

BEFORE THE WAIKATO DISTRICT COUNCIL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the Proposed Waikato District Plan:
Topic 22: Infrastructure

Statement of evidence of **CHRIS HORNE** on behalf of Chorus New Zealand Limited, Spark New Zealand Trading Limited and Vodafone New Zealand Limited in relation to infrastructure
20 October 2020

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Statement of Professional Qualifications and Experience

1. My name is Chris Horne. I am a resource management consultant and director of the resource and environmental management consulting company, Incite. I hold the qualifications of Bachelor of Arts (Geography) and Master of Regional and Resource Planning, both gained at the University of Otago. I am a member of the New Zealand Planning Institute.
2. I have been engaged by Chorus New Zealand Limited (Chorus), Spark New Zealand Trading Limited (Spark) and Vodafone New Zealand Limited (Vodafone), referred to in this evidence as “the Companies”, to provide evidence as an independent planner in regard to their submissions on the Proposed Waikato District Plan (Proposed Plan) relevant to Topic 22 Infrastructure. Other than matters relating to Chorus designations, the three companies have lodged identical submissions and further submissions. The three companies work together on district plan reviews to provide a consistent approach to district plan matters from these major network operators.
3. I have over 25 years’ professional experience in the field of resource management. During this time I have assisted a number of telecommunications network providers as a consultant planner including Telecom New Zealand Limited and its two successor companies Chorus and Spark, Vodafone, Two Degrees Mobile Limited, Teamtalk Limited (recently rebranded as Vital), and New Zealand Police Information and Technology Group (Police Radio Network). Work I have assisted these organisations with has included site selection studies, project consenting, designations, and assistance in responding to resource management plans and reviews. I was a member of the reference group including the Telecommunications Industry, Government Departments and Local Government New Zealand involved in the development of the *Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2008*, and later provided advice to the New Zealand Police on the subsequent update of the 2016 regulations now in force: *Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2016* (“NESTF”).
4. I was involved in a review of the draft infrastructure provisions for the Proposed Plan in 2017 and a pre-notification workshop with Council officers to discuss feedback in 2018. I also assisted the Companies with preparing their submissions and further submissions and have previously provided planning evidence on behalf of Chorus as

part of the Topic 15 designations hearing. I have also been involved over many years with numerous district plan reviews throughout New Zealand addressing similar issues in regard to telecommunications networks.

5. Although this matter is not before the Environment Court, I can confirm that I have read the Environment Court's Code of Conduct for Expert Witnesses. My evidence has been prepared in compliance with that Code. In particular, unless I state otherwise, the evidence is within my field of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Evidence Outline

6. The scope of this evidence relates to the provisions of Proposed Plan relevant to network utility infrastructure in Chapter 3 Natural Environments, Chapter 6 Infrastructure Objectives and Policies and Chapter 14 Infrastructure and Energy.
7. In regard to Chapter 3, the Companies have already filed a written statement in regard to landscapes that are being addressed as part of Hearing Topic 21B. The Companies have confirmed in that statement that they support the reporting planner's recommendations in regard to the objectives and policies within the scope of the submission lodged by the Companies. The balance of the provisions in Chapter 3 Natural Environments to which the Companies submission relates are part of Topic 21A Significant Natural Areas due to be heard in November 2020.
8. The Companies also lodged further submissions in relation to submissions by KiwiRail on various zones (986.53-986.61) seeking setbacks of buildings and structures from rail corridor boundaries. The Companies lodged a written statement on Hearing Topic 10 Residential in regard to this matter and accordingly it is not addressed further at this hearing.
9. Many of the matters raised in the submissions by the Companies are supported by the reporting planner and are not opposed by other parties. Accordingly, my evidence focusses on matters that are either not agreed by the reporting planner, subject to alternative relief sought by other submitters or where I consider that additional emphasis would assist the Commissioners. However, I note that there are very few areas where I am not in agreement with the reporting planner even where the relief recommended may differ from that sought by the Companies, particularly

where other submitters have lodged submissions or further submission on the same provisions. The general structure of my evidence is as follows:

- Overview of submissions;
 - Overview of the *Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2016* and their relationship to the Proposed Waikato District Plan; and
 - Discussion of relief sought by topic including comment on relevant s42A report recommendations.
10. In forming my opinion from a planning perspective, I have taken into account the corporate evidence filed on behalf of Mr Graeme McCarrison of Spark, Mr Andrew Kantor of Chorus, and Mr Colin Clune of Vodafone.

Overview of Submissions

11. Given the collaborative manner in which Council staff sought stakeholder feedback from telecommunications providers on the draft district plan and the follow up workshop, the submitters are not seeking any substantial change to the notified provisions. Many of the submissions support notified provisions to have standing should changes be sought by other parties. Some further submissions were also lodged where changes to the notified provisions were sought by others to ensure the Companies have standing on any amendments to ensure they result in appropriate outcomes for telecommunications.
12. Many of the submissions that request changes or support existing provisions were made on the basis of providing consistency which was described in the submissions at the time as the draft National Planning Standards for Infrastructure. Whilst draft national provisions have been prepared by a working group established in 2016 by the Ministry for the Environment (MfE), they currently sit outside the formal MfE work programme for national planning standards. In the interim they are being used nationally by Chorus, Spark and Vodafone as the basis for engagement, feedback and submissions during district plan reviews with a view to providing more consistency across district plans. For ease of reference I refer to these as the draft National Planning Standards for Infrastructure in this evidence.
13. The Companies along with other submitters lodged a submission seeking that the format of the District Plan be amended as necessary to adopt the format

requirements for national planning standards that are in force before decisions on the Proposed Plan are made (as distinct from the draft National Planning Standards for Infrastructure). I understand from the minute and directions from the Commissioners dated 20 February 2020 that Council staff have been instructed to implement the national planning standards to the extent that is practically achievable within the scope of the submissions. My evidence focuses on the outcomes the Companies wish to achieve under the notified format, whilst acknowledging that as part of the project to implement the national planning standards there are likely to be structural changes to the Proposed Plan to achieve these.

