

WOOD SHEARWALL SCHEDULE												
									Bottom plate attachment (foundation)		Bottom plate attachment (floor to floor)	
Shear wall	Sheathing material	Panel thickness	Blocking	Minimum fastener penetration in framing member or blocking	Fastener type and size	Panel edge fastener spacing	Nominal unit shear capacity v_w	Hold-down anchor capacity	Number of bolts (1 in diameter, 4 inch embedment depth)	Bolt spacing		
ID		(in)		(in)		(in)	(plf)	(kip)		(in)		
SW_N3A	Wood structural panels – sheathing	3/8	YES	1-3/8	8d	4	840	2	-	-		wood screws 20 (d= 0.32 in) at 25 in. o/c; 30 fasteners in 2 rows.
SW_N3B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-		16d (d= 0.268 in) nails at 24 in. o/c; 16 fasteners in 1 row.
SW_N3C	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-		16d (d= 0.268 in) nails at 21 in. o/c; 35 fasteners in 2 rows.
SW_N3D	Wood structural panels – sheathing	3/8	YES	1-3/8	8d	4	840	2	-	-		wood screws 20 (d= 0.32 in) at 25 in. o/c; 30 fasteners in 2 rows.
SW_N2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	4	-	-		wood screws 20 (d= 0.32 in) at 14 in. o/c; 52 fasteners in 2 rows.
SW_N2B	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	-	-	-		16d (d= 0.268 in) nails at 13 in. o/c; 28 fasteners in 1 row.

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SW_N2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	1	-	-	16d (d= 0.268 in) nails at 12 in. o/c; 59 fasteners in 2 rows.
SW_N2D	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	4	-	-	wood screws 20 (d= 0.32 in) at 14 in. o/c; 52 fasteners in 2 rows.
SW_N1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	7	10	36	SDWS log screw (d= 0.197 in) at 12 in. o/c; 58 fasteners in 2 rows.
SW_N1B	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	-	11	36	16d (d= 0.268 in) nails at 19 in. o/c; 39 fasteners in 2 rows.
SW_N1C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	3	11	36	wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.
SW_N1D	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	7	10	36	SDWS log screw (d= 0.197 in) at 12 in. o/c; 60 fasteners in 2 rows.
SW_S3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	2	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.
SW_S3B	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	2	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.
SW_S2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	6	-	-	SDWS log screw (d= 0.197 in) at 13 in. o/c; 54 fasteners in 2 rows.
SW_S2B	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	6	-	-	SDWS log screw (d= 0.197 in) at 13 in. o/c; 54 fasteners in 2 rows.
SW_S1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	10	36	SDWS log screw (d= 0.197 in) at 8 in. o/c; 76 fasteners in 2 rows.
SW_S1B	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	10	36	SDWS log screw (d= 0.197 in) at 8 in. o/c; 76 fasteners in 2 rows.

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SW_E3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	3	-	-	wood screws 20 (d= 0.32 in) at 16 in. o/c; 46 fasteners in 2 rows.
SW_E3B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	16d (d= 0.268 in) nails at 12 in. o/c; 30 fasteners in 1 row.
SW_E3C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	6	-	-	SDWS log screw (d= 0.197 in) at 15 in. o/c; 32 fasteners in 2 rows.
SW_E2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	7	-	-	SDWS log screw (d= 0.197 in) at 11 in. o/c; 64 fasteners in 2 rows.
SW_E2B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	1	-	-	16d (d= 0.268 in) nails at 14 in. o/c; 51 fasteners in 2 rows.
SW_E2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	-	-	SDWS log screw (d= 0.197 in) at 9 in. o/c; 54 fasteners in 2 rows.
SW_E1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	13	7	36	SDWS log screw (d= 0.197 in) at 7 in. o/c; 64 fasteners in 2 rows.
SW_E1B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	11	36	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.
SW_E1C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	9	11	36	SDWS log screw (d= 0.197 in) at 10 in. o/c; 72 fasteners in 2 rows.
SW_W3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	3	-	-	wood screws 20 (d= 0.32 in) at 16 in. o/c; 46 fasteners in 2 rows.
SW_W3B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	16d (d= 0.268 in) nails at 12 in. o/c; 30 fasteners in 1 row.
SW_W3C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	4	1430	6	-	-	SDWS log screw (d= 0.197 in) at 15 in. o/c; 32 fasteners in 2 rows.
SW_W2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	7	-	-	SDWS log screw (d= 0.197 in) at 11 in. o/c; 64 fasteners in 2 rows.

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SW_W2B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	1	-	-	16d (d= 0.268 in) nails at 14 in. o/c; 51 fasteners in 2 rows.
SW_W2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	-	-	SDWS log screw (d= 0.197 in) at 9 in. o/c; 54 fasteners in 2 rows.
SW_W1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	13	9	30	SDWS log screw (d= 0.197 in) at 7 in. o/c; 64 fasteners in 2 rows.
SW_W1B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	11	36	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.
SW_W1C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	9	11	36	SDWS log screw (d= 0.197 in) at 10 in. o/c; 72 fasteners in 2 rows.
SW_EC3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	0	-	-	16d (d= 0.268 in) nails at 18 in. o/c; 42 fasteners in 2 rows.
SW_EC3B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	16d (d= 0.268 in) nails at 60 in. o/c; 7 fasteners in 1 row.
SW_EC3C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	3	-	-	wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.
SW_EC2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	2	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.
SW_EC2B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.
SW_EC2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	6	-	-	SDWS log screw (d= 0.197 in) at 12 in. o/c; 58 fasteners in 2 rows.

schedule

SW_EC1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	6	36	SDWS log screw (d= 0.197 in) at 9 in. o/c; 42 fasteners in 2 rows.
SW_EC1B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	11	36	16d (d= 0.268 in) nails at 22 in. o/c; 17 fasteners in 1 row.
SW_EC1C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	11	36	SDWS log screw (d= 0.197 in) at 9 in. o/c; 82 fasteners in 2 rows.
SW_WC3A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	0	-	-	16d (d= 0.268 in) nails at 18 in. o/c; 42 fasteners in 2 rows.
SW_WC3B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	0	560	-	-	-	16d (d= 0.268 in) nails at 60 in. o/c; 7 fasteners in 1 row.
SW_WC3C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	6	950	3	-	-	wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.
SW_WC2A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	2	-	-	wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.
SW_WC2B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	-	-	16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.
SW_WC2C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	3	1860	6	-	-	SDWS log screw (d= 0.197 in) at 12 in. o/c; 58 fasteners in 2 rows.
SW_WC1A	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	6	36	SDWS log screw (d= 0.197 in) at 9 in. o/c; 42 fasteners in 2 rows.
SW_WC1B	Wood structural panels – sheathing	3/8	NO	1-3/8	8d	6	560	-	11	36	16d (d= 0.268 in) nails at 22 in. o/c; 17 fasteners in 1 row.
SW_WC1C	Wood structural panels – sheathing	19/32	YES	1-1/2	10d	2	2435	11	11	36	SDWS log screw (d= 0.197 in) at 9 in. o/c; 82 fasteners in 2 rows.

hold_down

Shear wall	Floor	Length	Height	Area	Self weight	Shear	T	C	Hold-down anchor capacity			
		(m)	(m)	(m²)	(kN)	(kN)	(kN)	(kN)	(kN)			
N3A	3	8.90	3.30	29.39	19.10	44.84	7.09	-26.19	10.00	1.59	2.00	\$floor.B3
N3B	3	9.43	3.30	31.14	20.24	11.72	-6.02	-14.22 -		-1.35 -		\$floor.B3
N3C	3	9.43	3.30	31.14	20.24	25.01	-1.36	-18.88 -		-0.31 -		\$floor.B3
N3D	3	8.90	3.30	29.39	19.10	45.63	7.38	-26.48	10.00	1.66	2.00	\$floor.B3
N2A	2	8.90	3.35	29.84	19.40	76.75	19.22	-38.61	20.00	4.32	4.00	\$floor.B2
N2B	2	9.43	3.35	31.62	20.55	20.06	-3.14	-17.41 -		-0.71 -		\$floor.B2
N2C	2	9.43	3.35	31.62	20.55	42.80	4.94	-25.49	10.00	1.11	1.00	\$floor.B2
N2D	2	8.90	3.35	29.84	19.40	78.11	19.73	-39.12	20.00	4.43	4.00	\$floor.B2
N1A	1	8.90	3.45	30.74	19.98	109.39	32.47	-52.45	40.00	7.30	7.00	\$floor.B1
N1B	1	9.43	3.45	32.57	21.17	28.59	-0.11	-21.06 -		-0.03 -		\$floor.B1
N1C	1	9.43	3.45	32.57	21.17	61.01	11.76	-32.94	20.00	2.64	3.00	\$floor.B1
N1D	1	8.90	3.45	30.74	19.98	111.33	33.22	-53.20	40.00	7.47	7.00	\$floor.B1
S3A	3	9.20	3.30	30.38	19.75	54.95	9.85	-29.60	10.00	2.21	2.00	\$floor.B3
S3B	3	9.20	3.30	30.38	19.75	54.95	9.85	-29.60	10.00	2.21	2.00	\$floor.B3
S2A	2	9.20	3.35	30.85	20.05	98.51	25.88	-45.93	30.00	5.82	6.00	\$floor.B2
S2B	2	9.20	3.35	30.85	20.05	98.51	25.88	-45.93	30.00	5.82	6.00	\$floor.B2
S1A	1	8.45	3.45	29.2	18.98	143.06	48.96	-67.95	50.00	11.01	11.00	\$floor.B1
S1B	1	8.45	3.45	29.2	18.98	143.06	48.96	-67.95	50.00	11.01	11.00	\$floor.B1
E3A	3	9.20	3.30	30.38	19.75	68.76	14.81	-34.55	20.00	3.33	3.00	\$floor.B3
E3B	3	9.20	3.30	30.38	19.75	21.54	-2.14	-17.60 -		-0.48 -		\$floor.B3
E3C	3	5.95	3.30	19.64	12.76	59.39	26.59	-39.35	30.00	5.98	6.00	\$floor.B3
E2A	2	9.20	3.35	30.85	20.05	117.70	32.87	-52.92	40.00	7.39	7.00	\$floor.B2
E2B	2	9.20	3.35	30.85	20.05	36.86	3.41	-23.46	10.00	0.77	1.00	\$floor.B2
E2C	2	5.95	3.35	19.94	12.96	101.65	50.82	-63.78	60.00	11.43	11.00	\$floor.B2
E1A	1	6.20	3.45	21.42	13.92	118.86	59.27	-73.19	60.00	13.32	13.00	\$floor.B1
E1B	1	9.20	3.45	31.78	20.66	8.09	-7.29	-13.37 -		-1.64 -		\$floor.B1
E1C	1	9.20	3.45	31.78	20.66	133.14	39.66	-60.32	40.00	8.92	9.00	\$floor.B1
W3A	3	9.20	3.30	30.38	19.75	68.76	14.81	-34.55	20.00	3.33	3.00	\$floor.B3
W3B	3	9.20	3.30	30.38	19.75	21.54	-2.14	-17.60 -		-0.48 -		\$floor.B3
W3C	3	5.95	3.30	19.64	12.76	59.39	26.59	-39.35	30.00	5.98	6.00	\$floor.B3
W2A	2	9.20	3.35	30.85	20.05	117.70	32.87	-52.92	40.00	7.39	7.00	\$floor.B2

