## **BEFORE THE PALMERSTON NORTH CITY COUNCIL**

In The Matter Of Resource Management Act

1991 and a Plan Change under

Schedule 1

And In The Matter Of Plan Change 23 to the

Palmerston North District Plan

## STATEMENT OF EVIDENCE OF T CUSHNAHAN



Instructed by:

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- 1. My full name is **Thomas (Tommy) Anthony Cushnahan**. I present this evidence as an expert in golf course design and architecture. I have a First-class Honours degree in Agronomy from the University of Central Lancashire. I have a Masters in Golf Course Architecture from the Edinburgh College of Arts. I have worked as a professional golf course architect for the world leading golf design consultancy, DMK Golf Design. I worked primarily from their London office and carried out golf course design in Africa, Europe, Fiji and the Americas. I was involved with the design and construction of the master plan for Stonebrae Country Club (TPC San Francisco Bay). I also worked on the remodel of the PGA course at Gleneagles in Scotland for the Ryder Cup of 2014.
- 2. I am currently a PhD student at Massey University in hyper-spectral imaging which is an area of study related to enhancing productivity based agronomy.
- 3. I am generally familiar with the Manawatu Golf Course. I have from time to time been engaged to provide professional services in relation to improvements in design and architecture as well as being a member for a period of time but not presently.
- 4. I have read the Code of Conduct for Expert Witnesses issued as part of the Environment Court Practice Note. I agree to comply with the Code of Conduct. I am satisfied that matters addressed in this Statement of Evidence are within my expertise. I am not aware of any material facts that have been omitted or might alter or detract from the opinions expressed in this Statement of Evidence.
- 5. The scope of my evidence addresses:
  - (a) Golf course design from a health and safety perspective.
  - (b) Architectural design of interfaces between golf clubs and adjacent residential development.

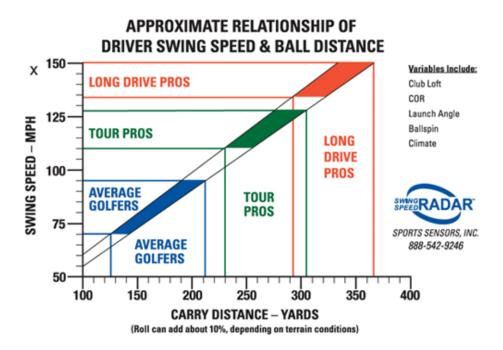
- (c) Landscape management as part of golf course design and amenity
- 6. In preparing this Statement of Evidence I have read the following:
  - (a) The McIndoe Urban *Hokowhitu Campus Urban Design Report* dated 14 March 2017.
  - (b) The Shaw Manawatu Golf Course Western Boundary Tree
    Assessment 2017.
  - (c) A letter from the City Planner proposing a park at the end of the 15<sup>th</sup> dated 16 October 2016.
- 7. I have relied on advice in relation to the planning aspects of the proposed Plan Change and I understand that while the Plan Change recognises the importance of the interface between the Manawatu Golf Club and the Hokowhitu Campus in a statement of objective, there is a paucity of methods with regulatory teeth to manage that interface. The purpose of my evidence is therefore the following:
  - (a) To explain to the Hearing Panel the health and safety issues associated with residential development adjacent to a golf course.
  - (b) To explain the site specific and dynamic nature of golf course architecture at the interface including landscaping and housing design.
  - (c) To support the Manawatu Golf Club's case to ensure that estimable controls are in place and to ensure dialogue through consenting processes between the Golf Club and developers of the Hokowhitu Campus to optimise safety, design and appropriate landscaping.
- 8. By way of general comment, I would note that most modern golf courses are created, by necessity, where there is a significant surplus of land. The need for surplus land is driven by two imperatives. First is the modern demand for

safety, encouraged both by litigation and legislation, which has meant that greater separations are encouraged between players and others, especially the non-playing public. This has then spawned the realisation that isolation from other players, and the outside world, has its own aesthetic appeal which has thus become desirable. A feature of golf development is often the inclusion of a residential component adjacent to the golf course at appropriate safety distances. The combination of residential property and golf often improves the commercial viability of both elements, so much so that in many cases neither would be viable without the other. The interdependence of these entities is recognised at the outset and are designed in tandem. So, the design of the golf course and the residential aprons are a fully integrated affair where all relevant interests are addressed in a holistic manner.

