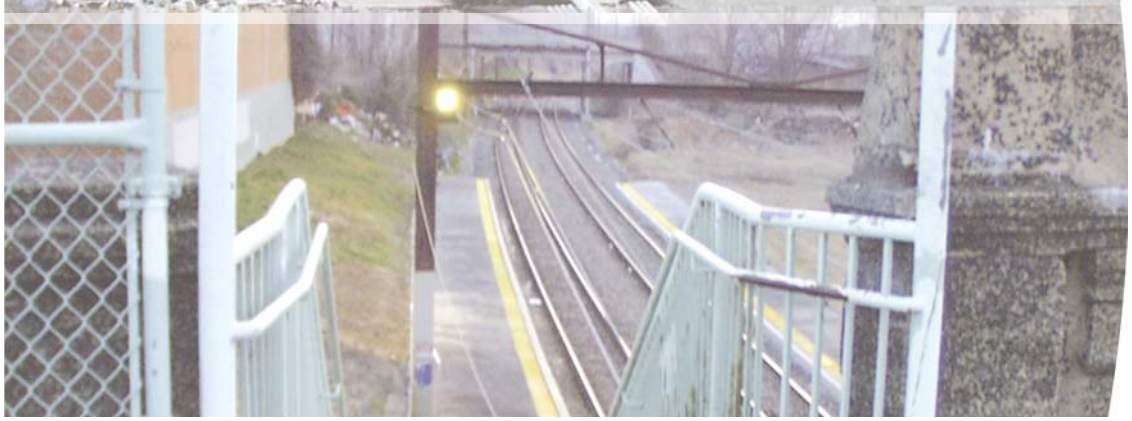
JUNE 2003

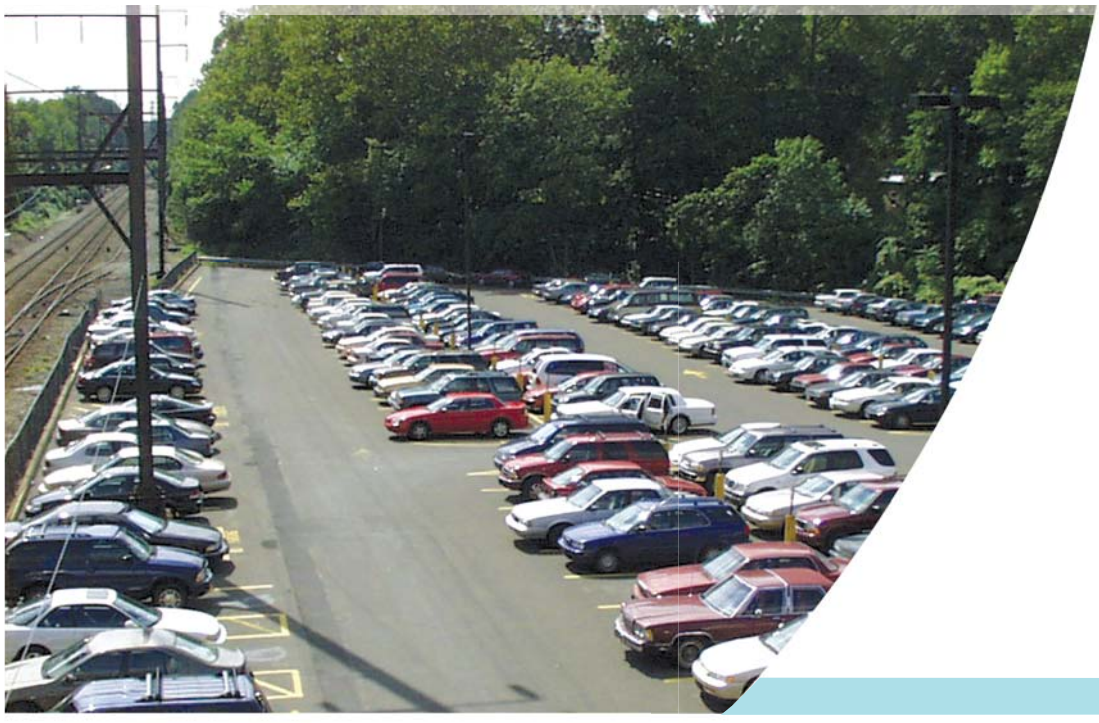
INTERMODAL PASSENGER SYSTEM SURVEY

PHASE II

A WORKING DOCUMENT



DELAWARE VALLEY REGIONAL PLANNING COMMISSION



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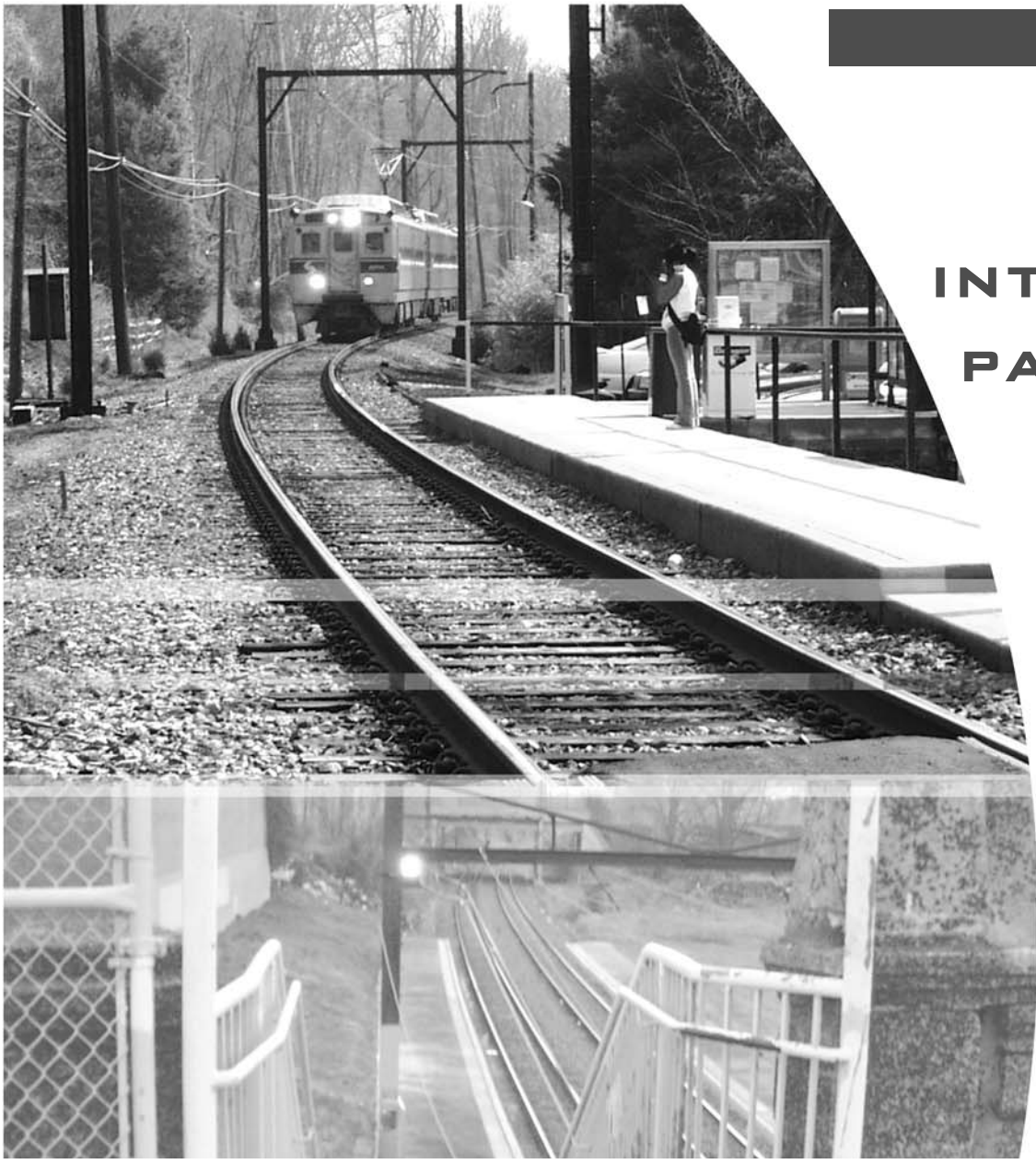

INTERMODAL PASSENGER SYSTEM SURVEY

PHASE II

A WORKING DOCUMENT

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency that provides continuing, comprehensive and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determines and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.

Our logo is adapted from the official DVRPC seal, and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole, while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by 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 its findings and conclusions, which may not represent the official views or policies of the funding agencies.

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EXECUTIVE SUMMARY

DVRPC staff identified 55 key intermodal passenger terminals to examine change of mode conditions which may affect or support intermodal passenger travel in the region. Staff subsequently developed a systematic phased work program to evaluate 38 of these terminals. In Phases I, II, and III, inventories and evaluations are conducted to provide information on station amenities, interconnecting services, highway access and parking characteristics. This report summarizes the second phase of work and addresses 11 facilities[1].

The inventory of facilities included in the second phase includes four NJ Transit train stations, four SEPTA regional rail stations, and three park-and-ride lots; two owned and maintained by PennDOT, and one by NJ Transit.

Fact sheets have been prepared for each facility, and are shown in the Appendix. Each facility's fact sheet provides:

- an aerial view of the station or lot (DVRPC's 2000 digital aerial photography);
- an inventory of interconnecting modes, parking availability and amenities; and,
- a map of the commuter parking shed surrounding the station or lot.

A summary of Findings-to-Date has been prepared, and can be found on Table 3. The preliminary recommendations have been developed from data collected through the first two phases of the work program.

The series of three initial phases are prepared as working documents. Presentation in this manner provides member governments and agencies the opportunity to continually review, remark, and supply inputs to the system, and the performance data collected and evaluated.

Phase IV will summarize the initial steps and culminate with a candidate action plan to improve vehicular access and passenger transfer conditions for a selected subset of the inventory.

The work was conducted through the Intermodal Facilities Management System (IMS)

[1] Phase I was completed in June 2002 and is summarized in DVRPC publication #02026

element of DVRPC's annual planning work program. The IMS was one of six management systems created by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and is carried on through the auspices of the region's current long range plan.

INTRODUCTION

The work presented in this report assesses an inventory of operating conditions in and around key intermodal passenger terminals in the Delaware Valley. Intermodal passenger terminals are components of the transportation system that facilitate the transfer of people between modes of travel. Examples of intermodal passenger terminals in this region include train and bus stations, airports, and park-and-ride lots.

This report is Phase II of a four phase program that will systematically inventory and analyze passenger transfer conditions at train stations and park-and-ride lots in the region. The initial three phases will consist of collecting data, and providing sketch planning data to evaluate 38 terminals.

Major elements included in the inventory are:

- commuter parking shed areas surrounding the station;
- connecting highways and interconnecting transit services which serve the approach and departure of customers within that shed;
- circulation conditions on the station premises; and
- parking availability at the station.

It is intended that the first three phases will be summarized as working documents to elicit review and input by member agencies. DVRPC staff would also take advantage of the working nature of the reports to integrate missing data or products emanating from the forthcoming Region-wide Transportation GIS Project – notably bus route alignments through the shed areas. Phase IV will summarize the evaluation steps and will recommend improvements for accessing and transferring at a selected subset of the terminals.

The Report

Phase II addresses 11 passenger terminals, including four NJ Transit stations, four SEPTA Regional Rail stations, and three park-and-ride lots. The report's major products are contained in the Appendix, wherein for each terminal major elements are inventoried or mapped, and aerial photos of the terminal area are provided.

THE INTERMODAL PASSENGER SYSTEM

Multiple modal choices are available to travelers in the Delaware Valley. The region contains a dense network of bus and rail services, as well as three major airports.

Figure 1 identifies the overarching system including regional, high-speed and light rail systems, the National Highway System, and park-and-ride lots. On the figure, 55 regionally significant intermodal passenger terminals, which were initially considered for inclusion in this study, are identified. From that population, 17 facilities were recognized to be undergoing site-specific evaluations, and/or were judged to be beyond the scope of this work. Table 1 corresponds with Figure 1, and indicates the particular phase in which the terminal inventories will be performed. Phase II, the current year's work program, addresses 11 of the listed terminals.

