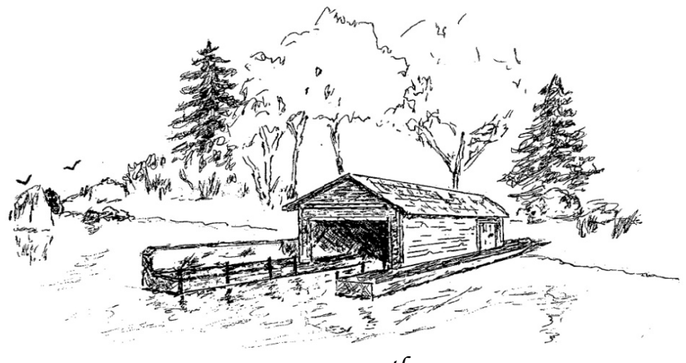
Structural Load Calculations
for the
Miller
Residence

Job: 20-024
Site 7238 SE 32nd Street
Address : Mercer Island, WA 98040
Date: August 22, 2020

Stoney Point Engineering



12033 SE 40th Lane
Bellevue, WA 98006
Phone: 425-644-9500
dwayne@stoneypointengineering.com

Structural Design (2015 IBC)

20-024 Lat 8/22/2020

Gravity Design Loads (IBC 1606, 1607, 1608)

	Description	I.D.	Dead Loads (D)																		Live Load (L)	Snow Load (S) (ASCE 7-10 Chap. 7) I = 1.0 C_t = 1.0 p_g = 25 psf $p_f = 0.7 C_e C_t I p_g$ p_f = 21 psf C_e = 1.2								
			Pitch	Material 1	Spc. (in.)	D_1 (psf)	Material 2	Spc. (in.)	D_2 (psf)	Material 3	Spc. (in.)	D_3 (psf)	Material 4	Spc. (in.)	D_4 (psf)	Material 5	Spc. (in.)	D_5 (psf)	D (psf) Flat	Slope	Used	L/L r (psf)	Drift Surcharges W_b	h_r	X_d	W_d	Drift	Slide	Un-bal	Slope	S (psf)
1	Roof Load	R	10 : 12	Trusses		3.5	1/2" Plywood		1.5	Comp		2.0	5/8" Sheetrock		2.8	Insulation	12.00	1.2	11.0	14.3	15.0	25.0									25
2	Floor	F		TJI 11.875-210	16.00	2.1	3/4" Plywood		2.3	Hardwood		3.4	5/8" Sheetrock		2.8				10.5	10.5	15.0	40.0									
3	Wall	W		2x6	16.00	1.2	1/2" Plywood		1.5	1/2" Sheetrock		2.2	Insulation	5.50	0.6	Stone Veneer		6.5	11.9	11.9	15.0	0.0									
4	Brick Wall	BW		2x6	16.00	1.2	1/2" Plywood		1.5	1/2" Sheetrock		2.2	Insulation	5.50	0.6	Brick Veneer		19.0	24.4	24.4	25.0	0.0									
5																														
6																														
7																														
8																														
9																														
10																														

Lumber Strengths (psi)

	F_b	F_t	F_v	$F_{c\perp}$	F_c	E
Joist/Rafters						
Hem-Fir #2	850	525	150	405	1300	1.30
Beams and Headers						
4" Nominal Doug-Fir #2	900	575	180	625	1350	1.60
6" Nominal Doug-Fir #1	1350	675	170	625	925	1.60
Posts						
4" Nominal Doug-Fir #1	1000	675	180	625	1500	1.70
6" Nominal Doug-Fir #1	1200	950	170	625	1000	1.60
Studs Hem-Fir Stud	675	400	150	405	800	1.20
Laminated Strand Lumber (LSL)						
1.3 E	1700		400	680	1400	1.30
1.55 E	2325		310	400	2050	1.55
Microllam (LVL)						
1.9 E	2600	1555	285	750	2510	1.90
Parallel Strand Lumber (PSL)						
2.0 E	2900	2025	290	750	2900	2.00
P.T. 2.0 E	2175		191	465	2059	1.78
Glu-Laminated Timbers						
24F-V4	2400	1100	240	650	1650	1.80

APA Rated Sheathing		Span Rating	Max Span with Design Loads (in)
Roof	5/8" Ply	20/40	24.0
Wall	15/32" Ply	24/0	16.0
Floor (T&G)	3/4 Ply	48/24	24.0

Wind Loads (IBC 1609.1.1)

ASCE (7-10) Chap 27 Directional Procedure

3 Second Gust =	110	mph	
Exposure Category =	B		Sect. 26.7.3
Mean Roof Height =	36.0	ft	
K_d =	0.85	ft	Table 26.6-1
K_{zt} =	1.60		Eq 26.8.1
K_h =	0.74		Table 27.3-1
q_h =	31.1	lb/ft^2	Eq 27.3-1
G =	0.85		Sec. 26.9
$p = q_h(GC_p - GCp_i)$			Eq 27.4-1

Seismic Loads (IBC 1613.1)

ASCE (7-10) Sec. 12.14 Simplified Alternative for Simple Bearing Wall Systems

Spectral Response Acceleration, S_S =	140.60	
Site Class =	D	Table 20.3-1
Site Coefficient, F_a =	1.20	Table 11.4-1
Height Coefficient, F =	1.10	Sec. 12.14.8.1
Maximum Spectral Response Acceleration, S_{MS} =	168.7	Equation 11.4-1
5%Damped Design Spectral Response Acceleration, S_{DS} =	112.5	Equation 11.4-3
Seismic Design Category =	D	Table 11.6-1
Default Response Modification Coefficient, R =	6.50	Table 12.14-1

Deflection Limits (IBC Table 1604.3)

	L	S or W	$D + L$
Roof			
Plaster	360	360	240
Nonplaster	240	240	180
None	180	180	120
Floor	360		240
Walls		240	

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading										Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)			C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
1	Roof	2x6		9.00	PLY					R	R	7.80		7.80	2.00	2.00					0.74	340	73	593	73	2,805	195	117	600	
										W	W	7.80		7.80	4.80	4.80											0	281		
2	Roof	2x6		9.00	PLY					R	R	4.40		4.40	7.20	7.20					0.74	340	78	593	78	2,805	396	238	640	
3	Roof	2x6		9.00	PLY					R	R	4.40		4.40	2.00	2.00					0.74	340	30	593	30	2,805	110	66	250	
										W	W	4.40		4.40	2.00	2.00											0	66		
4	Roof	2x6		9.00	PLY					R	R	7.80		7.80	7.20	7.20					0.74	340	137	593	137	2,805	702	421	1,130	10
5	Roof	2x6		9.00	PLY					R	R	7.80		7.80	2.00	2.00					0.74	340	96	593	96	2,805	195	117	790	
										BW	BW	7.80		7.80	4.80	4.80											0	468		
6	Roof	2-2x6		9.00	PLY					R	R	24.00		24.00	7.30	7.30					0.74	340	213	593	213	5,610	2,190	1,314	3,510	
7	Roof	2-2x6		9.00	PLY					R	R	12.50		12.50	13.00	13.00					0.74	340	197	593	197	5,610	2,031	1,219	3,250	
8	Roof	2x6		9.00	PLY					R	R	2.20		2.20	13.00	13.00					0.74	340	70	593	70	2,805	358	215	580	
9	Roof	2x6		9.00	PLY					R	R	6.40		6.40	13.00	13.00					0.74	340	202	593	202	2,805	1,040	624	1,670	
10	Roof	6x6	10.00	10.00	SPF					R	R	15.20		15.20	6.80	6.80					0.56	425	68	754	68	12,856	1,292	775	2,070	
11	Roof	6x6	10.00	10.00	SPF					R	R	13.50		13.50	4.20	4.20					0.56	425	66	754	66	12,856	709	425	1,990	14
										12																	532	319		
12	Roof	HUC610			DF2					13		12.60	6.30													2,020	532	319	860	
13	Roof	6x6	10.00	10.00	SPF					R	R	13.50		13.50	6.30	6.30					0.56	425	57	754	57	12,856	1,063	638	1,710	
14	Roof	2x6		9.00	PLY					R	R	2.20		2.20	7.20	7.20					0.74	340	39	593	39	2,805	198	119	320	
15	Roof	2x6		9.00	PLY					R	R	2.90		2.90	7.50	7.50					0.74	340	53	593	53	2,805	272	163	440	
16	Roof	2x6		10.00	SPF					R	R	2.70		2.70	3.80	3.80					0.67	425	25	537	25	3,506	128	77	210	
17	Roof	2x6		10.00	SPF					R	R	8.60		8.60	2.00	2.00					0.67	425	78	537	78	3,506	215	129	640	8
										W	W	8.60		8.60	3.50	6.50											0	290		
18	Roof	2x6		10.00	SPF					R	R	8.60		8.60	2.00	2.00					0.67	425	85	537	85	3,506	215	129	700	8
										W	W	8.60		8.60	6.50	3.50											0	355		
19	Roof	2x6		9.00	PLY					R	R	4.40		4.40	2.00	2.00					0.74	340	41	593	41	2,805	110	66	340	
										W	W	4.40		4.40	4.80	4.80											0	158		
20	Roof	2x6		8.00	PLY					R	R	25.50		20.10	2.00	2.00					0.81	340	162	645	162	2,805	609	365	1,340	
										R	R	25.50	20.10	23.50	5.10	5.10											63	38		
										31		25.50	20.10														165	99		
21	Roof	2x6		9.00	PLY					R	R	6.90		6.90	2.00	2.00					0.74	340	257	593	257	2,805	173	104	2,120	
										22		6.90	1.90														1,148	689		
22	Roof				PLY					R	R	9.30		5.20	10.20	10.20											955	573	2,540	
										R	R	9.30	5.20	9.30	11.10	11.10											251	150		
										24		9.30	5.20														360	216		
										25		9.30	9.10														18	11		
23	Roof	2x4		8.00	PLY					R	R	6.90		6.90	2.00	2.00					0.50	340	187	399	187	1,785	173	104	980	
										22		6.90	5.00														436	262		
24	Roof	2x6		9.00	PLY					R	R	23.60		18.20	2.00	2.00					0.74	340	159	593	159	2,805	559	335	1,310	
										R	R	23.60	18.20	23.60	5.10	5.10											79	47		
										31		23.60	18.20														178	107		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading										Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)			C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
25	Roof	2x6		9.00	PLY					R	R	23.60		18.20	2.00	2.00					0.74	340	162	593	162	2,805	559	335	1,340	
										R	R	23.60	18.20	23.60	5.10	5.10											79	47		
										32		23.60	18.20														194	116		
26	Roof	3-2x4		9.00	PLY					R	R	9.30		4.10	11.10	11.10					0.41	340	257	331	257	5,217	887	532	4,050	
										R	R	9.30	4.10	9.30	10.20	10.20											371	222		
										25		9.30	0.20														814	488		
										24		9.30	4.10														456	274		
27	Roof	2x6		9.00	PLY					R	R	23.50		20.10	2.00	2.00					0.74	340	142	593	142	2,805	575	345	1,170	
										R	R	23.50	20.10	23.50	5.10	5.10											31	19		
										32		23.50	20.10														122	73		
28	Roof	2x6		8.00	PLY					R	R	2.20		2.20	2.00	2.00					0.81	340	17	645	17	2,805	55	33	140	
										W	W	2.20		2.20	2.30	4.00											0	47		
29	Roof	2x6		8.00	PLY					R	R	2.20		2.20	2.00	2.00					0.81	340	18	645	18	2,805	55	33	150	
										W	W	2.20		2.20	4.00	2.30											0	57		
30	Roof	2x6		8.00	PLY					R	R	2.20		2.20	2.00	2.00					0.81	340	24	645	24	2,805	55	33	200	
										W	W	2.20		2.20	6.70	6.70											0	111		
31	Roof									R	R	6.10		6.10	10.20	10.20											778	467	1,250	
32	Roof									R	R	6.10		6.10	11.10	11.10											846	508	1,360	
33	Roof	2x6		8.00	PLY					R	R	23.50		3.40	5.10	5.10					0.81	340	302	645	302	2,805	402	241	2,490	
										R	R	23.50	3.40	23.50	2.00	2.00											430	258		
										32		23.50	3.40														724	434		
34	Roof	2x6		8.00	PLY					R	R	25.50		5.40	5.10	5.10					0.81	340	315	645	315	2,805	616	369	2,600	
										R	R	25.50	5.40	25.50	2.00	2.00											396	238		
										31		25.50	5.40														613	368		
35	Roof	2x6		8.00	PLY					R	R	23.60		5.40	5.10	5.10					0.81	340	303	645	303	2,805	610	366	2,500	
										R	R	23.60	5.40	23.60	2.00	2.00											351	211		
										31		23.60	5.40														600	360		
36	Roof	2x6		8.00	PLY					R	R	23.60		5.40	5.10	5.10					0.81	340	314	645	314	2,805	610	366	2,590	
										R	R	23.60	5.40	23.60	2.00	2.00											351	211		
										32		23.60	5.40														653	392		
37	Roof	2x6		8.00	PLY					R	R	2.70		2.70	2.00	2.00					0.81	340	22	645	22	2,805	68	41	180	
										W	W	2.70		2.70	3.20	3.20											0	65		
38	Roof	2x6		8.00	PLY					R	R	2.70		2.70	2.80	2.80					0.81	340	19	645	19	2,805	95	57	160	4
39	Second Floor	2x6		10.00	PLY					W	W	7.80		7.80	9.00	9.00					0.67	340	171	537	171	2,805	0	527	1,410	12
										F	F	7.80		7.80	1.33	1.33											207	78		
										1																	195	398		
40	Second Floor	2x6		10.00	PLY					R	R	2.00		2.00	7.20	7.20					0.67	340	96	537	96	2,805	180	108	790	9
										W	W	2.00		2.00	9.00	9.00											0	135		
										F	F	2.00		2.00	6.50	6.50											260	98		
41	Second Floor	2x6		10.00	PLY					W	W	2.00		2.00	9.00	9.00					0.67	340	137	537	137	2,805	0	135	1,130	10

