

APPENDIX K

Cost Estimates

Lower Merion Township Act 209 Transportation Impact Fee Study

Transportation Capital Improvement Plan

Cost Estimates

Existing Capital Improvement Program

Pass-Through Capital Improvement Program

Development Capital Improvement Program

Costs Prepared by: *WLT* 3/31/2011

CIP Prepared by: *BMJ/WLT* 3/31/2011

Revised:



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1 City Avenue and 54th Street

Improvement	Unit	Quantity	Unit Cost	Subtotal
<u>Existing Conditions</u>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<u>Pass-Through Conditions</u>				
Install NB right-turn lane and SB left-turn lane				
Excavation	CY	250	\$35	\$8,750
Mill and Overlay	SY	3,418	\$13	\$44,400
Pavement	SY	450	\$65	\$29,250
Sidewalk	SY	632	\$75	\$47,400
ADA Curb Ramps	EA	8	\$6,000	\$48,000
Curbing	LF	1,007	\$35.00	\$35,200
Signing & Striping	LS	1	\$15,000	\$15,000
Clearing and Grubbing	LS	1	\$10,000	\$10,000
Utility Relocations	LS	1	\$60,000	\$60,000
Traffic Signal Modifications	LS	1	\$50,000	\$50,000
Commercial Right of Way Acquisition	SF	100	\$10.00	\$1,000
Residential Right of Way Acquisition	SF	50	\$4.00	\$200
			Subtotal	\$349,200
			Drainage 15%	\$52,400
			MPT 10%	\$34,900
			E&S 5%	\$17,500
			Mobilization 5%	\$17,500
			Contingency 10%	\$34,900
			Engineering 12%	\$41,900
			TOTAL	\$548,000
<u>Development Conditions</u>				
Traffic Signal Modifications	LS	1	\$10,000	\$10,000



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2 City Avenue and Bryn Mawr Avenue

Improvement	Unit	Quantity	Unit Cost	Subtotal
<u>Existing Conditions</u>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<u>Pass-Through Conditions</u>				
Install NB left-turn lane				
Excavation	CY	43	\$35	\$1,500
Mill and Overlay	SY	1,141	\$13	\$14,800
Pavement	SY	77	\$65	\$5,000
Sidewalk	SY	42	\$75	\$3,200
ADA Curb Ramps	EA	2	\$6,000	\$12,000
Curbing	LF	275	\$35.00	\$9,600
Signing & Striping	LS	1	\$7,500	\$7,500
Clearing and Grubbing	LS	1	\$2,000	\$2,000
Utility Relocations	LS	1	\$50,000	\$50,000
Traffic Signal Modifications	LS	1	\$25,000	\$25,000
Commercial Right of Way Acquisition	SF	0	\$10.00	\$0
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
		Subtotal		\$130,600
		Drainage	15%	\$19,600
		MPT	10%	\$13,100
		E&S	5%	\$6,500
		Mobilization	5%	\$6,500
		Contingency	10%	\$13,100
		Engineering	12%	\$15,700
		TOTAL		\$205,000
<u>Development Conditions</u>				
Install NB right-turn lane				
Excavation	CY	50	\$35	\$1,800
Mill and Overlay	SY	748	\$13	\$9,700
Pavement	SY	89	\$65	\$5,800
Sidewalk	SY	125	\$75	\$9,400
ADA Curb Ramps	EA	2	\$6,000	\$12,000
Curbing	LF	232	\$35.00	\$8,100
Signing & Striping	LS	1	\$2,500	\$2,500
Clearing and Grubbing	LS	1	\$0	\$0
Utility Relocations	LS	1	\$12,000	\$12,000
Traffic Signal Modifications	LS	1	\$50,000	\$50,000
Commercial Right of Way Acquisition	SF	25	\$10.00	\$250
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
		Subtotal		\$111,550
		Drainage	15%	\$16,700
		MPT	10%	\$11,200
		E&S	5%	\$5,600
		Mobilization	5%	\$5,600
		Contingency	10%	\$11,200
		Engineering	12%	\$13,400
		TOTAL		\$175,000



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3 City Avenue and Bala Avenue

Improvement	Unit	Quantity	Unit Cost	Subtotal
<u>Existing Conditions</u>				
No improvements.	-	-	-	\$0
<u>Pass-Through Conditions</u>				
No improvements.	-	-	-	\$0
<u>Development Conditions</u>				
Install WB right-turn lane and additional SB left-turn lane				
Excavation	CY	319	\$35	\$11,200
Mill and Overlay	SY	1,613	\$13	\$21,000
Pavement	SY	573	\$65	\$37,200
Sidewalk	SY	553	\$75	\$41,500
ADA Curb Ramps	EA	4	\$6,000	\$24,000
Curbing	LF	1,011	\$35.00	\$35,400
Signing & Striping	LS	1	\$6,000	\$6,000
Clearing and Grubbing	LS	1	\$500	\$500
Utility Relocations	LS	1	\$25,000	\$25,000
Traffic Signal Modifications	LS	1	\$50,000	\$50,000
Commercial Right of Way Acquisition	SF	10,105	\$10.00	\$101,100
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
			Subtotal	\$352,900
			Drainage 15%	\$52,900
			MPT 10%	\$35,300
			E&S 5%	\$17,600
			Mobilization 5%	\$17,600
			Contingency 10%	\$35,300
			Engineering 12%	\$42,300
			TOTAL	\$554,000



