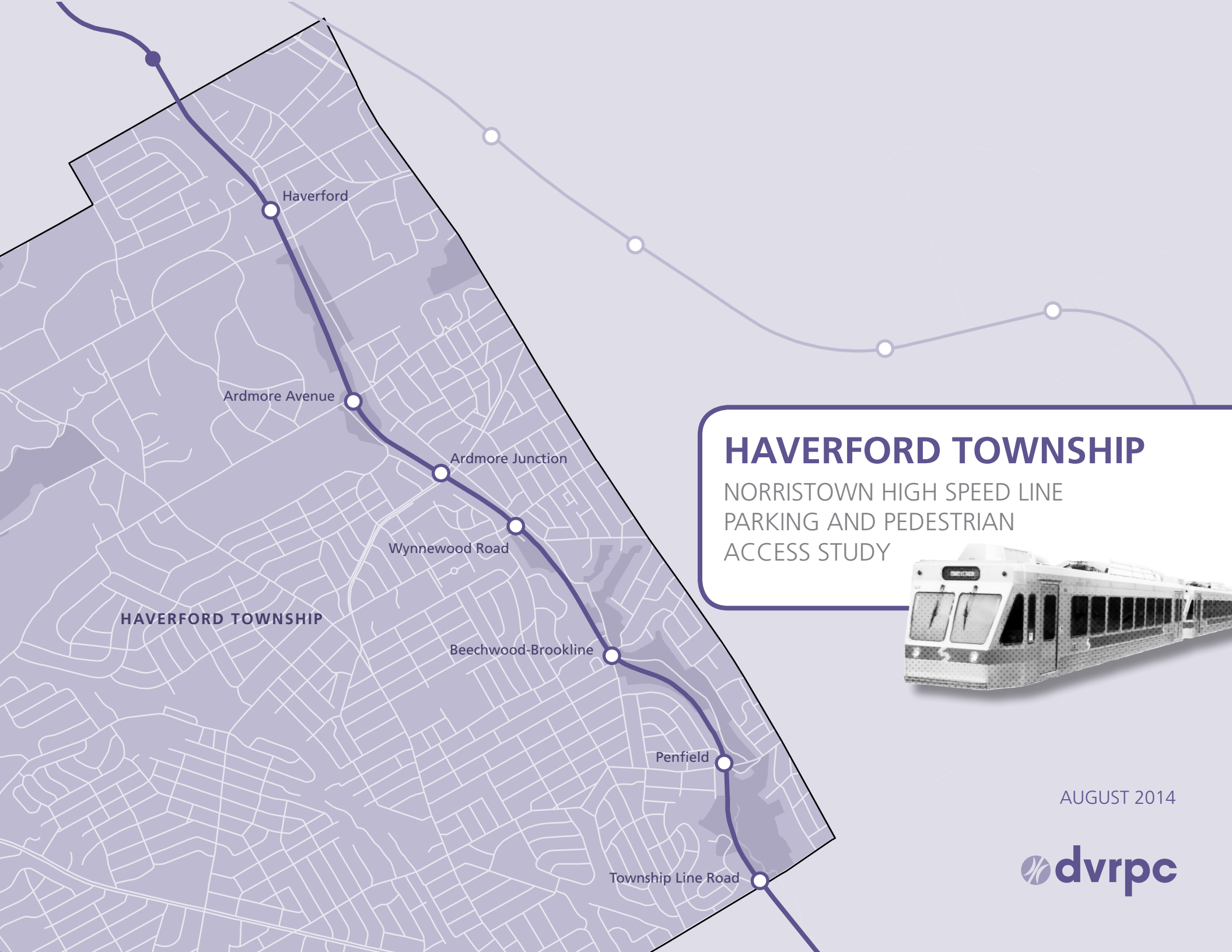

HAVERFORD TOWNSHIP

NORRISTOWN HIGH SPEED LINE PARKING AND PEDESTRIAN ACCESS STUDY

AUGUST 2014

dvrpc

The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

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Executive Summary

The Norristown High Speed Line (NHSL) is an electrified interurban train that operates between the 69th Street Transportation Center (69th Street TC) in Upper Darby, Delaware County and the Norristown Transportation Center (NTC) in Norristown, Montgomery County. The NHSL is a critical piece of our region's transportation infrastructure that plays a particularly important role in Haverford Township, home to seven of the line's 22 stations.

Currently, the NHSL carries 10,330 passengers on a typical weekday, an increase of approximately two percent since 2011. As the NHSL continues to grow in popularity, accommodating parking demand at several of Haverford's NHSL stations has been a challenge for the operators of the line, the Southeastern Pennsylvania Transportation Authority (SEPTA), and the township. Parking conflicts are felt most acutely at stations in residential neighborhoods such as Penfield and Beechwood-Brookline, where commuters using these stations often drive and park on nearby residential streets because dedicated station parking is limited.

Promoting nonmotorized access to Haverford's stations has the potential to alleviate some of the parking demand by making it easier for nearby residents to access the station on foot or by bicycle. Pedestrian and bicycle infrastructure improvements would enhance the accessibility of the township's stations.

This study was initiated by the Delaware Valley Regional Planning Commission (DVRPC), Haverford Township, SEPTA, and Delaware County to identify opportunities to increase the parking capacity of township stations while simultaneously improving multimodal access. In conjunction with these stakeholders, the DVRPC study team established the following objectives:

- Document the existing conditions at each of the seven NHSL stations in Haverford Township.
- Identify opportunities to enhance the vehicular and bicycle parking capacity of NHSL stations where space allows and where the neighborhood context is appropriate.
- Recommend strategies for improving pedestrian, bicyclist, and drop-off access to stations.
- Identify transit-supportive economic development opportunities within commercial station areas.
- Promote coordination between SEPTA staff and township and county officials regarding station-area planning.

The station area land use and transportation recommendations contained in this document provide opportunities to leverage station improvements in a way that enhances the quality of life for residents and helps officials achieve more wide-ranging township goals.

1 Introduction

The NHSL is a critical part of the Delaware Valley's regional transit infrastructure. The NHSL is an electrified interurban train that operates between the 69th Street Transportation Center in Upper Darby, Delaware County and NTC in Norristown, Montgomery County, connecting several suburban communities to the transportation and employment centers located along the line and at each terminus. The NHSL plays an especially important role in the transportation context of Haverford Township. Seven of the NHSL's 22 stations are located in Haverford, more than in any other municipality. These seven stations are a transportation asset to residents of the township and often draw commuters who park at or near stations.

Demand for parking at several of the stations exceeds supply, and residents have identified the resulting parking overflow in surrounding neighborhoods as an issue to township officials. Additionally, the lack of safe and convenient pedestrian access to some of the stations limits the ability of transit riders to walk to the station and increases parking demand. *The Haverford Township Norristown High Speed Line Parking and Pedestrian Access Study* was initiated by DVRPC to address these issues in a comprehensive way throughout Haverford Township. To fully capitalize on the benefits of having NHSL stations in Haverford Township and the accessibility to regional centers they provide, the Study's recommendations focus not only on parking and pedestrian access, but also on enhancing the quality of life near the stations. The strategies presented here take a holistic approach to station-area planning by combining parking and access improvements with recommendations designed to strengthen the sense of community within Haverford Township.

STUDY OVERVIEW

This document is the result of a planning process which began in December 2012. During the study, DVRPC's Office of Transit, Bicycle, and Pedestrian Planning worked closely with a study advisory committee (SAC) consisting of representatives from SEPTA, Haverford Township, and the Delaware County Planning Department.

In conjunction with these stakeholders, the study team established several objectives for the study:

- Document the existing conditions at each of the seven NHSL stations in Haverford Township.
- Identify opportunities to enhance the vehicular and bicycle parking capacity of NHSL stations where space allows and where the neighborhood context is appropriate.
- Recommend strategies for improving pedestrian, bicyclist, and pick-up and drop-off access to stations.

- Identify transit-supportive economic development opportunities within commercial station areas.

- Promote coordination between SEPTA staff and township and county officials regarding station-area planning.

The study primarily addresses the areas immediately adjacent to each of the seven transit stations. The study team conducted initial field visits in January 2013. In March 2013, the study team and SAC revisited each station to discuss station-area issues and potential solutions. The concepts and recommendations contained in this document were informed by this collaboration.

The analysis of stations sometimes includes an estimation of the degree to which each station's platform and parking (if available) are accessible to people with physical disabilities, as well as usable by passengers such as those carrying bicycles or pushing strollers, who may appreciate generous design allowances that favor easy walking. In this report, when station concepts and improvement recommendations refer to "ADA" it is a reference to the Americans with Disabilities Act definition which, "prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, state and local government services, public accommodations, commercial facilities, and transportation."

Some portions of Haverford Township included in this study have also been the subject of other recent DVRPC planning efforts. The *US 30 (Lancaster Avenue) Corridor Study* (Publication 11003B) was completed in December 2011 and sought to help coordinate transportation and land use planning for an 11-mile segment of US 30 that included much of the area surrounding Haverford's NHSL stations. The *Haverford Road Commercial Corridor Analysis* (February 2013, Publication 13009) focused on strategies to improve the pedestrian environment and promote the revitalization of commercial properties along the stretch of Haverford Road between the Wynnewood Road and Ardmore Junction stations. This study builds on that previous work by promoting access to transit in a way that preserves and enhances community character.

The remainder of this chapter provides background information on the NHSL and broadly defines the land use and connectivity context of the Haverford stations. Chapters two through eight contain profiles of each of the seven Haverford stations. Each chapter establishes the planning context for a station area and includes concepts and strategies designed to enhance access and parking capacity. These chapters conclude with a table summarizing the roles and responsibilities of key stakeholders in implementing station-area recommendations. Finally, chapter nine addresses the prioritization of recommendations across the township and provides guidance on steps toward implementation.

NHSL OVERVIEW

Formerly known as Route 100, the NHSL is a high-speed, third-rail service operated by SEPTA. The NHSL began service in 1907 as the Philadelphia and Western Railroad. Today, the NHSL includes 22 stations spread across seven municipalities in Delaware and Montgomery counties (see Figure 1). On a typical weekday in 2013, the NHSL carries over 10,300 passengers.

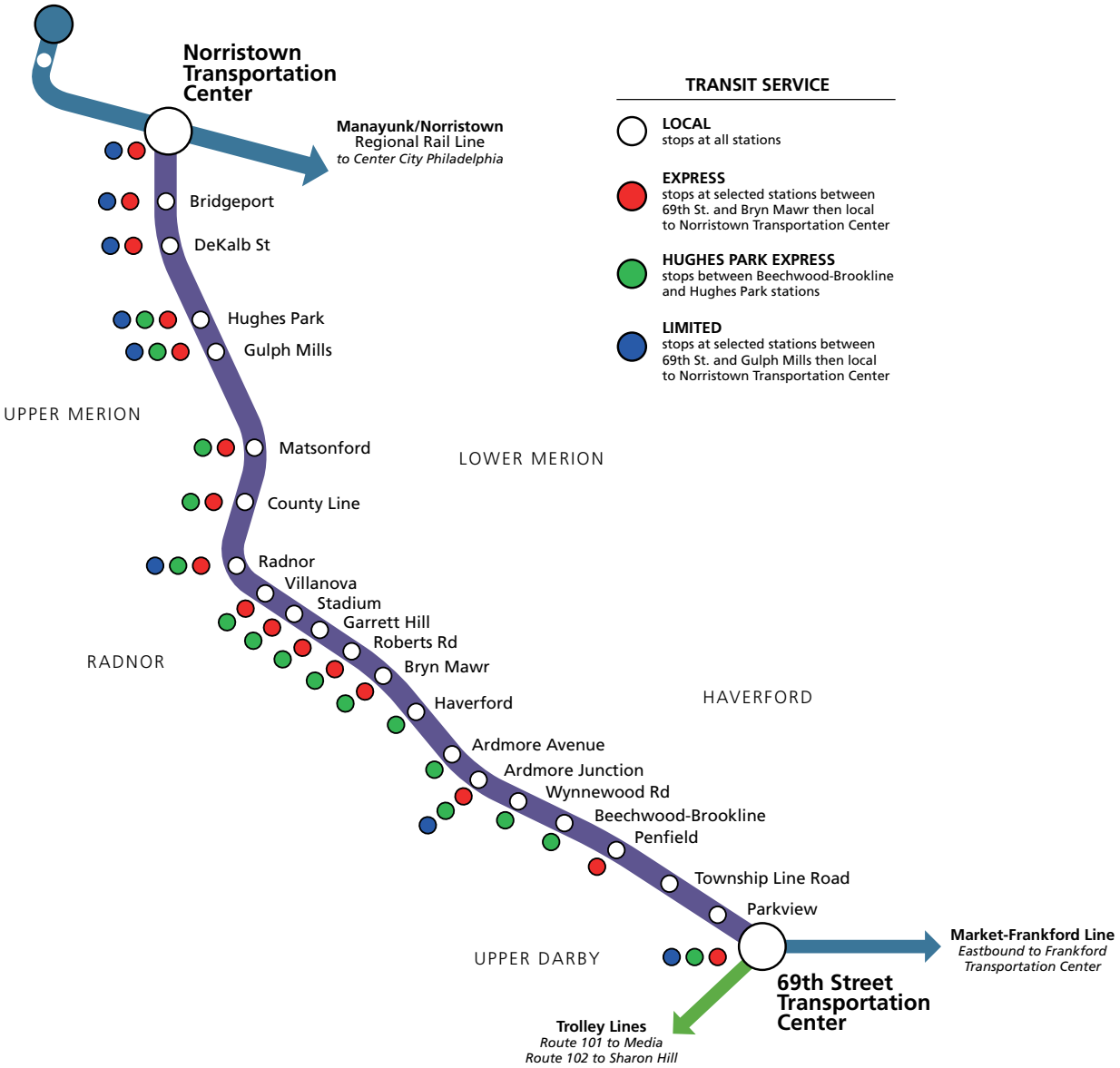
Connections are available at the 69th Street TC to numerous SEPTA bus and trolley routes, as well as the Market-Frankford Line which provides service to Center City Philadelphia. At NTC, transfers are available to SEPTA bus routes, the Manayunk/Norristown Regional Rail Line, and intercity bus service provided by Bieber Tourways and Greyhound.

The NHSL has four distinct service patterns (identified in Figure 1): Local, Express, Hughes Park Express, and Limited. Travel times between termini range from 23 to 36 minutes, depending on time of day and route variation. Weekday service is offered from just before 5 AM until 2 AM the following day with headways typically ranging from 15 to 30 minutes.

The importance of the NHSL may continue to grow in the coming years. SEPTA has undertaken an Alternatives Analysis and Draft Environmental Impact Statement Planning Study for the extension of the NHSL to King of Prussia. The study will analyze different routing options for the rail extension to the King of Prussia Mall and King of Prussia Business Park and begin the federal environmental approval process. In addition to alleviating traffic congestion in King of Prussia, the extension project has the potential to increase ridership and promote economic development in the vicinity of the proposed station stops, and potentially to existing stations along the line.

In June 2013, Haverford Township hosted the U.S. Golf Association Golf Open (the "Open"). During the Open, service along the NHSL far exceeded expectations and, because of the line's capacity to safely and efficiently manage the influx of a tremendous amount of passengers, it became the go-to mode of transportation during the Open. The success of the NHSL during the Open and the possibility of expansion suggest that the line will play an increasingly important role in the region.

FIGURE 1: NHSL STATIONS



SOURCE: DVRPC using SEPTA information

STATION-AREA TYPOLOGIES

Along its 13.4-mile route, the NHSL passes through a variety of land use and environmental contexts. Some stations are located in busy urban areas that serve as regional employment and transportation centers, while others are located in residential neighborhoods where the NHSL provides a convenient option for nearby commuters.

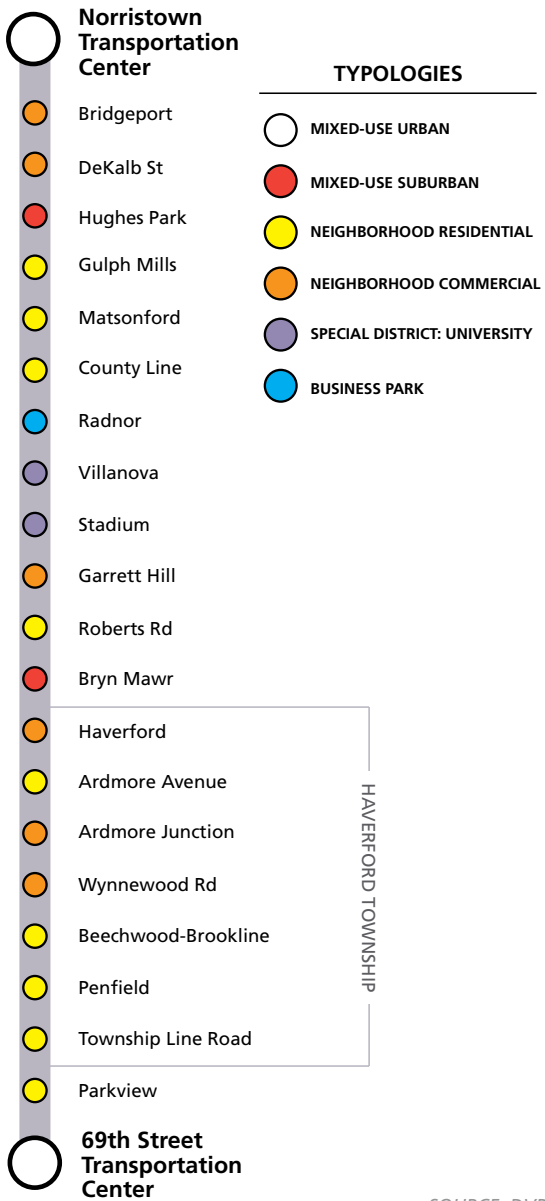
Several NHSL stations share similar characteristics related to location, design, access, and land use context. These characteristics can be used to classify NHSL station areas into one of six typologies: mixed-use urban, mixed-use suburban, neighborhood residential, neighborhood commercial, special district: university, and business park. These generalized typologies, depicted in Figure 2, can be used to help planners, citizens, and elected officials quickly and easily understand the context of each station area.

Two stations, NTC and 69th Street TC, are classified as *mixed-use urban* because of their location in high-density regional centers. The *mixed-use suburban* station areas, Hughes Park and Bryn Mawr, also contain a mix of commercial, residential, and community uses at a smaller, less dense scale.

The majority of NHSL stations (15) have been classified as *neighborhood residential* or *neighborhood commercial*. Both typologies refer to stations that are located in primarily residential areas. Neighborhood commercial areas include a variety of commercial uses that serve the surrounding communities. Neighborhood residential areas are often distinguished by the presence of recreation or open-space resources in close proximity to the station.

The Villanova and Stadium stations are located on the campus of Villanova University. These *special district: university* stations primarily serve the university community. Finally, Radnor Station is classified as a *business park* because of its location adjacent to several business and medical complexes.

FIGURE 2: NHSL STATION TYPOLOGIES



SOURCE: DVRPC

HAVERFORD TOWNSHIP

Similar to the line as a whole, Haverford Township stations are also classified as neighborhood residential and neighborhood commercial. Haverford Township contains four station areas classified as neighborhood residential: Township Line Road, Penfield, Beechwood-Brookline, and Ardmore Avenue. These stations are largely defined by their residential character. The NHSL enters Haverford Township at Township Line Road. The Township Line Road Station is located adjacent to a small office building, single-family homes, and a portion of Cobbs Creek Park under the jurisdiction of the Fairmount Park System. The Penfield and Beechwood-Brookline stations are also located along portions of the Cobbs Creek greenway and are entirely surrounded by residential development. Ardmore Avenue, the sixth station in Haverford, is located approximately 400 feet southwest of Haverford Road, adjacent to the Merion Golf Club which is set in a residential area.

The three remaining Haverford stations are classified as neighborhood commercial because of their location in or near township business districts. The Ardmore Junction and Wynnewood Road stations are located roughly 0.4 miles apart along Haverford Road. Both stations are highly visible presences along a commercial portion of the Haverford Road corridor that extends from Loraine Avenue to Karakung Drive. The Haverford station is the northernmost station in the township. It is located on Haverford Avenue in an area that includes a multi-tenant office building and a series of small professional offices.

Figure 3 shows the land use context in Haverford. The map illustrates the changes in land use between commercial, residential, and wooded areas along the NHSL, and was used along with staff knowledge of the station areas to create the NHSL Station Typologies.

