

# WELLINGTON CITY DISTRICT PLAN – DPC77

Submission form on publicly notified Proposed District Plan Change 77

Curtis Street Business Area

FORM 5 Clause 6 of First Schedule, Resource Management Act 1991

## SUBMISSIONS CAN BE

Posted to	District Plan Team Wellington City Council PO Box 2199 Wellington 6011
Delivered to	Ground floor reception Civic Square/101 Wakefield Street Wellington
Faxed to	801 3165 (if you fax your submission, please post or deliver a copy to one of the above addresses) Please use additional sheets if necessary.
Emailed to	district.plan@wcc.govt.nz

We need to receive your submission by 5pm, Monday 11 March 2013.

## YOUR NAME AND CONTACT DETAILS

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## TRADE COMPETITION AND ADVERSE EFFECTS *(select appropriate)*

I could not gain an advantage in trade competition through this submission.

## THE SPECIFIC PROVISIONS OF PROPOSED DISTRICT PLAN CHANGE 77 THAT MY SUBMISSION RELATES TO ARE AS FOLLOWS *(Please continue on separate sheet(s) if necessary.)*

Section 36.6 (j) Electromagnetic radiation, 36.7 (e) Subdivision and 36.7 (i) High voltage transmission lines Section 36.6 (n) Noise Section 32 (3.1) Previous use of the site
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## MY SUBMISSION IS THAT

(You should include whether you support or oppose the specific provisions or wish to have them amended. You should also state the reasons for your views. Please continue on separate sheet(s) if necessary.)

My qualifications in making the submission are that I have the degrees of Bachelor of Engineering (Honours) and Master of Engineering – specialising in power systems – from the University of Canterbury; and Master of Business Administration from Monash University. I am a fellow of the Institution of Professional Engineers, New Zealand.

I have the following experience which is directly relevant:

- Senior Engineer, NZ Electricity department. In this position I designed and supervised construction of the 220 kV high voltage substation at Redclyffe, near Napier
- Assistant Secretary of Energy, NZ Government. For a period in 1986-88 I was responsible for the deregulation of the electricity and oil industries.
- General Manager, Wellington Municipal Electricity Department of Wellington City Council (later Capital Power Ltd)
- General Manager, NZ Electricity Corporation Ltd
- Chief Executive, Institution of Engineers, Australia.

My residence is in Creswick Terrace, immediately above 55 – 85 Curtis Street and I have lived here since 1975, except for absences of several years overseas.

### Section 36.6 (j) and 36.7 (i) High voltage transmission lines

Electricity transmission above the site is briefly mentioned in a *Landscape report* prepared for Wellington City Council (WCC) by Drakeford Williams Ltd, Landscape Architects, dated 28 September 2012.

There is a double circuit 110 kV transmission line directly above 55 – 85 Curtis Street. These lines carry high voltage electricity from the main 220 kV substation at Wilton to Central Park, and are operated by Transpower NZ. The latter is the grid supply point for the southern CBD and south Wellington. Loss of supply at Central Park causes widespread power failure in the city, and happened at least once during my tenure in the MED from 1988 to 1995.

On the subject of transmission, the Drakeford Williams Report states:

“With transmission lines, the appropriate zoning for the site is less obvious. National guidelines dictate that the site is unsuited to sensitive activities such as residential development, schools and hospitals, although NPSET [The National Policy Statement on Electricity Transmission (“NPS ET” or “the NPS”), gazetted on 13 March 2008] allow that a range of land uses can still occur. Transpower remains neutral in principle, although has indicated a preference for built environment to avoid a defined red zone directly underneath the lines” (p4).

The equivocation in the Drakeford Williams report regarding Transpower’s attitude is perhaps understandable. A revised policy on transmission corridors, *Transmission line Buffer Corridors* was published by Transpower in September 2012; the same month as the Drakeford Williams report, and Julia Williams may not have been aware of this at the time. The Transpower report has a clear policy and Code of Practice opposing earthworks and construction of new buildings directly under transmission lines. There are several reasons for this.