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4 City Avenue and Kings Grant Drive

<u>Improvement</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>
<u>Existing Conditions</u>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<u>Pass Through Conditions</u>				
Install EB through lane				
Excavation	CY	400	\$35	\$14,000
Mill and Overlay	SY	1,250	\$13	\$16,300
Pavement	SY	750	\$65	\$48,800
Sidewalk	SY	300	\$75	\$22,500
ADA Curb Ramps	EA	2	\$6,000	\$12,000
Curbing	LF	600	\$35.00	\$21,000
Signing & Striping	LS	1	\$10,000	\$10,000
Clearing and Grubbing	LS	1	\$5,000	\$5,000
Wall Relocation and Landscape Modifications	LS	1	\$20,000	\$20,000
Utility Relocations	LS	1	\$30,000	\$30,000
Commercial Right of Way Acquisition	SF	14,968	\$10.00	\$149,700
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
		<i>Subtotal</i>		<i>\$349,300</i>
		Drainage 15%		\$52,400
		MPT 10%		\$34,900
		E&S 5%		\$17,500
		Mobilization 5%		\$17,500
		Contingency 10%		\$34,900
		Engineering 15%		\$52,400
		TOTAL		\$559,000
<u>Development Conditions</u>				
No improvements.	-	-	-	\$0



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8 Montgomery Avenue and Conshohocken State Road

<u>Improvement</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>
<u>Existing Conditions</u>				
No improvements.	-	-	-	\$0
<u>Pass Through Conditions</u>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<u>Development Conditions</u>				
No improvements.	-	-	-	\$0



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10 Belmont Avenue and Righters Ferry Road

Improvement	Unit	Quantity	Unit Cost	Subtotal
<u>Existing Conditions</u>				
No improvements.	-	-	-	\$0
<u>Pass-Through Conditions</u>				
Install additional NB through lane				
Excavation	CY	171	\$35	\$6,000
Mill and Overlay	SY	3,358	\$13	\$43,700
Pavement	SY	306	\$65	\$19,900
Sidewalk	SY	42	\$75	\$3,200
ADA Curb Ramps	EA	3	\$6,000	\$18,000
Curbing	LF	1,071	\$35.00	\$37,500
Signing & Striping	LS	1	\$5,500	\$5,500
Clearing and Grubbing	LS	1	\$2,000	\$2,000
Utility Relocations	LS	1	\$8,000	\$8,000
Traffic Signal Modifications	LS	1	\$50,000	\$50,000
Commercial Right of Way Acquisition	SF	2,775	\$10.00	\$27,800
Residential Right of Way Acquisition	SF	500	\$4.00	\$2,000
		Subtotal		\$223,600
		Drainage	15%	\$33,500
		MPT	10%	\$22,400
		E&S	5%	\$11,200
		Mobilization	5%	\$11,200
		Contingency	10%	\$22,400
		Engineering	12%	\$26,800
		TOTAL		\$351,000
<u>Development Conditions</u>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000



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11 Monument Road and Righters Ferry Road

<u>Improvement</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>
<u>Existing Conditions</u>				
No improvements.	-	-	-	\$0
<u>Pass Through Conditions</u>				
Install New Traffic Signal	LS	1	\$250,000	\$250,000
<u>Development Conditions</u>				
No improvements.	-	-	-	\$0



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23 Conshohocken State Road and St. Asaphs Road

<u>Improvement</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>
<u>Existing Conditions</u>				
No improvements.	-	-	-	\$0
<u>Pass Through Conditions</u>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<u>Development Conditions</u>				
No improvements.	-	-	-	\$0



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24 Belmont Avenue and St. Asaphs Road

Improvement	Unit	Quantity	Unit Cost	Subtotal
<i>Existing Conditions</i>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<i>Pass Through Conditions</i>				
Install EB and WB left-turn lanes				
Excavation	CY	810	\$35	\$28,400
Mill and Overlay	SY	2,743	\$13	\$35,700
Pavement	SY	1,457	\$65	\$94,700
Sidewalk	SY	138	\$75	\$10,400
ADA Curb Ramps	EA	2	\$6,000	\$12,000
Curbing	LF	1,194	\$35.00	\$41,800
Signing & Striping	LS	1	\$15,000	\$15,000
Clearing and Grubbing	LS	1	\$25,000	\$25,000
Utility Relocations	LS	1	\$115,000	\$115,000
Traffic Signal Modifications	LS	1	\$10,000	\$10,000
Commercial Right of Way Acquisition	SF	16,211	\$10.00	\$162,100
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
SUBTOTAL				\$550,100
Drainage 15%				\$82,500
MPT 10%				\$55,000
E&S 5%				\$27,500
Mobilization 5%				\$27,500
Contingency 10%				\$55,000
Engineering 12%				\$66,000
TOTAL				\$864,000
<i>Development Conditions</i>				
Install NB and SB left-turn lanes				
Excavation	CY	667	\$35	\$23,300
Mill and Overlay	SY	3,446	\$13	\$44,800
Pavement	SY	1,200	\$65	\$78,000
Sidewalk	SY	105	\$75	\$7,900
ADA Curb Ramps	EA	2	\$6,000	\$12,000
Curbing	LF	1,432	\$35.00	\$50,100
Signing & Striping	LS	1	\$12,000	\$12,000
Clearing and Grubbing	LS	1	\$15,000	\$15,000
Utility Relocations	LS	1	\$50,000	\$50,000
Traffic Signal Modifications	LS	1	\$50,000	\$50,000
Commercial Right of Way Acquisition	SF	17,033	\$10.00	\$170,300
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
SUBTOTAL				\$513,400
Drainage 15%				\$77,000
MPT 10%				\$51,300
E&S 5%				\$25,700
Mobilization 5%				\$25,700
Contingency 10%				\$51,300
Engineering 12%				\$61,600
TOTAL				\$806,000