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W2B	2	9.20	3.35	30.85	20.05	36.86	3.41	-23.46	10.00	0.77	1.00	\$floor.B2
W2C	2	5.95	3.35	19.94	12.96	101.65	50.82	-63.78	60.00	11.43	11.00	\$floor.B2
W1A	1	6.20	3.45	21.42	13.92	118.86	59.27	-73.19	60.00	13.32	13.00	\$floor.B1
W1B	1	9.20	3.45	31.78	20.66	8.09	-7.29	-13.37 -		-1.64 -		\$floor.B1
W1C	1	9.20	3.45	31.78	20.66	133.14	39.66	-60.32	40.00	8.92	9.00	\$floor.B1
EC3A	3	9.20	3.30	30.38	19.75	30.35	1.02	-20.77	10.00	0.23	0.00	\$floor.B3
EC3B	3	9.20	3.30	30.38	19.75	4.77	-8.16	-11.58 -		-1.83 -		\$floor.B3
EC3C	3	9.20	3.30	30.38	19.75	59.25	11.39	-31.14	20.00	2.56	3.00	\$floor.B3
EC2A	2	9.20	3.35	30.85	20.05	54.41	9.80	-29.85	10.00	2.20	2.00	\$floor.B2
EC2B	2	9.20	3.35	30.85	20.05	8.56	-6.91	-13.14 -		-1.55 -		\$floor.B2
EC2C	2	9.20	3.35	30.85	20.05	106.22	28.69	-48.74	30.00	6.45	6.00	\$floor.B2
EC1A	1	4.87	3.45	16.82	10.93	79.02	50.58	-61.52	60.00	11.37	11.00	\$floor.B1
EC1B	1	9.20	3.45	31.78	20.66	12.43	-5.66	-15.00 -		-1.27 -		\$floor.B1
EC1C	1	9.20	3.45	31.78	20.66	154.27	47.60	-68.25	50.00	10.70	11.00	\$floor.B1
WC3A	3	9.20	3.30	30.38	19.75	30.35	1.02	-20.77	10.00	0.23	0.00	\$floor.B3
WC3B	3	9.20	3.30	30.38	19.75	4.77	-8.16	-11.58 -		-1.83 -		\$floor.B3
WC3C	3	9.20	3.30	30.38	19.75	59.25	11.39	-31.14	20.00	2.56	3.00	\$floor.B3
WC2A	2	9.20	3.35	30.85	20.05	54.41	9.80	-29.85	10.00	2.20	2.00	\$floor.B2
WC2B	2	9.20	3.35	30.85	20.05	8.56	-6.91	-13.14 -		-1.55 -		\$floor.B2
WC2C	2	9.20	3.35	30.85	20.05	106.22	28.69	-48.74	30.00	6.45	6.00	\$floor.B2
WC1A	1	4.87	3.45	16.82	10.93	79.02	50.58	-61.52	60.00	11.37	11.00	\$floor.B1
WC1B	1	9.20	3.45	31.78	20.66	12.43	-5.66	-15.00 -		-1.27 -		\$floor.B1
WC1C	1	9.20	3.45	31.78	20.66	154.27	47.60	-68.25	50.00	10.70	11.00	\$floor.B1
							59.27	-73.19	60.00		13.00	

hold_down

Bottom plate attachment (floor to floor)

1 row

2 row

Shear/m (kN)	Bottom plate attachment (to foundation)						16d (d= 0.268 in) nails			16d (d= 0.268 in) nails		
	Shear	Bolt spacemer	Number of bol	Shear/bolt	number	spacing	OK	Number/2	spacing	OK		
5.04	0.00	1,000.00	1	0.00	62.00	0.14		0	31	0.29	0	
1.24	0.00	1,000.00	1	0.00	16.00	0.59		1		0.00	1	
2.65	0.00	1,000.00	1	0.00	35.00	0.27		0	17.5	0.54	1	
5.13	0.00	1,000.00	1	0.00	63.00	0.14		0	31.5	0.28	0	
8.62	0.00	1,000.00	1	0.00	105.00	0.08		0	52.5	0.17	0	
2.13	0.00	1,000.00	1	0.00	28.00	0.34		1		0.00	1	
4.54	0.00	1,000.00	1	0.00	59.00	0.16		0	29.5	0.32	1	
8.78	0.00	1,000.00	1	0.00	107.00	0.08		0	53.5	0.17	0	
12.29	109.39	0.91	10	10.94	150.00	0.06		0	75	0.12	0	
3.03	28.59	0.91	11	2.60	39.00	0.24		0	19.5	0.48	1	
6.47	61.01	0.91	11	5.55	84.00	0.11		0	42	0.22	0	
12.51	111.33	0.91	10	11.13	152.00	0.06		0	76	0.12	0	
5.97	0.00	1,000.00	1	0.00	75.00	0.12		0	37.5	0.25	0	
5.97	0.00	1,000.00	1	0.00	75.00	0.12		0	37.5	0.25	0	
10.71	0.00	1,000.00	1	0.00	135.00	0.07		0	67.5	0.14	0	
10.71	0.00	1,000.00	1	0.00	135.00	0.07		0	67.5	0.14	0	
16.92	143.06	0.91	10	14.31	195.00	0.04		0	97.5	0.09	0	
16.92	143.06	0.91	10	14.31	195.00	0.04		0	97.5	0.09	0	
7.47	0.00	1,000.00	1	0.00	94.00	0.10		0	47	0.20	0	
2.34	0.00	1,000.00	1	0.00	30.00	0.31		1		0.00	1	
9.99	0.00	1,000.00	1	0.00	81.00	0.07		0	40.5	0.15	0	
12.79	0.00	1,000.00	1	0.00	161.00	0.06		0	80.5	0.11	0	
4.01	0.00	1,000.00	1	0.00	51.00	0.18		0	25.5	0.36	1	
17.09	0.00	1,000.00	1	0.00	139.00	0.04		0	69.5	0.09	0	
19.17	118.86	0.91	7	16.98	162.00	0.04		0	81	0.08	0	
0.88	8.09	0.91	11	0.74	12.00	0.77		1		0.00	1	
14.47	133.14	0.91	11	12.10	182.00	0.05		0	91	0.10	0	
7.47	0.00	1,000.00	1	0.00	94.00	0.10		0	47	0.20	0	
2.34	0.00	1,000.00	1	0.00	30.00	0.31		1		0.00	1	
9.99	0.00	1,000.00	1	0.00	81.00	0.07		0	40.5	0.15	0	
12.79	0.00	1,000.00	1	0.00	161.00	0.06		0	80.5	0.11	0	

hold_down										
4.01	0.00	1,000.00	1	0.00	51.00	0.18	0	25.5	0.36	1
17.09	0.00	1,000.00	1	0.00	139.00	0.04	0	69.5	0.09	0
19.17	118.86	0.76	9	13.21	162.00	0.04	0	81	0.08	0
0.88	8.09	0.91	11	0.74	12.00	0.77	1		0.00	1
14.47	133.14	0.91	11	12.10	182.00	0.05	0	91	0.10	0
3.30	0.00	1,000.00	1	0.00	42.00	0.22	0	21	0.44	1
0.52	0.00	1,000.00	1	0.00	7.00	1.31	1		0.00	1
6.44	0.00	1,000.00	1	0.00	81.00	0.11	0	40.5	0.23	0
5.91	0.00	1,000.00	1	0.00	75.00	0.12	0	37.5	0.25	0
0.93	0.00	1,000.00	1	0.00	12.00	0.77	1		0.00	1
11.55	0.00	1,000.00	1	0.00	145.00	0.06	0	72.5	0.13	0
16.23	79.02	0.91	6	13.17	108.00	0.05	0	54	0.09	0
1.35	12.43	0.91	11	1.13	17.00	0.54	1		0.00	1
16.77	154.27	0.91	11	14.02	211.00	0.04	0	105.5	0.09	0
3.30	0.00	1,000.00	1	0.00	42.00	0.22	0	21	0.44	1
0.52	0.00	1,000.00	1	0.00	7.00	1.31	1		0.00	1
6.44	0.00	1,000.00	1	0.00	81.00	0.11	0	40.5	0.23	0
5.91	0.00	1,000.00	1	0.00	75.00	0.12	0	37.5	0.25	0
0.93	0.00	1,000.00	1	0.00	12.00	0.77	1		0.00	1
11.55	0.00	1,000.00	1	0.00	145.00	0.06	0	72.5	0.13	0
16.23	79.02	0.91	6	13.17	108.00	0.05	0	54	0.09	0
1.35	12.43	0.91	11	1.13	17.00	0.54	1		0.00	1
16.77	154.27	0.91	11	14.02	211.00	0.04	0	105.5	0.09	0
19.17				16.98			12			19
4,309.98										

hold_down

2 row

2 row

wood screws 20 (d= 0.32 in)

SDWS log screw (d= 0.197 in)

number	spacing	OK	number	spacing	OK	type	number	rows	bolts/row
15.00	0.59	1	12.00	0.00	1	wood screws 20 (d= 0.32	30	2	15
4.00	0.00	1	4.00	0.00	1	16d (d= 0.268 in) nails	16	1	16
9.00	0.00	1	7.00	0.00	1	16d (d= 0.268 in) nails	35	2	18
15.00	0.59	1	13.00	0.00	1	wood screws 20 (d= 0.32	30	2	15
26.00	0.34	1	21.00	0.00	1	wood screws 20 (d= 0.32	52	2	26
7.00	0.00	1	6.00	0.00	1	16d (d= 0.268 in) nails	28	1	28
14.00	0.00	1	12.00	0.00	1	16d (d= 0.268 in) nails	59	2	30
26.00	0.34	1	21.00	0.00	1	wood screws 20 (d= 0.32	52	2	26
36.00	0.25	0	29.00	0.31	1	SDWS log screw (d= 0.19	58	2	29
10.00	0.00	1	8.00	0.00	1	16d (d= 0.268 in) nails	39	2	20
20.00	0.47	1	17.00	0.00	1	wood screws 20 (d= 0.32	40	2	20
37.00	0.24	0	30.00	0.30	1	SDWS log screw (d= 0.19	60	2	30
18.00	0.51	1	15.00	0.00	1	wood screws 20 (d= 0.32	36	2	18
18.00	0.51	1	15.00	0.00	1	wood screws 20 (d= 0.32	36	2	18
33.00	0.28	0	27.00	0.34	1	SDWS log screw (d= 0.19	54	2	27
33.00	0.28	0	27.00	0.34	1	SDWS log screw (d= 0.19	54	2	27
47.00	0.18	0	38.00	0.22	1	SDWS log screw (d= 0.19	76	2	38
47.00	0.18	0	38.00	0.22	1	SDWS log screw (d= 0.19	76	2	38
23.00	0.40	1	19.00	0.00	1	wood screws 20 (d= 0.32	46	2	23
8.00	0.00	1	6.00	0.00	1	16d (d= 0.268 in) nails	30	1	30
20.00	0.30	0	16.00	0.37	1	SDWS log screw (d= 0.19	32	2	16
39.00	0.24	0	32.00	0.29	1	SDWS log screw (d= 0.19	64	2	32
13.00	0.00	1	10.00	0.00	1	16d (d= 0.268 in) nails	51	2	26
34.00	0.17	0	27.00	0.22	1	SDWS log screw (d= 0.19	54	2	27
39.00	0.16	0	32.00	0.19	1	SDWS log screw (d= 0.19	64	2	32
3.00	0.00	1	3.00	0.00	1	16d (d= 0.268 in) nails	12	1	12
44.00	0.21	0	36.00	0.26	1	SDWS log screw (d= 0.19	72	2	36
23.00	0.40	1	19.00	0.00	1	wood screws 20 (d= 0.32	46	2	23
8.00	0.00	1	6.00	0.00	1	16d (d= 0.268 in) nails	30	1	30
20.00	0.30	0	16.00	0.37	1	SDWS log screw (d= 0.19	32	2	16
39.00	0.24	0	32.00	0.29	1	SDWS log screw (d= 0.19	64	2	32

