

Appendix J



City of Fresno

Active Transportation Plan

Sidewalk Improvements Cost Estimate



High Priority Sidewalk Network Cost Estimate

Improvements	Quantity	Unit	Unit Cost	Item Total
Site Preparation and Removal	1980000	SF	\$ 5.00	\$ 9,900,000.00
6" Sidewalk Concrete	1980000	SF	\$ 15.00	\$ 29,700,000.00
Drainage Control	1	LS	\$ 396,000.00	\$ 396,000.00
Sub-Total				\$ 39,996,000.00
Traffic Control and Mobilization (12.5%)				\$ 4,999,500.00
Contingency (10%)				\$ 4,499,600.00
Total Construction Cost				\$ 49,495,100.00
Design and Construction Administration (20%)				\$ 9,899,100.00
Project Total				\$ 59,394,200.00

Medium Priority Sidewalk Network Cost Estimate

Improvements	Quantity	Unit	Unit Cost	Item Total
Site Preparation and Removal	8490240	SF	\$ 5.00	\$ 42,451,200.00
6" Sidewalk Concrete	8490240	SF	\$ 15.00	\$ 127,353,600.00
Drainage Control	1	LS	\$ 1,698,048.00	\$ 1,698,048.00
Sub-Total				\$ 171,502,848.00
Traffic Control and Mobilization (12.5%)				\$ 21,437,900.00
Contingency (10%)				\$ 19,294,100.00
Total Construction Cost				\$ 212,234,900.00
Design and Construction Administration (20%)				\$ 42,447,000.00
Project Total				\$ 254,681,900.00

Low Priority Sidewalk Network Cost Estimate

Improvements	Quantity	Unit	Unit Cost	Item Total
Site Preparation and Removal	7951680	SF	\$ 5.00	\$ 39,758,400.00
6" Sidewalk Concrete	7951680	SF	\$ 15.00	\$ 119,275,200.00
Drainage Control	1	LS	\$ 1,590,336.00	\$ 1,590,336.00
Sub-Total				\$ 160,623,936.00
Traffic Control and Mobilization (12.5%)				\$ 20,078,000.00
Contingency (10%)				\$ 18,070,200.00
Total Construction Cost				\$ 198,772,200.00
Design and Construction Administration (20%)				\$ 39,754,500.00
Project Total				\$ 238,526,700.00

Cost Estimate Assumptions and Breakdown

- Cost Estimate Assumptions:**
- o Sidewalk width is 6 feet, consistent with ADA compliance and standard city drawings.
 - o Existing curb and gutter are assumed to be in good condition and will remain in place (i.e., no curb and gutter replacement included).
 - o Curb ramp installation is excluded from this estimate.
 - o In segments where a planter strip between roadway and sidewalk is feasible, no cost is included for planter area improvements or landscaping.
- Unit Cost Assumptions:**
- o Site preparation and removal is estimated at \$5.00 per square foot, covering demolition and clearing of the existing surface.
 - o 6" concrete sidewalk installation is estimated at \$15.00 per square foot, including materials, forming, pouring, and finishing.
 - o Drainage control is included as a lump sum (LS) item, calculated as 1% of the total cost of site preparation and sidewalk concrete.
- Cost Breakdown Includes:**
- o Subtotal of Site Preparation, Sidewalk Installation, and Drainage Control
 - o Traffic Control and Mobilization at 12.5% of subtotal
 - o Contingency at 10% of subtotal
 - o Design and Construction Administration at 20% of construction cost

