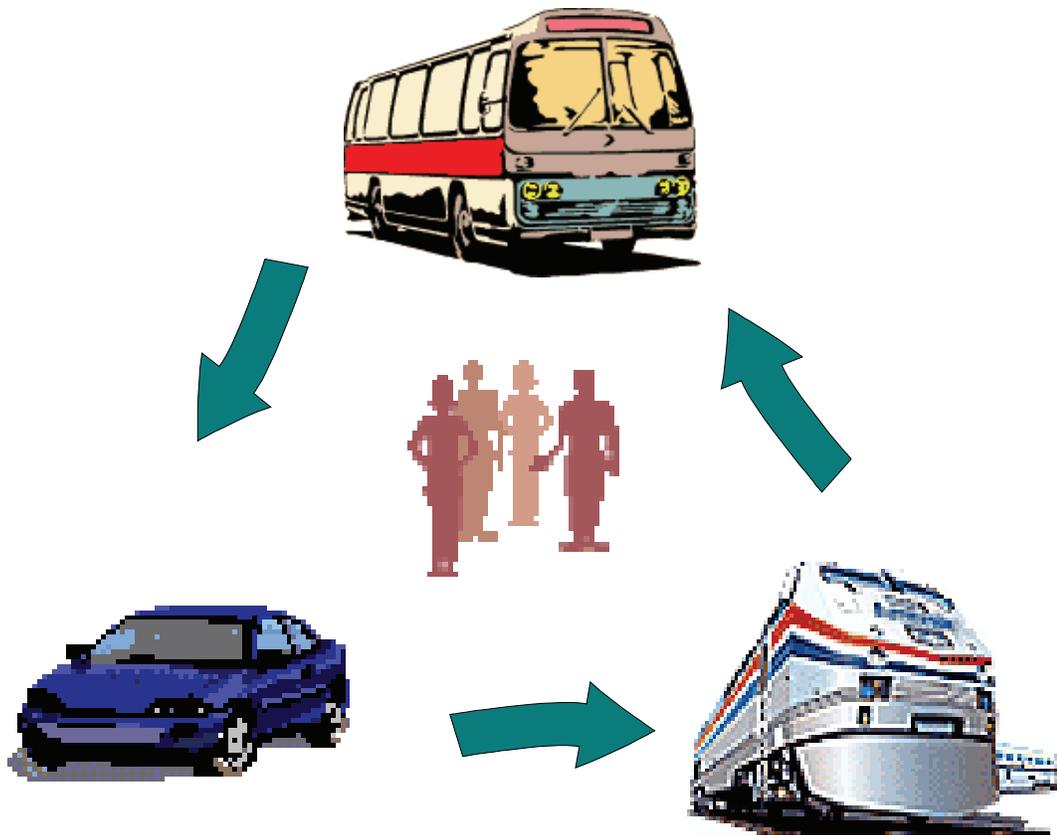


# Intermodal Passenger System

## *NETWORK STATUS REPORT and IMPLEMENTATION GUIDE*



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Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency which provides continuing, comprehensive and coordinated planning for the orderly growth and development 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. The Commission is an advisory agency which divides its planning and service functions between the Office of the Executive Director, the Office of Public Affairs, and three line Divisions: Transportation Planning, Regional Planning, and Administration. DVRPC's mission is to emphasize technical assistance and services and to conduct high priority studies for member state and local governments, while determining and meeting the needs of the private sector.



The DVRPC logo is adapted from the official seal of the Commission 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 flowing through it. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey. The logo combines these elements to depict the areas served by DVRPC.

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Publication Abstract

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**TITLE:** Intermodal Passenger System  
*NETWORK STATUS REPORT AND IMPLEMENTATION GUIDE*

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**Geographic Area Covered:** the nine county Philadelphia metropolitan area, including: Burlington, Camden, Gloucester and Mercer counties in New Jersey, and; Bucks, Chester, Delaware, Montgomery and Philadelphia counties in Pennsylvania

**Key Words:** Management Systems, intermodal facilities, rail stations, bus stations, park-and-ride lots, activity measures, accessibility, mobility, station amenities, parking, capital improvements

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**ABSTRACT**

The Intermodal Management System (IMS) is a systematic process for identifying and evaluating improvements which will expedite the transfer of people and goods between modes of travel. The IMS was one of the six management systems created by ISTEA in 1991. For the Delaware Valley Region, the performance of IMS planning is carried on through the auspices of the region's current long range plan (the Year 2020 Plan).

This report identifies 136 improvement proposals (published and/or programmed) at 74 intermodal passenger facilities located throughout the region. Improvement costs, financial analyses and recommendations are provided for the locations in order to elevate the profile of intermodal passenger locations and facilitate the system's improvement.

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## **Executive Summary**

This report presents an inventory and brief analysis of proposed, planned and/or programmed improvements for the intermodal passenger system throughout the Delaware Valley Region. The goal of the effort, through dissemination of this report, is to facilitate improvement to the network by:

- elevating the profile of intermodal passenger facilities and issues;
- citing system and facility needs and interrelationships, and;
- identifying funding requirements and opportunities.

Central to the work is Table 1 — a list of capital, operating, maintenance and other improvements which serve to expedite the movement of people to, from and within intermodal passenger facilities. The cited improvements have been suggested in recent studies and plans prepared by DVRPC and/or are contained in capital, operating and planning programs prepared or maintained by PennDOT, NJDOT, SEPTA, NJ Transit, DRPA, PATCO, the City of Philadelphia and DVRPC.

With the dissemination of this report it is recommended that the county and operating members of DVRPC review the improvement inventory contained in Table 1 and consider its contents as inputs to subsequent updates of their work programs, capital budgets and the region's TIP and Long Range Plan.

The report also suggests other approaches for implementing some of the intermodal improvements in Table 1. Such as consideration when formulating or revising statewide categorical improvement programs (e.g., park-and-ride programs, safety and signing programs, etc.), and/or linking selected facility improvements, as congestion management commitments, with nearby highway improvement projects which are included on the TIP.

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## **Purpose**

The purpose of this report is to present an inventory and brief analysis of proposed, planned and/or programmed improvements for the intermodal passenger system throughout the Delaware Valley Region. The goal of the effort, through dissemination of this report, is to facilitate improvement to the network by:

- elevating the profile of intermodal passenger facilities and issues;
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Table 1 is displayed and explained in greater detail in a later chapter entitled Improvement Program.

## **Background**

Intermodal passenger facilities are components of the transportation network that accommodate the transfer of people between modes of travel. Examples include bus and train stations, park-and-ride lots, and airports.

With the enactment of the Intermodal Surface Transportation Act of 1991 (ISTEA), Congress introduced the Intermodal Management System (IMS) as one of six transportation management systems. The management systems serve as systematic processes to assist decision makers' selection of cost effective transportation improvements which enhance the movement of

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people and goods.

Acknowledging the sound planning practices inherent in ISTEA's requirement, DVRPC adopted improved intermodal planning as a goal within its *Year 2020 Plan* in 1993. In 1995, as part of the adoption of the National Highway System (NHS), Congress relaxed management system requirements — remanding five of the six to the discretion of each state and its department of transportation (the Congestion Management System — CMS — remains an active requirement).

In response to directives received from PennDOT, and to fulfill the goals of the Year 2020 Plan, DVRPC prepared: *Intermodal Management System - Phase II Report* (November 1997), and; *Intermodal Management System - New Jersey Report* (November 1998). Those work efforts:

- inventoried intermodal passenger and freight facilities and activity levels
- identified performance measures for evaluating intermodal facility operations
- performed systematic evaluations, and;
- prepared recommendations for improving the intermodal passenger (and freight) transportation network for the Pennsylvania and New Jersey portions of the region.

A subset of the facilities constituting the regionally significant intermodal passenger network is illustrated in Figure 1.

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# Regional Intermodal Passenger Network (Selected Facilities)

# Figure 1

-  National Highway System (NHS) Routes
-  Regional or Commuter Rail
-  High Speed and/or Light Rail