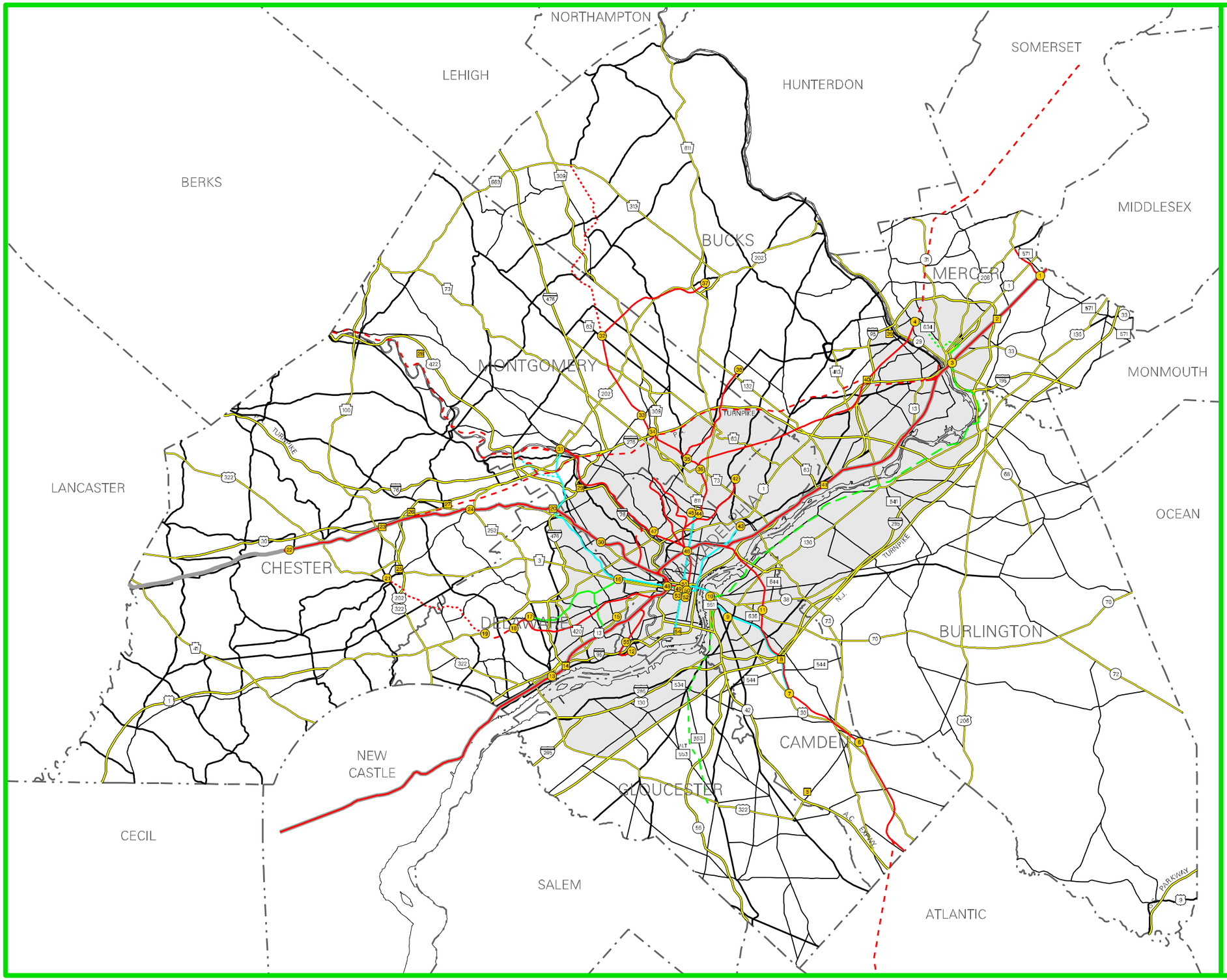
Bases for Network Evaluations

Detailed inventories conducted for each terminal, are presented on fact sheets in the Appendix. The fact sheets provide the basis for subsequent performance evaluations and recommendations employing:

1. Aerial mapping of the terminal area. These provide a sense of the size of the location, the environment surrounding the facility, the alignment of roadways serving the facility, and possible areas for parking expansion.
2. Inventories of:
    a. Station boarding activity and interconnecting transit services, when available from the operator;
    b. Parking conditions: current supply and demand relationships, a near term future which considers committed parking expansions, and planning level estimates of future parking demand changes at the station or at the park-and-ride lot. The estimates were computed assuming forecasted changes in population within the shed areas of the station (see item 3, page 8);
    c. Amenities on the station premises that contribute to smooth transfer between modes. These include shelters for transfers, lights, kiss-and-ride loops / short-term parking area, bike racks, and opportunities for parking expansion.

Figure 1

REGIONAL INTERMODAL PASSENGER FACILITIES NETWORK



HIGHWAY FACILITIES

- NHS Routes
- Limited Access
- Principal Arterial
- Secondary Arterial

PASSENGER RAIL SYSTEM

- Amtrak
- Regional Rail
- Rapid Transit Rail
- Light Rail
- Under Construction Rail
- Proposed Rail
- Potential Rail

INTERMODAL FACILITIES

- Stations / Terminals
- Park and Ride Lots

0 2 4 6 MILES

DELAWARE VALLEY
REGIONAL PLANNING COMMISSION

Table 1
Intermodal Passenger Facilities Management System Work Plan

Map ID	Description	Phase	Map ID	Description	Phase
1	Princeton Junction Station	*2*	29	Matsonford Rd. Park-and-Ride	*1*
2	Hamilton Station	*2*	30	Ardmore Station	*2*
3	Trenton Station	*4*	31	Norristown Transportation Center	-
4	West Trenton Station	*2*	32	Lansdale Station	*1*
5	Avandale Park-and-Ride	*2*	33	Ambler Station	*1*
6	Atco Station	*2*	34	Fort Washington Station	*1*
7	Lindenwold Station	*1*	35	Glenside Station	*1*
8	Woodcrest Station	*1*	36	Jenkintown Station	*1*
9	Ferry Ave. Station	*1*	37	Doylestown Station	*1*
10	Rand Transportation Center / Broadway Station	*1*	38	Warminster Station	*1*
11	Cherry Hill Station	*2*	39	Scudders Falls Bridge Park-and-Ride	*3*
12	Philadelphia International Airport	-	40	Woodbourne Station Park-and-Ride	*3*
13	Chester Transportation Center	-	41	Cornwells Heights Station Park-and-Ride	*1*
14	Crum Lynn Station	-	42	Fox Chase Station	*1*
15	Darby Transportation Center	-	43	Frankford Transportation Center	-
16	69th Street Terminal	-	44	Fern Rock Transportation Center	*2*
17	Media Station	*1*	45	Olney Transportation Center	-
18	Elwyn Station	*1*	46	North Philadelphia Transportation Center	-
19	Wawa Station (proposed)	*1*	47	Wissahickon Transportation Center	*3*
20	Radnor Station	-	48	30th Street Station	-
21	West Chester Transportation Center	*3*	49	Suburban Station, City Hall, 15th Street Complex	-
22	Thorndale Station	*1*	50	Market East, 11th Street Complex	-
23	Exton Station	*2*	51	Greyhound Terminal	-
24	Paoli Station	-	52	8th Street Complex	-
25	Paoli Pk. and US 202 Park-and-Ride	*2*	53	Walnut-Locust, 15th - 16th Street Station Complex	-
26	US 30 and US 202 Park-and-Ride	*2*	54	Pattison Station Park-and-Ride	*3*
27	Matthews Rd. and US 202 Park-and-Ride	*1*	55	Eastwick Transportation Center	*3*
28	Limerick Park-and-Ride	*1*	Shaded cells represent facilities studied for this report.		
			Completed in Phase I		

3. Maps displaying commuter parking shed areas surrounding the station. The shed maps represent the geocoded[2] addresses for registered owners of parked cars at the station. These were obtained through license plate surveys at the parking lot, and through the help of PennDOT and NJDOT staff and their tag interrogation processes.

PERFORMANCE EVALUATION

The data collected and provided in this report provides a basis for identifying deficiencies and preliminarily identifying improvement recommendations. As the data inventory will expand, the key evaluation criteria at this point are parking conditions.

Parking Conditions

Table 2 provides a summary tabulation of parking conditions at the stations, and suggests which may be candidates for inclusion in Phase IV.

Existing parking supply and demand were obtained from SEPTA and NJ Transit inventories, and counts performed by DVRPC. Future parking supply was obtained from the owners, and indicates where expansions are budgeted and programmed for implemention in the near future. Future supply was not available for the New Jersey Transit rail stations and PennDOT park-and-rides, so only current supply was assumed.

Parking demand projections for each of the station sheds were prepared especially for this study. In those cases, proportioned population changes between the US 2000 Census and DVRPC's Board adopted Year 2025 municipal population forecasts, within the shed, were applied to current station parking demands. Population forecasts for New Jersey municipalities outside the DVRPC region were provided by the North Jersey Transportation Planning Authority. It should be noted that the projections are quick, planning-level estimates, and do not include the possible effects of diverted or latent parking demands.

[2] Geocoding was performed using Arcview 8.0, and the TIGER Line Files based on the US 2000 Census

Table 2
Future Parking Outlook

Location	Current		Committed Supply	Estimated		
	Supply	Demand		2025 Demand	Parking Deficiency	% Parking Deficiency
NJ Transit						
Atco Station	178	57	178	70	ample parking available	
Avandale Park-and-Ride	325	231	325	297	ample parking available	
Cherry Hill Station	328	111	328	112	ample parking available	
Hamilton Station	1,887	1,657	1,887	2,047	-160	-8%
Princeton Junction Station	3,460	3,280	3,460	4,463	-1,003	-29%
SEPTA						
Ardmore Station	216	186	216	182	ample parking available	
Exton Station	450	450	450	593	-143	-32%
Fern Rock Station	718	688	718	687	ample parking available	
West Trenton Station	140	132	140	161	-21	-15%
PennDOT Park-and-Ride Lots						
Paoli Pk & US 202	55	9	55	12	ample parking available	
US 30 & US 202	124	23	124	28	ample parking available	

In the table, unshaded cells indicate stations with adequate parking supplies. Cells shaded yellow represent those stations which may experience minimal parking shortages in the foreseeable future (e.g., 10 to 100 spaces). Orange-shaded cells indicate stations with a future parking deficiency of 100 or more spaces – but have adjacent stations with a current surplus of parking spaces. Cells shaded red denote a projected future parking deficiency of 100 or more spaces – and there are currently no available parking spaces at adjacent stations.

From an examination of the table, four of the eleven locations examined in Phase II are likely to experience some level of undesirable parking deficiency in the foreseeable future. Of these only Princeton Junction Station will experience significant parking supply shortages. At Hamilton, Exton, and West Trenton stations, deficiencies of a lesser magnitude are projected. Exton is currently under examination for parking

expansion, however the supply of new parking was unavailable, as of printing.

From these evaluations, Phase IV should consider opportunities to ameliorate parking deficiencies at Princeton Junction Station, and possibly at Hamilton, Exton, and West Trenton stations. Where more land is not available for parking lots, structured parking may be considered. Alternatively, steps may also be taken to improving bus services, or paths which serve pedestrians and bikes, between the station and its shed – in an effort to capture more station users.

At SEPTA's Fern Rock Station and Ardmore Station conditions are currently at or near full capacity. Population in the shed area of these stations is not forecasted to increase significantly, thus future demand projections do not exceed the current supply. On the other hand, it is possible in areas such as these that current parking demand counts are understated where neighborhood streets may bear the overflow – and/or other than station users park in the lot. Additional improvements, expansions, and amenities at the station could yield more riders or better accommodate existing users. The demand at NJ Transit's Avandale Park-and-Ride is forecasted to grow to near capacity by the Year 2025. The lot should be monitored for improvements and expansions as the shed area's population grows.

