



To:	Caroline Hutchison	From:	Andrew Metherell
	University of Canterbury		Stantec - Christchurch
Project/File:	310204072	Date:	27 April 2022

Reference: Film Studio Parking Demand and Traffic Generation Assessment

Further to the Council comments on parking and traffic matters received 12 April 2022, we have prepared an indicative parking demand assessment for the various activity scenarios across the Dovedale Campus that were included in the Integrated Transport Assessment (ITA) report.

The assessment is from first principles and based on the modal splits and time of day arrivals. As set out later, there are assumptions both in the level of activity analysis included in the ITA, and the method for determining the parking demand from the activity level. The analysis is useful for providing the general level of change in parking demand between scenarios.

By way of summary, the analysis shows that with the film studio operating in pre/post-production modes the level of parking demand of the Dovedale campus will be essentially the same as the scenario of existing permitted activity and utilisation of the site, being within 1-2% and well within the margins of error of the analysis. When the film studio is in production mode, and the rest of the campus is also fully operating, the peak level of parking demand could be in the order of 8-9% higher than the baseline scenario.

Some increase in on-street parking may occur through the middle of the weekday when the film studio is in production mode, although when spread across the many streets surrounding the site the level of change will be small. Streets in the area already have parking management measures (e.g. painted parking lines) and it is considered that no additional changes in parking management would be required as a result of the proposed development.

1 Activity Levels and Mode Split

The 2021 University of Canterbury Travel Survey recorded travel mode amongst other matters. The proportions by each mode have been summarised for each of the assessed scenarios, based on the daily activity levels that were reported in the ITA. The levels of those non-teaching (staff) and teaching (students) related activities not on the campus on any day are based on the reported travel survey results of 16.9% and 19.1% respectively (i.e. referenced as the "assumed absence factor" for the forecasting). The film studio component assumes a maximum and worst case scenario of all people on site on one day.

The adjusted levels of activity (people) on campus on the peak day is set out below in Tables 1 and 2, and is an expansion to the ITA Tables 8-3 and 8-4 respectively. The daily factor assumes that students might come and go to the campus twice in any given day. This is considered a generous assumption, and a worst case scenario, noting many 1st year students live in the halls and many will cross to and from the llam campus.



Scenario 1 –	People (any hour)	Daily Factor	Daily People	Assumed Absence Factor	Daily People on Campus
Non-Teaching	1,099	1	1,099	16.9%	913
Teaching	907	2	1,814	19.1%	1,468
Total	2,006		2,913		2,381

Table 1: Scenario 1 People Activity Levels at a Daily Level

Table 2: Scenario 2 People Activity Levels at a Daily Level

Scenario 2	People (any hour)	Daily Factor	Daily People	Assumed Absence Factor	Daily People on Campus
Non-Teaching	1,192	1	1,192	16.9%	990
Teaching	782	2	1,564	19.1%	1,265
Film Studio			100-500	0.0%	100-500
Pre/Post- Production	100	1			
Production	500	1		1	
Total	2,077-2,477		2,856 - 3,256		2,355 - 2,755

These adjustments to the daily activity levels for those that are not on campus results in the daily number of people on campus. The modal forecasts have then been applied to the daily people on campus to determine the number of people that drive a car, which in turn influences parking demand and traffic generation. This analysis is set out in Tables 3 to 5 below.

Table 3:Scenario 1 Mode Analysis (For Daily Travel to Campus) – Existing Built Environment Baseline

	Non Teaching 913	(apply staff)		Teaching (app 1,468	apply student)			
Travel Mode	Adopted Mode Split	Estimated Person Arrival Mode	Movements per Day on Transport Network	Adopted Mode Split	Estimated Person Arrival Mode	Movements per Day on Transport Network		
Private Car Driver	56.4%	515	1029	39.6%	581	1162		
Cycling	18.9%	172	344	17.1%	251	501		
Walking	7.9%	72	145	26.7%	392	784		
Passenger in Car	5.5%	50	7	2.7%	39	-		
Public Transport	3,4%	31	63	9.0%	132	264		
Other (e.g. micro-mobility, motorcycle, not on site)	7.9%	72		5.1%	75			

	Non Teaching	Non Teaching (apply staff)			Teaching (apply student)			Film Studio Pre/Post Production			
	990			1,265			(100 peopl	e on site)			
Travel Mode	Adopted Mode Split	Estimated Person Arrival Mode	Movements per Day on Transport Network	Adopted Mode Split	Estimated Person Arrival Mode	Movements per Day on Transport Network	Adopted Mode Split	Person	Movements per Day on Transport Network		
Private Car Driver	56.4%	558	1116	39,6%	501	1001	40%	40	80		
Cycling	18.9%	187	373	17.1%	216	432	18%	18	36		
Walking	7.9%	79	157	26.7%	338	676	17%	17	34		
Passenger in Car	5.5%	54	-	2.7%	34	-	12%	12	-1		
Public Transport	3.4%	34	68	9.0%	114	228	6%	6	12		
Other (e.g. micro-mobility, motorcycle, not on site)	7.9%	79		5.1%	64		7%	7			

Table 4: Scenario 2 (Pre/Post-Production) Mode Analysis (For Daily Travel to Campus)

Table 5: Scenario 2 (During Production) Mode Analysis (For Daily Travel to Campus)