City of Fresno
Active Transportation Plan



Bike Facilities Improvements Cost Estimate

Facility Type	High Priority		Medium Priority		Low Priority		Total
	Length (Miles)	Cost	Length (Miles)	Cost	Length (Miles)	Cost	
Class-I	11.00	\$ 12,807,300.00	35.00	\$ 40,750,500.00	104.00	\$ 121,087,200.00	\$ 174,645,000.00
Class-II	33.00	\$ 7,774,800.00	154.00	\$ 36,282,400.00	350.00	\$ 82,460,000.00	\$ 126,517,200.00
Upgrade Existing Class-II to Class-II Buffered	17.00	\$ 3,665,200.00	11.00	\$ 2,371,600.00	12.00	\$ 2,587,200.00	\$ 8,624,000.00
Upgrade Existing Class-II to Class-IV	27.00	\$ 7,144,200.00	10.00	\$ 2,646,000.00	16.00	\$ 4,233,600.00	\$ 14,023,800.00
Class-II Buffered	12.00	\$ 3,207,600.00	2.00	\$ 534,600.00	10.00	\$ 2,673,000.00	\$ 6,415,200.00
Upgrade Existing Class-II Buffered to Class-IV	0.00	\$ -	1.00	\$ 49,100.00	2.00	\$ 98,200.00	\$ 147,300.00
Class-III	2.00	\$ 30,300.00	21.00	\$ 318,150.00	18.00	\$ 272,700.00	\$ 621,200.00
Class-IV	28.00	\$ 8,859,200.00	11.00	\$ 3,480,400.00	21.00	\$ 6,644,400.00	\$ 18,984,000.00
Total	130.00	\$ 43,488,600.00	245.00	\$ 86,432,800.00	533.00	\$ 220,056,300.00	\$ 349,977,700.00

Final Cost Includes:

- Subtotal of all potential line items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal
- Contingency at 10% of subtotal
- Design and Construction Administration at 20% of construction cost

Note: Mileage provided for bicycle facilities represents total facility length along both sides of the roadway except class-I.

City of Fresno

Active Transportation Plan

Typical Cost Estimate Based on 1-Mile Segment



Class-I Bikeway Cost Estimate

Item No.	Description	Unit	Est. Unit Cost	Quantity per Mile	Cost per Mile
1	Site Clearance and Demolition	SF	\$7.00	63360	\$ 443,520.00
2	HMAC	CY	\$50.00	774	\$ 38,681.28
3	Class-II Aggregate Base	CY	\$40.00	1547	\$ 61,890.05
4	Pavement Marking	EA	\$250.00	30	\$ 7,500.00
5	4" Center Line Striping	LF	\$3.00	5280	\$ 15,840.00
6	6" Edgeline Striping	LF	\$5.00	10560	\$ 52,800.00
7	New Sign and Post	EA	\$500.00	11	\$ 5,280.00
8	Chain Link Fence	LF	\$30.00	5280	\$ 158,400.00
Sub-Total					\$ 783,920.00
Traffic Control and Mobilization (12.5%)					\$ 98,000.00
Contingency (10%)					\$ 88,200.00
Total Construction Cost					\$ 970,200.00
Design and Construction Administration (20%)					\$ 194,100.00
Total Cost per Mile					\$ 1,164,300.00

- Assumed 12-foot-wide Class-I bike path constructed on relatively level surface. Cost includes minor earthwork as needed.
- Pavement section includes: 4" Hot Mix Asphalt Concrete (HMAC) over 8" Class II Aggregate Base.
- 4" yellow centerline striping.
- 6" white edge lines on both sides.
- One bike lane pavement marking (bike symbol) every 500 feet per direction.
- One sign and one post every 1000 feet per direction.
- Applicable to one side only – especially for trails along canals.

Cost Breakdown Includes:

- Subtotal of all potential items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal
- Contingency at 10% of subtotal
- Design and Construction Administration at 20% of construction cost

City of Fresno

Active Transportation Plan

Typical Cost Estimate Based on 1-Mile Segment



Class-II Bike Lane Cost Estimate

Item No.	Description	Unit	Est. Unit Cost	Quantity per Mile	Cost per Mile
1	Slurry Seal (Type II)	SY	\$4.00	32860	\$ 131,440.00
2	6" White Stripe (Bike Lane Line)	LF	\$5.00	21120	\$ 105,600.00
3	6" White Stripe (Travel Lane Line)	LF	\$4.00	10560	\$ 42,240.00
4	Green Pavement Marking	SF	\$12.00	530	\$ 6,360.00
5	Bike Pavement Marking	EA	\$250.00	40	\$ 10,000.00
6	Pavement Marking (Arrows + Bike Detection Symbol)	EA	\$300.00	20	\$ 6,000.00
7	New Sign and Post	EA	\$500.00	21	\$ 10,560.00
8	Loop/Video Detection Reconfiguration at Signalized Intersection	EA	\$2,500.00	2	\$ 5,000.00
Sub-Total					\$ 317,200.00
Traffic Control and Mobilization (12.5%)					\$ 39,700.00
Contingency (10%)					\$ 35,700.00
Total Construction Cost					\$ 392,600.00
Design and Construction Administration (20%)					\$ 78,600.00
Total Cost per Mile (both direction of travel)					\$ 471,200.00
Total Cost per Mile (one direction of travel)					\$ 235,600.00