### Rail Stations:

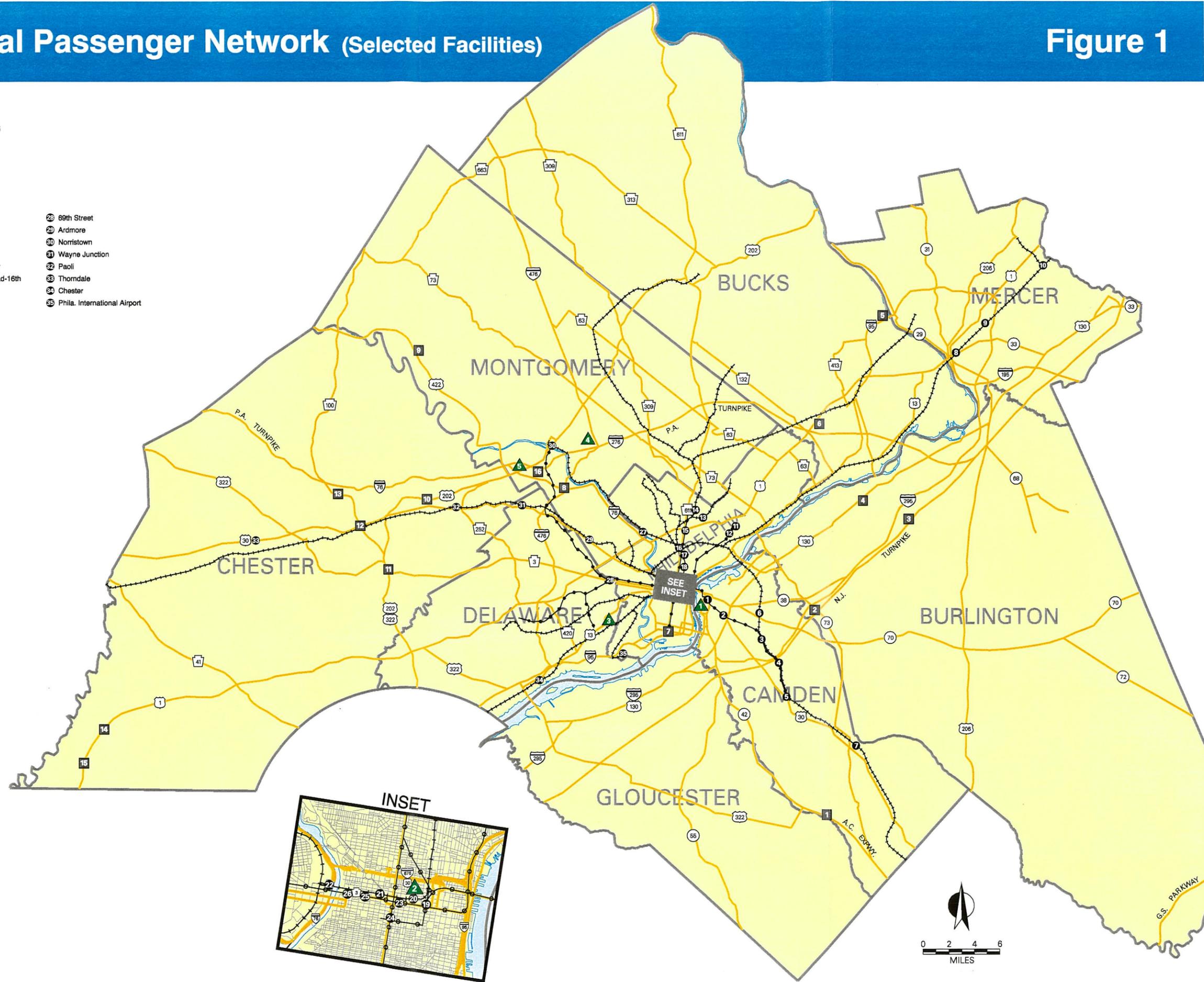
- |                |                        |                              |                                 |
|----------------|------------------------|------------------------------|---------------------------------|
| 1 Broadway     | 10 Princeton Junction  | 18 8th Street                | 26 69th Street                  |
| 2 Ferry Avenue | 11 Frankford Terminal  | 20 Market East               | 28 Ardmore                      |
| 3 Haddonfield  | 12 Margaret / Orthodox | 21 Suburban Station          | 30 Norristown                   |
| 4 Woodcrest    | 13 Olney               | 22 30th Street               | 31 Wayne Junction               |
| 5 Lindenwold   | 14 Fern Rock           | 23 13th Street / Juniper     | 32 Paoli                        |
| 6 Cherry Hill  | 15 Erie                | 24 Walnut-Locust, Broad-16th | 33 Thorndale                    |
| 7 Atco         | 16 North Broad         | 25 19th Street               | 34 Chester                      |
| 8 Trenton      | 17 North Philadelphia  | 27 22nd Street               | 35 Phila. International Airport |
| 9 Hamilton     | 19 Temple University   | 29 Wissahickon               |                                 |

### Park and Ride Lots:

- |                                 |                                |
|---------------------------------|--------------------------------|
| 1 Avandale                      | 9 Limerick                     |
| 2 Mount Laurel                  | 10 Matthews Rd. @ US202 & PA29 |
| 3 N.J. Turnpike - Interchange 5 | 11 US202 & Paoli Pike          |
| 4 Willingboro                   | 12 PA100 & Exton Bypass        |
| 5 Yardley                       | 13 PA100 & PA113               |
| 6 Bristol Rd. @ Neshaminy Mall  | 14 US1 & PA472                 |
| 7 Pattison Ave.                 | 15 US1 & PA272                 |
| 8 Matson Ford Rd. & I76, I476   | 16 US202 & S. Gulph Rd.        |

### Bus Stations:

-  Rand Transportation Center
-  Greyhound Terminal
-  Darby Terminal
-  Plymouth Meeting Mall
-  King of Prussia Mall





## **Improvement Program**

Table 1 provides details for 136 improvement suggestions and/or proposals at 74 intermodal passenger facilities located throughout the region. The improvement descriptions were drawn from recommendations cited in the DVRPC reports prepared for Pennsylvania and New Jersey, and adds intermodal improvements which are contained on existing capital, operating and planning programs maintained by owners and operators in the region.

The contents of the table also provides information about facility activity levels (daily boardings), improvement cost estimates (where known or estimable), and funding sources and/or opportunities for funding. The list is stratified by state (NEW JERSEY AND PENNSYLVANIA), and again by category of facility — including: HUB STATIONS, REGIONAL RAIL or HIGH SPEED RAIL STATIONS, SUBWAY STOPS, PARK-AND-RIDE LOTS and BUS STATIONS. The county in which the facility is located has also been identified.

Brief descriptions of the improvement suggestions are provided, and associated with each improvement proposal is the performance category which the project addresses (accessibility, mobility / connectivity, station amenities, and parking supply / availability). Reference to a general improvement type is provided (e.g., signs, roadway, bikes, pedestrian, transit, etc.), and is valuable to the degree that the information may be useful in determining programmatic improvement opportunities. Lastly the table also indicates the passenger facility's relationship with the National Highway System (NHS).

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**TABLE 1**  
**IMPROVEMENTS to the INTERMODAL PASSENGER SYSTEM**  
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| #   | Co. | Facility                              | IMPROVEMENT  |                      |            |        | NHS | Daily Boards | Cost Estimate (\$000s) | (Potential) Funding Source(s) / Comments  |
|---|-----|---------------------------------------|--|----------------------|------------|--------|-----|--------------|------------------------|---|
|   |     |                                       | Description  | Performance Category | Imp't Type | Source |     |              |                        |   |
| <b>NEW JERSEY</b>                         |     |                                       |  |                      |            |        |     |              |                        |   |
| <b>HUB STATION</b>                        |     |                                       |  |                      |            |        |     |              |                        |   |
| 1   | C   | Broadway / Rand Transportation Center | 1) install trailblazers along connector routes   | access               | signs      | NJ IMS | Y   | 12,307       | 70                     | NJDOT statewide signing program TIP #X39, shared funding with DRPA (PATCO), NJ Transit and NJDOT  |
|   | C   |                                       | 2) install pedestrian trailblazers in station and on surrounding streets   | access               | signs      | NJ IMS | Y   | 12,307       | 4                      | Maintenance - PATCO and NJ Transit  |
|   | C   |                                       | 3) paint mid-block pedestrian crosswalk on Broadway for NJ Transit bus riders                                    | access               | ped        | NJ IMS | Y   | 12,307       | 1                      | Candidate for TIP # 99358 type funding --- NJDOT's statewide program for pedestrian facilities. Implement in association with Southern New Jersey Light Rail Line station   |
|   | C   |                                       | 4) open PATCO's "West Headhouse" to provide customer access to and from the platform from both sides of Broadway | access               | station    | NJ IMS | Y   | 12,307       | 2,500                  | Improvements are contingent upon establishing a Southern New Jersey Light Rail Line (TIP #N035) station stop at the Broadway/Rand transportation Center. Cost estimate includes elevator, turnstile, and lighting improvements. (Alternative funding candidate for \$6.5 million DRPA funded fare collection system upgrade. Study, purchase and installation are all applicable. |
|   | C   |                                       | 5) install pedestrian actuated signals at Broadway and Mickle Blvd intersection                                  | access               | ped        | NJ IMS | Y   | 12,307       | 200                    | Candidate for TIP # 2343 - Camden City traffic signal upgrade program. Implement with establishment of SNJLRL (TIP #N035) station.  |
| 2   | M   | Trenton                               | 1) install pedestrian trailblazers   | access               | signs      | NJ IMS | Y   | 6,893        | 4                      | Candidate for TIP # 4305 - Market St., NJ 129 & Barlow St. sidewalk improvements, or TIP # N045 - Trenton Rail Station / Terminal Improvements  |
|   | M   |                                       | 2) sidewalk improvements in vicinity of station in progress - programmed in 1998 TIP (4305)                      | mobility             | ped        | NJ TIP | Y   | 6,893        | 130                    | TIP # 4305 - Market St., NJ 129 & Barlow St. sidewalk improvements  |
|   | M   |                                       | 3) Rail Station/Terminal Improvements (N045)   | access               | station    | NJ TIP | Y   | 6,893        | 2,287                  | TIP # N045 - NJ Transit's Rail Station Improvement Program  |
| <b>REGIONAL / HIGH SPEED RAIL STATION</b> |     |                                       |  |                      |            |        |     |              |                        |   |
| 3   | M   | Princeton Junction                    | 1) install trailblazers along connector routes   | access               | signs      | NJ IMS | Y   | 6,084        | 32                     | NJDOT statewide signing program TIP #X39, shared funding with NJ Transit and NJDOT, or associate with TIP # 4056B- CR 571 widening  |
| 4   | M   | Princeton                             | 1) add pedestrian trailblazers   | access               | signs      | NJ IMS | N   | 917          | 4                      | Maintenance - NJ Transit  |
| 5   | C   | Lindenwold                            | 1) install station identification signs  | access               | signs      | NJ IMS | Y   | 5,557        | 20                     | Maintenance - PATCO   |
|   | C   |                                       | 2) construct new road extension through UMDNJ campus   | mobility             | rdwy       | NJ IMS | Y   | 5,557        | 1,200                  | Make contingent upon land development plan approval.  |
|   | C   |                                       | 3) pursue off-site parking opportunities with Bradlee's shopping center  | parking              | TMA        | NJ IMS | Y   | 5,557        | n.c.                   | Administrative / Institutional arrangement. Possible site development cost est. @ \$300K  |
| 6   | C   | Atco                                  | 1) install facility entrance sign on westbound US 30 & trailblazer to US 30 eb on US 30 wb @ cloverleaf          | access               | signs      | NJ IMS | Y   | 157          | 11                     | Maintenance - NJ Transit. Portions of the signing recommendation may be obviated with Pinehurst Avenue extension (TIP #2342).   |
|   | C   |                                       | 2) revise traffic circulation signage in parking lot   | mobility             | signs      | NJ IMS | Y   | 157          | 5                      | Maintenance - NJ Transit. Recommendation will require enhancement with Pinehurst Avenue extension (TIP #2342).  |
|   | C   |                                       | 3) construction of the Pinehurst Av Extension programmed in 1998 TIP (#2342)                                     | mobility             | rdwy       | NJ TIP | Y   | 157          | 1,189                  | TIP # 2342 - Local, State and Private funding   |

