

**BEFORE THE SELWYN DISTRICT COUNCIL**

<b>Under</b>	the Resource Management Act 1991
<b>In the matter of</b>	Proposed Plan Change 72 to the Operative Selwyn District Plan: Prebbleton
<b>And</b>	Trices Road Rezoning Group (the Applicant)

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**BRIEF OF EVIDENCE OF CARL ALEXANDER FOX (SERVICES)**

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## QUALIFICATIONS AND EXPERIENCE

1. My name is Carl Alexander Fox (Bachelor of Surveying, Registered Professional Surveyor, Member of Survey and Spatial, Chairperson of Consulting Surveyors New Zealand).
2. I am the Managing Director of Fox and Associates Limited and have been employed by Fox and Associates since 1987. I have 29 years' experience as a professional surveyor and land development consultant.
3. My relevant professional experience includes the design, planning, civil engineering, surveying and project management for residential developments ranging in size from 2 - 500 allotments covering high density inner city living to rural residential living.
4. My experience also extends to acting as a consultant expert for rezoning proposals and plan change submissions, representing clients by preparing reports, evidence and providing expert evidence at hearings.
5. I confirm that I have prepared this evidence in accordance with the Code of Conduct for Expert Witnesses contained in Part 7 of the Environment Court Practice Note 2014. The issues addressed in this statement of evidence are within my area of expertise except where I state that I am relying on the evidence or advice of another person. The data, information, facts and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. I have not omitted to consider material facts known to me that might alter or detract from the opinions I have expressed.
6. I prepared a technical report to support the Trices Road Rezoning Group (TRRG) Private Plan Change request lodged on 11 November 2020 and the TRRG rezoning submission on the proposed Selwyn District Plan (PSDP).
7. In response to Council's Request for Further Information (RFI), I provided additional commentary and updated Outline Development Plans (ODP), now incorporated in the amended application documents lodged on 28 June 2021.
8. I do not depart from my findings within my previous assessments which are attached as **Appendix A1** (original Rezoning Servicing Report) and **Appendix A2** (Rezoning Servicing Report incorporating updated ODP responding to the RFI) to this evidence, but for completeness I have outlined the outcomes of those assessments within this evidence.
9. In response to the Council section 42A Report, released 15 December 2021, I have made further updates to the ODPs which I discuss later in my evidence. The now preferred (by both the Council Reporting Officer and the TRRG) and updated Living Z (across the whole site) ODP is attached

at **Appendix A3** and the less preferred Living 3 ODP is attached at **Appendix A4**. Additionally, the consultant team have prepared a 'Concept Plan' which is attached **Appendix A5**, which provides a visual demonstration of how a development may look at the design stage and complies with density provisions.

10. The PC72 application listed several other less preferred options but I have not prepared ODP's for these as I understand it is unlikely that Plan Change 72 (PC72) will proceed under any of these alternate zoning outcomes. However, should the Commissioner consider that one of these other options is preferable for the proposed development I will undertake this work as requested.

## **SUMMARY STATEMENT**

11. As above, my rezoning servicing report served a dual purpose – to support the TRRG Private Plan Change request and a submission on the PSDP. Accordingly, it addresses the key aspects of design and servicing for the development both at a General Residential/Living Z zone (12 dwellings/ha) and at a Large Lot Residential/Living 3 zone density (1/2 dwellings/ha). As PC72 is being considered under the Operative Selwyn District Plan (OSDP) I will only refer to the OSDP zone descriptions (Living Z and Living 3) from this point on.
12. The process undertaken in developing the TRRG rezoning proposal included provision first for Living 3 development that was 'future proofed' allowing the Living 3 allotments to be developed into full urban residential zoning (Living Z) at a later stage – subject to movement of the Projected Infrastructure Boundary identified in the Canterbury Regional Policy Statement. The development phase commenced prior to the National Policy Statement on Urban Growth 2020 coming into force, which subsequently 'opened the door' for Living Z zoning to be considered for the site provided certain criteria are met. This resulted in a pivot of the TRRG proposal and Living Z zoning was advanced for the site.
13. Therefore, the essential structure of the proposal doesn't change between the two densities, however there would be differences in the servicing of these two different densities.
14. The lower density (Living 3) would include reduced formation requirements (less roading and road widths), smaller stormwater management area(s) (SMA) and potentially a low-pressure sewer network (pumped) rather than gravity sewer network solution (discussed in paragraph 32-32 below).
15. I note that while the intention of zones like Living 3 are intended to allow for a transitional zoning as it allows a greater density (1-2 dwellings/ha) than rural, it does not in my experience easily facilitate future development down to residential densities. This is often due to the highly fragmented land ownership where it becomes difficult to co-ordinate and achieve all parties'