14. In a similar vein, the Companies lodged further submissions on submissions by Waikato Regional Council (81.246) and Watercare Services Limited (423.21) that seek amendments to Chapter 14 Infrastructure and Energy in regard to how this is structured and integrated to other parts of the Proposed Plan. Chorus, Spark and Vodafone elected to work with the structure of the Proposed Plan as notified which was considered to be workable. However, they similarly have no objection in principle to changes being made as sought by Waikato Regional Council and Watercare services, and accordingly my evidence focuses on the outcomes sought rather than how Chapter 14 may ultimately be structured. As set out at paragraph 44 of the overview s42A report, I understand that Watercare may be presenting a revised set of provisions to the hearing based on the Auckland Unitary Plan Chapter E26. Any substantive change to the structure will need to ensure the outcomes being sought on the current provisions and structure are not 'lost in translation'.

Overview of the *Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2016* and their relationship to the Proposed Waikato District Plan

15. The *Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2016* (NESTF) came into force on 1 January 2017. These replaced the 2008 regulations and broadened their scope. The 2008 regulations provided permitted activity rules for upgrading/replacement of existing poles in road reserve to enable attachment of antennas, telecommunications cabinets in road reserve, and radio frequency exposures inside and outside of roads. In summary the 2016 regulations now provide for the following as permitted activities in all district plans subject to standards:

- Telecommunications cabinets in all locations;
 - Antennas on existing poles in road reserve (including pole replacement);
 - Antennas on new poles in road reserve;
 - Antennas on existing poles outside of road reserve, including pole replacements if required (i.e. upgrades to existing telecommunication facilities outside of roads);
 - New poles and attached antennas in rural zones;
 - Antennas on buildings (this excludes any residential zones unless the point of attachment to the building is at least 15m above ground level);
 - Small cell units (integrated radio equipment and antennas not exceeding 0.11m³);
 - Customer connection lines (excluding new support poles);
 - Aerial telecommunications lines along the same routes as existing telecommunications and power lines;
 - Underground telecommunications lines;
 - Ancillary earthworks (excluding access tracks); and
 - Radio frequency exposures in all locations.
16. The regulations apply to regulated activities undertaken by a *facility operator*¹ which includes:
- A network operator (as defined in section 5 of the Telecommunications Act 2001); or
 - The Crown; or
 - A Crown agent.
17. Networks operated by entities not falling under the above criteria remain subject to the relevant district plan. This includes organisations such as district and regional councils which rely on telecommunications for activities such as digital flood monitoring, civil emergency networks or wireless streetlights and traffic management systems. These organisations could of course choose to apply to the Ministry of Employment Innovation and Business be a *network operator*. Further, activities that are not regulated, such as new poles and attached antennas outside of roads in zones other than rural zones, remain subject to the relevant district plan.

¹ Defined in NESTF Regulation 4

18. Regulated activities not complying with the relevant standards in the NESTF remain subject to the relevant district plan. Where such an activity would otherwise be a permitted activity in the district plan (but does not meet the standards in the NESTF), it requires resource consent as a controlled activity under Regulation 14. In each other case it is the same status as that included in the relevant district plan.
19. Subpart 5 of the NESTF identifies certain types of district plan rules relating to sensitive environments which still apply to regulated activities where resource consent would otherwise be required in the district plan. Poles, antennas and cabinets are subject to all of these controls, whilst customer connection lines, aerial lines following existing telecommunications or power lines and underground lines may only be subject to some of these matters depending on circumstances.. The Subpart 5 matters where district plan controls still apply to regulated activities are as follows:
- Regulation 44 - Trees and vegetation in roads reserve;
 - Regulation 45 - Significant trees;
 - Regulation 46 – Historic heritage (including cultural heritage);
 - Regulation 47 – Visual amenity landscapes (e.g. significant ridgelines, view shafts etc);
 - Regulation 48 – Significant habitats for indigenous vegetation;
 - Regulation 49 – Significant habitats for indigenous fauna;
 - Regulation 50 – Outstanding natural features and landscapes;
 - Regulation 51 – Places adjoining the coastal marine area (in regard to specific coastal protection rules such as coastal yards etc); and
 - Regulation 52 – Rivers and lakes (the regulations do not apply to works in, on, under or over the bed of any river, except that they apply to anything done over a river or a lake such as on a bridge²). Regulation 52 confirms that any relevant regional rules apply in addition to the regulations that may be relevant to the road or zoning as applicable.
20. Many of these ‘Subpart 5’ areas align with the *Identified Areas* referred to in the infrastructure rules (e.g. outstanding natural landscapes/features, historic heritage, Maaori Sites of Significance etc.), but not with the Urban Expansion Area also included as within the *Identified Areas*.

² NESTF Regulation 8

21. The NESTF does not include any objectives and policies. Therefore, where any resource consent is triggered, the relevant objectives and policies for a district plan apply in assessing any application.

