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**Glenside Commercial District and
Arcadia University Revitalization and
Circulation Feasibility Study Phase II**

prepared by:

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with:

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for:

Cheltenham Township

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1.0 INTRODUCTION



Figure 1: Study Area

In October of 2000, the Cheltenham Board of Commissioners adopted the Commercial District Enhancement Plan (CDEP) of recommended improvements to the five primary commercial districts in the township. The Glenside commercial district is the largest of these five and includes the Easton Road corridor which connects the SEPTA Regional Rail station to Arcadia University. The CDEP presented a series of recommendations, some of which have already begun implementation. In July of 2004, Cheltenham Township applied for a Transportation and Community Development Initiative grant to “enhance circulation around Arcadia University’s campus and the Glenside Commercial District.” This study was intended to follow the CDEP with feasibility studies of the recommendations presented in the plan. In addition, the scope introduced the partnership with Arcadia University and the goal of enhancing the “town-n-gown” atmosphere in Glenside.

The study area was defined as the Easton Road corridor from Route 309 to Glenside Avenue, including the Arcadia University campus and the Church Road underpass. As the study progressed, the team expanded their view of the study area to include the Easton Road and Route 309 connections with Cheltenham Avenue (figure 1). The goals, objectives, and projects were derived from a series of relevant reports including the CDEP, the Cheltenham Township Comprehensive Plan, and the 2004 Arcadia Master Plan.

1.1 Participants

A steering committee comprised of stakeholders from the University, the Township, and the County guided the process through a series of presentations and meetings. Cheltenham Township led both the Steering Committee and the Consultant Team. The key Township personnel involved were:

- David G. Kraynik, Township Manager, Cheltenham Township
- Bryan T. Havir, Assistant Township Manager, Cheltenham Township

The Steering Committee members are listed below.

- Paul R. Greenwald, President of the Board of Commissioners, Ward 2, Cheltenham Township
- Robert C. Gerhard, Board of Commissioners, Ward 1, Cheltenham Township
- David G. Kraynik, Township Manager, Cheltenham Township
- Bryan T. Havir, Assistant Township Manager, Cheltenham Township
- Rudy Kastenhuber, Public Works Coordinator, Cheltenham Township
- Ruth Shaw, Main Street Manager, Cheltenham Township
- Harold Lichtman, Chair EDTF, Cheltenham Township
- Thom Cross, Economic Development Task Force
- Jerry Greiner, Arcadia University
- Jay Vogel, Arcadia University
- Juli Roebuck, Arcadia University
- Mike Coveney, Arcadia University
- Timothy O'Brien, PennDOT, District 6
- Matt Edmond, Transportation Planner, Montgomery County Planning Commission
- Katherine Ember, Senior Planner, Montgomery County Planning Commission
- Thomas Hartman, Assistant Director, Montgomery County Roads and Bridges
- Daria Gaines, Branch Manager, Citizens Bank, Glenside Chamber of Commerce
- Patty Elkis, Manager, Delaware Valley Regional Planning Commission
- Phil Cheney, Urban Engineers

1.2 Consultant Team

The Steering Committee worked with the Consultant Team to produce this plan. Consultants are listed below.

Hillier Architecture – Urban Design and Planning

- Anish Kumar, AIA, AICP, PP
- Martha Cross, AICP
- Emily Young

F. Tavani and Associates, Inc. – Traffic Engineering

- Frank Tavani, PE, PTOE

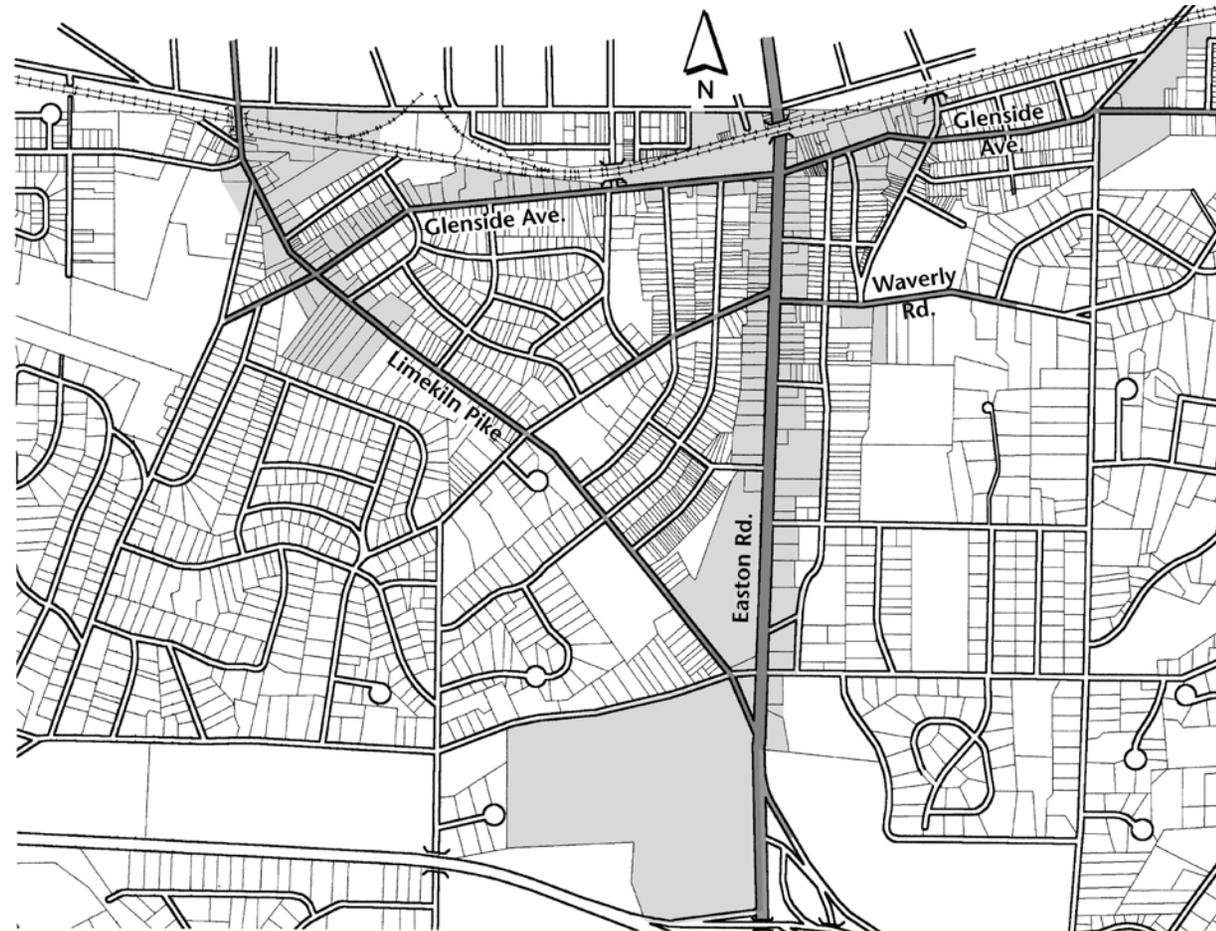


Figure 2: Glenside CDEP Study Area (source: Cheltenham Township)

1.3 Review of Previous Studies

1.3.1 Commercial District Enhancement Plan

The Cheltenham Township Commercial District Enhancement Plan (CDEP) outlines recommendations not only for the Glenside area but also for Elkins Park West, Elkins Park East, East Cheltenham Avenue, and Cheltenham Village. For each district there are five components of the vision: economic development opportunities, transportation initiatives, streetscape enhancements, architectural revitalization, and district themed architectural character. The bulk of the recommendations for the Glenside area are focused adjacent to and around the intersection of Easton Road and Glenside Avenue and the Glenside Regional Rail Station (figure 2). However, there were several opportunities for improvements identified between Route 309 and Royal Avenue, along the Easton Road corridor. Some of these projects are already in the implementation phase, including the improved paving and crosswalks at Easton Road and Limekiln Pike, to complement the proposed intersection realignment and strengthened pedestrian entrance to Arcadia University.

1.3.2 Cheltenham Township Comprehensive Plan

Cheltenham's Comprehensive Plan outlines a vision for the township's future development. The goal of the plan is to preserve and enhance existing township assets while still encouraging and allowing for new development where appropriate. The plan addresses the physical, such as land uses (figure 3), as well as economic concerns for the Township and specifically references the CDEP for the policies pertaining to the commercial districts.

Specific goals are set for the township's economic development, housing, commercial businesses, office market, transportation network, the industrial sector, recreation and open space, community facilities, environmental resources, and historic preservation. The following goals listed in the Comprehensive Plan are supported by the projects set forth in this report:

- Enhance the Township's economic assets by increasing the tax base and continuing the revitalization and redevelopment of both the commercial and residential areas.
- Maintain and enhance the Township's diverse housing stock.
- Encourage additional commercial development that is compatible with surrounding areas.
- Provide a safe, efficient transportation system that balances automobile, pedestrian, and public transportation.
- Promote the unique historic resources that are located within the community and encourage the preservation, rehabilitation, and restoration of these irreplaceable structures and landscapes.

The framework provided by the Comprehensive Plan supports the new development that will result from the CDEP and the circulation improvements recommended by this study.

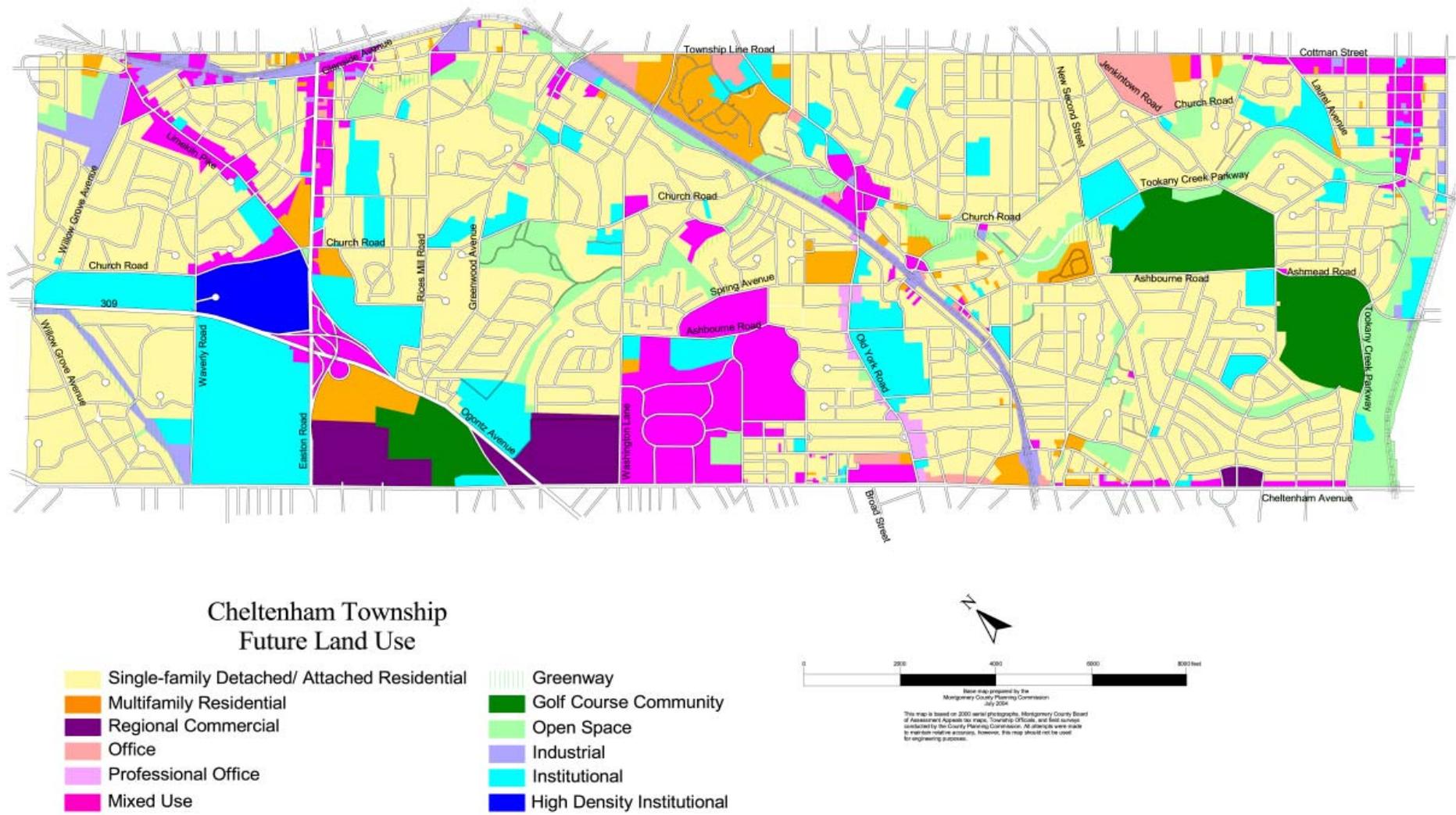


Figure 3: Future Land Use Map from the Cheltenham Township Comprehensive Plan (source: Cheltenham Township)

1.3.3 Arcadia University Master Plan

In 2003 Arcadia University hired a master planning firm to assist in the creation of a physical plan that would support the school's strategic plan and vision for significant growth over the next ten years (figure 4). To guide the development of the master plan, the University established one overarching principle: "Enhance and preserve the intimacy of the campus and its surrounding community." This is to be accomplished through six objectives:

- "Connecting Arcadia's vision, mission and long-range plan with the physical plan,
- Representing Arcadia as a comprehensive university,
- Maximizing the efficiency and aesthetic qualities of campus facilities,
- Protecting, enhancing and expanding the natural beauty of the campus,
- Clarifying the campus edges, and
- Allowing for growth in an elegant and an efficient way."

In order to accommodate new facilities within the existing limits of the campus, the plan suggests reducing the number and size of surface parking lots and access roads. This will be accomplished by disconnecting the existing drive from the Church Road entrance to the Easton Road entrance, and creating two parking garages, one near each entrance, to handle the bulk of the parking needs currently met by surface lots. Existing driveways through the campus will be converted to pedestrian pathways, presumably with limited access for service vehicles.

Beyond the current bounds of the campus, the plan outlines two additional opportunities for additional facilities and amenities for students and faculty. The first is one of several parcels that may be released from a transportation easement currently held by PennDOT through the realignment of Route 309. This roughly six-acre parcel is slated for new athletic and recreation fields. The second opportunity is the recent acquisition of the Oak Summit Apartments, a ten-acre site with housing units that can accommodate more than 700 beds for student housing. This site is in a critical location along Easton Road and begins to bridge the gap between the Glenside retail community and the University.

Proposed location of parking garages



Figure 4: Arcadia University Master Plan Map; (source: Arcadia University Masterplan, graphic used with permission)

1.3.4 Cheltenham Avenue Revitalization Plan

Cheltenham Township and the City of Philadelphia joined forces to revitalize the public environment along the Cheltenham Avenue corridor. This is a retail-oriented place with a large supporting residential population, but because Cheltenham Avenue is a major arterial road, the area is dominated by vehicular traffic creating an unsafe pedestrian environment.

One of the key areas identified in the plan is the Cheltenham Avenue and Easton Road intersection at Cedarbrook Plaza, just south of the Easton Road / Route 309 interchange (figure 6). Here, pedestrians are endangered by vehicular movements in the large intersection and the retail environment is slowly giving way to auto-oriented businesses. In addition, there are no pedestrian amenities or shelters for transit users. The plan proposes street geometry improvements, transit improvements, new development, and streetscape and façade improvements to create a “seamless strip of retail uses, identified and marketed as a distinct place.”

Another area of proposed improvements is the Cheltenham Square Mall intersection (figure 5). The goal of the plan is to maintain the existing transit hub while improving pedestrian connections to the mall and creating opportunities for new development.



Figure 5: Cheltenham Avenue Revitalization Plan for Cheltenham Square Mall (source: Cheltenham Township)



Figure 6: Cheltenham Avenue Revitalization Plan for Cheltenham Avenue at Easton Road (source: Cheltenham Township)

2.0 TRAFFIC ENGINEERING ANALYSIS & FINDINGS

Roadway infrastructure, pedestrian facilities, and the relationship between the two are key components of any revitalization study. In Glenside, it is especially important for many reasons. First, there is a broad mix of uses in the study area which interrelate with each other. These include the University, local retailers, single family residences, and a major apartment complex (Trilogy) / retail destination (Cedarbrook Plaza) to the south. Second, major roadways in the area – Easton Road, Limekiln Pike, and even a limited-access highway (Route 309) – bring with them the traffic needed to support the community, but potentially at the expense of a walkable environment. Third, a train station located at the northern end of the study area – and the possible construction of a parking garage and new retail opportunities nearby – brings with it yet another challenge.

The first step in addressing these traffic and pedestrian issues is to review any available prior reports. The CDEP, one of the studies reviewed and discussed in the previous section, set forth a number of traffic and streetscape improvements for the Glenside corridor. These included a new traffic signal and related alignment improvements at the intersection of Easton Road and Limekiln Pike, new pedestrian crosswalks (in particular at the intersection just mentioned), and streetscape improvements along the entire Easton Road corridor within the district.

The next step is to collect traffic data for the area. Since a goal of this report is to foster an improved relationship between Arcadia University and the surrounding community, data collection was conducted at key University access points.