- 9. The Manawatu Golf Course is rated as one of the best courses in New Zealand. It can compete with, but is not superior to, such flagship resort style courses as Millbrook or Cape Kidnappers. It maintains this prestigious position by maintaining the highest standards of playing surfaces, with ongoing investment into its infrastructure, continual examination of the course strategy and an attention to detail that typifies well managed facilities. A major component of the management of the course is the management of the interface with the outside world. This interface is more critical for a course situated, as it is, in an urban environment.
- 10. The course is located immediately adjacent to the urban fabric of Palmerston North. It therefore is a significant amenity and social resource in Palmerston North. Urban pressures however mean that it has now tightly confined borders bracketed between the Manawatu River on one side and urban development on the periphery. Plan Change 23 proposes further intensification and domestication on the fringes of the Manawatu Golf Course and it is that development which requires careful planning. The Manawatu Golf Course therefore does not have room for expansion and the absence of surplus land means that the opportunities for changes in architecture to accommodate changes in land use at the boundary, while

maintaining the quality of the Golf Course, are far more limited than in some other locations. Therefore, modifications in course design to meet safety and amenity requirements, while maintaining the length, difficulty and quality of holes are limited (if at all possible).

- 11. An important consideration in all the golf course design and planning is the interface with the non-golfing public on adjacent land, primarily with concerns for their health and safety. I am also aware that this is a prominent concern in New Zealand as a result of health and safety legislation. I am aware for example that the Akarana Golf Course in Auckland was the subject of a health and safety investigation as a result of potential risk to children's safety from golf balls hitting neighbouring properties.<sup>1</sup>
- 12. A golf ball weighs on average 45.93 grams. It can reach, with a driver, speeds in excess of 150 kilometres per hour with the range of speed shown in the diagram below based on the USA imperial.



13. The golf ball can therefore be a potentially lethal projectile. Speaking from personal experience (having been hit in the shoulder) I can say it is a damaging and painful object when it hits you.

 $<sup>^{\</sup>rm 1}$  Per comm letter 10 May 2013, Department of Labour to General Manager Akarana Golf Club.

- 14. Methods to manage internal and external safety can be of two types. The first type is a setback between the holes main landing area and the boundary of 65 metres. The other is a 15 degree off-target margin on both sides through the centre line of play.
- 15. Typically, the probability is highest that most balls will fall within those margins of deviation. That however does not mean balls cannot land in a significantly wider area from time to time. Risk is a probability based analysis.
- 16. Beyond the safety aprons the use of vegetation to further reduce risk and appropriate management tools are desirable to minimise any risk of damage to people or property. I personally rate avoidance of damage to people as the most important imperative rather than protection of property. That is not to say however that damage to property cannot also cause conflict between neighbours of a golf club and the golf club itself.
- 17. Course design also involves special attention to vegetation on the perimeter and maintaining a sense of pleasant enclosure or isolation from the outside world. Maintaining tranquil surroundings is critical to the overall appeal of the course, it is a major part of the aesthetic and is vital to maintaining Manawatu Golf Clubs reputation as a high-quality course. Plan Change 23 makes numerous mention of the aesthetics that will be provided by the outlook from the residential to the golf course. There is no mention in the document or consideration given to the dramatic impact the housing will have on the reverse outlook from the golf course to the residential.
- 18. One cannot say that management of safety and amenity is a one size fits all proposition on the boundary. All of these factors inter-relate to different degrees and are intensely connected with the overall architecture of the course.

- 19. For example, houses are located on the perimeter of the golf course adjacent to the 7<sup>th</sup> tee and the 9<sup>th</sup> tee. In the case of the 7<sup>th</sup> tee the probability of damage to property or people is very low because of the overall alignment of the hole and the protection afforded by significant trees along the fringes. In addition, because of the shortness of the hole there is a lower potential for errant shots to travel significant distances off target. On the 9<sup>th</sup> hole the course alignment helps protect houses to the north by steering golfers away from the boundary. More importantly mature vegetation is maintained along significantly lengths of this boundary maintaining the amenity of the location and providing additional protection to the houses. The fact that this tall vegetation can be maintained is likely influenced by the fact that it is located on the southern boundary of the houses and therefore does not interfere with natural light. A number of houses are also set back a considerable distance.
- 20. The holes mainly affected by the proposed development on the Hokowhitu Campus are holes 11, 12, 14, and 15. My overall conclusions in relation to the risks from health and safety and amenity degradation as a result of increased levels of domestication associated with residential development in the Hokowhitu Campus is that special planning controls are required to ensure appropriate levels of safety and amenity. If that is not done then I consider that the interface will be a source of ongoing conflict and lead to compromises in both amenity and safety on both sides of the fence which is unnecessary with proper attention to detail. I feel this question should be approached as if it were our own children or grandchildren taking up residence when the development is complete, as it may well be.
- 21. I will now address the interface between the Hokowhitu Campus and the holes where issues may arise. The figure 1 below provides an overview of the entire course.



