

IN THE MATTER of the Resource Management Act 1991
(**RMA**)

AND

IN THE MATTER of an application by New Zealand
Fruitgrowers' Charitable Trust to the
Wellington City Council for a resource
consent to reinstate a sign on the building
located at 2 Jervois Quay, Wellington (**the
Application**)

**SUPPLEMENTARY STATEMENT OF EVIDENCE OF RUSS KERN
ON BEHALF OF NEW ZEALAND FRUITGROWERS' CHARITABLE TRUST**

(LIGHTING ENGINEER)

9 December 2022

1. As requested at the hearing, the purpose of this statement is to provide to the Commissioner the results of the billboard/sign luminance tests I undertook in the evening of 6 December 2022. The results of my testing are attached to this statement. These readings were taken on foot. Sunset occurred at 8.42pm. The readings are attached in **Appendix 1**. Photographs of the sites are attached in **Appendix 2**.
2. Please note that each site has a time given for when the luminance tests were taken as well as ambient light at ground level.
3. All luminance readings were taken using a Minolta Digital Luminance Meter with a 1 degree viewing beam.
4. Some roof top signs were difficult to get an accurate reading and should be viewed with caution. For an accurate reading, the entire white portion of the sign needs to be within the 1 degree cone. Many of the roof top sign measured did not allow for an accurate reading from ground level but provide a good guide for comparison.

Comments on the sites

5. The site numbers do not relate to the order in which I walked to each site.

6. The better appearing billboards were sites #2, #9, #11, #12, #13, #14, and #18.
7. Site #2 has two luminance readings with a three minute difference. The later time of 77cd/m² was excellent, and the slightly earlier test, while high, was also acceptable given the ambient light.
8. Billboard sites #7 and #8 were acceptable but marginally too high.
9. The 10 Brandon site (site #6) used in the Boffa Miskell video was 124cd/m². In my opinion this was too bright given that it is a street level billboard.
10. In my opinion site #9 was too dim to be read easily and quickly.

Conditions

11. I have reviewed the draft conditions being put forward by the applicant and support conditions 18 and 19 (which relate to lighting).

Russ Charles Kern

9 December 2022

Appendix 1 - Site Measurements

LED BILLBOARD LUMINANCE TESTS									
PROJECT: - 3694			Location Wellington Central				Project Huddart Parker		
TEST	DATE	TIME	Floodlighting		LED Billboard		REMARKS	Acceptable	Adjacent Wall
			OPERATOR	LUMINANCE (cd/m2)	AMBIENT (LUX)	LUMINANCE (cd/m2)			
	187 Vivian Street corner		Go Media						
1a	6-Nov-22	2100	N/A	N/A	16		Nighttime		
			6 x 3			123	white	Marginal	
	210 Victoria Street corner		Go Media						
1b	6-Nov-22	2105	N/A	N/A	14		Nighttime		
			6 x 3			230	white	No	
	Ghuznee & Victoria Street corner		JC Decaux						
2	6-Nov-22		N/A	N/A			Dusk		
		2032			227	128	white	Yes	
		2035			71	77	white	Yes	
	Waterloo Quay Overbridge (North side)		Go Media						
3	6-Nov-22	2300	N/A	N/A	19		Nighttime		
			12 x 3			188	white	No	
						16.1	white "Public" sign adj. billboard	Yes	
	Waterloo Quay Overbridge (South side)		Go Media						
4	6-Nov-22	2256	N/A	N/A	16		Nighttime		
			12 x 3			189	white	No	
	89 Waterloo Quay (Wright Collision)								
5	6-Nov-22	2310	N/A	N/A	16		Nighttime	Marginal	
			6 x 3			215	white		

Notes

1. Luminance tests taken from worst case white portion of an image as the maximum value

LED BILLBOARD LUMINANCE TESTS									
PROJECT: - 3694			Location Wellington Central				Project Huddart Parker		
TEST	DATE	TIME	Floodlighting		LED SCREENS		REMARKS	Acceptable	Adjacent Wall
			OPERATOR	LUMINANCE (cd/m2)	AMBIENT (LUX)	LUMINANCE (cd/m2)			
	10 Brandon St Customhouse Quay		Lumo						
6	6-Nov-22	2230	N/A	N/A	7		Nighttime		
						124	white	No	
	85 The Terrace		Lumo						
7	6-Nov-22	2250	N/A	N/A	4		Nighttime		
						117	white	Marginal	
	35 Vivian Street		Lumo						
8	6-Nov-22	2123	N/A	N/A	4		Nighttime		
						118	white	Marginal	
	200 Wakefield Road		Lumo						
9	6-Nov-22	2150	N/A	N/A	9		Nighttime		
						24	white (Too Dim)	Yes	
	170 Wakefield Street Intersection		Council Trailer Road Closed Sign						
10	6-Nov-22	2200	N/A	N/A	9		Nighttime		
						2,910	white	Very Bad	