2.1 Data Collection: Traffic

Traffic engineering analyses typically begin with a collection of traffic count data during peak travel periods. In this instance, turning movement traffic counts were conducted at four existing driveways serving the Arcadia University campus – two along Church Road and two along Easton Road. Traffic counts were conducted from 7:00 to 9:00 AM and from 4:00 to 6:00 PM on Wednesday, 21 September 2005 and Thursday, 22 September 2005. Both days were 'typical weekdays' from a travel perspective meaning neither day was a holiday. Both days were also 'typical school days' from Arcadia University's perspective meaning both days were ordinary, full-class days.

In the fall of 2005, PennDOT (The Pennsylvania Department of Transportation) was engaged in reconstructing Route 309 which is immediately adjacent to the University. This is having effects on travel patterns in the study area in two ways. First, some motorists are likely deviating from their ordinary travel routes to avoid detours and potential congestion. Second, PennDOT has reconfigured several roadways and intersections to accommodate reconstruction activity. In some cases, new turning movements have been created while in other cases, former turning movements have been banned during the reconstruction. This means that any traffic count data collected on public roadways in the area would not reflect real conditions. For this reason, the traffic data collection performed as part of this effort was limited only to traffic volume in and out of the University at the four driveways mentioned.

2.1.1 Existing Peak Hour Traffic Volumes

Although through traffic volumes along Church Road and along Easton Road were not documented during the traffic counts, it is reasonable to assume that these roadways will feature their maximum demands during weekday commuter peak hours. Accordingly, it is worthwhile to determine the demands (i.e., how much traffic) Arcadia University places on the local roadway system during weekday commuter peak periods. These demands are illustrated in Figure 7 which reveals inbound and outbound volumes during both the weekday AM peak hour (approximately 8:00 to 9:00 AM) and the weekday PM peak hour (approximately 5:00 to 6:00 PM). As shown, 409 vehicles were counted entering the campus during the AM peak hour (and 140 leaving) while 275 vehicles were counted leaving the campus during the PM peak hour (and 46 entering).

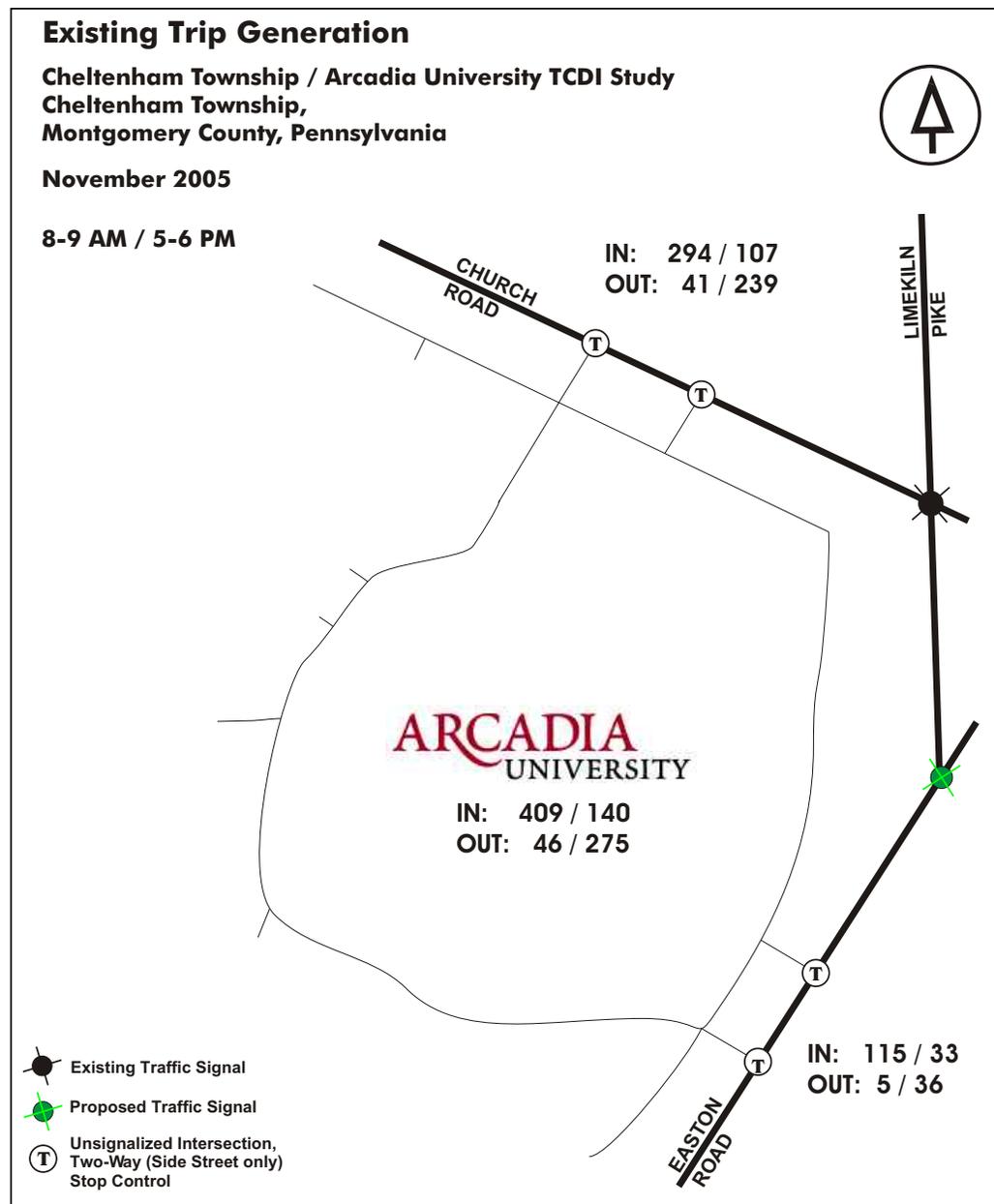


Figure 7: Existing Trip Generation Map at Arcadia University (source: F. Tavani and Associates)

Campus Parking Layout and Occupancy Counts

Cheltenham Township / Arcadia University TCDI Study
Cheltenham Township,
Montgomery County, Pennsylvania

November 2005

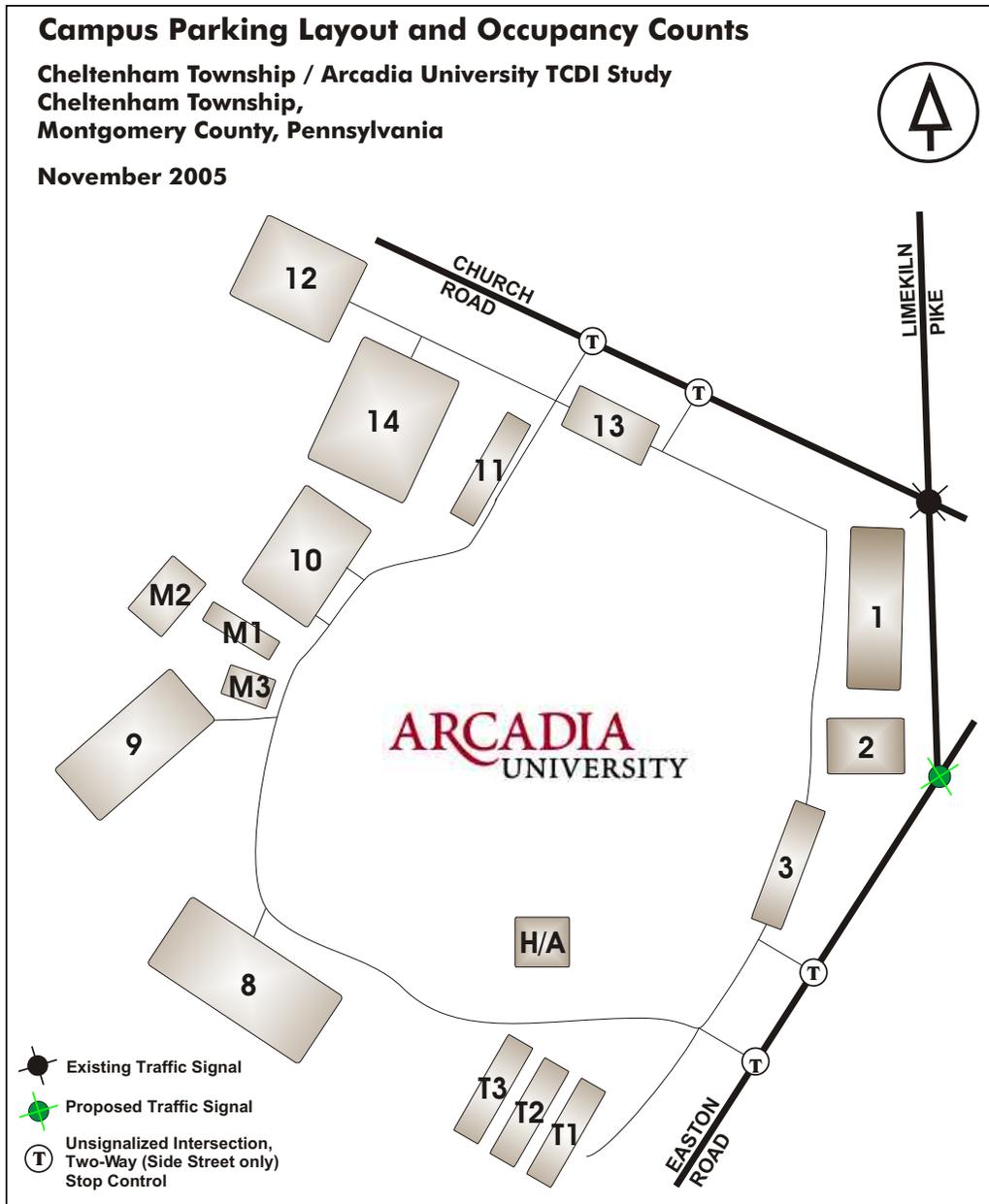


Figure 8: Arcadia University Parking Layout and Occupancy Map (source: F. Tavani and Associates)

2.2 Data Collection: Parking Occupancy

In addition to traffic count data, another useful measurement is parking occupancy data. Simply stated, parking occupancy is documentation of observed parking demand at a particular parking facility, whether a parking lot or parking structure. Existing parking supply (number of striped parking spaces) is documented first followed by observation and tabulation of demand (number of parked cars). Parking occupancy counts should be done at a time when the land use associated with the parking is at or near its peak demand so that a true estimation of peak parking occupancy is measured. For this reason, parking occupancy counts should be conducted well after the typical weekday AM peak hour or before the typical weekday PM peak hour. In this instance, parking occupancy counts were conducted on Thursday, 22 September 2005 at approximately 11:00 AM and again on Monday, 7 November 2005 at approximately 10 AM.

2.2.1 Existing Parking Occupancy

The existing Arcadia University campus is comprised of several parking areas. Some areas are large lots while others are small segments of parallel parking near buildings or along roadways. Figure 8 illustrates the main parking lots/areas which were identified on the campus. The majority of the parking lots are identified by post-mounted signs bearing a Lot Number, as shown in the figure.

Figure 9 contains a table which summarizes the findings of the parking occupancy counts. This table is comprised of three vertical segments. The

first is identification of a parking area, the second is identification of available parking supply, and the third is identification of available parking demand. In the case of supply, this is offered in three categories. The first is 'striped' spaces. These are actual painted parking spaces. The second is 'unstriped' spaces. These are spaces that are not defined as parking spaces by markings, yet were observed to be occupied and felt likely to be used routinely enough to consider them as part of the parking supply, even though they are not legitimately striped as such. The third category is handicapped parking spaces. A total of the three preceding columns is also shown.

In terms of demand, this is identified in the table on a per parking area basis for each of the two days mentioned. A percentage column is also included for either observation.

As shown, the parking occupancy for the entire campus was found to be 76% during the November observations and 83% during the October observations. The latter is higher because the counts were conducted approximately one hour later than the former. Discussions with University staff corroborate that these observations reflect the times during which parking demands on the campus are generally at a maximum during a typical school day. As a general rule, parking occupancy is considered to be at a maximum when approximately 85 to 95% parking occupancy is achieved, depending on the type of land use and size of the parking facility. It is rarely, if ever, greater than 95% because it is undesirable to have motorists circulating excessively in a parking area and this is the case as fewer and fewer parking spaces are vacant. Thus, the available parking on campus is operating at or near capacity at present time.

Parking Area	SUPPLY				DEMAND			
	Parking Space Type			Total	Th, 09/22/05, 11A		M, 11/07/05, 10A	
	Striped	Unstriped	HC		Vehicles	%	Vehicles	%
1	96	4	2	102	102	100%	102	100%
2	9	0	1	10	9	90%	8	80%
3	70	0	1	71	69	97%	68	96%
8	156	0	6	162	101	62%	58	36%
9	104	2	3	109	100	92%	93	85%
10	78	6	3	87	81	93%	80	92%
11	19	0	1	20	19	95%	19	95%
12	150	0	0	150	77	51%	63	42%
13	45	0	2	47	46	98%	46	98%
14	144	0	2	146	141	97%	144	99%
H/A	10	0	1	11	9	82%	9	82%
M1	0	3	0	3	3	100%	3	100%
M2	6	0	0	6	5	83%	2	33%
M3	6	2	0	8	9	113%	9	113%
Tier 1+2	70	0	0	70	61	87%	57	81%
Tier 3	25	0	0	25	23	92%	24	96%
TOTAL	988	17	22	1027	855	83%	785	76%

Figure 9: Arcadia University Parking Layout and Occupancy Count Table (source: F. Tavani and Associates)

3.0 GOALS AND OBJECTIVES

The following economic development and revitalization goals from the grant application guided the study effort:

1. Enhance the Town-N-Gown climate of the Glenside Area
2. Enhance the community character
3. Improve the overall quality of life for the residents
4. Improve the overall business climate in the commercial district
5. Improve the overall transportation network and pedestrian access through the physical improvements to the system, some of which are aimed at reducing automobile dependency and congestion by offering non-automobile alternatives

While the study was primarily focused on infrastructure improvements, the Steering Committee also expressed a need to address development along the Easton Road corridor. Working with the Steering Committee, the team established a series of objectives that fell into two categories: infrastructure and supporting development. Each objective was then assigned a series of projects to accomplish.

Four primary objectives were established within the original project directive of establishing the feasibility of the infrastructure necessary to improve circulation:

- Increase pedestrian safety through improved connections and environment
- Enhance the gateway to Arcadia University and Glenside
- Make bicycles a viable form of alternative transportation in and around Glenside
- Create a transit connection between the train station, Arcadia University, and the Glenside business district

Three additional objectives were created for supporting development that would help to improve circulation within the study area:

- Encourage student-focused retail, dining, and events/activities along Easton Road
- Reuse additional land made available from Route 309 reconfiguration
- Strengthen ties between Arcadia University and the Glenside Community

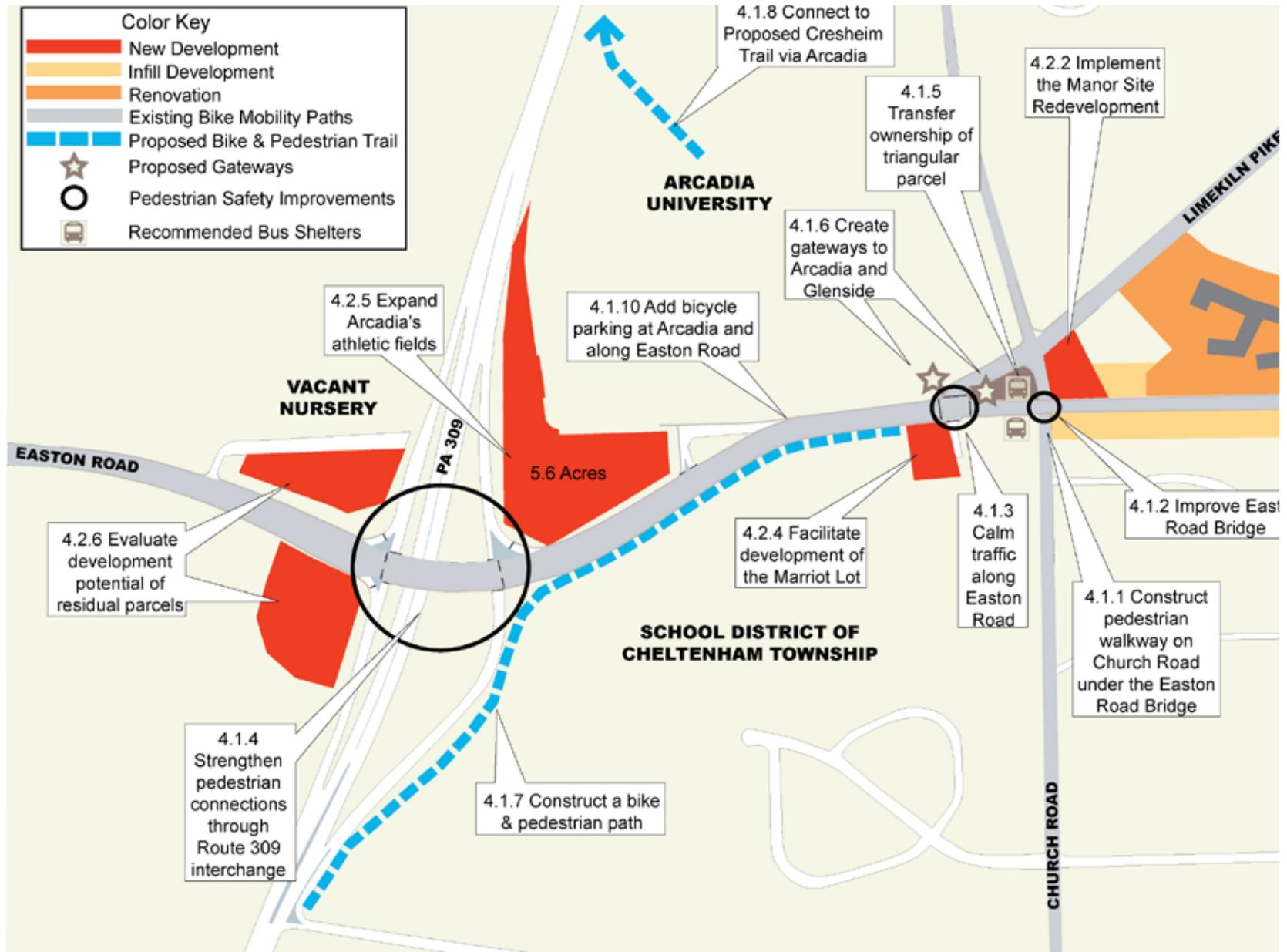




Figure 10: Map of Plan Projects

4.0 PLAN RECOMMENDATIONS

Using the objectives agreed upon by the Steering Committee, the team recommends a series of projects to realize the goals of the study. The projects are also divided into two groups: infrastructure and supporting development. Where appropriate, the projects are accompanied by diagrams and images to support their implementation.

