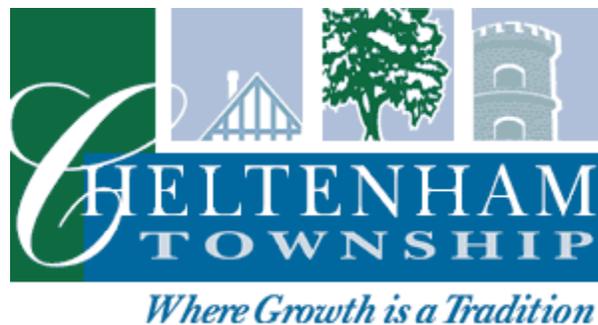


FEASIBILITY STUDY FOR A SHUTTLE OR TROLLEY SERVICE ALONG THE EASTON ROAD CORRIDOR

FINAL REPORT

PREPARED FOR
TOWNSHIP OF CHELTENHAM



PREPARED BY
ABRAMS-CHERWONY GROUP
Of GANNETT FLEMING, INC.



APRIL, 2009

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INTRODUCTION

During the past several years, Cheltenham Township has pursued an aggressive program in terms of transportation and development projects. Ongoing with these efforts, other groups, such as retail centers and Arcadia University, are also planning renovations and expansion of their facilities. A key to maximizing the benefits of these projects and programs is adequate access to locations within Cheltenham Township. Recognizing the importance of mobility, a proposal has been formulated as part of an earlier analysis for Cheltenham Township. It calls for operation of a shuttle bus or trolley service in the Easton Road corridor which would link the Glenside Train Station to Cedarbrook Plaza and Cheltenham Square Mall. The proposed alignment is principally along Cheltenham Avenue and Easton Road and would link numerous residential, retail and educational uses.

The purpose of the current analysis is to assess the feasibility of a shuttle bus service in terms of its benefits and costs. Based on the results of this examination, elected officials would have sufficient information to make an informed decision on whether to proceed with a new transit service. The study process consisted of several steps with the first being a description of the current situation with respect to characteristics of residents of the area, land use and development patterns, proposals for the future and an inventory of the current public transportation system. Next, a market research program was undertaken to better understand the potential travel market and likely users of a shuttle bus service.

Based on the assessment of the current situation and future need, a series of shuttle bus proposals were formulated in terms of alignment, coverage, frequency and span of service. This step was performed in an iterative process where a wide range of alternatives were initially considered and at each stage of the analysis the number of alternatives was reduced and further refined. During this screening process, the impacts of each proposal in terms of ridership, operating and capital costs along with necessary funding were determined. Ultimately, a single preferred scheme was delineated as the recommended transit plan.

A recommended plan was identified as the transit option that would overall satisfy the needs of Cheltenham Township to the greatest extent of the proposals considered. In keeping with the nature of any feasibility analysis, one strategy for Cheltenham Township is to take no action. This would reflect a decision not to proceed with implementation at this time.

Consistent with prior planning efforts in Cheltenham Township, a Steering Committee was created to provide guidance at key milestones of the feasibility study. The group consisted of elected officials and staff of Cheltenham Township as well as representatives from other government agencies and private firms and organizations. They were provided interim reports

and briefings to solicit comments at each step of the process. The Steering Committee was a sounding board which was particularly useful during the iterative process of alternative formulation, evaluation and refinement.

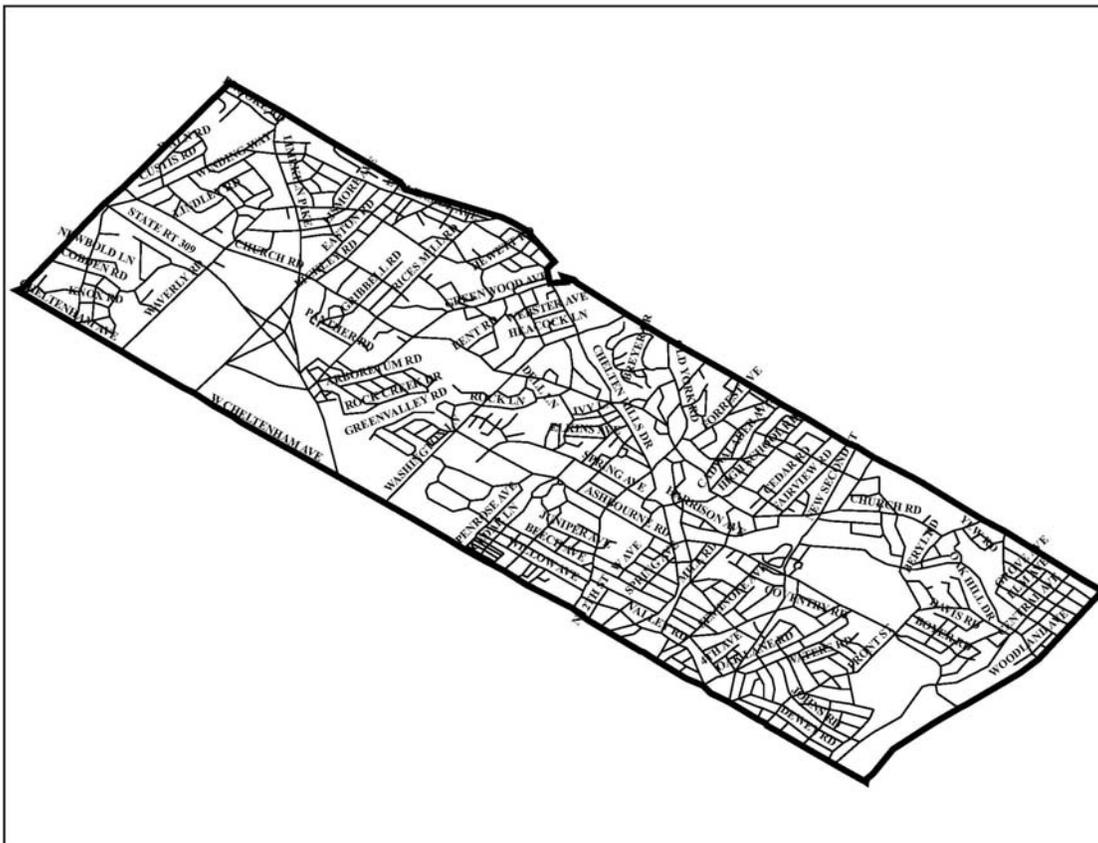
This final report represents a compendium of the interim reports and briefing memorandums prepared during the study and discussed by members of the Steering Committee. It provides considerable background on the study process and results. It is the intention of this document to allow elected officials to recommend a course of action with respect to a proposed shuttle bus service.

COMMUNITY CHARACTERISTICS

This chapter provides a description of the transportation setting of the proposed circulator or shuttle bus service. It includes a description of residents and their characteristics drawn primarily from the U.S. Census. Other factors that influence the demand for public transportation includes the land uses and major generators that would be served. It also includes a brief summary of earlier transportation efforts that are relevant to the current study, including the original proposed alignment of the circulator service.

Cheltenham Township is located in Montgomery County, sharing two borders with Philadelphia (east and south), and bordered by Jenkintown and Abington Township to the north and Springfield Township to the west. Figure 1 below presents a graphical representation of the study area.

Figure 1 – Cheltenham Township



Cheltenham has a population of 36,875 (2000 U.S. Census) and is home to Arcadia University, where 3,248 undergraduate and graduate students attend either full-time or part-time. Cheltenham is an inner-ring, older suburban area, with much of its land fully developed. Population and employment forecasts were provided by Cheltenham Township staff and the Delaware Valley Regional Planning Commission (DVRPC). Based on current development projects and the existing housing stock, modest gains in population are anticipated.

As the route for this service has already been preliminarily identified based on an earlier study, the purpose of this chapter is to provide background information on the setting within which the service will operate, as well as to locate possible markets and potential deviations. It examines information on socioeconomic characteristics within the Township and identifies major travel generators. It should be noted that this report only summarizes and highlights the study area. The detailed information will be used to assess how Cheltenham can most efficiently operate this proposed service.

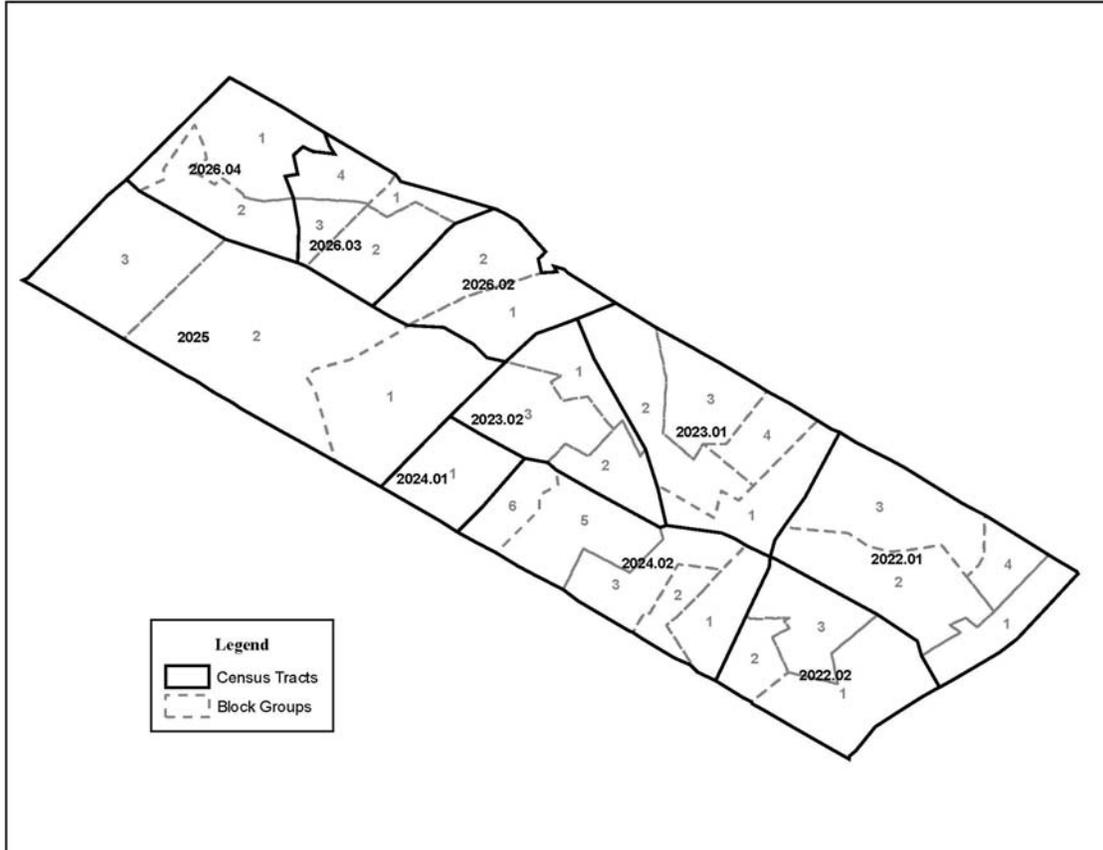
The data processed and discussed in this section is based on information collected from the 2000 United States Census, Cheltenham Township and DVRPC. Where maps are used to present data in a spatial manner, census block groups which comprise tracts are the unit of analysis.

Socioeconomic Characteristics

One of the major elements of any transit analysis is an examination of the socioeconomic factors that influence overall travel and the needs for public transportation within an area served by a transit system. These factors include characteristics about the area population including population size, population density, population age, household income, vehicle availability, employment, and transit ridership.

Socioeconomic data used for the figures in this section are based primarily on the census block group level from the 2000 U.S. Census. In the current analysis, the study area is analyzed using the 31 census block groups that comprise Cheltenham Township. Figure 2 on the following page graphically depicts these block groups.

Figure 2 – Census Block Groups



Population and Population Density – Cheltenham Township’s population increased from 34,923 in 1990 to 36,875 by 2000, and increase of 5.6 percent. For comparison, the population of Montgomery County increased 10.6 percent from 1990 to 2000. Cheltenham Township officials believe that the municipality will experience a gain in population to approximately 38,000 to 39,000 persons in the next ten to fifteen years. This reflects new housing starts such as the townhome development in Wyncote, a 198-unit housing development on the Ashbourne Country Club parcel, residential infill lots plus three separate age restricted communities in various stages of planning and development. Table 1 indicates the impact of these projects with an expected population gain of between 3.1 and 5.8 percent.

Table 1 – Population Projections

2000 Population	Forecast Range	% Change Range
36,875	38,000 - 39,000	3.1 - 5.8

Table 2 provides the population for each of the census block groups in Cheltenham Township. That exhibit indicates that population by block group ranged from a high of 3,472 in Census Tract 2024.01 Block Group 1, to a low of 524 in Census Tract 2023.02 Block Group 1.

Table 2 – 2000 Population

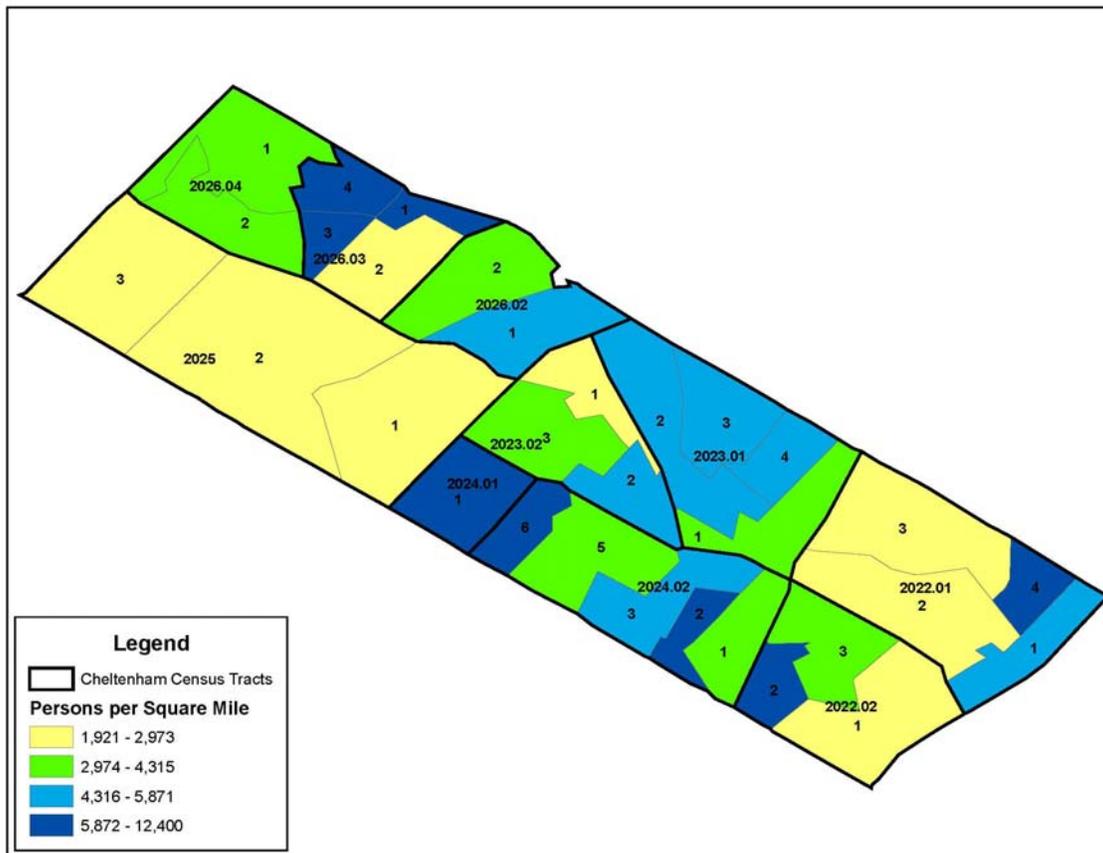
Census Tract	Block Group	Population
2022.01	1	1,227
	2	1,303
	3	1,357
	4	1,066
2022.02	1	895
	2	1,004
	3	1,054
2023.01	1	1,165
	2	1,815
	3	1,130
	4	755
2023.02	1	524
	2	868
	3	925
2024.01	1	3,472
2024.02	1	823
	2	942
	3	1,365
	5	1,149
	6	826
2025	1	1,114
	2	2,814
	3	1,084
2026.02	1	1,429
	2	1,246
2026.03	1	643
	2	590
	3	956
	4	998
2026.04	1	1,373
	2	963
TOTAL		36,875

A critical factor impacting the viability of public transportation service is the density of residential development. Transit tends to attract more riders in denser areas for many reasons, including the fact that densely populated regions may include a diversity of income and age groups. Also, denser development patterns allow bus service to be within convenient walking distance of more residents. Typically, in the suburban areas of Philadelphia, higher density

implies more households without an automobile or only a single vehicle. The residents of these households are more dependent on transit to complete their daily tasks and are more likely to use public transportation. Cheltenham Township encompasses 9.03 square miles of land area and has an overall population density of nearly 4,100 persons per square mile.

As shown in Figure 3, there are a few areas of high population densities which are adjacent to Philadelphia with the highest densities in the northwestern and central areas. In particular, Lynnewood Gardens, with its multi-family housing, exhibits the highest population density. The density results for other parts of the Township reflect the different land use patterns where some parcels are commercial with little or no residential uses. This accounts for the relatively low population density along portions of Cheltenham Avenue.

Figure 3 – Population Density



The census block groups with the lowest population densities are primarily located in the southwestern and northeastern parts of the Township. The population densities of these block groups are under 2,973 persons per square mile.

While no single threshold value exists, it is generally recognized that densities in excess of 2,500 persons per square mile are desirable to make frequent fixed route bus service viable. Within the service area, 27 of the 31 block groups have population densities greater than 2,500 persons per square mile. Consistent with Cheltenham being a first tier suburb, the density of residential development is relatively high.

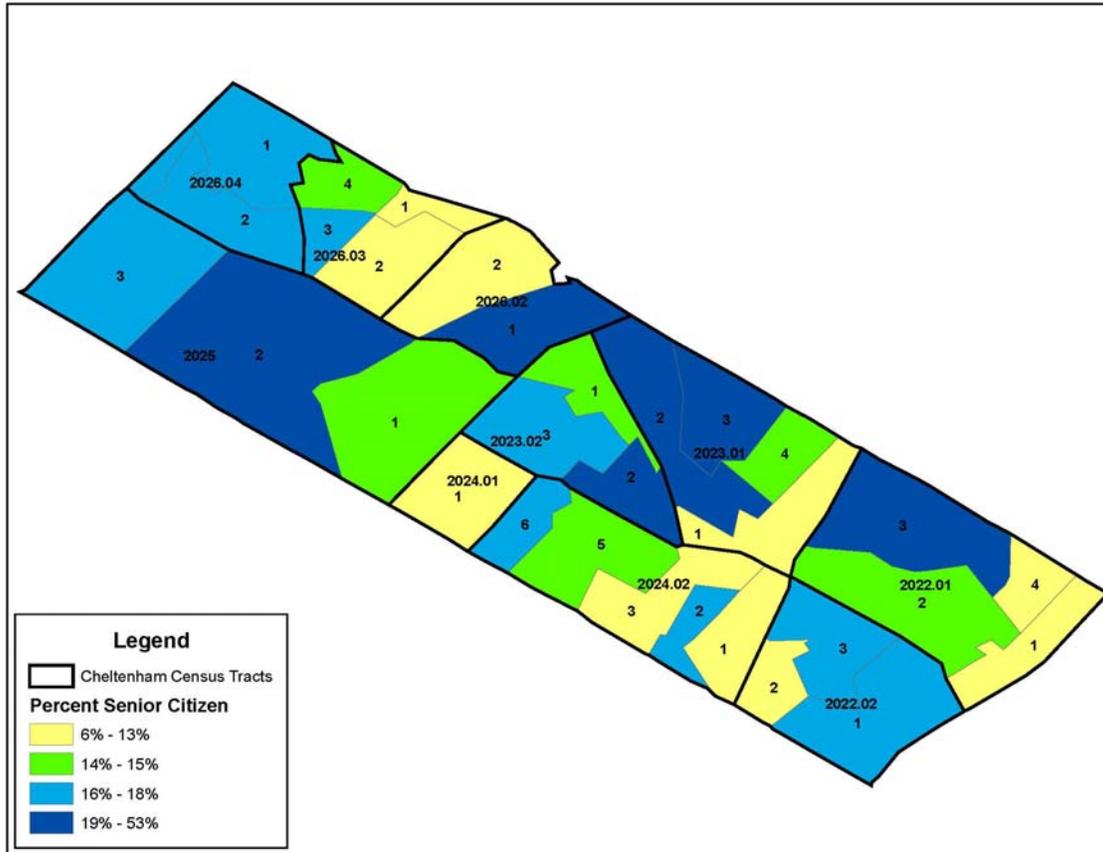
Senior Citizen Population – There are several “target” market groups for transit. These groups generally have limited transportation mode choices so that, in some cases, they must rely on transit services in order to travel. They are either not able to drive or do not have access to an automobile. Senior citizens (persons 65 years of age and older) are one of these groups. There are 6,873 people age 65 and over living in Cheltenham Township, representing 18.6 percent of the Township’s population.

Cheltenham Township 2000 Population	Number of Persons 65 and Over	% of Population 65 and Over
36,875	6,873	18.6

As shown in Figure 4, the largest percentage of senior citizens is located in the north-central part of the Township. The single highest senior citizen percentage is located in Census Tract 2025 Block Group 2, where 40 percent of the population is senior citizens. This block group is located along the proposed transit route.

In the current analysis, senior citizen population has been examined in three ways: (1) - the actual number of senior citizens, (2) the density of senior citizens and (3) the percent of total population that are senior citizens. While all three were considered, only the percentage values are presented graphically in this report. A similar approach has been followed for youths and other groups that may rely on public transportation.

Figure 4 – Senior Citizen Population, Percent of Total Population

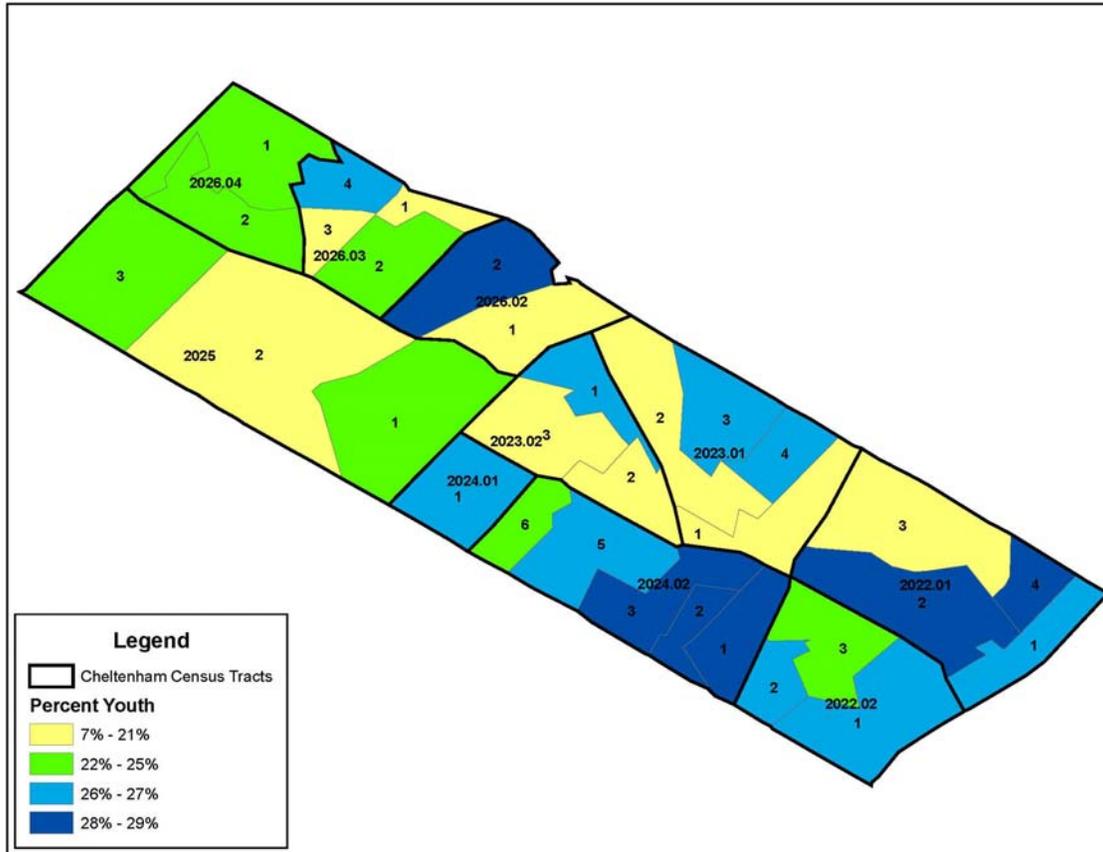


Youth Population – The youth population (persons under the age of 18) is considered another captive group for transit usage, as most of them are unable to legally drive. There are 8,403 persons in Cheltenham under age 18, which represents 22.8 percent of the total population. Figure 5 shows that the southeastern part of Cheltenham Township has the highest percentage of youths, however there is one block group located in the north central part of the Township with a high percentage of youths. This area, Census Tract 2026.02 Block Group 2, has the single highest percentage of youths, with 29 percent of the population under the age of 18.

Cheltenham Township 2000 Population	Number of Persons Under 18	% of Population Under 18
36,875	8,403	22.8

Unfortunately, the U.S. Census does not identify college students which would be of interest for this study because of Arcadia University. Detailed information on this major generator will be obtained through contacts with the institution.

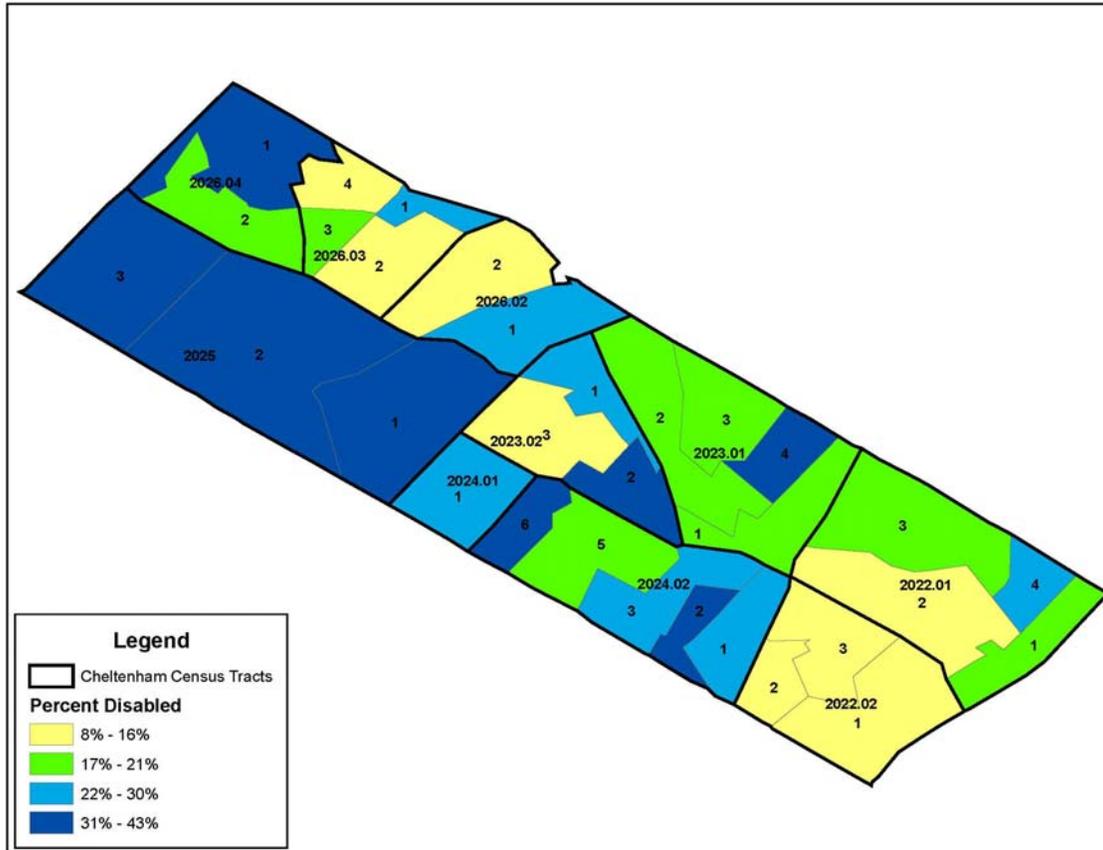
Figure 5 – Youth Population, Percent of Total Population



Disabled Population – People with disabilities are also more likely to depend on public transportation as some of them - for a variety of reasons - are not able to drive an automobile. In Cheltenham Township there are 8,459 persons with disabilities, equating to 22.9 percent of the total population. Figure 6 details the percentage of people in each block group who have disabilities. The area with the highest percentage of disabled residents is located in the southwestern part of the Township, while the southeastern section has the lowest percentage.

Cheltenham Township 2000 Population	Number of Persons With Disabilities	% of Population With Disabilities
36,875	8,459	22.9

Figure 6 – Disabled Population, Percent of Total Population

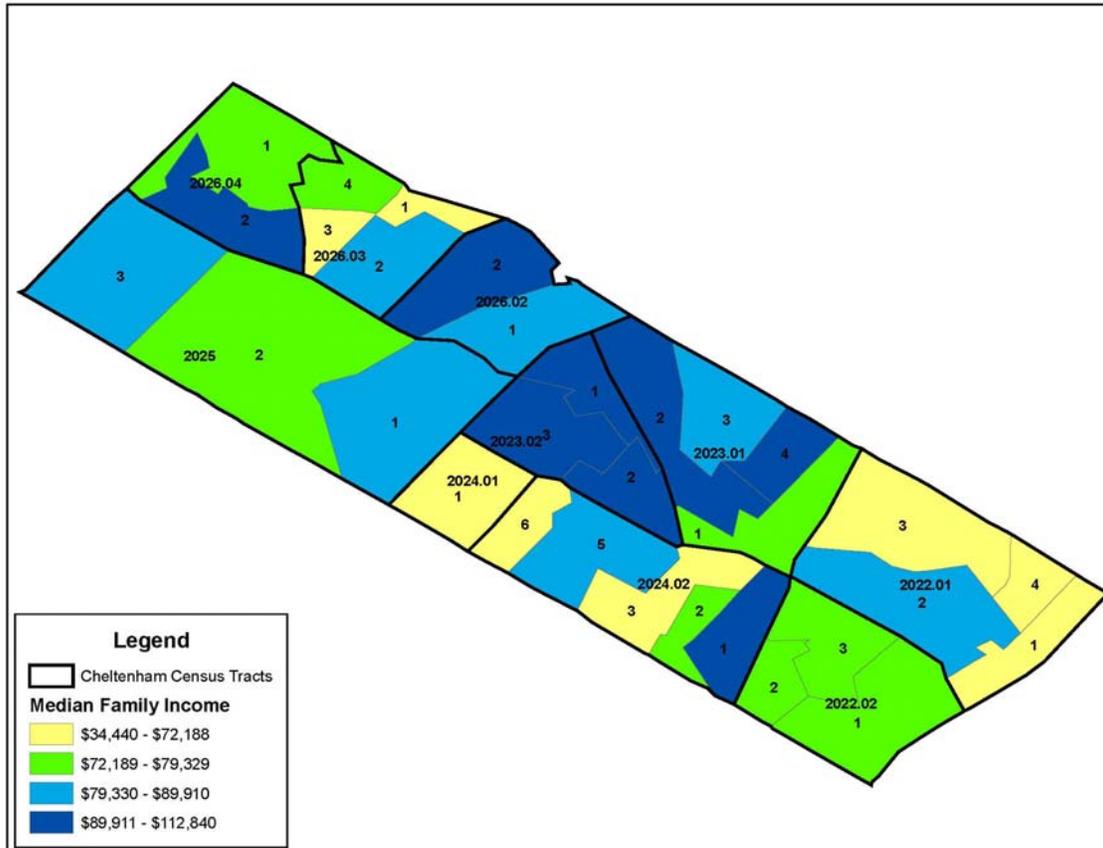


Median Family Income – Income typically determines the type of transportation that people are able to use to get to work and to travel for other purposes. People with lower incomes generally are more likely to be in need of public transportation options than people with higher incomes who can afford their own means of transportation. The 2000 U.S. Census reported that the median family income for Cheltenham Township was \$76,792, which is well above the Commonwealth of Pennsylvania’s median family income of \$49,184 and also above the \$72,183 that represents Montgomery County’s median family income. These results would suggest an income distribution that includes affluent residents as well as those with lower family incomes.

Cheltenham Township Median Family Income	Montgomery County Median Family Income	Pennsylvania Median Family Income
\$76,792	\$72,183	\$49,184

Figure 7 presents Cheltenham Township’s median family income by block group.

Figure 7 – Median Family Income

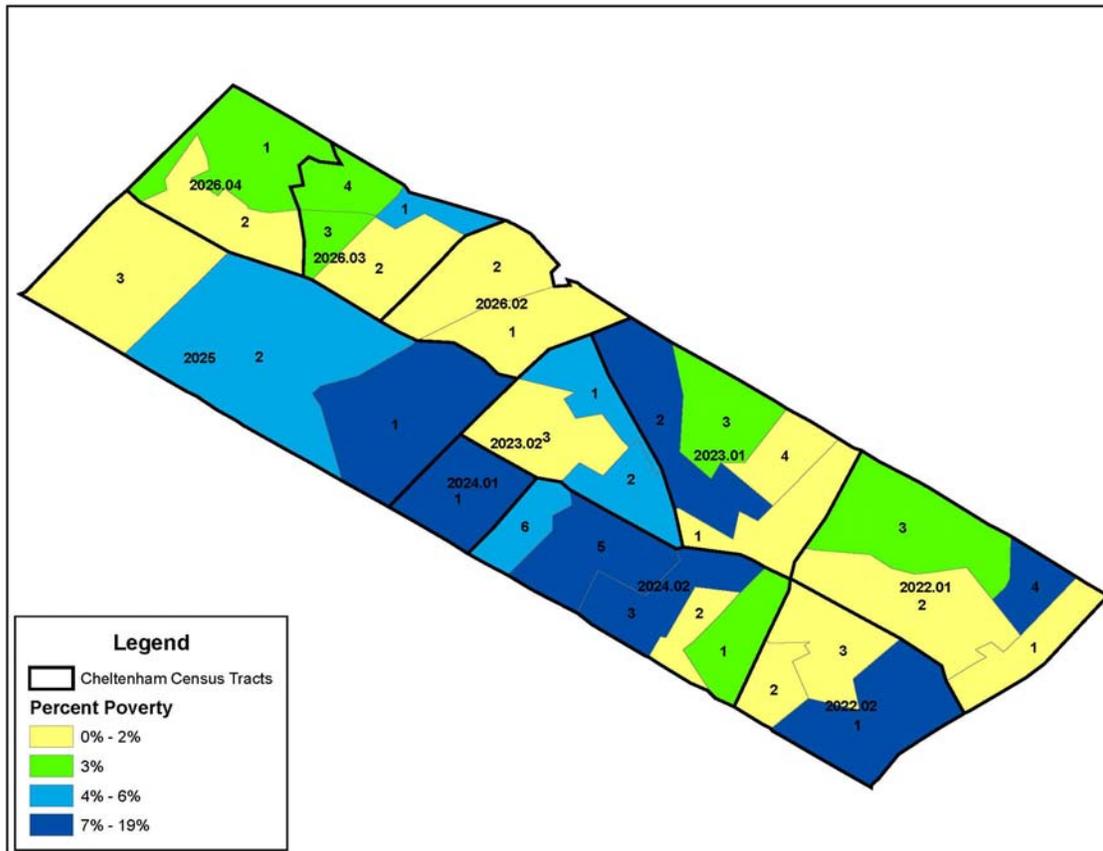


Poverty Population – Individuals with low incomes are not as likely to own automobiles and thus have fewer mobility options than people with higher incomes. The average income of an area’s population is closely related to the potential transit demand in that area. As of the 2000 U.S. Census, there were 1,803 persons within Cheltenham Township living below the poverty level, which is 4.9 percent of Cheltenham Township’s population, well below the Commonwealth’s poverty level (10.6 percent) and the national poverty level (12.1 percent). Nonetheless, there would be a number of residents who could benefit by a new bus service.

Cheltenham Township 2000 Population	Number of Persons in Poverty	% of Population in Poverty
36,875	1,803	4.9

Figure 8 shows that the block groups located in Cheltenham’s south central area have the highest percentages of poverty. The results are consistent with those presented for median family income.