Findings-to-Date

As the first two phases have been completed, preliminary recommended improvements have been accumulated for the studied locations on Table 3. The improvements emanate from all inventoried and evaluated performance items. The improvement types listed range from pedestrian walkway improvements and bike racks, to expanding parking lots and constructing parking structures.

Table 3
Findings-to-Date (through the completion of Phase II)

Location	Preliminary Recommendations
Phase I	
Lindenwold	• Construct satellite or structured parking facility • Provide rapid public transportation services to Gloucester Co • Integrate schedule with interconnecting NJ Transit and SEPTA bus routes
Woodcrest	• Construct satellite or structured parking facility • Integrate schedule with interconnecting NJ Transit and SEPTA bus routes
Ferry Avenue	• Construct satellite or structured parking facility • Provide rapid public transportation services to Gloucester Co • Integrate schedule with interconnecting NJ Transit and SEPTA bus routes
Rand Trans. Center / Broadway	• Construct satellite or structured parking facility • Terminal access to be updated with construction of Camden-Trenton Line • Integrate schedule with interconnecting NJ Transit and SEPTA bus routes
Media	• Extend R3 Regional Rail Line to Wawa • Install bike rack
Elwyn	• Extend R3 Regional Rail Line to Wawa
Ambler	• Add pedestrian scramble overpass at Butler Pk and Main St
Glenside	• Construct parking garage
Jenkintown	• Conduct feasibility for parking garage
Lansdale	• Provide shelter treatments on Main St for bus patrons and on Doylestown branch 'island'
Phase II	
Cherry Hill	• Integrate station's pedestrian and vehicular access and future parking needs with proposed plan to re-develop the Garden State Park property
Hamilton	• Expand parking lot
Princeton Junction	• Expand parking lot
Ardmore	• Conduct detailed study examining station's and commercial district's needs
Exton	• Provide parking expansion and pedestrian access on the west side of PA 100
Fern Rock	• Conduct detailed parking study examining station's parking conditions in relation to the surrounding neighborhood • Add new direct connection (stairway and bridge) between Subway parking lot and Regional Rail station • Repair existing stairway serving the Regional Rail station • Install bike rack
West Trenton	• Expand and pave current lot with relocated access to Railroad Ave and/or Grand Ave • Integrate schedule with interconnecting NJ Transit bus routes

NEXT STEPS

Phase III work will be initiated and will consist of five SEPTA terminals and one park-and-ride lot, owned and maintained by PennDOT.

Phase I and Phase II data collection will be completed as the Phase III work progresses.

An evaluation matrix (Table 3) has been prepared which summarizes all inventoried and evaluated performance items across the three initial phases, to guide the work to be conducted in Phase IV. The table should continue to be updated as the subsequent phases are completed and new data becomes available.

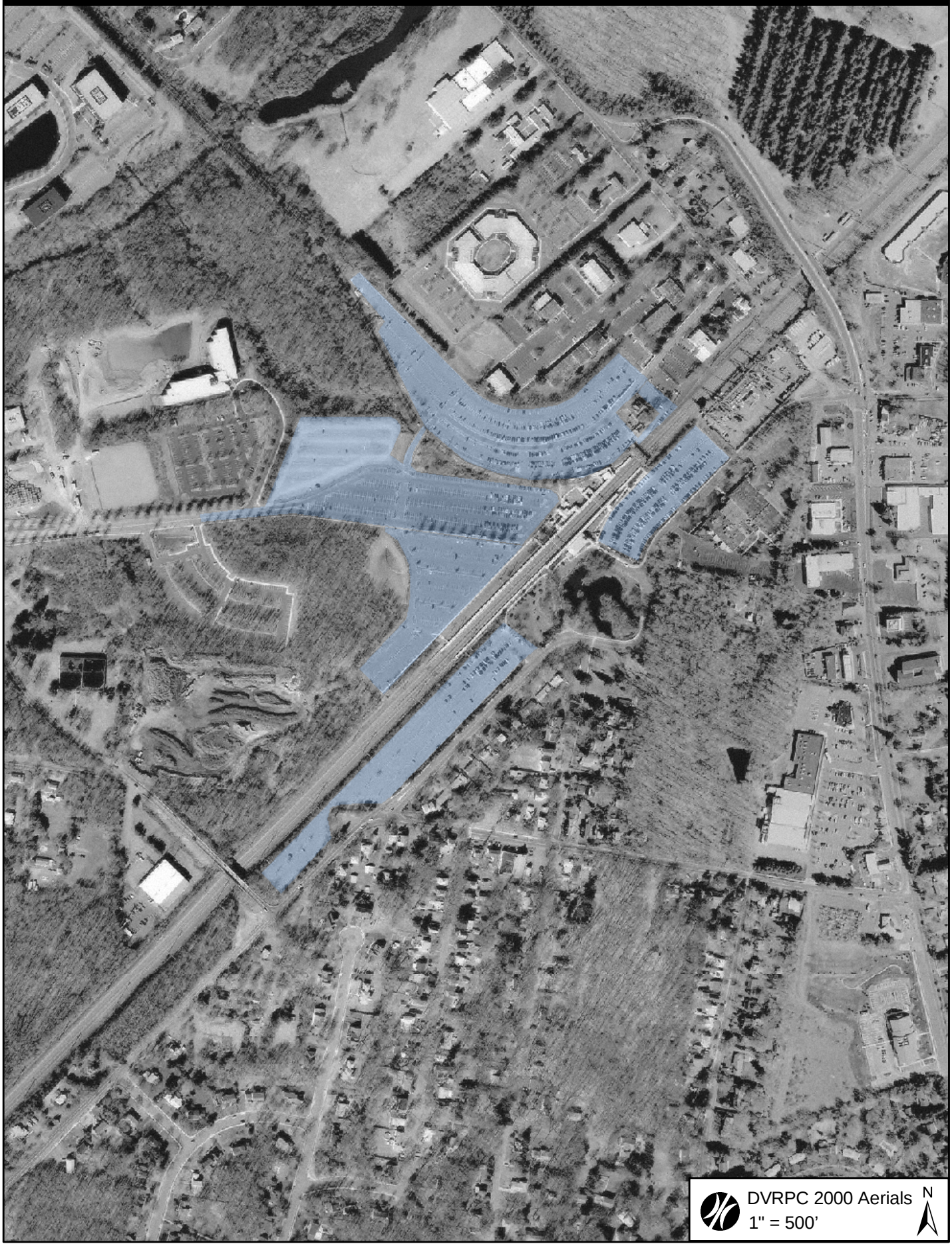
An open review and comment process will be maintained throughout the three initial phases. Member government and agency staff should comment on the network, the performance criteria and evaluations, and where possible submit outstanding or updated data items. □

Intermodal Passenger System Survey

Phase II

APPENDIX

Princeton Junction Station



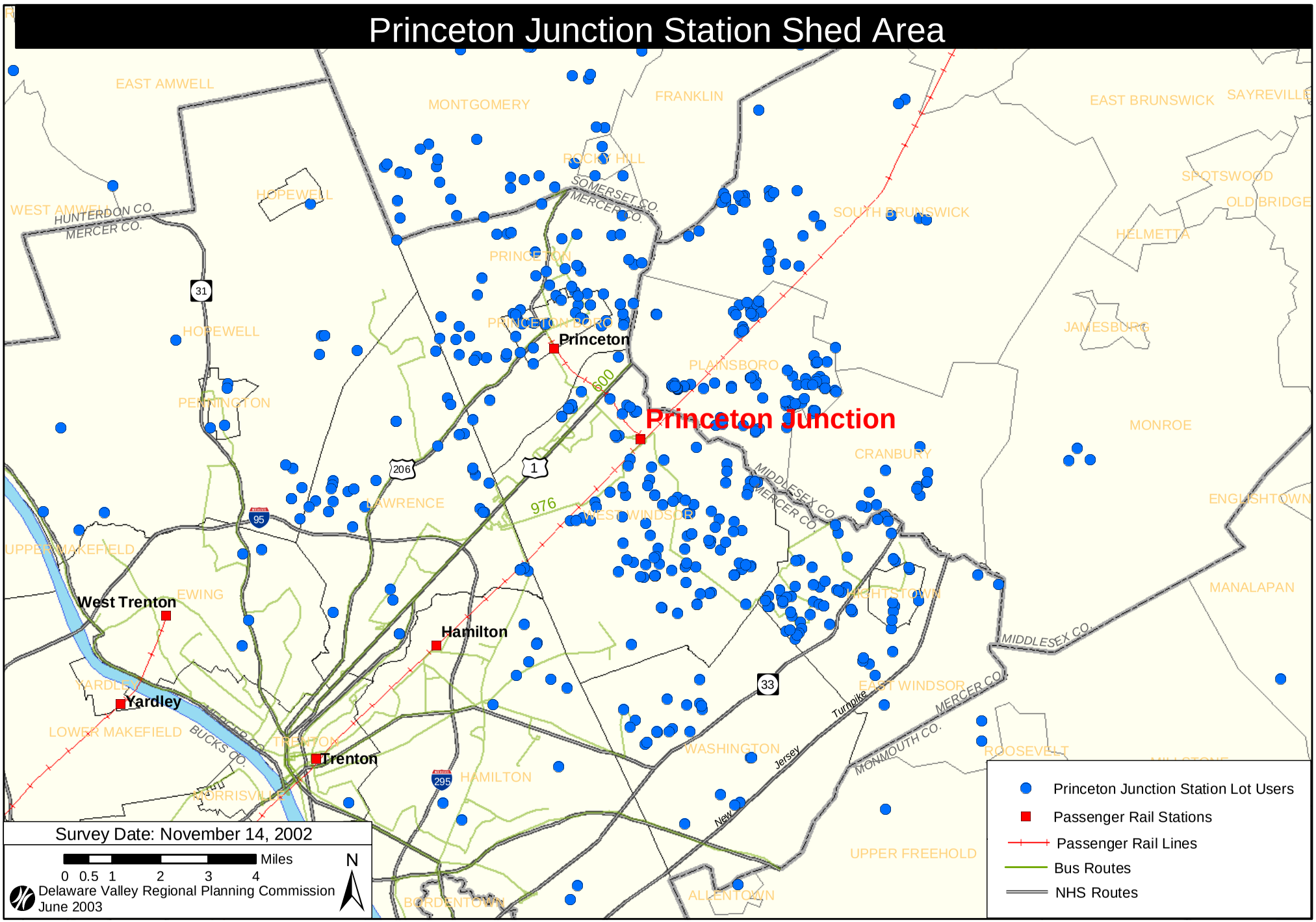
Location: Princeton Junction Station **Map ID # 1**
NHS Routes: US 1

Public Transportation Available					
			Boardings		
Operator	Route	Type	Inbound	Outbound	Source
NJ Transit	Northeast Corridor	Train	n/a	n/a	n/a
NJ Transit	Route 600	Bus	n/a	n/a	n/a
NJ Transit	Route 976	Bus	n/a	n/a	n/a
Amtrak	Acela Express	Train	n/a	n/a	n/a
Amtrak	Northeast Regional	Train	n/a	n/a	n/a
Amtrak	Metroliner	Train	n/a	n/a	n/a
Amtrak	Keystone	Train	n/a	n/a	n/a

