

APPENDIX E CORRIDOR DESIGN COST ESTIMATES

San Pablo Bicycle and Pedestrian Corridor Study - San Pablo Avenue (South)

Bicycle and Pedestrian Safety Improvements

2/28/2022

ESTIMATED QUANTITIES				
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
PAVEMENT MARKINGS				\$115,701
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	26	\$ 4	\$104
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	929	\$ 9	\$8,361
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	1,718	\$ 19	\$32,642
WHITE SKIP (CALTRANS DETAIL 8)	LF	3,296	\$ 4	\$13,184
CENTER LINE (CALTRANS DETAIL 22)	LF	506	\$ 4	\$2,024
LEFT TURN YELLOW (CALTRANS DETAIL 31)	LF	26	\$ 4	\$104
TURN LANE (CALTRANS DETAIL 38)	LF	497	\$ 4	\$1,988
BIKE LANE/ BUFFER (CALTRANS DETAIL 39)	LF	4,301	\$ 4	\$17,204
BIKE SKIP (CALTRANS DETAIL 39A)	LF	2,311	\$ 4	\$9,244
BIKE INTERSECTION CROSSING (CALTRANS DETAIL 40)	LF	109	\$ 4	\$436
ARROWS (THERMOPLASTIC)	EA	23	\$ 170	\$3,910
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	12	\$ 240	\$2,880
BICYCLE LANE (THERMOPLASTIC)	EA	21	\$ 150	\$3,150
SHARED LANE (THERMOPLASTIC)	EA	15	\$ 140	\$2,100
YIELD MARKING (THERMOPLASTIC)	EA	6	\$ 10	\$60
REMOVE PAVEMENT MARKINGS	SQ FT	330	\$ 7	\$2,310
REMOVE TRAFFIC STRIPING (INCLUDING MARKERS)	LS	1	\$ 16,000	\$16,000
SIGNAGE				\$1,782
INSTALL SIGN	EA	2	\$ 143	\$286
INSTALL SIGN POST + SIGN	EA	4	\$ 374	\$1,496
CIVIL/PAVING				\$333,800
REMOVE CONCRETE (MEDIAN)	SF	4,090	\$ 25	\$102,250
ROADWAY EXCAVATION	CY	201	\$ 150	\$30,150
HOT MIX ASPHALT	TON	667	\$ 200	\$133,400
MEDIAN CURB	LF	1,360	\$ 50	\$68,000
MISCELLANEOUS				\$400,180
TRAFFIC SIGNAL MODIFICATION - SAN PAVLO AVENUE AT RHEEMS AVE AND AT DRIVEWAY N OF TULARE	LS	2	\$ 200,000	\$400,000
FIRE HYDRANT MARKERS	EA	6	\$ 30	\$180
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 852,000
CONSTRUCTION SURVEYING (1%)				\$ 8,520
TRAFFIC CONTROL (5%)				\$ 42,600
MOBILIZATION (5%)				\$ 42,600
CONSTRUCTION MANAGEMENT (15%)				\$ 127,800
EROSION/SEDIMENT CONTROL (1%)				\$ 8,520
100% PS&E (30%)				\$ 255,600
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 1,338,000

PROJECT SUMMARY	
SUB-TOTAL	\$ 1,338,000
CONTINGENCY (20%)	\$ 267,600
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 1,610,000

General Assumptions and Exclusions:

- Unit prices based on Caltrans Contract Cost Database, District 4 2019-2021 costs and City of Oakland bid results for various projects post September 2020.
- The opinion does not include environmental permitting, easement, or property acquisition.
- The opinion does not include construction administration and inspection services.
- The opinion does not include public outreach, funding planning, or client management services.
- Traffic Signal Modification includes new pedestrian heads and associated mounting, new accessible pedestrian push buttons, removal of conflicting signs, and all associated wiring/cabling at a minimum. Some signal modifications may require more significant changes like relocating and/or replacing signal poles, mast arms upgrades, bicycle signals, relocating signal heads, and loop detector upgrades.
- Costs for changes to existing median islands assume 2' offset for necessary Civil improvement elements.
- The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