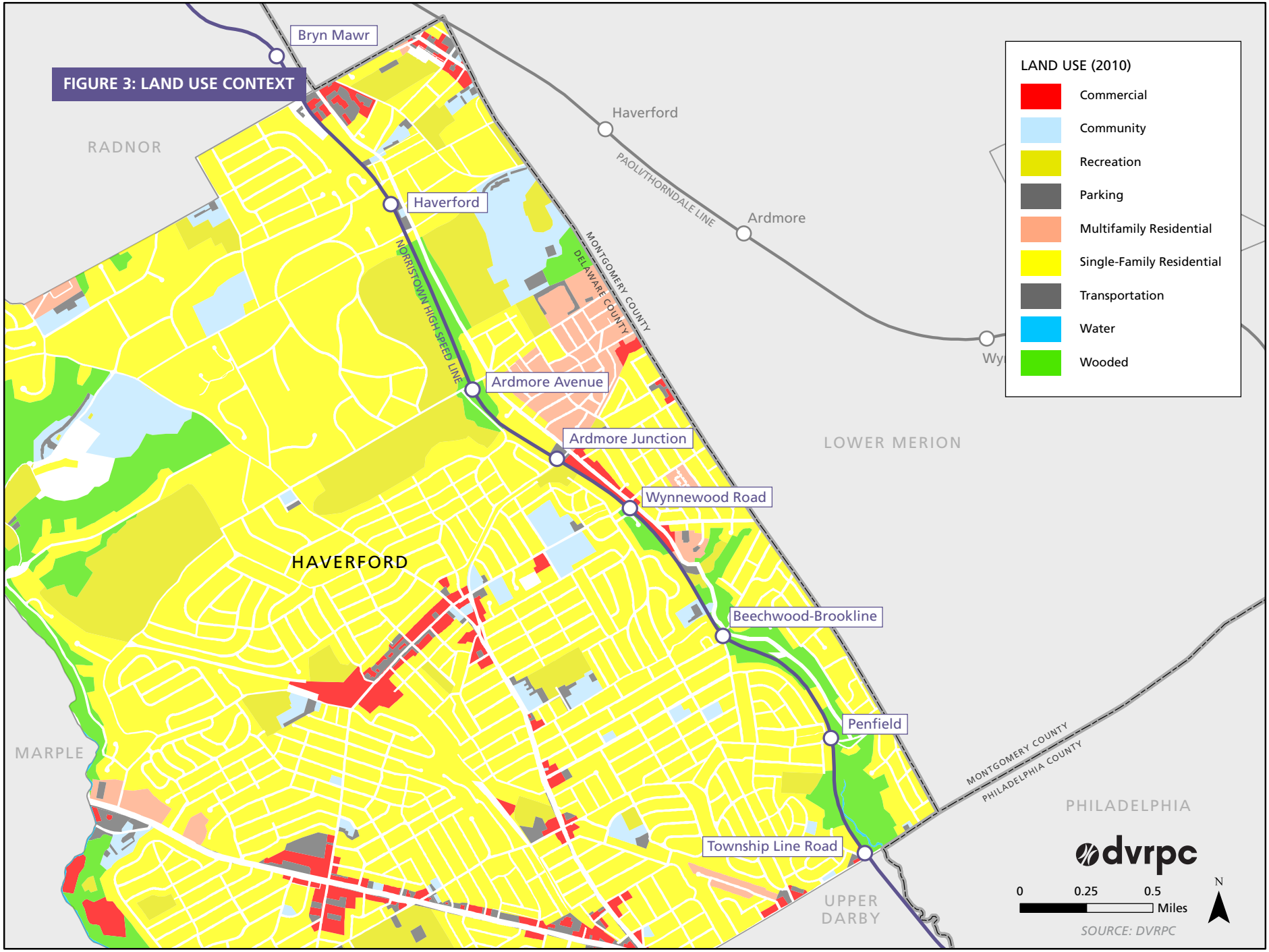
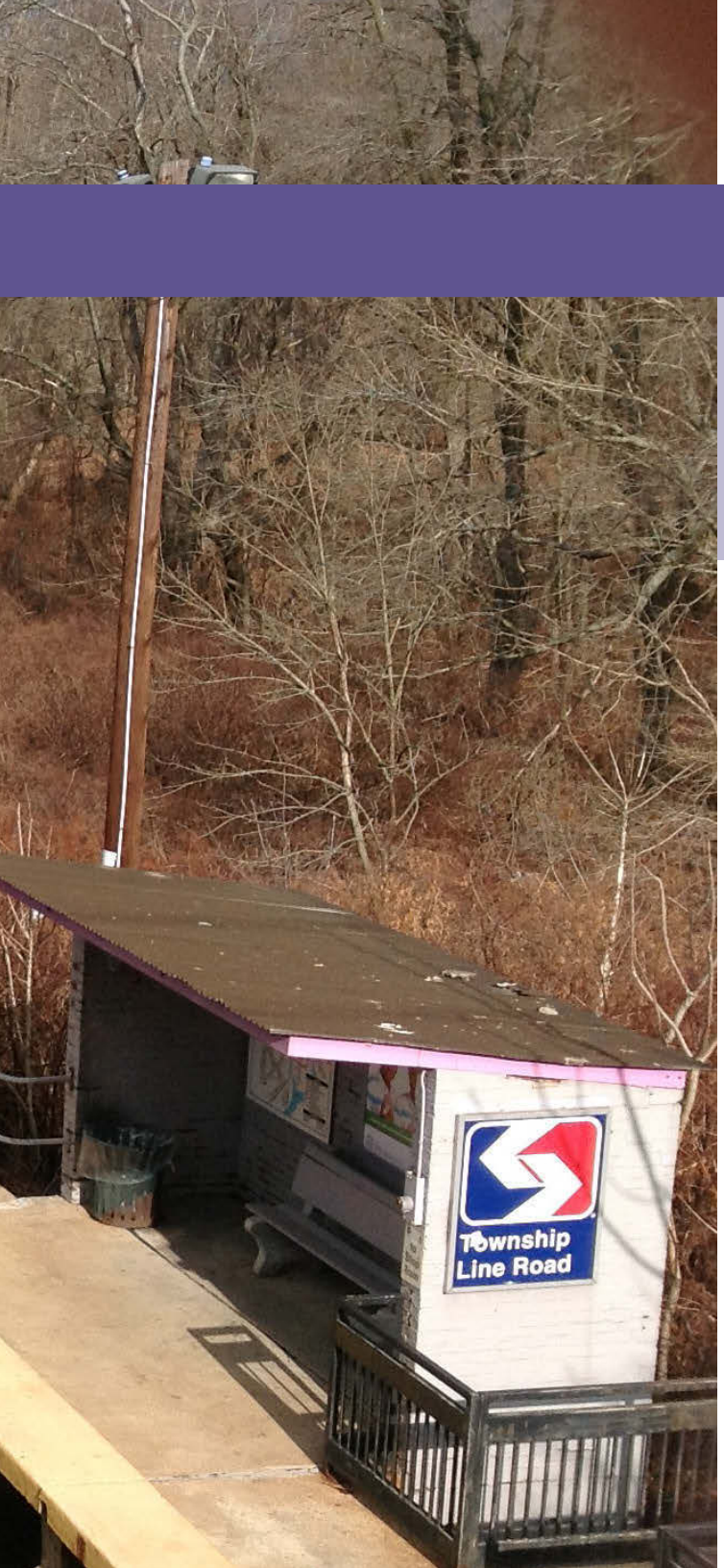


FIGURE 3: LAND USE CONTEXT
LAND USE (2010)
Commercial
Community
Recreation
Parking
Multifamily Residential
Single-Family Residential
Transportation
Water
Wooded
Bryn Mawr
Haverford
Ardmore
Ardmore Avenue
Ardmore Junction
Wynnewood Road
Beechwood-Brookline
Penfield
Township Line Road
RADNOR
HAVERFORD
LOWER MERION
MARPLE
UPPER DARBY
PHILADELPHIA
PAOLI/THORNDALE LINE
NORRISTOWN HIGH SPEED LINE
MONTGOMERY COUNTY
DELAWARE COUNTY
MONTGOMERY COUNTY
PHILADELPHIA COUNTY
dvrpc
0 0.25 0.5 Miles
N
SOURCE: DVRPC

2 Township Line Road

A lack of bicycle and pedestrian facilities; dedicated commuter drop-off area; and SEPTA-designated parking restrains ridership expansion at the station.



Station Characteristics

SERVICE: LOCAL
TOTAL BOARDS: 37
COMMUTER PARKING (SEPTA): 0
COMMUTER PARKING (OBSERVED ON-STREET): 15
ADA ACCESS: NO
TRANSFERS: SEPTA ROUTES 103, 31

P **41%** of commuters park at or near the station

Existing Conditions

PHYSICAL SETTING

Township Line Road Station is situated at the southern edge of Haverford Township on the corner of Township Line Road and Grove Place. The station is the first outbound NHSL station in Haverford Township and is situated along a commercial principal arterial corridor. The station is not visible from Township Line Road because it is located approximately 20 feet below grade. The existing conditions of the station area are illustrated in Figure 4.

Currently, the station is incorrectly signed as "West Overbrook" (a station name no longer in use) which may be confusing for riders. ADA access is inadequate at this station due to the steep, stair-only access.

"Push to Stop Train" buttons can be found on either side of Township Line Road, which passengers can use to notify the train driver of their presence without standing on the platform.

LAND USE

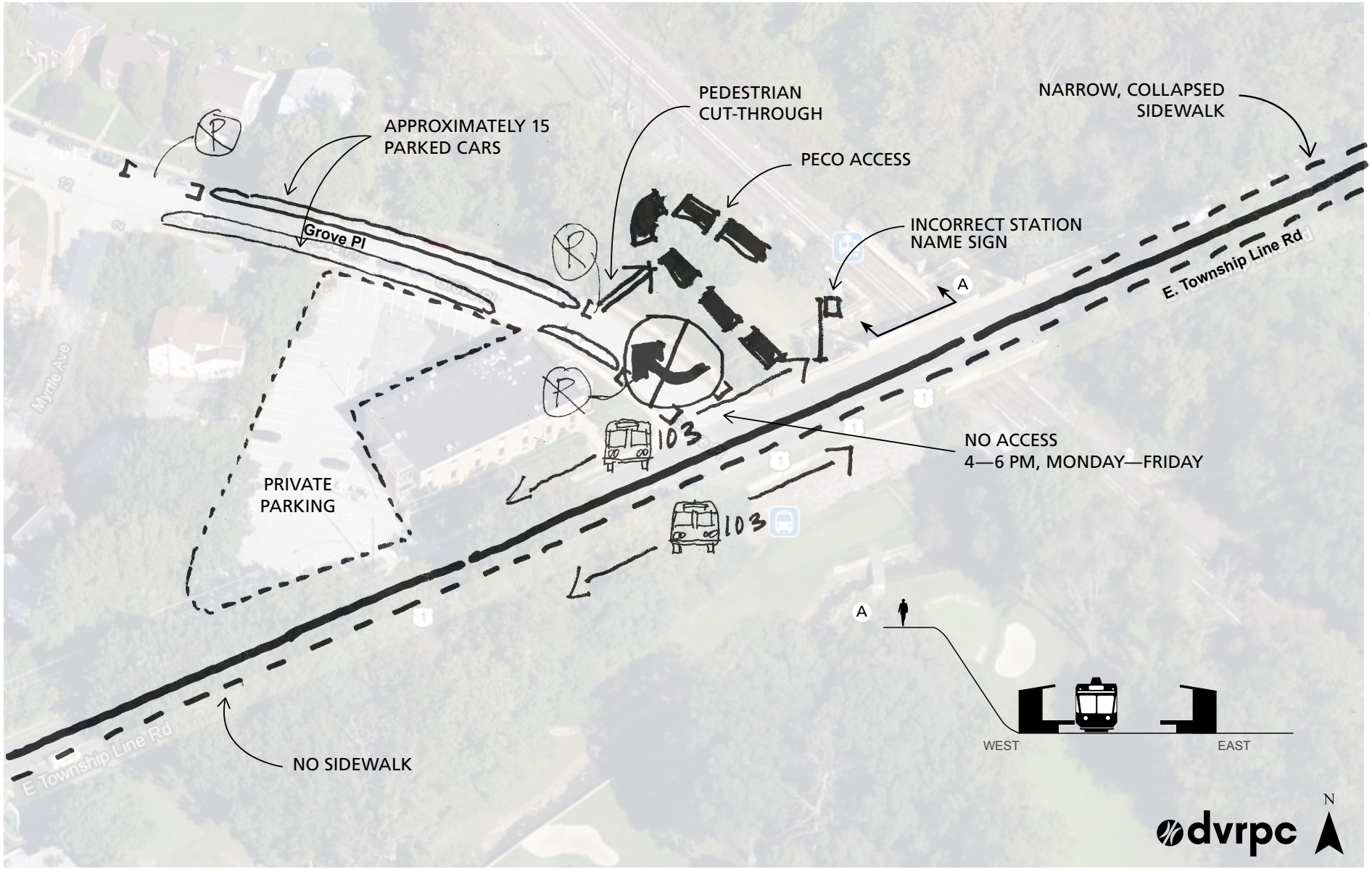
The station is bordered to the south by Cobbs Creek Park, part of the Fairmount Park system. The area north and west of the station has a mix of single-family residential and commercial uses. Nearby commercial development consists of an office building at the intersection of Grove Place and Township Line Road and a motel on Township Line Road, southwest of the station.

TRANSIT

Township Line Road Station has the lowest number of boards of the seven Haverford Township NHSL stations. Of the four types of service along the NHSL, there is only local service at this station.

- Train service hours outbound to NTC operate between 4:23 AM to 1:48 AM and inbound to 69th Street TC from 5:17 AM and 2:38 AM.
- Travel time is 3 minutes to 69th Street TC and 27 minutes to NTC.
- Headways vary at this station: 8 to 15 minutes during morning and afternoon peaks, respectively, 20 to 30 minutes during off-peak hours, and up to 80 minutes after midnight.

FIGURE 4: TOWNSHIP LINE ROAD EXISTING CONDITIONS



AERIAL SOURCE: GOOGLE MAPS

Bus stops for Routes 103 and 31 are located within walking distance to the station; however, no signage exists to alert passengers of these possible connections. The lack of amenities—such as bus stop shelters, streetscape furnishings (benches), or sidewalks and crosswalks for passengers to access the station location—makes transit stops difficult to discern.

- The Route 103 stop is located across from the intersection of Grove Place and Township Line Road and the route travels between Ardmore and the 69th Street TC.
- The Route 31 stop is located at City Avenue and N. 77th Street (a distance of about half a mile) and connects to Center City and City Hall.

ROADWAY NETWORK

Township Line Road is a Pennsylvania Department of Transportation (PennDOT)-owned and operated designated principal arterial that delineates the border between Haverford and Upper Darby townships. Township Line Road is a four-lane road with no shoulder throughout the study area. Grove Place is a local road that serves as the drop-off and pick-up location for passengers, although there are vehicle access restrictions from 4 to 6 PM on weekdays. Vehicles accessing the station from Township Line Road likely navigate through local and residential streets in order to get back onto a major roadway—a potentially unwanted scenario for residents of this neighborhood.

PEDESTRIANS

The station can be accessed by pedestrians from Township Line Road via stairs, the paved PECO access road, and from Grove Place via a shortcut unpaved path through a vegetated hillside. The north side of Township Line Road has narrow and uneven sidewalks that stop east of the bridge. The south side of the road has no sidewalks. PennDOT's Township Line bridge construction project, underway during the study process, will include installation of a 3'-4" to 6'-0" sidewalk on the north side of Township Line Road and a 5'-0" sidewalk on the south side of the road, on the structure only.

BICYCLES

There are no bicycle racks at the station or in proximity.

PARKING

With no dedicated SEPTA or Haverford Township-owned parking, commuters driving to the station are limited to on-street parking on Grove Place. Neighbors along Grove Place have expressed concern that cars, presumably belonging to NHSL commuters, park in front of their homes for extended periods. During field observations, the DVRPC study team found approximately 15 vehicles parked along Grove Place. Only two of these 15 cars were parked in front of a residence. Grove Place has "no parking" signs posted near the intersection with Township Line, and additional signs in front of one residence where parking is restricted to residents only on weekdays from 8 AM to 4 PM. The office building at 700 E. Township Line Road has a large private parking lot. During multiple field observations the parking lot was not completely occupied.

Despite the parking constraints, Township Line Road has the highest percent of passengers who park at the station (41 percent) relative to the other six NHSL stations located in Haverford Township. This is likely because the station lacks a formal drop-off and pick-up area, pedestrian amenities, and the residential density of some other station areas.

Station Objectives

To create the designs and recommendations for Township Line Road Station concepts, the study team focused on five objectives for the station area:

- Create designated areas for SEPTA commuter parking.
- Formalize passenger drop-off and pick-up.
- Physically and visually link the NHSL to area bus stops.
- Improve the customer experience while waiting for transit.
- Increase the visibility of the station from Township Line Road.

Centered on these objectives, the study team developed three concepts for Township Line Road Station. Each of the three concepts creates new parking, and pedestrian, bicycle, and waiting area accommodations for transit riders but executes the objectives in a slightly different way and to varying degrees of scale and expense.

Recommendations

CONCEPT A

Concept A (Table 1, Figure 5) focuses on providing dedicated parking for NHSL riders and a formal drop-off location along Grove Place. The area currently used for parallel parking on Grove Place is reconfigured to provide approximately eight back-in angled spaces. A passenger drop-off area is created just south of the parking spaces through the use of curb bumpouts. The combination of these changes requires the purchase of private property and the construction of retaining walls to accommodate the elevation changes between Grove Place and the NHSL right-of-way.

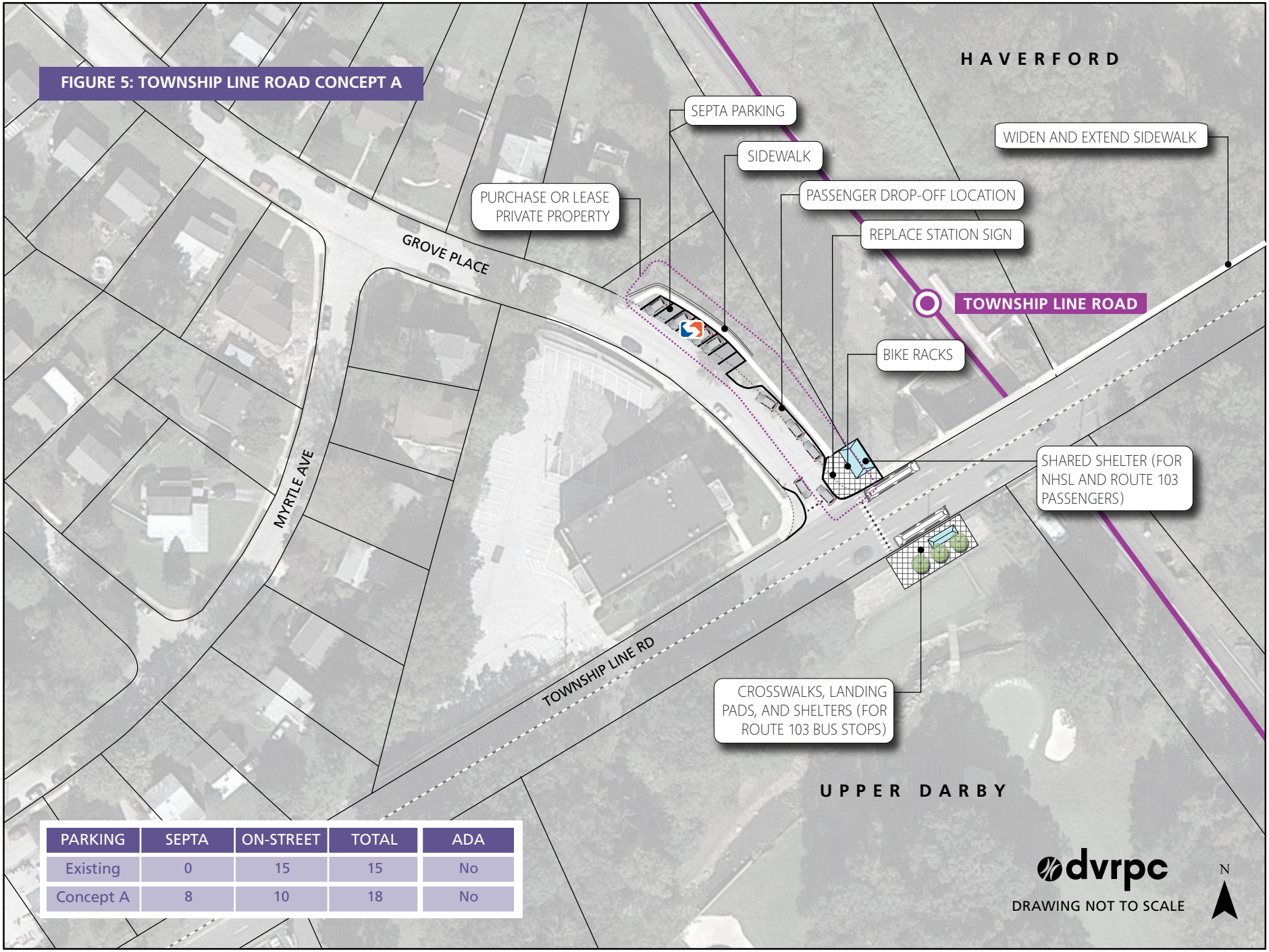
TABLE 1: TOWNSHIP LINE ROAD CONCEPT A IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Replace incorrect station sign	Station	Short	$
	Install bike racks on west side of station	Pedestrians and Bicyclists	Medium	$
	Construct new shared transit shelters and loading pads on Township Line Road	Station	Medium	$$$
HAVERFORD TOWNSHIP	Lift turning restrictions onto Grove Place	Circulation	Short	$
	Stripe crosswalks at Township Line Road and Grove Place intersection	Pedestrians and Bicyclists	Medium	$
	Reconfigure on-street parking to back-in angled parking (requires private property purchase, earthwork, and retaining walls)	Parking	Medium	$$$
	Create curbside passenger drop-off area (requires private property purchase, earthwork, and retaining walls)	Station	Medium	$$$
PENNDOT	Widen and extend sidewalk on north side of Township Line Road	Pedestrians and Bicyclists	Medium	$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired

FIGURE 5: TOWNSHIP LINE ROAD CONCEPT A



PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	0	15	15	No
Concept A	8	10	18	No

AERIAL SOURCE: GOOGLE MAPS

CONCEPT B

In Concept B, (Table 2, Figure 6), recommendations focus on a reconfiguration of existing on-street parking and drop-off on Grove Place to a circular drop-off. The new construction also includes a bumpout to deter vehicles dropping passengers off and driving through the neighborhood. Similar to Concept A, building the drop-off reconfiguration would require the purchase of private property and the construction of retaining walls due to the grade changes. Due to the loss of on-street parking, the study team suggests that SEPTA investigate leasing parking spaces from the commercial building on Township Line Road.