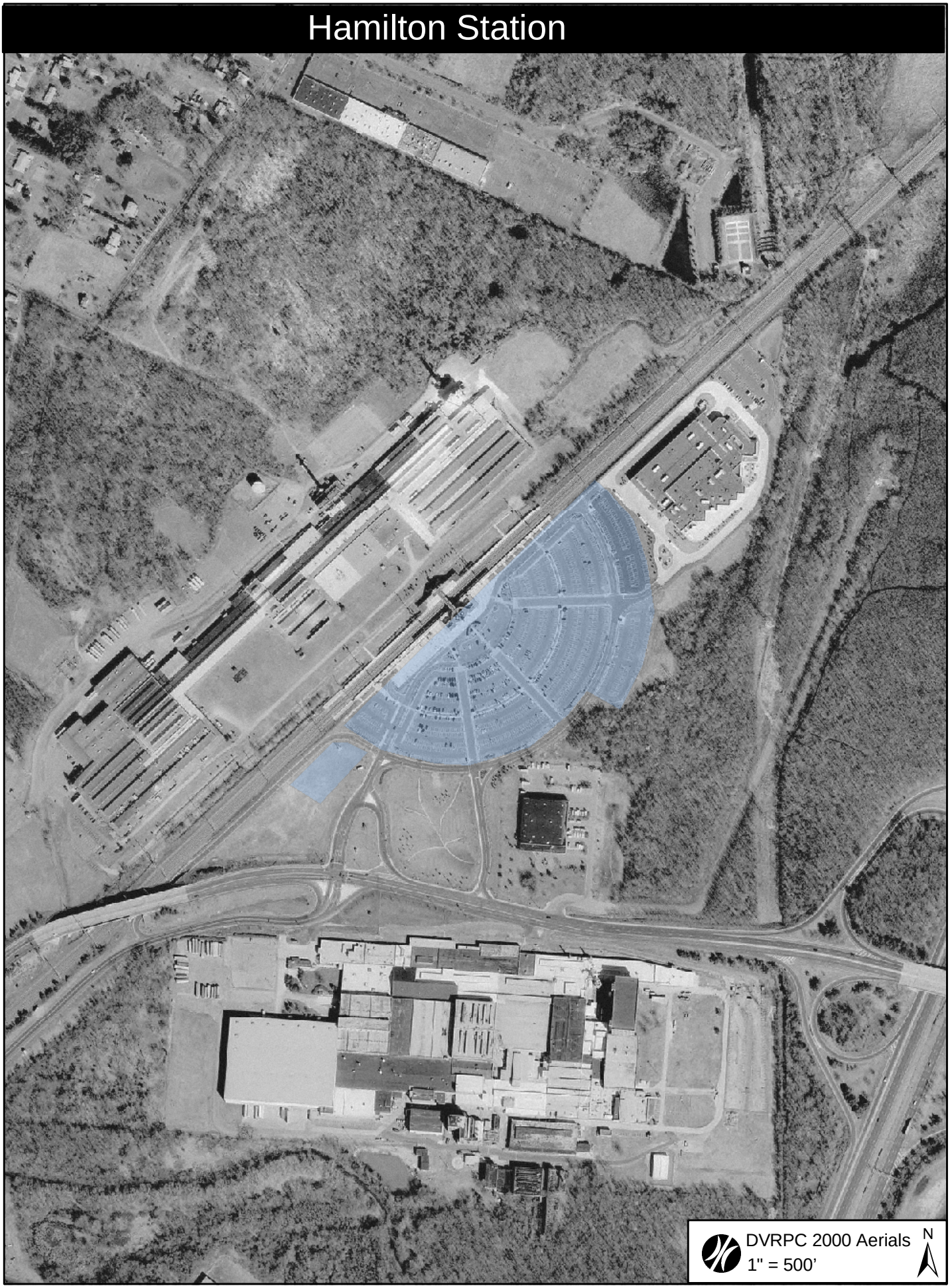
Parking Conditions		
Supply	Demand	% Utilization
3,460	3,280	95%
Projected Year 2025 Parking Demand:	4,463	
Major Shed Contributors to Station by MCD:	West Windsor (19%), Plainsboro (17%), East Windsor (10%), Princeton Twp (9%)	

Station Premises		
Amenity	Yes	No
Shelters for Transfers	x	
Lights	x	
Kiss & Ride Loop / Parking	x	
Bike Racks	x	
Opportunities for Parking Expansion	x	

Princeton Junction Station Shed Area



Hamilton Station



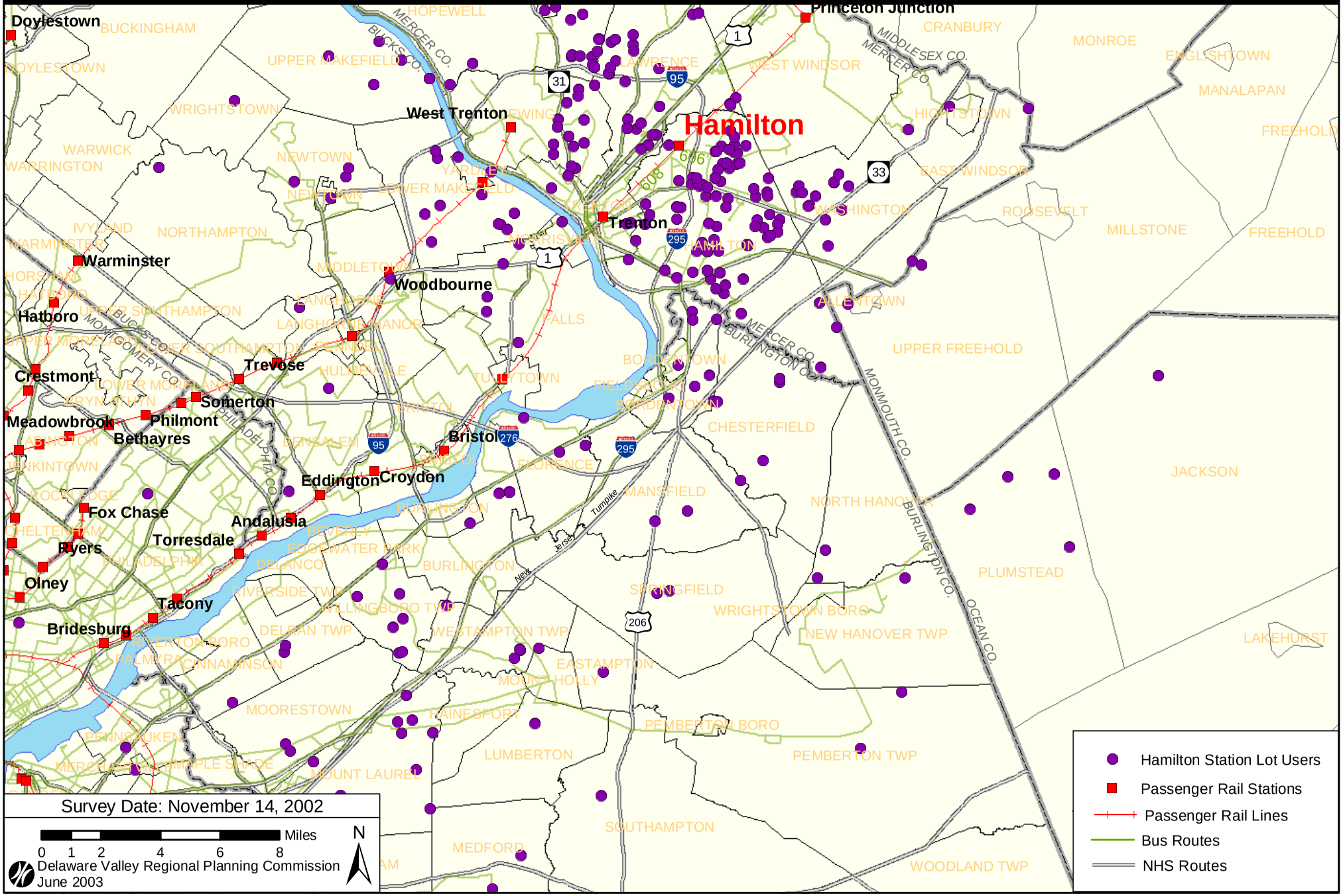
Location: Hamilton Station **Map ID # 2**
NHS Routes: none

Public Transportation Available					
			Boardings		
Operator	Route	Type	Inbound	Outbound	Source
NJ Transit	Northeast Corridor	Train	n/a	n/a	n/a
NJ Transit	Route 606	Bus	n/a	n/a	n/a
NJ Transit	Route 608	Bus	n/a	n/a	n/a

Parking Conditions		
Supply	Demand	% Utilization
1,887	1,657	88%
Projected Year 2025 Parking Demand:	2,047	
Major Shed Contributors to Station by MCD:	Hamilton (25%), Lawrence (9%)	

Station Premises		
Amenity	Yes	No
Shelters for Transfers	x	
Lights	x	
Kiss & Ride Loop / Parking	x	
Bike Racks	x	
Opportunities for Parking Expansion	x	

Hamilton Station Shed Area



West Trenton Station

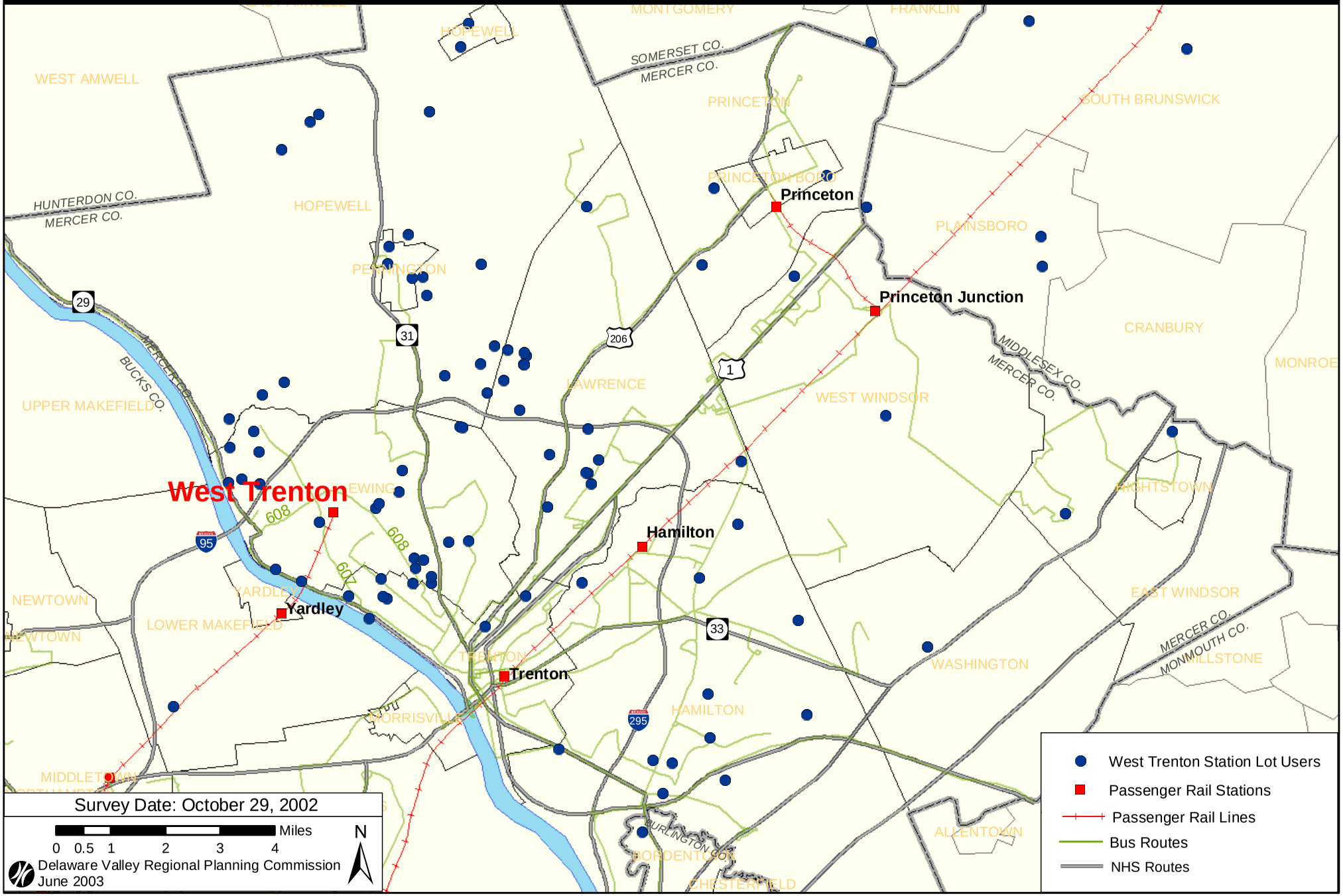
Location: West Trenton Station **Map ID # 4**
NHS Routes: none

Public Transportation Available					
			Boardings		
Operator	Route	Type	Inbound	Outbound	Source
SEPTA	R3	Regional Rail	189	0	SEPTA, 2001
NJ Transit	Route 608	Bus	n/a	n/a	n/a