Proposed Relief

22. The tracked change version of Chapter 14 in the s42A report includes the following advice note in regard to the NESTF:

(7) The Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016 ("NESTF") provides national consistency in the rules surrounding the deployment of telecommunications infrastructure across New Zealand. This means that many telecommunications facilities may potentially be deployed as a permitted activity. However, telecommunications facilities which do not comply with the conditions within the NESTF, or are not covered by the regulations of the NESTF, will have the activity status specified in this plan. In the case of conflict with any other provision of this plan, the NESTF provisions shall prevail.⁵

23. The additional sentence at the conclusion does not fully capture the relationship of the NESTF to the district plan. That is, rules relating to Subpart 5 matters in district plans apply to regulated activities³. Therefore, as a matter of clarity, I recommend that a Clause 16 change is made as follows:

*In the case of conflict with any other provisions of this plan, the NESTF provisions shall prevail, **unless located within an Identified Area other than the Urban Expansion Area, where the district plan rules for infrastructure may apply to regulated activities as per Regulation 56 of the NESTF.***

Discussion of Relief Sought by Topic

Chapter 3 Natural Environment Objectives and Policies

24. As previously outlined, district plan rules in sensitive environments as set out in Subpart 5 of the NESTF may apply to regulated activities, and of course would also apply to unregulated activities. Therefore, the policy framework in Chapter 3 Natural Environment is very relevant to telecommunications networks.
25. Policy 6.1.10 in Chapter 14 Infrastructure and Energy directly addresses infrastructure in "Identified Areas" which requires a consideration of the values and attributes of these areas where new infrastructure or significant upgrades are required in these areas. That provision will need to be read in conjunction with the Natural

³ Other than where the regulations themselves specify that only certain Subpart 5 matters apply

Environment provisions where assessing proposals in these areas. These provisions address:

- Indigenous vegetation and habitats;
- Significant natural areas;
- Outstanding natural features and landscapes;
- Significant amenity landscapes; and
- Natural Character.

26. The Companies' submissions supported a number of the objectives and policies in these sections of the Proposed Plan as notified on the basis that the notified provisions provided a workable framework to assess any projects against required to be located in these areas for functional and operational reasons. The submissions did not oppose any provisions in these sections. As previously outlined, the Companies have supported the changes proposed in response to submissions by others in regard to the objectives and policies covered by Topic 21B Landscapes that are within the scope of their submissions. A s42A report is yet to be released in regard to Topic 21A Significant Natural Areas.
27. In my experience in being involved in roll outs of telecommunications facilities, this infrastructure often may need to be located in natural environments due to functional or operational requirements. For example, I understand from working with radio engineers on projects that wireless facilities to serve communities rely on line-of-sight to function effectively, so in rural areas in particular they may need to be located on elevated topography to achieve their function in a network, be this coverage for wireless devices, or a repeater system to serve remote communities. These areas may be subject to natural environment controls (i.e. protected ridgelines, outstanding natural landscapes etc.). In other examples, natural environments may encompass existing roads within which infrastructure such as fibre cables may need to be installed.
28. Therefore, whilst acknowledging the need to protect natural environments from inappropriate use and development, in my opinion it is necessary to provide a policy framework where infrastructure is not precluded in appropriate circumstances, particularly as there is also a need to acknowledge the significant benefits communities gain from access to modern and effective telecommunications. That said, I also acknowledge the constraints imposed by the New Zealand Coastal Policy

Statements in the Coastal Environment (i.e. Policies 11, 13 and 15) which must be given effect to in district plans in relevant areas.

29. With this in mind, the natural environment policy framework as notified, and the changes recommended to some provisions in the Topic 21B Landscapes s42A report, is in my opinion workable for telecommunications infrastructure and provides sufficient flexibility to consider this infrastructure in natural environments in appropriate circumstances, whilst also appropriately balancing provisions for infrastructure against the values and attributes of these sensitive environments.

s42A Recommendations

30. The Companies have already recorded their support for the s42A report recommendations on Topic 21B Landscapes and are yet to review a s42A report for Topic 21A Significant Natural Areas. The immediately preceding paragraphs set out my opinion on how infrastructure should be considered as part of Topic 21A in due course.

Chapter 14 Infrastructure and Energy Objectives and Policies

31. In general, the objectives and policies as notified were considered by the Companies to provide an appropriate balance between enabling infrastructure/recognising the benefits of infrastructure and managing adverse effects. As with the Chapter 3 provisions for natural environments, the Companies submissions supported a number of the notified provisions on the basis of general consistency with the draft National Planning Standards for Infrastructure being promoted, and as such providing a workable framework for telecommunications.
32. The one exception to this is that Policy 6.1.3 *Technological Advances* which was opposed in the submissions. The notified Policy is:

6.1.3 Policy - Technological advances

(a) Provide flexibility for infrastructure operators to use new technological advances that:

(i) Improve access to, and enable the efficient use or development of infrastructure;

*(ii) Allow for the re-use of redundant infrastructure and structures where appropriate;
and*

(iii) Result in positive environmental and community outcomes.

33. Policy 6.1.3 seeks to provide flexibility to use new technologies subject to a number of conjunctive limbs (i.e. as drafted it appears that they all have to be met). It is unclear how clause (iii) would be interpreted where a new technology may have a significant community benefit but does not necessarily reduce environmental effects (e.g. adding additional antennas to provide for more technologies on a mobile phone site such as adding 5G in addition to existing 3G/4G). In the submissions the Companies sought a new policy based on the draft National Planning Standards for Infrastructure to make it more workable. This policy uses a disjunctive “or” rather than conjunctive “and” as follows:

Provide flexibility for network utilities to adopt new technologies that:

- 1. improve access to, and efficient use of, networks and services;*
- 2. allow for the re-use of redundant services and structures;*
- 3. increase resilience, safety or reliability of networks and services;*
- 4. result in environmental benefits and enhancements; or*
- 5. promote environmentally sustainable outcomes including green infrastructure and the increased utilisation of renewable resources.*