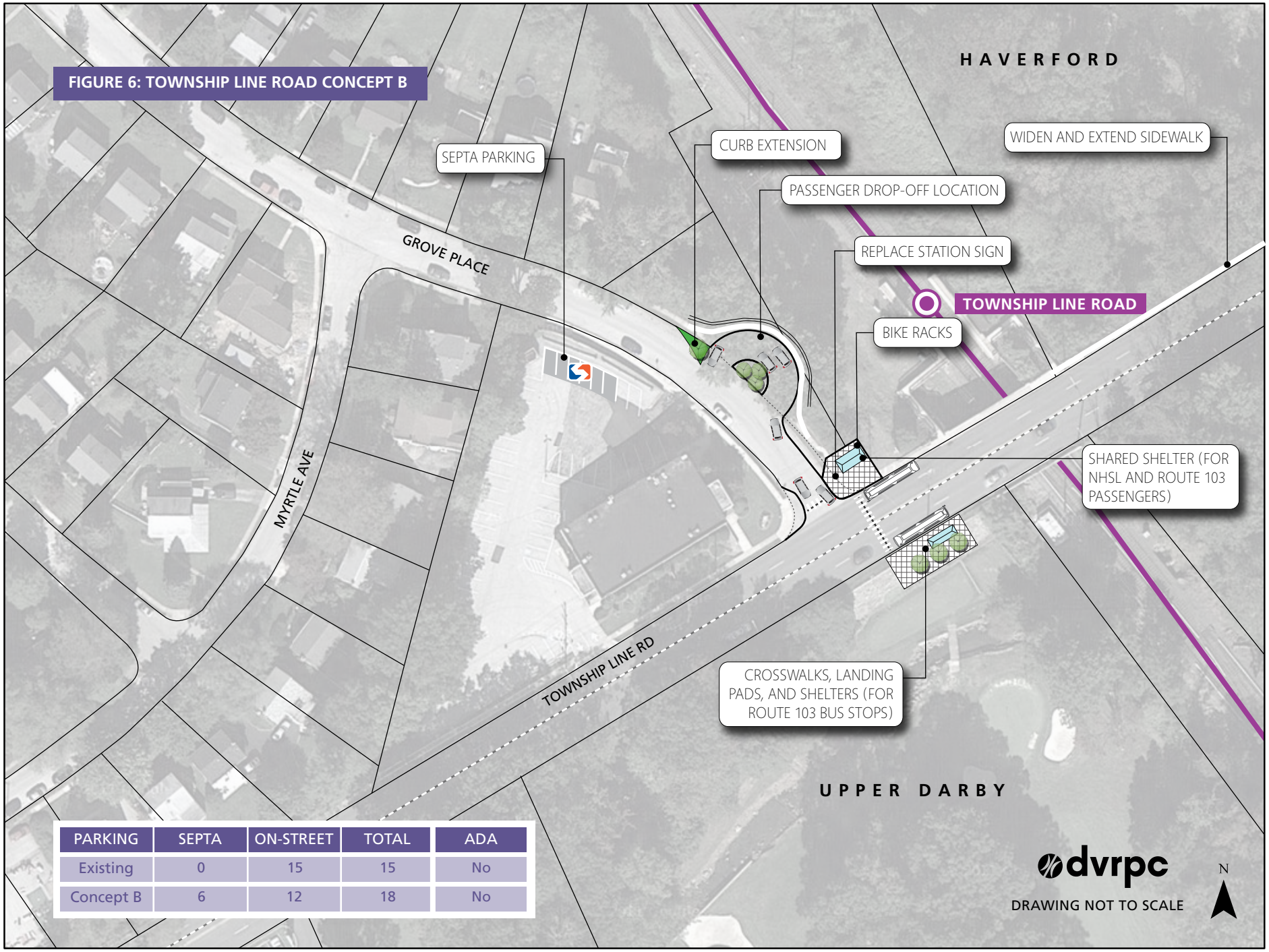
TABLE 2: TOWNSHIP LINE ROAD CONCEPT B IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Replace incorrect station sign	Station	Short	$
	Lease additional parking spots from 700 E. Township Line for SEPTA-designated parking	Parking	Short	$$$
	Construct new circular passenger drop-off area (requires private property purchase, earthwork, and retaining walls)	Station	Medium	$$$
	Construct transit shelters and loading pads on Township Line Road	Station	Medium	$$$
	Install bike racks on west side of station	Pedestrians and Bicyclists	Medium	$$
HAVERFORD TOWNSHIP	Lift turning restrictions onto Grove Place	Circulation	Short	$
	Stripe crosswalks at Township Line Road and Grove Place intersection	Pedestrians and Bicyclists	Medium	$
PENNDOT	Replace and extend sidewalk on north side of Township Line	Pedestrians and Bicyclists	Medium	$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired

FIGURE 6: TOWNSHIP LINE ROAD CONCEPT B



PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	0	15	15	No
Concept B	6	12	18	No

AERIAL SOURCE: GOOGLE MAPS

Concept C

Concept C (Table 3, Figure 7) is a long-term strategy to purchase the office building at 700 E. Township Line Road and construct a SEPTA park-and-ride drop-off area. This new transportation hub could include a SEPTA commuter parking lot, a roundabout-type drop-off location, improved transit shelters, and a pedestrian connection to the Route 103 bus stops and NHSL platforms. This type of investment at the station would work in tandem with more frequent express service at Township Line Road Station.

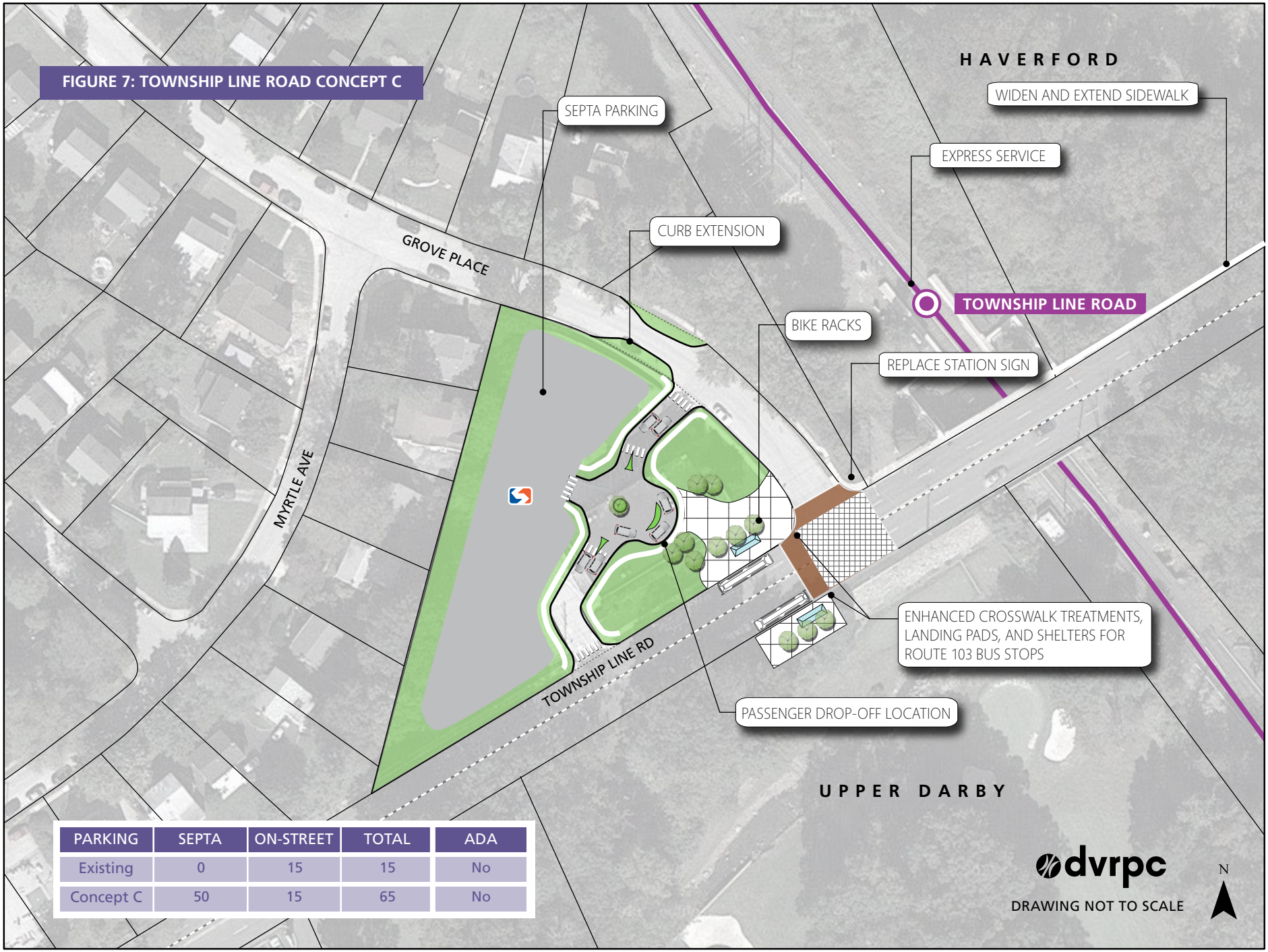
TABLE 3: TOWNSHIP LINE ROAD CONCEPT C IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Replace incorrect station sign	Station	Short	$
	Initiate express service from Township Line Road Station	Station	Medium	$
	Install bike racks within transit plaza	Pedestrians and Bicyclists	Medium	$
	Purchase 700 E. Township Line Road for SEPTA-designated parking	Parking	Medium	$$$
	Construct transit plaza with shelters, loading pads, landscaping, and a drop-off area on Township Line Road	Station	Medium	$$$
	Purchase, operate, and maintain commercial property for transit use	Station	Ongoing	$$$
HAVERFORD TOWNSHIP	Lift turning restrictions onto Grove Place	Circulation	Short	$
	Install intersection paving at Township Line Road and Grove Place intersection	Pedestrians and Bicyclists	Medium	$$
PENNDOT	Replace and extend sidewalk on north side of Township Line	Pedestrians and Bicyclists	Medium	$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired

FIGURE 7: TOWNSHIP LINE ROAD CONCEPT C



PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	0	15	15	No
Concept C	50	15	65	No

AERIAL SOURCE: GOOGLE MAPS

3 Penfield

High ridership and a high demand for commuter parking are infringing on nearby residential parking and mobility along Manoa Road.

Station Characteristics

SERVICE: LOCAL/EXPRESS
TOTAL BOARDS: 230
COMMUTER PARKING (SEPTA): 35
COMMUTER PARKING (OBSERVED ON-STREET): 29
ADA ACCESS: PARTIAL
TRANSFERS: NONE

28% of commuters park at or near the station

48% of parkers travel less than 1 mile to the station

6% of parkers travel more than 3 miles to the station

Existing Conditions

PHYSICAL SETTING

Penfield Station is located in a residential neighborhood and is the second outbound NHSL station in Haverford Township.

At this station, the platforms are not ADA accessible. On the west side platform (inbound), there is a dedicated handicapped parking spot but no curb ramp. The steep grade makes the east side of the platform inaccessible to ADA travelers. The existing conditions of the station area are illustrated in Figure 9.

LAND USE

The land use context is primarily single-family residential, with open space along Cobbs Creek and Karakung Drive. The area is relatively built out. The open space nearby is actively used for recreation.

TRANSIT

Penfield Station is the second busiest station in Haverford Township; only Ardmore Junction has more boards and alights. Passengers are likely drawn because it offers more frequent headways with both local and express service than other local-only stations provide.

- Service runs outbound from Penfield Station to NTC from 4:24 AM to 1:49 AM, and inbound to the 69th Street TC from 5:16 AM to 2:37 AM.
- Travel time is 4 minutes to 69th Street TC and 26 minutes to NTC.
- Headways vary from 8 to 15 minutes during AM and PM peaks, 10 to 30 minutes during off-peak hours, and 80 minutes after midnight.

ROAD NETWORK

Penfield Station is located on Manoa Road, between Lawson Avenue and Old Manoa Road. Manoa Road has two lanes and no shoulder, making it an insufficient location for passenger drop-off and pick-up. In addition, vehicles that are passing under the low clearance of the NHSL bridge along Manoa Road have restricted visibility.

On Lawson Avenue, a local street bordering the 69th Street outbound station side, traffic moves slowly as vehicles maneuver three 90-degree turns and a steep change in grade.

Just east of the station, Karakung Drive serves as a recreational open space for residents. The roadway is closed to vehicular traffic, serving only pedestrians and cyclists on Sundays from May to October.

PEDESTRIANS

The roadways surrounding the Penfield Station area have a partially connected sidewalk network. The north side of Manoa Road has complete sidewalks, while the south side has sidewalks only in the area to the east, near newly installed, on-street parking. The sidewalk on Manoa Road ends at the intersection with Old Manoa, and there are no crosswalk connections for pedestrians to the sidewalks on the north side of the road that serves as an access point to the NHSL station. Lawson Avenue has no sidewalk alongside the on-street parking used by NHSL passengers; therefore, park-and-ride passengers must walk within the roadway or on the grass to access the station.

BICYCLES

The station has a bicycle rack on the Lawson Avenue side, but its poor installation decreases the parking capacity of the rack. Cyclists may only park their bikes on one side of the rack due to its proximity to a station wall. There is also a bicycle rack installed in the green space between the rail line and Karakung Drive.

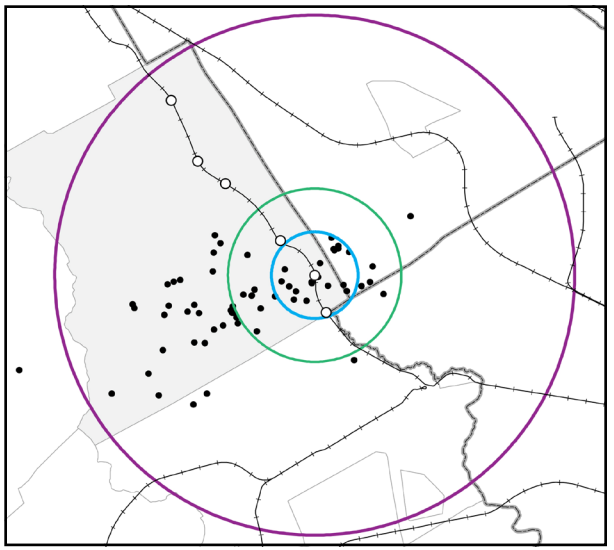
PARKING

The station does not provide SEPTA-designated vehicular parking for NHSL passengers, but there are many on-street parking opportunities within the vicinity of the station. DVRPC staff observed 64 on-street parking spots likely to be occupied by NHSL passengers, with the majority parking on Lawson Avenue.

Approximately half of the observed commuter vehicles park in Township-owned front-in, parallel parking spots, including one ADA parking space, located on Lawson Avenue adjacent to the inbound platform. Additional on-street parking was installed by Haverford Township along Manoa and Old Manoa Roads for NHSL passenger park-and-ride use. The majority of the parking is either not located in front of residences, or, as in the case of Old Manoa Road, across the street from residences that have personal garages and driveways.

Penfield Station has an average percentage of passengers parking at the station (28 percent) relative to the other six NHSL stations located in Haverford Township. A station shed analysis (Figure 8) completed in GIS found that almost half (48 percent) of all parked commuters are coming from only one-mile or less to park at the station—those are commuters who, if given safe, attractive facilities, could walk or bicycle to the station instead of driving.

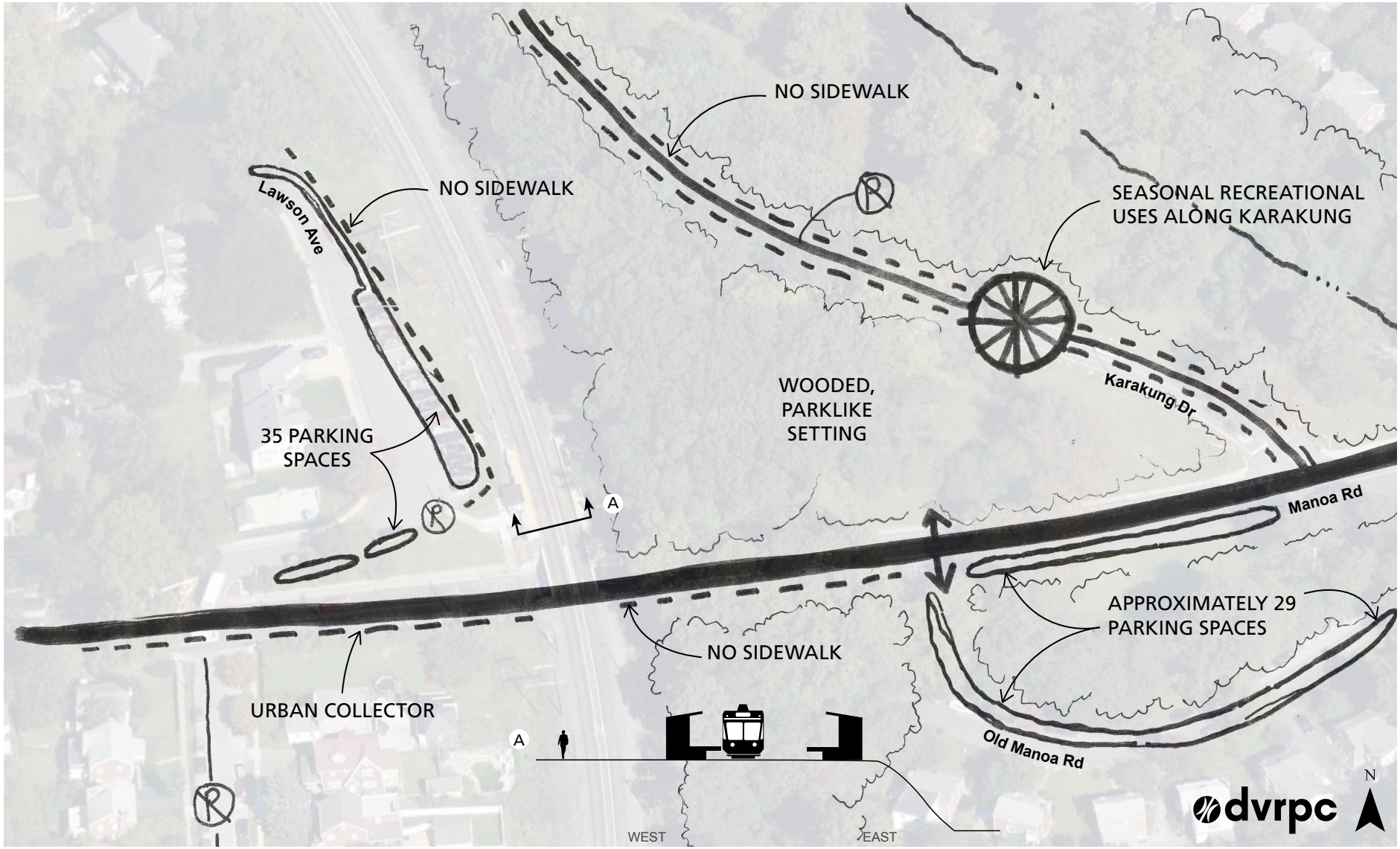
FIGURE 8: PENFIELD STATION SHED



A recent license plate survey showed that approximately 48 percent of commuters parking at or near Penfield Station are traveling less than a mile to the station.

SOURCE: DVRPC, 2009

FIGURE 9: PENFIELD EXISTING CONDITIONS



AERIAL SOURCE: GOOGLE MAPS

Station Objectives

Penfield is an important station because it has the second highest boardings of any Haverford Township station. In recent years, it has received upgrades designed to enhance the parking capacity, but the pedestrian network is still incomplete. The following objectives are the underpinning that helped steer the specific improvements shown in the concept.

- Accommodate full ADA accessibility to station platforms.
- Furnish passenger drop-off area(s).
- Improve safety of pedestrian access across Manoa Road and along Lawson Avenue.
- Improve operations of existing bicycle parking.