Counties: NEW JERSEY: B: Burlington; C: Camden; G: Gloucester; M: Mercer; PENNSYLVANIA: B: Bucks; C: Chester; D: Delaware; M: Montgomery; P: Philadelphia

Source Documents: SEPTA: Fiscal Year 1999 Capital Budget and Fiscal Years 1999-2010, Capital Program and Comprehensive Plan, June 1998, and Current Parking Expansion Program; NJ Transit: FY 1998 Business Plan, October 1997; PATCO: Port Authority Transit Corporation of PA and NJ DRPA: Delaware River Port Authority 1998 Capital Program, December 1997; PA IMS: Intermodal Management System - Phase II Report, DVRPC, November 1997; NJ IMS: Intermodal Management System - *New Jersey Report*, DVRPC, November 1998; PIPELINE: Technical Memorandum: Planning Beyond the Pipeline - *Identifying Transportation Needs in the New Jersey Counties*, DVRPC, September 1999; PennDOT: 1999 Twelve Year Program, January 1999; NJ TIP: Transportation Improvement Program NJ Subregion FY 1998-2002, December 1997, and; FY 2000 - 2002 (DRAFT), May 1999; PA TIP: Transportation Improvement Program, Pennsylvania Subregion FY 1999-2002, November 1998 Phila. CIP: The Recommended 2000-2005 Philadelphia Capital Program.

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| #  | Co. | Facility     | IMPROVEMENT   |                      |            |        | NHS | Daily Boards | Cost Estimate (\$000s) | (Potential) Funding Source(s) / Comments   |
|----|-----|--------------|---|----------------------|------------|--------|-----|--------------|------------------------|--|
|    |     |              | Description   | Performance Category | Imp't Type | Source |     |              |                        |  |
| 7  | C   | Ferry Avenue | 1) install trailblazers on connector routes   | access               | signs      | NJ IMS | Y   | 2,702        | 40                     | Associate with TIP #2008 - Collingswood Circle elimination   |
|    | C   |              | 2) install station identification signs   | access               | signs      | NJ IMS | Y   | 2,702        | 20                     | PATCO Maintenance, or associate with TIP #2008 - Collingswood Circle elimination   |
|    | C   |              | 3) Parking lot expansion  | parking              | cap        | PATCO  | Y   | 2,702        | 250                    | Perform initial PATCO system-wide parking study to determine demands, opportunities and costs to expand parking. DVRPC annual planning work program and funds. Potential association of parking expansion with TIP #2008 Collingswood Circle elimination |
| 8  | C   | Haddonfield  | 1) install trailblazers on Grove St (CR 644) from NJ 70 to Station  | access               | signs      | NJ IMS | Y   | 2,055        | 32                     | NJDOT statewide signing program TIP #X39, shared funding with DRPA (PATCO) and NJDOT   |
|    | C   |              | 2) install station identification signs   | access               | signs      | NJ IMS | Y   | 2,055        | 20                     | Maintenance - PATCO  |
|    | C   |              | 3) install bike lane along Grove St (CR 644)  | access               | bike l     | NJ IMS | Y   | 2,055        | 21                     | Candidate for TIP # 99357 type funding --- NJDOT's statewide program for bike facilities   |
| 9  | C   | Woodcrest    | 1) install trailblazers on connector routes   | access               | signs      | NJ IMS | Y   | 2,987        | 38                     | NJDOT statewide signing program TIP #X39, shared funding with DRPA (PATCO) and NJDOT, or potential addition to the scope of the US 30 rehab and safety improvement project per TIP #2241 for selected portions of the signing plan.                      |
|    | C   |              | 2) create bike lane along Oak Av west from station into Lawnside  | access               | bike l     | NJ IMS | Y   | 2,897        | 21                     | Candidate for TIP # 99357 type funding --- NJDOT's statewide program for bike facilities   |
|    | C   |              | 3) design and operate a community based shuttle bus service   | mobility             | transit    | NJ IMS | Y   | 2,897        | 160                    | Candidate for: TIP # N030 - NJT's Clean Air/TDM Program, TIP # N082 - NJT's Job Access and Reverse commute Program and/or NJT's Challenge Grant Program. Costs assume annual maint. and ops. only (i.e., excludes vehicle purchase).                     |
|    | C   |              | 4) pursue off-site parking opportunities with adjacent office bldg land owners  | parking              | TMA        | NJ IMS | Y   | 2,897        | n.c.                   | Administrative / Institutional arrangement.  |
|    | C   |              | 5) Parking lot expansion  | parking              | cap        | PATCO  | Y   | 2,897        | 250                    | Perform initial PATCO system-wide parking study to determine demands, opportunities and costs to expand parking. DVRPC annual planning work program and funds.   |
| 10 | C   | Westmont     | 1) install trailblazers on connector routes   | access               | signs      | NJ IMS | Y   | 1,536        | 40                     | NJDOT statewide signing program TIP #X39, shared funding with DRPA (PATCO) and NJDOT   |
|    | C   |              | 2) install station identification signs   | access               | signs      | NJ IMS | Y   | 1,536        | 20                     | Maintenance - PATCO  |
|    | C   |              | 3) create bike lane along Crystal Lake Rd (CR 643)  | access               | bike l     | NJ IMS | Y   | 1,536        | 21                     | Candidate for TIP # 99357 type funding --- NJDOT's statewide program for bike facilities   |
|    | C   |              | 4) install pedestrian directional signs, in the station, to nearby bus stops located on Crystal Lake Rd (CR 643) and Haddon Av (CR 561) | mobility             | signs      | NJ IMS | Y   | 1,536        | 1                      | Maintenance - PATCO  |
| 11 | C   | Ashland      | 1) add station Identification signs   | access               | signs      | NJ IMS | Y   | 2,465        | 20                     | Maintenance - PATCO  |
|    | C   |              | 2) create bike lane along Burnt Mill Rd (CR 670) and Somerdale Rd (CR 678)  | access               | bike l     | NJ IMS | Y   | 2,465        | 20                     | Candidate for TIP # 99357 type funding --- NJDOT's statewide program for bike facilities   |
|    | C   |              | 3) resurface Burnt Mill Rd (CR 670) – Evesham Rd to Somerdale rd  | access               | rdwy       | NJ IMS | Y   | 2,465        | 90                     | Maintenance - CamCo (also see Bus Station - Echelon Mall)  |
|    | C   |              | 4) pursue off-site parking opportunities with Echelon Mall  | parking              | TMA        | NJ IMS | Y   | 2,465        | n.c.                   | Administrative / Institutional arrangement – Mall and Echelon Comm. Mgt., and TMA.   |
|    | C   |              | 5) parking lot expansion  | parking              | cap        | PATCO  | Y   | 2,465        | 250                    | Perform initial PATCO system-wide parking study to determine demands, opportunities and costs to expand parking. DVRPC annual planning work program and funds.   |

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|-----------------------|-----|--------------|---|----------------------|------------|--------|-----|--------------|------------------------|---|
|                       |     |              | Description   | Performance Category | Imp't Type | Source |     |              |                        |   |
| 12                    | C   | Collingswood | 1) install trailblazers on connector routes   | access               | signs      | NJ IMS | Y   | 1,650        | 86                     | NJDOT statewide signing program TIP #X39, shared funding with DRPA (PATCO) and NJDOT  |
|                       | C   |              | 2) add station Identification signs   | access               | signs      | NJ IMS | Y   | 1,650        | 20                     | Maintenance - PATCO   |
|                       | C   |              | 3) create bike lane along Cuthbert Blvd (CR 636)  | access               | bike l     | NJ IMS | Y   | 1,650        | 100                    | TIP Project #2239   |
|                       | C   |              | 4) install pedestrian directional signs, in the station, to bus stops located on Haddon Av (CR 561)                   | mobility             | signs      | NJ IMS | Y   | 1,650        | 1                      | Maintenance - PATCO   |
| 13                    | C   | Cherry Hill  | 1) install trailblazers on eastbound NJ 70  | access               | signs      | NJ IMS | Y   | 114          | 25                     | NJDOT statewide signing program TIP #X39, shared funding with NJ Transit and NJDOT  |
|                       | C   |              | 2) design and operate a community based shuttle-bus service   | mobility             | transit    | NJ IMS | Y   | 114          | 160                    | Candidate for: TIP # N030 - NJT's Clean Air/TDM Program, TIP #N082 - NJT's Job Access and Reverse Commute Program and/or NJT's Challenge Grant Program. Costs assume annual maint. and ops. only (i.e., excludes vehicle purchase). |
|                       | C   |              | 3) provide a pedestrian overpass upon redevelopment of Garden State Park property                                     | mobility             | ped        | NJ IMS | Y   | 114          | 700                    | Make contingent with land development plan approval. Seek private funding from race track developer with possible sharing from shopping center owner and the State.   |
| 14                    | M   | West Trenton | 1) add station identification sign  | access               | signs      | NJ IMS | N   | 186          | 10                     | Maintenance - SEPTA   |
|                       | M   |              | 2) provide bike rack  | access               | bike       | NJ IMS | N   | 186          | 1                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program   |
|                       | M   |              | 3) install trailblazers on Grand Av (CR 579) from the station to I-95   | access               | signs      | NJ IMS | N   | 186          | 28                     | NJDOT statewide signing program TIP #X39, shared funding with SEPTA and NJDOT   |
|                       | M   |              | 4) add pedestrian-crossing striping across Grand Av (CR 579) to bus stop  | access               | ped        | NJ IMS | N   | 186          | 1                      | Candidate for TIP # 99358 type funding -- NJDOT's statewide program for pedestrian facilities   |
|                       | M   |              | 5) create bike lane along Grand Av (CR 579)   | access               | bike l     | NJ IMS | N   | 186          | 21                     | Candidate for TIP # 99357 type funding --- NJDOT's \$2.5 million statewide program for bike and pedestrian facilities   |
|                       | M   |              | 6) reconstruct intersection of Grand Av (CR 579) at Railroad Av and station driveway                                  | mobility             | rdwy       | NJ IMS | N   | 186          | 500                    | Incorporate engineering evaluation into NJ Transit's environmental assessment of restoring passenger service to Newark, NJ.   |
|                       | M   |              | 7) post bus service information for NJ Transit Bus Route 608 at station   | mobility             | signs      | NJ IMS | N   | 186          | n.c.                   | NJ Transit / SEPTA maintenance  |
|                       | M   |              | 8) install bus shelter, bench, lights, and schedule at bus stop   | amenities            | bus stop   | NJ IMS | N   | 186          | 12                     | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program   |
|                       | M   |              | 9) (expand) pave and stripe parking lot   | parking              | cap        | NJ IMS | N   | 186          | unk                    | Maintenance - SEPTA (future demand estimates for parking pending outcome of NJ Transit's environmental assessment of restoring passenger rail service to Newark, NJ).   |
| <b>SUBWAY STATION</b> |     |              |   |                      |            |        |     |              |                        |   |
| 15                    | C   | City Hall    | 1) install pedestrian trailblazers in station and on surrounding streets  | access               | signs      | NJ IMS | N   | 949          | 4                      | Maintenance - PATCO   |
|                       | C   |              | 2) relocate the backlit PATCO entrance sign from the NE corner of 5th St and Market St (closed stairway) to SW corner | access               | signs      | NJ IMS | N   | 949          | unk                    | Maintenance - PATCO   |