Figure 8 – Poverty Population, Percent of Total Population

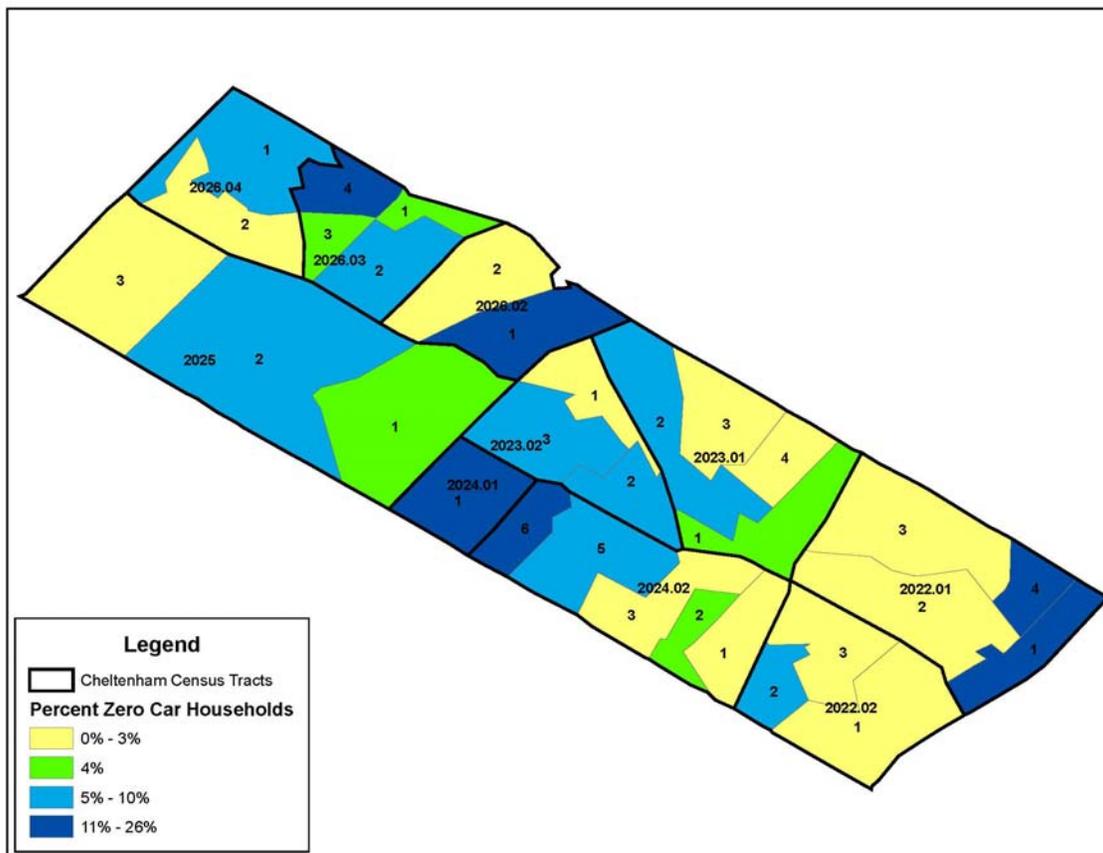


Automobile Ownership – Automobile ownership is a key variable in transit analysis since many persons who do not have access to a vehicle are more dependent on public transportation as a mobility option. The availability of automobiles is a good indication of how “captive” a household is to transit. Households with no available automobiles (i.e., zero car households) are most in need of transit service for basic mobility. In this section, a household represents one occupied housing unit as measured by the 2000 U.S. Census. In Cheltenham there are 14,346 total households; 1,246 households (8.7 percent) have no access to an available automobile.

Cheltenham Township Housing Units	Number of Zero Car Housing Units	% of Zero Car Housing Units
14,346	1,246	8.7

There are a few areas within the Township that have high percentages of zero car households, as detailed in Figure 9. The central part of Cheltenham has three block groups with percentages of zero car households between 11 and 26 percent. There is one additional block group in the northern part of the Township, and two additional block groups in the eastern part of Cheltenham that also have high percentages. There are numerous neighborhoods with relatively low percentages of zero car households scattered throughout the Township.

Figure 9 – Zero Car Households, Percent of Total Households

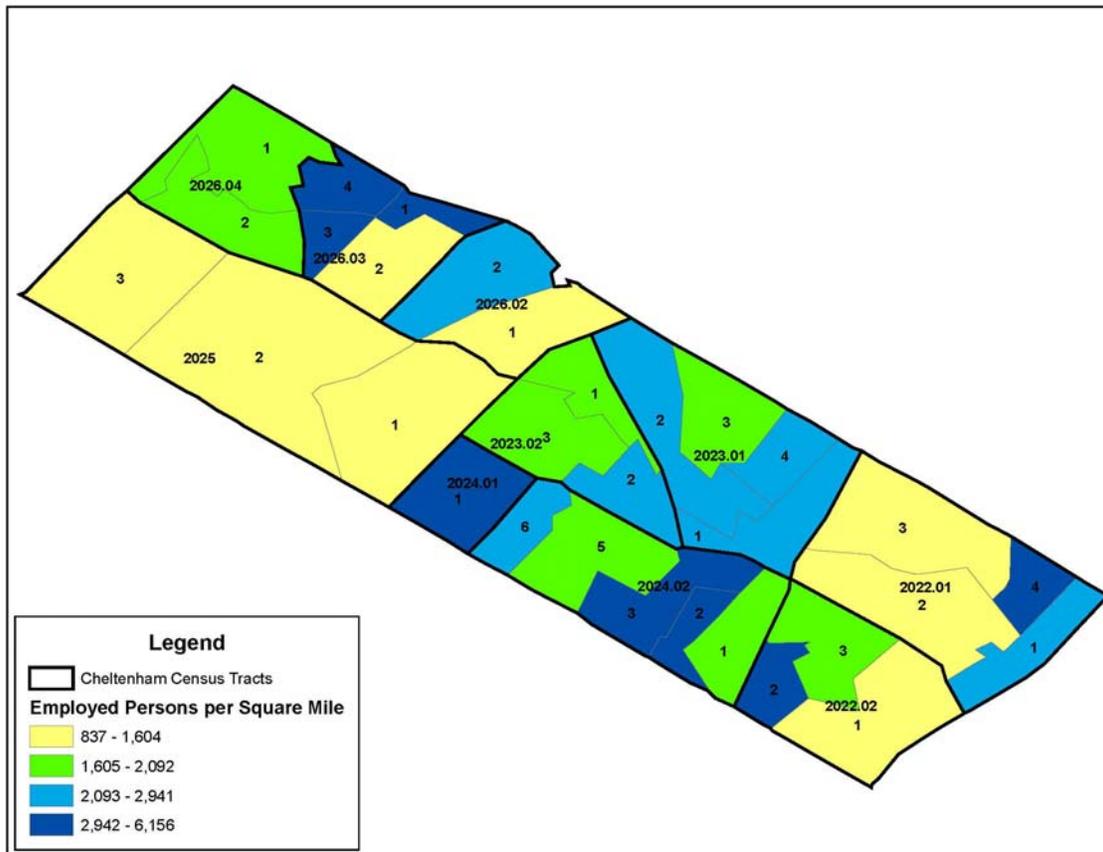


It is interesting to note that many areas with low auto ownership are close to transit service. This would include both the northeast and northwest corners of the Township with nearby rail stations as well as the central portion which has considerable bus service. Other factors influencing auto ownership are household income and senior citizen concentrations.

Employment

Employment is a key factor in transportation because the trip to and from work is the most frequent and most important trip taken by most people. High concentrations of employment within an area indicate potential common destinations for transit use. In Cheltenham Township, 18,242 people were employed during the 2000 U.S. Census. Figure 10 shows the employment density by block group for Cheltenham Township. The figure illustrates that the south-central and northwestern areas have the highest concentrations of employment throughout the township.

Figure 10 – Employment Density



Workers in Cheltenham perform a variety of jobs. Nearly 50 percent work in the service industry; 22.5 percent have management or professional occupations; and an additional 12.3 percent work in sales or have office jobs. The complete list of Cheltenham residents' occupations is provided in Table 3.

Table 3 – Labor Force Occupations

Occupation	Number of Jobs	% of Total Jobs
Service Occupations	9,052	49.6
Management, Professional and Related Occupations	4,097	22.5
Sales and Office Occupations	2,235	12.3
Production, Transportation and Material Moving Occupations	2,120	11.6
Construction, Extraction and Maintenance Occupations	720	3.9
Farming, Fishing and Forestry Occupations	18	0.1
TOTAL	18,242	100.0

Commuting

The 2000 U.S. Census provides considerable information on mode to work, including persons who use public transportation. These statistics are important because people who use transit services for their work commutes are more likely to use the service for other purposes as well. Cheltenham Township has 18,025 people who travel to work. Of those travelers, the overwhelming majority drive alone or carpool as shown in Table 4.

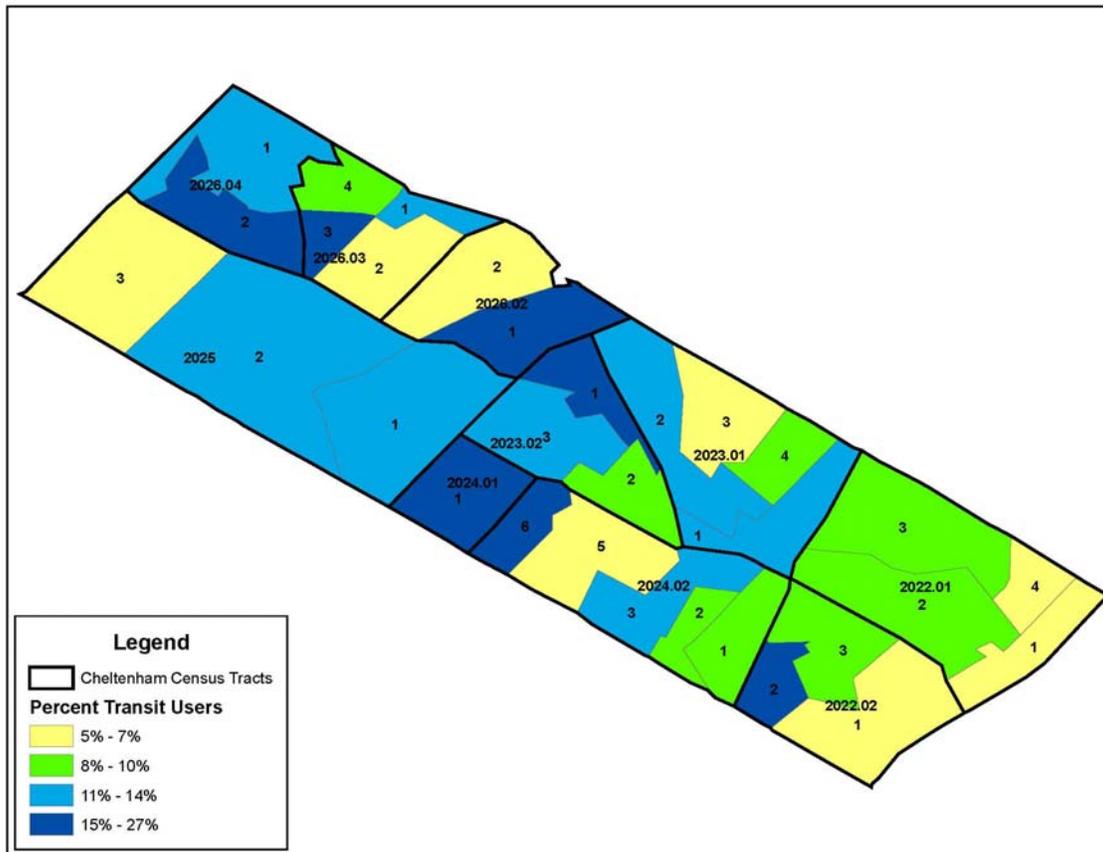
Table 4 – Mode of Travel

Mode	Commuters	% of Total Commuters
Drive Alone	12,704	69.6
Carpool	1,704	9.4
Subtotal	14,408	79.0
Bus, Trolley, Subway, Streetcar	1,160	6.3
Railroad	1,112	6.1
Taxi	17	0.1
Subtotal	2,289	12.5
Walk	513	2.8
Other	308	1.7
Work at Home	724	4.0
TOTAL	18,242	100.0

A total of 2,289 people use some form of public transportation equating to 12.5 percent of commuters which are split nearly evenly between commuter rail and other modes. This is consistent with the network of bus routes that serve Cheltenham Township as well as the number of rail stations convenient to many residents and neighborhoods.

Figure 11 details this information by block group and shows that there is wide variation in transit use among the neighborhoods in the Township. The figure shows that there are four areas in the central part of Cheltenham Township that have high percentages of transit use, with 15 to 27 percent of commuters in those block groups using public transit. There are also two areas in the northwestern part of the Township, and one additional block group in the southeastern section of the Township with equally high mode splits.

Figure 11 – Percentage of Commuters Who Use Public Transportation



Additionally, the 2000 U.S. Census also provides journey to work data by residence and work locations. This data provides information on where Cheltenham Township residents are traveling to work (Table 5) and also where people employed in Cheltenham are commuting from (Table 6). Both exhibits list residence or work municipality with more than 100 commuters. The City of Philadelphia is the largest work destination, followed by Cheltenham Township and Abington Township. The results reflect both the number of jobs available in these communities as well as their proximity to Cheltenham Township.

**Table 5 – Commuting Patterns
Cheltenham Residents’ Work Locations**

Work Location	Number of Persons
City of Philadelphia	7,587
Cheltenham Township	2,766
Abington Township	992
Jenkintown Borough	567
Horsham Township	490
Upper Dublin Township	368
Upper Moreland Township	334
Whitemarsh Township	310
Lower Merion Township	294
Upper Merion Township	262
Whitpain Township	217
Springfield Township	207
Bensalem Township	168
Upper Gwynedd Township	157
Plymouth Township	135
Norristown Borough	132
Montgomery Township	116

**Table 6 – Commuting Patterns
Cheltenham Employees’ Residence Locations**

Residence Location	Number of Persons
City of Philadelphia	3,706
Cheltenham Township	2,766
Abington Township	1,079
Springfield Township	252
Upper Dublin Township	194
Upper Moreland Township	183
Horsham Township	154
Montgomery Township	150
Bensalem Township	142
Lower Moreland Township	139
Northampton Township	120
Lower Merion Township	107
Upper Southampton Township	105
Warminster Township	102

Table 6 indicates that many persons who work in Cheltenham Township are commuting from their homes in Philadelphia, Cheltenham Township and Abington Township. There would appear to be heavy travel corridors for these municipalities in terms of both commuting directions. Another point to note is that many persons both live and work in Cheltenham Township and have a relatively short commuting time.

Cheltenham Township is a transit oriented community since many neighborhoods were developed more than a hundred years ago when transit was the dominant mode. The availability of this high level of transit service and facilities along with older non auto oriented development patterns permits many residents to live and work in Cheltenham Township.

Transit Needs Assessment

This section presents an overview of the likelihood of transit use and a composite measure of transit need. An assessment of transit need was performed to identify those areas with the greatest need and potential demand for public transportation. It should be recognized that the needs index is based on residences and there are other factors that will influence travel needs. This could include students at Arcadia University as well as commercial parcels that generate travel. Nonetheless, Cheltenham Township residents and residents of northwest Philadelphia represent potential markets for any new transit service.

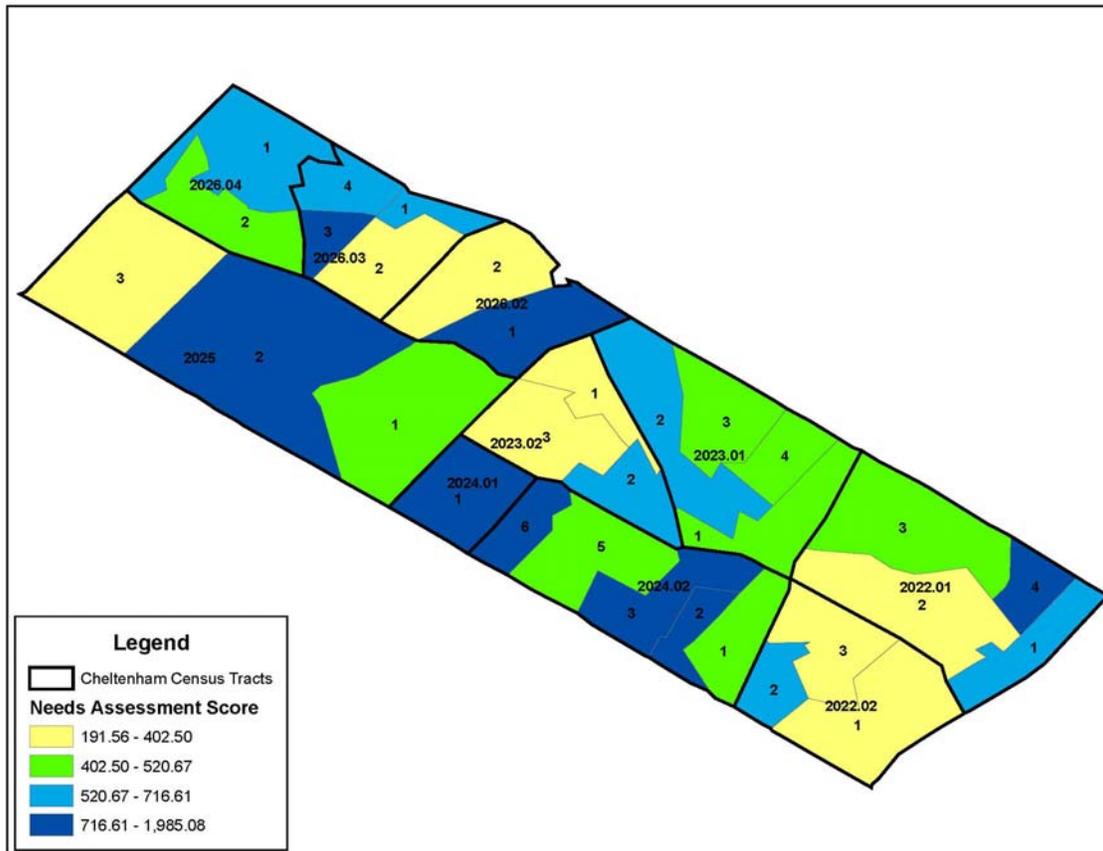
Two dozen variables were used to rate each block group in terms of transit potential. These variables include both rate and aggregate measures of transit need. Rates, such as percentage of seniors in the total population and density of senior citizens are useful in understanding the composition of an area. Aggregate measures, such as total senior citizen population, indicate the absolute potential for travel in general, and transit trip making in particular.

The variables used to analyze transit need for the service area are: population; population density; senior population (over 65) in terms of number, percent and density; youth population (under 18) in terms of number, percent and density; disabled population in terms of number, percent and density; poverty population in terms of number, percent and density; income ratio; employment and employment density; work trips; transit trips in terms of number, percent and density; and zero car households in terms of number, percent and density.

For all variables, higher values are indicative of greater need and likelihood of transit use. For example, a block group with high senior citizen density or a high number of zero car households exhibits greater mobility need and propensity for transit use. In this analysis, a standardized score has been used to combine the different variables. With this approach for each variable, the block group with the lowest value is assigned a score of zero while the block group

with the highest value is assigned a value of 100. The other areas are computed by interpolating between maximum and minimum values. These scores can then be added for the 24 variables as shown in Figure 12 with the highest possible score would be 2,400.

Figure 12 – Transit Needs Score



Major Generators

Within the service area of the proposed shuttle bus route, there are several major generators that include residential, retail and educational uses. In terms of residential concentrations, there are two communities of particular interest. The first is Lynnewood Gardens, which consists of 1,789 multi-family units and is situated in the northeast quadrant of Cheltenham Avenue and Washington Lane. The other is the Towers at Wyncote which consists of three high rise buildings with nearly 1,100 apartment units. The site is located in the vicinity of Easton Road and Limekiln Pike. Near this location, Wyngate Townhomes is under construction and at completion will consist of about 198 dwelling units.

Two major shopping centers are located in the study area along Cheltenham Avenue. Cheltenham Square Mall is located at Cheltenham Avenue and Limekiln Pike. It includes a Value City department store, Home Depot, Shop Rite food store and more than a dozen retail outlets. The center includes an interior mall area which can be used to gain access to some stores. Other stores also have access from parking lots and some locations are freestanding. Cheltenham Square Mall has a an expansion plan that calls for a new Target (134,000 square feet), Chili's Restaurant and other additional pad sites. Cedarbrook Plaza is another large center and is located at Cheltenham Avenue and Easton Road. It includes a Wal-Mart, Pathmark food store and about two dozen other stores. It recently completed an initial expansion with the second phase currently underway.

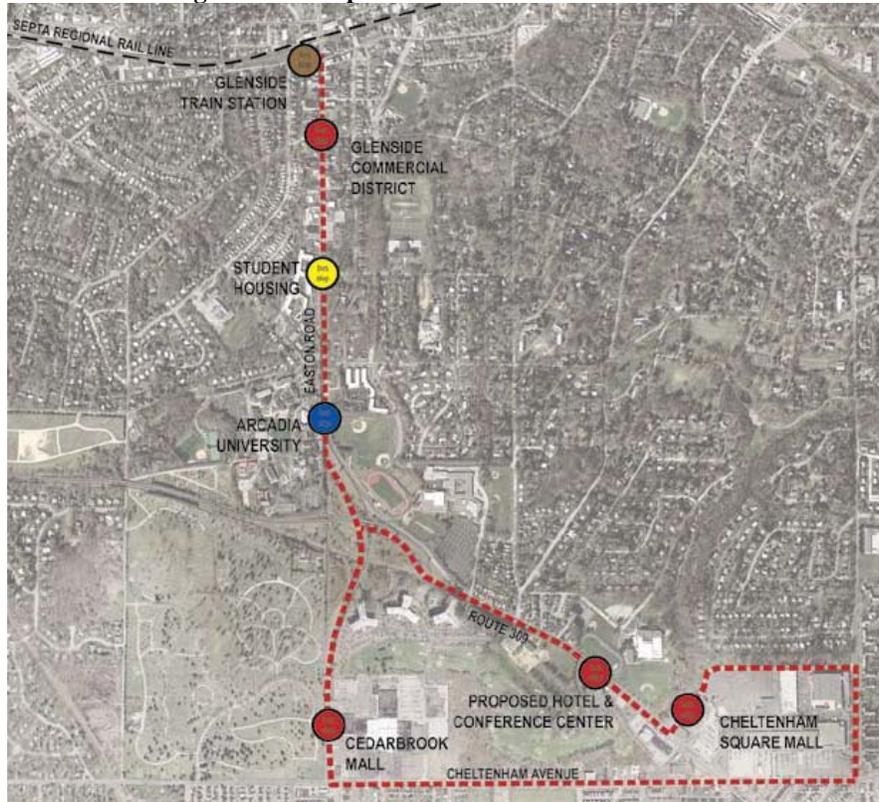
The other major generator in the study area is Arcadia University which serves several thousand students and has plans for expansion. The campus is located in the southwest quadrant of Easton Road and Limekiln Pike. Recently, Arcadia University purchased the Oak Summit apartments for student housing. The complex is a few block north of the campus along Easton Road and south of Royal Avenue. Currently, about 80 percent of the apartments are occupied by students which will become student only housing when existing leases expire.

Prior Studies

Cheltenham Township and its Main Street Program has been very active in promoting the economic vitality of the study area. This includes studies oriented to both transportation and land use. Moreover, the shuttle route proposals emerged from this earlier work.

- **Cheltenham Commercial District Enhancement Plans** (Carter van Dyke Associates) - This study led to the development of plans to revitalize five commercial districts in the Township: Glenside, Elkins Park, Elkins Park West, West Cheltenham Village and East Cheltenham Avenue. Each district was described in terms of issues, vision, strategies and necessary implementation steps. Reflecting the diverse nature of the districts, different proposals are made for each. A key recommendation was the formation of an economic development corporation. Other proposals deal with zoning, landscape, streetscape, parking and similar issues.
- **Glenside Commercial District and Arcadia University Revitalization and Circulation Feasibility Study - Phases I and II** (Hillier Architecture) – As the name implies, this study examined opportunities to encourage economic development in the area. It also included various transportation proposals related to auto, transit, pedestrian and bicycle modes. The proposed shuttle route shown in Figure 13 was the genesis of the current analysis to assess the feasibility of a new service as well as refine and detail the shuttle bus route concept that emerged from the earlier analysis.

Figure 13 – Proposed Glenside Shuttle Bus Route



- **Feasibility Study of Traffic Improvements Recommended in the Commercial Districts Enhancements Plans** (Orth-Rodgers & Associates) - This study was oriented to assessing the feasibility of earlier traffic improvement proposals. The study presents traffic count data along with analysis of intersection levels of service. Proposals are presented to improve the traffic conditions and rely on earlier work as well as this follow up study. Accompanying the final report was a separately bound plan set.
- **Jenkintown-Wyncote Station Parking Garage Feasibility Study** (Hillier Architecture) - To respond to insufficient parking supply at this rail hub, a feasibility study of a proposed garage was prepared. It calls for construction of a multi-story garage which would have 900 parking spaces at the site along with associated improvements (e.g., high platforms) that totaled nearly \$16 million.
- **Glenside Station Area Development Plan** (Hillier Architecture) - This analysis also examined the feasibility of a garage at this station which would allow structure and

surface facilities for 522 cars. The study also included a market analysis of the area and development and zoning proposals for the station area.

- **Streetscape Enhancements** (Kise Straw & Kolodner/Gannett Fleming) - Proposals have been prepared to improve the pedestrian environment along Easton Road. It will include traffic calming features along with various amenities to create a more pleasant environment. It will include ornamental streetlights, hanging baskets, decorative sidewalks, granite pavers, attractive crosswalks and benches. The project is in design and funded with construction slated in the not too distant future.
- **Cheltenham Avenue Vision** (Kise Straw & Kolodner) - This study consisted of site analysis, establishment of goals and design guidelines and development of proposals. Planning concepts envisioned higher intensity, higher quality and mixed use development. Another feature of the study was to create a more pedestrian friendly environment along Cheltenham Avenue. Proposals were formulated in a number of areas including zoning, streetscape and land use along with roadway and transit improvements.
- **Cheltenham Avenue Business Improvement District (BID)** - This initiative calls for a variety of improvements along this arterial street which serves as the boundary between Cheltenham Township and the City of Philadelphia. The plan consists of several phases that focus on physical changes as well as efforts to market the commercial areas and focus the development. One aspect of the plan is to create a Business Improvement District to direct this effort.
- **Arcadia University Master Plan** (Ayer/Saint/Gross) - This plan was prepared to guide the expansion of the campus during the next several years. It examines the capacity of the current buildings and facility and how they can accommodate planned growth. As such it presents a strategic vision for the institution along with a phased plan for future expansion.
- **Transit Revitalization Investment District** (Carter van Dyke Associates) – This ongoing effort is addressing ways to fund various improvements in the vicinity of the intersection of Ogontz and Cheltenham Avenues. The effort lists various project elements such as roadway and streetscape improvements, SEPTA Loop site improvements along with property acquisition and project development. The study has identified available funding programs and sources.
- **A Feasibility Study for the Cresheim Trail** (Campbell Thomas & Company) – This study commissioned by the Friends of the Cresheim Trail, covers the area between Fort Washington State Park in Montgomery County and Valley Green in

Philadelphia. A spur of the basic alignment would connect with Arcadia University. A four phase development plan was identified which calls for a trail of approximately 7.8 miles with a capital cost of \$6.9 million.

The discussion above is not intended as a detailed review of each of these studies, but rather a way to highlight the various inputs that will influence the development of a shuttle bus plan.

EXISTING TRANSIT SERVICES

To provide a basis for subsequent planning activities, a review of the existing bus and rail services in Cheltenham Township was undertaken. This included a description of the bus service offered by Cheltenham Township in conjunction with Abington Township. The inventory also presents the bus and commuter rail services offered by the Southeastern Pennsylvania Transportation Authority (SEPTA). In addition to the fixed route services, demand responsive services are provided through the PennDOT sponsored shared ride program and SEPTA's complementary service to meet the requirements of the Americans with Disabilities Act (ADA). This chapter provides key information regarding the frequency, span of service and fare structure of the current transit services in Cheltenham Township.

Fixed Route Transit Services

This section provides a description of the fixed route transit services that operate within Cheltenham Township. These services include the route sponsored by Cheltenham Township, SEPTA bus routes and regional rail service along with those provided by the Towers and Lynwood Gardens for their tenants. The inventory reflects service operated in Spring 2008 which is consistent with current service levels since no significant changes have occurred in the past year.

Route Description – Cheltenham Township provides a fixed route bus service that operates within the Township, and is called the Cheltenham Transit Bus. The service operates in Cheltenham Township on Tuesdays, Thursdays and Saturdays (operating in Abington on Mondays, Wednesdays and Fridays). It serves a number of residential communities and retail establishments. It maximizes coverage to these locations and connects one end of the township with the other. It originates at the Rowland Community Center and passes through Tookany Creek Park; it then stops at the Melrose Shopping Center and Coventry House before stopping at the Melrose Park Train Station; it then goes to the Elkins Park Library, Foxcroft Pavilion and Blair House before stopping at the Cheltenham Township Building on Old York Road; it then stops at the Cheltenham Square Mall and Cedarbrook Plaza before passing Arcadia University on its way to the Glenside Train Station where it turns around and does the route in reverse.

SEPTA operates nine different bus routes which offer service within Cheltenham Township. These routes include buses that merely operate along the periphery of Cheltenham, and others that traverse and penetrate various areas within Cheltenham Township. SEPTA also operates five regional rail lines that serve stations at Melrose Park, Elkins Park, Jenkintown and Glenside. The stop patterns vary by regional rail line, time of day and day of the week. The

Cheltenham Transit Bus, along with all of the others mentioned in this section is presented in Table 7.

Table 7 – Route Description

Route Designation	Operates Between	And
<i>Cheltenham Township</i>		
Transit Bus	Rowland Community Center	Glenside Train Station
<i>SEPTA Bus</i>		
6	Cheltenham and Ogontz Avenues	Olney Transportation Center
22	Willow Grove-Jacksonville Road and Potter Street	Olney Transportation Center
28	Torresdale and Cottman Avenue	Fern Rock Transportation Center
55	Willow Grove-Doylestown	Olney Transportation Center
57	Whitman Plaza (South Philadelphia)	Fern Rock Transportation Center
70	Frankford Avenue and Gregg Street	Fern Rock Transportation Center
77	Germantown Avenue and Bethlehem Pike	St. Vincent Street and Roosevelt Boulevard
C	Cheltenham and Ogontz Avenues	15 th and Markets Street-Broad and Geary Streets
H and XH	Cheltenham and Ogontz Avenues	Broad Street and Erie Avenue
<i>SEPTA Regional Rail</i>		
R1	Philadelphia International Airport	Glenside, Warminster and West Trenton
R2	Warminster	Central Philadelphia and Wilmington
R3	West Trenton	Central Philadelphia and Elwyn
R5	Lansdale/Doylestown	Central Philadelphia, Paoli and Thorndale
R8	Fox Chase	Chestnut Hill West

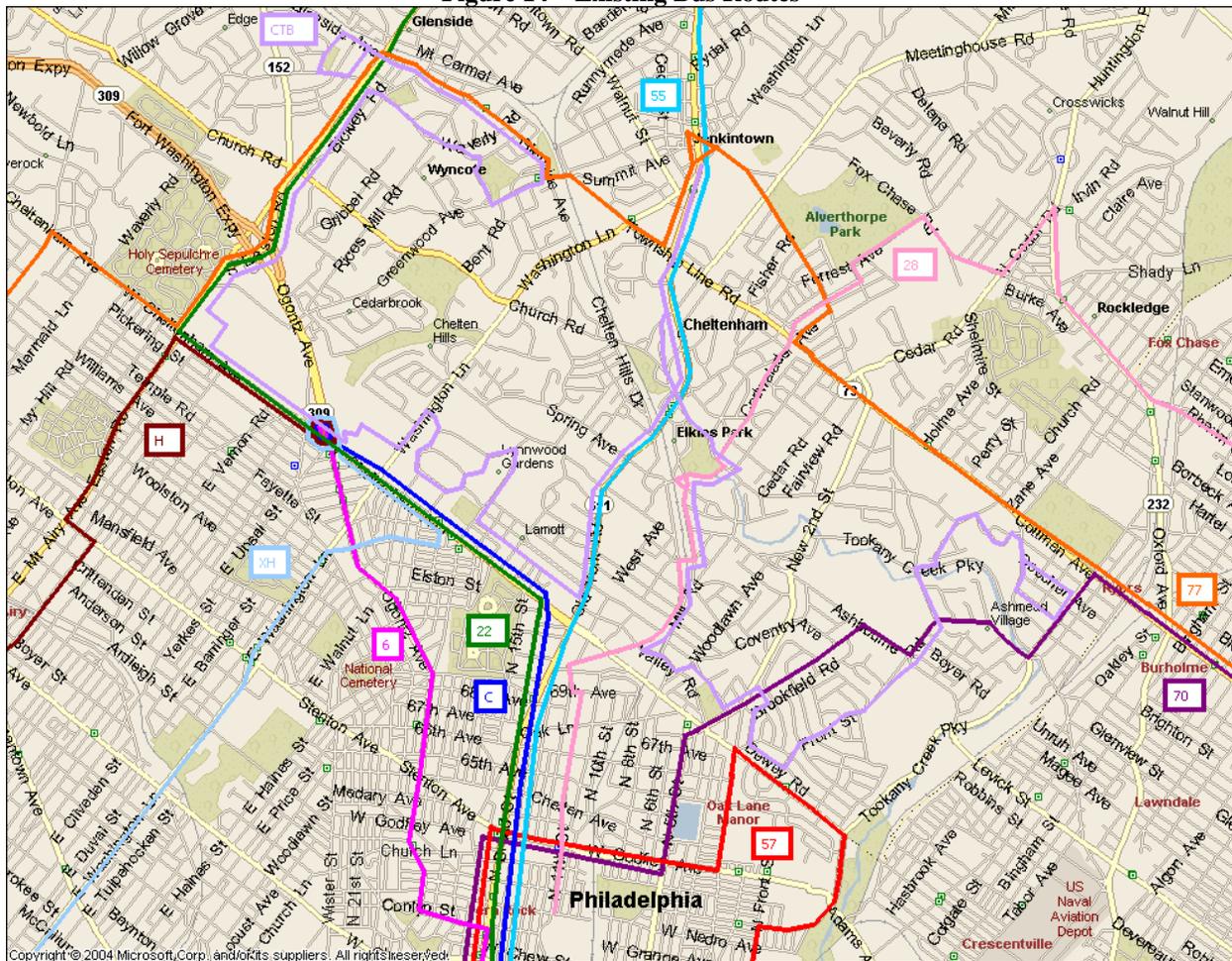
As noted at the previous chapter, the proposed shuttle route that was developed previously from an earlier study operated from Cheltenham and Ogontz Avenues (i.e., Ogontz Loop) to the Glenside Rail Station principally along Cheltenham Avenue and Easton Road. For this reason, some of the routes presented in the inventory are more relevant to the current analysis. For example, Route 22 which operates between the Olney Transportation Center and Warminster operates the entire length of Cheltenham Avenue and Easton Road over the proposed alignment for the shuttle bus route. In contrast, Route 70 operates between Torresdale/Tacony and the Fern Rock Transportation Center. As such, it operates across the southeast corner of Cheltenham Township and far removed from the service area of the proposed shuttle route. In a similar manner, only the rail lines that serve the Glenside rail Station are of interest in the current analysis.

The SEPTA bus routes pertinent to this study are: Route 6 which operates to the Ogontz Loop and serves the Cheltenham Square Mall; Route 22 which serves Cheltenham Avenue from Broad Street to Easton Road, passing both the Cheltenham Square Mall and Cedarbrook Plaza, then travels north on Easton Road to the Glenside Train Station and passing Arcadia University and Glenside Business District; Route 77 bus serves Cheltenham Avenue from Willow Grove Avenue to the Cedarbrook Plaza Shopping Center and then continues along Easton Road to

Glenside Avenue; Route C operates along Cheltenham Avenue from Broad Street to the Ogontz Loop serving Cheltenham Square Mall; and Route H and Route XH which both serve Cheltenham Avenue between Andrews Avenue and Easton Road serving both major shopping centers. SEPTA has proposed changes to Route 77 which would have buses operate via Cheltenham Avenue to the Ogontz Avenue Loop and then continue along PA 309 to Easton Road where it would continue its present routing.

In addition to the several bus routes, three regional rail lines that serve the Glenside Train Station are of primary interest: R1 - Airport, R2 - Warminster and R5 - Lansdale/Doylestown. The R3 - West Trenton line stops at Jenkintown and then continues to Noble while the R7 - Fox Chase is located along the eastern boundary of Cheltenham Township are have limited interest in the current study.

Figure 14 – Existing Bus Routes



The remainder of this chapter describes only those bus routes and rail lines that are of interest for two primary reasons. First, several bus routes operate along Cheltenham Avenue and Easton Road which are the principal streets proposed for the shuttle route from the earlier study. Any recommendations for this analysis should integrate the proposed shuttle service with the existing bus lines. Second, some bus routes intersect the proposed shuttle, although they do not operate for any appreciable distance on Cheltenham Avenue and Easton Road. For example, Route 6 terminates at the Ogontz Loop (i.e., Ogontz and Cheltenham Avenues). Service proposals for any shuttle route should be coordinated with existing bus lines to avoid duplication and permit continuing travel to other parts of the metropolitan area.