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading									Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
										F	F	2.00		2.00	6.50	6.50										260	98		
										2																	396	238		
42	Second Floor	2x6		10.00	PLY					W	W	2.00		2.00	9.00	9.00					0.67	340	61	537	61	2,805	0	135	500	7
										F	F	2.00		2.00	6.50	6.50											260	98		
43	Second Floor	2x6		10.00	PLY					2											0.67	340	78	537	78	2,805	396	238	640	8
44	Second Floor	2x6		10.00	PLY					W	W	4.40		4.40	9.00	9.00					0.67	340	176	537	176	2,805	0	297	1,450	12
										F	F	4.40		4.40	7.50	7.50											660	248		
										3																	110	132		
45	Second Floor	2x6		10.00	PLY					W	W	4.40		4.40	9.00	9.00					0.67	340	207	537	207	2,805	0	297	1,710	13
										F	F	4.40		4.40	7.50	7.50											660	248		
										F	F	8.20	2.00	8.20	2.00	2.00											188	70		
										3																	110	132		
46	Second Floor	2x6		10.00	PLY					F	F	6.30		6.30	4.40	4.40					0.67	340	93	537	93	2,805	554	208	770	9
47	Second Floor	2x6		10.00	PLY					W	W	7.80		7.80	9.00	9.00					0.67	340	159	537	159	2,805	0	527	1,310	11
										5																	195	585		
48	Roof	2x6		10.00	PLY					R	R	19.50		19.50	3.70	3.70					0.67	340	176	537	176	2,805	902	541	1,450	12
49	Second Floor	2-2x6		10.00	PLY					6											0.67	340	213	537	213	5,610	2,190	1,314	3,510	18
50	Second Floor	4x6		10.00	PLY					F	F	19.50		19.50	6.30	6.30					0.56	340	176	754	176	6,545	2,457	921	3,380	
51	Second Floor	4x6		10.00	PLY					F	F	19.50		19.50	6.40	6.40					0.56	340	179	754	179	6,545	2,496	936	3,440	
52	Second Floor	6x8		10.00	PLY					R	R	11.50	4.70	11.50	7.20	7.20					0.75	340	315	1,018	315	13,558	362	217	12,550	
										W	W	11.50	4.70	11.50	9.00	9.00											0	271		
										F	F	11.50		4.70	8.50	8.50											1,271	477		
										6		11.50	4.70														1,295	777		
										54		11.50	4.70														73	27		
										55		11.50	4.70														2,622	2,096		
										F	F	19.50		19.50	5.70	5.70											2,223	834		
53	Second Floor	2x4		10.00	PLY					F	F	8.20		6.20	2.00	2.00					0.35	340	114	277	114	1,454	308	116	600	
										F	F	6.20		6.20	1.00	1.00											124	47		
54	Second Floor	HUS410			LSL					F	F	6.20		6.20	1.00	1.00										2,010	124	47	180	
55	Second Floor	HGUS5.50/12			GLB					R	R	15.60		15.60	13.00	13.00										9,155	2,535	1,521	7,980	
										R	R	15.60		15.60	5.90	5.90											1,151	690		
										W	W	15.60		15.60	9.00	9.00											0	1,053		
										F	F	15.60		15.60	2.40	2.40											749	281		
56	Second Floor	2x6		10.00	PLY					F	F	6.30		6.30	4.40	4.40					0.67	340	225	537	225	2,805	554	208	1,860	
										F	F	6.30		6.30	6.30	6.30											794	298		
57	Second Floor	3-2x6		10.00	PLY					R	R	11.50		6.80	7.20	7.20					0.67	340	293	537	293	8,415	862	517	7,240	
										W	W	11.50		6.80	9.00	9.00											0	647		
										F	F	11.50	6.80	11.50	8.50	8.50											327	122		
										6		11.50	6.80														895	537		
										54		11.50	6.80														51	19		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading										Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)			C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
										55		11.50	6.80														1,812	1,449		
58	Second Floor	2x6		10.00	PLY					F	F	6.30		6.30	6.30	6.30					0.67	340	133	537	133	2,805	794	298	1,100	
59	Second Floor	2x6		10.00	PLY					R	R	4.20		4.20	6.80	6.80					0.67	340	70	537	70	2,805	357	214	580	7
60	Second Floor	3-2x6		10.00	PLY					R	R	12.50		12.50	2.70	2.70					0.67	340	239	537	239	8,415	422	253	5,910	24
										W	W	12.50		12.50	9.00	9.00											0	844		
										F	F	12.50		12.50	3.30	3.30											825	309		
										7																	2,031	1,219		
61	Second Floor	2x6		10.00	PLY					R	R	13.50		13.50	4.20	4.20					0.67	340	138	537	138	2,805	709	425	1,140	10
62	Second Floor	2x6		10.00	PLY					R	R	7.80		7.80	1.00	1.00					0.67	340	293	537	293	2,805	98	59	2,420	15
										W	W	7.80		7.80	9.00	9.00											0	527		
										F	F	7.80		7.80	1.33	1.33											207	78		
										63		7.80	3.90														532	319		
										1																	195	398		
63	Second Floor	2-2x6		4.00	PLY					R	R	13.50		13.50	6.30	6.30					0.96	340	104	770	104	5,610	1,063	638	1,710	
64	Second Floor	2x6		10.00	PLY					R	R	2.50		2.50	7.20	7.20					0.67	340	119	537	119	2,805	225	135	980	10
										W	W	2.50		2.50	9.00	9.00											0	169		
										F	F	2.50		2.50	6.50	6.50											325	122		
65	Second Floor	6x10		10.00	PLY					W	W	23.70		23.70	9.00	9.00					0.87	340	298	1,169	298	17,298	0	1,600	15,150	38
										F	F	23.70		23.70	7.50	7.50											3,555	1,333		
										F	F	12.80		12.80	1.33	1.33											340	128		
										66		23.70	6.00														1,835	688		
										67		23.70	12.60														1,169	438		
										68		23.70	19.40														403	151		
										6																	2,190	1,314		
65D1	Second Floor	6x10		10.00	PLY			0.75		W	W	23.70		23.70	9.00	9.00					0.87	340	267	1,169	267	17,298	0	1,600	13,560	36
								0.75		F	F	23.70		23.70	7.50	7.50											2,666	1,333		
								0.75		66		23.70	6.00														1,376	688		
								0.75		67		23.70	12.60														877	438		
								0.75		68		23.70	19.40														302	151		
								0.75		F	F	12.80		12.80	1.33	1.33											255	128		
								0.75		BU		12.80	8.40														784	0		
								0.75		6																	1,643	1,314		
65D2	Second Floor	6x10		10.00	PLY			0.00	0.60	W	W	23.70		23.70	9.00	9.00					0.87	340	87	1,169	87	17,298	0	960	4,440	21
								0.00	0.60	F	F	23.70		23.70	7.50	7.50											0	800		
								0.00	0.60	66		23.70	6.00														0	413		
								0.00	0.60	67		23.70	12.60														0	263		
								0.00	0.60	68		23.70	19.40														0	91		
								0.00	0.60	F	F	12.80		12.80	1.33	1.33											0	77		
										BU		12.80	8.40														1,045	0		
								0.00	0.60	6																	0	788		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading									Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	F_v, F_c	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
65U1	Second Floor	6x10		10.00	PLY			0.75		W	W	23.70		23.70	9.00	9.00					0.87	340	236	1,169	236	17,298	0	1,600	11,990	34
								0.75		F	F	23.70		23.70	7.50	7.50											2,666	1,333		
								0.75		66		23.70	6.00														1,376	688		
								0.75		67		23.70	12.60														877	438		
								0.75		68		23.70	19.40														302	151		
								0.75		F	F	12.80		12.80	1.33	1.33											255	128		
								0.75		BU-		12.80	8.40														-784	0		
								0.75		6																	1,643	1,314		
65U2	Second Floor	6x10		10.00	PLY			0.00	0.60	W	W	23.70		23.70	9.00	9.00					0.87	340	46	1,169	46	17,298	0	960	2,350	15
								0.00	0.60	F	F	23.70		23.70	7.50	7.50											0	800		
								0.00	0.60	66		23.70	6.00														0	413		
								0.00	0.60	67		23.70	12.60														0	263		
								0.00	0.60	68		23.70	19.40														0	91		
								0.00	0.60	F	F	12.80		12.80	1.33	1.33											0	77		
										BU-		12.80	8.40														-1,045	0		
								0.00	0.60	6																	0	788		
66	Second Floor									F	F	19.50		19.50	6.30	6.30											2,457	921	3,380	
67	Second Floor									F	F	19.50		19.50	6.40	6.40											2,496	936	3,440	
68	Second Floor									F	F	19.50		19.50	5.70	5.70											2,223	834	3,060	
69	Second Floor	6x12		10.00	PLY					R	R	19.50		19.50	13.00	13.00					0.92	340	320	1,237	320	21,038	3,169	1,901	19,820	
										R	R	19.50		19.50	5.90	5.90											1,438	863		
										W	W	19.50		19.50	9.00	9.00											0	1,316		
										F	F	19.50		19.50	2.40	2.40											936	351		
										71		7.70	3.90														3,614	2,145		
										72		7.70	3.90														2,406	1,673		
70	Second Floor	HGUS5.50/12			GLB					R	R	3.90		3.90	13.00	13.00										9,155	634	380	2,000	
										R	R	3.90		3.90	5.90	5.90											288	173		
										W	W	3.90		3.90	9.00	9.00											0	263		
										F	F	3.90		3.90	2.40	2.40											187	70		
71	Second Floor									W	W	23.70		23.70	9.00	9.00											0	1,600	11,670	
										F	F	23.70		23.70	7.50	7.50											3,555	1,333		
										68		23.70	4.30														1,820	682		
										67		23.70	11.10														1,327	498		
										66		23.70	17.70														622	233		
72	Second Floor									R	R	7.20	0.30	7.20	8.20	8.20											678	407	8,270	
										W	W	7.20		7.20	9.00	9.00											0	486		
										F	F	7.20		7.20	7.20	7.20											1,037	389		
										6		7.20	0.30														2,099	1,259		
										70		7.20	0.30														1,062	849		
73	Second Floor	4-2x6		10.00	PLY					71		7.70	3.80								0.67	340	306	537	306	11,220	3,709	2,201	10,100	

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading										Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)			C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f		$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
										72		7.70	3.80														2,470	1,717		
74	Second Floor	2-2x6		10.00	PLY					R	R	7.20		6.90	8.20	8.20						0.67	340	201	537	201	5,610	737	442	3,320	18
										W	W	7.20		7.20	9.00	9.00												0	486		
										F	F	7.20		7.20	7.20	7.20												1,037	389		
										6		7.20	6.90															91	55		
										70		7.20	6.90															46	37		
75	Second Floor	2x6		10.00	PLY					BW	BW	7.80		7.80	9.00	9.00						0.67	340	236	537	236	2,805	0	878	1,950	14
										F	F	7.80		7.80	1.33	1.33												207	78		
										5																		195	585		
76	Second Floor	2x6		10.00	PLY					R	R	2.80		0.50	7.20	7.20						0.67	340	132	537	132	2,805	82	49	1,090	10
										W	W	2.80		2.80	9.00	9.00												0	189		
										F	F	2.80		2.80	6.50	6.50												364	137		
										14		2.80	0.50															163	98		
77	Second Floor	2x6		10.00	PLY					R	R	2.80	2.30	2.80	7.20	7.20						0.67	340	92	537	92	2,805	8	5	760	9
										W	W	2.80		2.80	9.00	9.00												0	189		
										F	F	2.80		2.80	6.50	6.50												364	137		
										14		2.80	2.30															35	21		
78	Second Floor	2x6		10.00	PLY					14												0.67	340	39	537	39	2,805	198	119	320	6
79	Second Floor	2x6		10.00	PLY					F	F	12.80		12.80	1.33	1.33						0.67	340	57	537	57	2,805	340	128	470	7
79D1	Second Floor	2x6		10.00	PLY			0.75		F	F	12.80		12.80	1.33	1.33						0.67	340	228	537	228	2,805	255	128	1,880	13
								0.75		BU		12.80	4.40															1,497	0		
79D2	Second Floor	2x6		10.00	PLY			0.00	0.60	F	F	12.80		12.80	1.33	1.33						0.67	340	10	537	10	2,805	0	77	80	3
								0.00	0.60	BU		12.80	4.40															0	0		
79U1	Second Floor	2x6		10.00	PLY			0.75		F	F	12.80		12.80	1.33	1.33						0.67	340	-136	537	-136	2,805	255	128	-1,120	
								0.75		BU-		12.80	4.40															-1,497	0		
79U2	Second Floor	2x6		10.00	PLY			0.00	0.60	F	F	12.80		12.80	1.33	1.33						0.67	340	10	537	10	2,805	0	77	80	3
								0.00	0.60	BU-		12.80	4.40															0	0		
80	Second Floor	2x6		10.00	PLY					15												0.67	340	53	537	53	2,805	272	163	440	6
81	Second Floor	2x6		10.00	PLY					F	F	11.80		11.80	1.33	1.33						0.67	340	125	537	125	2,805	314	118	1,030	10
										23		11.80	4.60															371	223		
82	Second Floor	2-2x6		10.00	PLY					R	R	5.60		5.60	8.20	8.20						0.67	340	255	537	255	5,610	574	344	4,210	20
										R	R	5.60	4.10	5.60	2.50	2.50												13	8		
										W	W	5.60		5.60	9.00	9.00												0	378		
										W	W	5.60	4.10	5.60	4.70	4.70												0	14		
										F	F	5.60		2.00	12.20	12.20												802	301		
										F	F	5.60	2.00	5.60	10.70	10.70												495	186		
										83		5.60	4.10															642	453		
83	Second Floor									R	R	8.70		3.70	13.70	13.70												998	599	4,090	
										R	R	8.70		3.70	3.20	3.20												233	140		
										W	W	8.70		3.70	7.00	7.00												0	306		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading										Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)			C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
										F	F	8.70		8.70	1.33	1.33											231	87		
										34		8.70	3.70														934	560		
84	Second Floor	3-2x6		10.00	PLY					R	R	5.60		5.60	8.20	8.20					0.67	340	250	537	250	8,415	574	344	6,190	
										R	R	5.60		1.50	2.50	2.50											81	49		
										W	W	5.60		5.60	9.00	9.00											0	378		
										W	W	5.60		1.50	4.70	4.70											0	92		
										F	F	5.60		3.60	10.70	10.70											1,046	392		
										F	F	5.60	3.60	5.60	12.20	12.20											174	65		
										83		5.60	1.50														1,754	1,238		
85	Second Floor	2x6		10.00	PLY					R	R	8.70	3.70	8.70	2.00	2.00					0.67	340	97	537	97	2,805	72	43	800	
										R	R	8.70	3.70	8.70	1.80	1.80											65	39		
										W	W	8.70	3.70	8.70	12.00	12.00											0	259		
										F	F	8.70		8.70	1.33	1.33											231	87		
86	Second Floor	2x6		10.00	SPF					R	R	10.50	5.40	10.50	6.70	6.70					0.67	425	225	537	225	3,506	207	124	1,860	13
										W	W	10.50	5.40	10.50	9.00	9.00											0	167		
										F	F	10.50	5.40	10.50	5.00	5.00											248	93		
										87		10.50	5.40														402	616		
87	Second Floor	HU11			LSL					R	R	9.70		9.70	2.00	2.00										2,550	243	146	2,100	
										R	R	9.70		9.70	2.70	2.70											327	196		
										W	W	9.70		9.70	11.40	11.40											0	829		
										F	F	9.70		9.70	1.33	1.33											258	97		
88	Second Floor	2x6		10.00	SPF					20											0.67	425	162	537	162	3,506	837	502	1,340	11
89	Second Floor	HHUS410			DF2					R	R	10.50		5.10	6.70	6.70										5,190	647	388	3,700	
										W	W	10.50		5.10	9.00	9.00											0	521		
										F	F	10.50		5.10	5.00	5.00											772	290		
										87		10.50	5.10														426	652		
90	Second Floor	2-2x6		10.00	SPF					21											0.67	425	352	537	352	7,013	1,320	792	5,810	
										89																	1,845	1,851		
91	Second Floor	3-2x6		10.00	PLY					F	F	6.30		6.30	1.33	1.33					0.67	340	260	537	260	8,415	168	63	6,440	25
										92		6.30	3.20														4,002	1,731		
										93		6.30	5.50														234	235		
92	Second Floor									F	F	23.50		23.50	11.80	11.80											5,546	2,080	11,660	
										96		23.50	1.90														2,198	1,254		
										97		23.50	6.90														389	184		
93	Second Floor									R	R	10.50		5.10	6.70	6.70											647	388	3,700	
										W	W	10.50		5.10	9.00	9.00											0	521		
										F	F	10.50		5.10	5.00	5.00											772	290		
										87		10.50	5.10														426	652		
94	Second Floor	4-2x6		10.00	PLY					F	F	6.30		6.30	1.33	1.33					0.67	340	284	537	284	11,220	168	63	9,380	30
										93		6.30	0.80														1,611	1,616		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading									Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
										92		6.30	3.10														4,131	1,787		
95	Second Floor	2x6		10.00	PLY					27											0.67	340	142	537	142	2,805	729	437	1,170	
96	Second Floor									F	F	11.80		11.80	1.33	1.33											314	118	3,760	
										26		11.80	2.10														2,078	1,247		
97	Second Floor									F	F	11.80		11.80	1.33	1.33											314	118	820	
										23		11.80	7.20														237	142		
98	Second Floor	2x6		10.00	PLY					F	F	11.80		11.80	1.33	1.33					0.67	340	141	537	141	2,805	314	118	1,160	11
										26		11.80	9.70														450	270		
99	Second Floor	3-2x6		10.00	PLY					R	R	18.60		18.60	2.00	2.00					0.67	340	237	537	237	8,415	465	279	5,860	24
										W	W	18.60		18.60	15.00	15.00											0	2,093		
										F	F	18.60		18.60	5.90	5.90											2,195	823		
100	Second Floor	6x6		10.00	PLY					F	F	23.50		23.50	11.80	11.80					0.56	340	270	754	270	10,285	5,546	2,080	8,170	28
										97		23.50	16.60														162	76		
										96		23.50	21.60														193	110		
101	Second Floor	2x6		10.00	PLY					33											0.67	340	302	537	302	2,805	1,556	934	2,490	
102	Second Floor	4-2x6		10.00	PLY					R	R	8.70	4.00	8.70	13.70	13.70					0.67	340	276	537	276	11,220	435	261	9,110	
										R	R	8.70	4.00	8.70	3.20	3.20											102	61		
										W	W	8.70	4.00	8.70	7.00	7.00											0	133		
										F	F	8.70		8.70	1.33	1.33											231	87		
										34		8.70	4.00														878	527		
										R	R	11.80	1.20	5.00	12.80	12.80											897	538		
										R	R	11.80	1.20	5.00	3.20	3.20											224	134		
										R	R	11.80	5.00	11.10	1.80	1.80											87	52		
										W	W	11.80	1.20	5.00	7.00	7.00											0	294		
										F	F	11.80		11.80	1.33	1.33											314	118		
										35		11.80	1.20														1,402	841		
										36		11.80	5.00														930	558		
103	Second Floor	2x6		10.00	PLY					R	R	3.30		2.30	2.30	2.30					0.67	340	335	537	335	2,805	86	52	2,760	
										R	R	3.30		2.30	4.40	4.40											165	99		
										R	R	3.30		2.30	2.70	2.70											101	61		
										R	R	3.30		2.30	0.50	0.50											19	11		
										W	W	3.30		2.30	4.30	4.30											0	97		
										W	W	3.30		2.30	8.20	8.20											0	184		
										W	W	3.30		2.30	5.00	5.00											0	112		
										W	W	3.30		2.30	1.00	1.00											0	22		
										F	F	3.30		2.30	10.30	10.30											617	232		
										104		3.30	2.30														356	539		
104	Second Floor									R	R	8.70		5.00	2.00	2.00											178	107	2,960	
										R	R	8.70		5.00	1.80	1.80											160	96		
										W	W	8.70		5.00	12.00	12.00											0	641		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading									Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
										F	F	8.70		8.70	1.33	1.33										231	87		
										R	R	11.80		1.20	2.00	2.00										57	34		
										R	R	11.80	5.00	11.10	2.00	2.00										97	58		
										R	R	11.80		1.20	1.80	1.80										51	31		
										R	R	11.80	5.00	11.10	1.80	1.80										87	52		
										W	W	11.80		1.20	12.00	12.00										0	205		
										W	W	11.80	5.00	11.10	12.00	12.00										0	349		
										F	F	11.80		11.80	1.33	1.33										314	118		
105	Second Floor	2-2x6		10.00	PLY					R	R	3.30	1.00	3.30	2.30	2.30					0.67	340	185	537	185	5,610	46	28	3,060	
										R	R	3.30	1.00	3.30	4.40	4.40										88	53		
										R	R	3.30	1.00	3.30	2.70	2.70										54	32		
										R	R	3.30	1.00	3.30	0.50	0.50										10	6		
										W	W	3.30	1.00	3.30	4.30	4.30										0	52		
										W	W	3.30	1.00	3.30	8.20	8.20										0	99		
										W	W	3.30	1.00	3.30	5.00	5.00										0	60		
										W	W	3.30	1.00	3.30	1.00	1.00										0	12		
										F	F	3.30	1.00	3.30	10.30	10.30										330	124		
										104		3.30	1.00													820	1,239		
106	Second Floor	2-2x6		10.00	PLY					R	R	11.80	0.70	6.80	1.80	1.80					0.67	340	172	537	172	5,610	187	112	2,830	16
										R	R	11.80	6.80	10.60	3.20	3.20										80	48		
										R	R	11.80	6.80	10.60	12.80	12.80										319	192		
										W	W	11.80	6.80	10.60	7.00	7.00										0	105		
										F	F	11.80		11.80	1.33	1.33										314	118		
										36		11.80	6.80													684	410		
										35		11.80	10.60													159	95		
107	Second Floor	2x6		10.00	PLY					R	R	2.70		2.00	4.40	4.40					0.67	340	182	537	182	2,805	139	83	1,500	12
										R	R	2.70		2.00	2.20	2.20										69	42		
										R	R	2.70		2.00	0.50	0.50										16	9		
										W	W	2.70		2.00	8.20	8.20										0	155		
										W	W	2.70		2.00	4.00	4.00										0	76		
										W	W	2.70		2.00	1.00	1.00										0	19		
										F	F	2.70		2.00	6.00	6.00										302	113		
										108		2.70	2.00													185	290		
108	Second Floor									R	R	11.80	0.70	6.80	2.00	2.00										208	125	1,840	
										R	R	11.80	10.60	11.80	2.00	2.00										3	2		
										R	R	11.80	0.70	6.80	1.80	1.80										187	112		
										R	R	11.80	10.60	11.80	1.80	1.80										3	2		
										W	W	11.80	0.70	6.80	12.00	12.00										0	749		
										W	W	11.80	10.60	11.80	12.00	12.00										0	11		
										F	F	11.80		11.80	1.33	1.33										314	118		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading									Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
109	Second Floor	2x6		10.00	PLY					R	R	2.70	0.70	2.70	4.40	4.40					0.67	340	238	537	238	2,805	81	49	1,960	14
										R	R	2.70	0.70	2.70	2.20	2.20											41	24		
										R	R	2.70	0.70	2.70	0.50	0.50											9	6		
										W	W	2.70	0.70	2.70	8.20	8.20											0	91		
										W	W	2.70	0.70	2.70	4.00	4.00											0	44		
										W	W	2.70	0.70	2.70	1.00	1.00											0	11		
										F	F	2.70	0.70	2.70	6.00	6.00											178	67		
										108		2.70	0.70														530	828		
110	Main Floor	4x4	4.00	4.00	SPF					F	F	4.30		4.30	8.20	8.20					0.85	425	79	1,142	79	5,206	705	264	970	10
111	Main Floor	4x6	4.00	4.00	SPF					W	W	4.90	-1.00	4.90	9.00	9.00					0.85	425	243	1,142	243	8,181	0	480	4,670	21
										F	F	4.90	-1.00	4.90	7.50	7.50											1,066	400		
										W	W	4.90	-1.00	4.90	10.00	10.00											0	533		
										F	F	4.90	-1.00	4.90	11.20	11.20											1,591	597		
112	Main Floor	6x6	4.00	4.00	SPF					W	W	11.30		11.30	9.00	9.00					0.95	425	357	1,279	357	12,856	0	763	10,800	32
										F	F	11.30		11.30	7.50	7.50											1,695	636		
										W	W	11.30		11.30	10.00	10.00											0	848		
										F	F	11.30		11.30	11.20	11.20											2,531	949		
										50																	2,457	921		
113	Main Floor	6x6	4.00	4.00	SPF					W	W	13.00		13.00	9.00	9.00					0.95	425	396	1,279	396	12,856	0	878	11,970	34
										F	F	13.00		13.00	7.50	7.50											1,950	731		
										W	W	13.00		13.00	10.00	10.00											0	975		
										F	F	13.00		13.00	11.20	11.20											2,912	1,092		
										51																	2,496	936		
114	Main Floor	6x10	4.00	4.00	SPF					W	W	6.60		6.60	9.00	9.00					0.95	425	322	1,279	322	21,622	0	446	16,390	40
										F	F	6.60		6.60	7.50	7.50											990	371		
										W	W	6.60		6.60	10.00	10.00											0	495		
										F	F	5.00		5.00	11.20	11.20											1,120	420		
										52																	7,847	4,700		
115	Main Floor	4x4	4.00	4.00	SPF					F	F	10.00		10.00	11.20	11.20					0.85	425	251	1,142	251	5,206	2,240	840	3,080	17
116	Main Floor	4x4	4.00	4.00	SPF					F	F	5.00	-1.00	5.00	11.20	11.20					0.85	425	181	1,142	181	5,206	1,613	605	2,220	15
117	Main Floor	4x4	4.00	4.00	SPF					F	F	5.60	-1.00	5.60	10.50	10.50					0.85	425	184	1,142	184	5,206	1,634	613	2,250	15
118	Main Floor	4x4	4.00	4.00	SPF					F	F	10.20		10.20	10.50	10.50					0.85	425	241	1,142	241	5,206	2,142	803	2,950	17
119	Main Floor	6x10	4.00	4.00	SPF					69											0.95	425	390	1,279	390	21,622	11,563	8,249	19,820	44
120	Main Floor	4x4	4.00	4.00	SPF					F	F	5.60	-1.00	5.60	11.20	11.20					0.85	425	196	1,142	196	5,206	1,742	653	2,400	15
121	Main Floor	4x4	4.00	4.00	SPF					F	F	11.20		11.20	11.20	11.20					0.85	425	282	1,142	282	5,206	2,509	941	3,450	18
122	Main Floor	6x6	4.00	4.00	SPF					73											0.95	425	334	1,279	334	12,856	6,179	3,918	10,100	31
123	Main Floor	4x6	4.00	4.00	SPF					W	W	2.40	-1.00	2.80	10.00	10.00					0.85	425	91	1,142	91	8,181	0	356	1,760	13
										F	F	2.40	-1.00	2.80	10.70	10.70											1,017	381		
124	Main Floor	6x6	4.00	4.00	SPF					W	W	2.40		2.80	10.00	10.00					0.95	425	356	1,279	356	12,856	0	175	10,760	32
										F	F	2.40		2.80	10.70	10.70											499	187		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading									Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
										R	R	3.30		3.30	8.20	8.20										338	203		
										R	R	3.30		1.50	2.50	2.50										72	43		
										W	W	3.30		3.30	9.00	9.00										0	223		
										W	W	3.30		1.50	4.70	4.70										0	82		
										F	F	3.30		1.50	10.70	10.70										496	186		
										F	F	3.30		1.50	6.50	6.50										301	113		
										W	W	3.30		3.30	10.00	10.00										0	248		
										F	F	3.30		3.30	10.70	10.70										706	265		
										85		3.30	1.50													201	233		
										84																3,629	2,559		
125	Main Floor	4x6	4.00	4.00	SPF					R	R	3.30		3.30	8.20	8.20					0.85	425	204	1,142	204	8,181	338	203	3,930	19
										R	R	3.30	1.80	3.30	2.50	2.50										21	13		
										W	W	3.30		3.30	9.00	9.00										0	223		
										W	W	3.30	1.80	3.30	4.70	4.70										0	24		
										F	F	3.30		1.80	6.50	6.50										340	128		
										F	F	3.30	1.80	3.30	10.70	10.70										146	55		
										W	W	3.30	-1.00	3.30	10.00	10.00										0	420		
										F	F	3.30	-1.00	3.30	10.70	10.70										1,199	450		
										85		3.30	1.80													167	194		
126	Main Floor	6x6	4.00	4.00	DF2					R	R	2.50		0.80	2.30	2.30					0.95	625	521	1,279	521	18,906	39	23	15,760	39
										R	R	2.50		0.80	4.40	4.40										74	44		
										R	R	2.50		0.80	2.70	2.70										45	27		
										R	R	2.50		0.80	0.50	0.50										8	5		
										W	W	2.50		0.80	4.30	4.30										0	43		
										W	W	2.50		0.80	8.20	8.20										0	83		
										W	W	2.50		0.80	5.00	5.00										0	50		
										W	W	2.50		0.80	1.00	1.00										0	10		
										F	F	2.50	-1.80	0.80	10.30	10.30										1,285	482		
										W	W	2.50	-1.80	0.80	10.00	10.00										0	468		
										F	F	2.50	-1.80	2.50	10.30	10.30										1,524	571		
										103		2.50	0.80													914	958		
										102																5,499	3,604		
127	Main Floor	4x6	4.00	4.00	SPF					R	R	2.50	1.70	2.50	2.30	2.30					0.85	425	190	1,142	190	8,181	7	4	3,650	19
										R	R	2.50	1.70	2.50	4.40	4.40										14	8		
										R	R	2.50	1.70	2.50	2.70	2.70										9	5		
										R	R	2.50	1.70	2.50	0.50	0.50										2	1		
										W	W	2.50	1.70	2.50	4.30	4.30										0	8		
										W	W	2.50	1.70	2.50	8.20	8.20										0	16		
										W	W	2.50	1.70	2.50	5.00	5.00										0	10		
										W	W	2.50	1.70	2.50	1.00	1.00										0	2		

