

Appendix H. Engineering Unit Cost Estimates



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Table H-1: Class II Bike Lane Striping Unit Cost Estimate

Installations	Unit Price	Unit	Quantity	Item Total
Signs (2 minimum per block * 8 blocks per mile)	\$300	Each	16	\$4,800
Striping	\$4	Linear Foot	5,280	\$21,120
Total Contract Cost				\$25,920
Contingency (20% of contract)				\$5,184
Total P.E. (20% of contract)				\$5,184
Construction Engineering (20% of contract)				\$5,184
Project Total				\$41,472
Rounded Total				\$40,000 per mile

Table H-2: Class II Bike Lane with Median/Curb Reconstruction Unit Cost Estimate

Removals	Unit Price	Unit	Quantity	Item Total
Concrete Pavement	\$75	Cubic Yard	8,580	\$643,500
Striping	\$6	Linear Foot	5,280	\$31,680
Installations	Unit Price	Unit	Quantity	Item Total
AC Pavement	\$25	Linear Foot	5,280	\$132,000
Aggregate Base	\$10	Linear Foot	5,280	\$52,800
PCC Curb and Gutter over 6" CMB	\$22	Linear Foot	5,280	\$116,160
Signs (2 minimum per block * 8 blocks per mile)	\$300	Each	16	\$4,800
Striping	\$8	Linear Foot	5,280	\$42,240
Total Contract Cost				\$1,023,180
Contingency (20% of contract)				\$204,636
Total P.E. (15% of contract)				\$255,795
Construction Engineering (20% of contract)				\$204,636
Project Total				\$1,688,247
Rounded Total				\$1,700,000 per mile

Table H-3: Class II or III – Bike Lane / Route (Road Widening / Added Paved Shoulder) Unit Cost Estimate

Removals	Unit Price	Unit	Quantity	Item Total
Striping	\$6	Linear Foot	5,280	\$31,680
Installations	Unit Price	Unit	Quantity	Item Total
AC Pavement	\$25	Linear Foot	5,280	\$132,000
Aggregate Base	\$10	Linear Foot	5,280	\$52,800
Signs (2 minimum per block * 8 blocks per mile)	\$300	Each	16	\$4,800
Striping	\$4	Linear Foot	5,280	\$21,120
Total Contract Cost				\$242,400
Contingency (20% of contract)				\$48,480
Total P.E. (15% of contract)				\$60,600
Construction Engineering (20% of contract)				\$48,480
Project Total				\$399,960
Rounded Total				\$400,000 per mile

Table H-4: Class III – Bike Routes (Signing Only) Unit Cost Estimate

Installations	Unit Price	Unit	Quantity	Item Total
Signs (4 minimum per block * 8 blocks per mile)	\$300	Each	32	\$9,600
Total Contract Cost				\$9,600
Contingency (20% of contract)				\$1,920
Total P.E. (20% of contract)				\$1,920
Construction Engineering (20% of contract)				\$1,920
Project Total				\$15,360
Rounded Total				\$15,000 per mile

Table H-5: Class III – Bike Routes (Signing and Sharrows) Unit Cost Estimate

Installations	Unit Price	Unit	Quantity	Item Total
Signs (4 minimum per block * 8 blocks per mile)	\$300	Each	32	\$9,600
Sharrow Pavement Marking (4 minimum per block * 8 blocks per mile)	\$155	Each	32	\$4,960
Total Contract Cost				\$14,560
Contingency (20% of contract)				\$2,912
Total P.E. (20% of contract)				\$2,912
Construction Engineering (20% of contract)				\$2,912
Project Total				\$23,296
Rounded Total				\$25,000 per mile

Table H-6: Class II – Bike Lane (Road Diet, 4 to 3 lanes) Unit Cost Estimate

Removals	Unit Price	Unit	Quantity	Item Total
Striping	\$6	Linear Foot	5,280	\$31,680
Installations	Unit Price	Unit	Quantity	Item Total
Signs (2 minimum per block * 8 blocks per mile)	\$300	Each	16	\$4,800
Striping	\$8	Linear Foot	5,280	\$42,240
Signal Modification/Loop Restoration	\$20,000	Lump Sum	1	\$20,000
Total Contract Cost				\$98,720
Contingency (20% of contract)				\$19,744
Total P.E. (15% of contract)				\$24,680
Construction Engineering (20% of contract)				\$19,744
Project Total				\$162,888
Rounded Total				\$165,000 per mile

Table H-7: Bicycle Boulevard Unit Cost Estimates

Installations	Unit Price	Unit	Quantity	Item Total
Signs (2 minimum per block * 8 blocks per mile)	\$300	Each	16	\$4,800
Sharrow Pavement Marking (4 minimum per block * 8 blocks per mile)	\$155	Each	32	\$4,960
Striping (200 LF x 8 intersections)	\$2	Linear Foot	1,600	\$3,200
Total Contract Cost				\$17,760
Contingency (20% of contract)				\$3,552
Total P.E. (20% of contract)				\$3,552
Construction Engineering (20% of contract)				\$3,552
Project Total				\$28,416
Rounded Total^{vi}				\$30,000 per mile

^{vi} An additional \$250,000 was added to the cost estimate of Bicycle Boulevard project for each instance it intersects an arterial roadway at an uncontrolled location. This additional cost is for the installation of a signalized crossing.