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25 Monument Road and St. Asaphs Road

Improvement	Unit	Quantity	Unit Cost	Subtotal
<u>Existing Conditions</u>				
No improvements.	-	-	-	\$0
<u>Pass Through Conditions</u>				
No improvements.	-	-	-	\$0
<u>Development Conditions</u>				
Install EB and SB right-turn lanes				
Excavation	CY	232	\$35	\$8,100
Mill and Overlay	SY	833	\$13	\$10,800
Pavement	SY	416	\$65	\$27,000
Sidewalk	SY	226	\$75	\$17,000
ADA Curb Ramps	EA	4	\$6,000	\$24,000
Curbing	LF	575	\$35.00	\$20,100
Signing & Striping	LS	1	\$0	\$0
Retaining Wall	EA	1	\$5,000	\$5,000
Clearing and Grubbing	LS	1	\$2,000	\$2,000
Utility Relocations	LS	1	\$2,000	\$2,000
Traffic Signal Modifications	LS	1	\$50,000	\$50,000
Commercial Right of Way Acquisition	SF	250	\$10.00	\$2,500
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
			Subtotal	\$168,500
			Drainage 15%	\$25,300
			MPT 10%	\$16,900
			E&S 5%	\$8,400
			Mobilization 5%	\$8,400
			Contingency 10%	\$16,900
			Engineering 12%	\$20,200
			TOTAL	\$265,000



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26 City Avenue and Conshohocken State Road

Improvement	Unit	Quantity	Unit Cost	Subtotal
<i>Existing Conditions</i>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<i>Pass Through Conditions</i>				
Install EB, WB and SB right-turn lanes				
Excavation	CY	632	\$35	\$22,100
Mill and Overlay	SY	821	\$13	\$10,700
Pavement	SY	1,134	\$65	\$73,700
Sidewalk	SY	343	\$75	\$25,700
ADA Curb Ramps	EA	4	\$6,000	\$24,000
Curbing	LF	625	\$35.00	\$21,900
Signing & Striping	LS	1	\$6,500	\$6,500
Clearing and Grubbing	LS	1	\$1,000	\$1,000
Utility Relocations	LS	1	\$60,000	\$60,000
Traffic Signal Modifications	LS	1	\$75,000	\$75,000
Commercial Right of Way Acquisition	SF	11,297	\$10.00	\$113,000
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
			Subtotal	\$433,600
			Drainage 15%	\$65,000
			MPT 10%	\$43,400
			E&S 5%	\$21,700
			Mobilization 5%	\$21,700
			Contingency 10%	\$43,400
			Engineering 12%	\$52,000
			TOTAL	\$681,000
<i>Development Conditions</i>				
Install additional WB through lane				
Excavation	CY	947	\$35	\$33,100
Mill and Overlay	SY	1,252	\$13	\$16,300
Pavement	SY	1,455	\$65	\$94,600
Sidewalk	SY	800	\$75	\$60,000
ADA Curb Ramps	EA	4	\$6,000	\$24,000
Curbing	LF	1,295	\$35.00	\$45,300
Signing & Striping	LS	1	\$1,000	\$1,000
Clearing and Grubbing	LS	1	\$15,000	\$15,000
Utility Relocations	LS	1	\$25,000	\$25,000
Bridge widening (including bridge utility relocations)	LS	1	\$1,000,000	\$1,000,000
Traffic Signal Modifications	LS	1	\$100,000	\$100,000
Commercial Right of Way Acquisition	SF	2,430	\$10.00	\$24,300
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
			Subtotal	\$1,438,600
			Drainage 15%	\$215,800
			MPT 10%	\$143,900
			E&S 5%	\$71,900
			Mobilization 5%	\$71,900
			Contingency 10%	\$143,900
			Engineering 12%	\$172,600
			TOTAL	\$2,259,000



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27 City Avenue and 47th Street

