

Route 9 Active Transportation Plan: Appendix D

Cost Estimates

November 2018

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Figure 1 Cost estimate – All corridors

All Segments								
Mode	Description	Quantity	Unit	Low Unit Cost*	High Unit Cost*	Low Range	High Range	Notes & Assumptions
Walking facilities	New Concrete Sidewalk	28,892	Linear ft	\$22	\$96	\$635,619	\$2,773,607	Average width 5'
	Patterned Crosswalk	63,420	Square ft	\$5	\$15	\$317,100	\$951,300	Average width 6'
	Curb Extensions/Median Islands	77,958	Square ft	\$6	\$20	\$467,748	\$1,559,160	
	HAWK Signal	2	Ea	\$41,500	\$79,000	\$83,000	\$158,000	Low cost refer to signals suspended by span wire and high cost attached to a mast arm
Traffic operations	Traffic Lane Restriping	177,795	Linear ft	\$2	\$7	\$355,591	\$1,244,569	Composite of average lanes in each individual segment
Bike Facilities	Bike Lane	118,488	Linear ft	\$3	\$58	\$331,134	\$6,401,907	One 10' dual bike lane or two 5' single bike lanes on all segments where bike lanes are present.
	Bike Lane Separation	59,786	Linear ft	\$2	\$56	\$119,572	\$3,348,016	Average delineator spacing 25'. Low cost refer to flexible delineators, and high cost would include recycled rubber delineators
	Sharrows	36	Ea	\$220	\$442	\$7,920	\$15,912	Average sharrow spacing of 200'
	Pre-Fabricated Boarding Platform with Integrated Bike Lane	28	Ea	\$20,000	\$50,000	\$560,000	\$1,400,000	High-cost refer to recycled plastic floating bus stops
Transit facilities	Bus Shelter	60	Ea	\$10,000	\$25,000	\$600,000	\$1,500,000	Low cost refers to a traditional bus stop with shelter and bench. High cost refers to a traditional one with solar panels.

Subtotal	\$3,466,124	\$19,295,974
Contingency (20%)	\$693,225	\$3,859,195

Construction Sub-Total	\$4,159,349	\$23,155,169
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Support Costs		
Env & Design (20%)	\$831,870	\$4,631,034
Administration (10%)	\$415,935	\$2,315,517
Construction Management (20%)	\$831,870	\$4,631,034
City Finance (6.5%)	\$270,358	\$1,505,086

Current Probable Cost (2018)	\$6,509,381	\$36,237,839
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2025 ESCALATED COST at 3% per year	\$8,005,717	\$44,567,971
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*Cost ranges are rough estimates that are reflective of compiled nationwide case examples, and should be confirmed for accuracy. All items listed include installation costs.

Figure 2 Cost estimates- Sleepy Hollow

Sleepy Hollow								
Mode	Description	Quantity	Unit	Low Unit Cost*	High Unit Cost*	Low Range	High Range	Notes & Assumptions
Walking facilities	New Concrete Sidewalk	6,225	Linear ft	\$22	\$96	\$136,945	\$597,575	Average width 5'
	Patterned Crosswalk	16,572	Square ft	\$5	\$15	\$82,860	\$248,580	Average width 6'
	Curb Extensions/Median Islands	16,266	Square ft	\$6	\$20	\$97,596	\$325,320	
Traffic operations	Traffic Lane Restriping	23,228	Linear ft	\$2	\$7	\$46,456	\$162,596	Average 2 traffic lanes
Bike Facilities	Bike Lane	11,614	Linear ft	\$3	\$58	\$34,842	\$673,612	One 10' dual bike lane or two 5' single bike lanes on all segments where bike lanes are present
	Bike Lane Separation	7,351	Linear ft	\$2	\$56	\$14,702	\$411,656	Average delineator spacing 25'
	Pre-Fabricated Boarding Platform with Integrated Bike Lane	2	Ea	\$20,000	\$50,000	\$40,000	\$100,000	High-cost refer to recycled plastic floating bus stops
Transit facilities	Bus Shelter	5	Ea	\$10,000	\$25,000	\$50,000	\$125,000	Low cost refers to a traditional bus stop with shelter and bench. High cost refers to a traditional one with solar panels.
Subtotal						\$503,401	\$2,644,339	
Contingency (20%)						\$100,680	\$528,868	
Construction Sub-Total						\$604,081	\$3,173,207	
Support Costs								
Env & Design (20%)						\$120,816	\$634,641	
Administration (10%)						\$60,408	\$317,321	
Construction Management (20%)						\$120,816	\$634,641	
City Finance (6.5%)						\$39,265	\$206,258	
Current Probable Cost (2018)						\$945,387	\$4,966,069	
2025 ESCALATED COST at 3% per year						\$1,162,707	\$6,107,638	

*Cost ranges are rough estimates that are reflective of compiled nationwide case examples, and should be confirmed for accuracy. All items listed include installation costs.