34. Alternatively, the submissions seek in the absence of a new policy being adopted that the existing policy is modified by using “or” rather than “and”.

s42A Recommendations

35. The s42A report accepts the Companies’ submissions in part insofar as it essentially adopts the proposed wording verbatim but with use of the term *infrastructure providers* rather than *network utilities* (see paragraph 131 of s42A report Section D13).
36. In my opinion, the amended policy is an appropriate outcome as it provides a more comprehensive list of matters that may justify providing for technological advances such as resilience, safety and reliability of networks which is not used in the existing policy, and promoting environmentally sustainable outcomes (e.g. green infrastructure). Use of a disjunctive “or” means that it is not necessary to meet all limbs to be consistent with the policy. This will still need to be weighed against other relevant policies including those dealing with adverse effects, and the provisions in Chapter 3 where located within the specified natural environments to determine if overall any proposal is consistent with or contrary to the objectives and policies of the

District Plan. In my opinion the Commissioners should adopt the proposed amended policy wording as recommended by the reporting planner.

37. I have reviewed the proposed amendments to other objectives and policies supported as notified by the Companies in response to submissions by others, and am satisfied that in the amended form proposed, the wording is appropriate and provides a proper balance between providing for essential infrastructure and properly managing adverse effects. On this basis I support the s42A report recommendations on the balance of the objectives and policies in Chapter 6 to which the Companies' submissions relate (i.e. 6.1.1, 6.1.2, 6.1.4-6.1.7 and 6.1.8-6.1.14).

Proposed Relief

38. In my opinion the Commissioners should adopt the reporting planner's recommended version of the infrastructure objectives and policies (which are a mix of amendments or retention of provisions as notified) for 6.1.1-6.1.14.

Chapter 14 Infrastructure and Energy General Content and Structure

39. The Companies supported Chapter 14 as notified other than to the extent specific amendments were sought by them to certain rules in the submissions. As previously outlined, the Companies lodged further submissions on submissions by Waikato Regional Council (81.246) and Watercare Services Limited (423.21) seeking amendments to Chapter 14 Infrastructure in regard to how this is structured and integrated to other parts of the Proposed Plan.
40. In my experience working with district plans throughout New Zealand on telecommunications roll out projects, specific network utilities chapters are a better approach to dealing with network utility specific issues, rather than trying to incorporate these provisions into zone chapters. Due to their functional and operational requirements, network utilities are fundamentally different to land use activities in general such as houses in residential zones, business premises in commercial zones and farm buildings in rural zones. Therefore, it is appropriate in my view to have bespoke provisions for network utilities that apply on a district wide basis. However, I agree that the sensitivity of different zone types should be taken into account in framing the rules for network utilities so that provisions, for example, would generally be more stringent in residential zones than rural and industrial zones. I also agree that sensitive overlays such as historic or cultural heritage or outstanding

natural landscapes should also be taken into account in determining how permissive or restrictive any rules should be in such areas.

41. In my view Chapter 14 as notified is a workable district plan approach to a network utilities chapter. This is not to say there is no room for improvement, particularly to remove any uncertainties over how it might integrate with other parts of the Proposed Plan. I was involved as a planning advisor to the Auckland Utility Operators Group (AUOG) on the standalone infrastructure chapter in the Auckland Unitary Plan (E26) which is in many ways a standalone code for infrastructure, with only limited other rules in the AUP having effect (e.g. hazardous substances). Whilst I find that a very helpful approach as a plan user, I acknowledge the potentially significant implications in trying to restructure a different district plan into a similar format.
42. As noted in the corporate evidence the Companies have supported the Commissioners direction for the Council to explore the opportunity to restructure the form of the Proposed Plan to fit within the National Planning Standards in regard to the district plan structure. The Companies' submission requested that the District Plan be amended as necessary to adopt the format requirements of the National Planning Standards should these come into effect before decisions on the Proposed Plan are made.

s42A Recommendations

43. The s42A reports have provided some clarity improvements on how the chapter integrates with other sections (i.e. confirming what other objectives and policies in other sections are applicable to infrastructure (e.g. such as Natural Environment, Heritage and Tangata Whenua) and clarification on how specific rules sections such as 14.10 Telecommunications prevail when there is conflict with equivalent provisions for infrastructure in general in 14.2 and 14.3. In my opinion these clarity improvements are helpful.
44. It remains unclear what alternative chapter and provisions may be presented by Watercare at the hearing as referred to in by the reporting planner in paragraph 44 of the overview s42A report. It will be important that any restructure of the plan does not have any unintended consequences in the translation of provisions between different structures given the complex inter-relation between various rules and standards.

Proposed Relief

45. In my opinion the Commissioners should adopt the reporting planner's recommended version of the infrastructure chapter in regard to provisions clarifying what objectives and policies in other sections of the District Plan are applicable, and how the specific rules sections such as 14.10 Telecommunications prevail when there is conflict with equivalent provisions for infrastructure in general in 14.2 and 14.3.
46. I am unable to form a view on any restructured chapter that may be presented to the hearing by Watercare without having seen those provisions, but reiterate that it will be important any structural change does not inadvertently change the outcomes of the rules to which the Companies' submissions relate.

