

DISTRICT PLAN TEXT AMENDMENTS

KEY:

1. Text Amendments as Notified by Council and included in Proposed Plan Change 14

For the purposes of this plan change any unchanged text is shown as normal text or in **bold**, any text proposed to be added by the plan change as notified is shown as **bold underlined** and text to be deleted as ~~**bold**~~ ~~strikethrough~~.

Text in **green** font identifies existing terms defined in *Chapter 2 – Definitions*.

Where the proposed plan change contains a term defined in *Chapter 2 – Definitions*, the term is shown as **bold underlined text in green** and the wording to be deleted is shown as ~~**bold strikethrough in green**~~. New definitions in Chapter 2 and within a provision (including a rule) is shown as **bold green text underlined in black**.

Text in **blue** font indicates existing links to other provisions in the District Plan and/or external documents. These will have pop-ups and links, respectively, in the on-line Christchurch District Plan. Where the proposed plan change contains a new link, it is shown as **bold underlined text in blue**. Where a link is proposed to be deleted, it is shown as ~~**bold strikethrough in blue**~~.

2. Text as Recommended in s42A Reports

Text as recommended to be added within s42A reports is shown as **purple bolded and underlined**. Text as recommended to be deleted within s42A reports is shown as ~~**purple bolded strikethrough**~~.

3. Text Amendments from Expert Conferencing/Joint Witness Statements

Text in **dark orange** font is recommended additional text from expert conferencing/joint witness statements. Text in ~~**dark orange strikethrough**~~ is recommended deleted text from expert conferencing/joint witness statements.

4. Additional Text Amendments to s42A Reports in Response to Matters Raised During Hearings

Text in **bold dark orange underlined** indicates text recommended to be added.
Text in ~~**bold dark orange strikethrough**~~ indicates text recommended to be deleted.
Text in **bold orange text underlined in black** indicates text that was proposed to be deleted in the s42A report but is now recommended to be reinstated.

6.12 Radiocommunication Pathway Protection Corridors

6.12.1 Introduction

- a. **This introduction is to assist the lay reader to understand how this sub-chapter works and what it applies to. It is not an aid to interpretation in a legal sense.**

- b. Sub-chapter 6.12 Radio Pathways Protection relates to the management of adverse effects on radiocommunication pathways, recognising the effects on strategic infrastructure (including its role and function) of buildings, structures, and utilities intruding into the pathways.
- c. In radiocommunication networks, information is carried across space using radio waves that travel through the air in a straight line. There is a certain volume of airspace around the straight line through which the radio waves need to pass, and the straight line and the surrounding airspace comprise a radiocommunication pathway. The more intrusions into this pathway, the less resilient the pathway becomes (because signals are reduced and become unreliable) and a pathway may even be blocked.
- d. A radiocommunication facility is installed on the roof of the Christchurch Justice and Emergency Services Precinct (CJESP), which provides fixed radiocommunication pathways to key radiocommunication sites (such as Mt Pleasant, Cashmere/Victoria Park and Sugarloaf).
- e. These pathways provide emergency and day-to-day coverage for Police, Fire and Emergency New Zealand (FENZ) and St John operational vehicles, communication services and Civil Defence services. Disruption of the network can have serious implications for life, property and the environment.
- f. Effects on radiocommunication pathways are managed by defining a radiocommunication pathway protection corridor for each radiocommunication link (for example, the pathway between the CJESP and Mt Pleasant) and restricting activities that protrude above certain heights and into the pathways (see Planning Map 39 Appendices 6.12.17.1—6.12.17.3) are restricted to ensure that vital radiocommunication links are not disrupted.
- g. These protection pathways are designed in accordance with the International Telecommunications Union (ITU) recommendations. The ITU is an international treaty organisation that coordinates radio spectrum internationally and also issues recommendations which form international benchmarks for the design and implementation of radio links. ITU recommendation P.530 is the international benchmark for the design of terrestrial radio links.
- h. The provisions in this sub-chapter give effect to the Chapter 3 Strategic Directions Objectives.

