

EARTH RETENTION SYSTEM PILE AND TIEBACK SCHEDULES US ROUTE 5

SOLDIER PILE SCHEDULES

Pile Number	Wall Station	Top of Wall Elevation	Bottom of Wall Elevation	Final Embedment Depth (ft.)	Pile Tip Elevation	Tieback Elevations				Length of Pile	Double Soldier Pile Size
						Tier 1 Elevation	Tier 2 Elevation	Tier 3 Elevation	Tier 4 Elevation		
101	30+26	425.5	421.6	10.0	401.6	419.5			24.0	W14x109	
102	30+32	426.5	422.2	10.0	402.2	420.5			24.3	W14x109	
103	30+38	427.5	423.0	10.0	403.0	421.5			24.5	W14x109	
104	30+44	428.5	423.5	10.0	403.5	422.5			25.0	W14x109	
106	30+50	429.5	424.2	10.0	404.2	423.5			25.3	W14x109	
108	30+56	430.9	424.9	10.0	404.9	424.9			26.0	W14x109	
107	30+62	432.2	425.5	10.0	405.5	426.2			26.7	W14x109	
109	30+68	433.8	426.2	10.0	406.2	427.6			27.4	W14x109	
109	30+74	435.0	426.8	10.0	406.8	429.0			28.1	W14x109	
201	30+80	436.3	427.5	12.0	405.5	430.3			30.8	W14x109	
202	30+86	437.7	428.2	12.0	406.2	431.7			31.5	W14x109	
203	30+92	439.1	428.8	12.0	406.8	433.1			32.2	W14x109	
204	30+98	440.4	429.5	12.0	407.5	434.4			32.9	W14x109	
205	31+04	442.5	430.1	12.0	408.1	436.5			34.3	W14x109	
206	31+10	444.9	430.8	12.0	408.8	438.9			36.1	W14x109	
207	31+16	447.3	431.5	12.0	409.5	441.3			37.8	W14x109	
208	31+22	449.7	432.1	12.0	410.1	443.7			39.6	W14x109	
209	31+28	452.1	432.8	12.0	410.8	446.1			41.3	W14x109	
301	31+34	454.5	433.4	15.0	408.4	448.5	438.5	428.5	46.1	W14x109	
302	31+40	456.9	434.1	15.0	409.1	450.9	440.9	430.9	47.8	W14x109	
303	31+46	459.3	434.8	15.0	409.8	453.3	443.3	433.3	49.6	W14x109	
304	31+52	461.3	435.4	15.0	410.4	455.3	445.3	435.3	50.9	W14x109	
305	31+58	462.4	436.1	15.0	411.1	456.4	446.4	436.4	51.3	W14x109	
306	31+64	463.5	436.7	15.0	411.7	457.5	447.5	437.5	51.8	W14x109	
307	31+70	464.6	437.4	15.0	412.4	458.6	448.6	438.6	52.2	W14x109	
308	31+76	465.8	438.1	15.0	413.1	459.8	449.8	439.8	52.7	W14x109	
309	31+82	466.9	438.7	15.0	413.7	460.9	450.9	440.9	53.2	W14x109	
310	31+88	468.1	439.4	15.0	414.4	462.1	452.1	442.1	53.7	W14x109	