Post Calculations

20-024 Vert 8/22/2020

Post					Bearing			Loading									Adjustment Factors					Stresses (psi)				Loads (lbs.)				Footing Size (in^2)
			Length (ft).			X-section (in.)		Load Factors		Load Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_F	C_b	K_f	C_P	Bearing		Buckling		All.	Trib.		Total	
#	Location	I.D.	y-y	x-x	I.D.	y-y	x-x	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f	$F_{v,}F_c$	F_c	$F_{c\perp}$			All.	Act.	All.	Act.		Live	Dead		1500
										F	F	2.50	1.70	2.50	10.30	10.30										53	20		
										W	W	2.50	1.70	2.50	10.00	10.00										0	19		
										F	F	2.50		2.50	10.30	10.30										515	193		
										103		2.50	1.70													430	451		
										W	W	2.40		2.40	10.00	10.00										0	180		
										F	F	2.40		2.40	10.30	10.30										494	185		
										105		2.40	1.60													449	568		
128	Main Floor	4x6	4.00	4.00	SPF					W	W	2.40	-1.00	2.40	10.00	10.00					0.85	425	196	1,142	196	8,181	0	361	3,770	
										F	F	2.40	-1.00	2.40	10.30	10.30										992	372		
										105		2.40	0.80													899	1,136		

Beam Calculations

20-024 Vert 8/22/2020

Beam			Loading									Adjustment factors				Stresses									Deflection						
#			Load Factors		Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_r	C_F	C_v	Loads (lb)		Shear (psi)			Moments				Live			Total			#
#	Location	I.D.	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f					Left	Right	f_V	F'_V	%	M_{max} (lb-ft)	f_b	F'_b	%	$\Delta_{act.}$	$\Delta_{all.}$	%	$\Delta_{act.}$	$\Delta_{all.}$	%	
1	Roof	4x8			R	R	7.80		7.80	2.00	2.00			1.30		593	593	35	180	514	1156	452	1300	287	0.02	0.39		0.07	0.52	776	1
					W	W	7.80		7.80	4.80	4.80																			
2	Roof	4x8			R	R	4.40		4.40	7.20	7.20			1.30		634	634	37	180	481	697	273	1300	477	0.01	0.22		0.01	0.29		2
3	Roof	4x8			R	R	4.40		4.40	2.00	2.00			1.30		242	242	14	180		266	104	1300		0.00	0.22		0.00	0.29		3
					W	W	4.40		4.40	2.00	2.00																			
4	Roof	4x8			R	R	7.80		7.80	7.20	7.20			1.30		1123	1123	66	180	271	2190	857	1300	152	0.08	0.39	492	0.13	0.52	410	4
5	Roof	4x8			R	R	7.80		7.80	2.00	2.00			1.30		780	780	46	180	390	1521	595	1300	218	0.02	0.39		0.09	0.52	590	5
					BW	BW	7.80		7.80	4.80	4.80																			
6	Roof	5.5x12 GLB			R	R	19.50		19.50	3.70	3.70					1443	1443	33	265	808	7035	640	2401	375	0.21	0.98	462	0.34	1.30	385	6
7	Roof	3.5x9 GLB			R	R	12.50		12.50	13.00	13.00					3250	3250	155	265	171	10156	2579	2703	105	0.47	0.63	134	0.75	0.83	112	7
8	Roof	4x8			R	R	2.20		2.20	13.00	13.00			1.30		572	572	34	180	532	315	123	1300		0.00	0.11		0.00	0.15		8
9	Roof	4x8			R	R	6.40		6.40	13.00	13.00			1.30		1664	1664	98	180	183	2662	1042	1300	125	0.06	0.32	493	0.10	0.43	411	9
10	Roof	5.5x7.5 GLB			R	R	11.00		11.00	6.80	6.80					1496	1496	54	265	487	4114	957	2665	278	0.16	0.55	342	0.26	0.73	285	10
11	Roof	5.5x9 GLB			13		12.60	6.30								851	851	26	265		5358	866	2581	298	0.13	0.63	495	0.20	0.84	412	11
12	Roof	5.5x9 GLB			R	R	13.50		13.50	4.20	4.20					1134	1134	34	265	771	3827	619	2563	414	0.13	0.68	517	0.21	0.90	431	12
13	Roof	5.5x9 GLB			R	R	13.50		13.50	6.30	6.30					1701	1701	52	265	514	5741	928	2563	276	0.20	0.68	345	0.31	0.90	287	13
14	Roof	4x8			R	R	2.20		2.20	7.20	7.20			1.30		317	317	19	180	961	174	68	1300		0.00	0.11		0.00	0.15		14
15	Roof	4x8			R	R	2.90		2.90	7.50	7.50			1.30		435	435	26	180	700	315	123	1300		0.00	0.15		0.00	0.19		15
16	Roof	4x8			R	R	2.70		2.70	3.80	3.80			1.30		205	205	12	180		139	54	1300		0.00	0.14		0.00	0.18		16
17	Roof	4x8			R	R	8.60		8.60	2.00	2.00			1.30		699	634	41	180	436	1433	561	1300	232	0.03	0.43		0.08	0.57	684	17
					W	W	8.60		8.60	6.50	3.50																			
18	Roof	4x8			R	R	4.40		4.40	2.00	2.00			1.30		334	334	20	180	911	368	144	1300	903	0.00	0.22		0.01	0.29		18
					W	W	4.40		4.40	4.80	4.80																			
19	Roof	3.5x12 GLB			R	R	6.90		6.90	2.00	2.00					2112	974	75	265	351	3770	539	2787	517	0.02	0.35		0.03	0.46		19
					22		6.90	1.90																						
20	Roof	4x8			R	R	2.20		2.20	2.00	2.00			1.30		145	135	9	180		77	30	1300		0.00	0.11		0.00	0.15		20
					W	W	2.20		2.20	4.00	2.30																			
21	Roof	4x8			R	R	2.20		2.20	2.00	2.00			1.30		199	199	12	180		109	43	1300		0.00	0.11		0.00	0.15		21
					W	W	2.20		2.20	6.70	6.70																			
22	Roof	4x8			R	R	2.70		2.70	2.00	2.00			1.30		173	173	10	180		117	46	1300		0.00	0.14		0.00	0.18		22
					W	W	2.70		2.70	3.20	3.20																			
23	Roof	4x8			R	R	2.70		2.70	2.80	2.80			1.30		151	151	9	180		102	40	1300		0.00	0.14		0.00	0.18		23
24	Second Floor	4x8			W	W	7.80		7.80	9.00	9.00			1.30		812	812	48	180	375	1583	620	1300	210	0.02	0.26		0.09	0.39	425	24
					F	F	7.80		7.80	1.33	1.33																			
25	Second Floor	4x8			R	R	2.00		2.00	7.20	7.20			1.30		781	781	46	180	390	390	153	1300	851	0.00	0.07		0.00	0.10		25
					W	W	2.00		2.00	9.00	9.00																			
					F	F	2.00		2.00	6.50	6.50																			
26	Second Floor	4x8			W	W	2.00		2.00	9.00	9.00			1.30		493	493	29	180	618	246	96	1300		0.00	0.07		0.00	0.10		26

