

**Table A3-1. Market Buildings in St. Lucia  
(Building Type SL-1: 1 – 3 Story Commercial Masonry)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	Metal Sheathing	58	185	0.05	3.00	3.00	3.00
Roof Decking	Plywood	55	176	0.05	3.00	3.00	3.00
Roof Framing	Wooden Truss	99	220	0.05	3.00	3.00	3.00
Roof-wall Connection	Hurricane Straps	76	185	0.50	2.05	3.00	3.00
Roof-wall (and Intp.)	Hurricane Straps	69	177	0.50	2.05	3.00	3.00
Lateral Bracing	RC Masonry	104	231	0.50	2.05	0.10	0.00
Openings	Not Protected	55	187	0.05	3.00	3.00	3.00
Cladding	RC Masonry	104	231	0.05	3.00	0.10	0.00
FF Connection	Rigid	132	220	0.50	2.05	0.10	0.00
Foundation	Grade Beam	132	275	0.50	2.05	0.10	0.00
Gross Structure	N/A	104	275	0.50	2.05	0.00	0.40

\* Main features

\*\* 1-minute sustained

1. Fully engineered
2. 1990 construction
3. Average construction quality
4. Hip roof

**Table A3-2. Commercial Buildings in St. Lucia  
(Building Type SL-2: 1 – 3 Story Commercial Masonry)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	MPS	58	185	0.05	1.00	3.00	3.00
Roof Decking	Wooden Plank	55	176	0.05	1.00	3.00	3.00
Roof Framing	Wooden Truss	99	220	0.05	1.00	3.00	3.00
Roof-wall Connection	Hurricane Straps	76	185	0.40	1.00	3.00	3.00
Roof-wall (and Intp.)	Hurricane Straps	69	177	0.40	1.00	3.00	3.00
Lateral Bracing	Shear Wall	104	231	0.40	1.00	0.10	0.00
Openings	Not Window Prot.	55	187	0.05	1.00	3.00	3.00
Cladding	RC Block	104	231	0.05	1.00	0.10	0.00
FF Connection	Rigid	132	220	0.40	1.00	0.10	0.00
Foundation	Grade Beam	132	275	0.40	1.00	0.10	0.00
Gross Structure	N/A	104	275	0.40	1.00	0.00	0.40

- \* Main features  
1. Fully engineered  
2. Hip or gable

\*\* 1-minute sustained

**Table A3-3. Commercial Buildings in St. Lucia  
(Building Type SL-3: > 3 Story Commercial Masonry)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	Built-up	58	185	0.05	2.00	3.00	3.00
Roof Decking	CS	74	210	0.05	2.00	3.00	0.10
Roof Framing	RC	74	210	0.05	2.00	3.00	0.10
Roof-wall Connection	Rigid	95	210	0.50	1.45	0.10	0.10
Roof-wall (and Intp.)	Rigid	95	210	0.50	1.45	0.10	0.10
Lateral Bracing	RC	100	220	0.50	1.45	0.10	0.10
Openings	Not Protected	60	200	0.05	2.00	3.00	3.00
Cladding	RC	100	220	0.05	2.00	0.10	0.10
FF Connection	Yes	160	250	0.50	1.45	0.10	0.10
Foundation	Piles	168	289	0.50	1.45	0.10	0.10
Gross Structure	N/A	100	289	0.50	1.45	0.00	0.40

\* Main features

1. Fully engineered
2. Average construction quality
3. Flat roof

\*\* 1-minute sustained

**Table A3-4. Castries, Fisheries Complex in St. Lucia  
(Building Type SL-4: 1 - 3 Story Commercial Masonry)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	MPS	58	185	0.05	3.00	3.00	3.00
Roof Decking	MD	55	176	0.05	3.00	3.00	3.00
Roof Framing	SB	104	231	0.05	3.00	3.00	3.00
Roof-wall Connection	Bolts	76	185	0.50	2.05	3.00	3.00
Roof-wall (and Intp.)	Bolts	66	169	0.50	2.05	3.00	3.00
Lateral Bracing	RC	110	241	0.50	2.05	0.10	0.00
Openings	Not Protected	55	187	0.05	3.00	3.00	3.00
Cladding	RC	110	241	0.05	3.00	0.10	0.00
FF Connection	Rigid	132	220	0.50	2.05	0.10	0.00
Foundation	Piles	139	289	0.50	2.05	0.10	0.00
Gross Structure	N/A	110	289	0.50	2.05	0.00	0.40