Parking Conditions		
Supply	Demand	% Utilization
140	132	94%
Projected Year 2025 Parking Demand:	161	
Major Shed Contributors to Station by MCD:	Ewing (21%), Hopewell (15%), Lawrence (14%), Hamilton (11%)	

Station Premises		
Amenity	Yes	No
Shelters for Transfers		x
Lights	x	
Kiss & Ride Loop / Parking		x
Bike Racks	x	
Opportunities for Parking Expansion	x	

West Trenton Station Shed Area



Avandale Park-and-Ride

Location: **Avandale Park-and-Ride** **Map ID # 5**
NHS Routes: **Atlantic City Expressway**

Public Transportation Available

Operator	Route	Type	Boardings		Source
			Inbound	Outbound	
NJ Transit	Route 400	Bus	n/a	n/a	n/a
NJ Transit	Route 459	Bus	n/a	n/a	n/a
NJ Transit	Route 463	Bus	n/a	n/a	n/a
NJ Transit	Route 551	Bus	n/a	n/a	n/a

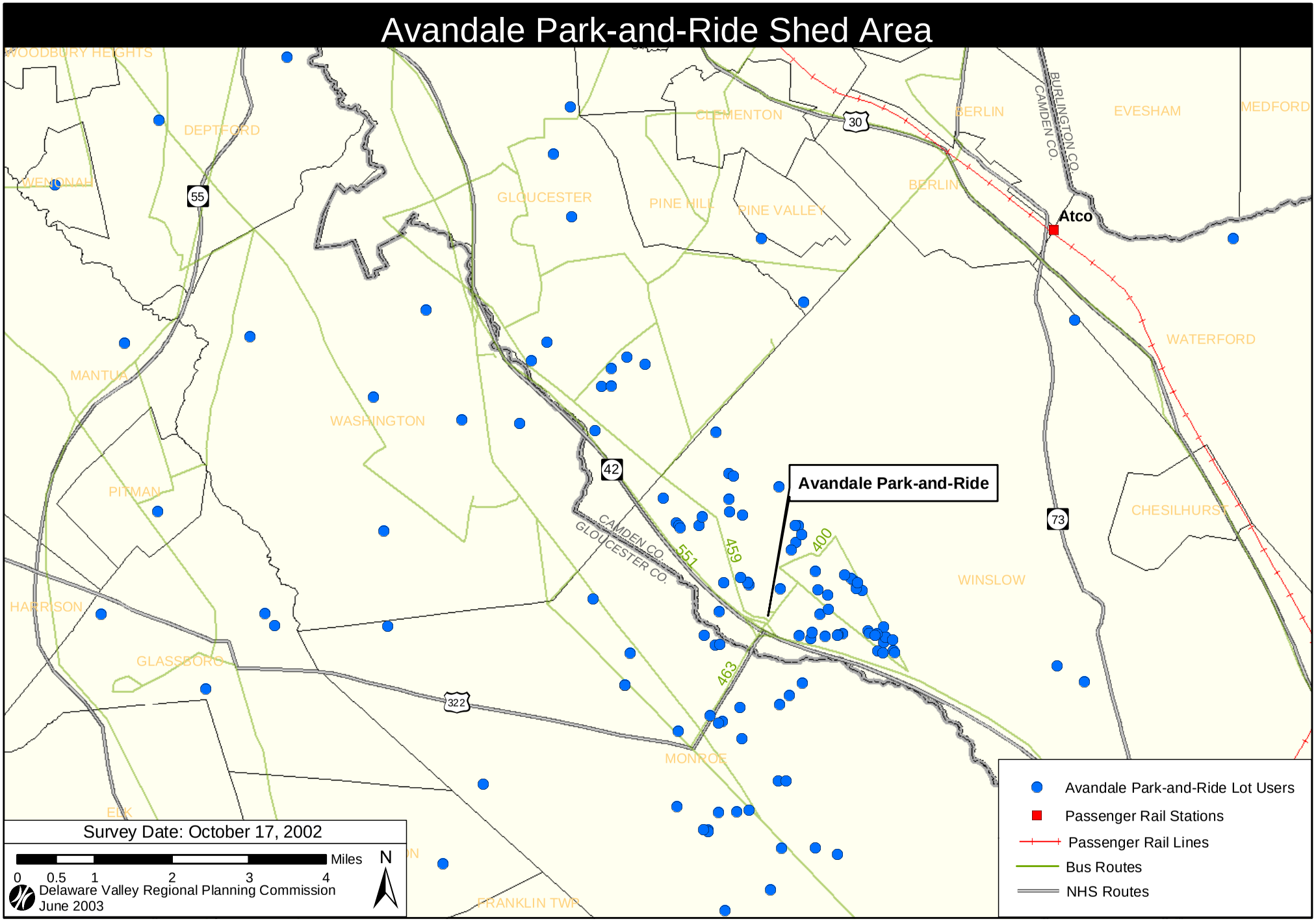
Parking Conditions

Supply	Demand	% Utilization
325	231	71%
Projected Year 2025 Parking Demand:	297	
Major Shed Contributors to Station by MCD:	Winslow (35%), Monroe (23%)	

Station Premises

Amenity	Yes	No
Shelters for Transfers	x	
Lights	x	
Kiss & Ride Loop / Parking	x	
Bike Racks	x	
Opportunities for Parking Expansion	x	

Avandale Park-and-Ride Shed Area



Atco Station

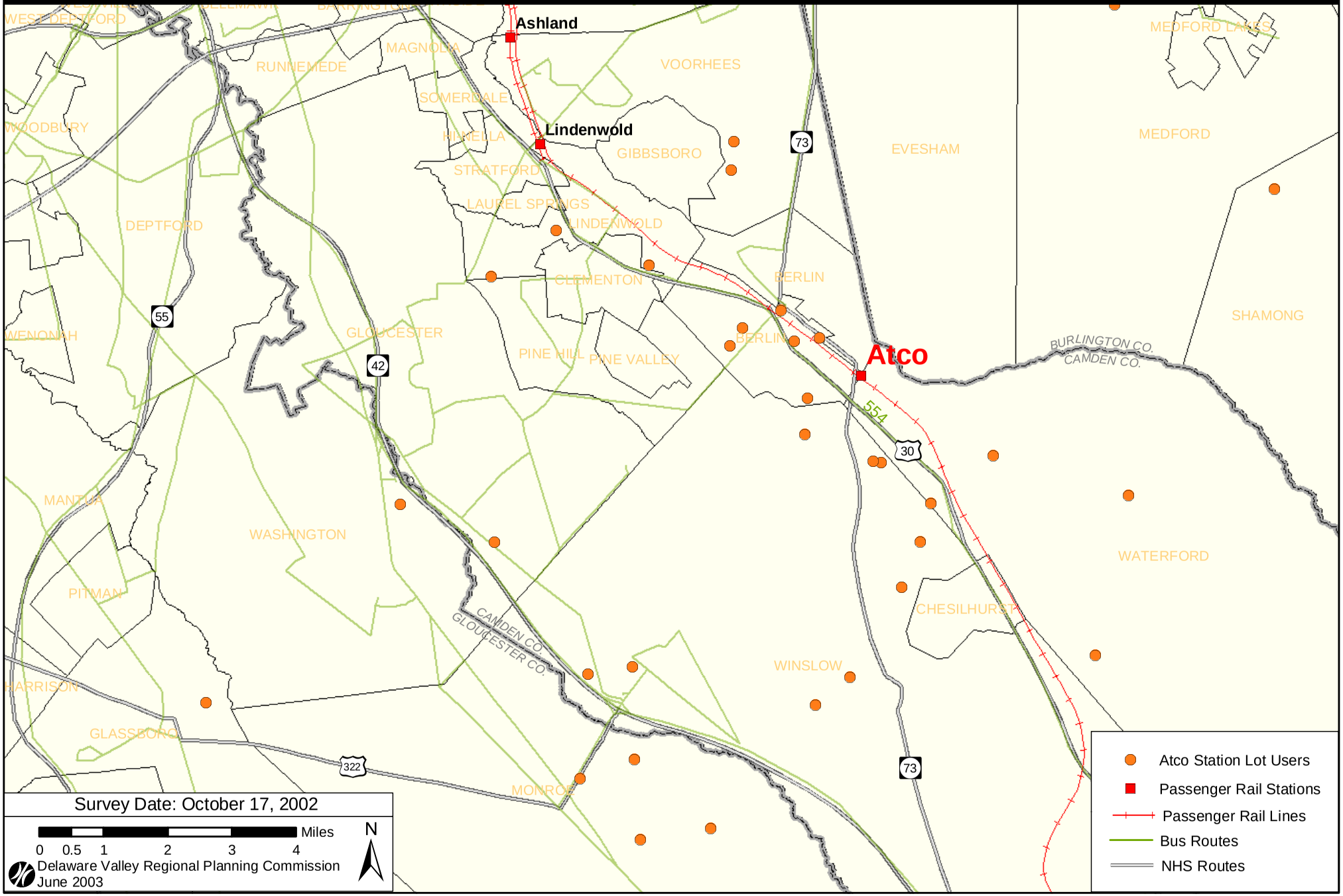
Location: Atco Station **Map ID # 6**
NHS Routes: NJ 73

Public Transportation Available					
			Boardings		
Operator	Route	Type	Inbound	Outbound	Source
NJ Transit	Atlantic City Line	Train	n/a	n/a	n/a

Parking Conditions		
Supply	Demand	% Utilization
178	57	32%
Projected Year 2025 Parking Demand:	70	
Major Shed Contributors to Station by MCD:	Winslow (23%), Berlin (15%), Monroe (10%), Waterford (10%)	

Station Premises		
Amenity	Yes	No
Shelters for Transfers	x	
Lights	x	
Kiss & Ride Loop / Parking		x
Bike Racks	x	
Opportunities for Parking Expansion	x	

Atco Station Shed Area



Cherry Hill Station

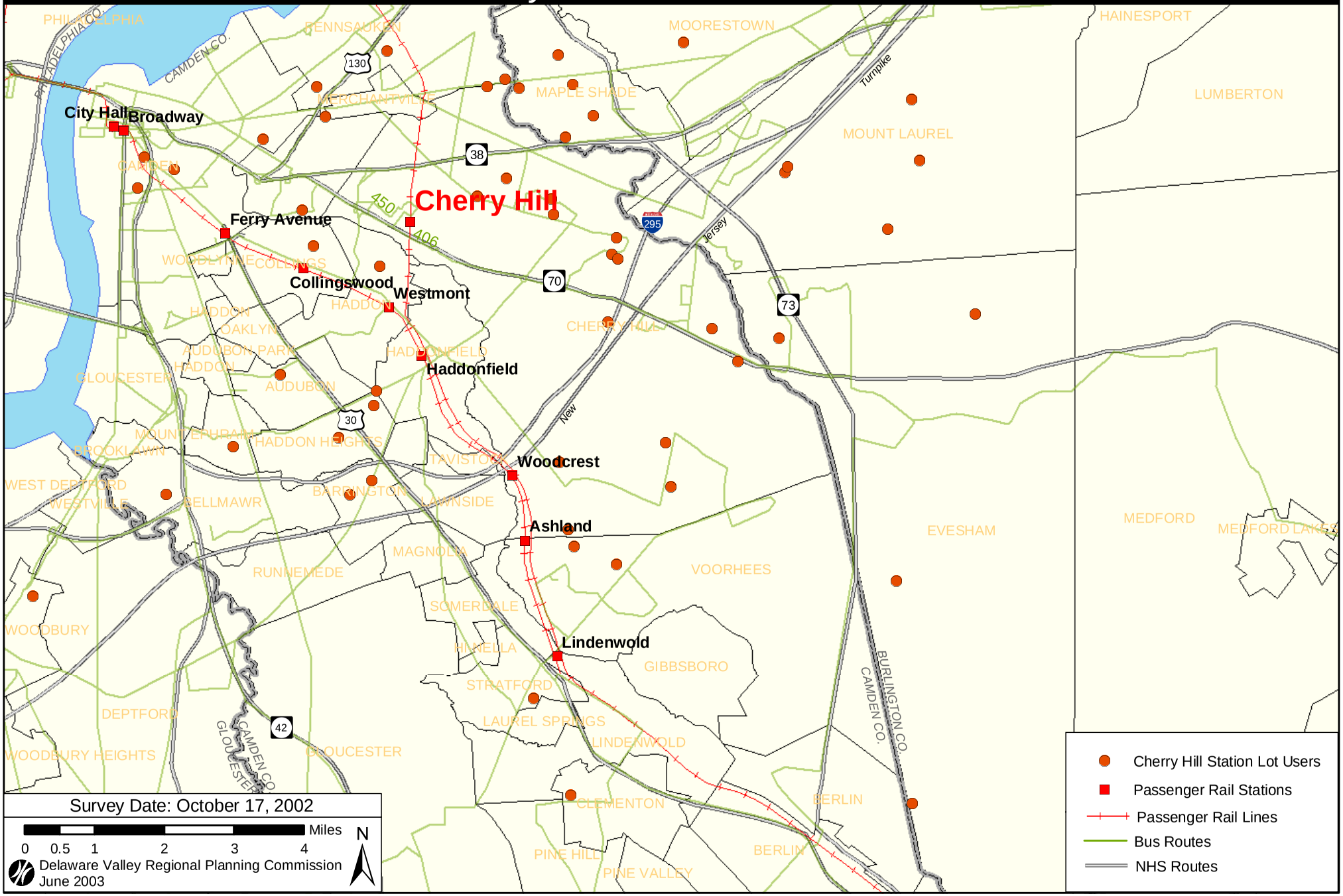
Location: Cherry Hill Station **Map ID # 11**
NHS Routes: NJ 70