Quantity Assumptions:

- Roadway Cross-Section: Assumed a total roadway width of 80 feet curb-to-curb, including a 14-foot median. The remaining 56 feet of traveled way is divided into four 11-foot and 10-foot travel lanes (two in each direction), and 7-foot Class II bike lanes in each direction.
- Striping Details: Each direction includes one Detail 9 (6" stripe) and one Detail 39 (buffer striping with 12" diagonal).
- Green Pavement Marking: Assumed 0.10 square feet per linear foot for both directions, representing intermittent conflict zone treatments (e.g., intersections).
- Bike Lane Pavement Marking: One marking assumed every 300 feet per direction.
- Arrow/Sharrows Markings: Assumed 10 arrows per mile, based on 2 signalized intersections per mile with 5 arrows each.
- Signage: Assumed one sign and post every 500 feet per direction (2 per 1,000 feet total), including sign panel and mounting hardware.
- Signalized Intersections: Assumed 2 signalized intersections per mile.
- Detection System Reconfiguration: At each signalized intersection, assumed reconfiguration of video/loop detection due to bike lane impacts.

Cost Breakdown Includes:

- Subtotal of all potential items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal
- Contingency at 10% of subtotal
- Design and Construction Administration at 20% of construction cost

City of Fresno

Active Transportation Plan



Typical Cost Estimate Based on 1-Mile Segment

Upgrade Class-II to Class-II Buffered Bike Lane Cost Estimate

Item No.	Description	Unit	Est. Unit Cost	Quantity per Mile	Cost per Mile
1	Slurry Seal (Type II)	SY	\$4.00	32860	\$ 131,440.00
2	6" White Stripe (Bike Lane Line)	LF	\$5.00	21120	\$ 105,600.00
3	6" White Stripe (Travel Lane Line)	LF	\$4.00	10560	\$ 42,240.00
4	Green Pavement Marking	SF	\$12.00	0	\$ -
5	Bike Pavement Marking	EA	\$250.00	0	\$ -
6	Pavement Marking (Arrows + Bike Detection Symbol)	EA	\$300.00	20	\$ 6,000.00
7	New Sign and Post	EA	\$500.00	0	\$ -
8	Loop/Video Detection Reconfiguration at Signalized Intersection	EA	\$2,500.00	2	\$ 5,000.00
Sub-Total					\$ 290,280.00
Traffic Control and Mobilization (12.5%)					\$ 36,300.00
Contingency (10%)					\$ 32,700.00
Total Construction Cost					\$ 359,300.00
Design and Construction Administration (20%)					\$ 71,900.00
Total Cost per Mile (both direction of travel)					\$ 431,200.00
Total Cost per Mile (one direction of travel)					\$ 215,600.00

Quantity Assumptions:

- Roadway Cross-Section: Assumed a total roadway width of 80 feet curb-to-curb, including a 14-foot median. The remaining 56 feet of traveled way is divided into four 11-foot and 10-foot travel lanes (two in each direction), and 7-foot Class II bike lanes in each direction.
- Striping Details: Each direction includes one Detail 9 (6" stripe) and one Detail 39 (buffer striping with 12" diagonal).
- Green Pavement Marking: Assumed existing and to be protected in place
- Bike Lane Pavement Marking: Existing Bike Lane Markings and to be protected in place.
- Arrow/Sharrows Markings: Assumed 10 arrows per mile, based on 2 signalized intersections per mile with 5 arrows each.
- Signage: Assumed Existing Signage is good and to be protect in place
- Signalized Intersections: Assumed 2 signalized intersections per mile.
- Detection System Reconfiguration: At each signalized intersection, assumed reconfiguration of video/loop detection due to change in lane geometry with an addition of Buffer