	Non Teaching (Non Teaching (apply staff) Te			Teaching (apply student)				Film Studio Production				
	990			1,265			(500 peopl	e on site)					
Travel Mode	Adopted Mode Split	Estimated Person Arrival Mode	Movements per Day on Transport Network	Adopted Mode Split	Estimated Person Arrival Mode	Movements per Day on Transport Network	Adopted Mode Split	Person	Movements per Day on Transport Network				
Private Car Driver	56.4%	558	1116	39.6%	501	1001	26%	130	260				
Cycling	18.9%	187	373	17.1%	216	432	18%	90	180				
Walking	7.9%	79	157	26.7%	338	676	17%	85	170				
Passenger in Car	5.5%	54	->	2.7%	34	-	26%	130	-				
Public Transport	3.4%	34	68	9.0%	114	228	6%	30	60				
Other (e.g. micro-mobility, motorcycle, not on site)	7.9%	79		5.1%	64		7%	35					

A summary graph and table of the arrival modes are included in Figure 1, showing the potential level of change between scenarios. It can be seen that there is no determinable difference between the baseline and pre/post-production scenarios for levels of activity by each mode. For during-production, there is an increase in activity across each mode, although these are proportionally small differences.





Figure 1: Travel Mode Summary (Arrivals across the Day)

For the car driver mode, the increase is less than 0.5% between the baseline and the pre/postproduction scenario. During production, this becomes an increase of 8.6%. The traffic generation will primarily be associated with the private car driver mode of travel, so will have the same levels of change between scenarios. This is summarised in Table 6, and represents the sum of the movements to the campus, and movements from the campus in a day.

Table 6: Daily Traffic Movements Associated with Private Car Driver

Scenario	Daily Vehicle Movements
Scenario 1 - Baseline	2,191
Scenario 2 Pre/Post-Production	2,197
Scenario 2 Production	2,377

The difference in daily traffic generation between production and baseline is approximately 186 vehicle movements per day.

For context and comparison purposes, a typical suburban household could generate approximately 10 vehicle movements per day, so the change in daily traffic movements is equivalent to approximately 19 residential houses, which is a small level of change for a site of this scale.

2 Estimate of Parking Demand

2.1 Profile of Parking Demand based on Travel Survey Data

The travel survey analysis has been further analysed based on the surveyed arrival and departure patterns which differ for students and staff. These surveyed profiles are shown below for those that travel to the University (i.e. do not work at home or not attend).



Figure 2: Staff Car Driver Arrival and Departure Patterns (UOC Travel Survey)



Figure 3: Student Car Driver Arrival and Departure Patterns (UOC Travel Survey)

It can be seen that the staff primarily arrive and depart in the peak morning and evening periods, whereas students are more spread out through the day. Staff based peak parking occurs across more of the day, whereas there is a shorter midday peak associated with students.

2.2 Forecast Parking Demand Profiles

The arrival and departure profiles have been applied to the forecast driver arrival patterns set out in Section 1 of this memo.

An indicative parking demand profile across the day is then generated, noting that the staff arrival and departure profile is applied for the film studio component in this case. As with the previous assessment of mode of travel, the film studio is assumed to have all of the people on-site at one time, which presents a worst case scenario of the level of change in parking demand (i.e., none working at home, or not visiting the campus).



Figure 4: Dovedale Campus Parking Demand Scenarios by Hour of Day (Weekday at Full Occupancy)

It can be seen that each scenario generates a similar level of parking demand. The calculated parking demands at the peak 12pm-1pm are as follows:

Scenario	Staff / Non- Teaching	Students / Teaching	Total
Baseline	453	411	864
Pre/Post-Production	526	354	881
Production	605	354	960

Table 7: Dovedale Campus Parking Demand Summary (Parked Vehicles at 12-1pm, Weekday)

The film studio production scenario has an incremental increase on the baseline and pre-production scenario, generating almost 100 additional parked vehicles compared to the baseline scenario.

On-site parking supply is up to approximately 582 parking spaces. Parking supply on the immediate frontage roads of Dovedale Avenue, Solway Avenue, and Parkstone Avenue (including the opposite side of road) is approximately 259 spaces (allowing for removal of 8 spaces on Dovedale Avenue), a total of 849 spaces. This is close to calculated parking demands. Some of the parking spaces will accommodate parking demand for non-university activity, although peak residential parking occurs overnight and at weekends when the Dovedale campus experiences low levels of parking demand.

This indicates that in all scenarios there is likely to be some overflow on-street parking to surrounding streets in the middle of the day when the campus is operating at capacity. Streets already have mitigation measures in place in the form of marked parking bays and in some cases time restrictions to appropriately manage parking near driveways.

To estimate the potential effect of an additional 17 spaces of parking for pre/post-production, and 96 spaces for production at the peak time of day, the length of kerbside space required to accommodate the additional demand has been calculated (based on an average of approximately 5.5m per space).

Scenario	Extra Parking Demand to be accommodated (spaces)	Extra Parking Demand on each side of each side road ¹ (8 roads , 2 sides) to be accommodated	Length of road on each side of each side road (8 roads 2 sides) to accommodate additional peak demand
Pre/Post-Production	17	1	6m
Production	96	6	32m

Table 8: On-street Parking Changes Due to Development Scenarios

This indicates low level change in the number of parked cars and length of overspill on individual nearby streets. At pre/post-production there would essentially be little change on individual streets.

