

31 41 Shoring

31 41 13 – Timber Shoring

31 41 13.10 Building Shoring		Crew	Daily Output	Labor-Hours	Unit	Material	2022 Bare Costs Labor	Equipment	Total	Total Incl O&P
0010	BUILDING SHORING									
0020	Shoring, existing building, with timber, no salvage allowance	B-51	2.20	21.818	M.B.F.	1,375	1,025	154	2,554	3,200
1000	On cribbing with 35 ton screw jacks, per box and jack	"	3.60	13.333	Ea.	64.50	625	94.50	784	1,100
1100	Masonry openings in walls, see Section 02 41 19.16									

31 41 16 – Sheet Piling

31 41 16.10 Sheet Piling Systems

0010	SHEET PILING SYSTEMS									
0020	Sheet piling, 50,000 psi steel, not incl. wales, 22 psf, left in place	B-40	10.81	5.920	Ton	1,825	350	335	2,510	2,900
0100	Drive, extract & salvage	R314116-40	6	10.667		510	630	605	1,745	2,200
0300	20' deep excavation, 27 psf, left in place		12.95	4.942		1,825	293	280	2,398	2,750
0400	Drive, extract & salvage	R314116-45	6.55	9.771		510	580	555	1,645	2,050
0600	25' deep excavation, 38 psf, left in place		19	3.368		1,825	200	191	2,216	2,525
0700	Drive, extract & salvage		10.50	6.095		510	360	345	1,215	1,500
0900	40' deep excavation, 38 psf, left in place		21.20	3.019		1,825	179	171	2,175	2,450
1000	Drive, extract & salvage		12.25	5.224		510	310	296	1,116	1,350
1200	15' deep excavation, 22 psf, left in place		983	.065	S.F.	21	3.86	3.69	28.55	33.50
1300	Drive, extract & salvage	B-40	545	.117	S.F.	5.70	6.95	6.65	19.30	24
1500	20' deep excavation, 27 psf, left in place		960	.067		26.50	3.95	3.78	34.23	39.50
1600	Drive, extract & salvage		485	.132		7.40	7.80	7.50	22.70	28.50
1800	25' deep excavation, 38 psf, left in place		1000	.064		39	3.79	3.63	46.42	53
1900	Drive, extract & salvage		553	.116		10.15	6.85	6.55	23.55	29
2100	Rent steel sheet piling and wales, first month				Ton	320			320	350
2200	Per added month					32			32	35
2300	Rental piling left in place, add to rental					1,175			1,175	1,300
2500	Wales, connections & struts, 2/3 salvage					510			510	560
2700	High strength piling, 60,000 psi, add					182			182	201
2800	65,000 psi, add					273			273	300
3000	Tie rod, not upset, 1-1/2" to 4" diameter with turnbuckle					2,275			2,275	2,500
3100	No turnbuckle					1,625			1,625	1,775
3300	Upset, 1-3/4" to 4" diameter with turnbuckle					2,400			2,400	2,650
3400	No turnbuckle					2,025			2,025	2,250
3600	Lightweight, 18" to 28" wide, 7 ga., 9.22 psf, and									
3610	9 ga., 8.6 psf, minimum				Lb.	.69			.69	.76
3700	Average					.88			.88	.97
3750	Maximum					.97			.97	1.07
3900	Wood, solid sheeting, incl. wales, braces and spacers,	R314116-40								
3910	drive, extract & salvage, 8' deep excavation	B-31	330	.121	S.F.	2.95	5.85	.80	9.60	12.85
4000	10' deep, 50 S.F./hr. in & 150 S.F./hr. out		300	.133		3.03	6.40	.88	10.31	13.85
4100	12' deep, 45 S.F./hr. in & 135 S.F./hr. out		270	.148		3.12	7.15	.98	11.25	15.10
4200	14' deep, 42 S.F./hr. in & 126 S.F./hr. out		250	.160		3.22	7.70	1.06	11.98	16.15
4300	16' deep, 40 S.F./hr. in & 120 S.F./hr. out		240	.167		3.32	8	1.10	12.42	16.80
4400	18' deep, 38 S.F./hr. in & 114 S.F./hr. out		230	.174		3.43	8.35	1.15	12.93	17.50
4500	20' deep, 35 S.F./hr. in & 105 S.F./hr. out		210	.190		3.54	9.15	1.26	13.95	18.90
4520	Left in place, 8' deep, 55 S.F./hr.		440	.091		5.30	4.38	.60	10.28	13
4540	10' deep, 50 S.F./hr.		400	.100		5.60	4.81	.66	11.07	14.05
4560	12' deep, 45 S.F./hr.		360	.111		5.90	5.35	.73	11.98	15.25
4565	14' deep, 42 S.F./hr.		335	.119		6.25	5.75	.79	12.79	16.25
4570	16' deep, 40 S.F./hr.		320	.125		6.65	6	.83	13.48	17.15
4580	18' deep, 38 S.F./hr.		305	.131		7.10	6.30	.87	14.27	18.15
4590	20' deep, 35 S.F./hr.		280	.143		7.60	6.90	.94	15.44	19.65
4700	Alternate pricing, left in place, 8' deep		1.76	22.727	M.B.F.	1,200	1,100	150	2,450	3,100
4800	Drive, extract and salvage, 8' deep	B-31	1.32	30.303	M.B.F.	1,050	1,450	200	2,700	3,575