Delaware Valley
Regional Planning
Commission

2007

SMALL STARTS FEASIBILITY

REGIONAL PROJECTS WITH FEDERAL SMALL STARTS FUNDING POTENTIAL

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.

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.

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 this report's findings and conclusions, which may not represent the official views of policies of the funding agencies.

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EXECUTIVE SUMMARY

FTA's Small Starts program, authorized under SAFETEA-LU, is a new federal funding mechanism for transit guideway/corridor investments of lower cost than the typical New Starts project. The purpose of this project was to identify regional project concepts that would have Small Starts and Very Small Starts funding potential; in other words, projects which could be expected to meet these programs' requirements and satisfy a transportation need. The general project approach was to identify Small Starts project concepts by conducting several discrete analytical exercises, namely:

- A regional journey to work origin/destination corridor analysis;
- A survey of TSM ('baseline') alternatives from recent New Starts Alternatives Analysis reports;
- An identification of regional bus corridors that would meet the Very Small Starts ridership threshold of 3,000 weekday riders; and
- An examination of other actively-studied regional project concepts in the context of the Small Starts and Very Small Starts program requirements.

Each of these individual analyses (sections) resulted in one or more Small Starts project concepts. Projects that were initially identified were then prioritized in cooperation with county and agency staff. As summarized in Table 5 at this report's conclusion, twenty-seven (27) regional projects and/or corridors were identified through this project for their potential Small Starts or Very Small Starts viability.

Of these resulting projects/corridors, six were identified separately in multiple sections of this report, indicating multiple points of justification. Of these, two are already identified in DVRPC's *Destination 2030* Long Range Plan: the Mercer County Route 1 BRT and Roosevelt Boulevard Rapid Transit line in Philadelphia. The latter is an identified aspiration, with the original intent being for rail. However, the analyses in this report indicate that a BRT project along this corridor could be viable and potentially competitive for Small Starts funding. This concept should be further explored, as it could represent a significant service enhancement and possible stepping stone to future rail service.

Projects deemed to be desirable based on other planning criteria (as reflected by compatibility with transit agency, regional, county, or local plans) may be evaluated in greater detail through subsequent work. Projects deemed to have particular merit may be considered for insertion into DVRPC's Long Range Plan as aspirations or major projects. In order for any eventual Small Starts or Very Small Starts applications to be viable, local financial matching commitments would need to be demonstrated.

INTRODUCTION AND PROJECT REQUIREMENTS

FTA's Small Starts program, authorized under SAFETEA-LU, is a new federal funding mechanism for transit capital improvements along a dedicated corridor or fixed guideway. As part of FTA's rulemaking process for implementing the Small Starts program, a second 'sub-category' – Very Small Starts – has been created under the Small Starts umbrella.

The purpose of DVRPC's Small Starts Feasibility project is to generate new project concepts and also explore previously-considered projects in the context of the Small Starts and Very Small Starts programs. The project has two basic parts:

- Using a variety of analytical techniques, to generate new transit project ideas which could qualify for Small Starts / Very Small Starts funding, and to evaluate portions of previously considered projects to the extent that this new funding avenue might make them more viable.

- Working with counties and transit agencies, to prioritize among these project concepts and generate a 'short list' of project ideas which should be considered in greater detail.

Project Requirements

In order to qualify for funding under the Small Starts or Very Small Starts programs, the proposed transit service must fall into one of the following two categories:

- The service must run along a fixed guideway for at least 50% of its length during the peak period, OR
- A non-fixed-guideway project is eligible if it includes at a minimum all of the following:

    - 'Significant' transit stations;
    - Traffic signal priority or pre-emption;
    - Low floor vehicles or level boarding;
    - 'Premium' service branding; and
    - 10 minute peak period and 15 minute off-peak headways running for at least 14 hours per day.

The requirements among those which deal with design are illustrated by the below images from Los Angeles' Metro Rapid lines, which are held as a model for the Very Small Starts framework (all photos courtesy Los Angeles Metropolitan Transportation Authority).

Significant stations

Low floor vehicles

Stations are more substantial than typical bus shelters, but less so than rail stations
(*Left*: Metro Rapid's Universal City Station, *Right*: Boarding at Metro Rapid's Wilshire-Normandie Station).

Premium service branding

Metro Rapid vehicles are branded in a way that separates them from normal local bus service (*Above*: Metro Rapid logo, *Right*: Metro Rapid vehicle).

Generally speaking, the second eligibility category allows mixed-traffic Bus Rapid Transit (BRT) systems to qualify for funding. It also bears noting that in order to advance to FTA's Project Development phase (into which Preliminary Engineering and Final Design are combined for Small Starts and Very Small Starts projects), the project's Locally Preferred Alternative (LPA) must be included in DVRPC's Long Range Plan. Other requirements and details that are unique to each of the two programs are summarized below.

Small Starts requirements and details

In order to qualify for Small Starts funding, a project must have a total cost of less than $250 million and requiring less than $75 million in federal funding. The general FTA rule

requiring at least a 50-percent local match for competitive projects still applies to Small Starts projects.

Additionally, the same FTA Alternatives Analysis requirements as for the New Starts program are present for Small Starts, except that:

- A narrower range of alternatives may be considered;
- Opening year rather than long range ridership forecasts are used;
- Simpler forecasting methods are permitted; and
- There is a simplified rating on local financial commitment – a 'medium' rating for this measure is automatic if a 'reasonable' plan to secure the local share is in place, the project's estimated operations and maintenance costs are less than 5% of the operating agency's annual operating budget, and the operating agency is in 'solid' financial condition.

Very Small Starts requirements and details
The Very Small Starts program is intended to fund projects of lower cost and where demand is demonstrated through existing ridership on current services. Specifically, the total project cost limit is $50 million, and the general FTA rule requiring at least a 50-percent local match for competitive projects still applies. Additionally, the total cost must be less than $3 million per mile (not including vehicles).

Very Small Starts projects must improve an existing transit corridor carrying at least 3,000 weekday riders (note that this is for a corridor rather than a line – if multiple bus routes that share a 'trunk' route carry at least 3,000 riders combined, a Very Small Starts investment would be eligible along the trunk section).

In the case of Very Small Starts proposals, the Alternatives Analysis requirements are simplified even further:

- No ridership forecasts are required;
- No comparisons to a baseline (TSM) alternative are necessary – the project's costs, benefits, and impacts are generally compared to the existing conditions in the corridor;
- No formal FTA project rating occurs; if all Very Small Starts criteria are met, the project will automatically qualify for funding; and
- As with Small Starts, all analyses are for the opening year rather than long range, and the local financial commitment evaluation is identical (see above).

DVRPC PROJECT APPROACH

The purpose of this project was to identify regional project concepts that would have Small Starts and Very Small Starts funding potential; in other words, projects which could be expected to meet the requirements outlined above and satisfy a transportation need. The general project approach was to identify project prospects by conducting several discrete analytical exercises as summarized below. Projects that were initially identified were then prioritized in cooperation with county and agency staff.

It should be emphasized that the project concepts that were generated are not evaluated for their cost effectiveness in this report, nor were capital or operating costs estimated for projects/corridors where they did not already exist. In the latter case, these would depend entirely on project design specifics which would be developed later. In any case, in order for any eventual Small Starts or Very Small Starts applications to be viable, local financial matching commitments would need to be demonstrated.

SECTION 1:
Regional origin/destination corridor analysis

As part of this analysis, we ranked the top fifty regional journey-to-work trip pairs between County Planning Areas (CPAs), and identified the corridors (as defined in DVRPC's Congestion Management Process – CMP) through which these trips would occur. Corridors not already served by rapid transit, and where the predominant Transit Score for land uses in the vicinity was medium or greater, were identified as Small Starts or Very Small Starts candidate projects.

SECTION 2:
Survey of TSM ('baseline') alternatives from recent Alternatives Analysis reports

In order to qualify for FTA New Starts funding, localities are required to demonstrate the cost effectiveness of a proposed transit investment by comparing it to a Transportation Systems Management (TSM) or 'baseline' alternative, which is the best service improvement (to accomplish the general goals of the proposed service) that can be made without a significant guideway investment. In order to ensure that the TSM alternative has not been designed to inflate the preferred alternative's cost effectiveness, FTA has traditionally paid close attention to the baseline alternative's design (and made suggestions to enhance its effectiveness if implemented). FTA has indicated that one of the purposes for the Small Starts and Very Small Starts programs was to provide a funding mechanism for TSM alternatives, so that they do not become automatic 'dead-ends' should the preferred alternative not be cost effective.