This opinion of probable construction cost was developed by identifying pay items and establishing quantities based on the current conceptual design. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Preliminary cost opinions include a 20% contingency to cover items that are undefined or are typically unknown prior to final design. Unit costs are based on 2021 dollars and were assigned based on historical cost data from Caltrans Contract Cost Database. This cost opinion does not include easement and right-of-way acquisition; permitting or inspection; escalation; or the cost for ongoing maintenance. This cost opinion is provided for the Client's information, and is based on the design professional's recent experience, adjusted for factors known at the time of preparation. Toole Design Group, LLC has no control over the cost of labor and material, competitive bidding, or market conditions; and makes no warranties, expressed or implied, concerning the accuracy of the opinion as compared to actual bids or cost to the Client.

San Pablo Bicycle and Pedestrian Corridor Study - San Pablo Avenue (North)

Bicycle and Pedestrian Safety Improvements

2/28/2022

ESTIMATED QUANTITIES				
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
PAVEMENT MARKINGS				\$255,728
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	217	\$ 4	\$868
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	1,051	\$ 9	\$9,459
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	7,707	\$ 19	\$146,433
WHITE SKIP (CALTRANS DETAIL 8)	LF	4,230	\$ 4	\$16,920
TURN LANE (CALTRANS DETAIL 38)	LF	720	\$ 4	\$2,880
BIKE LANE/ BUFFER (CALTRANS DETAIL 39)	LF	6,231	\$ 4	\$24,924
BIKE SKIP (CALTRANS DETAIL 39A)	LF	3,215	\$ 4	\$12,860
BIKE INTERSECTION CROSSING (CALTRANS DETAIL 40)	LF	511	\$ 4	\$2,044
ARROWS (THERMOPLASTIC)	EA	26	\$ 170	\$4,420
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	14	\$ 240	\$3,360
BICYCLE LANE (THERMOPLASTIC)	EA	39	\$ 150	\$5,850
SHARED LANE (THERMOPLASTIC)	EA	20	\$ 140	\$2,800
YIELD MARKING (THERMOPLASTIC)	EA	6	\$ 10	\$60
REMOVE PAVEMENT MARKINGS	SQ FT	550	\$ 7	\$3,850
REMOVE TRAFFIC STRIPING (INCLUDING MARKERS)	LS	1	\$ 19,000	\$19,000
SIGNAGE				\$1,496
INSTALL SIGN POST + SIGN	EA	4	\$ 374	\$1,496
MISCELLANEOUS				\$120
FIRE HYDRANT MARKERS	EA	4	\$ 30	\$120
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 258,000
CONSTRUCTION SURVEYING (1%)				\$ 2,580
TRAFFIC CONTROL (5%)				\$ 12,900
MOBILIZATION (5%)				\$ 12,900
CONSTRUCTION MANAGEMENT (15%)				\$ 38,700
EROSION/SEDIMENT CONTROL (1%)				\$ 2,580
100% PS&E (30%)				\$ 77,400
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 406,000

PROJECT SUMMARY	
SUB-TOTAL	\$ 406,000
CONTINGENCY (20%)	\$ 81,200
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 490,000

General Assumptions and Exclusions:

1. Unit prices based on Caltrans Contract Cost Database, District 4 2019-2021 costs and City of Oakland bid results for various projects post September 2020.
2. The opinion does not include environmental permitting, easement, or property acquisition.
3. The opinion does not include construction administration and inspection services.
4. The opinion does not include public outreach, funding planning, or client management services.
5. Cost of potential new bus pad for San Pablo Avenue northbound stop at El Portal Drive is not included in estimate.
6. The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

This opinion of probable construction cost was developed by identifying pay items and establishing quantities based on the current conceptual design. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Preliminary cost opinions include a 20% contingency to cover items that are undefined or are typically unknown prior to final design. Unit costs are based on 2021 dollars and were assigned based on historical cost data from Caltrans Contract Cost Database. This cost opinion does not include easement and right-of-way acquisition; permitting or inspection; escalation; or the cost for ongoing maintenance. This cost opinion is provided for the Client's information, and is based on the design professional's recent experience, adjusted for factors known at the time of preparation. Toole Design Group, LLC has no control over the cost of labor and material, competitive bidding, or market conditions; and makes no warranties, expressed or implied, concerning the accuracy of the opinion as compared to actual bids or cost to the Client.