During production each side of the nearby streets would need to accommodate approximately 6 additional parking spaces, which in practice involves parking in front of approximately 2-3 households on each side of the street at the busiest peak times. It is considered this will not necessitate additional parking management measures, and is likely to fall within natural variation and turnover in parking utilisation in the area in any case. During production, a Transport Management Plan is proposed as part of the consent which could also encourage staggered arrival times and use of passenger transport as necessary.

3 Conclusion

The extrapolation of the activity assessment included in the ITA to account for mode of travel and time of day arrival and departures based on UOC travel surveys enables an indicative parking demand and traffic generation assessment to be calculated for the Dovedale Campus.

¹ Lynfield Ave, Rutherglen Ave, Solway Ave north of Dovedale Ave, Glenside Ave, Montclare Ave, Dalrye PI, Parkstone Ave west of Solway Ave, Parkstone Ave east of Ring Road

This shows that the broad pattern of parking is similar between scenarios, with a weekday peak expected around midday. The effect of additional parking demand on street parking in the surrounding neighbourhood will be negligible for pre/post-production activities.

The effect of additional on-street parking during production at times that the full utilisation of the campus occurs (worst case scenario) is that each side street beyond the immediate site frontages could be required to accommodate a relatively small number of additional parked vehicles. Assuming the campus and frontage streets are fully parked, an additional 12 parked vehicles (6 vehicles either side) may need to be accommodated on each street around the midday period. This would extend the sphere of parking demand by about 32m on each side road, which is likely to be within the natural variations and turnover of parking utilisation on side streets. Side streets in the area have marked parking start and end points which assists with management of parking near driveways.

Some other useful context is that student parking has a moderate to high turnover of parking spaces within any given hour. For approximately a third of a calendar year there is a lower student presence on the campus over holiday and exam times, and this is reflected in less on-street parking limits during those times of the year adjoining some streets by the llam and Dovedale campus i.e. November to February. There is already an established baseline of on-street parking within the vicinity.

The additional day traffic generation associated with peak activity is negligible for the pre/postproduction when compared with the baseline. With production, the traffic generation for the campus is calculated to be approximately 186 vehicle movements per day more than the baseline. Given the scale of the site and numerous access options from the wider transport network, this represents a small change in traffic movements on the road network.

It is considered that effects from a traffic perspective will be less than minor and not require or warrant further parking management measures compared to the baseline activity scenario. The proposed Transport Management Plan as part of the consent could be amended to encourage stagnated arrival times and use of passenger transport during production times.

Regards,

Stantec New Zealand

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Andrew Metherell Traffic Engineering Team Leader andrew.metherell@stantec.com

University of Canterbury 2021 Car Parking Assessment Against District Plan Rules

			Year												
Types of Parks	District Plan Rule	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Student FTE (Note 1)		14.069	Actual	45.070	10.074	10 510	16.046	17.000	17.001	Projected	10.610	10.070	19,190	10 244	10 4 49
. ,		,	14,891	15,378	16,371	16,518	16,946	17,289	17,661	18,197	18,619	18,970	-,	19,341	19,448
Staff FTE (Note 1)		1,909	2,002	1,987	1,978	2,044	2,106	2,153	2,188	2,236	2,277	2,312	2,337	2,357	2,373
Student Car Parks (Visitor Car Parks included)	20 spaces per 100 FTE students	2,814	2,979	3,076	3,275	3,304	3,390	3,458	3,533	3,640	3,724	3,795	3,838	3,869	3,890
Staff Car Parks	5.5 spaces per 100 FTE students	774	820	846	901	909	933	951	972	1,001	1,025	1,044	1,056	1,064	1,070
Number of Parks Required		3,588	3,799	3,922	4,176	4,213	4,323	4,409	4,505	4,641	4,749	4,839	4,894	4,933	4,960
Existing Student and Staff Pa	arking Supply (Note 2)	3,329	3,215	3,215	3,399	3,399	3,399	3,399	3,399	3,399	3,399	3,399	3,399	3,399	3,399
Variance (Required less Ex	isting surplus/(deficit))	-259	-584	-707	-777	-814	-924	-1,010	-1,106	-1,242	-1,350	-1,440	-1,495	-1,534	-1,561
Parking Reduction Factor A	Applied (24%)	2,727	2,887	2,981	3,174	3,202	3,285	3,351	3,424	3,527	3,609	3,678	3,719	3,749	3,770
Variance (Required less Ex the parking reduction facto	isting surplus/(deficit)) - Taking into account or	602	328	234	225	197	114	48	-25	-128	-210	-279	-320	-350	-371
Mobility Parks	2 spaces for the first 50 car park spaces + 1 additional mobility car park for every additional 50 car parks	73	77	80	85	86	88	90	92	94	96	98	99	100	101
Existing Mobility Parking Sup	ply (Note 2)	95	94	94	105	105	105	105	105	105	105	105	105	105	105
Variance (Required less Exis	ting surplus/(deficit))	22	17	14	20	19	17	15	13	11	9	7	6	5	4
Total Car Parks Required		2,800	2,964	3,061	3,259	3,288	3,373	3,441	3,516	3,621	3,705	3,776	3,818	3,849	3,871
Total Car Parks Supplied in	ncluding Mobility Parks	3,424	3,309	3,309	3,504	3,504	3,504	3,504	3,504	3,504	3,504	3,504	3,504	3,504	3,504
Variance (Required less Ex Parks	isting surplus/(deficit)) - Including Mobility	624	345	248	245	216	131	63	-12	-117	-201	-272	-314	-345	-367
Number of Obstructed Car Pa containers) (Note 3)	arks (behind hoardings or obstructed by	297	230	192	105	105	105	105	105	105	105	105	105	105	105
Total Car Parks Supplied in	ncluding Mobility and Obstructed Parks	3,721	3,539	3,501	3,609	3,609	3,609	3,609	3,609	3,609	3,609	3,609	3,609	3,609	3,609
Adjusted Variance to Accour reinstated	unt for Obstructed Car Parks being	921	575	440	350	321	236	168	93	-12	-96	-167	-209	-240	-262
Number of New Car Parks to	be Provided by UC (Note 4)														
Total Car Parks Supplied in Parks	ncluding Mobility, Obstructed and Proposed	3,721	3,539	3,501	3,609	3,609	3,609	3,609	3,609	3,609	3,609	3,609	3,609	3,609	3,609
Adjusted Variance to Accou	unt for New Car Parks being provided	921	575	440	350	321	236	168	93	-12	-96	-167	-209	-240	-262

