

Detailed Engineer's Estimate and Total Project Costs

Project Information:

Agency: City of Alameda	Date: 24-Oct-16
Project Description: Clement Avenue East Extension and Tilden Way	
Project Location: Extend/Improve Clement Ave. to Tilden Way; Improve Tilden Way betw Clement and Bridge	

Engineer's Estimate and Cost Breakdown:

Engineer's Estimate (for Construction Items Only)								Cost Breakdown			
Item No.	Item	Quantity	Units	Unit Cost	Total 2016 Item Cost	Escalation factor	Total 2018 Item Cost	CIP 2018		Local Match	
								%	\$	%	\$
General Overhead-Related Construction Items											
1	Mobilization (10%)	1	LS	\$450,000	\$450,000	5%	\$472,500	89%	\$418,304	11%	\$54,196
2	Project Coordination	1	LS	\$10,000	\$10,000	5%	\$10,500	89%	\$9,296	11%	\$1,204
3	Traffic Control	1	LS	\$50,000	\$50,000	5%	\$52,500	89%	\$46,478	11%	\$6,022
4	EBMUD Permits	1	LS	\$50,000	\$50,000	5%	\$52,500	89%	\$46,478	11%	\$6,022
5	Temporary Construction Fencing	1	LS	\$8,000	\$8,000	5%	\$8,400	89%	\$7,437	11%	\$963
6	Construction Staking	1	LS	\$10,000	\$10,000	5%	\$10,500	89%	\$9,296	11%	\$1,204
7	Storm Water Pollution Prevention Plan	1	LS	\$15,000	\$15,000	5%	\$15,750	89%	\$13,943	11%	\$1,807
8	Clearing and Grubbing	1	LS	\$20,000	\$20,000	5%	\$21,000	89%	\$18,591	11%	\$2,409
9	Project Funding Identification Signs	4	EA	\$3,000	\$12,000	5%	\$12,600	89%	\$11,155	11%	\$1,445
10	Fiber Rolls / Erosion Control Blanket	5000	LF	\$5	\$25,000	5%	\$26,250	89%	\$23,239	11%	\$3,011
Removal, Excavation, and Import Related Construction Items											
11	Demolish Existing AC pavement	16351	SF	\$0.30	\$4,905	5%	\$5,151	89%	\$4,560	11%	\$591
12	Cold Mill AC Pavement	78264	SF	\$3	\$195,660	5%	\$205,443	89%	\$181,879	11%	\$23,564
13	Remove Curb and Gutter	2723.7	LF	\$5	\$13,619	5%	\$14,299	89%	\$12,659	11%	\$1,640
14	Remove Sidewalk/driveways/ramps	11320	SF	\$1	\$11,320	5%	\$11,886	89%	\$10,523	11%	\$1,363
15	Remove Rail Ties	568	LF	\$70	\$39,760	5%	\$41,748	89%	\$36,960	11%	\$4,788
16	Remove Rail Platform	9800	cy	\$15	\$147,000	5%	\$154,350	89%	\$136,646	11%	\$17,704
17	Remove Trees	4	EA	\$500	\$2,000	5%	\$2,100	89%	\$1,859	11%	\$241
18	27" Roadway excavation	13214	SF	\$3	\$33,034	5%	\$34,686	89%	\$30,707	11%	\$3,978
19	Grading of Street Extension	1101	CY	\$12	\$13,212	5%	\$13,873	89%	\$12,281	11%	\$1,591
20	Fine Grading	13213.6	SF	\$3	\$39,641	5%	\$41,623	89%	\$36,849	11%	\$4,774
21	Sawcut Existing Pavement	1000.1	LF	\$5	\$5,001	5%	\$5,251	89%	\$4,648	11%	\$602
22	Remediation Oversight and Lab Verify	1	LS	\$10,000	\$10,000	5%	\$10,500	89%	\$9,296	11%	\$1,204
23	Testing and Hauling	370	CY	\$25	\$9,250	5%	\$9,713	89%	\$8,598	11%	\$1,114
24	Stockpile, Off Haul & Disposal	370	CY	\$10	\$3,700	5%	\$3,885	89%	\$3,439	11%	\$446
25	Import and Place Clean Fill	370	CY	\$50	\$18,500	5%	\$19,425	89%	\$17,197	11%	\$2,228
Roadway Paving Items											
26	5" AC	11097	SF	\$9	\$99,873	5%	\$104,867	89%	\$92,838	11%	\$12,028
27	22" AB (assume on-site re-use)	752	CY	\$25	\$18,793	5%	\$19,732	89%	\$17,469	11%	\$2,263
28	2" AC Overlay Existing Pavement	74011	SF	\$4	\$296,044	5%	\$310,846	89%	\$275,192	11%	\$35,654
29	Potholing	1	LS	\$50,000	\$50,000	5%	\$52,500	89%	\$46,478	11%	\$6,022
30	Subgrade Fabric	6670	SF	\$0.50	\$3,335	5%	\$3,502	89%	\$3,100	11%	\$402
Sidewalks, Bikeways, Concrete, Bike Racks, etc											
31	Curb and Gutter	2929	LF	\$30	\$87,870	5%	\$92,264	89%	\$81,681	11%	\$10,583
32	Decomposed Granite (class I bike path)	10167	SF	\$10	\$101,670	5%	\$106,754	89%	\$94,509	11%	\$12,245
33	Head Board (Class I bike Path)	533.6	LF	\$10	\$5,336	5%	\$5,603	89%	\$4,960	11%	\$643
34	Concrete Sidewalk	17482	SF	\$15	\$262,230	5%	\$275,342	89%	\$243,760	11%	\$31,582
35	18" RCP Storm Drain Pipe	1100	LF	\$175	\$192,500	5%	\$202,125	89%	\$178,941	11%	\$23,184
36	Storm Drain Catch Basins	10	EA	\$3,000	\$30,000	5%	\$31,500	89%	\$27,887	11%	\$3,613
37	Median 8" Curb	693	LF	\$35	\$24,255	5%	\$25,468	89%	\$22,547	11%	\$2,921
38	Concrete Bus Pad	100	CY	\$350	\$35,000	5%	\$36,750	89%	\$32,535	11%	\$4,215
39	Bus Shelters	2	EA	\$12,000	\$24,000	5%	\$25,200	89%	\$22,310	11%	\$2,890
40	AC pavement (Class I bike path)	2899	SF	\$15	\$43,485	5%	\$45,659	89%	\$40,422	11%	\$5,237
41	ADA Curb Ramps	21	EA	\$3,000	\$63,000	5%	\$66,150	89%	\$58,563	11%	\$7,587
42	Pedestrian Crosswalk Striping	210	LF	\$1	\$294	5%	\$309	89%	\$273	11%	\$35
43	Bike Crosswalk colored asphalt	2100	SF	\$8	\$16,800	5%	\$17,640	89%	\$15,617	11%	\$2,023
Striping and Pavement Marking Items											
44	Lane Striping	1	LS	\$40,000	\$40,000	5%	\$42,000	89%	\$37,183	11%	\$4,817
45	4" thermoplastic Traffic Stripe (Broken)	5655.5	LF	\$0.50	\$2,828	5%	\$2,969	89%	\$2,629	11%	\$341
46	Accessible Parking/Signage	6	EA	\$6,000	\$36,000	5%	\$37,800	89%	\$33,464	11%	\$4,336
Signs, Flashing Beacons, Ped Signals, Signal Upgrades											
47	Traffic Signal and Lighting Plan(major st)	2	EA	\$360,000	\$720,000	5%	\$756,000	89%	\$669,287	11%	\$86,713
48	Signal Timing Modification	1	LS	\$50,000	\$50,000	5%	\$52,500	89%	\$46,478	11%	\$6,022
49	Traffic Signage	8	EA	\$400	\$3,200	5%	\$3,360	89%	\$2,975	11%	\$385
50	Wayfinding/Ped Signage	4	EA	\$1,000	\$4,000	5%	\$4,200	89%	\$3,718	11%	\$482
Lighting											
51	Street Light Upgrades and New	1	LS	\$362,364	\$362,364	5%	\$380,482	89%	\$336,841	11%	\$43,641
52	Street Light	8	EA	\$2,500	\$20,000	5%	\$21,000	89%	\$18,591	11%	\$2,409
53	1" cable in 2" conduit for str lights	650	LF	\$15	\$9,750	5%	\$10,238	89%	\$9,063	11%	\$1,174
54	Undergrounding 12KVA overhead lines	1979	LF	\$200	\$395,800	5%	\$415,590	89%	\$367,922	11%	\$47,668