Security of electricity supply: Overhead power lines of all types are vulnerable to interference, either intentional or accidental. Intentional damage arises, for example, from vandals shooting at insulators on the towers, and accidental damage may be caused by masts or cranes touching the lines. Storms which cause sheet metal to become detached from a roof are a particular concern in parts of Wellington. A damaged line is shut down automatically which often results in a power failure.

Safety of the public: Electricity transmission can be a danger to those underneath the wires. Damage can cause a live conductor to become detached, or a pylon to topple. Persons underneath at the time are exposed to serious risk of injury or death.

Electromagnetic field radiation (EMR): High voltage or high frequency wires emit EMR, although the effect on humans remains unsubstantiated and sometimes controversial. Where power line wires are close together, or the person is sufficiently distant from the corridor, the three phases cancel out and there is insignificant electromagnetic field. However, directly underneath the transmission wires, the field is measurable. A related effect is the audible corona discharge which emanates from sharp edges at transmission pylons, particularly in damp weather. To avoid possible liability from the effects of EMR, transmission companies seek to limit human habitation and prolonged occupation under transmission lines. Short term activities such as sports grounds are acceptable.

Access to the transmission infrastructure: Where repairs or upgrading is required, the transmission company will need to lower the conductors to the ground beneath. This is greatly facilitated if there are no buildings in the way.

For these reasons, Transpower New Zealand has a clear policy on transmission line buffer zones. In *Transmission Line Buffer Corridors; Questions and Answers*, September 2012, Transpower NZ explains its recommendations for the protection of transmission lines as follows:

“We have evaluated all transmission line types throughout the country to determine the appropriate corridor width to ensure that it does not impose unnecessary restrictions on land use. Typically, Transpower’s proposed approach is a 12 metre red zone either side of the centreline of the transmission line and around support structures. In this zone, we are suggesting all activity that is potentially incompatible with the transmission line, should require resource consent. Activities potentially affected within the red zone include new buildings and structures, substantial extensions to existing buildings and major earthworks - primarily those around the foundations of the transmission towers that could undermine the towers or that materially reduce clearances to live conductors.

We are also recommending that all activity in the ‘green zone’ (typically two strips of around 20-25 metres wide on each side of the red zone) be classified as “permitted activities”, and not require resource consent provided the landowner demonstrates their activity complies with NZECP34:2001.

NZECP34:2001 is a mandatory code of practice which sets minimum safe distances from transmission lines to protect persons, property, vehicles and mobile plant from harm or damage from electrical hazards. The Code establishes clearance distances to buildings and structures, the ground, and other lines, as well as how close buildings, structures and excavations can occur to poles and towers.

The Code is not a new requirement and has been in place for over 11 years. Although mandatory, the Code can be difficult to interpret and has been difficult to enforce. It also does not address a number of issues including the effects of development underneath transmission lines.”

For further information, download the information sheet on Transmission Line Buffer Corridors and the Checklist on compatible activity near transmission lines at [www.transpower.co.nz](http://www.transpower.co.nz) . For information of buffer zones see a paper dated September 2012 at: [https://www.transpower.co.nz/sites/default/files/publications/resources/transmission-line-buffer-zone-information-sheet\\_0.pdf](https://www.transpower.co.nz/sites/default/files/publications/resources/transmission-line-buffer-zone-information-sheet_0.pdf)

The confusion over development activity maybe illustrated in the following decisions by Wellington City Council as the consent-granting authority:

1. The Council had notified resource consent to construct and operate a substantial Mitre-10 MegaMart directly under the transmission lines; this consent having now been overturned by Judicial Review. There would have been 16 metres of fill and a 10 metre high building in direct contravention of the present Transpower policy of no major development under a transmission line.
2. The Council has consented to a large KinderCare Centre which is now being built at 31 Curtis Street. The KinderCare building itself is some 10 metres outside the ‘Green Zone’ defined by Transpower, but the question may be asked whether this Consent analysis considered the possible health effects of EMR on very young children who spend all day, every day, in KinderCare.