4.1 Infrastructure

The infrastructure projects proposed address the issues of circulation in the planning area that necessitated the feasibility study. There are ten projects that address the four infrastructure planning objectives:

Objective: Increase pedestrian safety through improved connections and environment

1. Construct a pedestrian walkway along Church Road under Easton Road
2. Improve appearance of the Easton Road Bridge over Church Road
3. Calm traffic and improve intersections at Easton and Limekiln and Church and Limekiln
4. Strengthen pedestrian connections across Route 309 interchange

Objective: Enhance the gateway to Arcadia University and Glenside

5. Transfer ownership of triangular parcel, bounded by Easton Road, Church Road, and Limekiln Pike, from County to Arcadia University
6. Create a landscaped and signed gateway to Arcadia University and the Glenside community

Objective: Make bicycles a viable form of alternative transportation in and around Glenside

7. Construct a dedicated bike path from Greenwood Avenue to Easton Road within the vacated Route 309 roadway
8. Connect the Township's bike network to the proposed Cresheim Trail via Arcadia University
9. Integrate bike lane and "share the road" signage along the County's proposed Bike Mobility Paths
10. Introduce bicycle parking at fringes of University campus and near retail activity along Easton Road

Objective: Create a transit connection between the train station, Arcadia, and the business district

11. Determine viability of introducing shuttle bus service
12. Use existing SEPTA bus route 22 to promote a transit connection between Cheltenham Avenue, Arcadia University, and the Glenside Train Station

4.1.1 Project: Construct a pedestrian walkway on Church Road under Easton Road

Pedestrian access under Easton Road on Church Road can be greatly improved. The University owns property on both sides of the underpass, and there is a high volume of pedestrian and other traffic, including truck traffic along Church Road, so there is a real need for an improved connection (figures 15 +16).

The ideal solution for safe pedestrian access is a raised walkway (figure 11 + 12). Establishing a raised connection can be accomplished by connecting existing sidewalks at the intersection with Limekiln Pike and just beyond the driveway to Michael's Restaurant (figures 13+ 14). Since no other connections to the street are needed, the sidewalk can be kept at the same elevation while the street slopes down and back up again to go under Easton Road (figures 17 + 18). This creates a level walkway that is raised through the underpass. This raised, yet level walkway, will not only improve accessibility, but also provide a safety separation between the heavy traffic and the pedestrians.

As a less costly alternative, it is also possible to construct a traditional sidewalk along the road, with sloped access from either side (figures 19+ 20). Creating either type of connection may involve acquiring property or easement access rights to land on either side of Easton Road. The western side is currently owned by Montgomery County, while the eastern side is owned by Michael's Restaurant.



Figure 11: Church Road underpass - existing view



Figure 12: Proposed raised walkway along Church Road



Figure 13: Church Road underpass - existing plan



Figure 14: Plan of proposed walkway along Church Road

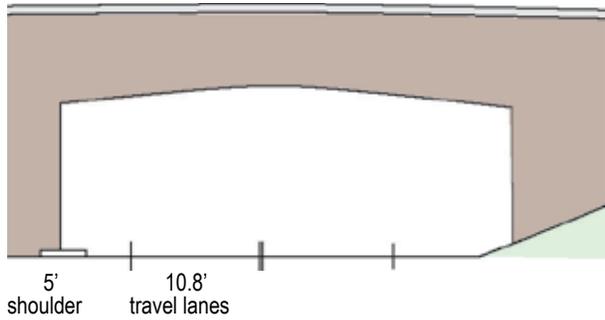


Figure 15: Church Road underpass existing cross-section looking east

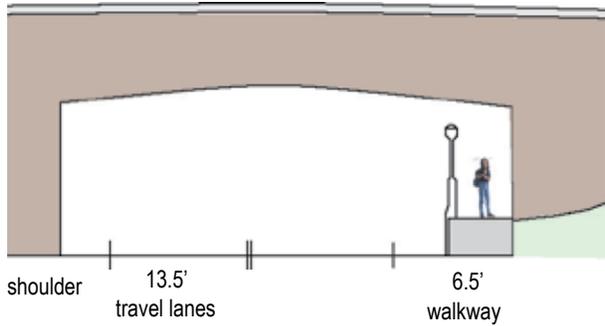


Figure 17: Church Road underpass proposed raised walkway cross-section looking east

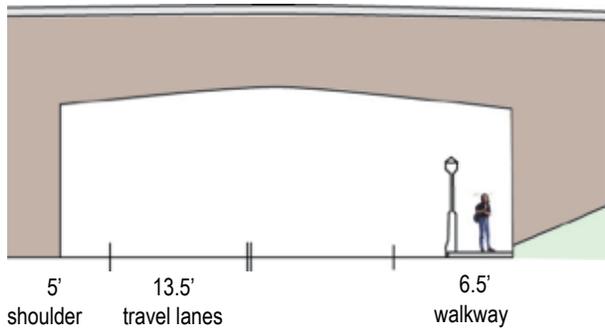


Figure 19: Church Road underpass alternate proposed walkway cross-section looking east



Figure 16: Church Road underpass existing cross-section through Church Road looking south



Figure 18: Church Road underpass proposed raised walkway cross-section through Church Road looking south

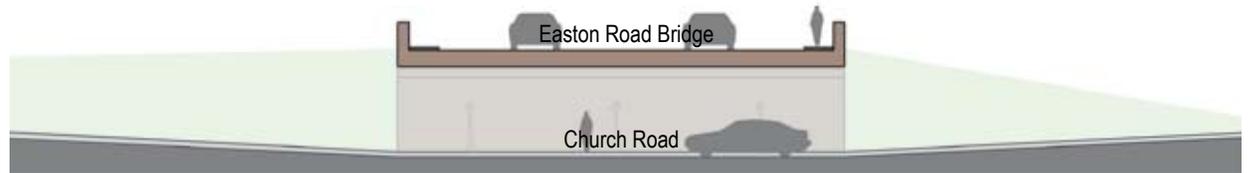


Figure 20: Church Road underpass alternate proposed walkway cross-section through Church Road looking south

4.1.2 Project: Improve appearance of the Easton Road Bridge over Church Road

In addition to adding a raised walkway under Easton Road, it is recommended that cosmetic improvements are made to the bridge itself to improve its role as a gateway to Glenside and Arcadia University. Removing ivy growth, cleaning the stone as well as the substructure, trimming foliage, cleaning and restoring light fixtures, and repairing sidewalks will all help to improve the appearance and highlight the historic features of the bridge (figures 21 + 22). A maintenance plan should be prepared to ensure that the bridge structure receives proper care in the future.



Figure 21: Easton Road Bridge

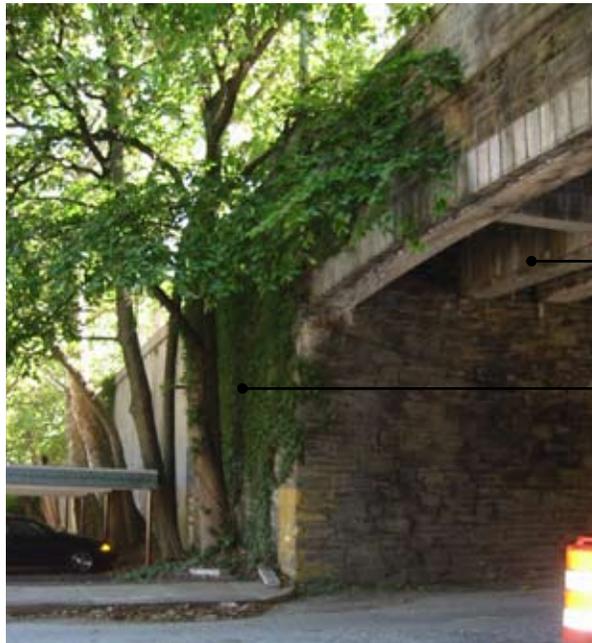


Figure 22: Side of Easton Road Bridge

Remove weeds and
repair the sidewalk

Restore historic
light fixtures

Clean underside of bridge

Remove excess foliage
and ivy growth

Signalized intersection with marked crosswalks

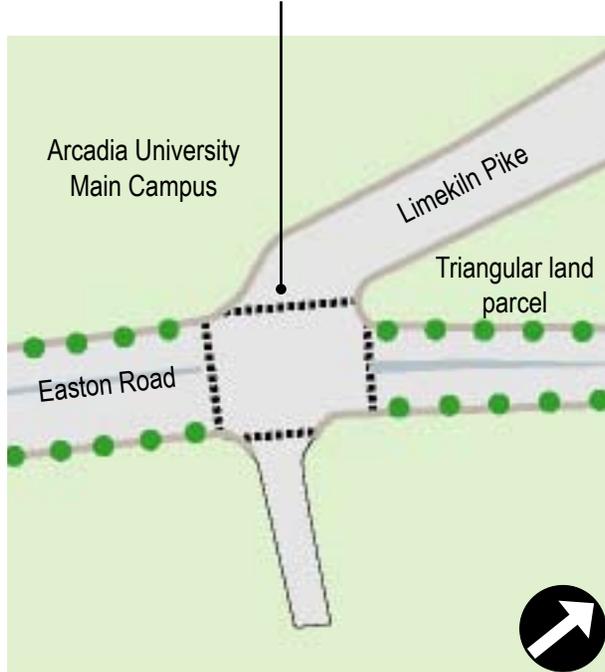


Figure 23: Realigned intersection of Easton Road and Limekiln Pike

4.1.3 Project: Calm traffic along Easton Road and improve intersections at Easton and Limekiln and Church and Limekiln

Easton Road between Route 309 and the Glenside commercial district is host to a high volume of relatively fast-moving traffic. While traffic control devices – speed limits, stop signs, etc – are important on every roadway, additional traffic calming is needed to slow cars on Easton Road and make the pedestrian environment safer and more appealing. Unlike traffic control devices, traffic calming measures are typically self-enforcing because they take the form of physical changes to the vehicular environment.

A traffic calming measure is any device that brings about one of three goals: a reduction in volume, a reduction in speed, or a reduction in the number of conflict points. As noted, there is a relatively high volume of fast moving traffic along Easton Road, particularly in the westbound direction just west of Michael's Diner. Since Easton Road is a major corridor in the region, there is no likelihood of reducing volume, but there is a reasonable opportunity to reduce speed, thereby creating a more hospitable pedestrian environment.

The new traffic signal which will be constructed at the intersection of Easton Road and Limekiln Pike will serve as an ad-hoc traffic calming measure (figure 23). As the signal cycles through its phases, it will regulate the speed of traffic to a significant extent. Whenever a pedestrian activates a pedestrian phase (via pushbutton) at the signal, that will reduce flow even more by bringing about an even longer 'red phase' to Easton Road traffic. This will create a much more pedestrian-friendly corridor between Arcadia University and the business district (figures 24 + 25). Even so, there are additional opportunities to further control speeds. Given the particular environment / traffic



Figure 24: Current conditions at Limekiln and Easton Road intersection (source: Cheltenham Township)



Figure 25: Limekiln and Easton Road intersection with planned improvements (source: Cheltenham Township)

volumes along Easton Road, it may not be appropriate to employ “vertical deflection” techniques such as raised crosswalks or speed tables. However, where it is possible to further “tighten” the traveled way – potentially through such techniques as additional on-street parking or curb extensions – that will also help curtail excessive speed along the corridor.

Introducing improved crosswalks to an existing signaled intersection at Limekiln Pike and Church Road will also serve to increase pedestrian safety. Plans for an upgraded intersection were proposed in the 2006 Arcadia University Landscape Master Plan (figure 26). In addition to the new safety features, Arcadia is also planning for gateway improvements such as a grand stairway, landscaping, and signage (figures 27 + 28).

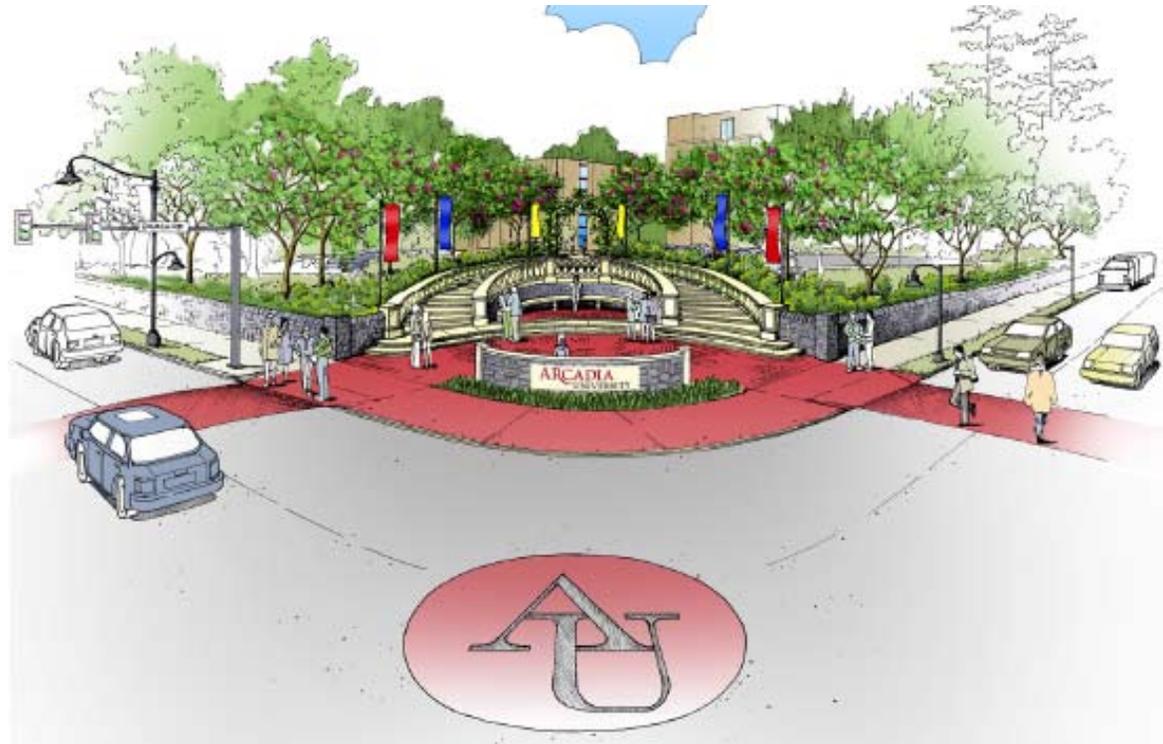


Figure 26: Arcadia University's proposed improvements to the Limekiln and Church Road intersection (Arcadia University Landscape Master Plan, 2006)



Figure 27: Arcadia's proposed crosswalk rendering (Arcadia University Landscape Master Plan, 2006)

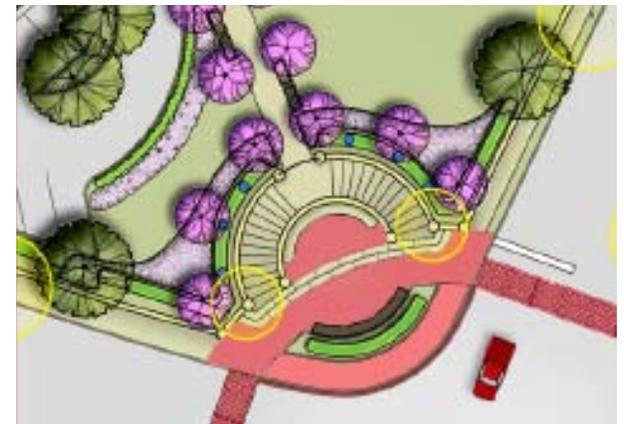


Figure 28: Arcadia's proposed ceremonial entry stair (Arcadia University Landscape Master Plan, 2006)

