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Architecture • Conservation • Community and Transportation Planning
James C. Campbell, AIA • Robert P. Thomas, AIA • Partners

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C. D. E. F. G. H. A. B. C. D. E.	Public and Township Meetings Draft Analysis Plan.  Methods of Recommendation for Specific Routes Method of Prioritization of Routes with Estimated Costs and Impacts. Final Report Discussion  Appendix A - Master Plan Recommendation Drawings  Upper Merion Township Bicycle & Pedestrian Network Draft Master Plan Recommended Routes: Township-Wide Network (Dwg #: MAPKEY) Recommended Routes: Trail Network (Dwg #: TRAIL) Recommended Routes: Pedestrian Network (Sidewalks) (Dwg #: PEDMAP) Recommended Routes: Bicycle Network (Dwg #: BIKEMAP) Recommended Routes: Implementation Network (Dwg #: PED impl)	
C. D. E. F. G. H. V. A A. B. C. D. E. F. VI. A A. B.	Public and Township Meetings Draft Analysis Plan	

## I. Executive Summary

Can you pleasantly walk or easily find your way around your neighborhood on a bicycle? Do you have enough room to walk, or a safe place to bicycle along your roads? Do you need a sidewalk or a safe bike route that would allow you to get to your preferred destinations? These are some of the important questions suburban municipalities and "edge cities" are asking their citizens today. As many township, state and interstate roadways were built or modified with the safety, capacity, and comfort of motor vehicles in the forefront, many of these roadways remain hazardous and uncomfortable for pedestrian and bicycle use. This is because pedestrian and bicycle systems are rarely documented in a master plan that would ensure that future roadway development include specific pedestrian and bicycle issues.

#### A. General Objectives of this Study

- To gather information and input for the potential path/bike/trail system that will link parks, natural areas and the Schuylkill River with neighborhoods, business districts, schools and adjacent municipalities. This includes accommodations for multiple forms of transportation; walking, running, biking, in-line skating, etc.
- Present to the Public and Township Officials initial findings of legal feasibility, usage feasibility, and location feasibility.
- Report on final study results and develop a conceptual Pedestrian Network, Bicycle Network and Greenway/Multi-use Trail Plan.

#### B. Background

#### **Inventory and Analysis**

A field survey and GIS data inventory of the existing on and off-road path network was conducted analyzing road width's and benches (areas where sidewalks can physically exist), and Natural and Built features.

#### **Public Participation**

Based on township study committee recommendations, community outreach, and questionnaires, the study has identified desired routes on a Master Plan for the Township Wide Network.

Citizen Survey - SUMMARY results compiled (+/-19.99 Margin of Error):

- Recreation is the most preferred activity followed by Running and Jogging and Partaking in Nature Hikes
- 75% say it not easy to walk and bike in the Township
- 71% want access to the Schuylkill River
- 83% will use new connections
- 63% are willing to use their cars less often
- Biking and Walking to Public Transit is also a preferred activity
- Parks, Natural Resources, and Rivers/Streams should be Increased with trail access
- Gaining Access to the trails/paths was the top concern followed by Safety/risk of Accident
- 54% willing to support capital expenditure to Increase Recreation and Access
- Only one participant had no interest in the study
- Points of Interest and Routes to travel were identified





### C. Master Plan Recommendation Drawings

MASTER PLAN RECOMMENDATIONS	Please see Master Plan Recommendation Drawings (APPENDIX A)
Township-Wide Network (Dwg #: MAPKEY)	Shows Township-Wide Network for Pedestrians and Bicycles
Trail Network (Dwg #: TRAIL)	Shows Proposed Multi-Use Trails (Hard Surfaced)
Pedestrian Network (sidewalks) (Dwg #: PEDMAP)	Shows Proposed Side-of-Road and Off-Road Pedestrian Network
Bicycle Network (Dwg #: BIKEMAP)	Shows Recommended On-Road Bike Routes and Bike Lanes
Implementation Network (Dwg #: PED impl)	Shows Side-of-Road and Off-Road Pedestrian Network to be Implemented (includes difficult physical conditions)