Because of this, we surveyed the TSM alternatives from each of the regional Alternatives Analysis studies completed within the last 10 years, checking them against the Small Starts and Very Small Starts requirements for cost and design.

SECTION 3:
Bus Ridership Evaluation for Very Small Starts

As noted above, Very Small Starts funding may be available for improvements that would enhance the effectiveness of bus or rail service in corridors where

demand has been demonstrated by existing ridership. In the DVRPC region, Very Small Starts prospects will be largely limited to enhancing current bus routes, as there are few opportunities to enhance current rail corridors with new guideways (with the notable exception of opportunities for double-tracking single-tracked rights-of-way, such as for a portion of the Route 101 trolley). Accordingly, this section focuses on regional bus corridors that meet the Very Small Starts ridership threshold. Using SEPTA and New Jersey Transit weekday ridership data, these suburban and city corridors are identified.

SECTION 4:
Examination of Other Actively-Studied Project Concepts

In addition to the above analyses, which were intended to generate new project concepts, this project also briefly evaluated in the Small Starts context other regional projects that were recently or are actively under study.

Each of these individual analyses (sections) resulted in one or more Small Starts project concepts, as detailed in the following pages. For a summary of all the project concepts generated, see Table 5 at this report's conclusion.

SECTION 1: REGIONAL ORIGIN/DESTINATION CORRIDOR ANALYSIS

The purpose of this analysis was to survey regional corridor-level trip patterns in order to assess whether any high-volume journey-to-work corridors were not presently served by transit. Conceptually, such corridors would be desirable candidates for new transit capital investments.

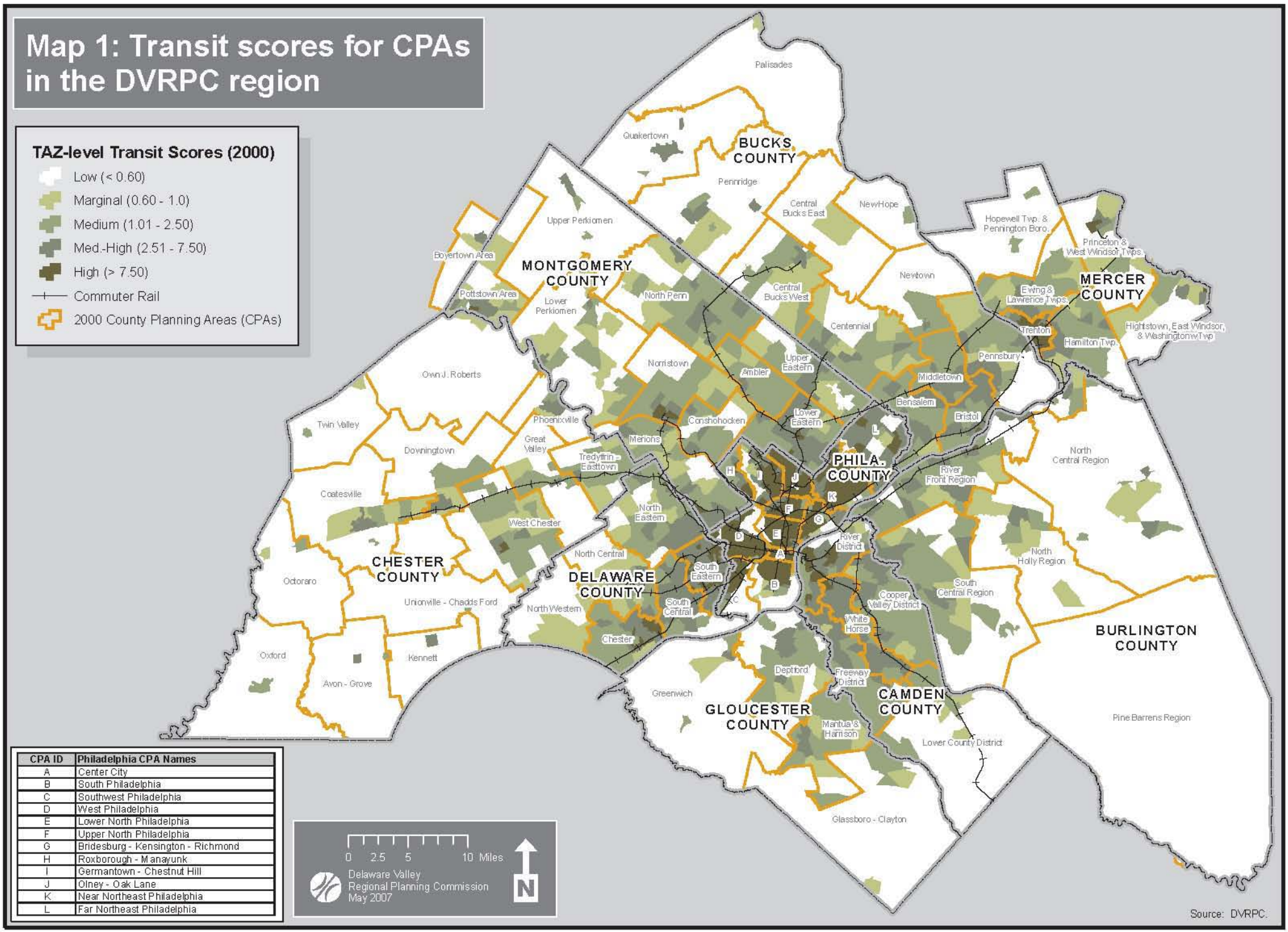
The 2000 US Census Transportation Planning Package (CTPP 2000) is the principal data source for journey to work analysis, and was employed for this purpose here. The CTPP Journey to Work (JTW) data is derived from the 2000 US Census 'long form' sample data, which was administered to an average of one in six households in spring 2000, and specifically referenced trip patterns during the Census 'reference week': the first week of April, 2000.

In order to be meaningful, it was necessary to aggregate origins and destinations to a level great enough that high volume shared trip corridors would become apparent. In many cases, trip origins from multiple municipalities will share a given corridor. If these origins are not aggregated to a scale greater than the municipality, however, the combined magnitude of these origins might be obscured. To this end, it was determined that the County Planning Area (CPA) would be an appropriate geography for this analysis. In all, there are 74 CPAs in the DVRPC region. A CPA-level analysis will group similar trips into shared 'trunks,' making the most critical shared corridors apparent.

Table 1 below presents the results of this analysis. The top-50 inter-CPA trips pairs are listed in descending order by daily trip volume. Corridors from DVRPC's Congestion Management Process (CMP) which serve these trip pairs are identified, as are any existing fixed-guideway transit services connecting the relevant CPAs. In addition, DVRPC's Transit Score Tool was used to characterize the general extent of transit viability across each CPA pair (for details on the Transit Score Tool and method, see DVRPC publication 07005: *Creating a Regional Transit Score Protocol: Full Report*). Map 1 depicts CPAs in the DVRPC region along with TAZ-level transit scores.

In Table 1, trip pairs are highlighted in grey where there are not presently served by fixed guideway transit routes (or where they are only served by regional/commuter rail with only one station in either the origin or destination CPA). Trip pairs highlighted in dark grey meet these criteria and also have a predominant transit score character of medium or greater, meaning that they could generally support some form of rapid/intensive transit service (of the type intended to be funded by the Small Starts & Very Small Starts programs). Trip pairs that are not highlighted in grey are already served by fixed guideway transit.

Map 1: Transit scores for CPAs in the DVRPC region



CPA ID	Philadelphia CPA Names
A	Center City
B	South Philadelphia
C	Southwest Philadelphia
D	West Philadelphia
E	Lower North Philadelphia
F	Upper North Philadelphia
G	Bridesburg - Kensington - Richmond
H	Roxborough - Manayunk
I	Germantown - Chestnut Hill
J	Olney - Oak Lane
K	Near Northeast Philadelphia
L	Far Northeast Philadelphia

Source: DVRPC.