Minor Infrastructure Upgrading (14.3.1.1)

47. It is relatively common for district plans to include minor infrastructure upgrading provisions. However, the definitions or standards to determine what constitute minor infrastructure upgrading is very variable across district plans. Through the draft National Planning Standards for Infrastructure participating network operators have been seeking to get more consistency for such provisions across district plans.
48. The general basis for minor infrastructure upgrading rules is to recognise that existing infrastructure is part of the baseline of effects for any particular area, and providing a practical envelope to upgrade this infrastructure over time without having to reassess equipment dimensions against the provisions that would apply to new infrastructure in recognition of the community benefits from upgrading infrastructure, and the effects that already exist. The Companies lodged submissions seeking changes to provisions for pole and antenna replacements. This included changes to the allowable height and width of replacement support poles for lines and antennas, and the changes around the provisions relating to antenna replacements.
49. Of particular note to telecommunications networks are the provisions relating to upgrading of antennas. The current provisions under 14.3.1.1(3) provide an increase in existing antenna area of 20% over the relevant standard for new antennas in the plan, and a maximum increase in antenna height of 20% over the permitted standard for new antennas in the plan. The relevant permitted standards to which these upgrade controls relate are included in 14.10.1 P5 and P7 as follows:

P5	Antennas ¹ attached to a building and/or structure	<p>14.10.1.4</p> <p>(a) Antennas attached to a building and/or structure that comply with all of the following conditions:</p> <p>(i) Do not connect to an area, façade or item specifically listed in Schedule 30.1;</p> <p>(ii) The building and/or structure is located within:</p> <ul style="list-style-type: none"> A. Business Zone B. Business Town Centre Zone C. Tamahere Business Zone D. Te Kowhai Airpark Zone E. Industrial Zone F. Heavy Industrial Zone G. Motor Sport and Recreation Zone H. Rural Zone I. Country Living Zone J. Reserve Zone <p>(iii) The face of the antenna does not exceed 1.5m² or 1.2m in diameter for dish antennas.</p> <p>(b) Rule 14.10.1.4 does not apply to private television antennas and satellite dishes +2.</p>
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P7	Antennas not attached to a building and/or structure	<p>14.10.1.5</p> <p>(a) Antennas that comply with all of the following conditions:</p> <p>(i) GPS Antennas that do not exceed the following dimensions:</p> <ul style="list-style-type: none"> A. 300mm high; and B. 130mm in diameter. <p>(ii) Omni-directional 'whip' or di-pole type antennas that do not exceed the following dimensions:</p> <ul style="list-style-type: none"> A. 1.6m high; B. 1.5m horizontal length whip or rod; or C. Cross section element no more than 60mm in
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		<p>diameter.</p> <p>(iii) Are not located within an Identified Area.</p> <p>(iv) Do not connect to an area, façade or item specifically listed in Schedule 30.1.</p>
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50. As the area control in P5 is only relevant to building mounted antennas in certain zones, and existing panels and dishes may already exist in other zones, in my opinion it is better to link the upgrading allowed to the existing antenna, rather than the permitted zone control (as there is no such control in some zones). This adopts an existing environment approach in determining what a suitable increase in size should be. In regard to panels in particular, in most if not all cases this would be less than a 1.5m² largest face allowed for new panel antennas in the zones to which area controls apply (see standard antenna sizes from network operators in Appendix A). Further, diameter controls rather than area controls are more typically used for a dish antenna (there is no dish area control in the Proposed Plan).

51. I also note that Christchurch City Council has been interpreting a rule in their plan controlling panel antenna area as the total surface area of all 6 faces, rather than the largest face which panel antenna area controls are intended to control. In that instance the Council has agreed to amend the rules in an omnibus plan change to rectify the rules to make it clear it only applies to the largest face. Accordingly, in my opinion it would be preferable to refer to “*largest face*” to avoid such future interpretation issues.
52. From my reading of the rules, the only controls applying to minor infrastructure upgrading for non-panel or non-dish antennas would be antenna height. Examples of these types of antennas (e.g. whips, dipoles and GPS antennas are included in Appendix B). There are no height controls for panels or dishes to assess the 20% height increase against.
53. Given the above and on further reflection on how the rules work, I recommend the slightly modified relief from that sought in the submission as follows (tracked against notified version):
- (3) *The addition, replacement or relocation of existing antennas where:*
- (a) *The antennas shall not increase in **the largest face** area by more than 20% ~~of the relevant permitted standard for new panel antennas~~ **and shall not increase the diameter of a dish antenna by more than 20%**; and*
- (b) *The antennas shall not increase in height by more than 20% of the ~~relevant permitted standard for existing antenna~~.*
- Except that this rule shall not restrict the size of an antenna that would otherwise comply with the permitted activity rules applying to new antennas.**
54. For the aforementioned reasons in my opinion this version of the rule will be more workable than the amended rule in the tracked change version of the rule attached to the s42A report given the reference to “*largest face*” in clause (a) and bench marking the allowable increase to what exists rather than the district plan permitted standard (of which often there is not relevant standard).
55. Further, whilst the Companies did not specifically submit on Rule 14.10.1 P5 (a)(iii) in regard to the maximum face area of new panel antennas, as a readability improvement I recommend to the Commissioners that this is also amended to refer to “*largest face*” to align with the requested changes to minor infrastructure upgrading.

s42A Recommendations

56. The s42A report generally adopts the change to the rule as included in the Companies' submissions. However, in my opinion the amended version of the rule proposed in paragraph 53 above is within the general scope of the submission made and is more workable, especially for the interpretation and implementation of the rules.

Proposed Relief

57. Amend Clause (3) of the *Minor Infrastructure Upgrading* as set out in Paragraph 53 above, and amend Rule 14.10.1 P5 (a)(iii) by adding the word "largest" before the word "face".

