

CONSTRUCTION TYPE	PROPERTY LOSS PER FIRE - ALL FIRES			
	1- 4 Storeys	Rank	5 or more Storeys	Rank
Fire Resistive	\$3087	1 st	\$2528	4 th
Protected Noncombustible	\$3839	2 nd	\$9005	9 th
Unprotected Noncombustible	\$5428	4 th	\$2234	2 nd
Heavy Timber	\$10114	9 th	\$2424*	3 rd
Protected Ordinary	\$5871	5 th	\$1989	1 st
Unprotected Ordinary	\$8100	6 th	\$3737	6 th
Protected Wood Frame	\$8136	7 th	\$2813*	5 th
Unprotected Wood Frame	\$9043	8 th	\$6850*	8 th
Other	\$4885	3 rd	\$6605*	7 th

* HT=50 fires;PWF=40 fires;UPWF=60 fires;Other=20 fires

Table 6 Dollar Loss per Fire by Construction Type and Building Height

[Based on Tables 29 (1-4 Storeys) and 37 (> 5 Storeys) in NFPA Rohr Paper]

PROPERTY LOSS PER FIRE - EXTENT OF SPREAD					
ROOM		COMPARTMENT		FLOOR	
1- 4 Storeys	≥ 5 Storeys	1- 4 Storeys	≥ 5 Storeys	1- 4 Storeys	≥ 5 Storeys
\$6506	\$6637	\$16994	\$21961	\$18962	\$24392

Table 6 Dollar Loss/Fire Relative to Extent of Fire Spread based on Building Height in Apartment Buildings

[Based on Tables 31 (1-4 Storeys) and 39 (> 5 Storeys) in NFPA Rohr Paper]

Notes for all Tables:

1. Protected Construction has exterior walls, interior bearing walls, party walls, floors, and roofs that have a minimum one-hour fire resistance rating.
2. Fire Resistive Construction has non-combustible load-bearing building elements with a high degree of fire resistance, typically two to three hours.
3. Ordinary Construction has masonry exterior walls; floors, interior walls and roof can be wood framing.

CONSTRUCTION TYPE	DEATHS PER 100 FIRES		INJURIES PER 100 FIRES	
	1&2 Family Dwellings	Apartments	1 & 2 Family Dwellings	Apartments
Heavy Timber	1.70	3.35	2.70	5.69
Fire Resistive	2.08	4.10	4.62	18.80
Unprotected Noncombustible	2.23	5.69	4.01	13.15
Protected Wood Frame	2.95	3.28	6.39	13.52
Unprotected Ordinary	2.97	4.00	6.03	13.15
Protected Ordinary	3.00	4.62	6.80	14.30
Unprotected Wood Frame	3.00	4.07	5.31	11.65
Protected Noncombustible	3.72	4.62	5.22	21.00
Other	4.01	15.00	5.60	25.00

Table 4 Residential Deaths and Injuries by Construction Type – Fire Spread to Entire Structure

[Based on Figures A-17/A-18 (1 & 2 Family) and Figures A-20 and A-21 (Apartments) in McLintock paper or Table 62 in NFPA/Rohr Analysis for Apartments and Tables 46 & 54 for 1 & 2 Family]

CONSTRUCTION TYPE	DEATHS PER 100 FIRES		INJURIES PER 100 FIRES	
	1- 4 Storeys	5 or more storeys	1 – 4 Storeys	5 or more storeys
Unprotected Noncombustible	.50	.53	5.63	4.74
Protected Noncombustible	.58	.80	7.16	8.13
Fire Resistive	.64	.71	6.12	6.97
Heavy Timber	.69	*	5.17	2.00**
Protected Wood Frame	.85	*	6.93	7.50**
Protected Ordinary	.93	.41	6.68	5.62
Unprotected Wood Frame	1.05	*	6.25	3.33**
Unprotected Ordinary	1.07	.39	6.58	4.23
Other	0.71	15.00**	4.29	25.00**

* Either 0 or rounds to zero deaths. ** HT=50 fires;PWF=40 fires;UPWF=60 fires;Other=20 fires

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Risk of Damage based on Fire Confinement to Floor of Origin

Building Type	1	2A	2B	3A	3B	4	5A	5B
P_fire	9.52E-07	9.52E-07	9.52E-07	9.52E-07	9.52E-07	9.52E-07	9.52E-07	1.00E-06
q_spread/q_fire	0.961	0.952	0.940	0.905	0.877	0.890	0.880	0.836
P_spread/P_fire	0.039	0.048	0.060	0.095	0.123	0.110	0.120	0.162
pi	3.71E-08	4.57E-08	5.71E-08	9.05E-08	1.17E-07	1.05E-07	1.14E-07	1.62E-07
qi	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Area Factor	2.10	1.90	1.70	1.35	1.20	1.25	1.20	1.00
A_floor	21000	19000	17000	13500	12000	12500	12000	10000
A_dwelling	1000	1000	1000	1000	1000	1000	1000	1000
n	21	19	17	13	12	12	12	10
Pn	7.80E-07	8.69E-07	9.71E-07	1.18E-06	1.41E-06	1.26E-06	1.37E-06	1.62E-06
Normalized Pn	0.48	0.54	0.60	0.73	0.87	0.78	0.85	1.00
Normalized Risk of Damage	1.01	1.02	1.02	0.98	1.04	0.97	1.02	1.00

Risk of Damage based on Fire Confinement to Room of Origin

Building Type	1	2A	2B	3A	3B	4	5A	5B
P_fire	9.52E-07	9.52E-07	9.52E-07	9.52E-07	9.52E-07	9.52E-07	9.52E-07	1.00E-06
q_spread/q_fire	0.905	0.897	0.872	0.833	0.827	0.801	0.814	0.770
P_spread/P_fire	0.095	0.103	0.128	0.167	0.173	0.199	0.186	0.230
pi	9.05E-08	9.81E-08	1.22E-07	1.59E-07	1.65E-07	1.90E-07	1.77E-07	2.30E-07
qi	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Area Factor	1.60	1.55	1.40	1.20	1.20	1.10	1.15	1.00
A_floor	16000	15500	14000	12000	12000	11000	11500	10000
A_dwelling	1000	1000	1000	1000	1000	1000	1000	1000
n	16	15	14	12	12	11	11	10
Pn	1.45E-06	1.47E-06	1.71E-06	1.91E-06	1.98E-06	2.08E-06	1.95E-06	2.30E-06
Normalized Pn	0.63	0.64	0.74	0.83	0.86	0.91	0.85	1.00
Normalized Risk of Damage	1.01	0.99	1.04	1.00	1.03	1.00	0.97	1.00