Figure 3 Cost estimates - Tarrytown

Tarrytown								
Mode	Description	Quantity	Unit	Low Unit Cost*	High Unit Cost*	Low Range	High Range	Notes & Assumptions
Walking facilities	Patterned Crosswalk	14,586	Square ft	\$5	\$15	\$72,930	\$218,790	Average width 6'
	Curb Extensions/Median Islands	15,077	Square ft	\$6	\$20	\$90,462	\$301,540	
	HAWK Signal	1	Ea	\$41,500	\$79,000	\$41,500	\$79,000	Low cost refer to signals suspended by span wire and high cost attached to a mast arm
Traffic operations	Traffic Lane Restriping	61,842	Linear ft	\$2	\$7	\$123,685	\$432,897	Average 2 traffic lanes
Bike Facilities	Bike Lane	34,611	Linear ft	\$3	\$58	\$103,834	\$2,007,442	One 10' dual bike lane or two 5' single bike lanes on all segments where bike lanes are present
	Bike Lane Separation	20,304	Linear ft	\$2	\$56	\$40,608	\$1,137,024	Average delineator spacing 25'
	Sharrows	19	Ea	\$220	\$442	\$4,180	\$8,398	High-cost refer to recycled plastic floating bus stops
	Pre-Fabricated Boarding Platform with Integrated Bike Lane	6	Ea	\$20,000	\$50,000	\$120,000	\$300,000	Low cost refers to a traditional bus stop with shelter and bench. High cost refers to a traditional one with solar panels.
Transit facilities	Bus Shelter	17	Ea	\$10,000.00	\$25,000.00	\$170,000.00	\$425,000.00	Average width 6'

Subtotal	\$767,199	\$4,910,091
Contingency (20%)	\$153,440	\$982,018

Construction Sub-Total	\$920,639	\$5,892,109
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Support Costs		
Env & Design (20%)	\$184,128	\$1,178,422
Administration (10%)	\$92,064	\$589,211
Construction Management (20%)	\$184,128	\$1,178,422
City Finance (6.5%)	\$59,842	\$382,987

Current Probable Cost (2018)	\$1,440,800	\$9,221,151
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2025 ESCALATED COST at 3% per year	\$1,772,002	\$11,340,852
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Figure 4 Cost estimates - Irvington

Irvington								
Mode	Description	Quantity	Unit	Low Unit Cost*	High Unit Cost*	Low Range	High Range	Notes & Assumptions
Walking facilities	New Concrete Sidewalk	6647	Linear ft	\$22	\$96	\$146,234	\$638,112	Average width 5'
	Patterned Crosswalk	11,628	Square ft	\$5	\$15	\$58,140	\$174,420	Average width 6'
	Curb Extensions/Median Islands	4,740	Square ft	\$6	\$20	\$28,440	\$94,800	
Traffic operations	Traffic Lane Restriping	31,783	Linear ft	\$2	\$7	\$63,566	\$222,481	Average 2 traffic lanes
Bike Facilities	Bike Lane	21,189	Linear ft	\$3	\$58	\$63,566	\$1,228,942	One 10' dual bike lane or two 5' single bike lanes on all segments where bike lanes are present
	Bike Lane Separation	10,594	Linear ft	\$2	\$56	\$21,188	\$593,264	Average delineator spacing 25'
	Pre-Fabricated Boarding Platform with Integrated Bike Lane	10	Ea	\$20,000	\$50,000	\$200,000	\$500,000	Low cost refers to a traditional bus stop with shelter and bench. High cost refers to a traditional one with solar panels.
Transit facilities	Bus Shelter	11	Ea	\$10,000	\$25,000	\$110,000	\$275,000	Average width 6'

Subtotal	\$672,566	\$3,645,995
Contingency (20%)	\$134,513	\$729,199

Construction Sub-Total	\$807,079	\$4,375,194
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Support Costs		
Env & Design (20%)	\$161,416	\$875,039
Administration (10%)	\$80,708	\$437,519
Construction Management (20%)	\$161,416	\$875,039
City Finance (6.5%)	\$52,460	\$284,388

Current Probable Cost (2018)	\$1,263,079	\$6,847,179
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2025 ESCALATED COST at 3% per year	\$1,553,428	\$8,421,166
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Figure 5 Cost estimates - Dobbs Ferry