Recommendations

STATION DESIGN CONCEPT

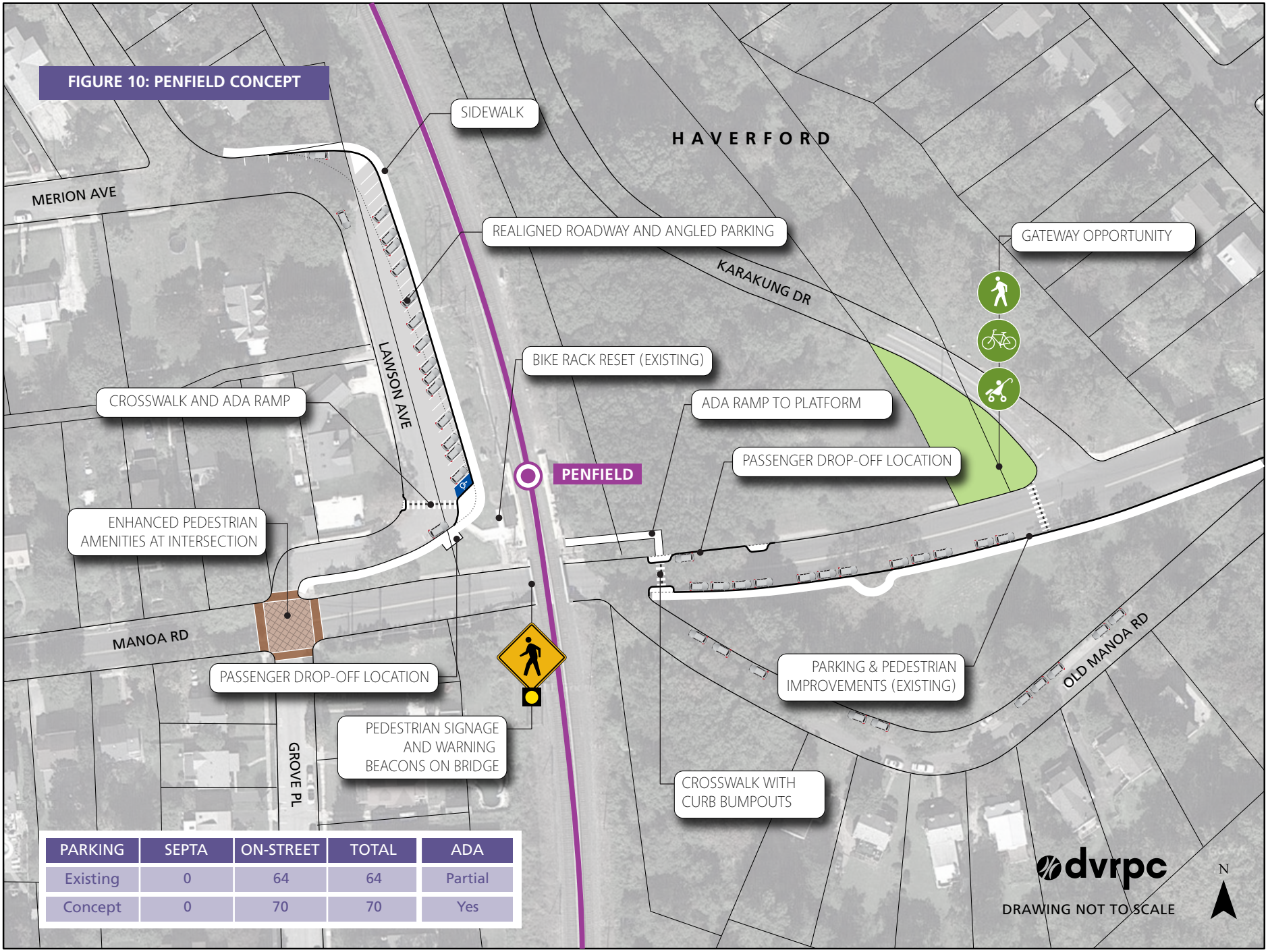
At Penfield Station the design recommendations (Table 4, Figure 10) focus on expanding the sidewalk network, enhancing pedestrian and bicycle access to the station platforms, and providing a safer connection to the recently installed parking on Manoa Road. While the existing parking is well used by passengers, there are not sufficient crosswalks and sidewalks for people to get to the platforms easily without safety concerns.

TABLE 4: PENFIELD CONCEPT IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Install curb ramp at station entrance along Lawson Avenue, making the west side of the station ADA accessible	Pedestrians and Bicyclists	Short	$
	Reset existing bike rack to be usable on both sides	Pedestrians and Bicyclists	Short	$
HAVERFORD TOWNSHIP	Restripe Lawson Avenue to be angled parking	Parking	Short	$
	Install pedestrian warning beacons on NHSL bridge over Manoa Road	Pedestrians and Bicyclists	Short	$
	Install sidewalk adjacent to parking on the west side of station	Pedestrians and Bicyclists	Short	$
	Create passenger drop-off areas on Lawson Avenue and Manoa Road	Station	Short	$$
	Install crosswalks and pavers at Manoa Road and Lawson Avenue/Grove Place intersection	Pedestrians and Bicyclists	Medium	$$
	Design and install gateway and branding feature at Manoa Road and Karakung Drive that highlights recreational use	Haverford Township	Medium	$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired

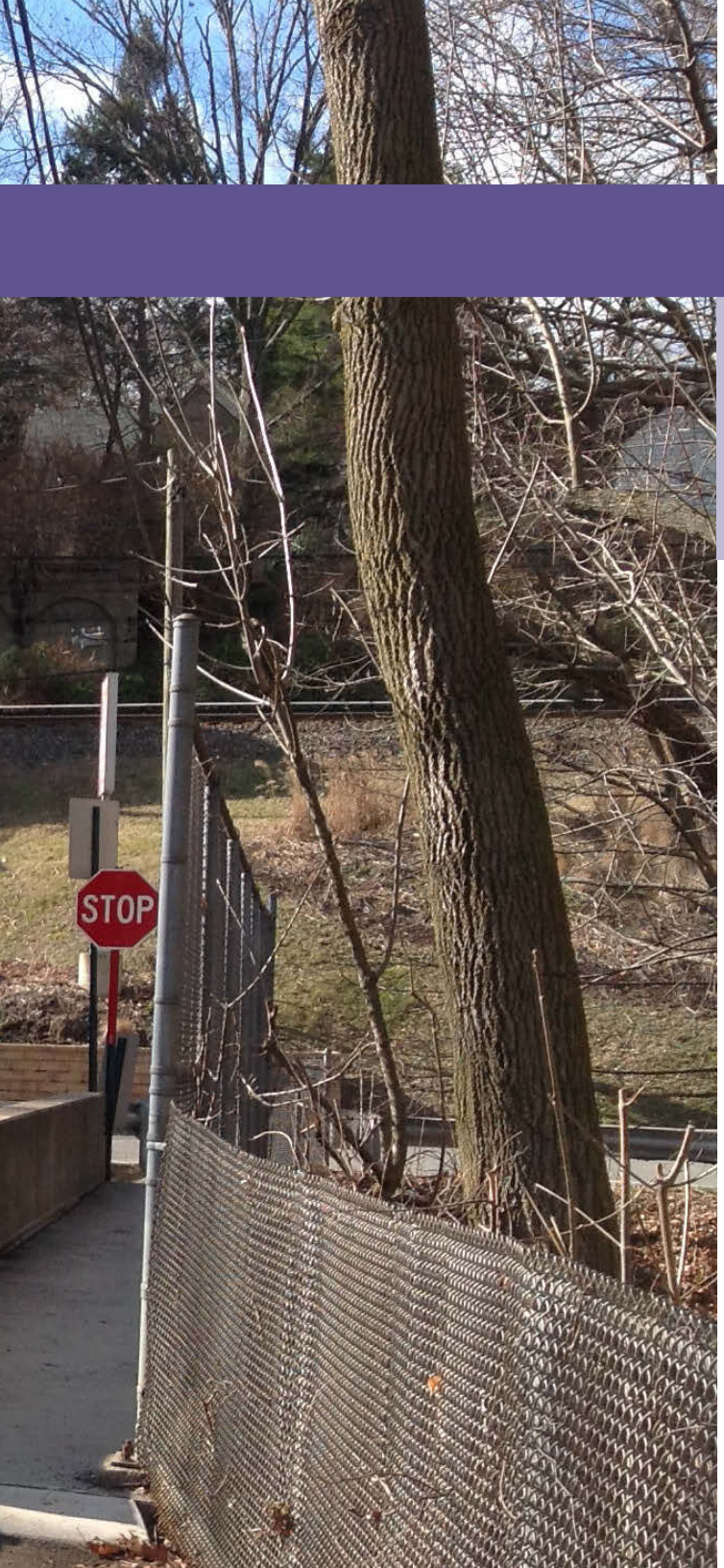


PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	0	64	64	Partial
Concept	0	70	70	Yes

AERIAL SOURCE: GOOGLE MAPS

4 Beechwood-Brookline

Commuter parking is encroaching on neighborhood residential streets to the west of the station.



Station Characteristics

SERVICE: LOCAL/HUGHES PARK EXPRESS
TOTAL BOARDS: 164
COMMUTER PARKING (TOWNSHIP): 13
COMMUTER PARKING (OBSERVED ON-STREET): 18
ADA ACCESS: PARTIAL
TRANSFERS: SEPTA ROUTE 103

19% of commuters park at or near the station

69% of parkers travel less than 1 mile to the station

3% of parkers travel more than 3 miles to the station

Existing Conditions

PHYSICAL SETTING

Beechwood-Brookline Station is situated within Haverford Township's Havertown community—a walkable, pre-War Philadelphia suburb with mostly single-family houses situated on less than half-acre parcels. The station is located close to the Darby Road commercial area, as well as the Haverford middle and high schools. The station is ADA-accessible on the inbound side, but not on the outbound side. The existing conditions of the station area are illustrated in Figure 12.

LAND USE

The land use context is largely single-family residential and recreation. Along Karakung Drive there is a public utilities location north of the station and green space running parallel to Cobbs Creek. A "Welcome to Beechwood" sign and landscaping on the hill along Karakung, opposite the angled on-street parking, serve as a gateway into the neighborhood. The nearest commercial development are retail stores along Edgewood Road.

TRANSIT

At Beechwood-Brookline Station, passengers have the ability to transfer from the NHSL to SEPTA bus Route 103 (three blocks away), which runs service between Ardmore and the 69th Street TC. Nearby bus stops on Brookline Boulevard are connected by sidewalks, but are lacking shelters.

The station has an average of 164 boards, the third highest of the seven NHSL stations within Haverford Township.

- Service from the station outbound to NTC starts at 4:25 AM and ends at 1:50 AM, and runs inbound to 69th Street TC from 5:15 AM to 2:36 AM.
- Travel time inbound to 69th Street TC is 5 minutes, and 25 minutes outbound to Norristown Transportation Center.
- Headways vary from 8 to 15 minutes during morning and evening peak periods; they fluctuate

from 10 to 30 minutes during off-peak hours; and there is service every 80 minutes after midnight.

ROAD NETWORK

Beechwood-Brookline Station is bordered by Karakung Drive, a narrow two-lane road. The bridge connecting Karakung Drive to Lakeside Avenue is closed to eastbound traffic in the morning peak hours and to westbound traffic in the evening peak hours. To the east, Beechwood-Brookline Station is buffered from the residential neighborhood by Karakung Drive and Cobbs Creek.

To the west of the station (inbound platform), Edgewood and Strathmore roads converge to create an area that is used for additional on-street parking for commuters and a drop-off and pick-up area for passengers.

PEDESTRIANS

Beechwood-Brookline Station has a system of pedestrian paths connecting Karakung Drive, Mill Road, and the parking on Strathmore Road. The Haverford Trail, a 14-mile loop trail, transitions from an off-road dirt path to an on-road condition on Karakung Drive just south of the Beechwood-Brookline Station. Karakung Drive does not have sidewalks; however, the local streets west of the station have a complete sidewalk network.

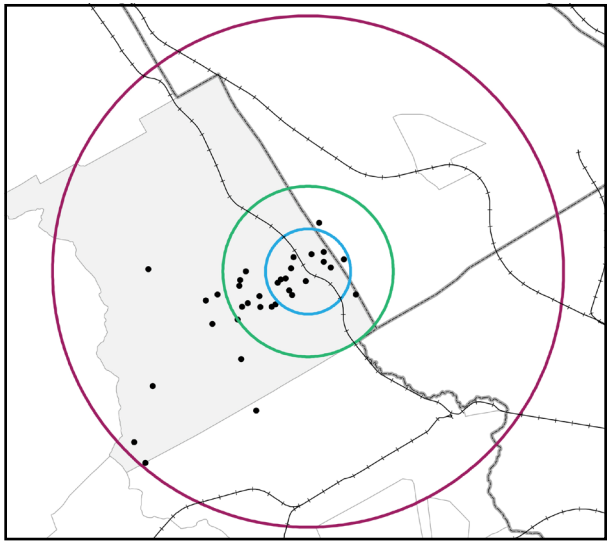
BICYCLISTS

There are no facilities to accommodate bicycle commuters.

PARKING

This station has the lowest percentage of passengers who park at the station (19 percent). DVRPC staff observed 31 on-street parking spots likely occupied by NHSL passengers. Clusters of parking were found along Karakung Drive and Lakeside Avenue, though not directly in front of residences. The majority of NHSL passengers were parked at the intersection of Edgewood and Strathmore roads, and cars were primarily on Strathmore Road, in front of residences.

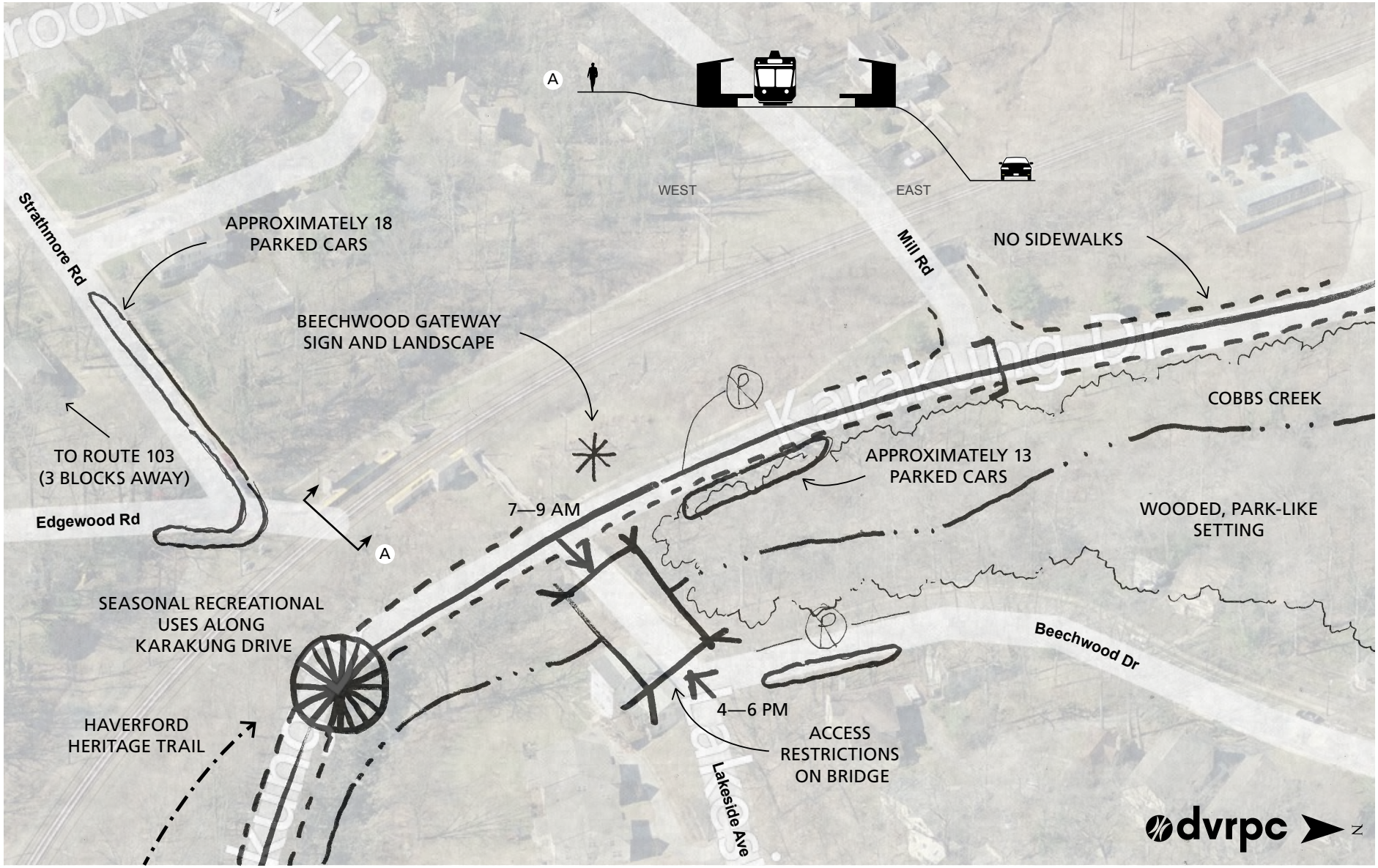
FIGURE 11: BEECHWOOD-BROOKLINE STATION SHED



A recent license plate survey showed that approximately 69 percent of commuters parking at or near Beechwood-Brookline Station are traveling less than a mile to the station. Roughly 36 percent are driving less than a half-mile.

SOURCE: DVRPC, 2009

FIGURE 12: BEECHWOOD-BROOKLINE EXISTING CONDITIONS



AERIAL SOURCE: MICROSOFT BING MAPS

Station Objectives

Strategies to improve this station focus on adding parking capacity where it is possible and maintaining and encouraging nonmotorized access to the station. The following objectives helped the team come up with the specific improvements shown in the concept.

- Enhance pedestrian and bicyclist facilities near the station.
- Expand commuter parking on the eastern, less residential side.

Recommendations

STATION DESIGN CONCEPT

Two new parking areas are proposed in the Beechwood-Brookline concept (Table 5 and Figure 13): angled parking on the east side of Karakung Drive, just past Mill Road; and a new lot across the roadway on the west side of Karakung Drive. Enhanced crosswalks along Karakung Drive at the Lakeside Avenue and Mill Road intersections, as well as a formal extension of the Haverford Heritage Trail, are suggested to improve pedestrian safety.

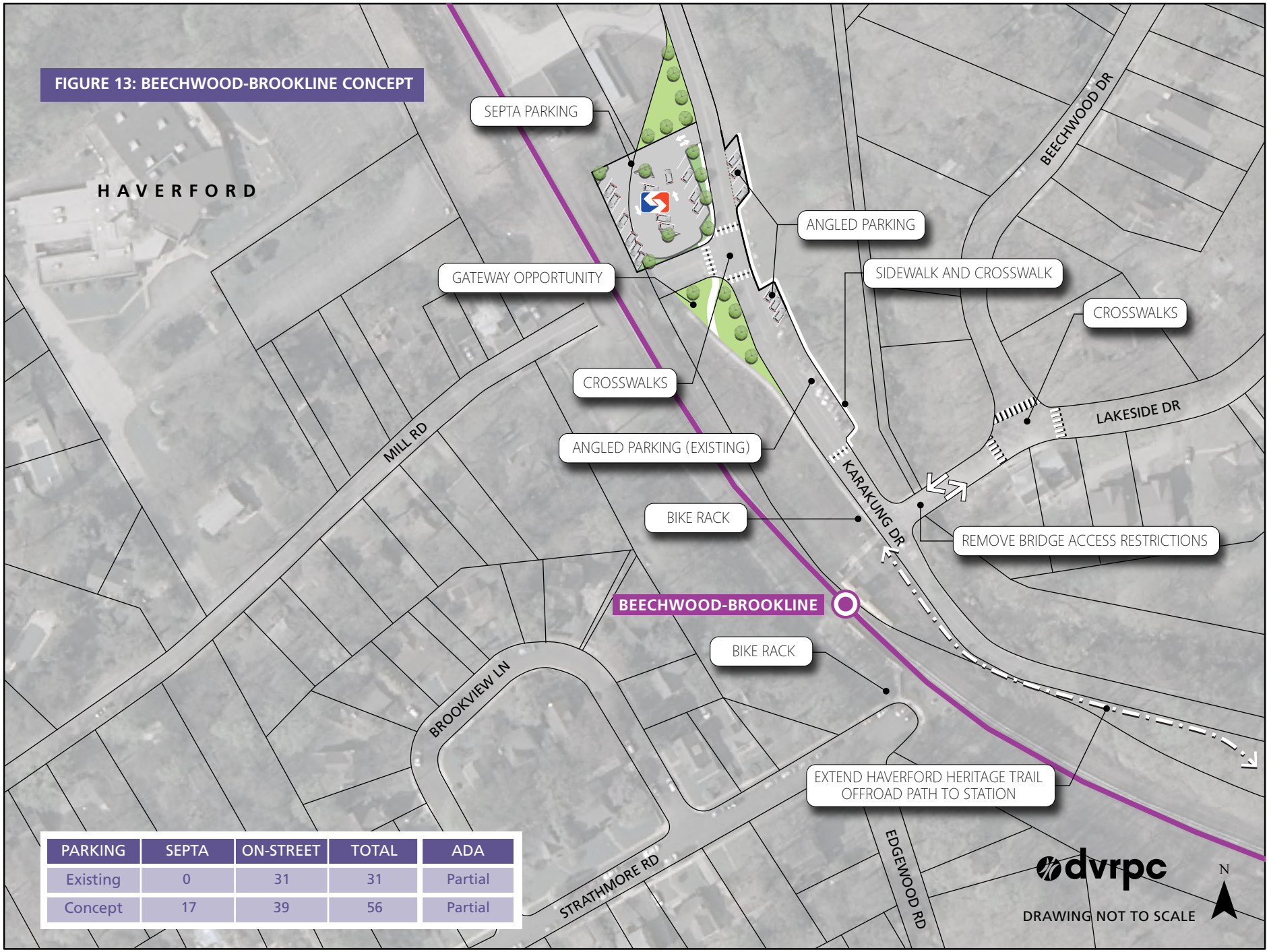
Furthermore, the township should consider lifting the vehicle restrictions on Lakeside Avenue in order to improve network connectivity. Similar to the Penfield Station concept, a continuation of the gateway or signage program could be installed at the Karakung Drive and Mill Road intersection, emphasizing the recreational township asset of Karakung Drive and Cobbs Creek.