Beam Calculations

20-024 Vert 8/22/2020

Beam			Loading									Adjustment factors				Stresses									Deflection						
#			Load Factors		Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_r	C_F	C_v	Loads (lb)		Shear (psi)			Moments				Live			Total			#
#	Location	I.D.	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f					Left	Right	f_V	F'_V	%	M_{max} (lb-ft)	f_b	F'_b	%	$\Delta_{act.}$	$\Delta_{all.}$	%	$\Delta_{act.}$	$\Delta_{all.}$	%	
					F	F	2.00		2.00	6.50	6.50																				
27	Second Floor	4x8			W	W	4.40		4.40	9.00	9.00			1.30		1205	1205	71	180	253	1325	519	1300	251	0.01	0.15		0.02	0.22	900	27
					F	F	4.40		4.40	7.50	7.50																				
28	Second Floor	3.5x11.875 GLB			F	F	8.20		6.20	2.00	2.00					424	258	15	265		816	119	2742		0.01	0.27		0.01	0.41		28
29	Second Floor	2-2x8			F	F	6.30		6.30	4.40	4.40					762	762	53	180	342	1201	548	950	173	0.04	0.21	481	0.06	0.32	525	29
30	Second Floor	2-2x8			F	F	6.30		6.30	6.30	6.30					1091	1091	75	180	239	1719	785	950	121	0.06	0.21	336	0.09	0.32	367	30
31	Second Floor	4x8			W	W	7.80		7.80	9.00	9.00			1.30		527	527	31	180	578	1027	402	1300	324	0.00	0.26		0.06	0.39	655	31
32	Second Floor	7x11.875 PSL			R	R	11.50		6.80	7.20	7.20					7238	9490	171	290	169	38706	2823	2903	103	0.27	0.38	141	0.46	0.58	125	32
					W	W	11.50		6.80	9.00	9.00																				
					F	F	11.50	6.80	11.50	8.50	8.50																				
					6		11.50	6.80																							
					54		11.50	6.80																							
					55		11.50	6.80																							
33	Second Floor	3.5x10.5 GLB			R	R	12.50		12.50	2.70	2.70					2653	2653	108	265	245	8291	1547	2661	172	0.18	0.42	231	0.38	0.63	163	33
					W	W	12.50		12.50	9.00	9.00																				
					F	F	12.50		12.50	3.30	3.30																				
34	Second Floor	W10x30			F	F	19.50		19.50	6.30	6.30					3378	3378	573	24000		16470	6100	24000	393	0.17	0.65	391	0.23	0.98	426	34
35	Second Floor	W10x30			F	F	19.50		19.50	6.40	6.40					3432	3432	582	24000		16731	6197	24000	387	0.17	0.65	385	0.23	0.98	420	35
36	Second Floor	W10x30			W	W	19.50		19.50	9.00	9.00					4373	4373	742	24000		21318	7895	24000	304	0.15	0.65	432	0.30	0.98	329	36
					F	F	19.50		19.50	5.70	5.70																				
37	Second Floor	5.5x16.5 GLB			R	R	15.60		15.60	13.00	13.00				0.99	7979	7979	132	265	201	31120	1496	2378	159	0.20	0.52	254	0.37	0.78	212	37
					R	R	15.60		15.60	5.90	5.90																				
					W	W	15.60		15.60	9.00	9.00																				
					F	F	15.60		15.60	2.40	2.40																				
38	Second Floor	3.5x9 GLB			R	R	7.80		7.80	1.00	1.00					1818	1818	87	265	306	5204	1322	2833	214	0.06	0.26	403	0.13	0.39	300	38
					W	W	7.80		7.80	9.00	9.00																				
					F	F	7.80		7.80	1.33	1.33																				
					63		7.80	3.90																							
39	Second Floor	4x8			R	R	2.50		2.50	7.20	7.20			1.30		976	976	58	180	312	610	239	1300	545	0.00	0.08		0.00	0.13		39
					W	W	2.50		2.50	9.00	9.00																				
					F	F	2.50		2.50	6.50	6.50																				
40	Second Floor	3.5x11.875 GLB			F	F	12.80		12.80	1.33	1.33					468	468	17	265		1498	219	2623		0.04	0.43		0.05	0.64		40
40D1	Second Floor	3.5x11.875 GLB	0.75		F	F	12.80		12.80	1.33	1.33					1880	1167	68	265	391	7638	1114	2623	235	0.20	0.43	215	0.21	0.64	302	40D1
			0.75		BU		12.80	4.40																							
40D2	Second Floor	3.5x11.875 GLB	0.00	0.60	F	F	12.80		12.80	1.33	1.33					77	77	3	265		245	36	2623		0.00	0.43		0.01	0.64		40D2
			0.00	0.60	BU		12.80	4.40																							
40U1	Second Floor	3.5x11.875 GLB	0.75		F	F	12.80		12.80	1.33	1.33					1114	401	40	265	659	5407	789	1311	166	0.14	0.43	295	0.13	0.64	489	40U1
			0.75		BU-		12.80	4.40																							

Beam Calculations

20-024 Vert 8/22/2020

Beam			Loading									Adjustment factors				Stresses									Deflection						
#			Load Factors		Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_r	C_F	C_v	Loads (lb)		Shear (psi)			Moments				Live			Total			#
#	Location	I.D.	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f					Left	Right	f_V	F'_V	%	M_{max} (lb-ft)	f_b	F'_b	%	$\Delta_{act.}$	$\Delta_{all.}$	%	$\Delta_{act.}$	$\Delta_{all.}$	%	
40U2	Second Floor	3.5x11.875 GLB	0.00	0.60	F	F	12.80		12.80	1.33	1.33					77	77	3	265		245	36	2623		0.00	0.43		0.01	0.64		40U2
			0.00	0.60	BU-		12.80	4.40																						
41	Second Floor	W12x79			W	W	23.70		23.70	9.00	9.00					11173	11670	755	24000		74195	8321	24000	288	0.24	0.79	323	0.39	1.19	307	41
					F	F	23.70		23.70	7.50	7.50																			
					66		23.70	6.00																						
					67		23.70	12.60																						
					68		23.70	19.40																						
42	Second Floor	7x11.875 PSL			71		7.70	3.80								10097	9838	182	290	159	37878	2763	2903	105	0.10	0.26	250	0.17	0.39	230	42
					72		7.70	3.80																						
43	Second Floor	3.5x11.875 GLB			R	R	7.20		6.90	8.20	8.20	1.15				3319	8266	298	305	102	6410	935	3195	342	0.04	0.24	598	0.07	0.36	518	43
					W	W	7.20		7.20	9.00	9.00																			
					F	F	7.20		7.20	7.20	7.20																			
					6		7.20	6.90																						
					70		7.20	6.90																						
44	Second Floor	4x8			W	W	7.80		7.80	9.00	9.00			1.30		812	812	48	180	375	1583	620	1300	210	0.02	0.26		0.09	0.39	425	44
					F	F	7.80		7.80	1.33	1.33																			
45	Second Floor	4x8			R	R	2.80		0.50	7.20	7.20			1.30		1081	759	64	180	282	585	229	1300	568	0.00	0.09		0.00	0.14		45
					W	W	2.80		2.80	9.00	9.00																			
					F	F	2.80		2.80	6.50	6.50																			
					14		2.80	0.50																						
46	Second Floor	5.5x9 GLB			R	R	5.60		5.60	8.20	8.20					4209	6188	188	265	141	7938	1283	2799	218	0.05	0.19	382	0.08	0.28	337	46
					R	R	5.60	4.10	5.60	2.50	2.50																			
					W	W	5.60		5.60	9.00	9.00																			
					W	W	5.60	4.10	5.60	4.70	4.70																			
					F	F	5.60		2.00	12.20	12.20																			
					F	F	5.60	2.00	5.60	10.70	10.70																			
					83		5.60	4.10																						
47	Second Floor	3.5x11.875 GLB			R	R	10.50		5.10	6.70	6.70					3696	1858	133	265	199	9895	1443	2675	185	0.09	0.35	373	0.20	0.53	263	47
					W	W	10.50		5.10	9.00	9.00																			
					F	F	10.50		5.10	5.00	5.00																			
					87		10.50	5.10																						
48	Second Floor	1.75x11.875 LSL			R	R	9.70		9.70	2.00	2.00					2096	2096	151	310	205	5083	1483	2327	157	0.09	0.32	360	0.23	0.49	213	48
					R	R	9.70		9.70	2.70	2.70																			
					W	W	9.70		9.70	11.40	11.40																			
					F	F	9.70		9.70	1.33	1.33																			
49	Second Floor	5.5x10.5 GLB			F	F	6.30		6.30	1.33	1.33					6433	9375	244	265	109	19900	2363	2724	115	0.09	0.21	247	0.13	0.32	251	49
					92		6.30	3.20																						
					93		6.30	5.50																						

Beam Calculations

Beam			Loading								Adjustment factors				Stresses									Deflection						
#			Load Factors		Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_r	C_F	C_v	Loads (lb)		Shear (psi)			Moments				Live			Total			#
#	Location	I.D.	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f					Left	Right	f_V	F'_V	%	M_{max} (lb-ft)	f_b	F'_b	%	$\Delta_{act.}$	$\Delta_{all.}$	%	$\Delta_{act.}$	$\Delta_{all.}$	%	
50	Second Floor	3.5x11.875 GLB			F	F	11.80		11.80	1.33	1.33					3756	1151	136	265	195	7609	1110	2644	238	0.11	0.39	343	0.18	0.59	332	50
					26		11.80	2.10																						
51	Second Floor	1.75x11.875 LSL			F	F	11.80		11.80	1.33	1.33					811	1026	74	310	419	3910	1141	2327	204	0.15	0.39	262	0.23	0.59	261	51
					23		11.80	7.20																						
52	Second Floor	W10x68			F	F	23.50		23.50	11.80	11.80					11651	8168	874	24000		51357	8141	24000	295	0.32	0.78	241	0.45	1.18	260	52
					96		23.50	1.90																						
					97		23.50	6.90																						
53	Second Floor	5.5x16.5 GLB			R	R	18.60		18.60	2.00	2.00				0.97	5854	5854	97	265	274	27223	1309	2337	179	0.21	0.62	298	0.46	0.93	203	53
					W	W	18.60		18.60	15.00	15.00																			
					F	F	18.60		18.60	5.90	5.90																			
54	Second Floor	3.5x11.875 GLB			R	R	8.70		3.70	13.70	13.70					4087	2038	148	265	180	9052	1321	2726	206	0.07	0.29	392	0.12	0.44	355	54
					R	R	8.70		3.70	3.20	3.20																			
					W	W	8.70		3.70	7.00	7.00																			
					F	F	8.70		8.70	1.33	1.33																			
					34		8.70	3.70																						
55	Second Floor	5.5x11.875 GLB			R	R	11.80	0.70	6.80	1.80	1.80					2823	6389	147	265	181	15936	1479	2527	171	0.24	0.39	167	0.41	0.59	145	55
					R	R	11.80	6.80	10.60	3.20	3.20																			
					R	R	11.80	6.80	10.60	12.80	12.80																			
					W	W	11.80	6.80	10.60	7.00	7.00																			
					F	F	11.80		11.80	1.33	1.33																			
					36		11.80	6.80																						
					35		11.80	10.60																						
56	Second Floor	6x8			R	R	3.30		2.30	2.30	2.30					2753	3053	115	170	148	3053	760	1300	171	0.01	0.11		0.02	0.17	813	56
					R	R	3.30		2.30	4.40	4.40																			
					R	R	3.30		2.30	2.70	2.70																			
					R	R	3.30		2.30	0.50	0.50																			
					W	W	3.30		2.30	4.30	4.30																			
					W	W	3.30		2.30	8.20	8.20																			
					W	W	3.30		2.30	5.00	5.00																			
					W	W	3.30		2.30	1.00	1.00																			
					F	F	3.30		2.30	10.30	10.30																			
					104		3.30	2.30																						
57	Second Floor	1.75x11.875 LSL			R	R	8.70	3.70	8.70	2.00	2.00					795	1501	108	310	286	2772	809	2327	288	0.05	0.29	575	0.14	0.44	315	57
					R	R	8.70	3.70	8.70	1.80	1.80																			
					W	W	8.70	3.70	8.70	12.00	12.00																			
					F	F	8.70		8.70	1.33	1.33																			
58	Second Floor	1.75x11.875 LSL			R	R	11.80		11.80	2.00	2.00					2390	2390	173	310	180	7052	2057	2327	113	0.17	0.39	230	0.47	0.59	126	58
					R	R	11.80		11.80	1.80	1.80																			

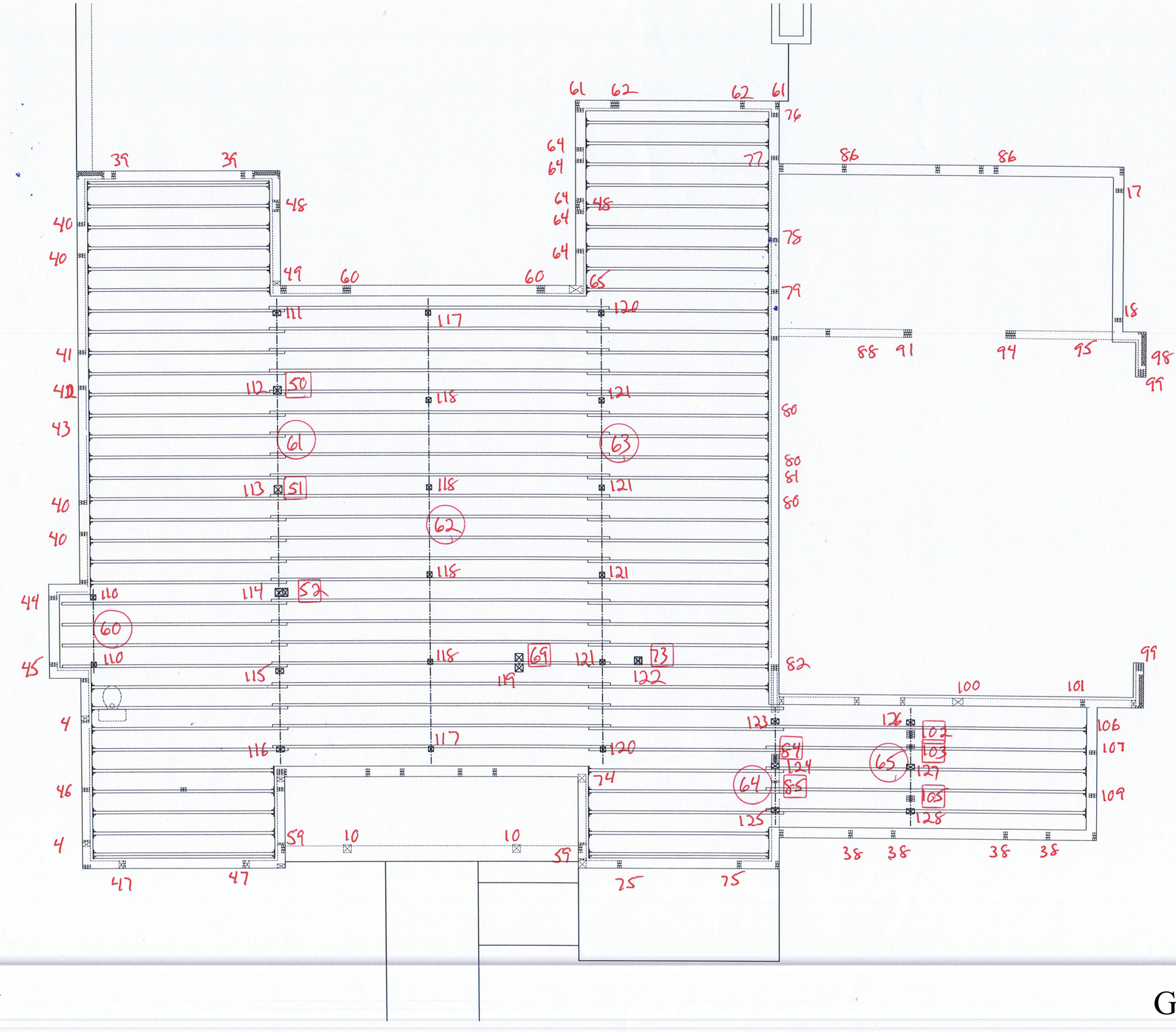
Beam Calculations

20-024 Vert 8/22/2020

Beam			Loading									Adjustment factors				Stresses									Deflection						
#			Load Factors		Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_r	C_F	C_v	Loads (lb)		Shear (psi)			Moments				Live			Total			#
#	Location	I.D.	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f					Left	Right	f_V	F'_V	%	M_{max} (lb-ft)	f_b	F'_b	%	$\Delta_{act.}$	$\Delta_{all.}$	%	$\Delta_{act.}$	$\Delta_{all.}$	%	
					W	W	11.80		11.80	12.00	12.00																				
					F	F	11.80		11.80	1.33	1.33																				
59	Second Floor	4x8			R	R	2.70		2.00	4.40	4.40			1.30		1498	1960	116	180	155	1381	540	1300	241	0.00	0.09		0.01	0.14		59
					R	R	2.70		2.00	2.20	2.20																				
					R	R	2.70		2.00	0.50	0.50																				
					W	W	2.70		2.00	8.20	8.20																				
					W	W	2.70		2.00	4.00	4.00																				
					W	W	2.70		2.00	1.00	1.00																				
					F	F	2.70		2.00	6.00	6.00																				
					108		2.70	2.00																							
60	Main Floor	4x8			F	F	4.30		4.30	8.20	8.20			1.30		970	970	57	180	314	1042	408	1300	319	0.01	0.14		0.02	0.22		60
61	Main Floor	6x10			W	W	6.10		6.10	9.00	9.00					4006	4006	118	170	144	6109	935	1300	139	0.04	0.20	506	0.07	0.31	433	61
					F	F	6.10		6.10	7.50	7.50																				
					W	W	6.10		6.10	10.00	10.00																				
					F	F	6.10		6.10	11.20	11.20																				
62	Main Floor	4x8			F	F	5.60		5.60	10.50	10.50			1.30		1617	1617	96	180	188	2264	886	1300	147	0.05	0.19	380	0.07	0.28	414	62
63	Main Floor	4x8			F	F	5.60		5.60	11.20	11.20			1.30		1725	1725	102	180	177	2415	945	1300	138	0.05	0.19	356	0.07	0.28	388	63
64	Main Floor	6x8			R	R	2.80	2.30	2.80	8.20	8.20					1230	2244	84	170	201	1025	255	1300	509	0.01	0.09		0.01	0.14		64
					R	R	2.80	2.30	2.80	2.50	2.50																				
					W	W	2.80	2.30	2.80	9.00	9.00																				
					W	W	2.80	2.30	2.80	4.70	4.70																				
					F	F	2.80	2.30	2.80	10.70	10.70																				
					W	W	2.80		2.80	10.00	10.00																				
					F	F	2.80		2.80	10.70	10.70																				
					85		2.80	2.30																							
64	Main Floor	6x8			R	R	3.30		3.30	8.20	8.20					3183	3360	126	170	135	2827	704	1300	185	0.01	0.11	795	0.02	0.17	679	64
					R	R	3.30	1.80	3.30	2.50	2.50																				
					W	W	3.30		3.30	9.00	9.00																				
					W	W	3.30	1.80	3.30	4.70	4.70																				
					F	F	3.30		1.80	6.50	6.50																				
					F	F	3.30	1.80	3.30	10.70	10.70																				
					W	W	3.30	-1.00	3.30	10.00	10.00																				
					F	F	3.30	-1.00	3.30	10.70	10.70																				
					85		3.30	1.80																							
65	Main Floor	6x8			R	R	2.50		0.80	2.30	2.30					4346	936	163	170	104	2078	518	1300	251	0.00	0.08		0.01	0.13		65
					R	R	2.50		0.80	4.40	4.40																				
					R	R	2.50		0.80	2.70	2.70																				
					R	R	2.50		0.80	0.50	0.50																				