#### **Summary of Recommendations**

- Create New Side paths (soft surface) / New Sidewalks (hard surface) with township character
- Create "Share the Road" Bike Routes and Routes that Parallel High Traffic Volume Roads (i.e. DeKalb Pike/Valley Forge Road/Allendale Road)
- Stripe Bike Lanes where possible
- Link together Schuylkill River Trail West and the Crow Creek/Rail to Trail Local Loop (Multi-Use trails)
- Link Ped/Bike Network to Adjacent Municipalities, Public Transit and the Schuylkill River Trail
- Investigate implementation of key pedestrian and bicycle bridges
- Implement Signage and Information Systems
- Educate and inform the public of the benefits of walking and cycling and location of alternative routes
- Integrate recommended routes into State / MPO plans
- Review potential funding sources including Montgomery County Open Space Funds.
- Encourage the formation of proactive ped/bike citizen groups and "Safe Routes to School" organizations
- Form a committee to select and prioritize projects for implementation that will make the largest positive Township-wide political impact with the largest positive local change with the least amount political opposition.
- Define and negotiate necessary easements and rights-of-way with land owners
- Select planning and design/engineering consultant teams to process and prepare planning, design and
  construction documents for prioritized legs and segments of trails based on the guidelines established
  within this study and the decisions of the prioritization committee.
- Obtain funding from sources that will either provide a matched contribution to outside grant sources or dedicate capital improvements funds for design and construction phases.
- Coordinate with local municipalities to incorporate desired connections to planned park and recreation and land development sites and facilities.
- Coordinate with municipal, state and regional agencies, Pennsylvania Utility Commission to secure appropriate clearances, permits, and authorizations for future construction.

### D. Implementation

This report is the first planning step towards the realization of the township-wide ped/bike network for Upper Merion. This feasibility report attempts to estimate the cost and prioritize key routes/projects at an overall planning level. The Township can make the most of this report by seeing it as a "menu" of items and segments of routes for the Township to choose projects for implementation. The following table illustrates the total existing or necessary construction mileage of the networks facility type:

	PRIORITY MULTI-USE TRAIL / SIDEWALK / BICYCLE ROUTES															
	isting Netwo		Proposed Network Mileage and Facility Type													
Mileage	e and Facili	ty Type			Pedestrian			Bic	ycle							
On Neighborhood Street	Trail	Sidewalk	Multi-use Trail (Ped/Bike)	Trail/Footpath (Earthen)	Sidepath (Gravel or Asphalt)	Sidewalk	Special Design Consideration (i.e. Difficult to Implement)	Bike Lanes/Wide Shoulders	On-Road Bike Route							
1.50	2.00	5.50	18.00	0.00	0.70	2.30	1.40	2.80	10.80							

#### **PRIORITY ROUTES IDENTIFIED**

The study has selected Major Routes, to be studied in detail for costs. The routes are represented on the PRIORITY Drawings (see <u>Section III–C-1 to 5</u> and/or <u>APPENDIX A, Dwg #: MAPKEY</u>). Color-coded route numbers in circles identify each segment of the route and each segment's ends are represented with a black tick mark.

Priority Pede	Priority Bicycle Route Projects	
A = Multi-Use Trail Routes	B = Priority Sidewalk Routes	C = Priority Bicycle Route Projects
Color GREEN	Color <b>RED</b>	Color BLUE
Schuylkill River Trail West	Henderson Road Priority Sidewalk Route	Henderson Road / S Gulph Rd Priority Bicycle Route
The Crow Creek and Rail to Trail Loop	Crossfield Rd/E Valley Forge Rd Priority Sidewalk Route	Crossfield Rd/E Valley Forge Rd Priority Bicycle Route
The Valley Forge Historic Park to Chester Valley Trail Connection	DeKalb Pike Priority Sidewalk Route	East Side Priority Bicycle Route
The DeKalb Pike Sidepath, and	South Side Priority Sidewalk Route	South Side Priority Bicycle Route
Other Trails	The Chester Valley Trail to Allendale Road Priority Sidewalk Route	Allendale Road to The Chester Valley Trail Priority Sidewalk Route
	Roberts School Priority Walking Route	

### E. Summary of Opinion of Probable Cost

See <u>Section I-E-Table 1a</u> on the next page for the Summary of the Construction Costs and Design Fees associated with the above Priority Projects. The full table containing the Opinion of Probable Cost that includes the entire Pedestrian and Bicycle Network recommended in this study can be found in <u>Section III-B-Table 1</u>.