Detailed Engineer's Estimate and Total Project Costs

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Decorative & Landscaping-related Items

Item #	Description	Quantity	Unit	Unit Cost	Total Cost	%	Subtotal	%	Subtotal	%	Total
55	St. Tree/Tree Well	10	EA	\$4,000	\$40,000	5%	\$42,000	89%	\$37,183	11%	\$4,817
56	Decorative Paving/ brick/ stamping	1050	SF	\$9	\$9,450	5%	\$9,923	89%	\$8,784	11%	\$1,138
57	Planting Area/Irrigation	7708.6	SF	\$17	\$131,046	5%	\$137,599	89%	\$121,816	11%	\$15,783
58	Median Landscaping	916	SF	\$12	\$10,992	5%	\$11,542	89%	\$10,218	11%	\$1,324
59	Gateway Feature	1	EA	\$20,000	\$20,000	5%	\$21,000	89%	\$18,591	11%	\$2,409
60	Biofiltration Areas	15547	SF	\$17	\$264,299	5%	\$277,514	89%	\$245,683	11%	\$31,831
61	New EBMUD Water Meter	1	LS	\$40,000	\$40,000	5%	\$42,000	89%	\$37,183	11%	\$4,817
Subtotal of Construction Items:					\$4,710,814		\$235,541		\$4,946,355		\$567,347

\$218,930

Construction Item Contingencies (% of Construction Items): 30%	\$1,413,244	5%	\$1,483,907	\$1,313,702	\$170,204
Total (Construction Items & Contingencies) cost:	\$6,124,059		\$6,430,262	\$5,692,711	\$737,551

Project Delivery Costs:

Type of Project Cost	Cost \$	CIP 2018	Local Match
Preliminary Engineering (PE)			
Scoping, Survey, Environmental Studies and Permits(PA&ED) 9% :	\$ 551,165	\$487,947	\$63,219
Plans, Specifications and Estimates (PS&E) 8%:	\$ 489,925	\$433,730	\$56,194
Total PE:	\$ 1,041,090	\$921,677	\$119,413
Right of Way (RW)			
Right of Way Engineering:	\$ -		
Acquisitions and Utilities:	\$ 1,240,000	\$1,097,772	\$142,228
Total RW:	\$ 1,240,000	\$1,097,772	\$142,228
Construction Engineering (CE)			
Construction Engineering (CE) 12%:	\$ 771,631	\$683,125	\$88,506
Total Project Delivery:	\$3,052,721	\$2,702,574	\$350,147
Total Construction Costs:	\$7,201,893		
Total Project Cost:	\$9,482,983	\$8,395,285	\$1,087,698