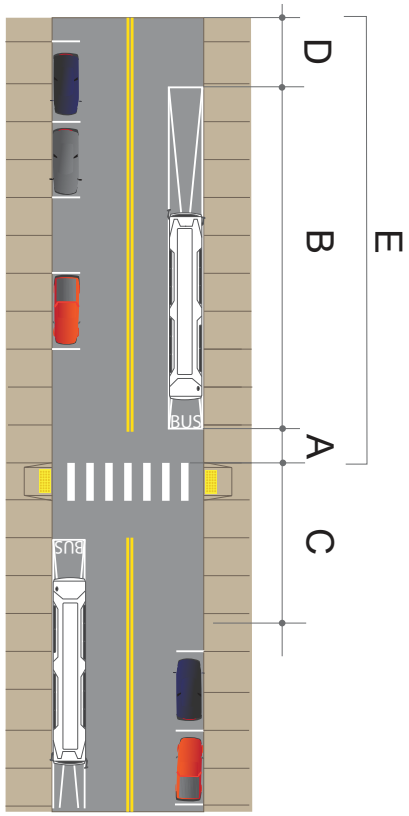
Table 3: Dimensional Specifications for Far-Side Curbside Stop

Stop Configuration	Roadway Characteristic	Minimum Safety Buffer	Primary Bus Zone Length	Additional Deceleration Space	Additional Acceleration Space	Equivalent Parking Spaces
Far-Side Curbside Stop		**A**	**B**	**C**	**D**	**E**
	**Urban street with on-street parking:** · Typical posted speeds 25–30 mph · Bus enters stop area at 10 mph	10-ft. safety buffer beyond crosswalk	· 90-ft. length x 10-ft. width in parking lane · Add 20 ft. for articulated bus*	N/A: Uses intersection to decelerate	No additional space required	Up to 5 spaces needed to create bus zone
	Minor road with no on-street parking: · Typical posted speeds 25–35 mph · Bus enters stop area at 15 mph		· 90-ft. length x 10-ft. width in shoulder · Add 20 ft. for articulated bus*		50-ft. transition	None; road shoulder or travel lane is used
	Major road with no on-street parking: · Typical posted speeds 35–45 mph · Bus enters stop area at 20 mph		· 90-ft. length x 11-ft. width in shoulder · Add 20 ft. for articulated bus*		100-ft. transition	

**The standard bus zone length in the City of Philadelphia has been 60 feet for standard buses and 90 feet for articulated buses. This practice will remain in place for city stops, with new bus zones meeting the standards in this table wherever possible.*

Source: DVRPC (2012). Not to scale.

Table 4: Dimensional Specifications for Midblock Curbside Stop

Stop Configuration	Roadway Characteristic	Minimum Safety Buffer	Primary Bus Zone Length	Additional Deceleration Space	Additional Acceleration Space	Equivalent Parking Spaces
Midblock Curbside Stop		**A**	**B**	**C**	**D**	**E**
	**Urban street with on-street parking:** · Typical posted speeds 25–30 mph · Bus enters stop area at 10 mph	10-ft. safety buffer beyond crosswalk	· 150-ft. length x 10-ft. width in parking lane · Add 20 ft. for articulated bus*	No additional space required	No additional space required	Up to 8 spaces needed to create bus zone
	Minor road with no on-street parking: · Typical posted speeds 25–35 mph · Bus enters stop area at 15 mph		· 150-ft. length x 10-ft. width in shoulder · Add 20 ft. for articulated bus*	40-ft. transition	50-ft. transition	None; road shoulder or travel lane is used
	Major road with no on-street parking: · Typical posted speeds 35–45 mph · Bus enters stop area at 20 mph		· 150-ft. length x 11-ft. width in shoulder · Add 20 ft. for articulated bus*	90-ft. transition	100-ft. transition	

**The standard bus zone length in the City of Philadelphia has been 60 feet for standard buses and 90 feet for articulated buses. This practice will remain in place for city stops, with new bus zones meeting the standards in this table wherever possible.*
Source: DVRPC (2012). Not to scale.

Curb Extension Stops

A curb extension (also known as a "bump-out" or “bus bulb”) is a modification of the sidewalk to extend the bus loading and waiting area into the roadway. See Figure 10 for a contextual example. Because a curb extension can be as short as 15 feet long, it can conserve curbside space for parking relative to a curbside stop with a bus zone. Curb extensions are most appropriate for near-side stops where there is a parking lane or multiple travel lanes, travel speeds are lower than 30 mph, and pedestrian volumes are high or the sidewalk is narrow. For temporary installations, designers must take extra care to provide an accessible path from the stop location to the sidewalk or a curb ramp. Table 5 relays dimensional information for this stop type. Other dimensional specifications are similar to curbside stops.

ADVANTAGES OF CURB EXTENSION STOPS[6]

- Bus pull-out zone is not required
- Bus does not have to re-enter traffic; therefore, delay is not caused
- Serves as a pedestrian safety amenity by creating a shorter crossing distance and tighter turning radius for vehicles
- Provides additional space that can be repurposed for bus passenger amenities, such as additional waiting space and/or a shelter
- Allows more space for other pedestrians to navigate around waiting bus passengers

[6] *TCRP Report 19* (1996) and *FTA Stops, Spacing, Location and Design Website* (2016)

DISADVANTAGES OF CURB EXTENSION STOPS

- Can cause traffic to queue behind a stopped bus, thus causing traffic delay, especially for near-side stops
- May cause drivers to make unsafe maneuvers in order to avoid a stopped bus
- Costs more to install compared with curbside stops because of street drainage requirements

Figure 10: Near-Side Curb Extension on JFK Boulevard, Philadelphia, PA

Source: City of Philadelphia, Cyclomedia (2025).

Table 5: Curb Extension Dimensions for Various Vehicle and Door Configurations

Vehicle	Vehicle Length	Doors Served	Bulb Length*	Bulb Width (ft.)	On-street parking displaced**
All vehicle types: front doors only (min length)***	Varies	1	15 ft.	6 ft.	1 space
Standard bus/trackless	41.5 ft.	2	30 ft.	6 ft.	2 spaces
Articulated bus/trackless	62 ft.	2-3	50 ft.	6 ft.	3 spaces
PCC III trolley	46.5 ft	2	31 ft	8 ft.	2 spaces
Kawasaki LRV Series 100, Single-end****	50 ft.	2	32 ft.	8.5 ft.	2 spaces
Kawasaki LRV Series 100, Double-end****	53 ft.	2	50 ft.	8.5 ft.	3 spaces
Alstom Citadis streetcar (2-door)****	86 ft.	2	80 ft. minimum, 100 ft. preferred	9 ft. min., 12 ft. pref.	3-5 spaces

**Plus 10-foot safety buffer from the crosswalk. **Assumes 20 feet length per parking stall, rounded up to the next stall. ***Includes SEPTA Go, Loop through University City (LUCY), and other shuttle vehicles. ****SEPTA is in the process of procuring new trolleys (expected by 2032). All boarding islands are being planned based on trolley procurement.*
Source: SEPTA (2025), DVRPC (2025).

Engineering Considerations for SEPTA Buses

Knowing standard and articulated vehicle dimensions, clearances, and turning radii are important when designing a new stop in SEPTA's network. In addition, there is value in understanding pedestrian sight lines and sight distances for vehicle operators along corridors and intersections with public transit.

Vehicle dimensions for buses in the United States are commonly 40 feet long for a standard bus and 60 feet for an articulated bus. SEPTA's fleet currently consists of six types of vehicles that are 40–46 feet in length (including body and bumper) and one 60-foot articulated vehicle model, which is 62 feet long including the bumper. Consideration in the bus zone should also be given to the loading and unloading of bicycles from the front-of-bus rack, which adds an additional six feet to the loading zone vehicle length. Vehicle height is 11.1 feet for both types.

In-street stop design also requires consideration of horizontal and vertical clearances for both passengers and vehicles. The curbside stop area should be free of horizontal obstructions at least two feet from the curb face. Vertical obstructions should be clear from the loading pad surface to a height of at least nine feet, and preferably 12 feet or more (Figure 11).

Turning radii are important considerations for stop locations where the bus makes a turn. The required turning radius must be accommodated so a bus will not halt in the pedestrian way or impede other traffic flow. The vehicle types in service at the time of this report and their standard turning radii are listed below.

- New Flyer 40' Hybrid Bus: Turning Radius 44';
- Proterra 40' Electric Bus: Turning Radius 42';
- Nova 40' Bus: Turning Radius 41';
- New Flyer 40' Hybrid Bus: Turning Radius 44';
- New Flyer 40' Diesel Bus: Turning Radius 44';
- New Flyer Trackless Trolley 40': Turning Radius 44'; and
- Nova Bus 60' Articulated Bus: Turning Radius 44'.

Figure 12 illustrates the specific radii requirements. As a general rule to permit comfortable bus movements, corners should be designed for 50 feet outside and 30 feet inside turning radii. Using a conservative estimate, as shown in Figure 12, ensures that any of the above vehicles can be accommodated.

Figure 11: Bus Lane with Multiple Waiting Areas, Plymouth Meeting, PA

Source: SEPTA (2012).

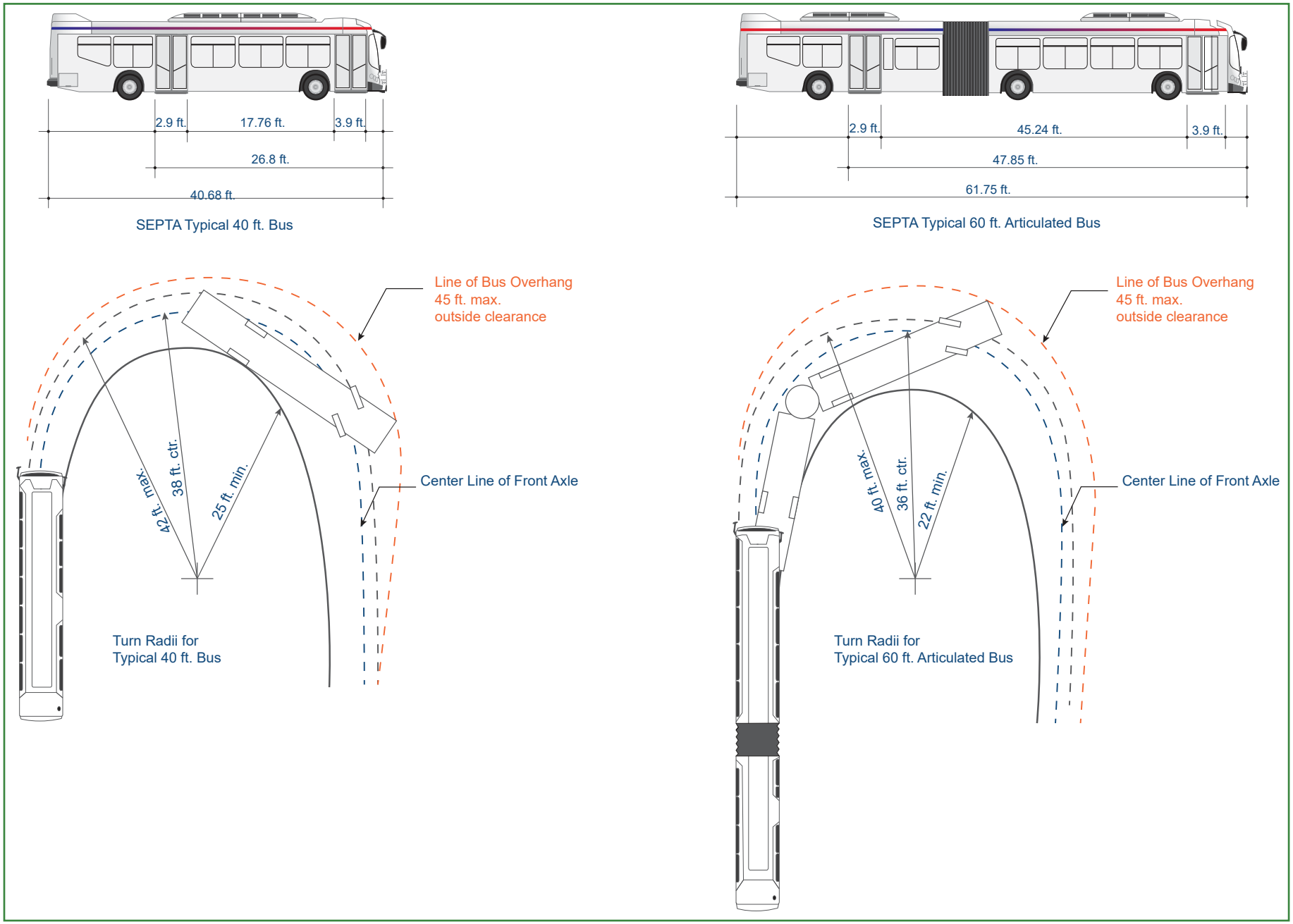
Pedestrian Sight Lines and Operator Sight Distances

Pedestrians at or near bus stops are often in the visibility impairment zones, or blind spots, of bus operators, and the operator may not be able to see them. This is particularly true for right-turning bus movements because buses have a particularly large blind spot on the right side. When redesigning the space around an existing bus stop or designing a new one, safe sight lines and distances for both a bus operator and pedestrian should be considered. Sight triangles can be used as a tool to determine where building setbacks, parking zones, advertising signs, trees, and landscaping should be removed, located, or relocated.