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6.12.2 Objective and policies

6.12.2.1 Objective — Protection of radiocommunication pathway corridors

- a. Radiocommunication pathway protection corridors are protected from activities that would disrupt or block the radiocommunications network associated with the Christchurch Justice and Emergency Precinct.

6.12.2.1.1 Policy - Avoidance of physical obstructions - Cashmere/Victoria Park, Sugarloaf and Mt Pleasant

- a. Avoid physical obstructions by any building, structure (including cranes) or utility associated with any activity, including construction or temporary activity, in the radiocommunication pathway protection corridors for Cashmere/Victoria Park, Sugarloaf and Mt Pleasant to maintain radio communication for emergency and day-to-day operations of emergency services.

Advice note:

Refer to [6.12.4.2 Radiocommunication pathway protection corridors](#) and [Planning Map 39 Appendices 6.12.17.1 – 6.12.17.3](#) for a description of the radiocommunication pathway protection corridors.

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6.12.3 How to interpret and apply the rules

- a. The rules that apply to activities within the radiocommunication pathway protection corridors are contained in the activity status tables (including activity specific standards) in [Rules 6.12.4.1](#).
- b. Activities within the radiocommunication pathway protection corridors are also subject to the rules in the relevant zone chapters.
- c. The activity status tables, rules and standards in the following chapters also apply to activities within the areas covered by the radiocommunication pathway protection corridors (where relevant):
 - [4 Hazardous Substances and Contaminated Land;](#)
 - [5 Natural Hazards;](#)
 - [6 The other sub-chapters of General Rules and Procedures;](#)
 - [7 Transport;](#)
 - [8 Subdivision, Development and Earthworks;](#)
 - [9 Natural and Cultural Heritage; and](#)
 - [11 Utilities and Energy.](#)
- d. The maximum height of buildings, structures and utilities permitted in the radiocommunication pathway protection corridors are set out in [Tables 6.12.4.2.1 – 6.12.4.2.3](#). The maximum height of buildings, structures and utilities depends on the distance of the activity from the CJESP, measured in 20m intervals. If an activity falls between two measurements, the most restrictive maximum height will apply.
- e. [Tables 6.12.4.2.1 – 6.12.4.2.3](#) set out the absolute maximum height in metres of any obstruction referenced to “A.M.S.L”. This refers to metres above mean sea level (A.M.S.L) at the Lyttelton Datum. A correction will need to be made to calculate the available height above existing ground level at each site.

6.12.4 Rules - Radiocommunication Pathway Protection Corridors

6.12.4.1 Activity status tables - Radiocommunication Pathway Protection Corridors

6.12.4.1.1 Permitted activities

- a. Within the radiocommunication pathway protection corridors as specified in Rule 6.12.4.2 and shown on Planning Map 39 the diagrams in Appendices 6.12.17.1 – 6.12.17.3, the activities listed below are permitted activities.
- b. Activities may be controlled, restricted discretionary, discretionary, non-complying or prohibited as specified in Rules 6.12.4.1.2, 6.12.4.1.3, 6.12.4.1.4, 6.12.4.1.5 and 6.12.4.1.6.

Activity	Activity specific standards
P1	Any part of a building, structure (including a crane) or utility that is lower than the maximum height limits specified in Rule 6.12.4.2, Table 1 Cashmere/Victoria Park, Table 2 Sugarloaf and Table 3 Mt Pleasant.
	Nil

Advice note: On the maps, the western most pathway is Cashmere/Victoria Park (Table 1), the middle pathway is Sugarloaf (Table 2) and the eastern most pathway is Mt Pleasant (Table 3).

6.12.4.1.2 Controlled activities

There are no controlled activities.

6.12.4.1.3 Restricted discretionary activities

There are no restricted discretionary activities.

6.12.4.1.4 Discretionary activities

There are no discretionary activities.