TABLE 5: BEECHWOOD-BROOKLINE CONCEPT IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Install bike racks on either side of station	Pedestrians and Bicyclists	Short	$
SEPTA & HAVERFORD TOWNSHIP	Build new parking lot north of Mill Road on Karakung Drive at street grade	Parking	Medium	$$
HAVERFORD TOWNSHIP	Install additional angled on-street parking on the east side of Karakung Drive, north of Mill Road	Parking	Short	$
	Remove access restrictions on Lakeside Drive bridge	Circulation	Short	$
	Stripe crosswalks at Mill Road and Karakung Drive	Pedestrians and Bicyclists	Short	$
	Consider extending Haverford Heritage Trail to the sidewalk in front of the station.	Pedestrians and Bicyclists	Short	$
	Install new sidewalk and crosswalk connecting on-street parking to station stairs	Pedestrians and Bicyclists	Medium	$$
	Design and install gateway and branding elements at Mill Road and Karakung Drive that highlight Karakung Drive's recreational use	Station	Medium	$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

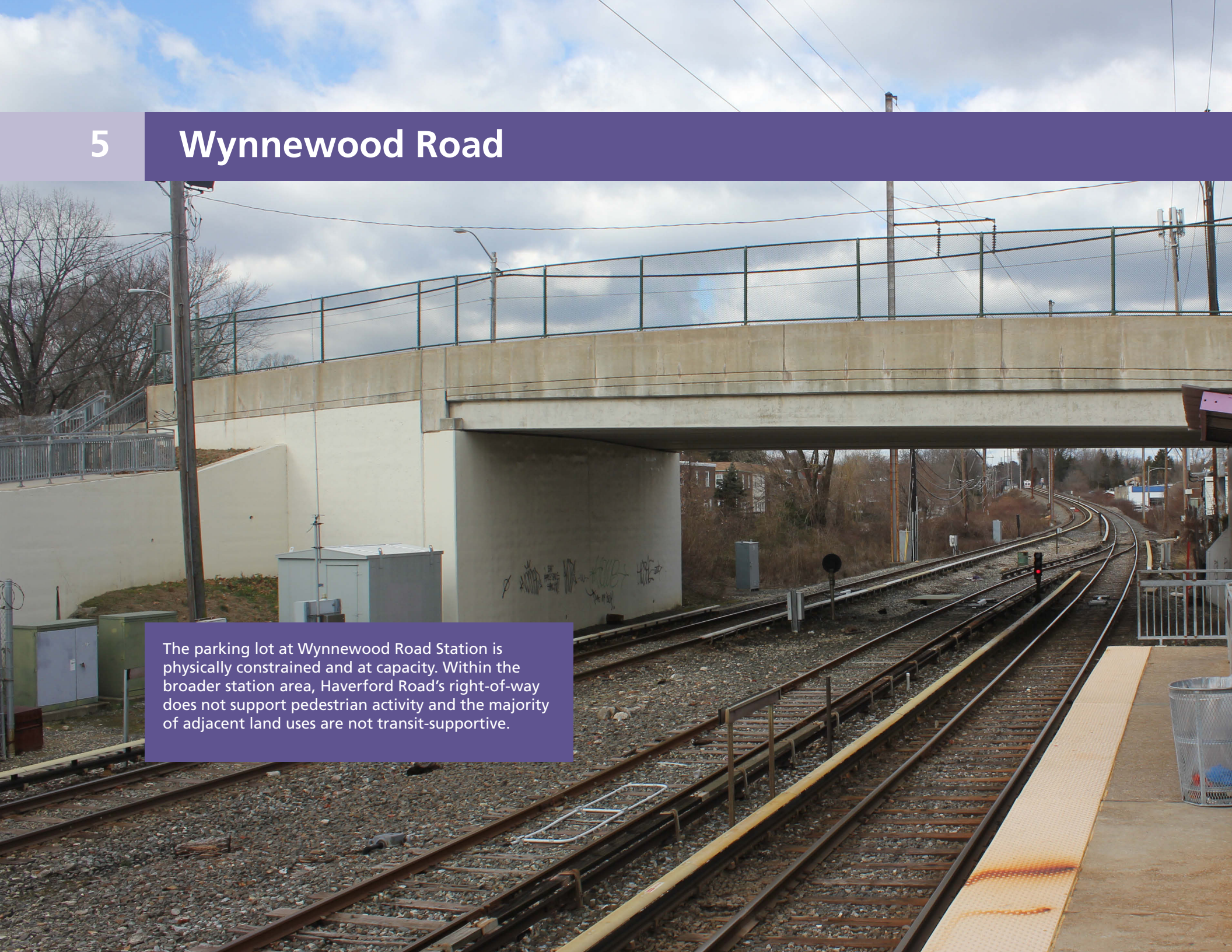
Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired



PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	0	31	31	Partial
Concept	17	39	56	Partial

AERIAL SOURCE: DVRPC, 2010

5 Wynnewood Road



The parking lot at Wynnewood Road Station is physically constrained and at capacity. Within the broader station area, Haverford Road's right-of-way does not support pedestrian activity and the majority of adjacent land uses are not transit-supportive.

Station Characteristics

SERVICE: LOCAL/HUGHES PARK EXPRESS
TOTAL BOARDS: 134
COMMUTER PARKING (SEPTA): 32
COMMUTER PARKING (OBSERVED ON-STREET): 0
ADA ACCESS: YES
TRANSFERS: NONE

24% of commuters park at or near the station

47% of parkers travel less than 1 mile to the station

25% of parkers travel more than 3 miles to the station

Existing Conditions

PHYSICAL SETTING

Wynnewood Road Station is situated along a largely commercial portion of Haverford Road. The station is bordered by Cobbs Creek and an established residential neighborhood. East of Haverford Road, there are single-family attached residential uses. The station is ADA accessible, with access ramps on both the 69th Street- and Norristown-bound sides. The existing conditions of the station area are illustrated in Figure 14.

LAND USE

The land use context is mixed, with commercial development along Haverford Road and mixed-residential (attached, multi-, and single-family) development on the periphery of the commercial corridor. The commercial frontage along Haverford Road lacks continuity and access management. Currently underutilized and inaccessible, open space borders the rail track to the west along Cobbs Creek.

TRANSIT

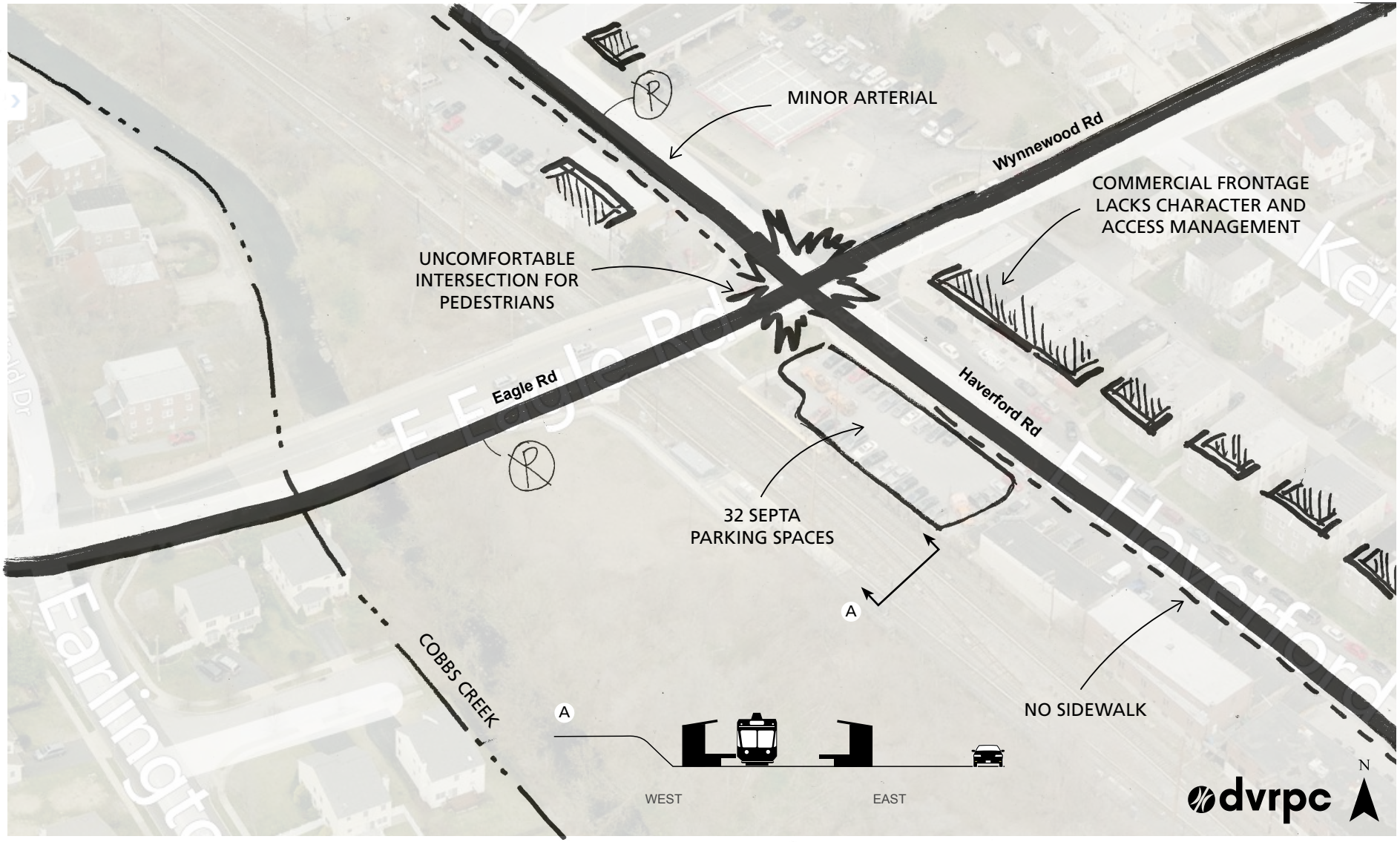
The residential and commercial uses close to the station area support an average of 134 daily boards at the station.

- Service from Wynnewood Road Station outbound to NTC runs from 4:26 AM to 1:51 AM, and inbound to 69th Street TC between 5:14 AM and 2:35 AM.
- Travel time from the station is 6 minutes from 69th Street TC and 24 minutes from NTC.
- Headways range from 8 to 15 minutes during morning and afternoon peak periods, 10 to 30 minutes off-peak, and up to 80 minutes after midnight.

ROAD NETWORK

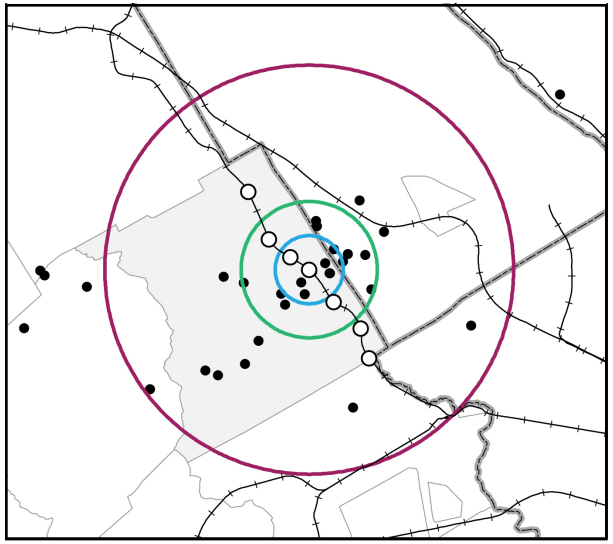
Wynnewood Road Station is located at the intersection of Haverford Road and Eagle Road/Wynnewood Road. Haverford Road is a four-lane road with no shoulder throughout the study area and is classified as a minor

FIGURE 14: WYNNEWOOD ROAD EXISTING CONDITIONS



AERIAL SOURCE: MICROSOFT BING MAPS

FIGURE 15: WYNNEWOOD ROAD STATION SHED



A recent license plate survey showed that approximately 47 percent of commuters parking at or near Wynnewood Road Station are traveling less than a mile to the station.

SOURCE: DVRPC, 2009

arterial. Eagle Road/Wynnewood Road is a two-lane roadway with auxiliary lanes and congested at many intersections.

PEDESTRIANS

The sidewalk network around Wynnewood Road Station is discontinuous. A sidewalk along Eagle Road/Wynnewood Road links to a ramp that connects to the inbound, 69th Street side platform. The sidewalk wraps around the corner at Haverford Road and connects to the Wynnewood Road Station parking lot, and then stops along the south side of Haverford Road.

Although the sidewalk connects to the station, the sidewalks are narrow and in disrepair, making passage to and through the parking lot difficult for passengers.

BICYCLISTS

There are no facilities to accommodate bicycle commuters.

PARKING

Wynnewood Road has a relatively low percentage of passengers who park at the station (24 percent). The station parking lot has a total of 32 parking spots for SEPTA passengers and faded paint delineating the parking spots. Parking and maneuvering within the parking lot is difficult because it is so compact. Despite its size and layout, the lot serves as a pick-up and drop-off point for passengers.

Station Objectives

At Wynnewood Road Station, the study team focused on recommendations to improve pedestrian access within the station area in an effort to reduce station area parking demand and support adjacent land uses. The following objectives helped the team come up with the specific improvements shown in two concepts.

- Maintain consistent sidewalks along the south side of Haverford Road.
- Consider implementing safer pedestrian accommodations at the Haverford Road and Eagle Road intersection.
- Explore mixed-use, pedestrian-oriented, infill development along Haverford Road.
- Consider changes to the Haverford Road cross section that maintain through-put of vehicular traffic while supporting a safe and attractive pedestrian environment.

This station area is inextricably linked to Haverford Road and the commercial uses along the roadway. Therefore, both concepts concentrate on different roadway improvements and investment by private property owners to spur the revitalization of Haverford Road, one of the township's most important business districts.

Recommendations

STATION DESIGN CONCEPT A

Pedestrian improvements in this concept (Table 6, Figure 16) include signage to highlight the access ramp northwest of the station on Eagle Road and high-visibility crosswalks at the intersection of Haverford Road and Wynnewood Road/Eagle Road. Access to the commercial properties east of the station can be reconfigured to facilitate one-way circulation with angled parking. The additional space created by this reconfiguration can be used to construct a sidewalk and to introduce landscaping along Haverford Road.

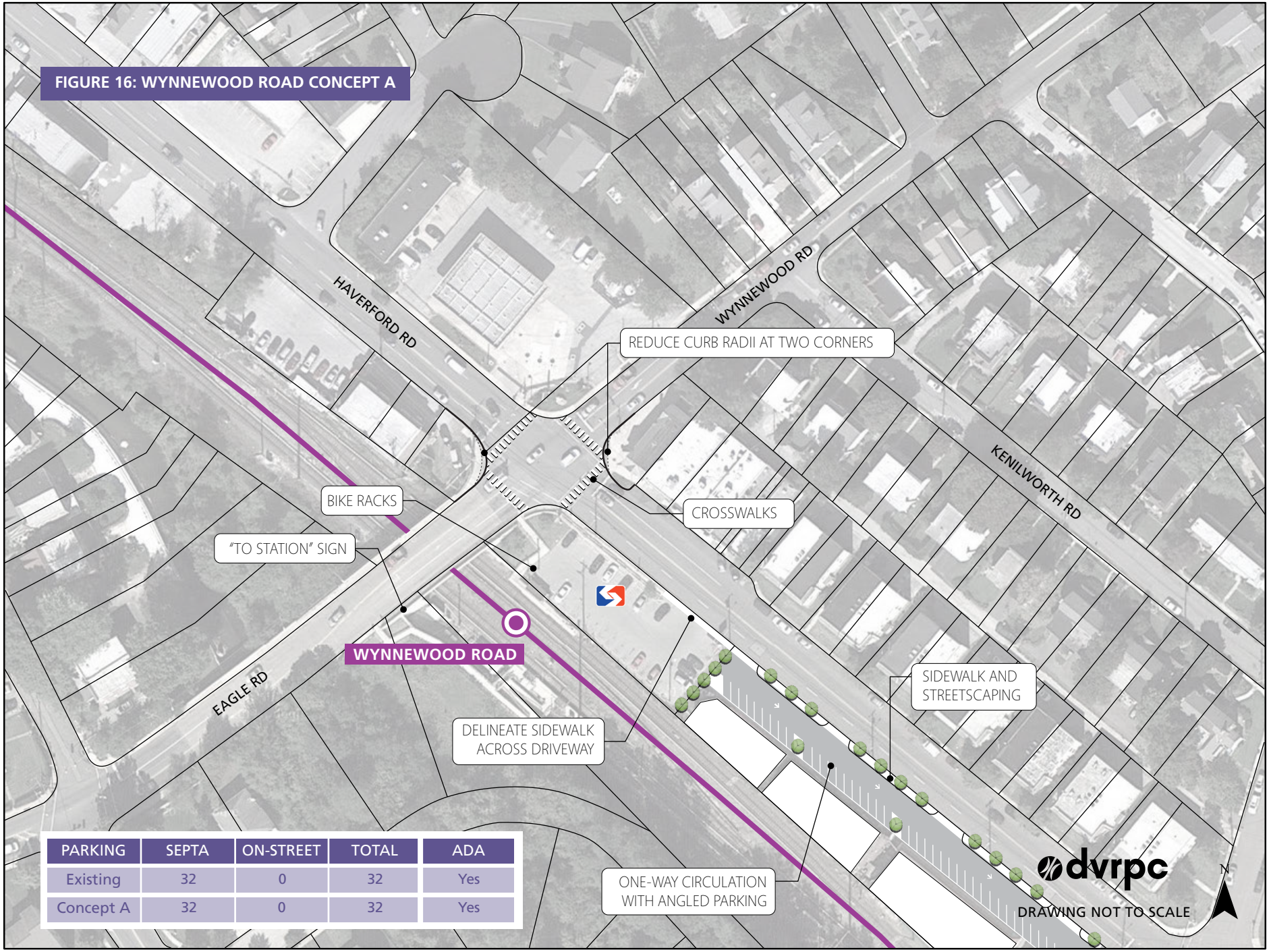
TABLE 6: WYNNEWOOD ROAD CONCEPT A IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Install station wayfinding sign on south side of Eagle Road at pedestrian ramp entrance to station platform	Station	Short	$
	Delineate sidewalk area across SEPTA parking lot driveway access	Pedestrians and Bicyclists	Short	$
	Install bike racks on either side of station	Pedestrians and Bicyclists	Short	$
PENNDOT	Restripe crosswalks at Haverford Road and Wynnewood Road/Eagle Road	Pedestrians and Bicyclists	Medium	$
	Reduce curb radii at the Haverford Road and Eagle Road intersection at two corners	Circulation	Medium	$$
HAVERFORD TOWNSHIP & PENNDOT	Install new sidewalk and streetscaping along south side of Haverford Road	Pedestrians and Bicyclists	Long	$$
PRIVATE PROPERTY OWNERS	Consolidate parking lots and access drives on the south side of Haverford Road in front of commercial businesses into a newly consolidated parking lot with one-way vehicle circulation and angled parking	Parking	Short	$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired

FIGURE 16: WYNNEWOOD ROAD CONCEPT A



PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	32	0	32	Yes
Concept A	32	0	32	Yes

AERIAL SOURCE: GOOGLE MAPS

STATION DESIGN CONCEPT B

Concept B (Table 7, Figure 17) emphasizes long-term changes on the corridor. The concept builds upon the idea of a road diet along Haverford Road as presented in DVRPC's *Haverford Road Commercial Corridor Analysis Study* (Publication 13009). A road diet would convert Haverford Road from four travel lanes to two through travel lanes with a center two-way-left-turn lane. Such a reconfiguration would result in approximately nine feet of additional space that could accommodate sidewalk, landscaping, and a slight widening of the SEPTA parking lot to allow for better vehicular circulation. This concept encourages private mixed-use development in the area, and possibly an overlay that offers incentives to developers to incorporate specific urban design elements that could include building setbacks, parking requirements, and building height and footprint standards.

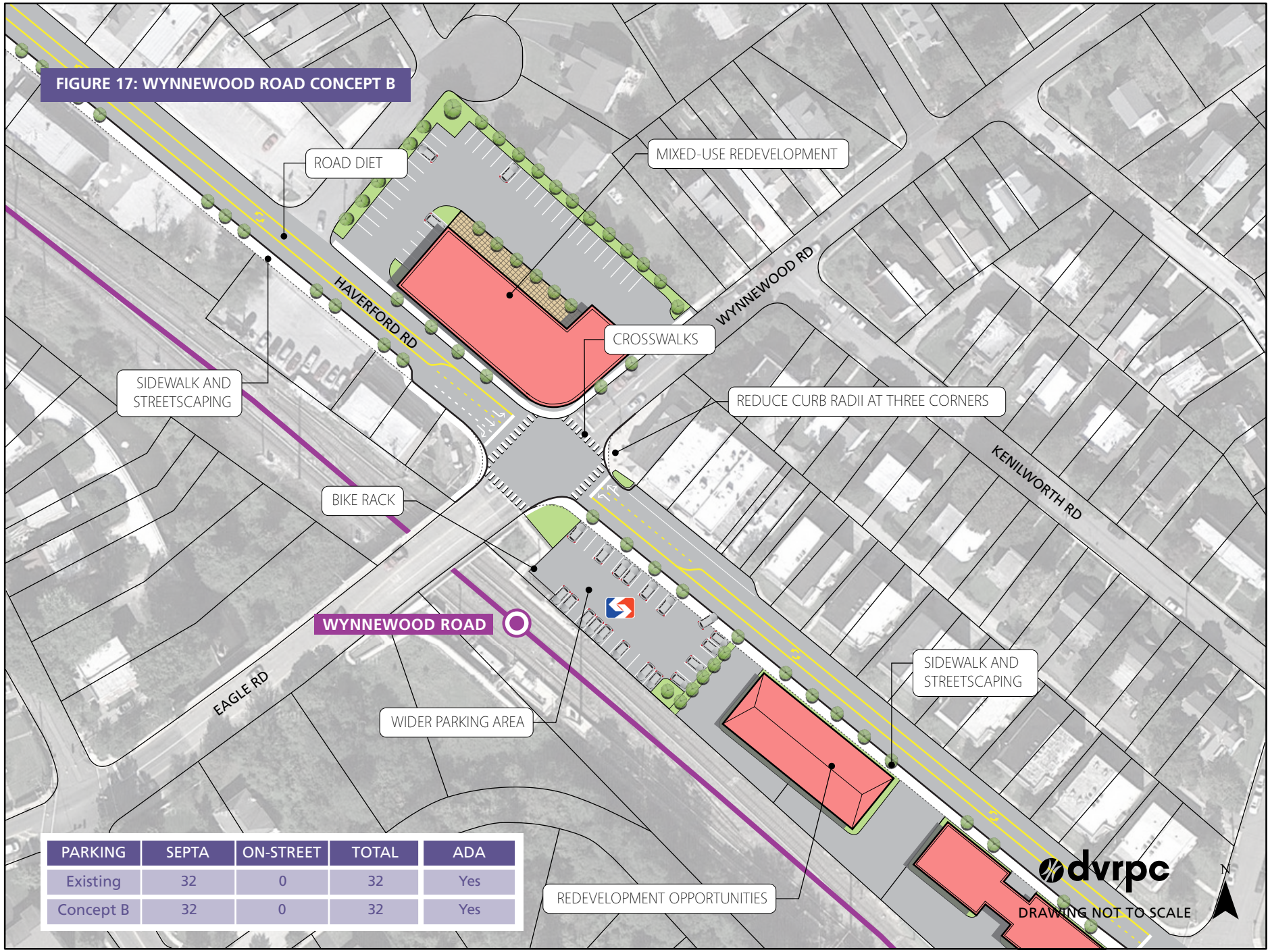
Other investments include: reduction in three curb radii and higher visibility crosswalks at the Haverford Road and Wynnewood Road/ East Eagle Road intersection and the installation of bike racks on the outbound side platform.