Figure 1: Manawatu Golf Course layout including numbered golf holes and boundaries to the North, West and East.

22. Hole 11, "Tawhiti" is short par 3 with a green enclosed by vegetation as shown in Figure 2 below.

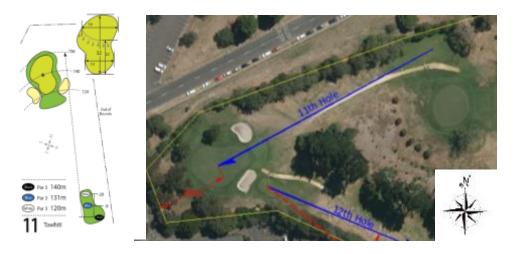


Figure 2: 11<sup>th</sup> hole schematic and aerial image. The centre of the green is 38m from the boundary with a substantial quantity of mature vegetation (including Kanuka) enclosing it.

The green is not terribly close to the boundary with the Hokowhitu Campus.The main section of the boundary behind the green, as noted in figure 2, is38 m from the centre of the green. This is a pretty setting providing

complete enclosure that relies upon vegetation on the boundary with the Hokowhitu Campus for this enclosure and added safety. See image A attached in Appendix 1. I do not regard errant golf balls as a particularly significant danger although I would not support the installation of a playground immediately beyond the green. The current vegetation provides a darker background that improves visibility of the golf ball in flight. It also instils a degree of security to the golfer that a shot hit too far is less likely to cause damage or injury. The most important issue here is maintaining the high amenity in this location. This would be comprised by the removal of vegetation and physical appearance of built forms in this location. The premier home sites in this area are being advertised, as I understand it, with views over the golf course. In fact, the McIndoe Urban Report promotes this particular location as being a premier residential location on the assumption that sunny views facing to the golf course are available. For this to be realised a good deal of vegetation, including the Kanuka, would need to be removed. The Urban Design report makes numerous references to the Kanuka growing within the perimeter of the Hokowhitu Campus as special. But the same report ignores the Kanuka on the boundary on the Manawatu Golf Course boundary that currently obscures views. There are also a number of examples on the golf course to the rear of the 11th hole.

24. The assumption of sun and views (supported by the structure plan and the urban Design report) has led to a proposed arrangement of allotments that will inevitably lead to incentives to improve views across the golf course and improves solar access via vegetation removal. Not only will this lead to debates over the fate of trees on the boundary it will also lead to a potential arms race where vegetation is developed on the golf club land to maintain amenity with ongoing frustration from land owners as expectations of views are not met. I have had conversations with other golf clubs who were very clear as to the reasons why they could not establish trees on certain boundaries, because nearby residents would regularly kill them off. It is important this interface is properly managed with appropriate design and an arrangement of allotments recognising and providing for a suitably landscaped interface. It may be the case that there are some opportunities for appropriate co-existence but that would need to be considered on a case

by case basis and therefore the planning regime should ensure that those opportunities for discussion exist and the expectations for careful management of the interface are recorded in the plan provisions.

25. The next hole is hole 12 "crossing" shown in Figure 3 below.

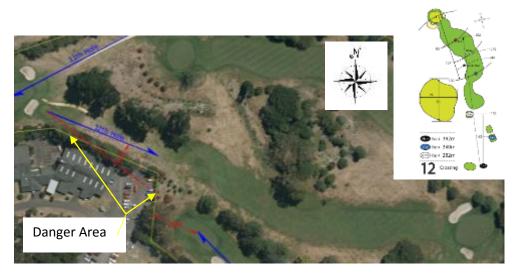


Figure 3: 12<sup>th</sup> hole schematic and aerial image. The area adjacent to the tee requires a great deal of vegetation to protect the property on the other side.