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**IMPROVEMENTS to the INTERMODAL PASSENGER SYSTEM**  
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| #                        | Co. | Facility                    | IMPROVEMENT  |                      |            | NHS      | Daily Boards | Cost Estimate (\$000s) | (Potential) Funding Source(s) / Comments |   |   |
|--------------------------|-----|-----------------------------|--|----------------------|------------|----------|--------------|------------------------|--|---|---|
|                          |     |                             | Description  | Performance Category | Imp't Type |          |              |                        |  | Source  |   |
| <b>PARK-AND-RIDE LOT</b> |     |                             |  |                      |            |          |              |                        |  |   |   |
| 16                       | C   | Avandale                    | install bike rack  | access               | bike       | NJ IMS   | N            | unk                    | 2  | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program   |   |
| 17                       | B   | Mount Laurel                | 1) install trailblazers to Fellowship Road, on NJ 73 between I-295 and NJ Turnpike   | access               | signs      | NJ IMS   | N            | unk                    | 20                                       | NJDOT statewide signing program TIP #X39, shared funding with NJ Transit and NJDOT. Associated CMAQ improvement through TIP # 0014A (traffic signal system for NJ 73, NJ 78, US 30 and NJ 38). Associate with TIP #1315A&B - Church, Atrium and Fellowship Roads improvement.         |   |
|                          | B   |                             | 2) realign NJ TRANSIT Bus Route 457 into station   | mobility             | transit    | NJ IMS   | N            | unk                    | n.c.                                     |   | Operations  |
| 18                       | B   | NJ Turnpike Interchange #5  | 1) install trailblazers along Burlington - Mt Holly Rd (CR 541) from NJ Turnpike to I-295  | access               | signs      | NJ IMS   | N            | unk                    | 20                                       | Candidate for inclusion with TIP # 1315 - Improvements to NJ 73, Church Atrium and Fellowship Roads   |   |
|                          | B   |                             | 2) integrate with NJ TRANSIT Bus Route 409 by installing a bus turnout on Burlington - Mt Holly Rd (CR 541) with shelter and bench | mobility             | transit    | NJ IMS   | N            | unk                    | 12                                       |   | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program |
| 19                       | B   | Willingboro                 | 1) install trailblazers on southbound US 130 in advance of the Van Sciver Blvd jughandle   | access               | signs      | NJ IMS   | Y            | unk                    | 11                                       | NJDOT statewide signing program TIP #X39, shared funding with NJ Transit and NJDOT  |   |
|                          | B   |                             | 2) install bike rack   | access               | bike       | NJ IMS   | Y            | unk                    | 1  |   | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program |
|                          | B   |                             | 3) relocate the "RIDESHARE" sign which obscures the park-and-ride sign on northbound US 130  | mobility             | signs      | NJ IMS   | Y            | unk                    | 1  |   | Maintenance   |
| 20                       | C   | I-295 at NJ 70              | construct park-and-ride lot  | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Possible associate to TIP # 1323 - Marlton Circle elim.  |   |
| 21                       | C   | I-295 at NJ 168             | construct park-and-ride lot  | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program   |   |
| 22                       | B   | NJ Turnpike Interchange #3  | construct park-and-ride lot  | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program   |   |
| 23                       | B   | I-295 at NJ 38              | construct park-and-ride lot  | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Associated CMAQ improvement through TIP # 0014A (traffic signal system for NJ 73, NJ 78, US 30 and NJ 38).   |   |
| 24                       | B   | US 130 and US 206           | construct park-and-ride lot  | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Potential associate to TIP #1231 - new connector route between NJ turnpike and I-295. Potentially addressed through SNJLRL (TIP proj # N035) station at Bordontown (or Roebling or Florence) |   |
| 25                       | B   | US 130 at NJ Turnpike       | construct park-and-ride lot  | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program   |   |
| 26                       | B   | US 130 at Creek Rd (CR 636) | construct park-and-ride lot  | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Potentially addressed through SNJLRL (TIP proj # N035) station at Riverside.   |   |
| 27                       | B   | US 130 at NJ 73             | construct park-and-ride lot  | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Associated CMAQ improvement through TIP # 0014A (traffic signal system for NJ 73, NJ 78, US 30 and NJ 38). Potentially addressed through SNJLRL (TIP proj # N035) station at NJ 73           |   |
| 28                       | B   | NJ 38 at CR 541             | construct park-and-ride lot  | parking              | cap        | PIPELINE | N            | N / A                  | unk                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program   |   |
| 29                       | G   | NJ 55                       | construct park-and-ride lot(s)   | parking              | cap        | PIPELINE | Y            | N / A                  | unk                                      | Potential locations for intermodal connection are: Deptford Center Road, Delsea Dr., and CR 553. Candidate funding through TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |   |

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| #                  | Co. | Facility         | IMPROVEMENT  |                      |            |          | NHS | Daily Boards | Cost Estimate (\$000s) | (Potential) Funding Source(s) / Comments   |
|--------------------|-----|------------------|--|----------------------|------------|----------|-----|--------------|------------------------|--|
|                    |     |                  | Description  | Performance Category | Imp't Type | Source   |     |              |                        |  |
| <b>BUS STATION</b> |     |                  |  |                      |            |          |     |              |                        |  |
| 30                 | C   | Cherry Hill Mall | 1) install bike rack   | access               | bike       | NJ IMS   | Y   | 425          | 2                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |
|                    | C   |                  | 2) incorporate bus-service information inside the mall   | access               | signs      | NJ IMS   | Y   | 425          | n.c.                   | Administrative / Institutional arrangements -- Mall Mgt and TMA  |
|                    | C   |                  | 3) design and operate a community based shuttle-bus service  | mobility             | transit    | NJ IMS   | Y   | 425          | 160                    | Candidate for: TIP # N030 - NJT's Clean Air/TDM Program, TIP #N082 - NJT's Job Access and Reverse Commute Program and/or NJT's Challenge Grant Program. Annual maintenance and operations only (i.e., excludes vehicle purchase) |
|                    | C   |                  | 4) post schedules at bus stop  | amenities            | bus stop   | NJ IMS   | Y   | 425          | n.c.                   | Maintenance - NJ Transit   |
|                    | C   |                  | 5) integrate lot adjacent to Haddonfield Rd as a park-and-ride lot and formalize with amenities & trailblazer signs                                      | parking              | maint      | NJ IMS   | Y   | 425          | 800                    | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Associated CMAQ improvement through TIP # 0014A (traffic signal system for NJ 73, NJ 78, US 30 and NJ 38).                              |
| 31                 | G   | Deptford Mall    | 1) install bike rack   | access               | bike       | NJ IMS   | Y   | 89           | 1                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |
|                    | G   |                  | 2) incorporate bus-service information inside the mall   | access               | signs      | NJ IMS   | Y   | 89           | n.c.                   | Administration / Institutional arrangements -- Mall Mgt and TMA  |
|                    | G   |                  | 3) design and operate a community based shuttle-bus service  | mobility             | transit    | NJ IMS   | Y   | 89           | 160                    | Candidate for: TIP # N030 - NJT's Clean Air/TDM Program, TIP #N082 - NJT's Job Access and Reverse Commute Program and/or NJT's Challenge Grant Program. Annual maintenance and operations only (i.e., excludes vehicle purchase) |
|                    | G   |                  | 4) create a formal park-and-ride lot with amenities & trailblazer signs to integrate fixed route bus and shuttle-bus services, and private vehicle needs | parking              | cap        | NJ IMS   | Y   | 89           | 300                    | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Potential association with TIP # 3015 A-B - ramp between NJ 41 and NJ 42 N-S Freeway.   |
| 32                 | C   | Echelon Mall     | 1) incorporate bus-service information inside the mall   | access               | signs      | NJ IMS   | N   | 127          | TMA                    | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |
|                    | C   |                  | 2) create bike lane on Burnt Mill Rd (CR 670) and Somerdale Rd (CR 678)  | access               | bike       | NJ IMS   | N   | 127          | 20                     | Candidate for TIP # 99357 type funding --- NJDOT's statewide program for bike facilities   |
|                    | C   |                  | 3) resurface Burnt Mill Rd (CR 670) -- Evesham Road to Somerdale Road  | access               | rdwy       | NJ IMS   | N   | 127          | 90                     | Maintenance - CamCO (also see Regional / High Speed Rail Station - Ashland Station)  |
|                    | C   |                  | 4) provide shelter, seating, and schedules at bus stop   | amenities            | bus stop   | NJ IMS   | N   | 127          | 12                     | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |
|                    | C   |                  | 5) create a formal park-and-ride lot with amenities & trailblazer signs to integrate fixed route bus and shuttle bus services, and private vehicle needs | parking              | cap        | NJ IMS   | N   | 127          | 300                    | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |
| 33                 | G   | Woodbury         | 1) create transportation center / park-and-ride lot at Woodbury center (old railroad station on Cooper Street)   | mobility             | transit    | PIPELINE | N   | n.a.         | unk                    | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Candidate for association with TIP proj # 3343A - intersection improvements at Delsea Dr. Turkey Hill Rd. and Deptford Av.              |
|                    | G   |                  | 2) install bike rack at Delaware St and Broad St   | access               | bike       | NJ IMS   | N   | 199          | 1                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |

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|----|-----|-------------------|--|----------------------|------------|--------|--------------|------------------------|--|--|
|    |     |                   | Description  | Performance Category | Imp't Type |        |              |                        |  | Source   |
| 34 | B   | Moorestown Mall   | 1) incorporate bus-service information inside the mall   | access               | signs      | NJ IMS | Y            | 169                    | n.c.                                     | Administration / Institutional arrangements -- Mall Mgt and TMA  |
|    | B   |                   | 2) design and operate a community based shuttle-bus service  | mobility             | transit    | NJ IMS | Y            | 169                    | 160                                      | Candidate for: TIP # N030 - NJT's Clean Air/TDM Program, TIP #N082 - NJT's Job Access and Reverse Commute Program and/or NJT's Challenge Grant Program. Annual maintenance and operations only (i.e., excludes vehicle purchase)   |
|    | B   |                   | 3) install bus sign, shelter, seating, schedules, and lighting at bus stop   | amenities            | bus stop   | NJ IMS | Y            | 169                    | 12                                       | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |
|    | B   |                   | 4) create a formal park-and-ride lot with amenities & trailblazer signs to integrate fixed route bus and shuttle bus services, and private vehicle needs | parking              | cap        | NJ IMS | Y            | 169                    | 300                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Associated CMAQ improvement through TIP # 0014A (traffic signal system for NJ 73, NJ 78, US 30 and NJ 38). Potential association with TIP proj # 1315A&B NJ 73 operational improvements between I-295 and Commerce Parkway. |
| 35 | M   | Quakerbridge Mall | 1) incorporate bus-service information inside the mall   | access               | signs      | NJ IMS | Y            | 109                    | n.c.                                     | Administration / Institutional arrangements -- Mall Mgt and TMA  |
|    | M   |                   | 2) install bike rack   | access               | bike       | NJ IMS | Y            | 109                    | 1  | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |
|    | M   |                   | 3) design and operate a community based shuttle-bus service  | mobility             | transit    | NJ IMS | Y            | 109                    | 160                                      | Candidate for: TIP # N030 - NJT's Clean Air/TDM Program , TIP #N082 - NJT's Job Access and Reverse Commute Program and/or NJT's Challenge Grant Program. Annual maintenance and operations only (i.e., excludes vehicle purchase)  |
|    | M   |                   | 4) post bus schedules  | amenities            | bus stop   | NJ IMS | Y            | 109                    | n.c.                                     | Maintenance - NJ Transit   |
|    | M   |                   | 5) create a formal park-and-ride lot with amenities & trailblazer signs to integrate fixed route bus and shuttle bus services, and private vehicle needs | parking              | cap        | NJ IMS | Y            | 109                    | 300                                      | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Potential association with traffic operational improvements along US 1 per TIP proj # 4203.   |
| 36 | B   | Burlington City   | focus bus shelters, seating, lighting, and schedules on Broad St at High St  | amenities            | bus stop   | NJ IMS | N            | 184                    | 12                                       | Short-term candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Longer-term candidate for SNJLRL (TIP #N035) station in Burlington City.   |
| 37 | G   | Glassboro         | install bus sign, shelter, seating, schedules, and lighting at bus stop on Main Street   | amenities            | bus stop   | NJ IMS | N            | 92                     | 12                                       | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program. Possible association with intersection improvements along NJ 47, per TIP proj # 3417.   |
| 38 | B   | Mount Holly       | install bus sign, shelter, seating, schedules on Washington St at High Street.   | Amenities            | bus stop   | NJ IMS | N            | unk                    | 12                                       | Candidate for TIP # N053 - NJT's Statewide Bus Passenger Facilities Improvement Program  |

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|---|-----|------------------------------|---|----------------------|---------------|--------|--------------|------------------------|--|---|
|   |     |                              | Description   | Performance Category | Imp't Type    |        |              |                        |  | Source  |
| <b>PENNSYLVANIA</b>                       |     |                              |   |                      |               |        |              |                        |  |   |
| <b>HUB STATION</b>                        |     |                              |   |                      |               |        |              |                        |  |   |
| 39  | P   | 30 <sup>th</sup> Street Stn. | 30 <sup>th</sup> Street Station Intermodal Facility Gateway improvements: pedestrian path revisions, traffic signal work, transit improvements for surface bus loading and related work to alleviate confusing and pedestrian unfriendly station layout (TIP #s- S092 and 9746)   | mobility             | rdwy          | PA TIP | Y            | 33,831                 | 10,624                                   | TIP #s S092 and 9746  |
| 40  | P   | Suburban Stn.                | Suburban Station Transit Improvements: concourse and platform improvements including but not limited to asbestos removal; flooring; lighting and finishes; and necessary mechanical, electrical, and structural work. Also included are improvements to the station for accessibility and heating and air conditioning upgrades. (S062) | mobility             | station       | PA TIP | Y            | 107,676                | 30,000                                   | TIP # S062  |
| 41  | P   | Frankford Transp. Center     | Station Rehabilitation (S033) for the terminal station on the Market-Frankford Line   | amenities            | station       | PA TIP | Y            | 42,855                 | 96,400                                   | TIP # S033  |
| <b>REGIONAL / HIGH SPEED RAIL STATION</b> |     |                              |   |                      |               |        |              |                        |  |   |
| 42  | P   | Eastwick                     | Construct new Eastwick Station on R1 Line in the vicinity of Bartram Av and 84 <sup>th</sup> St, and provide off-street parking for approx. 100 to 150 cars   | mobility             | station & pkg | PA TIP | N            | N / A                  | 5,200                                    | TIP # S071  |
| 43  | B   | Warminster                   | Expand existing parking supply at the end-of-the-line station R2 Warminster Line by 200 spaces.   | parking              | cap           | SEPTA  | N            | 601                    | 1,700                                    | Source SEPTA Parking Development Program.   |
| 44  | D   | Baldwin                      | Construct and provide SEPTA's R2 Wilmington service to new Baldwin Station - 200 parking spaces proposed. TIP # 7002. Construction to start March 2000.   | mobility             | station & pkg | SEPTA  | N            | N / A                  | 1,100                                    | Costs reflect station parking supply only. Source: SEPTA's Parking Development Program '99-'01. TIP proj # 7002. Being designed.                            |
| 45  | D   | Primos                       | Expand surface parking supply by 150 spaces at R3 Media/Elwyn Line station.   | parking              | cap           | SEPTA  | N            | 287                    | 2,300                                    | Source: SEPTA's Parking Development Program.  |
| 46  | D   | Elwyn                        | Expand parking at SEPTA's R3 Elwyn Station - 140 additional spaces proposed to yield a total supply of 357 spaces. Construction in 1999.  | parking              | cap           | SEPTA  | N            | 295                    | 1,700                                    | Source: SEPTA's Parking Development Program '99 - '01. On hold pending findings of feasibility study examining extension of R3 service from Elwyn to Wawa.. |
| 47  | P   | Forest Hills                 | Expand parking at the R3 Forest Hills Station - 60 new spaces to yield 215 total supply at the station. Targeted for construction in 2000.  | parking              | cap           | SEPTA  | N            | 318                    | 1,100                                    | Source: SEPTA's Parking Development Program '99-'01.  |
| 48  | M   | Philmont                     | Expand parking at SEPTA's R3 Philmont Station - 79 additional spaces to yield 276 total supply. Target construction in 1999.  | parking              | cap           | SEPTA  | N            | 434                    | 564                                      | source: SEPTA's Parking Development Program '99-'01 PennDOT and FHWA funding.   |
| 49  | B   | Somerton                     | Expand parking by 200 spaces at SEPTA's R3 Line Somerton Station  | parking              | cap           | SEPTA  | N            | 658                    | tbd                                      | source: SEPTA's Parking Development Program.  |
| 50  | B   | Yardley                      | Expand parking at SEPTA's R3 Yardley Station - 77 additional spaces proposed by PennDOT/FHWA and 60 additional spaces proposed by SEPTA to yield 343 total supply. Target construction year - 2000 (PennDOT share).   | parking              | cap           | SEPTA  | N            | 345                    | 1,554                                    | source: SEPTA's Parking Development Program '99-'01. PennDOT and FHWA funding \$354,000, and SEPTA funding estimated at \$1.2 million.                      |