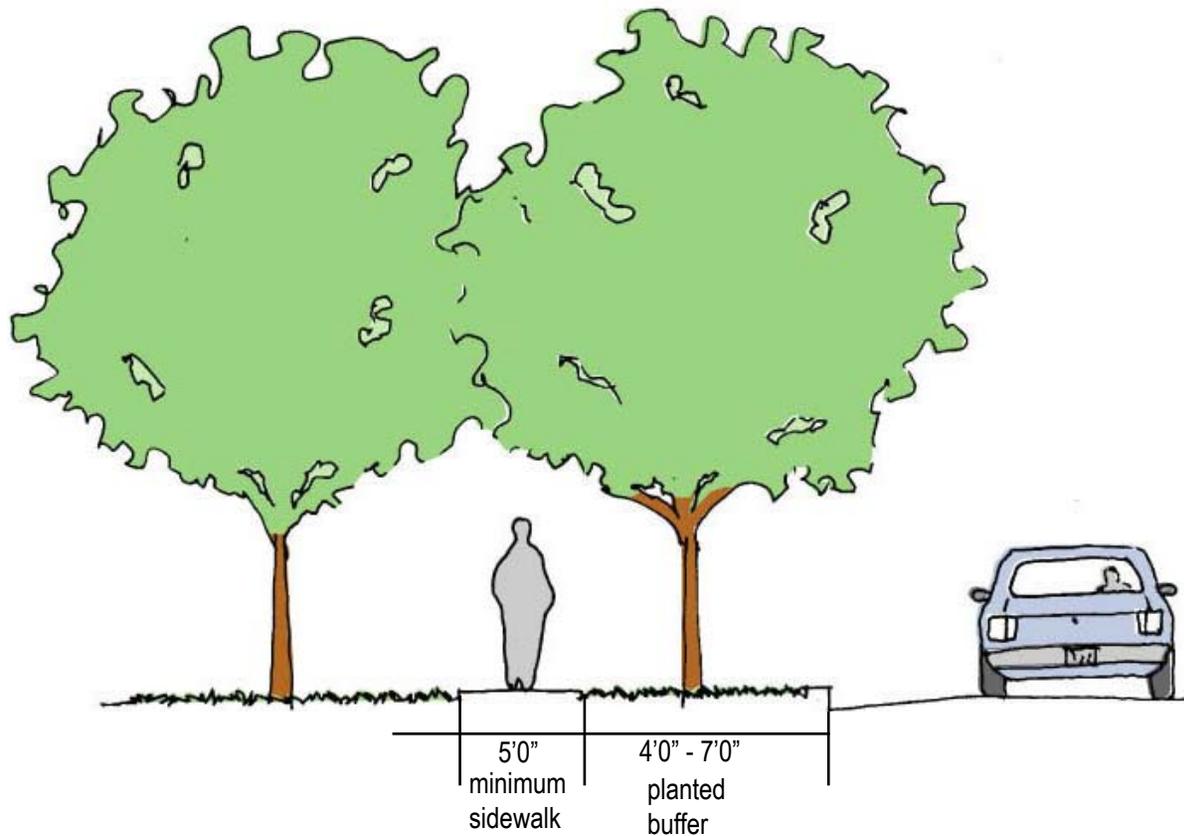


Figure 29: Cross section of recommended pedestrian improvements along Easton Road

4.1.4 Project: Strengthen pedestrian connections along Easton Road through Route 309 interchange

The Route 309 interchange, currently undergoing reconfiguration to ease confusing vehicular traffic patterns, is perceived as a barrier to pedestrians on Easton Road, especially to those students and community members who use the linkage to travel to the retail activity on Cheltenham Avenue. Sidewalks and crosswalks are planned to increase the safety of pedestrians traveling this corridor; however, these treatments should be carefully considered because those features alone may not provide enough protection for pedestrians or adequate visibility for vehicles.

A commonly accepted “safe” sight distance for pedestrians to be observed by motorists is ten times the posted speed limit in feet. For example, a car traveling 25 miles per hour needs approximately 250 feet of clear visibility to properly respond to pedestrians in crossings. It is recommended that sight lines of 250-300 feet be established for traffic turning onto Route 309 northbound from Easton Road. The Township should work cooperatively with PennDOT to ensure that this sight line requirement is met. In addition, all crosswalks planned for the interchange should be striped and well-marked by signage geared towards both drivers and pedestrians (figure 30).

Strengthening pedestrian connections at locations of potential conflict with vehicles is critical, but not the only upgrade needed to improve the overall pedestrian experience along the Easton Road Corridor and the Route 309 interchange. The speed and volume of the traffic on Easton Road also causes an unpleasant pedestrian experience. The sidewalks are narrow and

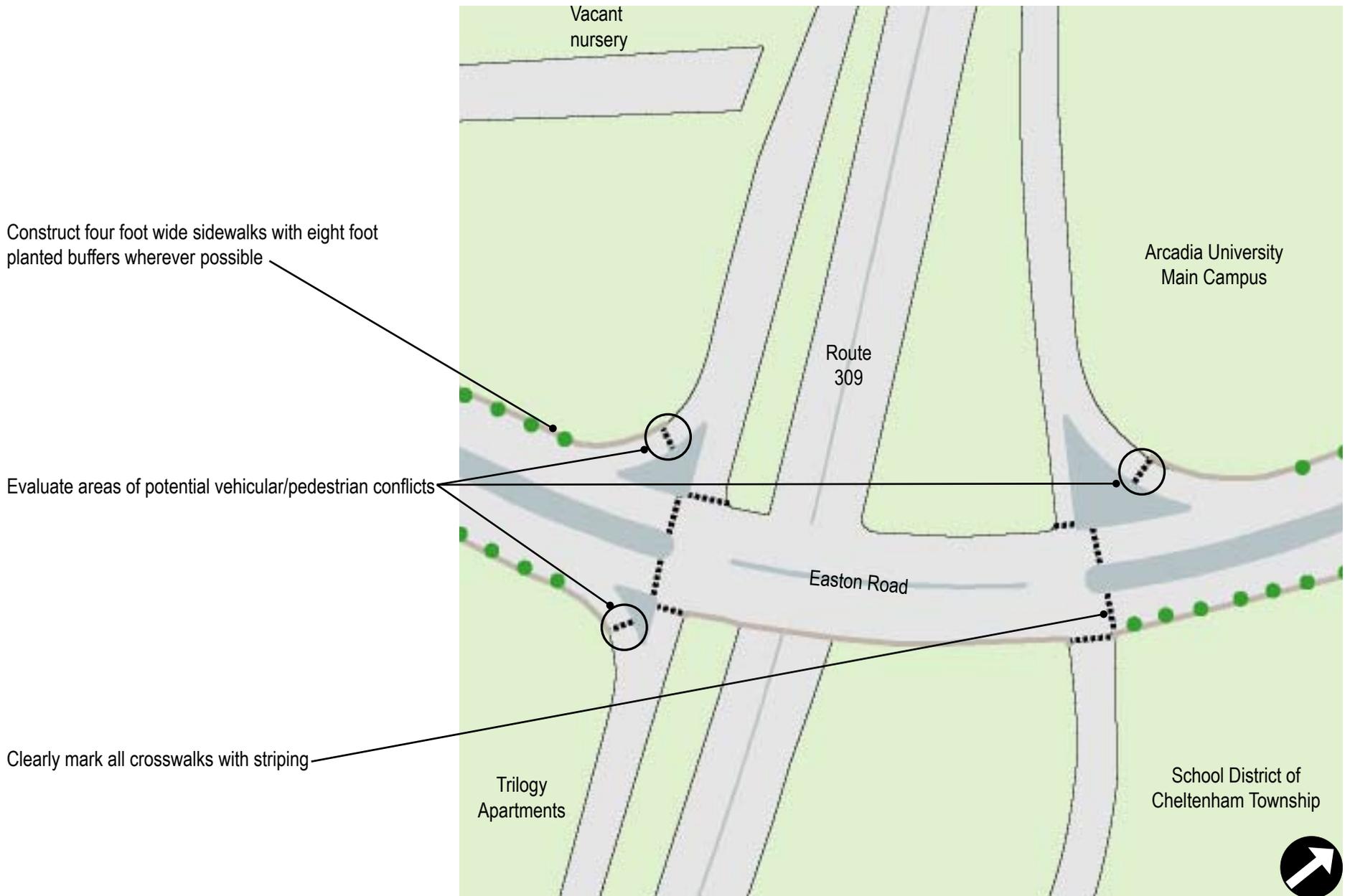


Figure 30: Pedestrian connections through the Route 309 interchange



Figure 31: Main Street Design Committee suggested signage for a pedestrian bridge (source: Glenside Main Street Design Committee)

not physically buffered from the adjacent roadway. The Urban Land Institute (ULI), the American Society of Civil Engineers (ASCE), and the Institute of Transportation Engineers (ITE) all recommend that for roadways classified as Collectors (or higher roadway classification), the desirable cross-section includes an eight-foot planted strip separating the traveled way from pedestrians (figure 29). Montgomery County road standards recommend a four to seven foot wide buffer with a five-foot sidewalk for this type of road. Considering the volume and speed of traffic along Easton Road -- not to mention one of the stated goals of the project which is to create more meaningful pedestrian links between the University and local venues -- it is recommended that an seven-foot wide planted strip as well as a minimum five-foot wide sidewalk be provided along Easton Road in the locations indicated on the current PennDOT plans.

New measures designed to enhance the pedestrian experience will complement the ongoing efforts of PennDOT, particularly at the unusual intersection where Limekiln Pike meets Easton Road. The agency has been working consistently on strategies aimed at enhancing the pedestrian experience and safety throughout the area. Because a number of people, primarily students from Arcadia University, access and travel the Easton Road corridor regularly on foot, the need for improved pedestrian connections has been apparent for some time. After a 2002 workshop, the Cheltenham Main Street Design Committee proposed that a pedestrian bridge be constructed to safely transport people up a flight of stairs, across Limekiln Pike, connecting at grade to the sidewalk on the Easton Road Bridge (figures 31+ 32). While this was a viable solution at the time of its conception, the construction of a signalized intersection at Limekiln Pike and Easton Road will effectively solve the problem of a safe and convenient connection to Easton Road. Together, the improvements would be too close together to warrant both. When the improvements are complete, the University community will be able to exit the campus through the historic archway, cross Limekiln Pike safely at the light, and proceed along Easton Road.

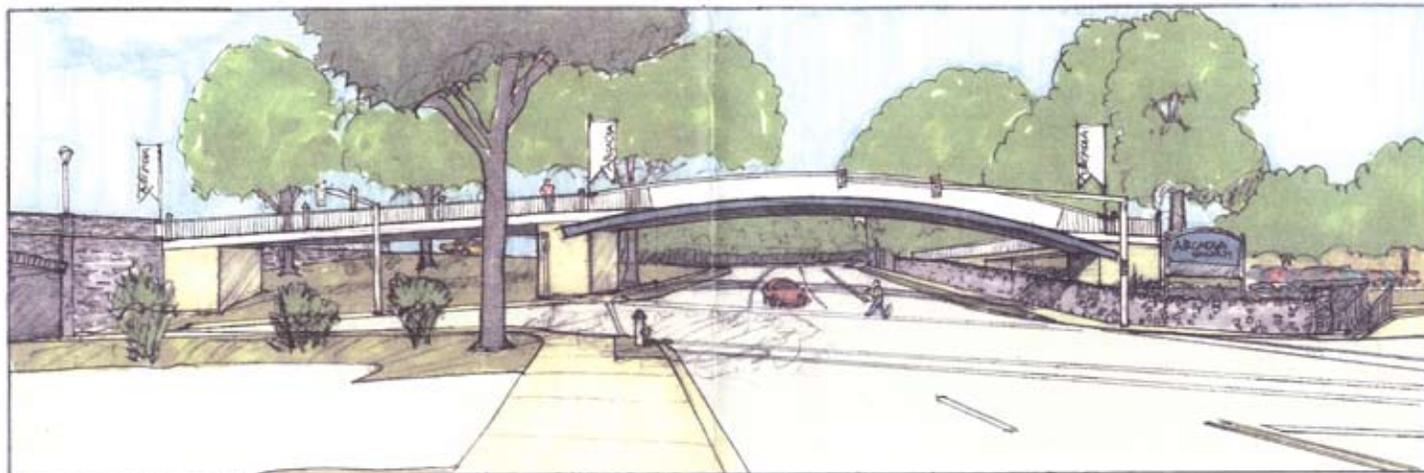


Figure 32: Main Street Design Committtee design for a pedestrian bridge connection to Easton Road (source: Glenside Main Street Design Committee)

4.1.5 Project: Transfer ownership of triangular parcel, bounded by Easton Road, Church Road, and Limekiln Pike, from County to Arcadia University

The grassy triangle bounded by Easton, Church, and Limekiln serves as a default gateway to the town and to the University (figure 33). The property is currently owned by Montgomery County; however, the University has been maintaining the lot for several years.

To ensure that it continues to serve as a gateway element and is regularly maintained, this plan recommends transferring ownership of the land from the Montgomery County to Arcadia University. Options include outright wale to the University, transfer of ownership of the land to Cheltenham Township which could then give or sell it to Arcadia University or a long-term lease agreement with Arcadia University.

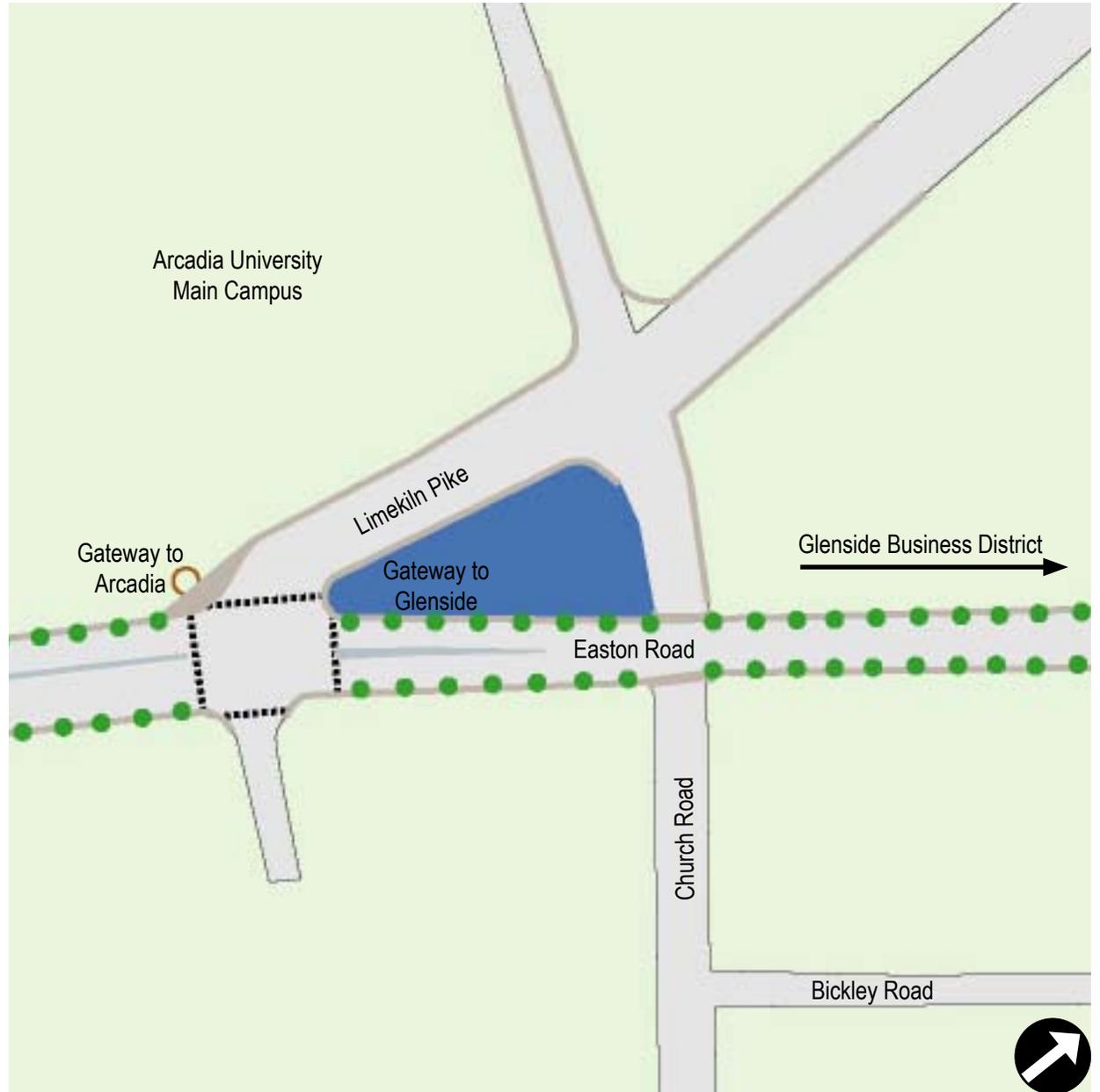
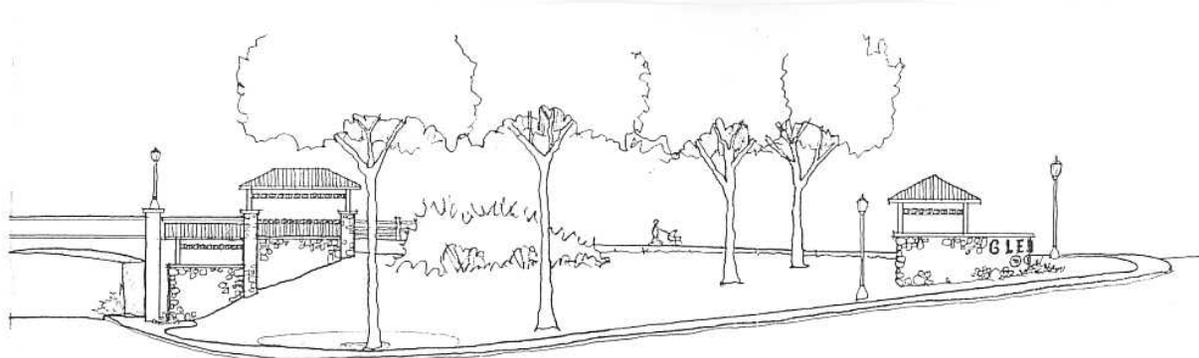


Figure 33: Triangular Land Parcel



4.1.6 Project: Create a landscaped and signed gateway

Through the Easton Road and Limekiln Pike realignment and signalization as well as proposed improvements to the bridge over Church Road, this intersection will be reinforced as the recognizable gateway to the University and Glenside communities. The remaining piece of a focused entrance to these communities is a landscaped and signed element that should be incorporated into the intersection. The aforementioned triangular lot is an ideal location for new signage, landscaping, and potentially an artistic or architectural element to signal arrival to this unique community.