NOTES:

(1) 2018 to 2020 Actual and 2021 to 2031 Projected Student and Staff FTEs provided by University of Canterbury

(2) 2021 car parking numbers supplied from latest UC Parking audit dated 7 July 2021

(3) 48 car parks are currently behind hoardings while the remainder are obstructed by containers etc. Awaiting confirmation from UC on timeframes (where known) for these car parks to become available for use

(4) Assumed no new car parking areas are planned in addition to the current provision (Awaiting confirmation from UC)

CRDP Appendix 7.14 - Parking reduction adjustment factors

	Factor	Description	Reduction from the minimum parking requirements	UC Applicable for Reduction?	Proposed Reduction
					Percentage
Permitted reduction	ons (without the need for a r	esource consent)			
a.	Public transport accessibility	Located within a 400m walk of a public transport	Between 0m and 100m: 10% reduction per service.	Yes x1 routes (assume 200m	6%
			Between 101m and 200m: 6% reduction per service.	distance into the centre of	
		frequency of at least 15 minutes on weekdays	Between 201m and 400m: 3% reduction per service.	campus) - Purple Line only,	
		between 7am and 6pm.	Up to a maximum of 16%.	Orbiter 500 metres away on Waimairi Road now	
b.	-	Located within a 200m walk of a public transport		Yes x3 routes (assume 200m	3%
		stop served by a public transport service with a	Between 51m and 125m: 3% reduction per service.	distance into the centre of	0,0
			Between 126m and 200m: 1% reduction per service.	campus) - Routes 100, 120, 130	
		between 7am and 6pm.	Up to a maximum of 8%		
C.	Public parking facility	Located within a 400m walk from an offstreet car	Between 0m and 50m: 10% reduction.	No	
	i abilo partang laonity	park that is available for use by the general public.	Between 51m and 200m: 6% reduction.		
		part and to available for acc by the general pablic.	Between 201m and 400m: 2% reduction.		
d.	Walking accessibility	Located within a 400m walk of an identified	Between 0m and 50m: 15% reduction.	No, 2km from Riccarton and	
	rraining dococolamity	commercial core zone (refer to Chapter 15)		1.6km from Church Corner	
			Between 51m and 200m: 10% reduction.		
			Between 201m and 400m: 5% reduction.		
e	Access to a Major Cycle	Located within 1.2km of a Major Cycle Route.	Between 0m and 150m: 15% reduction.	Uni-Cycle goes through Uni Drive	15%
0.	Route	Loodled within 1.2km of a major byoic floate.	Between 151m and 600m: 10% reduction.	and llam Fields	1070
	Route		Between 601m and 1.200m; 5% reduction.		
f	Cycle parking	The number of cycle parks (and lockers and	Cycle parking exceeds requirements by 5% to 10%: 5% reduction.	No	
1.		showers) provided for the activity exceeds the	Cycle parking exceeds requirements by 5% to 10%. 5% reduction.	NO	
		requirements under 7.2.3.2 Rule 2 (cycle parking	Cycle parking exceeds requirements by more than 10%: 10%	No	
Reductions baser	d on assessment through the	requirements)	reduction.		
n	Mixed-use development	Developments that contain a mix of both residential	Lin to 5%	No	
9.	Mixed use development	activities and activities where people are employed	0000	140	
		at the site.			
h.	Good non-vehicular access	There is a pedestrian access way that:	Up to 3%	No	
	to buildings	- is separated from the vehicle access and parking	00 10 3 /	140	
	to buildings	areas,			
		- has a direct distance of less than 10m from a			
		footpath on public road reserve to the activity's			
		main building public entrance ² Enable people in wheelchairs or mobility scooters,	Up to 3%	No	
		or who have strollers / prams to have full access to	Up to 3%	INO	
		the activity.			
	Integration with public	Activities that include a dedicated indoor waiting	Up to 5%	No	
1			Up to 5%	INO	
	transport	area for users of public transport or taxis that is safe, sheltered, attractive, accessible, and			
	Traval plan	comfortable. The activity provides a travel plan that:	Up to 10%	No	
1					
j.	Travel plan		Up to 10%	INO	
j.		- Includes measures to encourage public		NO	
j.	Travel plan	 Includes measures to encourage public transport use 		NO	
j.		Includes measures to encourage public transport use Includes measures to encourage walking and		NU	
j.	Traver part	Includes measures to encourage public transport use Includes measures to encourage walking and cycling	00 10 10 %	NU	
j.	Traver plan	Includes measures to encourage public transport use Includes measures to encourage walking and cycling Includes ways to make travel by the private	0 10 10 %	NU	
j.	Traver pran	Includes measures to encourage public transport use Includes measures to encourage walking and cycling Includes ways to make travel by the private car more efficient (such as through car pooling)		NO	
j.	Traver pian	Includes measures to encourage public transport use Includes measures to encourage walking and cycling Includes ways to make travel by the private car more efficient (such as through car pooling) Sets out a contingency arrangement in case	0 10 10 %	NU	
j.	Travei pian	Includes measures to encourage public transport use Includes measures to encourage walking and cycling Includes ways to make travel by the private car more efficient (such as through car pooling) Sets out a contingency arrangement in case of overflow car parking	0 10 10 %	NU	
j.	Traver pran	Includes measures to encourage public transport use Includes measures to encourage walking and cycling Includes ways to make travel by the private car more efficient (such as through car pooling) Sets out a contingency arrangement in case of overflow car parking Describes the ways in which the travel plan	0 10 10 %	NU	
j.	Traver pian	Includes measures to encourage public transport use Includes measures to encourage walking and cycling Includes ways to make travel by the private car more efficient (such as through car pooling) Sets out a contingency arrangement in case of overflow car parking Describes the ways in which the travel plan will be implemented	0 10 10 %	NU	
j.	Traver pran	Includes measures to encourage public transport use Includes measures to encourage walking and cycling Includes ways to make travel by the private car more efficient (such as through car pooling) Sets out a contingency arrangement in case of overflow car parking Describes the ways in which the travel plan will be implemented Includes ways to monitor the effectiveness of		NU	
j.	Traver pian	Includes measures to encourage public transport use Includes measures to encourage walking and cycling Includes ways to make travel by the private car more efficient (such as through car pooling) Sets out a contingency arrangement in case of overflow car parking Describes the ways in which the travel plan will be implemented	0 10 10 %	NU	