Table 1 Key:

Trip pair already substantially served by fixed-guideway transit
Trip pair currently not served or underserved by fixed-guideway transit
Trip pair currently underserved by transit with CPAs having transit scores of medium or higher

Table 1: Top-50 journey to work CPA trip pairs by daily volume, 2000

JTW volume rank	From	To	# Daily Trips	CMP Corridor(s) involved	Existing fixed guideway transit service connecting CPAs?	Transit Score*
1	South Philadelphia (PHL)	Center City (PHL)	18,761	6E, 14A (Broad St.)	Yes; Broad Street Line	High
2	West Philadelphia (PHL)	Center City (PHL)	16,900	7A, 10A (Routes 3, 30)	Yes; Market-Frankford Elevated, Rts. 10, 11, 13, 34, 36	High
3	Near Northeast Philadelphia (PHL)	Center City (PHL)	15,414	4B, 5G, 14A (Route 1, Broad St., I-95)	Yes; Market-Frankford Elevated	High
4	Olney – Oak Lane (PHL)	Center City (PHL)	12,796	14A (Broad St.)	Yes; Broad Street Subway	High
5	Near Northeast Philadelphia (PHL)	Far Northeast Philadelphia (PHL)	11,828	4B, 5G, 5H (Route 1, I-95)	Yes; Regional rail (1 dest. CPA stop)	High
6	Lower North Philadelphia (PHL)	Center City (PHL)	11,494	14A, 15A (Broad St.)	Yes; Broad Street Line	High
7	Far Northeast Philadelphia (PHL)	Center City (PHL)	10,440	4B, 5H, 5G, 14A (Route 1, Broad St., I-95)	Yes; Regional rail (1 origin CPA stop)	High
8	Germantown – Chestnut Hill (PHL)	Center City (PHL)	9,537	15A (Germantown Ave., Broad St.)	Yes; Regional rail (multiple stations)	High
9	White Horse District (CAM)	Cooper Valley District (CAM)	8,699	2D, 5B, 5C (Route 30, I-295, NJ Tpk.)	No	Medium
10	River Front Region (BUR)	South Central Region (BUR)	8,241	2D, 6D, 6E, 13A (Rts 73 & 130, I-295, NJ Tpk.)	No	Medium
11	Hamilton Twp. (MER)	Trenton (MER)	8,106	1A, 9A, 9B, E12 (emerging) (Routes 33, 533)	Yes; Northeast corridor commuter rail	High
12	Far Northeast Philadelphia (PHL)	Near Northeast Philadelphia (PHL)	7,896	4B, 5G, 5H (Route 1, I-95)	Yes; Regional rail (1 orig. CPA stop)	High
13	South Central Region (BUR)	Cooper Valley District (CAM)	7,842	2D, 12A-E (I-295, NJ Tpk., Route 70)	No	Medium
14	South Eastern (DEL)	Center City (PHL)	7,681	5E, 6C, 10A (Routes 1, 3, 13, 291)	Yes; Rts. 101/102, Market-Frankford Elevated, Regional rail	High
15	South Eastern (DEL)	South Central (DEL)	7,516	5C, 6B, 6C (Routes 1, 13)	Yes; Rt. 101, Regional rail	Medium-High
16	North Eastern (DEL)	Merions (MON)	7,442	2B, 2C, 7B (I-476, Route 30)	Yes; Rt. 100	Medium
17	South Eastern (DEL)	North Eastern (DEL)	6,466	5C, 10B, 10C (Routes 1, 3)	Yes; Rt. 100	Medium-High

JTW volume rank	From	To	# Daily Trips	CMP Corridor(s) involved	Existing fixed guideway transit service connecting CPAs?	Transit Score*
18	Downingtown (CHES)	West Chester (CHES)	6,464	8I, 8M (Routes 20, 100, 202, 322)	Yes; Regional rail (1 orig. CPA stop)	Low
19	Cooper Valley District (CAM)	South Central Region (BUR)	6,463	2D, 12A-E (I-295, NJ Tpk., Route 70)	No	Medium
20	Freeway District (CAM)	Cooper Valley District (CAM)	6,291	2D, 3E, 5B, 5C (Routes 30, 42, I-295, NJ Tpk.)	No	Medium
21	River District (CAM)	Cooper Valley District (CAM)	6,285	5B, 5C, 10A, 12A, 12B, 12C (Routes 30, 38, 70)	Yes; PATCO	High
22	Merions (MON)	Center City (PHL)	5,871	2B, 7A, 7B (I-76, I-476, Route 30)	Yes; Rt. 100, Regional rail	High
23	Cooper Valley District (CAM)	Center City (PHL)	5,771	5A, 5B (Route 30)	Yes; PATCO	High
24	Hamilton Twp. (MER)	Princeton & West Windsor Twps (MER)	5,752	4A, 4B, 4D, E3 (emerging) (Routes 1, 206)	Yes; commuter rail (1 orig. stop)	Marginal
25	Southwest Philadelphia (PHL)	Center City (PHL)	5,691	6C-E, 10A (Routes 3, 13, 291)	Yes; Rts. 11, 13, 36, Regional rail	High
26	Bridesburg – Kensington – Richmond (PHL)	Center City (PHL)	5,666	4B (I-95)	Yes; Market-Frankford Elevated	High
27	Hamilton Twp. (MER)	Ewing & Lawrence Twps (MER)	5,640	4B, 4D, 9B (Routes 1, 33, 206)	No	Medium
28	White Horse District (CAM)	River District (CAM)	5,599	5B, 5C (Route 30)	Yes; PATCO	High
29	Norristown Area (MON)	Merions (MON)	5,579	2A-B, 8E-G (I-476, Route 202)	Yes; Rt. 100	Medium
30	Chester (DEL)	North Central (DEL)	5,452	None	No	Medium
31	Coatesville (CHES)	West Chester (CHES)	5,385	8M (Routes 30, 100, 202)	No	Low
32	River Front Region (BUR)	North Holly Region (BUR)	5,252	None	No	Marginal
33	Lower Perkiomen (MON)	Merions (MON)	5,218	9A-B (Route 422)	No	Marginal
34	Ewing & Lawrence Twps (MER)	Trenton (MER)	5,178	4A-D, 8A-B (Routes 1, 31, 206)	No	High
35	Centennial (BUCKS)	Upper Eastern (MONT)	5,090	12 (Routes 263, 332)	Yes; Regional rail (1 orig. stop)	Medium
36	Lower Eastern (MONT)	Center City (PHL)	5,064	14A-B (Routes 611, 309)	Yes; Regional rail	High
37	South Eastern (DEL)	Merions (MON)	5,037	2C, 5C, 7B (Route 30, I-476)	Yes; Rt. 100	Medium
38	Ewing & Lawrence Twps (MER)	Princeton & West Windsor Twps (MER)	4,896	4B, 4D (Routes 1, 206)	No	Medium
39	South Central Region (BUR)	River Front Region (BUR)	4,883	13A (Route 73)	No	Medium
40	South Central Region (BUR)	Center City (PHL)	4,849	4A-D (Route 70)	No	High
41	South Eastern (DEL)	West Philadelphia (PHL)	4,823	5E, 10A (Routes 1, 3)	Yes; Routes 101, 102, Market-Frankford Elevated	High

JTW volume rank	From	To	# Daily Trips	CMP Corridor(s) involved	Existing fixed guideway transit service connecting CPAs?	Transit Score*
42	Trenton (MER)	Ewing & Lawrence Twps (MER)	4,784	4A, 4B, 4D (Routes 1, 206)	No	High
43	West Chester (CHES)	Great Valley (CHES)	4,721	8B, 8C, 8K, 8L, 8M (Routes 30, 202)	Yes; Regional rail	Marginal
44	Lower Eastern (MONT)	Upper Eastern (MONT)	4,699	14B (Route 611)	Yes; Regional rail	Medium
45	West Philadelphia (PHL)	Lower North Philadelphia (PHL)	4,630	3A, 7A, 15A (Route 30, I-76)	Yes; Market-Frankford Elevated, Broad St. Subway	High
46	White Horse District (CAM)	South Central Region (BUR)	4,621	2D (I-295, NJ Tpk.)	No	Medium
47	Upper North Philadelphia (PHL)	Center City (PHL)	4,608	14A (Broad St.)	Yes; Broad St. Subway	High
48	Norristown Area (MON)	Conshohocken Area (MON)	4,591	2A-B (I-476)	Yes; Regional Rail	Medium
49	Olney – Oak Lane (PHL)	Lower North Philadelphia (PHL)	4,536	14A (Broad St.)	Yes; Broad St. Subway	High
50	Lower Perkiomen (MON)	Norristown Area (MON)	4,483	9A-B (Route 422)	No	Marginal

*If there is an obvious origin or destination trip anchor involved (i.e. Center City, Trenton, etc.), the listed Transit Score is that of the anchor. Otherwise, it represents the predominant Transit Score occurring across the two CPAs.

Source: DVRPC 2007, CTPP 2000

Table 1 identifies 16 journey-to-work trip pairs based on transit need and potential (shaded in dark grey). Several of these are two-way pairs, or involve multiple road corridors. For clarification, Table 2 summarizes the unique corridors generated in Table 1, along with the number of Top-50 trip pairs each would serve. These roadways represent candidate routes for new rapid transit investments (i.e. they serve high volume trip pairs, are not presently served by fixed guideway transit, and connect areas with predominant transit scores of medium or greater).