Frequency of Service – The level of transit service within Cheltenham Township in terms of frequency varies by service type. These frequencies are presented in Table 8 by time period for weekday service and during the Noon hour on weekends. The table only lists the bus routes and rail lines which are relevant to the current analysis and serving the Cheltenham Avenue and Easton Road in the western portion of Cheltenham Township. Since the interval between buses is not always uniform, the values presented in the exhibit should be viewed as representative for each time period and service day.

Because the Cheltenham Transit Bus operates a relatively long route with a single vehicle throughout the day, service is relative infrequent with a bus every two or three hours. Most of the SEPTA bus routes offer relatively frequent service throughout the weekday, with the exception of the route 77. The SEPTA Regional Rail lines offer modest frequencies for rail service, with the R5 having more frequent service than the R1 and R2. For the rail lines, headways were based on operations at the Glenside Rail Station.

Table 8 – Frequency of Service (Representative Headways in Minutes)

Route Designation	Weekday					Saturday	Sunday
	AM Peak	Midday	PM Peak	Evening	Night	Noon	Noon
<i>Cheltenham Township</i>							
Transit Bus	--	145	--	--	--	145	--
<i>SEPTA Bus</i>							
6	6	12	8	15	20	15	20
22	14	20	17	30	60	30	73
77	60	60	60	--	--	60	60
C	11	24	13	30	30	20	30
H	10	20	10	30	40	20	25
XH	10	20	10	30	40	20	25
<i>SEPTA Regional Rail</i>							
R1	60	60	60	60	60	60	60
R2	35	60	32	60	60	60	60
R5	30	60	30	30	60	60	60

Span of Service – Equally important to how often buses operate is when service is available to the public. The information on span of service is detailed in Table 9 on the following page. The table contains data by route direction and is further broken down by day of the week. The bus span of service is specified from the first departure to the last arrival at the other terminal. For the regional rail lines, all times are the Glenside Rail Station.

The Cheltenham Transit Bus operates three days a week (Tuesday, Thursday and Saturday), offers between 9:00 AM until 6:00 PM. This service is the only route operating in Cheltenham Township that does not offer service on Sundays. The SEPTA bus Routes offer a much longer span of service with many routes operating nearly 24 hours. The span of service on the regional rail lines is considerably less with the hours of service shorter on weekends and on weekdays.

Table 9 – Span of Service

Route Designation	Weekday		Saturday		Sunday	
	Start	End	Start	End	Start	End
<i>Cheltenham Township</i>						
Transit Bus* WB	9:00AM	6:00PM	9:00AM	6:00PM	--	--
EB	10:16AM	4:43PM	10:16AM	4:43PM	--	--
<i>SEPTA Bus</i>						
6 NB	3:30AM	2:44AM	3:30AM	2:44AM	3:30AM	2:44AM
SB	2:55AM	2:09AM	2:56AM	2:10AM	2:56AM	2:11AM
22 NB	4:48AM	1:05AM	4:48AM	1:00AM	4:45AM	12:57AM
SB	4:38AM	1:32AM	4:51AM	1:27AM	4:57AM	1:22AM
77 EB	6:10AM	7:22PM	7:35AM	7:23PM	9:35AM	6:23PM
WB	6:25AM	7:21PM	6:28AM	7:19PM	9:28AM	6:19PM
C NB	5:36AM	2:13AM	6:15AM	2:17AM	6:15AM	2:02AM
SB	4:46AM	1:14AM	5:20AM	1:12AM	5:18AM	12:55AM
H NB	5:47AM	2:33AM	6:00AM	2:34AM	7:10AM	1:23AM
SB	6:03AM	1:50AM	6:02AM	1:55AM	6:32AM	12:46AM
XH NB	6:09AM	1:40AM	6:20AM	1:01AM	7:22AM	12:54AM
SB	5:48AM	1:25AM	5:44AM	12:33AM	7:21AM	12:16AM
<i>SEPTA Regional Rail</i>						
R1 IB	4:29AM	10:32PM	4:29AM	10:59PM	4:29AM	10:59PM
OB	6:03PM	1:03AM	6:05AM	1:05AM	6:05AM	1:05AM
R2 IB	5:59AM	11:32PM	5:59AM	9:59PM	5:59AM	9:59PM
OB	5:33AM	12:33AM	6:05AM	11:05PM	6:05AM	11:05PM
R5 IB	5:43AM	11:46PM	7:15AM	11:45PM	7:15AM	11:45PM
OB	6:00AM	12:25AM	7:47AM	11:47AM	7:47AM	11:47AM

*The Cheltenham Transit Bus operates Tuesday, Thursday and Saturday only.

As noted above, no significant changes have been made to the current SEPTA bus system since the inventory was compiled. However, SEPTA has proposed a new bus route in its Annual Service Plan (ASP) which calls for a bus route that would operate between the Frankford

Transportation Center (Bridge and Pratt Streets) and Cedarbrook Plaza. From the perspective of the current study, the proposed bus line would provide a continuous bus service between Crescentville Road and Easton Road.

Fare Structure – The Cheltenham Transit Bus has two different options for ticket purchases: a single, one-way ticket costs \$4.00, while a ten-trip ticket can be purchased for \$10.00. Also, the following groups of people can utilize the service free of charge: Cheltenham residents over the age of 62, but under the age of 65 with a Township Transit Identification card; passengers over the age of 65 with a PennDOT I.D. card or a Medicare card; residents under the age of 62 who have permanent disabilities with a Township Transit Identification card; and children under 51 inches tall. The price for a single ticket is set relatively high and appears to be based on the PennDOT reimbursement for senior citizens. Senior citizens in Pennsylvania can ride buses for free with the fare paid by the Commonwealth.

SEPTA bus passengers traveling to or from Cheltenham are charged \$2:00 for a regular cash fare with additional charges based on the distance travel. Passengers traveling past a single zone are charged an additional \$0.50. For instance, Route 22 has two fare zones with the first from the Olney Transportation Center to the Willow Grove Park Mall with the second from the Willow Grove Park Mall to Jacksonville Road and Potter Street. Trips made on this route within Cheltenham Township would not be charged an additional zone charge.

SEPTA provides other fare media: tokens can be bought in packs of 2, 5 and 10 for \$1.45 per token; weekly and monthly Transpasses, which are valid for one zone rides on any transit route, can be purchased for \$20.75 and \$78.00, respectively (additional zones can be purchased for \$0.50 per zone); a monthly cross county pass is available for \$96.00 and is used for transit and regional rail service outside of the City of Philadelphia; and a convenience pass – a pass good for up to eight trips on any single day, regardless of zone – is available for \$6.00. SEPTA offers special fares for bus passengers in the following groups: senior citizens ride for free at all times; disabled patrons pay a \$0.75 base fare and \$0.25 for each additional zone during off-peak hours, and pay a regular fare during peak hours; and children less than 42 inches tall ride for free with a fare paying adult.

The tokens, weekly and monthly passes afford riders both a convenience since they do not need the exact cash fare when boarding the bus and a discount for frequent users. For example, a person who commutes to work by transit would typically make 44 trips monthly and pay a cash fare of \$88 while the same trips using a monthly pass would only be \$78. The discount would be even greater for persons who ride more than a single bus to complete their trips.

The SEPTA Regional Rail system has a more complicated fare structure which relies on zones, peak and off-peak periods, one way or round trip tickets and time of ticket purchase

(advanced sales or on board sales). The fare data for the SEPTA Regional Rail system is for the Glenside Rail Station which is Zone 3. Jenkintown which is nearby is also a Zone 3 station. There are higher costs associated with trips to and from more distant stations with higher zone designations. Passengers utilizing the Glenside Station will pay a single zone charge of \$5.00 if they purchase a one-way ticket in advance, are traveling during peak times. Off-peak, this trip would be \$4.25 for the same Zone 3 trip. Small discounts are provided for purchases of either a peak or off-peak round trip (Table 10).

Table 10 – Fare Structure

Fare Category	Amount	
<i>Cheltenham Township</i>		
Regular Cash Fare	\$4.00	
Ten Trip Ticket	\$10.00	
Residents Over 62	Free	
Seniors Over 65	Free	
Disabled	Free	
Children under 51 inches	Free	
<i>SEPTA Bus Routes</i>		
Regular Cash Fare	\$2.00	
Additional Zones	\$0.50 each	
Tokens (Packs of 2, 5 or 10)	\$1.45 each	
Transpass (Weekly/Monthly)	\$20.75/\$78.00	
Additional Zones	\$0.50 each	
Cross County Pass	\$96.00	
Convenience Pass (Daily)	\$6.00	
Seniors	Free	
Disabled (Off-Peak/Peak)	\$0.75/\$2.00	
Additional Zones (off-peak/peak)	\$0.25/\$0.50	
Children under 42 inches w/ Adult	Free	
<i>SEPTA Regional Rail Service (Glenside Rail Station)</i>		
<i>Location of Purchase:</i>	<i>Advanced</i>	<i>On Board</i>
One Way (Off-Peak/Peak)	\$4.25/\$5.00	\$6.00/\$5.00
Round Trip (Off-Peak/Peak)	\$9.75/\$8.25	\$12.00/\$10.00
Ten Trip Ticket	\$47.50	
TrailPass (Weekly/Monthly)	\$39.00/\$142.50	
Seniors	\$1.00	
Family Fare	\$21.25	\$23.00
Children w/ Adult (All times)	\$2.50	\$3.00
Disabled (Off-peak)	\$2.50	\$3.00

Ten trip tickets can be bought at a reduced cost for \$47.50 and similar to the TransPass pricing, SEPTA also offers a TrailPass for regional rail riders that affords substantial discounts over single ticket purchases. A TrailPass for the Glenside Rail Station costs \$39.00 and \$142.50 for the weekly and monthly pass, respectively. One advantage of the TrailPass is that the holder

can use it to ride any SEPTA bus, trolley or subway for the same zone. Senior citizens ride for \$1.00 at all times, while children can ride for \$1.75 with a fare paying adult. Disabled riders pay \$1.75 during off-peak times and a regular fare during peak hours.

Other Services – As noted previously, bus service is provided by the Towers at Wyncote and Lynnewood Gardens for their tenants. The service at the Towers is oriented to the Jenkintown Train Station during peak periods and nearby retail establishments. The service is also designed to serve students of Arcadia University and provide access to the campus. As a private service there is flexibility to the locations served. The service is operated on weekdays with no weekend service. Similarly, Lynwood Gardens operates a single vehicle for its residents during weekdays which serve nearby retail centers.

Demand Responsive Transit Services

There are three services that are available within Cheltenham Township that provide demand responsive service for eligible groups. To satisfy ADA mandates SEPTA provides curb-to-curb service for persons who are unable to use the fixed route bus system. Persons must be within 0.75 miles of an existing bus route with service available the same hours and days that fixed route service is available. In view of the extensive network of bus routes in Cheltenham Township, most areas fall within the $\frac{3}{4}$ mile service area. Service is on a next day, advance reservation basis. The regular cash fare is double that for the bus system with a single ride costing \$4.00 per trip. There are two charges for additional use: a \$1.00 inter-county charge for trips that travel further than three miles into another county; and a \$1.00 zone charge for each additional ten mile segment past the initial ten miles for trips beginning or ending in suburban counties.

Shared-Ride is another program that offers advanced reservation demand responsive service. The program is sponsored by PennDOT and oriented primarily to senior citizens. Senior citizens trips are subsidized with PennDOT paying 85 percent of the negotiated trip cost with the remainder paid by the senior citizen (e.g., \$3.00 per trip). The service is also available to all citizens, but they must pay the full cost with no subsidy. TransNET, a local service provider, operates this service in Montgomery County. The concluding demand responsive service is provided by the taxicab companies which also provide door-to-door service to Cheltenham Township residents.

TRAVEL DEMAND AND MARKET ASSESSMENT

A number of survey activities were undertaken to better understand existing travelers in terms of the trips they currently make, their attitude towards and their likely use of a new shuttle bus service. Potential users of the service are people who live in Cheltenham Township including the residents of Lynnewood Gardens and the Towers at Wyncote, students and staff of Arcadia University, and those who travel to the township for work, shopping and personal business. Specific techniques were designed to solicit information from each group in an economical fashion. This chapter presents a description of each technique and the key findings and results.

Stakeholder Interviews

Much of the information gathered in the analysis is quantitative in that it includes statistical information compiled from Cheltenham Township, Montgomery County, Arcadia University and SEPTA, as well as other sources. To provide a valuable qualitative view of the existing conditions and opportunities for the future, interviews were conducted of community leaders to seek their perceptions and views on public transportation. The stakeholder interview process consisted of three basic steps: (1) identification of the stakeholders; (2) preparation of a list of topics to be discussed; and (3) the actual conduct of the interviews. Each of these steps and the results are presented in this section of the market research interim report.

Stakeholders - The list of stakeholders was selected in consultation between Cheltenham Township staff and the consultant team. The consultant team indicated the types of people in terms of the groups they represent to be surveyed, along with some suggestions for specific individuals. The Township staff provided the names of individuals who met the necessary criteria. The stakeholders included representatives from private firms, non-profit organizations, Arcadia University and government officials in several categories.

- Township/County Officials
- Local Transportation Experts
- Residential Complexes
- Cheltenham Businesses
- Arcadia University

The people representing each of these groups provide a broad cross-section of views of persons involved with transportation, land use, economic development and civic issues in Cheltenham Township. A total of 35 individuals participated in the interviews. Table 11

indicates the individuals who participated in the interview process.

Table 11 - Stakeholder Interview Participants

Name	Agency/Organization	Title
Mike Berger	Arcadia University	Academic Vice President
Cathleen Breslin	Greater Glenside Chamber of Commerce	Executive Director
Mark Carver	Benson Printing	
Nikki Christensen	Arcadia University	Vice President for Center for Education Abroad
Nick Costa	Arcadia University	Vice President, Development and Alumni Relations
Michael Coveney	Arcadia University	CFO
Mark Curchack	Arcadia University	Associate Vice President, Planning & Assessment
Steve D'Antonio	SEPTA	Manager, City Transit Division
Dana R. Davies	Arcadia University	Vice President, Enrollment Management
Jim Della Priscoli	SEPTA	Service Planner
Janis DeMarco	Keswick Theatre	
Jose Dieudonne	Arcadia University	CIO
Matthew Edmond	Montgomery County Planning Commission	Transportation Planner
Paul Greenwald	Cheltenham Township	Township Commissioner
Jerry Greiner	Arcadia University	President
Bryan Havir	Cheltenham Township	Assistant Township Manager
Rob Henry	GVFTMA	Executive Director
Bill Hibbert	Hibbert Engraving	Owner
Jean Holland	Montgomery County Planning Commission	Community Planner
Joseph Hacker	Delaware Valley Regional Planning Comm.	Manager, Office of Transit, Bicycles and Pedestrians
Shirley Jensen	Towers at Wyncote	Rental Manager
Rudy Kastenhuber	Cheltenham Township	Public Works Coordinator
David Kraynick	Cheltenham Township	Township Manager
Ruth Littner Shaw	Cheltenham Township	Main Street Manager
David Lynch	Cheltenham Township	Township Engineer
Mark McDonnell	Cheltenham Township	Public Works Superintendent
Yitz Moller	Lynnewood Gardens	Regional Manager
John Norris	Cheltenham Police Department	Chief of Police
Barbara Nye	J. Alden Associates	
Chataun Porch	Cheltenham Square Mall	General Manager
Sandra Rahman	Lynnewood Gardens	
Drew Sharky	Cheltenham Township	Township Commissioner
Lori Stopyra	Nassimi Realty Corp./Cedarbrook Plaza	General Manager
Jan Walbert	Arcadia University	Vice President for Student Affairs
Mike Zucker	Lynnewood Gardens	

Findings and Results - Most of the interviews lasted approximately 45 minutes to one hour, which provided ample time for each participant to respond to the questions properly. Ten

questions were prepared for each interview; however the interview process allowed the conversations to diverge into different, yet related topics. The questions ranged from an assessment and knowledge of the current available public transportation services in Cheltenham Township to suggested destinations and attributes for a successful trolley program. For Acadia University, the interview was conducted as part of the normal Executive Council meeting where the shuttle bus was one topic on their agenda. To respond to their time constraints, the discussion focused on travel markets, desired attributes of the service and funding opportunities.

It should be noted that some comments were isolated and reflected the opinions of a single individual, while others represented a widely held view. Another point to make is that the views are subjective and reflect attitudes and perceptions. Most of the stakeholders had not utilized the existing bus service. In view of the nature of the proposed service and the intended markets, the stakeholder comments provide a useful and timely input to the planning process since they comprise the views of the broader community. The remainder of this section presents the comments of the study participants.

- **Five terms that best describe Cheltenham’s current public transportation system**
- To gain a sense of the interviewee’s perception of the available public transportation options, the initial question asked them to provide some terms that they felt best described the public transportation system in Cheltenham Township. The opinions of public transportation in the area were split between positive and negative responses. It is interesting to note that the same issues were often mentioned, but differed in terms of whether the comment was positive or negative.

Some people felt that Cheltenham Township is well served and provided a high degree of coverage in terms of bus and rail service. Further, the service was viewed as reliable, efficient, clean and convenient. Moreover, a few observations were made that the shuttle would duplicate existing SEPTA service in the Easton Road corridor. One individual thought that shuttle service provided an opportunity to improve existing SEPTA service, although the two would have to be coordinated.

A few stakeholders agreed that SEPTA is normally on-time; however, there was some concern that there is no service into the later hours of the night. One of the stakeholders felt that SEPTA is moving forward with new ideas, while another person mentioned SEPTA’s ongoing green effort is a positive step.

Others believed and suggested that SEPTA has an overall negative image in the community, that the buses are hot, dirty and unattractive, and that Cheltenham Township – while having good coverage in terms of the number of different service options – lacks frequent service. Most people felt that the regional rail service was a benefit to the community; however some people wished that service was more

frequent at the Glenside Station. One person also mentioned that SEPTA does not provide good intermodal connections (i.e., bus and rail). Some of the stakeholders also expressed concern over the safety of the articulated vehicles during poor weather conditions, while others said that the rail stations need improvement and the parking lots need to be expanded.

There was general agreement among those who felt that there was a negative perception of SEPTA services, any new shuttle services would need a unique identity. The notion of branding the shuttle service as a separate entity was cited.

Overall, the stakeholders agreed that buses in Cheltenham Township mainly serve the needs of the Philadelphia residents with the rail system oriented to suburban residents. A widely held sentiment was the need to improve the Ogontz Loop. Comments were made about the general condition of the site (e.g., litter), the limited amenities offered, the heavy bus volumes and the need to transform this “eye soar” into a modern SEPTA facility.

- **Knowledge and awareness of the current public transportation system in terms of what services are available and arrangements for providing service** - The general feeling among all of the stakeholders was that Cheltenham Township residents who live along the Easton Road corridor are aware of the bus service that is available to them. In large measure, this reflects the amount of service that currently operates in the area. That being said, the stakeholders felt that the same people may not know where these services come from, where they go, and how they operate. Many indicated that they would not know how to use the bus.

The stakeholders felt that the view of Arcadia University students was similar to Cheltenham Township residents. They may know of the bus service, but do not ride it. There seemed to be a greater awareness of the commuter rail system and the nearby Glenside Station. Some of the stakeholders felt that there should be better bus service between the Arcadia University and the Glenside commercial district. The general feeling was that there is no easy way for students to reach Glenside – walking or biking Limekiln Pike and Easton Road is not convenient and can be dangerous. These comments were made prior to the Glenside streetscape improvements. Some mentioned that while walking distance is acceptable during good weather, it is too far during inclement conditions.

Some mentioned that the bus service provided by SEPTA is not frequent enough to satisfy students’ needs. The lack of frequent bus service was viewed negatively since students are a potential transit market. Arcadia University has limited parking

facilities and there are restrictions on freshmen bringing autos to school. This situation would favor transit use if the service was viewed as convenient.

One stakeholder said that public transportation is taken for granted due to the public's orientation towards driving and using their own vehicles. A few people mentioned that SEPTA is not user friendly and suggested that more information be available at bus stops to help people understand the available services, as well as making passes, tokens and other means of fare payment more readily available. Again, one of the interviewee's suggested that over 85 percent of the bus riding population that goes through Cheltenham Township is comprised of Philadelphia residents. One stakeholder mentioned that SEPTA's Route 77 bus is a good transportation option for Cheltenham Township residents. Another individual indicated that awareness and positive image of public transportation might increase with the rapid increase in gas prices.

- **View of performance of current bus system in terms of vehicles, operations, and public information/marketing** - Most of the stakeholders felt that SEPTA offers good and comprehensive service in the study area corridors, particularly in regards to the Route 22 bus. They felt that SEPTA buses are usually on time, although there were some negative comments as noted above. One stakeholder felt that people may be surprised at how good service has become, while another mentioned that SEPTA works for some people, but does not work for others. A couple of the stakeholders suggested that there should be better coordination between SEPTA's bus routes and the rail routes at the Glenside Station. Related to this comment was the lack of adequate parking. Some stakeholders mentioned the existing Cheltenham Township shuttle bus and the benefits that it provides senior citizens who have limited travel options.

Many of the comments about SEPTA vehicles themselves were negative. Some of the people felt that the buses are large, loud and dirty. One stakeholder said that the buses are clean on the outside, yet it is "hit or miss" in terms of cleanliness in the interior. Another person said that the buses are dangerous and that they produce noxious fumes. Many of the stakeholders mentioned that better care must be taken with the bus shelters, especially at Ogontz Loop, noting that there is always trash that needs to be cleaned up and graffiti that should be removed.

In terms of the public information, all of the stakeholders felt that SEPTA could be doing a better job of informing the public about the available services. Some of them did mention that SEPTA has recently taken steps in the right direction with the improved customer service department; however they also felt that more must be done. One stakeholder noted that potential riders have to either reach out to learn

about the available services, or be taught by other users. It was also suggested by a number of stakeholders that SEPTA improve the marketing of their bus services.

A suggestion was made that marketing opportunities existed with respect to students at Arcadia University. The students could ride the bus for shopping as well as reach the commuter rail system in Glenside for trips to Center City. The observation was made that one-fourth of the students are new each year. They present a potential opportunity to become SEPTA riders with specific marketing efforts oriented to them.

- **Who are the current users of the public transportation system?** - All of the stakeholders felt that the majority of the current users of public transportation in the area are people who have no other form of transportation available for their use, whether it is due to their income, age, or any other reason. The stakeholders also believed that a majority of the riders were people coming from Philadelphia into the suburbs, with a small population of riders using SEPTA buses to get into the city for their jobs. Cheltenham Township residents were viewed as more likely to ride the commuter rail portion of the transit system, rather than the bus services. Most of the passengers on the routes that traverse Cheltenham Township are believed to be “pass through” riders, coming from Philadelphia, through Cheltenham Township, to other suburban destinations - most notably the Willow Grove Park Mall.

A few stakeholders mentioned that public transportation in the Philadelphia region is oriented towards taking people into and out of Philadelphia, and that SEPTA is not as concerned with connections between suburban areas. One point raised was that in addition to SEPTA, Cheltenham Township and both Lynnewood Gardens and the Towers at Wyncote provide bus service which affects the composition of SEPTA riders.

With regard to trip purpose, most transit users are traveling to work with some people riding the bus for shopping and school trips. Some of the stakeholders mentioned that a few shoppers use bus service on the weekends to go to the area shopping centers, including the Cedarbrook Plaza and the Cheltenham Square Mall.

Some of the stakeholders felt that Arcadia University students may use SEPTA occasionally, and that quite a few Bishop McDevitt High School students use SEPTA to get to and from school every day. Some stakeholders cited the number of Lynnewood Gardens residents who use the SEPTA bus services as their means of transportation, whether going to their place of employment, or to go shopping at the Cedarbrook Plaza or the Cheltenham Square Mall.

Most participants agreed that public transportation is currently experiencing an increase in ridership, due mainly to the increased price of gasoline. One stakeholder, in agreeing with the previous statement, mentioned that while bus use has seen an increase in passengers, rail service usage has grown even more. Another stakeholder suggested that there was a difference in bus and rail riders with many Cheltenham Township residents relying on the commuter rail lines. This group could be a potential market for bus service feeding the Glenside Station.

- **What is the image of public transportation in the community?** - The stakeholders felt that the perceived image of public transportation in the community ranged considerably as noted in some of the other discussion topics. Some viewed SEPTA as reliable and providing an attractive service to residents. Others had negative comments about the condition of the buses, marketing and the level of service. Some individuals were critical of the physical plant citing the lack of bus shelters and the condition of the Ogontz Loop.

A few stakeholders also felt that a majority of Cheltenham Township residents are indifferent to the public transportation options that are available for their use. There is a need to generate substantial interest in public transportation. This would include understanding what services are available and how to get information to plan a trip.

- **What are the target markets (locations, groups and trip purposes) for a new trolley service; would it attract captive and choice markets?** - The two groups of Cheltenham Township's population that were mentioned the most during the stakeholder interview process as to who might use a new trolley like service were the elderly and Arcadia University students. The former included residents of Lynnewood Gardens and the Towers at Wyncote. By far the most frequently identified potential riders for a shuttle bus service were students. Accordingly, the campus and nearby housing would be a location for a new shuttle bus service.

Other locations cited were the Cedarbrook Plaza and the Cheltenham Square Mall which provides a wide choice of retail outlets. This included discount department stores, supermarkets and a number of specialty shops. The Wawa was another location frequently cited as a destination of students. The Glenside Business District was mentioned by some; however, others questioned the types of stores available. Negative attributes were that there are few stores that would be of interest to college students, as well as the hours of operation (e.g., no Sunday hours).

A few of the stakeholders felt that it would be beneficial to offer service to retail activities outside of Cheltenham Township, specifically to Keswick Village in Abington Township. Some respondents felt that the mix of stores would greatly

increase the draw of the potential shuttle bus service. These participants suggested discussions with Abington Township to gauge their interest. It was noted that the Glenside Chamber of Commerce's jurisdiction covers the greater Glenside area in both Cheltenham and Abington Townships. Other suggestions were to extend the shuttle bus service to Willow Grove Park Mall and the retail area along PA Route 611 in the Jenkintown area. The most frequent suggestion outside Cheltenham Township was the Willow Grove Park Mall. One comment was that service should be operated to Broad Street and Olney Avenue where several bus routes and the Broad Street Subway converge, while another was to extend the shuttle service to the Jenkintown Station.

In marked contrast, some indicated a strong preference for the shuttle bus to only operate within Cheltenham Township. This reflected the view that an important rationale for the shuttle service is economic development in the Cheltenham Township portion of the Glenside retail area. One stakeholder suggested taking a "tourism" approach, by advertising the service to people who would want to visit the Glenside district for its thrift shops, historic architecture, and other amenities that the area has to offer.

Other stakeholders felt that the Glenside Station could attract some riders because of the lack of available parking at the station. This population of potential riders includes students who want to travel to downtown Philadelphia and Cheltenham Township residents who commute to jobs in Center City. Other potential shuttle bus users would be faculty and staff of Arcadia University who are Philadelphia residents and who could take SEPTA's regional rail service to the Glenside Station and complete their trip by using the proposed shuttle bus.

Most of the stakeholders felt that it would be difficult to attract choice riders. One person stated that the benefits of the service must outweigh the cost per ride. A few stakeholders said that the service may be successful in attracting choice riders if gasoline costs continue to rise. Almost everyone agreed that the service will not be used unless it is convenient.

- **What are the necessary attributes for a successful program including walking distance, routings, frequency, span, fares, vehicles and other physical elements (amenities)?** - All of the stakeholders felt that the walking distance to reach the new service should be minimal, with all of the suggestions ranging from less than one block to just over three blocks. Most felt that in order for the service to be attractive to Arcadia University students - who could comprise a bulk of the ridership - the shuttle bus would need to have a few stops on campus, all of which are close and convenient to student housing, classrooms and other campus destinations. The

acceptable walking distance to the bus reflects the relatively short distance of many trips. Some of the participants suggested that as the price of gas increases, people will be willing to walk further distances.

The suggestions for frequency varied greatly, however. Some of the stakeholders felt that a frequency of 45 minutes or more would suffice, while others suggested that 15 to 20 minutes would be more appropriate. Several persons suggested that the service should have a ten to 15 minute frequency during peak periods, and a 25 to 30 minute frequency during off peak times. Yet another stakeholder mentioned that if you require a schedule to know when the next bus is coming, the service is not frequent enough. There is a general feeling that Arcadia University students would require more frequent service than residents of Cheltenham Township.

Some other comments regarding the desirable frequency of service was the need to integrate service with bus routes operated by SEPTA. Since a few routes already operate along Cheltenham Avenue and Easton Road, any suggested service would have to be integrated with SEPTA to avoid duplication.

The suggestions for the span of service and days of operation were equally as varied. Most of the stakeholders felt that service should operate Monday through Friday, with at least some type of Saturday service (either reduced, or extended into the later hours of the evening, especially for Arcadia University students who tend to stay out later during the weekends). Also, some of the stakeholders felt that there should be some sort of scaled back service on Sundays, while others believed that Sunday service was not necessary. One person said that the service could initially operate Monday through Friday, and expand with weekend service after ridership levels increased.

The suggested starting time recommendations for Monday through Friday ranged from 6:00 AM to 10:00 AM, while nearly all of the people interviewed felt that service should end daily operations at 9:00 PM. For Saturdays, stakeholders suggested that the shuttle should start around 10:00 AM and continue into the evening, with some suggesting that service extends to 3:00 AM.

The majority of the stakeholders believed that the appropriate one trip fare for this service would be \$1.00; however other mentioned fares included \$2.00 (the same price as a cash fare for SEPTA bus and trolley service), \$0.50 and “no charge.” One person suggested “rolling” the cost into Arcadia University’s student fees, while another suggested having some sort of discount for students, or allowing them to pay a \$100 per year charge for unlimited rides. A handful of stakeholders asked if it would be possible to have an agreement with SEPTA involving the use of transfers to and from SEPTA services.

As for the vehicle, each stakeholder felt that a smaller vehicle would be preferable, with nearly all of them suggesting a unique vehicle that would reinforce the notion of a new transit brand. This included vehicles that have a vintage streetcar appearance or more conventional buses with a different and clearly identifiable paint scheme. One person noted that vehicles with a trolley look are less intimidating than regular buses and that a trolley would add character to the area. Others cited that the trolley look would help people readily identify the service. A trolley like vehicle could create a sense of place for Glenside and generate publicity.

Some of the stakeholder felt that the use of an electric or hybrid vehicle should be explored, while others felt that those types of vehicles are too costly to purchase and maintain. One stakeholder said that alternative fuels should only be used if a specific grant could be found to help offset the cost for these types of vehicles. Another stakeholder said that the vehicle should be able to properly hold luggage so that students can use the service to get to and from campus for trips home.

The suggested necessary amenities for the service include period light poles with banners that would match the look and feel of the vehicle, properly labeled stops with available bus schedules and bus shelters at all or most of the stops. A few people suggested having more elaborate or artistic shelters that would help identify the service. One caution expressed about installation of special shelters would be ongoing arrangements for shelters within Cheltenham Township. A number of stakeholders felt that real-time bus information would create a “buzz” for the service.

- **What changes are planned for the Cheltenham Avenue/Easton Road corridors and how would they affect the need for a shuttle service and its design?** - The few planned changes for the Cheltenham Avenue/Easton Road corridors that were discussed included the incorporation of the Cheltenham Avenue Business Improvement District, the revitalization of Glenside, the growth of Arcadia University, and the expansions of the Cheltenham Square Mall and the Cedarbrook Plaza.

The Cheltenham Avenue Business Improvement District (BID) is currently being formed. The BID, a cooperative venture between Cheltenham Township and the City of Philadelphia, will attempt to revitalize the corridor. Its first order of business will be to improve the streetscape along Cheltenham Avenue, to make the area more inviting. The BID includes Cheltenham Square Mall, Cedarbrook Plaza, and Lynnewood Gardens.

At the time of the interviews, Easton Road in the Glenside area was undergoing streetscape improvements with hope of creating a “downtown” feel to the area. Many

of the stakeholders that had noticed the changes were quite impressed with the “new look” of Easton Road. Other projects mentioned were the planned garages at both the Jenkintown and Glenside Stations.

Cheltenham Square Mall recently removed an old movie theater, which will be replaced with a Target, and is currently adding a Chili’s restaurant. The Cedarbrook Plaza is currently adding a Ross clothing store. Other points worth noting are the efforts of both large residential complexes (i.e., Lynnewood Gardens and the Towers at Wyncote) to attract and retain tenants, which include operation of their own bus service.

- **Suggestions for organization, management and funding?** - The suggestions for who should operate the day-to-day business for the service varied. Some people felt that SEPTA had the experience and expertise to operate the service. The view was that because of their service in the area, the new shuttle service could be operated economically and integrated with existing bus lines (e.g., service and fares). Many of those who felt that SEPTA should operate the service said that Cheltenham Township would require a high level of service – something along the lines of the LUCY route that operates in the University City District in West Philadelphia.

Others felt that the arrangements for the current Cheltenham Township shuttle route would be a model that should be pursued for the new service. Cheltenham Township would administer the transit program and handle grants with the actual service operated by a contractor. There did not appear to be any interest in Cheltenham Township employing drivers and maintaining vehicles.

Some respondents mentioned the Greater Valley Forge Transportation Management Association, the Cheltenham Avenue BID, and Arcadia University as options to control the daily operations of the service. In this regard, it was suggested that both Arcadia University and Cheltenham Township could create a partnership to implement the new shuttle service.

A couple of stakeholders suggested that it might be possible for Cheltenham Township to create a transit authority, or to begin a public-private partnership between Cheltenham Township, Arcadia University, the large shopping centers and the apartment complexes (among other possible partners), which could operate the service.

A handful of funding options were discussed during the stakeholder interviews, which included seeking funding from Congestion Management Air Quality (CMAQ), the Delaware Valley Regional Planning Commission (DVRPC), a congressional earmark,

the energy bill, the Cheltenham Avenue BID, Montgomery County, Arcadia University, the EPA (specifically, a “green” grant) and private partnerships with local businesses. Other funding sources would be state grants and local taxes.

Another suggested source of funding for the service was advertising, both on the bus and on any shelters along the route. Most of the stakeholders felt that advertising on the vehicle, either inside or on the outside, was acceptable, as long as the advertisements were tasteful and that they did not take too much away from the look and feel of the branded vehicle. One concern was expressed about advertising on shelters and the current contract between Cheltenham Township and Clear Channel. Another funding source would be Abington Township if the decision was to extend the route beyond Cheltenham Township boundaries. One stakeholder asked if it was possible to expand or change the existing Cheltenham Township shuttle to provide more service to the Cheltenham Avenue and Easton Road corridors.

- **Other desired transit improvements?** - The desired transit improvements that were mentioned by the stakeholders included creating a transit center at Arcadia University, improving the Ogontz Loop (either through the creation of a full transit station or with landscaping enhancements) and the installation of benches and shelters at current bus stops. Some of the stakeholders expressed an interest in artistic shelters without advertising, similar to the bus shelters on Chestnut Street in downtown Philadelphia. Shelters should also be equipped with information on the transit system and the proposed shuttle route.

Other suggestions were signs at all bus stops, better training for SEPTA bus drivers, and safe pedestrian passageways across Easton Road and Cheltenham Avenue. A few stakeholders mentioned the need to make the area along the proposed bus route more pedestrian friendly. Comments were made regarding the volume and speed of traffic along Cheltenham Avenue and Easton Road.

- **Other Comments** - One stakeholder said that it would benefit the proposed shuttle service and the businesses and stores along Easton Road in the Glenside commercial district if the trolley started before the shops opened and ended after they closed. The problem, though, is that all of the shops and businesses have different business hours, especially on the weekends. There is an effort to get the stores’ hours to be similar through a project called Mission Glenside with the hope of enticing shoppers to spend more time and money in the Glenside area.

Proper branding of the service was a popular topic with all of the stakeholders as most felt that if the vehicle looks and feels different from all of the other available services in Cheltenham Township then it has a better chance to succeed. Further, as

noted previously, it would help create a sense of place in and around the Glenside area.

This section provided a summary of the views of a broad cross-section of individuals concerned with transportation, development, education and related issues. A number of topics were discussed that related to the existing local bus services and requirements for the shuttle bus service that this study is addressing. It provides a number of ideas that should be considered as the planning process moves forward.

Focus Groups

A focus group survey is a market research technique utilized for obtaining insight into people's views and opinions regarding certain topics. Typically, the participants share some common element; in this case the focus groups consisted of residents of the Towers at Wyncote and Lynnewood Gardens and employees of Arcadia University. While the potential travel markets differ, the process was the same for both residences and employees. The participants were guided through the discussion by the focus group moderator as they shared their insights and opinions about a variety of topics related to their commuting habits and transportation in Cheltenham Township. An attractive feature of the focus group approach is that it permits follow up questions based on responses during the discussion.

An outline was developed for the focus groups to identify the key discussion topics and talking points. The primary topics of discussion during the focus group meetings were the participants' present means of travel, thoughts on the currently available public transportation options in Cheltenham Township, description of desired traits of a new service, and their likely use of a new shuttle service. A less formal exchange of opinions among the participants, guided by the moderator, results in a more in-depth discussion of certain topics than would be possible with a typical survey questionnaire. At certain times the moderator guided the discussion and summarized the pertinent points that were made in order to obtain other participants' reactions to those points and to then introduce new topics.