Klomp, Matthew

From:	Caroline Hutchison <caroline.hutchison@canterbury.ac.nz></caroline.hutchison@canterbury.ac.nz>
Sent:	Wednesday, 8 June 2022 4:33 pm
To:	Klomp, Matthew
Subject:	RE: UC Parking Calculations
Follow Up Flag:	Follow up
Flag Status:	Completed

Hi Matthew

Happy for that information to be supplied with the following caveats applied:

- These parking assessments were undertaken under rules that have now been removed from the District Plan, as such they can no longer be used as a baseline for determining effects and no longer need to be complied with.
- Post 2021 figures for staff and students are projections only at a certain point in time and do not reflect what will actually happen. They may be over-optimistic or under-optimistic.
- When these rules were in the District Plan, they were applied universally across our Dovedale and Ilam campus
- The 4th to the last row is the relevant Total park figures i.e. under supply of carpark based on these rules by 2026 of -12. Again the actual number of staff and students we have by 2026 might be lower than the projected figure

Cheers, Caroline.

From: Klomp, Matthew <Matthew.Klomp@ccc.govt.nz> Sent: Wednesday, 8 June 2022 3:53 PM To: Caroline Hutchison <caroline.hutchison@canterbury.ac.nz> Subject: FW: UC Parking Calculations

Hi Caroline,

A member of the public has asked whether a copy of the attached car parking assessment can be made available. It was not included in the notification document. Most, if not all, information submitted as part of the processing of a resource consent application is to be made publicly available under LGOIMA (if/when requested). However, I thought it best to ask as a courtesy.

Kind regards,

Matthew Klomp

Planner Resource Consents Unit

2.55

<u>03 941 6833</u>

Matthew.Klomp@ccc.govt.nz

Te Hononga Civic Offices, 53 Hereford Street, Christchurch

Klomp, Matthew

From:	Caroline Hutchison <caroline.hutchison@canterbury.ac.nz></caroline.hutchison@canterbury.ac.nz>	
Sent:	Wednesday, 8 June 2022 4:34 pm	
To:	Klomp, Matthew	
Subject:	RE: UC Parking Calculations	
Follow Up Flag:	Follow up	
Flag Status:	Completed	

Opps – one other caveat:

- While not indicated on this table, UC may at any time provide more onsite car parking. At the time of doing this table none were identified, but that may change.

From: Klomp, Matthew <Matthew.Klomp@ccc.govt.nz> Sent: Wednesday, 8 June 2022 3:53 PM To: Caroline Hutchison <caroline.hutchison@canterbury.ac.nz> Subject: FW: UC Parking Calculations

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PO Box 73013, Christchurch 8154

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From: Caroline Hutchison <<u>caroline.hutchison@canterbury.ac.nz</u>> Sent: Wednesday, 27 April 2022 9:22 am To: Klomp, Matthew <<u>Matthew.Klomp@ccc.govt.nz</u>> Cc: Muirson, Melanie <<u>Melanie.Muirson@stantec.com</u>> Subject: FW: UC Parking Calculations 8th July 2021



Our Reference: J16253

Christchurch City Council PO Box 73013 Christchurch 8154 Email: <u>matthew.klomp@ccc.govt.nz</u>

Dear Matthew,

RE: REQUEST FOR FURTHER INFORMATION- RMA/2022/517, 129 WAIMAIRI ROAD, ILAM

Thank you for sending through the request for further information on 27th June 2022. In response to the request, please find below additional information for your consideration. I also enclose supporting attachments, which forms part of the response (as indicated below). For ease of reading, responses are set out in blue text.