agendas. While there are lesser servicing requirements (roading, drainage and services) under Living 3, these services must be upgraded at intensification stage, which requires co-operation among the various landholdings. I have however included an ODP for the Living 3 zone (**Appendix A4**) as an option though it is not the preferred option due to the likely compromised outcomes of future intensification.

16. Submissions by Christchurch City Council and Environment Canterbury on Plan Change 72 also seek that the density for the proposal is increased from 12 dwellings/ha to 15 dwellings/ha. The 42A Report also sought further clarification on this whether 15 dwelling/ha is an appropriate density,<sup>1</sup>
17. For the purposes of this report, we refer to higher density being allotments less than 400m<sup>2</sup>, medium density allotments being between 400-550m<sup>2</sup> and lower density allotments as being 550m<sup>2</sup> or greater.
18. A density of 15 dwellings/ha requires the average lot size to be 425m<sup>2</sup> or less. While possible, in general, most developers find this too restrictive and too difficult to create a functional subdivision in the suburbs. This is particularly pertinent where the dwellings will be for families, with children who often have increased transport needs for activities not near public transport routes, additional bedrooms, storage requirements and space to play outside.
19. Expectations of suburban residents are that they require garaging and on-site parking as public transport in Christchurch is (still) inadequate let alone in Canterbury's townships. Residents expect to retain the freedom of their own transport and will have visitors, visiting from outside of the area, thus requiring parking.
20. District Plan rules generally stipulate a maximum site coverage of 35-40% which equates to 150m<sup>2</sup> of hardstand and house footprint on a 425m<sup>2</sup> allotment. While this may be suitable for a certain percentage of allotments it isn't suitable for the majority.
21. Typically, I have found that 15 dwellings/ha developments end up with 20-30% of sites being between 200-300m<sup>2</sup> containing duplex or terraced housing. This works if the development is very close to amenities including transport hubs, shopping centres etc. but less appealing or functional for suburban developments which lack same level of amenities.
22. This density of development results in section sizes of 26m x 16m which is marginal for good solar access, recession planes or building offsets from boundaries etc.

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<sup>1</sup> 42A Report at [238]

In contrast 12 dwellings/ha results in average allotment size of 530m<sup>2</sup> or less. This means that lot sizes can range between 400-650m<sup>2</sup> which makes it much more achievable to meet the market's expectations.

23. This would look like section sizes of 26m x 20m which allows for much better solar access, shape factor etc.
24. In my professional opinion density should be based on factors such as availability of or proximity to, infrastructure, community facilities and amenity with higher densities near the centre of nodes then diminishing as you go out from the central node into the suburbs.
25. The Urban Design Protocol contains sound design principles including the central tenant of the 7C's – context, character, choice, connections, creativity, custodianship, and collaboration. A zoning requiring 15 dwellings/ha makes it very hard (or in some cases impossible) to achieve these ideals without multi-storey or very small housing units which is not what the suburban market demands or requires. While this zoning is an efficient planning tool in my opinion it is not an effective planning tool.
26. A concept layout plan for PC72 is provided (**Appendix A5**) and is intended to demonstrate only how a density of 12 dwellings/ha would be achieved. Note that Stormwater Management Areas are excluded from the useable land density provisions. Based on preliminary design criteria and servicing investigations the development would result in the creation of a minimum of 323 allotments with some selected areas providing medium density development (mainly around open space amenity areas).

## **Roading**

27. The proposed roading network has a hierarchy of roads with the primary roads providing linkages (north to south) between Trices and Hamptons Road and (west to east) Birches Roads and the neighbouring land to the east.
28. Secondary roads will be required (though not shown on the ODP) to provide access to allotments, additional connections between the primary roads, connections onto Trices Road and to the neighbour to the east. The concept layout plan demonstrates how the indicative roading connections may be utilised to provide connectivity throughout the site.
29. Augmenting the roads are walking and cycling connections through reserves that in my opinion will provide a permeable network of pedestrian access through the development and into the surrounding neighbourhoods.