Resident Focus Groups - The Towers at Wyncote focus group was held on Wednesday, May 7, 2008, while the Lynnewood Gardens focus group was held on Tuesday, May 27, 2008, with about a dozen people participating. The results from the two focus groups have been combined in the following summary. It should be noted that both the Towers at Wyncote and Lynnewood Gardens currently provide their residents with shuttle service. All of the attendees of both focus groups said that they had used their respective shuttle for one reason or another.

- **Current trips and travel mode** - The people of the two residential communities who attended the focus group meetings mentioned that they currently travel to the

Glenside commercial area, the area grocery stores (including Acme, Shop-Rite, and Pathmark), the Cedarbrook Plaza, the Cheltenham Square Mall, the Willow Grove Park Mall, Germantown Avenue, Temple University's Tyler School of Art, the Glenside and Elkins Park train stations, and area restaurants. Most of the attendees said that they almost always use their own vehicles for their transportation needs; however, some trips are completed using the available residential shuttles, SEPTA buses or by walking.

All attendees mentioned that walking through their respective complexes can be difficult due the large size of the properties. Some of the residents felt that crossing Easton Road and Cheltenham Avenue (as well as some other area roadways, such as Washington Lane) can be extremely difficult. The attendees felt that any new service could be beneficial in helping solve these issues.

- **Thoughts on current public transportation options** - The residents of the Towers at Wyncote had very limited knowledge of the available SEPTA services; however, all of the residents had used the shuttle provided by the Towers at some time. They felt that their shuttle service was good for their shopping needs, but that it was limited in its scope. A Lynnewood Gardens resident mentioned that she uses SEPTA services regularly and that she is mostly pleased with the service. She also said that she uses the existing Cheltenham Township shuttle and the shuttle provided by Lynnewood Gardens. The range of transit services meet her needs quite well. She did express some concern that the new shuttle not be used to replace Cheltenham Township's existing shuttle bus service.
- **Description of desired traits of a new shuttle service** - Both groups felt that the potential new shuttle should provide service that minimizes their walking distance. The residents of the Towers at Wyncote suggested that the vehicle stop at the front door of each of the three buildings that comprise the complex, while the resident of Lynnewood Gardens said that most residents would not be willing to walk further than one block to meet the shuttle. Another point expressed by residents of the Towers at Wyncote was the concern that the shuttle bus would cause security problems. In terms of frequency of service, both groups suggested 30 minutes as a maximum. Likewise, both groups agreed that the service should operate from 7:00 AM to 8:00 PM. The residents of the Towers at Wyncote said that the service should only operate on weekdays, while Lynnewood Gardens residents said that the service should ideally operate seven days a week, but at least offer service Monday through Saturday.

Everyone felt that the service should be free for seniors to use, and cost no more than a ride on a SEPTA bus (\$2.00). Everyone also agreed that the service should be

much more personal than what SEPTA offers, suggesting that the vehicle should loop through area shopping centers and provide more door-to-door service.

- **Likely use of new shuttle service** - All of the attendees mentioned that they would at least use any new Cheltenham Township shuttle service on a trial basis to see for themselves what the service offers. Similarly, everyone expressed some concern as to what destinations the shuttle would ultimately serve. A few of the attendees suggested expanding the service, either into Abington, or having it go further east on Cheltenham Avenue.

Arcadia University Employee Focus Group - To gain another perspective of transit needs generated by Arcadia University as well as capture the views of staff and faculty members, a focus group was held on September 9, 2008, in the Landman Library. Ten staff and faculty members attended this focus group and the insights gained from these individuals proved valuable and provided another reference point on potential demand and the necessary attributes of a shuttle service.

The focus group lasted approximately 75 minutes, which provided ample time for the group to respond to specific prepared questions, as well as allowed time for the participants to expand the conversation into related topics. The consultant team prepared nine questions for the focus group, providing a structure for the discussion; however, the moderator allowed the participants to raise topics and make points beyond the prepared question to gain further insight into the needs of both the focus group members and the student body, by proxy. The questions ranged from an assessment and knowledge of the current available public transit services in Cheltenham Township to suggested destinations and attributes for a successful trolley program.

This section presents the responses of Arcadia University staff and faculty members provided during the focus group. It is important to note that some details that follow can be attributed to the whole group, while others are only the thoughts of one or a few individuals. Another point to make is that the views are subjective and reflect attitudes and perceptions. None of the participants currently use public transportation to get to their jobs. Some of the participants use SEPTA's regional rail service to occasionally travel to Center City, while others had no recent experience using public transportation.

- **Terms that best describe Cheltenham's current public transportation system** - To gather a sense of the focus group's perception of public transportation, the moderator first asked the group to provide some terms that they felt described public transportation in general. Most of the participants agreed that they had a difficult time knowing which SEPTA bus services were available and how to ride the system. The overall view was that considerable service was offered, but not adequate in terms of service for students, specifically pointing out that there is no late night service for

the students to use. One participant indicated that she often hears stories of students missing the last service towards Arcadia University from Center City Philadelphia and that those students either have to call a friend or hail a cab.

While the focus group participants felt that the rail services provided at the Jenkintown Station is excellent, they also mentioned that fares are too high, especially for students. One of the participants said that SEPTA's fare system is complicated and suggested that the system should be easier to understand. This individual also suggested that it is difficult and expensive for occasional users of the SEPTA system. This reflected the fare structure oriented to distance-based zones and time of day differentials with no discounted pass system for infrequent users. A few of the attendees said that transfers to other routes can sometimes be intimidating because when getting off one vehicle, the rider does not know the schedule of the next vehicle (e.g., don't know if they just missed the connecting service.)

- **Knowledge and awareness of the current public transportation system in terms of what services are available and arrangements for providing service** - The attendees suggested that most of the student body was confused by the information that SEPTA provides, especially on the SEPTA website – a theme that would be repeated during the focus group discussion. They also felt that many students, staff and faculty members do not use SEPTA services because what is available is just not convenient. Additionally, one person mentioned that the afternoon peak period buses (e.g., Route 77) are overcrowded by the time they reach the study area. Often overcrowding is so severe that some patrons cannot board the bus are left behind to wait for the next bus.

One participant said that about 50 to 60 percent of the student body, and possibly more, travel abroad for a semester and become accustomed to using public transportation. This person went on to say that these students return to campus in Cheltenham Township looking to continue using public transportation, but do not become riders because of the lack of frequent service.

- **View of performance of current bus system in terms of vehicles, operations, and public information/marketing** - The focus group agreed that the SEPTA bus service is only satisfactory, but at the same time praised the regional rail system. They also agreed that SEPTA has a negative image which will need to be overcome to gain riders from Arcadia University staff, faculty and students.

The attendees again mentioned that SEPTA's website was hard to understand and navigate, especially with respect to fare information. They also specifically said that the trip planner on the website is very difficult to use and understand. The group also

suggested that SEPTA needs to publicize their services to Arcadia University students by having regularly updated schedules at stops and on campus.

- **Who are the current users of the public transportation system?** - The participants suggested that a majority of the area's public transportation users are people living in Philadelphia who are traveling into the suburbs for work or shopping, pointing specifically towards people who live in the West Oak Lane, Mount Airy and Olney sections of Philadelphia.

They also suggested that there are some local commuter students and employees who do utilize SEPTA's bus services and regional rail to reach Arcadia University. Additionally, they said that there are a number of students who use the regional rail lines to either get to downtown Philadelphia or Philadelphia International Airport.

- **What is the image of public transportation in the community?** - The group offered different views on the image of public transportation that is provided by both SEPTA and Cheltenham Township. They believe that the students are confused about what services are available and would meet their needs. They also felt that the cost of the service to the students is prohibitive. Students also fear being stranded downtown during late evening hours.

The participants agreed that the Cheltenham Township Bus does not provide frequent service to desired destinations that meet student needs. They viewed this as logical since the service is oriented to elderly residents in the community as reflected by service span and fares charged.

The attendees agreed that in order for SEPTA to overcome its negative image, SEPTA has to create services that are more attractive to the students with much more frequent service (e.g., Route 77) and provide a discount program for students. These results would suggest that any new service should have a unique brand and offer frequent service with attractive fares to students and others in the Arcadia University family.

- **What are the target markets (locations, groups and trip purposes) for a new trolley service?** - The attendees mentioned that the students would be the primary target market for the proposed shuttle bus service, noting a few different reasons for their use. One group would be local commuting students who could connect to the shuttle bus at the Glenside Station after arriving in the area via SEPTA's regional rail service. Another group of students who would use the service would be students who live far away and occasionally go home for holidays or other purposes.

Still another group of students would be those who want to visit Center City and not have to drive. The participants also suggested that there are Arcadia University students who student teach in the Cheltenham School District who could use the service, as well as students who could use it for any of the available community service initiatives run by Arcadia University. There are also a number of students who have jobs off campus who could use the service to get to and from their jobs.

Many of the participants mentioned that a high percentage of the student body returns home during the weekends because of the lack of things to do on and around campus. Arcadia University is actively attempting to change this situation by creating a “late night program”, where Arcadia University is holding Saturday night events with the expectation that students remain on campus during weekends. The first “late night program was recently held, attracting over 350 students. The group agreed that the proposed shuttle should operate early into Sunday morning to support the program. Coupled with extended evening rail service between Cheltenham Township and Philadelphia, these transit efforts could help keep students on campus during weekends.

One participant said that the shuttle bus service could be used by high school students who take classes at Arcadia University during the school year. Another participant mentioned Arcadia University’s “Community Scholars Program” - an initiative that attracts hundreds of people to the campus for special events, lectures and classes (continuing education, non-credit based classes) - as a potential target market. This participant suggested that many of these people would be willing to park at a local shopping center, such as the Cedarbrook Plaza or the Cheltenham Square Mall, and take the shuttle bus to campus because of insufficient parking. These events occur during weekdays and weekends, at various times of the day. Finally, one attendee suggested that people could use the shuttle bus service to reach Arcadia University for sporting events or attend performances held by the Theater Program.

All of the participants felt that any new service for students will have to travel outside of Cheltenham Township’s borders in order to attract students. Participants noted that many students want to go to the Willow Grove Mall, Keswick Village and various areas within Philadelphia such as Chestnut Hill. They suggested that in order for the service to succeed, it needs to have a more regional scope and coverage.

- **What are the necessary attributes for a successful program including walking distance, routings, frequency, span, fares, vehicles and other physical elements (amenities)?** - Because the campus at Arcadia University is relatively small, everyone agreed that walking distance should not be a problem, suggesting that two or three stops on or near the campus would be sufficient for the student body, staff

and faculty. Some of the suggested stops on or near campus included the Castle, the Oak Summit Apartments and at the intersection of Limekiln Pike and Easton Road. One participant did say that crossing both Limekiln Pike and Easton Road can be very dangerous, noting that every year at least one or two students gets struck by a car.

In terms of a necessary frequency for the service, people suggested that 20 to 30 minutes would be sufficient, recognizing that the service area is rather small. Some of the participants said that the frequency should change depending on the time of day.

Everyone agreed that it was important to operate the service seven days a week, so it becomes something that the students can depend on for a variety of trips. One participant suggested operating through the campus with less service on the weekdays and more service on the weekends, when students have more free time and are looking for things to do and places to go. Another person said that the service should operate during the times when local stores, restaurants and bars are open, and to have service later into the evening hours during the weekends. Generally, everyone agreed that service starting at 10:00 AM and ending at 8:00 PM would serve the needs of most students.

Without exception, the focus group agreed that the fare should not be more than one dollar and suggested that Arcadia University students, staff and faculty should either be provided a free trip or a discounted fare. One person suggested having a small fee as part of the student tuition, which would allow students to ride the shuttle bus without paying a fare when boarding.

While the participants liked the idea of a trolley as the vehicle, they were more concerned about the accessibility of the vehicle than the look. The group expressed the view that the vehicle should be small, yet have room for luggage, groceries and other carry-on items that any potential user might have with them.

- **Suggestions for organization, management and funding?** - The group overwhelmingly stated that SEPTA should not manage or operate the service. One person said that the service should be bid out, while another person suggested having the service managed by a smaller transit agency. A few of the participants felt that Cheltenham Township could manage the service, citing the fact that they already provide service to their residents. Similarly, another participant asked if it was possible to eliminate the Cheltenham Township Bus and replace it with this new service. One attendee suggested that Arcadia University should only manage the service if it meets all of their needs, such as going to areas outside of Cheltenham Township.

The participants saw the need for Arcadia University to help fund the bus service, since the students, staff and faculty could become a major generator for the shuttle service. They also felt that advertising on the bus and at the stops could help generate additional revenue; however, they urged that all advertising be vetted for appropriateness.

- **Other desired transit improvements?** - The group suggested the need for increased safety measures for pedestrians walking along Limekiln Pike and Easton Road, noting that there are a couple places where sidewalks are needed. Additionally, the group asked for more convenient SEPTA service, although they also mentioned that increased SEPTA service along the Easton Road corridor would duplicate this potential service.

The discussion above provides the views of various members of the Arcadia University family. The participants of the focus group were not regular transit riders and they drew distinctions between SEPTA's bus and rail service. They also suggested unique requirements of students that any new bus service should address.

Intercept Surveys

Intercept surveys were conducted to gain input from Arcadia University students, transit users at the Glenside Station and the Ogontz Loop, shoppers at the Cedarbrook Plaza and the Cheltenham Square Mall, and pedestrians along Easton Road in the Glenside Business District. The questions for each intercept survey were similar in nature to those used in the stakeholder interviews and during the focus group meetings.

Arcadia University Students - The Arcadia University intercept surveys were held on Tuesday, April 22 and Thursday, April 24, 2008, at four campus locations – the Landman Library, the Chat snack bar, the Kuch Gymnasium, and the dining hall. Over the course of the two days, 103 students participated in the intercept survey process.

Students were asked to identify their residential location, how they get to and from school, if they had ever used SEPTA service and for what reasons, what their typical trips off campus are, their desired attributes for a new service, and whether or not they would consider using a service with the attributes that they suggested. The following provides a summary of the students' responses.

- **Residence location** - The first question that the students were asked was where they live, either on or near campus, or if they commute to school. Of the 103 interviewed students, 69 percent mentioned that they live on or near campus, while the other 31

percent of the students said that they live at home and commute daily to school. The most frequently cited residence location of the students who live on or near campus was the Oak Summit Apartments with 37 percent of those interviewed. That was followed by Knight Hall (16 percent), Heinz Hall (13 percent), and Dilworth Hall (11 percent). The 31 percent who commute to campus came from many different areas - all within a reasonable distance from the Arcadia University campus - with the most responses coming from those who live in Northeast Philadelphia (26 percent).

- **Mode to and from campus** - The students were then asked to provide their mode of transportation to and from campus. Nearly all of the survey participants who live on or near campus normally walk to get to their classes (61 percent). Of that population, 16 percent owns a car, but walk to class; 18 percent walk or drive, depending on the weather; and two percent walks or takes the bus to get to campus. Nearly all of the commuters surveyed drive to campus (94 percent), while one person (three percent) either drives to campus or takes a bus, and another person only takes the bus.
- **Campus arrival and departure time** - The most popular time period when students arrive on campus is between the hours of 8:00 AM and 10:00 AM, which is when 80 percent of the survey respondents arrived. The period of time between 3:00 PM and 7:00 PM is when a majority of the survey respondents left school (75 percent).
- **Do you ever use SEPTA bus and commuter rail lines? If so, for what purpose and how often?** - The survey participants were questioned on their use of SEPTA service, and if they had used SEPTA, what they were using it for. A majority of the students who were surveyed said that they had used SEPTA service (67 percent), while 33 percent said that they had not. Of those students who had used SEPTA service, 53 percent were using SEPTA's regional rail service to go to Center City – either to visit the downtown clubs, shop in Center City or on South Street, or to reach the Market Street East or 30th Street train stations to transfer to other trains to continue their trip home.

Other popular destinations using SEPTA buses include the Willow Grove Park Mall (ten percent) and the Walmart in the Cedarbrook Plaza (eight percent). A number of those students who had used SEPTA said that they only use it occasionally (64 percent), while others used it once a week (19 percent) or two times a week or more (12 percent).

- **What is your overall perception of public transportation?** - Students were asked to provide their views on the public transportation that is available to them. The survey team received 89 opinions pertaining to public transportation. Of those comments, 53 percent were negative in nature, 34 percent were positive, while

another 13 percent were neutral. Of the negative comments, the most often cited comment was that SEPTA is expensive, a comment cited 36 percent of the time. Other comments included the fact that service is not convenient (13 percent), not frequent enough (11 percent) and that service needs improvement (11 percent). The positive opinions include service is good (53 percent) and that the service is good for those who need it (13 percent).

Out of the neutral responses, 67 percent said that service is just “OK”, with little if any explanation. These responses combined with those who did not offer an opinion would suggest potential for some ridership with active marketing and promoting. Obviously, the negative views would take considerable activity to overcome. Also, the comment about SEPTA fares is informative regarding fares for a proposed shuttle bus service.

- **What are your typical trips?** - The students were asked to provide information on the typical trips they make off campus for any purpose and what mode of transportation they use to get to their destinations. A total of 18 unique trip destinations were mentioned of the 127 responses provided. The most frequently cited trip destination was the Willow Gove Park Mall, where 33 percent of the students mentioned that they visited at least once recently. Other popular destinations include the area grocery stores (18 percent), the Cedarbrook Plaza/Walmart (15 percent), Philadelphia (six percent), Glenside (five percent), and the Cheltenham Square Mall (four percent). Most of the students going to these places either drove their own car (49 percent) or rode in a friend’s vehicle (20 percent), while another 25 percent said that they had used public transportation to reach their destination.
- **Necessary attributes of a new shuttle service** - The students were then asked to describe an ideal service for their needs in terms of how far they would be willing to walk to get to a shuttle bus stop, how long they were willing to wait for the vehicle to come (frequency), what hours and days the shuttle should operate, and what fare they deem reasonable. Most of the students felt that with the dimensions of the campus being compact, a short walk would best suit their needs, with 77 percent suggesting that one, two or three blocks is an acceptable walking distance. A majority of the students then went on to say that a ten to 20 minute frequency would work best for shuttle service to and from the Arcadia University campus (66 percent); however, 22 percent of the students said that the frequency should be between 30 minutes to one hour.

Many of the students felt that service should begin between the hours of 8:00 AM and 10:00 AM (63 percent), while they felt that service should end somewhere between 8:00 PM and Midnight (66 percent). Additionally, 15 survey respondents felt that

hours should be extended during evening weekend nights (i.e., Friday and Saturday) to allow for students to ride the bus to the local restaurants and bars. The students were split between three options for which days the new service should operate: 36 percent of the students said the service should operate seven days per week; 22 percent suggested that service be offered Monday through Saturday; and 20 percent mentioned that service should only run Monday through Friday. Others mentioned days of operation including Thursday through Sunday, Friday through Sunday, Thursday through Saturday and weekends only.

The results suggested for cost per trip (i.e., fare) were nearly equally divided, with 33 percent saying that two dollars per trip was a reasonable fare (equal to a one way cash fare on SEPTA buses and trolleys). Another 28 percent of the surveyed students said that service should cost no more than one dollar per trip, while 16 percent said that any new shuttle service that operates through the campus should be free for students. A number of students suggested that the new service have some sort of monthly pass program, while other students suggested having the service paid for through a fee when they pay their tuition.

- **Would you likely use this service?** - Over three fourths of the interviewed student population said that they would use the service (62 percent) or maybe use the service (20 percent), while only 18 percent of the students said that they definitely would not use the new service. It should be remembered that these types of queries represent non commitment responses where people do not always do what they indicated in a survey. Research has demonstrated that actual use is far less than the positive responses by students.

One interesting situation learned during the intercept survey process at Arcadia University is that over half of the student body goes home for the weekend. This limits the number of trips students make on weekends. Some indicated that they shopped while at home, which also reduced the extent of local trips.

Transit Users - The intercept surveys at the Glenside Station and the Ogontz Loop were completed on Thursday, May 29, 2008. There were 73 transit users interviewed at the Glenside Station and Ogontz Loop over the course of four hours - one hour per peak period in the morning at each location and another hour in the peak period in the afternoon.

The transit users were asked to identify their mode of transportation to the respective transit hubs, their residence location, desired attributes for a new service, and whether or not they would consider using a service with the attributes that they suggested. The following provides a summary of the transit users' responses.

- **Mode of transportation to transit hub** - At the Glenside Station, 34 people were interviewed over the course of the two, one hour periods, 19 people during the AM peak period, and 15 people during the PM peak period. The mode of transportation to the station was split as follows: 56 percent drove their vehicles to the station and parked there to meet the train; 26 percent were dropped off by someone else; 15 percent walked to the station; and three percent took another SEPTA transit service to connect with the train.

The consultant team spoke with 39 transit users at the Ogontz Loop - 21 people during the morning peak period, and 18 during the afternoon peak period. Passengers using the Ogontz Loop walked (59 percent), got dropped off (eight percent), or used another SEPTA service (33 percent) to get there. Additionally, SEPTA passengers at the Ogontz Loop were asked to provide their ultimate destination: 67 percent of the survey respondents were going to work; 18 percent were going shopping; five percent were going to a doctor's appointment; and ten percent were using SEPTA for other reasons.

- **Residence location** - Of the 34 people interviewed at the Glenside Station, 62 percent lived in Cheltenham Township, 35 percent lived in Abington Township, and three percent lived in Philadelphia. Further queries of the Cheltenham Township residents show that 52 percent live in the Glenside area, 29 percent live near the Limekiln Pike corridor, 14 percent live near Cheltenham Avenue, and five percent live near Washington Lane.

Philadelphia represented the largest percentage of SEPTA passengers at the Ogontz Loop, with 79 percent of those interviewed, while 18 percent of the surveyed passengers were Cheltenham Township residents, and an additional three percent were from Abington Township. All of the Cheltenham Township residents at the Ogontz Loop mentioned that they live along the Cheltenham Avenue corridor.

- **Necessary attributes of a new shuttle service** - The transit passengers who were Cheltenham Township residents at the Glenside Station and the Ogontz Loop were then asked to describe the necessary service attributes that would create a desirable service. The respondents were asked to give their desired walking distance to the service, the frequency they would expect the service to have, the span of service and days of operation, as well as the fare they felt was reasonable. In terms of walking distance, the Glenside Station survey sample felt that a five minute or less walk (i.e., two blocks) was attractive, with 90 percent of the population mentioning that distance, while ten percent said that they would be willing to walk further. The Ogontz Loop transit users' response was more diverse, with 29 percent of the population saying a five minute walk was desirable, another 29 percent suggested a

ten minute walk, while 42 percent said that they would be willing to walk as long as necessary.

The Glenside Station passengers felt that the service should operate frequently, with 43 percent suggesting 5 minute intervals, 33 percent suggesting 10 minute intervals, and 19 percent mentioning 15 minute intervals. The remaining five percent said that they would be willing to accept headways of 30 minutes or more for the new service. The Ogontz Loop survey respondents were willing to wait longer times for the vehicle, with 71 percent indicating 15 minutes as a suitable frequency and 29 percent stating 30 minutes.

With respect to span of service, the Glenside Station survey sample suggested that the service should begin between 6:00 AM and 7:00 AM (100 percent) and end between 8:00 PM and 10:00 PM (48 percent). The Ogontz Loop transit users suggested a similar start time, between 6:00 AM and 8:00 AM (87 percent); however, these respondents felt that the service should extend later into the evening, ending sometime between 9:00 PM and 1:00 AM (87 percent).

The two transit rider groups offered different opinions on which days of the week the service should operate. The Glenside Station riders indicated that the service should operate Monday through Friday (67 percent), with the Ogontz Loop survey respondents suggesting that weekend service was important for their needs: 57 percent said the service should operate Monday through Sunday, while the other 43 percent suggested that survey operate Monday through Saturday.

The cost per trip also differed between the two survey locations, with the majority of the Ogontz Loop survey participants saying they would be willing to pay \$2.00 per trip (71 percent), while a majority of the Glenside Station respondents suggested that they would be willing to pay \$1.00 per ride (52 percent).

- **Would you likely use this service?** - Both survey populations favored the use of this service, with all of the Ogontz Loop respondents saying that they would use the service, and 62 percent of the Glenside Station survey respondents suggesting that they would also use the service.

Shopping Center Patrons - The intercept surveys at the Cedarbrook Plaza, and the Cheltenham Square Mall were held on Thursday, May 29, 2008. Over the course of a four hour period, 22 shoppers were interviewed outside of the Cedarbrook Plaza, while 26 shoppers were interviewed at the Cheltenham Square Mall.

The shoppers were asked to identify their mode of transportation to the site, their residence location, the typical trips that they make and the mode of transportation that they use for the trips, their desired attributes for a new service and whether or not they would be willing to use a service with the attributes that they suggested. The following provides a summary of the shoppers' responses.

- **Mode of transportation to mall** - The mode of transportation of shoppers at both shopping centers, the Cedarbrook Plaza and the Cheltenham Square Mall, varied slightly. More people drove or relied on public transportation to get to the Cheltenham Square Mall (62 percent and 34 percent, respectively) than the Cedarbrook Plaza (50 percent and 18 percent, respectively). About 32 percent of the respondents at the Cedarbrook Plaza walked while only four percent of the Cheltenham Square Mall survey population.
- **Residence location** - The Cheltenham Square Mall had a nearly even split in terms of its market shed with 58 percent living in the City of Philadelphia, and 42 percent living in Cheltenham Township. A significant majority of the shoppers interviewed at the Cedarbrook Plaza lived in Philadelphia (77 percent). Cheltenham Township shoppers accounted for 18 percent of the survey population at the Cedarbrook Plaza, with an additional five percent drawn from Abington Township.
- **Typical trips and mode of transportation** - The shoppers at the Cheltenham Square Mall mentioned the following locations as their other typical trips in the region: Walmart, at the Cedarbrook Plaza (39 percent); Willow Grove Park Mall (27 percent); area grocery stores (18 percent); Center City Philadelphia (seven percent); doctors or hospital visits (seven percent); and area banks (two percent). To make these trips, respondents indicated that they drove 59 percent of the time, rode public transportation 27 percent of the time, got a ride from a friend nine percent of the time and walked five percent of the time.

Cedarbrook Plaza shoppers mentioned similar regional destinations as those shoppers at the Cheltenham Square Mall: Willow Grove Park Mall (28 percent); area restaurants and bars (23 percent); area grocery stores (16 percent); Center City Philadelphia (nine percent); doctors and hospital visits (six percent); Walgreens (six percent); Value City (six percent); Jenkintown (three percent); and area religious locations (three percent). Public transportation was far more prevalent as the travel mode for this group of people, with 65 percent saying that they use some form of public transportation to make these other trips. Another 25 percent said that they drove to make these trips, while ten percent said that they walk.

- **Necessary attributes of a new shuttle service** - As with the previous intercept surveys, the survey sample from the two Cheltenham Township shopping centers were asked to describe attributes for an ideal service, including walking distance to meet the vehicle, frequency, span of service and the fare charged. The results from these questions are presented below.

In terms of walking distance, a majority of the survey respondents from both shopping center locations indicated that would be willing to walk for about ten to 15 minutes (65 percent at Cheltenham Square Mall and 78 percent at Cedarbrook Plaza). These are relatively lengthy walking distances.

The suggested frequencies varied by location, with 59 percent of the Cheltenham Square Mall survey group suggesting 15 minute frequencies and 23 percent suggesting 30 minute frequencies. The remaining 18 percent was split between five and ten minute frequencies. The Cedarbrook Plaza survey had 50 percent suggesting a 30 minute frequency, 32 percent said that 15 minutes would be suitable, while the remaining 18 percent was split between five and ten minute frequencies.

The survey respondents from both locations offered similar span of service suggestions. The Cheltenham Square Mall respondents felt that daily service should start between 7:00 AM and 10:00 AM (82 percent), and conclude between 9:00 PM and 10:00 PM (65 percent). Many of the people indicated that the service should operate during store hours, with trips at the beginning and end of the daily service day that can take shopping center workers to and from their jobs. Cedarbrook Plaza respondents offered similar comments, and suggested that service begin between 7:00 AM and 9:00 AM (86 percent), and cease daily service between 8:00 PM and 10:00 PM (86 percent). Additionally, many people said that service should run later on Friday and Saturday nights to accommodate people who want to go out to local restaurants or clubs.

Most of the survey participants from both shopping centers said that some level of weekend service should be available. Of the Cheltenham Square Mall survey respondents, 71 percent said that service should operate Monday through Saturday, with another 23 percent suggesting that the service runs seven days per week. Cedarbrook Plaza shoppers had a greater proportion wanting seven day service, with 68 percent of the respondents asking for that level of service. A few of the respondents suggested that they would take the proposed shuttle to church and to go grocery shopping on Sundays. An additional 27 percent from the Cedarbrook Plaza said that service should operate Monday through Saturday.

The recommendations for fare varied by location; however, all of the survey participants from both locations suggested that service should not cost more than a one way trip on a SEPTA bus. The Cheltenham Square Mall shoppers were willing to pay \$2.00 (47 percent), \$1.00 (29 percent) or \$0.50 (six percent), with an additional 18 percent suggesting that the service should be free. The Cedarbrook Plaza respondents felt that \$1.00 per trip was more reasonable with 64 percent of that group suggesting that fare; however the other 36 percent said that \$2.00 per trip was reasonable. A few people from both locations additionally mentioned that service should be free for senior citizens and persons with disabilities.

- **Would you likely use this service?** - Likely use of the new shuttle bus service also differed between the two shopping centers, with 77 percent of the Cheltenham Square Mall survey participants suggesting that they would at least try out the service, as opposed to 41 percent of the Cedarbrook Plaza respondents. The difference between the two locations is likely a function of the mode of transportation that the survey respondents usually use. As previously mentioned, there was a higher population of public transportation users at the Cheltenham Square Mall (34 percent) than the Cedarbrook Plaza (18 percent).

Glenside Business District Pedestrians - The intercept surveys for the Glenside Business District were held on Friday, July 11, 2008, with 21 pedestrians along Easton Road being interviewed. These pedestrians were asked the same questions as the shoppers at the two Cheltenham Township shopping centers. The following summary provides their response.

- **Mode of transportation to the Glenside Business District** - The pedestrians interviewed along Easton Road primarily drove (47 percent) or walked (43 percent) to get there. One person did bike there and one other person arrived in the retail area by taking SEPTA Route 22.
- **Residence location** - A majority of the survey group (62 percent) mentioned that they were from Cheltenham Township. Other responses include Abington Township, with 28 percent, the Borough of Jenkintown, with five percent, and Springfield Township, also with five percent. Of the people who said they were from Cheltenham Township, three people were living on or near Easton Road, three were living in the vicinity of Glenside Avenue, three were from Limekiln Pike, two were from the Church Road area, and one each from the Waverly Road and the Keswick Avenue areas.
- **Typical trips and mode of transportation** - The most commonly cited trips that the Easton Road pedestrians made were to the area grocery stores (25 percent) and area banks (25 percent). Also mentioned was the Willow Grove Park Mall (18 percent),

the area restaurants and clubs (16 percent), Walmart at the Cedarbrook Plaza (nine percent), and the Keswick Avenue area (Keswick Village) in Abington Township (seven percent). In order to make these trips, the survey respondents either drove (76 percent) or walked (24 percent).

- **Necessary attributes of a new shuttle service** - As with the other intercept surveys, respondents were asked to suggest the attributes that will help create, in their mind, an ideal service. The summary of the Glenside Business District's pedestrians follows.

All of the respondents suggested that they would be willing to walk only a short distance, with all respondents suggesting a range from five to ten minutes. Nearly all of this survey population felt that the frequency of the service should be between 15 to 20 minutes (81 percent), with the other 19 percent suggesting that service should be offered at ten minute intervals.

In terms of span of service, the Easton Road pedestrians felt that services should begin between the hours of 9:00 AM and 12:00 Noon (71 percent), and suggested that service stop between the hours of 7:00 PM and 9:00 PM (75 percent). A 52 percent majority of the respondents felt that evening hours should be extended during the weekends (i.e., Friday and Saturday nights). As for the days of operation, 57 percent felt that the service should just operate on the weekdays, 29 percent said that service should continue through Saturdays, while 14 percent suggested that service operate seven days per week.

The most often cited fare per trip was \$2.00, with 48 percent of those responding citing that price. Another 33 percent said that they would pay \$1.00 per ride, while 14 percent felt that the service should be free to all Cheltenham Township residents. The remaining five percent said that service should cost \$0.50. One person asked if it would be possible to have some sort of pass system that would allow transfers to SEPTA routes.

A majority of the survey respondents indicated that in order for a new service to succeed, the service must differentiate itself from the available SEPTA services. Many people felt that the look and feel of a vintage trolley would help provide the service with a positive image. Another person commented that Cheltenham Township should allow advertising on the vehicles so that no tax money is used to pay for the new service.

- **Would you likely use this service?** - The survey response to this question was nearly evenly divided, with 57 percent saying that they would not use this potential service and the other 43 percent suggesting that they would use the service. Some people felt

that there was already sufficient bus service along Easton Road and that adding any new service would only add congestion, while others were more open to the idea. Some comments were made that a new Cheltenham Township trolley service would only enhance the attractiveness of the area.

INITIAL SHUTTLE OPTIONS

Considerable information has been gathered on existing conditions within Cheltenham Township, as well as numerous market research efforts and field views. Based on these inputs, a series of preliminary alignments for a shuttle service has been formulated. These initial options indicate the full range of proposals that could be formulated. In keeping with the iterative process, these alternatives will be screened and a preferred set of alternatives identified and refined, ultimately leading to a single recommended shuttle plan. As noted previously, another alternative is to take no action at this time to provide a shuttle bus service in the study area.

The initial shuttle proposals serve different portions of the Cheltenham Avenue and Easton Road corridors and travel markets, geographical areas and major generators as follows:

- Arcadia University
- Glenside Station
- Glenside Business District
- Wawa
- Cedarbrook Plaza
- Cheltenham Square Mall
- Towers at Wyncote
- Lynnewood Gardens
- Ogontz Loop

Another aspect of the alternatives is that they serve these generators in different ways. In some cases, the alternative has the shuttle bus providing direct coverage to the generator, while in others the vehicle would remain on the primary arterial roadway. For this reason, the options that serve each generator should be viewed as modular in that they could be combined in a variety of ways. Nonetheless, they point out the wide choices in operating a shuttle service. Portions of each alternative could be combined in different ways to create even more alternatives.

The routing alternatives typically have two common features. The first is that the alternatives remain within Cheltenham Township although consideration was given to Keswick Village and other locations beyond the municipal boundaries. This is consistent with a primary objective of the earlier studies and the current analysis which is to contribute to the economic vitality of Cheltenham Township. Another feature of the routing schemes is that they incorporate bi-directional service. Buses operate in both directions on a street that is served by the shuttle route. This makes the route easier to comprehend to riders and avoids circuitous trips

for shuttle bus users. In some cases, one way loops are considered at route terminals to turn a bus for the return trip in the opposite direction.

The alternatives are presented in two steps. First, options are specified that indicates one or more ways that a generator or market could be served. Then these options are combined to indicate the extent of a shuttle bus route and the generators and markets served and thus creating various alternatives.