San Pablo Bicycle and Pedestrian Corridor Study - Broadway Avenue

Bicycle and Pedestrian Safety Improvements

2/28/2022

ESTIMATED QUANTITIES				
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
PAVEMENT MARKINGS				\$293,961
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	4,618	\$ 4	\$18,472
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	14,840	\$ 9	\$133,560
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	5,507	\$ 19	\$104,633
4" SOLID YELLOW STRIPE (THERMOPLASTIC)	LF	1,646	\$ 4	\$6,584
DETECTABLE WARNING SURFACE	EA	24	\$ 368	\$8,832
ARROWS (THERMOPLASTIC)	EA	30	\$ 170	\$5,100
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	37	\$ 240	\$8,880
BICYCLE LANE (THERMOPLASTIC)	EA	49	\$ 150	\$7,350
YIELD MARKING (THERMOPLASTIC)	EA	55	\$ 10	\$550
SIGNAGE				\$413,776
INSTALL SIGN	LF	3,522	\$ 5	\$17,610
RADAR SPEED SIGN	EA	4	\$ 38,200	\$152,800
RAPID FLASHING BEACON	EA	6	\$ 40,000	\$240,000
INSTALL SIGN POST + SIGN	EA	9	\$ 374	\$3,366
VERTICAL ELEMENTS				\$935
PLASTIC DELINEATOR	EA	17	\$ 55	\$935
CIVIL/PAVING				\$1,065,666
CURB (MINOR CONCRETE)	LF	4,866	\$ 122	\$593,652
CURB RAMP	CY	18	\$ 2,000	\$35,556
RAISED CROSSING	CY	40	\$ 2,000	\$80,000
SIDEWALK	CY	382	\$ 902	\$344,898
REMOVE CURB	LF	340	\$ 34	\$11,560
MISCELLANEOUS				\$200,000
TRAFFIC SIGNAL MODIFICATION	EA	1	\$ 200,000	\$200,000
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 1,975,000
CONSTRUCTION SURVEYING (1%)				\$ 19,750
TRAFFIC CONTROL (5%)				\$ 98,750
MOBILIZATION (5%)				\$ 98,750
CONSTRUCTION MANAGEMENT (15%)				\$ 296,250
EROSION/SEDIMENT CONTROL (1%)				\$ 19,750
100% PS&E (30%)				\$ 592,500
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 3,101,000

PROJECT SUMMARY	
SUB-TOTAL	\$ 3,101,000
CONTINGENCY (20%)	\$ 620,200
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 3,730,000

General Assumptions and Exclusions:

1. Unit cost values taken from Caltrans Contract Cost Database, District 4 2019-2021 costs, and recent Toole Design Group cost opinions.
2. The opinion does not include environmental permitting, easement, or property acquisition.
3. The opinion does not include construction administration and inspection services.
4. The opinion does not include public outreach, funding planning, or client management services.
5. The Traffic Signal Modifications lump sum unit price assumes: new bicycle signal heads and phase, LPI modification, permissive left modification, bicycle detection cameras, and associated wiring/cablings. Some signal modifications may require more significant changes like relocating and/or replacing signal poles, mast arms upgrades, relocating signal heads, and loop detector upgrades.
6. The Street Light Adjustments lump sum unit price assumes: moving existing light standard and foundation
7. The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

This opinion of probable construction cost was developed by identifying pay items and establishing quantities based on the current conceptual design. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Preliminary cost opinions include a 20% contingency to cover items that are undefined or are typically unknown prior to final design. Unit costs are based on 2021 dollars and were assigned based on historical cost data from Caltrans Contract Cost Database. This cost opinion does not include easement and right-of-way acquisition; permitting or inspection; escalation; or the cost for ongoing maintenance. This cost opinion is provided for the Client's information, and is based on the design professional's recent experience, adjusted for factors known at the time of preparation. Toole Design Group, LLC has no control over the cost of labor and material, competitive bidding, or market conditions; and makes no warranties, expressed or implied, concerning the accuracy of the opinion as compared to actual bids or cost to the Client.