In practice each intersection varies in geometry, volumes, and cross section making it difficult to generalize how pedestrian sight lines and operator sight distances at a bus stop should be implemented. For more information on how to calculate sight distances at a particular location, please see TransLink's Bus Infrastructure Design Guidelines.[7]

[7] TransLink, "Bus Infrastructure Design Guidelines," 2018, translink.ca/-/media/translink/documents/plans-and-projects/managing-the-transit-network/transit-oriented-communities/bus_infrastructure_design_guidelines-sept_2018.pdf.

Figure 12: Turning Radii for SEPTA Standard and Articulated Buses



Source: DVRPC (2012, 2025), AASHTO 2002 (Interim Guide, Geometric Design for Transit Vehicles on Highways and Streets).

Roadway Paving Considerations

Roadway design should accommodate the wear and tear of constant vehicle traffic and passenger loading. A transit stop's road surface should be durable enough to withstand heavier loads than average daily traffic under normal conditions (see the lighter colored road surface in Figure 13). Traffic flow may be disrupted due to excessively damaged road surfaces, which would also increase vehicle maintenance needs.

Roadway pavement design must be evaluated using the American Association of State Highway and Transportation Officials' (AASHTO) Guide for the Design of Pavement Structures. Most states and many municipalities have a version of this standard, which would be used to engineer the appropriate design for a particular site and climate condition.

A reinforced concrete pad is recommended for bus stop areas, particularly in park-and-ride, depot, and end-of-line areas, where multiple routes and heavier loads can be expected. A concrete pad can be incorporated or retrofitted into the roadway design to provide a heavy-duty surface that will handle constant heavy vehicle stress; however, local conditions must be evaluated to determine the best design for a site.

Appendix C illustrates typical asphalt and concrete cross-sections to accommodate transit. Because SEPTA is not the final evaluating authority, all roadway recommendations should be based upon local construction and safety code requirements. Consult with local officials, engineering professionals, and design professionals for specific details.

Green Stormwater Infrastructure (GSI) and Bus Stop Design

Green stormwater infrastructure (GSI) and bus stops can target similar parts of the public right-of-way. The Philadelphia Water Department (PWD) and SEPTA developed guidelines for installing GSI at surface transit stops in response to design conflicts created by the GSI. The designs are shown in Appendix D. The designs were prepared by PWD and reviewed by SEPTA's Engineering, Maintenance, and Construction Division (EMC) and other SEPTA staff. Although these two designs are agreed upon by both agencies, third parties are required to get approval from both the Green Infrastructure Unit at PWD and EMC at SEPTA. An example of a bus stop with GSI can be found in Figure 14. There are additional standards across different bus stop conditions that PWD has developed and can provide upon request.

Figure 13: Concrete Pad in Street at Bus Stop Area, Ardmore, PA

Source: SEPTA (2012).

Figure 14: Bus Stop with Green Stormwater Infrastructure, Philadelphia, PA

Source: City of Philadelphia, Cyclomedia (2023).

Case Study: Serving a Commercial Center

For large developments with multiple interior destinations, it may be appropriate for the bus route to deviate from the frontage street and run through the development (Figure 15). SEPTA's decision to enter a development is based on a variety of factors, including potential demand, delay to existing customers, and additional operating expense. The deviation cannot exceed eight passenger-minutes per each rider boarding or alighting along the proposed deviation, per SEPTA's Service Standards and Process.[8] SEPTA may also seek a legal agreement outlining the terms of the property access.

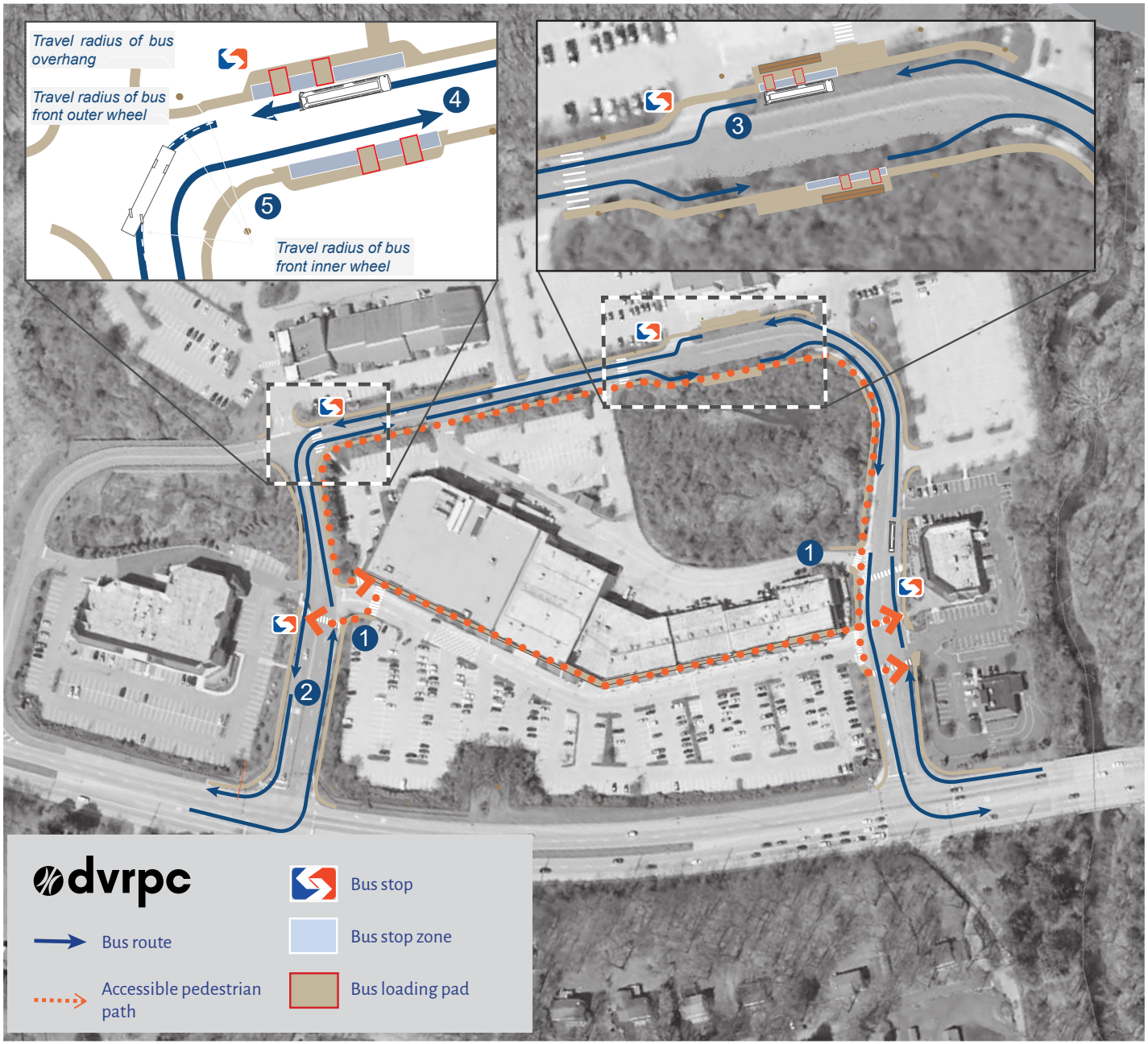
Where transit service is provided, the design should incorporate it from the outset. Buses are heavy vehicles that can generate significant wear and tear, requiring pavement designed to minimize maintenance and upkeep costs. Stops should be well-connected with quality pedestrian paths to the individual buildings that they are intended to serve, and should be placed in visible, well-lit locations. Figure 16 is a diagram of how to accommodate a bus stop in this situation, with some key features labeled and explained on the right.

Figure 15: Bus Stop Area Within a Commercial Shopping Area Along Wynnewood Road, Lower Merion, PA

Source: DVRPC (2018).

[8] Southeastern Pennsylvania Transportation Authority, "SEPTA Service Standards and Process," 2024, septa.org/wp-content/uploads/page/planning/Service-Standards-and-Service-Development-Process-REVISED-2024-.pdf.

Figure 16: Deviating from the Primary Route to Serve a Large Commercial Center



1. Connect stops to the development with high-quality pedestrian crossings.
2. Space stops along the route to balance convenient access with bus travel times.
3. Provide stops in easily accessible pairs for each travel direction.
4. Install a concrete or high-volume asphalt pad for bus stop area.
5. Allow clearance for bus turn radii along drives and parking lots. Design appropriate clearances for bus travel lanes into plans. An inside turning radius of 30 feet, outside radius of 50 feet, and 10-12 foot lane width are reasonable targets where bus circulation is proposed.

Source: DVRPC (2012).

Source: DVRPC (2018).

Chapter 4: Curbside Design

This chapter addresses the spatial design of a bus stop, including the interaction between the vehicle and operator and the stop and the space reserved for passengers to wait for and board the transit vehicle. Curbside design also deals with the connectivity between the bus stop and nearby development.

Universal Design and ADA

Universal design means creating facilities to be easily usable not only by those with disabilities, but also by users with other needs, such as someone carrying groceries, pushing a stroller, or using crutches.[9] Special attention is given to the path of travel for pedestrians to access a bus stop, the loading area clearances, and any furnishings that may be part of the bus stop. All new or newly renovated facilities must be designed and upgraded to meet federal accessibility regulations.

Federal Regulations

R309, "Transit Stops and Transit Shelters," of the Public Right-of-Way Accessibility Guidelines (PROWAG) provides federal regulations for connecting bus stops to existing streets, sidewalks, or paths while allowing someone who has a disability or is temporarily encumbered to access the bus stop and the surrounding area.[10] Section 810 of the current ADA accessibility standards specifies the size, construction, and slope of the boarding and alighting area (or loading pad).[11] SEPTA is required to comply with federal regulations regarding bus boarding and alighting areas.

SEPTA Curbside Passenger Facility Design

Every stop includes three minimum building blocks, shown in Figures 17 and 18:

- A loading pad that is five feet long parallel to the curb by eight feet deep
- A pedestrian path that is four feet wide or wider, as called for by local sidewalk standards
- A waiting area separate from the loading pad, which may include a shelter

[9] American Public Transportation Association, "Transit Universal Design Guidelines," 2020, apta.com/wp-content/uploads/APTA-SUDS-UD-GL-010-20.pdf.

[10] U.S. Access Board, "Public Right-of-Way Accessibility Guidelines, 2024, access-board.gov/prowag/complete.html#r309-transit-stops-and-transit-shelters.