Table 2: Section 1 roadways/corridors identified for Small Starts potential

Corridor	County(ies)	Number of Origin-Destination pairs served from Table 1
Interstate 295 / NJ Tpk.	Burlington, Camden	6
Routes 1 & 206	Mercer	4
Interstate 95	Philadelphia	3
Route 1	Philadelphia	3
Route 70	Burlington, Camden	3
Route 73	Burlington	2
Route 30	Camden	1
Route 31	Mercer	1
Route 33	Mercer	1
Route 42	Camden	1
Routes 263 & 332	Bucks, Montgomery	1

Source: DVRPC 2007, CTPP 2000

The below projects are reflected in the above table, and have also been identified elsewhere as projects with merit.

- **Route 1 Bus Rapid Transit (Mercer):** This proposed project would aid in serving 4 of the top-50 regional CPA-level trip pairs. Additionally, the project's proposed configuration would involve a shared 'trunk' guideway along Route 1 which would be shared by multiple feeder bus routes so as to serve as many origin/destination pairs as possible. This proposed configuration would seem particularly suitable to the journey to work patterns observed in Table 1, which generally involve multiple origin and destination CPAs sharing the Route 1 corridor bidirectionally.

- **Route 1 / Roosevelt Blvd. Rapid Transit (Philadelphia):** The prospect of a new rapid transit line along Roosevelt Boulevard in Northeast Philadelphia (to connect with the Broad Street Subway) has been examined at various times in recent years. This idea is supported by the journey to work data presented in Table 1 – such a service would potentially serve 3 of the top-50 unserved regional trip pairs.

Based on the analysis in this section, the other corridors identified in Table 2 (which have not been previously considered to any substantial extent) may be candidates for some type of new rapid transit service such as Bus Rapid Transit. Several of these prospect corridors were also identified through one or more of the other exercises described in this report: Routes 1, 30, and 70 in New Jersey as well as Route 1 / Roosevelt Boulevard in Philadelphia (see Table 5 for more information).

SECTION 2: SURVEY OF TSM ('BASELINE') ALTERNATIVES

As previously noted, FTA has stated that one of the purposes of the Small Starts and Very Small Starts funding programs will be to provide an avenue to implementation for the TSM ('baseline') alternatives from New Starts Alternatives Analysis studies. Accordingly, as part of this project, we examined the TSM alternatives from each of the recent Alternatives Analysis (or equivalent) studies for proposed regional New Starts projects. There are other projects, such as the Route 1 Bus Rapid Transit and PATCO extension to Gloucester County, for which formal AA studies (where the locally preferred alternative is compared against a baseline alternative) have not yet been conducted.

For each project, the design and cost of the baseline alternative was compared with the Small Starts and Very Small Starts project requirements to assess whether any of these pre-existing TSM alternatives might be appropriate for funding should they be considered viable by other planning criteria. Table 3 summarizes the results of this evaluation.

Table 3: Comparison of AA TSM alternatives with Small Starts requirements

Project	County(ies)	AA date	Mode for TSM (baseline) alternative	Published TSM capital cost	2007 TSM capital cost*	2007 TSM capital cost/mile (excluding vehicles)	Would qualify for Small Starts or Very Small Starts based on design	Would qualify based on cost
52nd Street / City Branch Corridor	Philadelphia	Oct. 2006	Bus	$5.59 Million	$5.78 Million	$128 Thousand	No; given lack of fixed guideway, would require additional BRT elements	Yes, Very Small Starts
Cross County Metro	Bucks, Chester, Montgomery	Dec. 2003 (AA/DEIS)	Express Bus	$20.06 Million (2002 Dollars)	$23.26 Million	$200 Thousand +/-	No; given lack of fixed guideway, would require additional BRT elements	Yes, Very Small Starts
Route 100 Extension to King of Prussia	Montgomery	Jan. 2003	Bus	$5.00 Million	$5.63 Million	$320 Thousand +/-	No; given lack of fixed guideway, would require additional BRT elements	Yes, Very Small Starts
Schuylkill Valley Metro (SVM)	Montgomery, Chester	Sep. 2001 (MIS/DEIS)	Express Bus / BRT & Extended Rail	$135 Million (1999 Dollars)	$171 Million	$2.4 Million +/-	Yes, although additional BRT elements may be required	Yes, Small Starts

*2007 dollars, assuming 3% annual inflation from study date
Source: SEPTA 2001-2006

The only TSM alternative which would meet both the cost and design requirements for Small Starts, based on the project details as written into the AA reports, is the TSM for Schuylkill Valley Metro. This project would combine:

- An express bus service between Wyomissing and Philadelphia via US Route 422, Port Kennedy, King of Prussia, and I-76 (using existing highways with new stations;
- Commuter rail service between Port Kennedy and Center City, operating as an extension of the R6 from Norristown to Port Kennedy over Norfolk Southern right of way; and
- Commuter rail service between Ivy Ridge and Center City, operating as an extension of the R6 from Cynwyd to Ivy Ridge over SEPTA right of way.

However, as presented in the SVM Alternatives Analysis, the TSM would not appear to operate on a fixed guideway for more than 50% of its length during the peak period. If these relative guideway lengths were maintained for a prospective Small Starts project, the fixed guideway qualification for Small Starts funding would not be met. As a result, additional BRT-type elements would be required of the express bus service (including signal pre-emption) in order for the project's design to qualify. In addition, and again if the relative guideway lengths were maintained, the proposed frequencies would need to be enhanced to meet the required 10 minute/peak, 15 minute/off-peak frequencies for non-fixed guideway Small Starts projects. This increased frequency would result in additional cost. Finally, it bears noting that the hypothetical right-of-way usage fees for operating the Norristown-Port Kennedy extension over Norfolk-Southern rights-of-way are undetermined.

Nevertheless, if this project or one or more of its component elements remains desirable to stakeholder agencies, it would be appropriate to further explore in the Small Starts context. The commuter rail extension from Cynwyd to Ivy Ridge, for example, might have relatively few impediments, as no new right of way acquisition would be required.

SECTION 3: BUS RIDERSHIP EVALUATION FOR VERY SMALL STARTS

As noted elsewhere in this report, the cost effectiveness for Very Small Starts projects has a default determination based on relatively low permitted project cost (with a total cost cap of $50 million) and demonstrated transit ridership (with existing weekday ridership in a corridor of at least 3,000 passengers). Additionally, although bus, rail, or ferry projects may qualify for Very Small Starts funding, there are (from a practical standpoint) no rail projects in the region that would satisfy both the cost and ridership requirements (with the possible exception of the Route 101 double-tracking project, as addressed elsewhere in this report).

Accordingly, the most fruitful avenue in identifying candidate projects for Very Small Starts is to survey current transit corridors with bus ridership that meets the required threshold. Each of these corridors could be a candidate for Bus Rapid Transit (BRT)-type service enhancements, using Very Small Starts funding, based on other planning considerations and priorities.

To this end, based on recent (2005) SEPTA and New Jersey Transit ridership data, road segments in the DVRPC region with combined weekday bus ridership exceeding 3,000 passengers were identified. However, this required a significant assumption. Due to the regional scale of this exercise, as well as inconsistencies regarding the collection and availability of segment-level data, it was necessary to assume that each route's ridership was consistent for the entire route length. This will typically not be the case, as few riders will ride a route end to end. Therefore, should a project corridor advance for more specific consideration, a more detailed ridership evaluation will be necessary.

Table 4 below indicates the continuous suburban corridors of at least one mile which were identified in this exercise as meeting the Very Small Starts ridership threshold (nearly every city bus corridor meets the ridership threshold). Maps 2-4 highlight the locations of these high volume corridors throughout the region.