The Main Street Design Committee submitted their design in 2003 for a “Glenside Gateway” (figures 34 + 35). Their design suggests a low stone wall, in the style of the historic Arcadia walls, to form a Glenside sign. Adjacent to the signage, the Committee proposes a new bus shelter. This gateway design will complement the historic Arcadia archway (figure 36).



Figure 36: Arcadia University gateway arch

Figures 34 and 35: Main Street Design Committee design for a Glenside Gateway (source: Glenside Main Street Design Committee)

4.1.7 Project: Construct a bike and pedestrian path from Greenwood Avenue to Easton Road within the vacated Route 309 roadway

The 2005 Comprehensive Plan suggests that bike routes should be considered a viable alternative form of transit in the Township and should be accommodated through a network of suggested bike routes. The Township has incorporated the County's Bike Mobility Plan routes including a suggested bicycle path along Route 309 between Greenwood Avenue and Easton Road. This connection can be accomplished by constructing a path along the vacated portion of roadway that was previously the bypass to Easton Road on the north side of the roadway (figure 38).

Using the vacated roadway will allow the Township to create a two-way bike path and a pedestrian connection to the Cheltenham Square Mall. Utilizing the vacated roadway will allow the path to be physically separated from traffic (figure 37). The newly created path should be wide enough to accommodate bike travel in both directions safely, a minimum of eight feet, and a pedestrian walkway, a minimum of six feet. It should also be paved for ease of maintenance as well as creating a smooth, but not slick, surface for riders. While paving will cost more in the short-term, it will allow the Township or County to save money on future maintenance of the path. Ideally, the paving should be flush with the path shoulder to minimize potential for accidents from running off the path and to reduce breakage of the pavement edge.

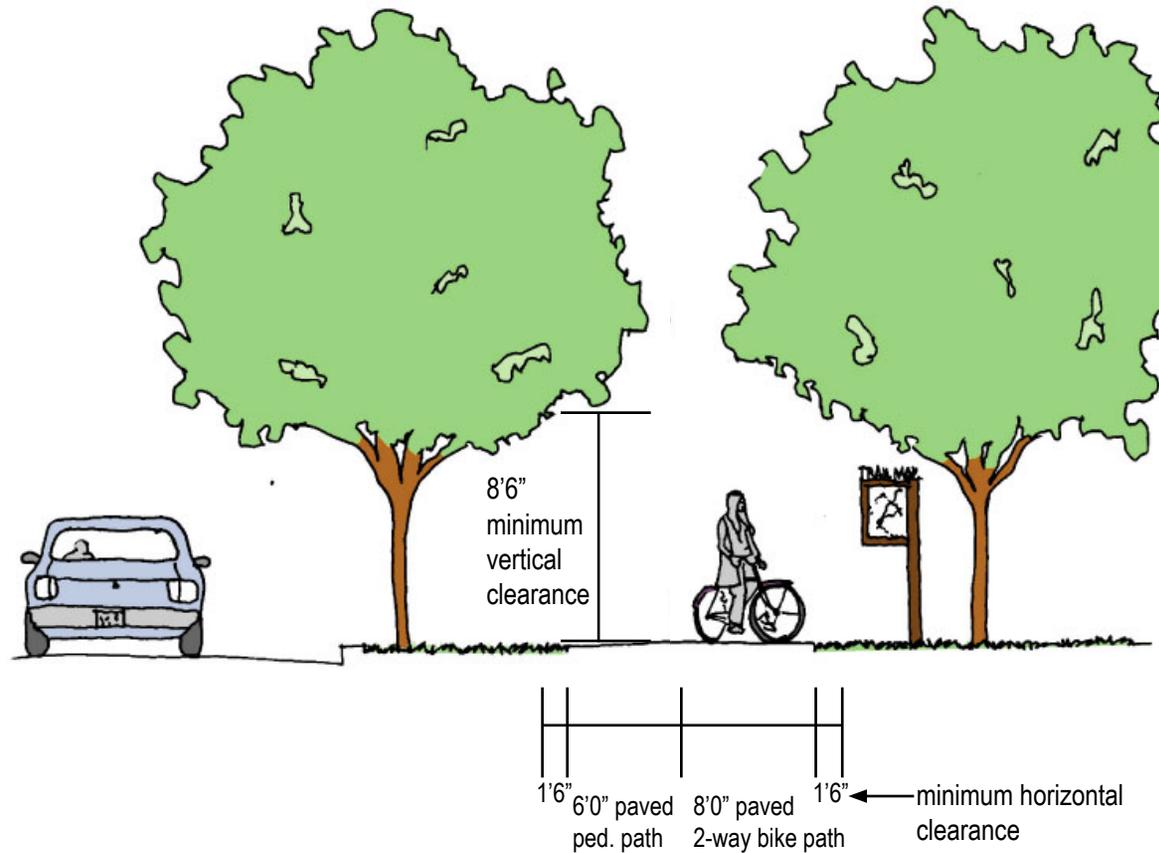


Figure 37: Cross section of proposed bike and pedestrian path



Figure 38: Bike Route Map

4.1.8 Project: Connect the Township’s bike network to the proposed Cresheim Trail via Arcadia University

Work is currently underway on a study to determine the feasibility of the Cresheim Trail. This proposed trail would connect communities in Philadelphia and Montgomery County to the Wissahickon Creek using abandoned rail lines and utility right-of-ways. There is an opportunity to connect the proposed Trail to Arcadia University, as well as the bike network throughout the Township (figure 37). There are several options as to how this could be accomplished and the ultimate decision will depend on the public participation process and the cooperation of local institutions. Promoting this connection will not only increase the connectivity of the University and Glenside community, it will also play a role in connecting the Delaware River Heritage Trail system with the Wissahickon Creek and Fairmount Park.

4.1.9 Project: Integrate bike lane and “share the road” signage along Bike Mobility Paths

It is important to indicate bike lanes on roadways so that drivers are aware they are sharing the road with cyclists. Signage and paving treatments used in conjunction with traffic calming measures can greatly enhance the safety of cyclists and make biking around the Township a much more enjoyable means of transportation. Typically, road striping and stenciling is used to indicate the physical location of the bicycle lane while signage is located along the roadway to draw special attention to areas of potential vehicular/bicycle conflict (figures 39, 40, + 41).

Using funding for bike lane marking and signage, available through the Cheltenham Township Bike Program, the plan recommends focusing on the following bike routes: Church Road, Glenside Avenue, Easton Road, and Limekiln Pike. Of these routes, only Church Road is classified as a primary route, however, Glenside Avenue, Easton Road, and Limekiln Pike are important secondary routes, especially for Arcadia University students and the Glenside commercial district businesses. As circulation in the area improves and more people move through the area using multiple modes of transit, bicycle traffic is expected to increase as well. New signage and paving treatments will enhance the safety for cyclists and promote a greater awareness of cyclists among drivers.



Figure 39: Example of a bike lane



Figures 40 and 41: Examples of bike signage



Source: Richard C. Moeur, www.trafficsign.us

Minimum Recommended Bicycle Parking Spaces*		
	Long Term	Short Term
Residential		
Multi-dwelling	1 per 4 units	1 per 10 units
Group Living	1 per 10 residents	none
Dormitory	1 per 8 residents	none
Commercial		
Retail Sales and Service	2 per 12,000 sf	2 per 5,000 sf
Temporary Lodging	1 per 10 rentable rooms	1 per 10 rentable rooms
Office	1 per 10,000 sf	1 per 20,000 sf
Commercial Parking	min 6 or 1 per 20 auto spaces	none
Institutional		
Rail Station / Transit Center	10 or 5 per acre	none
Park & Ride	min 6 or 1 per 40 auto spaces	none
Medical Center	1 per 35,000 sf	1 per 20,000 sf
Schools		
Grades 2 through 5	2 per classroom	none
Grades 6 through 12	4 per classroom	none
College (not dormitories)	1 per 10,000 sf	1 per 5,000 sf

*Source: Connecticut Bicycle Coalition

Figure 42: Bicycle Parking Space Allocation Table

4.1.10 Project: Introduce bicycle parking at fringes of University campus and near retail activity along Easton Road

In conjunction with the construction of a new bike path and the marking of bike lanes and signage along Bike Mobility Paths, bicycle parking should be provided at key locations along Easton Road. Cyclists not only need safe paths for travel, but also require secure, accessible, well-marked locations for storing their bikes. Adequate bike parking is a critical component of any successful bicycle program initiative.

Multiple locations on Easton Road would benefit from the installation of bicycle parking. Between the Glenside train station and Waverly Road in the Glenside commercial district retail stores may see increased foot traffic resulting from new bicycle parking facilities. As the commercial district works to increase its appeal to nearby Arcadia University students, the addition of bicycle parking is vital. The Connecticut Bicycle Coalition has published effective minimum recommended bicycle parking space guidelines to assist the University and the Township in determining the amount of parking needed (figure 42).

In order to separate bicycle and pedestrian traffic on campus, Arcadia University should only provide bicycle parking at dormitories, around its perimeter, and at entrances. Locating bike parking near academic buildings may encourage students to ride their bicycles on pedestrian paths, creating potential pedestrian/ bicycle conflicts, and therefore should be avoided. Locating bike parking around the campus perimeter will encourage students to travel the surrounding Glenside area by bike using the Township's Bike Mobility Paths, while keeping pedestrians safe.

When choosing a site for a bike rack, it is important to choose a location and rack that will not require an increase of impervious paving in order to avoid needing Township approval for additional paved surfaces. When using an existing paved surface, racks can be “foot-mounted.” When using a pervious surface, such as pavers, gravel, or other materials, racks that can be mounted “in-ground” should be used.

In order to encourage cyclists to use the provided parking areas, it is important to choose a standard rack that reasonably protects the bike and allows for adequate use of a high-security lock. Racks that only hold the front wheel of a bike are undesirable because they do not secure enough of the bike to prevent damage and theft. A preferred rack has two points of contact with the bike and allows the user to lock both the frame and a wheel with a U-shaped lock.

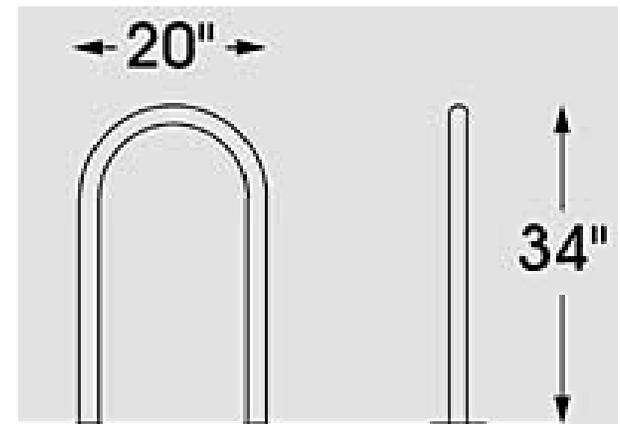
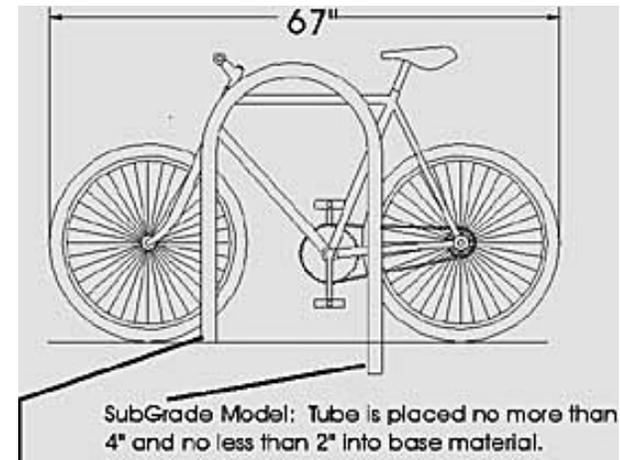
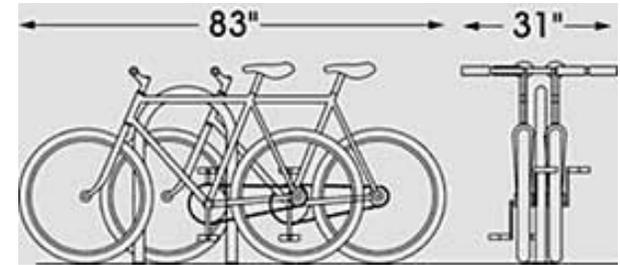
The suggested rack that can be used to create different configurations of bicycle parking is an inverted “U” rack with two points of contact with the ground (figures 43 + 44). In the commercial district, these types of racks allow bikes to be parked parallel to pedestrian traffic. On campus or at the train station, several racks can be assembled together to create larger parking areas. An example of this product is the American Bicycle Security Company’s “hoop” standard rack that can be mounted either in-ground or foot mounted to a paved surface (figures 45, 46, + 47).



Figure 43: Suggested bike rack product, an inverted “U” rack.



Figure 44: An inverted “U” rack in use



Figures 45-47: American Bicycle Security Company “Hoop” product (source: American Bicycle Security Company)

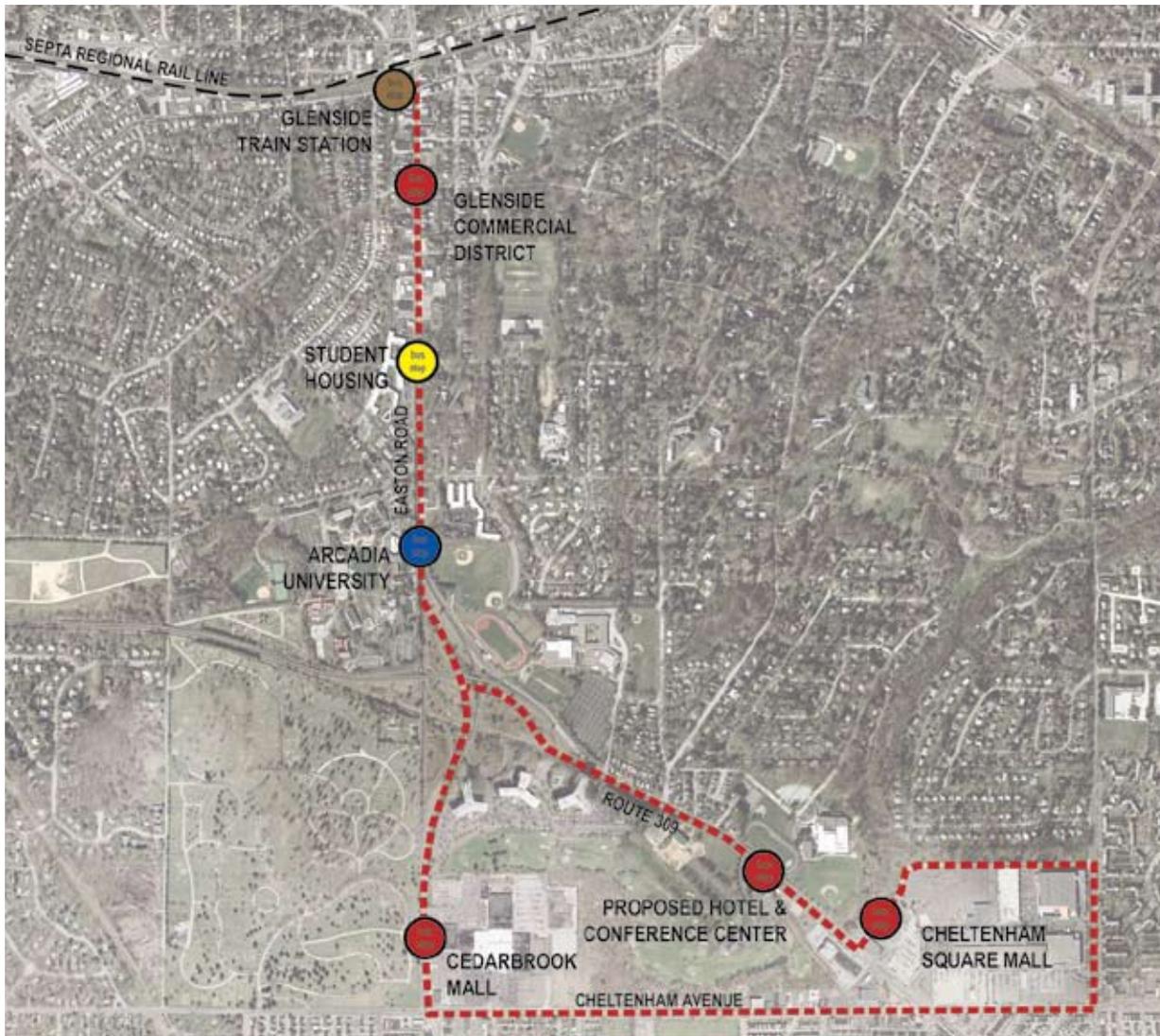


Figure 48: Suggested Glenside shuttle bus route

4.1.11 Project: Determine viability of introducing shuttle bus service

In order to improve the connection between Cheltenham Avenue, Arcadia, and the Glenside train station, there have been discussions about creating a dedicated bus loop along Easton Road. This was suggested to coincide with the creation of commuter parking, adjacent to the Route 309 interchange, for the Glenside Train Station. In order to fully examine this possibility, the plan recommends that a “Shuttle Bus Feasibility Study” be conducted by the Township to determine the most effective way to finance, operate, and maintain a local transit route. The critical connections to be made through a shuttle bus route are the Glenside Train Station and Retail District, Arcadia University, and the two major retail centers along Cheltenham Avenue. Additional stops may include the future hotel and conference center planned for Route 309 (figure 48).