Activity Status for Earthworks in Identified Areas (14.3.1.3)

58. The activity specific earthworks standards in Rule 14.3.1.3 as notified include earthworks standards in regard to many but not all *Identified Areas*. It is unclear in the notified provisions if earthworks not subject to a specific standard/threshold in an overlay would then default to be a non-complying activity regardless of scale under Rule 14.2.3 (renumbered in the s42A tracked change provisions as 14.2.4), NC3 (earthworks in an Identified Area not otherwise provided for by a rule in Chapter 14). For the avoidance of doubt the Companies sought relief that Rule 14.3.1.3 and the associated rules cascade makes it clearer what the status is of earthworks either not covered by a standard in 14.3.1.3, and to ensure that these do not cascade by default to a non-complying activity under Rule 14.2.3 NC3.

s42A Recommendations

59. The tracked change version of 14.3.1.3 has largely resolved this matter of clarity by specifically referring to a number of additional *Identified Areas* in clause (h) of the rule. Therefore, the only *Identified Area* now not referred to in the standards is the Urban Expansion Area.

Proposed Relief

60. For clarity and to avoid the potential unintended consequence of earthworks in the Urban Expansion Area being treated by default as a non-complying activity, in my opinion Rule 14.3.1.3 should be amended such that the Urban Expansion Area is

specifically addressed in the standards, even if it is to the extent that there are no controls over and above the general area and volume permitted activity standards.

Subdivision and services connections (14.3.1 P12, 14.3.1.8)

61. This rule addresses service connections to new subdivisions. Under Rule 14.3.1.8 (1)(e) as notified, telecommunications that is either hard wired or wireless is required to be available to the boundary of new lots other than utility allotments, access allotments or reserve allotments. I understand from the Companies that this clause as notified is satisfactory to them.
62. Waikato District Council has lodged submission 697.534 seeking amendments to the rule to address an issue regarding subdivision and inadequate connection availability. The submission outlines an issue with a subdivision approval being granted on the basis of a telecommunications provider that advised there was capacity for a connection, but once subdivided and sold it was found the telecommunications provider could no longer supply an adequate connection due to latent capacity being taken up in the meantime. The submitter did not request a specific relief and accordingly it is unclear what change is being requested and how this may impact on subdivision requirements in regard to telecommunications. The submitter suggested various options could be considered including requiring a hard wire connection or not requiring a connection.

s42A Recommendations

63. The s42A report recommends rejecting the Waikato District Council and accepting the Companies' further submissions. The s42A tracked change rule still requires telecommunications to be made available to any new lots which are either hard wired or wireless.

Proposed Relief

64. Adopt the reporting planner's recommendation by retaining Rule 14.3.1.8(1)(e) as notified.

Service Connections to Heritage Buildings (New Controlled Activity 14.3.2)

65. Rule 14.3.1 P8 in the General Infrastructure rules provides for service connections as a permitted activity other than where connected to an area, façade or item specifically listed in Schedule 30.1. There has been ongoing discussion between

telecommunications operators and Heritage New Zealand Pouhere Taonga (HNZPT) over various district plan reviews over how service connections to heritage listed buildings should be addressed. Agreement has been reached on other plans such as Opotiki District Plan and Marlborough Environment Plan that these are appropriately dealt with as a controlled activity to enable the method of connection to be controlled to minimise impacts on the heritage item whilst still allowing for reasonable and practical use of heritage listed buildings. Ongoing use of heritage buildings in my opinion would increase the likelihood of owners properly maintaining and investing in them and protecting their heritage values.

66. Accordingly, the Companies sought a new controlled activity rule, consistent with what has been achieved on a number of other district plans, by applying controlled activity status to this scenario. This would confirm that the Proposed Plan anticipates and allows for connections to heritage buildings but provides for a consent process to ensure this is undertaken in an appropriate manner in regard to placement/design. Any concerns over land disturbance from any earthworks (e.g. due to presence of archaeology) can be addressed through controls on earthworks in relevant Identified Areas and the Heritage New Zealand Pouhere Taonga Act 2014. The principal intent here is to provide for connections to the fabric of scheduled heritage buildings.

67. I support the relief sought in the submissions which is:

Add a new controlled activity rule under 14.3.2 as follows, or wording to like effect:

C2 A service connection to an area, façade or item specifically listed in Schedule 30.1.

Matters of Control:

- ***Design and placement of the service connection to minimise impacts on the values and attributes of the listed area, façade or item.***

s42A Recommendations

68. The reporting planner addresses these submissions on paragraphs 207 to 209 of the s42A report section D3. Whilst acknowledging the benefits of adaptive reuse of heritage buildings, the recommendation is to reject the submission. Reasons given include a submission in support of the current restricted discretionary activity rule by HNZPT, and that the Proposed Plan does not define primary heritage features to assist in guiding connections away from primary building features.

69. Examples of other plans where HNZPT has specifically supported this controlled activity approach in district plan reviews is included in the Companies' corporate evidence. Also, while HNZPT may have submitted in support from the current restricted discretionary rule, they did not lodge any further submission opposing the Companies' relief on this issue. It may be beneficial for the Commissioners to direct questions to HNZPT about this matter on the assumption they will participate in the hearing on this topic.

Proposed Relief

70. In my opinion the relief sought by the Companies is appropriate in supporting use of heritage buildings whilst enabling control through a consent process over the exact location and design of any connection to minimise impacts on heritage values. Accordingly, I support adding a new controlled activity rule for service connections to listed heritage buildings is set out in Paragraph 67 above.

