

**BEFORE THE AUCKLAND UNITARY PLAN INDEPENDENT HEARINGS PANEL**

**IN THE MATTER** of the Resource Management Act 1991 and the Local Government (Auckland Transitional Provisions) Act 2010

**AND**

**IN THE MATTER** of Topics:  
059 Residential objectives and policies;  
060 Residential activities;  
062 Residential development controls; and  
063 Residential controls and assessment

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**STATEMENT OF EVIDENCE OF PATRICK MARINUS FONTEIN**

**SUBMITTER 6282, Development Capacity and Feasibility Modelling**

**22 SEPTEMBER 2015**

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## 1.0 Executive Summary

- 1.1 SD4 has provided consultancy services for Auckland Council (AC) on the Auckland Plan during 2011 and for various parts of AC on property development growth and development capacity projections for the Auckland Unitary Plan from 2011 to 2014.
- 1.2 I was requested by the Independent Hearing Panel (IHP) to be part of the 013 Expert Group (013EG), which sat from February 2015 through to July 2015, and which culminated in the 013EG Report being issued on the 23<sup>rd</sup> July 2015.
- 1.3 I was one of the 3 Expert Group Modellers, referred to in Section 3.4 of the 013EG Report. The resultant Auckland Council Development Capacity (ACDC) Model was primarily the result of my Modelling work, and the work of Mr Adam Thompson.
- 1.4 There are complicated mathematical formulae that drive the ACDC Model. In the short amount of time available between the ACDC Model being created, and the 013EG Report being required to be issued, the sole focus of the ACDC15 outputs, was validating the formulae and data tables to run on the *PAUP Rules and zonings*.
- 1.5 Whilst the ACDC Model would be very useful for Auckland Council to run under different input scenarios, when (at least) the next 3-4 iterations of different input scenarios were provided, there would need to be a peer review of the data tables and the formulae that drive the ACDC, by members of the PDEG, to sense check the data and formulae to ensure they provide reliable results.
- 1.6 Mr Balderston and Mr Fairgray have chosen to carry out input changes to the ACDC Model, without peer review and without sufficient property development feasibility expertise to do so, and on initial glance the output results seem to have totally overstated the development capacity that these input changes have created.
- 1.7 For the last 2-3 weeks I (and other Members of the PDEG) have made ourselves available to carry out peer reviews of the changed input to the ACDC Model, which can be completed within 2 days. Council have chosen to ignore the very clearly stated requirement to peer review any output data of the ACDC Model, whilst they patently were aware of the requirement to do so (if they wanted results that could be relied upon). Unless the next (at least) 3-4 iterations of ACDC Model outputs are peer reviewed, there can be no reliance on any ACDC Model output results.

## **2.0 Qualifications and Experience**

- 2.1 My name is Patrick Marinus Fontein. I hold the position of Director of Studio D4 (SD4) and work as a property consultant for SD4.
- 2.2 I graduated from Auckland University with a BE(Civil) in 1987 and have a MBA majoring in Corporate Finance from the London Open Business School, 1992-1994.
- 2.3 I was the Founder and sole Director of the Kensington Group of companies in 1995 and between then until 2008 completed 20 commercial and multi-unit residential property development projects, ranging in size from \$5-40M each, mainly in Greater Auckland.
- 2.4 Kensington's Harbourside Business Park was awarded NZ's top property development Award, the Rider Hunt Property Council Supreme Award in 2005.
- 2.5 I was the founding developer and master-planner of Kensington Park in Orewa, which in 2008 won 3 international property awards.
- 2.6 I was awarded a Fellowship from the NZ Property Institute in 2005 and in 2006 was awarded the NZ Property Institute "Industry Award" for leadership, innovation and excellence in the NZ property industry.
- 2.7 I served as Auckland President of the Property Council of New Zealand from 2002 to 2004.
- 2.8 I have served on Auckland City's (and now Auckland's) Urban Design Panel from 2004 to 2012.
- 2.9 I served as the Inaugural Board Chairman of the NZ Green Building Council from 2006-2008.
- 2.10 I have been providing property consultancy for Studio D4 (SD4) since 2009, including property and urban design consultancy work for Auckland City Council in 2009 and 2010 and Auckland Council from 2011 though to 2014.