401	31+94	469.2	440.0	27.0	403.0	463.2	453.2	443.2	66.2	W14x109	
402	32+00	470.3	440.7	27.0	403.7	464.3	454.3	444.3	66.6	W14x109	
403	32+06	471.7	441.4	27.0	404.4	465.7	455.7	445.7	67.3	W14x109	
404	32+12	473.0	442.0	27.0	405.0	467.0	457.0	447.0	68.0	W14x109	
405	32+18	474.4	442.7	27.0	405.7	468.4	458.4	448.4	68.7	W14x109	
406	32+24	475.7	443.3	27.0	406.3	469.7	459.7	449.7	69.4	W14x109	
407	32+30	477.0	444.0	27.0	407.0	471.0	461.0	451.0	70.0	W14x109	
408	32+36	478.4	444.7	27.0	407.7	472.4	462.4	452.4	70.7	W14x109	
409	32+42	479.7	445.3	27.0	408.3	473.7	463.7	453.7	71.4	W14x109	
410	32+48	481.0	446.0	27.0	409.0	475.0	465.0	455.0	72.1	W14x109	
411	32+54	481.6	446.6	27.0	409.6	475.6	465.6	455.6	72.0	W14x109	
412	32+60	481.8	447.3	27.0	410.3	476.8	466.8	456.8	71.5	W14x109	
413	32+66	482.0	448.0	27.0	411.0	478.0	468.0	458.0	71.0	W14x109	
414	32+72	482.2	448.6	27.0	411.6	478.2	468.2	458.2	70.6	W14x109	
415	32+78	482.4	449.3	27.0	412.3	479.4	469.4	459.4	70.1	W14x109	
416	32+84	482.6	449.9	27.0	412.9	479.6	469.6	459.6	69.6	W14x109	
417	32+90	482.8	450.6	27.0	413.6	479.8	469.8	459.8	69.2	W14x109	
418	32+96	483.0	451.3	27.0	414.3	479.9	469.9	459.9	68.7	W14x109	
419	33+02	483.1	451.9	27.0	414.9	479.7	469.7	459.7	68.2	W14x109	
420	33+08	483.3	452.6	27.0	415.6	479.3	469.3	459.3	67.7	W14x109	
421	33+14	483.4	453.2	27.0	416.2	479.4	469.4	459.4	67.2	W14x109	
422	33+20	483.6	453.9	27.0	416.9	479.6	469.6	459.6	66.7	W14x109	
423	33+26	483.8	454.6	27.0	417.6	479.8	469.8	459.8	66.2	W14x109	
424	33+32	483.9	455.2	27.0	418.2	479.9	469.9	459.9	65.7	W14x109	
501	33+38	484.1	455.9	15.0	430.9	478.1	468.1	458.1	53.2	W14x109	
502	33+44	484.2	456.5	15.0	431.5	478.2	468.2	458.2	52.7	W14x109	
503	33+50	484.4	457.2	15.0	432.2	478.4	468.4	458.4	52.2	W14x109	
504	33+56	484.4	457.9	15.0	432.9	478.4	468.4	458.4	51.6	W14x109	
505	33+62	484.4	458.5	15.0	433.5	478.4	468.4	458.4	50.9	W14x109	
506	33+68	484.5	459.2	15.0	434.2	478.5	468.5	458.5	50.3	W14x109	
507	33+74	484.5	459.8	15.0	434.8	478.5	468.5	458.5	49.7	W14x109	