Transport

 Andy Milne (Senior Transport Planner at Council) has requested written responses to the issues identified in Liqi Chen's (Transport Network Planner at Council) memo – copy attached. These were discussed at our meeting on May 25th. This does not include the issues surrounding the parking assessment which Mr Milne considers is now sufficient for their needs (see suggested review conditions below).

Mr Milne remembered the following items being discussed at the meeting:

- The need for the proposed new Dovedale access;
- The rationale behind not providing vehicle access from the internal campus road;
- The design of new Dovedale access to ensure safety of cyclists;
- The closure of an existing access and relocation of parking lost (as a consequence of the new access);
- Conditions re the use of the proposed Waimairi access for heavies, incl. number of movements, times of day, and direction of travel.

Mr Milne has also requested an updated plan(s) showing the closed Dovedale access, the relocated onstreet parking, and the design of the new Dovedale access (showing the design features that would mitigate safety issues associated with conflicts between vehicles and cyclists).

Response:

The substantive response is contained in the attached document titled '220707 RFI Transport response' (see **Attachment 1**).

The following conditions are offered in regard to Dovedale Avenue Access closures, parking and access design.

Access Closures on Dovedale Avenue and Street Parking:

"That the vehicle access entrances identified in drawing number 310204072-01-001-C600-FIG 4, as appended in the 220707 RRI Transport Response, and detailed as Western Crossing 3 & 4 in Figure 3 of that document, are permanently closed"; and

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That Western Crossing 3 reinstates continuous cycleway, full kerb, and that, subject to Christchurch City Council processes and approvals, mark eight on-street angle parking spaces each at approximately 2.9m widths; and

That Western Crossing 4 is reinstated with full kerb and that, subject to Christchurch City Council processes and approvals, mark four on-street angle parking spaces each at approximately 3.0m widths"

Access Design – Pedestrian and Cycle Safety

"That the new vehicle entrance way, shown in Figure 3 in the 220707 RFI Transport Response as access 2, is constructed in accordance with Design Plan 310204072-01-001-C600-FIG 1"

"That the existing vehicle entrance way, shown in Figure 3 in the 220707 RFI Transport Response as access 1, is re-designed in accordance with Design Plan 310204072-01-001-C600-FIG 2

Water supply for fire fighting

 Will Rowson (Team Leader Water Services at Council) has made the following request: "[Compliance with CDP rule 13.7.4.2.8] needs to be demonstrated including largest fire cells, propose stage height, FW rating and is sprinklers are proposed. We need this information prior to providing acceptance".

Note: I understand that you are proposing a condition to deal with this.

Response:

Correct. The question cannot be answered with any certainty, given that 'building' concepts are not yet at detailed design phase and usually are not at the time of Resource Consent. This is not unusual for a lot of commercial activity.

The final detailed design of the building will dictate under the Building Act and New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS: 4509:2008) what level of requirements are needed. Depending on the detailed design, this will dictate if storage tanks are needed, sprinklers and/or access to the reticulated system is suffice.

It is proposed that a condition of consent is offered as follows:

"Water Supply for Firefighting

Before a building consent is issued Council's Three Waters and Waste unit must be satisfied that the proposed new building's detailed designs demonstrate that sufficient water supply and access to water supplies for firefighting can be achieved in accordance with the New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS: 4509:2008). "

<u>Planning</u>

3. The description of the existing/future uses of the buildings in section 3.2 of the application does not appear to align with the plans in Appendix 4. Please clarify this.

Response:

Please refer to latest resource consent application (dated 28th March 2022) which includes an additional site plan (in Appendix 4) that numbers the buildings to align with the activity description tables included in section 3.2 of the application.

Further queries received post RFI (29/06/2022):

- Are the existing buildings in in blue/green (below) the only ones at this stage which will be used as part of the new DS Campus? What are/will the other buildings be used for?

Response:

The Dovedale Campus plays an important space role for the University, it is a key location for UC support services (IT) and for teaching space; and some ancillary and complimentary functions. The campus includes Gowns Regalia, Christchurch College of English, UCSA day-care centre, and other minor tenancies that fall within permitted zone activities for the site. Dovedale is currently used to cater for ad-hoc teaching bookings (non-timetabled) for block course/intensive course work, including presentation and project courses. So there is already current activity on the campus to support UC core functions.

The existing buildings identified in blue and green in the plan below will predominantly cater for future Digital Screen Campus (DSC) commercial and educational activity. At this time the majority of the remainder of the built environment is dedicated to other business as usual functions identified in the previous paragraph. It can be expected that there might be minor cross-use of some other existing buildings on-site for DSC, but the proposed buildings for DSC are currently undergoing significant investment to make them fit for purpose to deliver DSC outcomes.



4. The 'scale of activities' analysis in section 3.3 of the application states (summarised) that current campus capacity is 2,000 persons (in any given hour and on a daily basis) and that future capacity will be between 2,077 and 2,577 persons (again, in any given hour and on a daily basis), noting the difference is during productions. The physical occupancy of space was used as proxy to determine this - 40% occupancy of space assumed. However, if 100% occupancy was applied up to 3,377 persons could be expected under current campus capacity (again, in any given hour and on a daily basis). Please advise what the future capacity would be if 100% occupancy was applied (including maximum 500-person production)?