Public Transportation Available					
			Boardings		
Operator	Route	Type	Inbound	Outbound	Source
NJ Transit	Atlantic City Line	Train	n/a	n/a	n/a
NJ Transit	Route 406	Bus	n/a	n/a	n/a
NJ Transit	Route 450	Bus	n/a	n/a	n/a

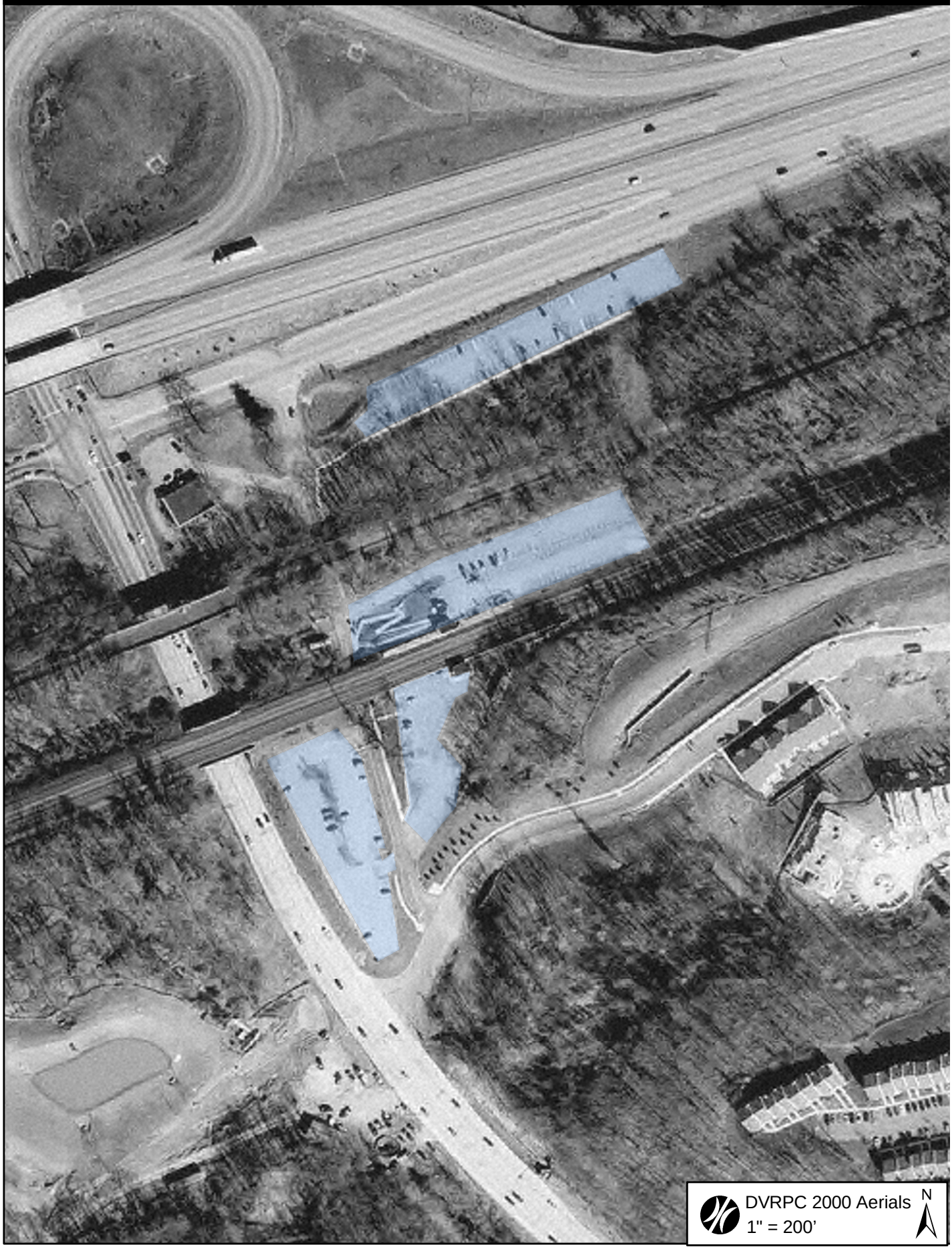
Parking Conditions		
Supply	Demand	% Utilization
328	111	34%
Projected Year 2025 Parking Demand:	112	
Major Shed Contributors to Station by MCD:	Cherry Hill (22%), Maple Shade (7%), Mount Laurel (7%), Pennsauken (7%)	

Station Premises		
Amenity	Yes	No
Shelters for Transfers	x	
Lights	x	
Kiss & Ride Loop / Parking	x	
Bike Racks	x	
Opportunities for Parking Expansion	x	

Cherry Hill Station Shed Area



Exton Station



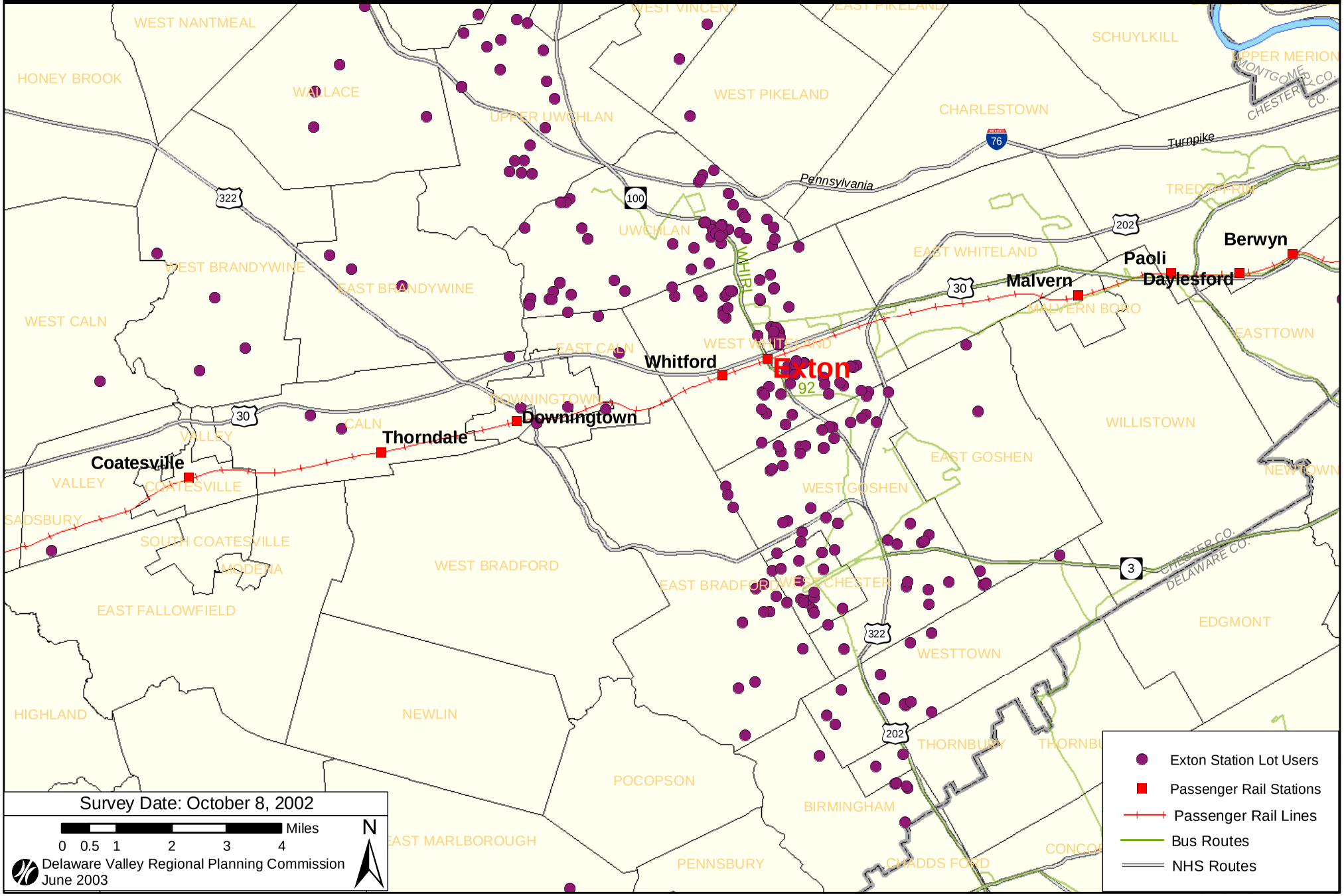
Location: Exton Station **Map ID # 23**
NHS Routes: Route 100

Public Transportation Available					
Operator	**Route**	**Type**	**Boardings**		**Source**
			Inbound	Outbound	
SEPTA	R5	Regional Rail	446	4	SEPTA, 2001
			Northbound	Southbound	
SEPTA	Route 92	Bus	0	1	SEPTA, 2002
SEPTA	Route 204	Bus	n/a	n/a	n/a
			Hollow Run	Oaklands	
SEPTA	WHIRL	Bus	3	5	SEPTA, 2002
Krapf's	Route A	Bus	n/a	n/a	n/a

Parking Conditions		
Supply	**Demand**	**% Utilization**
450	450	100%
Projected Year 2025 Parking Demand:	593	
Major Shed Contributors to Station by MCD:	West Whiteland (22%), Uwchlan (16%), West Goshen (15%)	

Station Premises		
Amenity	**Yes**	**No**
Shelters for Transfers	**x**	
Lights	**x**	
Kiss & Ride Loop / Parking		**x**
Bike Racks	**x**	
Opportunities for Parking Expansion	**x**	