TABLE 7: WYNNEWOOD ROAD CONCEPT B IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Install station wayfinding sign on the south side of Eagle Road at the pedestrian ramp entrance to the inbound station platform	Station	Short	$
	Install bike racks on either side of station	Pedestrians and Bicyclists	Short	$
	Resurface and stripe SEPTA parking lot (after construction for Haverford Avenue road diet)	Parking	Long	$$
HAVERFORD TOWNSHIP	Market vacant, underutilized, and larger parcels along Haverford Road for mixed-use redevelopment and development	Land Use and Zoning	Short	$
	Adopt a zoning overlay district that addresses changes in setbacks, parking, and overall urban design for Haverford Road	Land Use and Zoning	Short	$
PENNDOT	Reduce curb radii at the Haverford Road and Eagle Road intersection at three corners	Circulation	Medium	$$
	Restripe crosswalks at Haverford Road and Wynnewood Road/Eagle Road	Circulation	Medium	$$
HAVERFORD TOWNSHIP & PENNDOT	Convert Haverford Road from a four-lane roadway into a three-lane roadway (two travel lanes and a two-way-left-turn lane) with enhanced pedestrian facilities	Circulation	Long	$$$
	Install streetscape improvements along Haverford Road including street trees, pedestrian lighting, and specialty pavers	Pedestrians and Bicyclists	Long	$$$
PRIVATE PROPERTY OWNERS	Develop parcels along Haverford Road	Land Use and Zoning	Long	$ – $$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

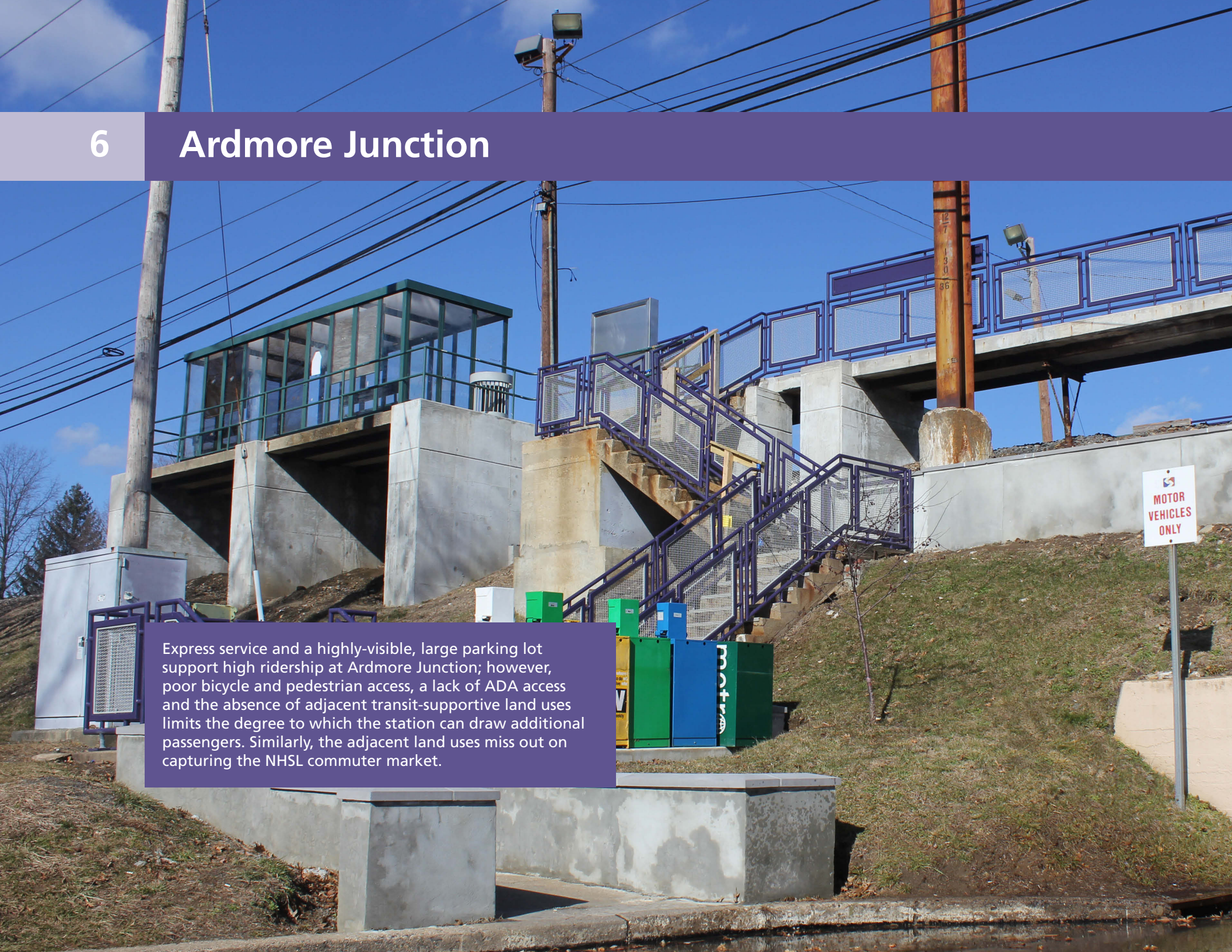
Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired



PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	32	0	32	Yes
Concept B	32	0	32	Yes

AERIAL SOURCE: GOOGLE MAPS

6 Ardmore Junction



Express service and a highly-visible, large parking lot support high ridership at Ardmore Junction; however, poor bicycle and pedestrian access, a lack of ADA access and the absence of adjacent transit-supportive land uses limits the degree to which the station can draw additional passengers. Similarly, the adjacent land uses miss out on capturing the NHSL commuter market.

Station Characteristics

SERVICE: ALL SERVICE
TOTAL BOARDS: 507
COMMUTER PARKING (SEPTA): 161
COMMUTER PARKING (OBSERVED ON-STREET): 0
ADA ACCESS: NO
TRANSFERS: SEPTA ROUTE 103

32% of commuters park at or near the station

54% of parkers travel less than 1 mile to the station

10% of parkers travel more than 3 miles to the station

Existing Conditions

PHYSICAL SETTING

Ardmore Junction Station is located at the border of the Havertown and Ardmore Parks neighborhoods of Haverford Township on Haverford Road. Here, land uses along Haverford Road transition between commercial to the east and residential to west. The station and its parking are highly visible from Haverford Road. The station is not ADA accessible.

Recent SEPTA improvements at the station have included design enhancements, such as shelter, painting, landscaping, and site furnishings, as well as access improvements, including curb ramps, sidewalks, bike racks, and stairs. The existing conditions of the station area are illustrated in Figure 18.

LAND USE

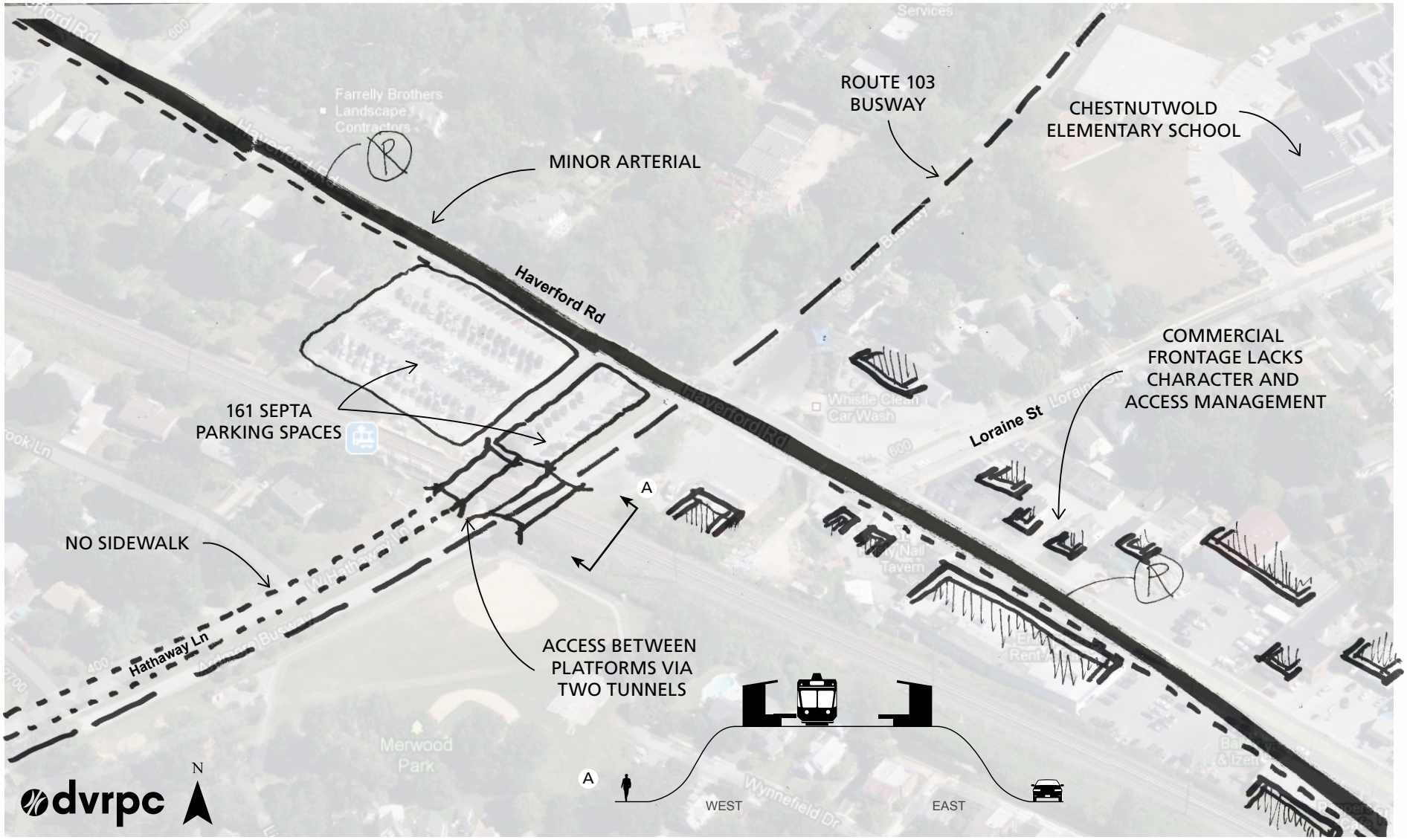
The land use context of the station is mixed, with retail and automotive commercial uses along Haverford Road. The commercial frontage along Haverford Road is not continuous. Residential use includes single-family and attached housing. Additional land uses include Merwood Park, Chestnutwold Elementary School, and light industrial.

TRANSIT

Ardmore Junction Station has the highest boards of the NHSL stations within Haverford Township. The exceptional transit service and transfer potential to the Route 103 bus are likely contributing factors. Route 103 bus stops are located along the busway adjacent to the SEPTA parking lot; neither stop has shelters or streetscape furnishings, and there is a lack of a connected pedestrian network. A summary of schedule information and service at Ardmore Junction Station is below.

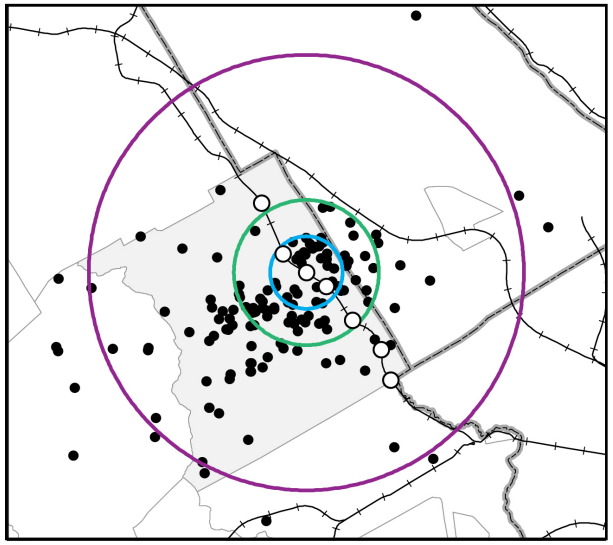
- Service from Ardmore Junction station runs outbound to NTC from 4:27 AM to 1:52 AM, and inbound to 69th Street TC between 5:13 AM and 2:34 AM.
- Travel time from Ardmore Junction station is 7 minutes to 69th Street TC and 23 minutes to NTC.
- Headways vary from 5 to 15 minutes during morning and afternoon peaks, 20 to 30 minutes during off-peak periods, and up to 80 minutes after midnight.

FIGURE 18: ARDMORE JUNCTION EXISTING CONDITIONS



AERIAL SOURCE: GOOGLE MAPS

FIGURE 19: ARDMORE JUNCTION STATION SHED



A recent license plate survey showed that approximately 54 percent of commuters parking at or near Ardmore Junction Station are traveling less than a mile to the station. Roughly 24 percent travel less than a half-mile.

SOURCE: DVRPC, 2009

ROAD NETWORK

Ardmore Junction is located at Hathaway Lane and Haverford Road. There is a compact area where vehicles can drop off and pick up passengers in the SEPTA parking lot. Parallel and west of Hathaway Lane, there is a dedicated busway that bus Route 103 runs along.

PEDESTRIANS

There is a lack of sidewalk connections along the south side of Haverford Road, which makes pedestrian access from the surrounding neighborhood difficult. Pedestrian access across the NHSL tracks exists via a sidewalk along the busway. However, the sidewalk along the busway terminates at both ends of the rail bridge. The more intuitive pedestrian access across the tracks is along Hathaway Lane, the tunnel that is closest to both station platforms, and provides a continuous connection to the station parking lot and the existing sidewalk network. However, there is no sidewalk on Hathaway Lane.

BICYCLISTS

Recent station improvements included the installation of a bicycle rack in the paved area between the Ardmore busway and Hathaway Lane.

PARKING

With 161 parking spots, the parking lot at Ardmore Junction has four times more parking than any of the other six Haverford Township NHSL stations. Ardmore Junction has 32 percent of its daily passengers parking at the station. There was no observed on-street commuter parking on Haverford Road or Hathaway Lane. Hathaway Lane separates the two parking areas, and there is no direct pedestrian access to the station platforms from the smaller lot. Parking capacity and the high level of service contribute to the station having the highest number of boards.

Station Objectives

The following objectives address the specific site challenges or conditions that are underperforming at Ardmore Junction.

- Accommodate full ADA accessibility to station platforms.
- Maintain consistent sidewalks along Haverford Road.
- Limit vehicular and pedestrian conflict points along Hathaway Lane and the SEPTA busway.
- Explore transit-supportive infill development opportunities along Haverford Road, focused around the Loraine Street intersection.
- Explore best uses for the SEPTA property southeast of the busway.

The recommendations that follow focus on improving pedestrian access within the station area in an effort to reduce station area parking demand and support adjacent land uses. The concept seeks to leverage investments that will increase ridership at the station and improve the economic viability and vibrancy of the commercial uses along Haverford Road.

Recommendations

STATION DESIGN CONCEPT

Service and ridership at Ardmore Junction make the station attractive for accessibility investments. This concept (Table 8, Figure 20) focuses on pedestrian access to the station. Suggested improvements include: installing sidewalks along the south side of Haverford Road and Hathaway Lane and enhanced pedestrian treatments such as pavers at the intersection of these two roadways. This would create a safer environment for pedestrians walking to, through, and from the station. There is existing SEPTA-owned property southeast of the SEPTA busway. This space is underused and could be part of a larger redevelopment of the adjacent commercial property to the south.

In addition to these improvements, the concept suggests significant land use changes may be appropriate for portions of Haverford in the future. This concept allows mixed-use development and recommends building setbacks for new development and redevelopment along Haverford Road. In addition, a continuous and branded set of crosswalks, streetscaping, and crosswalk design could be installed in the first phase at the Haverford Road intersections of Hathaway Lane and Loraine Street, and in a second phase, extend further south.

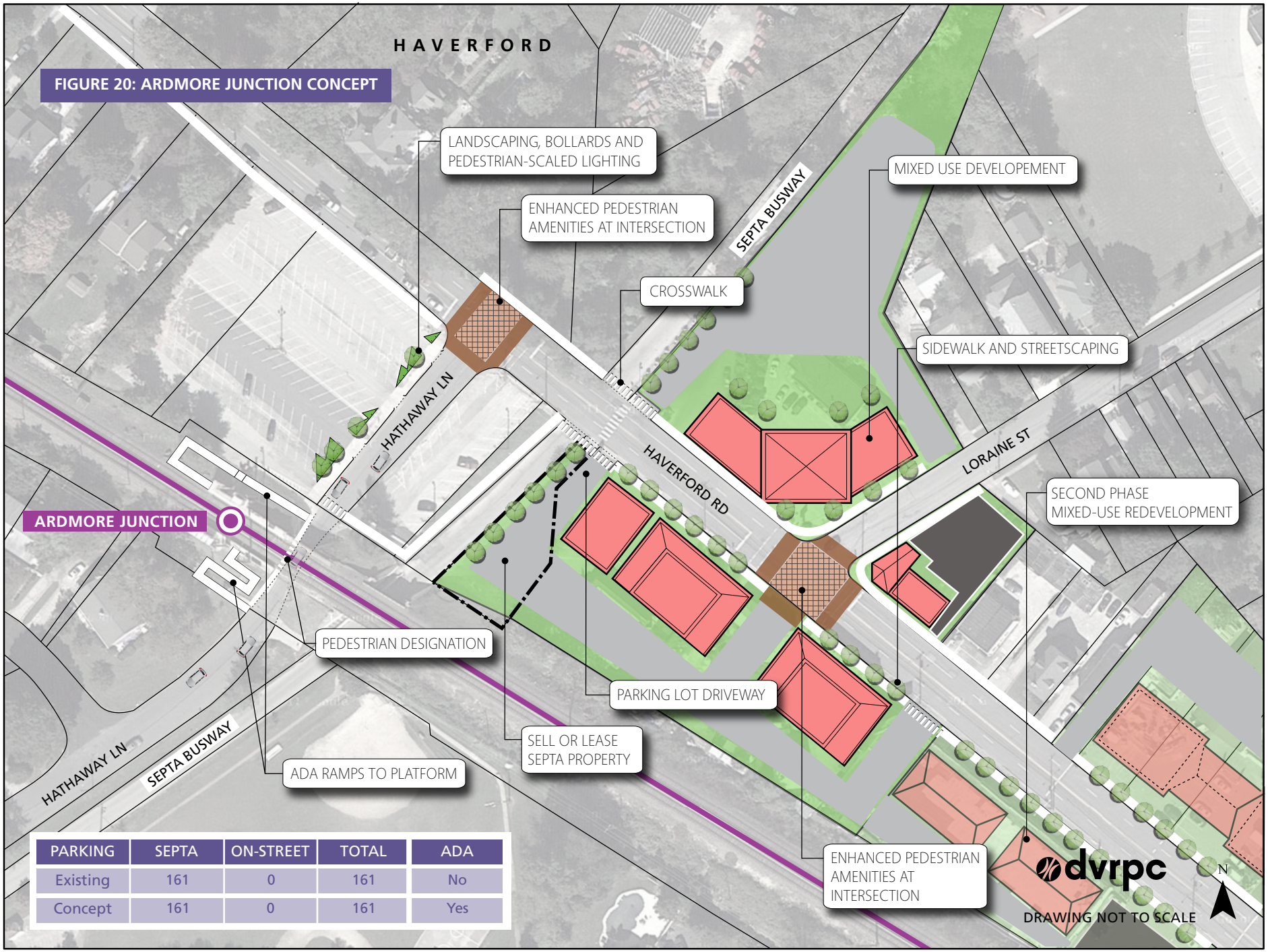
Long term, if redevelopment around the station occurs, and real estate values increase, stakeholders may consider realigning Hathaway Lane between Sunnybrook Lane and Haverford Road onto the 103 busway. This would allow the former Hathaway Lane underpass under the tracks to be used exclusively by pedestrians, create a continuous parking parcel (rather than the existing two lots) for commuting passengers and consolidate two intersections on Haverford Avenue into one.