<u>Improvement</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>
<u>Existing Conditions</u>				
No improvements.	-	-	-	\$0
<u>Pass Through Conditions</u>				
No improvements.	-	-	-	\$0
<u>Development Conditions</u>				
Install additional WB through lane				
Excavation	CY	750	\$35	\$26,300
Mill and Overlay	SY	785	\$13	\$10,200
Pavement	SY	705	\$65	\$45,800
Sidewalk	SY	180	\$75	\$13,500
ADA Curb Ramps	EA	1	\$6,000	\$6,000
Curbing	LF	595	\$35.00	\$20,800
Signing & Striping	LS	1	\$7,500	\$7,500
Clearing and Grubbing	LS	1	\$5,000	\$5,000
Utility Relocations	LS	1	\$5,000	\$5,000
Commercial Right of Way Acquisition	SF	130	\$10.00	\$1,300
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
			Subtotal	\$141,400
			Drainage 15%	\$21,200
			MPT 10%	\$14,100
			E&S 5%	\$7,100
			Mobilization 5%	\$0
			Contingency 10%	\$0
			Engineering 12%	\$0
			TOTAL	\$184,000



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28 City Avenue and Belmont Avenue

Improvement	Unit	Quantity	Unit Cost	Subtotal
<u>Existing Conditions</u>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<u>Pass Through Conditions</u>				
Install NB, SB, and WB right-turn lanes and additional EB through lane				
Excavation	CY	1,666	\$35	\$58,300
Mill and Overlay	SY	4,955	\$13	\$64,400
Pavement	SY	2,992	\$65	\$194,500
Sidewalk	SY	1,206	\$75	\$90,500
ADA Curb Ramps	EA	8	\$6,000	\$48,000
Curbing	LF	2,479	\$35.00	\$86,800
Signing & Striping	LS	1	\$40,000	\$40,000
Clearing and Grubbing	LS	1	\$20,000	\$20,000
Traffic Signal Modifications	LS	1	\$100,000	\$100,000
Utility Relocations	LS	1	\$120,000	\$120,000
Commercial Right of Way Acquisition (Loss of parking)	SF	9,025	\$12.00	\$108,300
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
		Subtotal		\$930,800
		Drainage	15%	\$139,600
		MPT	10%	\$93,100
		E&S	5%	\$46,500
		Mobilization	5%	\$46,500
		Contingency	10%	\$93,100
		Engineering	15%	\$139,600
		TOTAL		\$1,489,000
<u>Development Conditions</u>				
Install additional WB through lane				
Excavation	CY	90	\$35	\$3,200
Mill and Overlay	SY	1,750	\$13	\$22,800
Pavement	SY	1,050	\$65	\$68,300
Sidewalk	SY	300	\$75	\$22,500
ADA Curb Ramps	EA	4	\$6,000	\$24,000
Curbing	LF	900	\$35.00	\$31,500
Signing & Striping	LS	1	\$5,000	\$5,000
Clearing and Grubbing	LS	1	\$30,000	\$30,000
Wall Relocation and Landscape Modifications	LS	1	\$50,000	\$50,000
Utility Relocations	LS	1	\$40,000	\$40,000
Traffic Signal Modifications	LS	1	\$75,000	\$75,000
Commercial Right of Way Acquisition (Loss of parking)	SF	5,351	\$12.00	\$64,200
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
		Subtotal		\$436,500
		Drainage	15%	\$65,500
		MPT	10%	\$43,700
		E&S	5%	\$21,800
		Mobilization	5%	\$21,800
		Contingency	10%	\$43,700
		Engineering	12%	\$52,400
		TOTAL		\$685,000



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29 City Avenue and Monument Road

<u>Improvement</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Subtotal</u>
<u>Existing Conditions</u>				
Install additional SB through lane and left turn lane				
Install additional NB right turn lane				
Excavation	CY	1,296	\$35	\$45,400
Mill and Overlay	SY	223	\$13	\$2,900
Pavement	SY	2,328	\$65	\$151,300
Sidewalk	SY	1,088	\$75	\$81,600
ADA Curb Ramps	EA	3	\$6,000	\$18,000
Curbing	LF	1,968	\$35.00	\$68,900
Signing & Striping	LS	1	\$30,000	\$30,000
Clearing and Grubbing (Large Tree Removal)	LS	1	\$70,000	\$70,000
Utility Relocations	LS	1	\$2,000	\$2,000
Retaining Wall	LS	1	\$100,000	\$100,000
Traffic Signal Modifications	LS	1	\$100,000	\$100,000
Traffic Signal Interconnect System	LS	1	\$100,000	\$100,000
Commercial Right of Way Acquisition	SF	17,048	\$10.00	\$170,500
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
		Subtotal		\$940,600
		Drainage	15%	\$141,100
		MPT	10%	\$94,100
		E&S	5%	\$47,000
		Mobilization	5%	\$47,000
		Contingency	10%	\$94,100
		Engineering	12%	\$112,900
		TOTAL		\$1,477,000
<u>Pass Through Conditions</u>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000
<u>Development Conditions</u>				
Install additional EB and WB through lanes				
Excavation	CY	1,696	\$35	\$59,400
Mill and Overlay	SY	0	\$13	\$0
Pavement	SY	3,047	\$65	\$198,100
Sidewalk	SY	1,230	\$75	\$92,300
ADA Curb Ramps	EA	5	\$6,000	\$30,000
Curbing	LF	2,343	\$35.00	\$82,000
Signing & Striping	LS	1	\$10,000	\$10,000
Clearing and Grubbing (Large tree removal)	LS	1	\$100,000	\$100,000
Utility Relocations	LS	1	\$200,000	\$200,000
Traffic Signal Modifications	LS	1	\$15,000	\$15,000
Remove Old and Construct New Fencing and Wall	LS	1	\$75,000	\$75,000
Commercial Right of Way Acquisition	SF	17,292	\$10.00	\$172,900
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
		SUBTOTAL		\$1,034,700
		Drainage	15%	\$155,200
		MPT	10%	\$103,500
		E&S	5%	\$51,700
		Mobilization	5%	\$51,700
		Contingency	10%	\$103,500
		Engineering	12%	\$124,200
		TOTAL		\$1,625,000