Cost Breakdown Includes:

- Subtotal of all potential items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal
- Contingency at 10% of subtotal
- Design and Construction Administration at 20% of construction cost

City of Fresno

Active Transportation Plan



Typical Cost Estimate Based on 1-Mile Segment

Upgrade Class-II to Class-IV Bike Lane Cost Estimate

Item No.	Description	Unit	Est. Unit Cost	Quantity per Mile	Cost per Mile
1	Slurry Seal (Type II)	SY	\$4.00	32860	\$ 131,440.00
2	6" White Stripe (Bike Lane Line)	LF	\$5.00	21120	\$ 105,600.00
3	6" White Stripe (Travel Lane Line)	LF	\$4.00	10560	\$ 42,240.00
4	Green Pavement Marking	SF	\$12.00	0	\$ -
5	Bike Pavement Marking	EA	\$250.00	0	\$ -
6	Pavement Marking (Arrows + Bike Detection Symbol)	EA	\$300.00	20	\$ 6,000.00
7	New Sign and Post	EA	\$500.00	0	\$ -
8	Flexible Delineator Post with Long Base	EA	\$150.00	440	\$ 66,000.00
9	Loop/Video Detection Reconfiguration at Signalized Intersection	EA	\$2,500.00	2	\$ 5,000.00
Sub-Total					\$ 356,280.00
Traffic Control and Mobilization (12.5%)					\$ 44,600.00
Contingency (10%)					\$ 40,100.00
Total Construction Cost					\$ 441,000.00
Design and Construction Administration (20%)					\$ 88,200.00
Total Cost per Mile (both direction of travel)					\$ 529,200.00
Total Cost per Mile (one direction of travel)					\$ 264,600.00

Quantity Assumptions:

- Roadway Cross-Section: Assumed a total roadway width of 80 feet curb-to-curb, including a 14-foot median. The remaining 56 feet of traveled way is divided into four 11-foot and 10-foot travel lanes (two in each direction), and 7-foot Class II bike lanes in each direction.
- Striping Details: Each direction includes one Detail 9 (6" stripe) and one Detail 39 (buffer striping with 12" diagonal).
- Green Pavement Marking: Assumed existing and to be protected in place
- Bike Lane Pavement Marking: Existing Bike Lane Markings and to be protected in place.
- Arrow/Sharrows Markings: Assumed 10 arrows per mile, based on 2 signalized intersections per mile with 5 arrows each.
- Signage: Assumed Existing Signage is good and to be protect in place
- Signalized Intersections: Assumed 2 signalized intersections per mile.
- Detection System Reconfiguration: At each signalized intersection, assumed reconfiguration of video/loop detection due to change in lane geometry with an addition of Buffer
- Flexible Delineator Post: Assumed one flexible delineator post every 24 feet for both sides.

Cost Breakdown Includes:

- Subtotal of all potential items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal
- Contingency at 10% of subtotal

City of Fresno

Active Transportation Plan

Typical Cost Estimate Based on 1-Mile Segment



Class-II Buffered Bike Lane Cost Estimate

Item No.	Description	Unit	Est. Unit Cost	Quantity per Mile	Cost per Mile
1	Slurry Seal (Type II)	SY	\$4.00	37550	\$ 150,200.00
2	6" White Stripe (Bike Lane Line)	LF	\$5.00	21120	\$ 105,600.00
3	6" White Stripe (Travel Lane Line)	LF	\$4.00	10560	\$ 42,240.00
4	12" White Stripe (Buffer Line - Detail 39)	LF	\$8.00	2200	\$ 17,600.00
5	Green Pavement Marking	SF	\$12.00	1060	\$ 12,720.00
6	Bike Pavement Marking	EA	\$250.00	40	\$ 10,000.00
7	Pavement Marking (Arrows + Bike Detection Symbol)	EA	\$300.00	20	\$ 6,000.00
8	New Sign and Post	EA	\$500.00	21	\$ 10,560.00
9	Loop/Video Detection Reconfiguration at Signalized Intersection	EA	\$2,500.00	2	\$ 5,000.00
Sub-Total					\$ 359,920.00
Traffic Control and Mobilization (12.5%)					\$ 45,000.00
Contingency (10%)					\$ 40,500.00
Total Construction Cost					\$ 445,500.00
Design and Construction Administration (20%)					\$ 89,100.00
Total Cost per Mile (both direction of travel)					\$ 534,600.00
Total Cost per Mile (one direction of travel)					\$ 267,300.00