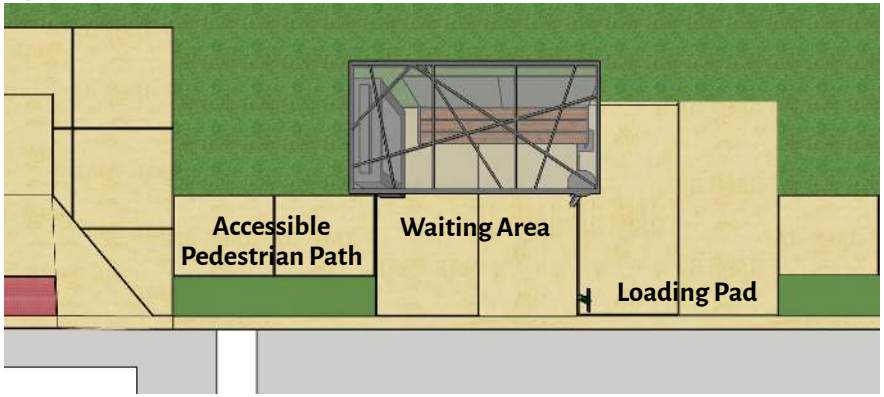
[11] U.S. Access Board, "ADA Accessibility Standards" 2014, access-board.gov/ada/#ada-810

Those elements can overlap, as shown in the diagonal lines in Figure 17. Appropriate stop dimensions and elements are determined using factors such as passenger volume, nearby trip generation, and local needs.

Figure 17: Curbside Facility Elements

Source: DVRPC (2019), Delaware County Planning Department (2010).

Figure 18: Plan View of Curbside Facility Elements



Source: DVRPC (2025).

Loading Pad

At a minimum, a level loading pad should be provided where the front doors of the bus open for passengers to board and alight (Figure 19). Locating a clear loading area at the front of the bus allows easy deployment of the front door ramp or the kneeling feature of the vehicle for disabled or encumbered persons. When possible, a second loading pad should also be installed to provide space for passengers alighting from the bus's rear doors. This space is not recommended for planters, green stormwater infrastructure,[12] tree trenches, or street furniture.

Loading pads should be a minimum of five feet wide along the curb by eight feet deep, which is the ADA standard and provides a clear turning area for wheelchair users that is five feet in diameter.[13] The slope of the loading pad measured parallel to the street should be the same as the grade of the street. Perpendicular to the street, the slope should be a maximum of 1:48 (2.1 percent).[14] Loading pads can be configured with a detectable edge to be easily located by bus drivers and passengers, should be connected to the pedestrian path, and should comprise a firm, level, slip-resistant surface suitable for use in all weather conditions.

Waiting Area

A bus stop waiting area should be sized to reflect expected passenger volumes and, at a minimum, be long enough along the curb to provide a safe place for passengers to wait outside of the loading pad. In locations where both pedestrian volumes and the number of transit passengers expected to use a stop are relatively low, the waiting area may overlap with the pedestrian path. Where pedestrian and/or passenger volumes are higher, care should be given to separate the waiting area and pedestrian path to the greatest extent practical (Figure 20). SEPTA ridership information can be accessed using the following web portal: septa.org/open-data/.

A detectable edge at the curbline that clearly defines the bus stop is desirable and can be made of any appropriate material in a contrasting color. Well-defined waiting and loading areas speed up passenger movements. The surface must be durable, slip resistant, and free of horizontal or vertical obstructions or tripping hazards. All clearances must meet local codes and ADA Accessibility Standards criteria.[15]

Figure 19: Waiting Area with Standard Shelter

Source: Chester County Planning Commission (2019).

Figure 20: Waiting Area with Large Shelter, Montgomery County Community College

Source: SEPTA (2012).

[12] Philadelphia Water Department, 2018, water.phila.gov/green-city/.

[13] U.S. Access Board, "ADA Accessibility Standards" 2014, access-board.gov/ada/#ada-810_2_2.

[14] U.S. Access Board, "Public Right-of-Way Accessibility Guidelines, 2024, access-board.gov/prowag/complete.html#r309-transit-stops-and-transit-shelters.

[15] U.S. Access Board, "ADA Accessibility Standards" 2014, access-board.gov/ada/#ada-810.

Accessible Pedestrian Path to a Bus Stop

A minimum four-foot-wide clear pedestrian path should be provided for access to the bus stop waiting area and loading pad. A sidewalk that connects the bus stop to adjacent development or neighborhoods is the most common solution (see Figure 21); a trail or multi-use path can also provide the connection (see Figure 22). Either way, the pedestrian path should provide a connection to and from the waiting area, the bus stop loading pad, and the bus shelter or bench, when present. The nearest pedestrian crossing should have curb ramps, as recommended by ADA standards. The placement of stormwater management facilities, including storm inlets, vegetation, and rain gardens, should be coordinated with SEPTA, to avoid creating conditions where either door is blocked or there is the potential for ponding.

A stop location adjacent to a trail can be accommodated by providing a short pedestrian link to the bus pad and waiting area. The trail can be used as a loading pad if it is wide enough to provide pedestrian passing space in addition to the loading pad area, meets the slope requirements in the loading pad section, and is located adjacent to the roadway. Cinder, gravel, or dirt trail surfaces are not suitable to withstand wear from waiting passengers. A hard or impervious surface can be incorporated into the area of the trail used for the bus stop.

When a bus stop is required in an area that does not have a formal sidewalk, a portion of the pedestrian path may be located within the shoulder unless pedestrian use of the shoulder is prohibited. For such use, the shoulder should be eight feet wide, have cross slopes not exceeding 5 percent and running slopes equal to the roadway geometry but not more than 8.3 percent.

A quick-build or temporary curb extension, like those marked with paint and delineators, on a roadway with a bus stop could impact pedestrian access to the bus. A safe and accessible route should be provided from the bus stop to the pedestrian network. The curb extension could connect to a curb ramp or crosswalk to provide the connection, and the physical elements should be spaced to provide clearance for the bus loading zone and ramp or lift.

Figure 21: Pedestrian Path Connecting Stop Area to Development

Source: SEPTA (2012).

Figure 22: Pedestrian Path and Trail Connecting to a Bus Stop

Source: City of Philadelphia, Cyclomedia (2022).

Safe Roadways Near Bus Stops

Creating consistency in access to bus stops in SEPTA's service area should be a priority for municipalities, developers, and other planning partners. While SEPTA does not have the authority to implement these improvements, the agency can be a partner in pursuing and advocating for them. This section lists four ways to facilitate safer access to bus stops.

Access Management

Consolidating driveways, reducing the total number of access points, and increasing the spacing between driveways are all forms of access management. Implementing these techniques can prevent conflicts between roadway users (e.g., transit vehicles, automobile traffic, and non-motorized users). This is true for any corridor; however, it may make a bigger impact on a transit corridor, where there are likely more pedestrians. PennDOT has created a set of model ordinances for access management that include recommendations about driveway spacing.[16]

Controlled Intersections

SEPTA encourages bus stops at controlled intersections, or a location with a form of traffic control (e.g., stop sign, traffic signal, yield sign) for safety and accessibility.

[16] PennDOT, "Access Management: Model Ordinances for Pennsylvania Municipalities Handbook," 2006, digitalcollections.statelibrary.pa.gov/Documents/Detail/access-management-model-ordinances-for-pennsylvania-municipalities-handbook/464974.

The following are some of the reasons why SEPTA encourages stops at controlled intersections:

- Street crossings are generally safer at intersections due to the presence of curb ramps and other accessibility features
- Driver behavior is often safer, as drivers expect to see pedestrians at intersections
- Walking distances between origins and destinations on the other side of the street are usually shorter

Non-Motorized Facilities

When SEPTA passengers are trying to get to or from the bus stop, it is beneficial for their safety and the flow of traffic for them to connect to separate non-motorized facilities, such as sidewalks, crosswalks, trails, or sidepaths, to use to reach their destination.[17]

Municipalities should work to complete the pedestrian network where there are bus stops. SEPTA is an advocate for direct, paved, ADA-compliant pedestrian connections to their stops. DVRPC has developed a sidewalk inventory that can be used to find where sidewalks exist and where they do not. Municipalities can use this tool to plan for and prioritize where new sidewalk facilities should be built.[18]

More information about the design specifics for non-motorized facilities can be found later in this chapter, as well as in the following chapter.

Traffic Calming

At bus stop locations where there are high pedestrian volumes and vehicle speeds are higher, traffic calming may be warranted. The purpose of traffic calming is to create a more comfortable environment for non-motorized travel through interventions that lower vehicle speeds without restricting vehicle volumes.

In conjunction with bus stops, this could include but is not limited to no right-turn-on-red at intersections; traffic channelizers (chicanes), visual cues such as pedestrian signage, median landscaping, pedestrian refuge islands, speed tables, bump-outs and green stormwater infrastructure, wider sidewalks, defined parking bays or diagonal parking, raised medians, bike lanes, rumble strips, and lighting.

If a municipality is interested in introducing traffic calming techniques along a corridor or at an intersection that is served by transit, there should be coordination to ensure improvements will enhance safe connections rather than inhibiting service.

Detailed Dimensions for Bus Stop Elements

Figures 23-26 and the associated Tables 6 and 7 illustrate detailed dimensions and specifications for the most common curbside stop types. Additional examples of curbside designs can be found in Appendix B. The reference figures should be used as guidance to inform design decisions based on local needs and context.

Along with the in-street stop area, shown in C in the following figures, curbside passenger facilities have three primary elements that are shown in the following graphics:

- A loading area, which includes a loading pad (A) and a clear area (E)
- A waiting area (B)
- An accessible pedestrian path to reach the stop (D)

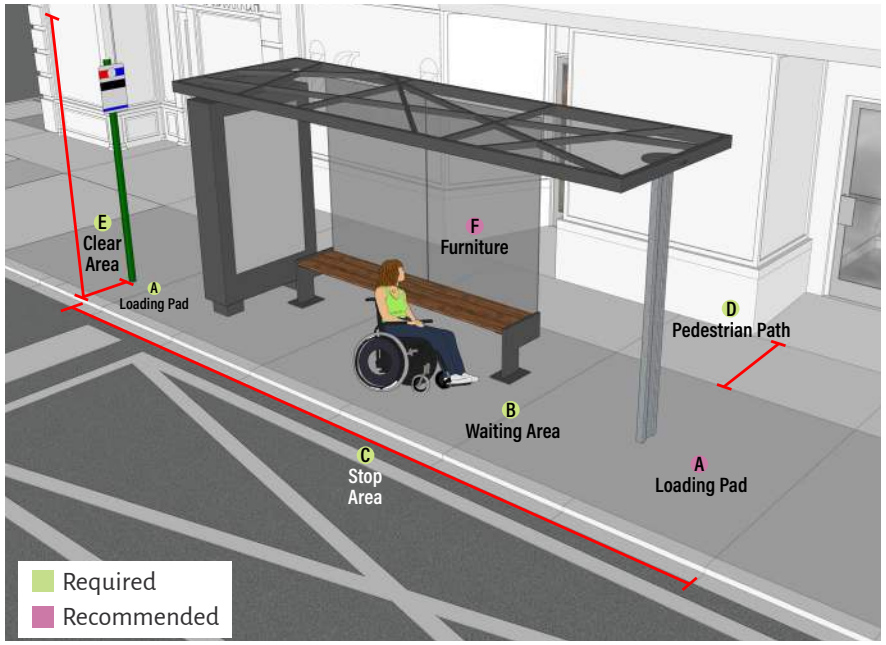
These three elements represent the minimum requirements for a bus stop. Bus stops can be sized to meet community-specific needs; however, the minimum bus loading pad should be maintained. When evaluating stops, consider access for persons with disabilities.

[17] City of Philadelphia, "Philadelphia Complete Streets Design Handbook," 2024, phila.gov/media/20250113141740/Complete-Streets-Design-Handbook-2024.pdf.

[18] DVRPC, 2019, walk.dvrpc.org/.

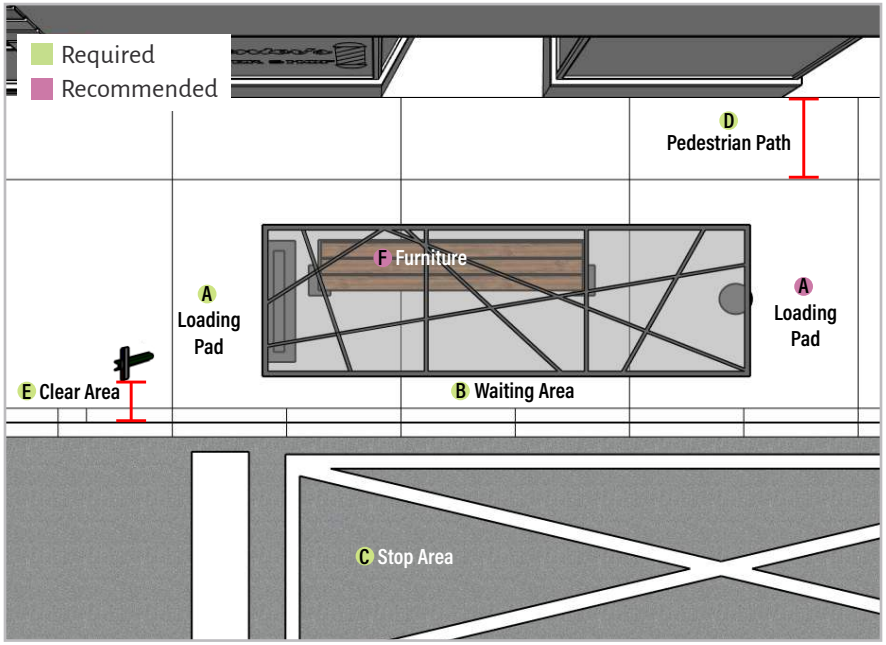
Stop with Standard Shelter

Figure 23: Rendering of Stop with Standard Shelter



Source: DVRPC (2025).