Arcadia University Service Options

There are two basic options with one having the shuttle bus continue on Easton Road while the other would have the vehicle move on the limited roadway network on campus. In view of the orientation of the campus, diversion from Easton Road may not be necessary. The two options are as follows:

- Arcadia University: No Deviation from Easton Road
- Arcadia University: Through Campus

Figure 15 - Arcadia University: No Deviation from Easton Road

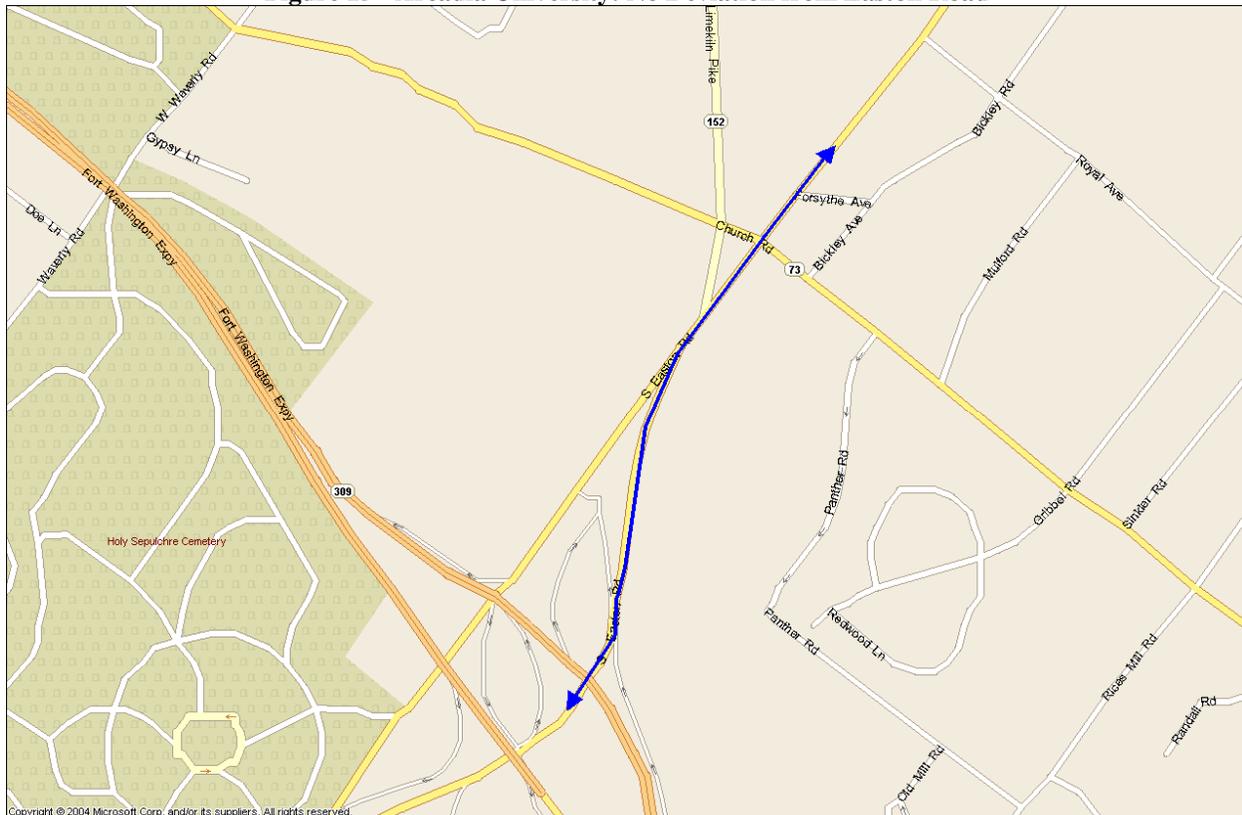
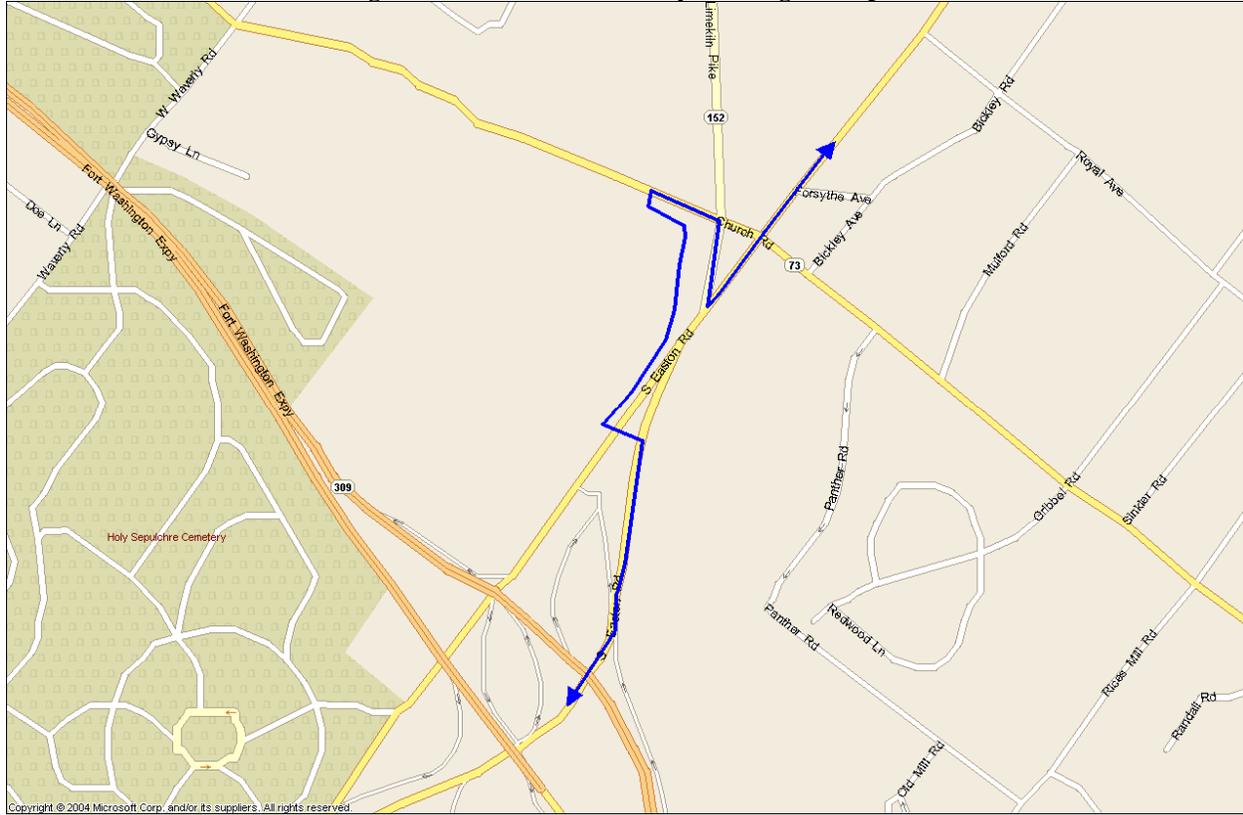


Figure 16 - Arcadia University: Through Campus



Glenside Station/Business District Service Options

Six options have been specified that serve the Glenside Station and Business District and reflect different ways to turn the shuttle bus for the trip in the reverse direction. The proposals also differ in terms of generators served (i.e., Wawa and Jenkintown Station). Obviously, other options could be identified. The six alternatives for the northern route terminus are as follows:

- Lynwood/Waverly/Lismore Loop
- Easton/Glenside/Lynwood/Waverly Loop
- Easton/Glenside/Harrison/Waverly Loop
- Waverly/Lismore/Glenside/Keswick/Wesley/Easton Loop
- Limekiln Pike and Wawa
- Jenkintown Station Connection

Figure 17 - Lynwood/Waverly/Lismore Loop

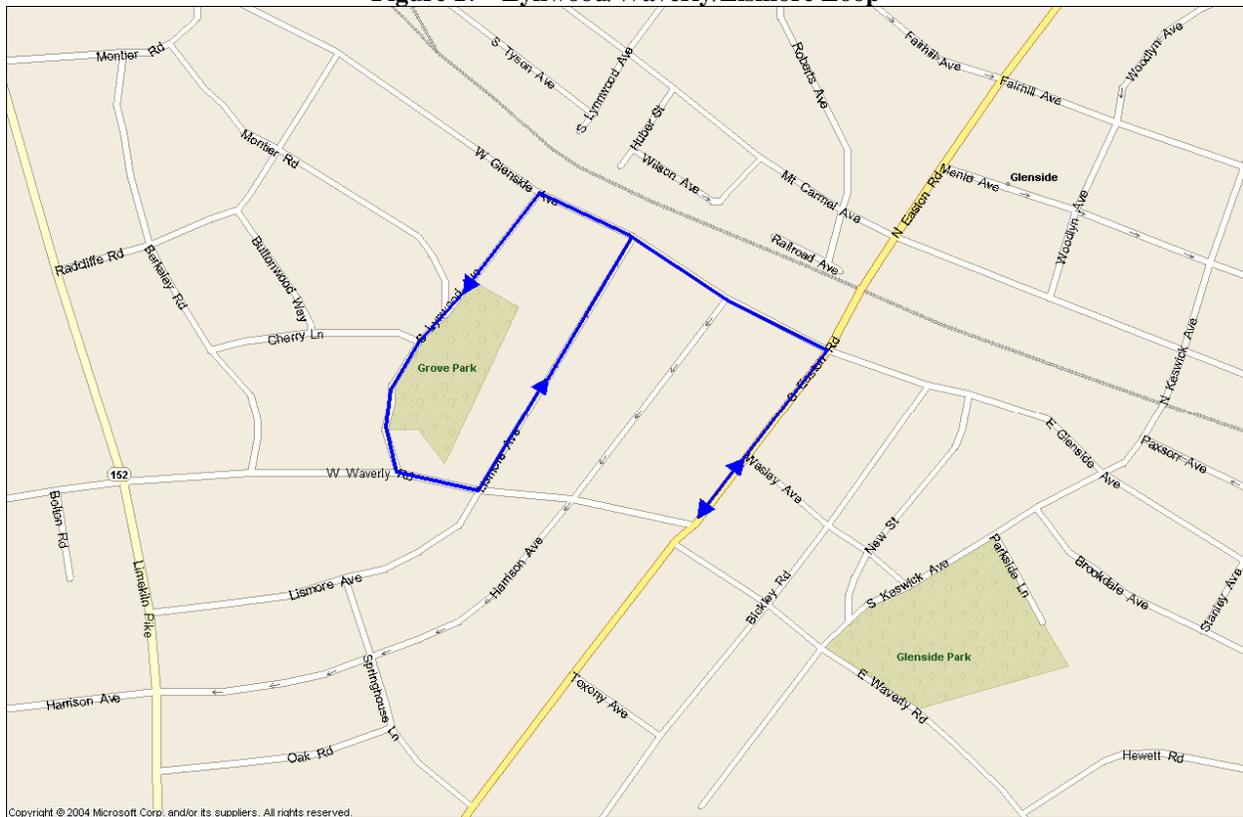


Figure 18 - Easton/Glenside/Lynwood/Waverly Loop

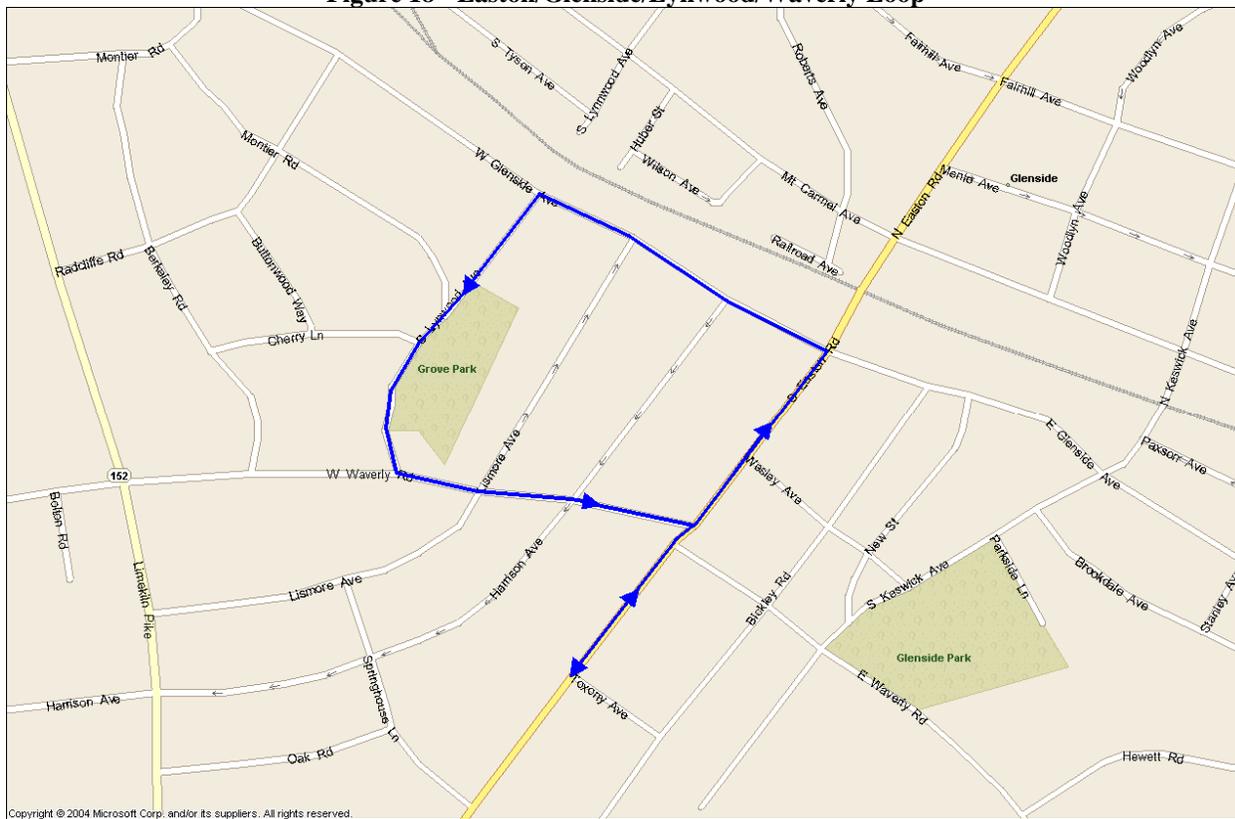


Figure 19 – Easton/Glenside/Harrison/Waverly Loop

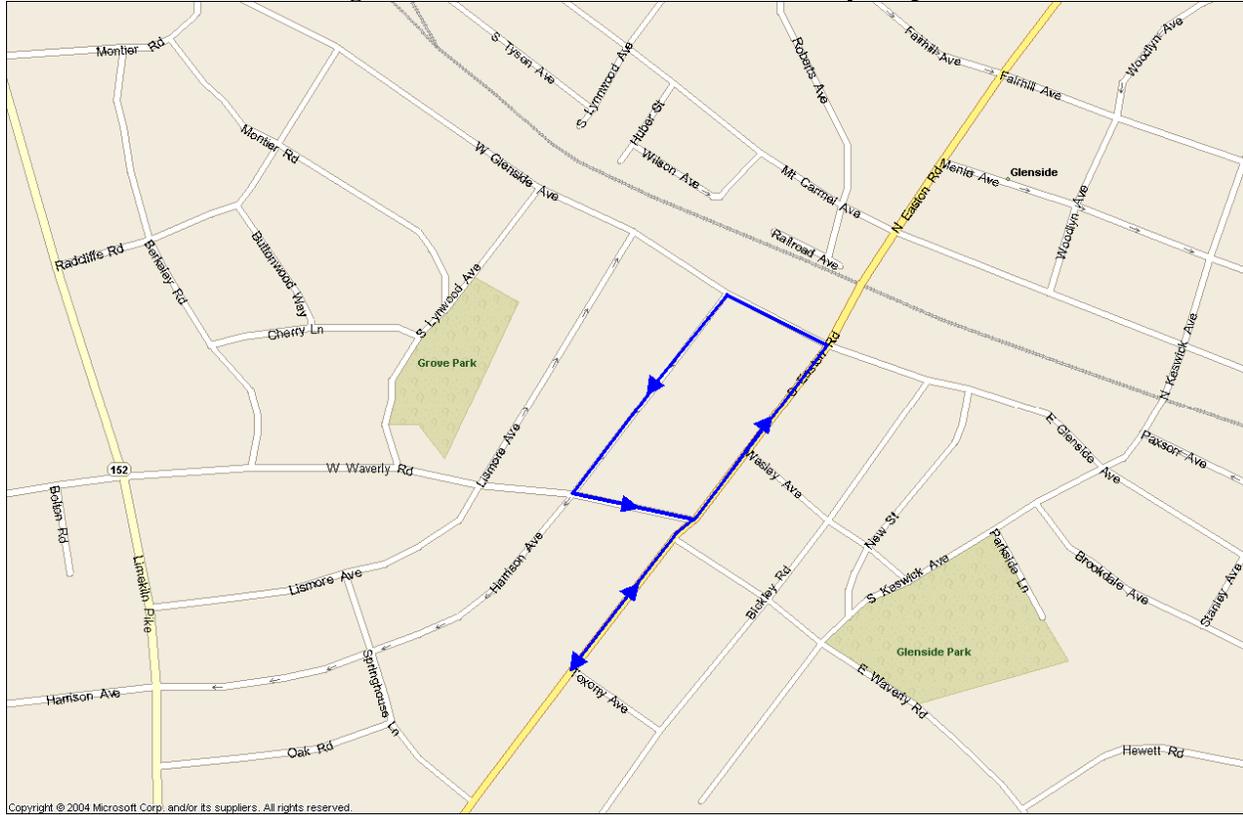


Figure 20 - Waverly/Lismore/Glenside/Keswick/Wesley/Easton Loop

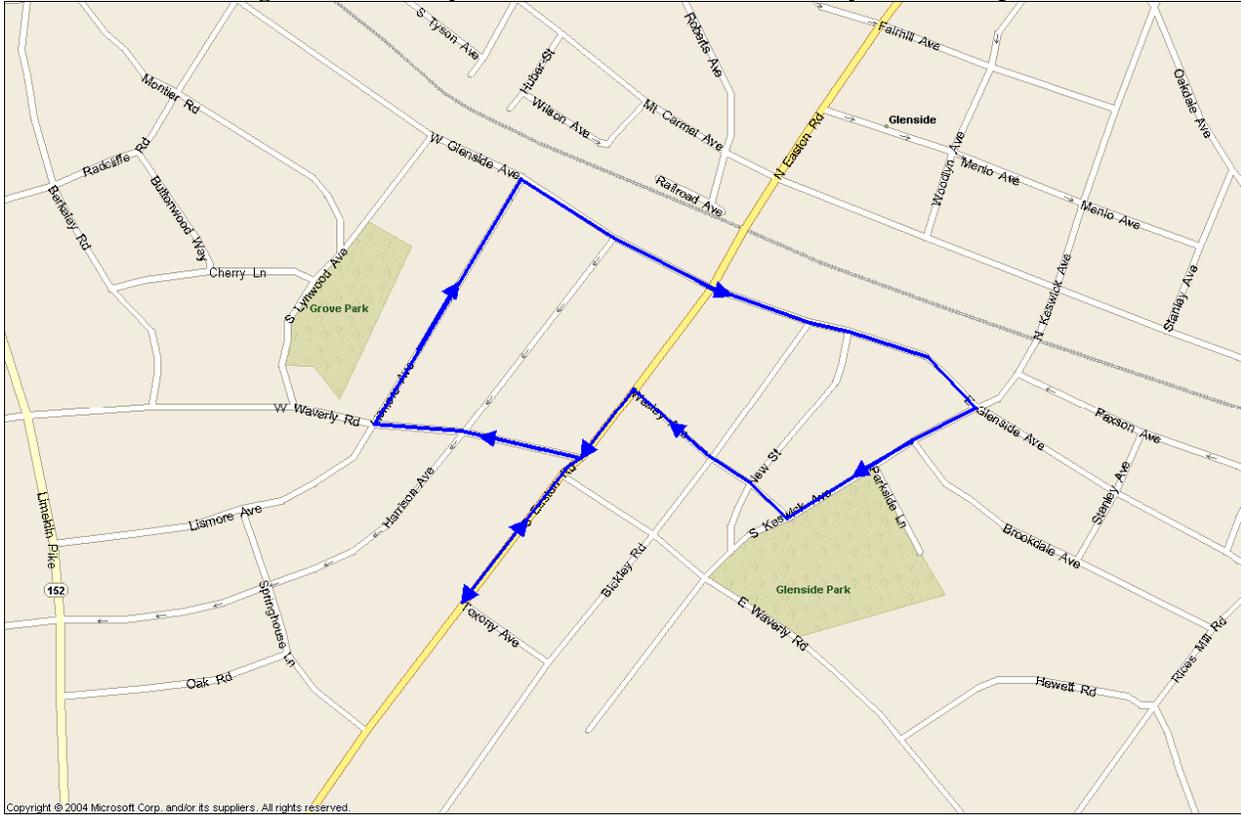
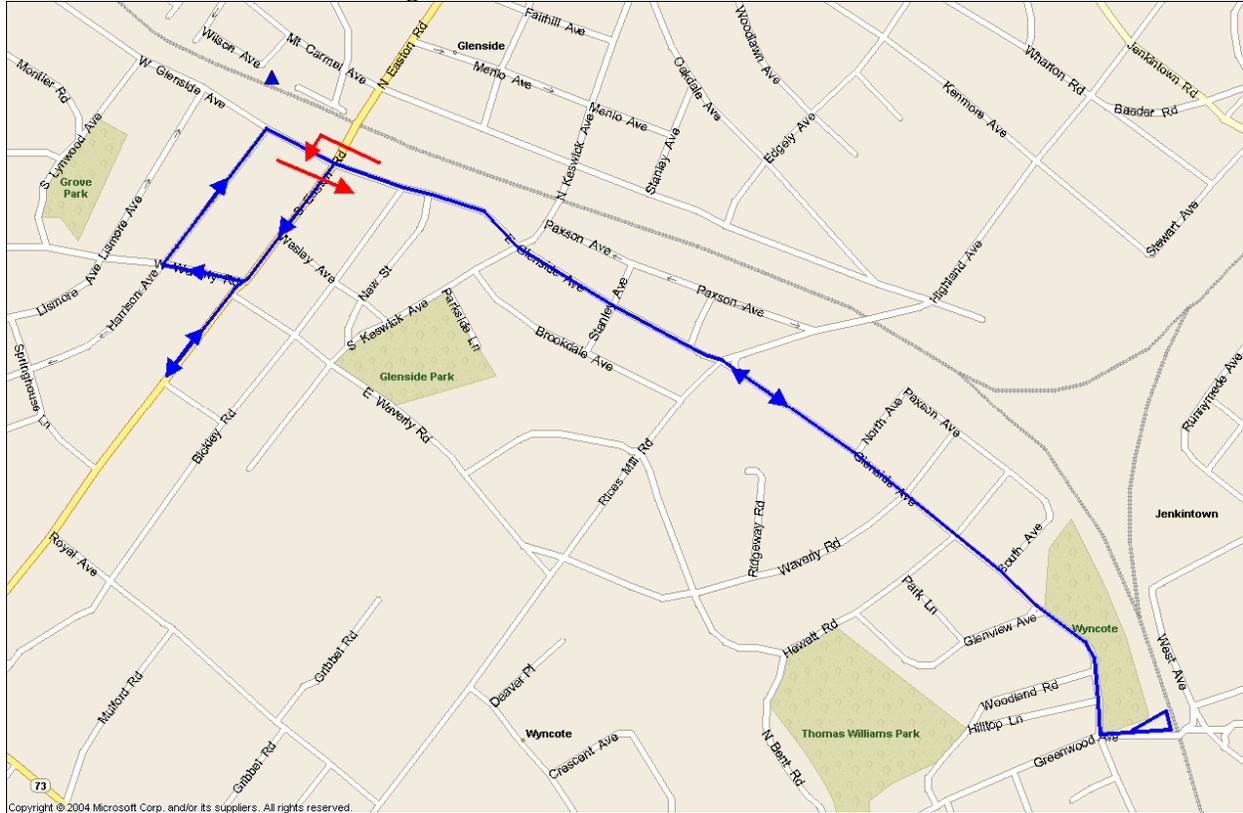


Figure 22 - Jenkintown Station Connection

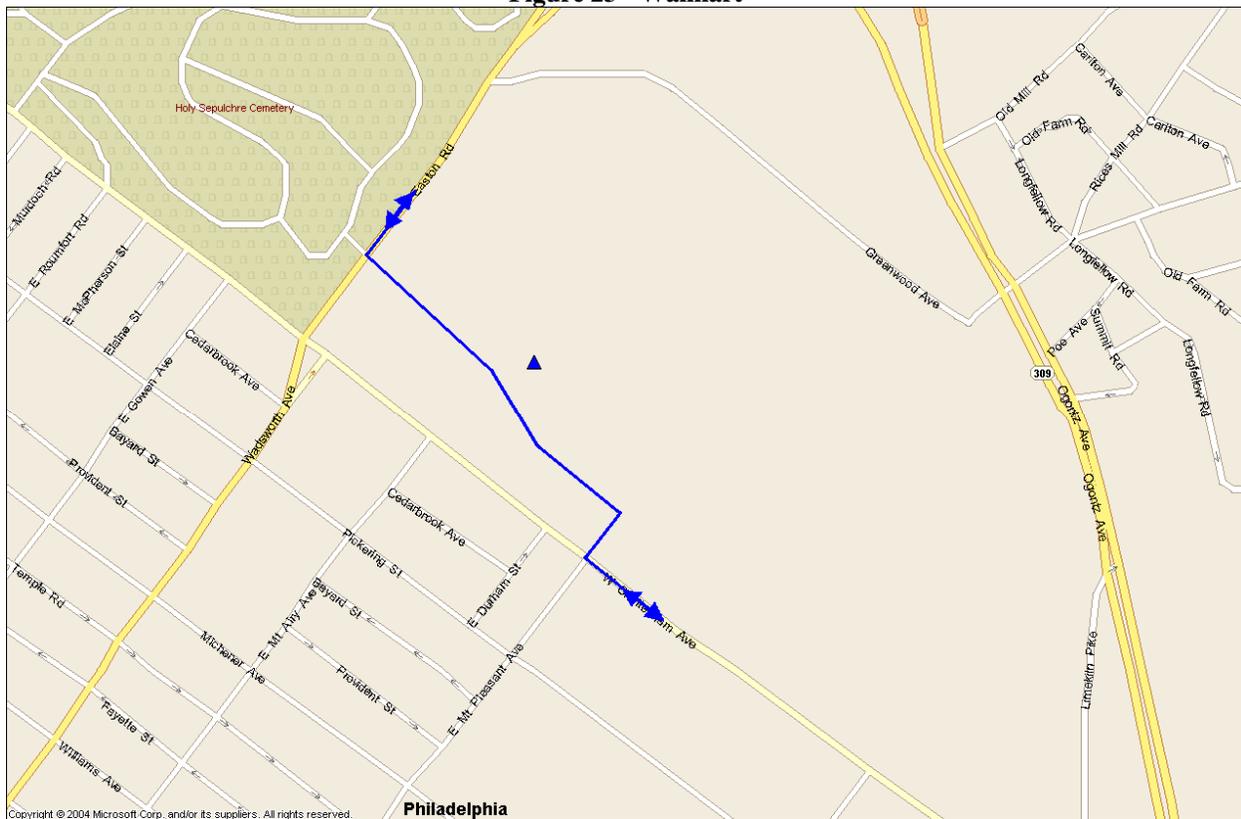


Cedarbrook Plaza Service Options

Two basic options are shown which vary in terms of the alignment through the shopping center. Additionally, the shuttle buses could follow the alignment used by SEPTA buses. The area of the center is sufficiently large to suggest buses divert from the arterial roadways. Also, access is signalized which permits buses to enter/leave in safe way. The two options are as follows:

- Walmart
- Transit Hub and Pathmark

Figure 23 - Walmart



Cheltenham Square Mall Service Options

Three basic options are shown which vary in terms of the alignment through the shopping center and whether access to Lynnewood Gardens is via Williams Way or from Washington Lane. The three options are as follows:

- Mall Entrance, Shop-Rite, Target and Home Depot
- Mall Entrance to Washington Lane Entrance of Lynnewood Gardens
- Mall Entrance to Williams Way of Lynnewood Gardens

Figure 25 - Mall Entrance, Shop-Rite, Target and Home Depot

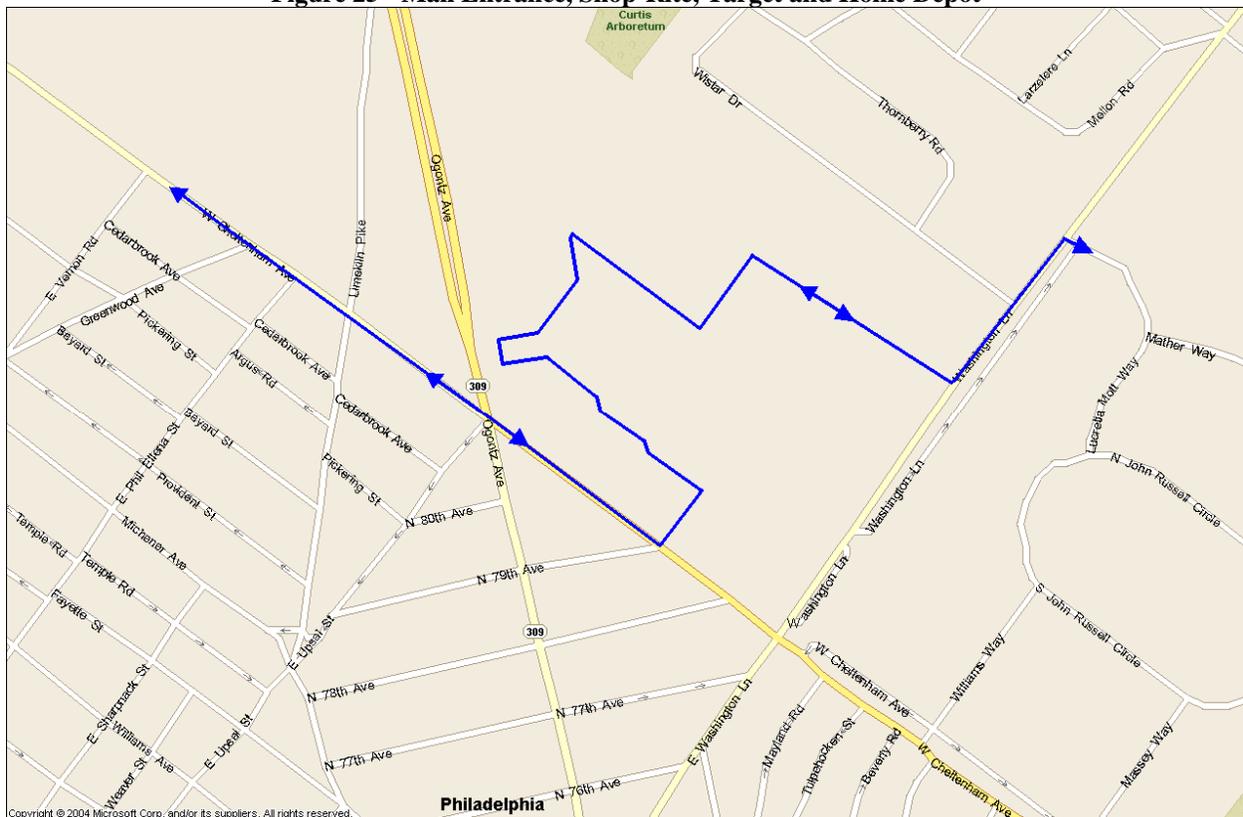
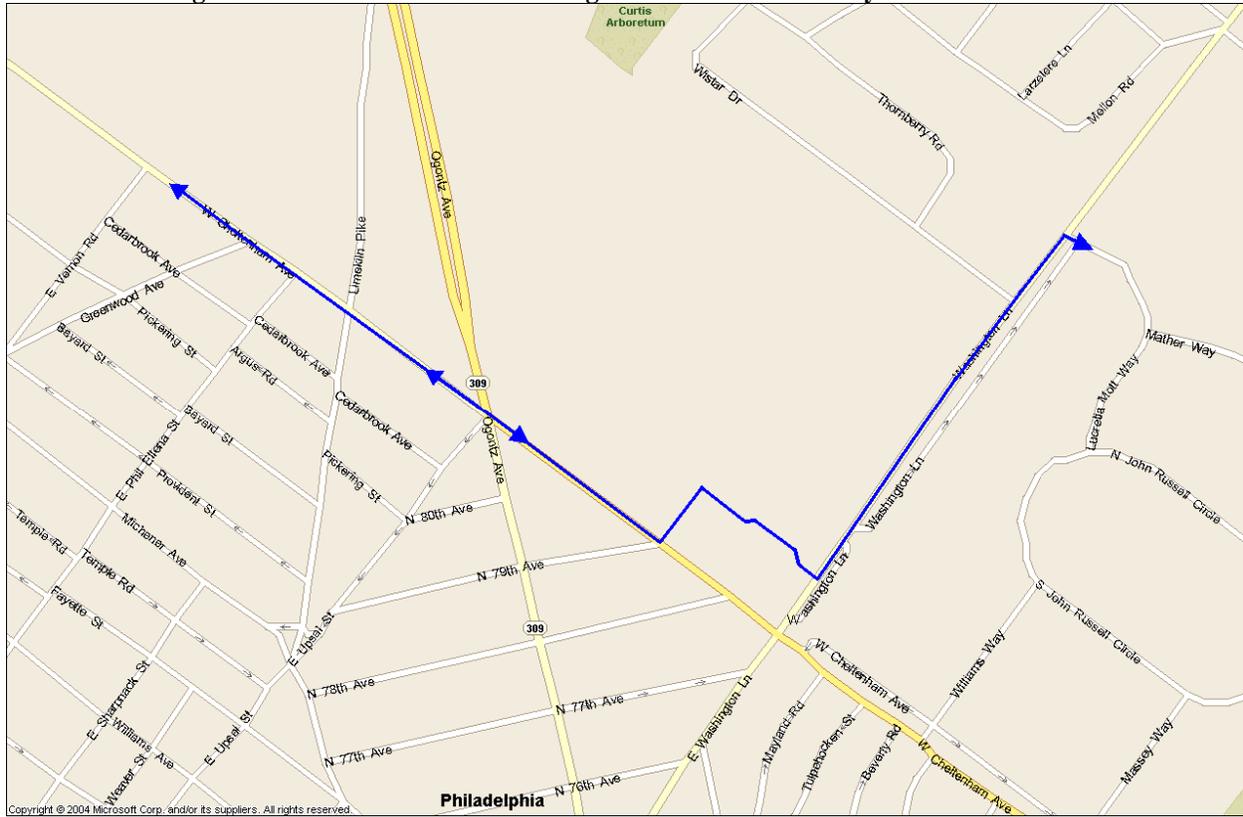


Figure 26 - Mall Entrance to Washington Lane Entrance of Lynnewood Gardens



Towers at Wyncote Options

The Towers at Wyncote includes three high rise residential building which are setback from the street some distance. The front entrance is on Ogontz Avenue; vehicles can proceed to the clubhouse/rental offices and parking area without any controls. Access to the three residential buildings is controlled by a staffed gatehouse. A rear access driveway is along Easton Road and there are currently no security provisions at this location. Discussions with management of the Towers at Wyncote indicate that this entrance will have secured access. Moreover, management has indicated that shuttle buses will not be allowed to proceed past the guardhouse and provide convenient service to each building.

Their suggestion is that buses enter the property from Ogontz Avenue and turn in the parking lot at the clubhouse/rental office. One of the Towers at Wyncote vehicles would collect tenants and bring them to this location. There are two concerns with this approach. The first is that the parking lot is not a suitable location for turning a bus in a safe manner. Second, a forced transfer would be inconvenient to residents, particularly for short trips. Accordingly, it is suggested that no service be operated if access is denied to shuttle vehicles. Residents would have to walk to Ogontz Avenue to reach the shuttle bus. The two basic options are as follows:

- Northbound and Southbound
- Bi-Directional

These options are presented as illustration since they could not be operated with management's decision to deny access to the shuttle bus. The first two alignments are complicated since safe access warrants traffic signal control. The last scheme is easier for riders to understand but does not offer the convenience of the shuttle bus stopping at each building.