26. Hole 12 has a tee immediately adjacent to the boundary of the Hokowhitu Campus where the McIndoe Urban Report says views to the north can be obtained. Currently there is screening and a tall wire fence along the boundary with the tee. The risk of damage and physical harm in this location is very high. This is established by the recognised metrics of golf course design and anecdoatal evidence from the golf club. The risk is mitigated by land use patterns on the adjoining land. If housing was established in that location without appropriate controls and interface management then it would require a change in the architecture of the hole to reinstate acceptable safety margins. Such a change in architecture may or may not be possible but would be expensive, potentially affect the length of the course and certainly does not have the mandate of the clubs membership. Even if safety concerns could be mitigated they would not be eliminated. For example, even low probability events in the location marked as danger area in Figure 3 have been known to occur by the golf club. Equally importantly is the need to protect amenities through this corridor. Special interface management is therefore required.

27. The next hole impacted by the proposed change is the 14<sup>th</sup> "Westward Ho" which ends in a dog leg as shown in figure 4. The safety concerns at this location are less severe because of the elevation differences but the management of the amenity aesthetic is no less important than for other locations on the course. The elevation of the land at this point may allow opportunities for appropriate architectural design of views for houses in this location. Again, that would require specific integrated design. Details of the hole are shown in the figure below.



Figure 4: 14<sup>th</sup> hole schematic and aerial image. The center of the green is 36 m from the boundary and slightly lower.



28. The next hole is hole 15 "Avenue". It is shown in the figure below.

Figure 5: The 15<sup>th</sup> Hole has the longest adjoining boundary with the Hokowhitu Campus. Over the years the club has made a concerted effort to increase the density of vegetation along this boundary in the form of a tree planting program.

29. The boundary vegetation along the entire length of this hole plays an important role in safety. The current tee area, adjacent to the fence, would be considered the best location as it allows players to aim away from rather than along or towards the boundary. The trees, especially those high on the slope next to the boundary, add to the safety by trapping some errant shots. The vegetation along this boundary is very important to maintain safety. Dense vegetation next to the tee is also important as it can collect those shots that are likely to be off target by the greatest margin before they travel too far, I would strongly support maintaining vegetation along this boundary. Again, some change to the design architecture may be possible but that would certainly compromise the length of the hole. Reduction of course length would be viewed by all within the industry as a slip in standards with potentially fatal results for the Club. The current status of the Manawatu Golf Course as a championship course should not be comprised. The large number of specimen trees along the 15<sup>th</sup> boundary, well within the golf

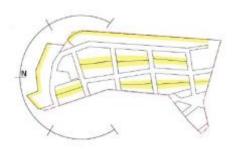
course property, are essential for safety and will cast significant shadows on any development. Presently along this boundary there is a strong sense of enclosure only punctuated by the tall defence force building at the tee. I would not be in support of housing that overlooks the golf course, as it would compromise safety and lose a lot of the landscape character that presently exists.

- 30. At the end of hole 15 is the green and that is immediately adjacent to a park that the Council has proposed to recognise "Memorial Grove". See image C in the Appendix 1. While I agree that the vegetation should be protected, for aesthetic and cultural reasons, I consider the idea of a park with viewing locations out on to the golf particularly dangerous. In the absence of any clear points of demarcation between the park and the course, i.e. a tall fence, this is likely to create a hazard, for children in particular, with potential unauthorised access onto the golf club. Unauthorised access should be discouraged for, the now obvious, health and safety reasons.
- 31. In relation to hole 16 I note that the vegetation adds to the character of the area and extends well beyond the area identified in the figure below as a park to protect Memorial Grove. Some of the Council diagrams lack a scale and therefore it is difficult to assess what areas are to be protected. However, I consider that the entire area marked green has high value vegetation including at "4" in figure 1, important also to the amenity of the golf course.
- 32. Recognition of the need to manage the interface with the golf course is in the McIndoe Urban Report on p18 where it says "sensitive frontages include those along with boundary with the golf course ...". The report also recognises a need for greater control over frontages than currently exists. However, given the Golf Club have not been consulted one can only assume this control would be exercised ensure the development can maintain views of the course rather than to ensure safety and security of the Golf Club. Discussions on interface control are very necessary and should be built into any plan change, the nature of the situation necessitates that such discussions be made on a case by case basis.