Exton Station Shed Area



Paoli Pk and US 202 Park-and-Ride

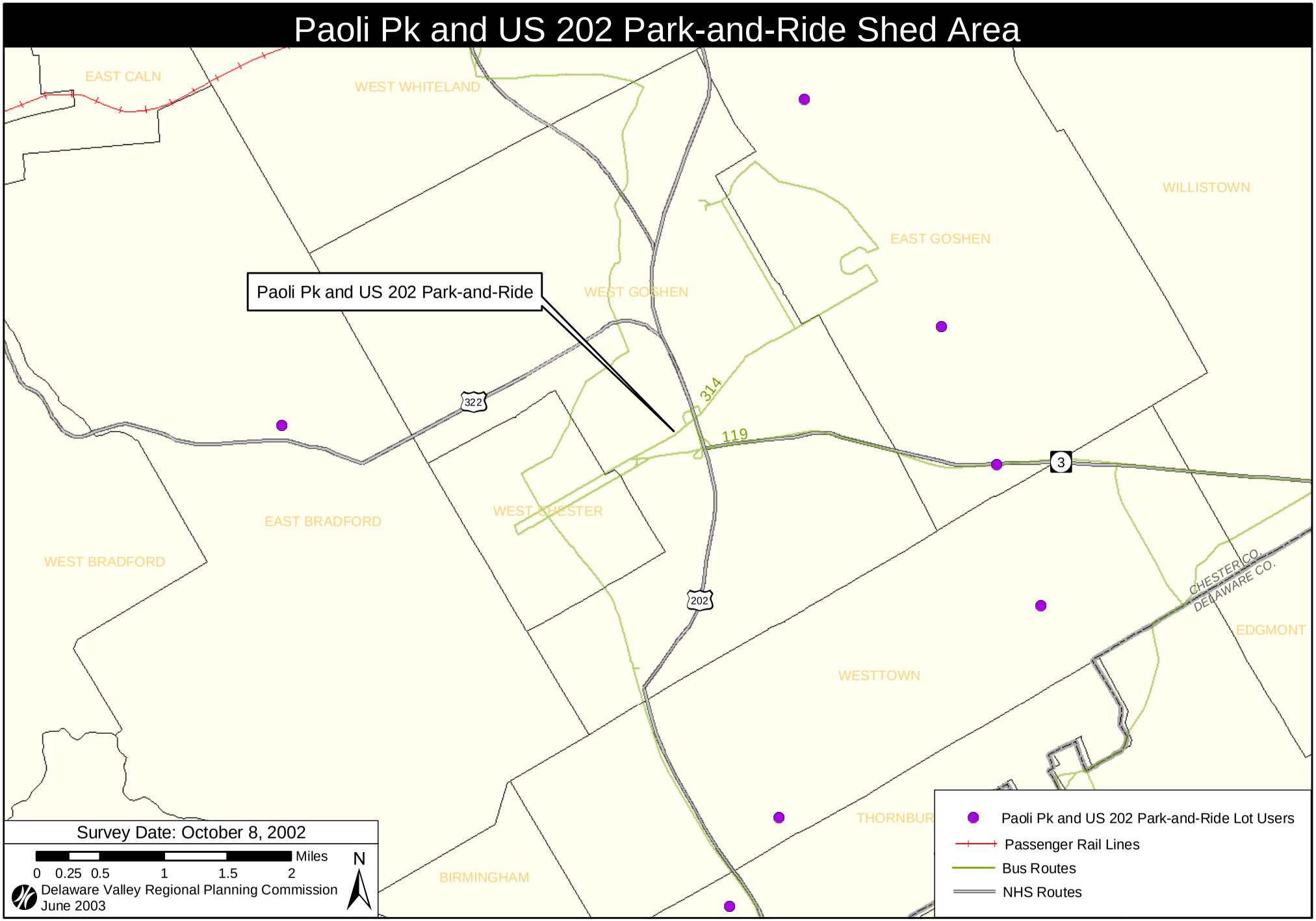
Location: Paoli Pike / US 202 Park-and-Ride **Map ID # 25**
NHS Routes: US 202 / US 322

Public Transportation Available					
			Boardings		
Operator	Route	Type	Inbound	Outbound	Source
SEPTA	Route 119	Bus	n/a	n/a	n/a
SEPTA	Route 314	Bus	n/a	n/a	n/a

Parking Conditions		
Supply	Demand	% Utilization
55	9	16%
Projected Year 2025 Parking Demand:	12	
Major Shed Contributors to Station by MCD:	East Goshen (33%), Westtown (22%)	

Station Premises		
Amenity	Yes	No
Shelters for Transfers		x
Lights		x
Kiss & Ride Loop / Parking		x
Bike Racks		x
Opportunities for Parking Expansion	x	

Paoli Pk and US 202 Park-and-Ride Shed Area



US 30 and US 202 Park-and-Ride

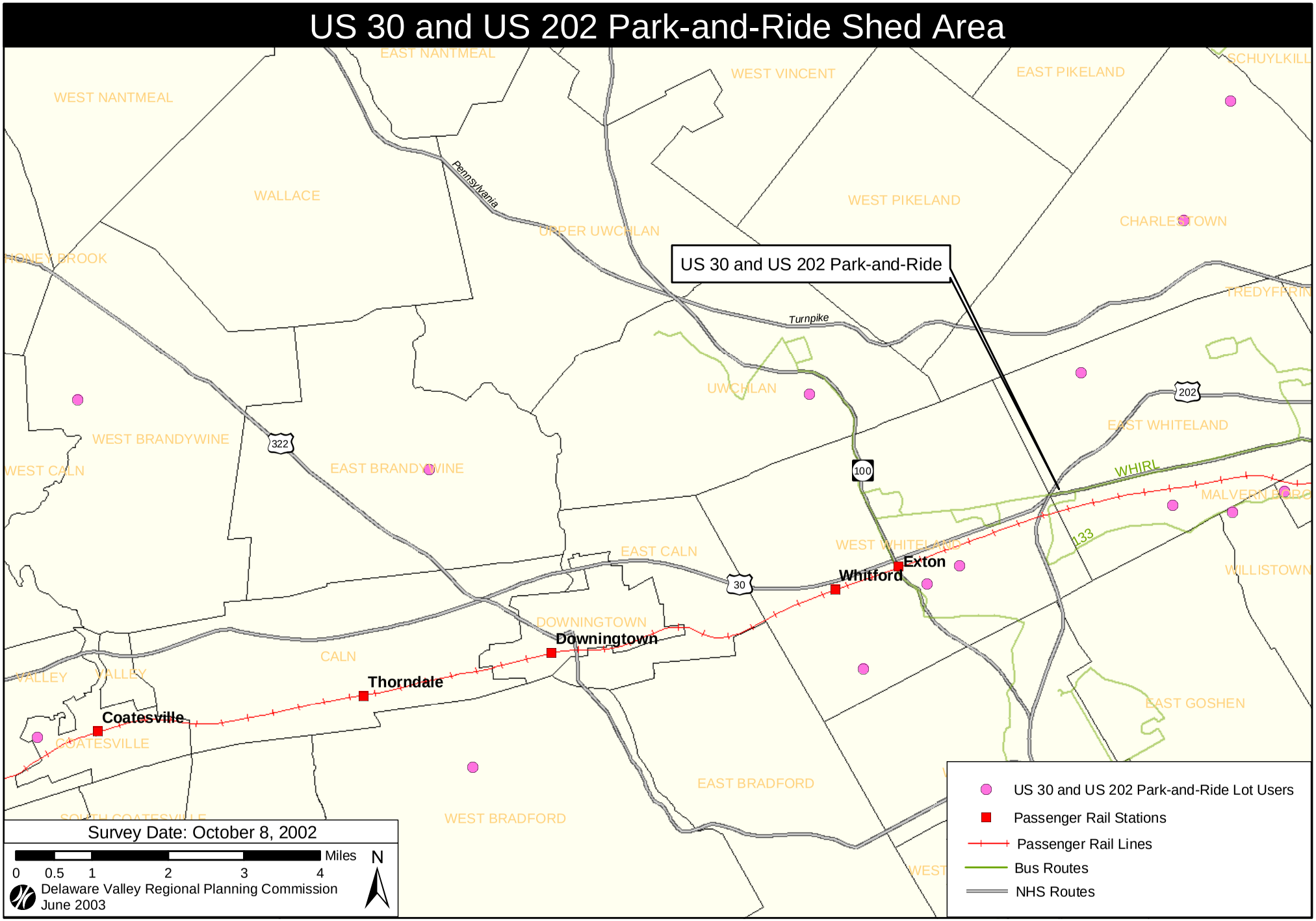
Location: US 30 / US 202 Park-and-Ride **Map ID # 26**
NHS Routes: US 30, US 202

Public Transportation Available					
			Boardings		
Operator	Route	Type	Inbound	Outbound	Source
SEPTA	Route 133	Bus	n/a	n/a	n/a
SEPTA	Route 204	Bus	n/a	n/a	n/a

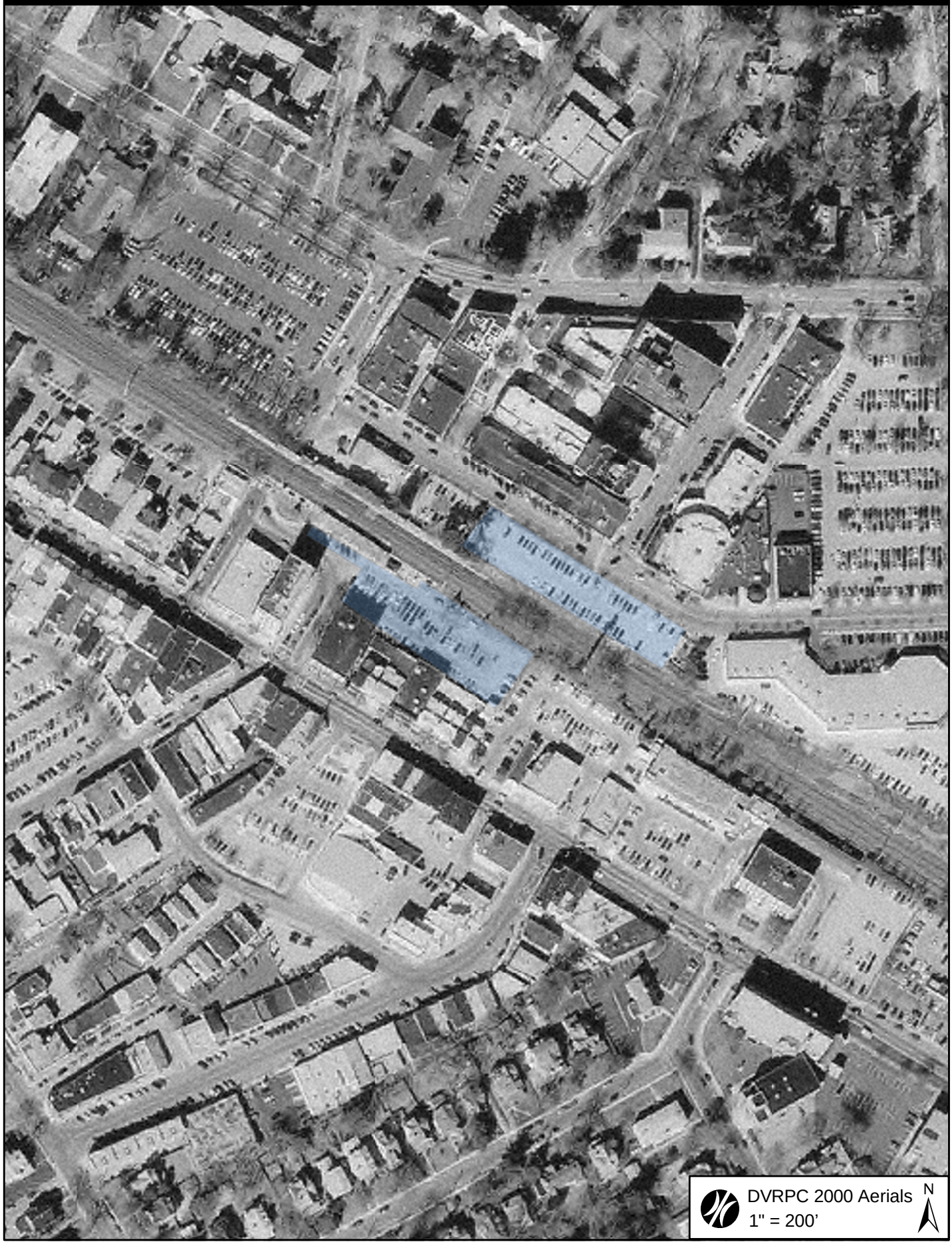
Parking Conditions		
Supply	Demand	% Utilization
124	23	19%
Projected Year 2025 Parking Demand:	28	
Major Shed Contributors to Station by MCD:	West Whiteland (18%), Charlestown (12%), East Whiteland (12%), West Goshen (12%)	

Station Premises		
Amenity	Yes	No
Shelters for Transfers		x
Lights		x
Kiss & Ride Loop / Parking		x
Bike Racks		x
Opportunities for Parking Expansion		x