Table 4: Suburban regional bus corridors with at least 3,000 weekday riders

County(ies)	Continuous Corridor	Bus Route(s)	Map ID #
PENNSYLVANIA			
Bucks, Montgomery	Route 611	SEPTA Route 55	1
Bucks, Montgomery	Easton Rd. → Route 263 → Route 132 (West of Route 332)	SEPTA Route 22	2
Bucks	Route 532 (South of Route 213) → Route 213 (South of Elmwood Ave. to Route 532) → Elmwood Ave. – Brownsville Rd. – Bristol Rd. (West of Old Lincoln Hwy.) → Old Lincoln Hwy. (South of Bristol Rd.)	SEPTA Route 58	3
Bucks	Rockhill Rd. (New Trevose Blvd. to Old Lincoln Hwy.)	SEPTA Routes 14, 58, 130	4
Bucks	Route 1 / Route 1 Business – (Rockhill Rd. to Route 413) → Route 413 → Route 213	SEPTA Routes 14, 127	5
Chester, Delaware	Route 3 (West Chester to 69th St. Terminal)	SEPTA Routes 104, 120	6
Delaware	69th St. Terminal → 69th St. Blvd. → Marshall Rd. → Long Ln. → Church Ln	SEPTA Route 108	7

County(ies)	Continuous Corridor	Bus Route(s)	Map ID #
Delaware	69th St. Terminal → 69th St. Blvd. → Church Ln. → Pembrooke Ave. / Stewart Ave. → Main St. → MacDade Blvd. → Morton Ave. → Chester Transportation Center → Marcus Hook	SEPTA Route 113	8
Delaware	69th St. Terminal → Long Ln. → Wycombe Ave. → Baltimore Pike → Chester Rd.	SEPTA Route 109	9
Delaware	Route 13 (Highland Ave. to Route 352)	SEPTA Routes 114, 117	10
Montgomery	Oak Lane Rd. / Ashbourne Rd. / Central Ave. (South of Rt. 73)	SEPTA Route 70	11
Montgomery	Plymouth Meeting Mall → Germantown Pk. → Chemical Rd. → Ridge Pk.	SEPTA Route 27	12
Montgomery	Ardmore Station → Montgomery Ave. → Old Lancaster Rd. → City Ave.	SEPTA Route 44	13
NEW JERSEY			
Burlington, Camden, Mercer	State St. → Broad St. / Route 206 → CR 662 → Route 130 → CR 656 → Route 130 → Route 30 → I-676 → Center City	NJ Transit Route 409	14
Burlington	County Hwy. 537 / Main St. (Locust St. to Marter Ave.)	NJ Transit Routes 407, 413	15
Burlington	County Hwy 626 → Rancocas Bypass → Garfield Dr. → Levitt Pkwy	NJ Transit Route 409	16
Camden	River Rd./Ave. (West of 36th St.) → State St. (7th St. to River Ave.)	NJ Transit Route 419	17
Camden	River Rd. (Suckle Hwy. to Sherman Ave.) → Sherman Ave. (North of Westfield Ave.)	NJ Transit Routes 404, 419	18
Camden	Federal St. (West of 32nd St.) → Central Camden City	NJ Transit Routes 405, 407, 460	19
Camden	Route 38 (Haddonfield Rd. to Cuthbert Rd.)	NJ Transit Routes 317, 413, 418, 450	20
Camden	Route 70 (West of McClellan Blvd.) → Route 38 → Route 30	NJ Transit Routes 317, 406, 413, 418, 419	21
Camden	Jarvis Rd. → Erial Clementon Rd. → Erial Rd. → Gibbsboro Rd. → Berlin Rd. → Rt. 30	NJ Transit Route 403	22
Camden, Gloucester	Williamstown/Sicklerville → Main St. → Tuckahoe Rd. → Route 42 → Route 168 → I-676	NJ Transit Route 400	23
Camden, Gloucester	Route 42 / I-76 (West of Route 168) → I-676	NJ Transit Routes 313, 315, 316, 400, 402, 408, 551	24
Camden, Gloucester	Route 45 / Broadway (North of Barber Ave.) → I-676	NJ Transit Routes 401, 402, 410, 412	25
Mercer	Lower Ferry Rd. → Stuyvesant Ave. → Prospect St. → State St. → Clinton Ave. → Hamilton Ave. → Quakerbridge Rd.	NJ Transit Route 609, 976 on portions	26
Mercer	Route 1 (Carnegie Rd. to Nassau Park Blvd.)	NJ Transit Routes 600, 603	27
Mercer	Edinburg Rd. (Hamilton Ave. → Mercer County Community College)	NJ Transit Routes 606, 609	28

Source: DVRPC 2007, NJ Transit, SEPTA

The text below (corresponding with Maps 2 through 4), summarizes the corridors identified in Table 4 for each county, and also identifies the county corridors which would appear to have the most merit based on other considerations.

Bucks County

The Bucks County corridors which are estimated to meet the required ridership threshold each carry routes that continue from the City of Philadelphia. SEPTA Route 55 is the most notable among these. This route travels along Route 611 from Philadelphia (Fern Rock Terminal) to Doylestown, and carries over 5,000 weekday passengers. Route 611 is perhaps the most appropriate for Very Small Starts consideration, as it represents the most defined and well-anchored corridor among the Bucks County high-volume roadways. Route 14 and 58 connect portions of Lower Bucks County with the Frankford Transportation Center in Northeast Philadelphia.

Burlington County

Of the Burlington County corridors which are estimated to meet the Very Small Starts ridership threshold, only Route 130 represents the sort of significant, lengthy corridor which would make a compelling 'rapid transit' project. However, this roadway parallels the New Jersey Transit RiverLINE, and any such new project would consequently be at least somewhat redundant, and could negatively impact RiverLINE ridership.

Camden and Gloucester Counties

The Majority of Camden County's radial arterials (Routes 30, 38, 70, and 168), along with the Ben Franklin Bridge, were calculated to meet the Very Small Starts ridership threshold. Each of these corridors carry high-volume commuter bus routes which terminate in Center City Philadelphia, and which might benefit from BRT-like enhancements of the type that could be funded through a Very Small Starts project. The sole Gloucester County corridors represent terminations of routes that principally travel through Camden County (with the most prominent of these corridors being Routes 45 and 168).

Chester County

The sole Chester County corridor which is estimated to meet the required ridership threshold is Route 3 (West Chester Pike), which connects West Chester Borough with Upper Darby's 69th Street Terminal in Delaware County. A West Chester Pike Bus Rapid Transit project is presently under conceptual evaluation. Very Small Starts could provide capital funding for such a project.

Delaware County

Several Delaware County corridors meet the required ridership threshold. The most obvious of these is Route 3 (West Chester Pike – see Chester County above). A West Chester Pike Busway (reserved bus lane between 69th St. Terminal and North Lawrence Rd.) is identified in DVRPC's *Destination 2030* Long Range Plan, with an estimated cost of $18 Million in 2025 dollars. If additional BRT elements were provided, this busway could form the basis for a Very Small Starts project. Extended portions of MacDade Boulevard and Baltimore Pike also are estimated to meet the Very Small Starts ridership threshold (serving SEPTA Routes 113 and 109, respectively).