30. Ms Williams in her evidence provides a detailed assessment on the adequacy of the roading layout and connections so I have not repeated here.

### **Wastewater**

31. My investigations confirm there is sufficient capacity in the Prebbleton sewage network and Mr Lindsay Blakie's (e2 Environmental Engineer) evidence also addresses the servicing capacity in more detail.
32. Council's preference is for the developer to install a gravity network and pumpstation though this is contingent on sufficient development density (12+ dwellings/ha). If development were to proceed for a lower density (1/2 dwellings/ha) then I have been advised that a low-pressure sewer network would be allowed by Council and would connect to a nearby manhole.

### **High Pressure Water**

33. My investigations confirm there is sufficient capacity in the Prebbleton water supply network and can be satisfactorily extended to connect to neighbouring infrastructure. Mr England also confirms that there is sufficient capacity within the water supply network to enable the site to be serviced as well.<sup>2</sup>

### **Stormwater**

34. The implementation detail of the stormwater solution is dealt with by the stormwater engineer Mr Blakie however the integration of the stormwater management areas (SMA) is part of the subdivisional development design which is undertaken in conjunction with Fox and Associates and A+Urban.
35. I confirm however that there is sufficient scope to make changes to the subdivision layout if, as a result, of more detailed site investigation and stormwater design there was a need to amend the current stormwater management area proposal. This might include splitting the SMA into multiple areas so that there could be an improved discharge of water to ground subject to further ground testing.

### **Power and Telecommunications**

36. The network providers Enable, and Chorus have confirmed there is sufficient capacity in the respective networks and can adequately be extended throughout the proposed subdivision.

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<sup>2</sup> 42A Report at [84]

## **Reserves**

37. In discussion with Council, it is agreed there are sufficient recreation reserves near the site that no additional significant recreation reserve is required or wanted by Council.<sup>3</sup>
38. The Council has indicated however it is amenable to, and can see the benefit in, a small reserve area that would take advantage of an existing stand of trees thereby breaking up the expanse of residential hardstand areas. Ms Lauenstein has addressed this within her Evidence.<sup>4</sup>

## **Landscaping and Topography**

39. Presently the site is effectively rural in nature with vegetation generally comprising shelter belts thus not containing significant or notable trees or areas of vegetation other than mentioned above in Paragraph 38.
40. The intention is to undertake landscaping as part of the subdivision construction works and it is likely to be a mix of indigenous and exotic trees each fulfilling a different purpose.
41. In my experience, the Council frequently imposes as a condition of subdivision consent the requirement for approval of a landscaping plan as part of the engineering consent approval process.

## **RESPONSE TO SUBMISSIONS**

42. I have reviewed the submissions filed on PC72 and respond to those relating to infrastructure capacity. I discuss the relevant submissions below (categorising submissions under headings where possible). For consistency, I have reviewed and utilised the headings identified within Mr Blakie's evidence:<sup>5</sup>

### *Availability of Infrastructure*

- a) Various submitters<sup>6</sup> raise concern that additional infrastructure services will be required. It is acknowledged that additional infrastructure will be required. My own investigations have confirmed that the development can be serviced by connections into the existing water and wastewater network. I also rely on the assessments of Mr Blakie, who has identified

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<sup>3</sup> Appendix A2 at section 7, page 15

<sup>4</sup> Evidence of N Lauenstein, Appendix A1 page 12, section 4.5

<sup>5</sup> Evidence of Mr Blakie at [15]

<sup>6</sup> Katrina Studholme (PC72-0001); Hamish Crombie (PC72-005); Matthew Crozier (PC72-007); Timothy Studholme (PC72-0012); Greg Orange (PC72-0013); Ali Orange (PC-0014); Laura Chisholm (PC72-024); Angus Chisholm (PC72-0025); Elizabeth Bradley (PC72-0030); Allan & Olwyn Mulligan (PC72-0040&0041);

technical solutions to manage wastewater and stormwater.<sup>7</sup> I also agree with Mr Blakie that there are various options that will need to be explored in greater detail at development design stage, but infrastructure capacity for this site is confirmed. The availability of infrastructure (and planning upgrades) is discussed in more detail within the Report of Mr England for the Council.