### **3.0 SD4 and my Background on Development Capacity Analysis.**

3.1 SD4 has provided consultancy services for Auckland Council (AC) on the Auckland Plan during 2011 and for various parts of AC on property development growth and development capacity projections during 2012 to 2014, all of which I have authored. I have previously made submissions to the Auckland Plan, the PAUP.

3.2 All of the above Reports can be viewed on Studio D4's website  
[www.studiod4.co.nz](http://www.studiod4.co.nz)

3.3 I was requested by the Independent Hearing Panel (IHP) to be part of the 013 Expert Group (013EG), which sat from February 2015 through to July 2015, and which culminated in the 013EG Report being issued on the 23<sup>rd</sup> July 2015.

### **4.0 Code of Conduct**

4.1 I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's 2014 Practice Note. I have read and agree to comply with that Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

### **5.0 Relevant Comments on the ACDC15 Model Creation**

5.1 I was one of the 3 Expert Group Modellers, referred to in Section 3.4 of the 013EG Report. Of greater importance is that the resultant Auckland Council Development Capacity (ACDC) Model was primarily the result of my Modelling work, and the work of Mr Adam Thompson.

5.2 Of the 3 Modellers, Mr Doug Fairgray did not produce a working Model that either Mr Thompson, myself, RIMU or any of the 013EG Group was provided with.

- 5.3 As the ACDC Model was being prepared during June 2015, using the technical and development expertise of Mr Thompson and myself, Mr Fairgray played no part in the ACDC Model preparation. Mr Kyle Balderston (of Council's RIMU) provided the technical computer skills and the setting up of the FME Software. The 013 Property Development Expert Group (PDEG), as highlighted in Appendix C of the 013EG Report, included Mr Thompson and myself, and provided all of the property development expertise that drove the structuring and data tables of the ACDC Model. Mr Fairgray was not part of any of the PDEG or involved in any work that set up the ACDC Model.
- 5.4 Mr Fairgray's background is in geography. I respect Mr Fairgray's expertise in geography and macro-economics. I am not aware of Mr Fairgray having any specific skills or expertise in property development feasibility analysis and modelling.
- 5.5 The ACDC15 Model was prepared in a very short time frame, and was only used to test the PAUP rules and the resultant development capacity that this created. The ACDC Model uses a series of data tables that were provided by the PDEG Group, that were co-opted as part of the 013EG.
- 5.6 There are extremely complicated mathematical formulae that drive the ACDC Model, using Lookup Tables to pick up data from the various data tables provided. In the short amount of time available between the ACDC Model being created, and the 013EG Report being required to be issued, the sole focus of the ACDC15 outputs, was validating the formulae and data tables to run on the PAUP Rules and zonings.
- 5.7 The initial ACDC15 output results were peer reviewed by the PDEG and after a number of small "tweaks" to the formulae, the Members of the PDEG were satisfied that the output results, run under the PAUP Rules and Zonings, were fair.
- 5.8 I have always advocated for a development capacity model (such as the ACDC) to be created, and that this will be of immense long term value to Auckland Council. Since the initial ACDC15 Results were provided (based only on the PAUP Rules and Zonings) I have maintained that if further future input data was to be provided to the ACDC Model, great care would have to be taken in reviewing the data tables,

to see if any changes are required, and for members of the PDEG to peer review the results.

## **6.0 Auckland Council use of the ACDC Model during the last 1-2 months**

6.1 I was made aware on 13-14 August 2015 that Auckland Council's RIMU team had "re-run" the ACDC Model with different inputs, and that the "development feasible" dwelling numbers had increased from the ACDC15 PAUP numbers of 64,420 (or 83,420 when including HNZC) to now be at 154,000. I was asked whether I had any involvement in the "re-run" of the ACDC Model. I had not.