San Pablo Bicycle and Pedestrian Corridor Study - El Portal Drive One-Way Bicycle Lanes Bicycle and Pedestrian Safety Improvements

2/28/2022

ESTIMATED QUANTITIES				
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
PAVEMENT MARKINGS				\$232,801
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	16,712	\$ 4	\$66,848
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	3,996	\$ 9	\$35,964
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	4,275	\$ 19	\$81,225
4" SOLID YELLOW STRIPE (THERMOPLASTIC)	LF	6,716	\$ 4	\$26,864
4" SOLID WHITE LINE (PAINT) (CURB EXTENSION)	LF	300	\$ 3	\$900
DETECTABLE WARNING SURFACE	EA	10	\$ 368	\$3,680
ARROWS (THERMOPLASTIC)	EA	50	\$ 170	\$8,500
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	19	\$ 240	\$4,560
BICYCLE LANE (THERMOPLASTIC)	EA	25	\$ 150	\$3,750
YIELD MARKING (THERMOPLASTIC)	EA	51	\$ 10	\$510
SIGNAGE				\$18,744
INSTALL SIGN	LF	3,300	\$ 5	\$16,500
INSTALL SIGN POST + SIGN	EA	6	\$ 374	\$2,244
VERTICAL ELEMENTS				\$21,560
PLASTIC DELINEATOR	EA	392	\$ 55	\$21,560
CIVIL/PAVING				\$213,844
CURB (MINOR CONCRETE)	LF	819	\$ 122	\$99,918
RAISED CROSSING	CY	10	\$ 2,000	\$20,000
SIDEWALK	CY	88	\$ 902	\$79,476
REMOVE CURB	LF	425	\$ 34	\$14,450
MISCELLANEOUS				\$788,500
RELOCATION OF LIGHTING AND FOUNDATIONS	EA	1	\$ 188,500	\$188,500
TRAFFIC SIGNAL MODIFICATION	EA	3	\$ 200,000	\$600,000
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 1,276,000
CONSTRUCTION SURVEYING (1%)				\$ 12,760
TRAFFIC CONTROL (5%)				\$ 63,800
MOBILIZATION (5%)				\$ 63,800
CONSTRUCTION MANAGEMENT (15%)				\$ 191,400
EROSION/SEDIMENT CONTROL (1%)				\$ 12,760
100% PS&E (30%)				\$ 382,800
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 2,004,000

PROJECT SUMMARY	
SUB-TOTAL	\$ 2,004,000
CONTINGENCY (20%)	\$ 400,800
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 2,410,000

General Assumptions and Exclusions:

- Unit cost values taken from Caltrans Contract Cost Database, District 4 2019-2021 costs.
- The opinion does not include environmental permitting, easement, or property acquisition.
- The opinion does not include construction administration and inspection services.
- The opinion does not include public outreach, funding planning, or client management services.
- The Traffic Signal Modifications lump sum unit price assumes: new bicycle signal heads and phase, LPI modification, permissive left modification, bicycle detection cameras, and associated wiring/cabling. Some signal modifications may require more significant changes like relocating and/or replacing signal poles, mast arms upgrades, relocating signal heads, and loop detector upgrades.
- The Street Light Adjustments lump sum unit price assumes: moving existing light standard and foundation
- The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

This opinion of probable construction cost was developed by identifying pay items and establishing quantities based on the current conceptual design. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Preliminary cost opinions include a 20% contingency to cover items that are undefined or are typically unknown prior to final design. Unit costs are based on 2021 dollars and were assigned based on historical cost data from Caltrans Contract Cost Database. This cost opinion does not include easement and right-of-way acquisition; permitting or inspection; escalation; or the cost for ongoing maintenance. This cost opinion is provided for the Client's information, and is based on the design professional's recent experience, adjusted for factors known at the time of preparation. Toole Design Group, LLC has no control over the cost of labor and material, competitive bidding, or market conditions; and makes no warranties, expressed or implied, concerning the accuracy of the opinion as compared to actual bids or cost to the Client.