Figure 24: Aerial of Stop with Standard Shelter



Source: DVRPC (2025).

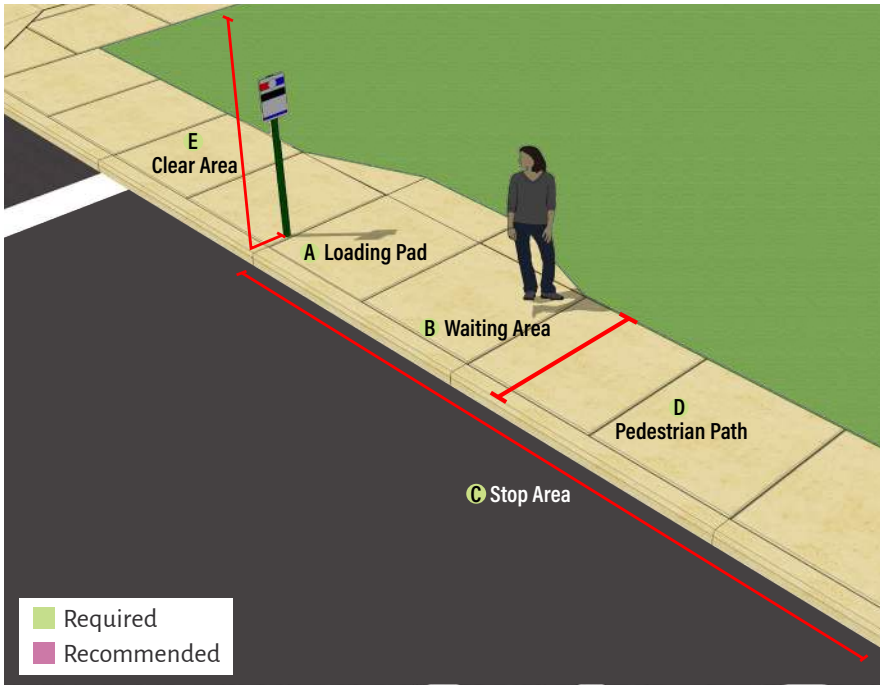
Table 6: Stop with Standard Shelter Dimensions

Element		Dimensions	Details
A	Loading Pad	Minimum 5 ft. long x 8 ft. deep	Firm, level, slip resistant, unobstructed surface. Where possible, loading pads should be provided at both the front and rear door to allow more passengers to board and alight. Sign should be located adjacent to the front loading pad to clearly indicate bus stop.
B	Waiting Area	16 ft. long x 6 ft. deep is shown	Waiting area between doors and under shelter is shown. Waiting area size can vary based on passenger and pedestrian volumes.
C	Stop Area	26 ft. long	Should be "No Stopping" for vehicles and can be striped. The length should provide free access to the vehicle's front and rear doors.
D	Pedestrian Path	Minimum 4 ft. deep	May be wider, as called for by local sidewalk standards, along a sidewalk or walkway. Should be a firm, stable, and slip resistant surface connected to the loading pad and separate from waiting area. Keep 3 ft. clear around all street furniture and building elements.
E	Clear Area	2 ft. in from the curb edge, minimum 9 ft. high.	Provides vertical clearance for the bus. Should be kept free from obstructions along the curb edge, such as trees, fire hydrants, trash cans, etc.
F	Furniture	A 15-ft. long x 6-ft. wide x 9-ft. high shelter is shown	A shelter with glass panels, 3-seat bench, & ad panel is shown. 70 net interior sq. ft. can accommodate 10 standing passengers plus seating for 3. Amount and size of furniture can vary in based on location and usage (see Chapter 5).

Source: DVRPC (2025).

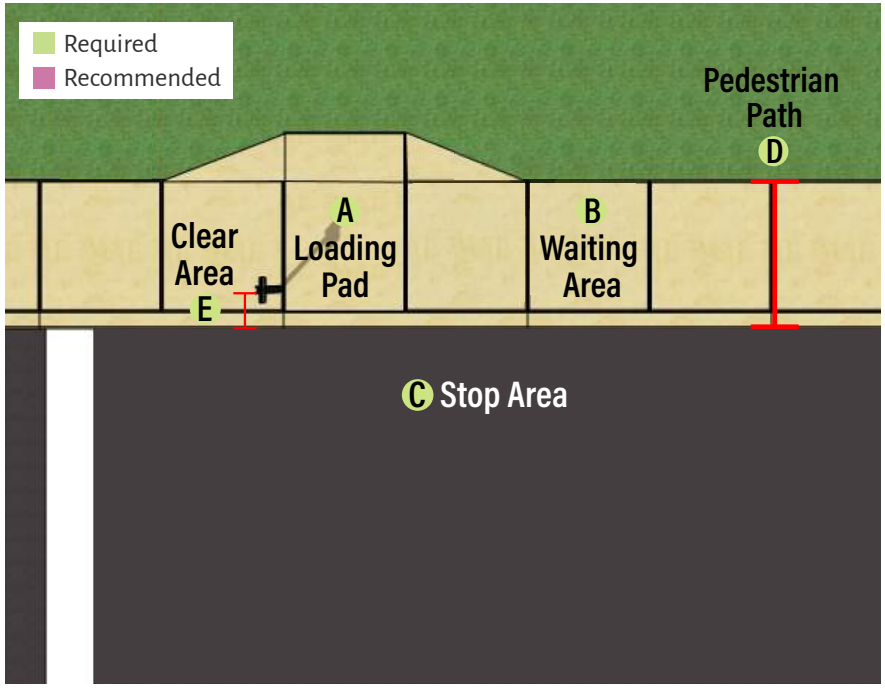
Minimum Stop with Curbside Pedestrian Path

Figure 25: Rendering of Minimum Stop with Curbside Pedestrian Path



Source: DVRPC (2025).

Figure 26: Aerial of Minimum Stop



Source: DVRPC (2025).

Table 7: Minimum Stop with Curbside Pedestrian Path Dimensions

Element		Dimensions	Details
A	Loading Pad	Minimum 5 ft. long x 8 ft. deep	If sidewalk is less than 8 ft. in width, a flared sidewalk segment should be included when possible. Where possible, loading pads should be provided for both front and rear doors. Sign should be located adjacent to the front loading pad to clearly indicate bus stop.
B	Waiting Area	10 ft. long x 4 ft. deep shown	Can be accommodated in the pedestrian path if pedestrian volumes are low. Size can vary based on passenger and pedestrian volumes.
C	Stop Area	26 ft. long	Stop area along the curbline should be kept free from obstructions, such as trees, fire hydrants, trash cans, etc. Should be "No Stopping" for vehicles. The length should provide free access to the vehicle's front door and not impede pedestrians boarding or alighting.
D	Pedestrian Path	Minimum 4 ft. deep	May be wider, as called for by local sidewalk standards. Located along a sidewalk or similar walkway, and connected to the loading pad.
E	Clear Area	2 ft. in from the curb edge, minimum 9 ft. high.	Provides vertical clearance for the bus. Should be kept free from obstructions along the curb edge, such as trees, fire hydrants, trash cans, etc.
F	Furniture	N/A	Lighting not shown but the stop should be well lit. Other passenger elements, like trash cans, seating, and a sun shade, are recommended. See Chapter 5 for more stop elements.

Source: DVRPC (2025).

Source: Lower Merion Township (2022).

Chapter 5: Stop Elements

Introduction

Stop elements are features that provide added convenience, comfort, and dignity to a passenger's wait for the bus. Just as the bus itself needs to be comfortable, easy to use, clean, and safe, so too does the stop. Collectively, stop elements can help enhance the visibility of transit in a corridor and raise awareness of transit as a mobility option. Bus stop elements are a way for communities to welcome visitors and for residents to take pride in their area. They may reflect a visual identity for a locality and be viewed as a community asset. SEPTA provides and maintains transit amenities at SEPTA-owned facilities. Bus stop elements can be provided by a sponsor other than SEPTA.

Once at the stop, riders should have a pleasant experience while they wait for the bus. Street furniture providing rain and sun protection, seating, lighting, and other elements can make waiting time for passengers more comfortable and safe. Research from the University of Minnesota has found that **stop elements such as a bench or basic shelter reduce the perceived wait time**.[19]

Other stop elements could include custom wayfinding signage and real-time information that helps guide customers to and from the stop, local destinations, and other transportation modes. As an example, SEPTA has installed quick-build, low-cost stick-on wayfinding on the sidewalk at Bristol Station to help passengers transfer between the train, the existing trail network, and the Route 129 bus (see Figure 27).

In addition, considering how to add complementary infrastructure may be valuable. With coordination, a stop could facilitate connections between two modes, such as bicycle parking and bike share at a bus stop, so that someone could use both modes seamlessly to reach their final destination. Providing customers with information to help them get to their next, final, or future destination also has the ability to create a better passenger experience.

Figure 27: Bus Wayfinding at Bristol Station, Bristol, PA

Source: DVRPC (2025).

Stop Elements Overview

SEPTA's network serves many different types of land contexts: urban, suburban, and rural; what works in one situation may not work in another because of the conditions around a bus stop. The visual in Figure 28 gives a visualization of high-quality bus stops with different stop elements. It also illustrates how multiple modes can intersect and be accommodated at a bus stop. The following elements are recommended to improve bus stop design at bus stops on private property or in the public right-of-way. Both public and private entities are required to maintain any street furniture they install.

[19] Fan, Guthrie, and Levinson, "Perception of Waiting Time at Transit Stops and Stations," 2016, doi.org/10.1016/j.tra.2016.04.012.

Figure 28: Stop Elements Overview

Element		Pg.
A	Public Art	35
B	Transit Shelter	35
C	Stop Area Seating	36
D	Trash Receptacle	36
E	Lighting	36
F	Signage	37
G	Real-Time Info	37
H	On-Road Bicycle Facilities	38
I	Bicycle Parking	39
J	Bike Share	40

Source: DVRPC (2019).

Creating a Safe Stop Environment

Transit stop locations and amenities, such as street furniture, lighting, and seating, can impact a rider's perception of safety and overall comfort riding transit. Bus stops near active businesses or homes tend to be safer than stops in isolated areas.[20] Showing that a stop is cared for, such as with adequate lighting, well-maintained shelters with good visibility, and public art, can impact people's perception of safety.[21]

Public Art at Bus Stops

Bus stops can be further improved by including the local community to help design and create murals and street furniture, as well as overall placemaking (Figure 29). Showcasing local creativity in these amenities can give people a sense of pride in their community, which often has the added benefit of reducing vandalism. Other stop elements, like shade structures, can also feature art.

Figure 29: Public Art at a Bus Stop near Snyder Plaza in Philadelphia, PA

Source: DVRPC (2025).

Street Furniture

Street furniture for bus stops can include shelters, benches, lean rails, trash receptacles, and lighting. This section contains some basic guidance to be considered when choosing appropriate stop elements. Placement must not infringe on the ADA loading pad, the ADA waiting area, the pedestrian pathway, or direct access between those three elements.[22] Dimensions for the areas that must be kept clear can be found in Chapter 4.

Transit Shelters

Shelters provide important protection for passengers from all weather conditions. A quality shelter should be constructed of durable, architecturally sound materials to withstand heavy use and continual exposure to the elements. It should have a roof and be enclosed on at least two sides to provide a screen from prevailing winds while providing airflow for comfort. Shelters must not block motorists' or pedestrians' line of sight.[23] A clear view of the approaching bus and bus loading pad is necessary and can be accomplished using tempered, clear glass panels. Films or clear-view materials can add design elements to the shelter exterior. See Figure 30 for an example of these features.