### F. Summary of Maintenance Cost

It is our opinion that when implemented, the Township should be prepared to budget a minimum of \$169,600 dollars per year for repair and maintenance costs for the 43.4 miles of Priority Network. This does not include other segments of the pedestrian and bicycle segments recommended to complete the entirety of the network. When the entire recommended Township-wide Network is constructed, the Township should be prepared to budget a minimum of \$283,100 dollars per year for repair and maintenance cost for the entire 104.4 mile Bicycle and Pedestrian Network. This opinion does not include snow removal or equipment costs.

OPINION OF TOWNSHIP-WIDE NETWORK MAINTENANCE COST													
TYPE OF FACILITY	COST PER MILE PER YEAR	PRIORITY NETWORK MILEAGE	PRIORITY NETWORK COST PER MILE PER YEAR	OTHER NETWORK SEGMENTS MILAGE	OTHER NETWORK SEGMENTS COST PER MILE PER YEAR	TOTAL YEARLY MAINTENANCE							
MULTI-USE TRAILS ROUTES	\$7,000	19 miles	\$133,000	4 miles	\$28,000	\$161,000							
SIDEWALKS ROUTES	\$1,500	10.9 miles	\$16,350	24.5 miles	\$36,750	\$53,100							
BICYCLE ROUTES	\$1,500	13.5 miles	\$20,250	32.5 miles	\$48,750	\$69,000							
TOTAL		43.4 miles	\$169,600	61 miles	\$113,500	\$283,100							