Dobbs Ferry								
Mode	Description	Quantity	Unit	Low Unit Cost*	High Unit Cost*	Low Range	High Range	Notes & Assumptions
Walking facilities	New Concrete Sidewalk	5,164	Linear ft	\$22	\$96	\$113,608	\$495,744	Average width 5'
	Patterned Crosswalk	11,148	Square ft	\$5	\$15	\$55,740	\$167,220	Average width 6'
	Curb Extensions/Median Islands	19,593	Square ft	\$6	\$20	\$112,093	\$373,642	
	HAWK Signal	1	Ea	\$41,500	\$79,000	\$41,500	\$79,000	Low cost refer to signals suspended by span wire and high cost attached to a mast arm
Traffic operations	Traffic Lane Restriping	23,769	Linear ft	\$2	\$7	\$47,538	\$166,383	Average 3 traffic lanes
Bike Facilities	Bike Lane	15,846	Linear ft	\$3	\$58	\$47,538	\$919,066	One 10' dual bike lane or two 5' single bike lanes on all segments where bike lanes are present
	Bike Lane Separation	4,578	Linear ft	\$2	\$56	\$9,156	\$256,368	Average delineator spacing 25'
	Sharrows	17	Ea	\$220	\$442	\$3,740	\$7,514	High-cost refer to recycled plastic floating bus stops
	Pre-Fabricated Boarding Platform with Integrated Bike Lane	3	Ea	\$20,000	\$50,000	\$60,000	\$150,000	Low cost refers to a traditional bus stop with shelter and bench. High cost refers to a traditional one with solar panels.
Transit facilities	Bus Shelter	18	Ea	\$10,000	\$25,000	\$180,000	\$450,000	Average width 5'

Subtotal	\$676,378	\$3,083,155
Contingency (20%)	\$135,276	\$616,631
Construction Sub-Total	\$811,654	\$3,699,786
Support Costs		
Env & Design (20%)	\$162,331	\$739,957
Administration (10%)	\$81,165	\$369,979
Construction Management (20%)	\$162,331	\$739,957
City Finance (6.5%)	\$52,757	\$240,486
Current Probable Cost (2018)	\$1,270,238	\$5,790,165
2025 ESCALATED COST at 3% per year	\$1,562,232	\$7,121,173

*Cost ranges are rough estimates that are reflective of compiled nationwide case examples, and should be confirmed for accuracy. All items listed include installation costs.

Figure 6 Cost estimates - Hastings-on-Hudson

Hastings-on-Hudson								
Mode	Description	Quantity	Unit	Low Unit Cost*	High Unit Cost*	Low Range	High Range	Notes & Assumptions
Walking facilities	New Concrete Sidewalk	10,856	Linear ft	\$22	\$96	\$238,832	\$1,042,176	Average width 5'
	Patterned Crosswalk	9,486	Square ft	\$5	\$15	\$47,430	\$142,290	Average width 6'
	Curb Extensions/Median Islands	22,282	Square ft	\$6	\$20	\$133,692	\$445,640	
Traffic operations	Traffic Lane Restriping	40,677	Linear ft	\$2	\$7	\$81,355	\$284,740	Average 3 traffic lanes
Bike Facilities	Bike Lane	27,118	Linear ft	\$3	\$58	\$81,355	\$1,572,847	One 10' dual bike lane or two 5' single bike lanes on all segments where bike lanes are present
	Bike Lane Separation	16,959	Linear ft	\$2	\$56	\$33,918	\$949,704	Average delineator spacing 25'
	Pre-Fabricated Boarding Platform with Integrated Bike Lane	7	Ea	\$20,000	\$50,000	\$140,000	\$350,000	Low cost refers to a traditional bus stop with shelter and bench. High cost refers to a traditional one with solar panels.
Transit facilities	Bus Shelter	9	Ea	\$10,000	\$25,000	\$90,000	\$225,000	Average width 5'

Subtotal	\$846,582	\$5,012,397
Contingency (20%)	\$169,316	\$1,002,479

Construction Sub-Total	\$1,015,898	\$6,014,876
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Support Costs		
Env & Design (20%)	\$203,180	\$1,202,975
Administration (10%)	\$101,590	\$601,488
Construction Management (20%)	\$203,180	\$1,202,975
City Finance (6.5%)	\$66,033	\$390,967

Current Probable Cost (2018)	\$1,589,881	\$9,413,282
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2025 ESCALATED COST at 3% per year	\$1,955,353	\$11,577,149
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