Sun, rain, and snow protection are equally important. The shelter should be oriented and enclosed to protect against exposure. A site-specific design for the protective sides or solar shading material may be necessary depending on local weather conditions. The shelter opening should be oriented toward the path that leads to the bus loading pad. Refer to Chapter 4 for shelter dimensional guidelines.

Figure 30: Custom Shelter in Glen Mills, PA

Source: SEPTA (2012).

[20] Loukaitou-Sideris, "Hot Sports of Bus Stop Crime: The Importance of Environmental Attributes," 1996, escholarship.org/uc/item/3zt8q1kj.

[21] Loukaitou-Sideris, "Safe on the Move: The Importance of the Built Environment," 2012, in The Urban Fabric of Crime and Fear, ed. Vania Ceccato, 85–110, doi.org/10.1007/978-94-007-4210-9_4.

[22] U.S. Access Bord, "Public Right-of-Way Accessibility Guidelines, 2024, access-board.gov/prowag/complete.html#r309-transit-stops-and-transit-shelters.

[23] Note: In the City of Philadelphia, shelters need to go through right-of-way permitting and review, and no other entities can install a shelter with advertising. If you would like to build a shelter that is or could be in a public ROW, consult your local municipality to ensure it is built legally.

Trash Receptacles

Trash receptacles (Figure 31) should be placed at high-ridership stops, transfer locations, and places where the potential for accumulating trash is apparent. Adding trash receptacles requires additional maintenance. Therefore, before adding them, a municipality or private entity needs to have a maintenance plan and budget in place.

Stop Area Seating

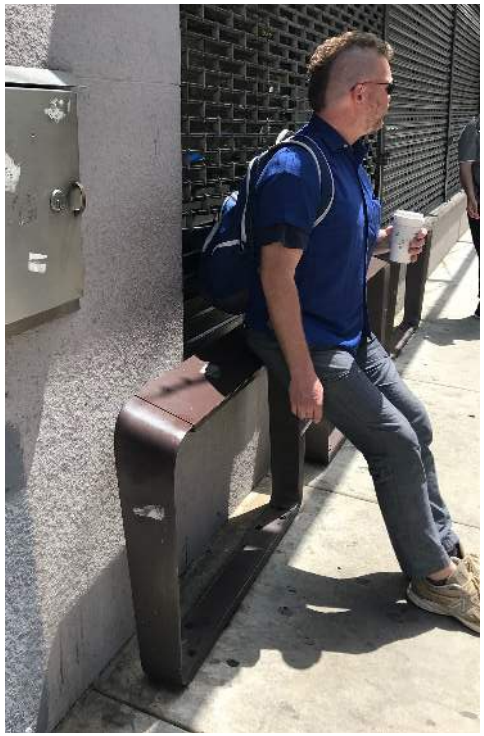
When present, a bench should be made of a durable material, resistant to vandalism and wear from exposure to weather. The bench should be ADA-compliant in dimension, with a recommended minimum length of 6.5 feet, or the equivalent of three seats. Benches should comply with PROWAG-mandated clear space of at least 30 inches by 48 inches.[24] Arms are an important feature to assist seniors and the disabled. See Figure 31 for an example.

Figure 31: Stop Area Benches and Trash Receptacles, Darby, PA

Source: Delaware County Planning Commission (2017).

Other forms of seating, such as a resting or leaning rail (Figure 32), can also be used as an alternative to benches. Options include a large-diameter tube or ledge slightly higher than seat height, or about 2.5 feet high above the stop location surface. A low masonry wall also makes a convenient resting spot and can provide an opportunity for landscape integration of the bus stop area.

Figure 32: Lean Rail, Philadelphia, PA



Source: DVRPC (2019).

Lighting

Lighting within the bus stop area enhances safety by improving both SEPTA driver and passenger visibility. It also provides a sense of security and helps define the waiting area. Lighting may take several forms in any combination to provide an average level of 1.3 to 2.6 horizontal foot candles or 13 to 26 lux, which is roughly the typical light level around a building entrance. A light pole can also be combined with a sun shade to provide additional comfort for passengers.

A nearby street light can also be used for stop area lighting; this can be cost-effective coordination. The bus stop signage should be illuminated and, if present, shelter fixtures can provide added light. LEDs are encouraged and recommended.

[24] U.S. Access Bord, "Public Right-of-Way Accessibility Guidelines, 2024, access-board.gov/prowag/complete.html#r20961-benches-at-transit-stops-and-shelters.

On-Street Customer Information

Customers want to know about when and where their bus or train is coming, and if there are any delays or disruptions in service. Many people are deterred from public transit because they do not have the information they want to make them feel confident about easily using transit services. SEPTA, municipalities, and private entities can provide this information with clearly marked, visible information at stops. The types of passenger information that can be displayed at a stop includes both static and real-time information. The following are options of what could be displayed now and in the future:

- Bus route information (including URLs and QR codes for the SEPTA App) and stop location
- Fares, maps, local wayfinding information, and available transfers with travel times for common ultimate destinations
- Estimated arrival, departure, or countdown times for the approaching vehicle;
- Transit vehicle locations
- Service disruptions and delays
- Other valuable information, such as the date, time, weather, and current news, often with advertisements

Signage

At a bus stop, the loading pad should be well marked with a double-sided sign, preferably on its own pole. Stop signage will be provided by SEPTA, based on the designs shown in Figure 33. Clear and distinct signage differentiates the stop area from other roadside information and can indicate how connect to other SEPTA service. The sign location assists passengers in visually gauging the stopping point for the vehicle, and for those who are visually impaired, the sign post can provide a landmark in locating the bus loading pad with the aid of a cane. Clear signage helps passengers confirm that they are at the right location and ready to board the right vehicle.

SEPTA has developed Bus Signage Design Standards to enable safe, accessible, and efficient navigation for all users through a wayfinding system that is durable, cost-effective, easy to repair and maintain, and adaptable enough to accommodate future growth and changes.[25] Additional static information, such as fare zones; fare pricing; wayfinding maps; signage to major local shopping and institutional destinations; as well as transfer information to or between SEPTA services and other modes, such as bike parking, bike share, car parking, or local trails should be considered when applicable.

Figure 33: Example SEPTA Bus Stop Signage

Source: SEPTA (2025).

Real-Time Information

Passenger real-time information refers to sharing with passengers up-to-date bus location, operational, and schedule information collected for viewing at stations or on passengers' personal devices. Customer satisfaction surveys and academic research have shown that the public values real-time information, and that this feature alone has the potential to increase ridership by 1–3 percent.[26] Waiting for the bus is one of the most disliked elements of transit trips, and providing real-time information decreases the perceived waiting time for riders.[27]

SEPTA provides customers with various sources of passenger information. The official SEPTA app is one way passengers can stay connected with real-time information. When downloaded, the app allows passengers to view a map with the current vehicle locations. The SEPTA website, septa.org, and third-party travel planning apps also feature data provided by SEPTA. In addition to vehicle locations, there are updates on schedules, detours, and delays. At some stops, digital screens display that information. Advertising companies typically pay for and install these screens, often at high-ridership bus stops and high-pedestrian-traffic intersections. Displaying information electronically at more stops is recommended and requires connecting utilities and making provisions for maintenance.

[25] SEPTA, "Bus Signage Design Standards," 2025.

[26] Watkins, "Evaluating the Impact of Real-time Transit Information on Ridership and Mode Share," 2015, nctspm.gatech.edu/sites/default/files/u63/NCTSPMReport_RealTimeRidership.pdf.

[27] Mishalani, McCord, and Wirtz, "Passenger Wait Time Perceptions at Bus Stops: Empirical Results and Impact on Evaluating Real-Time Bus Arrival Information," 2006, digitalcommons.usf.edu/jpt/vol9/iss2/5/.

Ensuring Bus and Bike Safety

Buses and bicycles often share a roadway and both need to be able to operate safely. The design of a bus stop and the surrounding roadway should provide safe and accessible transportation options for all modes. At the bus stop, municipalities and private entities can use the following strategies to better accommodate cyclists:

- Prioritize providing separate roadway or trail facilities for buses and bicycles wherever possible
- Adapt street design to provide safe mixing zones in areas of limited right-of-way
- Build secure and weather-protected bicycle parking for personal bicycles, where appropriate and space permits
- Create safe and clearly defined access from a bus stop to a multi-use trail, bike lane, or low-stress roadway
- Place bike share sites close to bus stops to facilitate first- and last-mile connections
- In suburban or rural areas, provide wide shoulders for cyclists to use when they are sharing the road with other modes

Coordinating bicycle infrastructure with bus stops has many advantages. Safe infrastructure protects both bike and transit users by reducing the risk of dangerous interactions between bicycles and buses, and bicycles and pedestrians trying to access the bus.

Separating Bicycles and Buses

When a bike lane or path shares a roadway with a bus route, prioritize the separation of modes. Creating bike facilities that are "protected" on key routes connecting to bus stops increases the efficiency of biking and bus riding, as well as the safety of bikers and bus riders. Protecting bike facilities means having a buffer between bicycle traffic and vehicular traffic. The presence of buffers helps prevent buses and other vehicles from pulling into bike lanes, but ADA access to and from bus stops should be maintained.

Further separation of bicycles and buses stopping to pick up passengers can be done with a left-side bike lane or by channeling bike lanes between the bus stop boarding area and the curb. In the case of a one-way street, it is preferable to avoid having the bike facility on the same side of the street as the bus stops. Place the bike lane on the left side of the street to prevent pedestrians from having to cross a bike facility to get to their bus stop, as well as preventing buses from pulling into the bike lane to pick up passengers. The bicycle lanes on Spruce Street and Pine Street in Philadelphia (Figure 34) are an example of left-side lanes on a one-way road with bus service.

Figure 34: Left-Side Bike Lanes, Pine St, Philadelphia, PA

Source: City of Philadelphia, Cyclomedia (2023).

Channeling the bike lane between the bus stop and the curb creates a "floating island" stop, where passengers cross the bike lane to access a bus boarding platform. With a floating island bus platform, providing an ADA-accessible loading pad, marked pedestrian crossings, signage and paint alerting bicyclists to the crossing, and detectable warning surfaces and barriers separating pedestrians from the bike lane and roadway are crucial for creating an accessible bus stop. The floating island should be at curb height, not roadway height, and least eight feet wide, with a preference for nine feet wide or wider, to allow passengers to wait and board comfortably. SEPTA has developed a playbook for implementing bus boarding platforms. The playbook includes dimensions and construction information for different typologies of boarding platforms. For more information on creating a bus boarding platform, contact planning@septa.org.

An example of a boarding platform in Philadelphia is along the 58th Street Greenway (Figure 35), where a curb extension separates the greenway from the bus and provides ample waiting area. Another example from Erie Avenue and Broad Street in Philadelphia is a floating island with a bike lane along the curb (Figure 36). In this example, the bike lane is raised to sidewalk level at the bus stop to allow bus passengers to access the bus and alert cyclists they are at a pedestrian crossing.

Figure 35: 58th Street Greenway at Chester Avenue, Philadelphia, PA

Source: City of Philadelphia, Cyclomedia (2025).

Figure 36: Floating Island Bus Platform, Erie Avenue, Philadelphia, PA

Source: City of Philadelphia, Cyclomedia (2025).

Bicycle Parking at Bus Stops

Bicycle racks (Figure 37) and storage shelters are increasingly used to accommodate commuters who use a bicycle to access transit but prefer not to use on-bus bike racks. For specific design guidance see the National Association of City Transportation Officials' (NACTO's) *Transit Street Design Guide*. Supplying bicycle parking in a well-lit, secure area helps to deter theft. Providing secure bike parking at bus stops creates an intermodal link for cyclists to the bus stop, and allows riders more flexibility. Ideally, bike parking and storage has the following features and specifications:

- Bike parking should not impede pedestrians or passengers that are boarding or alighting
- The parking should be located near a stop in order to make it convenient and to make it obvious to cyclists that it exists
- Bike racks should be located where they are easy to use, and there is enough room between each rack and around the racks in order for cyclists to safely and comfortably maneuver bikes in and out
- Bike racks should provide durability and vandal-resistant anchoring to attract users and provide long-term utility. The rack should hold bikes upright by providing two points of contact along the horizontal plane, allowing for both frame and wheels to be locked. The "U" design is recommended for these reasons. In restricted spaces, consider rotating the U racks 45 degrees
- Bike storage is most effective at "end-of-line" stations, bus terminals or transit centers

Figure 37: Bicycle Parking at Tourist Bus Stop, Philadelphia, PA

Source: DVRPC (2025).