\* Main features

1. Fully engineered
2. Average construction quality
3. Gable roof

\*\* 1-minute sustained

**Table A3-5. Sports Complex in St. Lucia  
(Building Type SL-5: 1 - 3 Story Commercial Masonry)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	MPS	55	176	0.05	3.00	3.00	3.00
Roof Decking	Plywood	52	176	0.05	3.00	3.00	3.00
Roof Framing	Wooden Truss	94	209	0.05	3.00	3.00	3.00
Roof-wall Connection	Hurricane Strap	76	185	0.50	2.05	3.00	3.00
Roof-wall (and Intp.)	Hurricane Strap	66	169	0.50	2.05	3.00	3.00
Lateral Bracing	Concrete Blocks	100	241	0.50	2.05	0.10	0.00
Openings	Not Protected	55	187	0.05	3.00	3.00	3.00
Cladding	Concrete Blocks	100	241	0.05	3.00	0.10	0.00
FF Connection	?	132	220	0.50	2.05	0.10	0.00
Foundation	SF	139	289	0.50	2.05	0.10	0.00
Gross Structure	N/A	100	289	0.50	2.05	0.00	0.40

\* Main features

\*\* 1-minute sustained

1. Fully engineered
2. Constructed between 1980 and 1990
3. Average construction quality
4. Flat roof

**Table A3-6. Marketing Board in St. Lucia  
(Building Type SL-6: 1 - 3 Story Commercial Masonry)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	Built-up	55	176	0.05	1.00	3.00	3.00
Roof Decking	Concrete Deck	55	176	0.05	1.00	3.00	3.00
Roof Framing	Concrete	55	176	0.05	1.00	3.00	3.00
Roof-wall Connection	Rigid	76	185	0.40	1.00	3.00	3.00
Roof-wall (and Intp.)	Rigid	69	177	0.40	1.00	3.00	3.00
Lateral Bracing	Section Wall	100	241	0.40	1.00	0.10	0.00
Openings	Protected Windows	85	196	0.05	1.00	3.00	3.00
Cladding	RCB	100	241	0.05	1.00	0.10	0.00
FF Connection	Rigid	132	220	0.40	1.00	0.10	0.00
Foundation	Piles	139	289	0.40	1.00	0.10	0.00
Gross Structure	N/A	100	289	0.40	1.00	0.00	0.40

\* Main features

1. Fully engineered
2. 1970 construction
3. Flat roof

\*\* 1-minute sustained

**Table A3-7. Water & Sewerage in St. Lucia  
(Building Type SL-7)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>I</sub>	J <sub>I</sub>
Roof Covering	MPS	58	185	0.05	1.00	3.00	3.00
Roof Decking	Wooden Plank	55	176	0.05	1.00	3.00	3.00
Roof Framing	Wooden Truss	99	220	0.05	1.00	3.00	3.00
Roof-wall Connection	Straps	76	185	0.40	1.00	3.00	3.00
Roof-wall (and Intp.)	Straps	69	177	0.40	1.00	3.00	3.00
Lateral Bracing	RC	104	231	0.40	1.00	0.10	0.00
Openings	No Protection	55	187	0.05	1.00	3.00	3.00
Cladding	RCB	104	177	0.05	1.00	0.10	0.00
FF Connection	Rigid	132	220	0.40	1.00	0.10	0.00
Foundation	SF	139	289	0.40	1.00	0.10	0.00
Gross Structure	N/A	104	289	0.40	1.00	0.00	0.40

\* Main features

1. Fully engineered
2. 1970 construction
3. Gable

\*\* 1-minute sustained

**Table A3-8. Commercial Buildings Owned by Government in St. Lucia  
(Building Type SL-8: 1 - 3 Story Commercial Masonry)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	MPS	58	185	0.05	2.00	3.00	3.00
Roof Decking	Metal Deck	55	176	0.05	2.00	3.00	3.00
Roof Framing	Steel Beam	104	231	0.05	2.00	3.00	3.00
Roof-wall Connection	Bolts	76	185	0.50	1.45	3.00	3.00
Roof-wall (and Intp.)	Bolts	66	169	0.50	1.45	3.00	3.00
Lateral Bracing	Steel	104	231	0.50	1.45	0.10	0.00
Openings	Not Protected	55	187	0.05	2.00	3.00	3.00
Cladding	RCB	110	241	0.05	2.00	0.10	0.00
FF Connection	Yes	132	220	0.50	1.45	0.10	0.00
Foundation	Spread Footing (SF)	139	289	0.50	1.45	0.10	0.00
Gross Structure	N/A	104	289	0.50	1.45	0.00	0.40