Response:

The substantive response is contained in Attachment 2.

5. Please confirm what area/percentage of the site is currently covered by impervious surfaces used for vehicle parking and access, and where is this located?

Response:

Proposed/ future site coverage

The notified resource consent application indicated that the proposed/future site coverage (including the proposed film studio) would be <u>58% total</u>. This calculation was based on the inclusion of <u>all</u>

impervious surfaces as well as buildings at the campus. However, the above question required further review of the District Plans definition for 'access' and exactly what impervious surfaces are captured by this definition. The definition is as follows; *"land over which vehicular or pedestrian access to a legal road is obtained."*

As a result, the previously supplied calculation has been amended to exclude any impervious surfaces that are **not** used for vehicle parking and access to a legal road(both vehicular and pedestrian).

The proposed/ future site coverage has significantly reduced as a result from <u>58%</u> (as originally stated in the application) to <u>48%</u>. This means the proposal is only proposing <u>3%</u> more (instead of <u>13%</u>) than the maximum permitted site coverage in the District Plan (45%). A further breakdown of the proposed/future site coverage is contained in **table 1** below.

UC Property	132872	m²
UC Building	19685	m²
UC Site Access	1671	m²
UC Road	22390	m²
Film and Production	19558.9	m²
Impervious Total	63304.9	m²
Site Coverage Total	48%	

Table 1: future site coverage (includes film studio)

Existing/ current site coverage

In addition to the above calculations, the same methodology has been applied to confirm the existing/ current site area covered by buildings and impervious surfaces used for car parking and access. The current/existing total site coverage is <u>33%</u> or <u>43,746m²</u>.

Please also refer to **Attachment 3** which contains a revised site plan (with site coverage breakdown) and **table 2** below, which contains a summary of the updated calculations for 'current' site coverage for the Dovedale Campus.

132872	m²
19685	m²
1671	m²
22390	m²
43746	m²
33%	
	19685 1671 22390 43746

Table 2: existing site coverage

6. In the urban design section of the application, it is explained that existing mature trees located along the road and internal boundaries are between 25m to 35m in height. Please amend the landscape plan to include approximate heights for each tree. This information is required to understand the visual mitigation they will provide for the proposed buildings.

<u>Response</u>: Please refer to **Attachment 4** of this response, which contains a revised landscape plan with tree height details for identified mature trees along the road and internal boundaries.

7. In section 3.4 of the application it is stated that access to the backlot by vehicles will be limited to the Waimairi Road access during "secure times". Please clarify what this means.

Response: We acknowledge that this was not adequately covered in the lodged consent. Access to the film production site from external proposed accesses, that is the proposed Dovedale and Waimariri accesses, will be secured at all times. This will stop any 'rat' running by other vehicles wanting to access the more substantive part of the campus. All vehicles associated with production activities will be directed to the secured access, and access will be managed by electronic security or gatehouse monitored security. The internal campus road access to the production film site to the west will largely remain open during quiet times, and access may be secured and managed during full production activity. Because the external road accesses will be secured/managed at all times, internal access to the site from the campus will not result in rat-running or unexpected traffic to those external accesses.

8. The following assessment in the application was provided in response to Objective "While UC would not normally propose that it would be a logical provider of large-scale studio for the city, given that capacity constraints also extend to industry workforce, the establishment of not only a Christchurch-based studio, but one in strong partnership with an education institution will ensure that the region has the necessary infrastructure to develop and sustain a solid position in the Creative Industries, along with addressing the current deficit in production facilities and local crew". Is there any research or data available which demonstrates a shortage of qualified persons in the local industry?

Response:

Please refer to the further explanation received from UC below:

There have been a number of reports produced by key organisations in both the film and wider screen sectors that identify workforce and infrastructure shortages:

1) The New Zealand Screen Sector Strategy 2020-2030 On workforce shortages:

"Before COVID-19, the growth in global production had highlighted a shortage of crew that may worsen as films and major television series come back into production. Requiring more local actors, screenwriters, producers and directors to be included in key roles for international productions in order to receive incentives to film in New Zealand is another opportunity. Having more of our talent on the world stage brings opportunities for those "stars" in front or behind the camera to attract interest and investment over the long-term. While the immediate focus will be on restoring jobs within the sector, **the need for more quality talent will be a major challenge for growth ambitions in the future."**

2) Interactive Aotearoa: Driving Growth and Wellbeing through Interactive Media, 2019

- "In addition to employing hundreds of creative and hi-tech jobs, the interactive media sector requires specialist 'creative technologists' who combine both creative and coding skills. The tertiary education sector has worked well with industry to produce graduates with these skills, but skilled migrants continued to be needed to fill senior roles."
- "Sixty-six percent of established game studios and 44 percent of mixed reality studios felt that skills shortages were constraining the growth of their businesses. Many experienced developers are recruited from offshore with seven established studios employing 84 staff on work supported visas, which is 15 percent of the entire games industry."
- Auckland Film Skills Shortage Gap Survey, 2021 (while this is an Auckland based study, Auckland is currently one of the main hubs for film production and is experiencing workforce shortages regardless)
 - 48% of contractor shortage identifications were in Production, Camera, Location, Lighting/Grip, and Costume departments.
 - 62% of responses recorded that the most difficulty in crewing comes at mid to high levels

- Reflects foreseen difficulties of lack of skilled and experienced contractors in the coming years.
- 53% using either trainees or interns, 63% of those who aren't currently are interested.
- Most identified underrepresented groups are women (in 42% of responses), Maori and Pasifika (in 15% of responses each).
- Key opportunities and obstacles mirror each other with major mentions of infrastructure, studio space, skills shortages, international vs domestic productions, and funding.