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|----|-----|----------------------|--|----------------------|---------------|-----------|--------------|------------------------|--|---|
|    |     |                      | Description  | Performance Category | Imp't Type    |           |              |                        |  | Source  |
| 51 | B   | Woodbourne           | Expand parking at SEPTA's R3 Woodbourne Station - 58 additional spaces proposed by PennDOT/FHWA and 380 spaces proposed by SEPTA to yield 517 total supply. Target construction year - 1999 (PennDOT share).   | parking              | cap           | SEPTA     | N            | 207                    | 1,370                                    | source: SEPTA's Parking Development Program '99-'01. PennDOT and FHWA funding \$370,000, and SEPTA funding estimated at \$1.0 million.                            |
| 52 | D   | Wayne                | Expand parking in the vicinity of the R5 Line station by 200 spaces.   | parking              | cap           | SEPTA     | N            | 665                    | tbd                                      | source: SEPTA's Parking Development Program.  |
| 53 | D   | Radnor               | Expand parking at SEPTA's R5 Radnor Station - 100 additional spaces to yield 262 total supply. Target construction year 2001. TIP # 7012.  | parking              | cap           | SEPTA     | N            | 554                    | 4,100                                    | Source: SEPTA's Parking Development Program '99-'01. TIP proj # 7012, PennDOT and FHWA funding. On hold seeking Twp approval                                      |
| 54 | C   | Paoli Transp. Center | Station Rehabilitation (S080) on the R5 Line to Downingtown  | amenities            | station & pkg | PA TIP    | Y            | 1,408                  | 18,000                                   | TIP # S080  |
| 55 | C   | Malvern              | Provide 50 additional spaces, at the R5 Line Station, to yield 263 total spaces. Associated with US 202 (Section 300) commitments.   | parking              | cap           | 202 (300) | N            | 250                    | 1,200                                    | Proposed US 202 Section 300 Improvement Project (TIP #6903) CMS commitment. PennDOT / FHWA funding and/or funding through PennDOT's Regional Park & Ride Program. |
| 56 | C   | Exton                | Provide 100 additional spaces at the R5 line station, across PA 100, through developer agreement, to yield 536 total spaces. Associated with US 202 (Section 300) commitments.   | parking              | cap           | 202 (300) | N            | 405                    | 1,100                                    | Proposed US 202 Section 300 Improvement Project (TIP #6903) CMS commitment. PennDOT / FHWA funding and/or funding through PennDOT's Regional Park & Ride Program. |
| 57 | M   | Fort Washington      | Expand parking at SEPTA's R5 Ft Washington Station - 260 additional spaces to yield 446 total supply. Target construction 2001.  | parking              | cap           | SEPTA     | N            | 587                    | 5,900                                    | source: SEPTA's Parking Development Program '99-'01.  |
| 58 | M   | North Wales          | Expand parking at SEPTA's R5 North Wales Station - 250 additional spaces to yield 642 total supply. Target construction 2001.  | parking              | cap           | SEPTA     | N            | 612                    | 2,400                                    | source: SEPTA's Parking Development Program '99-'01. Property acq from U Gwynedd Twp in litigation.   |
| 59 | M   | Spring Mill          | Expand parking at SEPTA's R6 Spring Mill Station - 100 additional spaces for a total supply of 120 spaces yielded. Target construction in 1999.  | parking              | cap           | SEPTA     | N            | 184                    | 1,000                                    | source: SEPTA's Parking Development Program '99-'01.  |
| 60 | M   | Conshohocken         | Expand parking at SEPTA's R6 Conshohocken Station - 250 additional spaces provided in a garage for a total yield of 310 spaces Target construction in 2001.  | parking              | cap           | SEPTA     | N            | 315                    | tbd                                      | source: SEPTA's Parking Development Program '99-'01. Development agreement.   |
| 61 | M   | Norristown TC        | Expand parking at SEPTA's R6 Norristown Trans Center Station -90 additional surface lot spaces for a total yield of 401 surface parking lot spaces. Construct parking garage providing 370 parking spaces Target construction in 2001 for surface lot expansion and 2002 for garage. | parking              | cap           | SEPTA     | N            | 575                    | 11,300                                   | source: SEPTA's Parking Development Program '99-'01. Surface lot expansion \$1.9 million, garage \$9.4 million.   |
| 62 | P   | Holmesburg Jct       | Expand parking at the R7 Holmesburg Junction Station - 285 new spaces proposed to supplement the 37 space existing supply. Targeted for 2000 construction.   | parking              | cap           | SEPTA     | N            | 382                    | 2,400                                    | source: SEPTA's Parking Development Program '99-'01.  |
| 63 | P   | Torresdale           | Expand the R7 Torresdale's Station parking supply by 100 spaces, yielding 437 total supply. Targeted for 2000 construction.  | parking              | cap           | SEPTA     | N            | 822                    | 1,500                                    | source: SEPTA's Parking Development Program '99-'01.  |

Counties: NEW JERSEY: B: Burlington; C: Camden; G: Gloucester; M: Mercer; PENNSYLVANIA: B: Bucks; C: Chester; D: Delaware; M: Montgomery; P: Philadelphia

Source Documents: SEPTA: Fiscal Year 1999 Capital Budget and Fiscal Years 1999-2010, Capital Program and Comprehensive Plan, June 1998, and Current Parking Expansion Program; NJ Transit: FY 1998 Business Plan, October 1997; PATCO: Port Authority Transit Corporation of PA and NJ DRPA: Delaware River Port Authority 1998 Capital Program, December 1997; PA IMS: Intermodal Management System - Phase II Report, DVRPC, November 1997; NJ IMS: Intermodal Management System - New Jersey Report, DVRPC, November 1998; PIPELINE: Technical Memorandum: Planning Beyond the Pipeline - Identifying Transportation Needs in the New Jersey Counties, DVRPC, September 1999; PennDOT: 1999 Twelve Year Program, January 1999; NJ TIP: Transportation Improvement Program NJ Subregion FY 1998-2002, December 1997, and; FY 2000 - 2002 (DRAFT), May 1999; PA TIP: Transportation Improvement Program, Pennsylvania Subregion FY 1999-2002, November 1998 Phila. CIP: The Recommended 2000-2005 Philadelphia Capital Program.

**TABLE 1**  
**IMPROVEMENTS to the INTERMODAL PASSENGER SYSTEM**  
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| #                     | Co. | Facility  | IMPROVEMENT  |                      |            |                   | NHS | Daily Boards | Cost Estimate (\$000s) | (Potential) Funding Source(s) / Comments  |
|-----------------------|-----|---|--|----------------------|------------|-------------------|-----|--------------|------------------------|---|
|                       |     |   | Description  | Performance Category | Imp't Type | Source            |     |              |                        |   |
| <b>SUBWAY STATION</b> |     |   |  |                      |            |                   |     |              |                        |   |
| 64                    | P   | City Hall Station                                     | Station Rehabilitation (S052)  | amenities            | station    | PA TIP            | Y   | 26,126       | 20,000                 | TIP # S052  |
| 65                    | P   | North Philadelphia Transportation Center              | North Philadelphia Transportation Center: improvements in the vicinity of Broad Street and Lehigh Avenue to include renovation of the North Philadelphia Broad Street Subway Station; new passenger facilities for bus routes; new passenger facilities (S030) | mobility             | station    | PA TIP            | Y   | 5,219        | 3,000                  | TIP # S030  |
| 66                    | P   | Erie Ave Stn  | Engineering and Construction of Intermodal Facility Improvements   | mobility             | station    | PennDOT 1-4 years | Y   | 15,008       | 4,375                  |   |
| 67                    | P   | Broad Street Subway Stations - Girard                 | Station Rehabilitation: engineering and construction of improvements at Girard Station (S070)  | amenities            | station    | PA TIP            | Y   | 4,499        | 29,000                 | TIP # S070 - total program cost for Girard, Fairmount, Spring Garden, Walnut-Locust on the Broad Street Line and Fairmount Station on the Ridge Spur. |
| 68                    | P   | Broad Street Subway Stations - Fairmount              | Station Rehabilitation: engineering and construction of improvements at Fairmount Station (S070)   | amenities            | station    | PA TIP            | Y   | 1,920        | 29,000                 | TIP # S070 - total program cost for Girard, Fairmount, Spring Garden, Walnut-Locust on the Broad Street Line and Fairmount Station on the Ridge Spur. |
| 69                    | P   | Broad Street Subway Stations - Spring Garden          | Station Rehabilitation: engineering and construction of improvements at Spring Garden Station (S070)   | amenities            | station    | PA TIP            | Y   | 5,269        | 29,000                 | TIP # S070 - total program cost for Girard, Fairmount, Spring Garden, Walnut-Locust on the Broad Street Line and Fairmount Station on the Ridge Spur. |
| 70                    | P   | Broad Street Subway Stations - Walnut Locust          | Station Rehabilitation: engineering and construction of improvements at Walnut-Locust Station (S070)   | amenities            | station    | PA TIP            | Y   | 6,152        | 29,000                 | TIP # S070 - total program cost for Girard, Fairmount, Spring Garden, Walnut-Locust on the Broad Street Line and Fairmount Station on the Ridge Spur. |
| 71                    | P   | Broad Street Subway Stations - Fairmount on the Ridge | Station Rehabilitation: engineering and construction of improvements at Fairmount on the Ridge Spur Station (S070)   | amenities            | station    | PA TIP            | N   | 60           | 29,000                 | TIP # S070 - total program cost for Girard, Fairmount, Spring Garden, Walnut-Locust on the Broad Street Line and Fairmount Station on the Ridge Spur. |
| 72                    | P   | Locust Street Concourse                               | Concourse Improvements (serving PATCO's 12th/13th, 15th/16th Stations and SEPTA's Walnut-Locust station)   | access               | station    | Phila. CIP        | Y   | 16,141       | 1,350                  | Phila. CIP comprised of Local and State funding. Boards = 12TH/13TH 1,650, 15th/16th = 8,300, Walnut-Locust = 6152                                    |
| <b>BUS STATION</b>    |     |   |  |                      |            |                   |     |              |                        |   |
| 73                    | P   | SEPTA   | Transportation Center Development at Wissahickon (0538)  | mobility             | transit    | PA TIP            | N   | 123          | 1,600                  | CMAQ, Local, State (cost estimate includes Wissahickon & West Chester) (TIP # 0538)   |
| 74                    | C   | SEPTA   | Transportation Center Development at West Chester (0538)   | mobility             | transit    | PA TIP            | N   | unk          | 1,600                  | CMAQ, Local, State (cost estimate includes West Chester & Wissahickon) (TIP # 0538)   |

Counties: NEW JERSEY: B: Burlington; C: Camden; G: Gloucester; M: Mercer; PENNSYLVANIA: B: Bucks; C: Chester; D: Delaware; M: Montgomery; P: Philadelphia

Source Documents: SEPTA: Fiscal Year 1999 Capital Budget and Fiscal Years 1999-2010, Capital Program and Comprehensive Plan, June 1998, and Current Parking Expansion Program; NJ Transit: FY 1998 Business Plan, October 1997; PATCO: Port Authority Transit Corporation of PA and NJ DRPA: Delaware River Port Authority 1998 Capital Program, December 1997; PA IMS: Intermodal Management System - Phase II Report, DVRPC, November 1997; NJ IMS: Intermodal Management System - New Jersey Report, DVRPC, November 1998; PIPELINE: Technical Memorandum: Planning Beyond the Pipeline - Identifying Transportation Needs in the New Jersey Counties, DVRPC, September 1999; PennDOT: 1999 Twelve Year Program, January 1999; NJ TIP: Transportation Improvement Program NJ Subregion FY 1998-2002, December 1997, and; FY 2000 - 2002 (DRAFT), May 1999; PA TIP: Transportation Improvement Program, Pennsylvania Subregion FY 1999-2002, November 1998 Phila. CIP: The Recommended 2000-2005 Philadelphia Capital Program.