6.12.4.1.5 Non-complying activities

- a. Within the radiocommunication pathway protection corridors as specified in Rule 6.12.4.1 P1 and shown on Planning Map 39 the diagrams in Appendices 6.12.17.1 – 6.12.17.3, the activities listed below are non-complying activities.

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Activity	
NC1	Any part of a building, structure (including a crane) or utility that does not comply with Rule 6.12.4.1.1 P1.

- b.** ~~When~~ resource consent under (a) is required, the application shall not be publicly notified and shall be limited notified only to the Ministry of Justice (absent its written approval).
- c.** ~~An~~ assessment of the effects of the exceedance of the maximum height limit should be undertaken in accordance with ITU-R P.530, *Propagation data and prediction methods required for the design of terrestrial line-of-sight systems* (latest revision), with reference to ITU-R P.526 *Propagation by Diffraction*, by a ~~suitably qualified and experienced radio engineer~~ Ministry of Business, Innovation and Employment Approved Radio Engineer¹.

Advice note: On the maps, the western most pathway is Cashmere/Victoria Park (Table 1), the middle pathway is Sugarloaf (Table 2) and the eastern most pathway is Mt Pleasant (Table 3).

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6.12.4.1.6 Prohibited activities

There are no prohibited activities.

~~Advice Note:~~

~~Assessment of the effects of the exceedance of the maximum height limit should be undertaken in accordance with ITU-R P.530 (latest revision) by a suitably qualified and experienced radio engineer.~~

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6.12.4.2 Radiocommunication pathway protection corridors

6.12.4.2.1 Cashmere/Victoria Park

- a.** **Table 1 specifies the radiocommunication pathway protection corridor (horizontal width of clearance zone centred on radio link axis – see Planning Map 39, western most pathway Appendix 6.12.17.1 for map of corridor) and the maximum height limit for any part of a building, structure or utility within the Cashmere/Victoria Park radiocommunication pathway protection corridor.**

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Table 1

Radio Path	CJESP - Cashmere/Victoria Park
Path Length (km)	5.5

¹ See rsm.govt.nz for a list of Approved Radio Engineers

<u>Azimuth from CJESP (deg TN)²</u>	<u>176</u>	
<u>Distance from CJESP</u>	<u>Horizontal width of Clearance Zone centred on Radio Link axis</u>	<u>Maximum Height Limit³</u>
<u>(km)</u>	<u>(m)</u>	<u>(m A.M.S.L)</u>
<u>0</u>	<u>0.0</u>	<u>40.5</u>
<u>0.02</u>	<u>0.7</u>	<u>40.5</u>
<u>0.04</u>	<u>1.0</u>	<u>41.1</u>
<u>0.06</u>	<u>1.3</u>	<u>41.7</u>
<u>0.08</u>	<u>1.5</u>	<u>42.3</u>
<u>0.1</u>	<u>1.6</u>	<u>43.0</u>
<u>0.12</u>	<u>1.8</u>	<u>43.7</u>
<u>0.14</u>	<u>1.9</u>	<u>44.4</u>
<u>0.16</u>	<u>2.1</u>	<u>45.1</u>
<u>0.18</u>	<u>2.2</u>	<u>45.8</u>
<u>0.2</u>	<u>2.3</u>	<u>46.5</u>
<u>0.22</u>	<u>2.4</u>	<u>47.2</u>
<u>0.24</u>	<u>2.5</u>	<u>48.0</u>
<u>0.26</u>	<u>2.6</u>	<u>48.7</u>
<u>0.28</u>	<u>2.7</u>	<u>49.5</u>
<u>0.3</u>	<u>2.8</u>	<u>50.2</u>
<u>0.32</u>	<u>2.9</u>	<u>50.9</u>
<u>0.34</u>	<u>3.0</u>	<u>51.7</u>
<u>0.36</u>	<u>3.0</u>	<u>52.5</u>
<u>0.38</u>	<u>3.1</u>	<u>53.2</u>
<u>0.4</u>	<u>3.2</u>	<u>54.0</u>
<u>0.42</u>	<u>3.3</u>	<u>54.7</u>
<u>0.44</u>	<u>3.3</u>	<u>55.5</u>
<u>0.46</u>	<u>3.4</u>	<u>56.3</u>
<u>0.48</u>	<u>3.5</u>	<u>57.0</u>
<u>0.5</u>	<u>3.5</u>	<u>57.8</u>
<u>0.52</u>	<u>3.6</u>	<u>58.6</u>

Commented [HG12]: Relief accepted in Rebuttal evidence of Ms. Gardiner from paragraph 19.