City of Philadelphia

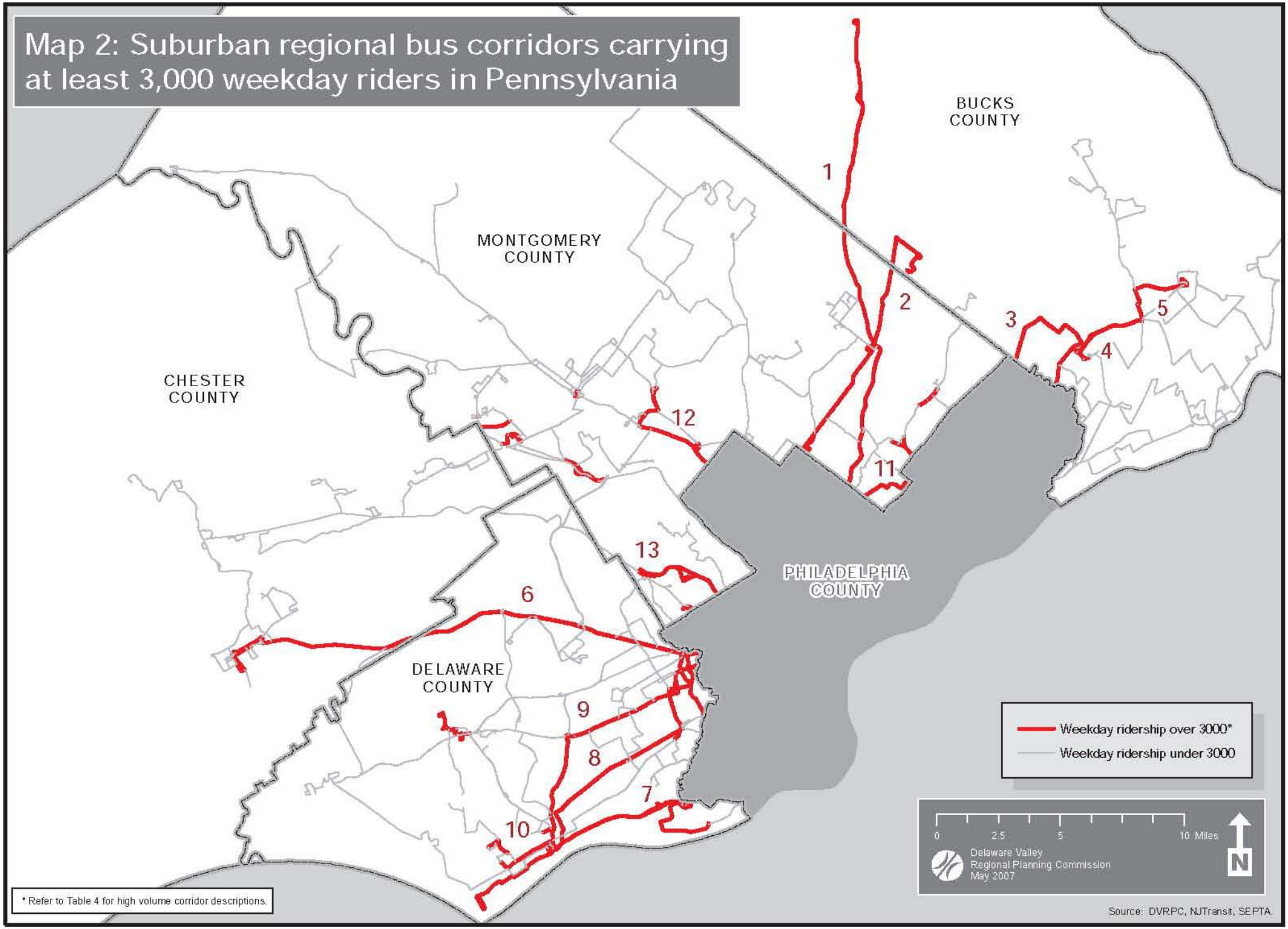
As Map 4 indicates, the majority of Philadelphia's bus corridors would qualify for Very Small Starts projects based on ridership. This includes the Route 1 / Roosevelt Boulevard corridor, which was also identified in Section 1's origin/destination analysis. Additionally, it bears noting that many of the qualifying suburban corridors in both Pennsylvania and New Jersey terminate in Philadelphia. From the city's standpoint, Very Small Starts funding might be used as a funding mechanism for more intensive 'Transit First'-type initiatives (such as those conducted for the Route 52 bus and Route 15 trolley) along high priority bus corridors. In the case of the existing 'Transit First' projects, however, interagency communication and policy issues, in addition to political concerns, impaired project efficiencies and outcomes. Better cooperation between the City and SEPTA would be a pre-requisite to a successful Very Small Starts project.

Mercer County

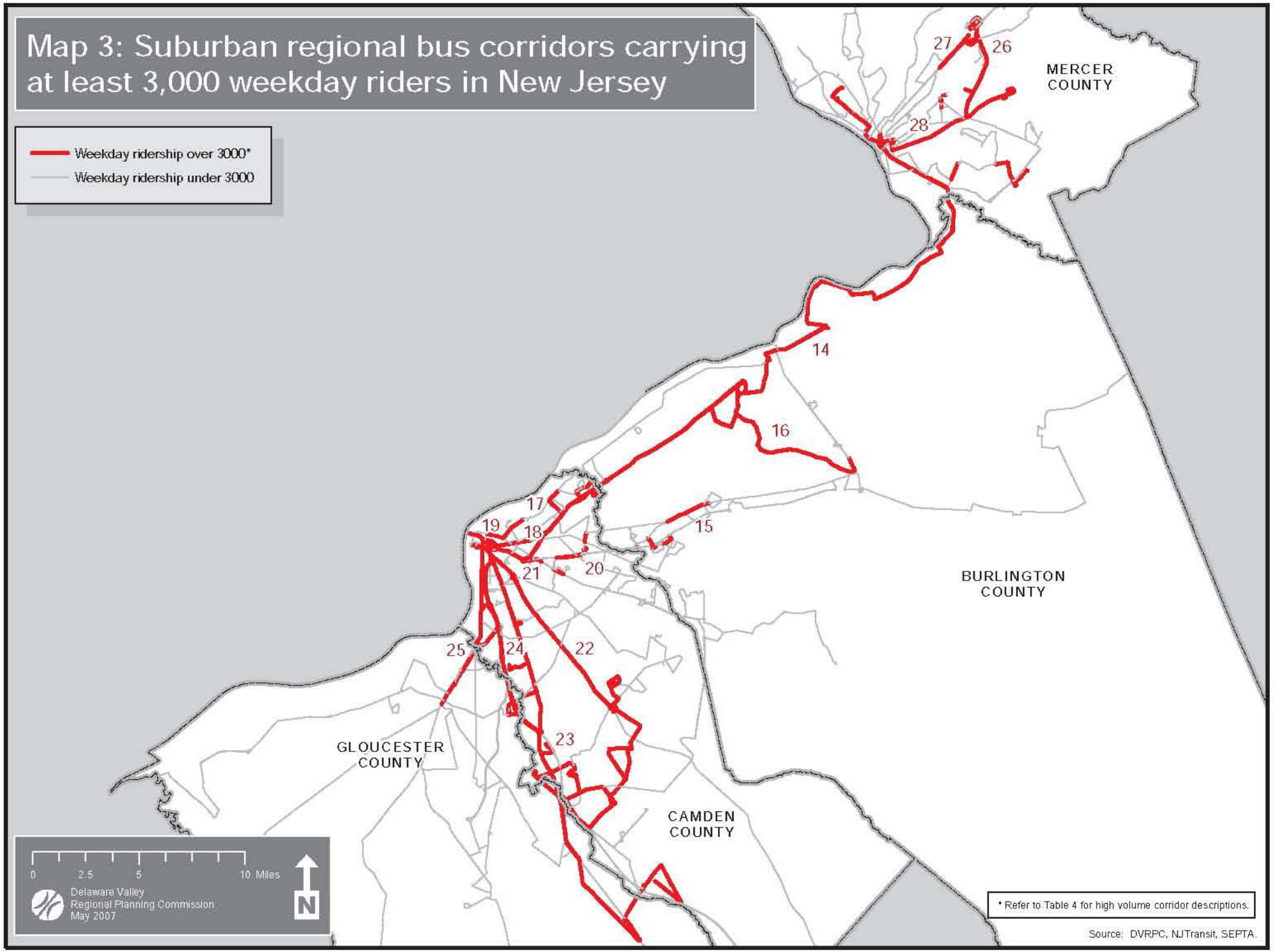
There are several notable Mercer County bus corridors which are estimated to meet the required ridership threshold. Among these is Route 1 (certain portions), for which a Bus Rapid Transit project is already planned (but which is far beyond the Very Small Starts cost thresholds). Additionally, New Jersey Transit Routes 409, 606, 609, and 696 traverse fairly continuous corridors over local streets. Mercer County has expressed an interest in the Very Small Starts potential of these and other routes which might become feeder routes for the Route 1 BRT or share portions of its trunk rights-of-way.