Figure 28 – Towers at Wyncote: Northbound Service (Illustrative Only)

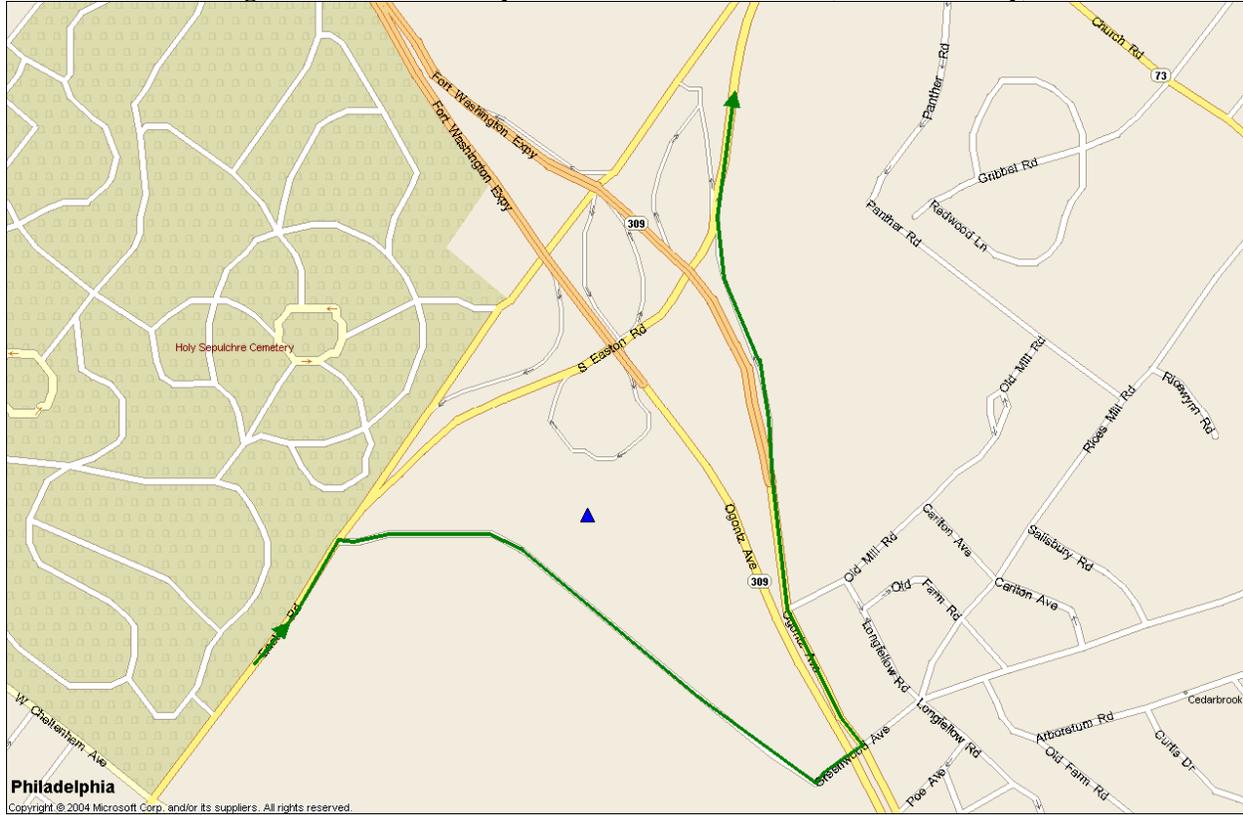


Figure 29 - Towers at Wyncote: Southbound Service (Illustrative Only)

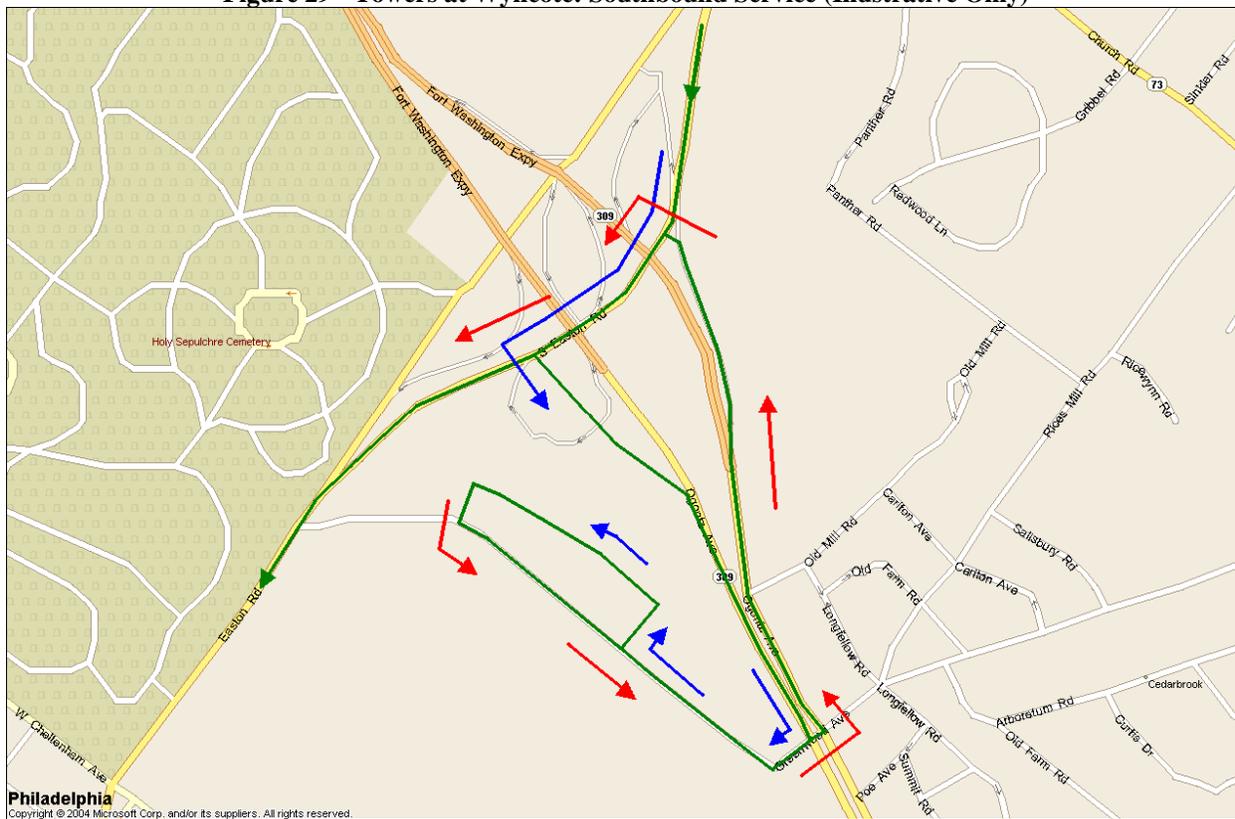


Figure 30 - Towers at Wyncote: Bi-Directional Service (Illustrative Only)



Routing Alternatives

By combining different ways the generators and markets are served as well as the extent of the shuttle bus route, alternative alignments were formulated. For example, many schemes extend from Glenside Station to Lynwood Gardens but differ in the terminal alignments and streets traversed. The objective of these proposals is to serve numerous markets to provide enhanced access and increase the ridership potential. Other alternatives are shorter in length and provide access primarily for Arcadia University students to Cheltenham Township retail centers. Another feature of the alternatives is that most of the options are bi-directional and operate principally along Cheltenham Avenue and Easton Road.

To illustrate the range of options, eleven routing alternatives have been formulated which are presented in the remainder of this chapter.

Figure 35 - Alternative 1

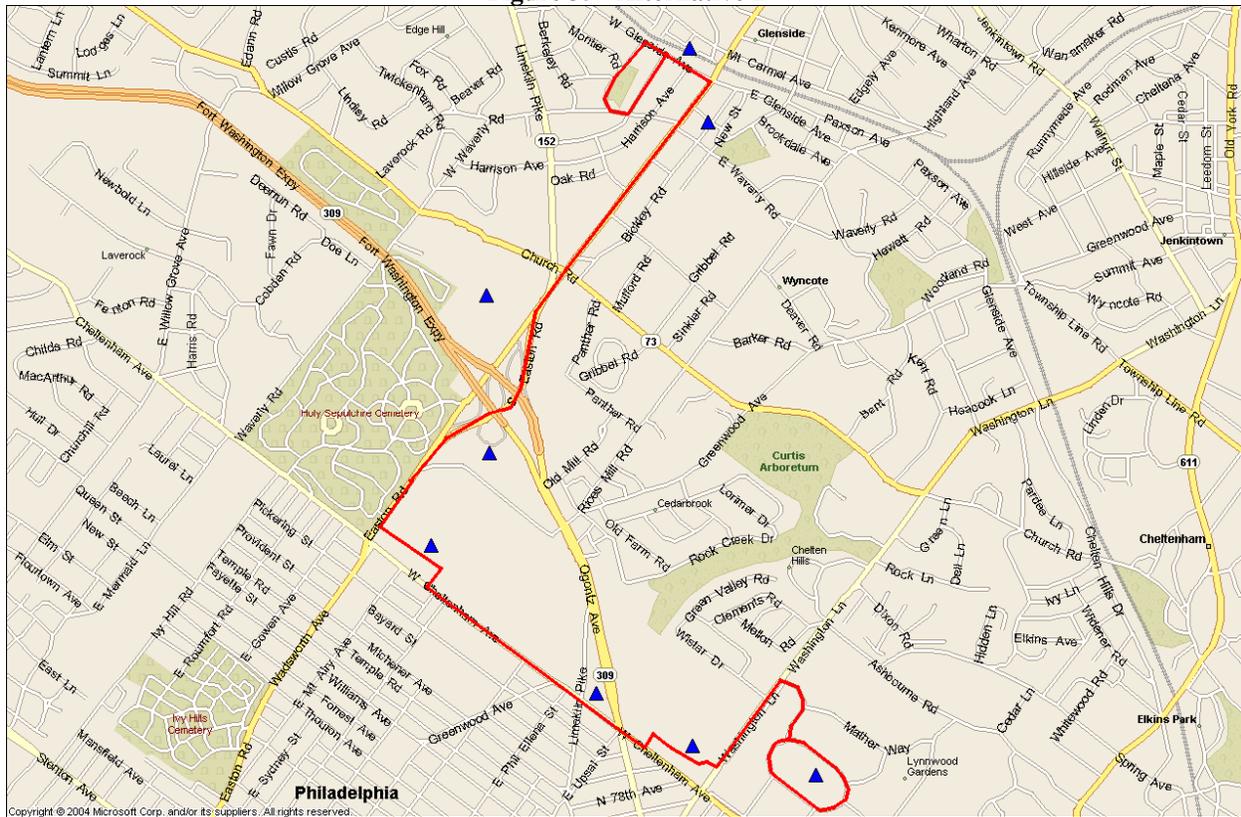


Figure 36- Alternative 2

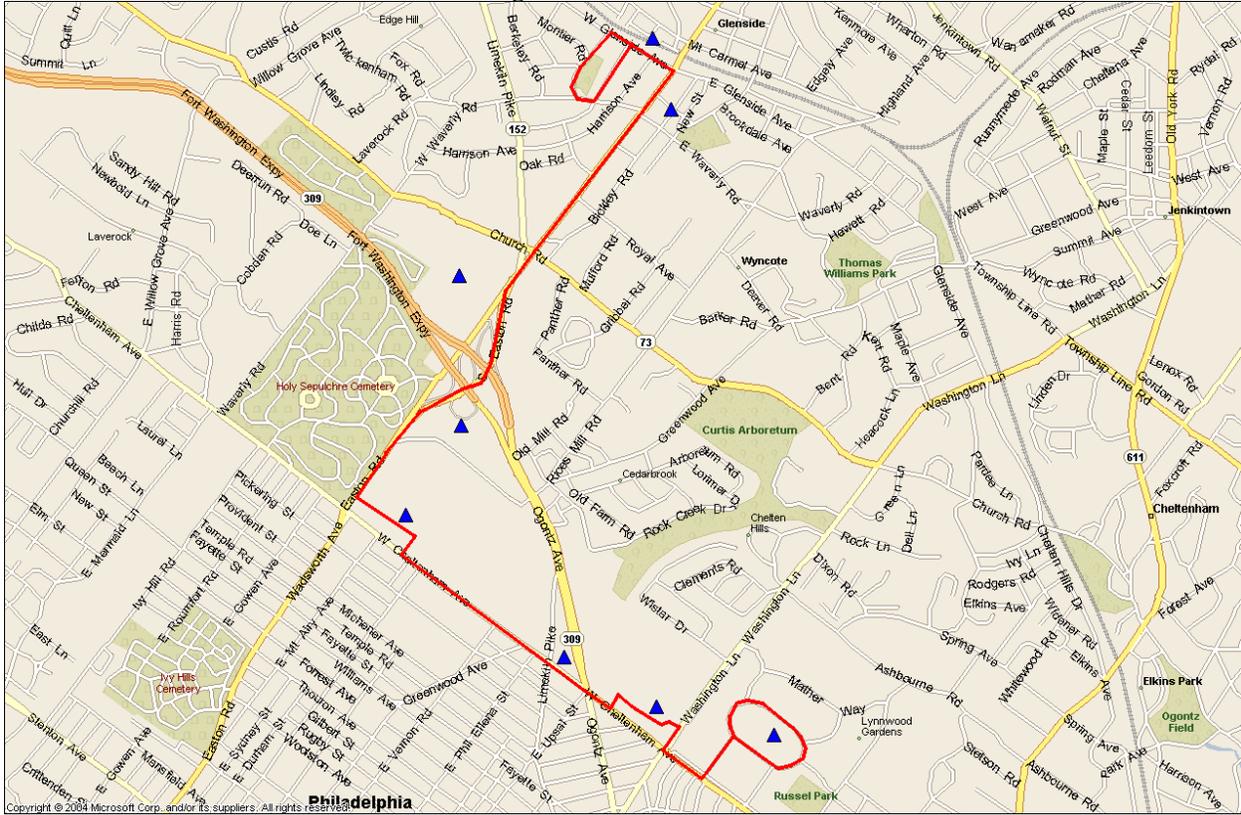


Figure 37 - Alternative 3

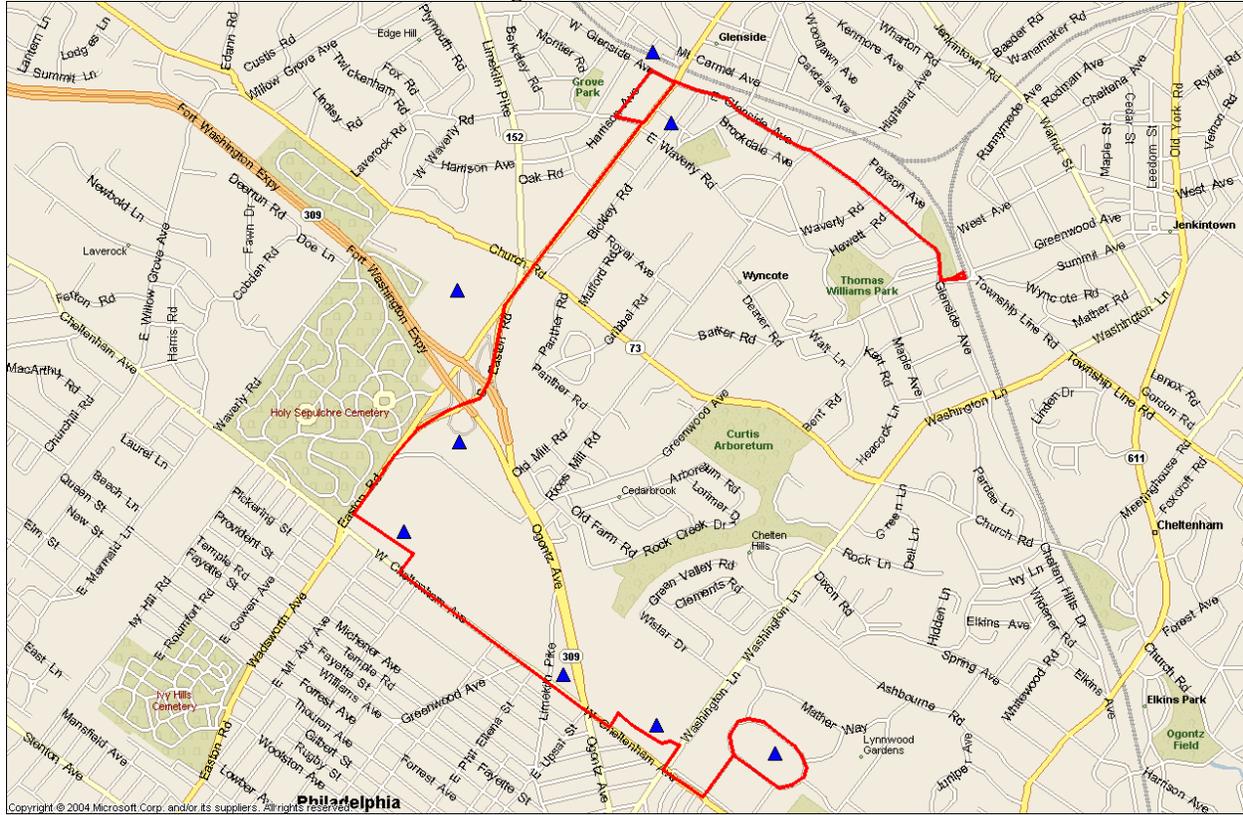


Figure 38 - Alternative 4

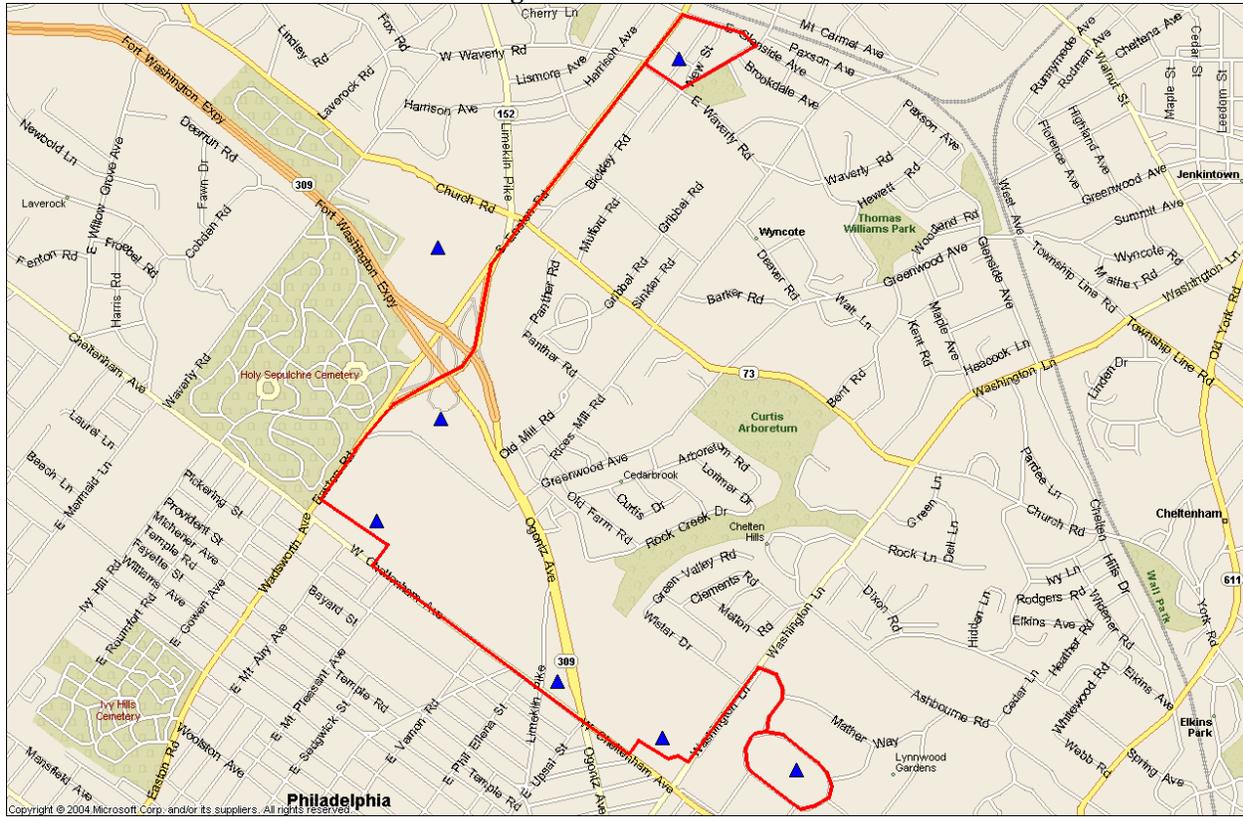


Figure 39 - Alternative 5

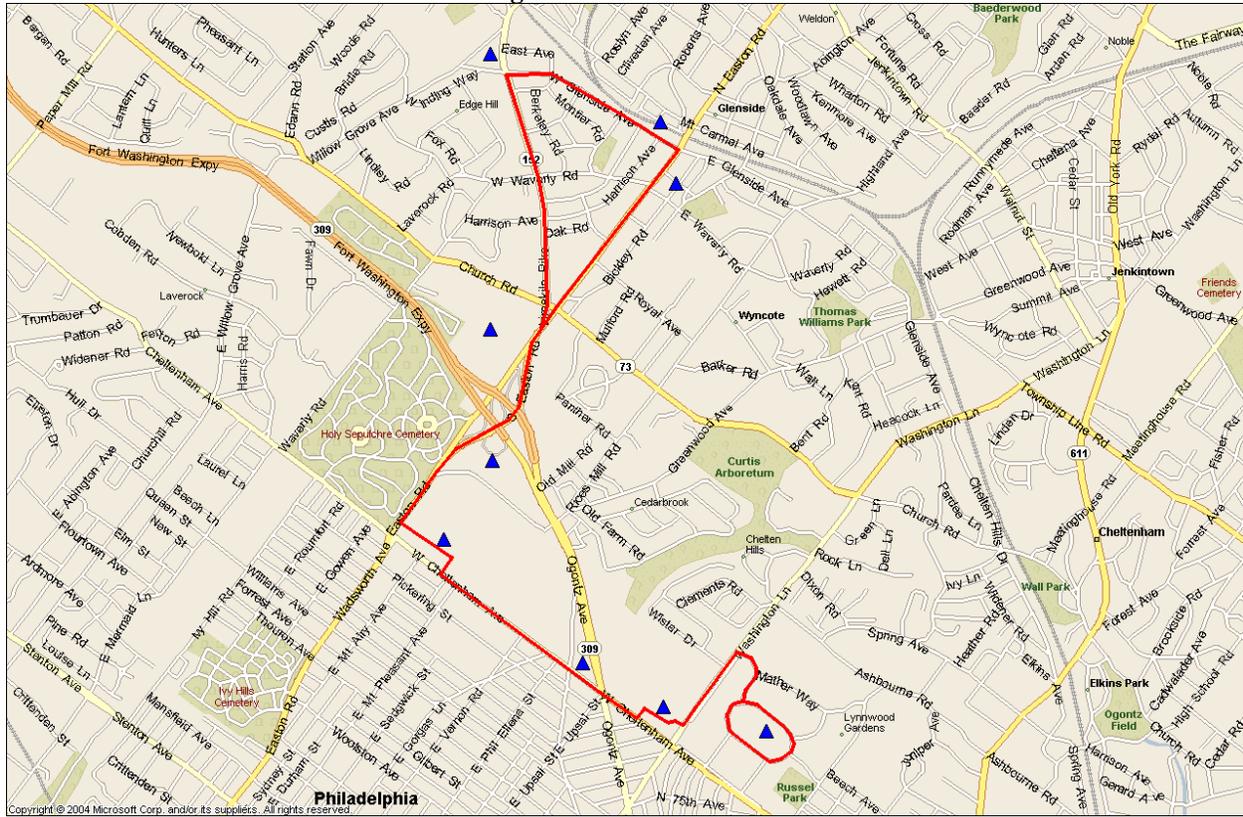


Figure 40 - Alternative 6

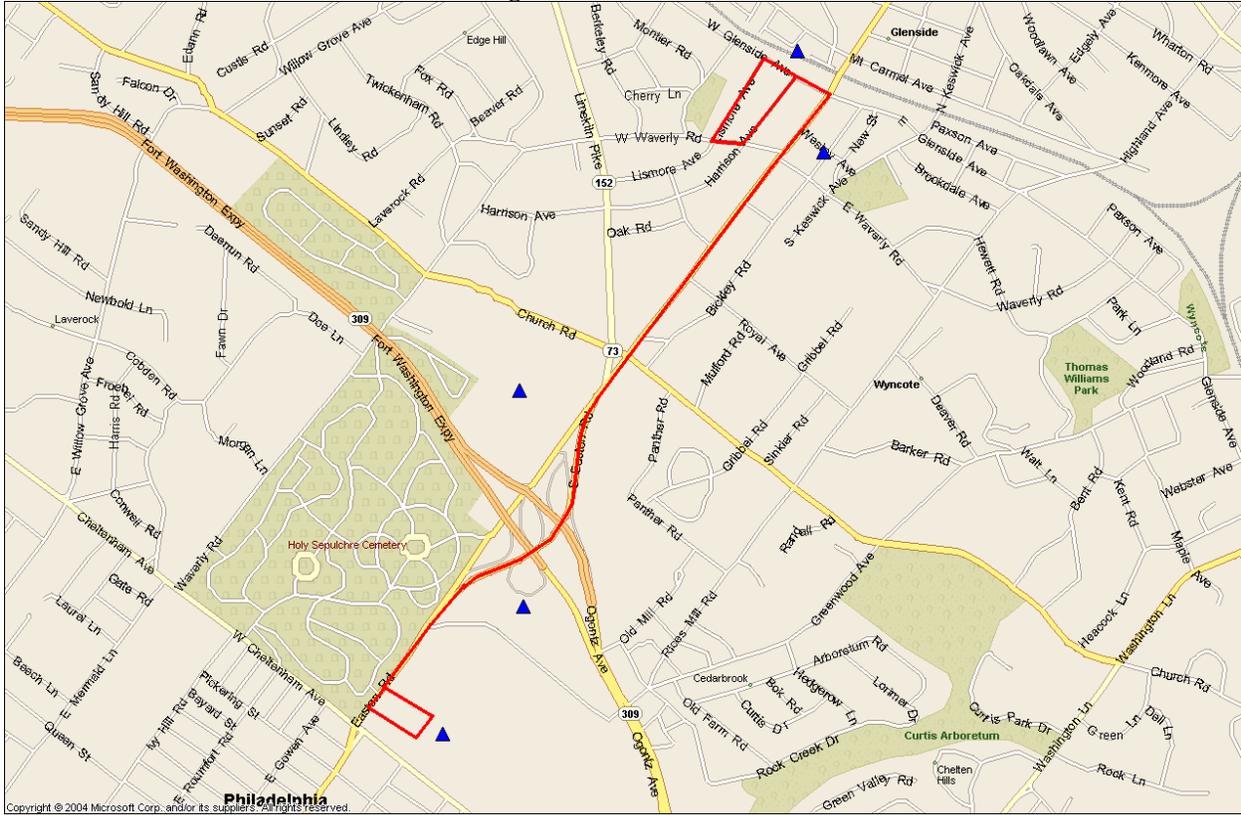


Figure 41 - Alternative 7



Figure 42 - Alternative 8

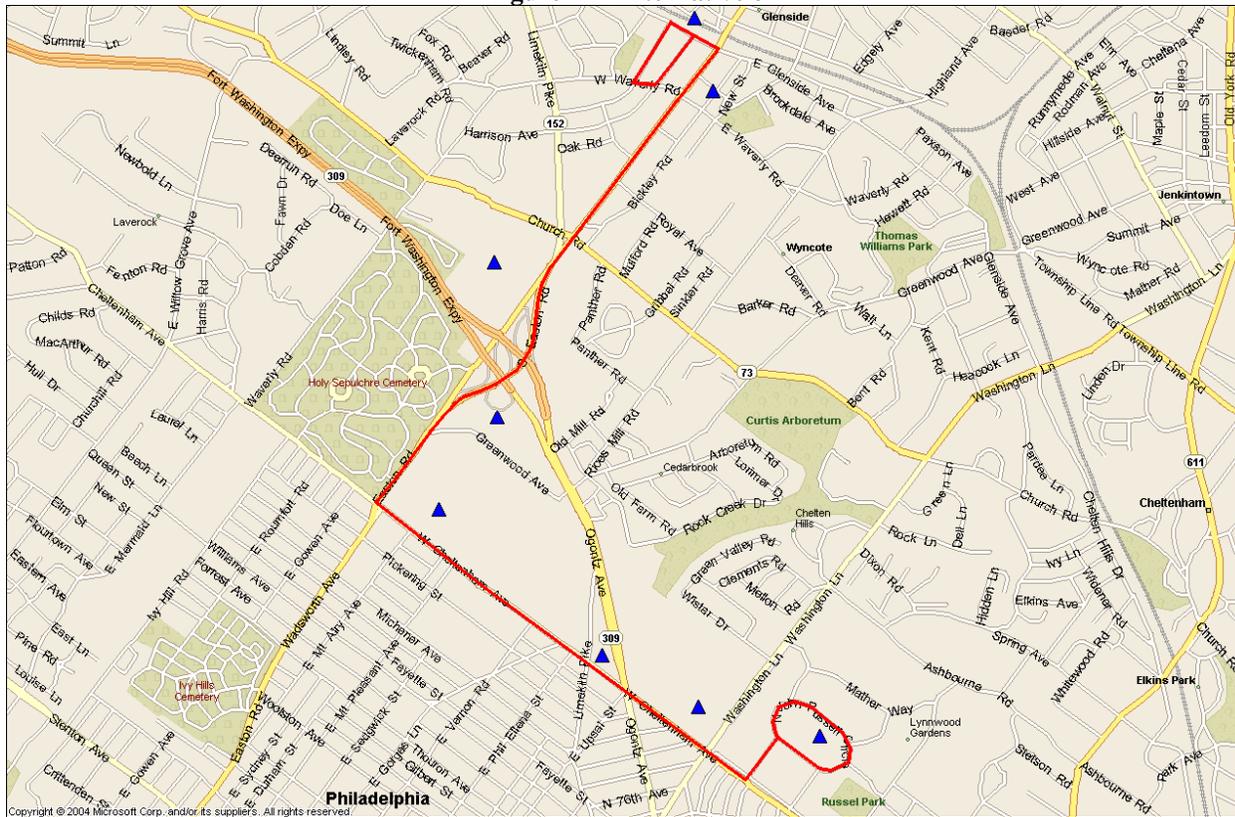


Figure 43 - Alternative 9

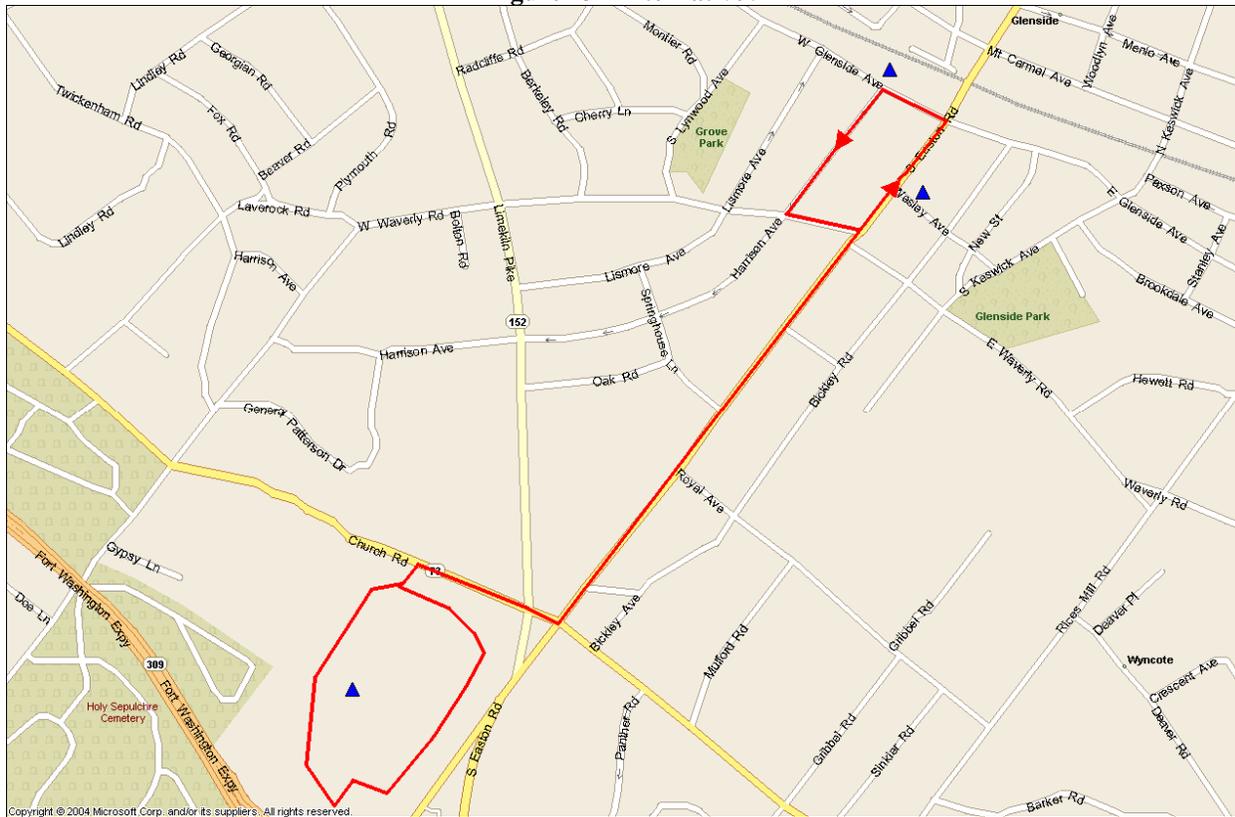


Figure 44 - Alternative 10

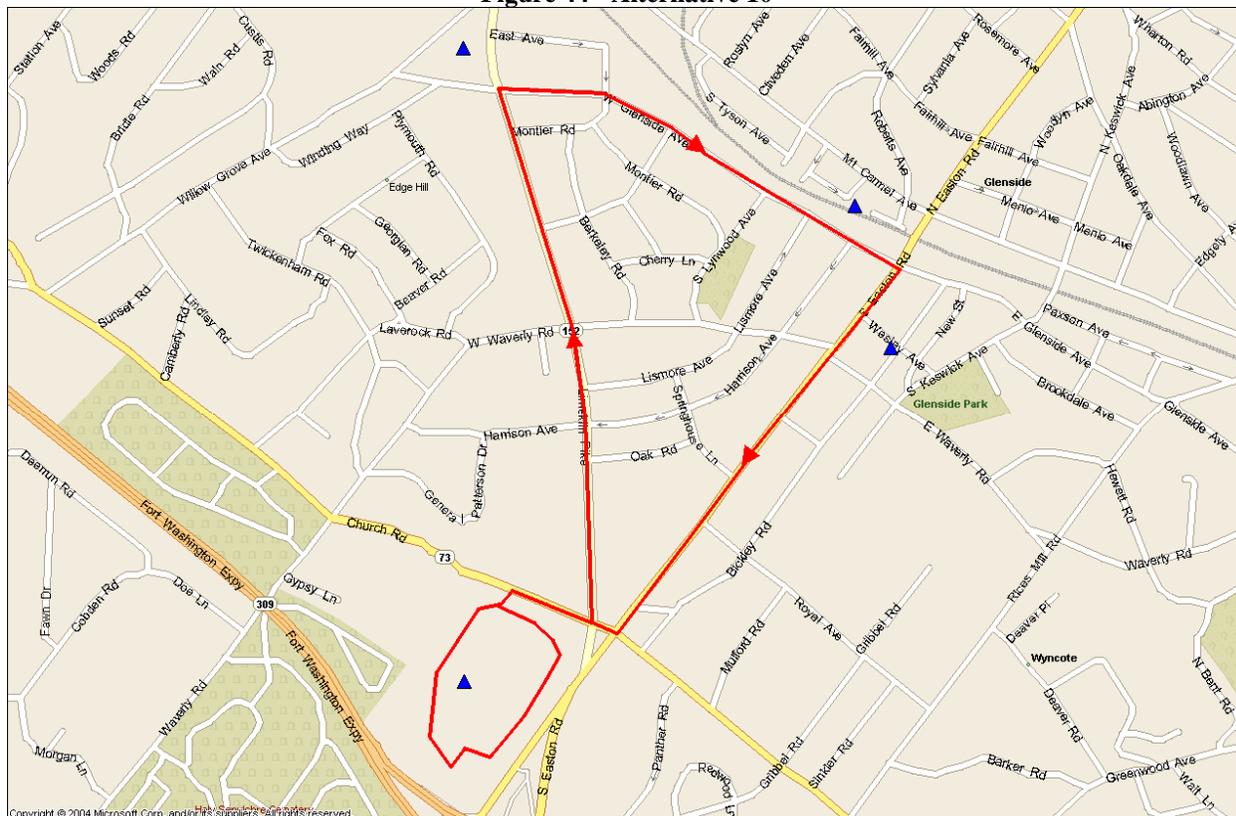
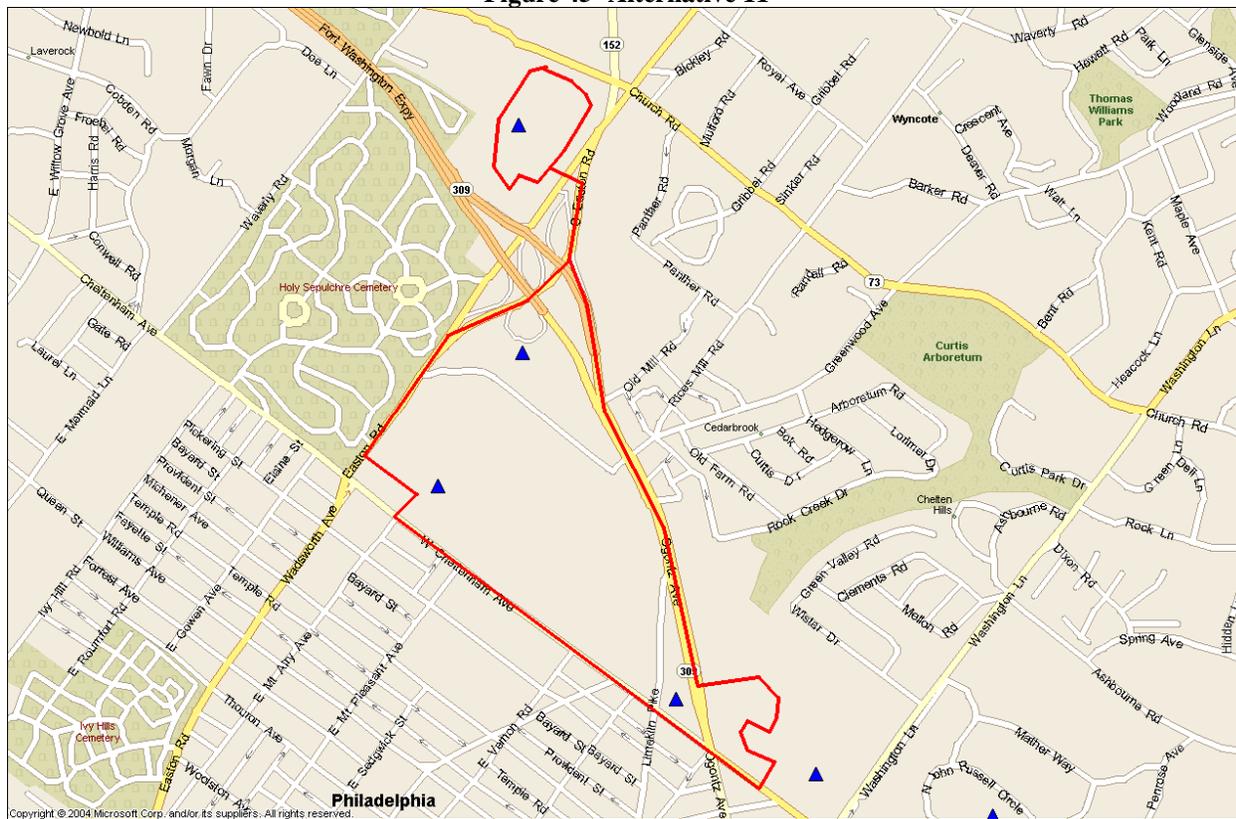


Figure 45 - Alternative 11



PREFERRED ALTERNATIVES

The discussion in the previous chapter indicated the range of proposals that could be formulated. They varied widely in terms of generators and markets served, streets traversed and the extent of loops and bi-directional service. At that stage of the analysis, the objective was to indicate the wide choices available and use these results as a basis for discussion with the Steering Committee. Based on their review of the different alignment, two basic alternatives emerged as preferred. In turn, these alternatives were further described in terms of frequency and span of service. At this stage of the analysis, the impact of each option was gauged.