² Degrees True North

³ m AMSL means metres above mean sea level. Approximate heights above existing ground level are indicated through the property search function of the District Plan.

0.54 (Moorhouse Ave)	3.6	59.4
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6.12.4.2.2 Sugarloaf

- a. **Table 2 specifies the radiocommunication pathway protection corridor (horizontal width of clearance zone centred on radio link axis – see Planning Map 39, middle pathway Appendix 6.12.17.2 for map of corridor) and the maximum height limit for any part of a building, structure or utility within the Sugarloaf radiocommunication pathway protection corridor.**

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Table 2

Radio Path	CJESP - Sugarloaf	
Path Length (km)	7.7	
Azimuth from CJESP (deg TN⁴)	171.3	
Distance from CJESP	Horizontal width of Clearance Zone centred on Radio Link axis	Maximum Height Limit⁵
(km)	(m)	(m A.M.S.L.)
0	0.00	40.8
0.02	0.74	41.2
0.04	1.04	42.1
0.06	1.27	43.0
0.08	1.47	44.0
0.1	1.64	45.0
0.12	1.79	46.0
0.14	1.94	47.1
0.16	2.07	48.1
0.18	2.19	49.2
0.2	2.30	50.2
0.22	2.41	51.3
0.24	2.52	52.4
0.26	2.62	53.4
0.28	2.71	54.5

Commented [HG14]: Relief accepted in Rebuttal evidence of Ms. Gardiner from paragraph 19.

⁴ Degrees True North

⁵ m AMSL means metres above mean sea level. Approximate heights above existing ground level are indicated through the property search function of the District Plan.

<u>0.3</u>	<u>2.80</u>	<u>55.6</u>
<u>0.32</u>	<u>2.89</u>	<u>56.7</u>
<u>0.34</u>	<u>2.98</u>	<u>57.8</u>
<u>0.36</u>	<u>3.06</u>	<u>58.9</u>
<u>0.38</u>	<u>3.14</u>	<u>60.0</u>
<u>0.4</u>	<u>3.22</u>	<u>61.1</u>
<u>0.42</u>	<u>3.29</u>	<u>62.2</u>
<u>0.44</u>	<u>3.36</u>	<u>63.3</u>
<u>0.46</u>	<u>3.43</u>	<u>64.4</u>
<u>0.48</u>	<u>3.50</u>	<u>65.5</u>
<u>0.5</u>	<u>3.57</u>	<u>66.6</u>
<u>0.52</u>	<u>3.64</u>	<u>67.7</u>
<u>0.54</u> (Moorhouse Ave)	<u>3.70</u>	<u>68.8</u>

6.12.4.2.3 Mt Pleasant

- a. Table 3 specifies the **radiocommunication pathway protection corridor (horizontal width of clearance zone centred on radio link axis – see Planning Map 39, eastern most pathway Appendix 6.12.17.3 for map of corridor) and the maximum height limit for any part of a building, structure or utility within the Mt Pleasant radiocommunication pathway protection corridor.**

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Table 3

<u>Radio Path</u>	<u>CJESP - Mt Pleasant</u>	
<u>Path Length (km)</u>	<u>9.5</u>	
<u>Azimuth from CJESP (deg TN⁶)</u>	<u>128.7</u>	
<u>Distance from CJESP</u>	<u>Horizontal width of Clearance Zone centred on Radio Link axis</u>	<u>Maximum Height Limit⁷</u>
<u>(km)</u>	<u>(m)</u>	<u>(m A.M.S.L)</u>
<u>0</u>	<u>0.0</u>	<u>40.4</u>
<u>0.02</u>	<u>0.7</u>	<u>40.6</u>

Commented [HG16]: Relief accepted in Rebuttal evidence of Ms. Gardiner from paragraph 19.

