

## APPENDIX 4

### PRO-FORMA CERTIFICATE – Rectangular buildings

DESIGN INFORMATION – Sheds and garages			
Pro-forma request for design information by building certifier if design information supplied by shed supplier is inadequate			
LINE	ITEM	DESIGN VALUE	NOTES
<b>Compliance details</b>			
1	Shed supplier		
2	Structural designer		
3	Certifying authority		
<b>Building details</b>			
4	Building description		
5	Specification reference and date		
6	Owner's stated intended use		
7	NCC classification		
8	Length (m)		
9	Width (m)		
10	Height – maximum (m)		
11	Height to eave (m)		
12	Roof pitch (degrees)		
13	Internal pressure coefficient		
14	Average $C_{pe}$ roof		
15	Average $C_{pe}$ walls		
16	Local pressure effects applied?		
<b>Site details</b>			
17	Site address		
18	Site plan reference and date		
19	Wind region		
20	Importance level		
21	Annual probability of exceedance for wind		
22	Cyclonic factor ( $F_C, F_D$ ) (if applicable)		
23	Regional wind speed ( $V_R$ )		
24	Wind direction multiplier		
25	Terrain category		
26	Terrain-height multiplier		
27	Shielding multiplier		
28	Topographic multiplier		
29	Site wind speed ( $V_{sit}$ )		
30	Design wind speed ( $V_{des}$ )		



# CONTENTS

TITLE	SUB-SECTION	PAGE
	ACKNOWLEDGEMENTS	3
	FOREWORD	4
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	<b>7</b>
<b>SHED BASICS</b>	<b>WHAT IS A SHED</b>	<b>7</b>
	<b>NCC CLASSIFICATIONS</b>	<b>8</b>
	<b>IMPORTANCE LEVELS</b>	<b>9</b>
	<b>SCOPE</b>	<b>11</b>
	<b>MATERIALS AND PROCESSES</b>	<b>12</b>
	<b>STANDARDS AND REFERENCES</b>	<b>12</b>
	<b>DEFINITIONS</b>	<b>13</b>
<b>CHAPTER 2</b>	<b>WIND ACTIONS</b>	<b>14</b>
<b>ACTIONS</b>	<b>SNOW ACTIONS</b>	<b>21</b>
	<b>PERMANENT AND IMPOSED ACTIONS</b>	<b>24</b>
	<b>LIQUID PRESSURE ACTIONS</b>	<b>25</b>
	<b>ACTION COMBINATIONS</b>	<b>25</b>
<b>CHAPTER 3</b>	<b>3D ANALYSIS</b>	<b>27</b>
<b>ANALYSIS</b>	<b>TENSION ONLY</b>	<b>27</b>
	<b>PLASTIC ANALYSIS</b>	<b>27</b>
	<b>COLUMN BASE FIXITY</b>	<b>27</b>
	<b>TYPE OF ANALYSIS</b>	<b>27</b>
<b>CHAPTER 4</b>	<b>PRINCIPLES</b>	<b>29</b>
<b>DESIGN</b>	<b>SECTION AND MEMBER DESIGN</b>	<b>29</b>
	<b>DESIGN OF PURLIN AND GIRT SYSTEMS</b>	<b>34</b>
	<b>BRACING SYSTEMS</b>	<b>35</b>
	<b>SLABS AND FOOTINGS</b>	<b>38</b>
	<b>CLADDING</b>	<b>39</b>
	<b>DOORS, WINDOWS AND OPENINGS</b>	<b>40</b>
	<b>DESIGN PRINCIPLES FOR SERVICEABILITY</b>	<b>40</b>
<b>CHAPTER 5</b>	<b>GENERAL</b>	<b>42</b>
<b>CONNECTIONS</b>	<b>DESIGN BASIS</b>	<b>42</b>



<b>TITLE</b>	<b>SUB-SECTION</b>	<b>PAGE</b>
	<b>TYPICAL PRIMARY CONNECTIONS</b>	42
	<b>BOLTED CONNECTIONS</b>	43
	<b>SCREWS</b>	44
	<b>WELDING</b>	44
	<b>OTHER CONNECTION METHODS</b>	44
<b>CHAPTER 6</b>	<b>GENERAL</b>	45
<b>TESTING</b>	<b>PROOF TESTING</b>	45
	<b>PROTOTYPE TESTING</b>	45
	<b>TESTS RESULTS EVALUATION</b>	46
	<b>PRODUCT SUBSTITUTION</b>	46
	<b>CONNECTORS AND CONNECTIONS</b>	46
<b>CHAPTER 7</b>	<b>ANALYSIS SOFTWARE AND DESIGN AIDS</b>	48
<b>OTHER</b>	<b>GOOD DETAILING PRACTICE</b>	48
<b>CONSIDERATIONS</b>	<b>DURABILITY AND CORROSION</b>	50
	<b>FIRE</b>	53
<b>APPENDICES</b>		
<b>1</b>	<b>BUILDING CLASSIFICATIONS</b>	55
<b>2</b>	<b>IMPORTANCE LEVEL AND PRESSURE COEFFICIENT EXAMPLES</b>	56
<b>3</b>	<b>STRUCTURAL DESIGN CHECKLIST</b>	57
<b>4</b>	<b>PRO FORMA CERTIFICATE</b>	63
<b>5</b>	<b>WORKED EXAMPLES – DESIGN WIND SPEED</b>	64