San Pablo Bicycle and Pedestrian Corridor Study - El Portal Drive Two-Way Bicycle Lane Bicycle and Pedestrian Safety Improvements

2/28/2022

ESTIMATED QUANTITIES					
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST	
PAVEMENT MARKINGS					
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	15,658	\$ 4	\$62,632	
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	4,454	\$ 9	\$40,086	
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	4,070	\$ 19	\$77,330	
4" SOLID YELLOW STRIPE (THERMOPLASTIC)	LF	8,033	\$ 4	\$32,132	
4" SOLID WHITE LINE (PAINT) (CURB EXTENSION)	LF	300	\$ 3	\$900	
DETECTABLE WARNING SURFACE	EA	8	\$ 368	\$2,944	
ARROWS (THERMOPLASTIC)	EA	51	\$ 170	\$8,670	
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	17	\$ 240	\$4,080	
BICYCLE LANE (THERMOPLASTIC)	EA	30	\$ 150	\$4,500	
YIELD MARKING (THERMOPLASTIC)	EA	59	\$ 10	\$590	
SIGNAGE					
INSTALL SIGN	LF	3,300	\$ 5	\$16,500	
INSTALL SIGN POST + SIGN	EA	8	\$ 374	\$2,992	
VERTICAL ELEMENTS					
PLASTIC DELINEATOR	EA	250	\$ 55	\$13,750	
CIVIL/PAVING					
CURB (MINOR CONCRETE)	LF	819	\$ 122	\$99,918	
RAISED CROSSING	CY	10	\$ 2,000	\$20,000	
SIDEWALK	CY	88	\$ 902	\$79,476	
REMOVE CURB	LF	750	\$ 34	\$25,500	
COLD PLANE ASPHALT CONCRETE PAVEMENT	SQ YD	167	\$ 16	\$2,667	
MISCELLANEOUS					
RELOCATION OF LIGHTING AND FOUNDATIONS	EA	1	\$ 188,500	\$188,500	
TRAFFIC SIGNAL MODIFICATION	EA	3	\$ 200,000	\$600,000	
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$	1,284,000
CONSTRUCTION SURVEYING (1%)				\$	12,840
TRAFFIC CONTROL (5%)				\$	64,200
MOBILIZATION (5%)				\$	64,200
CONSTRUCTION MANAGEMENT (15%)				\$	192,600
EROSION/SEDIMENT CONTROL (1%)				\$	12,840
100% PS&E (30%)				\$	385,200
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$	2,016,000

PROJECT SUMMARY	
SUB-TOTAL	\$ 2,016,000
CONTINGENCY (20%)	\$ 403,200
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 2,420,000

General Assumptions and Exclusions:

- Unit cost values taken from Caltrans Contract Cost Database, District 4 2019-2021 costs.
- The opinion does not include environmental permitting, easement, or property acquisition.
- The opinion does not include construction administration and inspection services.
- The opinion does not include public outreach, funding planning, or client management services.
- The Traffic Signal Modifications lump sum unit price assumes: new bicycle signal heads and phase, LPI modification, permissive left modification, bicycle detection cameras, and associated wiring/cabling. Some signal modifications may require more significant changes like relocating and/or replacing signal poles, mast arms upgrades, relocating signal heads, and loop detector upgrades.
- The Street Light Adjustments lump sum unit price assumes: moving existing light standard and foundation
- The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

This opinion of probable construction cost was developed by identifying pay items and establishing quantities based on the current conceptual design. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Preliminary cost opinions include a 20% contingency to cover items that are undefined or are typically unknown prior to final design. Unit costs are based on 2021 dollars and were assigned based on historical cost data from Caltrans Contract Cost Database. This cost opinion does not include easement and right-of-way acquisition; permitting or inspection; escalation; or the cost for ongoing maintenance. This cost opinion is provided for the Client's information, and is based on the design professional's recent experience, adjusted for factors known at the time of preparation. Toole Design Group, LLC has no control over the cost of labor and material, competitive bidding, or market conditions; and makes no warranties, expressed or implied, concerning the accuracy of the opinion as compared to actual bids or cost to the Client.