TABLE 8: ARDMORE JUNCTION CONCEPT IMPLEMENTATION

RECOMMENDATIONS		TYPE	TIMEFRAME	COST
SEPTA	Negotiate sale or lease of SEPTA property south of 103 busway	Land Use and Zoning	Short	$
	Install ADA ramps on both north and south sides of station	Pedestrians and Bicyclists	Short	$$
HAVERFORD TOWNSHIP	Stripe new crosswalks across Hathaway Lane and SEPTA busway	Pedestrians and Bicyclists	Short	$
	Adopt a zoning overlay district that addresses changes in building uses and setbacks, parking, and overall urban design at Loraine Street intersection and further south along Haverford Road	Land Use and Zoning	Short	$
SEPTA & HAVERFORD TOWNSHIP	Delineate pedestrian space on the west side of the Hathaway Lane underpass with lighting, a painted sidewalk, or flexible stake reflectors while maintaining an 11-foot cartway	Circulation	Short	$$
	Define sidewalk edge along Hathaway Lane adjacent to parking lot with landscaping, bollards, lighting, and new curb and gutter	Pedestrians and Bicyclists	Short	$$
DELAWARE COUNTY & HAVERFORD TOWNSHIP	Market vacant, underutilized, and larger parcels along Haverford Road for mixed-use redevelopment and development	Land Use and Zoning	Short	$
PENNDOT	Install crosswalks and pavers at intersection of Hathaway Lane and Haverford Road	Pedestrians and Bicyclists	Medium	$$
	Construct sidewalks on the south side of Haverford Road	Pedestrians and Bicyclists	Medium	$$
PRIVATE PROPERTY OWNERS	Develop parcels along Haverford Road	Land Use and Zoning	Long	$-$$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

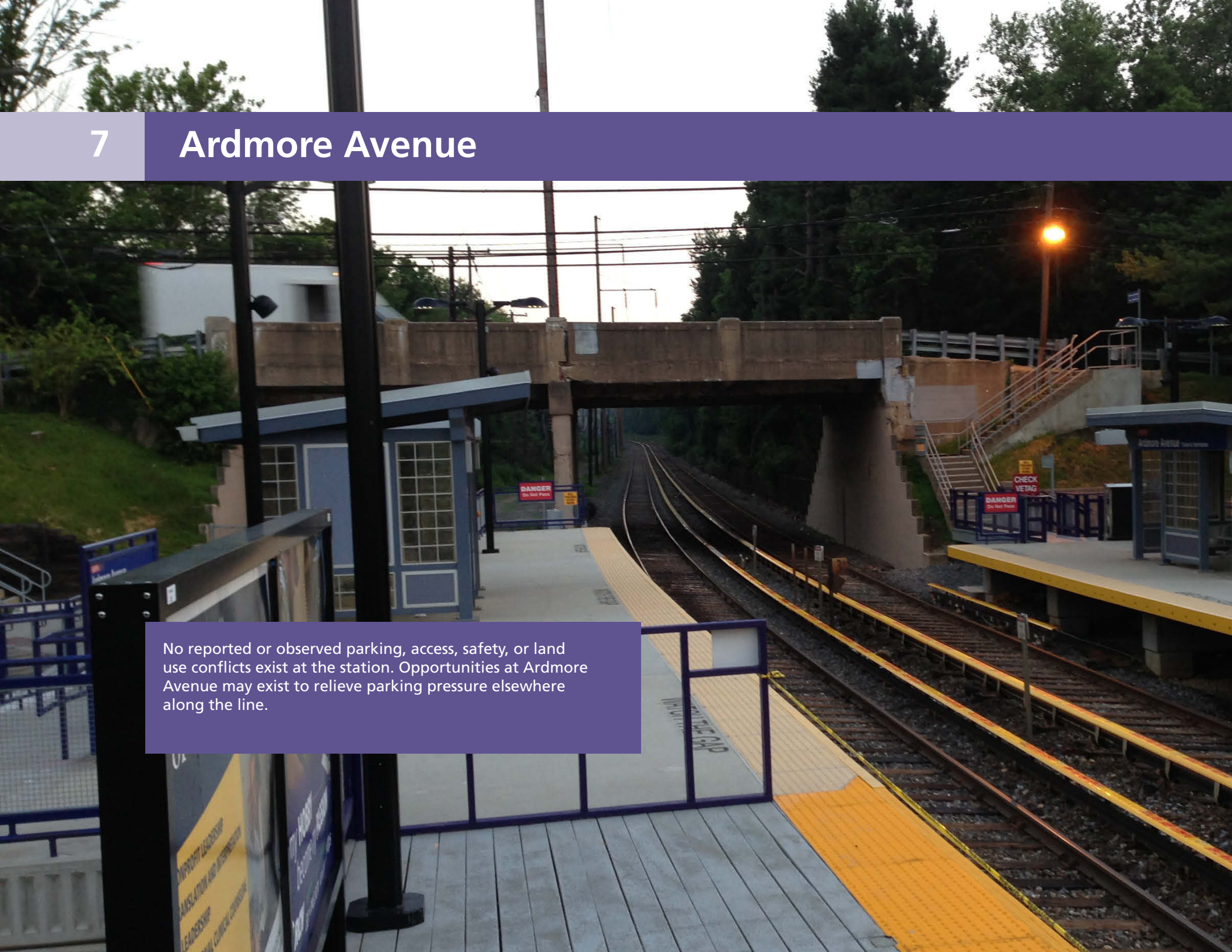
Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvement requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired



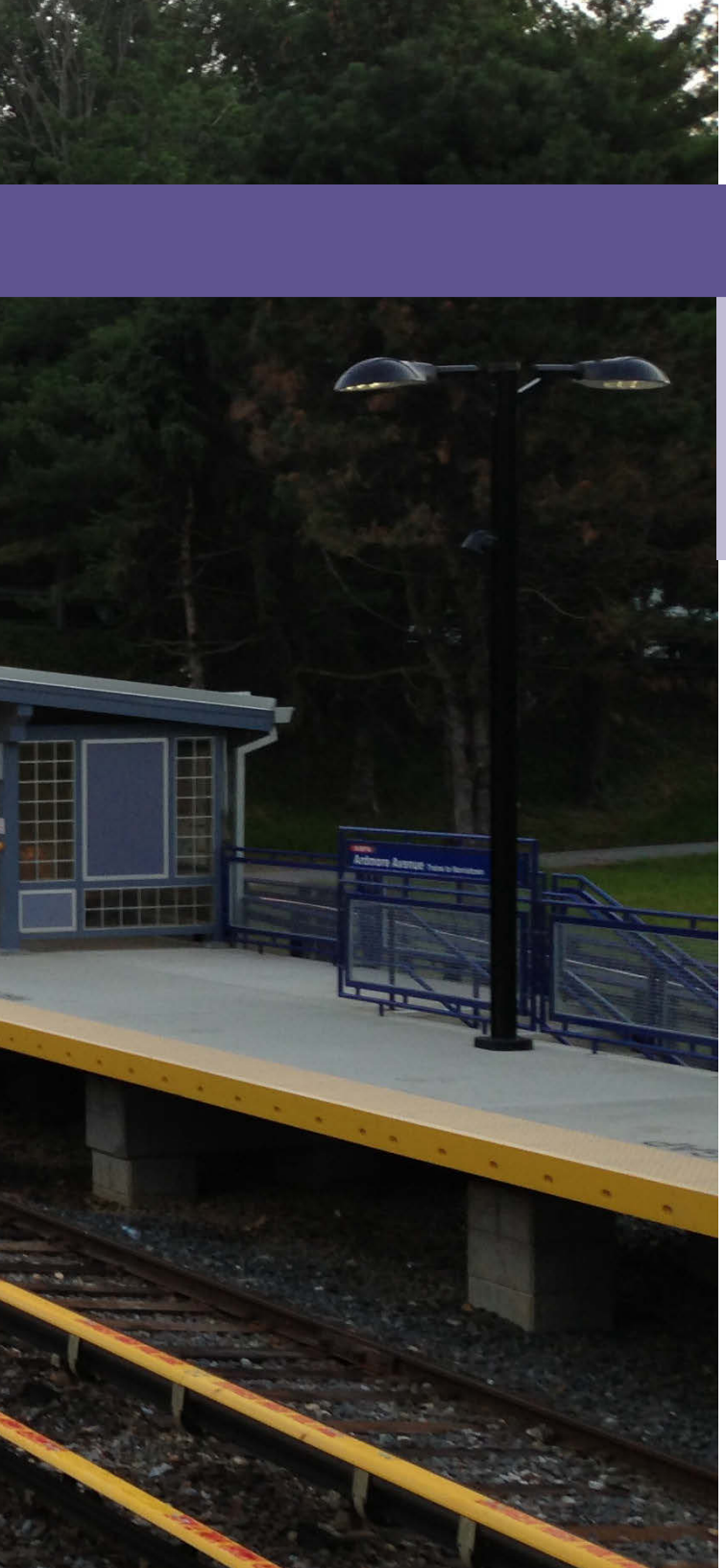
PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	161	0	161	No
Concept	161	0	161	Yes

AERIAL SOURCE: GOOGLE MAPS

7 Ardmore Avenue



No reported or observed parking, access, safety, or land use conflicts exist at the station. Opportunities at Ardmore Avenue may exist to relieve parking pressure elsewhere along the line.



Station Characteristics

SERVICE: LOCAL/HUGHES PARK EXPRESS
TOTAL BOARDS: 139
COMMUTER PARKING (SEPTA): 39
COMMUTER PARKING (OBSERVED ON-STREET): 0
ADA ACCESS: YES
TRANSFERS: NONE

28% of commuters park at or near the station

35% of parkers travel less than 1 mile to the station

15% of parkers travel more than 3 miles to the station

Existing Conditions

PHYSICAL SETTING

Ardmore Avenue Station is set below the elevation of Ardmore Avenue, and among lower-density land uses and lower-volume roads. Ardmore Avenue Station has a relatively low visual profile and lacks a direct relationship to immediately-adjacent land uses. However, during June 2013 the Merion Golf Club hosted the U.S. Open Golf Tournament, and, during that time, the Ardmore Avenue Station served thousands of passengers accessing the tournament in a direct and efficient way. Future events held here could be similarly served.

Recent improvements have increased commuter parking spaces and station amenities. The station is fully ADA accessible. In preparation for the U.S. Open, extended platforms were installed at the station. These platforms are currently blocked off, but could be used again if additional capacity was added to the NHSL. The existing conditions of the station area are illustrated in Figure 21.

LAND USE

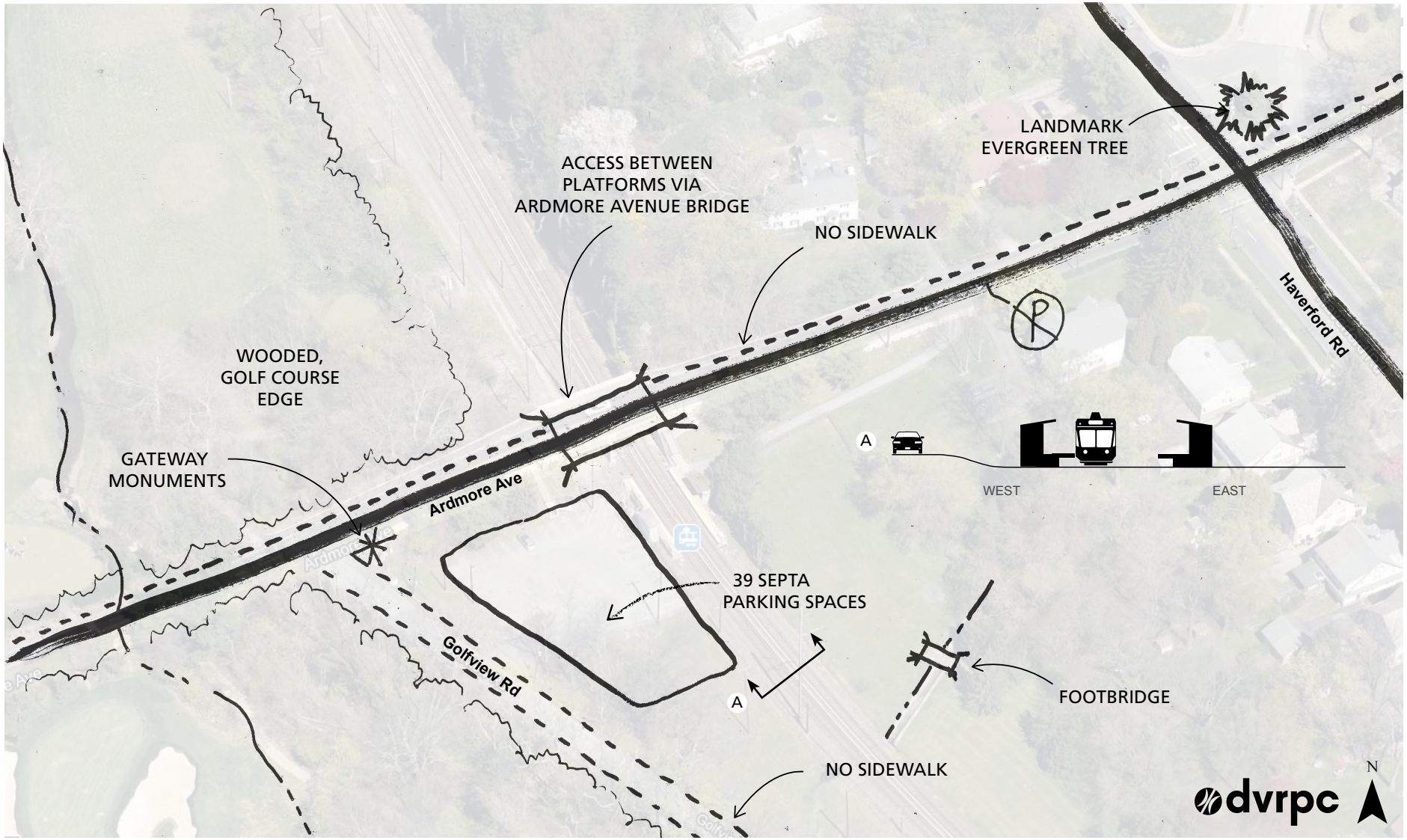
The land use context of the station is a mix of single-family residential and recreation. The Merion Golf Club runs along the west side of Golfview Road, where brick and plaster gateway monuments frame the intersection of Ardmore Avenue and Golfview Road. The open field east of the station has a day-lit creek channel with a pedestrian bridge. The station area is a receiving ground for stormwater. Swaths of green space, partially owned by PECO, exist on either side of the NHSL tracks to the east.

TRANSIT

The daily passenger boards at Ardmore Avenue Station are average when compared to the other Haverford Township NHSL stations.

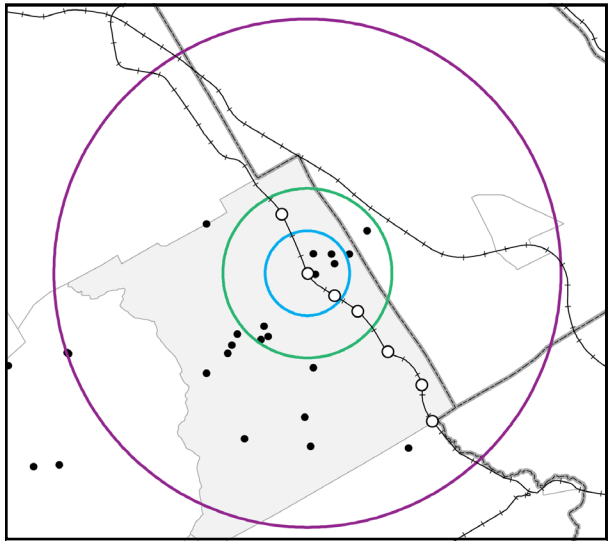
- Service from Ardmore Avenue Station runs outbound to NTC from 4:29 AM to 1:54 AM, and inbound to 69th Street TC between 5:12 AM and 2:33 AM.
- Travel time from the station is 8 minutes to 69th Street TC and 21 minutes to NTC.
- Headways vary from 8 to 15 minutes during morning and afternoon peak periods, 10 to 30

FIGURE 21: ARDMORE AVENUE EXISTING CONDITIONS



AERIAL SOURCE: GOOGLE MAPS

FIGURE 22: ARDMORE AVENUE STATION SHED



A recent license plate survey showed that approximately half of the commuters parking at or near Ardmore Avenue Station are traveling from one to three miles to reach the station.

SOURCE: DVRPC, 2009

minutes during off-peak hours, and up to 80 minutes after midnight.

ROAD NETWORK

Ardmore Avenue is classified by PennDOT as an urban collector, and Haverford Road as a minor arterial. There is a drop-off and pick-up location in the parking lot along Ardmore Avenue and Golfview Road for passengers heading inbound, but not on the Norristown-bound side. The Ardmore Avenue bridge over the NHSL is expected to be replaced by PennDOT at an as yet unknown date.

PEDESTRIANS

Within the station area of Ardmore Avenue, there is a sidewalk on the south (station) side of Ardmore Avenue that ends at Golfview Road. However, there is no sidewalk on the north side of Ardmore Avenue or on Golfview Road. An off-street pedestrian path connects Ardmore Avenue to the outbound side of the station. Stairs and ramps located west and east of the station connect Ardmore Avenue to SEPTA parking and the pedestrian path.

BICYCLISTS

There are racks for up to eight bicycles to support bicycle commuters.

PARKING

Twenty-eight percent of passengers park at the station, an average amount when compared to the other Haverford Township stations. SEPTA provides 39 passenger parking spots, with two reserved for handicapped parking. There was no on-street parking observed near the station.

Station Objectives

The recommendations at this station focus on expanding parking capacity at the station on the land adjacent to the rail line. The following objective helped the team come up with the specific improvements shown in the concepts.

- Expand commuter parking along the western, golf course side.

Recommendations

STATION DESIGN CONCEPT

At Ardmore Avenue, the recommendations (Table 9, Figure 23) take advantage of the SEPTA right-of-way that exists just beyond the newly constructed parking lot on the inbound platform side. Although the parking demand at this station is not high, supplying more parking here could encourage passengers from other stations to park at Ardmore Avenue. In addition, if the King of Prussia NHSL extension does move forward, parking demand for the entire line will likely increase. Additional recommendations at this station include highlighting the evergreen tree at the Haverford Road, Valley View Avenue, and Ardmore Avenue intersection through pedestrian enhancements and landscaping.

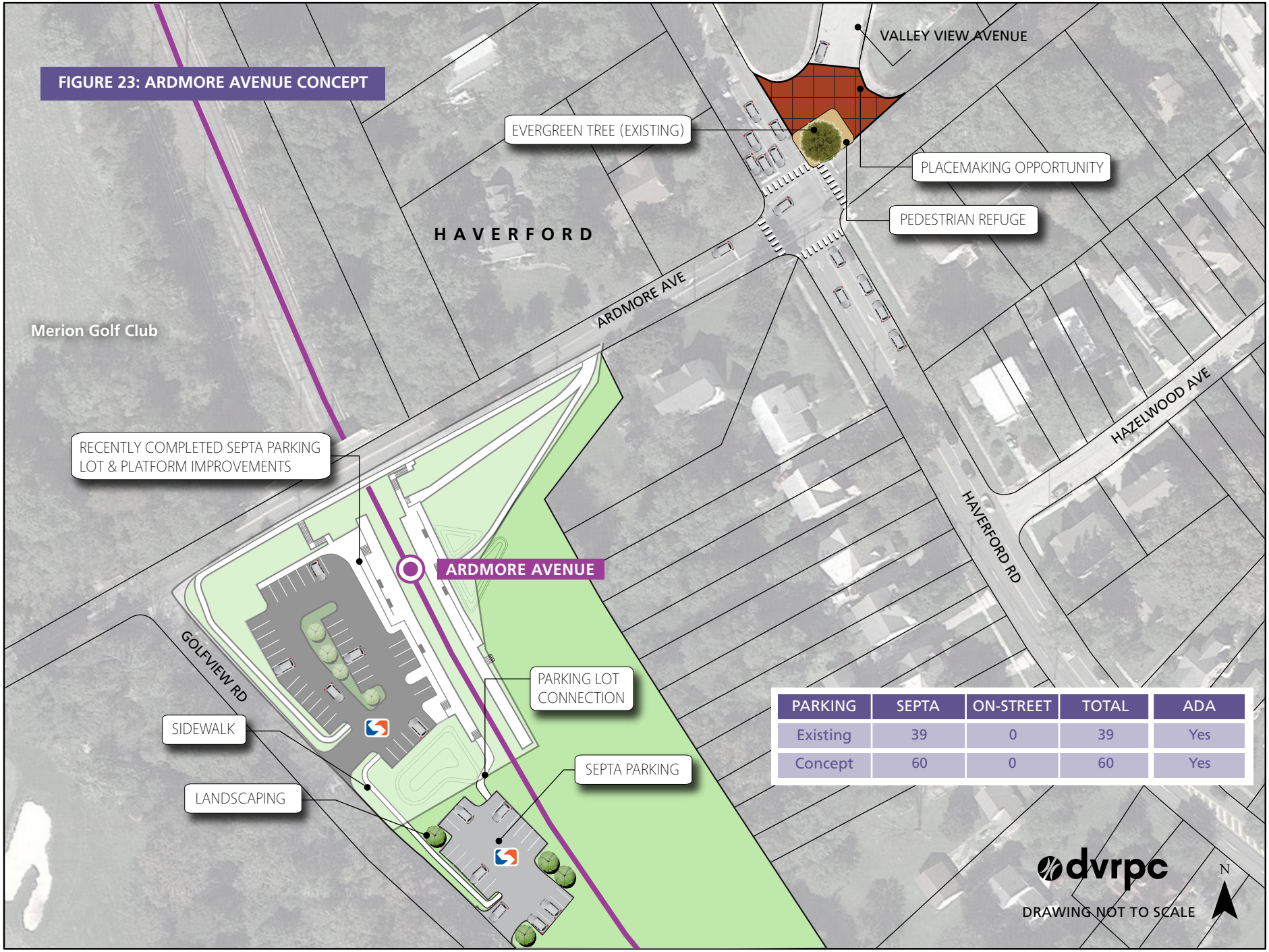
TABLE 9: ARDMORE AVENUE CONCEPT IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Coordinate with PECO to construct a second SEPTA parking lot just south of the newly-built parking lot on the south side of the station that incorporates best practices for stormwater management	Parking	Medium	$$
SEPTA	Install a sidewalk connection from station platform to new SEPTA parking lot and landscaping once construction is completed	Pedestrians and Bicyclists	Medium	$$
HAVERFORD TOWNSHIP & PENNDOT	Install larger pedestrian refuge around the evergreen tree at Haverford Road/ Valley View Avenue and Ardmore Avenue intersection, including streetscaping elements to make the tree a programmable community space	Pedestrians & Bicyclists	Medium	$$
PENNDOT	Restripe crosswalks at Haverford Road and Ardmore Avenue	Pedestrians & Bicyclists	Medium	$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired

FIGURE 23: ARDMORE AVENUE CONCEPT



PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	39	0	39	Yes
Concept	60	0	60	Yes

AERIAL SOURCE: GOOGLE MAPS

8 Haverford

The parking lot at Haverford Road lacks a clear circulation pattern for motorists and pedestrians accessing the site and is generally a bleak environment.