Quantity Assumptions:

- Roadway Cross-Section: Assumed a total roadway width of 80 feet curb-to-curb, including a 16-foot median. The remaining 64 feet of traveled way is divided into four 11-foot travel lanes (two in each direction), 3-foot buffers, and 7-foot Class II bike lanes in each direction.
- Striping Details: Each direction includes one Detail 9 (6" stripe) and two Detail 39 (buffer striping with 12" diagonal).
- Buffer Striping: Assumed 5 feet long diagonal buffer bars spaced every 24 feet on both sides.
- Green Pavement Marking: Assumed 0.20 square feet per linear foot for both directions, representing intermittent conflict zone treatments (e.g., intersections, driveways).
- Bike Lane Pavement Marking: One marking assumed every 300 feet per direction.
- Arrow/Sharrow Markings: Assumed 10 arrows per mile, based on 2 signalized intersections per mile with 5 arrows each.
- Signage: Assumed one sign and post every 500 feet per direction (2 per 1,000 feet total), including sign panel and mounting hardware.
- Signalized Intersections: Assumed 2 signalized intersections per mile.
- Detection System Reconfiguration: At each signalized intersection, assumed reconfiguration of video/loop detection due to bike lane impacts.

Cost Breakdown Includes:

- Subtotal of all potential items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal
- Contingency at 10% of subtotal

City of Fresno

Active Transportation Plan



Typical Cost Estimate Based on 1-Mile Segment

Upgrade Class-II Buffered to Class-IV Bike Lane Cost Estimate

Item No.	Description	Unit	Est. Unit Cost	Quantity per Mile	Cost per Mile
1	Flexible Delineator Post with Long Base	EA	\$150.00	440	\$ 66,000.00
Sub-Total					\$ 66,000.00
Traffic Control and Mobilization (12.5%)					\$ 8,300.00
Contingency (10%)					\$ 7,500.00
Total Construction Cost					\$ 81,800.00
Design and Construction Administration (20%)					\$ 16,400.00
Total Cost per Mile (both direction of travel)					\$ 98,200.00
Total Cost per Mile (one direction of travel)					\$ 49,100.00

Quantity Assumptions:

- Assumed existing Class II buffered bike lane has sufficient buffer width to install flexible delineators without modifying the existing lane geometry. Flexible delineators shall be installed at 24-foot spacing.

Cost Breakdown Includes:

- Subtotal of all potential items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal
- Contingency at 10% of subtotal
- Design and Construction Administration at 20% of construction cost

City of Fresno

Active Transportation Plan



Typical Cost Estimate Based on 1-Mile Segment

Class-III Bike Lane Cost Estimate

Item No.	Description	Unit	Est. Unit Cost	Quantity per Mile	Cost per Mile
1	Pavement Marking	EA	\$250.00	60	\$ 15,000.00
2	New Sign and Post	EA	\$500.00	11	\$ 5,280.00
Sub-Total					\$ 20,280.00
Traffic Control and Mobilization (12.5%)					\$ 2,600.00
Contingency (10%)					\$ 2,300.00
Total Construction Cost					\$ 25,200.00
Design and Construction Administration (20%)					\$ 5,100.00
Total Cost per Mile (both direction of travel)					\$ 30,300.00
Total Cost per Mile (one direction of travel)					\$ 15,150.00

Quantity Assumptions:

- One sharrow marking every 200 feet per direction.
- One sign and one post every 1000 feet per direction.