**San Pablo Bicycle and Pedestrian Corridor Study - Road 20
Bicycle and Pedestrian Safety Improvements**

2/28/2022

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
PAVEMENT MARKINGS				\$144,126
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	7,964	\$ 4	\$31,856
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	3,360	\$ 9	\$30,240
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	2,340	\$ 19	\$44,460
4" SOLID YELLOW STRIPE (THERMOPLASTIC)	LF	6,043	\$ 4	\$24,172
DETECTABLE WARNING SURFACE	EA	6	\$ 368	\$2,208
ARROWS (THERMOPLASTIC)	EA	5	\$ 170	\$850
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	9	\$ 240	\$2,160
BICYCLE LANE (THERMOPLASTIC)	EA	51	\$ 150	\$7,650
YIELD MARKING (THERMOPLASTIC)	EA	53	\$ 10	\$530
SIGNAGE				\$51,030
INSTALL SIGN	LF	2,206	\$ 5	\$11,030
RAPID FLASHING BEACON	EA	1	\$ 40,000	\$40,000
VERTICAL ELEMENTS				\$5,775
PLASTIC DELINEATOR	EA	105	\$ 55	\$5,775
CIVIL/PAVING				\$604,323
CURB (MINOR CONCRETE)	LF	1,387	\$ 122	\$169,214
RAISED CROSSING	CY	80	\$ 2,000	\$160,000
SIDEWALK	CY	267	\$ 902	\$241,068
REMOVE CURB	LF	882	\$ 34	\$29,988
COLD PLANE ASPHALT CONCRETE PAVEMENT	SQ YD	253	\$ 16	\$4,053
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 806,000
CONSTRUCTION SURVEYING (1%)				\$ 8,060
TRAFFIC CONTROL (5%)				\$ 40,300
MOBILIZATION (5%)				\$ 40,300
CONSTRUCTION MANAGEMENT (15%)				\$ 120,900
EROSION/SEDIMENT CONTROL (1%)				\$ 8,060
100% PS&E (30%)				\$ 241,800
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 1,266,000

PROJECT SUMMARY

SUB-TOTAL	\$ 1,266,000
CONTINGENCY (20%)	\$ 253,200
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 1,520,000

General Assumptions and Exclusions:

1. Unit cost values taken from Caltrans Contract Cost Database, District 4 2019-2021 costs, and recent Toole Design Group cost opinions.
2. The opinion does not include environmental permitting, easement, or property acquisition.
3. The opinion does not include construction administration and inspection services.
4. The opinion does not include public outreach, funding planning, or client management services.
5. The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

This opinion of probable construction cost was developed by identifying pay items and establishing quantities based on the current conceptual design. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Preliminary cost opinions include a 20% contingency to cover items that are undefined or are typically unknown prior to final design. Unit costs are based on 2021 dollars and were assigned based on historical cost data from Caltrans Contract Cost Database. This cost opinion does not include easement and right-of-way acquisition; permitting or inspection; escalation; or the cost for ongoing maintenance. This cost opinion is provided for the Client's information, and is based on the design professional's recent experience, adjusted for factors known at the time of preparation. Toole Design Group, LLC has no control over the cost of labor and material, competitive bidding, or market conditions; and makes no warranties, expressed or implied, concerning the accuracy of the opinion as compared to actual bids or cost to the Client.

San Pablo Bicycle and Pedestrian Corridor Study - Church Lane at San Pablo Avenue