Company   Comp	g:\\UMT-TRAI\FeasibilityS														
The content of the			SUMM	ARY P	RELIM	INAR'	Y OPINION OF PRO	BABLE COST	FOR PRIORITY RO	UTES ONLY (TABLE	1a)				
The content of the	rep'd by	Campbell Thomas & Co - 1504 South Street - Philadelphia PA 19146-1636 - Tel:215-545-1076 - Fax 215-545-8397													
March   Property   P				OWNERSHIP	<b>D</b>				TYPE of REACH			CROSSINGS			
Section   Sect						Exis			Bicycle	Cost	Pedestrian Bicycle	Cost			
Section   Sect								ration (t)	<u>ဖ</u>		- suc				
Section   Sect						Street	d/Bike)	r Asph	roulder		rsectic				
Section   Sect						фооф	ail (Pe	ravel c	lide St		each) rossin rossin ork Inte				
March   Marc			ship	DOT	otected	eighbo	ralk use Tr	ath (G	anes/M		Strian (				
*** Control and Section 1997 (1997) 1997 (			Town	Penn	Unpro	N O	Sidew Multi-	Siden Siden Spec (i.e. D	Bikela On-R		Major Major Bicyc				
## Company of the Com	Route ID #	Route Name Reach of Route							Units Co	ost/Unit Cost Factor Subtotal	\$1,000 \$5,000 \$1,000	Subtotal	Reach Subtotal	TOTALS Comments	ID#
Transfer of the control of the contr	PRIORITY PEDES	ESTRIAN PROJECTS													
A	A	Och all II Deve To I West Country to I was a long of the last of t													A
## 15   19   19   19   19   19   19   19	A1						5219			0			\$0	Trail to be Upgraded by Others	A1
## 1									LF LF		0 1			Included in Special Signage @ Crossings)	A2 A3
## 1	A4	Schuylkill River Road - Swedesburg to Bridgeport [MULTI-USE TRAIL]							LF		0 1			Upgrade One Crossing of Norfolk Southern Rail Road (Cost	A4
March Control Action Action (Control Action Actio	A6	River Front - Bridgeport [MULTI-USE TRAIL]  River Front - UMT Boathouse to Abrams [MULTI-USE TRAIL]							LF	0 80 1 92848	0 1	1000	\$0	Trail to be Done By Others Upgrade Existing Trail.	A5 A6
A	A/ A8										0			Approx.700 foot span with ramps + 100 ft "T" Ramp. See Detail	A7 A8
A	A10	Heuser Park Connection - Beidler Road to Heuser Park [MULTI-USE TRAIL]  Valley Forge Connection - Heuser Park to VFNH Park [MULTI-USE TRAIL]					6838 7395		LF	50 1 34190		7000	\$348,900 \$369,800	Some Existing Trails to be Upgraded.	A9 A10
An		Crow Creek and Rail to Trail Loop - From Heuser Park to Walker Park to Abrams								0			\$0	Part of Schuylkill River Crossing Complex by Others	A11
Miles   Mile	A12	Rail to Trail - Heuser Park to Allendale Road [MULTI-USE TRAIL]							LF LF			10000 3000			A12 A13
## 1		Mother of Divine Providence School Trail - Executive Estates to Allendale Road [MULTI-USE TRAIL]							LF	10 1 1583	0 1 1	6000		Reconfigure Parking Area for Trail. Mid Block x-ing of Allendale Rd	A14 A15
April   Company of the Company of	A16	Upper Merion Area Middle School Trail - Crossfield Rd to Keebler Road [MULTI-USE TRAIL]					1036		LF IF			11000	\$21,400		A16 A17
March   Section (March   March   Mar	A18 A19	Two Bridges over Crow Creek - Valley Forge Raod to Covered Bridge Road [MULTI-USE TRAIL]  Crow Creek Boardwalk - Covered Bridge Road to Hansen Rd [MULTI-USE TRAIL]						2418	LF	150 1 36270	0 3 1 0 2	2000	\$8,008,000 \$364,700	See Detail Drawings See Detail Drawings	A18 A19