⁶ Degrees True North

⁷ m AMSL means metres above mean sea level. Approximate heights above existing ground level are indicated through the property search function of the District Plan.

<u>0.04</u>	<u>1.0</u>	<u>41.2</u>
<u>0.06</u>	<u>1.3</u>	<u>41.9</u>
<u>0.08</u>	<u>1.5</u>	<u>42.7</u>
<u>0.1</u>	<u>1.6</u>	<u>43.5</u>
<u>0.12</u>	<u>1.8</u>	<u>44.3</u>
<u>0.14</u>	<u>1.9</u>	<u>45.1</u>
<u>0.16</u>	<u>2.1</u>	<u>45.9</u>
<u>0.18</u>	<u>2.2</u>	<u>46.8</u>
<u>0.2</u>	<u>2.3</u>	<u>47.6</u>
<u>0.22</u>	<u>2.4</u>	<u>48.5</u>
<u>0.24</u>	<u>2.5</u>	<u>49.3</u>
<u>0.26</u>	<u>2.6</u>	<u>50.2</u>
<u>0.28</u>	<u>2.7</u>	<u>51.0</u>
<u>0.3</u>	<u>2.8</u>	<u>51.9</u>
<u>0.32</u>	<u>2.9</u>	<u>52.8</u>
<u>0.34</u>	<u>3.0</u>	<u>53.6</u>
<u>0.36</u>	<u>3.1</u>	<u>54.5</u>
<u>0.38</u>	<u>3.2</u>	<u>55.4</u>
<u>0.4</u>	<u>3.2</u>	<u>56.3</u>
<u>0.42</u>	<u>3.3</u>	<u>57.1</u>
<u>0.44</u>	<u>3.4</u>	<u>58.0</u>
<u>0.46</u>	<u>3.5</u>	<u>58.9</u>
<u>0.48</u>	<u>3.5</u>	<u>59.8</u>
<u>0.5</u>	<u>3.6</u>	<u>60.7</u>
<u>0.52</u>	<u>3.7</u>	<u>61.6</u>
<u>0.54</u>	<u>3.7</u>	<u>62.4</u>
<u>0.56</u>	<u>3.8</u>	<u>63.3</u>
<u>0.58</u>	<u>3.9</u>	<u>64.2</u>
<u>0.6</u>	<u>3.9</u>	<u>65.1</u>
<u>0.62</u>	<u>4.0</u>	<u>66.0</u>
<u>0.64</u>	<u>4.0</u>	<u>66.9</u>
<u>0.66</u>	<u>4.1</u>	<u>67.8</u>
<u>0.68</u>	<u>4.2</u>	<u>68.7</u>
<u>0.7</u>	<u>4.2</u>	<u>69.6</u>

<u>0.72</u>	<u>4.3</u>	<u>70.5</u>
<u>0.74</u>	<u>4.3</u>	<u>71.4</u>
<u>0.76</u>	<u>4.4</u>	<u>72.3</u>
<u>0.78</u>	<u>4.4</u>	<u>73.2</u>
<u>0.8</u>	<u>4.5</u>	<u>74.2</u>
<u>0.82</u>	<u>4.5</u>	<u>75.1</u>
<u>0.84</u>	<u>4.6</u>	<u>76.0</u>
<u>0.86</u>	<u>4.6</u>	<u>76.9</u>
<u>0.88</u>	<u>4.7</u>	<u>77.8</u>
<u>0.9</u>	<u>4.7</u>	<u>78.7</u>
<u>0.92</u> <u>(Moorhouse Ave)</u>	<u>4.8</u>	<u>79.6</u>