6.2 From the 17<sup>th</sup> August to late August I had a series of phone discussions with Mr Balderston and Mr Jacques Victor of Auckland Council. I made it extremely clear that the ACDC15 Model and its formulae had only been set up to run on the PAUP rules and zonings and that whilst the ACDC Model would be very useful to run under different input scenarios, when (at least) the next 3-4 iterations of different input scenarios were provided, there would need to be a peer review of the data tables and the formulae that drive the ACDC, by members of the PDEG. I have consistently very clearly stated that the ACDC Model is in its infancy, and that the data tables and formulae need further review in its early times of use.

6.3 In early September, following a further phone discussion with Mr Balderston, we agreed the peer review method for a change of inputs, and that this could be completed within a 2 day period of being provided the input and resultant outputs, as long as the Members of the PDEG were given a "heads up" on the timing, so that we were on stand-by to review. Mr Balderston stated he would need guidance from within Auckland Council to adopt the peer review process.

6.4 On the 7<sup>th</sup> September, I provided an email to Mr David Hill, the Leader of the 013EG, copying in a number of relevant Auckland Council staff. This email highlighted all of the issues raised above, and recommended very specifically:

*"For the next (at least) 3-4 iterations of "fresh inputs" to the ACDC Model, the input data and output results are sense checked and peer reviewed by (at least) Patrick Fontein, Adam Thompson and Doug Fairgray, on behalf of the 013EG, to ensure the formulae driving the ACDC are providing sensible results. Until the peer reviews are completed (within a 2 working day period*

*of the information being provided by Kyle / RIMU), the outputs will not be released beyond the 013 EG”.*

- 6.5 An email exchange followed with Mr Hill and others on the 7-8<sup>th</sup> Sept, which I interpreted as the IHP would “guide / instruct” Auckland Council to not release any further ACDC Modelling results, unless they had been fully peer reviewed. I thus anticipated to be contacted in due course by AC, that a peer review would start. I was astounded to find out on the 16<sup>th</sup> Sept that a further ACDC Model run had been made, and that Mr Fairgray was now making his own interpretations on this latest ACDC Model run, in a Submission to the IHP on Topics 059, 060, 062 and 063, dated 9<sup>th</sup> September. I will comment on this in the following Section.

## **7.0 Comments on 059, 060, 062 and 063 Submissions by Doug Fairgray and Kyle Balderston**

- 7.1 Mr Balderston presents the ACDC15 model results in his evidence. He states:

*“The ACDC15 model has been quite recently developed by a group of Topic 013 Expert Witnesses at the direction of the IHP, and is managed and run by the Auckland Council, and is now the primary method used to undertake assessment of the commercial feasibility of capacity enabled by Auckland Council.” (paragraph 1.7).*

- 7.2 Mr Fairgray relies on the evidence produced by Mr Balderston on the ACDC15 model, in particular the ACDC15 test of the Auckland Council Amended Provisions (ACAP)<sup>1</sup>, for the conclusions he reached in his evidence. He states:

*“Most residential development occurs through commercial processes, where decisions to develop or redevelop are based on the assessed likelihood of achieving a return for the cost, effort and risk involved...”*

*“This approach was refined through the expert conferencing on Topic 013, and implemented via the ACDC15 model. Broadly, this model replicates the viability assessment that a commercial developer could be expected to apply when considering whether it is worth developing a residential property....This is detailed in evidence in Mr Balderston’s evidence at Section 8”. (paragraphs 4.8, 4.9).*

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<sup>1</sup> Auckland Council Amended Provisions, as defined by Mr Balderston in Cl 1.11 of his evidence.