### SHEED WAS SERVICE SERVICES		Valley Forge Historic Park to Chester Valley Trail Connection - From Betzwood Bridge to Tannery Drive					1975 817		LF	15 1 1225		7000		Investigate Improving Existing 4' Sidewalk Trail	A20
### Author Part of Control Con		North Gulph Road - Westover Way to Guthrie Road [MULTI-USE TRAIL] SR422 Underpass Improvements					4987		LF LS		5 2	2000	\$76,800		A21 A21
Accordance   Acc	A22	Turnpike Bridge at Gulph Rd - Reconfigure Underpass for Trail [MULTI-USE TRAIL]							LS	250000 1	0			\$250,000 Transportation Projects by Others.	A22
## Secretary of the control of the c	A24	Ped/Bike Bridge over Norfolk Southern Rail Road - Tannery Drive to Chester Valley Trail [MULTI-USE TRAIL]								0 1	0		\$0	of Land Development Process. Trail By Others. \$1,200,000 See Detail Drawings	A23 A24
## 1 Part of the Process Control of Lat MA, 10 Cell 1975    Part of Lat MA, 10 Cell 1975   Pa		First Avenue Sidepath - North Guph Road to Allendale Road [MULTI-USE TRAIL]							LF LF	20 1 3244 40 1 19652	0 2 0	2000		Utilize Utility "Paper Street" Connects Business Parks	A25 A26
Control Principle Trails		Dekalb Pike Sidepath - N Henderson Rd to King Manor Rt100 Station, Bridgeport Elementary School and Bob F E Dekalb Pike - Henderson Road to Chester Valley Trail [MULTI-USE TRAIL]	Iolland Park	·k					LF LF			2000	\$109,600		A27
April   Sept Surface   Production has be designed Mid-10 Fixed   1992							1616		LF	40 1 6464	0 1	1000	\$65,600		A28
Second Column   Col		SR23 E. Valley Forge Road - Anderson Road to Bridgeport [MULTI-USE TRAIL] SR320 Side Path - Jones Road to SR23 Schuylkill River Road [MULTI-USE TRAIL]							LF LF	80 1 31944 60 1 29322	0 2 1 0 4	7000 4000		Valley Trail.	A29 A30
Redefence Total Principle Sidewalk Robots - From Address & Disconaire Rod   1					Subtotal	0.00	10774 0 87349 0 2.04 0.00 16.51 0.00	0 0 2420 0.00 0.00 0.46		Subtotal \$12,646,22	0 Subtotal 40 11	\$233,000			
Redefence Total Principle Sidewalk Robots - From Address & Disconaire Rod   1	D														В
## A President Association Flower (Parts Chause) Plant (Parts Chause) Pl							5460		15	2 1 1002	8 4 1	0000	\$10,000	Pedestrian route improvements only.	B1
## Selection Road - Chatch Roa								1199	LF LF	25 1 2997	5 4	4000	\$34,000		B2 0
Second Second Priority Storewards Route - From Niciples Route 1   Second Seco	B3	S Henderson Road - Dekallb Pike to Church Road							LF		2 2	2000	\$4,200	538 Feet of New Sidewalk to Be Done By Township. All Other	В3
Crossinal Rull-Valley Forge Red Priority Sidewalk Route - From N Gulph Route - Bridge protein - State - Stat							1303			2 1 260	6		\$2,600	Milage by Others.	0
B							836	1617				3000	\$6,200 \$1,700	Milage by Others.	B4 0
B7   E Valley Forge Road - 1 Henderson Road to Anderson Road to Keng Manor R1500 Station, Bridgeport Elementary School and Bob Holland Park   B8   E lookab Pites - Priority Stetewalk Route - 1 Honor Road to Change Valvey Trail School Road Forger From School Road Forger Road to Change Valvey Trail School Road Forger Road to Change Valvey Road Road Forger Road to No. (April 1980) 1000 1000 1000 1000 1000 1000 1000 1	B5	Crossfield Rd - Allendale Rd to Schools					2162	752	LF LF	2 1 432 25 1 1880	4 2	2000	\$6,300 \$20,800	redestrian route improvements only.	B5 B6