TIEBACK SCHEDULE

Pile Designations	Tieback Row Level	Number of Strands	Depth below Top of Wall Face (ft.)	Down Angle (deg.)	Axial Load (kips)	Tieback Load (kips)	Lock-Off Load (kips)	Minimum Unbonded Length (ft.)	Minimum Bonded Length (ft.)	Total Length (ft.)
101-109	1	2	6	15	34.4	45.8	27.5	14	8	22
201-209	1	2	6	15	41.1	55.6	37.2	19	15	34
301-310	1	3	6	15	66.4	91.0	54.7	17	16	32
401-424	1	3	6	15	90.3	120.1	72.2	17	20	37
501-516	1	3	6	15	114.5	152.7	101.8	17	21	38
601-618	1	2	6	15	107.5	143.0	94.0	17	21	38
701-709	1	2	6	15	34.4	45.8	27.5	14	8	22
710	1	2	6	22	34.4	45.8	27.5	14	8	22
711	1	2	6	30	34.4	45.8	27.5	14	8	22
712	1	2	6	37	34.4	45.8	27.5	14	8	22
713	1	2	6	45	34.4	45.8	27.5	14	8	22
714-719	1	2	6	15	34.4	45.8	27.5	14	8	22

Pile Number	Wall Station	Top of Wall Elevation	Bottom of Wall Elevation	Final Embedment Depth (ft.)	Pile Tip Elevation	Tieback Elevations				Length of Pile	Double Soldier Pile Size
						Tier 1 Elevation	Tier 2 Elevation	Tier 3 Elevation	Tier 4 Elevation		
508	33+80	484.5	480.5	15.0	435.5	478.5	468.5	458.5	48.0	W14x109	
509	33+86	484.6	481.2	15.0	436.2	478.6	468.6	458.6	48.4	W14x109	
510	33+92	484.6	481.8	15.0	436.8	478.6	468.6	458.6	47.8	W14x109	
511	33+98	484.6	482.5	15.0	437.5	478.6	468.6	458.6	47.2	W14x109	
512	34+04	484.7	483.1	15.0	438.1	478.7	468.7	458.7	46.6	W14x109	
513	34+10	484.8	483.8	15.0	438.8	478.8	468.8	458.8	46.0	W14x109	
514	34+16	484.8	484.5	15.0	439.5	478.8	468.8	458.8	45.4	W14x109	
515	34+22	484.9	485.1	15.0	440.1	478.9	468.9	458.9	44.8	W14x109	
516	34+28	484.9	485.8	15.0	440.8	478.9	468.9	458.9	44.2	W14x109	
601	34+34	485.0	486.4	12.0	444.4	479.0	469.0	459.0	40.8	W14x109	
602	34+40	485.1	487.1	12.0	445.1	479.1	469.1	459.1	40.0	W14x109	
603	34+46	485.1	487.8	12.0	445.8	479.1	469.1	459.1	39.4	W14x109	
604	34+52	485.2	488.4	12.0	446.4	479.2	469.2	459.2	38.8	W14x109	
605	34+58	485.2	489.1	12.0	447.1	479.2	469.2	459.2	38.2	W14x109	
606	34+64	485.3	489.7	12.0	447.7	479.3	469.3	459.3	37.6	W14x109	
607	34+70	485.4	490.4	12.0	448.4	479.4	469.4	459.4	37.0	W14x109	
608	34+76	485.4	491.0	12.0	449.0	479.4	469.4	459.4	36.4	W14x109	
609	34+82	485.5	491.6	12.0	449.6	479.5	469.5	459.5	35.8	W14x109	
610	34+88	485.6	492.3	12.0	450.3	479.6	469.6	459.6	35.3	W14x109	
611	34+94	485.6	492.9	12.0	450.9	479.6	469.6	459.6	34.7	W14x109	
612	35+00	485.7	493.6	12.0	451.6	479.7	469.7	459.7	34.1	W14x109	
613	35+06	485.7	494.2	12.0	452.2	479.7	469.7	459.7	33.6	W14x109	
614	35+12	485.8	494.7	12.0	452.7	479.8	469.8	459.8	33.1	W14x109	
615	35+18	485.8	495.3	12.0	453.3	479.8	469.8	459.8	32.5	W14x109	

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						Tier 1 Elevation	Tier 2 Elevation	Tier 3 Elevation	Tier 4 Elevation		
616	35+24	485.9	475.9	12.0	455.9	478.9	468.9	458.9	32.0	W14x109	
617	35+30	486.0	476.5	12.0	456.5	479.0	469.0	459.0	31.5	W14x109	
618	35+36	486.0	477.0	12.0	457.0	479.0	469.0	459.0	31.0	W14x109	
701	35+42	486.1	477.6	10.0	457.6	480.1	470.1	460.1	28.5	W14x109	
702	35+48	486.1	478.2	10.0	458.2	480.1	470.1	460.1	28.0	W14x109	
703	35+54	486.3	478.5	10.0	458.5	480.3	470.3	460.3	27.8	W14x109	
704	35+60	486.6	478.8	10.0	458.8	480.6	470.6	460.6	27.8	W14x109	
705	35+66	486.8	479.0	10.0	459.0	480.8	470.8	460.8	27.8	W14x109	
706	35+72	487.1	479.3	10.0	459.3	481.1	471.1	461.1	27.8	W14x109	
707	35+78	4									