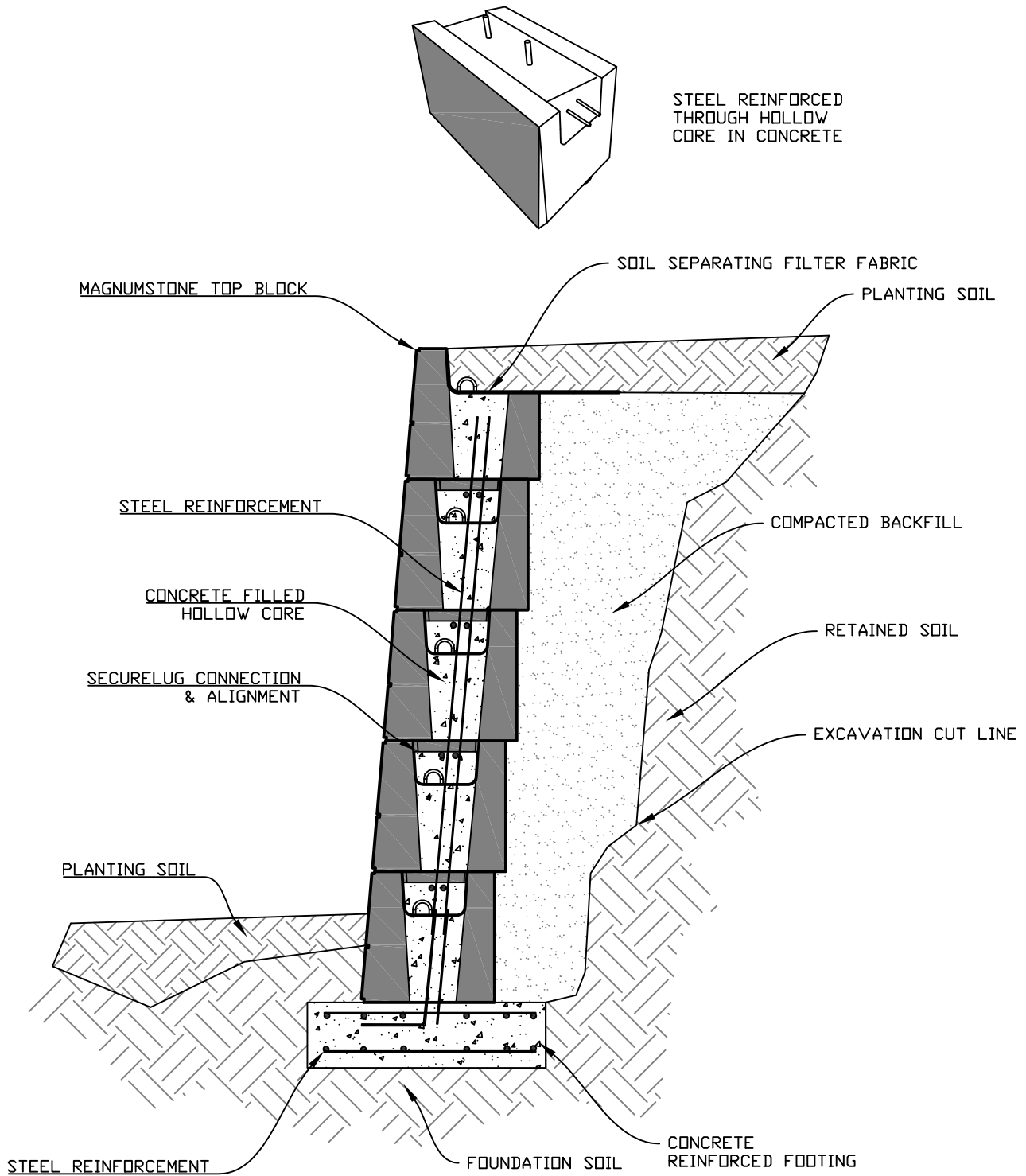


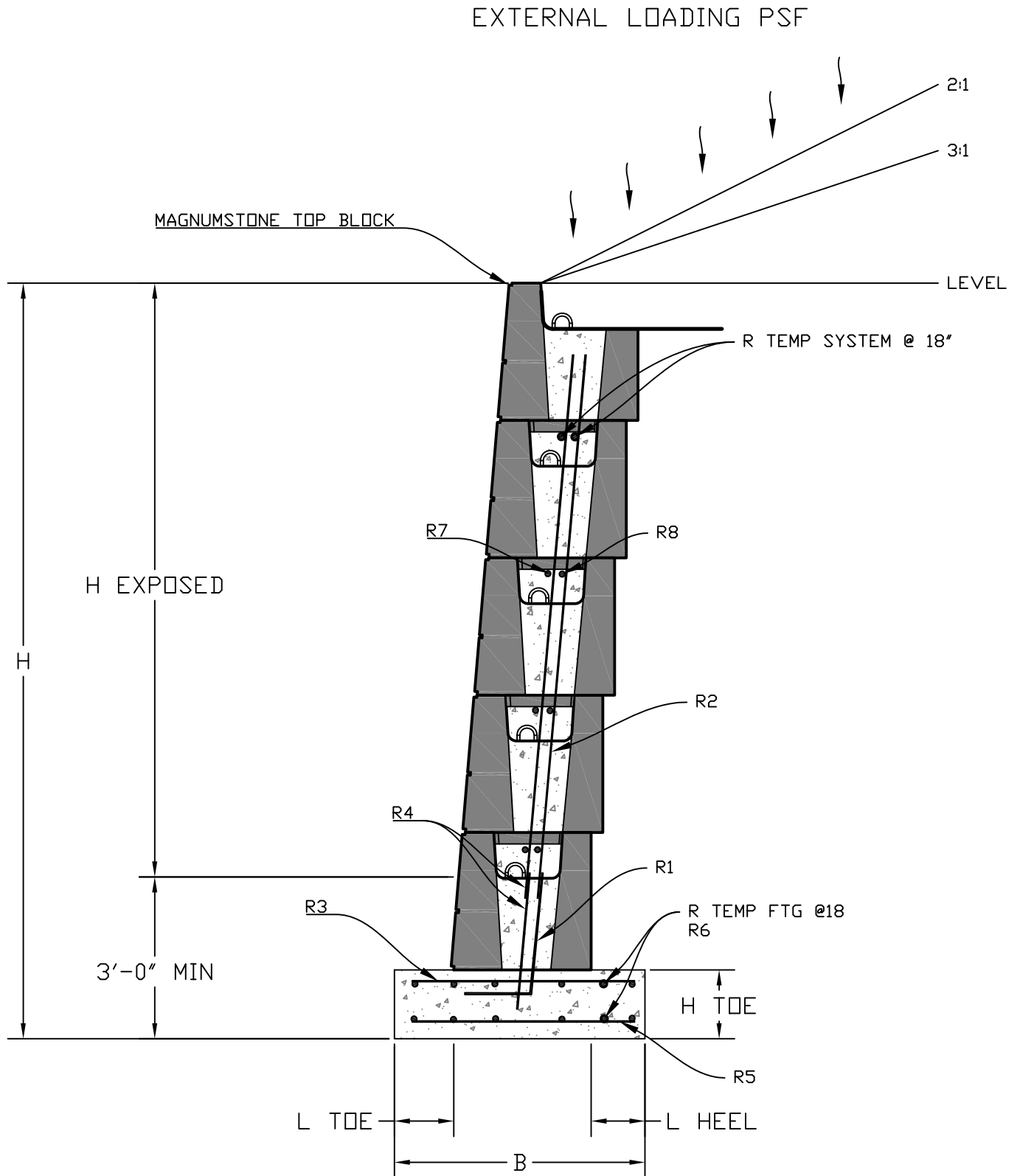
# MagnumStone

## >>> STEEL/CONCRETE WALL



# MagnumStone

## >>> STEEL/CONCRETE WALL



## MAGNUM STONE REINFORCED WALL SECTIONS

Estimate worksheet.