US 30 and US 202 Park-and-Ride Shed Area



Ardmore Station



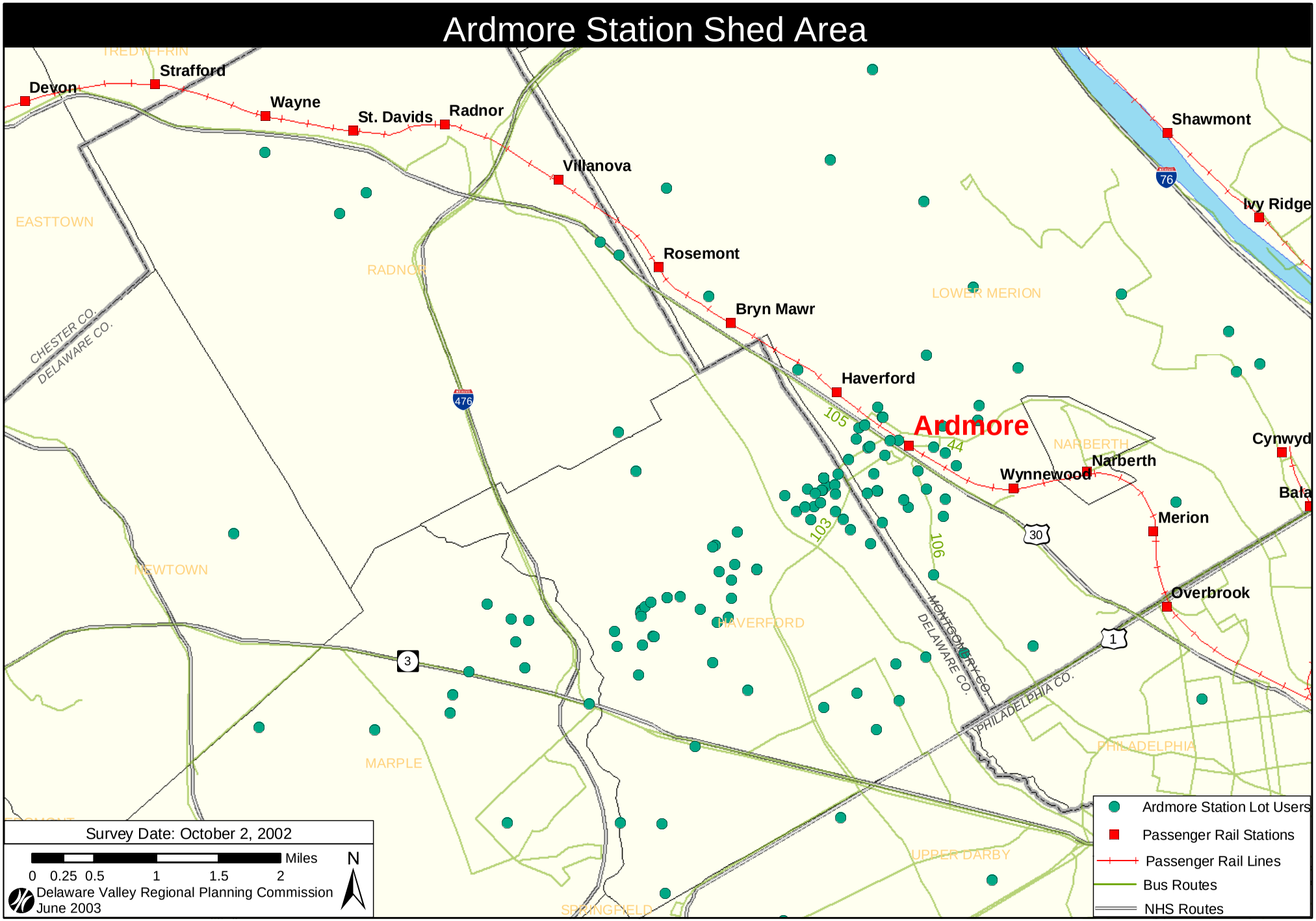
Location: Ardmore Station **Map ID # 30**
NHS Routes: US 30

Public Transportation Available					
Operator	**Route**	**Type**	**Boardings**		**Source**
			Inbound	Outbound	
SEPTA	R5	Regional Rail	737	129	SEPTA, 2001
			Eastbound	Westbound	
SEPTA	Route 44	Bus	148	0	SEPTA, 2002
			Northbound	Southbound	
SEPTA	Route 103	Bus	0	14	SEPTA, 2002
			Eastbound	Westbound	
SEPTA	Route 105	Bus	58	25	SEPTA, 2001
			Northbound	Southbound	
SEPTA	Route 106	Bus	0	18	SEPTA, 2002

Parking Conditions		
Supply	**Demand**	**% Utilization**
216	186	86%
Projected Year 2025 Parking Demand:	182	
Major Shed Contributors to Station by MCD:	Haverford (41%), Lower Merion (31%), Marple (8%)	

Station Premises		
Amenity	**Yes**	**No**
Shelters for Transfers		**x**
Lights	**x**	
Kiss & Ride Loop / Parking		**x**
Bike Racks	**x**	
Opportunities for Parking Expansion		**x**

Ardmore Station Shed Area



Fern Rock Station

Location: Fern Rock Station **Map ID # 44**
NHS Routes: none

Public Transportation Available

Operator	Route	Type	Boardings		Source
			Inbound	Outbound	
SEPTA	R1	Regional Rail	61	6	SEPTA, 2001
SEPTA	R2	Regional Rail	83	52	SEPTA, 2001
SEPTA	R3	Regional Rail	57	111	SEPTA, 2001
SEPTA	R5	Regional Rail	130	356	SEPTA, 2001
		Regional Rail Total	331	525	SEPTA, 2001
			Northbound	Southbound	
SEPTA	Broad Street Line	Subway	0	4,458	SEPTA, 1998
			Eastbound	Westbound	
SEPTA	Route 28	Bus	322	215	SEPTA, 2000
			Northbound	Southbound	
SEPTA	Route 57	Bus	0	440	SEPTA, 1994
			Northbound	Southbound	
SEPTA	Route 70	Bus	808	0	SEPTA, 1991
SEPTA	Route C	Bus	n/a	n/a	

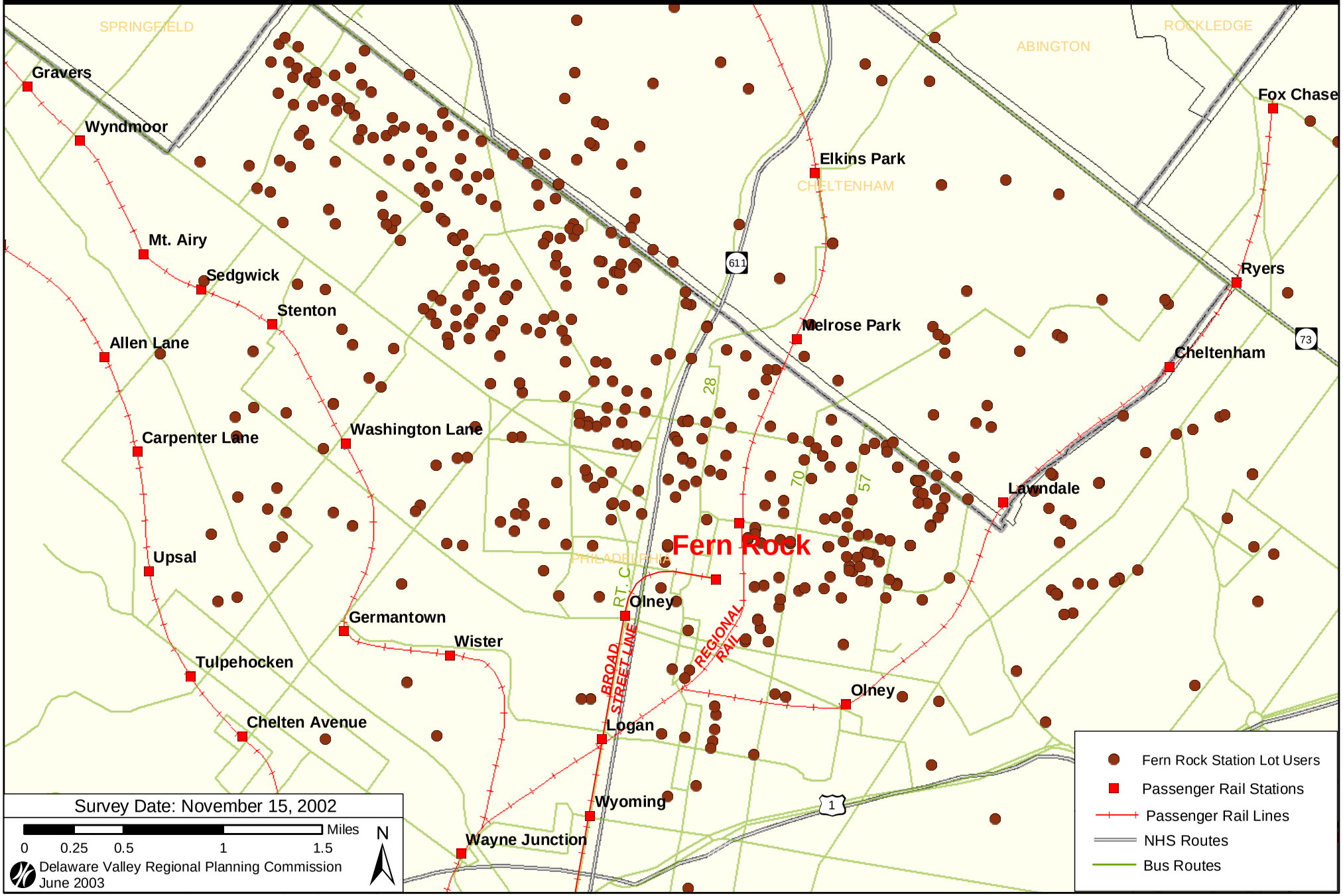
Parking Conditions

Supply	Demand	% Utilization
718	688	96%
Projected Year 2025 Parking Demand:	687	
Major Shed Contributors to Station by MCD:	Philadelphia (81%), Cheltenham (9%)	

Station Premises

Amenity	Yes	No
Shelters for Transfers	x	
Lights	x	
Kiss & Ride Loop / Parking	x	
Bike Racks		x
Opportunities for Parking Expansion	x	

Fern Rock Station Shed Area



DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Publication Abstract

Title: Intermodal Passenger System Survey, Phase II ***A working document***	**Date Published** **June 2003** **Publication No. 03029**

Geographic Area Covered: the entire Delaware Valley Region; Bucks, Chester, Delaware, Montgomery and Philadelphia Counties in PA, and Burlington, Camden, Gloucester, and Mercer Counties in NJ.

Key Words: intermodal passenger terminals, intermodal transfer, National Highway System (NHS), park-and-ride lot, parking conditions, commuter parking shed area, station amenities

ABSTRACT

DVRPC staff identified a network of 55 regionally significant intermodal passenger terminals in the Delaware Valley Region. The network consists of airports, train and bus stations, and park-and-ride lots. Staff subsequently developed a systematic phased work program for evaluating passenger transfer conditions at 38 locations. Ultimately, the fourth and final phase will prepare an action plan to improve access and circulation conditions at a selected subset of these.

This report represents the second phase of the work program and summarizes evaluations at 20 sites, including four NJ Transit stations, four SEPTA regional rail stations, and three park-and-ride lots. The data collection effort provides: aerial photographs of the terminal area, inventories of station amenities including parking availability and interconnecting modes, and commuter parking shed maps for each facility. Conditions for each passenger terminal are summarized on fact sheets contained in the Appendix. A Findings-to-Date matrix is incorporated which identifies major observations of this current work and the Phase I effort (completed in June 2002.)

The report is intended to be a working document to elicit participation from the member governments and agencies. Preliminary recommendations of the Phase II report indicate that long term parking deficiencies will exist at Hamilton and Princeton Junction Stations, in New Jersey, and Exton Station, in Pennsylvania. These may serve as candidates for consideration in Phase IV.

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JUNE 2003

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