The nature of the set of facilities contained in the Table 1 is summarized in the tabulations and text that follows.

TABLE 2  
 NUMBER OF PASSENGER FACILITIES  
 BY STATE

| <u>CATEGORY OF FACILITY</u>                | <u>NJ</u> | <u>PA</u> |
|--|-----------|-----------|
| Hub Rail Station                           | 2         | 3         |
| Regional Rail /<br>High Speed Rail Station | 12        | 22        |
| Subway Station                             | 1         | 9         |
| Park-and-Ride Lot                          | 14        | 0         |
| Bus Stations                               | <u>9</u>  | <u>2</u>  |
| Total                                      | 38        | 36        |

Table 2 shows that the total number of intermodal locations cited in Table 1 are approximately balanced between New Jersey (38) and Pennsylvania (36). While the Pennsylvania portion shows a greater representation of rail-based facilities where rail service is plentiful, in New Jersey, a greater share of the intermodal locations are highway oriented. This reflects the nature of the system as a whole.

Table 3 summarizes the financial aspects of the entire improvement list. It should be noted that costs for certain projects could not be determined or estimated with confidence and are therefore not included in the Table 1, or the following summary.

TABLE 3  
IMPROVEMENT COST ESTIMATES  
(\$ IN 000's)

| PERFORMANCE<br>CATEGORY          | # OF<br>PROJECTS<br>(NJ / PA) |                |                 |                 |
|----------------------------------|-------------------------------|----------------|-----------------|-----------------|
|                                  |                               | NJ             | PA              | TOTAL           |
| Accessibility                    | 51 / 1                        | \$6,000        | \$1,400         | \$7,400         |
| Mobility /<br>Connectivity       | 19 / 8                        | \$4,700        | \$58,600        | \$63,300        |
| Station Amenities                | 8 / 8                         | \$100          | \$163,400       | \$163,500       |
| Parking Supply /<br>Availability | 22 / 19                       | <u>\$2,300</u> | <u>\$43,200</u> | <u>\$45,500</u> |
| Total                            | 100 / 36                      | \$13,100       | \$266,600       | \$279,700       |

Table 3 shows that the total regional list of projects (i.e., Table 1) represents \$280 million (plus) of improvement to the passenger system. Pennsylvania's share of the costs represent 95 percent of the total, while just five percent of the costs are associated with locations in New Jersey. The disparity is due to the source of the improvements.

In Pennsylvania, the majority of the program's improvements have been culled from established implementation programs, and include the costs associated with constructing or rehabilitating 17 passenger rail stations.

The set of New Jersey improvements were for the most part independently derived through DVRPC staff efforts conducted as part of the IMS - *NJ Report*, and contain just one rail terminal improvement programmed in New Jersey (Trenton Station).

## **Analysis and Discussion**

The inventory of suggested, planned or programmed improvements at intermodal passenger facilities presented in Table 1 can be used and evaluated on a variety of levels. Individual facility needs can be inspected and/or system-wide opportunities addressed. The list can be used:

- as a ready reference for projects seeking dedicated funding through TEA-21;
- as a project prioritization tool acknowledging limited financial resources;
- as a reference for improvement costs for estimating purposes, or;
- as a benchmark from which to measure progress in improving the region's intermodal passenger network.

The analysis prepared within this work focuses upon the performance measures identified through the intermodal management systems planning work prepared by DVRPC. These include:

- accessibility of intermodal facilities;
- mobility and connectivity among modes;
- station amenities or facility attributes;
- parking supply and availability.

By focusing upon these performance measures, assessments of key service and physical attributes may be completed at the facility, system and/or regional level and remain consistent with the evaluation of intermodal passenger facilities as defined in DVRPC's earlier work (e.g., the Intermodal Management System - Phase II Report, and; the Intermodal Management System - *New Jersey Report*).

### **ACCESSIBILITY**

A total of 52 projects address accessibility attributes throughout the network. Directional signage, bicycle racks and on-street bike lanes are the types of improvements most represented in the table. Total known funding requirements are estimated at \$7.4 million. The majority of projects are in the New Jersey counties (51 projects

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totaling \$6.0 million vs. 1 station concourse improvement in the City of Philadelphia).

By count, most projects (30) are related to signing improvements. Station identification signs, highway trailblazer signs between the station and the NHS or major surrounding highways, and pedestrian signing in or surrounding the station in a downtown environment, etcetera. The signing improvement package totals almost \$600,000 with most of the improvement locations cited at PATCO stations in Camden County.

Four of the highway signing improvements, totaling \$75,000, are located at facilities which are in close proximity to highway improvements already programmed on the TIP (NJ Turnpike interchange #5, Atco Station, Ferry Avenue Station and Trenton Station). As such, the work to implement these might be added to the scope of the nearby highway improvements (TIP #s: 1315, 2342, 2008, 4305) as they enter construction.

The remainder of the signing improvements are not programmed or funded. Implementation may be assumed through regular maintenance programs of the operators, or possibly consolidated to a statewide signing improvement program to be administered by NJDOT and/or NJ Transit.

Seventeen pedestrian and bicycle related improvement suggestions are in the program, totaling \$435,000. A bike lane project, serving the community surrounding the Collingswood Station, is programmed in the TIP for \$100,000 (TIP Project #2239). Two pedestrian crossing improvements associated with the Broadway / Rand Transportation Center potentially could be implemented in the near-term as part of existing categorical funding programs on the TIP (#2343, and #X185) or in the longer view might be considered within a comprehensive evaluation of establishing a Southern New Jersey Light Rail Line (TIP #N035) station at the transportation center.

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Three station improvements (Broadway / Rand, Trenton and PATCO's 12<sup>th</sup> / 13<sup>th</sup> and 15<sup>th</sup> / 16<sup>th</sup> stations, and SEPTA's Walnut-Locust Station on the Broad Street Line) are cited in the program and total \$6.1 million. Accessibility improvements at the Broadway / Rand Transportation are possible candidates for implementation through the SNJLRL project. Trenton Station's improvements are programmed (TIP # N045). The Philadelphia project (concourse improvements between PATCO's 12<sup>th</sup> / 13<sup>th</sup> and 15<sup>th</sup> / 16<sup>th</sup> stations and SEPTA's Walnut-Locust Station on the Broad Street Line) is included on the City of Philadelphia's most recent Capital Improvement Program (\$1,350,000).

#### **MOBILITY / CONNECTIVITY**

There are a total of 27 improvements which address upgrading mobility conditions at or around intermodal passenger facilities in the region. Nineteen locations are in New Jersey, with improvement costs representing approximately \$4.7 million. There are 8 locations in Pennsylvania, and the total cost for the improvements cited at these locations is approximately \$58.6 million.

Fundamental to New Jersey's set of improvements are recommendations to operate and maintain six community-based circulator bus routes focused at the four regional malls, the Woodcrest PATCO Station, and the Cherry Hill Station of the Atlantic City Rail Line. These recommendations seek to extend the reach of existing fixed route transit services and can be considered anchors in improving reverse commute options for regional access to jobs initiatives.

Establishing supporting bus stations or mini-transportation centers at the Malls (supported by dedicated parking, formal shelters and other furniture) are also cited within the program.

The service component, identified for mobility / connectivity improvements, totals almost \$1.0 million. Funding for the service

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improvements may be applicable through NJ Transit's Clean Air / TDM Program (TIP #N030) or its Challenge Grant Program. TEA-21 has also resulted in special statewide funding that may apply to these types of improvements in support of the welfare-to-work transition (TIP #N082).

Two roadway improvements, each estimated at \$1.2 million, utilize non-traditional funding partners to greatly improve mobility / connectivity conditions at the Atco and Lindenwold stations. Pinehurst Avenue's extension is on the TIP (#2342), and is slated to enter the construction phase by summer 2000. Roadway circulation plans proposed by the University of Medicine and Dentistry of New Jersey, as part of its plan in the Borough of Stratford, would greatly improve external roadway connections with the Lindenwold Station.

Long-term pedestrian enhancement surrounding NJ Transit's Cherry Hill Station is possible through private-public partnerships if and when Garden State Park Race Track is redeveloped (i.e., a pedestrian overpass estimated to cost \$700,000).

NJ Transit and SEPTA might consider partnering to implement off-site vehicular improvements (serving both private auto and public bus) at the West Trenton Station (estimated to cost \$500,000) as part of the re-activation and upgrade of the line for passenger service between West Trenton and Newark, NJ. The possible service restoration and line upgrade is presently being evaluated within a feasibility study and environmental assessment.

On the Pennsylvania side of the region new or enhanced passenger handling improvements are included on the TIP for five regional and/or high speed rail stations. These include 30<sup>th</sup> Street Station, Suburban Station, the North Philadelphia Transportation Center, the Baldwin Station, and the Eastwick Station on the R1 Airport Line. Improvements at the Erie Avenue stop on the Broad Street Line are part of the state's Twelve Year Program.

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Establishing sub-regional transportation centers, or bus stations at the Wissahickon transfer center, in the City of Philadelphia, and at Market Street and Railroad Avenue, in the Borough of West Chester, will cost an estimated \$1.6 million. CMAQ funding is being used to finance 80 percent of the project costs (TIP #0538).

**STATION AMENITIES**

Shelters and supporting furniture are recommended to formalize six bus stations cited for selected regional malls and outlying business districts. These improvements coincide with the community-scale circulator bus systems identified to improve mobility in South Jersey. Formalizing the intermodal attributes of the West Trenton Station by creating a sheltered bus stop, is also recommended in New Jersey. The total program is estimated to cost approximately \$72,000.