Below ground telecommunications facilities in Identified Areas (14.10.1 P2)

71. Below ground telecommunications and radiocommunications facilities, lines, cables and ducts are permitted activities. There are no standards. In my experience, underground telecommunications facilities would typically include lines/cables, ducts and underground chambers. Cabinets and radiocommunication facilities are above ground infrastructure so although listed in P2 would in practice not be subject to this rule.
72. HNZPT has lodged submission 559.179 requesting a new standard that permitted activities under P2 are only permitted activities if not located within *Identified Areas*. In my opinion, any restriction on underground infrastructure in *Identified Areas* should be targeted at situations where such infrastructure would adversely affect the values and attributes of the identified area, rather than being a blanket requirement applying to all *Identified Areas*. For example, there would be no reason to control underground infrastructure in areas being protected for their visual attributes. Furthermore, where any *Identified Areas* extend of over roads, this would affect any underground infrastructure installed in roads.
73. The *Identified Areas* in the notified version of the Proposed Plan are:

- (a) Urban Expansion Area
- (b) Significant Natural Area
- (c) Outstanding Natural Feature
- (d) Outstanding Natural Landscape
- (e) Significant Amenity Landscape
- (f) Outstanding Natural Character
- (g) High Natural Character
- (h) Heritage Precinct
- (i) Heritage Items
- (j) Maaori Sites of Significance
- (k) Maaori Areas of Significance
- (l) Notable Trees

74. In my opinion, HNZPT needs to further refine its relief to specifically targeted *Identified Areas* within which it has concerns in regard to the effects of underground infrastructure on the values and attributes of the particular area.
75. Rule 14.3.1.3 already includes standards for earthworks associated with infrastructure. If the concerns of HNZPT relate to the earthworks associated with installing infrastructure, the earthworks rule is the more appropriate location to address this rather than seeking restriction on the actual infrastructure. Rule 14.3.1.3 (1) ((h) already restricts earthworks associated with infrastructure within any Historic Heritage sites identified within Appendix 30.1.

s42A Recommendations

76. The s42A report and tracked provisions adopt the relief sought by HNZPT in their submission. In my opinion this standard should be deleted, and reliance placed on the earthworks provisions to protect the values and attributes of *Identified Areas*.

Proposed Relief

77. Delete the permitted activity standard recommended by the reporting planner from Rule P2 14.10.1.1 such that no permitted activity standards apply to below ground telecommunications and radiocommunications facilities, lines, cables and ducts (and rely on earthworks controls in these areas to manage effects).

Antennas not attached to a building and/or structure (14.10.1 P7, 14.10.1.5)

78. As outlined in the submission, it is unclear what Rule 14.10.1 P7 is intended to cover. All antennas will be attached to a building or a structure (even if a purpose-built pole). The standards in 14.10.1.5 address non-panel and non-dish type antennas made up of rods and tubes (e.g. whip or dipole antennas), and small GPS antennas. The types of antennas could be deployed on an existing building or structure covered by Rules P4 and P5, or on a pole as provided for under P9. These antennas have low visual impact which makes them appropriate on the top of buildings and poles or in an Identified Area (noting that the rule would provide for the antenna but not a new support pole) – see examples in Appendix B.
79. The submission proposed makes changes to the description of the activity in 14.1.10 P7 and the standards in 14.10.1.5 as follows:

Amend the activity title

Other ~~antennas not attached to a building and/or structure~~

14.10.1.5

(a) Antennas that comply with all of the following conditions **are excluded from any height standards in 14.10.1 P4, P5 and P9:**

(i) GPS antennas that do not exceed the following dimensions:

A. 300mm high; and

B. 130mm in diameter.

(ii) Omni-directional 'whip' or di-pole type antennas that do not exceed the following dimensions:

A. 1.6m high;

B. 1.5m horizontal length whip or rod; or

C. Cross section element no more than 60mm in diameter.

(iii) ~~Are not located within an Identified Area.~~

(iv) ~~Do not connect to an area, façade or item specifically listed in Schedule 30.1.~~

80. In my opinion this would provide more certainty as to the scope of Rule 14.10.1 P7, as well removing unnecessary regulation from all *Identified Areas*, noting that 14.10.1.5(a)(iv) already addresses attachment to heritage items. As only the standard in P9 has a height limit, in my opinion the word “*height*” should be deleted from clause (a) of the proposed amendment to the rule from the submission such that antennas complying with the stated dimensions are exempt from all standards in 14.10.1.5 P4, P5 and P9.

s42A Recommendations

81. The s42A report adopts the requested changes in the submissions other than deleting of clause (iii) in relation to *Identified Areas*. The commentary in paragraph 85 of s42A report section D10 indicates a concern that even these small antennas may adversely affect the values being protected in these areas and as such they should be subject to a resource consent process. I note that the extent of potential visual effects aside not all *Identified Areas* address visual type attributes (e.g. Urban Expansion Area, Significant Natural Areas).

Proposed Relief

82. Adopt the proposed amendments to Rule 14.10.1 P7 and 14.10.1.2 as set out in Paragraph 79 above, except delete the word “*height*” from the standard. As shown in Appendix B, the types of antennas where an exemption from needing consent in *Identified Areas* are being sought have minor bulk compared to the structures they would be located on (this rule only covers these types of antennas attached to existing buildings and structures, and also will not require earthworks). If the Commissioners are not of a mind to fully grant this relief, in my opinion the GPS antennas and vertical ‘whip’ type antennas should at a minimum not trigger consent in *Identified Areas* (other than heritage items covered by clause (iv)).
83. Another alternative available to the Commissioners would be to only specify the particular *Identified Areas* where the effects of these small antennas are considered to potentially affect the values and attributes of the areas in question.