Figure 38: Indego Bike Share with SEPTA Bus Stop, Philadelphia, PA

Source: DVRPC (2025).

Bike Share at Bus Stops

Siting bike share docks around bus stops allows for flexibility in mode choice. Depending on variables, such as weather, time of day, time available, and fatigue, people may desire to walk, bike, or take a bus. Giving them all three options from the same point allows for this flexibility of choice.

Coordinating bike share docks with bus stops (Figure 38) can provide additional multimodal options to riders. Bike share can provide first/last mile connections, minimize the need to transfer between routes, and even provide an alternative in case bus service is detoured or delayed. Bike share stations should be sited near bike lanes and other coordinated infrastructure. Compatible or complementary wayfinding signage and messaging may strengthen the multimodal connections further.

Improving Bus Stops Through Local Coordination

Chapters 4 and 5 show elements and amenities that create comfort and safe connections for bus riders. However, planning for, building, and maintaining these can be challenging due to the cost of staff or consultant time and construction and maintenance.

Working with or creating a group that has shared interests along a corridor, within a business park, or other type of development could aid in enhancing bus stops and applying for grants and local funds to design a better built environment for bus passengers.

West Chester Pike Coalition

West Chester Pike is a transit corridor with varying levels of bus service, high traffic volumes, and a mix of land uses and densities in 10 different municipalities in Delaware and Chester counties. In 2016, following a series of feasibility reports about enhancing bus service on the corridor, the West Chester Pike Coalition was formed.

The West Chester Pike Coalition includes staff from both Chester and Delaware counties who organize and lead the group, which includes representatives from SEPTA, the Pennsylvania Department of Transportation, the Transportation Management Association of Chester County, the Delaware County Transportation Management Association, DVRPC, corridor municipalities, and local economic development agencies. The vision for this group is improved transportation opportunities, operations, and safety along West Chester Pike. Meetings are held at least once a year and give these stakeholders an opportunity to hear what is going on along the corridor and see how they can come together and advocate or apply for grants or other funding to improve transit on the corridor.

Chester Pike Corridor Improvement Partners

Chester Pike is a transit corridor served by SEPTA Bus Route 114. It features a mix of land uses, high traffic volumes, and varied densities in Delaware County. In 2019, five boroughs along Chester Pike agreed to coordinate on projects along the corridor. The vision for this group is a sustainable, historic, and visually appealing destination that serves as a regional connector, as well as a vibrant, mixed-use commercial district for each of the member communities. The Chester Pike Corridor Improvement Partners is led by the five boroughs and has worked to develop a Corridor Master Plan, a Multimodal Improvement Study, and advance streetscaping projects.

Transit Priority Committee

This group meets on a monthly basis to offer coordinated feedback and support for transit planning and implementation efforts across Philadelphia. The committee is chaired by representatives of OTIS and SEPTA, and is charged with coordinating the implementation of transit priority projects, including those identified in the Philadelphia Transit Plan. The committee brings together representatives of various agencies and units, including the Streets Department, Planning Commission, SEPTA Planning and Operations, and DVRPC, to coordinate a portfolio of over 30 projects in the City of Philadelphia.

Appendix A: SEPTA Go

SEPTA GO Addendum

SEPTA GO is a proposed on-demand service providing rides in defined zones. SEPTA GO will use cutaway vehicles that are smaller than full-sized buses and equipped with accessible lifts instead of ramps. This section explains how SEPTA GO service will operate, the process for requesting a new SEPTA GO stop, and the required and recommended elements for GO stops.

SEPTA GO Operating Model

Developing an on-demand service requires balancing competing priorities between coverage, convenience, and cost. More coverage (larger zone size, increased span of service) and convenience (shorter wait times and on-board travel times, shorter walking distances) come at the expense of higher operating cost (more vehicles, more operators, higher cost per ride). SEPTA worked closely with RideCo, the on-demand software provider, to develop a service model for each GO Zone that balances coverage, convenience, and cost in a constrained operating environment.

The following four operating models are typically found in on-demand service:

- Door-to-door: travel between any address
- Stop-to-stop: travel between any stop
- Stop-to-hubs: multiple connection points
- Stop-to-hub: one connection point

With each operating model, there is a tradeoff between flexibility and efficiency. For SEPTA, RideCo recommends a stop-to-stop operating model, which allows for a balance between coverage and flexibility within the zone and efficiency given the set number of vehicles and operators available for each zone. RideCo recommends a quarter mile stop spacing for the stop-to-stop operational model, which is aligned with SEPTA's bus stop spacing for fixed-route bus service.[28]

Requesting a New SEPTA GO Stop

RideCo and SEPTA worked collaboratively with municipal and county partners to develop the SEPTA GO stops to connect to existing fixed-route bus stops and key destinations within each zone, including public facilities, grocery stores, food banks, and multifamily housing. Stop spacing is roughly one-quarter mile with additional stops added for key destinations. Stop placement takes into account both the roadway network (to avoid cul-de-sacs and dead-end streets) and the presence of street lighting. All Go stops will be reviewed in the field by SEPTA System Safety, Bus Operations, and Training personnel to confirm that a SEPTA GO vehicle can stop safely at each proposed stop.

Once a GO Zone is launched, additional stops can be requested by riders or by stakeholders (for example, as part of a land development process). **Requests should be submitted via email to planning@septa.org.** These requests will be evaluated to determine whether the stop is warranted, and if there would be an impact to operational performance. SEPTA may conduct a field review to make those determinations. A new stop can be approved as a signed stop, which is preferred, or a virtual stop. These stops have slightly different requirements, shown in the next section, which should exist or be installed prior to the stop going into service. If approved, a stop can be added as a part of the schedule period, which occurs three times per year.

Stop Elements at GO Stops

SEPTA GO will use 24-foot-long cutaway vehicles with lifts, which require slightly different stop placement and elements than a fixed-route bus stop. SEPTA GO stops will have physical signage and will be visible to riders on the SEPTA GO software. SEPTA GO Signage will be provided by SEPTA based on the design in Figure A-1.

Figure A-2 shows the required and recommended elements at a SEPTA GO stop. A GO stop should have a stop area in the street that is clear of obstructions, including vertically, for the GO vehicle to pull over. A pedestrian path, if present, should be at least four feet wide or wider, as required by municipal ordinance. Additional passenger elements, like a trash can, a bike rack, public art, or seating are recommended. A GO stop should ideally be designed to easily accommodate fixed-route service, should that be implemented in the future.

Figure A-1: SEPTA GO Signage Design

Source: SEPTA, "Bus Signage Design Standards" (2025).

[28] Southeastern Pennsylvania Transportation Authority, "SEPTA Service Standards and Process," 2024, septa.org/wp-content/uploads/page/planning/Service-Standards-and-Service-Development-Process-REVISED-2024-.pdf.

Figure A-2: SEPTA GO Stop Elements

Required
Recommended

Source: DVRPC (2025).

[A] Loading Pad

The loading pad should be an unobstructed, firm, level surface that is at least five feet (60 inches) wide along the curb by nine feet and two inches (110 inches) deep. Those dimensions meet the ADA requirement and provides a clear turning area for a wheelchair user when the lift is deployed.

[B] Lighting

Street lighting is a criteria for SEPTA GO stop placement because it improves safety and visibility for both drivers and passengers. A nearby street light can be used for stop area lighting. At a signed stop, the signage should be illuminated.

[C and D] Stop and Clear Areas

The stop area is the part of the roadway where the GO vehicle will stop. A GO vehicle requires a 26-foot stop area along the curb that must be keep clear of obstructions.

The clear area provides vertical clearance for the GO vehicle. The clear area should be nine feet high and extend two feet back from the curb.

[E] Pedestrian Path

If a pedestrian path is provided, it should be at least four feet wide, or wider if required by local zoning or other sidewalk standards. The path should be firm, stable, and slip resistant.

[F] Waiting Area

The waiting area can provide extra room or amenities for passengers waiting for a ride. The waiting area can overlap the pedestrian path. Other stop elements can be provided in the waiting area, including trash cans, seating, or a shelter.

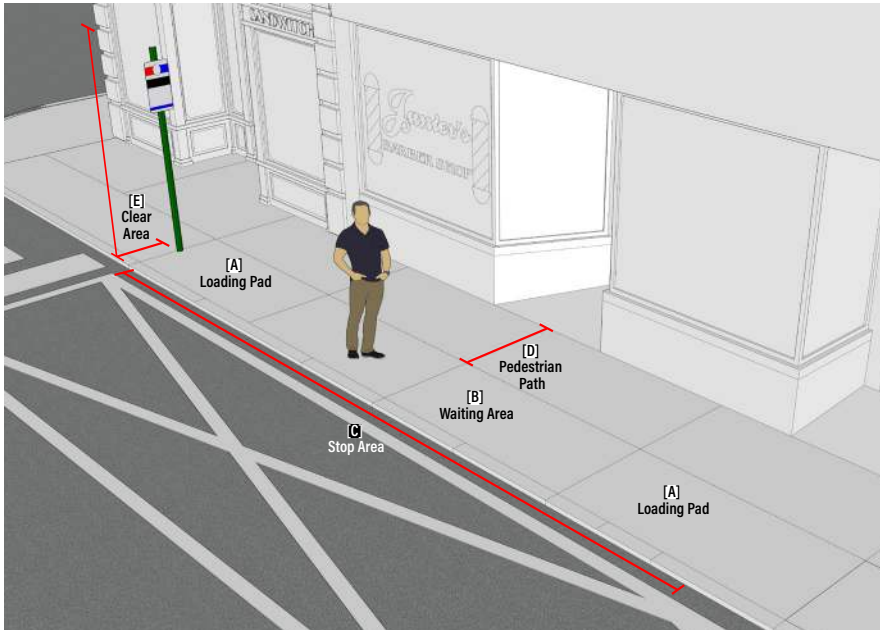
[G] Signage

At a SEPTA GO stop, a double-sided sign is required, preferably on its own pole. The signage will be provided by SEPTA. For a GO stop at a rail station or fixed-route bus stop, extra wayfinding or route information can be included in a stacking formation.

Appendix B: Additional Curbside Designs

Narrow Urban Stop with Curbside Pedestrian Path

Figure B-1: Rendering of Narrow Urban Stop with Curbside Pedestrian Path



Source: DVRPC (2025).

Figure B-2: Example of Narrow Urban Stop, Philadelphia, PA

Source: City of Philadelphia, Cyclomedia (2024).