### NO SLOPE, NO SURCHARGE ABOVE

H total	h exposed	Slope above	Loading	Bearing Pressure (max - KSF)	B	L toe	L heal	h toe	R1	R2	R3	R4	R5	R6	R7	R8
11	8.00	level	none	2.28	5.83	1.50	2.50	1.00	Use #6 @ 12" back	Use #6 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
13	10.00	level	none	2.67	6.83	1.75	3.25	1.00	Use #6 @ 12" back	Use #6 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
15	12.00	level	none	2.82	8.08	2.25	4.00	1.00	Use #7 @ 12" back	Use #6 @ 12" splice	Use #7 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
17	14.00	level	none	3.33	9.08	2.25	5.00	1.33	Use #8 @ 12" back	Use #7 @ 12" splice	Use #7 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
19	16.00	level	none	3.61	10.33	2.50	6.00	1.50	Use 2#7 @ 12" back or #10	Use #8 @ 12" splice	Use #9 @ 12" Top foot or 2#6	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
21	18.00	level	none	3.86	11.33	3.00	6.50	1.75	Use 2#7 @ 12" back or #11	Use #8 @ 12" splice	Use #9 @ 12" Top foot or 2#7	Use #5 @ 12" front	Use #5 @ 12	Use #6@18" temp foot T&B	Use #5@24" front	Use #4@24" back
23	20.00	level	none	4.01	12.58	3.50	7.25	2.00	Use 2#9 @ 12" back	Use #9 @ 12" splice	Use #10 @ 12" Top foot or 2#7	Use #5 @ 12" front	Use #5 @ 12	Use #6@18" temp foot T&B	Use #5@24" front	Use #4@24" back

### 2:1 SLOPE, NO SURCHARGE ABOVE

H total	h exposed	Slope above	Loading	Bearing Pressure (max - KSF)	B	L toe	L heal	h toe	R1	R2	R3	R4	R5	R6	R7	R8
11	8.00	2:1	none	2.25	6.83	2.00	3.00	1.00	Use #6 @ 12" back	Use #6 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
13	10.00	2:1	none	2.61	7.83	2.50	3.50	1.00	Use #7 @ 12" back	Use #7 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
15	12.00	2:1	none	2.91	9.08	3.00	4.25	1.00	Use #8 @ 12" back	Use #7 @ 12" splice	Use #7 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
17	14.00	2:1	none	3.86	9.83	2.75	5.25	1.25	Use #10 @ 12" back or 2#7	Use #7 @ 12" splice	Use #8 @ 12" Top foot or 2#6	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
19	16.00	2:1	none	3.91	11.33	3.50	6.00	1.50	Use 2#9 @ 12" back	Use #8 @ 12" splice	Use #9 @ 12" Top foot or 2#6	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
21	18.00	2:1	none	4.64	12.33	3.50	7.00	1.83	Use 3#8 @ 12" back or #14	Use #10 @ 12" splice	Use #10 @ 12" Top foot or 2#7	Use #5 @ 12" front	Use #5 @ 12	Use #6@18" temp foot T&B	Use #6@24" front	Use #4@24" back
23	20.00	2:1	none	4.78	14.33	4.00	8.50	2.40	Use 3#9 @ 12" back or 2 # 11	Use #11 @ 12" splice	Use #10 @ 12" Top foot	Use #6 @ 12" front	Use #6 @ 12	Use #6@18" temp foot T&B	Use #6@24" front	Use #4@24" back

### 3:1 SLOPE, NO SURCHARGE ABOVE

H total	h exposed	Slope above	Loading	Bearing Pressure (max - KSF)	B	L toe	L heal	h toe	R1	R2	R3	R4	R5	R6	R7	R8
11	8.00	3:1	none	2.40	6.08	1.75	2.50	1.00	Use #6 @ 12" back	Use #6 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
13	10.00	3:1	none	2.89	7.08	2.00	3.25	1.00	Use #7 @ 12" back	Use #7 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
15	12.00	3:1	none	3.13	8.33	2.50	4.00	1.00	Use #8 @ 12" back	Use #7 @ 12" splice	Use #7 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
17	14.00	3:1	none	3.54	9.58	2.75	5.00	1.25	Use #9 @ 12" back	Use #7 @ 12" splice	Use #8 @ 12" Top foot or 2#6	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
19	16.00	3:1	none	3.95	10.83	3.00	6.00	1.50	Use 2#8 @ 12" back or #11	Use #8 @ 12" splice	Use #9 @ 12" Top foot or 2#6	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
21	18.00	3:1	none	4.44	11.83	3.25	6.75	1.83	Use 2#9 @ 12" back	Use #9 @ 12" splice	Use #9 @ 12" Top foot or 2#7	Use #5 @ 12" front	Use #5 @ 12	Use #6@18" temp foot T&B	Use #6@24" front	Use #4@24" back
23	20.00	3:1	none	4.85	13.08	3.50	7.75	2.25	Use 3#9 @ 12" back or 2 # 10	Use 2#8 @ 12" splice or #11	Use 2#8 @ 12" Top foot or #10	Use #6 @ 12" front	Use #6 @ 12	Use #6@18" temp foot T&B	Use #6@24" front	Use #4@24" back