#### *Cost of Infrastructure*

- b) Hamish Crombie (PC72-0005) and Andrew Dollimore (PC72-0027) submit that the cost of infrastructure should fall to the developer. The cost of providing infrastructure will be addressed at the time of development. Internal infrastructure solely for the benefit of the developer is installed at the developer cost however where infrastructure provides servicing beyond the site it is appropriately assessed through development contributions or private developers' agreement with Council. Detailed designs of infrastructure are to be provided to Council at the subdivision development stage and cannot be accurately costed at this stage in the Plan Change process.

#### *Stormwater Quality*

- c) Matthew Crozier (PC72-0007) raises concern that the stormwater egress to Crosslands drain will contain contaminants. I refer to Fiona Aston's Planning evidence that any discharge of contaminants to the environment will be no more than minor.<sup>8</sup> I also understand that as part of the ODP stormwater management (and potential effects on ecological values) will be addressed at design and consenting stage (See Operative District Plan Rule 12.1.4.43). Mitigation Measures are also required during construction phase to ensure that potential adverse effects from all engineering works are mitigated (See Operative District Plan Rule 12.1.4.46). This ordinarily requires the production of environmental and sediment control management plan which ensures the implementation of best practices during development.
- d) I agree with the position outlined within the 42A Report that effects resulting from construction can be adequately addressed by specific assessment and design at the time of construction through consents conditions (i.e., Management Plans) or are already controlled through independent controls such and Regional Rules in relation to sediment discharge.

#### **RESPONSE TO SECTION 42A REPORT – PC72**

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<sup>7</sup> Evidence of Mr Blakie at [10]-[12] and [18]

<sup>8</sup> Evidence of Ms Aston at [182]



43. I have reviewed the 42A report and the accompanying Report prepared by Mr England. I address the relevant components below:

#### *Water Supply*

44. Mr England has now also confirmed that there is sufficient capacity within the water supply network to enable the site to be serviced as well.<sup>9</sup>

#### *Wastewater*

45. Mr England's Report confirms the discussions we have had with Council through the development of PC72. The upgrades of the Pines WWTP to 12,000 PE capacity has been identified and funded within the LTP. As noted above, some submitters were concerned that additional costs would fall to the ratepayers. Mr England provides clarification to the submitters that development contributions would be payable for additional lots to utilise the infrastructure.<sup>10</sup>

#### *Stormwater*

46. Mr England has confirmed that the proposed management of stormwater is appropriate and acknowledges that it will be subject to further investigation at the development and engineering stage.<sup>11</sup> However, Mr England does recommend that resource consent for stormwater discharge from Environment Canterbury should be approved before any subdivision consent can be approved.<sup>12</sup> I disagree with this recommendation on the basis that it is standard practice to apply for all necessary consents at the same time. I acknowledge that this is not always the case, but in my professional experience, it is the preferred option. I don't agree that the progression of the required consents should be staged/sequenced during the rezoning stage,
47. As a result of the Section 42A Report some changes have been made to the ODP.
- i. Zoning has been amended to show all land as Residential Z with no mixed zoning
  - ii. The west-east road has been extended to the eastern neighbouring boundary<sup>13</sup>. This connection replaces the southernmost potential road connection.
  - iii. Removal of the Landscaping strip along Birchs Road.
  - iv. Amendment or inclusion of additional reserve/pedestrian/cycle linkages.

#### *Drinnan Block*

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<sup>9</sup> 42A Report at [84]; 42A Report, Appendix A at [6]-[19]

<sup>10</sup> 42A Report, Appendix A at [36]

<sup>11</sup> 42A Report, Appendix A at [41]

<sup>12</sup> 42A Report, Appendix A at [43]

<sup>13</sup> 42A Report [103b]; 42A Report, Appendix A at [6]-[19]

48. As a project team we have considered the potential inclusion of the Drinnan block to the PC72 proposal and subject to the position adopted by the submitter in evidence I can speak to this at hearing.

## **CONCLUSION**

49. In summary, existing and already planned infrastructure upgrades to the Council network together with new infrastructure to be constructed as part of the subdivision design stage can provide the infrastructure needs of PC72. I agree with the Council Reporting Officer that there are no physical or capacity constraints to the provision of 3 waters infrastructure to the PC72 site.
50. Concerns raised by submitters about funding and capacity of required infrastructure will be adequately addressed through the provision of new infrastructure. I remain of the view that PC72 can be supported from an infrastructure perspective.

**14 January 2022**

**Carl Fox**