- 33. It is worth noting that the current usage of the campus can be considered as well aligned to the sport of golf. Members of the public do use the campus but would not be expected to dally for extended periods of time especially as much of the adjoining land usage is road and car parking. The change to residential would reverse this trend and exacerbate the potential risks. Home owners can be expected to spend long periods of time enjoying their garden space. They, unlike the current users, would also be doing so on weekends when golfing activity is at its highest. Children are often encouraged by parents to spend time outside especially on good days, which coincides with an increase in golf activity as 'fair weather golfers' emerge 'rusty' from hibernation. The combined result would be a much-increased risk of injury to members of the public that has not been considered let alone addressed.
- 34. I would ask what level of safety precautions and assurances would be required to construct a golf course in close proximity to a residential development. It would seem fair that similar standards for the provision of safe use would be applied to a residential development constructed in close proximity to golf.
- 35. Generally speaking I do not consider that the Urban Design report adequately addresses the context of the golf course, the needs of the golf course and the particular sources of danger or conflict that might arise between residential development and the needs of the golf course. In fact, as I understand it, the golf club was not even consulted in the preparation of the Urban Design Report. In addition, it appears that the Urban Design Report mistreats the golf course as a public realm and that is an irregular view given the nature and function of golf courses.
- 36. Overall, I consider the Urban Design Report largely focuses on optimising residential value by appropriating golf views (many that currently do not exist), through appropriate block arrangement of lots and optimising use of all available space rather than dealing the with important issues regarding the sensitivity of the interface with the golf club. The report certainly has not

mentioned and seemingly does not consider how the proposed development would impact the day to day running or future prosperity of the Manawatu Golf Club.

- 37. At page 18 of the Urban Design Report in the context of mentioning important frontage also mentions the need to eliminate fencing that creates a sense of enclosure. Currently fences on the boundary are security fencing, wire fencing or no fencing. This is adequate for the current use but does not provide sufficient security and safety for more intensive uses such as single lot or multi-unit residential development. Appropriate fencing in conjunction with planting is, in my opinion, is necessary.
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- 39. Page 13 of the Urban Design Report mentions that the alignment of blocks are mostly "... orientated in a north direction to provide private back yards that are open to the north and to



the sun. Places in these blocks will also be exposed to excellent morning and afternoon sun" The adjacent figure (Figure 7 within the report) accompanies this statement. However blocks along the golf boundary will be unlikely to get much if any sun until later in the day as there are a large number of tall trees along the golf interface that are a necessary part of the golf course amenity and important for added safety.

40. I have considered the report by Guardian Tree Services commissioned by the PNCC. Generally speaking I considered the report to be sound and the assessment of the quality of the vegetation fair. I accept that some trees are of a condition or type that may justify removal. The report is not a landscape report and does not assess the amenity values of the area nor the

importance of boundary planting to the overall amenity of the Manawatu Golf Course. Nor does it address the desirability or need for replacement planting. I consider that amenity and boundary planting is essential and this will require occasional replacement and design to achieve an appropriate outcome.

## **Conclusion**

- 41. I support management of the boundary between MGC and the Hokowhitu Campus to ensure appropriate controls to:
  - a. manage safety risk; and
  - b. to ensure appropriate planting on the boundary is achieved to sustain amenity of the MGC.
  - c. Ensure long term appropriate fencing on the boundary to prevent access:
  - d. Ensure ongoing management responsibilities are clear and set expectations.
- 42. Without the control specified above I consider there are appreciable risks from the current planning framework to:
  - a. Safety
  - b. MGC's existing amenity
  - c. The architecture and competitiveness of the Manawatu Golf Course
  - d. The economic interests of the Manawatu Golf Course and its contribution to the local economy
  - e. Ongoing personal conflict by a poorly designed interface and residential arrangement with irreconcilable expectations set up by planning and marketing

T Cushnahan

## Appendix 1

Image A: View of the rear of the green on the 11<sup>th</sup> hole.



Image B: View from the rear tee on the 15<sup>th</sup> hole.



Image C: The memorial grove as viewed from the  ${\bf 15}^{\rm th}$  fairway near the green