hold_down									
13.00	0.00	1	10.00	0.00	1	16d (d= 0.268 in) nails	51	2	26
34.00	0.17	0	27.00	0.22	1	SDWS log screw (d= 0.19	54	2	27
39.00	0.16	0	32.00	0.19	1	SDWS log screw (d= 0.19	64	2	32
3.00	0.00	1	3.00	0.00	1	16d (d= 0.268 in) nails	12	1	12
44.00	0.21	0	36.00	0.26	1	SDWS log screw (d= 0.19	72	2	36
10.00	0.00	1	9.00	0.00	1	16d (d= 0.268 in) nails	42	2	21
2.00	0.00	1	2.00	0.00	1	16d (d= 0.268 in) nails	7	1	7
20.00	0.46	1	16.00	0.00	1	wood screws 20 (d= 0.32	40	2	20
18.00	0.51	1	15.00	0.00	1	wood screws 20 (d= 0.32	36	2	18
3.00	0.00	1	3.00	0.00	1	16d (d= 0.268 in) nails	12	1	12
35.00	0.26	0	29.00	0.32	1	SDWS log screw (d= 0.19	58	2	29
26.00	0.19	0	21.00	0.23	1	SDWS log screw (d= 0.19	42	2	21
5.00	0.00	1	4.00	0.00	1	16d (d= 0.268 in) nails	17	1	17
51.00	0.18	0	41.00	0.22	1	SDWS log screw (d= 0.19	82	2	41
10.00	0.00	1	9.00	0.00	1	16d (d= 0.268 in) nails	42	2	21
2.00	0.00	1	2.00	0.00	1	16d (d= 0.268 in) nails	7	1	7
20.00	0.46	1	16.00	0.00	1	wood screws 20 (d= 0.32	40	2	20
18.00	0.51	1	15.00	0.00	1	wood screws 20 (d= 0.32	36	2	18
3.00	0.00	1	3.00	0.00	1	16d (d= 0.268 in) nails	12	1	12
35.00	0.26	0	29.00	0.32	1	SDWS log screw (d= 0.19	58	2	29
26.00	0.19	0	21.00	0.23	1	SDWS log screw (d= 0.19	42	2	21
5.00	0.00	1	4.00	0.00	1	16d (d= 0.268 in) nails	17	1	17
51.00	0.18	0	41.00	0.22	1	SDWS log screw (d= 0.19	82	2	41
		32			54		82		
		13			22				

hold_down

spacing

25 2 rows. wood screws 20 (d= 0.32 in) at 25 in. o/c; 30 fasteners in 2 rows.
24 1 row. 16d (d= 0.268 in) nails at 24 in. o/c; 16 fasteners in 1 row.
21 2 rows. 16d (d= 0.268 in) nails at 21 in. o/c; 35 fasteners in 2 rows.
25 2 rows. wood screws 20 (d= 0.32 in) at 25 in. o/c; 30 fasteners in 2 rows.
14 2 rows. wood screws 20 (d= 0.32 in) at 14 in. o/c; 52 fasteners in 2 rows.
13 1 row. 16d (d= 0.268 in) nails at 13 in. o/c; 28 fasteners in 1 row.
12 2 rows. 16d (d= 0.268 in) nails at 12 in. o/c; 59 fasteners in 2 rows.
14 2 rows. wood screws 20 (d= 0.32 in) at 14 in. o/c; 52 fasteners in 2 rows.
12 2 rows. SDWS log screw (d= 0.197 in) at 12 in. o/c; 58 fasteners in 2 rows.
19 2 rows. 16d (d= 0.268 in) nails at 19 in. o/c; 39 fasteners in 2 rows.
19 2 rows. wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.
12 2 rows. SDWS log screw (d= 0.197 in) at 12 in. o/c; 60 fasteners in 2 rows.
21 2 rows. wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.
21 2 rows. wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.
13 2 rows. SDWS log screw (d= 0.197 in) at 13 in. o/c; 54 fasteners in 2 rows.
13 2 rows. SDWS log screw (d= 0.197 in) at 13 in. o/c; 54 fasteners in 2 rows.
8 2 rows. SDWS log screw (d= 0.197 in) at 8 in. o/c; 76 fasteners in 2 rows.
8 2 rows. SDWS log screw (d= 0.197 in) at 8 in. o/c; 76 fasteners in 2 rows.
16 2 rows. wood screws 20 (d= 0.32 in) at 16 in. o/c; 46 fasteners in 2 rows.
12 1 row. 16d (d= 0.268 in) nails at 12 in. o/c; 30 fasteners in 1 row.
15 2 rows. SDWS log screw (d= 0.197 in) at 15 in. o/c; 32 fasteners in 2 rows.
11 2 rows. SDWS log screw (d= 0.197 in) at 11 in. o/c; 64 fasteners in 2 rows.
14 2 rows. 16d (d= 0.268 in) nails at 14 in. o/c; 51 fasteners in 2 rows.
9 2 rows. SDWS log screw (d= 0.197 in) at 9 in. o/c; 54 fasteners in 2 rows.
7 2 rows. SDWS log screw (d= 0.197 in) at 7 in. o/c; 64 fasteners in 2 rows.
32 1 row. 16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.
10 2 rows. SDWS log screw (d= 0.197 in) at 10 in. o/c; 72 fasteners in 2 rows.
16 2 rows. wood screws 20 (d= 0.32 in) at 16 in. o/c; 46 fasteners in 2 rows.
12 1 row. 16d (d= 0.268 in) nails at 12 in. o/c; 30 fasteners in 1 row.
15 2 rows. SDWS log screw (d= 0.197 in) at 15 in. o/c; 32 fasteners in 2 rows.
11 2 rows. SDWS log screw (d= 0.197 in) at 11 in. o/c; 64 fasteners in 2 rows.

hold_down

14 2 rows. 16d (d= 0.268 in) nails at 14 in. o/c; 51 fasteners in 2 rows.
9 2 rows. SDWS log screw (d= 0.197 in) at 9 in. o/c; 54 fasteners in 2 rows.
7 2 rows. SDWS log screw (d= 0.197 in) at 7 in. o/c; 64 fasteners in 2 rows.
32 1 row. 16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.
10 2 rows. SDWS log screw (d= 0.197 in) at 10 in. o/c; 72 fasteners in 2 rows.
18 2 rows. 16d (d= 0.268 in) nails at 18 in. o/c; 42 fasteners in 2 rows.
60 1 row. 16d (d= 0.268 in) nails at 60 in. o/c; 7 fasteners in 1 row.
19 2 rows. wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.
21 2 rows. wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.
32 1 row. 16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.
12 2 rows. SDWS log screw (d= 0.197 in) at 12 in. o/c; 58 fasteners in 2 rows.
9 2 rows. SDWS log screw (d= 0.197 in) at 9 in. o/c; 42 fasteners in 2 rows.
22 1 row. 16d (d= 0.268 in) nails at 22 in. o/c; 17 fasteners in 1 row.
9 2 rows. SDWS log screw (d= 0.197 in) at 9 in. o/c; 82 fasteners in 2 rows.
18 2 rows. 16d (d= 0.268 in) nails at 18 in. o/c; 42 fasteners in 2 rows.
60 1 row. 16d (d= 0.268 in) nails at 60 in. o/c; 7 fasteners in 1 row.
19 2 rows. wood screws 20 (d= 0.32 in) at 19 in. o/c; 40 fasteners in 2 rows.
21 2 rows. wood screws 20 (d= 0.32 in) at 21 in. o/c; 36 fasteners in 2 rows.
32 1 row. 16d (d= 0.268 in) nails at 32 in. o/c; 12 fasteners in 1 row.
12 2 rows. SDWS log screw (d= 0.197 in) at 12 in. o/c; 58 fasteners in 2 rows.
9 2 rows. SDWS log screw (d= 0.197 in) at 9 in. o/c; 42 fasteners in 2 rows.
22 1 row. 16d (d= 0.268 in) nails at 22 in. o/c; 17 fasteners in 1 row.
9 2 rows. SDWS log screw (d= 0.197 in) at 9 in. o/c; 82 fasteners in 2 rows.

Nominal unit shear capacities		0.01		Roof	
Wind				N3A max:	
Wood-based panels (4.3A)		Factored values (ASD)		44.84 kN	
6	4	3	2	6	4
plf	plf	plf	plf	kN/m	kN/m
560	840	1090	1430	8.17	12.26
645	1010	1290	1710	9.41	14.74
715	1105	1415	1875	10.43	16.13
785	1205	1540	2045	11.46	17.59
950	1430	1860	2435	13.86	20.87
505	755	980	1260	7.37	11.02
560	840	1090	1430	8.17	12.26
615	895	1150	1485	8.98	13.06
670	980	1260	1640	9.78	14.30
730	1065	1370	1790	10.65	15.54
870	1290	1680	2155	12.70	18.83
950	1430	1860	2435	13.86	20.87
390	590	770	1010	5.69	8.61
450	670	870	1150	6.57	9.78
335	505	645	840	4.89	7.37
365	530	670	880	5.33	7.73
390	590	755	980	5.69	8.61
520	770	1010	1290	7.59	11.24
560	855	1105	1455	8.17	12.48
	475	645	730		6.93
	475	645	730		6.93
				6.93	10.43
				13.57	17.77
				6.47	4.30
				15.76	10.42
				13.66	9.17
				18.34	12.17
				16.84	11.59
				15.76	10.42
				11.82	7.98
				10.97	7.19
					12.94
					12.94
				6.47	4.30
Wood sheathing families (4.3B)					
6	4	3	2	6	4
plf	plf	plf	plf	kN/m	kN/m
560.00	840.00	1,090.00	1,430.00	8.17	12.26
785.00	1,205.00	1,540.00	2,045.00	11.46	17.59
505.00	755.00	980.00	1,260.00	7.37	11.02
560.00	840.00	1,090.00	1,430.00	8.17	12.26
730.00	1,065.00	1,370.00	1,790.00	10.65	15.54
390.00	590.00	770.00	1,010.00	5.69	8.61
450.00	670.00	870.00	1,150.00	6.57	9.78
				13.57	17.77
				6.47	4.30
				15.76	10.42
				13.66	9.17

north

5.73 8.79 11.24 14.92 7.83 5.10

Gypsum sheathing families (4.3C)

plf	kN/ft	kN/m	
150	0.67	2.19	0.01
220	0.98	3.21	
200	0.89	2.92	
250	1.11	3.65	
250	1.11	3.65	
300	1.33	4.38	
120	0.53	1.75	
320	1.42	4.67	
310	1.38	4.52	
140	0.62	2.04	
180	0.80	2.63	
230	1.02	3.36	
290	1.29	4.23	
290	1.29	4.23	
350	1.56	5.11	
140	0.62	2.04	
180	0.80	2.63	
500	2.22	7.30	
150	0.67	2.19	
350	1.56	5.11	
200	0.89	2.92	
400	1.78	5.84	
360	1.60	5.25	
200	0.89	2.92	
360	1.60	5.25	

1.09	40.97
1.61	27.93
1.46	30.73
1.82	24.58
1.82	24.58
2.19	20.48
0.88	51.21
2.34	19.20
2.26	19.82
1.02	43.89
1.31	34.14
1.68	26.72
2.12	21.19
2.12	21.19
2.55	17.56
1.02	43.89
1.31	34.14
3.65	12.29
1.09	40.97
2.55	17.56
1.46	30.73
2.92	15.36
2.63	17.07
1.46	30.73
2.63	17.07
3.65	12.29