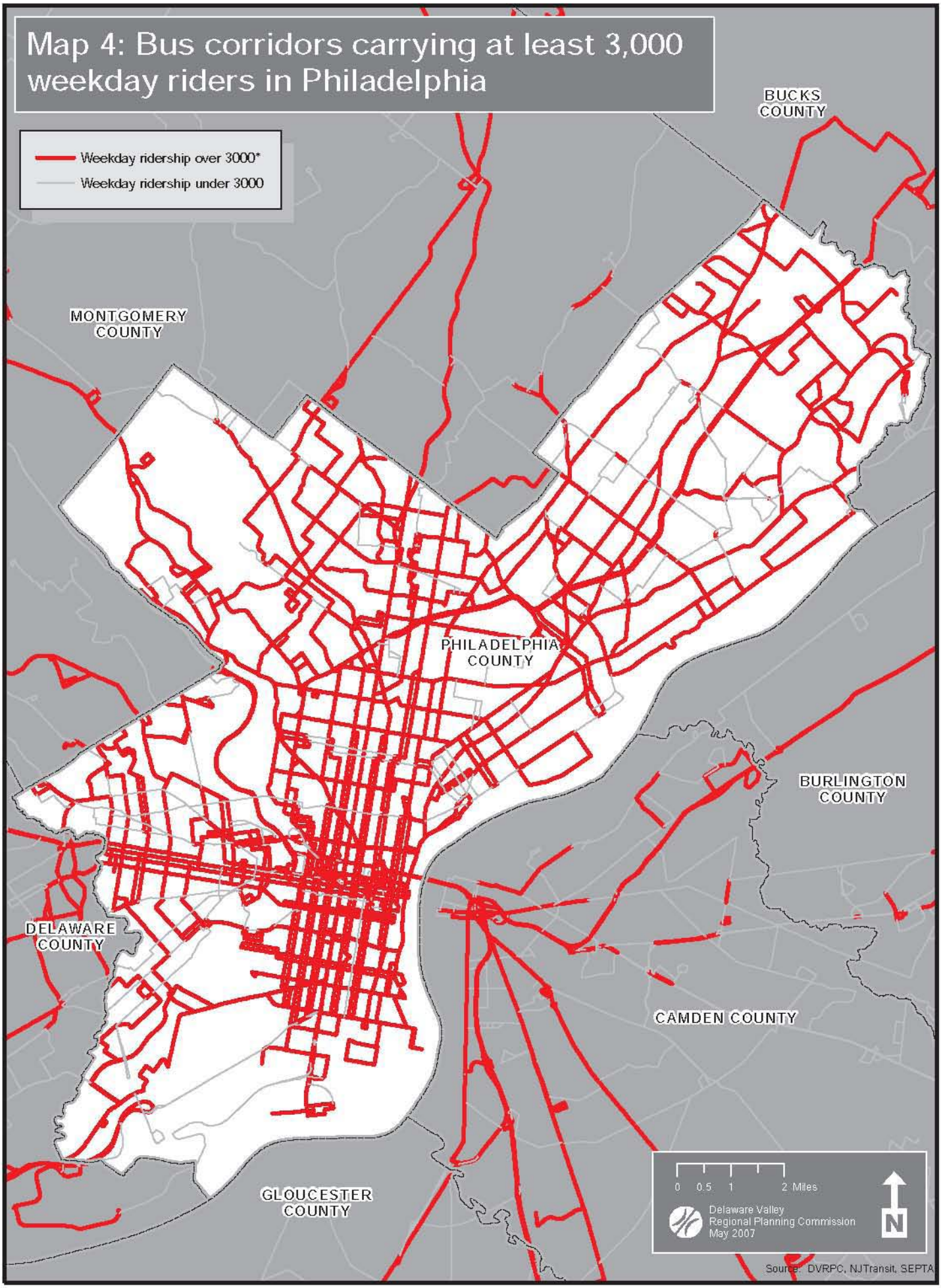
Montgomery County

Each of the Montgomery County corridors identified in Table 4 represents the continuation of routes which terminate in Philadelphia. Of these, two represent the sort of continuous, high-volume corridors that might be conducive to BRT-type improvements (of the sort that could be funded as Very Small Starts). These are Route 611 (see Bucks County above) and the Easton Rd. → Route 263 corridor (traversed by SEPTA Route 22).


Map 2: Suburban regional bus corridors carrying at least 3,000 weekday riders in Pennsylvania
BUCKS COUNTY
MONTGOMERY COUNTY
CHESTER COUNTY
DELAWARE COUNTY
PHILADELPHIA COUNTY
1
2
3
4
5
6
7
8
9
10
11
12
13
Weekday ridership over 3000*
Weekday ridership under 3000
0
2.5
5
10 Miles
N
Delaware Valley Regional Planning Commission
May 2007
* Refer to Table 4 for high volume corridor descriptions.
Source: DVRPC, NJTransit, SEPTA.

Map 3: Suburban regional bus corridors carrying at least 3,000 weekday riders in New Jersey




Map 4: Bus corridors carrying at least 3,000 weekday riders in Philadelphia
Weekday ridership over 3000*
Weekday ridership under 3000
BUCKS COUNTY
MONTGOMERY COUNTY
PHILADELPHIA COUNTY
BURLINGTON COUNTY
DELAWARE COUNTY
CAMDEN COUNTY
GLOUCESTER COUNTY
0 0.5 1 2 Miles
Delaware Valley Regional Planning Commission May 2007
N
Source: DVRPC, NJTransit, SEPTA

SECTION 4: EXAMINATION OF OTHER ACTIVELY-STUDIED PROJECT CONCEPTS

In addition to the above analyses, which were intended to generate new project concepts, this project also briefly evaluated in the Small Starts context other regional projects that were recently or are actively under study (projects that are clearly beyond the Small Starts scale, such as the Schuylkill Valley Metro, Cross County Metro, and Gloucester County PATCO extension, were not examined). The results of this evaluation are summarized below.

52nd Street / Center City (City Branch) Corridor – City of Philadelphia

This project, the final report for which was published on October 2006, evaluated various Bus Rapid Transit (BRT) and Light Rail Transit (LRT) alternatives to connect the city's Parkside, Fairmount, and Parkway neighborhoods, along with the Centennial District attractions, to Center City in a way that would take advantage of SEPTA's City Branch right of way as an exclusive guideway. The project's two 'short list' alternatives (one BRT and one LRT) would both fall below the Small Starts $250 million cost threshold, with costs in 2006 dollars of $114 and $223 million, respectively. However, these projects were studied for cost effectiveness under the New Starts framework recently, with the results being unfavorable. While the Small Starts evaluation methods are simplified in comparison to New Starts, the factors weighted are very similar. Therefore, it seems unlikely that this project would be competitive for Small Starts funding.

Quakertown Rail Restoration – Bucks and Montgomery Counties

An Alternatives Analysis is presently ongoing to evaluate the feasibility of restoring rail service between Lansdale (a station on SEPTA's R5 Doylestown line) and Quakertown Borough in Bucks County. While this proposed first phase would likely require passengers to transfer at Lansdale Station in order to reach Center City, longer term proposals under consideration involve a one-seat-ride from Quakertown (made possible by electrification of the line north of Lansdale) as well as service between Lansdale and Norristown along the Stony Creek rail branch. Preliminary capital cost estimates for Phase I, including track improvements, vehicles, stations, and a new maintenance facility identify a total cost of $90-100 million, which is comfortably below the Small Starts threshold. As the project corridor does not presently carry 3,000 transit commuters, the project would not qualify for Very Small Starts funding (regardless of vehicle cost).

R-5 Service Extension to Atglen – Chester County

This project, which would extend SEPTA's R-5 Regional Rail service westward from its current terminus at Thorndale to Atglen, is an identified aspiration in DVRPC's *Destination 2030* Long Range Plan. DVRPC has recently completed a 'needs and opportunities' evaluation of this project which estimates capital and operating costs, ridership at maturity, and other challenges and considerations. Depending on the specific station investments that would be funded through Small Starts as opposed to another mechanism, it is estimated that the total capital cost of this project would be $50-75 Million, comfortably below the Small Starts threshold. As the project corridor (Atglen to Thorndale) does not presently carry 3,000 transit commuters, the project would not qualify for Very Small Starts funding (regardless of vehicle cost).

Route 1 Bus Rapid Transit (BRT) – Mercer County

The proposed Route 1 Bus Rapid Transit (BRT) project involves an exclusive-guideway trunk line paralleling US Route 1 in both directions. This trunk corridor would be shared by numerous feeder routes that would operate on local roadways outside of US 1 in order to serve key origin-destination trip pairs. The 'DINKY' rail shuttle between Princeton Borough and Princeton Junction stations would also be enhanced and integrated into the system. This project would affect the entire US 1 corridor in Mercer County within the DVRPC region, and would also extend northward into Somerset and Middlesex Counties. While the BRT project's estimated capital cost of $600-700 million far exceeds the Small Starts threshold, it may be possible for segments of the project to qualify for Small Starts funding if they are deemed to have 'independent utility' to the satisfaction of the FTA (i.e. any proposed segments would need to meet significant transportation needs as standalone projects). It bears repeating here that the Route 1 BRT project would serve many key underserved regional journey-to-work trip pairs, as identified and summarized in Section 1.

Route 100 Extension to King of Prussia – Montgomery County

This project (final report published in 2003) evaluated several alternatives for a new connection between SEPTA's Route 100 High Speed Line and the King of Prussia Mall, with various alternatives, including the AA's Locally Preferred Alternative (LPA), extending service further to Valley Forge. The LPA was estimated to cost $245.4 million in 2002 dollars, which equates to roughly $284.5 million in current dollars assuming 3% annual inflation. This capital cost is greater than the Small Starts threshold of $250 million. However, the two alternatives which proposed extending service only to King of Prussia (A2 and B2), had costs in 2002 dollars of $127 million and $153.2 million, respectively. These equate to roughly $147 million and $178 million, respectively, in 2007 dollars. Alternative B2 has a greater cost due to the proposed Norristown Shuttle component, or direct service between Norristown and King of Prussia. In either case, the estimated capital costs are comfortably below the Small Starts threshold, and the maximum federal share for Small Starts projects ($75 million) equates to roughly 50% of the total estimated cost for either of these alternatives. Consideration of these alternatives for Small Starts funding should be further explored.