30 City Avenue and Presidential Boulevard

Improvement	Unit	Quantity	Unit Cost	Subtotal
<i>Existing Conditions</i>				
Install additional SB through lane and restripe				
WB left-turn lane to make an additional WB through lane				
Install NB right turn lane				
Excavation	CY	350	\$35	\$12,300
Mill and Overlay	SY	5,628	\$13	\$73,200
Pavement	SY	629	\$65	\$40,900
Sidewalk	SY	6	\$75	\$450
ADA Curb Ramps	EA	3	\$6,000	\$18,000
Curbing	LF	1,419	\$35.00	\$49,700
Signing & Striping	LS	1	\$15,000	\$15,000
Clearing and Grubbing	LS	1	\$8,000	\$8,000
Utility Relocations (Includes extension/relocation of existing overhead lane use sign)	LS	1	\$55,000	\$55,000
Traffic Signal Modifications	LS	1	\$70,000	\$70,000
Commercial Right of Way Acquisition	SF	5,538	\$10.00	\$55,400
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
<i>Subtotal</i>				<i>\$397,950</i>
Install WB left turn lane connector road				
Excavation	CY	1,793	\$35	\$62,800
Mill and Overlay	SY	0	\$13	\$0
Pavement	SY	3,222	\$65	\$209,400
Sidewalk	SY	20	\$75	\$1,500
ADA Curb Ramps	EA	2	\$6,000	\$12,000
Curbing	LF	2,550	\$35.00	\$89,300
Signing & Striping	LS	1	\$10,000	\$10,000
Clearing and Grubbing	LS	1	\$1,000	\$1,000
Traffic Signal Modifications	LS	1	\$15,000	\$15,000
Utility Relocations	LS	1	\$15,000	\$15,000
Commercial Right of Way Acquisition (Loss of parking)	SF	272,000	\$12.00	\$3,264,000
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
<i>Subtotal</i>				<i>\$3,680,000</i>
<i>Subtotal</i>				<i>\$4,077,950</i>
	Drainage	15%		\$611,700
	MPT	10%		\$407,800
	E&S	5%		\$203,900
	Mobilization	5%		\$203,900
	Contingency	10%		\$407,800
	Engineering	12%		\$489,400
TOTAL				\$6,402,000
<i>Pass Through Conditions</i>				
Traffic Signal Modifications	LS	1	\$5,000	\$5,000



Preliminary Opinion of Cost
 L. Merion Capital Improvement Plan
 810530.11

Development Conditions

Install additional SB left turn lane

Excavation	CY	72	\$35	\$2,500
Mill and Overlay	SY	611	\$13	\$7,900
Pavement	SY	129	\$65	\$8,400
Sidewalk	SY	218	\$75	\$16,400
ADA Curb Ramps	EA	0	\$6,000	\$0
Curbing	LF	400	\$35.00	\$14,000
Signing & Striping	LS	1	\$1,000	\$1,000
Clearing and Grubbing	LS	1	\$1,000	\$1,000
Utility Relocations	LS	1	\$40,000	\$40,000
Traffic Signal Modifications	LS	1	\$15,000	\$15,000
Commercial Right of Way Acquisition	SF	3,500	\$10.00	\$35,000
Residential Right of Way Acquisition	SF	0	\$4.00	\$0
Subtotal				\$141,200
Drainage	15%			\$21,200
MPT	10%			\$14,100
E&S	5%			\$7,100
Mobilization	5%			\$7,100
Contingency	10%			\$14,100
Engineering	12%			\$16,900
TOTAL				\$222,000

Table 10. Existing Transportation Capital Improvement Program

Line No.	Intersection or Corridor	Improvements Required	Total Project Cost	Allocated Funding		Construction Completion
				PennDOT Costs	Philadelphia Costs	
1	City Avenue (S.R. 0001) and Old Lancaster Road/54th Street	Traffic signal timing modifications.	\$5,000	\$1,250	\$1,875	2012 - 2015
2	City Avenue (S.R. 0001) and Bryn Mawr Avenue	Traffic signal timing modifications.	\$5,000	\$1,250	\$1,875	2012 - 2015
4	City Avenue (S.R. 0001) and Kings Grant Drive	Traffic signal timing modifications.	\$5,000	\$1,667	\$3,333	2012 - 2015
24	Belmont Avenue (S.R. 3045) and St. Asaphs Road	Traffic signal timing modifications.	\$5,000	\$1,250	\$3,750	2012 - 2015
26	City Avenue (S.R. 0001) and Conshohocken Slate Road (S.R. 0023)	Traffic signal timing modifications and the addition of a northbound advance phase.	\$5,000	\$2,500	\$1,250	2012 - 2015
28	City Avenue (S.R. 0001) and Belmont Avenue (S.R. 3045)	Traffic signal timing modifications.	\$5,000	\$2,500	\$1,250	2012 - 2015
29	City Avenue (S.R. 0001) and Monument Road	Traffic signal timing modifications and the addition of a northbound overlap phase. Install additional southbound through lane. Install additional southbound left-turn lane. Install additional northbound right-turn lane.	\$1,477,000	\$369,250	\$553,875	2012 - 2015 2021 - 2030 2021 - 2030 2021 - 2030
30	City Avenue (S.R. 0001) and Presidential Boulevard	Traffic signal timing modifications. Install additional southbound through lane. Install additional westbound through lane. Install northbound right-turn lane. Install new connector road for westbound left-turns.	\$6,402,000	\$1,600,500	\$2,400,750	2012 - 2015 2021 - 2030 2021 - 2030 2021 - 2030 2021 - 2030
			\$7,909,000	\$1,980,167	\$2,960,875	\$2,967,958