4.1.12 Project: Use existing SEPTA bus route 22 to promote a transit connection between Cheltenham Avenue, Arcadia University, and the Glenside Train Station

A less expensive solution to creating this connection would be to utilize and promote the existing SEPTA route 22 bus. The 22 bus runs between Warminster, in Bucks County, and the Olney Transportation Center, connecting to the Broad Street line to Center City, seven days a week (figure 49). The 22 bus makes a stop at Arcadia University and six regional rail stations, including the Glenside Station (figure 50). Monday through Friday the bus runs every 15-20 minutes from just before 5 AM until just after 1 AM. On Saturdays the bus runs every 30 minutes, and on Sundays once an hour, both with roughly the same start and end times. Additionally, most SEPTA buses now have bike racks attached on the front of the bus making it easier to combine transit use with bicycle travel.

The 22 route is not the only bus line that travels Easton Road. The 77 bus travels from Chestnut Hill to Northeast Philadelphia. However, the 77 runs only about once an hour from 6 AM to 7 PM.

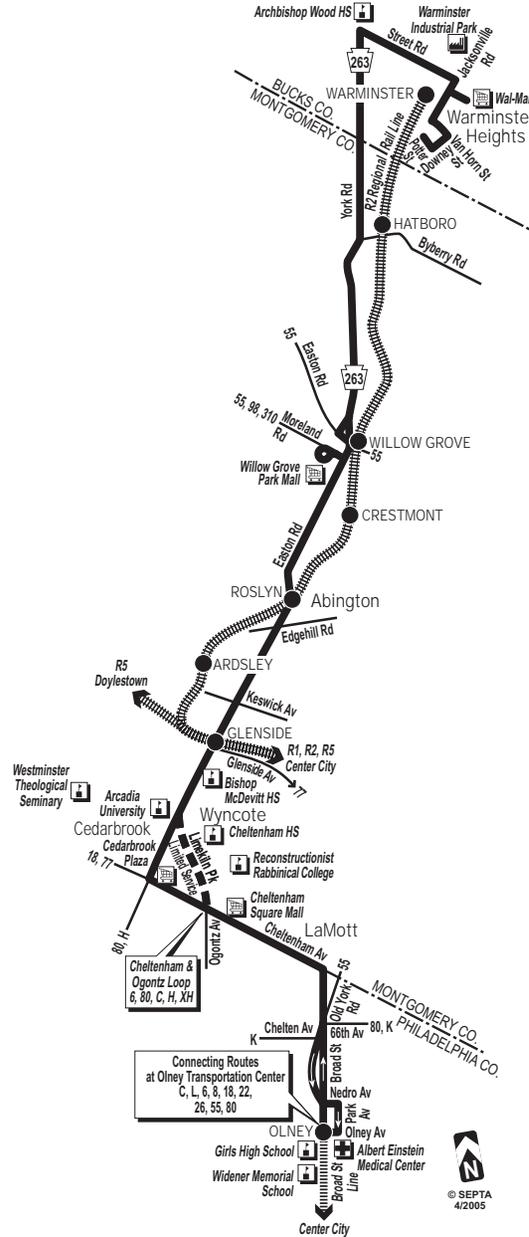


Figure 49: SEPTA Route 22 Map (source: SEPTA)

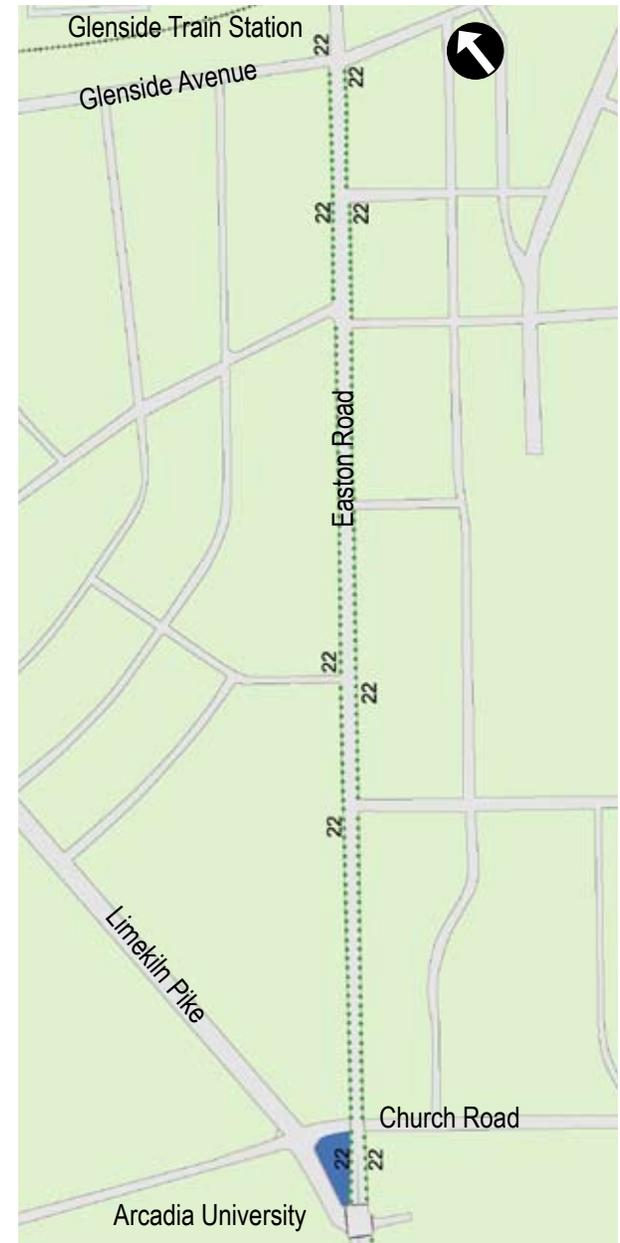


Figure 50: SEPTA Route 22 Glenside stops

ART 73 Arlington Heights - Penrose - Pentagon City
Effective 9.7.03 **PikeRide**

TIME TO GET ABOARD ART 73.
ART 73 runs at half-hour intervals during extended rush hour periods from 6:22 a.m. to 9:35 a.m. and 3:40 p.m. to 7:52 p.m., Monday through Friday.

FARES
Regular fare is \$1.20 or a Metrobus token. The following discounts are available to ART customers:

- 35¢ fare with Metrorail transfer (available at your Metrorail boarding station)
- Free ride with valid Metrobus Flash Pass
- Free ride with a valid Metrobus transfer
- Free ride on Metrobus with a valid ART transfer
- 50¢ for senior citizens and people with disabilities in possession of a WMATA ID or Medicare card on all buses at all times; rail to bus transfers are free. Additional photo ID card may be requested.

HOLIDAY SCHEDULE
ART 73 does not operate on these Arlington County holidays: New Year's Day, Martin Luther King Jr. Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, day after Thanksgiving, and Christmas Day.

DEPART	Col Pike & Queen St	Thom JEFF CT.	Col Pike & Queen St	ARRIVE	Pent City Metro
6:40 AM	6:44 AM	6:52 AM	7:00 AM	7:05 AM	
7:10 AM	7:14 AM	7:22 AM	7:30 AM	7:35 AM	
7:40 AM	7:44 AM	7:52 AM	8:00 AM	8:05 AM	
8:10 AM	8:14 AM	8:22 AM	8:30 AM	8:35 AM	
8:40 AM	8:44 AM	8:52 AM	9:00 AM	9:05 AM	
9:10 AM	9:14 AM	9:22 AM	9:30 AM	9:35 AM	
3:40 PM	3:44 PM	3:52 PM	4:00 PM	4:05 PM	
4:10 PM	4:14 PM	4:22 PM	4:30 PM	4:35 PM	
4:40 PM	4:44 PM	4:52 PM	5:00 PM	5:05 PM	
5:10 PM	5:14 PM	5:22 PM	5:30 PM	5:35 PM	
5:40 PM	5:44 PM	5:52 PM	6:00 PM	6:05 PM	
6:10 PM	6:14 PM	6:22 PM	6:30 PM	6:35 PM	
6:40 PM	6:44 PM	6:52 PM	7:00 PM	7:05 PM	
7:10 PM	7:14 PM	7:22 PM	7:30 PM	7:35 PM	
7:40 PM	7:44 PM	7:52 PM			

Figure 51: Informational Signage (Virginia)

Faire signe au machiniste

18 Direction: Pigalle
Arrêt: Mont Cenis

Émission	Heure d'arrêt	Émission	Heure d'arrêt
06h 20	06h 25	06h 20	06h 25
06h 30	06h 35	06h 30	06h 35
06h 40	06h 45	06h 40	06h 45
06h 50	06h 55	06h 50	06h 55
07h 00	07h 05	07h 00	07h 05
07h 10	07h 15	07h 10	07h 15
07h 20	07h 25	07h 20	07h 25
07h 30	07h 35	07h 30	07h 35
07h 40	07h 45	07h 40	07h 45
07h 50	07h 55	07h 50	07h 55
08h 00	08h 05	08h 00	08h 05
08h 10	08h 15	08h 10	08h 15
08h 20	08h 25	08h 20	08h 25
08h 30	08h 35	08h 30	08h 35
08h 40	08h 45	08h 40	08h 45
08h 50	08h 55	08h 50	08h 55
09h 00	09h 05	09h 00	09h 05
09h 10	09h 15	09h 10	09h 15
09h 20	09h 25	09h 20	09h 25
09h 30	09h 35	09h 30	09h 35
09h 40	09h 45	09h 40	09h 45
09h 50	09h 55	09h 50	09h 55
10h 00	10h 05	10h 00	10h 05
10h 10	10h 15	10h 10	10h 15
10h 20	10h 25	10h 20	10h 25
10h 30	10h 35	10h 30	10h 35
10h 40	10h 45	10h 40	10h 45
10h 50	10h 55	10h 50	10h 55
11h 00	11h 05	11h 00	11h 05
11h 10	11h 15	11h 10	11h 15
11h 20	11h 25	11h 20	11h 25
11h 30	11h 35	11h 30	11h 35
11h 40	11h 45	11h 40	11h 45
11h 50	11h 55	11h 50	11h 55
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14h 30	14h 35	14h 30	14h 35
14h 40	14h 45	14h 40	14h 45
14h 50	14h 55	14h 50	14h 55
15h 00	15h 05	15h 00	15h 05
15h 10	15h 15	15h 10	15h 15
15h 20	15h 25	15h 20	15h 25
15h 30	15h 35	15h 30	15h 35
15h 40	15h 45	15h 40	15h 45
15h 50	15h 55	15h 50	15h 55
16h 00	16h 05	16h 00	16h 05
16h 10	16h 15	16h 10	16h 15
16h 20	16h 25	16h 20	16h 25
16h 30	16h 35	16h 30	16h 35
16h 40	16h 45	16h 40	16h 45
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17h 30	17h 35	17h 30	17h 35
17h 40	17h 45	17h 40	17h 45
17h 50	17h 55	17h 50	17h 55
18h 00	18h 05	18h 00	18h 05
18h 10	18h 15	18h 10	18h 15
18h 20	18h 25	18h 20	18h 25
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18h 40	18h 45	18h 40	18h 45
18h 50	18h 55	18h 50	18h 55
19h 00	19h 05	19h 00	19h 05
19h 10	19h 15	19h 10	19h 15
19h 20	19h 25	19h 20	19h 25
19h 30	19h 35	19h 30	19h 35
19h 40	19h 45	19h 40	19h 45
19h 50	19h 55	19h 50	19h 55
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20h 20	20h 25	20h 20	20h 25
20h 30	20h 35	20h 30	20h 35
20h 40	20h 45	20h 40	20h 45
20h 50	20h 55	20h 50	20h 55
21h 00	21h 05	21h 00	21h 05
21h 10	21h 15	21h 10	21h 15
21h 20	21h 25	21h 20	21h 25
21h 30	21h 35	21h 30	21h 35
21h 40	21h 45	21h 40	21h 45
21h 50	21h 55	21h 50	21h 55
22h 00	22h 05	22h 00	22h 05
22h 10	22h 15	22h 10	22h 15
22h 20	22h 25	22h 20	22h 25
22h 30	22h 35	22h 30	22h 35
22h 40	22h 45	22h 40	22h 45
22h 50	22h 55	22h 50	22h 55
23h 00	23h 05	23h 00	23h 05
23h 10	23h 15	23h 10	23h 15
23h 20	23h 25	23h 20	23h 25
23h 30	23h 35	23h 30	23h 35
23h 40	23h 45	23h 40	23h 45
23h 50	23h 55	23h 50	23h 55

Figure 52: Informational Signage (Paris)



Figure 53: Bus shelter



Figure 54: Bus shelter (Swindon, England)

In order to make the 22 route more user-friendly throughout Glenside, a consistent bus stop design, signage, and branding should be created. The branding and design should incorporate the themes suggested by the Commercial District Enhancement Plan. Signage should be in addition to SEPTA's standards and include schedules, maps, and other information to make the system easier to navigate (figures 51 + 52). Bus stops should be established at all locations indicated in the CDEP (figures 53 + 54).

4.2 Supporting Development

The supporting development projects proposed in this plan address additional opportunities that will help to improve overall connectivity between Arcadia University and the Glenside commercial district. There are eight projects that address the three supporting development objectives:

Objective: Encourage student-focused retail, dining, and events/activities along Easton Road

1. Encourage infill development along Easton Road
2. Implement the Manor Site Redevelopment proposed in Arcadia University's Master Plan
3. Supplement the Oak Summit Apartments student housing recently acquired by Arcadia University with increased density and ground-level retail
4. Facilitate development of the Marriot Lot

Objective: Reuse additional land made available from Route 309 reconfiguration

5. Expand Arcadia University to the land parcels adjacent to its campus that may be vacated by the Route 309 reconfiguration
6. Evaluate the development potential of the land parcels to the south of Route 309 that may be vacated by the road reconfiguration

Objective: Strengthen ties between Arcadia University and the Glenside community

7. Look for opportunities for off-campus, privately developed graduate student housing
8. Enhance the alliance between Arcadia University, the Economic Development Task Force, Greater Glenside Chamber of Commerce, and the Main Street Manager to facilitate interaction between the student body and surrounding community

4.2.1 Project: Encourage infill development along Easton Road

Although Easton Road is the key corridor linking Arcadia University with the Glenside business district, it does not have a consistent, active streetscape. By promoting infill development along Easton Road, the Township can encourage more activity along the corridor and draw students from the University campus to the business district.

Looking for opportunities for shared parking may help to reduce the abundance of asphalt along the corridor and create new development parcels. Additionally, conducting a survey of the underutilized parcels may help to identify those properties that are susceptible to change and therefore may be ideal for redevelopment (figure 55). Where possible in new construction, single-story, single-use buildings should be avoided to increase the density and diversity of activity along Easton Road. However, infill development should also maintain Easton Road's traditional small town feel and minimize the number of curb cuts to accentuate the pedestrian experience. New construction should be in accordance with the "Main Street Art Deco Theme" and conform to the architectural guidelines set forth in the CDEP.



Figure 55: Areas of inactivity along Easton Road

4.2.2 Project: Implement the Manor Site Redevelopment proposed in Arcadia University's Master Plan

Owned by Arcadia University, the Manor Site is located on Church Road between Limekiln Pike and the Easton Road Bridge. Currently home to the Manor Apartment building (777 Limekiln Pike) and a large surface parking lot, the University is considering commercial development for part of the parcel (figure 56). The commercial component would be located where the majority of the surface parking sits now. The new building would have entrances on Limekiln Pike and Church Road and bridge the vertical gap between Church and Easton Roads by providing direct access to the building from Easton Road. The proposed commercial uses would complement university students as well as the general public and may feature a bookstore and a coffee shop or other small eatery (figure 57).