Lumber shear walls (4.3D)

plf	kN/ft	kN/m
140	0.62	2.04
840	3.74	12.26
1680	7.47	24.52
125	0.56	1.82

1.02	43.89
6.13	7.32
12.26	3.66
0.91	49.16
12.26	3.66

north

8.9 m		Roof N3B max: 9.43 m 11.72 kN				Roof N3C max: 9.43 m 25.01 kN				Roof N3D max: 8.9 m 45.63 kN			
3	2	6	4	3	2	6	4	3	2	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m
5.64	4.30	2.87	1.91	1.47	1.12	6.12	4.08	3.14	2.40	11.17	7.44	5.74	4.37
4.76	3.59	2.49	1.59	1.25	0.94	5.31	3.39	2.66	2.00	9.70	6.19	4.85	3.66
4.34	3.28	2.25	1.45	1.14	0.86	4.79	3.10	2.42	1.83	8.75	5.66	4.42	3.34
3.99	3.00	2.05	1.33	1.04	0.79	4.37	2.84	2.23	1.68	7.97	5.19	4.06	3.06
3.30	2.52	1.69	1.12	0.86	0.66	3.61	2.40	1.84	1.41	6.58	4.37	3.36	2.57
6.27	4.88	3.18	2.13	1.64	1.27	6.79	4.54	3.50	2.72	12.38	8.28	6.38	4.96
5.64	4.30	2.87	1.91	1.47	1.12	6.12	4.08	3.14	2.40	11.17	7.44	5.74	4.37
5.34	4.14	2.61	1.79	1.40	1.08	5.57	3.83	2.98	2.31	10.17	6.99	5.44	4.21
4.88	3.75	2.40	1.64	1.27	0.98	5.12	3.50	2.72	2.09	9.33	6.38	4.96	3.81
4.49	3.43	2.20	1.51	1.17	0.90	4.70	3.22	2.50	1.91	8.57	5.87	4.56	3.49
3.66	2.85	1.85	1.25	0.96	0.75	3.94	2.66	2.04	1.59	7.19	4.85	3.72	2.90
3.30	2.52	1.69	1.12	0.86	0.66	3.61	2.40	1.84	1.41	6.58	4.37	3.36	2.57
7.98	6.08	4.12	2.72	2.09	1.59	8.79	5.81	4.45	3.39	16.03	10.60	8.12	6.19
7.06	5.34	3.57	2.40	1.85	1.40	7.62	5.12	3.94	2.98	13.90	9.33	7.19	5.44
9.53	7.32	4.79	3.18	2.49	1.91	10.23	6.79	5.31	4.08	18.67	12.38	9.70	7.44
9.17	6.98	4.40	3.03	2.40	1.83	9.39	6.47	5.12	3.89	17.13	11.80	9.33	7.11
8.14	6.27	4.12	2.72	2.13	1.64	8.79	5.81	4.54	3.50	16.03	10.60	8.28	6.38
6.08	4.76	3.09	2.09	1.59	1.25	6.59	4.45	3.39	2.66	12.03	8.12	6.19	4.85
5.56	4.22	2.87	1.88	1.45	1.10	6.12	4.01	3.10	2.36	11.17	7.31	5.66	4.30
9.53	8.42		3.38	2.49	2.20		7.22	5.31	4.70		13.16	9.70	8.57
9.53	8.42		3.38	2.49	2.20		7.22	5.31	4.70		13.16	9.70	8.57
3.30	2.52	1.69	1.12	0.86	0.66	3.61	2.40	1.84	1.41	6.58	4.37	3.36	2.57
<hr/>													
5.64	4.30	2.87	1.91	1.47	1.12	6.12	4.08	3.14	2.40	11.17	7.44	5.74	4.37
3.99	3.00	2.05	1.33	1.04	0.79	4.37	2.84	2.23	1.68	7.97	5.19	4.06	3.06
6.27	4.88	3.18	2.13	1.64	1.27	6.79	4.54	3.50	2.72	12.38	8.28	6.38	4.96
5.64	4.30	2.87	1.91	1.47	1.12	6.12	4.08	3.14	2.40	11.17	7.44	5.74	4.37
4.49	3.43	2.20	1.51	1.17	0.90	4.70	3.22	2.50	1.91	8.57	5.87	4.56	3.49
7.98	6.08	4.12	2.72	2.09	1.59	8.79	5.81	4.45	3.39	16.03	10.60	8.12	6.19
7.06	5.34	3.57	2.40	1.85	1.40	7.62	5.12	3.94	2.98	13.90	9.33	7.19	5.44

						north								
3.99	3.00		2.05	1.33	1.04	0.79	4.37	2.84	2.23	1.68	7.97	5.19	4.06	3.06

10.71	22.85
7.30	15.58
8.03	17.14
6.42	13.71
6.42	13.71
5.35	11.42
13.38	28.56
5.02	10.71
5.18	11.06
11.47	24.48
8.92	19.04
6.98	14.90
5.54	11.82
5.54	11.82
4.59	9.79
11.47	24.48
8.92	19.04
3.21	6.85
10.71	22.85
4.59	9.79
8.03	17.14
4.02	8.57
4.46	9.52
8.03	17.14
4.46	9.52
3.21	6.85

11.47	24.48
1.91	4.08
0.96	2.04
12.85	27.42
0.96	2.04

north

Third floor				
N2A	max:	8.9 m		
76.75 kN				
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	
18.78	12.52	9.65	7.36	
16.31	10.41	8.15	6.15	
14.71	9.52	7.43	5.61	
13.40	8.73	6.83	5.14	
11.07	7.36	5.65	4.32	
20.83	13.93	10.73	8.35	
18.78	12.52	9.65	7.36	
17.10	11.75	9.15	7.08	
15.70	10.73	8.35	6.41	
14.41	9.88	7.68	5.88	
12.09	8.15	6.26	4.88	
11.07	7.36	5.65	4.32	
26.97	17.83	13.66	10.41	
23.37	15.70	12.09	9.15	
31.40	20.83	16.31	12.52	
28.82	19.85	15.70	11.95	
26.97	17.83	13.93	10.73	
20.23	13.66	10.41	8.15	
18.78	12.30	9.52	7.23	
	22.14	16.31	14.41	
	22.14	16.31	14.41	
11.07	7.36	5.65	4.32	

Third floor				
N2B	max:	9.43 m		
	20.06 kN			
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	
	4.91	3.27	2.52	1.92
	4.26	2.72	2.13	1.61
	3.84	2.49	1.94	1.47
	3.50	2.28	1.79	1.34
	2.89	1.92	1.48	1.13
	5.44	3.64	2.81	2.18
	4.91	3.27	2.52	1.92
	4.47	3.07	2.39	1.85
	4.10	2.81	2.18	1.68
	3.77	2.58	2.01	1.54
	3.16	2.13	1.64	1.28
	2.89	1.92	1.48	1.13
	7.05	4.66	3.57	2.72
	6.11	4.10	3.16	2.39
	8.21	5.44	4.26	3.27
	7.53	5.19	4.10	3.12
	7.05	4.66	3.64	2.81
	5.29	3.57	2.72	2.13
	4.91	3.22	2.49	1.89
		5.79	4.26	3.77
		5.79	4.26	3.77
	2.89	1.92	1.48	1.13

Third floor				
N2C	max:	9.43 m		
	42.80 kN			
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	
	10.47	6.98	5.38	4.10
	9.09	5.81	4.55	3.43
	8.20	5.31	4.15	3.13
	7.47	4.87	3.81	2.87
	6.17	4.10	3.15	2.41
	11.61	7.77	5.99	4.66
	10.47	6.98	5.38	4.10
	9.54	6.55	5.10	3.95
	8.75	5.99	4.66	3.58
	8.03	5.51	4.28	3.28
	6.74	4.55	3.49	2.72
	6.17	4.10	3.15	2.41
	15.04	9.94	7.62	5.81
	13.03	8.75	6.74	5.10
	17.51	11.61	9.09	6.98
	16.07	11.07	8.75	6.67
	15.04	9.94	7.77	5.99
	11.28	7.62	5.81	4.55
	10.47	6.86	5.31	4.03
		12.35	9.09	8.03
		12.35	9.09	8.03
	6.17	4.10	3.15	2.41

Third floor		
N2D	max:	
	78.11 kN	
	6	4
kN/m	kN/m	
19.12	12.74	
16.60	10.60	
14.97	9.69	
13.64	8.88	
11.27	7.49	
21.20	14.18	
19.12	12.74	
17.41	11.96	
15.98	10.92	
14.66	10.05	
12.30	8.30	
11.27	7.49	
27.45	18.14	
23.79	15.98	
31.95	21.20	
29.33	20.20	
27.45	18.14	
20.59	13.90	
19.12	12.52	
	22.54	
	22.54	
11.27	7.49	

18.78	12.52	9.65	7.36
13.40	8.73	6.83	5.14
20.83	13.93	10.73	8.35
18.78	12.52	9.65	7.36
14.41	9.88	7.68	5.88
26.97	17.83	13.66	10.41
23.37	15.70	12.09	9.15

4.91	3.27	2.52	1.92
3.50	2.28	1.79	1.34
5.44	3.64	2.81	2.18
4.91	3.27	2.52	1.92
3.77	2.58	2.01	1.54
7.05	4.66	3.57	2.72
6.11	4.10	3.16	2.39

10.47	6.98	5.38	4.10
7.47	4.87	3.81	2.87
11.61	7.77	5.99	4.66
10.47	6.98	5.38	4.10
8.03	5.51	4.28	3.28
15.04	9.94	7.62	5.81
13.03	8.75	6.74	5.10

19.12	12.74
13.64	8.88
21.20	14.18
19.12	12.74
14.66	10.05
27.45	18.14
23.79	15.98

				north									
13.40	8.73	6.83	5.14	3.50	2.28	1.79	1.34	7.47	4.87	3.81	2.87	13.64	8.88
70.12				18.33				39.10					
47.81				12.50				26.66					
52.59				13.75				29.33					
42.07				11.00				23.46					
42.07				11.00				23.46					
35.06				9.16				19.55					
87.65				22.91				48.88					
32.87				8.59				18.33					
33.93				8.87				18.92					
75.13				19.64				41.90					
58.43				15.27				32.59					
45.73				11.95				25.50					
36.27				9.48				20.23					
36.27				9.48				20.23					
30.05				7.85				16.76					
75.13				19.64				41.90					
58.43				15.27				32.59					
21.04				5.50				11.73					
70.12				18.33				39.10					
30.05				7.85				16.76					
52.59				13.75				29.33					
26.30				6.87				14.66					
29.22				7.64				16.29					
52.59				13.75				29.33					
29.22				7.64				16.29					
21.04				5.50				11.73					
75.13				19.64				41.90					
12.52				3.27				6.98					
6.26				1.64				3.49					
84.14				21.99				46.92					
6.26				1.64				3.49					