Table 11. Pass-Through Transportation Capital Improvement Program

Ent. No.	Intersection or Corridor	Improvements Required	Total Project Cost	PA/MD/OT Costs	Allocated Funding Philadelphia Costs	Township Costs	Construction Completion
1	City Avenue (S.R. 0001) and Old Lancaster Road/54th Street	Traffic signal timing modifications and the addition of an eastbound advance phase and a northbound overlap phase. Install southbound left-turn lane. Install northbound right-turn lane.	\$546,000	\$137,000	\$205,500	\$205,500	2012 - 2015 2016 - 2020 2021 - 2030
2	City Avenue (S.R. 0001) and Bryn Mawr Avenue	Traffic signal timing modifications and the addition of a southbound advance phase. Install northbound left-turn lane.	\$205,000	\$51,250	\$76,875	\$76,875	2012 - 2015 2021 - 2030
4	City Avenue (S.R. 0001) and Kings Grant Drive	Install additional eastbound through lane.	\$559,000	\$186,333	\$0	\$372,667	2021 - 2030
8	Conshohocken State Road (S.R. 0023) and Montgomery Avenue	Traffic signal timing modifications.	\$5,000	\$1,667	\$0	\$3,333	2012 - 2015
10	Belmont Avenue (S.R. 3045) and Righters Ferry Road	Traffic signal timing modifications and the addition of a southbound advance phase and westbound overlap phase. Install additional northbound through lane.	\$351,000	\$117,000	\$0	\$234,000	2016 - 2020 2016 - 2020
11	Monument Road and Righters Ferry Road	Install Traffic Signal.	\$250,000	\$0	\$0	\$250,000	2016 - 2020
23	Conshohocken State Road (S.R. 0023) and St. Asaphs	Traffic signal timing modifications.	\$5,000	\$1,667	\$0	\$3,333	2012 - 2015
24	Belmont Avenue (S.R. 3045) and St. Asaphs Road	Traffic signal timing modifications. Install eastbound left-turn lane. Install westbound left-turn lane.	\$664,000	\$216,000	\$0	\$648,000	2021 - 2030 2021 - 2030 2021 - 2030
25	City Avenue (S.R. 0001) and Conshohocken State Road (S.R. 0023)	Traffic signal timing modifications and the addition of an eastbound overlap phase, a westbound overlap phase, and southbound overlap phase	\$681,000	\$340,500	\$170,250	\$170,250	2012 - 2015 2021 - 2030 2021 - 2030 2021 - 2030
28	City Avenue (S.R. 0001) and Belmont Avenue (S.R. 3045)	Install southbound right-turn lane. Install eastbound right-turn lane. Install westbound right-turn lane. Traffic signal timing modifications, and the addition of a westbound advance phase, westbound overlap phase, southbound advance phase, and southbound overlap phase.	\$1,489,000	\$744,500	\$372,250	\$372,250	2021 - 2030 2021 - 2030 2021 - 2030 2021 - 2030
29	City Avenue (S.R. 0001) and Monument Road	Install additional eastbound through lane. Traffic signal timing modifications.	\$5,000	\$1,250	\$1,875	\$1,875	2021 - 2030
30	City Avenue (S.R. 0001) and Presidential Boulevard	Traffic signal timing modifications.	\$5,000	\$1,250	\$1,875	\$1,875	2021 - 2030
			\$4,967,000	\$1,798,417	\$828,625	\$2,339,958	

Table 13. Transportation Capital Improvement Plan Summary

	Transportation Service Area				Total
	Cost Allocations				
	PennDOT	Philadelphia	Township	Development	
Existing Program	\$1,980,167	\$2,960,875	\$2,967,958	\$0	\$7,909,000
Pass-Through Program	\$1,798,417	\$828,625	\$2,339,958	\$0	\$4,967,000
Development Program	\$2,506,167	\$0	\$0	\$4,283,833	\$6,790,000
	\$6,284,751	\$3,789,500	\$5,307,916	\$4,283,833	\$19,666,000
Share of Total	0.319574	0.192693	0.269903	0.217829	