Cost Breakdown Includes:

- Subtotal of all potential items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal
- Contingency at 10% of subtotal
- Design and Construction Administration at 20% of construction cost

City of Fresno

Active Transportation Plan

Typical Cost Estimate Based on 1-Mile Segment



Class-IV Bike Lane Cost Estimate

Item No.	Description	Unit	Est. Unit Cost	Quantity per Mile	Cost per Mile
1	Slurry Seal (Type II)	SY	\$4.00	37550	\$ 150,200.00
2	6" White Stripe (Bike Lane Line)	LF	\$5.00	21120	\$ 105,600.00
3	6" White Stripe (Travel Lane Line)	LF	\$4.00	10560	\$ 42,240.00
4	12" White Stripe (Buffer Line - Detail 39)	LF	\$8.00	2200	\$ 17,600.00
5	Green Pavement Marking	SF	\$12.00	1060	\$ 12,720.00
6	Bike Pavement Marking	EA	\$250.00	40	\$ 10,000.00
7	Pavement Marking (Arrows + Bike Detection Symbol)	EA	\$300.00	20	\$ 6,000.00
8	New Sign and Post	EA	\$500.00	21	\$ 10,560.00
9	Flexible Delineator Post with Long Base	EA	\$150.00	440	\$ 66,000.00
10	Loop/Video Detection Reconfiguration at Signalized Intersection	EA	\$2,500.00	2	\$ 5,000.00
Sub-Total					\$ 425,920.00
Traffic Control and Mobilization (12.5%)					\$ 53,300.00
Contingency (10%)					\$ 48,000.00
Total Construction Cost					\$ 527,300.00
Design and Construction Administration (20%)					\$ 105,500.00
Total Cost per Mile (both direction of travel)					\$ 632,800.00
Total Cost per Mile (one direction of travel)					\$ 316,400.00

Quantity Assumptions:

- Roadway Cross-Section: Assumed a total roadway width of 80 feet curb-to-curb, including a 16-foot median. The remaining 64 feet of traveled way is divided into four 11-foot travel lanes (two in each direction), 3-foot buffers, and 7-foot Class II bike lanes in each direction.
- Striping Details: Each direction includes one Detail 9 (6" stripe) and two Detail 39 (buffer striping with 12" diagonal).
- Buffer Striping: Assumed 5 feet long diagonal buffer bars spaced every 24 feet on both sides.
- Green Pavement Marking: Assumed 0.20 square feet per linear foot for both directions, representing intermittent conflict zone treatments (e.g., intersections, driveways).
- Bike Lane Pavement Marking: One marking assumed every 300 feet per direction.
- Arrow/Sharrows Markings: Assumed 10 arrows per mile, based on 2 signalized intersections per mile with 5 arrows each.
- Signage: Assumed one sign and post every 500 feet per direction (2 per 1,000 feet total), including sign panel and mounting hardware.
- Flexible Delineator Post: Assumed one flexible delineator post every 24 feet for both sides.
- Signalized Intersections: Assumed 2 signalized intersections per mile.
- Detection System Reconfiguration: At each signalized intersection, assumed reconfiguration of video/loop detection due to bike lane impacts.

Cost Breakdown Includes:

- Subtotal of all potential items for improvements.
- Traffic Control and Mobilization at 12.5% of subtotal

City of Fresno
Active Transportation Plan



Downtown Loop Cost Estimate

Corridor	Project Limits	Proposed Bike Lane Class Type(s)	Class-I		Class-II		Class-II Buffer		Class-III		Class-IV		Total
			Length (Miles)	Cost	Length (Miles)	Cost	Length (Miles)	Cost	Length (Miles)	Cost	Length (Miles)	Cost	
Belmont Ave	N Blackstone Ave to N First St	IV		\$ -							1.97	\$ 623,212.12	\$ 623,300.00
First St	Belmont Ave to Cesar Chavez Blvd	Existing Class-IV	Existing Class-IV Bike Facility										\$ -
Cesar Chavez Blvd	H St to First St	II, II-B, III, IV		\$ -	0.75	\$ 176,700.00	0.75	\$ 199,867.50					\$ 376,600.00
H St	Divisadero to Cesar Chavez Blvd	II, II-B, IV		\$ -	0.36	\$ 84,780.30	1.85	\$ 493,391.25			0.55	\$ 174,978.79	\$ 753,200.00
Total Project Cost:												\$ 1,753,100.00	

Note: Facility lengths are measured in both directions of travel.