Notes

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LED BILLBOARD LUMINANCE TESTS									
PROJECT: - 3694			Location Wellington Central			Project Huddart Parker			
TEST	DATE	TIME	Floodlighting		LED SCREENS		REMARKS	Acceptable	Adjacent Wall
			OPERATOR	LUMINANCE (cd/m2)	AMBIENT (LUX)	LUMINANCE (cd/m2)			
	17 Whitmore Street		Lumo						
11	6-Nov-22	2045	N/A	N/A	14		Dusk		
						91	white	Yes	
	100 Taranaki Street		Mediaworks						
12	6-Nov-22	2115	N/A	N/A	11		Nighttime		
			3 x 7			64	white	Yes	
	10 Kent Street (Embassy Theatre)		Mediaworks						
13	6-Nov-22	2140	N/A	N/A	5		Nighttime		
			5.5 x 3 (2 off)			68	white	Yes	
	54 Jervois Quay (Tony's Tyres)								
14	6-Nov-22	2209	N/A	N/A	5		Nighttime		
						63.5	white	Yes	
						9.5	Red Richo Roof Sign	Yes	
	148-151 Cuba Street								
15	6-Nov-22	2051	N/A	N/A	78		Just after sunset so still a lot of daylight		
						217	white	Potentially	

Notes

1. Luminance tests taken from worst case white portion of an image as the maximum value

LED BILLBOARD LUMINANCE TESTS									
PROJECT: - 3694			Location Wellington Central			Project Huddart Parker			
TEST	DATE	TIME	Floodlighting		LED SCREENS		REMARKS	Acceptable	Adjacent Wall
			OPERATOR	LUMINANCE (cd/m2)	AMBIENT (LUX)	LUMINANCE (cd/m2)			
	Harbour Towers (Nova Energy)								
16	6-Nov-22	2215	N/A	N/A			Nighttime		
						101	yellow (internally lit)	Yes	
						76	three dividers artwork	Yes	
						119	AON roof sign	No	
	Harbour Towers (Robert Walters)								
17	6-Nov-22	2225	N/A	N/A			Nighttime		
						64	white (internally lit)	Yes	
						64	internal walls lit by office lights	Yes	
						77	McLellan Grimer Sign	Yes	
	cnr. Willis & Willeston & Customhouse Quay								
18	6-Nov-22	2330	N/A	N/A			Nighttime		
						46.8	white	Yes	
						6 to 244	Shop Video Screen	No	
						1010	Mediaworks Logo	No	
	25 Vivian Street								
19	6-Nov-22	2135	N/A	N/A	10		Nighttime		
						111	white	No	
						896	white "Microtel" internally lit sign	No	
	Railway Station Clock								
20	6-Nov-22	2251	N/A	N/A			Nighttime		
						85	white	Yes	
						83	ANZ roof sign	Yes	
						124	Deloitte roof sign	Yes	
						42	Stantec	Yes	

Notes

Consent Conditions **175 cd/m² max at night** **5,000 cd/m² max during the day** **8 sec dwell** **0.5 sec transition**

Appendix 2 - Photographs of Site

Huddart Parker Billboard – Wellington Digital Billboard Tests – Photographs – 6 Nov 2022



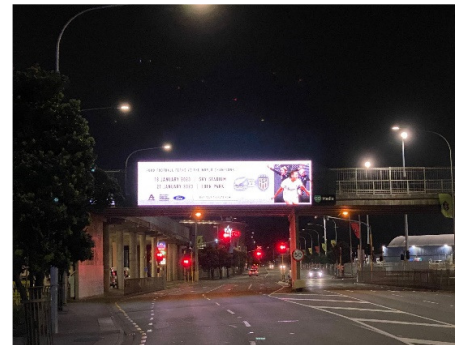
1. 187 Vivian Street



2. 210 Victoria Street



3. Waterloo Quay Overbridge (North)



4. Waterloo Quay Overbridge (South)



5. 89 Waterloo Quay (Internal Lighting)