APPENDIX L

Improvements and Cost Summary

Table L-1
Capital Improvement Program Summary

Line No.	Intersecting Corridor	Conditions	Improvements Required	Responsibility	Allocate Funding				Construction Completion
					Totals Project Cost	PennDOT Cost	Philadelphia Costs	Development Costs	
1	City Avenue (S.R. 0001) and Old Lancaster Road/54th Street Four approaches (two are State roadways, one is a Township roadway, and one is a City roadway).	Existing	Traffic signal timing modifications.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$5,000	\$1,250	\$1,875	\$0	2012 - 2015
		Pass Through	Traffic signal timing modifications and the addition of an eastbound advance phase, and northbound overlap phase.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$50,000	\$12,500	\$18,750	\$0	2012 - 2015
		Development	Install southbound left-turn lane.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$298,000	\$74,500	\$111,750	\$0	2016 - 2020
		Development	Install northbound right-turn lane.	25% to PennDOT and 75% to Development.	\$200,000	\$50,000	\$75,000	\$0	2021 - 2030
2	City Avenue (S.R. 0001) and Bryn Mawr Avenue Four approaches (two are State roadways, one is a Township roadway, and one is a City roadway).	Existing	Traffic signal timing modifications.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$5,000	\$1,250	\$1,875	\$0	2012 - 2015
		Pass Through	Traffic signal timing modifications and the addition of a southbound advance phase.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$25,000	\$6,250	\$9,375	\$0	2012 - 2015
		Development	Install northbound left-turn lane.	25% to PennDOT and 75% to Development.	\$180,000	\$45,000	\$67,500	\$0	2021 - 2030
		Development	Traffic signal timing modifications. Install northbound right-turn lane.	25% to PennDOT and 75% to Development.	\$175,000	\$43,750	\$0	\$131,250	2021 - 2030
3	City Avenue (S.R. 0001) and Bala Avenue (S.R. 3061) Three approaches (all three are State roadways).	Existing	None.	None.	\$0	\$0	\$0	\$0	-
		Pass Through	None.	None.	\$0	\$0	\$0	\$0	-
		Development	Traffic signal timing modifications. Install westbound right-turn lane Install additional southbound left-turn lane.	50% to PennDOT and 50% to Development.	\$554,000	\$277,000	\$0	\$277,000	2021 - 2030
4	City Avenue (S.R. 0001) and Kings Grant Drive Three approaches (two are State roadways and one is a Township roadway).	Existing	Traffic signal timing modifications.	33% to PennDOT and 67% to the Township.	\$5,000	\$1,667	\$0	\$0	2012 - 2015
		Pass Through	Install additional eastbound through lane.	33% to PennDOT and 67% to the Township.	\$559,000	\$186,333	\$0	\$0	2021 - 2030
		Development	None.	None.	\$0	\$0	\$0	\$0	-
8	Canshocken State Road (S.R. 0023) and Montgomery Avenue Four approaches (three are State roadways and one is a Township roadway).	Existing	None.	None.	\$0	\$0	\$0	\$0	-
		Pass Through	Traffic signal timing modifications.	33% to PennDOT and 67% to the Township.	\$5,000	\$1,667	\$0	\$0	2012 - 2015
		Development	None.	None.	\$0	\$0	\$0	\$0	-
10	Belmont Avenue (S.R. 3045) and Righters Ferry Road Three approaches (two are State roadways and one is a Township roadway).	Existing	None.	None.	\$0	\$0	\$0	\$0	-
		Pass Through	Traffic signal timing modifications and the addition of a southbound advance phase, and a westbound overlap phase. Install additional northbound through lane.	33% to PennDOT and 67% to the Township.	\$351,000	\$117,000	\$0	\$0	2016 - 2020
Development	Traffic signal timing modifications.	33% to PennDOT and 67% to Development.	\$5,000	\$1,667	\$0	\$0	\$0	2021 - 2030	