Frequently these types of installations are financed by advertising and mall management companies. However, NJ Transit's Statewide Bus Passenger Facility Improvement Program (TIP #N053) may also provide opportunity in funding these types of improvements.

Major rehabilitation at six stations along the Broad Street Line are programmed on the Pennsylvania TIP, as are improvements at the Frankford Transportation Center and the Paoli Station.

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**STATION PARKING**

Establishing formal park-and-ride lots at five regional malls in southern New Jersey are recommended to support the mobility improvements delivered by four recommended community transit routes (and the existing route serving the Echelon Community / Mall) would cost approximately \$2.0 million to implement.

Private financing by property owners, or through statewide sources (NJ Transit's Bus Passenger Facility Improvement Program - TIP #N053, and Job Access and Reverse Commute Program - TIP #N082) appear to be viable options. Augmenting the scope of nearby large-scale highway improvement projects to include intermodal facility improvements as part of the CMS requirement is another option. In such instances, station parking improvements may serve as congestion management strategies to manage single occupant travel within a corridor.

While DRPA's capital program contains funding for parking expansions at PATCO's Ferry Avenue, Woodcrest and Ashland stations, PATCO wants to conduct a comprehensive study to determine needs, opportunities and the financial where-with-all to best address the parking situation at eight of its South Jersey stations. DVRPC's FY 2001 Planning Work Program is providing the means to undertake that study (\$250,000).

In the nearer-term, however, some ideas for shared parking arrangements in the proximity of the Woodcrest, Ashland and Lindenwold stations are contained in the program. They assume agreements with private property owners can be negotiated by the Cross County Connection TMA and that site development costs are negligible.

Several park-and-ride lot improvement suggestions emanated from DVRPC's technical memorandum entitled: *Planning Beyond the Pipeline - Identifying Transportation Needs in the New Jersey Counties* (September 1999). The lots, located at freeway and major arterial

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intersections, provide the opportunity for intermodal travel since NJ Transit presently operates bus route(s) along the roadway(s) adjacent to the location of the potential lot. Costs have not been estimated since parking demand estimates have not been developed. The 10 to 12 candidate locations provide an opportunity for NJDOT to revitalize its park-and-ride efforts in southern New Jersey. The intermodal aspect of the projects suggests that cost sharing with NJ Transit also be considered (e.g., the Statewide Bus Passenger Facility Improvement Program - TIP #N053).

Partnering is also suggested for NJ Transit and SEPTA to implement parking lot improvements at the West Trenton Station. In the immediate term, the existing lot would benefit from paving and striping. In the longer term, as part of the re-activation and upgrade of the line for passenger service between West Trenton and Newark, NJ, expansion of the parking area should be considered. Estimates of future parking demand are expected at the conclusion of a feasibility study and environmental assessment (currently in progress).

In Pennsylvania, the park-and-ride lot program is focused upon expanding parking supply at existing SEPTA rail stations. SEPTA maintains an active parking expansion program which responds to systemwide need in a case-by-case manner. Possibilities for increasing parking supply are conditioned by land availability, funding assistance, development agreements, and shared / leased parking opportunities. The current complement of SEPTA owned, operated and maintained parking spaces at regional rail stations is 18,441 spaces. The parking expansions represented in Table 1 total 3,532 spaces (almost a 20 percent increase in supply). Known or estimable costs for the Pennsylvania-side improvements total approximately \$41.2 million.

SEPTA makes use of its own funds, and has also been very successful in obtaining federal and state highway funding to pay for parking expansions. Very often these improvements are also

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achieved through regional CMS planning efforts. Through the CMS, passenger facility improvement projects and funding commitments are identified within corridors where highway improvements are proposed to facilitate travel by non-single occupant vehicles. A federal-aid CMAQ funded project, entitled “Regional Park and Ride Program”, is also provided in the PA TIP (#0566) for such improvements.

## Implementation Opportunities

Figure 2 shows the proximity of regional TIP projects to the 74 intermodal locations covered by Table 1, and provides spatial reference to applicable nearby regional TIP improvements. At some of these locations (17 in New Jersey and 6 in Pennsylvania), consideration should be given to augmenting the costs of the programmed highway improvement with the relatively small additional cost associated with the nearby intermodal facility improvements.

Opportunity also exists in dedicating state-wide improvement program funding for categorical improvements. For example, existing state-wide funding programs appear amenable to include costs for: improving station area and trailblazer signing; providing for community scale transit operations; establishing formalized bus stations at outlying business centers / regional malls (offering appropriate service information, furniture, amenities and parking supply), and; developing park-and-ride lots.

Finally, partnering with private sector interests presents a unique opportunity to advance improvements in New Jersey (projects: #5, #6 and #13) and Pennsylvania (project #56).

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-  National Highway System (NHS) Routes
-  Regional or Commuter Rail
-  High Speed and/or Light Rail

**Intermodal Facility:**

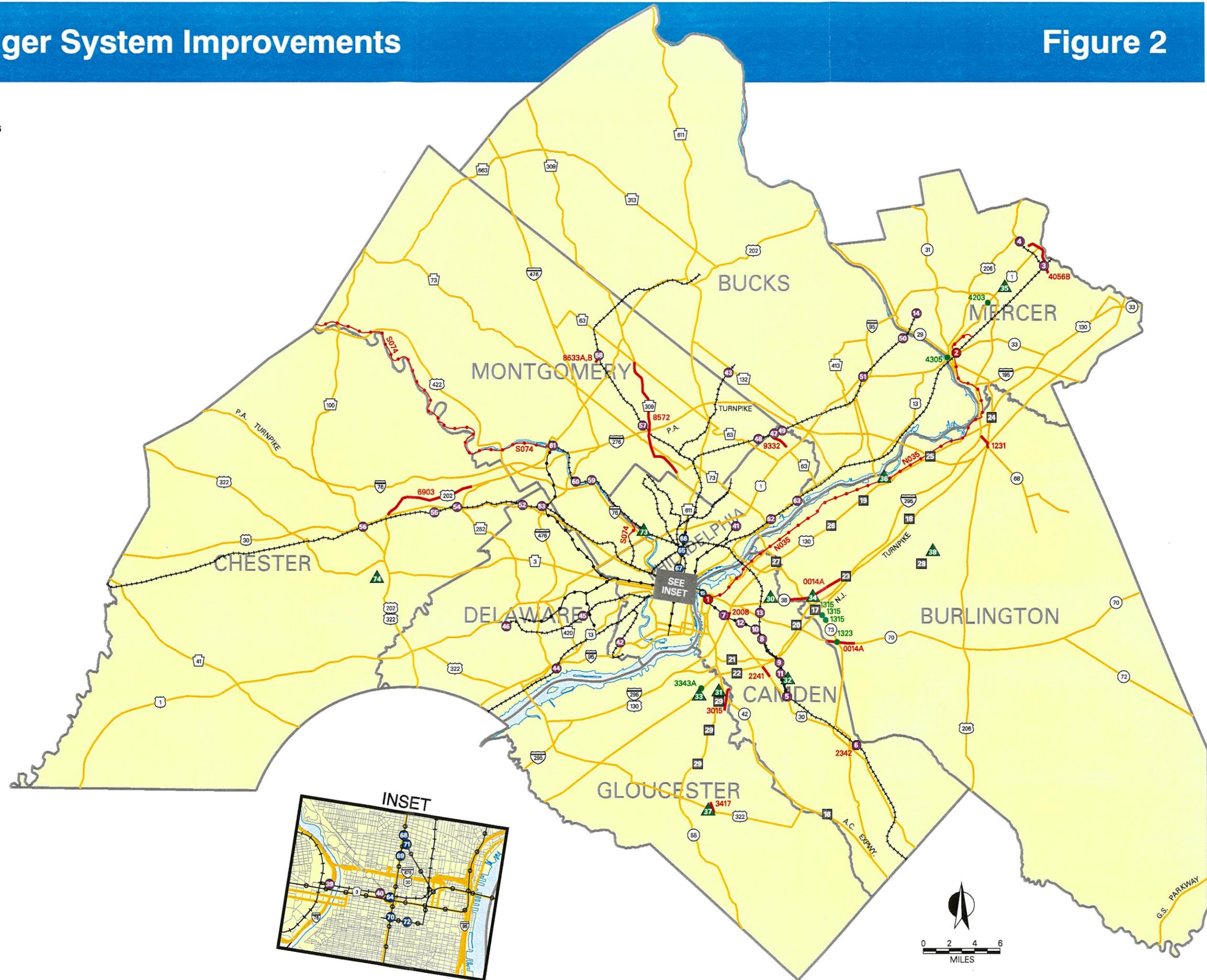
-  Hub Station
-  Regional / High Speed Rail Station
-  Subway Station
-  Park and Ride Lot
-  Bus Station

Note: Symbol # indicates facility in Table 1

**Transportation Improvement Project (TIP):**

-  Roadway Improvement
-  Intersection Improvement
-  Proposed Rail Line

Note: Pennsylvania TIP projects represent FY 1999-2002  
New Jersey TIP projects represent FY 1998-2002





## **Next Steps**

The report serves as a ready reference for planning and implementing improvements to intermodal passenger facilities throughout the region. It has been distributed to the membership of DVRPC's Regional Transportation Committee (RTC) to facilitate improvement to the network by:

- elevating the profile of intermodal passenger facilities and issues;
- citing system and facility needs and interrelationships, and;
- identifying funding requirements and opportunities.

With the dissemination of this report it is recommended that the county and operating members of DVRPC review the improvement inventory contained in Table 1 and consider its contents as inputs to subsequent updates of their work programs, capital budgets and the region's TIP and Long Range Plan.

Other means of implementing the intermodal improvements may also be considered. Such as giving due consideration to the contents of Table 1 when formulating or revising statewide categorical improvement programs (e.g., park-and-ride programs, safety and signing programs, etc.), and/or linking selected facility improvements, as congestion management commitments, with nearby highway improvement projects which are included on the TIP.

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