Dekalb Pike Priority Sidewalk Route - N Henderson Rd to King Manor Rt100 Station, Bridgeport Elementary School and Bob Holland Park   1255	B7						2760	350			0	2000	\$5,500		0 B7
B3							1575	1689	LF LF						0
B9   Swedeland Rd - Jones Road to S Gulph Rd   B10   Gypsy Lane - S Gulph Road to Hujpher Rd   B11   Huges RdForest Rd - Oppsy Lane to Brockwood Rd   B11   Huges RdForest Rd - Oppsy Lane to Brockwood Rd   B12   B13   B15   Brookwood Road Forest Rd - Oppsy Lane to Brookwood Rd   B13   Revolved Edute - Cuton Rd   Summer Rd   B14   Swarer Rd - Chester Valley Trail to Allendale Road Florest Rd - Oppsy Lane to Brookwood Road Plank   B15   Walley Forge Golph Course Development - S Warner Road to N Gulph Rd   B16   Kingwood Rd Forest Rd - Oppsy Lane to Rd - Chester Valley Trail to Allendale Road Priority Sidewalk Route - From Walker Plank to Kingwood Road Plank   B16   Ringwood Rd Forest Rd - Oppsy Lane to Rd - Chester Valley Trail to Dekab Pike		E Dekalb Pike - Henderson Road to Chester Valley Trail	chool and B	Bob Holland	l Park		1255		LF	2 1 251	0 2	2000	\$4,500		B8
B10   Gypey Lane - S Culpin Road to Hughers Rdf   1   1000   \$59,400	B9							1263	LF LF	80 1 10104	0 2	2000	\$103,000	Pedestrian route improvements only.	B9
B12   Brokwood Road - Forest Rd to Croton Rd   Fig. 2   1   1296   S13,000		Gypsy Lane - S Gulph Road to Hughes Rd Huges Rd/Forest Rd - Gypsy Lane to Brookwood Rd						730	LF	80 1 5840	0 1	1000	\$59,400		0 B10 B11
B12   Brookwood Road- Forest Rd to Croton Rd						6481	2084		LF LF	2 1 416 2 1 1296	8		\$4,200 \$13,000		0
B15   Valley Forge Golph Course Development - S Wamer Road to N Gulph Rd   1726   LF 2 1 3452 1   1000 \$ \$4,500   Part of Land Development Process. Sidewalk By Others.	B13	Kerwood Estates- Croton Rd to S Warner Rd					4213	2002 571	LF	80 1 4568	0 1	1000	\$46,700		B12 B13
B15   Valley Forge Golph Course Development - S Wamer Road to N Gulph Rd	B14	S WATHER RG - Chester valley I fall to SW808SIOTO RO					1610		LF	322	0 1 1	6000	\$9,200	Coordinate with Residential Developer for Inclusion of Sidewalk as	B14
B16   Kingwood Rd / Forge Street - Chester Valley Trail to Dekalb Pike			ark					1726	LF	2 1 345	2 1	1000	\$4,500	Part of Land Development Process. Sidewalk By Others.	B15
B17	B16	Kingwood Rd / Forge Street - Chester Valley Trail to Dekalb Pike					618	739		80 1 5912 2 1 123	0 1	1000	\$1,200		B16 0
Sample   S		Roberts School Priority Walking Route					1982		LF	2 1 396		6000	\$10,000	Pedestrian route improvements only.	B17
B19   McKaig Nature Center - Croton Rd to Brower Rd	B18	Croton Rd - Brookwood Rd to Roberts School					700	350 350	LF LF	25 1 875	· .	1000	\$15,600 \$8,800		B18 0
		McKaig Nature Center - Croton Rd to Brower Rd  Brower Road - McKain Trailinead to Kinn of Prussia Rd (to Unper Culph Pd)				1285	1/22	3746				1000	\$57,200		0 B19 B20
Subtotal 7766 0 2883 0 0 3746 12170 4946 LF Subtotal \$640,470 \$ubtotal \$49,000 \$ubtotal \$690,000 \$ fill the subtotal \$49,000 \$ubtotal \$49,000		The treat this and training of thought to the Coupit to)			Subtotal	7766	0 28883 0 0 0.00 5.46 0.00 0.00	3746 12170 4946 0.71 2.30 0.93	LF	Subtotal \$640,47	Subtotal	\$49,000	Subtotal	\$690,000 10.87 miles	320