Table L-1
Capital Improvement Program Summary

Int. No.	Description of Construction	Conditions	Improvements Required	Responsibility	Total Project Cost		PennDOT Costs		Philadelphia Township Costs		Development Costs	Construction Completion
11	Monument Road and Righters Ferry Road Three approaches (all three are Township roadways).	Existing	None.	None.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2016 - 2020
		Pass Through Development	Install traffic signal None.	100% to the Township. None.	\$250,000 \$0	\$0 \$0	\$0 \$0	\$250,000 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
23	Conshohocken State Road (S.R. 0023) and St. Asaphs Road Three approaches (two are State roadways and one is a Township roadway).	Existing	None.	None.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-
		Pass Through Development	Traffic signal timing modifications. None.	33% to PennDOT and 67% to the Township. None.	\$5,000 \$0	\$1,667 \$0	\$0 \$0	\$5,000 \$0	\$1,667 \$0	\$0 \$0	\$0 \$0	\$0 \$0
24	Belmont Avenue (S.R. 3045) and St. Asaphs Road Four approaches (two are State roadways and two are Township roadways).	Existing	Traffic signal timing modifications.	25% to PennDOT and 75% to the Township.	\$5,000	\$1,250	\$0	\$3,750	\$0	\$0	\$0	2012 - 2015
		Pass Through Development	Traffic signal timing modifications. Install eastbound left-turn lane Install westbound left-turn lane Traffic signal timing modifications. Install northbound left-turn lane Install southbound left-turn lane	25% to PennDOT and 75% to the Township. 25% to PennDOT and 75% to Development. None. None.	\$864,000 \$806,000 \$0 \$0	\$216,000 \$201,500 \$0 \$0	\$0 \$0 \$0 \$0	\$648,000 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0	\$0 \$604,500 \$0 \$0	\$0 \$0 \$0 \$0
25	Monument Road and St. Asaphs Road Four approaches (all four are Township roadways).	Existing	None.	None.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-
		Pass Through Development	Traffic signal timing modifications. Install eastbound right-turn lane Install southbound right-turn lane	100% to Development. 50% to PennDOT, 25% to the Township, and 25% to the City.	\$265,000 \$5,000	\$0 \$2,500	\$0 \$0	\$265,000 \$5,000	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
26	City Avenue (S.R. 0001) and Conshohocken State Road (S.R. 0023) Four approaches (all four are State roadways).	Existing	Traffic signal timing modifications and the addition of a northbound advance phase.	50% to PennDOT, 25% to the Township, and 25% to the City.	\$75,000	\$37,500	\$18,750	\$18,750	\$0	\$0	\$0	2012 - 2015
		Pass Through Development	Traffic signal timing modifications and the addition of an eastbound overlap phase, westbound overlap phase, and southbound overlap phase. Install southbound right-turn lane. Install eastbound right-turn lane. Install westbound right-turn lane.	50% to PennDOT, 25% to the Township, and 25% to the City.	\$606,000 \$2,259,000	\$303,000 \$1,129,500	\$151,500 \$0	\$151,500 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0

Table L-1
Capital Improvement Program Summary

Inv. No.	Location	Conditions	Improvements Required	Responsibility	Total Project Cost	PennDOT Costs	Allocated Funding Pittsburgh Costs	Township Costs	Development Costs	Construction Completion
27	City Avenue (S.R. 0001) and 47th Street Four approaches (two are State roadways, one is a Township roadway, and one is a City roadway).	Existing	None.	None.	\$0	\$0	\$0	\$0	\$0	-
		Pass Through	None.	None.	\$0	\$0	\$0	\$0	\$0	-
		Development	Install additional westbound through lane.	25% to PennDOT and 75% to Development.	\$184,000	\$46,000	\$0	\$0	\$138,000	\$0
28	City Avenue (S.R. 0001) and Belmont Avenue (S.R. 3045) Four approaches (all four are State roadways).	Existing	Traffic signal timing modifications.	50% to PennDOT, 25% to the Township, and 25% to the City.	\$5,000	\$2,500	\$1,250	\$1,250	\$0	2012 - 2015
		Pass Through	Traffic signal timing modifications and the addition of a westbound advance phase, westbound overlap phase, southbound advance phase, and southbound overlap phase. Install northbound right-turn lane. Install southbound right-turn lane. Install westbound right-turn lane. Install additional eastbound through lane.	50% to PennDOT, 25% to the Township, and 25% to the City.	\$1,489,000	\$744,500	\$372,250	\$372,250	\$0	2021 - 2030
		Development	Traffic signal timing modifications. Install additional westbound through lane.	50% to PennDOT and 50% to Development.	\$685,000	\$342,500	\$0	\$0	\$342,500	\$0
29	City Avenue (S.R. 0001) and Monument Road Four approaches (two are State roadways, one is a Township roadway, and one is a City roadway).	Existing	Traffic signal timing modifications and the addition of a northbound overlap phase. Install additional southbound through lane. Install additional southbound left-turn lane. Install northbound right-turn lane.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$100,000	\$25,000	\$37,500	\$37,500	\$0	2012 - 2015
		Pass Through	Traffic signal timing modifications.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$5,000	\$1,250	\$1,875	\$1,875	\$0	2021 - 2030
		Development	Traffic signal timing modifications. Install additional eastbound through lane. Install additional westbound through lane.	25% to PennDOT and 75% to Development.	\$1,625,000	\$406,250	\$0	\$0	\$1,218,750	\$0
30	City Avenue (S.R. 0001) and Presidential Boulevard Four approaches (two are State roadways, one is a Township roadway, and one is a City roadway)	Existing	Traffic signal timing modifications. Install additional southbound through lane. Install additional westbound through lane. Install northbound right-turn lane. Install new connector road for westbound left-turns.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$70,000	\$17,500	\$26,250	\$26,250	\$0	2012 - 2015
		Pass Through	Traffic signal timing modifications.	25% to PennDOT, 37.5% to the Township, and 37.5% to the City.	\$5,000	\$1,250	\$1,875	\$1,875	\$0	2021 - 2030
		Development	Traffic signal timing modifications. Install additional southbound through lane. Install additional westbound through lane.	25% to PennDOT and 75% to Development.	\$6,332,000	\$1,583,000	\$2,374,500	\$2,374,500	\$0	2021 - 2030
Total Existing Costs					\$7,909,000	\$1,980,167	\$2,960,875	\$2,960,875	\$0	
Total Pass Through Costs					\$4,967,000	\$1,798,417	\$826,625	\$826,625	\$0	
Total Development Costs					\$6,799,000	\$3,506,167	\$0	\$0	\$4,292,833	