### NO SLOPE, 100 PSF SURCHARGE ABOVE

H total	h exposed	Slope above	Loading	Bearing Pressure (max - KSF)	B	L toe	L heal	h toe	R1	R2	R3	R4	R5	R6	R7	R8
11	8.00	level	100 psf	2.42	6.08	1.75	2.50	1.00	Use #6 @ 12" back	Use #6 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
13	10.00	level	100 psf	2.80	7.08	2.00	3.25	1.00	Use #7 @ 12" back	Use #7 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
15	12.00	level	100 psf	2.94	8.33	2.50	4.00	1.10	Use #7 @ 12" back	Use #7 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
17	14.00	level	100 psf	3.21	9.58	2.75	5.00	1.25	Use #9 @ 12" back	Use #7 @ 12" splice	Use #8 @ 12" Top foot or 2#6	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
19	16.00	level	100 psf	3.49	10.83	3.00	6.00	1.50	Use #10 @ 12" back or 2#7	Use #8 @ 12" splice	Use #9 @ 12" Top foot or 2#6	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
21	18.00	level	100 psf	3.86	11.83	3.25	6.75	1.83	Use 2#8 @ 12" back or #11	Use #8 @ 12" splice	Use #9 @ 12" Top foot or 2#7	Use #5 @ 12" front	Use #5 @ 12	Use #6@18" temp foot T&B	Use #6@24" front	Use #4@24" back
23	20.00	level	100 psf	4.57	12.33	3.25	7.25	2.25	Use 2#9 @ 12" back	Use #10 @ 12" splice or 2#7	Use #9 @ 12" Top foot	Use #6 @ 12" front	Use #6 @ 12	Use #6@18" temp foot T&B	Use #6@24" front	Use #4@24" back

### NO SLOPE, 250 PSF SURCHARGE ABOVE

H total	h exposed	Slope above	Loading	Bearing Pressure (max - KSF)	B	L toe	L heal	h toe	R1	R2	R3	R4	R5	R6	R7	R8
11	8.00	level	250 psf	2.56	6.83	2.00	3.00	1.00	Use #6 @ 12" back	Use #6 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
13	10.00	level	250 psf	2.93	7.83	2.25	3.75	1.00	Use #7 @ 12" back	Use #7 @ 12" splice	Use #6 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
15	12.00	level	250 psf	3.30	8.83	2.50	4.50	1.10	Use #8 @ 12" back	Use #7 @ 12" splice	Use #7 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #4@18" temp foot T&B	Use #5@24" front	Use #4@24" back
17	14.00	level	250 psf	3.68	9.83	2.75	5.25	1.25	Use #10 @ 12" back or 2#7	Use #7 @ 12" splice	Use #8 @ 12" Top foot or 2#6	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
19	16.00	level	250 psf	3.94	11.08	3.00	6.25	1.50	Use 2#8 @ 12" back or #11	Use #8 @ 12" splice	Use #9 @ 12" Top foot	Use #5 @ 12" front	Use #5 @ 12	Use #5@18" temp foot T&B	Use #5@24" front	Use #4@24" back
21	18.00	level	250 psf	4.32	12.08	3.25	7.00	1.90	Use 2#9 @ 12" back	Use #9 @ 12" splice	Use #9 @ 12" Top foot or 2#7	Use #5 @ 12" front	Use #5 @ 12	Use #6@18" temp foot T&B	Use #6@24" front	Use #4@24" back
23	20.00	level	250 psf	4.59	13.33	3.50	8.00	2.25	Use 2#10 @ 12" back or 3 # 8	Use 2#8 @ 12" splice or #11	Use #10 @ 12" Top foot or 2#7	Use #6 @ 12" front	Use #6 @ 12	Use #6@18" temp foot T&B	Use #6@24" front	Use #4@24" back

**This chart is for estimation purposes only and should not be used for construction.** There are many assumptions that were incorporated into these analyses and by changing any one or combination of, could result in significantly different results. The contractor, project owner or distributor of Magnum Stone must contact a locally licensed professional engineer to design every wall on a case-by-case basis utilizing site specific criteria.

All Concrete 4,000 psi compressive strength, all steel 60 ksi tensile strength