This chapter describes these preferred alternatives and presents preliminary estimates of key operating statistics, ridership and financial results. The chapter consists of three parts: (1) preferred alternatives, (2) methodology and (3) forecasts.

Selected Alternatives

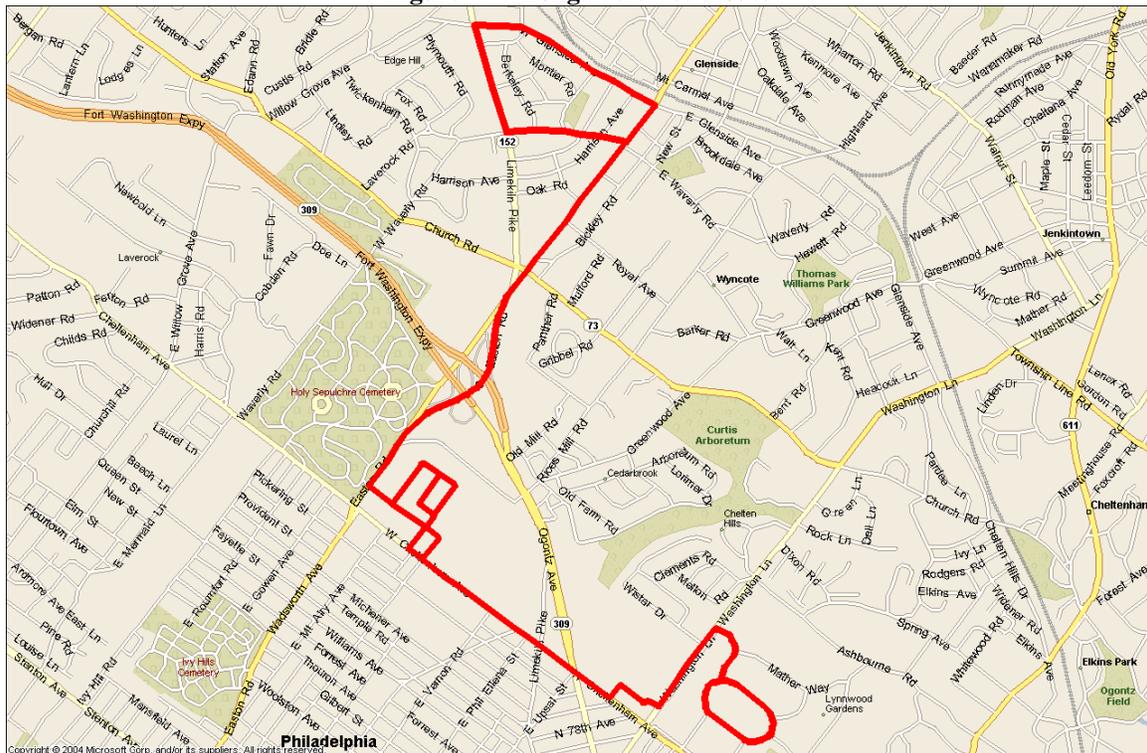
As noted above, two routes were identified as preferred and differ in terms of their alignment and route length. A proposed short route which would offer service between the Cedarbrook Plaza, Arcadia University, the Glenside Train Station, and the Wawa at the intersection of Limekiln Pike and Glenside Avenue, and a long route which would operate in the same fashion as the short route along Easton Avenue, but also extend service along Cheltenham Avenue to the Cheltenham Square Mall and the densely populated neighborhood in Cheltenham, Lynnewood Gardens. A description of each of the preferred routes is presented below:

- **Short Route** - The short route would operate from Cedarbrook Plaza, along Easton Road, stopping at the intersection at Limekiln Pike to provide service to Arcadia University, continue north on Easton Road through the Glenside Business District and to the Glenside Train Station, where connections can be made to Regional Rail train services provided by SEPTA. From the rail station, the route would proceed west on Glenside Avenue to the intersection at Limekiln Pike, where it will stop at the Wawa. The trolley would then continue south on Limekiln Pike, turn left on Waverly Road and head east towards Easton Road, where it will turn right and head back towards Arcadia University and Cedarbrook Plaza. The short route has a round trip distance of about five miles and is illustrated in Figure 46.

campus community, but also extends coverage to retail establishments along Cheltenham Avenue and a number of residential areas, including Lynnewood Gardens.

It should be recognized that the shuttle route coverage area is already served by a number of transit services. This includes several SEPTA bus routes (e.g., Route 22), the Cheltenham Township shuttle service, service offered by Towers of Wyncote and Lynnewood Gardens for their tenants and the Shared Ride demand responsive program designed for senior citizens. This existing service underscores the need for the proposed routes to be focused on a limited number of markets and geographical coverage. Further, this would suggest the need for coordination between the proposed shuttle service and these other carriers with respect to the interval between buses and fare. These and other issues will be resolved and refined as the study continues.

Figure 47 – Long Preferred Route



Forecast Methodology

Having identified two preferred shuttle alternatives, the next step is to estimate the impacts of each proposal in terms of operating statistics, ridership levels and financial estimates. To provide these forecasts, a parametric approach has been pursued in which various inputs have been identified along with appropriate unit rates. Each of these could be varied to test the

consequences of different assumptions and the sensitivity to these changes. The current analysis focused on operations and does not include capital items and expenditures which will be presented later in this report. Typically, transit systems are more concerned with the recurring operating deficit than capital expenditures. This reflects the labor intensive nature of transit and current funding programs.

Route Definition - The proposed alignment, route distances and running times were estimated based on limited test runs, current transit times and consistency with speeds in the service area. Running times were determined for each of the two routes. It is estimated that the short route would take 22 minutes to operate one full round trip of five miles, while the long route would need 46 minutes to travel the round trip distance of nine miles (Table 12).

Table 12 – Route Times

Time (Minutes)	Short Route	Long Route
Running	22	46
Layover	8	14
Cycle	30	60

Layover has been provided at each end of the line to permit drivers to recover from delays and provide a short break. Typically, layover times are established at about 10 to 15 percent of the running time, although there may be higher values for routes with relatively low running times. For the short route, this rule of thumb would result in a layover of about three or four minutes while the long route would need about five to eight minutes of layover.

At this preliminary stage, the decision was made to develop user friendly headways which will allow for a dependable service that is routinely on-time. The consequence of this decision is that the resulting layover time is high and would result in less frequent service. Clearly, there is a trade-off between user friendly or clockface headways and service frequency and productivity. For example, with reduced layover values, cycle time could be established at 25 and 55 minutes for the short and long routes, respectively.

Additionally, once a service is put into place, consideration must be given to properly integrating the proposed shuttle service with the SEPTA buses that operate along Easton Avenue and Cheltenham Avenue. It would not be desirable to have the interval between buses be erratic with buses sometimes closely following one another and then long gaps with no service.

Another key element of the service description is the frequency of service which is dependent on the cycle time and number of vehicles in service. As shown in Table 13, possible headways have been specified on the basis of vehicles placed in service.

**Table 13 – Service Frequencies
(Headways in Minutes)**

Number of Vehicles	Short Route	Long Route
1	30	60
2	15	30
3	10	20
4	7-8	10

Since the short route is able to operate two full cycles in the same time that the long route operates one, it is able to have a frequency (i.e., buses per hour) twice as great as the long route. Stated differently, the headway for the short route is half of that for the long route with the same number of buses. As seen in the table, for one vehicle, the short route can operate every 30 minutes, while the long route offers a 60 minute service. Similarly, with four vehicles, the short route can offer a bus every 7 to 8 minutes to the long route’s 15 minute headway.

Three points are worth noting regarding the frequency of service. First, is the directly proportional relationship between frequency and waiting time. Wider headways imply greater waiting time which detracts from the attractiveness of the service and its ridership potential. Second, wide headways require prospective riders to consult a timetable and plan their trip well in advance. When a shuttle service operates every 30 minutes or an hour, people don’t walk randomly to the stop to catch the next bus. Finally, in the current preliminary analysis, we have assumed that the frequency of service would be constant throughout the service day. It is recognized that a higher frequency of service can be offered at specific times of the day by increasing the number of vehicles for a short period of time. These variations could be explored as part of further refinement to delineate the recommended plan.

Another service parameter is the duration of time and the days when service is available (i.e., span). The hours of operation considered in this analysis are the same for both the short and long routes. As shown in Table 14, the weekday service would be considered for both a 12 and 14 hour span of service. Similarly, Saturday could have the same length of service as weekdays, but the service both starts and ends later. On Sunday, there would be a single scheme for the service span.

Table 14 – Span of Service

Service Day	Scheme One	Scheme Two
Weekday	8AM-8PM	8AM-10PM
Saturday	10AM-10PM	10AM-12AM
Sunday	10AM-6PM	10AM-6PM

As with some of the parameters, further changes and refinement could be made to the service span. This could include different start and end times from those presented in the exhibit to differences by day (e.g., later service on Thursday and Friday).

Transit service operations should be designed to reflect the travel markets and when trips are made. Since the short route is oriented to Arcadia University, the shuttle bus service would conform to the academic calendar. When school is not in session, no service would be operated, as shown in Table 15.

Table 15 – Days of Operation

Service Day	Short Route	Long Route
Weekday	200	253
Saturday	40	52
Sunday	40	52
Total	280	357

In addition to Arcadia University, the long route would also serve a greater number of Cheltenham Township residents and would have a more typical transit schedule. It is assumed that service would not operate on seven holidays that would fall on weekdays.

Ridership - Human behavior in general and travel choice decisions in particular are difficult to estimate. Nonetheless, ridership estimates are necessary to design service and avoid overcrowding, as well as to provide input to revenue estimates and assess the financial viability of a new shuttle service. In the current analysis, the passengers per hour of service variable was used as the basis for estimating ridership. This statistic is not to be confused with passengers per revenue hour. Separate values were assumed for each service day (i.e., weekday, Saturday and Sunday), as well as for times when the service span exceeds 12 hours. Reflecting the uncertainty of any ridership estimates and to indicate the sensitivity of different assumptions, passengers per hour of service was calculated at a low rate and a high rate, for both the short route and the long route.

As the number of buses increase, and the frequency also increases, the passengers per hour of service incrementally rises, but at a decreasing rate. This is best illustrated in Figure 3, which details the passengers per hour of service in regards to the number of available vehicles. Figure 3 details the results for the long route option at the high estimate for passengers per hour of service within the 12 hour base weekday period. The shape of the curve remains the same regardless of route option, service day and span, although the values would differ from those presented in Figure 48. The values for this exhibit were based on experience with other shuttle services and professional judgment.

Basically, when increasing the service by one bus, the estimated passengers per hour of service increases by 50 percent; when increasing the level of service by two buses, passengers per hour of service increases by 66 percent and while increasing service by three buses, passengers per hour of service increases by 75 percent. In essence, the chart reflects the elasticity between demand and service provided. The elasticity is less than one since each increment of demand as measured by passengers per service hour increment of service is smaller than the increase in service as measured by the number of vehicles.

**Figure 48 – Ridership and Service Elasticity
(Long Route Weekday High Estimate)**

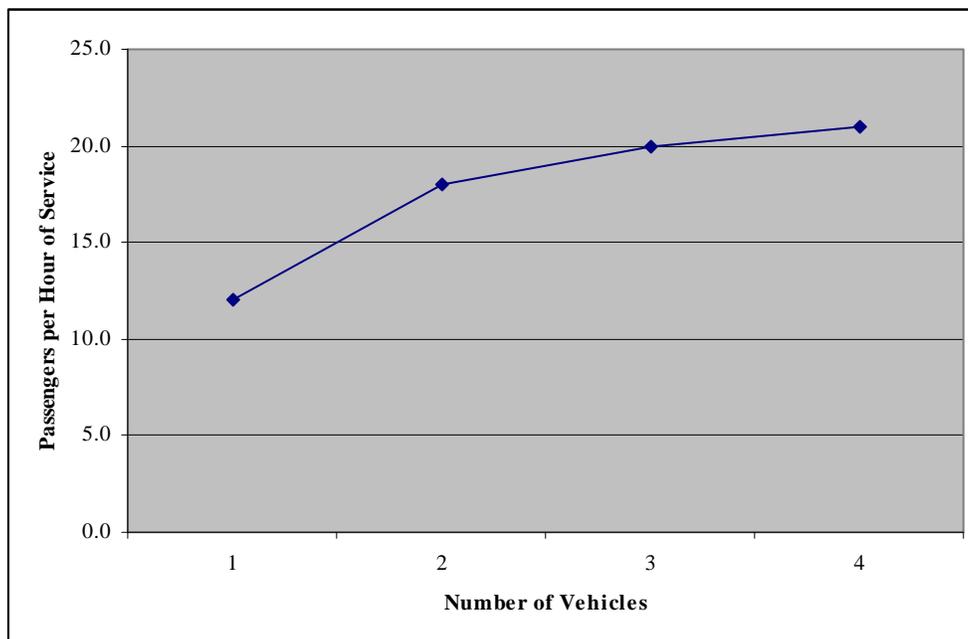


Figure 48 illustrates the relationship for the high estimate for the long route when the passengers per hour of service with one vehicle is 12. The corresponding value for the low estimate is 7, but the same elasticity rates apply when more vehicles are added to the long route service. Because of the different travel market, the ridership levels are less for the short route. Under the single vehicle operation, passengers per hour of service would be 4 and 8 for the low and high ridership estimates, respectively. Further refinements of this process were applied for the first 12 hours of service and those late evening hours when ridership would be less. The productivity for these last two hours of service would be half of that used for the first 12 hours. Also, differences were assumed for weekends relative to weekend operations. Saturday is assumed to carry 80 percent of the riders as a weekday, with Sunday assumed at 50 percent of the weekday level. This is somewhat higher than what would typically be expected, but much of

the travel markets are not work oriented. The actual values of ridership productivity for all situations are presented in the forecast section of this memorandum.

Financial - Based on experience in the Delaware Valley, it was estimated that it would cost \$60 per revenue hour of service at this stage of the comparative analysis. This unit cost is representative of what other agencies have paid for their services at the current time and reflects the cost of the vehicle, the operator and all other costs associated with operating a fixed route service. This cost can fluctuate due to insurance, gas and other factors; however at this time, \$60 per revenue hour is a fair representation of current costs. Subsequently, this unit costs was revised to reflect possible costs in the near term future.

For purposes of this analysis, it has been assumed that the average fare for each boarding passenger would be one dollar. This is consistent with the fare structure of the current Cheltenham Township shuttle service: \$4 per trip and one 10-trip ticket for \$10. The fare per trip is set this high to allow Cheltenham Township to leverage its funds and get reimbursed for senior citizen riders at the same rate that they get reimbursed by PennDOT. Passengers under the age of 65 can ride at a reduced rate if they buy the 10-trip ticket. Additionally, Arcadia University students and staff should be able to ride the service at no charge assuming a U-Pass program is implemented. With this arrangement, Arcadia University would contribute to the cost of the service and members of its community could ride free. For planning purposes at this stage, an average fare of one dollar has been used for this preliminary analysis.

Forecast Results

As noted previously, forecasts of key operating, patronage and financial statistics were prepared for each of the route alternatives. In addition, the estimates were prepared by service day, frequency and span option. Needless to say, there are numerous combinations of the different test scenarios. Nonetheless, these preliminary results should be informative in selecting from the options a recommended plan. Further, the parametric approach in this analysis would allow other assumptions to be tested. The forecasts have been presented in four exhibits as follows:

- Table 16 Short Route With Low Demand Table 17 Short Route With High Demand
- Table 18 Long Route With Low Demand Table 19 Long Route With High Demand

Each table has the same format with the first page showing the key inputs which were discussed previously. Estimates are presented on both a daily and annual basis, as appropriate, for each service day and test scenario. The second page presents annual statistics for revenue hours, revenue miles, peak vehicles, passengers, revenue, operating cost and deficit. Various performance measures, such as passengers per revenue hour and farebox recovery, are also presented on this page.

Table 16 - Short Route With Low Demand Estimates

Table 16 - Short Route With Low Demand Estimates													
Span	M-F: 8AM-8PM		M-F: 8AM-10PM				Saturday: 10AM-10PM		Saturday: 10AM-12AM			Sunday: 10AM-6PM	
Buses	1	2	1	2	3	4	1	2	1	2	3	1	2
Time (minutes)													
Running Time	22	22	22	22	22	22	22	22	22	22	22	22	22
Layover Time	8	8	8	8	8	8	8	8	8	8	8	8	8
Cycle Time	30	30	30	30	30	30	30	30	30	30	30	30	30
Percent Layover	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
Distance (miles)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Speed (mph)													
Running Speed	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64
Operating Speed	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Headway (minutes)	30	15	30	15	10	7.5	30	15	30	15	10	30	15
Daily													
Buses Required	1	2	1	2	3	4	1	2	1	2	3	1	2
Hours of Service	12	12	14	14	14	14	12	12	14	14	14	8	8
Number of Trips	24	48	28	56	84	112	24	48	28	56	84	16	32
Revenue Hours	12	24	14	28	42	56	12	24	14	28	42	8	16
Revenue Miles	120	240	140	280	420	560	120	240	140	280	420	80	160
Annual													
Operating Days	200	200	200	200	200	200	40	40	40	40	40	40	40
Revenue Hours	2,400	4,800	2,800	5,600	8,400	11,200	480	960	560	1,120	1,680	320	640
Revenue Miles	24,000	48,000	28,000	56,000	84,000	112,000	4,800	9,600	5,600	11,200	16,800	3,200	6,400
Ridership													
Passengers/Hour of Service (0-12hrs)	4.0	6.0	4.0	6.0	6.6	7.0	3.2	4.8	3.2	4.8	5.3	2.0	3.0
Passengers/Hour of Service (12+hrs)	0.0	0.0	2.0	3.0	3.3	3.5	0.0	0.0	1.6	2.4	2.7	0.0	0.0
Daily Passengers	48	72	52	78	86	91	38	58	42	62	69	16	24
Annual Passengers	9,600	14,400	10,400	15,600	17,264	18,200	1,536	2,304	1,664	2,496	2,762	640	960
Passengers/Mile	0.40	0.30	0.37	0.28	0.21	0.16	0.32	0.24	0.30	0.22	0.16	0.20	0.15
Cost													
Unit Cost per Hour	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60
Daily Cost	\$720	\$1,440	\$840	\$1,680	\$2,520	\$3,360	\$720	\$1,440	\$840	\$1,680	\$2,520	\$480	\$960
Annual Cost	\$144,000	\$288,000	\$168,000	\$336,000	\$504,000	\$672,000	\$28,800	\$57,600	\$33,600	\$67,200	\$100,800	\$19,200	\$38,400
Cost/Passenger	\$15.00	\$20.00	\$16.15	\$21.54	\$29.19	\$36.92	\$18.75	\$25.00	\$20.19	\$26.92	\$36.49	\$30.00	\$40.00
Revenue													
Fare	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Daily Revenue	\$48.00	\$72.00	\$52.00	\$78.00	\$86.32	\$91.00	\$38.40	\$57.60	\$41.60	\$62.40	\$69.06	\$16.00	\$24.00
Annual Revenue	\$9,600	\$14,400	\$10,400	\$15,600	\$17,264	\$18,200	\$1,536	\$2,304	\$1,664	\$2,496	\$2,762	\$640	\$960

Table 17 - Short Route With High Demand Estimates

Table 17 - Short Route With High Demand Estimates													
Span	M-F: 8AM-8PM		M-F: 8AM-10PM				Saturday: 10AM-10PM		Saturday: 10AM-12AM			Sunday: 10AM-6PM	
Buses	1	2	1	2	3	4	1	2	1	2	3	1	2
Time (minutes)													
Running Time	22	22	22	22	22	22	22	22	22	22	22	22	22
Layover Time	8	8	8	8	8	8	8	8	8	8	8	8	8
Cycle Time	30	30	30	30	30	30	30	30	30	30	30	30	30
Percent Layover	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%
Distance (miles)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Speed (mph)													
Running Speed	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64	13.64
Operating Speed	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Headway (minutes)	30	15	30	15	10	7.5	30	15	30	15	10	30	15
Daily													
Buses Required	1	2	1	2	3	4	1	2	1	2	3	1	2
Hours of Service	12	12	14	14	14	14	12	12	14	14	14	8	8
Number of Trips	24	48	28	56	84	112	24	48	28	56	84	16	32
Revenue Hours	12	24	14	28	42	56	12	24	14	28	42	8	16
Revenue Miles	120	240	140	280	420	560	120	240	140	280	420	80	160
Annual													
Operating Days	200	200	200	200	200	200	40	40	40	40	40	40	40
Revenue Hours	2,400	4,800	2,800	5,600	8,400	11,200	480	960	560	1,120	1,680	320	640
Revenue Miles	24,000	48,000	28,000	56,000	84,000	112,000	4,800	9,600	5,600	11,200	16,800	3,200	6,400
Ridership													
Passengers/Hour of Service (0-12hrs)	8.0	12.0	8.0	12.0	13.3	14.0	6.4	9.6	6.4	9.6	10.6	4.0	6.0
Passengers/Hour of Service (12+hrs)	0.0	0.0	4.0	6.0	6.6	7.0	0.0	0.0	3.2	4.8	5.3	0.0	0.0
Daily Passengers	96	144	104	156	173	182	77	115	83	125	138	32	48
Annual Passengers	19,200	28,800	20,800	31,200	34,528	36,400	3,072	4,608	3,328	4,992	5,524	1,280	1,920
Passengers/Mile	0.80	0.60	0.74	0.56	0.41	0.33	0.64	0.48	0.59	0.45	0.33	0.40	0.30
Cost													
Unit Cost per Hour	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60
Daily Cost	\$720	\$1,440	\$840	\$1,680	\$2,520	\$3,360	\$720	\$1,440	\$840	\$1,680	\$2,520	\$480	\$960
Annual Cost	\$144,000	\$288,000	\$168,000	\$336,000	\$504,000	\$672,000	\$28,800	\$57,600	\$33,600	\$67,200	\$100,800	\$19,200	\$38,400
Cost/Passenger	\$7.50	\$10.00	\$8.08	\$10.77	\$14.60	\$18.46	\$9.38	\$12.50	\$10.10	\$13.46	\$18.25	\$15.00	\$20.00
Revenue													
Fare	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Daily Revenue	\$96.00	\$144.00	\$104.00	\$156.00	\$172.64	\$182.00	\$76.80	\$115.20	\$83.20	\$124.80	\$138.11	\$32.00	\$48.00
Annual Revenue	\$19,200	\$28,800	\$20,800	\$31,200	\$34,528	\$36,400	\$3,072	\$4,608	\$3,328	\$4,992	\$5,524	\$1,280	\$1,920

Table 18 - Long Route With Low Demand Estimates

Table 18 - Long Route With Low Demand Estimates													
Span	M-F: 8AM-8PM		M-F: 8AM-10PM				Saturday: 10AM-10PM		Saturday: 10AM-12AM			Sunday: 10AM-6PM	
Buses	1	2	1	2	3	4	1	2	1	2	3	1	2
Time (minutes)													
Running Time	46	46	46	46	46	46	46	46	46	46	46	46	46
Layover Time	14	14	14	14	14	14	14	14	14	14	14	14	14
Cycle Time	60	60	60	60	60	60	60	60	60	60	60	60	60
Percent Layover	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Distance (miles)	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Speed (mph)													
Running Speed	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74
Operating Speed	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Headway (minutes)	60	30	60	30	20	15	60	30	60	30	20	60	30
Daily													
Buses Required	1	2	1	2	3	4	1	2	1	2	3	1	2
Hours of Service	12	12	14	14	14	14	12	12	14	14	14	8	8
Number of Trips	12	24	14	28	42	56	12	24	14	28	42	8	16
Revenue Hours	12	24	14	28	42	56	12	24	14	28	42	8	16
Revenue Miles	108	216	126	252	378	504	108	216	126	252	378	72	144
Annual													
Operating Days	253	253	253	253	253	253	52	52	52	52	52	52	52
Revenue Hours	3,036	6,072	3,542	7,084	10,626	14,168	624	1,248	728	1,456	2,184	416	832
Revenue Miles	27,324	54,648	31,878	63,756	95,634	127,512	5,616	11,232	6,552	13,104	19,656	3,744	7,488
Ridership													
Passengers/Hour of Service (0-12hrs)	7.0	10.5	7.0	10.5	11.6	12.3	5.6	8.4	5.6	8.4	9.3	3.5	5.3
Passengers/Hour of Service (12+hrs)	0.0	0.0	3.5	5.3	5.8	6.1	0.0	0.0	2.8	4.2	4.6	0.0	0.0
Daily Passengers	84	126	91	137	151	159	67	101	73	109	121	28	42
Annual Passengers	21,252	31,878	23,023	34,535	38,218	40,290	3,494	5,242	3,786	5,678	6,284	1,456	2,184
Passengers/Mile	0.78	0.58	0.72	0.54	0.40	0.32	0.62	0.47	0.58	0.43	0.32	0.39	0.29
Cost													
Unit Cost per Hour	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60
Daily Cost	\$720	\$1,440	\$840	\$1,680	\$2,520	\$3,360	\$720	\$1,440	\$840	\$1,680	\$2,520	\$480	\$960
Annual Cost	\$182,160	\$364,320	\$212,520	\$425,040	\$637,560	\$850,080	\$37,440	\$74,880	\$43,680	\$87,360	\$131,040	\$24,960	\$49,920
Cost/Passenger	\$8.57	\$11.43	\$9.23	\$12.31	\$16.68	\$21.10	\$10.71	\$14.29	\$11.54	\$15.38	\$20.85	\$17.14	\$22.86
Revenue													
Fare	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Daily Revenue	\$84.00	\$126.00	\$91.00	\$136.50	\$151.06	\$159.25	\$67.20	\$100.80	\$72.80	\$109.20	\$120.85	\$28.00	\$42.00
Annual Revenue	\$21,252	\$31,878	\$23,023	\$34,535	\$38,218	\$40,290	\$3,494	\$5,242	\$3,786	\$5,678	\$6,284	\$1,456	\$2,184.00

Table 18 - Long Route With Low Demand Estimates (Continued)

Span	M-F: 8AM-8PM		M-F: 8AM-10PM				Saturday: 10AM-10PM		Saturday: 10AM-12AM			Sunday: 10AM-6PM	
Annual													
Revenue Hours	3,036	6,072	3,342	7,084	10,626	14,168	624	1,248	728	1,456	2,184	416	832
Revenue Miles	27,324	54,648	31,878	63,756	95,634	127,512	5,616	11,232	6,552	13,104	19,656	3,744	7,488
Peak Vehicles	1	2	1	2	3	4	1	2	1	2	3	1	2
Productivity													
Passengers	21,252	31,878	23,023	34,535	38,218	40,290	3,494	5,242	3,786	5,678	6,284	1,456	2,184
Passengers/Revenue Hour	7.00	5.25	6.50	4.88	3.60	2.84	5.60	4.20	5.20	3.90	2.88	3.50	2.63
Passengers/Mile	0.78	0.58	0.72	0.54	0.40	0.32	0.62	0.47	0.58	0.43	0.32	0.39	0.29
Financial - Aggregate													
Cost	\$182,160	\$364,320	\$212,520	\$425,040	\$637,560	\$850,080	\$37,440	\$74,880	\$43,680	\$87,360	\$131,040	\$24,960	\$49,920
Revenue	\$21,252	\$31,878	\$23,023	\$34,535	\$38,218	\$40,290	\$3,494	\$5,242	\$3,786	\$5,678	\$6,284	\$1,456	\$2,184
Deficit	\$160,908	\$332,442	\$189,497	\$390,506	\$599,342	\$809,790	\$33,946	\$69,638	\$39,894	\$81,682	\$124,756	\$23,504	\$47,736
Farebox Recovery (%)	11.67%	8.75%	10.83%	8.13%	5.99%	4.74%	9.33%	7.00%	8.67%	6.50%	4.80%	5.83%	4.38%
Financial - per Revenue Hour													
Cost	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00
Revenue	\$7.00	\$5.25	\$6.50	\$4.88	\$3.60	\$2.84	\$5.60	\$4.20	\$5.20	\$3.90	\$2.88	\$3.50	\$2.63
Deficit	\$53.00	\$54.75	\$53.50	\$55.13	\$56.40	\$57.16	\$54.40	\$55.80	\$54.80	\$56.10	\$57.12	\$56.50	\$57.38
Financial - per Mile													
Cost	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67
Revenue	\$0.78	\$0.58	\$0.72	\$0.54	\$0.40	\$0.32	\$0.62	\$0.47	\$0.58	\$0.43	\$0.32	\$0.39	\$0.29
Deficit	\$5.89	\$6.08	\$5.94	\$6.13	\$6.27	\$6.35	\$6.04	\$6.20	\$6.09	\$6.23	\$6.35	\$6.28	\$6.38
Financial - per Passenger													
Cost	8.57	11.43	9.23	12.31	16.68	21.10	10.71	14.29	11.54	15.38	20.85	17.14	22.86
Revenue	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Deficit	7.57	10.43	8.23	11.31	15.68	20.10	9.71	13.29	10.54	14.38	19.85	16.14	21.86
Financial - per Peak Vehicle													
Cost	\$182,160	\$182,160	\$212,520	\$212,520	\$212,520	\$212,520	\$37,440	\$37,440	\$43,680	\$43,680	\$43,680	\$24,960	\$24,960
Revenue	\$21,252	\$15,939	\$23,023	\$17,267	\$12,739	\$10,073	\$3,494	\$2,621	\$3,786	\$2,839	\$2,095	\$1,456	\$1,092
Deficit	\$160,908	\$166,221	\$189,497	\$195,253	\$199,781	\$202,447	\$33,946	\$34,819	\$39,894	\$40,841	\$41,585	\$23,504	\$23,868

Table 19 - Long Route With High Demand Estimates

Span	M-F: 8AM-8PM		M-F: 8AM-10PM				Saturday: 10AM-10PM		Saturday: 10AM-12AM			Sunday: 10AM-6PM	
Buses	1	2	1	2	3	4	1	2	1	2	3	1	2
Time (minutes)													
Running Time	46	46	46	46	46	46	46	46	46	46	46	46	46
Layover Time	14	14	14	14	14	14	14	14	14	14	14	14	14
Cycle Time	60	60	60	60	60	60	60	60	60	60	60	60	60
Percent Layover	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Distance (miles)	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Speed (mph)													
Running Speed	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74	11.74
Operating Speed	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Headway (minutes)	60	30	60	30	20	15	60	30	60	30	20	60	30
Daily													
Buses Required	1	2	1	2	3	4	1	2	1	2	3	1	2
Hours of Service	12	12	14	14	14	14	12	12	14	14	14	8	8
Number of Trips	12	24	14	28	42	56	12	24	14	28	42	8	16
Revenue Hours	12	24	14	28	42	56	12	24	14	28	42	8	16
Revenue Miles	108	216	126	252	378	504	108	216	126	252	378	72	144
Annual													
Operating Days	253	253	253	253	253	253	52	52	52	52	52	52	52
Revenue Hours	3,036	6,072	3,542	7,084	10,626	14,168	624	1,248	728	1,456	2,184	416	832
Revenue Miles	27,324	54,648	31,878	63,756	95,634	127,512	5,616	11,232	6,552	13,104	19,656	3,744	7,488
Ridership													
Passengers/Hour of Service (0-12hrs)	12.0	18.0	12.0	18.0	19.9	21.0	9.6	14.4	9.6	14.4	15.9	6.0	9.0
Passengers/Hour of Service (12+hrs)	0.0	0.0	6.0	9.0	10.0	10.5	0.0	0.0	4.8	7.2	8.0	0.0	0.0
Daily Passengers	144	216	156	234	259	273	115	173	125	187	207	48	72
Annual Passengers	36,432	54,648	39,468	59,202	65,517	69,069	5,990	8,986	6,490	9,734	10,773	2,496	3,744
Passengers/Mile	1.33	1.00	1.24	0.93	0.69	0.54	1.07	0.80	0.99	0.74	0.55	0.67	0.50
Cost													
Unit Cost per Hour	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60
Daily Cost	\$720	\$1,440	\$840	\$1,680	\$2,520	\$3,360	\$720	\$1,440	\$840	\$1,680	\$2,520	\$480	\$960
Annual Cost	\$182,160	\$364,320	\$212,520	\$425,040	\$637,560	\$850,080	\$37,440	\$74,880	\$43,680	\$87,360	\$131,040	\$24,960	\$49,920
Cost/Passenger	\$5.00	\$6.67	\$5.38	\$7.18	\$9.73	\$12.31	\$6.25	\$8.33	\$6.73	\$8.97	\$12.16	\$10.00	\$13.33
Revenue													
Fare	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Daily Revenue	\$144.00	\$216.00	\$156.00	\$234.00	\$258.96	\$273.00	\$115.20	\$172.80	\$124.80	\$187.20	\$207.17	\$48.00	\$72.00
Annual Revenue	\$36,432	\$54,648	\$39,468	\$59,202	\$65,517	\$69,069	\$5,990	\$8,986	\$6,490	\$9,734	\$10,773	\$2,496	\$3,744

RECOMMENDED PLAN

The previous chapters have described the incremental screening process to proceed from a wide range of shuttle bus options in terms of areas and generators served to two preferred alternatives (i.e., short and long routes). These alternatives were also evaluated in terms of key operating statistics such as vehicle hours and vehicle requirements, ridership levels as well as financial results. Based on these results, the Steering Committee opted for the longer route which would operate along both Cheltenham Avenue and Easton Road. It would serve more Cheltenham Township residents and provide transit service to a larger number of generators. It was this plan that was the basis for further evaluation. As noted previously, this plan is the one recommended should elected officials decide to proceed with a new shuttle bus service. The other option available to elected officials is to not take any action at this time.

Service Plan

The service plan consists of three primary elements: route alignment, frequency and span. The selection of each reflected transportation issues, the mobility needs of Cheltenham Township residents and Arcadia University students and economic development of the Glenside Business District and other retail centers. A number of alternatives were initially presented to members of the Steering Committee to solicit their comments on attractive features of each option and elements that would comprise a recommended routing. Tradeoffs were made in terms of route length, locations served and level of service (i.e., frequency and span) to identify a plan that best serves the community.

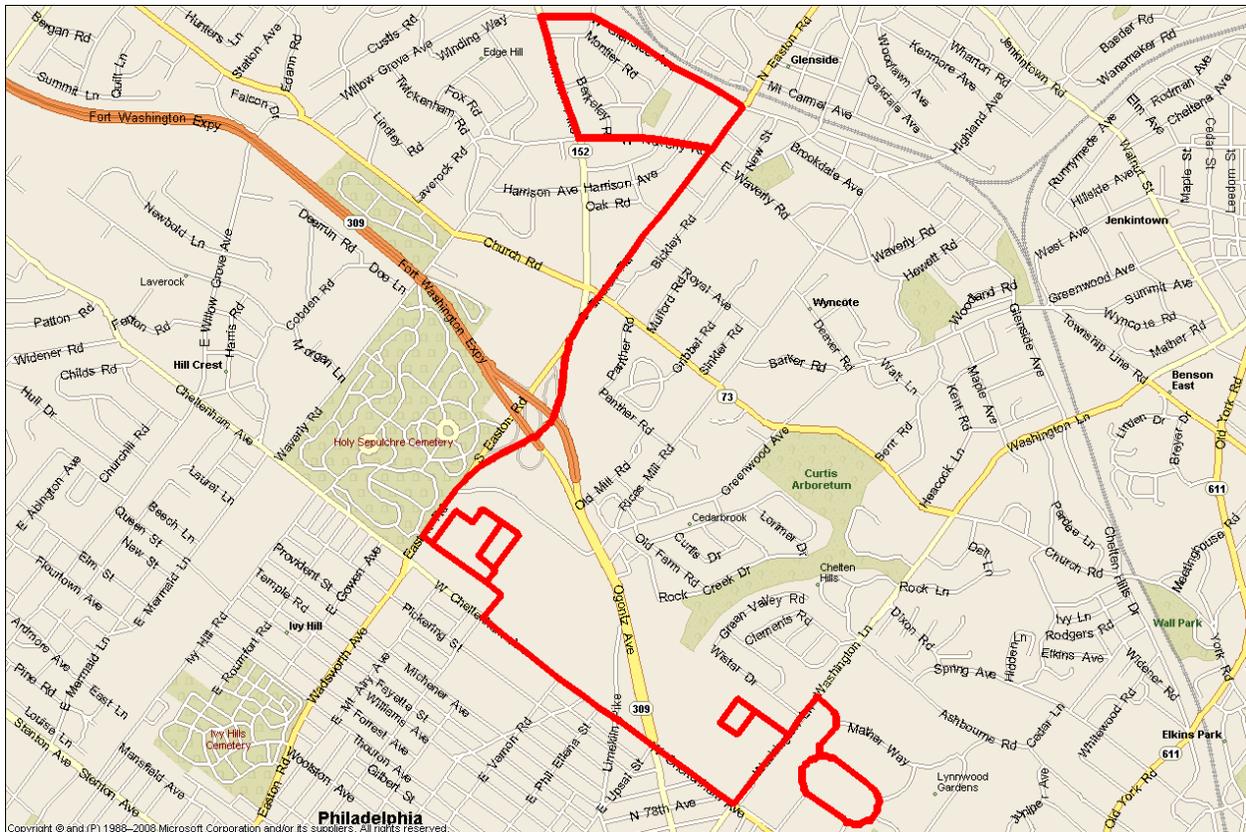
Alignment - As shown in Figure 49, the recommended plan operates principally along Easton Road and Cheltenham Avenue and will offer service to the Glenside train station, the Wawa located on Limekiln Pike, Arcadia University, Cedarbrook Plaza, the Cheltenham Square Mall and Lynnewood Gardens.