7.3 The foregoing raises several issues. First, Mr Balderston states that that the model is “managed and run by the Auckland Council” and implies that all subsequent runs of the ACDC15 model are supported by “group of Topic 013 Expert Witnesses” (Mr Fairgray, Mr Thompson and I). As clearly stated above, I do not provide carte blanche support for new runs of the ACDC15 model and have previously raised concerns about the application of the ACDC15 model to scenarios that are a significant deviation from the existing PAUP provisions. This is because the ACDC15 model has not been developed with this functionality due to the short time frame under which it was developed.

7.4 Second, Mr Fairgray states that he relies on the results of the ACDC15 test of the ACAP as presented by Mr Balderston, for the conclusions reached in his evidence regarding capacity. Mr Fairgray has also indirectly assumed that the developers of the ACDC model have provided carte blanche support for its use and results. Speaking for myself, this assumption is incorrect.

7.5 In preparation by Mr Thompson for his Statement of Evidence on this Topic, Mr Thompson states that Mr Balderston has provided a sample of 300 property outputs from the ACDC15 test of the ACAP. Whilst I have not been provided with this data, I have discussed the data and the resultant outputs with Mr Thompson, and there seem some alarming concerns:

- The Mixed Housing zone density rules have been reduced, allowing greater house numbers on each site > *this is fine*
- Mr Balderston and Mr Fairgray have reduced the house size of each of the units that can now fit on this site > *this is ok, but Mr Balderstone and Mr Fairgray do not have expertise in doing this*
- It appears that Mr Balderston and Mr Fairgray have not increased the \$/m2 house construction cost in building smaller homes > *this is wrong, smaller properties are more expensive to build on a \$/m2 basis.*
- Mr Balderston and Mr Fairgray have reduced the house lot sizes dramatically and the house size but don't appear to have changed the house sale price enough (if at all) > *this gets really dangerous, you can't reduce the size of a house and it's Lot / section and expect it to sell for the same price as a bigger house on a bigger section.*

- The combination of the above (smaller houses, much smaller sections, construction price \$/m2 not increased and sale prices in total not reduced), would suggest that the output results would be substantially above what a peer reviewed output would have provided.
- 7.6 For the last 2-3 weeks I (and other Members of the PDEG) have made ourselves available to carry out peer reviews of the changed input to the ACDC Model, which can be completed within 2 days. Despite repeated offers to Council, Council have blatantly chosen to ignore the very clearly stated requirement to peer review any output data of the ACDC Model, whilst they patently were aware of the requirement to do so (if they wanted results that could be relied upon). With my deep knowledge of the ACDC Model, the recent ACAP's test results run through the ACDC can not be relied upon, and appear to grossly over-state development capacity.
- 7.7 Of further great concern to achieving sufficient development capacity numbers (to get anywhere close to meeting the intensification Auckland Plan targets), is the recent suggestion that after expert conferencing, the maximum site coverage ratio for the Mixed House Suburban zone should be reduced to 35%. I agree with Mr Thompson's recent evidence that to achieve sufficient density in the Mixed Housing Zones, with removing density controls, a site coverage of 50% would be more appropriate (noting most areas of urban Melbourne and Sydney have site coverage of upto 60%).
- 7.8 Mr Fairgray's "theories" on how "time will heal everything", by assuming that never ending house price increases at rates well above inflation (extrapolating house sale price growth trends of the last 15 years, out over the next 20-30 years), will mean that increasingly supply will become viable in Years 20-30 of the Unitary Plan, is in my professional opinion, drawing on 20 years of property development experience, absolute nonsense. Mr Fairgray's theories would create extreme unaffordability, and Mr Fairgray takes no account of a prospective purchaser or occupier's ability to pay these astronomic prices, or the quantum of buyers able to purchase at these extremely high prices. I have provided more in depth commentary on Mr Fairgray's "time will heal everything" theories in Appendix D, Sect 2. ii, of the 013EG Report.
- 7.9 I continue to make myself available to peer review future ACDC Model run results. Unless the next (at least) 3-4 iterations of ACDC Model outputs are peer reviewed, I (as the key "architect") of the ACDC Model, withdraw all reliance of the ACDC Model output results.