When this matter was discussed in a public meeting in Northland on 20 February 2012, Council officers advised that the transmission corridor was not designated, and therefore the Transpower guidelines need not be adhered to. I submit that

this is neither appropriate nor responsible on the part of the consent-granting authority. My expert advice is that the Council should adhere to Transpower's guidance on transmission corridors.

I wish to reiterate that the red zone of the Wilton to Central Park 110 kV transmission line traverses directly above 55 – 85 Curtis Street where the Business Area is proposed. If Council, as consent granting authority, does not take all reasonable steps to protect the public from electrical hazards, it exposes itself to liability of litigation from persons who are affected or who believe they have been affected by the hazard.

The liability would arise if a person works all day, every day, directly under a high voltage transmission line in a shop, service provider, or similar place of work. If the site is constrained for residential purposes on basis of effects of overhead lines (EMFs in particular) then it is logical that commercial uses which involve people being under the lines for long periods should also be avoided. These periods are potentially longer than in home when people are going out to work. Examples are dairy or hardware seven day operations in which typical opening times are 12 hours a day plus set-up and closure, and out-of-hours delivery.

In relation to electricity transmission, the Plan Change documents issued by WCC in December 2012 state that the proposal must be in compliance with Transpower's Corridor Management policy; see section 39.7 (i). I fully support this requirement, and the purpose of my submission is to explain what this means in practice. New large-scale landfill and buildings must not be built directly under transmission lines. If new buildings are contemplated in the Curtis Street Business Area, they should be small scale and must not intrude into the red zone. There might, for example, be two rows of buildings 12 metres on each side of the transmission lines. This will reduce the risks both to the supply of electricity and to the public beneath.

I recommend that Council fully comply with *Transmission Line Buffer Corridors*, September 2012 in DPC77. The implications are that any application for a large-scale landfill and building would be declined and that smaller buildings to each side of the transmission corridor might be approved. There would be a 24 metre corridor between the buildings under the transmission line, which would effectively be a road or access way.

### **Section 36.6 (n) Noise**

The report entitled *Noise Advice* is disappointingly superficial. The report appears to be authored by Council officer Matthew Borich: Environmental Noise: 2/11/2012. I am not a qualified acoustic engineer, but I do have some training in the subject. The following comments are offered to explain where the report is deficient.

The Council Report flawed because it appraises the Creswick Valley as it is at present; not as it might be if it were a Business Area. It assumes 'ceteris paribus' in the Valley and does not address the likely outcomes of any development, which is surely the nub of the argument. It analyses the valley noise issue as if there will be little or no change in the environment, which is clearly not the case. In short, the report does not contain an impact statement.

Creswick Valley in the vicinity of 55 – 85 Curtis Street has roughly parallel sides, relatively steep, some 300 metres apart. Curtis Street runs north-south along the floor of the valley, and Chaytor Street is inclined up the western side. Chaytor Street is the main access route to the large suburb of Karori to the south-west of the city, and carries heavy traffic flow.

Sound propagates across the valley due to its steep sides. In calm weather the traffic noise from both Chaytor and Curtis Streets is heard in Creswick Terrace and Paisley Terrace nearly as loudly as if these streets were themselves Chaytor and Curtis Streets. Residents in Creswick and Paisley Terraces no doubt appraised these local effects when they purchased their properties.

This noise effect is very dependent on wind speed. When the wind, almost always from the north or south blows down the valley at greater than approximately 30 km per hour, the traffic noise is masked by the wind noise. It is also true that vegetation in the floor of the valley, specifically at 55 – 85 Curtis Street assists in absorbing the traffic noise.

An impact analysis of the proposed development in the Creswick Valley would examine, at least qualitatively, the following aspects:

Traffic flow. There will be increased traffic in the valley, as discussed in the traffic reports. During construction lasting

several years there will be trucking activity, much of it with obtrusive reversing alarms. During operation there will be continuous deliveries of goods and services by vehicles and greatly increased customer traffic.

Vegetation clearance. Clearing the vegetation in the floor and some of the sides of the valley will remove the noise-absorption effect of vegetation which presently prevails.

Operational noise. Depending on the types of businesses in the zone there will be operational noise such as emptying rubbish bins and bottle recycling.