north

8.9 m		Second floor N1A max: 8.9 m 109.39 kN				Second floor N1B max: 9.43 m 28.59 kN				Second floor N1C max: 9.43 m 61.01 kN			
3	2	6	4	3	2	6	4	3	2	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m
9.82	7.49	26.77	17.85	13.75	10.48	7.00	4.66	3.59	2.74	14.93	9.95	7.67	5.85
8.30	6.26	23.24	14.84	11.62	8.77	6.07	3.88	3.04	2.29	12.96	8.28	6.48	4.89
7.56	5.71	20.97	13.57	10.59	8.00	5.48	3.55	2.77	2.09	11.69	7.57	5.91	4.46
6.95	5.23	19.10	12.44	9.73	7.33	4.99	3.25	2.54	1.92	10.65	6.94	5.43	4.09
5.76	4.40	15.78	10.48	8.06	6.16	4.12	2.74	2.11	1.61	8.80	5.85	4.50	3.43
10.92	8.50	29.69	19.86	15.30	11.90	7.76	5.19	4.00	3.11	16.56	11.07	8.53	6.64
9.82	7.49	26.77	17.85	13.75	10.48	7.00	4.66	3.59	2.74	14.93	9.95	7.67	5.85
9.31	7.21	24.38	16.75	13.04	10.10	6.37	4.38	3.41	2.64	13.60	9.34	7.27	5.63
8.50	6.53	22.37	15.30	11.90	9.14	5.85	4.00	3.11	2.39	12.48	8.53	6.64	5.10
7.81	5.98	20.54	14.08	10.94	8.37	5.37	3.68	2.86	2.19	11.45	7.85	6.10	4.67
6.37	4.97	17.23	11.62	8.92	6.96	4.50	3.04	2.33	1.82	9.61	6.48	4.98	3.88
5.76	4.40	15.78	10.48	8.06	6.16	4.12	2.74	2.11	1.61	8.80	5.85	4.50	3.43
13.90	10.60	38.44	25.41	19.47	14.84	10.05	6.64	5.09	3.88	21.44	14.17	10.86	8.28
12.30	9.31	33.31	22.37	17.23	13.04	8.71	5.85	4.50	3.41	18.58	12.48	9.61	7.27
16.60	12.74	44.75	29.69	23.24	17.85	11.70	7.76	6.07	4.66	24.96	16.56	12.96	9.95
15.98	12.16	41.07	28.29	22.37	17.04	10.73	7.39	5.85	4.45	22.91	15.78	12.48	9.50
14.18	10.92	38.44	25.41	19.86	15.30	10.05	6.64	5.19	4.00	21.44	14.17	11.07	8.53
10.60	8.30	28.83	19.47	14.84	11.62	7.53	5.09	3.88	3.04	16.08	10.86	8.28	6.48
9.69	7.36	26.77	17.53	13.57	10.30	7.00	4.58	3.55	2.69	14.93	9.78	7.57	5.75
16.60	14.66		31.56	23.24	20.54		8.25	6.07	5.37		17.60	12.96	11.45
16.60	14.66		31.56	23.24	20.54		8.25	6.07	5.37		17.60	12.96	11.45
5.76	4.40	15.78	10.48	8.06	6.16	4.12	2.74	2.11	1.61	8.80	5.85	4.50	3.43
9.82	7.49	26.77	17.85	13.75	10.48	7.00	4.66	3.59	2.74	14.93	9.95	7.67	5.85
6.95	5.23	19.10	12.44	9.73	7.33	4.99	3.25	2.54	1.92	10.65	6.94	5.43	4.09
10.92	8.50	29.69	19.86	15.30	11.90	7.76	5.19	4.00	3.11	16.56	11.07	8.53	6.64
9.82	7.49	26.77	17.85	13.75	10.48	7.00	4.66	3.59	2.74	14.93	9.95	7.67	5.85
7.81	5.98	20.54	14.08	10.94	8.37	5.37	3.68	2.86	2.19	11.45	7.85	6.10	4.67
13.90	10.60	38.44	25.41	19.47	14.84	10.05	6.64	5.09	3.88	21.44	14.17	10.86	8.28
12.30	9.31	33.31	22.37	17.23	13.04	8.71	5.85	4.50	3.41	18.58	12.48	9.61	7.27

6.95	5.23		19.10	12.44	9.73	7.33		4.99	3.25	2.54	1.92		10.65	6.94	5.43	4.09
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north

Second floor

N1D max: 8.9 m

111.33 kN

	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m

27.24	18.16	14.00	10.67
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23.65	15.11	11.83	8.92
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21.34	13.81	10.78	8.14
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19.44	12.66	9.91	7.46
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16.06	10.67	8.20	6.27
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30.21	20.21	15.57	12.11
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27.24	18.16	14.00	10.67
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24.81	17.05	13.27	10.27
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22.77	15.57	12.11	9.30
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20.90	14.33	11.14	8.52
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17.54	11.83	9.08	7.08
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16.06	10.67	8.20	6.27
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39.12	25.86	19.81	15.11
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33.90	22.77	17.54	13.27
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45.54	30.21	23.65	18.16
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41.80	28.79	22.77	17.34
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39.12	25.86	20.21	15.57
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29.34	19.81	15.11	11.83
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27.24	17.84	13.81	10.49
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32.12	23.65	20.90
-------	-------	-------

32.12	23.65	20.90
-------	-------	-------

16.06	10.67	8.20	6.27
-------	-------	------	------

27.24	18.16	14.00	10.67
-------	-------	-------	-------

19.44	12.66	9.91	7.46
-------	-------	------	------

30.21	20.21	15.57	12.11
-------	-------	-------	-------

27.24	18.16	14.00	10.67
-------	-------	-------	-------

20.90	14.33	11.14	8.52
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39.12	25.86	19.81	15.11
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33.90	22.77	17.54	13.27
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north

19.44 12.66 9.91 7.46

Nominal unit shear capacities		south		0.01		Roof	
Wind						S3A max:	
Wood-based panels (4.3A)				Factored values (ASD)		54.95 kN	
6	4	3	2	6	4	3	2
plf	plf	plf	plf	kN/m	kN/m	kN/m	kN/m
560	840	1090	1430	8.17	12.26	15.91	20.87
645	1010	1290	1710	9.41	14.74	18.83	24.96
715	1105	1415	1875	10.43	16.13	20.65	27.36
785	1205	1540	2045	11.46	17.59	22.47	29.84
950	1430	1860	2435	13.86	20.87	27.14	35.54
505	755	980	1260	7.37	11.02	14.30	18.39
560	840	1090	1430	8.17	12.26	15.91	20.87
615	895	1150	1485	8.98	13.06	16.78	21.67
670	980	1260	1640	9.78	14.30	18.39	23.93
730	1065	1370	1790	10.65	15.54	19.99	26.12
870	1290	1680	2155	12.70	18.83	24.52	31.45
950	1430	1860	2435	13.86	20.87	27.14	35.54
390	590	770	1010	5.69	8.61	11.24	14.74
450	670	870	1150	6.57	9.78	12.70	16.78
335	505	645	840	4.89	7.37	9.41	12.26
365	530	670	880	5.33	7.73	9.78	12.84
390	590	755	980	5.69	8.61	11.02	14.30
520	770	1010	1290	7.59	11.24	14.74	18.83
560	855	1105	1455	8.17	12.48	16.13	21.23
	475	645	730		6.93	9.41	10.65
	475	645	730		6.93	9.41	10.65
Wood sheathing families (4.3B)						6.93 10.43 13.57 17.77	
6	4	3	2	6	4	3	2
plf	plf	plf	plf	kN/m	kN/m	kN/m	kN/m
560.00	840.00	1,090.00	1,430.00	8.17	12.26	15.91	20.87
785.00	1,205.00	1,540.00	2,045.00	11.46	17.59	22.47	29.84
505.00	755.00	980.00	1,260.00	7.37	11.02	14.30	18.39
560.00	840.00	1,090.00	1,430.00	8.17	12.26	15.91	20.87
730.00	1,065.00	1,370.00	1,790.00	10.65	15.54	19.99	26.12
390.00	590.00	770.00	1,010.00	5.69	8.61	11.24	14.74
450.00	670.00	870.00	1,150.00	6.57	9.78	12.70	16.78
						4.09 6.13 7.95 10.43	
						5.73 8.79 11.24 14.92	
						3.68 5.51 7.15 9.19	
						4.09 6.13 7.95 10.43	
						13.45 8.96	
						9.59 6.25	
						14.91 9.97	
						13.45 8.96	
						12.24 8.41	
						11.24 7.68	
						10.32 7.07	
						8.66 5.84	
						7.93 5.27	
						19.31 12.76	
						16.73 11.24	
						22.48 14.91	
						20.63 14.21	
						19.31 12.76	
						14.48 9.78	
						13.45 8.81	
						15.85	
						15.85	
						7.93 5.27	

south

5.73 8.79 11.24 14.92 9.59 6.25

Gypsum sheathing families (4.3C)

plf	kN/ft	kN/m	
150	0.67	2.19	0.01
220	0.98	3.21	
200	0.89	2.92	
250	1.11	3.65	
250	1.11	3.65	
300	1.33	4.38	
120	0.53	1.75	
320	1.42	4.67	
310	1.38	4.52	
140	0.62	2.04	
180	0.80	2.63	
230	1.02	3.36	
290	1.29	4.23	
290	1.29	4.23	
350	1.56	5.11	
140	0.62	2.04	
180	0.80	2.63	
500	2.22	7.30	
150	0.67	2.19	
350	1.56	5.11	
200	0.89	2.92	
400	1.78	5.84	
360	1.60	5.25	
200	0.89	2.92	
360	1.60	5.25	

1.09	50.20
1.61	34.23
1.46	37.65
1.82	30.12
1.82	30.12
2.19	25.10
0.88	62.75
2.34	23.53
2.26	24.29
1.02	53.79
1.31	41.84
1.68	32.74
2.12	25.97
2.12	25.97
2.55	21.52
1.02	53.79
1.31	41.84
3.65	15.06
1.09	50.20
2.55	21.52
1.46	37.65
2.92	18.83
2.63	20.92
1.46	37.65
2.63	20.92
3.65	15.06

Lumber shear walls (4.3D)

plf	kN/ft	kN/m
140	0.62	2.04
840	3.74	12.26
1680	7.47	24.52
125	0.56	1.82

1.02	53.79
6.13	8.96
12.26	4.48
0.91	60.24
12.26	4.48

south

9.2 m		Third floor S2A max: 9.2 m 98.51 kN				Second floor S1A max: 8.454 m 143.06			
3	2	6	4	3	2	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m
6.91	5.27	24.11	16.07	12.39	9.44	35.01	23.34	17.99	13.71
5.84	4.40	20.93	13.37	10.47	7.89	30.40	19.41	15.20	11.47
5.32	4.02	18.88	12.22	9.54	7.20	27.42	17.74	13.86	10.46
4.89	3.68	17.20	11.20	8.77	6.60	24.98	16.27	12.73	9.59
4.05	3.09	14.21	9.44	7.26	5.54	20.64	13.71	10.54	8.05
7.68	5.98	26.73	17.88	13.78	10.71	38.82	25.97	20.01	15.56
6.91	5.27	24.11	16.07	12.39	9.44	35.01	23.34	17.99	13.71
6.55	5.07	21.95	15.08	11.74	9.09	31.88	21.91	17.05	13.20
5.98	4.59	20.15	13.78	10.71	8.23	29.26	20.01	15.56	11.95
5.50	4.21	18.49	12.68	9.85	7.54	26.86	18.41	14.31	10.95
4.48	3.49	15.52	10.47	8.04	6.26	22.54	15.20	11.67	9.10
4.05	3.09	14.21	9.44	7.26	5.54	20.64	13.71	10.54	8.05
9.78	7.46	34.62	22.88	17.53	13.37	50.27	33.23	25.46	19.41
8.66	6.55	30.00	20.15	15.52	11.74	43.57	29.26	22.54	17.05
11.68	8.96	40.30	26.73	20.93	16.07	58.52	38.82	30.40	23.34
11.24	8.56	36.99	25.47	20.15	15.34	53.71	36.99	29.26	22.28
9.97	7.68	34.62	22.88	17.88	13.78	50.27	33.23	25.97	20.01
7.46	5.84	25.96	17.53	13.37	10.47	37.70	25.46	19.41	15.20
6.81	5.18	24.11	15.79	12.22	9.28	35.01	22.93	17.74	13.47
11.68	10.32		28.42	20.93	18.49		41.27	30.40	26.86
11.68	10.32		28.42	20.93	18.49		41.27	30.40	26.86
4.05	3.09	14.21	9.44	7.26	5.54	20.64	13.71	10.54	8.05
6.91	5.27	24.11	16.07	12.39	9.44	35.01	23.34	17.99	13.71
4.89	3.68	17.20	11.20	8.77	6.60	24.98	16.27	12.73	9.59
7.68	5.98	26.73	17.88	13.78	10.71	38.82	25.97	20.01	15.56
6.91	5.27	24.11	16.07	12.39	9.44	35.01	23.34	17.99	13.71
5.50	4.21	18.49	12.68	9.85	7.54	26.86	18.41	14.31	10.95
9.78	7.46	34.62	22.88	17.53	13.37	50.27	33.23	25.46	19.41
8.66	6.55	30.00	20.15	15.52	11.74	43.57	29.26	22.54	17.05

			south				
4.89	3.68	17.20	11.20	8.77	6.60	24.98	16.27 12.73 9.59

90.00	130.70
61.36	89.12
67.50	98.03
54.00	78.42
54.00	78.42
45.00	65.35
112.50	163.38
42.19	61.27
43.55	63.24
96.43	140.04
75.00	108.92
58.70	85.24
46.55	67.61
46.55	67.61
38.57	56.02
96.43	140.04
75.00	108.92
27.00	39.21
90.00	130.70
38.57	56.02
67.50	98.03
33.75	49.01
37.50	54.46
67.50	98.03
37.50	54.46
27.00	39.21

