

31 22 Grading

31 22 16 – Fine Grading

31 22 16.10 Finish Grading		Crew	Daily Output	Labor-Hours	Unit	Material	2022 Bare Costs		Total	Total Incl O&P
							Labor	Equipment		
0010	FINISH GRADING									
0012	Finish grading area to be paved with grader, small area	B-11L	400	.040	S.Y.		2.12	1.93	4.05	5.30
0100	Large area		2000	.008			.42	.39	.81	1.05
1100	Fine grade for slab on grade, machine		1040	.015			.82	.74	1.56	2.02
1150	Hand grading	B-18	700	.034			1.59	.20	1.79	2.58
3500	Finish grading lagoon bottoms	B-11L	4	4	M.S.F.		212	193	405	525

31 23 Excavation and Fill

31 23 16 – Excavation

31 23 16.13 Excavating, Trench

0010	EXCAVATING, TRENCH									
0011	Or continuous footing									
0020	Common earth with no sheeting or dewatering included									
0050	1' to 4' deep, 3/8 C.Y. excavator	B-11C	150	.107	B.C.Y.		5.65	2.19	7.84	10.80
0060	1/2 C.Y. excavator	B-11M	200	.080			4.24	2.01	6.25	8.50
0090	4' to 6' deep, 1/2 C.Y. excavator	"	200	.080			4.24	2.01	6.25	8.50
0100	5/8 C.Y. excavator	B-12Q	250	.064			3.49	2.92	6.41	8.40
0110	3/4 C.Y. excavator	B-12F	300	.053			2.91	2.91	5.82	7.55
0300	1/2 C.Y. excavator, truck mounted	B-12J	200	.080	B.C.Y.		4.36	4.29	8.65	11.20
0500	6' to 10' deep, 3/4 C.Y. excavator	B-12F	225	.071			3.88	3.88	7.76	10
0510	1 C.Y. excavator	B-12A	400	.040			2.18	2.28	4.46	5.75
0600	1 C.Y. excavator, truck mounted	B-12K	400	.040			2.18	3.72	5.90	7.35
0610	1-1/2 C.Y. excavator	B-12B	600	.027			1.45	1.65	3.10	3.97
0900	10' to 14' deep, 3/4 C.Y. excavator	B-12F	200	.080			4.36	4.37	8.73	11.30
0910	1 C.Y. excavator	B-12A	360	.044			2.42	2.53	4.95	6.40
1000	1-1/2 C.Y. excavator	B-12B	540	.030			1.61	1.83	3.44	4.41
1300	14' to 20' deep, 1 C.Y. excavator	B-12A	320	.050			2.73	2.85	5.58	7.20
1310	1-1/2 C.Y. excavator	B-12B	480	.033			1.82	2.06	3.88	4.97
1320	2-1/2 C.Y. excavator	B-12S	765	.021			1.14	1.75	2.89	3.63
1340	20' to 24' deep, 1 C.Y. excavator	B-12A	288	.056			3.03	3.17	6.20	8
1342	1-1/2 C.Y. excavator	B-12B	432	.037			2.02	2.29	4.31	5.50
1344	2-1/2 C.Y. excavator	B-12S	685	.023			1.27	1.96	3.23	4.05
1352	4' to 6' deep, 1/2 C.Y. excavator w/trench box	B-13H	188	.085			4.64	5.20	9.84	12.65
1354	5/8 C.Y. excavator	"	235	.068			3.71	4.17	7.88	10.10
1356	3/4 C.Y. excavator	B-13G	282	.057			3.09	3.54	6.63	8.50
1362	6' to 10' deep, 3/4 C.Y. excavator w/trench box	"	212	.075			4.11	4.70	8.81	11.30
1370	1 C.Y. excavator	B-13D	376	.043			2.32	2.75	5.07	6.50
1371	1-1/2 C.Y. excavator	B-13E	564	.028			1.55	1.97	3.52	4.47
1374	10' to 14' deep, 3/4 C.Y. excavator w/trench box	B-13G	188	.085			4.64	5.30	9.94	12.75
1375	1 C.Y. excavator	B-13D	338	.047			2.58	3.06	5.64	7.20
1376	1-1/2 C.Y. excavator	B-13E	508	.032			1.72	2.19	3.91	4.97
1381	14' to 20' deep, 1 C.Y. excavator w/trench box	B-13D	301	.053			2.90	3.44	6.34	8.10
1382	1-1/2 C.Y. excavator	B-13E	451	.035			1.93	2.47	4.40	5.60
1383	2-1/2 C.Y. excavator	B-13J	720	.022			1.21	2.03	3.24	4.04
1386	20' to 24' deep, 1 C.Y. excavator w/trench box	B-13D	271	.059			3.22	3.82	7.04	9
1387	1-1/2 C.Y. excavator	B-13E	406	.039			2.15	2.74	4.89	6.20
1388	2-1/2 C.Y. excavator	B-13J	645	.025			1.35	2.27	3.62	4.51
1391	Shoring by S.F./day trench wall protected loose mat, 4' W	B-6	3200	.008	SF Wall	.90	.37	.10	1.37	1.65
1392	Rent shoring per week per S.F. wall protected, loose mat, 4' W					2.50			2.50	2.75
1395	Hydraulic shoring, S.F. trench wall protected stable mat, 4' W	2 Clab	2700	.006		.23	.27		.50	.66