Station Characteristics

SERVICE: LOCAL/HUGHES PARK EXPRESS
TOTAL BOARDS: 126
COMMUTER PARKING (SEPTA): 34
COMMUTER PARKING (OBSERVED ON-STREET): 0
ADA ACCESS: NO
TRANSFERS: NONE

27% of commuters park at or near the station

21% of parkers travel less than 1 mile to the station

21% of parkers travel more than 3 miles to the station

Existing Conditions

PHYSICAL SETTING

Haverford Station is located on Haverford Road in the Bryn Mawr neighborhood of Haverford Township. Along this section of Haverford Road, land uses transition from residential to the south, to the commercial uses of Bryn Mawr's downtown, located about half a mile to the north. The institutional uses of Haverford College and Bryn Mawr Hospital are less than a mile to the east and north, respectively. These proximate uses site the station close to major destinations that may create demand for access via the NHSL Haverford Station.

The station is not ADA accessible. Stairs to the outbound platform and a bridge with stairs to the 69th Street TC-bound platform prevent ADA accessibility to the station. The existing conditions of the station area are illustrated in Figure 24.

LAND USE

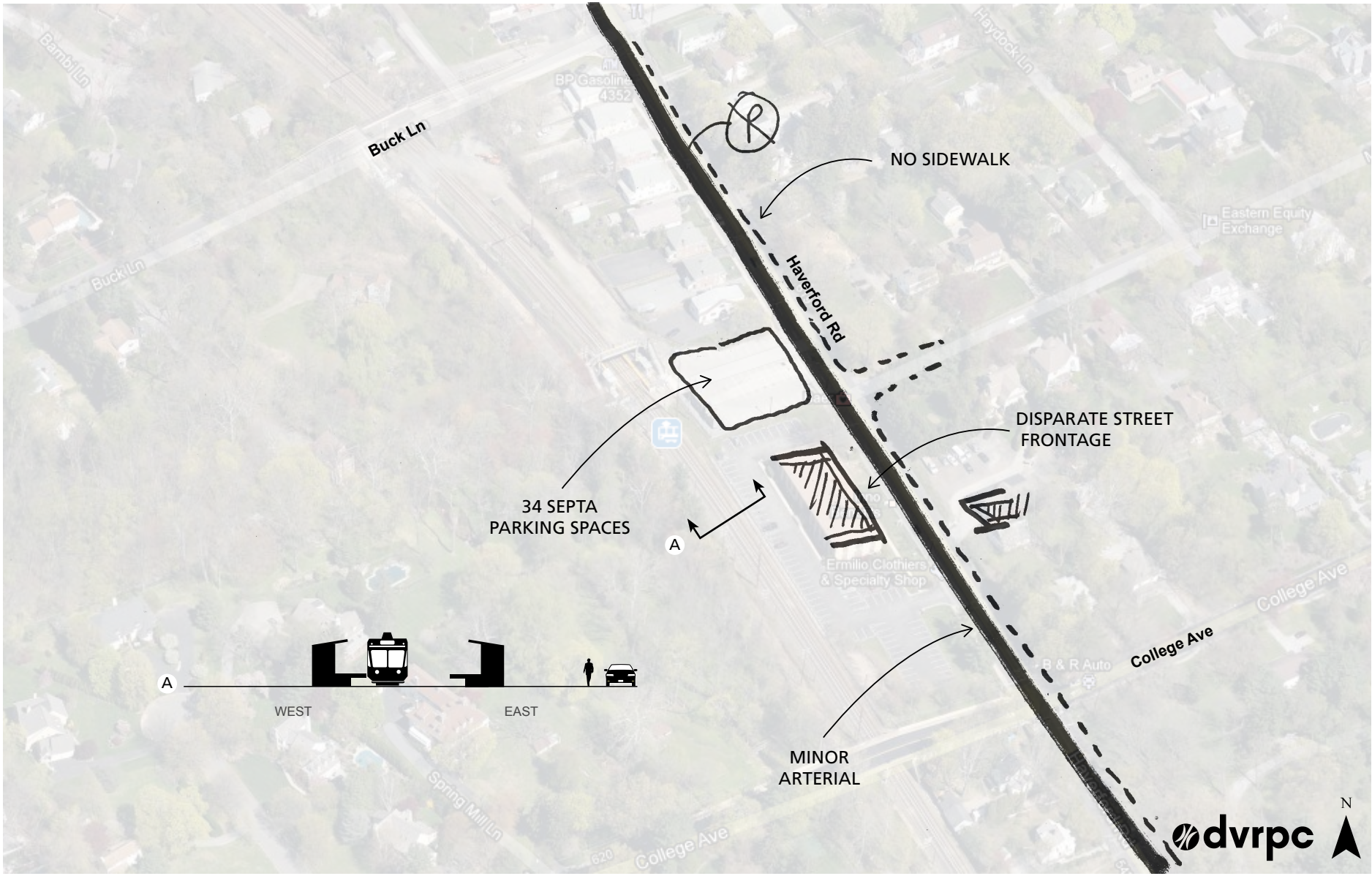
The area around the station is office and residential. Along Haverford Road, the land use context of the station consists of office, automotive sales and service, and single-family housing. Vacancies exist along the commercial frontage of Haverford Road. Side streets are largely single-family residential.

TRANSIT

Ridership at Haverford Station is 126 passenger boards per day.

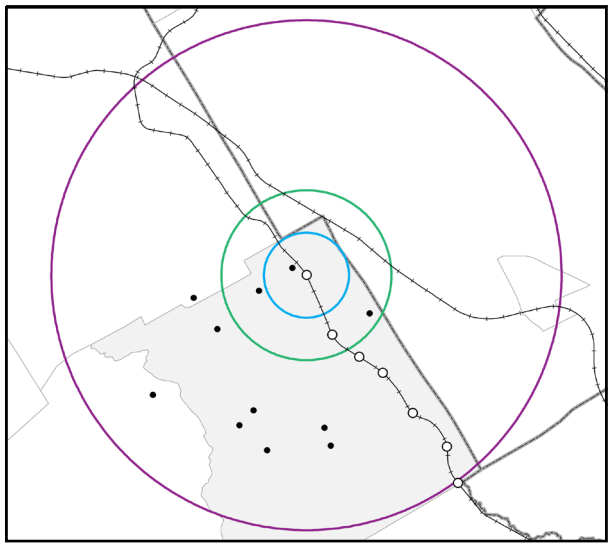
- Service from Haverford Station runs outbound to NTC from 4:30 AM to 1:55 AM, and inbound to 69th Street TC between 5:11 AM and 2:32.
- Travel time from the station is 9 minutes to 69th Street TC and 20 minutes to NTC.
- Headways vary from 8 to 15 minutes during morning and afternoon peak periods, 10 to 30 minutes during off-peak hours, and up to 80 minutes after midnight.

FIGURE 24: HAVERFORD EXISTING CONDITIONS



AERIAL SOURCE: GOOGLE MAPS

FIGURE 25: HAVERFORD STATION SHED



A recent license plate survey showed that a majority (57 percent) of commuters parking at or near Haverford Station are traveling from one to three miles to reach the station.

SOURCE: DVRPC, 2009

ROAD NETWORK

Haverford Station is located between College Avenue and Buck Lane along Haverford Road, where Millbrook Lane intersects Haverford Road. The SEPTA parking lot can be accessed on Haverford Road, and there is a small area that serves as the passenger drop-off and pick-up location.

PEDESTRIANS

There is a limited sidewalk network in the station area. On Millbrook Lane and on the east side of Haverford Road there are no sidewalks. A pedestrian path connects the outbound station platform to the Buck Lane Bridge.

Unclear pedestrian circulation through the parking lot and the proximity of the rail storage and PECO substation make the station somewhat uninviting to pedestrians.

BICYCLISTS

There are two bicycle racks for passengers at this station.

PARKING

Approximately 27 percent of passengers park at the station, an average amount when compared to the other stations. The SEPTA commuter parking lot has 34 spaces, and there is remaining capacity. There was no on-street parking observed by the study team in proximity to the station.

Station Objectives

The recommendations at this station focus on making the passenger experience of accessing the station safer and more attractive. The following objectives helped shape the specific improvements shown in the concepts.

- Reconsider vehicular circulation through the parking lot.
- Clearly define station parking lot entrance.
- Improve pedestrian connections between the station platform and Haverford Road.
- Relocate the SEPTA substation and visible rail storage.
- Improve accessibility to the station platforms.
- Add landscaping and passenger waiting facilities to the station area.

Recommendations

STATION DESIGN CONCEPT

The recommendations (Table 10, Figure 26) at this station focus on creating better access and delineating circulation for pedestrians and vehicles. The study team suggests reconfiguring the SEPTA parking lot to one-way vehicle circulation and angled parking stalls; this will create better organization and remove undefined driveways. There is an existing pedestrian pathway that connects the Buck Lane Bridge to the 69th Street TC (inbound) platform. ADA ramps should be added to this path to improve accessibility from Buck Lane. Similarly, station access can be enhanced by extending the pedestrian pathway to College Avenue and constructing ADA ramps between College Avenue and the path.

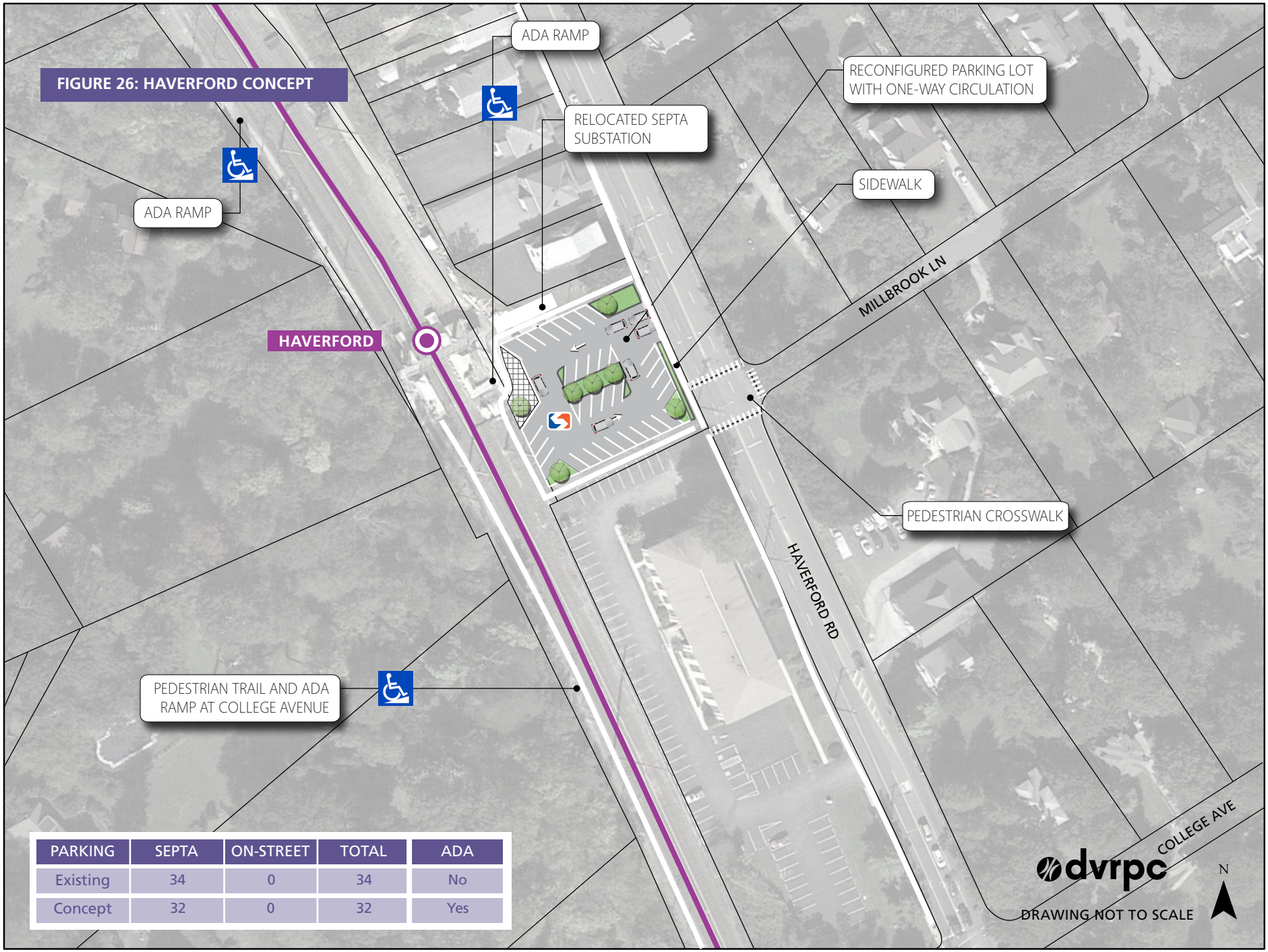
TABLE 10: HAVERFORD CONCEPT IMPLEMENTATION

	RECOMMENDATIONS	TYPE	TIMEFRAME	COST
SEPTA	Reconfigure SEPTA parking lot with one-way circulation, passenger drop-off, and landscaping	Parking	Medium	$$
	Install sidewalks from Haverford Road to platform area outside of parking areas	Pedestrians and Bicyclists	Medium	$$
	Install new ADA on-ramp, both sides of station	Pedestrians and Bicyclists	Medium	$$
	Relocate substation outside of key pedestrian areas	Station	Medium	$$
HAVERFORD TOWNSHIP	Install missing gaps of sidewalk on the west side of Haverford Road.	Pedestrians and Bicyclists	Medium	$$
	Install asphalt trail from the College Avenue bridge to the 69th Street-bound station platform	Pedestrians and Bicyclists	Medium	$$
	Provide pedestrian ADA ramp access from the College Avenue and Buck Lane bridges	Pedestrians and Bicyclists	Medium	$$

Timeframe
Short: 1 year or less
Medium: 1 to 3 years
Long: 3 or more years

Cost
$: Policy changes or low-cost improvements on land already owned by the Actor(s)
$$: Improvements requiring additional design/engineering on land already owned by the Actor(s)
$$$: Improvements requiring additional design/engineering on land that would have to be acquired

FIGURE 26: HAVERFORD CONCEPT



PARKING	SEPTA	ON-STREET	TOTAL	ADA
Existing	34	0	34	No
Concept	32	0	32	Yes

AERIAL SOURCE: GOOGLE MAPS

9 Next Steps

Township-Wide Implementation Action Items

There are multiple ways in which the recommendations presented here could be implemented based on funding availability, staff time, and public interest. Determining which activity to embark on first will, in large part, depend on the resources available to the key implementing agencies of Haverford Township and SEPTA. Recognizing that flexibility will be key in advancing these recommendations, the following implementation actions run the gamut from changing policy and forming an engaged public participation task force, to implementing specific infrastructure projects, and are not necessarily presented in sequential order. The culmination of these action items will work holistically to support a mutually beneficial relationship between NHSL stations and service, and the surrounding Haverford Township communities.

The study team has identified several priority tasks that are described on the following pages.

Construction activity at the Ardmore Avenue Station prior to the U.S. Open at the Merion Golf Club

1 Create a Haverford Township NHSL Task Force

The creation of a formal partnership between SEPTA, Haverford Township, and resident representatives will ensure direct points of contact and a commitment to the study recommendations. The Haverford Township NHSL Task Force should engage partners, such as state legislators, PennDOT, Delaware County, and DVRPC, in implementation activities to embrace the vision and actions to implement NHSL station-related projects. The Task Force should include a public process on multimodal access to stations, urban design, and development opportunities within the township that includes property owner participation from each station area on a project-by-project basis. Their work will prioritize and oversee implementation of several projects that make up the NHSL Haverford Township-wide recommendations.

Actor: Haverford Township

2 Choose preferred station concepts

Determine which concepts and projects are most preferred by the adjacent station community, SEPTA, and the Haverford Township Board of Commissioners based on safety, quality of life, ability to leverage public dollars for private investment, constructability, capacity afforded to nonmotorized modes, and available funding. Once decided, create a strategy for implementation.

Actor: Haverford Township NHSL Task Force

3 Fast-track implementation of several critical parking and access projects

A few recommended strategies are prime for early and immediate implementation because they (a) address resident concerns that have recently been expressed to Township Commissioners, (b) are relatively low cost and quick to implement, or (c) represent a good potential for a return on investment. Strategically chosen, fast-tracked projects could represent early community support "wins" for both SEPTA and Haverford Township. These critical projects include:

Township Line Road: Township Line Road Station has a low amount of boards compared to other Haverford Township NHSL stations and is positioned on a high volume roadway, so it may well represent an opportunity for SEPTA to attract new riders. Devise a strategy to both accommodate a passenger drop-off area and a select amount of commuter parking, as well as raise the level of service at the station in an effort to attract more passengers to the station.

Penfield Station: Installation of intersection, bump-out, and sidewalk recommendations would go far in improving the pedestrian environment at this station. These improvements could encourage some commuters, who currently drive from a close distance to the station and park in residential areas, to start walking to the station, as well as to more clearly define potential conflict points between vehicles and pedestrians.

Beechwood-Brookline: Clear, pave, and stripe the identified Haverford Township property along Karakung Drive for commuter parking. The land already belongs to the township—so it could be put in place quickly—and parking would be a continuation of existing parking, so there would be little in terms of educating current and potential drivers and park-and-ride customers. Additional parking here may serve to shift some of the parking on the west side of the station that is in front of houses, to a less residential area.

Ardmore Junction: Install ADA ramps to each platform. Ardmore Junction Station has many characteristics to make it a high-performing station—plentiful parking, express service, and visibility along a high-volume roadway. Making the station ADA-compliant would make this a full-service, model station for SEPTA along the entire NHSL corridor and among stations located in Haverford Township.

Early and immediate implementation should also be incorporated as concurrent infrastructure work is underway by others. For example, PennDOT is anticipating replacing the College Avenue bridge over the NHSL tracks in 2015. Haverford Township should work with PennDOT staff to include access from the bridge to a pedestrian trail connecting people from the College Avenue bridge to Haverford Station's inbound platform, as shown in the station recommendations.

Actor: Haverford Township NHSL Task Force

4 Track funding opportunities

Continue to track existing, and explore new sources for transportation, land use, and urban design funding from federal, state, municipal, nonprofit, and private sources. Many public projects are partnering with private funding sources in creative ways in order to get built. Securing funding for NHSL station improvements will rely on continued research into nontraditional funding sources and partnerships in order to ensure an appropriate level of planning, design, construction, and maintenance of future projects.

Actor: Haverford Township NHSL Task Force

5 Develop a Small Area Plan for the commercial core of Haverford Road

Building on previous Haverford Road planning efforts, develop a Small Area Plan that supports and expands on the findings of the 2013 DVRPC *Haverford Road Commercial Corridor Analysis* Study in order to generate interest in the area among potential retail, commercial, and residential developers, and to attract the public to Haverford Township as a place to live, work, and play. The specific outcomes could consist of:

- a market analysis;
- adoption of a form-based code zoning overlay;
- adoption of the Small Area Plan as an overlay to the Haverford Township Comprehensive Plan;
- exploration of possible tax credits and tax abatement initiatives to attract developers;
- a marketing brochure that outlines developer opportunities, promotes residential and commercial life in Haverford Township, boosts accessibility afforded through the NHSL, and endorses Haverford Township schools and quality of life; and,
- a publicity event for Haverford Township to market the township's vision to press, developers, and realtors.

Actor: Haverford Township Board of Commissioners

6 Conduct an engineering study of a Haverford Road "road diet"

The 2013 DVRPC *Haverford Road Commercial Corridor Analysis* Study suggested, and found feasible, a reconfiguration of the Haverford Road corridor in order to enhance the pedestrian environment, revitalize commercial properties, and improve access to the Ardmore Junction and Wynnewood Road stations of the NHSL. Preparation of construction plans now best positions the township and PennDOT to be "shovel-ready" when competitive funding sources are made available—a key characteristic of projects that get funded.

Actor: Haverford Township Board of Commissioners

7 Prioritize and construct station-area projects

Continue to construct development, streetscape, access, roadway, and station platform projects that are supported by stakeholders, have secured funding, will support ridership along the NHSL, minimize congestion, and support quality of life within the township.

Actor: Haverford Township Board of Commissioners and SEPTA

Haverford Township Norristown High Speed Line Parking and Pedestrian Access Study

Publication Number	13026
Date Published	August 2014
Geographic Area Covered	Haverford Township, Delaware County, Pennsylvania
Key Words	Haverford Township, Norristown High Speed Line, SEPTA, Township Line Road, Penfield, Beechwood-Brookline, Wynnewood Road, Ardmore Junction, Ardmore Avenue, Haverford

Abstract

The Norristown High Speed Line (NHSL) plays an important role in the transportation context of Haverford Township. This study was conducted by DVRPC, with guidance from Haverford Township, SEPTA, and Delaware County, to identify strategies designed to enhance parking capacity and nonmotorized access to the township's seven NHSL stations. The report includes an overview of existing conditions, as well as detailed recommendations for each station area.

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