96.43	140.04
16.07	23.34
8.04	11.67
108.00	156.84
8.04	11.67

east

Nominal unit shear capacities

Wind

0.01

Wood-based panels (4.3A)

Factored values (ASD)

Roof

E3A max:

68.76 kN

[illegible]

Wood sheathing families (4.3B)

6	4	3	2	6	4	3	2						
plf	plf	plf	plf	kN/m	kN/m	kN/m	kN/m						
560.00	840.00	1,090.00	1,430.00	8.17	12.26	15.91	20.87	4.09	6.13	7.95	10.43	16.83	11.22
785.00	1,205.00	1,540.00	2,045.00	11.46	17.59	22.47	29.84	5.73	8.79	11.24	14.92	12.00	7.82
505.00	755.00	980.00	1,260.00	7.37	11.02	14.30	18.39	3.68	5.51	7.15	9.19	18.66	12.48
560.00	840.00	1,090.00	1,430.00	8.17	12.26	15.91	20.87	4.09	6.13	7.95	10.43	16.83	11.22
730.00	1,065.00	1,370.00	1,790.00	10.65	15.54	19.99	26.12	5.33	7.77	10.00	13.06	12.91	8.85
390.00	590.00	770.00	1,010.00	5.69	8.61	11.24	14.74	2.85	4.31	5.62	7.37	24.16	15.97
450.00	670.00	870.00	1,150.00	6.57	9.78	12.70	16.78	3.28	4.89	6.35	8.39	20.94	14.06

east

5.73 8.79 11.24 14.92 12.00 7.82

Gypsum sheathing families (4.3C)

plf	kN/ft	kN/m	
150	0.67	2.19	0.01
220	0.98	3.21	
200	0.89	2.92	
250	1.11	3.65	
250	1.11	3.65	
300	1.33	4.38	
120	0.53	1.75	
320	1.42	4.67	
310	1.38	4.52	
140	0.62	2.04	
180	0.80	2.63	
230	1.02	3.36	
290	1.29	4.23	
290	1.29	4.23	
350	1.56	5.11	
140	0.62	2.04	
180	0.80	2.63	
500	2.22	7.30	
150	0.67	2.19	
350	1.56	5.11	
200	0.89	2.92	
400	1.78	5.84	
360	1.60	5.25	
200	0.89	2.92	
360	1.60	5.25	

1.09	62.82
1.61	42.83
1.46	47.12
1.82	37.69
1.82	37.69
2.19	31.41
0.88	78.53
2.34	29.45
2.26	30.40
1.02	67.31
1.31	52.35
1.68	40.97
2.12	32.49
2.12	32.49
2.55	26.92
1.02	67.31
1.31	52.35
3.65	18.85
1.09	62.82
2.55	26.92
1.46	47.12
2.92	23.56
2.63	26.18
1.46	47.12
2.63	26.18
3.65	18.85

Lumber shear walls (4.3D)

plf	kN/ft	kN/m
140	0.62	2.04
840	3.74	12.26
1680	7.47	24.52
125	0.56	1.82

1.02	67.31
6.13	11.22
12.26	5.61
0.91	75.39
12.26	5.61

east

9.2 m		Roof E3B max: 9.2 m 21.54 kN				Roof E3C max: 5.95 m 59.39				Third floor E2A max: 9.2 m 117.70 kN			
3	2	6	4	3	2	6	4	3	2	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m
8.65	6.59	5.27	3.51	2.71	2.06	14.53	9.69	7.47	5.69	28.80	19.20	14.80	11.28
7.31	5.51	4.58	2.92	2.29	1.73	12.62	8.06	6.31	4.76	25.01	15.97	12.50	9.43
6.66	5.03	4.13	2.67	2.09	1.57	11.38	7.37	5.75	4.34	22.56	14.60	11.40	8.60
6.12	4.61	3.76	2.45	1.92	1.44	10.37	6.75	5.28	3.98	20.55	13.39	10.47	7.89
5.07	3.87	3.11	2.06	1.59	1.21	8.57	5.69	4.38	3.34	16.98	11.28	8.67	6.62
9.62	7.48	5.84	3.91	3.01	2.34	16.12	10.78	8.30	6.46	31.94	21.36	16.46	12.80
8.65	6.59	5.27	3.51	2.71	2.06	14.53	9.69	7.47	5.69	28.80	19.20	14.80	11.28
8.19	6.35	4.80	3.30	2.57	1.99	13.23	9.09	7.08	5.48	26.23	18.02	14.03	10.86
7.48	5.75	4.40	3.01	2.34	1.80	12.15	8.30	6.46	4.96	24.07	16.46	12.80	9.83
6.88	5.26	4.04	2.77	2.15	1.65	11.15	7.64	5.94	4.55	22.10	15.14	11.77	9.01
5.61	4.37	3.39	2.29	1.76	1.37	9.35	6.31	4.84	3.78	18.54	12.50	9.60	7.48
5.07	3.87	3.11	2.06	1.59	1.21	8.57	5.69	4.38	3.34	16.98	11.28	8.67	6.62
12.24	9.33	7.57	5.00	3.83	2.92	20.87	13.79	10.57	8.06	41.36	27.34	20.95	15.97
10.83	8.19	6.56	4.40	3.39	2.57	18.09	12.15	9.35	7.08	35.84	24.07	18.54	14.03
14.61	11.22	8.81	5.84	4.58	3.51	24.29	16.12	12.62	9.69	48.15	31.94	25.01	19.20
14.06	10.71	8.09	5.57	4.40	3.35	22.30	15.36	12.15	9.25	44.19	30.43	24.07	18.33
12.48	9.62	7.57	5.00	3.91	3.01	20.87	13.79	10.78	8.30	41.36	27.34	21.36	16.46
9.33	7.31	5.68	3.83	2.92	2.29	15.65	10.57	8.06	6.31	31.02	20.95	15.97	12.50
8.53	6.48	5.27	3.45	2.67	2.03	14.53	9.52	7.37	5.59	28.80	18.86	14.60	11.09
14.61	12.91		6.21	4.58	4.04		17.13	12.62	11.15		33.96	25.01	22.10
14.61	12.91		6.21	4.58	4.04		17.13	12.62	11.15		33.96	25.01	22.10
5.07	3.87	3.11	2.06	1.59	1.21	8.57	5.69	4.38	3.34	16.98	11.28	8.67	6.62
8.65	6.59	5.27	3.51	2.71	2.06	14.53	9.69	7.47	5.69	28.80	19.20	14.80	11.28
6.12	4.61	3.76	2.45	1.92	1.44	10.37	6.75	5.28	3.98	20.55	13.39	10.47	7.89
9.62	7.48	5.84	3.91	3.01	2.34	16.12	10.78	8.30	6.46	31.94	21.36	16.46	12.80
8.65	6.59	5.27	3.51	2.71	2.06	14.53	9.69	7.47	5.69	28.80	19.20	14.80	11.28
6.88	5.26	4.04	2.77	2.15	1.65	11.15	7.64	5.94	4.55	22.10	15.14	11.77	9.01
12.24	9.33	7.57	5.00	3.83	2.92	20.87	13.79	10.57	8.06	41.36	27.34	20.95	15.97
10.83	8.19	6.56	4.40	3.39	2.57	18.09	12.15	9.35	7.08	35.84	24.07	18.54	14.03

					east									
6.12	4.61		3.76	2.45	1.92	1.44	10.37	6.75	5.28	3.98	20.55	13.39	10.47	7.89

19.68	54.26	107.53
13.42	36.99	73.32
14.76	40.69	80.65
11.81	32.56	64.52
11.81	32.56	64.52
9.84	27.13	53.76
24.59	67.82	134.41
9.22	25.43	50.40
9.52	26.25	52.03
21.08	58.13	115.21
16.40	45.22	89.61
12.83	35.39	70.13
10.18	28.06	55.62
10.18	28.06	55.62
8.43	23.25	46.08
21.08	58.13	115.21
16.40	45.22	89.61
5.90	16.28	32.26
19.68	54.26	107.53
8.43	23.25	46.08
14.76	40.69	80.65
7.38	20.35	40.32
8.20	22.61	44.80
14.76	40.69	80.65
8.20	22.61	44.80
5.90	16.28	32.26

21.08	58.13	115.21
3.51	9.69	19.20
1.76	4.84	9.60
23.61	65.11	129.03
1.76	4.84	9.60

east

Third floor				
E2B	max:	9.2 m		
	36.86 kN			
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m
9.02	6.01	4.63	3.53	
7.83	5.00	3.92	2.95	
7.07	4.57	3.57	2.69	
6.44	4.19	3.28	2.47	
5.32	3.53	2.72	2.07	
10.00	6.69	5.15	4.01	
9.02	6.01	4.63	3.53	
8.21	5.64	4.39	3.40	
7.54	5.15	4.01	3.08	
6.92	4.74	3.69	2.82	
5.81	3.92	3.01	2.34	
5.32	3.53	2.72	2.07	
12.95	8.56	6.56	5.00	
11.23	7.54	5.81	4.39	
15.08	10.00	7.83	6.01	
13.84	9.53	7.54	5.74	
12.95	8.56	6.69	5.15	
9.71	6.56	5.00	3.92	
9.02	5.91	4.57	3.47	
	10.63	7.83	6.92	
	10.63	7.83	6.92	
5.32	3.53	2.72	2.07	

Third floor				
E2C	max:	5.95 m		
	101.65			
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m
24.88	16.58	12.78	9.74	
21.60	13.79	10.80	8.15	
19.48	12.61	9.84	7.43	
17.75	11.56	9.05	6.81	
14.66	9.74	7.49	5.72	
27.59	18.45	14.21	11.06	
24.88	16.58	12.78	9.74	
22.65	15.56	12.11	9.38	
20.79	14.21	11.06	8.49	
19.08	13.08	10.17	7.78	
16.01	10.80	8.29	6.46	
14.66	9.74	7.49	5.72	
35.72	23.61	18.09	13.79	
30.96	20.79	16.01	12.11	
41.58	27.59	21.60	16.58	
38.17	26.28	20.79	15.83	
35.72	23.61	18.45	14.21	
26.79	18.09	13.79	10.80	
24.88	16.29	12.61	9.57	
	29.33	21.60	19.08	
	29.33	21.60	19.08	
14.66	9.74	7.49	5.72	

Second floor				
E1A	max:	6.2 m		
	118.86			
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m
29.09	19.39	14.94	11.39	
25.26	16.13	12.63	9.53	
22.78	14.74	11.51	8.69	
20.75	13.52	10.58	7.97	
17.15	11.39	8.76	6.69	
32.26	21.58	16.62	12.93	
29.09	19.39	14.94	11.39	
26.49	18.20	14.16	10.97	
24.31	16.62	12.93	9.93	
22.31	15.30	11.89	9.10	
18.72	12.63	9.70	7.56	
17.15	11.39	8.76	6.69	
41.77	27.61	21.16	16.13	
36.20	24.31	18.72	14.16	
48.63	32.26	25.26	19.39	
44.63	30.74	24.31	18.51	
41.77	27.61	21.58	16.62	
31.33	21.16	16.13	12.63	
29.09	19.05	14.74	11.20	
	34.29	25.26	22.31	
	34.29	25.26	22.31	
17.15	11.39	8.76	6.69	

Second floor			
E1B	max:	9.2	
	8.09		
	6	4	3
kN/m	kN/m	kN/m	kN/m
1.98	1.32	1.02	
1.72	1.10	0.86	
1.55	1.00	0.78	
1.41	0.92	0.72	
1.17	0.78	0.60	
2.20	1.47	1.13	
1.98	1.32	1.02	
1.80	1.24	0.96	
1.65	1.13	0.88	
1.52	1.04	0.81	
1.27	0.86	0.66	
1.17	0.78	0.60	
2.84	1.88	1.44	
2.46	1.65	1.27	
3.31	2.20	1.72	
3.04	2.09	1.65	
2.84	1.88	1.47	
2.13	1.44	1.10	
1.98	1.30	1.00	
	2.33	1.72	
	2.33	1.72	
1.17	0.78	0.60	