\* Main features

\*\* 1-minute sustained

1. Fully engineered
2. Constructed between 1972 and 1988
3. Gable roof
4. Average construction quality



**Table A3-9. Schools in St. Lucia  
(Building Type SL-9: 1 - 3 Story Commercial Wooden)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	MPS	58	185	0.05	1.00	3.00	3.00
Roof Decking	Wooden Planks	55	176	0.05	1.00	3.00	3.00
Roof Framing	Wooden Truss	99	220	0.05	1.00	3.00	3.00
Roof-wall Connection	Straps	76	185	0.40	1.00	3.00	3.00
Roof-wall (and Intp.)	Straps	69	177	0.40	1.00	3.00	3.00
Lateral Bracing	Steel or Wood	94	209	0.40	1.00	0.10	0.00
Openings	Not Protected	55	187	0.05	1.00	3.00	3.00
Cladding	RM/ Wood	55	220	0.05	1.00	0.10	0.00
FF Connection	Straps	125	209	0.40	1.00	0.10	0.00
Foundation	Blocks	132	275	0.40	1.00	0.10	0.00
Gross Structure	N/A	132	275	0.40	1.00	0.00	0.40

\* Main features

\*\* 1-minute sustained

1. Fully engineered
2. Constructed between 1960 and 1990
3. Gable roof
4. Average construction quality

**Table A3-10. Airport Buildings in St. Lucia  
(Building Type SL-10)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	MPS	58	185	0.00	0.50	3.00	3.00
Roof Decking	Metal	55	176	0.00	0.50	3.00	3.00
Roof Framing	Steel/ Wooden Truss	99	220	0.00	0.50	3.00	3.00
Roof-wall Connection	Yes	76	185	0.25	1.00	3.00	3.00
Roof-wall (and Intp.)	Yes	69	177	0.25	1.00	3.00	3.00
Lateral Bracing	Steel/ RM	104	231	0.25	1.00	0.10	0.00
Openings	Not Protected	55	187	0.00	0.50	3.00	3.00
Cladding	RM	104	231	0.00	0.50	0.10	0.00
FF Connection	Yes	132	220	0.25	1.00	0.10	0.00
Foundation	Piles	132	275	0.25	1.00	0.10	0.00
Gross Structure	N/A	104	275	0.25	1.00	0.00	0.40

\* Main features

1. Fully engineered
2. 1 – 3 stories
3. Gable roof

\*\* 1-minute sustained

**Table A3-11. Victoria Hospital in St. Lucia  
(Building Type SL-11: 1 –3 Story Masonry)\***

Building Element	Description	Model Parameters					
		a <sub>1</sub> (mph)**	a <sub>2</sub> (mph)**	b <sub>1</sub>	b <sub>2</sub>	I <sub>1</sub>	J <sub>1</sub>
Roof Covering	MPS	58	185	0.00	0.50	3.00	3.00
Roof Decking	WP	55	176	0.00	0.50	3.00	3.00
Roof Framing	WT	99	220	0.00	0.50	3.00	3.00
Roof-wall Connection	RC/ Wood	76	185	0.25	1.00	3.00	3.00
Roof-wall (and Intp.)	RC/ Wood	69	177	0.25	1.00	3.00	3.00
Lateral Bracing	RC	104	231	0.25	1.00	0.10	0.00
Openings	Not Protected	55	187	0.00	0.50	3.00	3.00
Cladding	RM	104	231	0.00	0.50	0.10	0.00
FF Connection	Yes	132	220	0.25	1.00	0.10	0.00
Foundation	Blocks/SOG	132	275	0.25	1.00	0.10	0.00
Gross Structure	N/A	104	275	0.25	1.00	0.00	0.40

\* Main features

\*\* 1-minute sustained

1. Fully engineered
2. 1 – 3 stories
3. Average construction quality
4. Constructed between 1960 and 1990