Route 101 Double Tracking – Delaware County

SEPTA's Route 101 Media Trolley operates along double-tracked rights-of-way for nearly its entire length. An operationally-significant exception occurs for 1.6 miles between Woodland Avenue and I-476; the feasibility of double-tracking this portion of track is presently under study. Preliminary estimates indicate that the total capital cost of double-tracking, including necessary bridge work, would be less than $20 million. This cost is comfortably below both the Small Starts and Very Small Starts thresholds. Additionally, the Route 101 presently carries over 3,800 weekday riders (according to SEPTA's 2007 Annual Service Plan), which would also qualify the project for Very Small Starts funding. However, the project's short length (1.6 miles) would appear to disqualify the project based on Very Small Starts' requirement for a cost below $3 million per mile. Nevertheless, the pursuit of Small Starts funding may be appropriate should the current study anticipate sufficient speed and ridership gains resulting from the project.

COUNTY LEVEL PROJECT CONCEPT SUMMARY

Table 5 summarizes the project concepts identified this report's various sections for each county, and also indicates whether each project is presently identified in DVRPC's *Destination 2030* Long Range Plan as either a fiscally-constrained project or an aspiration.

Table 5: Identified Small Starts and Very Small Starts project concepts

County(ies)	Project / Corridor	Identified by	Likely Small Starts or Very Small Starts	DVRPC Long Range Plan status	County priority*
Bucks, Montgomery	Route 611	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	Not currently present	
Chester, Montgomery, Philadelphia	Schuylkill Valley Metro TSM Alternative	Regional AA Study TSM Evaluation (Section 2)	Small Starts	Not currently present	
Bucks, Montgomery	Quakertown Rail Restoration	Previously under study (Section 4)	Small Starts	*Identified project*	Yes
Bucks, Montgomery	Easton Rd., Routes 263 & 332	Regional JTW O/D Analysis (Section 1); Bus Ridership Evaluation for Very Small Starts (Section 3)	TBD	Not currently present	
Burlington	Route 73	Regional JTW O/D Analysis (Section 1)	TBD	Not currently present	
Burlington, Camden	Interstate 295 / NJ Tpk.	Regional JTW O/D Analysis (Section 1)	TBD	Not currently present	
Burlington, Camden	Route 70	Regional JTW O/D Analysis (Section 1); Bus Ridership Evaluation for Very Small Starts (Section 3)	TBD	Not currently present	
Camden	Route 30	Regional JTW O/D Analysis (Section 1); Bus Ridership Evaluation for Very Small Starts (Section 3)	TBD	Not currently present	
Camden	Route 38	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	Not currently present	
Camden, Gloucester	Route 42	Regional JTW O/D Analysis (Section 1); Bus Ridership Evaluation for Very Small Starts (Section 3)	TBD	Not currently present	
Camden, Gloucester	Route 45 / Broadway	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	Not currently present	
Camden	Route 168	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	Not currently present	
Camden, Philadelphia	Ben Franklin Bridge	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	Not currently present	

County(ies)	Project / Corridor	Identified by	Likely Small Starts or Very Small Starts	DVRPC Long Range Plan status	County priority*
Chester	R-5 Service Extension to Atglen	Previously under study (Section 4)	Small Starts	*Identified aspiration*	Yes
Chester, Delaware	Route 3 / West Chester Pike	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	*DelCo busway is an identified project*	Yes
Delaware	Route 101 Double Tracking	Previously under study (Section 4)	Small Starts	*Identified aspiration*	Yes
Delaware	MacDade Blvd.	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	Not currently present	Yes
Delaware	Baltimore Pike	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	Not currently present	
Mercer	Route 1 Bus Rapid Transit	Previously under study (Section 4); Regional JTW O/D Analysis (Section 1)	Small Starts	*Identified project*	Yes
Mercer	Route 206	Regional JTW O/D Analysis (Section 1)	TBD	Not currently present	
Mercer	Route 31	Regional JTW O/D Analysis (Section 1)	TBD	Not currently present	
Mercer	Route 33	Regional JTW O/D Analysis (Section 1)	TBD	Not currently present	
Mercer	Various local street corridors (travel routes of NJ Transit bus routes 409, 606, 609, and 976)	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	Not currently present	
Montgomery	Route 100 Extension to King of Prussia	Previously under study (Section 4)	Small Starts	*Identified project*	
Philadelphia	Interstate 95	Regional JTW O/D Analysis (Section 1)	TBD	Not currently present	
Philadelphia	Route 1 / Roosevelt Blvd.	Regional JTW O/D Analysis (Section 1); Bus Ridership Evaluation for Very Small Starts (Section 3)	TBD	*"Rapid transit" is an Identified aspiration (intent was rail)*	Yes
Philadelphia	Majority of existing bus corridors	Bus Ridership Evaluation for Very Small Starts (Section 3)	Very Small Starts	N/A	Yes, for highest-ridership corridors

*Where counties indicated multiple priorities or ranked all of the project concepts, projects in the top-half of the county priority set are identified here as priorities.

Source: DVRPC 2007

As summarized in Table 5, based on a variety of analyses and evaluations, this project identified twenty-seven (27) regional projects and/or corridors which could become viable Small Starts or Very Small Starts projects. This list was reviewed by county and

transit agency stakeholders, and projects deemed priorities by counties are identified. Of the resulting projects/corridors, six were identified separately through multiple sections of this report, indicating multiple points of justification. Of these, two are already identified in DVRPC's *Destination 2030* Long Range Plan: the Mercer County Route 1 BRT and Roosevelt Boulevard Rapid Transit line in Philadelphia. The latter is an identified aspiration, with the original intent being for rail. However, the analyses in this report indicate that a BRT project along this corridor could be viable and potentially competitive for Small Starts funding. This concept should be further explored, as it could represent a significant service enhancement and possible stepping stone to future rail service.

Both New Jersey Transit and SEPTA staff provided comment on the concepts identified. SEPTA staff emphasized the significance of project cost effectiveness and local financial commitment on the viability and competitiveness of any project. It bears emphasis here that should any project be determined to have enough merit to warrant further study as a Small Starts or Very Small Starts application, these elements would need to be explored in detail.

Of the concepts/corridors in Table 5, NJ Transit staff identified three which would be mostly likely to be viable in a funding-competitive Small Starts environment: Route 42 (Camden and Gloucester), Route 45 (Camden and Gloucester), and Route 1 (Mercer). However, as each of these corridors is the subject of an ongoing FTA (New Starts) planning process (Routes 42 and 45 are possible alignments for DRPA's rail extension, and the Route 1 BRT is under active study) NJ Transit did not wish to prioritize them for Small Starts funding at this time.

FURTHER PLANNING / NEXT STEPS

If these projects would be desirable based on other planning criteria (as reflected by compatibility with transit agency, county, or local plans), they should be evaluated in much greater detail, including detailed projections of operating and maintenance costs and the exploration of funding sources and commitments for the roughly 50% local capital dollar match that would be required. Projects deemed to have particular merit and commitment may then be considered for insertion into DVRPC's Long Range Plan as aspirations or major projects (this would be required in order for an official Small Starts application to be made).

TITLE: SMALL STARTS FEASIBILITY - REGIONAL PROJECTS WITH FEDERAL SMALL STARTS FUNDING POTENTIAL

Publication No.: **07016**

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Geographic Area Covered: DVRPC Region

Key Words: Small Starts, Very Small Starts, New Starts, FTA, Transit, Transit Score, Bus Rapid Transit

ABSTRACT: FTA's Small Starts program, authorized under SAFETEA-LU, is a new federal funding mechanism for transit guideway/corridor investments of lower cost than the typical New Starts project. The purpose of this project was to identify regional project concepts that would have Small Starts and Very Small Starts funding potential; in other words, projects which could be expected to meet these programs' requirements and satisfy a transportation need. The general project approach was to identify Small Starts project concepts by conducting several discrete analytical exercises, namely: a regional journey to work origin/destination corridor analysis; a survey of TSM ('baseline') alternatives from recent New Starts Alternatives Analysis reports; an identification of regional bus corridors that would meet the Very Small Starts ridership threshold of 3,000 weekday riders; and an examination of other actively-studied regional project concepts in the context of the Small Starts and Very Small Starts program requirements. Each of these individual analyses resulted in one or more Small Starts project concepts, which were then prioritized in cooperation with county and agency staff.

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