9.02	6.01	4.63	3.53
6.44	4.19	3.28	2.47
10.00	6.69	5.15	4.01
9.02	6.01	4.63	3.53
6.92	4.74	3.69	2.82
12.95	8.56	6.56	5.00
11.23	7.54	5.81	4.39

24.88	16.58	12.78	9.74
17.75	11.56	9.05	6.81
27.59	18.45	14.21	11.06
24.88	16.58	12.78	9.74
19.08	13.08	10.17	7.78
35.72	23.61	18.09	13.79
30.96	20.79	16.01	12.11

29.09	19.39	14.94	11.39
20.75	13.52	10.58	7.97
32.26	21.58	16.62	12.93
29.09	19.39	14.94	11.39
22.31	15.30	11.89	9.10
41.77	27.61	21.16	16.13
36.20	24.31	18.72	14.16

1.98	1.32	1.02
1.41	0.92	0.72
2.20	1.47	1.13
1.98	1.32	1.02
1.52	1.04	0.81
2.84	1.88	1.44
2.46	1.65	1.27

east

6.44	4.19	3.28	2.47	17.75	11.56	9.05	6.81	20.75	13.52	10.58	7.97	1.41	0.92	0.72
33.68				92.87				108.60				7.39		
22.96				63.32				74.04				5.04		
25.26				69.65				81.45				5.54		
20.21				55.72				65.16				4.43		
20.21				55.72				65.16				4.43		
16.84				46.43				54.30				3.70		
42.10				116.09				135.75				9.24		
15.79				43.53				50.91				3.46		
16.30				44.94				52.55				3.58		
36.08				99.50				116.35				7.92		
28.06				77.39				90.50				6.16		
21.96				60.57				70.82				4.82		
17.42				48.04				56.17				3.82		
17.42				48.04				56.17				3.82		
14.43				39.80				46.54				3.17		
36.08				99.50				116.35				7.92		
28.06				77.39				90.50				6.16		
10.10				27.86				32.58				2.22		
33.68				92.87				108.60				7.39		
14.43				39.80				46.54				3.17		
25.26				69.65				81.45				5.54		
12.63				34.83				40.72				2.77		
14.03				38.70				45.25				3.08		
25.26				69.65				81.45				5.54		
14.03				38.70				45.25				3.08		
10.10				27.86				32.58				2.22		
36.08				99.50				116.35				7.92		
6.01				16.58				19.39				1.32		
3.01				8.29				9.70				0.66		
40.41				111.44				130.32				8.87		
3.01				8.29				9.70				0.66		

	east			
	Second floor			
m	E1C	max:	9.2 m	
	133.14			
2	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m
0.78	32.58	21.72	16.74	12.76
0.65	28.29	18.06	14.14	10.67
0.59	25.52	16.51	12.89	9.73
0.54	23.24	15.14	11.85	8.92
0.46	19.21	12.76	9.81	7.49
0.88	36.13	24.17	18.62	14.48
0.78	32.58	21.72	16.74	12.76
0.75	29.67	20.39	15.87	12.29
0.68	27.23	18.62	14.48	11.13
0.62	24.99	17.13	13.32	10.19
0.51	20.97	14.14	10.86	8.47
0.46	19.21	12.76	9.81	7.49
1.10	46.78	30.92	23.70	18.06
0.96	40.55	27.23	20.97	15.87
1.32	54.46	36.13	28.29	21.72
1.26	49.99	34.43	27.23	20.73
1.13	46.78	30.92	24.17	18.62
0.86	35.09	23.70	18.06	14.14
0.76	32.58	21.34	16.51	12.54
1.52		38.41	28.29	24.99
1.52		38.41	28.29	24.99
0.46	19.21	12.76	9.81	7.49
0.78	32.58	21.72	16.74	12.76
0.54	23.24	15.14	11.85	8.92
0.88	36.13	24.17	18.62	14.48
0.78	32.58	21.72	16.74	12.76
0.62	24.99	17.13	13.32	10.19
1.10	46.78	30.92	23.70	18.06
0.96	40.55	27.23	20.97	15.87

east

0.54

23.24 15.14 11.85 8.92

121.64

82.93

91.23

72.98

72.98

60.82

152.05

57.02

58.86

130.32

101.36

79.33

62.92

62.92

52.13

130.32

101.36

36.49

121.64

52.13

91.23

45.61

50.68

91.23

50.68

36.49

130.32

21.72

10.86

145.96

10.86

courtyard

Nominal unit shear capacities

0.01

Roof
EC3A max:
30.35 kN

Wood-based panels (4.3A)

Factored values (ASD)

Wind														
					6	4	3	2	6	4	3	2	6	4
					plf	plf	plf	plf	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m
	6	4	3	2										
	plf	plf	plf	plf										
	560	840	1090	1430	8.17	12.26	15.91	20.87	4.09	6.13	7.95	10.43	7.43	4.95
	645	1010	1290	1710	9.41	14.74	18.83	24.96	4.71	7.37	9.41	12.48	6.45	4.12
	715	1105	1415	1875	10.43	16.13	20.65	27.36	5.22	8.06	10.33	13.68	5.82	3.76
	785	1205	1540	2045	11.46	17.59	22.47	29.84	5.73	8.79	11.24	14.92	5.30	3.45
	950	1430	1860	2435	13.86	20.87	27.14	35.54	6.93	10.43	13.57	17.77	4.38	2.91
	505	755	980	1260	7.37	11.02	14.30	18.39	3.68	5.51	7.15	9.19	8.24	5.51
	560	840	1090	1430	8.17	12.26	15.91	20.87	4.09	6.13	7.95	10.43	7.43	4.95
	615	895	1150	1485	8.98	13.06	16.78	21.67	4.49	6.53	8.39	10.84	6.76	4.65
	670	980	1260	1640	9.78	14.30	18.39	23.93	4.89	7.15	9.19	11.97	6.21	4.24
	730	1065	1370	1790	10.65	15.54	19.99	26.12	5.33	7.77	10.00	13.06	5.70	3.91
	870	1290	1680	2155	12.70	18.83	24.52	31.45	6.35	9.41	12.26	15.72	4.78	3.22
	950	1430	1860	2435	13.86	20.87	27.14	35.54	6.93	10.43	13.57	17.77	4.38	2.91
	390	590	770	1010	5.69	8.61	11.24	14.74	2.85	4.31	5.62	7.37	10.66	7.05
	450	670	870	1150	6.57	9.78	12.70	16.78	3.28	4.89	6.35	8.39	9.24	6.21
	335	505	645	840	4.89	7.37	9.41	12.26	2.44	3.68	4.71	6.13	12.42	8.24
	365	530	670	880	5.33	7.73	9.78	12.84	2.66	3.87	4.89	6.42	11.40	7.85
	390	590	755	980	5.69	8.61	11.02	14.30	2.85	4.31	5.51	7.15	10.66	7.05
	520	770	1010	1290	7.59	11.24	14.74	18.83	3.79	5.62	7.37	9.41	8.00	5.40
	560	855	1105	1455	8.17	12.48	16.13	21.23	4.09	6.24	8.06	10.62	7.43	4.86
		475	645	730		6.93	9.41	10.65		3.47	4.71	5.33		8.76
		475	645	730		6.93	9.41	10.65		3.47	4.71	5.33		8.76
									6.93	10.43	13.57	17.77	4.38	2.91

Wood sheathing families (4.3B)

					6	4	3	2	6	4	3	2		
					plf	plf	plf	plf	kN/m	kN/m	kN/m	kN/m		
	6	4	3	2										
	plf	plf	plf	plf										
	560.00	840.00	1,090.00	1,430.00	8.17	12.26	15.91	20.87	4.09	6.13	7.95	10.43	7.43	4.95
	785.00	1,205.00	1,540.00	2,045.00	11.46	17.59	22.47	29.84	5.73	8.79	11.24	14.92	5.30	3.45
	505.00	755.00	980.00	1,260.00	7.37	11.02	14.30	18.39	3.68	5.51	7.15	9.19	8.24	5.51
	560.00	840.00	1,090.00	1,430.00	8.17	12.26	15.91	20.87	4.09	6.13	7.95	10.43	7.43	4.95
	730.00	1,065.00	1,370.00	1,790.00	10.65	15.54	19.99	26.12	5.33	7.77	10.00	13.06	5.70	3.91
	390.00	590.00	770.00	1,010.00	5.69	8.61	11.24	14.74	2.85	4.31	5.62	7.37	10.66	7.05
	450.00	670.00	870.00	1,150.00	6.57	9.78	12.70	16.78	3.28	4.89	6.35	8.39	9.24	6.21

courtyard

5.73 8.79 11.24 14.92 5.30 3.45

Gypsum sheathing families (4.3C)

plf	kN/ft	kN/m	
150	0.67	2.19	0.01
220	0.98	3.21	
200	0.89	2.92	
250	1.11	3.65	
250	1.11	3.65	
300	1.33	4.38	
120	0.53	1.75	
320	1.42	4.67	
310	1.38	4.52	
140	0.62	2.04	
180	0.80	2.63	
230	1.02	3.36	
290	1.29	4.23	
290	1.29	4.23	
350	1.56	5.11	
140	0.62	2.04	
180	0.80	2.63	
500	2.22	7.30	
150	0.67	2.19	
350	1.56	5.11	
200	0.89	2.92	
400	1.78	5.84	
360	1.60	5.25	
200	0.89	2.92	
360	1.60	5.25	

1.09	27.73
1.61	18.91
1.46	20.80
1.82	16.64
1.82	16.64
2.19	13.86
0.88	34.66
2.34	13.00
2.26	13.42
1.02	29.71
1.31	23.11
1.68	18.08
2.12	14.34
2.12	14.34
2.55	11.88
1.02	29.71
1.31	23.11
3.65	8.32
1.09	27.73
2.55	11.88
1.46	20.80
2.92	10.40
2.63	11.55
1.46	20.80
2.63	11.55
3.65	8.32