Bicycle and Pedestrian Safety Improvements

2/28/2022

ESTIMATED QUANTITIES					
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST	
PAVEMENT MARKINGS					\$99,803
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	3,902	\$ 4	\$15,608	
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	1,490	\$ 9	\$13,410	
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	3,073	\$ 19	\$58,387	
4" SOLID YELLOW STRIPE (THERMOPLASTIC)	LF	1,617	\$ 4	\$6,468	
ARROWS (THERMOPLASTIC)	EA	16	\$ 170	\$2,720	
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	4	\$ 240	\$960	
BICYCLE LANE (THERMOPLASTIC)	EA	11	\$ 150	\$1,650	
SHARED LANE (THERMOPLASTIC)	EA	3	\$ 140	\$420	
YIELD MARKING (THERMOPLASTIC)	EA	18	\$ 10	\$180	
SIGNAGE					\$3,020
INSTALL SIGN	LF	604	\$ 5	\$3,020	
VERTICAL ELEMENTS					\$5,535
PLASTIC DELINEATOR	EA	57	\$ 55	\$3,135	
PLANTER	EA	16	\$ 150	\$2,400	
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$	109,000
CONSTRUCTION SURVEYING (1%)				\$	1,090
TRAFFIC CONTROL (5%)				\$	5,450
MOBILIZATION (5%)				\$	5,450
CONSTRUCTION MANAGEMENT (15%)				\$	16,350
EROSION/SEDIMENT CONTROL (1%)				\$	1,090
100% PS&E (30%)				\$	32,700
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$	172,000

PROJECT SUMMARY	
SUB-TOTAL	\$ 172,000
CONTINGENCY (20%)	\$ 34,400
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 210,000

General Assumptions and Exclusions:

1. Unit cost values taken from Caltrans Contract Cost Database, District 4 2019-2021 costs.
2. The opinion does not include environmental permitting, easement, or property acquisition.
3. The opinion does not include construction administration and inspection services.
4. The opinion does not include public outreach, funding planning, or client management services.
5. The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

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San Pablo Bicycle and Pedestrian Corridor Study - San Pablo Dam Road

Bicycle and Pedestrian Safety Improvements

2/28/2022

ESTIMATED QUANTITIES				
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
PAVEMENT MARKINGS				\$196,871
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	6,620	\$ 4	\$26,480
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	452	\$ 9	\$4,068
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	7,621	\$ 19	\$144,799
4" SOLID YELLOW STRIPE (THERMOPLASTIC)	LF	2,976	\$ 4	\$11,904
DETECTABLE WARNING SURFACE	EA	10	\$ 368	\$3,680
ARROWS (THERMOPLASTIC)	EA	8	\$ 170	\$1,360
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	1	\$ 240	\$240
BICYCLE LANE (THERMOPLASTIC)	EA	28	\$ 150	\$4,200
SHARED LANE (THERMOPLASTIC)	EA	1	\$ 140	\$140
SIGNAGE				\$9,047
RELOCATE POST AND SIGN	EA	1	\$ 200	\$200
INSTALL SIGN	LF	1,545	\$ 5	\$7,725
INSTALL SIGN POST + SIGN	EA	3	\$ 374	\$1,122
VERTICAL ELEMENTS				\$1,265
PLASTIC DELINEATOR	EA	23	\$ 55	\$1,265
CIVIL/PAVING				\$775,181
CURB (MINOR CONCRETE)	LF	4,519	\$ 122	\$551,318
SIDEWALK	CY	248	\$ 902	\$223,863
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 983,000
CONSTRUCTION SURVEYING (1%)				\$ 9,830
TRAFFIC CONTROL (5%)				\$ 49,150
MOBILIZATION (5%)				\$ 49,150
CONSTRUCTION MANAGEMENT (15%)				\$ 147,450
EROSION/SEDIMENT CONTROL (1%)				\$ 9,830
100% PS&E (30%)				\$ 294,900
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)				\$ 1,544,000

PROJECT SUMMARY	
SUB-TOTAL	\$ 1,544,000
CONTINGENCY (20%)	\$ 308,800
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 1,860,000

General Assumptions and Exclusions:

1. Unit cost values taken from Caltrans Contract Cost Database, District 4 2019-2021 costs.
2. The opinion does not include environmental permitting, easement, or property acquisition.
3. The opinion does not include construction administration and inspection services.
4. The opinion does not include public outreach, funding planning, or client management services.
5. The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

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San Pablo Bicycle and Pedestrian Corridor Study - Giant Road Bicycle and Pedestrian Safety Improvements