Page 1 of 2 TABLE1a-CostEst-SUMMARY.xls

(g:\\UMT-TRAI\FeasibilityS	udy/Costest.xls)																			
Upper Meri	on Township-Wide Pedestrian and Bicycle Network Feasibility Study -	SUMI	MARY P	RELIN	IINAR	Y OPIN	NON	OF P	ROBAE	BLE CO	ST FOR	PRIO	RITY ROUTE	S ONLY (TABLE	1a)					
Montgomery County, Prep'd by	Pennsylvania Campbell Thomas & Co - 1504 South Street - Philadelphia PA 19146-1636 - Tel:215-545-1076 - Fax 215-545-8397																			
Date: November 200																				
			OWNERSHI	Þ						DISTAN	CE & TYPE of	REACH			SPECIAL SIGNAGE	@ CROSSINGS				
			jacent Land Juri	sdiction Private	Exis	ting Network	k			oposed Netwo	rk			Cost	Pedestrian Bicyc					
		PL	JDIIC	Private					Pedestria	an c	; BI	cycle								
					١			<u></u>	halt)	latio	£ 5				ions ions					
					Stree			/Bike	nen)	aside	emer	e e			rsect					
					poo			(Pec	(Earl	ပိုင်	ld la	Rou			ssing					
				D 00	Ž Q			Trail	Gra	Desig	ult to	Bike			n (es r Cro					
		nship	Tode	otec	leigh		walk	-use	path path	walk	Diffic	Road			astria Block					
		vo	Peni	Unp	5	ia i	Side	Mult	Side	Side	(i.e.	O-F			Majo Majo Majo Majo					
Route ID #	Route Name Reach of Route												Units Cost/Unit	Cost Factor Subtotal	\$1,000 \$5,000 \$1,00	0 Subtotal	Reach Subtotal	TOTALS	Comments	ID#
PRIORITY BICYC	LE ROUTE PROJECTS																			
С	Henderson Road / S Gulph Rd Priority Bicycle Route - From Abrams to Matsonford Rt100 Station																			С
C1	N Henderson Rd - Abrams to E Beidler Rd											1158	LF	5 1 5790						C1
C2 C3	N Henderson Rd - E Beidler Rd to Valley Forge Rd N Henderson Rd - Valley Forge Rd to Dekalb Pike										3334	2440	LF	10 1 33340 5 1 12200	0 4	400	0 \$16,200			C2 C3
C4 C5	Dekalb Pike - N Henderson Rd to Town Center  S Henderson Rd - Dekalb Pike to Church Rd										1444	3629	LF 1	10 1 14440 5 1 1814		300 200			Difficult to Implement. By Others. Difficult to Implement. By Others.	C4 C5
C6 C7	S Henderson Rd - Church Rd to Shoemaker Rd S Henderson Rd - Shoemaker to S Gulph Rd										2421	1502	LF 1	5 1 7510 10 1 24210	0 1	100	0 \$8,500		Difficult to Implement. By Others. Difficult to Implement. By Others.	C6 C7
C8	S Gulph Rd - S Henderson Rd to Crooked Lane										1753	3	LF 1	10 1 17530	0 3	300	0 \$20,500		Difficult to Implement. By Others.	C8
C9 C10	S Gulph Rd - Crooked Lane to SR320 South Gulph Rd - SR320 to Matson Ford Sation											3607 3032	LF LF	5 1 18035 5 1 15160	5 2 0 2	200 200			Difficult to Implement. By Others. Difficult to Implement. By Others.	C9 C10
C11	Crossfield Rd/E Valley Forge Rd Priority Bicycle Route - From N Gulph Road to Bridgeport (Trails Not Includer Crossfield Rd - Allendale Rd to Schools	d)										2162	LF	2 1 4324	4 2	200	0 \$6,300			C11
C12 C13	Crossfield Rd - Schools to Henderson Road  Anderson Rd - N Henderson Road to Valley Forge Rd											3491 3991	LF LF	2 1 698	2 2 2	200	0 \$9,000			C12 C13
	East Side Priority Bicycle Route - From Bridgeport to SR320 (Trails Not Included)											3991		/98						
C14 C15	Ford Street/Crooked Lane/David Rd/Charles Rd - Bridgeport Ele. School to Coates Ln Crooked Ln - Coates Ln to E Church Rd											2908 1963	LF LF	5 1 14540 5 1 9815						C14 C15
C16 C17	E Church Rd - Crooked Lane to Horizon Blvd   Horizon Dr - E Church Rd to Renaissance Blvd										2703	1278	LF IF	5 1 6390	0 1	100	0 \$7,400			C15 C16 C17
C17	Renaissance Blvd - Horrizon Dr to SR320										2817		LF LF	2 1 5400	4 1					C17
C19	South Side Priority Bicycle Route - From Schuylkill River Rd to Valley Forge National Historic Park (Trails Not In Swedeland Rd/S Gulph Rd/Gypsy Ln - Jones Road to Hughes Rd	ncluded	)		_						_	3098	I.F.	5 1 15490	0 4	400	0 \$19,500			C19
C20 C21	Huhges Rd/Forest Rd - Gypsy Lane to Brookwood Rd											6407 5279	LF I F	5 1 32038 5 1 26398	5 2	200	0 \$34,000			C20 C21
C22	Brookwood Road- Forest Rd to Croton Rd Kerwood Estates- Croton Rd to S Warner Rd											4212	LF	5 1 21060	0 4	400	0 \$25,100			C22
C23	S Warner Rd - Chester Valley Trail to Swedesford Rd  Allendale Road to The Chester Valley Trail Priority Sidewalk Route - From Walker Park to Kingwood Road Pa	ark							_			2324	LF 2 & 8	30 1 92320	0 3	300	0 \$95,300		1124 Feet Difficult to Implement.	C23