Beam Calculations

Beam			Loading									Adjustment factors				Stresses									Deflection						
#			Load Factors		Type		Span	Placement (ft.)		Spacing (ft.)		C_D	C_r	C_F	C_v	Loads (lb)		Shear (psi)			Moments				Live			Total			#
#	Location	I.D.	Live	Dead	$\#1_i$	$\#1_f$	(ft.)	X_i/X_p	X_f	Sp_i	Sp_f					Left	Right	f_V	F'_V	%	M_{max} (lb-ft)	f_b	F'_b	%	$\Delta_{act.}$	$\Delta_{all.}$	%	$\Delta_{act.}$	$\Delta_{all.}$	%	
					W	W	2.50		0.80	4.30	4.30																				
					W	W	2.50		0.80	8.20	8.20																				
					W	W	2.50		0.80	5.00	5.00																				
					W	W	2.50		0.80	1.00	1.00																				
					F	F	2.50	-1.80	0.80	10.30	10.30																				
					W	W	2.50	-1.80	0.80	10.00	10.00																				
					F	F	2.50	-1.80	2.50	10.30	10.30																				
					103		2.50	0.80																							
65	Main Floor	6x8			W	W	2.40	-1.00	2.40	10.00	10.00					3044	1728	115	170	148	1824	454	1300	286	0.00	0.08		0.01	0.12		65
					F	F	2.40	-1.00	2.40	10.30	10.30																				
					105		2.40	0.80																							
66	Wall	3.5x5.5 LSL			WI	WI	14.50		14.50	5.40	5.40					1309	1309	61	310	511	4746	1141	2381	209	0.50	0.73	144	0.50	0.73	144	66



PRIOR TO STARTING CONSTRUCT
EXIST PLEASE NOTIFY STONEY F
OWNER/CONTRACTOR.

2. ALL EXTERIOR WALLS TO BE FR
GRADE OR BETTER).

3. ALL FRAME NAILING TO COMPLY
2015 I.B.C. BLOCK ALL APA R.
AND NAIL WITH 8d AT 6" O.C.
WALL SCHEDULE. NAILING INTO
MATERIAL SHALL BE HOT-DIP G

4. ALL HEADERS, (HDR), TO BE 4x

5. ALL FLOOR JOIST TO BE 18" DE
OPEN WEB FLOOR TRUSSES 19.
SOLID BLOCKING BELOW ALL PO

6. 2-2x4 DENOTES MINIMUM REQUIRE
NEEDED FOR BEARING UNDER B
HEADERS. DOES NOT INCLUDE K
w/ SOLID SAWN LUMBER OF SA
U.N.O.

7. ENGINEERED LUMBER SPECIFIED
THE DESIGN STRESS VALUES INI
INSTALL PER MFG. RECOMMEND/
ONLY SHOW SIZE, SPAN, AND S

SHEARWALL NOTES

1. ALL EXTERIOR WALLS TO BE P1

2. P1-X DENOTES S
MARK IS ON SIDE OF WALL TO
U.N.O.

3. DENOTES LOCATION OF TIE S

4. DENOTES LOCATION HOLDO

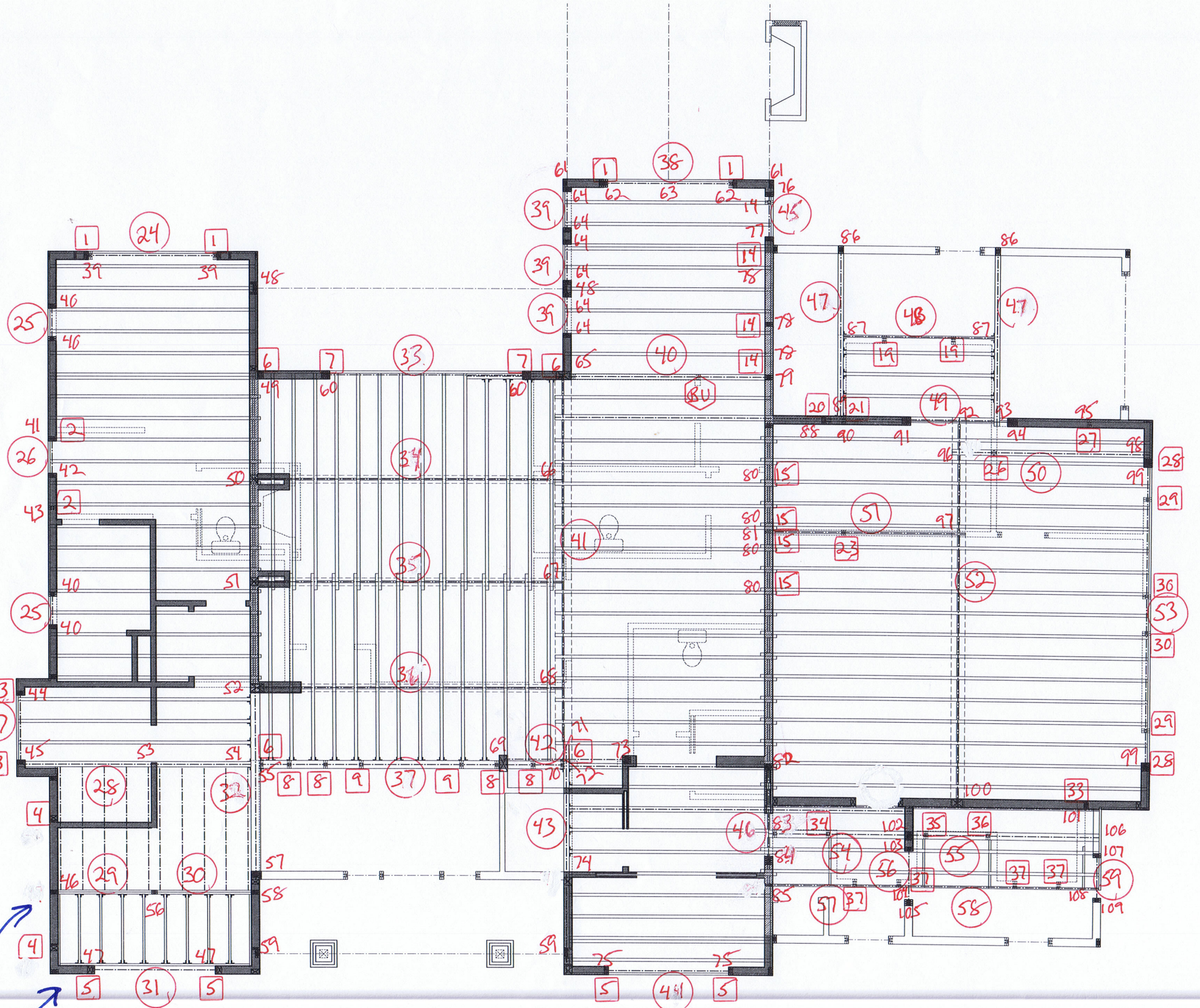
5. SEE SHEETS S1.0, & S3.0-3.3
SCHEDULE, NOTES AND TYP. DE

LEGEND

DENOTES INTER
BEARING WALLS

DENOTES LOWE

DENOTES BEAM



UPPER FLOOR FRAMING PL

1. PLANS SHOULD BE REVIEWED B PRIOR TO STARTING CONSTRUCT EXIST PLEASE NOTIFY STONEY F OWNER/CONTRACTOR.
2. ALL EXTERIOR WALLS TO BE FR (STUD GRADE OR BETTER).
3. ALL FRAME NAILING TO COMPLY 2015 I.B.C. BLOCK ALL APA R. AND NAIL WITH 8d AT 6" O.C. WALL SCHEDULE. NAILING INTO MATERIAL SHALL BE HOT-DIP G A153.
4. ALL HEADERS, (HDR), TO BE 4x
5. ALL FLOOR JOIST TO BE 11⅞" U.N.O. PROVIDE SOLID BLOCKING ABOVE
6. 2-2x4 DENOTES MINIMUM REQUIRE NEEDED FOR BEARING UNDER B HEADERS. DOES NOT INCLUDE K w/ SOLID SAWN LUMBER OF SA U.N.O.
7. ENGINEERED LUMBER SPECIFIED THE DESIGN STRESS VALUES INI INSTALL PER MFG. RECOMMEND/ ONLY SHOW SIZE, SPAN, AND S

SHEARWALL NOTES

1. ALL EXTERIOR WALLS TO BE P1
2. P1-X DENOTES S MARK IS ON SIDE OF WALL TO U.N.O.
3. DENOTES LOCATION OF TIE S
4. DENOTES LOCATION HOLDO
5. SEE SHEETS S1.0, & S3.0-S3.3 SCHEDULE, NOTES AND TYP. DE

LEGEND

- DENOTES INTERI BEARING WALLS
- DENOTES MAIN
- DENOTES BEAM

ROOF FRAM

SCALE ¼" = 1'-0"

ROOF FRAMING NOTES

1. PLANS SHOULD BE REVIEWED BY ALL SUBC PRIOR TO STARTING CONSTRUCTION. IF DISCRE PLEASE NOTIFY STONEY POINT ENGINEERING O OWNER/CONTRACTOR.

2. ALL EXTERIOR WALLS TO BE FRAMED WITH (STUD GRADE OR BETTER).

3. ALL FRAME NAILING TO COMPLY WITH TABL 2015 I.B.C. BLOCK ALL APA RATED SHEATHIN NAIL WITH 8d AT 6" O.C. TYPICAL, U.N.O. ON SCHEDULE. NAILING INTO PRESSURE TREATED SHALL BE HOT-DIP GALVANIZED PER ASTM A1

4. ALL HDRS TO BE 4x8 D.F.#2 TYPICAL U.N.(

5. ROOF FRAMING TO BE PRE-MANUFACTURED C TRUSSES @ 24" O.C. TYPICAL U.N.O.

6. 2-2x4 DENOTES MINIMUM REQUIRED NUMBER NEEDED FOR BEARING UNDER BEAMS AND BEL HEADERS. DOES NOT INCLUDE KING STUDS. M/ w/ SOLID SAWN LUMBER OF SAME SECTION. T

7. ROOF PITCH TO BE AS NOTED ON PLANS

8. CONTRACTOR TO VERIFY LOCATION OF ALL RC BRACING AND POSTING AND PROVIDE ADEQUATE FOUNDATION.

9. ENGINEERED LUMBER SPECIFIED SHALL MEET (DESIGN STRESS VALUES INDICATED ON SHEET S1 MFG. RECOMMENDATIONS. THESE DRAWINGS ONLY SPAN, AND SPACING.

SHEARWALL NOTES

1. ALL EXTERIOR WALLS TO BE P1-6 U.N.O.

2. P1-X DENOTES SHEARWALL M MARK IS ON SIDE OF WALL TO BE SHEATHED

3. ◄ DENOTES LOCATION OF TIE STRAP PER

4. · ◄ DENOTES LOCATION OF HOLDOWN PER

5. SEE SHEETS S1.0, & S3.0-S3.3 FOR SHEAF SCHEDULE, NOTES AND TYP. DETAILS

LEGEND

DENOTES INTERIOR BEARIN

DENOTES BEAMS, HEADER

For Listed Load on 2 Story Wall See Beam # 66 in gravity Calcs

8" TYP. U.N.O.

Gravity Load Keyplan 23

Main Wind Force Resisting System

Grid #	Factor	Grid # for Load Above	L (ft)	B (ft)	Proj. Area (ft^2)	Surface Direction	Surface Type	Roof Angle		Pressure Coefficients		Design Pressure	Design Load		Min. Design Load		Load used for Design
								Pitch	θ (Deg)	C_p (Fig 27.4.1) External	GC_{pi} (Table 26.11-1) Internal	p (Eq 6-17) (psf)	Tributary F *(lb)*	Total F *(lb)*	Tributary F *(lb)*	Total F *(lb)*	F (*lb*)
1U			63.1	70.5	64	Windward	Wall			0.80	-0.18	21.1	1353	2463	1024	1104	1478
			63.1	70.5	64	Leeward	Wall			-0.50	0.18	13.2	846				
			63.1	70.5	10	Windward	Roof	10	39.8	0.40	-0.18	10.6	106		80		
			63.1	70.5	10	Leeward	Roof	10	39.8	-0.60	0.18	15.9	159				
2U			63.1	70.5	100	Windward	Wall			0.80	-0.18	21.1	2114	5497	1600	2224	3298
			63.1	70.5	100	Leeward	Wall			-0.50	0.18	13.2	1321				
			63.1	70.5	78	Windward	Roof	5	22.6	0.40	-0.18	10.6	825		624		
			63.1	70.5	78	Leeward	Roof	5	22.6	-0.60	0.18	15.9	1237				
3U			63.1	70.5	100	Windward	Wall			0.80	-0.18	21.1	2114	5497	1600	2224	3298
			63.1	70.5	100	Leeward	Wall			-0.50	0.18	13.2	1321				
			63.1	70.5	78	Windward	Roof	5	22.6	0.40	-0.18	10.6	825		624		
			63.1	70.5	78	Leeward	Roof	5	22.6	-0.60	0.18	15.9	1237				
4U			63.1	70.5	136	Windward	Wall			0.80	-0.18	21.1	2875	6417	2176	2704	3850
			63.1	70.5	136	Leeward	Wall			-0.50	0.18	13.2	1797				
			63.1	70.5	66	Windward	Roof	6	26.6	0.40	-0.18	10.6	698		528		
			63.1	70.5	66	Leeward	Roof	6	26.6	-0.60	0.18	15.9	1047				
5U			63.1	70.5	64	Windward	Wall			0.80	-0.18	21.1	1353	3975	1024	1552	2385
			63.1	70.5	52	Leeward	Wall			-0.50	0.18	13.2	687				
			63.1	70.5	66	Windward	Roof	6	26.6	0.40	-0.18	10.6	698		528		
			63.1	70.5	78	Leeward	Roof	6	26.6	-0.60	0.18	15.9	1237				
AU			70.5	63.1	36	Windward	Wall			0.80	-0.18	21.1	761	2281	576	960	1368
			70.5	63.1	30	Leeward	Wall			-0.48	0.18	12.6	378				
			70.5	63.1	48	Windward	Roof	10	39.8	0.40	-0.18	10.6	507		384		
			70.5	63.1	40	Leeward	Roof	10	39.8	-0.60	0.18	15.9	634				
BU			70.5	63.1	106	Windward	Wall			0.80	-0.18	21.1	2241	6814	1696	2928	4088
			70.5	63.1	50	Leeward	Wall			-0.48	0.18	12.6	630				
			70.5	63.1	154	Windward	Roof	10	39.8	0.40	-0.18	10.6	1628		1232		
			70.5	63.1	146	Leeward	Roof	10	39.8	-0.60	0.18	15.9	2315				
CU			70.5	63.1	136	Windward	Wall			0.80	-0.18	21.1	2875	9883	2176	4624	5930
			70.5	63.1	32	Leeward	Wall			-0.48	0.18	12.6	403				
			70.5	63.1	172	Windward	Roof	10	39.8	0.40	-0.18	10.6	1818		1376		
			70.5	63.1	134	Leeward	Roof	10	39.8	-0.60	0.18	15.9	2125				
		EU											2662		1072		
EU			70.5	63.1	46	Windward	Wall			0.80	-0.18	21.1	973	2662	736	1072	1597
			70.5	63.1	46	Leeward	Wall			-0.48	0.18	12.6	579				

