

Table 1 Archived Files for Wood Light-Frame Models of Commercial Building Archetypes

Archetype ID	No. of Stories	Seismic Design Level	Parametric Study	Peak Response Archived Files
COM1B	1	High	Baseline	Stripe_Statistics_ATC116_COM1B
COM1B-T	1	High	Weight Study ⁽¹⁾	Stripe_Statistics_ATC116_COM1B-T1 Stripe_Statistics_ATC116_COM1B-T2
COM1B-F	1	High	SSI/Foundation Flexibility ⁽³⁾	Stripe_Statistics_ATC116_COM1B-F-CD Stripe_Statistics_ATC116_COM1B-F-DE
COM2B	2	High	Baseline	Stripe_Statistics_ATC116_COM2B
COM2B-C	2	High	Collapse Displacement Capacity ⁽²⁾	Stripe_Statistics_ATC116_COM2BC0 Stripe_Statistics_ATC116_COM2BC4 Stripe_Statistics_ATC116_COM2BC6
COM2B-NS	2	High	Wall Finishes	Stripe_Statistics_ATC116_COM2B-NS
COM2B-F	2	High	SSI/Foundation Flexibility ⁽³⁾	Stripe_Statistics_ATC116_COM2B-F-CD Stripe_Statistics_ATC116_COM2B-F-DE
COM3B	4	High	Baseline	Stripe_Statistics_ATC116_COM3B
COM3B-F	4	High	SSI/Foundation Flexibility ⁽³⁾	Stripe_Statistics_ATC116_COM3B-F-CD Stripe_Statistics_ATC116_COM3B-F-DE
COM3B-BS	4	High	Backbone Shape	Stripe_Statistics_ATC116_COM3B-BSR1 Stripe_Statistics_ATC116_COM3B-BSR1-NS Stripe_Statistics_ATC116_COM3B-BSR2 Stripe_Statistics_ATC116_COM3B-BSR2-NS Stripe_Statistics_ATC116_COM3B-BSR1-C0 Stripe_Statistics_ATC116_COM3B-BSR1-C0-NS Stripe_Statistics_ATC116_COM3B-BSR2-C0 Stripe_Statistics_ATC116_COM3B-BSR2-C0-NS Stripe_Statistics_ATC116_COM3B-BSR1-C6 Stripe_Statistics_ATC116_COM3B-BSR1-C6-NS Stripe_Statistics_ATC116_COM3B-BSR2-C6 Stripe_Statistics_ATC116_COM3B-BSR2-C6-NS
COM4B	1	Very High	Baseline	Stripe_Statistics_ATC116_COM4B
COM5B	2	Very High	Baseline	Stripe_Statistics_ATC116_COM5B
COM6B	4	Very High	Baseline	Stripe_Statistics_ATC116_COM6B

⁽¹⁾ Two types of weight.

⁽²⁾ Six residual strength levels: from 10 percent to 60 percent of peak strength with four of them used in IDAs.

⁽³⁾ Two soil sites: soft (DE) site and stiff (CD) site.

Table 2 Archived Files for Wood Light-Frame Models of Multi-Family Dwelling Archetypes

Archetype ID	No. of Stories	Seismic Design Level	Parametric Study	Peak Response Archived Files
MFD1B	1	High	Baseline	Stripe_Statistics_ATC116_MFD1B
MFD1B-F	1	High	SSI/Foundation Flexibility ⁽¹⁾	Stripe_Statistics_ATC116_MFD1B-F-CD Stripe_Statistics_ATC116_MFD1B-F-DE
MFD2B	2	High	Baseline	Stripe_Statistics_ATC116_MFD2B
MFD2B-F	2	High	SSI/Foundation Flexibility ⁽¹⁾	Stripe_Statistics_ATC116_MFD2B-F-CD Stripe_Statistics_ATC116_MFD2B-F-DE
MFD2B-NS	2	High	Wall Finishes	Stripe_Statistics_ATC116_MFD2B-NS
MFD2B-C	2	High	Collapse Displacement Capacity ⁽²⁾	Stripe_Statistics_ATC116_MFD2B-C0 Stripe_Statistics_ATC116_MFD2B-C4 Stripe_Statistics_ATC116_MFD2B-C6
MFD3B	4	High	Baseline	Stripe_Statistics_ATC116_MFD3B
MFD3B-F	4	High	SSI/Foundation Flexibility ⁽¹⁾	Stripe_Statistics_ATC116_MFD3B-F-CD Stripe_Statistics_ATC116_MFD3B-F-DE
MFD4B	1	Very High	Baseline	Stripe_Statistics_ATC116_MFD4B
MFD5B	2	Very High	Baseline	Stripe_Statistics_ATC116_MFD5B
MFD6B	4	Very High	Baseline	Stripe_Statistics_ATC116_MFD6B
MFD7B	1	Moderate	Baseline	IDAs Not Performed
MFD8B	2	Moderate	Baseline	IDAs Not Performed
MFD9B	4	Moderate	Baseline	IDAs Not Performed

⁽¹⁾ Two soil sites: soft (DE) site and stiff (CD) site.