Figure 57: Conceptual Rendering of Manor Site Redevelopment by Arcadia University

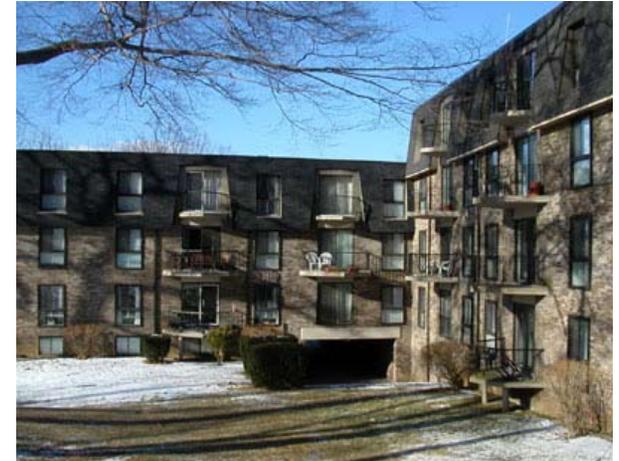
Figure 56: Conceptual Manor Site Redevelopment by Arcadia University

4.2.3 Project: Supplement the Oak Summit Apartments student housing recently acquired by Arcadia University by reconfiguring the buildings to include ground level retail

The recent acquisition of the Oak Summit Apartment complex on Easton Road has provided Arcadia University with over 700 new beds for student housing and 300 new parking spaces (figures 58 + 59). In addition, the apartment building is located on approximately ten acres fronting on Easton Road, providing an opportunity to make a key connection from the University to the Glenside business district.

The acquisition of Oak Summit creates an opportunity to increase the density and activity on a site that is critical to the “town-n-gown” relationship. The complex should be evaluated to see where development potential exists. Parking lots may be underutilized. The building itself could be reconfigured to include ground floor retail uses for students. This will encourage more activity in and around the building and give students a reason to travel the Easton Road corridor between the main campus and the business district. There may be an opportunity within retail development for a new plaza or other open space along Easton Road.

In the long term, Arcadia’s master plan presentation suggested that the school “[e]xamine potential of commercial space along Easton Road and redevelopment of Oak Summit” (figure 60). Eventually, Arcadia may want to demolish the existing apartment building in favor of a more intensive mix of uses of the site, with buildings built up to the sidewalk to further enhance the pedestrian experience and generate activity along Easton Road.



Figures 58 and 59: Oak Summit Apartment complex

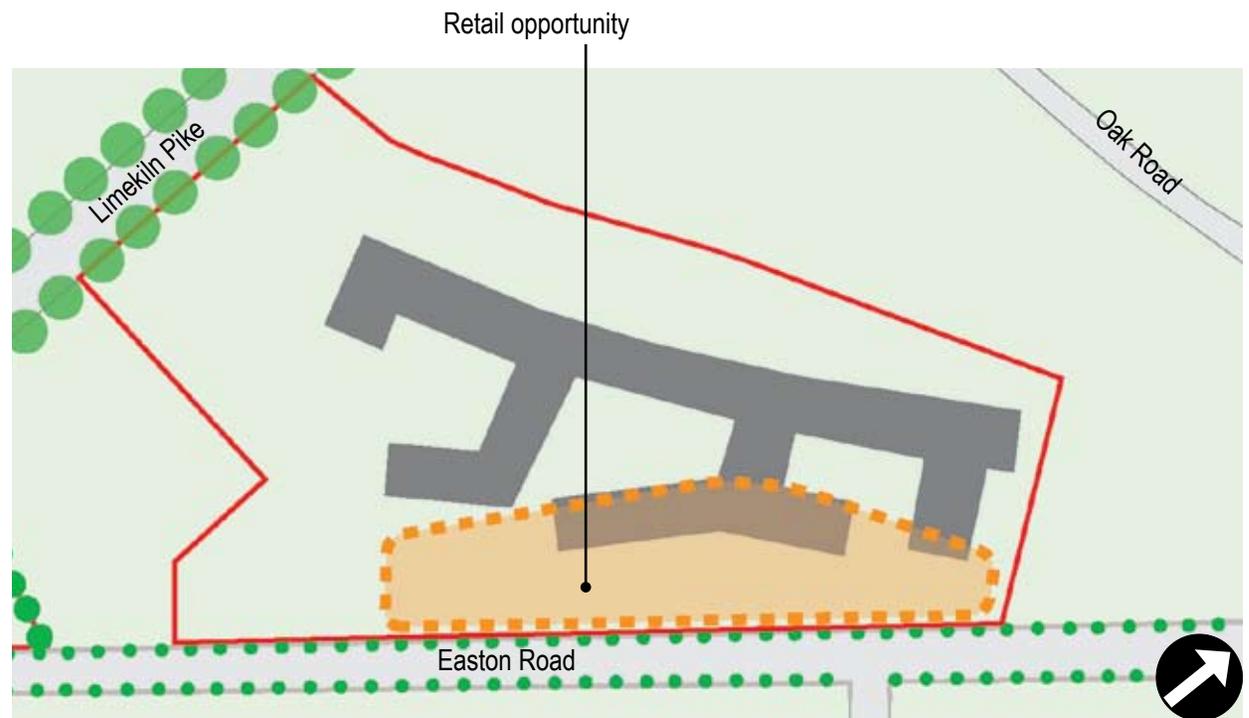


Figure 60: Existing Oak Summit Apartment complex with space for street level retail indicated along Easton Road

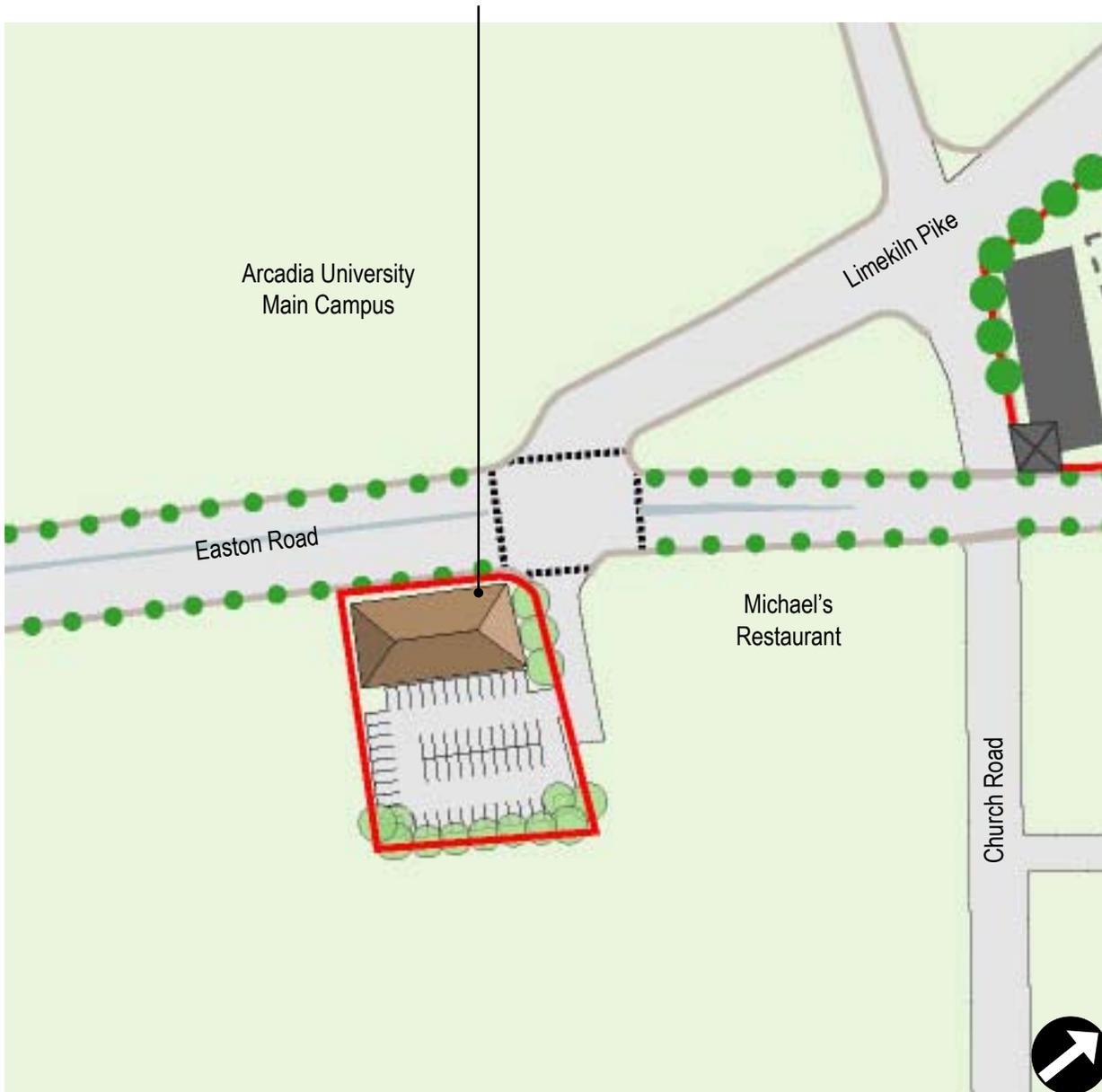


Figure 61: Conceptual development of the Marriott Lot

4.2.4 Project: Facilitate development on the Marriott Lot

Cheltenham Township should initiate discussions with the Marriott Corporation to develop the one-acre site they own adjacent to Michael's Restaurant. Directly across from the Arcadia University gateway, this parcel could be used for a restaurant or pub-type dining with a liquor license (as opposed to a fast food or take-out establishment) (figure 61). This type of finer dining would not only serve the University community (faculty, staff, students, and parents), but also draw local residents.

If Marriott Corp is not interested in developing the parcel, the Township should encourage them to sell the parcel to an interested developer, particularly since it is located at a key intersection – Limekiln Pike and Easton Road.

4.2.5 Project: Expand Arcadia University’s athletic and recreational fields to the land parcels adjacent to its campus that will be vacated by the Route 309 reconfiguration

Approximately 5.6 acres of land adjacent to Arcadia University may be vacated and returned to underlying owners when the Route 309 reconfiguration is completed (figure 62). In its 2005 Master Plan Arcadia identified this site as one it wishes to acquire. The school plans to develop new playing fields for the athletic department and student recreation (figure 63).

Because there may be issues regarding the ownership of the potential vacated land, the Township staff should make themselves available to the University to provide assistance as it goes through the process of acquisition. If the parcel is not to be relinquished, the master plan recommendation may become unfeasible. Due to the present restriction on the easement, that it be used for “transportation-related uses” only, it may be wise for Arcadia to consider using the parcel to absorb future parking needs for the university.

Archbishop of Philadelphia
Per Deed Dated 4/01/1929
(15,658 SF)

Commissioners of
Montgomery County
Per Deed Dated 7/30/1984
(4,433 SF)

Joseph H. Klemmer
and Sarah P. Klemmer
Per Deed Dated 3/18/1921
(52,307 SF)

Cedarbrook Realty, Inc.
Per Deed Dated 8/31/1961
(54,341 SF)

Atlantic Refining Company
Per Deed Dated 1/01/1945
(95,440 SF)

Unknown (17,840 SF)

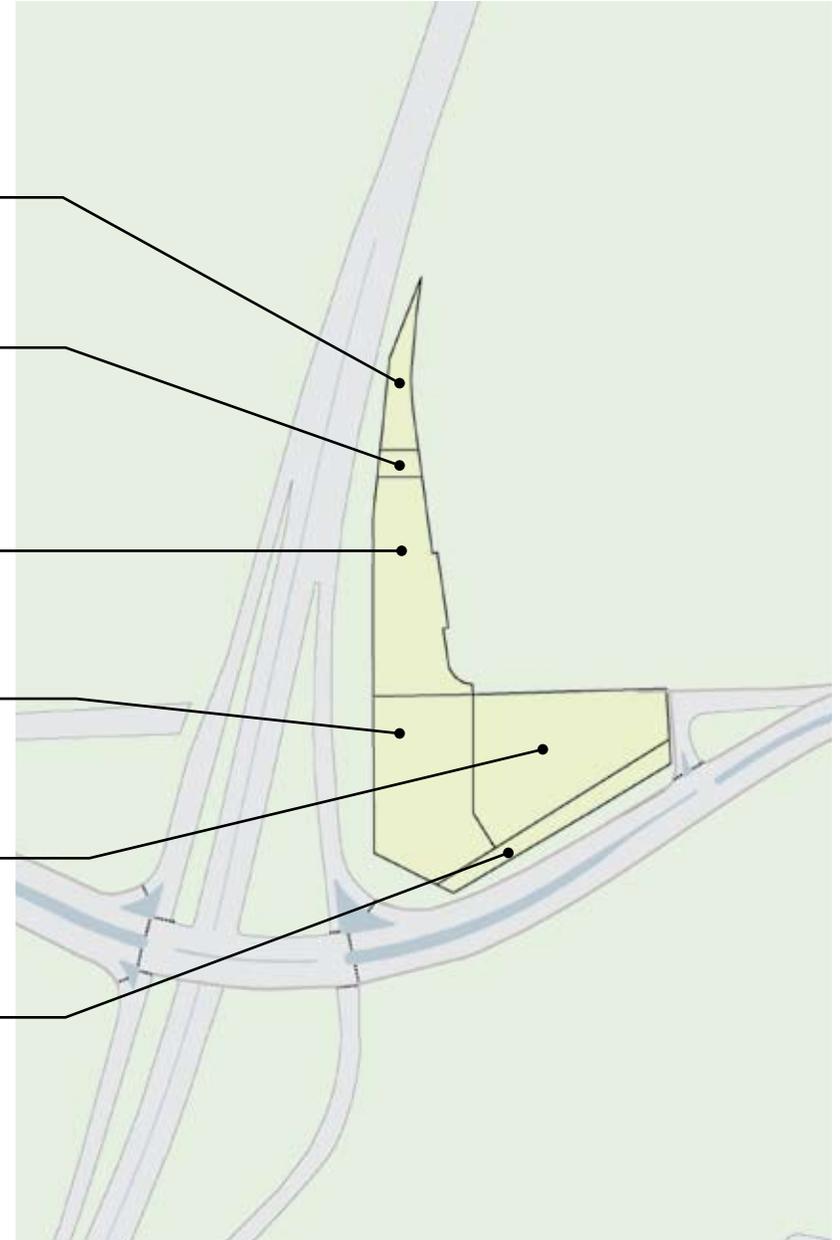
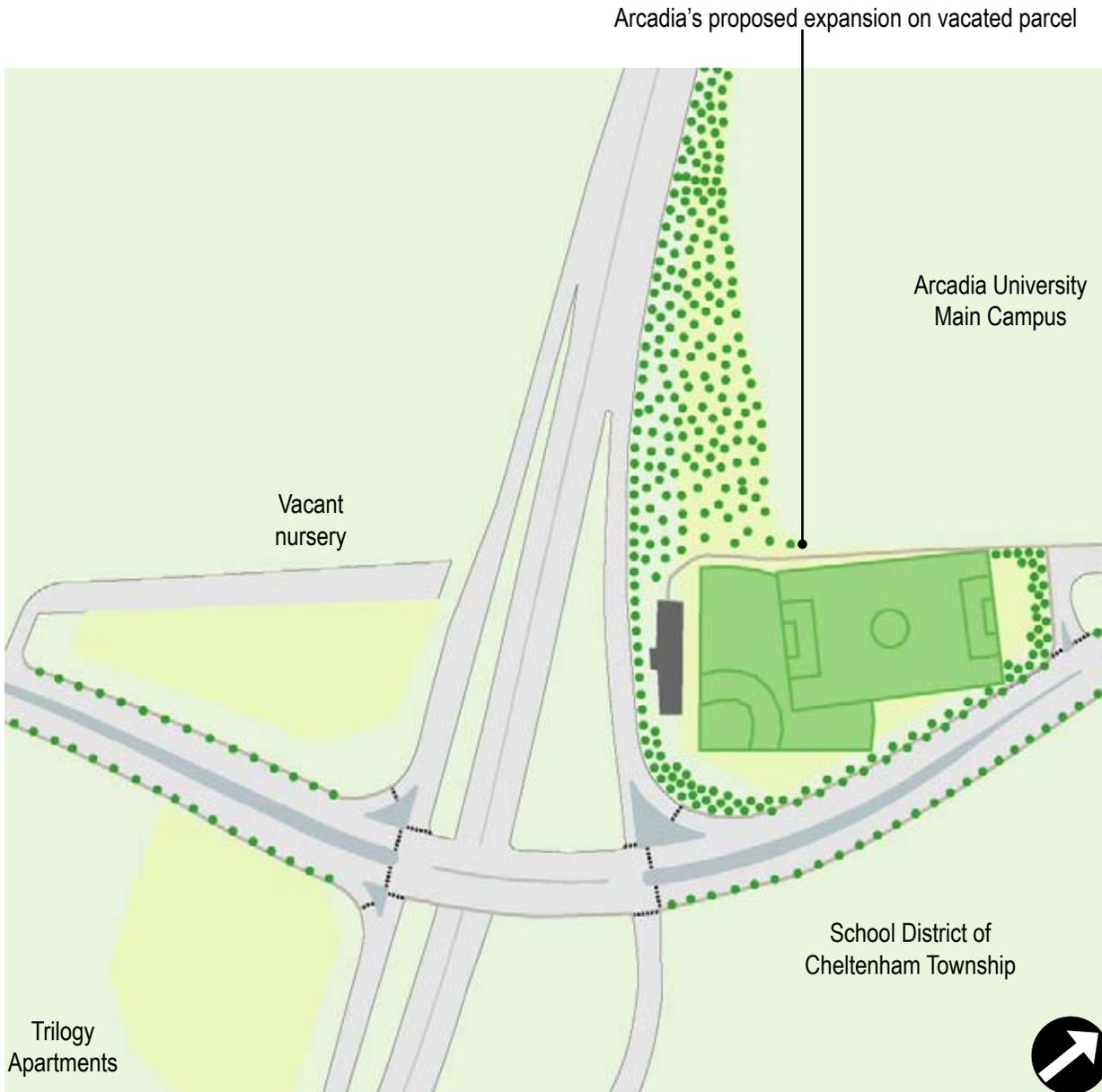


Figure 62: Underlying ownership of the ROW adjacent to Arcadia Univeristy (source: Arcadia University)



4.2.6 Project: Evaluate the development potential of the land parcels to the south of Route 309 that may be vacated by the road reconfiguration

The two acres of land just south of Route 309 provide the Township with an opportunity to extend development along the Easton road corridor (figure 63). Because of its easy access to Route 309 and following implementation of the sidewalk upgrades to Easton Road, this site may be suited for a wide variety of uses including retail, office, or residential. The two acres are adjacent to a vacant nursery so there is also the possibility of creating a larger development parcel.