Reflective surfaces. The Business Zone will result in the floor of the valley being wholly sound-reflecting due to the roofs and sides of buildings, and the tarmac comprising car parks and access ways. The noise will be reflected off these hard surfaces and propagate upwards and sideways to the surrounding houses.

If all of these changes take place and are adverse, then there will indeed be an amphitheatre effect in Creswick Valley in the region of 55 – 85 Curtis Street; dismissed in the Council Report.

Quantifying this effect would be done by acoustic modelling or analysis by a qualified expert. What does seem clear is that the ambient noise will increase, and that the amenity afforded by the present residential noise levels will be impaired. I view this outcome with dismay. The environmental outcomes will be unfavourable and almost certainly detrimental to the surrounding residents.

It is suggested that an expert report on noise is required which explicitly addresses noise propagation if buildings with hard surfaces are located on the valley floor. Of course this is difficult if the shapes of the buildings are not yet known, so realistic assumptions would have to be made using the parameters of the proposed Business Park.

On the face of it, the provisions of 36.6 (n) 'Noise' are satisfactory as they impose limits on both the 15 minute and the maximum noise emission. The issue will be implementation of these limits by the effective design of any business park. The Activities Standards must better specify the allowable activities in approving the design of the Park. The reason is that, if the noise exceeds the limits, there is nothing to stop the operators of the business park applying for, and being granted, a resource consent to emit greater noise.

I recommend that Council ensure in DPC77 that the buildings and paved areas be small in size and that vegetation be maximised in order to limit the increase in noise propagation to surrounding residents. The Plan Change should not be approved until an expert assessment of the noise effects of the Business Park under these assumptions is completed.

### **Section 32 (3.1) Previous use of the site**

The section of the Council report which concerns the previous use of the site at 55 – 85 Curtis Street is misleading and needs to be corrected. The reason this is important is that the owner/ developer and the Council have both cited previous use as a precedent for the present proposal to change the zoning.

First, the owner, Terrace Heights Holdings, has laid emphasis on the previous use of the site when owned by Council. It has been stated that the use was 'industrial' and therefore the previous attempt at a zoning change (now overturned by the High Court) was justified. The owner/developer has stated he could lodge a private plan, and it is likely the argument will again be used; see the following news extract from Dominion Post of 13 September 2012.

"On Tuesday principal planning advisor Andrew Macleod told councillors Mr Aharoni's company Terrace Heights Holdings (THH) could lodge a private plan change if it found the council's suggested plan too limiting. If the council got in first with its own plan change it would ensure residents were adequately consulted, and that limitations could be put on the size and scale of any development, he said. Ahead of today's debate THH representative Andrew Monahan told councillors that a more restrictive approach to the site would not be welcomed by the company. "We don't want to have a whole lot of restrictions on it that we didn't have [before]."

From <http://www.stuff.co.nz/dominion-post/business/7670590/Karori-site-fenced-in-by-plan-change>

Second, the Council itself conveys the view that the use was formerly 'industrial'. WCC Section 32 Report at paragraph 3.1 states that the area zoned as residential was "used as a Council depot" to "store, maintain and construct equipment

relating to various council operations". The report states there was "a range of buildings including a number of sheds and an office". The 11 December 2012 letter from Council [Andrew Macleod, ref 1044-02-77] states that 55 – 85 Curtis Street was "formerly used as a Council depot" and this area was zoned "Outer residential".

I submit that this part of the Section 32 report is deficient because:

- it does not describe the size and scale of these activities;
- it does not specify when the listed activities were carried out or ceased;
- it does not comment on whether the activities were a legal use of the land.

I have been a resident above 55 – 85 Curtis Street since December 1974, and have observed activity on the site since then. If the Section 32 report is to be considered accurate, it must be noted that much of the listed activity took place prior to 1975, and is too long ago to be reasonably classified as an existing use.

For the first decade following 1975, the site was used by Council to a limited extent only, a fact which can be verified by Council records. A small area at the southern end of the site had the following uses:

- A storage area for road aggregate and base metal;
- A parking and storage area for limited numbers of council plant and vehicles;
- Ground on which containers and storage bins of unknown origin were placed;
- Unknown activity went on in a corrugated iron shed of moderate size.

