

Geotechnical Engineering Services, AKA Cost Estimate October 18, 2018
Oxford Elementary School - Full Geotechnical Study

PERSONNEL		LABOR								Direct Costs (by Subtask)	Task Totals
		Principal Engineer	Associate Engineer	Principal Geologist	Senior Engineer	Project Geologist	Staff Engineer	GIS/Graphics	Word/Data Processing		
Classification											
Labor Rate		\$230	\$210	\$190	\$195	\$145	\$125	\$120	\$85	(by Subtask)	
PHASE 1 - Geotechnical Landslide Investigation											
1.0 - Background, Site Recon and Field Explorations											
1.1	Geologic Background Review	6		8	2					\$3,290	\$3,290
1.2	Site Reconnaissance and USA			10	2		2			\$2,540	\$2,540
1.3	Coordination, Utility Clearances, Drilling Permit	6			8		4			\$3,440	\$6,787
1.4	Onsite Drilling Exploration (8 borings to 150-feet)			10	10	80				\$15,450	\$48,250
1.5	Onsite Large-Diameter Drilling Exploration (3 shafts to 50-feet + downhole logging)	4		12	10	8				\$6,310	\$28,160
1.6	Spoils Off-Haul				4					\$780	\$4,530
1.7	Geophysical	2			4					\$1,240	\$6,530
1.8	Laboratory Testing	2			6					\$1,630	\$16,630
Task 1.0 Totals :		20	0	40	46	88	6	0	0	\$34,680	\$116,717
2.0 - Analyses, Engineering, Report											
2.1	Coordinate with BUSD/CGS/DSA and Analysis Team	24		24	24					\$14,760	\$14,760
2.2	Analyze and Interpret Data	8			10					\$3,790	\$3,790
2.3	Geo-Hazard Evaluation	6			6					\$2,550	\$2,550
2.4	Site Specific PSHA	1			1					\$425	\$12,500
2.5	Prepare Cross-Sections	2		4	2	8		4		\$3,250	\$3,250
2.6	CEG Review	1		6						\$1,370	\$1,370
2.7	Finite Element / LS Analysis	6			8		6			\$3,690	\$43,690
2.8	Site Plan and Plates/Figures	4			4			8		\$2,660	\$2,660
2.9	Note 48 Checklist	2		2	6					\$2,010	\$2,010
2.10	Draft Report	8		8	16	4		6	4	\$8,120	\$8,120
Task 2.0 Totals :		62	0	44	77	12	6	18	4	\$27,865	\$79,940
Total Labor Hours:		82	0	84	123	100	12	18	4		
Total Labor Fee		\$18,860	\$0	\$15,960	\$23,985	\$14,500	\$1,500	\$2,160	\$340	\$62,545	\$196,657

DIRECT COSTS (include 15% m/u)		Unit Cost	Qty	Total	Task
Utility Locator	ea	\$1,380	1	\$1,380	1.3
City of Berkeley Permit	ea	\$1,967	1	\$1,967	1.3
Drilling Contractor (Britton)	ea	\$32,800	1	\$32,800	1.4
Drilling Contractor (Tri-Valley)	ea	\$21,850	1	\$21,850	1.5
*Spoils Off-Haul and Site Clean-up	cy	\$150	25	\$3,750	1.6
Geophysical (Suspension Logging/Norcal)	ea	\$5,290	1	\$5,290	1.7
*Lab Testing	ea	\$15,000	1	\$15,000	1.8
PSHA (Pacific Engineering / LCI)	ea	\$12,075	1	\$12,075	2.4
*Dr. Bray (UCB) Landslide Characterization and Finite Element Analysis	ea	\$40,000	1	\$40,000	2.7
* estimated cost - dependent upon exploration results		Total Direct Costs:		\$134,112	