C24	Kingwood Rd / Forge Street - Chester Valley Trail to Dekalb Pike											2593	LF 8	5 1 1296	5 4				Difficult to lead a seat	C24
C25 C26	Allendale Road - Dekalb Pike to Wills Blvd Allendale Road - Wills Blvd to Walker Park											1241 727	LF	30         1         99280           5         1         3638	5 1	100	0 \$4,600		Difficult to Implement.	C25 C26
				Subtota	1/						14472 2.74	57042	LF miles	Subtotal \$530,613	Subtot 62		0 Subtotal Total Length	<b>\$592,000</b> 13.52	miles	
															TOTAL P		PRIORITY LENGTH	\$19,011,000	miles	
																TOTAL	PRIORITY LENGTH	40.00	ITHIES	
TOTAL PRIORIT	PEDESTRIAN AND BICYCLE ROUTE CONSTRUCTION COSTS																			
	Subtotal Netv	work and	Sample Imple	nentations	7766	10774 2	28883 8	37349	0 3746	12170	7366 14472	57042	LF	\$13,817,303	3 74 14 62	\$688,00	0			
	Gustour retr	1		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1	2	5	17	0 1	2	1 3	3 11	miles	\$10,017,000	, , , , , , , , , , , , , , , , , , ,	\$000,000	ŭ.			
															TOTAL PRIORI	TV TD AII /DEP	/BIKE ROUTES	\$19,011,000		
															TOTALTRIOR	Contingend		\$2,852,000		
		1													TOTAL PRIOR	ITY BOLITE C	ONSTRUCTION	\$21,863,000		
																	E/PED LENGTH	43.39		
PRIORITY DESIG	N AND ENGINEERING FEES																			
	Preliminary Design/Engineering																		Proliminary Posign/Engineering	
	Preliminary Design/Engineering											1	LS	2164000			2164000		Preliminary Design/Engineering 75% of Predesign	\$2,164,437.0
	Preliminary Environmental Investigation (Excluding Hazardous Materials)											1	LS	721000	U		721000 Subtotal	\$2,885,000	25% of Predesign 60% of Total Design	\$721,479.0 \$2,885,916.0
	Final Design/Engineering   Plans and Details (Trail, Civil and Landscape)											1	LS	938000	0		938000		Final Design/Engineering 65% of Final Design	\$937,922.7
	Specifications Erosion, Sedimentation and Pollution Plans	1	$\vdash$		1							1	LS LS	144000 289000			144000 289000		10% of Final Design 20% of Final Design	\$144,295.8 \$288,591.6
	Estimate and Tabulation of Quantities	1			1							1	LS LS	72000	0		72000 Subtotal	\$1 442 000	5% of Final Design 30% of Total Design	\$72,147.9 \$1,442,958.0
	Construction Phase Services by Design Professional												18	40:				ψ1, <del>111</del> 3,000	Construction Phase Services by Design Professional 10% of Total Design	\$1,442,938.U
	Construction Phase Services by Design Professional											1	LS	481000	U		481000 Subtotal	\$481,000	10% of Total Design 10% of Total Design	48098
		1																		
		1			1												TOTAL	\$4,809,000	22% of Total Construction	\$4,809,860.0
																	TOTAL DESIGN	\$4,809,000		
TOTAL OPINION	OF PROBABLE COSTS FOR PRIORITY ROUTES																			
TOTAL OPINION	OF FRODADEL COSTOT ON FRIGHT ROUTES																			
	Total Construction															Subto	otal Construction	\$21,863,000		
	Total Design and Engineering	1	<del>                                     </del>		1						-				+ + +		Subtotal Design	\$4,809,000		
		1																. ,		
	GENERAL NOTES:  1. Costs are estimated for construction only. Any right-of-way and/or easement acquisition costs are additional.	1			1															
	All off-road trail construction is assumed to occur within a 20'-0" right-of-way.																TOTAL	\$26,672,000		
	Costs include mobilization, demobilization, maintenance and protection of traffic.      Costs have been inflated to 2007 Dollars.	1			1						-				1	1				
	5. Total costs have been rounded to the nearest \$1000	1		1		and Arres			alaa .	leveli	adamat									
	<ol> <li>Proposed pedestrian network includes costs for surface construction only and is for planning purposes only. ADA ramps, piping and filling</li> </ol>	ng ditches	s, concrete ditch	removal, a	snpalt remo	vai, tree rem	noval, fenc	e removal	, clearing and	ieveling, firehy	urant moving,	and new po		TOTAL DESIGN and	CONSTRUCTION	L FOR DRICE	I POLITES	\$26 672 000		
	l .	1	<u> </u>		1	1			1			1		TO THE DESIGN AND	CONSTRUCTION	I FOR PRIOR	CILL KOULES	<b>⊅∠∪,∪/∠,∪∪</b> ∪	1	

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