2/28/2022

ESTIMATED QUANTITIES				
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL COST
PAVEMENT MARKINGS				\$189,349
4" SOLID WHITE EDGE LINE (THERMOPLASTIC)	LF	2,513	\$ 4	\$10,052
WHITE THERMOPLASTIC (CROSSWALK)	SQ FT	485	\$ 9	\$4,365
GREEN THERMOPLASTIC (BIKE LANE)	SQ FT	2,785	\$ 19	\$52,915
CENTER LINE (CALTRANS DETAIL 22)	LF	3,959	\$ 4	\$15,836
4" YELLOW STRIPE (CALTRANS DETAIL 29)	LF	372	\$ 4	\$1,488
TURN LANE (CALTRANS DETAIL 38)	LF	424	\$ 4	\$1,696
BIKE LANE/ BUFFER (CALTRANS DETAIL 39)	LF	12,550	\$ 4	\$50,200
BIKE SKIP (CALTRANS DETAIL 39A)	LF	5,337	\$ 4	\$21,348
DETECTABLE WARNING SURFACE	EA	24	\$ 368	\$8,832
ARROWS (THERMOPLASTIC)	EA	10	\$ 170	\$1,700
BUS LANE/STOP/KEEP CLEAR (THERMOPLASTIC)	EA	1	\$ 240	\$240
BICYCLE LANE (THERMOPLASTIC)	EA	75	\$ 150	\$11,250
SHARED LANE (THERMOPLASTIC)	EA	4	\$ 140	\$560
YIELD MARKING (THERMOPLASTIC)	EA	6	\$ 10	\$60
REMOVE PAVEMENT MARKINGS	SQ FT	961	\$ 7	\$6,727
REMOVE TRAFFIC STRIPING (INCLUDING MARKERS)	LS	1	\$ 2,080	\$2,080
SIGNAGE				\$2,992
INSTALL SIGN POST + SIGN	EA	8	\$ 374	\$2,992
VERTICAL ELEMENTS				\$14,300
PLASTIC DELINEATOR	EA	260	\$ 55	\$14,300
CIVIL/PAVING				\$91,500
CURB (MINOR CONCRETE)	LF	750	\$ 122	\$91,500
MISCELLANEOUS				\$71,610
TRAFFIC SIGNAL MODIFICATION - GIANT ROAD AT PARR BLVD	LS	1	\$ 71,400	\$71,400
FIRE HYDRANT MARKERS	EA	7	\$ 30	\$210
MATERIALS SUBTOTAL (ROUNDED UP TO NEXT \$1,000)			\$	370,000
CONSTRUCTION SURVEYING (1%)			\$	3,700
TRAFFIC CONTROL (5%)			\$	18,500
MOBILIZATION (5%)			\$	18,500
CONSTRUCTION MANAGEMENT (15%)			\$	55,500
EROSION/SEDIMENT CONTROL (1%)			\$	3,700
100% PS&E (30%)			\$	111,000
SUBTOTAL (ROUNDED UP TO NEXT \$1,000)			\$	581,000

PROJECT SUMMARY	
SUB-TOTAL	\$ 581,000
CONTINGENCY (20%)	\$ 116,200
TOTAL (ROUNDED UP TO NEXT \$10,000)	\$ 700,000

General Assumptions and Exclusions:

- Unit prices based on Caltrans Contract Cost Database, District 4 2019-2021 costs and City of Oakland bid results for various projects post September 2020.
- The opinion does not include environmental permitting, easement, or property acquisition.
- The opinion does not include construction administration and inspection services.
- The opinion does not include public outreach, funding planning, or client management services.
- Traffic Signal Modification includes new bicycle signal phase for cycle track, 5-section vehicle signal heads to provide vehicle overlap phase (to control right turns across bike lanes), bicycle detection cameras, and associated wiring/cabling
- The Street Light Adjustments lump sum unit price assumes: moving existing light standard and foundation
- Flexible delineators/bollards placed every 20' along painted bike lane buffer (~5200' total buffer length). Assumes K-71 Marker Post.
- New curb and gutter along west side of Giant Road between Brookside Drive and San Pablo Creek Bridge.
- One sign post with bike signage every block, and "No Parking" signs every 150' along the west side of Giant Road.
- The opinion assumes the project does not trigger C.3 stormwater runoff requirements.

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