Appendix A

Typical Panel Antennas Sizes

Antenna Model	Dimensions (HxWxD)	Meets 1.5m ² largest face
Spark		
Commscope RVV-33B-R3	1830mm x 640mm x 235mm	Y
Commscope RRZZHHTTS4-65B-R7	2100mm x 498mm x 197mm	Y
Huawei ANT-APE4516R1v06	1999mm x 349mm x 166mm	Y
Huawei ANT-APE4517R0	2688mm x 349mm x 166mm	Y
Huawei ASI4518R4V06	2099mm x 449mm x 196mm	Y
Huawei ANT-ATD4516R8-2235	1100mm x 259mm x 135mm	Y
Kathrein 80010965	1999mm x 508mm x 175mm	Y
Kathrein 80010891	1995mm x 377mm x 169mm	Y
Kathrein 80010864	1402mm x 377mm x 169mm	Y
Vodafone		
Kathrein 80010991	1999mm x 508mm x 175mm	Y
Kathrein 80010992	2671mm x 508mm x 126mm	Y
Kathrein 800372991	1978mm x 378mm x 164mm	Y
Kathrein 80011964	1499mm x 508mm x 175mm	Y
Kathrein 80011965	1999mm x 508mm x 175mm	Y
Kathrein 80010864	1402mm x 377mm x 169mm	Y
Kathrein 80010865	1921mm x 377mm x 169mm	Y
Kathrein 80010866	2441mm x 377mm x 169mm	Y
Kathrein 800372802	1999mm x 378mm x 164mm	Y
Commscope S4-90M-R1	1050mm x 295mm x 145mm	Y
Nokia AEQP	750mm x 450mm x 246mm	Y
Nokia AEQY	730mm x 493mm x 150mm	Y

Nokia AEQC	730mm x 403mm x 185mm	Y
Rural Conenctivity Group (RCG) – delivering Rrual Broadband Unitiative 2 Project		
Kathrein 80010965	1999mm x 508mm x 175mm	Y
Kathrein 80010966	2438mm x 508mm x 175mm	Y
Kathrein 80010991	1999mm x 508mm x 175mm	Y
Kathrein 80010992	2671mm x 508mm x 175mm	Y
Kathrein 800372965	1978mm x 378mm x 164mm	Y
Kathrein 80010727	1475mm x 378mm x 103mm	Y
Kathrein 80010761	278mm x 154mm x 69mm	Y
Commscope RVV-33B-R3	1830mm x 640mm x 235mm	Y

Appendix B

Antenna examples other than panel and dish antennas



Figure 1: Typical GPS Antenna example used in mobile networks



Figure 2: Dipole Antenna example – note minor bulk fo horizontal boom

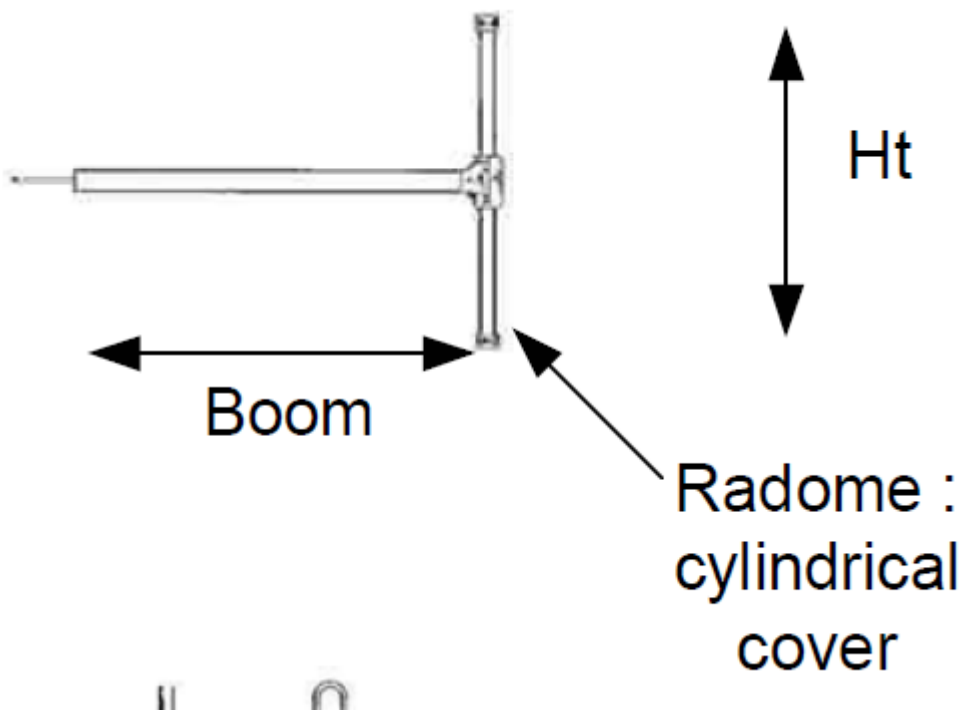


Figure 3: Shrouded Dipole Antenna Example

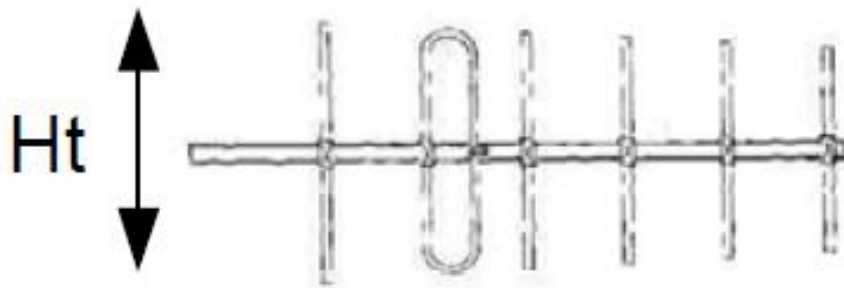


Figure 4: Yagi Antenna Example



Figure 5: Whip Antenna Example