Main Wind Force Resisting System

Grid #	Factor	Grid # for Load Above	L (ft)	B (ft)	Proj. Area (ft^2)	Surface Direction	Surface Type	Roof Angle		Pressure Coefficients		Design Pressure	Design Load		Min. Design Load		Load used for Design
								Pitch	θ (Deg)	C_p (Fig 27.4.1) External	GC_{pi} (Table 26.11-1) Internal	p (Eq 6-17) (psf)	Tributary F *(lb)*	Total F *(lb)*	Tributary F *(lb)*	Total F *(lb)*	F (*lb*)
			70.5	63.1	42	Windward	Roof	10	39.8	0.40	-0.18	10.6	444		336		
			70.5	63.1	42	Leeward	Roof	10	39.8	-0.60	0.18	15.9	666				
GU			70.5	63.1	36	Windward	Wall			0.80	-0.18	21.1	761	2281	576	960	1368
			70.5	63.1	30	Leeward	Wall			-0.48	0.18	12.6	378				
			70.5	63.1	48	Windward	Roof	10	39.8	0.40	-0.18	10.6	507		384		
			70.5	63.1	40	Leeward	Roof	10	39.8	-0.60	0.18	15.9	634				
IU			70.5	63.1	112	Windward	Wall			0.80	-0.18	21.1	2368	3727	1792	2112	2236
			70.5	63.1	24	Leeward	Wall			-0.48	0.18	12.6	302				
			70.5	63.1	40	Windward	Roof	10	39.8	0.40	-0.18	10.6	423		320		
			70.5	63.1	40	Leeward	Roof	10	39.8	-0.60	0.18	15.9	634				
JU			70.5	63.1	136	Windward	Wall			0.80	-0.18	21.1	2875	5066	2176	2656	3039
			70.5	63.1	48	Leeward	Wall			-0.48	0.18	12.6	605				
			70.5	63.1	60	Windward	Roof	10	39.8	0.40	-0.18	10.6	634		480		
			70.5	63.1	60	Leeward	Roof	10	39.8	-0.60	0.18	15.9	951				
LU			70.5	63.1	26	Windward	Wall			0.80	-0.18	21.1	550	1987	416	752	1192
			70.5	63.1	26	Leeward	Wall			-0.48	0.18	12.6	327				
			70.5	63.1	42	Windward	Roof	10	39.8	0.40	-0.18	10.6	444		336		
			70.5	63.1	42	Leeward	Roof			-0.60	0.18	15.9	666				
1M			63.1	70.5	92	Windward	Wall			0.80	-0.18	21.1	1945	5624	1472	2576	3374
			63.1	70.5	92	Leeward	Wall			-0.50	0.18	13.2	1216				
		1U											2463		1104		
2M			63.1	70.5	170	Windward	Wall			0.80	-0.18	21.1	3594	11338	2720	4944	6803
			63.1	70.5	170	Leeward	Wall			-0.50	0.18	13.2	2246				
		2U											5497		2224		
3M			63.1	70.5	170	Windward	Wall			0.80	-0.18	21.1	3594	11338	2720	4944	6803
			63.1	70.5	170	Leeward	Wall			-0.50	0.18	13.2	2246				
		3U											5497		2224		
4M			63.1	70.5	202	Windward	Wall			0.80	-0.18	21.1	4271	10952	3232	5936	6571
			63.1	70.5	20	Leeward	Wall			-0.50	0.18	13.2	264				
		4U											6417		2704		
5M			63.1	70.5	130	Windward	Wall			0.80	-0.18	21.1	2749	8441	2080	3632	5065
			63.1	70.5	130	Leeward	Wall			-0.50	0.18	13.2	1718				
		5U											3975		1552		
AM			70.5	63.1	44	Windward	Wall			0.80	-0.18	21.1	930	3765	704	1664	2259
			70.5	63.1	44	Leeward	Wall			-0.48	0.18	12.6	554				

Main Wind Force Resisting System

Grid #	Factor	Grid # for Load Above	L (ft)	B (ft)	Proj. Area (ft^2)	Surface Direction	Surface Type	Roof Angle		Pressure Coefficients		Design Pressure	Design Load		Min. Design Load		Load used for Design
								Pitch	θ (Deg)	C_p (Fig 27.4.1) External	GC_{pi} (Table 26.11-1) Internal	p (Eq 6-17) (psf)	Tributary F *(lb)*	Total F *(lb)*	Tributary F *(lb)*	Total F *(lb)*	F (*lb*)
		AU											2281		960		
BM			70.5	63.1	232	Windward	Wall			0.80	-0.18	21.1	4905	12273	3712	6640	7364
			70.5	63.1	44	Leeward	Wall			-0.48	0.18	12.6	554				
		BU											6814		2928		
CM			70.5	63.1	200	Windward	Wall			0.80	-0.18	21.1	4229	14540	3200	7824	8724
			70.5	63.1	34	Leeward	Wall			-0.48	0.18	12.6	428				
		CU											9883		4624		
DM			70.5	63.1	54	Windward	Wall			0.80	-0.18	21.1	1142	1822	864	864	1093
			70.5	63.1	54	Leeward	Wall			-0.48	0.18	12.6	680				
EM			70.5	63.1	72	Windward	Wall			0.80	-0.18	21.1	1522	2429	1152	1152	1457
			70.5	63.1	72	Leeward	Wall			-0.48	0.18	12.6	907				
FM			70.5	63.1	26	Windward	Wall			0.80	-0.18	21.1	550	2146	416	800	1287
			70.5	63.1	26	Leeward	Wall			-0.48	0.18	12.6	327				
			70.5	63.1	48	Windward	Roof	5	22.6	0.40	-0.18	10.6	507		384		
			70.5	63.1	48	Leeward	Roof	5	22.6	-0.60	0.18	15.9	761				
GM			70.5	63.1	34	Windward	Wall			0.80	-0.18	21.1	719	4568	544	1712	2741
			70.5	63.1	70	Leeward	Wall			-0.48	0.18	12.6	882				
			70.5	63.1	26	Windward	Roof	5	22.6	0.40	-0.18	10.6	275		208		
			70.5	63.1	26	Leeward	Roof	5	22.6	-0.60	0.18	15.9	412				
		GU											2281		960		
HM			70.5	63.1	74	Windward	Wall			0.80	-0.18	21.1	1565	6133	1184	2896	3680
		GM											4568		1712		
IM			70.5	63.1	184	Windward	Wall			0.80	-0.18	21.1	3890	19891	2944	11696	11935
		BM											12273		6640		
		IU											3727		2112		
JM			70.5	63.1	174	Windward	Wall			0.80	-0.18	21.1	3679	23285	2784	13264	13971
		CM											14540		7824		
		JU											5066		2656		
KM			70.5	63.1	58	Windward	Wall			0.80	-0.18	21.1	1226	4190	928	1904	2514
		LM											2963		976		
LM			70.5	63.1	14	Windward	Wall			0.80	-0.18	21.1	296	2963	224	976	1778
			70.5	63.1	54	Leeward	Wall			-0.48	0.18	12.6	680				
		LU											1987		752		

Seismic Calculations

Spectral Response Acceleration, S_S = 140.60 | **Maximum Spectral Response Acceleration, S_{MS} = 1.41**

Site Class = D | **5%Damped Design Spectral Response Acceleration, S_{DS} = 0.94**

Site Coefficient, F_a = 1.00 | **Default Response Modification Coefficient, R = 6.50**

Height Coefficient, F = 1.10 | **Seismic Design Category = D**

Grid #	Load Type	Level	Direction (On Page)	Areas (ft^2)	Code Sect.	Fctr.	Ω_o	R	Loads						ρ_{used}	Eq. 12.4-3 $E=\rho Q_E$ (lb)	Eq. 5 0.7*E (lb)	Eq. 16-52 $E_m=\Omega_O Q_E$ (lb)
									Live (lb/ft^2)	Dead (lb/ft^2)	w_x (lb)	FS_{DS}/R	F_{xi} (lb)	Q_E (lb)				
1U	R	Upper Floor	U-D	352						15.0	5280	0.159	838	928	1.30	1206	929	
	W			38						15.0	570	0.159	90					
2U	R	Upper Floor	U-D	568						15.0	8520	0.159	1351	1442	1.30	1874	1443	
	W			38						15.0	570	0.159	90					
3U	R	Upper Floor	U-D	602						15.0	9030	0.159	1432	1523	1.30	1980	1524	
	W			38						15.0	570	0.159	90					
4U	R	Upper Floor	U-D	758						15.0	11370	0.159	1804	1894	1.30	2462	1896	
	W			38						15.0	570	0.159	90					
5U	R	Upper Floor	U-D	404						15.0	6060	0.159	961	961	1.30	1250	962	
AU	R	Upper Floor	L-R	64						15.0	960	0.159	152	152	1.30	198	152	
BU	R	Upper Floor	L-R	732						15.0	10980	0.159	1742	1742	1.30	2264	1743	
CU	R	Upper Floor	L-R	792						15.0	11880	0.159	1884	2141	1.30	2784	2144	
	W			108						15.0	1620	0.159	257					
EU	R	Upper Floor	L-R	104						15.0	1560	0.159	247	390	1.30	507	391	
	W			60						15.0	900	0.159	143					
GU	R	Upper Floor	L-R	98						15.0	1470	0.159	233	233	1.30	303	233	
IU	R	Upper Floor	L-R	386						15.0	5790	0.159	918	918	1.30	1194	919	
JU	R	Upper Floor	L-R	406						15.0	6090	0.159	966	966	1.30	1256	967	
LU	R	Upper Floor	L-R	104						15.0	1560	0.159	247	371	1.30	483	372	
	W			52						15.0	780	0.159	124					
1M	F	Main Floor	U-D	314						25.0	7850	0.159	1245	2240	1.30	2912	2242	
	W			28						15.0	420	0.159	67					
	1U												928					
2M	R	Main Floor	U-D	188						15.0	2820	0.159	447	4242	1.30	5514	4246	
	F			544						25.0	13600	0.159	2157					
	W			82						15.0	1230	0.159	195					
	2U												1442					
3M	R	Main Floor	U-D	602						15.0	9030	0.159	1432	5441	1.30	7073	5446	
	F			574						25.0	14350	0.159	2276					
	W			88						15.0	1320	0.159	209					
	3U												1523					
4M	R	Main Floor	U-D	758						15.0	11370	0.159	1804	6783	1.30	8818	6790	
	F			736						25.0	18400	0.159	2919					

Seismic Calculations

Spectral Response Acceleration, S_S = 140.60 | **Maximum Spectral Response Acceleration, S_{MS} = 1.41**

Site Class = D | **5%Damped Design Spectral Response Acceleration, S_{DS} = 0.94**

Site Coefficient, F_a = 1.00 | **Default Response Modification Coefficient, R = 6.50**

Height Coefficient, F = 1.10 | **Seismic Design Category = D**

Grid #	Load Type	Level	Direction (On Page)	Areas (ft^2)	Code Sect.	Fctr.	Ω_o	R	Loads: Live (lb/ft^2)	Loads: Dead (lb/ft^2)	Loads: w_x (lb)	Loads: FS_{DS}/R	Loads: F_{xi} (lb)	Loads: Q_E (lb)	ρ_{used}	Eq. 12.4-3 $E=\rho Q_E$ (lb)	Eq. 5 0.7*E (lb)	Eq. 16-52 $E_m=\Omega_O Q_E$ (lb)
	W			70						15.0	1050	0.159	167					
	4U												1894					
5M	R	Main Floor	U-D	178						15.0	2670	0.159	424	2852	1.30	3708	2855	
	F			370						25.0	9250	0.159	1467					
	5U												961					
AM	F	Main Floor	L-R	52						25.0	1300	0.159	206	358	1.30	466	359	
	AU												152					
BM	R	Main Floor	L-R	116						15.0	1740	0.159	276	4810	1.30	6252	4814	
	F			704						25.0	17600	0.159	2792					
	BU												1742					
CM	R	Main Floor	L-R	68						15.0	1020	0.159	162	5555	1.30	7222	5561	
	F			766						25.0	19150	0.159	3038					
	W			90						15.0	1350	0.159	214					
	CU												2141					
DM	R	Main Floor	L-R	192						15.0	2880	0.159	457	647	1.30	841	648	
	W			80						15.0	1200	0.159	190					
EM	F	Main Floor	L-R	88						25.0	2200	0.159	349	520	1.30	676	521	
	W			72						15.0	1080	0.159	171					
FM	R	Main Floor	L-R	150						15.0	2250	0.159	357	481	1.30	625	481	
	W			52						15.0	780	0.159	124					
GM	R	Main Floor	L-R	78						15.0	1170	0.159	186	447	1.30	582	448	
	W			12						15.0	180	0.159	29					
	GU												233					
HM	R	Main Floor	L-R	150			1.25			15.0	2250	0.159	357	804	1.30			1005
	GM												447					
IM	R	Main Floor	L-R	70			1.25			15.0	1050	0.159	167	7322	1.30			9153
	F			360						25.0	9000	0.159	1428					
	BM												4810					
	IU												918					
JM	R	Main Floor	L-R	72			1.25			15.0	1080	0.159	171	8342	1.30			10428
	F			416						25.0	10400	0.159	1650					
	CM												5555					
	JU												966					

Seismic Calculations

Spectral Response Acceleration, S_S = 140.60 | **Maximum Spectral Response Acceleration, S_{MS} = 1.41**

Site Class = D | **5%Damped Design Spectral Response Acceleration, S_{DS} = 0.94**

Site Coefficient, F_a = 1.00 | **Default Response Modification Coefficient, R = 6.50**

Height Coefficient, F = 1.10 | **Seismic Design Category = D**

Grid #	Load Type	Level	Direction (On Page)	Areas (ft^2)	Code Sect.	Fctr.	Ω_o	R	Loads: Live (lb/ft^2)	Loads: Dead (lb/ft^2)	Loads: w_x (lb)	Loads: FS_{DS}/R	Loads: F_{xi} (lb)	Loads: Q_E (lb)	ρ_{used}	Eq. 12.4-3 $E=\rho Q_E$ (lb)	Eq. 5 0.7*E (lb)	Eq. 16-52 $E_m=\Omega_O Q_E$ (lb)
KM	R	Main Floor	L-R	58						15.0	870	0.159	138	899	1.30	1169	900	
	LM												761					
LM	F	Main Floor	L-R	72						25.0	1800	0.159	286	761	1.30	990	762	
	W			44						15.0	660	0.159	105					
	LU												371					

Panel Analysis

20-024 Lat 8/22/2020

Panel																		Design Loads		Panel Shears										Holdown Options										
Grid #			Materials			Height (ft.)	Individual Panel Lengths						Shear Panel Adjustments							Wind (lb)	Seismic (lb)	Wind					Seismic					Post Loads			Anchor Bolt Holdowns						
													Perforated Panel					S.G.				Allowable				Allowable									Post				Tie Straps		
Level$_i$	Grid Above	Wall Size	Nail Size	Panel Type	S.G.		#1 (ft)	#2 (ft)	#3 (ft)	#4 (ft)	#5 (ft)	#6 (ft)	Max Height (ft)	Total Width (ft)	%	C_o	C_{SG}			Act. (lb/ft)	Type	Base (lb/ft)	Cap. (lb/ft)	Act. (lb/ft)	Type	Base (lb/ft)	C_S	Cap. (lb/ft)	Uplift (lb)	2/3 Dead (lb)	Net (lb)	Model	Grade	Size	Cap. (lb)	Model	Cap. (lb)	Min. Lgth. (in)
		Defaults (Dflt.)																														Default						
		2x6	8d	15/32" Ply	0.4																											SPF	2-2x					
1U						9.0	10.5	11.6									0.93	1,478	929	67	**P1-6**	365	339	42	P1-6	260		242	602		602								
2U						9.0	5.8	7.3									0.93	3,298	1,443	252	**P1-6**	365	339	110	P1-6	260		242	2266		2266	HDU4			3285	MSTC40	2320	12
3U						9.0	12.6	11.8									0.93	3,298	1,524	135	**P1-6**	365	339	62	P1-6	260		242	1217	433	784							
4U						9.0	8.4	5.5									0.93	3,850	1,896	277	**P1-6**	365	339	136	P1-6	260		242	2493		2493	HDU4			3285	MSTC52	3645	13
5U						9.0	2.7	6.2	6.2	2.7			2.0	6.0	0.75	1.00	0.93	2,385	962	134	**P1-6**	365	339	54	P1-6	260	0.60	145	1206		1206	HDU2			2215	MSTC40	2320	6
AU						9.0	2.7	2.7									0.93	1,368	152	253	**P1-6**	365	339	28	P1-6	260	0.60	145	2281		2281	HDU4			3285	MSTC40	2320	12
BU						9.0	4.3	7.8									0.93	4,088	1,743	338	**P1-6**	365	339	144	P1-6	260	0.96	231	3041		3041	HDU4			3285	MSTC52	3645	16
CU						4.0	2.0	2.4	2.4	2.0							0.93	5,930	2,144	674	**P1-2**	895	832	244	**P1-4**	380		353	2695		2695	HDU4			3285	MSTC52	3645	14
GU						9.0	2.7	2.7									0.93	1,368	233	253	**P1-6**	365	339	43	P1-6	260	0.60	145	2281		2281	HDU4			3285	MSTC40	2320	12
IU						9.0	9.0										0.93	2,236	919	248	**P1-6**	365	339	102	P1-6	260		242	2236		2236	HDU4			3285	MSTC40	2320	12
JU						9.0	4.0	4.0	3.4								0.93	3,039	967	267	**P1-6**	365	339	85	P1-6	260	0.76	183	2400		2400	HDU4			3285	MSTC52	3645	12
LU						9.0	2.7	2.7									0.93	1,192	372	221	**P1-6**	365	339	69	**P1-6**	260	0.60	145	1987		1987	HDU2			2215	MSTC40	2320	10
1M						10.0	3.3	7.4	6.1	3.5			4.0	6.0	0.77	0.90	0.93	3,374	2,242	166	P1-6	365	339	110	**P1-6**	260	0.66	143	1854		1854	HDU2			2215	MSTC40	2320	10
2M	2U					10.0	5.8	7.3									0.93	6,803	4,246	519	**P1-3**	685	637	324	P1-4	380		353	5193		5193	HDU5	DF	4x6	5645	MSTC66	5495	27
																												7459		7459	HDQ8	DF	4x6	7630			39
3M	3U					10.0	5.3										0.93	6,803	5,446	1284	P2-2	1790	1665	1028	**P2-2**	1280		1190	12835		12835	HDU14	DF	6x6	14375			67
																												14052		S							#####
4M	3U					10.0	21.2										0.93	6,571	6,790	310	P1-6	365	339	320	**P1-4**	380		353	3203		3203	HDU4			3285	MSTC52	3645	17
																												4419		4419	HDU4	DF	4x6	4565	MSTC66	5495	23