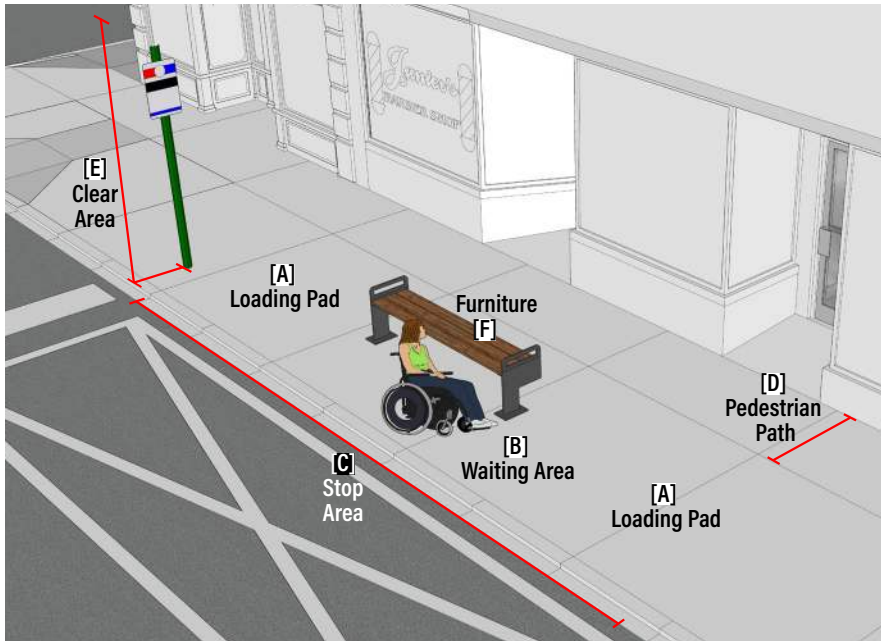
Table B-1: Narrow Urban Stop with Curbside Pedestrian Path Dimensions

Element		Dimensions	Details
A	Loading Pad	Minimum 5 ft. long x 8 ft. deep	Firm, stable, and slip resistant, and connected to the pedestrian path. Where possible, loading pads should be provided for both front and rear doors to accommodate more passengers. Sign should be located adjacent to the loading pad to clearly indicate bus stop.
B	Waiting Area	16 ft. long x 4 ft. deep	Waiting area can be accommodated in the pedestrian path if pedestrian volumes are low. Waiting area size can vary based on passenger and pedestrian volumes.
C	Stop Area	26 ft. long	Should be "No Stopping" for vehicles and can be striped as shown. The length should provide free access to the vehicle's front and rear doors.
D	Pedestrian Path	Minimum 4 ft. deep	May be wider, as called for by local sidewalk standards. Wider path is desirable to provide space for passing. Located along a sidewalk or similar walkway, and connected to the loading pad.
E	Clear Area	2 ft. in from the curb edge, minimum 9 ft. high	Clear area provides vertical clearance for the bus. Should be kept free from obstructions along the curb edge, such as trees, fire hydrants, trash cans, etc.
F	Furniture	N/A	Lighting is not shown but the stop should be well lit. Other passenger elements, like trash cans or seating, are recommended as space allows. See Chapter 5 for more stop elements.

Source: DVRPC (2025).

Urban Stop with Seating

Figure B-3: Rendering of Urban Stop with Seating



Source: DVRPC (2025).

Figure B-4: Example of Urban Stop with Seating, Media, PA

Source: DVRPC (2025).

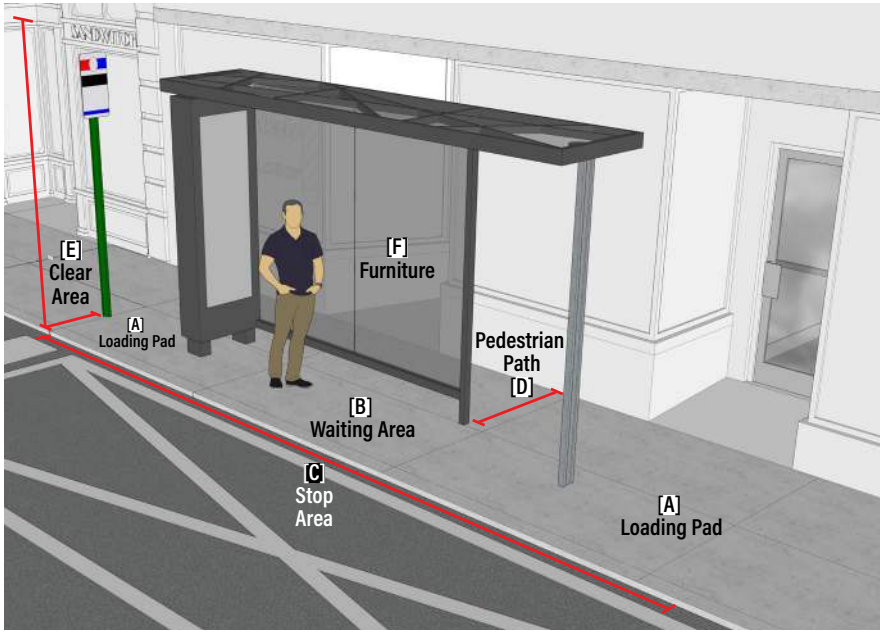
Table B-2: Urban Stop with Seating Dimensions

Element		Dimensions	Details
A	Loading Pad	Minimum 5 ft. long x 8 ft. deep	Firm, stable, and slip resistant, and connected to the pedestrian path. Where possible, loading pads should be provided for both front and rear doors to accommodate more passengers. Sign should be located adjacent to the loading pad to clearly indicate bus stop.
B	Waiting Area	16 ft. long x 4 ft. deep	Waiting area between doors is shown.
C	Stop Area	26 ft. long	Should be "No Stopping" for vehicles and can be striped as shown. The length should provide free access to the vehicle's front and rear doors.
D	Pedestrian Path	Minimum 4 ft. deep	May be wider, as called for by local sidewalk standards. Wider path is desirable to provide space for passing. Located along a sidewalk or similar walkway, and connected to the loading pad.
E	Clear Area	2 ft. in from the curb edge, minimum 9 ft. high	Clear area provides vertical clearance for the bus. Should be kept free from obstructions along the curb edge, such as trees, fire hydrants, trash cans, etc.
F	Furniture	6.5-ft.-long bench is shown	Bench with 3 seats and hand rails for accessibility. Made of a durable material, with or without a back. Keep at least 3 ft. clear around all furniture, which should be located close to the street or adjacent to buildings rather than in the middle of the primary pedestrian path. See Chapter 5 for more details.

Source: DVRPC (2025).

Stop with Narrow Shelter

Figure B-5: Rendering of Stop with Narrow Shelter



Source: DVRPC (2025).

Figure B-6: Example of Stop with Narrow Shelter, Philadelphia, PA

Source: City of Philadelphia, Cyclomedia (2024).

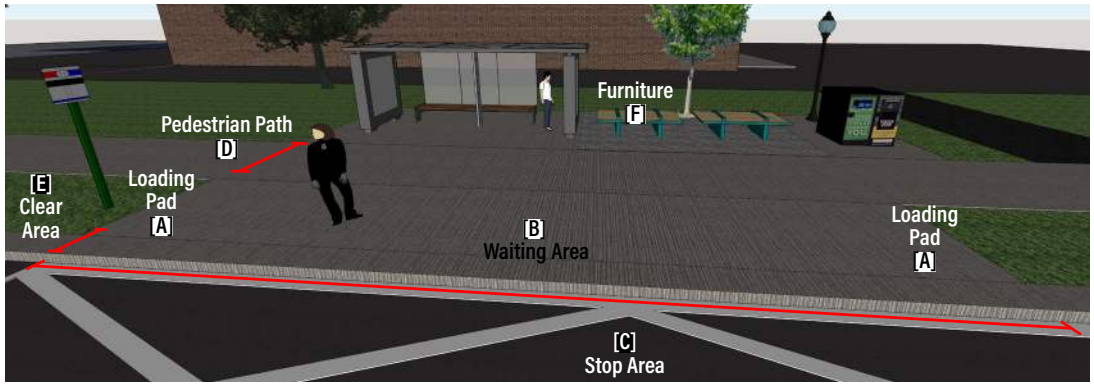
Table B-3: Stop with Narrow Shelter Dimensions

Element		Dimensions	Details
A	Loading Pad	Minimum 5 ft. long x 8 ft. deep	Firm, stable, and slip resistant, and connected to the pedestrian path. Where possible, loading pads should be provided for both front and rear doors to accommodate more passengers. Sign should be located adjacent to the loading pad to clearly indicate bus stop.
B	Waiting Area	16 ft. long x 4 ft. deep	Waiting area between doors is shown. Provides enough area for 9 passengers, including 6 within the shelter. Shelter design and configuration may vary.
C	Stop Area	26 ft. long	Should be "No Stopping" for vehicles and can be striped as shown. The length should provide free access to the vehicle's front and rear doors.
D	Pedestrian Path	Minimum 4 ft. deep	May be wider, as called for by local sidewalk standards. Wider path is desirable to provide space for passing. Located along a sidewalk or similar walkway, and connected to the loading pad.
E	Clear Area	2 ft. in from the curb edge, minimum 9 ft. high	Clear area provides vertical clearance for the bus. Should be kept free from obstructions along the curb edge, such as trees, fire hydrants, trash cans, etc.
F	Furniture	15-ft. long x 3-ft. wide x 9-ft-high shelter is shown	Shelter with lean rail, stop information, and advertising panel. Glass panels allow view of arriving bus and weather protection. Keep at least 3 ft. clear around all furniture, which should be located close to the street or adjacent to buildings rather than in the middle of the primary pedestrian path. See Chapter 5 for more details.

Source: DVRPC (2025).

High-Quality Stop

Figure B-7: Rendering of High-Quality Stop



Source: DVRPC (2025).

Figure B-8: Direct Bus Stop, Philadelphia, PA

Sources: City of Philadelphia, Cyclomedia (2023).

Table B-4: High-Quality Stop Dimensions

Element		Dimensions	Details
A	Loading Pad	Minimum 5 ft. long x 8 ft. deep	Firm, stable, and slip resistant, and connected to the pedestrian path. Loading pads should be provided for both front and rear doors to accommodate more passengers. Sign should be located adjacent to the loading pad to clearly indicate bus stop
B	Waiting Area	38 ft. long x 4 ft. deep	Waiting area between doors is shown, with additional waiting space under the shelter.
C	Stop Area	48 ft. long	Should be "No Stopping" for vehicles and can be striped as shown. The length should provide free access to the vehicle's front and rear doors.
D	Pedestrian Path	Minimum 4 ft. deep	May be wider, as called for by local sidewalk standards. Wider path is desirable to provide space for passing. Located along a sidewalk or similar walkway, and connected to the loading pad.
E	Clear Area	2 ft. in from the curb edge, minimum 9 ft. high	Provides vertical clearance for the bus. Should be kept free from obstructions along the curb edge, such as trees, fire hydrants, trash cans, etc.
F	Furniture	24-ft. long x 5-ft. wide x 9-ft-high shelter is shown	Shelter with seating, stop information, and advertising panel. Glass panels allow view of arriving bus and weather protection. Station area can also included 2 benches, a trash receptacle, and lighting. Keep at least 3 ft. clear around all furniture, which should not be located in the middle of the primary pedestrian path. See Chapter 5 for more details.

Source: DVRPC (2025).

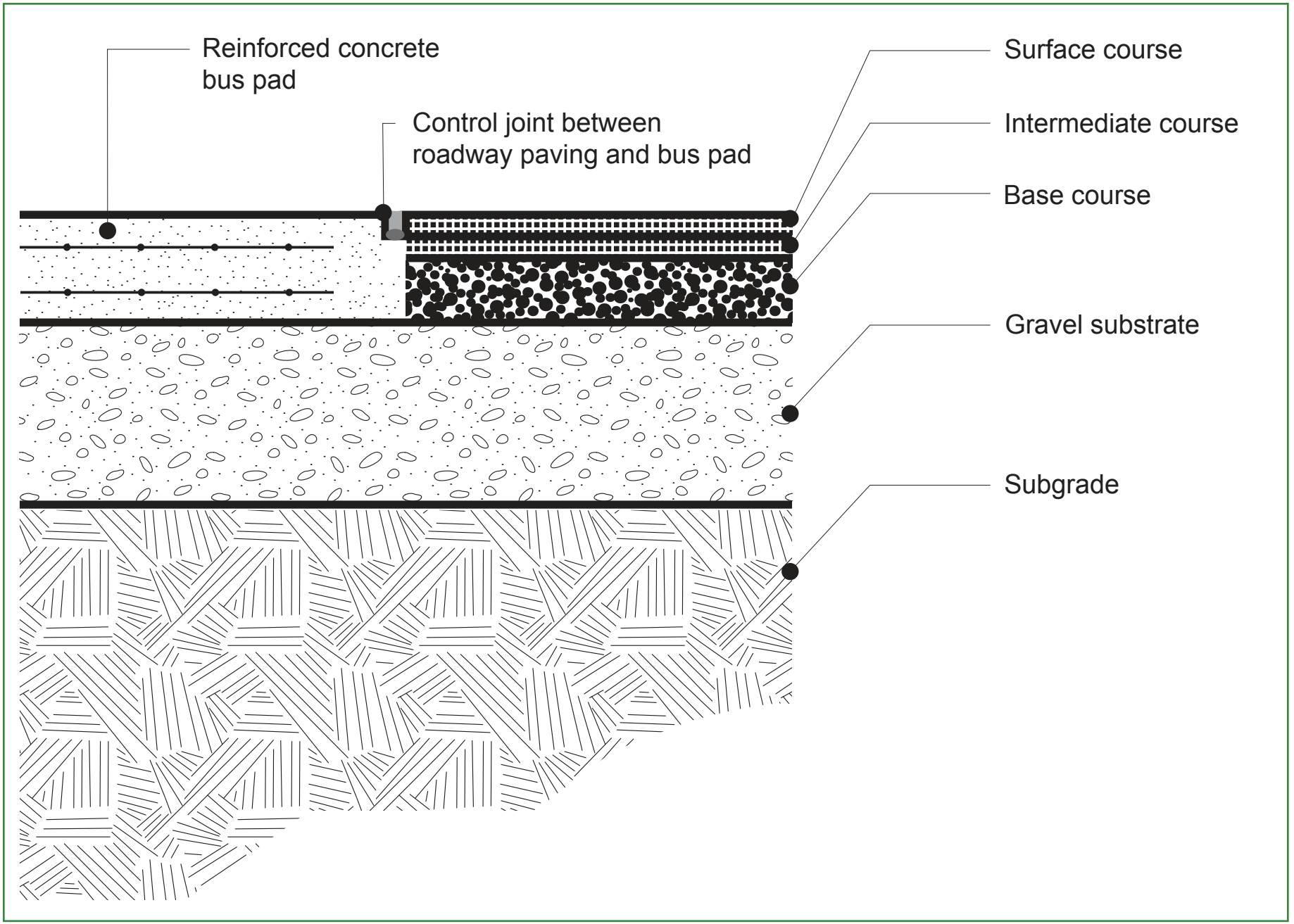
Figure B-7 illustrates what a high-quality bus stop looks like in SEPTA's network. The elements included are ideal for a high-ridership, high-transfer location at a major trip generator, such as a shopping center, major employment center, office park, or large institution (medical facilities and schools).