PennDOT is currently evaluating the process of releasing the land and the underlying ownership to determine the best course of action.

Figure 63: Three land parcels that may be vacated after the Route 309 reconfiguration

4.2.7 Project: Look for opportunities for off-campus, privately developed graduate student housing

A high priority issue in Glenside is housing. Graduate students at Arcadia University need off-campus housing, something which is lacking in the nearby community. As the Township considers new development, it can encourage investment by private housing developers and coordinate with University officials to ensure that the right type of housing is planned.

4.2.8 Project: Enhance the alliance between Arcadia University, the Economic Development Task Force, Greater Glenside Chamber of Commerce, and the Main Street Manager to facilitate interaction between the student body and surrounding community

To effect real, positive change in the town-n-gown atmosphere in Glenside, enhance the existing alliance between a liaison at Arcadia University, the members of the Economic Development Task Force, Greater Glenside Chamber of Commerce, and the Main Street Manager. Together, these key stakeholders can work to increase ways in which the University and the community can connect.

Specific areas of discussion should include future plans for development of the institution and of the neighborhood, safety, housing, parking/transportation, student conduct, lines of communication, and community/student service opportunities. As shown in this report, there are many instances in which a university and a municipality can work together to achieve mutual goals for growth and development. Many of their issues overlap and resources can best be leveraged with joint cooperation. If future growth is to be complementary, the school needs to be actively working to help its student be good neighbors, just as the municipality needs to create a hospitable community environment that encourages students and community members to interact.

An alliance of the key personnel mentioned above can tackle many issues together. Local public schools can benefit from mentoring programs provided by colleges. Students can gain valuable volunteer experience from charitable organizations in the neighborhood and business knowledge from working with professional community members.

The Township and Arcadia University will both benefit greatly from a stronger alliance and both will become more successful, attractive places if they draw on the expertise that each has to offer the other.

Cost Estimate and Funding Matrix

	Objective	Projects	Cost Estimate (Public Investments)	Funding Sources + Strategies
Infrastructure	Increase pedestrian safety through improved connections and environment	Construct a pedestrian walkway along Church Road, under Easton Road	\$300,000 (concurrent with Bridge Improvements)	Community Revitalization Program, Transit Revitalization Investment District, Elm Street Program, Community Conservation Partnership Program, Congestion Mitigation Air Quality (CMAQ), Transportation and Community Development Initiative, Hometown Streets and Safe Routes to School Program, Transportation Enhancements Program, Community Development Block Grants, Montgomery County Community Revitalization Program, Green Fields / Green Towns Program, Tax Increment Financing
		Improve appearance of the Easton Road bridge over Church Road	\$200,000 (concurrent with Church Road Pedestrian Walkway)	
		Calm traffic along Easton Road and improve intersections at Easton Rd and Limekiln Pk and Church Road and Limekiln Pk	\$5000 per bump-out, \$10,000 on-street parking markings and signage	
		Strengthen pedestrian connections along Easton Road across Route 309 interchange	\$150/linear foot	
	Enhance the gateway to Arcadia University and Glenside	Transfer ownership of triangular parcel from County to Arcadia University	\$50,000	
		Create a landscaped and signed gateway to Glenside and Arcadia	\$100,000	
	Make bicycles a viable form of alternative transportation in and around Glenside	Construct a dedicated bike path from Greenwood Avenue to Easton Road within the vacated Route 309 roadway	\$79,750 (.55 miles @ \$145,000/mile)	
		Connect Township bike network to the proposed Cresheim Valley Trail		
		Integrate bike lane and "share the road" signage along the County's proposed Bike Mobility Paths	\$800/mile	
		Introduce bicycle parking at fringes of University campus, near retail activity, and at Train Station	\$100/Inverted "U" rack	
Create a transit connection between the train station, Arcadia, and the business district	Determine viability of introducing shuttle bus service	\$60,000 (for study)		
	Use existing SEPTA bus route 22 to promote a transit connection between Cheltenham Avenue, Arcadia University, and the Glenside Train Station	\$30,000		
Development	Encourage student-focused retail, dining, and events/activities along Easton Road	Encourage infill development along Easton Road		Tax abatements, grants, loans, shared parking strategy
		Implement the Manor Site Redevelopment per Arcadia's Master Plan		per Arcadia Master Plan
		Supplement the Oak Summit Apartments with increased density and ground-level retail		per Arcadia Master Plan
		Facilitate development of the Marriot Lot		Tax abatement, grants, small-business or low-interest loans
	Reuse additional land made available from Route 309 reconfiguration	Expand Arcadia University to the land parcels adjacent to its campus that may be vacated by the Route 309 reconfiguration		per Arcadia Master Plan
		Evaluate the development potential of the land parcels to the south of Route 309 that may be vacated by the road reconfiguration		Create redevelopment area
	Strengthen ties between Arcadia University and the Glenside community	Look for opportunities for off-campus, privately developed graduate student housing		Partner with private developer, extend university services to off-campus housing
		Enhance the alliance between Arcadia University, the Economic Development Task Force, Greater Glenside Chamber of Commerce, and the Main Street Manager to facilitate interaction between the student body and surrounding community		

Funding Sources

Administering Agency	Agency Type	Funding program	Program Goal	Types of Assistance
Pennsylvania Department of Community and Economic Development	State	Community Revitalization Program	To improve the economic stability of a community through economic development projects that create or retain jobs, utilize vacant properties, and spur additional private sector investment and community strengthening.	Grants for project costs including construction, renovation, equipment purchasing, technical assistance, education, and salaries.
		Transit Revitalization Investment District	To encourage private sector investment in and revitalization of areas immediately adjacent to existing or planned public train stations and bus stops.	A TRID is a collaboration of local taxing jurisdictions that agree to dedicate a portion of new tax revenue in a TRID to fund improvements like sidewalks, crosswalks, bus shelter, signs, building construction, etc. outlined in a Transit Planning Study. In addition, state agencies have been directed to give priority to projects requesting funding that are located in a TRID.
		Elm Street Program	Elm Street was created in response to the success of the DCED's Main Street Program, to protect and enhance residential neighborhoods adjacent to revitalizing downtowns.	Planning (feasibility studies, market research, etc), historic resource preservation and enhancement, housing rehabilitation, streetscape improvements, trees / planting, property acquisition. Operational grants are available to fund the salary of an Elm Street Manager for up to five years for up to \$225,000.
Pennsylvania Department of Conservation and Natural Resources	State	Community Conservation Partnership Program	This program focuses primarily on parks and recreation facilities, funding improvements to important public open spaces in urban settings as well as trail facilities and signage in downtown areas.	Grants for reimbursement of planning, feasibility studies, acquisition, and construction for projects that enhance and preserve publicly accessible open space. \$30 million is granted annually throughout Pennsylvania. Most grants range between \$10,000 and \$40,000.
Delaware Valley Regional Planning Commission	MPO	Congestion Mitigation Air Quality (CMAQ)	Fund transportation related projects that reduce the amount of pollution and increase air quality to meet the National Air Quality Standards.	Grants ranging from \$20,000 to \$1.7 million for project engineering, design and construction. Additional flexibility with program funding for marketing and programmatic support. The types of projects funded include improvements to rail freight facilities, bike and pedestrian trails, coordinating signals between road intersections, and road intersection improvements.
		Transportation and Community Development Initiative	Support local planning projects to reduce congestion, revitalize communities, and improve transportation facilities.	Limited grants for up to 80% (capped at \$100,000) of project costs in targeted areas. Planning studies can cover a wide range of activities including brownfields reuse, pedestrian facilities, business improvement districts, or TOD studies.
PENNDOT District 6/DVRPC	State/MPO	Hometown Streets and Safe Routes to School Program	Encourage the reinvestment in and redevelopment of downtown areas, as well as promoting safe walking routes to school for children. This is a federal cost reimbursement program, not a grant program.	Up to 80% of project costs capped at \$1,000,000. Examples include sidewalk improvements, planters, benches, street lighting, pedestrian crossings, transit bus shelters, traffic calming, bicycle amenities, kiosks, signage, and other visual elements. Safe Routes to School projects should be designed to improve safe walking and biking passages to schools.
		Transportation Enhancements Program	To expand the use of federal transportation funding for projects that advance multimodal transportation facilities.	Grants for project design, engineering, and construction. There are no limits on project funding, however, there is \$10 million limit on project funding in the entire Pennsylvania portion of the DVRPC region. 80% or 90% of project costs can be funded. Types of projects include bicycle and pedestrian improvements, trails, streetscapes, restoration of historic train stations, roadside improvements, gateways, and streetscape improvements.

Funding Sources, continued

Administering Agency	Agency Type	Funding program	Program Goal	Types of Assistance
Montgomery County Department of Housing and Community Development	County	Community Development Block Grants	To aid in the rehabilitation of economically distressed areas through housing and economic development.	CDBG grants must primarily benefit low to moderate income people, eliminate slums and blight, and meet a current and urgent community development need. A wide variety of activities are supported including acquisition, rehabilitation of residential and nonresidential properties, provision of public facilities such as water, sewer, roads, or neighborhood centers. Funds are also available for technical assistance, and assistance to for-profit businesses engaged in economic development activity.
Montgomery County Department of Planning	County	Montgomery County Community Revitalization Program	A strategic economic development program that will strengthen and stabilize older boroughs and townships in Montgomery County.	Planning and implementation grants for construction, demolition, acquisition, streetscape projects, parking lots, façade restoration (commercial buildings), technical assistance, signage, culture and the arts, public safety, workforce development, business assistance. Salaries are not eligible for funding. Funding eligibility ranges from \$411,000 to \$1 million (based on municipal population).
		Green Fields / Green Towns Program	To preserve and enhance open space in the county through acquisition and limited improvements to publicly accessible open space.	\$67 million is earmarked for grants directly to municipalities over the next ten years to implement projects developed through a county-mandated planning process. For some communities, money is available for acquisition of land or historic buildings, enhancement of existing public open spaces including hardscaping, landscaping, trails, and signs. Floodplain restoration and farmland preservation are also supported through the program. Funding allocations for each municipality range from \$580,000 to \$3.1 million (derived from population).
Montgomery County Redevelopment Authority	County	Tax Increment Financing	To improve the redevelopment of blighted areas defined under the Urban Redevelopment Law of 1945.	A local authority can be appointed or established by a municipality with the power to issue bonds to raise money that can then be lent to for-profit developers for the construction of certain infrastructure improvements within a defined tax increment district. The loan is paid back with a portion of the incremental increase in property tax revenue from the new development. Local taxing jurisdictions (county, municipal, and school district) must be willing to forego a portion of property tax revenue. Interested municipalities should also seek a TIF guarantee through the DCED.

source: "Sources of Funding for Revitalization,"
Montgomery County, August, 2005

Project Updates and Additions

Throughout the course of the planning process for this study, many of the suggested projects began or advanced and several other planning initiatives were also in progress. The following matrix is a collection of project updates and recommendations that followed the press of the final draft of the original report.

Objective	Projects	Cost Estimate (Public Investments)	Steering Committee Recommended Actions	Project Updates
Increase pedestrian safety through improved connections and environment	Construct a pedestrian walkway along Church Road, under Easton Road	\$300,000 (concurrent with Bridge Improvements)	Form Task Force to investigate and advocate for improved pedestrian safety Investigate with PennDOT possible existing drainage problem along Church Road under Easton Road bridge	
	Improve Easton Road bridge over Church Road	\$200,000 (concurrent with Church Road Pedestrian Walkway)	Investigate with the County how the Easton Road Bridge fits into the Bridge Maintenance Plan Determine if structural maintenance is needed in addition to upgrades in appearance	
	Calm traffic along Easton Road and improve intersections at Easton Rd and Limekiln Pk and Church Road and Limekiln Pk	\$5000 per bump-out, \$10,000 on-street parking markings and signage		November 2006: Improvements to Church Road and Limekiln Pike intersection were proposed by Arcadia and Township and accepted by PennDOT with the exception of extra-wide crosswalks November 2006: PennDOT anticipates that improvements to Easton Road and Limekiln Pike will begin in May 2007. The traffic lights are being provided by Spring City, and will match the improvements the Township will be installing as a part of the Easton Rd streetscape and Traffic Calming Improvement Project next year.
	Strengthen pedestrian connections along Easton Road across Route 309 interchange	\$150/linear foot		November 2006: Pedestrian lights were added to construction plans while improvements were underway
Enhance the gateway to Arcadia University and Glenside	Transfer ownership of triangular parcel from County to Arcadia University	\$50,000		November 2006: Arcadia University has entered into a legal agreement with the Montgomery County Commissioners to maintain the triangular parcel. The County will still maintain ownership of this land, but at some point, the County may be willing to sell the parcel to the University.
	Create a landscaped and signed gateway to Glenside and Arcadia	\$100,000		November 2006: Arcadia University released their Landscape Master Plan Executive Summary which encompasses the entire University grounds. The first phase of the master plan, the improvements around the perimeter of the campus, are a priority for implementation.

Objective	Projects	Cost Estimate (Public Investments)	Steering Committee Recommended Actions	Project Updates
Make bicycles a viable form of alternative transportation in and around Glenside	Construct a dedicated bike path from Greenwood Avenue to Easton Road within the vacated Route 309 roadway	\$79,750 (.55 miles @ \$145,000/mile)		
	Connect Township bike network to the proposed Cresheim Valley Trail			
	Integrate bike lane and "share the road" signage along the County's proposed Bike Mobility Paths	\$800/mile		
	Introduce bicycle parking at fringes of University campus, near retail activity, and at Train Station	\$100/Inverted "U" rack	Establish the specific locations and quantities of racks needed in the retail area	
Create a transit connection between the train station, Arcadia, and the business district	Determine viability of introducing shuttle bus service	\$60,000 (for study)	Obtain funding for Shuttle Bus Feasibility Plan Study	
	Use existing SEPTA bus route 22 to promote a transit connection between Cheltenham Avenue, Arcadia University, and the Glenside Train Station	\$30,000		

Objective	Projects	Cost Estimate (Public Investments)	Steering Committee Recommended Actions	Project Updates
Encourage student-focused retail, dining, and events/activities along Easton Road	Encourage infill development along Easton Road			
	Implement the Manor Site Redevelopment per Arcadia's Master Plan			
	Supplement the Oak Summit Apartments with increased density and ground-level retail			November 2006: The University could force the sale of Oak Summit Apartments as early as June 2008, and close on the property by September 2008. Until such time, they are under a lease purchase arrangement with the current owner. Up to 450 students are currently occupying the units.
	Facilitate development of the Marriot Lot			
Reuse additional land made available from Route 309 reconfiguration	Expand Arcadia University to the land parcels adjacent to its campus that may be vacated by the Route 309 reconfiguration		Arcadia University suggested that decked parking behind the Oak Summit Apts would help to increase density and add retail on that site.	November 2006: The University recently secured the 2.1 acre parcel directly in front of Greys Tower that was previously owned by Atlantic Refinery. This parcel will become available once the intersection improvements to Limekiln Pike and Easton Road are completed and the current Eason Rd cartway within this vicinity is vacated.
	Evaluate the development potential of the land parcels to the south of Route 309 that may be vacated by the road reconfiguration			
Strengthen ties between Arcadia University and the Glenside community	Look for opportunities for off-campus, privately developed graduate student housing			
	Enhance the alliance between Arcadia University, the Economic Development Task Force, Greater Glenside Chamber of Commerce, and the Main Street Manager to facilitate interaction between the student body and surrounding community			