The route would originate at Lucretia Mott Way and John Russell Circle and loop through Lynnewood Gardens on John Russell Circle. The route would then operate to Cheltenham Square Mall via Lucretia Mott Way, Washington Lane and Shoppers Lane. The shuttle will then return to Washington Lane and turn right onto Cheltenham Avenue, where it will continue to the Cedarbrook Plaza. From Cedarbrook Plaza, the service will operate northbound on Easton Road, past Arcadia University and through the Glenside Business District before turning left onto Glenside Avenue where it would offer connections to SEPTA's regional rail service at the Glenside Rail Station.

The route would continue westbound on Glenside Avenue until it reaches Limekiln Pike, where it would serve the Wawa convenience store (a frequent destination of Arcadia University students) and then continue southbound. It would then turn left onto Waverly Road to return to

Easton Road and offer service in the opposite direction. The route would once again serve Arcadia University, the Cedarbrook Plaza and Cheltenham Square Mall before returning to Lynnewood Gardens, where it will complete the full loop of John Russell Circle. The route is primarily bi-directional in that service is provided in both directions along Cheltenham Avenue and Easton Road.

Figure 49 - Recommended Alignment



The route is approximately 11 miles per round trip, which would take about 52 minutes to complete. This timing allows for safe operating speeds and appropriate dwell times for passenger boarding and alighting. It should be recognized that the final running times would be established with an actual bus as the project moves forward to implementation.

The alignment through the Cheltenham Square Mall was changed from the earlier proposal presented in the previous chapter to avoid two potential difficult bus movements: one from Cheltenham Avenue onto the mall property, which is a difficult left turn and also potentially damaging to the vehicle itself due to a grade issue at this entrance; and the second from the mall property on to Washington Lane. To avoid these issues, it is proposed that the vehicle would continue eastbound on Cheltenham Avenue to Washington Lane, where it would turn left and continue on to Shopper's Lane, which serves as the back entrance to Cheltenham

Square Mall. The bus would circulate around the Cheltenham Square Mall's parking garage and return to Shopper's Lane before making a left back onto Washington Lane and continuing towards Lynnewood Gardens. The intersection of Washington Lane and Shopper's Lane has a traffic light which allows for safe ingress/egress. This alignment is depicted in Figure 50 in which the earlier proposal through Cheltenham Square Mall is shown in blue, while the red line shows the currently proposed alignment.

Figure 50 – Cheltenham Square Alignment

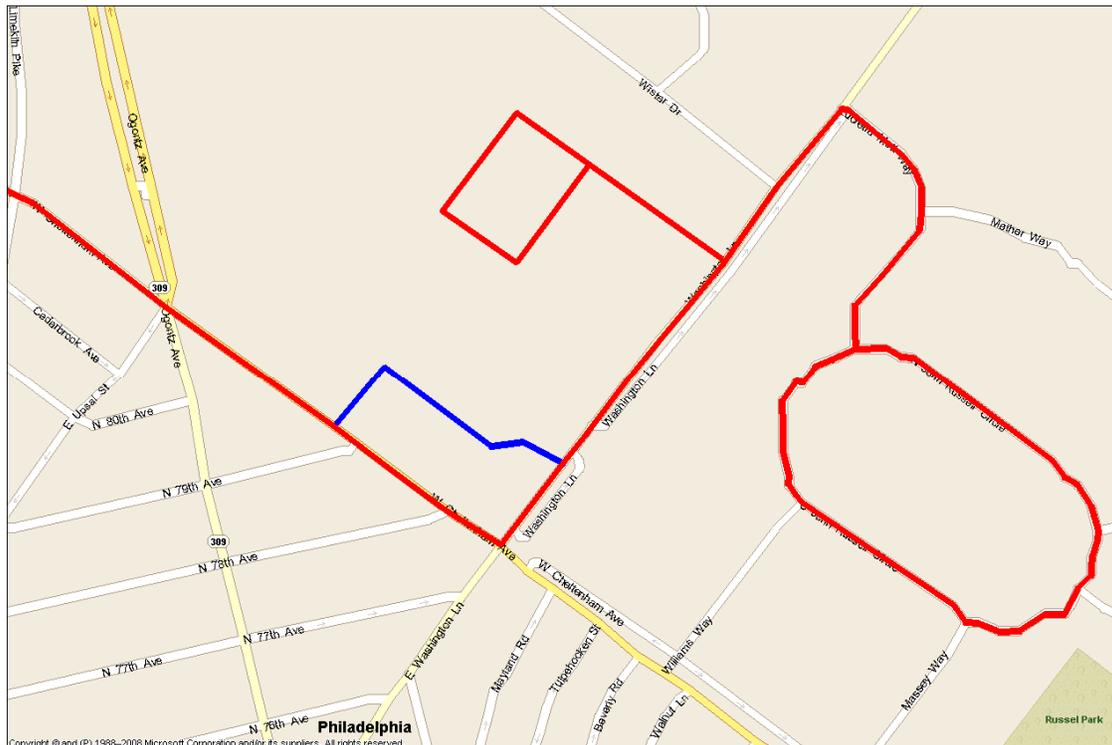


Figure 51 details the movements of the recommended route through the Cedarbrook Plaza. The blue arrows indicate the alignment of the route when the shuttle is heading towards the Easton Road corridor, while the green arrows detail the movements of the vehicle when the route is coming from the Easton Road corridor. These movements are necessary to provide bi-directional service to the Pathmark Supermarket and the Wal-Mart, as well as to the transit hub near the Pathmark, which will allow passengers to conveniently transfer to the available SEPTA bus routes which operate to this location (SEPTA Routes 18, 22, 77 and H).

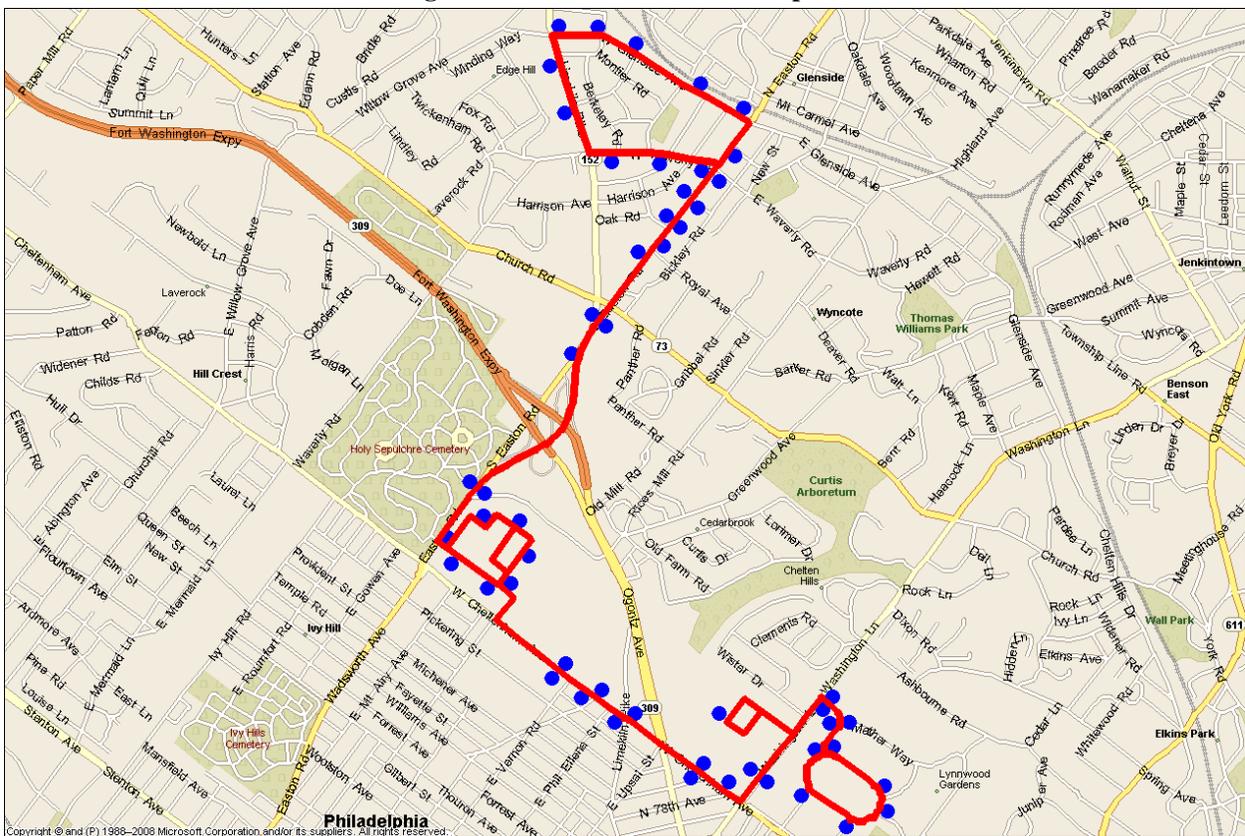
Table 20 – Proposed Bus Stops

Roadway	Intersection with
Lucretia Mott Way	John Russell Circle
John Russell Circle	Williams Way
John Russell Circle	Massey Way
John Russell Circle	Humphrey Merry Way
John Russell Circle	past Wagner Way
Lucretia Mott Way	Mather Way
Lucretia Mott Way	Washington Lane
Cheltenham Square Mall	back entrance
Washington Lane	Cheltenham Square Mall side entrance
West Cheltenham Avenue	78th Street
West Cheltenham Avenue	79th Street
West Cheltenham Avenue	Limekiln Pike (Walgreens)
West Cheltenham Avenue	Greenwood Avenue
West Cheltenham Avenue	Vernon Road
Cedarbrook Plaza	(Pathmark)
Cedarbrook Plaza	(Transit Hub)
Cedarbrook Plaza	(Wal-Mart)
South Easton Road	(Towers at Trilogy)
South Easton Road	Limekiln Pike (Arcadia University)
South Easton Road	Royal Avenue (Oak Summit Apartments)
South Easton Road	Springhouse Lane
South Easton Road	Toxony Avenue
South Easton Road	East Waverly Road
South Easton Road	Wesley Avenue
West Glenside Avenue	Glenside Train Station
West Glenside Avenue	Lismore Avenue
West Glenside Avenue	Radcliffe Road
West Glenside Avenue	Clayton Road
West Glenside Avenue	Limekiln Pike (Wawa)
Limekiln Pike	Montier Road
Limekiln Pike	Radcliffe Road
West Waverly Road	Berkeley Road
West Waverly Road	Lismore Avenue
West Waverly Road	South Easton Road

Since one of the main goals of this service is to increase the economic vitality of the Glenside Business District, the bus stops along Easton Road are more closely spaced than the rest of the bus stops along the route. This will provide quick and easy access to and from the vehicle for the stops in the commercial area and compatible with the nature of the shuttle bus route. The bus stops along Easton Road and Cheltenham Avenue will take advantage of existing SEPTA bus stops so that transfers between services will be easier, increase the transit presence on the street and simplify the process of installing bus stops.

Bus stops will be located at nearside, farside and midblock locations. While it would be desirable to follow a single placement policy, the overriding concern is with access, convenience and safety. In turn, this will mandate bus stop signs that clearly delineate boarding and alighting locations for the shuttle service. One point that should be kept in mind is that some flexibility exists with respect to the exact location of each stop. It is possible that the recommended bus stops may be refined based on more detailed comments as the plan moves forward toward implementation. Prior to the final selection of the bus stop locations, transit operations and public safety officials should inspect all possible stop locations to ensure that the location is safe for the patrons waiting for the bus as well as for the bus operating in traffic.

Figure 52 - Recommended Bus Stops



Frequency - To assure an attractive service, the shuttle bus route would operate every 30 minutes. In view of the relatively short distance of many trips and people’s perspective of what is attractive, wider headways (i.e., interval between buses in minutes) were rejected by the Steering Committee. More frequent service could be added later in response to ridership levels with initial service.

Span of Service - Another element of the service plan are the hours and days of operation. The recommended plan would be operated for approximately 10 hours per weekday (253 days per year) between the hours of 10:00 AM and 8:00 PM, and offer 8 hours of service on Saturdays (52 Saturdays per year) as shown in Table 21.

Table 21 – Span of Service

Service Day	Start and End Times	Hours of Operation	Number of Days
Weekday	10AM-8PM	10	253
Saturday	12PM-8PM	8	52

One concluding issue related to the level of service is the need for schedule coordination with SEPTA transit services. The shuttle route should be coordinated with the current SEPTA routes that operate along Easton Road (Routes 22 and 77) and Cheltenham Avenue (Routes 22, C, H and XH). This would preclude one bus arriving soon after another bus. To the extent possible, uniform headways should be operated in the corridors by the proposed shuttle route and SEPTA buses. Coordination with SEPTA Regional Rail service should also be explored; however, since this service will not operate during the morning peak period, these connections are of less importance. That being said, if demand is sufficiently high, the bus schedule could be refined to meet a specific train.

Capital Program

The shuttle bus plan would include various physical elements to operate the plan and provide enhanced comfort to patrons. The key elements are highlighted below:

- **Vehicles** - An important decision is the vehicle which should provide a comfortable ride, adequate capacity and reflect the branding concept, which would distinguish it from other bus services. At a proposed 30 minute service, two buses would be required. It is anticipated that the buses would be unique in design or paint scheme. Buses could be purchased by Cheltenham Township or leased through a financial arrangement or with a contractor should the service be operated by a private firm. Typically, a spare bus would be purchased or leased to permit routine maintenance and respond to breakdowns. It is assumed that arrangements would be made to have an additional vehicle available, but not through purchase. The spare vehicle would not need to have the same appearance as the buses placed in service on a daily basis.

There are a number of different vehicles that could be used for the shuttle bus service. Three common options include: a body on chassis vehicle, such as the Ford Starcraft Allstar, which holds 16-20 passengers in addition to two wheelchair tie-downs and costs about \$80,000; a medium duty bus, such as the GM Champion Defender which

holds 22 passengers and two wheelchair tie-downs and cost about \$150,000; and a heavy duty bus, such as the Gillig 29' Low-Floor, which holds 25 passengers with two wheelchairs and costs approximately \$340,000.

Another possibilities are buses that have a vintage streetcar appearance such as Hometown Trolley's Main Street Trolley vehicle, which holds 23 people and two wheelchair tie-downs. Buses with a trolley appearance a shown below:



Additionally, it is possible to artistically wrap a non-trolley vehicle so that they can have a streetcar appearance. One manufacturer estimated the additional cost of converting an existing bus to a trolley at \$75,000. It should be recognized that there is a wide range of vehicle options in terms of dimensions, features, duty cycle and price. Figure 53 presents other sample vehicles that could be placed in service.

- **Bus Stop Signs** - To aid riders, and in keeping with the branding concept, all bus stops served by the shuttle route would have a unique bus stop sign. Based on the current analysis, approximately 50 bus stops would need to be installed. Assuming a total unit cost, including installation, of \$120 per sign would mandate \$6,000. It should be recognized that the actual expense could be less if existing poles were used.
- **Information Kiosks** - Schedule information including maps and times would be listed for the shuttle route and other SEPTA transit services. These kiosks would be installed at locations expected to generate relatively heavy ridership such as the major generators in the service area. Assuming ten kiosks at a unit price of \$1,000 would result in a cost of \$10,000.

Figure 53 – Representative Vehicles

Body on Chassis



Medium Duty Bus



Heavy Duty Bus



- **Passenger Waiting Shelters** - To provide protection from the elements, six shelters would be erected at major locations. With a unit cost of \$7,500, the total outlay for shelters would be \$45,000. Currently, Cheltenham Township has a contract with Clear Channel to construct and maintain bus shelters, which they are permitted to place advertising on the shelters. Accordingly, the shelters could be installed at no expense to Cheltenham Township and possibly could generate revenue for the shuttle bus service.

The proposed capital program is summarized in Table 22 which indicates a total capital outlay of nearly a quarter million dollars. However, this assumes that vehicles would be purchased at the start of the service. As noted previously, to reduce the initial costs, the two vehicles should be leased with the capital outlay being \$61,000.

Table 22- Capital Program

Item	Number	Unit Cost	Amount
Vehicles	2	\$80,000	\$160,000
Signs	50	\$120	\$6,000
Kiosks	10	\$1,000	\$10,000
Shelters	6	\$7,500	\$45,000
Total	--	--	\$221,000*

* With proposed leasing the initial capital outlay would be \$61,000.

Operating and Financial Results

An important element of the recommended plan is its financial impacts in terms of revenue, costs and the extent of necessary subsidy. Revenue refers to fares paid by patrons or on their behalf by a lump sum payment. Operating cost cover expenses such as drivers wages, fringe benefits, fuel and those items that would be paid by a contractor. Other costs would be for marketing since it is assumed that current staff of Cheltenham Township could administer the shuttle bus program.

Farebox Revenue - Fares would be charged to patrons, which could serve as an offset against either operating or capital costs, or both. In the current analysis, four fare policies were considered and highlighted as shown below:

- **Free** - With this approach, no fares would be charged and everyone rides for free. Capital and operating expenses would have to be completely paid for by the sources mentioned above and Cheltenham Township. One possible concern with a free fare policy is joyriding and use of the service by unpleasant strangers.

- **Nominal** - With this scheme, passengers would pay a relatively low fare (e.g., 50 cents or one dollar). Other features could include allowing Arcadia University students and staff to ride free by presenting their identification cards if the institution decided to participate financially. Additionally, an arrangement could be made with SEPTA to allow for transfers to and from SEPTA services. Other aspects of fare coordination would be allowing persons with SEPTA passes to ride free and negotiate some payment arrangement between SEPTA and Cheltenham Township. This scheme would require cash handling on the part of the driver and subsequent counting and bank deposits.
- **Full** - With operation by SEPTA, the proposed shuttle would be treated similarly to a SEPTA route with respect to fare. Arrangements could be made with Arcadia University and the other organizations in the study area. This is the approach followed by SEPTA and the University City District for the LUCY shuttle route.
- **Current** - Cheltenham Township's current shuttle route currently charges passengers \$4.00 per one-way trip; however, seniors can use the service for free and a ten trip ticket can be purchased for \$10.00. The base fare has been set to maximize payments by PennDOT as part of the senior citizen reimbursement program. With the passage of Act 44, this large fare differential between the base fare and a ten trip ticket is not necessary. The current fare policy could be extended to the new route.

In view of the desire to encourage ridership and economic growth along the Easton Road and Cheltenham Avenue corridors, a preferred fare strategy would be the nominal fare. This is consistent with the non transportation goals of Cheltenham Township as well as the relatively short trip distances. Other aspects of the fare would be a coordinated fare program with SEPTA, a U-Pass program for Arcadia University and arrangements with other major generators and the Cheltenham Avenue BID.

Operating Costs - The cost of operating the service and maintain the vehicles was computed based on an updated unit cost of \$70 per revenue hour, and using 253 weekdays (i.e., seven holidays with no service) and 52 Saturdays over the course of a year. This unit cost is an estimated value and would include the cost of leased vehicles; however, the value is comparable with the unit costs of similar operations within the region.

Revenue was based on the estimated ridership levels and an assumed fare of one dollar. This is a nominal amount, which is consistent with the current Cheltenham Township shuttle where ten tickets are sold for ten dollars. While the base fare is four dollars, this is not charged since most riders are senior citizens and pay no fare. The proposed fare is considerably less than the adult cash base fare for SEPTA of \$2.00 or event the token at two for \$2.90. The assumed fare reflects uncertainty regarding fare arrangements with Arcadia University and SEPTA.

Reflecting the uncertainty with any demand process, low and high ridership estimates were initially prepared. The daily ridership values ranged from 105 to 180 for weekdays and 67 to 115 for Saturdays. Using a conservative approach, the lower ridership estimates were used for the financial analysis and it is estimated that implementation of the shuttle bus service would generate about 30,100 riders annually. Typical of most transit operations, particularly suburban shuttle bus lines, the estimated operating costs greatly exceed anticipated revenues as shown in Table 23.

Table 23 - Annual Operating Financial Results

Item	Amount
Operating Costs	\$412,500
Farebox Revenue	\$30,100
Deficit	\$382,400
Farebox Recovery	7.3%

Consideration was given to generating additional revenue by selling advertising space on the vehicle. Aside from the aesthetic considerations, the amount generated would be relatively small and sales opportunity may be limited; however, Cheltenham Township could pursue this funding source. One possibility is that Cheltenham Township could enter into agreements with private and non profit sponsors of the shuttle bus service and the arrangement would include advertising on the bus (e.g., rear panels).

Other costs associated with the shuttle bus service would be expenses for management and marketing. It is anticipated that the management arrangement for the current shuttle route would be adequate to accommodate the new route. In-house staff would perform administrative tasks such as supervise operations, process invoices and submit grant documentation.

In addition, it is assumed that the service would have a marketing program to inform Cheltenham Township residents about the new service and prepare promotional materials, such as a service brochure that contains a schedule and a map of the route. A first year expenditure of \$15,000 was assumed with a yearly lump sum amount of \$7,500 for this activity on an ongoing basis.

A financial pro forma analysis for a three year period was prepared which indicates the extent of operating subsidy and capital outlays. As shown in Table 24, operating costs and revenues (i.e., ridership) are expected to increase three and two percent, respectively.

Table 24 – Pro Forma Analysis

Item	Year 1	Year 2	Year 3
<i>Operations</i>			
Operating Costs	\$412,500	\$424,900	\$437,600
Marketing Costs	\$15,000	\$7,800	\$8,100
Less Farebox Revenue	\$30,100	\$30,700	\$31,300
Deficit	\$397,400	\$402,000	\$414,400
<i>Capital</i>			
Signs, Kiosks and Shelters	\$61,000	--	--
<i>Total</i>			
Total Subsidy	\$458,400	\$402,000	\$414,400

Funding

Funding to underwrite the operating deficit and capital outlays of the recommended plan could consist of government grants and contributions from participating organizations and institutions, such as the major shopping centers, Lynnewood Gardens, Arcadia University and the Cheltenham Avenue BID. It should be recognized that funds are limited with request for funds far greater than available resources. Presented below are possible sources of funds.

- **Congestion Mitigation Air Quality (CMAQ)** - Federal fund are available to regions that are not in compliance with the requirements of the Clean Air Act (the Philadelphia metropolitan area is not compliant). The program seeks to reduce emissions by funding transportation related projects. These transportation projects are submitted to the Delaware Valley Regional Planning Commission and funds are awarded on a competitive basis. A new round of funding is approaching shortly and in order to attain CMAQ dollars, Cheltenham Township will have to apply soon. CMAQ grants are only for a three year period with the understanding that the grantee would continue the program. The shuttle bus in University City (i.e., LUCY) was originally funding with a CMAQ grant.
- **Job Access Reverse Commute (JARC)** - The JARC program funds transportation projects designed to help low-income individuals access employment and related activities where existing transit is either unavailable, inappropriate, or insufficient. The JARC program also funds reverse commute transit services available to the general public. JARC money is distributed through a formula which is based on the number of eligible low-income and welfare recipients in urbanized and rural areas. Because of the nature of the program, it is not likely that JARC could be used for the proposed shuttle.
- **SAFETEA-LU Sections 5307 and 5309** - These two grant programs are administered by the Federal Transit Administration (FTA) through the current

transportation authorization. Congress will need to pass legislation that affects transportation programs and funding this spring. Eligible uses for FTA 5307 urban funds include transit operating assistance and public transportation capital investments. For the larger metropolitan areas, operating subsidy is not allowed, although funding of preventive maintenance and similar programs is a permitted activity for funding. The funds for the Philadelphia metropolitan area are based on a formula and this amount is allocated to transit agencies in the region (e.g., SEPTA, NJ Transit and PATCO). While Cheltenham Township would be eligible for these funds, it is unlikely that they would receive an allocation. FTA Section 5309 provides capital assistance for new buses, related equipment and facilities. Cheltenham Township could seek monies for the purchase of the buses needed to operate the service. Under the circumstances, the vehicles would not be leased from the contractor, but rather provided to them at a nominal rate.

- **Federal Earmarks** - During the past several years, many communities have sought assistance from their Congressional delegation to pay for various operating plans and capital improvements. Projects and the designated recipients are specifically identified. This is a funding approach that could be pursued by Cheltenham Township.
- **Act 44 Public Transportation Program** - Act 44 contains several different funding programs for transportation related services which are administered by the Pennsylvania Department of Transportation (PennDOT). It replaces some of the earlier legislation covering transit funding programs. Funding is provided for operating and capital assistance. Funding is based on a formula while some amounts are discretionary. Cheltenham Township could try to receive funding from the formula program, but the outcome is uncertain at best. Currently, Cheltenham Township receives about \$31,000 annually for transporting senior citizens. The way the funds are determined is different with Act 44 and the amounts are passed through SEPTA for the region. It is possible that additional funds could be available for the free senior citizen program with another shuttle. Other sources of PennDOT funding would be for a demonstration project. Unfortunately, Act 44 relied on funding from toll increases on the Pennsylvania Turnpike and the placing of tolls on I-80. The later has not occurred and the prospects are not favorable for new transit initiatives. As with the federal government, the shuttle bus program could be identified in a law.
- **Montgomery County Municipal Transit Grant Program** - This program provides up to \$20,000 annually for transit services or 20 percent of the operating costs, whichever is less. Cheltenham Township would be the first recipient to seek a second grant since Cheltenham Township already participates in the program for its current bus service. There would be no prohibition to apply for another route through this

- grant program. Montgomery County Planning Commission staff indicated reservations about funding because the shuttle duplicates substantial portions of existing SEPTA bus routes. At the last meeting of the Steering Committee they indicated that Montgomery County would not participate in funding the proposed shuttle service.
- **Arcadia University** - Discussions with Arcadia University have taken place about financial assistance for the recommended service. Officials are non-committal about providing dedicated funding for the service. Institutions that have supported transit service through a U-Pass program have relied on either a student fee each semester or a direct payment from the institution. Either approach would allow students and staff to ride the service for free.
 - **Private** - Cheltenham Township could enter into an agreement with other organizations and firms to help underwrite the cost of a shuttle bus service. This could include the two major shopping centers and Lynnewood Gardens as well as the yet to be formed Cheltenham Avenue and Glenside BIDs.

Based on the foregoing, the major source of funding would be the federal government and it is proposed that a two-track approach be followed. The first would be to seek a CMAQ grant which could cover as much as 80 percent of the project costs for the first three years of the shuttle bus operations. These grants are awarded on a competitive basis and there are more projects than funds available. In discussions with staff of the Delaware Valley Regional Planning Commission (DVRPC) staff, it was suggested that smaller requests would be viewed more favorably. Further, it was suggested that the grant request be limited to \$250,000 annually to increase the likelihood of the shuttle bus being selected for funding.

Because of the competitive nature of the CMAQ program, an alternate approach would be to seek federal earmark funds (i.e., for 80 percent of the project costs) and, in a similar manner, demonstration funds from PennDOT.

Consistent with a conservative approach, no additional funding is assumed for Senior Citizens under Act 44 which is not currently fully funded. As noted above other sources would be Arcadia University and private sources such as contributions from retail and residential establishments as well as the proposed BIDs in the service area. Any gaps in funding would have to be closed through payments by Cheltenham Township.

Table 25 indicates two assumed funding scenarios which provides for a substantial portion of operating and capital subsidies to be paid by the federal government. The first scheme assumes award of a CMAQ grant with the request limited to \$250,000 in each of the next three years. The second approach and possibly more difficult to obtain, is to assume an earmark with

federal funding participation levels at 80 percent of the project costs. The plan also assumes financial support by Montgomery County. The remaining subsidy would have to be negotiated between Cheltenham Township and the other previously mentioned parties.

Table 25 – Potential Funding

Item	Year 1	Year 2	Year 3
<i>Subsidy Requirements</i>			
Operating Deficit	\$397,400	\$402,000	\$414,400
Capital Expenditures	\$61,000	--	--
Total	\$458,400	\$402,000	\$414,400
<i>Funding Sources (CMAQ)</i>			
Federal (CMAQ)	\$250,000	\$250,000	\$250,000
All Other Sources	\$208,400	\$152,000	\$164,400
Total	\$458,400	\$402,000	\$414,400
<i>Funding Sources (Earmark)</i>			
Federal (Earmark)	\$366,700	\$321,600	\$331,500
All Other Sources	\$91,700	\$80,400	\$82,900
Total	\$458,400	\$402,000	\$414,400

Management Plan

Two alternative management schemes were considered with one being the reliance on a private contractor, while another would be to have SEPTA operate the service. The first is the approach followed for the existing shuttle route while the SEPTA operation was the option used by the University City District. In view of the existing arrangements and a favorable cost differential, it is recommended that Cheltenham Township utilize contractors to operate the service, provide and maintain vehicles and have overall responsibility for day-to-day operations.

Marketing Program

An aggressive marketing program is essential to the success of the recommended plan. As mentioned earlier, an initial first year amount of \$15,000, and \$7,800 and \$8,100 annually in subsequent years has been suggested for marketing the shuttle bus service. This is generally consistent with an industry wide rule of thumb that marketing should be about three percent of operating expenses. A key aspect of the marketing program is branding the proposed shuttle bus route and the creation of a sense of place for the service area. In support of these objectives, a number of marketing elements are suggested for the proposed service as highlighted below:

- **Framework** - Planning of the marketing effort should be detailed and comprehensive. Emphasis should be placed on setting objectives, project design and

- evaluation. Coordination should be maintained with other Cheltenham Township marketing efforts, especially with the Glenside Business District, as well as with the marketing plans of Arcadia University, Cheltenham Square Mall and Cedarbrook Plaza.
- **Logo** - A clearly identified logo should be prepared and possibly include a simple one or two syllable name as other community shuttles in the Philadelphia metropolitan area have employed. The logo should encompass design themes from Cheltenham Township and Glenside Business District as well as any financial sponsors, such as Arcadia University should they decide to participate. The logo will provide a standard item to be used in all marketing material. Some communities have used a “naming contest” to promote interest in the service and provide economical publicity.
 - **Vehicles** - The vehicles should have an attractive and uniform image that reflects the logo and the service. One idea that should be explored further is the use of a trolley like vehicle for the service. Trolley like vehicles are more costly to purchase than a standard shuttle vehicle, so this additional cost will have to be considered should Cheltenham Township decide to purchase the vehicles. However, if Cheltenham Township contracts the service through a vendor, the Township should consider an agreement with a company that already has trolley like vehicles. Another less expensive option would be to wrap a standard shuttle vehicle with graphics that mimic the look of a trolley. This can be accomplished whether Cheltenham Township purchases or leases vehicles.
 - **Bus Stop Signs** - Signs should be installed at all stops and present the logo, and a telephone number and a website where people can obtain additional information. Similar to the service vehicles, bus stop signs should be a visual reminder of the shuttle service.
 - **Brochure** - A user ride guide describing the shuttle service should be prepared. It would include a map, timetable and description of the connecting services (SEPTA bus and regional rail service, and Cheltenham Township’s existing shuttle). The brochure should be designed to be included in orientation packages for Arcadia University students, placed in “take one” racks at various locations and used as a self-mailer.
 - **Publicity** - Cheltenham Township should focus considerable energy on the success of the shuttle service from its introduction. Publicity on the service’s “roll out” should be created as this is a one-time opportunity. This would include news articles, media coverage and a press conference. Considerable credit for the service should be shared with Cheltenham Township staff, elected officials and financial sponsors.

- **Web Page** - A web site should be created that describes the shuttle service and explains its proper use. The site will also contain the schedule and a map of the service. Links to SEPTA and other area generators should be provided so that visitors to the site can figure out what services they can transfer to and which places they visit, respectively. The site will help create awareness of the service.
- **Posters** - Posters should be prepared for use on bulletin boards in locations such as the Glenside Rail Station, stores within the Glenside Business District, Arcadia University, Cedarbrook Plaza, Cheltenham Square Mall and Lynnewood Gardens. Each poster unit should include a “take one” box that has a supply of available brochures.
- **Arcadia University** - Because the Arcadia University student population changes with the beginning of each school year, an annual joint marketing plan between Arcadia University and Cheltenham Township should be considered. This plan would include transit expo’s, which would explain all available public transportation options for students, service information included in all new student orientation packages, a web page within Arcadia University’s website that includes information on the shuttle and a public transportation bulletin board that contains all transit information that is relevant to Arcadia University.

An ambitious marketing campaign is essential to the success of Cheltenham Township’s new shuttle service. Each of the items listed above should be implemented and coordination maintained with SEPTA and their marketing efforts of public transportation.

SUMMARY

The current study has been a sequential process in which initial efforts were directed to describing the existing transit system and the setting in which it operates. This information was supplemented by surveys and various market research activities directed to travelers within the study area. Based on this information various alternatives were considered for the alignment, frequency and span of a shuttle bus service. These options were further delineated in terms of the ridership, financial impacts and the capital requirements. The previous chapter presented a recommended transit plan should Cheltenham Township decide to proceed with implementation. The other option which is implicit in any feasibility study is for officials to take no action at this time.

At this juncture it is appropriate to understand the previous studies and the basis for the current analysis which is documented in this Final Report. Earlier work (Glenside Commercial District and Arcadia University Revitalization and Circulation Feasibility Study - Phases I and II) identified the need for a shuttle bus that would serve the northwest portion of Cheltenham Township and help to revitalize the Glenside Business District. The analysis was a companion to earlier reviews that were oriented to economic development. From this starting point, the current study was undertaken to address specific transit issues of a shuttle bus service including alignment, frequency and a host of other items that need to be delineated prior to securing funding and placing service on the street.

The underlying reasons for the shuttle bus system are mobility, economic development and sustainability. Each of these rationales for moving forward with the project is summarized below:

Mobility - The shuttle bus serves several markets which include Cheltenham Township residents, students and staff of Arcadia University and the many visitors who shop at the major retail centers and the Glenside Business District. While the study area is served by several existing SEPTA bus routes, the proposed shuttle service affords a unique service. The shuttle routing directly penetrates major generators such as Lynnewood Gardens, Cheltenham Square Mall and Cedarbrook Plaza. The proposed shuttle route is oriented to relatively short trips within the study area, while the SEPTA bus lines serve more distant travel desires such as connecting neighborhoods to the Broad Street Subway.

Economic Development - The impetus for the current study and its recommendations was earlier work that focused on steps to assure the viability of the Glenside Business District and other retail centers. To date, activities have been directed to streetscape improvements and the formation of Business Improvement

Districts (BIDS). The proposed shuttle route enhances the attractiveness of the area and contributes to the economic well being of the study area. Moreover, it provides both transportation and economic linkages with Acadia University and its campus population. The shuttle service combined with the physical improvements, creates a “sense of place” which can be effectively marketed.

Sustainability - With increasing concerns about climate change, there is a need to divert people from automobiles to less polluting modes. The various market research surveys have indicated the almost complete reliance on automobile travel for the trips within the study area. By offering a unique service oriented to their particular needs, the shuttle bus service is capable of attracting people to public transportation. This would result in fewer emissions, conservation of fossil fuels and reduced traffic volumes which are all desirable.

Having indicated the potential benefits and desired outcomes for a shuttle bus service, it must be compared to expected ridership and the cost to implement the plan. Moreover, this transit program is only one of many financial demands placed on Cheltenham Township. This project would compete with other needs of the community in an era of finite resources. Further, the current economic situation is far different now than at the outset of the earlier studies and this more recent detailed transit analysis. The current study has indicated the best way to proceed should Cheltenham Township officials wish to move forward with implementation. However, the study is properly termed a feasibility analysis, where the analysis is charged with providing necessary information on which to make an informed choice between either initiating a new shuttle bus service or taking no action at this time.