Panel Analysis

20-024 Lat 8/22/2020

Panel																		Design Loads		Panel Shears										Holdown Options										
Grid #			Materials					Individual Panel Lengths						Shear Panel Adjustments								Wind				Seismic				Post Loads			Anchor Bolt Holdowns						
														Perforated Panel					S.G.			Allowable				Allowable								Post				Tie Straps		
Level$_i$	Grid Above	Wall Size	Nail Size	Panel Type	S.G.	Height (ft.)	#1 (ft)	#2 (ft)	#3 (ft)	#4 (ft)	#5 (ft)	#6 (ft)	Max Height (ft)	Total Width (ft)	%	C_o	C_{SG}	Wind (lb)	Seismic (lb)	Act. (lb/ft)	Type	Base (lb/ft)	Cap. (lb/ft)	Act. (lb/ft)	Type	Base (lb/ft)	C_S	Cap. (lb/ft)	Uplift (lb)	2/3 Dead (lb)	Net (lb)	Model	Grade	Size	Cap. (lb)	Model	Cap. (lb)	Min. Lgth. (in)
		Defaults (Dflt.)																														Default						
		2x6	8d	15/32" Ply	0.4																											SPF	2-2x					
5M																		5,065	2,855																			
AM																		2,259	359																			
DM						10.0	5.3	5.3									0.93	1,093	648	103	**P1-6**	365	339	61	P1-6	260		242	1031		1031								
EM						5.5	13.0										0.93	1,457	521	112	**P1-6**	365	339	40	P1-6	260		242	617		617								
FM																		1,287	481																			
HM						10.0	8.3	7.5					4.0	2.5	0.86	0.93	0.93	3,680	1,005	233	**P1-6**	365	339	64	P1-6	260		226	2491		2491	HDU4			3285	MSTC52	3645	13
IM	IU					10.0	9.3	5.5	4.3								0.93	11,935	9,153	625	P1-3	685	637	479	**P1-2**	640	0.86	512	6248		6248	HDU8	DF	4x6	6970			32
																													8485	731	7754	HDU8	DF	6x6	7870			40
JM	JU					10.0	15.0	5.1									0.93	13,971	10,428	695	P1-2	895	832	519	**P1-2**	640		595	6951		6951	HDU8	DF	4x6	6970			36
																													9350		9350	HDU11	DF	6x6	9535			48
KM						10.0	4.0	5.0	4.0				5.0	5.0	0.72	0.88	0.93	2,514	900	193	**P1-6**	365	339	69	P1-6	260	0.80	170	2203		2203	HDU2			2215	MSTC40	2320	11

PATIO CONC

MASONARY GAS FIRE PIT

CVRD PATIO CONC

DINING ROOM
12'-0"x15'-6" HDWD

WORK OUT RM
12'-0"x14'-0" CPT

GREAT ROOM
21'-0"x19'-8" CPT

STORAGE
22'-0"x8'-0" CONC.

GARAGE
24'-0"x23'-0" CONC.

PWDR HDWD

STEAM SHOWER

LOCKER CABINET

BUILT-IN CABINETS

FREE-STANDING CABINET

FOYER HDWD

PANTRY HDWD

BEVERAGE BAR

ESPRESSO MACHINE

OPEN RAIL

UP 18R

FURN

HWT

TILE MUD RM

BENCH

CVRD PORCH CONC

6080 BRN DR

8'0" x 8'0" O.H. DOOR

8'0" x 9'0" SGD (SG)

12'0" x 9'0" SGD (SG)

2'8" x 6'0" CSMT

2'0" x 4'0" FXD

2'0" x 6'0" FXD (SG) W 2'0" x 2'0" TRANSOM

2'8" x 4'0" FXD

2'8" x 5'0" FXD

2'8" x 6'0" FXD

2480

2080

5080 PCKT DR

2480 PCKT DR

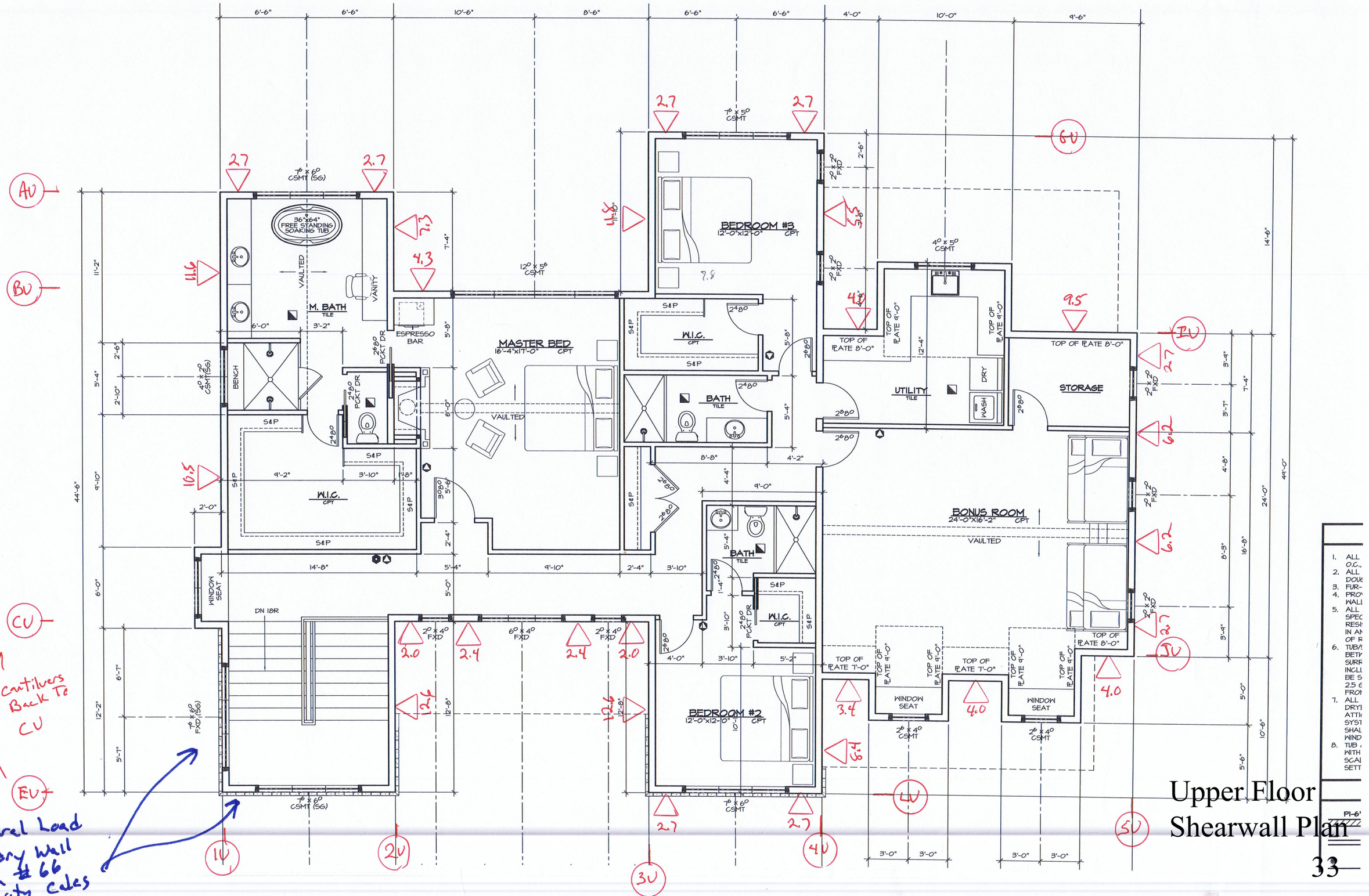
2080 SCSC

S&P

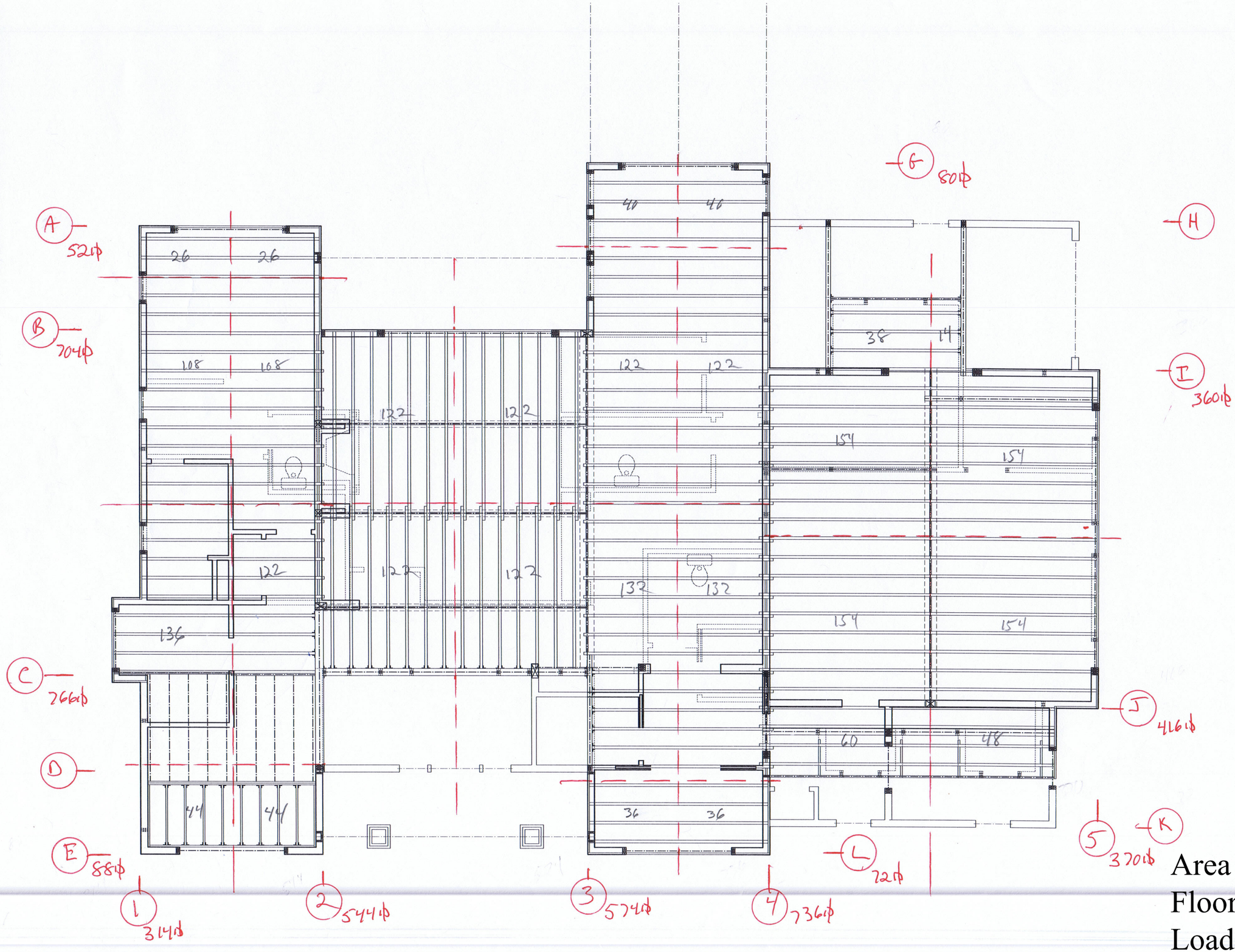
For Lateral Load on 2 Story Wall See Beam #66 in gravity Calcs

Main Floor Shearwall Plan

LEGEND



Upper Floor Shearwall Plan



SCALE ¼" = 1'-0"

UPPER FLOOR FRAMING PLAN NOTES

1. PLANS SHOULD BE REVIEWED BY ALL SUBCONTR PRIOR TO STARTING CONSTRUCTION. IF DISCREP/ EXIST PLEASE NOTIFY STONEY POINT ENGINEERIN OWNER/CONTRACTOR.
2. ALL EXTERIOR WALLS TO BE FRAMED WITH 2x6 GRADE OR BETTER).
3. ALL FRAME NAILING TO COMPLY WITH TABLE 23 2015 I.B.C. BLOCK ALL APA RATED SHEATHING AND NAIL WITH 8d AT 6" O.C. TYPICAL, U.N.O. WALL SCHEDULE. NAILING INTO PRESSURE TREA MATERIAL SHALL BE HOT-DIP GALVANIZED PER A153.
4. ALL HEADERS, (HDR), TO BE 4x8 D.F.#2 TYP. U
5. ALL FLOOR JOIST TO BE 11⅞" TJI 210 @ 16 O.C U.N.O. PROVIDE SOLID BLOCKING BELOW ALL POI ABOVE
6. 2-2x4 DENOTES MINIMUM REQUIRED NUMBER OF S NEEDED FOR BEARING UNDER BEAMS AND BELO HEADERS. DOES NOT INCLUDE KING STUDS. MAY w/ SOLID SAWN LUMBER OF SAME SECTION. TYF U.N.O.
7. ENGINEERED LUMBER SPECIFIED SHALL MEET OR THE DESIGN STRESS VALUES INDICATED ON SHE INSTALL PER MFG. RECOMMENDATIONS. THESE I ONLY SHOW SIZE, SPAN, AND SPACING.