Lumber shear walls (4.3D)

plf	kN/ft	kN/m
140	0.62	2.04
840	3.74	12.26
1680	7.47	24.52
125	0.56	1.82

1.02	29.71
6.13	4.95
12.26	2.48
0.91	33.27
12.26	2.48

courtyard

9.2 m		Roof EC3B max: 9.2 m 4.77 kN				Roof EC3C max: 9.20 m 59.25				Third floor EC2A max: 9.2 m 54.41 kN			
3	2	6	4	3	2	6	4	3	2	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m	kN/m
3.82	2.91	1.17	0.78	0.60	0.46	14.50	9.67	7.45	5.68	13.32	8.88	6.84	5.21
3.22	2.43	1.01	0.65	0.51	0.38	12.59	8.04	6.29	4.75	11.56	7.38	5.78	4.36
2.94	2.22	0.91	0.59	0.46	0.35	11.36	7.35	5.74	4.33	10.43	6.75	5.27	3.98
2.70	2.03	0.83	0.54	0.42	0.32	10.34	6.74	5.27	3.97	9.50	6.19	4.84	3.65
2.24	1.71	0.69	0.46	0.35	0.27	8.55	5.68	4.37	3.33	7.85	5.21	4.01	3.06
4.24	3.30	1.29	0.87	0.67	0.52	16.08	10.75	8.29	6.44	14.77	9.88	7.61	5.92
3.82	2.91	1.17	0.78	0.60	0.46	14.50	9.67	7.45	5.68	13.32	8.88	6.84	5.21
3.62	2.80	1.06	0.73	0.57	0.44	13.20	9.07	7.06	5.47	12.12	8.33	6.48	5.02
3.30	2.54	0.98	0.67	0.52	0.40	12.12	8.29	6.44	4.95	11.13	7.61	5.92	4.55
3.04	2.32	0.90	0.61	0.48	0.37	11.12	7.62	5.93	4.54	10.21	7.00	5.44	4.17
2.48	1.93	0.75	0.51	0.39	0.30	9.33	6.29	4.83	3.77	8.57	5.78	4.44	3.46
2.24	1.71	0.69	0.46	0.35	0.27	8.55	5.68	4.37	3.33	7.85	5.21	4.01	3.06
5.40	4.12	1.68	1.11	0.85	0.65	20.82	13.76	10.55	8.04	19.12	12.64	9.68	7.38
4.78	3.62	1.45	0.98	0.75	0.57	18.04	12.12	9.33	7.06	16.57	11.13	8.57	6.48
6.45	4.95	1.95	1.29	1.01	0.78	24.24	16.08	12.59	9.67	22.26	14.77	11.56	8.88
6.21	4.73	1.79	1.23	0.98	0.74	22.25	15.32	12.12	9.23	20.43	14.07	11.13	8.47
5.51	4.24	1.68	1.11	0.87	0.67	20.82	13.76	10.75	8.29	19.12	12.64	9.88	7.61
4.12	3.22	1.26	0.85	0.65	0.51	15.62	10.55	8.04	6.29	14.34	9.68	7.38	5.78
3.76	2.86	1.17	0.76	0.59	0.45	14.50	9.50	7.35	5.58	13.32	8.72	6.75	5.12
6.45	5.70		1.38	1.01	0.90		17.09	12.59	11.12		15.70	11.56	10.21
6.45	5.70		1.38	1.01	0.90		17.09	12.59	11.12		15.70	11.56	10.21
2.24	1.71	0.69	0.46	0.35	0.27	8.55	5.68	4.37	3.33	7.85	5.21	4.01	3.06
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3.82	2.91	1.17	0.78	0.60	0.46	14.50	9.67	7.45	5.68	13.32	8.88	6.84	5.21
2.70	2.03	0.83	0.54	0.42	0.32	10.34	6.74	5.27	3.97	9.50	6.19	4.84	3.65
4.24	3.30	1.29	0.87	0.67	0.52	16.08	10.75	8.29	6.44	14.77	9.88	7.61	5.92
3.82	2.91	1.17	0.78	0.60	0.46	14.50	9.67	7.45	5.68	13.32	8.88	6.84	5.21
3.04	2.32	0.90	0.61	0.48	0.37	11.12	7.62	5.93	4.54	10.21	7.00	5.44	4.17
5.40	4.12	1.68	1.11	0.85	0.65	20.82	13.76	10.55	8.04	19.12	12.64	9.68	7.38
4.78	3.62	1.45	0.98	0.75	0.57	18.04	12.12	9.33	7.06	16.57	11.13	8.57	6.48

2.70	2.03	0.83	0.54	0.42	0.32	10.34	6.74	5.27	3.97	9.50	6.19	4.84	3.65
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4.67	58.00	53.26
0.78	9.67	8.88
0.39	4.83	4.44
5.23	64.96	59.65
0.39	4.83	4.44

courtyard

Third floor				
EC2B max: 9.2 m				
8.56 kN				
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m
2.09	1.40	1.08	0.82	
1.82	1.16	0.91	0.69	
1.64	1.06	0.83	0.63	
1.49	0.97	0.76	0.57	
1.23	0.82	0.63	0.48	
2.32	1.55	1.20	0.93	
2.09	1.40	1.08	0.82	
1.91	1.31	1.02	0.79	
1.75	1.20	0.93	0.72	
1.61	1.10	0.86	0.66	
1.35	0.91	0.70	0.54	
1.23	0.82	0.63	0.48	
3.01	1.99	1.52	1.16	
2.61	1.75	1.35	1.02	
3.50	2.32	1.82	1.40	
3.21	2.21	1.75	1.33	
3.01	1.99	1.55	1.20	
2.26	1.52	1.16	0.91	
2.09	1.37	1.06	0.81	
	2.47	1.82	1.61	
	2.47	1.82	1.61	
1.23	0.82	0.63	0.48	

Third floor				
EC2C max: 9.2 m				
106.22				
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m
25.99	17.33	13.35	10.18	
22.57	14.41	11.28	8.51	
20.36	13.17	10.29	7.76	
18.54	12.08	9.45	7.12	
15.32	10.18	7.83	5.98	
28.83	19.28	14.85	11.55	
25.99	17.33	13.35	10.18	
23.67	16.26	12.66	9.80	
21.73	14.85	11.55	8.88	
19.94	13.67	10.63	8.13	
16.73	11.28	8.66	6.75	
15.32	10.18	7.83	5.98	
37.33	24.67	18.90	14.41	
32.35	21.73	16.73	12.66	
43.45	28.83	22.57	17.33	
39.88	27.47	21.73	16.54	
37.33	24.67	19.28	14.85	
27.99	18.90	14.41	11.28	
25.99	17.03	13.17	10.00	
	30.65	22.57	19.94	
	30.65	22.57	19.94	
15.32	10.18	7.83	5.98	

Second floor				
EC1A max: 4.87 m				
79.02				
	6	4	3	2
kN/m	kN/m	kN/m	kN/m	kN/m
19.34	12.89	9.94	7.57	
16.79	10.72	8.39	6.33	
15.15	9.80	7.65	5.78	
13.80	8.99	7.03	5.30	
11.40	7.57	5.82	4.45	
21.44	14.34	11.05	8.59	
19.34	12.89	9.94	7.57	
17.61	12.10	9.42	7.29	
16.16	11.05	8.59	6.60	
14.83	10.17	7.90	6.05	
12.45	8.39	6.45	5.03	
11.40	7.57	5.82	4.45	
27.77	18.35	14.06	10.72	
24.06	16.16	12.45	9.42	
32.33	21.44	16.79	12.89	
29.67	20.43	16.16	12.31	
27.77	18.35	14.34	11.05	
20.83	14.06	10.72	8.39	
19.34	12.67	9.80	7.44	
	22.80	16.79	14.83	
	22.80	16.79	14.83	
11.40	7.57	5.82	4.45	

Second floor			
EC1B max: 9.2			
12.43			
	6	4	3
kN/m	kN/m	kN/m	kN/m
3.04	2.03	1.56	
2.64	1.69	1.32	
2.38	1.54	1.20	
2.17	1.41	1.11	
1.79	1.19	0.92	
3.37	2.26	1.74	
3.04	2.03	1.56	
2.77	1.90	1.48	
2.54	1.74	1.35	
2.33	1.60	1.24	
1.96	1.32	1.01	
1.79	1.19	0.92	
4.37	2.89	2.21	
3.79	2.54	1.96	
5.08	3.37	2.64	
4.67	3.21	2.54	
4.37	2.89	2.26	
3.28	2.21	1.69	
3.04	1.99	1.54	
	3.59	2.64	
	3.59	2.64	
1.79	1.19	0.92	

2.09	1.40	1.08	0.82	25.99	17.33	13.35	10.18	19.34	12.89	9.94	7.57	3.04	2.03	1.56
1.49	0.97	0.76	0.57	18.54	12.08	9.45	7.12	13.80	8.99	7.03	5.30	2.17	1.41	1.11
2.32	1.55	1.20	0.93	28.83	19.28	14.85	11.55	21.44	14.34	11.05	8.59	3.37	2.26	1.74
2.09	1.40	1.08	0.82	25.99	17.33	13.35	10.18	19.34	12.89	9.94	7.57	3.04	2.03	1.56
1.61	1.10	0.86	0.66	19.94	13.67	10.63	8.13	14.83	10.17	7.90	6.05	2.33	1.60	1.24
3.01	1.99	1.52	1.16	37.33	24.67	18.90	14.41	27.77	18.35	14.06	10.72	4.37	2.89	2.21
2.61	1.75	1.35	1.02	32.35	21.73	16.73	12.66	24.06	16.16	12.45	9.42	3.79	2.54	1.96

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1.49	0.97	0.76	0.57	18.54	12.08	9.45	7.12	13.80	8.99	7.03	5.30	2.17	1.41	1.11
7.82				97.05				72.19				11.36		
5.33				66.17				49.22				7.74		
5.87				72.78				54.15				8.52		
4.69				58.23				43.32				6.81		
4.69				58.23				43.32				6.81		
3.91				48.52				36.10				5.68		
9.78				121.31				90.24				14.20		
3.67				45.49				33.84				5.32		
3.78				46.96				34.93				5.50		
8.38				103.98				77.35				12.17		
6.52				80.87				60.16				9.46		
5.10				63.29				47.08				7.41		
4.05				50.20				37.34				5.87		
4.05				50.20				37.34				5.87		
3.35				41.59				30.94				4.87		
8.38				103.98				77.35				12.17		
6.52				80.87				60.16				9.46		
2.35				29.11				21.66				3.41		
7.82				97.05				72.19				11.36		
3.35				41.59				30.94				4.87		
5.87				72.78				54.15				8.52		
2.93				36.39				27.07				4.26		
3.26				40.44				30.08				4.73		
5.87				72.78				54.15				8.52		
3.26				40.44				30.08				4.73		
2.35				29.11				21.66				3.41		
8.38				103.98				77.35				12.17		
1.40				17.33				12.89				2.03		
0.70				8.66				6.45				1.01		
9.38				116.45				86.63				13.63		
0.70				8.66				6.45				1.01		

courtyard

Second floor

m	EC1C	max:	9.2 m		
	154.27				
2	6	4	3	2	
kN/m	kN/m	kN/m	kN/m	kN/m	
1.19	37.75	25.17	19.40	14.78	
1.00	32.78	20.93	16.39	12.36	
0.91	29.57	19.13	14.94	11.28	
0.83	26.93	17.54	13.73	10.34	
0.70	22.25	14.78	11.37	8.68	
1.35	41.86	28.00	21.57	16.78	
1.19	37.75	25.17	19.40	14.78	
1.15	34.38	23.62	18.38	14.24	
1.04	31.55	21.57	16.78	12.89	
0.95	28.96	19.85	15.43	11.81	
0.79	24.30	16.39	12.58	9.81	
0.70	22.25	14.78	11.37	8.68	
1.69	54.21	35.83	27.46	20.93	
1.48	46.98	31.55	24.30	18.38	
2.03	63.11	41.86	32.78	25.17	
1.94	57.92	39.89	31.55	24.02	
1.74	54.21	35.83	28.00	21.57	
1.32	40.66	27.46	20.93	16.39	
1.17	37.75	24.73	19.13	14.53	
2.33		44.51	32.78	28.96	
2.33		44.51	32.78	28.96	
0.70	22.25	14.78	11.37	8.68	
1.19	37.75	25.17	19.40	14.78	
0.83	26.93	17.54	13.73	10.34	
1.35	41.86	28.00	21.57	16.78	
1.19	37.75	25.17	19.40	14.78	
0.95	28.96	19.85	15.43	11.81	
1.69	54.21	35.83	27.46	20.93	
1.48	46.98	31.55	24.30	18.38	

courtyard

0.83

26.93 17.54 13.73 10.34

140.94

96.10

105.71

84.57

84.57

70.47

176.18

66.07

68.20

151.01

117.45

91.92

72.90

72.90

60.40

151.01

117.45

42.28

140.94

60.40

105.71

52.85

58.73

105.71

58.73

42.28

151.01

25.17

12.58

169.13

12.58

floor

1	3.4544
2	3.3528
3	3.302

connection

Nails capacities

Type	Length	Capacity lbs/unit	kN/unit
16d		165	0.73
20d		188	0.84

Wood screws capacities

14 (d= 0.242 in)	4	260	1.16
16 (d= 0.268 in)	4	308	1.37
18 (d= 0.294 in)	4	323	1.44
20(d= 0.32 in)	4	344	1.53
SDWS	6	424	1.89

Bolts

½ in	4	1121	4.99
¾ in	4	2120	9.43
1 in	4	3543	15.76