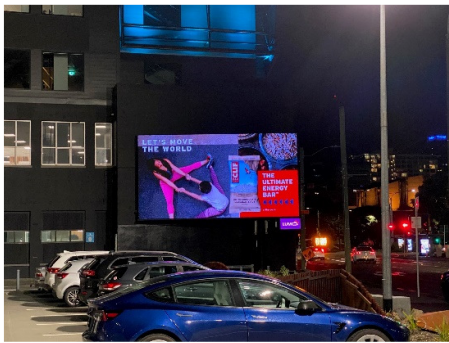
6. 10 Brandon Street



7. 85 The Terrace



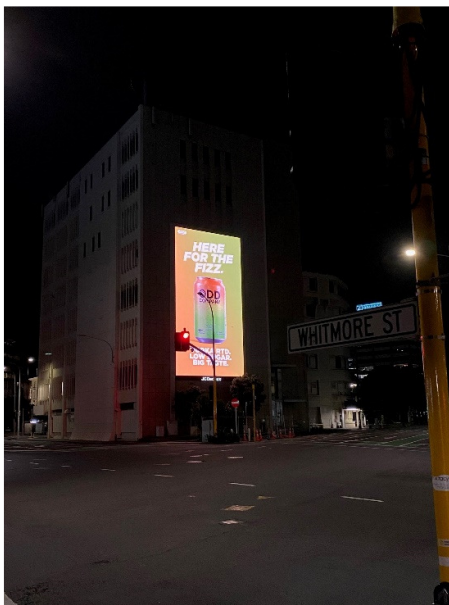
8. 35 Vivian Street



9. 200 Wakefield Road



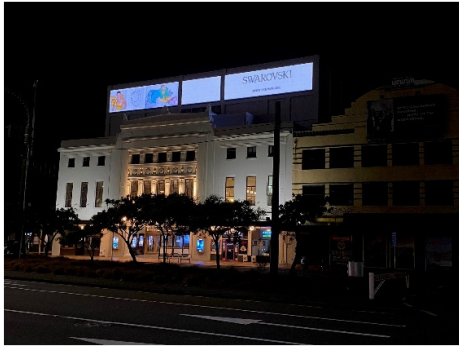
10. 170 Wakefield Road



11. 17 Whitmore Street



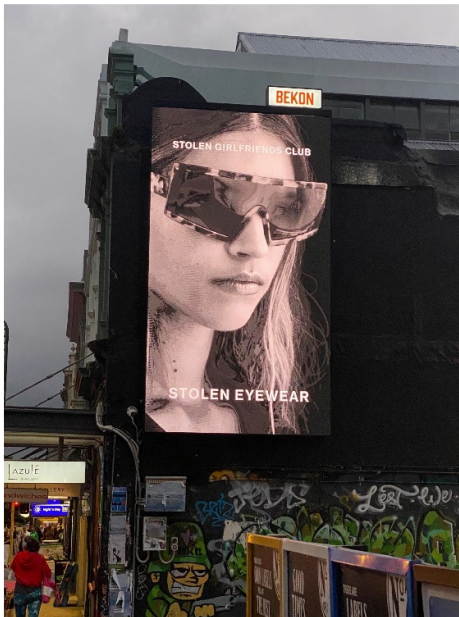
12. 100 Taranaki Street



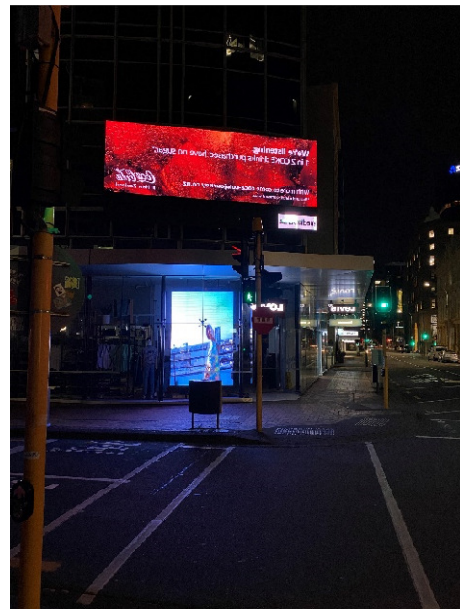
13. 10 Kent Street (Embassy Theatre)



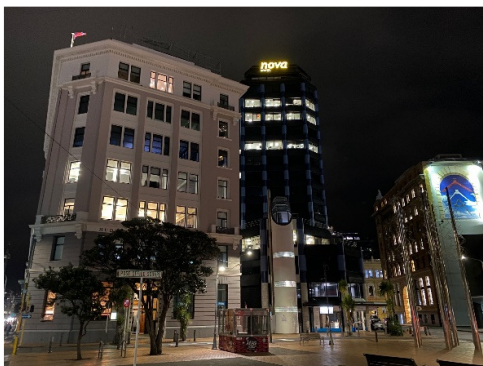
14. 54 Jervois Quay (Tony's Tyres)



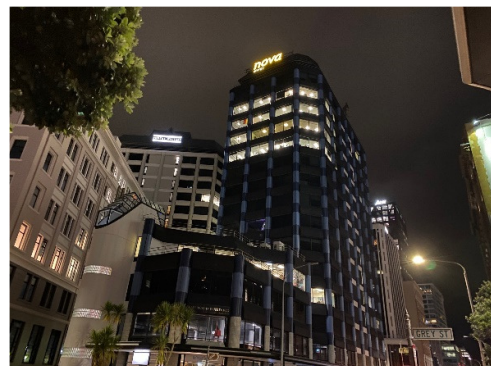
15. 148-154 Cuba Street



18. cnr. Willis & Willeston & Customhouse



16. Huddart Parker (Nova Energy Sign)



17. Huddart Parker (Robert Walter Sign)



19. 25 Vivian Street (Microtel)



20. Railway Station Clock

Note that photographed images are not an accurate representation of how the billboard appears as night and the site should be visited to gauge brightness.