⁽²⁾ Six residual strength levels: from 10 percent to 60 percent of peak strength with four of them used in IDAs.

Table 3 Archived Files for Wood Light-Frame Models of Single-Family Dwelling Archetypes

Archetype ID	No. of Stories	Seismic Design Level	Parametric Study	Peak Response Archived Files
SFD1B	1	High	Baseline	Stripe_Statistics_ATC116_SFD1B
SFD1BC *	1	High	Baseline	Stripe_Statistics_ATC116_SFD1BC
SFD1B-NS	1	High	Wall Finishes	Stripe_Statistics_ATC116_SFD1B-NS Stripe_Statistics_ATC116_SFD1B-NSP
SFD1BC-NS	1	High	Wall Finishes	Stripe_Statistics_ATC116_SFD1BC-NS Stripe_Statistics_ATC116_SFD1BC-NSP
SFD2B	2	High	Baseline	Stripe_Statistics_ATC116_SFD2B
SFD2BC *	2	High	Baseline	Stripe_Statistics_ATC116_SFD2BC
SFD2B-NS	2	High	Wall Finishes	Stripe_Statistics_ATC116_SFD2B-NS Stripe_Statistics_ATC116_SFD2B-NSP
SFD3B	1	Very High	Baseline	Stripe_Statistics_ATC116_SFD3B
SFD3BC *	1	Very High	Baseline	Stripe_Statistics_ATC116_SFD3BC
SFD4B	2	Very High	Baseline	Stripe_Statistics_ATC116_SFD4B
SFD5B	1	Moderate	Baseline	IDAs Not Performed
SFD5BC *	1	Moderate	Baseline	IDAs Not Performed
SFD6B	2	Moderate	Baseline	IDAs Not Performed

* Conventional construction rather than engineered design.

Table 4 Archived Files for Equivalent Viscous Damping Study on Wood Light-Frame Archetypes

Archetype ID	No. of Stories	Seismic Design Level	Critical Damping * (%)	Peak Response Archived Files
COM1B	1	High	0.0	Stripe_Statistics_ATC116_COM1B
COM1B-01D	1	High	0.1	Stripe_Statistics_ATC116_COM1B-01D
COM1B-02D	1	High	0.2	Stripe_Statistics_ATC116_COM1B-02D
COM1B-05D	1	High	0.5	Stripe_Statistics_ATC116_COM1B-05D
COM1B-1D	1	High	1.0	Stripe_Statistics_ATC116_COM1B-1D
COM1B-2D	1	High	2.0	Stripe_Statistics_ATC116_COM1B-2D
COM1B-5D	1	High	5.0	Stripe_Statistics_ATC116_COM1B-5D
COM2B-01D	2	High	0.1	Stripe_Statistics_ATC116_COM2B-01D
COM3B-01D	4	High	0.1	Stripe_Statistics_ATC116_COM3B-01D
MFD1B-01D	1	High	0.1	Stripe_Statistics_ATC116_MFD1B-01D
MFD2B-01D	2	High	0.1	Stripe_Statistics_ATC116_MFD2B-01D
MFD3B-01D	4	High	0.1	Stripe_Statistics_ATC116_MFD3B-01D

* Rayleigh damping is used, and the assigned damping level is applied to the first and second modes of vibration.

Table 5 Description of Response Parameters Archived for Each Orthogonal Direction (EW and NS) for Each Wood Light-Frame Archetype

Type	Response Parameters	Statistical Values
Peak Relative Displacement	Peak Roof Relative Displacement Peak Roof Drift Ratio Peak Story Drift Ratio ⁽⁵⁾	Median ⁽¹⁾ Mean of Survivors ⁽²⁾ Overall Mean ⁽³⁾ Overall Beta ⁽⁴⁾ Minimum Maximum
Peak Relative Velocity	Peak Roof Relative Velocity Peak Floor Relative Velocity	
Peak Absolute Acceleration	Peak Roof Absolute Acceleration Peak Floor Absolute Acceleration	
Residual Relative Displacement	Residual Roof Displacement Residual Roof Drift Ratio Residual Story Drift Ratio	
Collapse	All Records Collapse Cases	Number Percentage
	Individual Record Collapse Cases	Collapse (Yes/No) If No, Peak Roof Displacement If Yes, Peak Roof Displacement at last surviving intensity, floor level initiating collapse, and collapse direction

⁽¹⁾ Calculated median = fitted lognormal based on all 44 earthquake records with last values of non-surviving records (i.e., records causing collapse).

⁽²⁾ Mean value of surviving earthquake records only (i.e., records not causing collapse).

⁽³⁾ Mean of all 44 earthquake records with last values for non-surviving records.

⁽⁴⁾ Beta is the lognormal standard deviation of all 44 earthquake records with last values of non-surviving records.

⁽⁵⁾ Calculated for each floor of multi-story archetypes.