There was very little traffic by Council vehicles into and out of the property. From around 1985 the main nuisance the site created to residents was the emptying of recycling bins located for some years at the entrance, prior to the sale of the property in 1995. These were for public use and comprised bins for glassware, cardboard and used clothing. When I was home on Saturday mornings there was the startling and loud crash of bottles breaking when Council staff emptied the glass bins.

It cannot be said that the site was 'industrial'. In fact the area in question was designated 'Outer Residential'. If the Council had operated it for an industrial purpose, such use would be in contravention of the zoning and would not have been a legal use.

I recommend that Section 32 (3.1) of Plan Change 77 be disregarded in respect of the previous use of the site.

#### **WE SEEK THE FOLLOWING DECISION FROM THE COUNCIL** *(Please give precise details.)*

The difficulty I have with Plan Change 77 is in its implementation. I understand that it is outside the scope of submissions to discuss the topic of resource consents which may be applied for consequent to approval of a plan change.

Nevertheless this matter must weigh heavily on the minds of residents for the following reasons:

- The publicly-stated attitude of the owner and developer, Terrace Holdings, to require maximum freedom on 55 – 85 Curtis Street;
- The fact that a previous Council process on the site was overturned by an expensive Judicial Review
- The heavy incentives which will be placed on the Council to agree to significant changes to the Activities Standards by way of resource consent.

On the face of it, the Activities Standards in Clause 36.6 of Plan Change 77 are reasonable and could result in an attractive and appropriate Business Park. But the difficulty lies in its implementation of the Plan Change.

Clause 36.5 makes very clear that the Assessment Criteria are merely guidelines when it states "It is specifically noted that the assessment criteria are not intended to limit Council's discretion when assessing restricted discretionary, discretionary or non-complying activities". It is within the discretion of the planning staff of Council to decide whether environmental outcomes are "less than minor". There is no evidence that safeguards can or will be put in place.

I have formed the view that residents cannot have confidence that the final outcomes of the zoning change will comply with the Activities Standards. I therefore oppose the District Plan change.

I seek the decision that District Plan Change 77 be declined.

If DPC77 is not declined, I seek:

1. Council to fully comply with *Transmission Line Buffer Corridors*, September 2012 in DPC77. The implications are that any application for a large-scale landfill and building would be declined and that smaller buildings to each side of the transmission corridor might be approved. There would be a 24 metre corridor between the buildings under the transmission line, which would effectively be a road or access way.
2. Council to ensure in DPC77 that the buildings and paved areas be small in size and that vegetation be maximised in order to limit the increase in noise propagation to surrounding residents. The Plan Change should not be approved until an expert assessment of the noise effects of the Business Park under these assumptions is completed
3. Council to agree that that Section 32 (3.1) of Plan Change 77 be disregarded in respect of the previous use of the site.

**PLEASE INDICATE BY TICKING THE RELEVANT BOX WHETHER YOU WISH TO BE HEARD IN SUPPORT OF YOUR SUBMISSION**

I wish to speak at the hearing in support of my submissions.

**JOINT SUBMISSIONS**

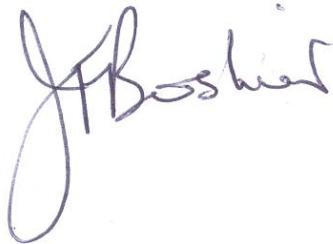
**IF YOU HAVE USED EXTRA SHEETS FOR THIS SUBMISSION PLEASE ATTACH THEM TO THIS FORM AND INDICATE BELOW**

No, I have not attached extra sheets.

**SIGNATURE OF SUBMITTER**

*(or person authorised to sign on behalf of submitter)*

*A signature is not required if you make your submission by electronic means.*



Date: 11 March 2013

Signature

Personal information is used for the administration of the submission process and will be made public. All information collected will be held by Wellington City Council, with submitters having the right to access and correct personal information.

If you are having trouble filling out this form, phone the District Plan Team on 499 4444 for help.