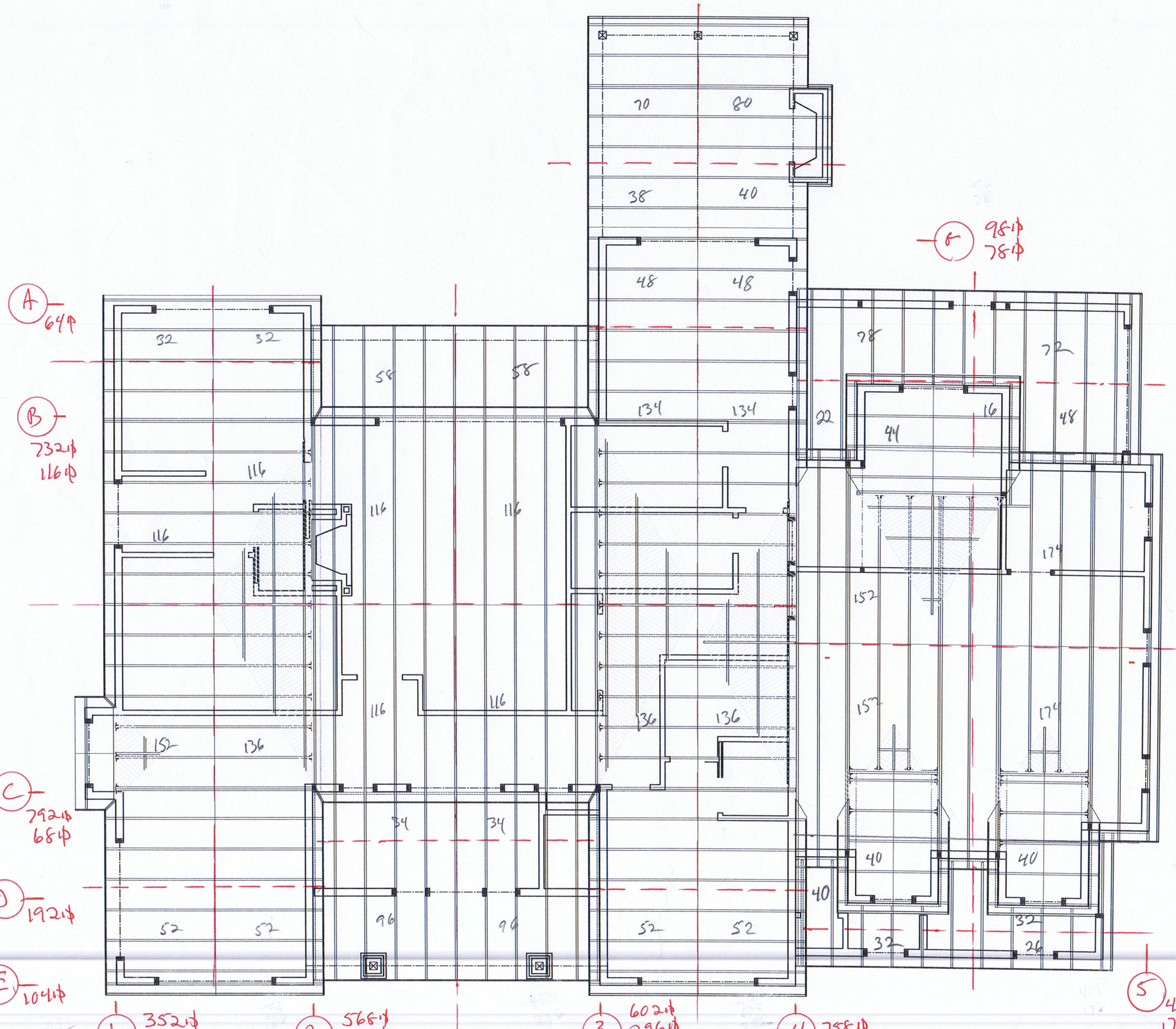
SHEARWALL NOTES

1. ALL EXTERIOR WALLS TO BE P1-6 U.N.O.
2. P1-X DENOTES SHEARWALL MARK MARK IS ON SIDE OF WALL TO BE SHEATHED U.N.O.
3. ⊣ DENOTES LOCATION OF TIE STRAP PER PLAN
4. · ⊣ DENOTES LOCATION HOLDOWN PER PLAN.
5. SEE SHEETS S1.0, S3.0, S3.1, AND S3.2 FOR SHEARWALL SCHEDULE, NOTES AND TYP. DETAILS

LEGEND

- DENOTES INTERIOR MAIN FLOOR BEARING WALLS
- DENOTES MAIN FLOOR WALLS
- DENOTES BEAMS, HEADERS

Area Takeoff for Upper Floor Framing Seismic Loads



FRAMING

SCALE ¼" = 1'-0"

ROOF FRAMING NOTES

1. PLANS SHOULD BE REVIEWED BY A
PRIOR TO STARTING CONSTRUCTION.
PLEASE NOTIFY STONEY POINT ENGIN
OWNER/CONTRACTOR.

2. ALL EXTERIOR WALLS TO BE FRAM
GRADE OR BETTER).

3. ALL FRAME NAILING TO COMPLY W
2015 I.B.C. BLOCK ALL APA RATED
NAIL WITH 8d AT 6" O.C. TYPICAL, U
SCHEDULE. NAILING INTO PRESSURE
SHALL BE HOT-DIP GALVANIZED PER

4. ALL HDRS TO BE 4x8 D.F.#2 TYPI

5. ROOF FRAMING TO BE PRE-MANUFA
O.C. TYPICAL U.N.O.

6. 2-2x4 DENOTES MINIMUM REQUIRED
NEEDED FOR BEARING UNDER BEAMS
HEADERS. DOES NOT INCLUDE KING S
w/ SOLID SAWN LUMBER OF SAME SI

7. ROOF PITCH TO BE AS NOTED ON F

8. CONTRACTOR TO VERIFY LOCATION
BRACING AND POSTING AND PROVIDE A
FOUNDATION.

9. ENGINEERED LUMBER SPECIFIED SHA
DESIGN STRESS VALUES INDICATED ON
PER MFG. RECOMMENDATIONS. THESE D
SIZE, SPAN, AND SPACING.

SHEARWALL NOTES

1. ALL EXTERIOR WALLS TO BE P1-6

P1-X

2. DENOTES SHEA
MARK IS ON SIDE OF WALL TO BE SH

3. DENOTES LOCATION OF TIE ST

4. DENOTES LOCATION OF HOLDC

5. SEE SHEETS S3.00, S3.01, S3.02,
AND S3.05 FOR SHEARWALL SCHEDUL
TYP. DETAILS.

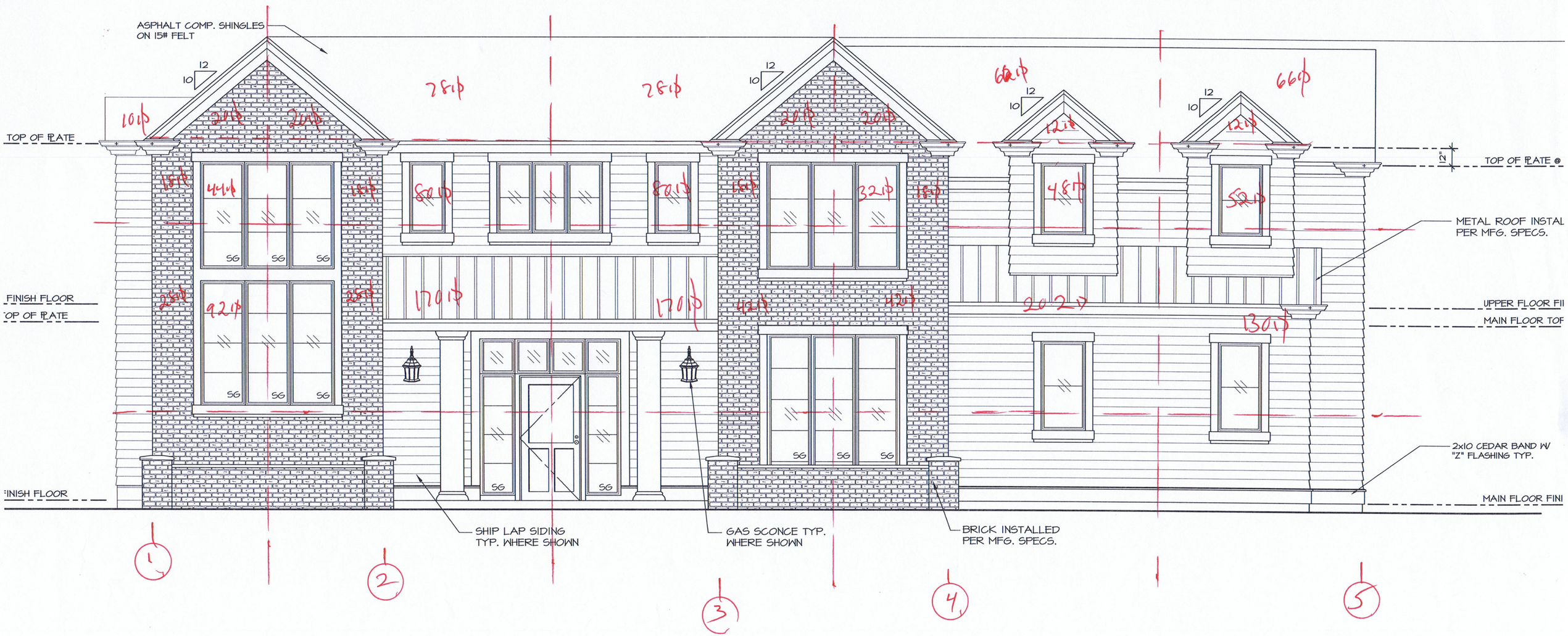
LEGEND

DENOTES INTERIO

DENOTES BEAMS,

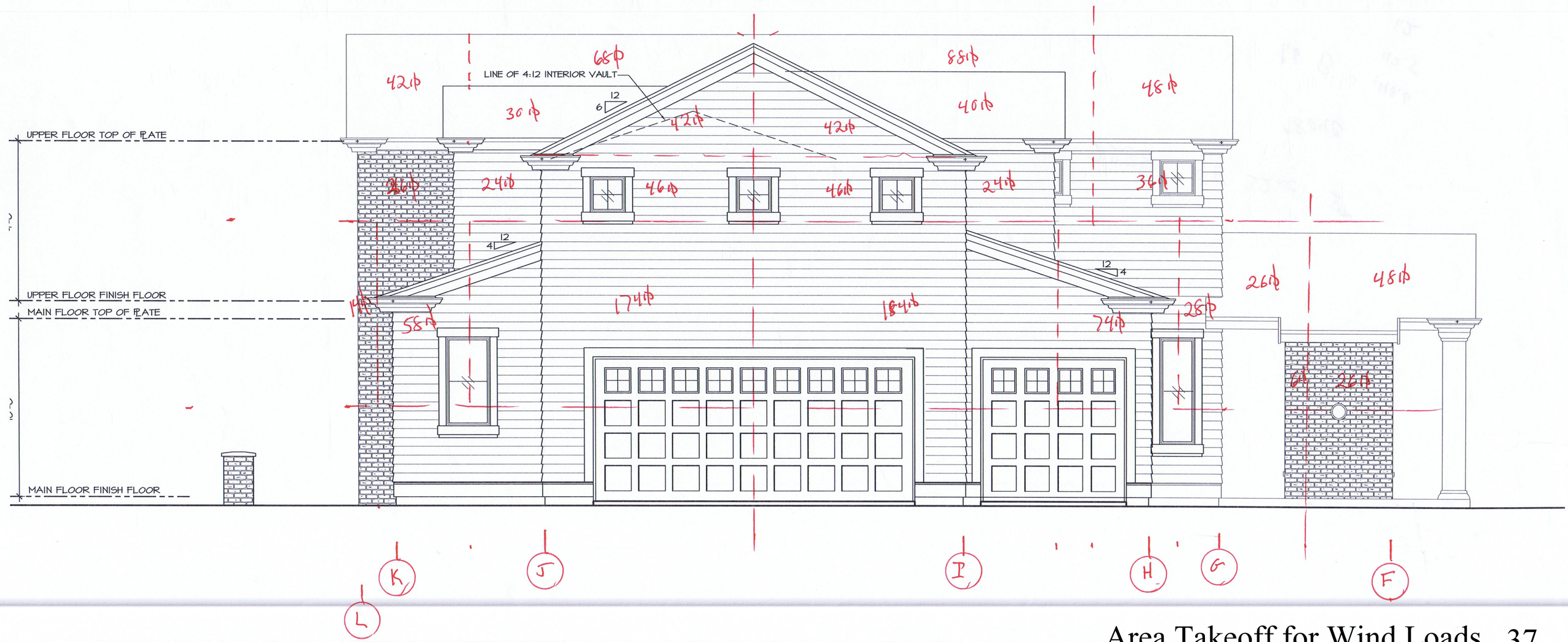
Area Takeoff for Roof Framing Seismic Loads

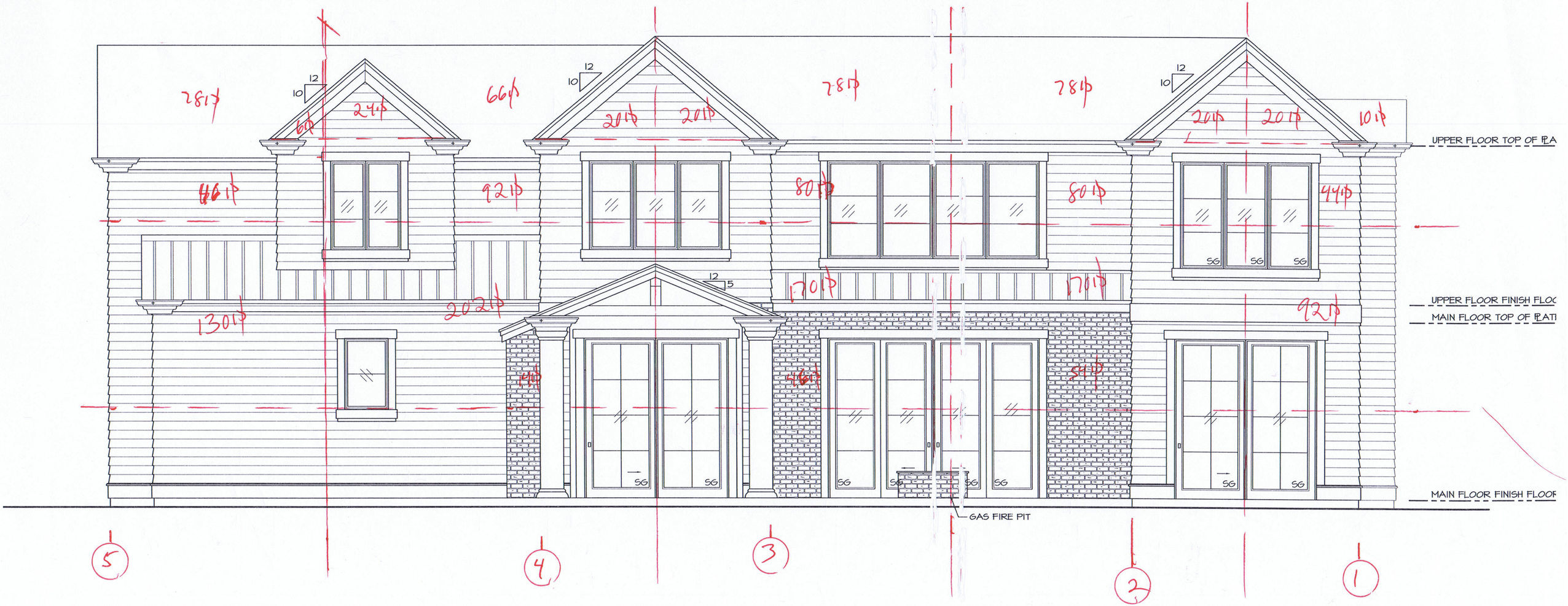
ve
ractor
ertaining
r must be
ons and/or
ich
rior to
or shall
ectify



SOUTH ELEVATION

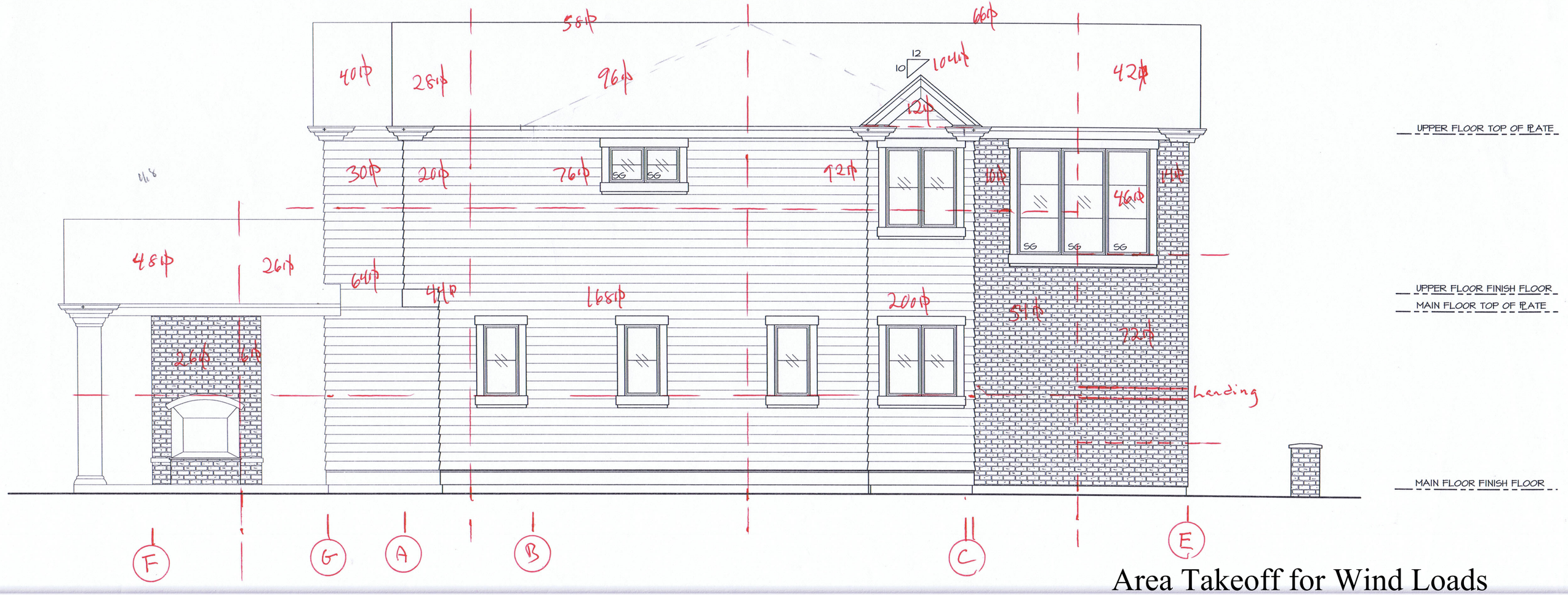
NORTH ELEVATION





NORTH ELEVATION

SOUTH ELEVATION



Area Takeoff for Wind Loads