The City of Philadelphia has built Direct Bus stations or plazas to accommodate high-ridership and transfer locations along Roosevelt Boulevard in coordination with its Boulevard Direct limited stop service. Enhanced bus shelters (shown in Figure B-8) were designed and placed at the stop locations.

The stop elements create a more spacious environment for passengers waiting for the bus and have information about SEPTA's network. The dimensions of the Welsh Road and Rhawn Street stops on Roosevelt Boulevard were used as examples to create the dimensions and guidelines for Figure B-7. Note: providing the additions and amenities suggested in this section would not necessarily warrant direct bus service.

Appendix C: Flexible Paving Components for High-Volume Roadway

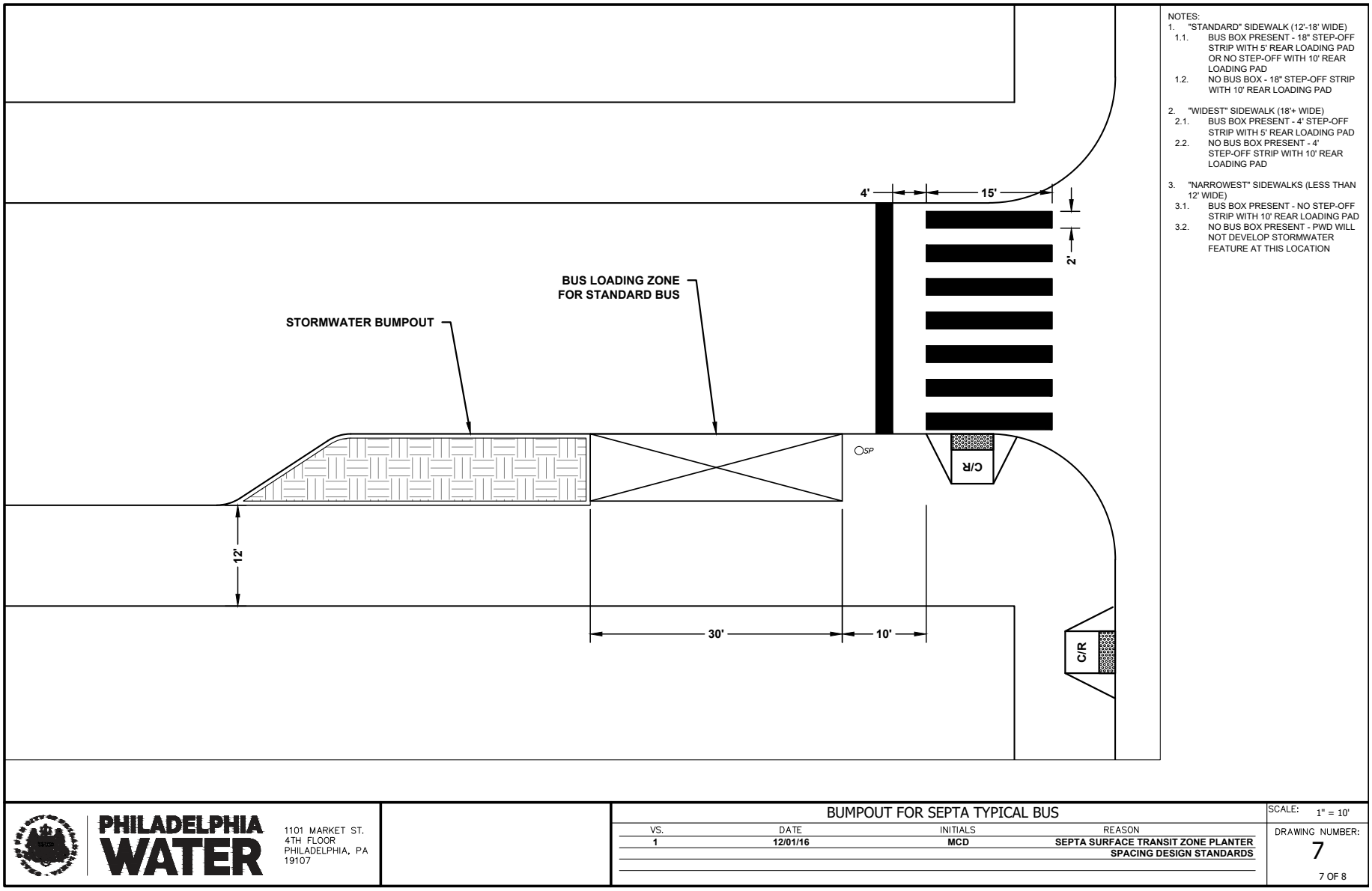
Figure C-1: Flexible Paving Components for High-Volume Roadway



Source: DVRPC (2012).

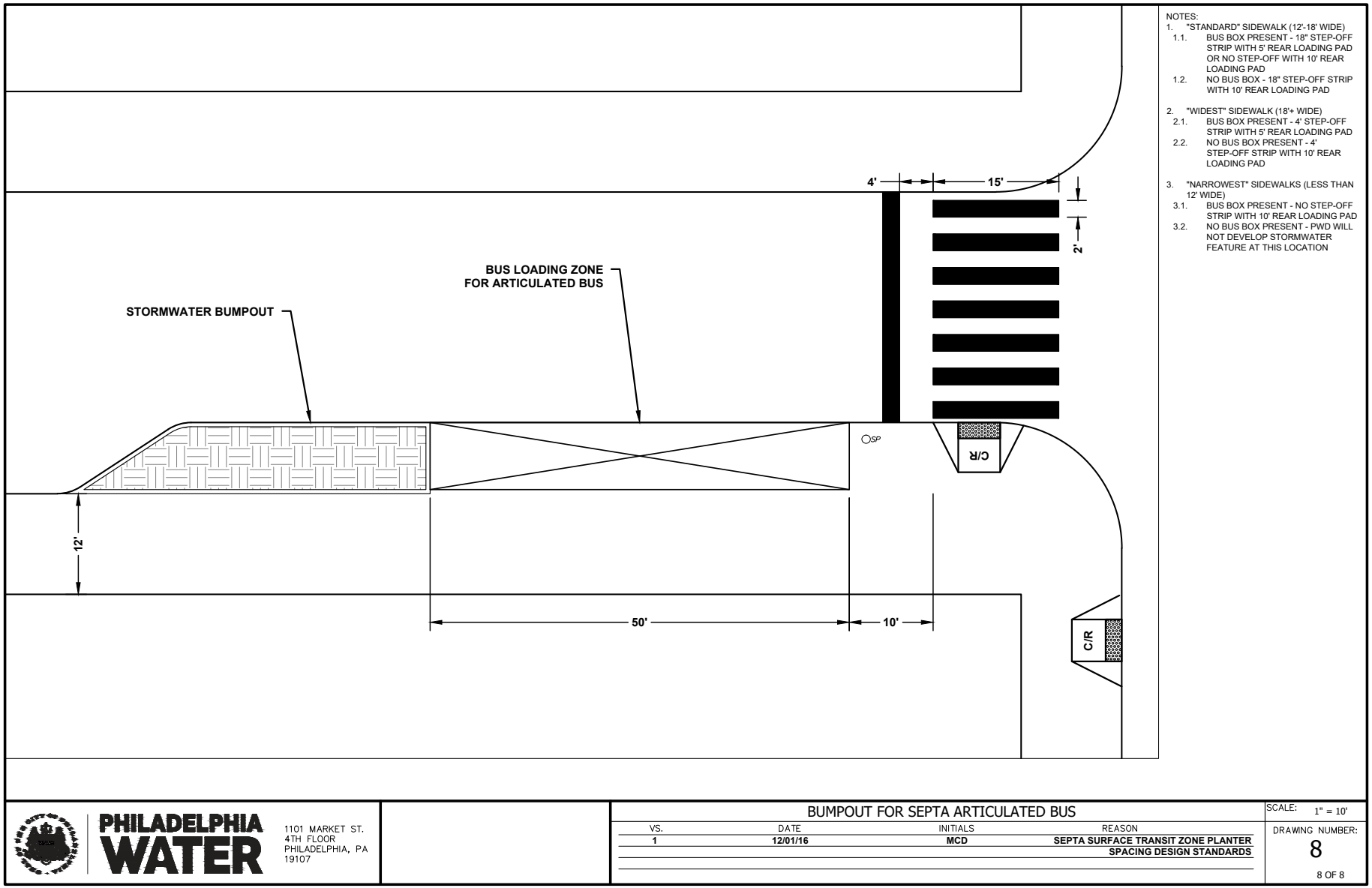
Appendix D: PWD Green Stormwater Infrastructure Bump-out Bus Stop Designs

Figure D-1: Design for Standard Bus Bump-out with GSI



Source: City of Philadelphia Water Department (2016).

Figure D-2: Design for Articulated Bus Bump-out with GSI



Source: City of Philadelphia Water Department (2016).

SEPTA Bus Stop Design Guidelines

Publication Number:

25172

Date Published:

May 2026

Abstract:

The purpose of this report is to provide municipalities in the SEPTA service area, local developers, and other local partners a consistent set of guidelines for designing surface transit stops.

Geographic Area Covered:

SEPTA Bus Network, including: Bucks County, Chester County, Delaware County, Montgomery County, and Philadelphia

Key Words:

Bus, Bus Facilities, Bus Stop, Design, Operator, Passenger, SEPTA, Southeastern Pennsylvania

Staff Project Team:

Amy Bernknopf, *Manager, Office of Transit, Bicycle, and Pedestrian Planning*
Baxter Barrett, *Transportation Planner*

Staff Contact:

Amy Bernknopf
Manager, Office of Transit, Bicycle, and Pedestrian Planning
215-238-2845
abernknopf@dvrpc.org

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

190 N Independence Mall West
8th Floor
Philadelphia, PA 19106-1520
Phone: 215-592-1800
www.dvrpc.org

Vision

A Greater Philadelphia region that provides:

- A safe, modern, multimodal **transportation** network for all
- An innovative and connected **economy** with opportunity and shared prosperity
- Healthy, walkable, and vibrant **communities**
- A preserved and restored natural **environment** with thriving ecological systems
- Clean, reliable, and affordable **infrastructure and utility services** resilient to the effects of extreme weather

Mission

As the Metropolitan Planning Organization (MPO) for Greater Philadelphia, the Delaware Valley Regional Planning Commission (DVRPC) builds consensus for a shared regional vision; enables data-based, community-centered solutions; and helps put plans into action.

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

190 N Independence Mall West
8th Floor
Philadelphia, PA 19106-1520
215-592-1800
www.dvrpc.org

Connect With Us!