4) Screen CanterburyNZ crew list

While the details of the crew are confidential, Screen CanterburyNZ has a list of feature film crew based in Christchurch showing that we have limited crew with significant experience to work on feature films. This information was compiled by a local line producer.

It shows that there is roughly around 100 people with feature film credits in Christchurch. Considering that the studios will require on average 500 crew at peak times, this is great data for the shortage of local crew in Christchurch.

Here is the rough breakdown per department:

- Locations Department 11
- Safety 3
- Production Accountant 1
- Line producer 1
- Assistant Director 5
- Production Coordinator 6
- Transport 6
- Runner 4
- Casting Director 1
- Dop 2
- Camera 10
- DIT 2
- Script Supervisor 1
- Sound 6
- Art Department 11
- Stunts 2
- Costume 8
- Make up 6
- Grip 4
- Unit 4

- Lighting 2
- VFX 1
- Catering 3
- 9. Submitters L Gordon and C Milnes have raised concerns with activities operating outside the typical tertiary calendar year (i.e. between semesters when the majority of the University population would not visit the campus). Policy 13.7.2.1.1 seeks to minimise adverse effects on neighbourhood amenity values and Objective <u>13.7.2.3</u> seeks to provide the community with some certainty as to the future use of tertiary education land/buildings. Please explain how the campus typically operates between semesters, and how the proposal will compare to this (from an effects perspective)?

Response:

Please refer to the further explanation received from UC below:

"The university currently teaches three trimesters, although not in all subjects. The summer trimester and Summer School both run over the summer months, but at a much lower scale than other semesters. As a result, education on the Ilam campus, and to some extent at the Dovedale campus, is all year around. This summer education has grown over the years, and this is unlikely to reduce in the foreseeable future.

However, another trend that is occurring post-COVID is an increase in the number of students who choose to blend on-campus and off-campus learning. The net effect of this increase in 'hybrid' learning is to reduce the time students spend on campus. UC are still trying to understand what this means long term, but all trends indicate that remote learning will play am important role going forward in delivering core UC education services. Recently UC has invested in significant human resources to develop online teaching tools and services, and we expect to talk more about these trends at the hearing in August, and how that will impact on-site activity.

The overall aim is maximising the campus as a built asset. However, the educational and indeed commercial annual patterns of use will inevitably differ from historic levels, with an increase in all year around use and increase trend to online learning."

10. In the permitted baseline section of the application it is explained that "commercial research and laboratories are permitted under the zone rules, and as such commercial use and co-location are anticipated". Please explain what other activities which have/currently operate from the wider UC campus are encompassed by this definition (and therefore permitted under 13.7.4.1.1 P1) - for the purposes of comparison?

Response:

Please refer to the further explanation received from UC below:

"UC Currently operates numerous research and development centers that support research, scholarship, and creative activities for both students and faculty. Many of these are traditional (i.e., non-commercial) government funded research, but some of them are more applied, and often work in consultation and collaboration with industry on various projects ranging from basic research (i.e. producing new knowledge in the field) to applied practice (i.e. how do we take knowledge of the field and apply it to new practices, processes, and products to gain new insights).

As a research-centric university, this is a primary activity of the university. There are numerous examples of both traditional and applied research labs and centers on campus. Two that have relevance to this effort are the Human Interface Technology laboratory (HITLabNZ), and the Wireless

Research Centre, although several others are listed here: <u>https://www.canterbury.ac.nz/departments/research-centres/</u> (noting that several are traditional).

We have a small number of commercial entities on campus, which include Callaghann Innovation (7 staff), THL (1 staff), Aegis (1 staff) and Precision Chroma (3 staff). These are small scale and work within the buildings of relevant faculties. These are all what we call UC spin out companies i.e. incubated by UC.

Human Interface Technology Laboratory NZ (HITLabNZ) in UC Engineering

HITLabNZ specializes in virtual and augmented reality, human-robot interaction, and applied immersive games, along with ancillary areas of research in human-computer interaction. These projects are very often industry-focused, applied research, working with a range of groups from industry and government, including military and government safety organizations, large-scale social media companies both in NZ and abroad, local games industry studios, the Christchurch airport, NZ tourism, and more. From their website: "HIT Lab NZ engages in projects with partners, both nationally and internationally, from industry, academia and government. It collaborates with many sectors including health, crisis management, environment, sports, construction, and education." The HITLab has been engaged for over a decade with local industry and has used pieces of its facilities to launch new game and augmented reality companies, to collaborate with local studios, and has produced media experiences and technologies for the Antarctic Centre, the Christchurch Airport, and NZ Tourism, among others.

https://www.hitlabnz.org/

Wireless Research Centre, University of Canterbury

From their website "If you have a research project that you would like our support on, we will be happy to explore the best option for you. We undertake research with companies both small and large, across a variety of different industries."

They have worked in the past with companies like 2degrees, and other similar providers.

https://www.canterbury.ac.nz/wrc/

There are other, similar labs in other parts of campus. There is also the UC Center for Entrepreneurship from the school of business which helps students and alumni found businesses on campus, and also deliver prototypes to market in certain instances:

https://www.canterbury.ac.nz/business/uce/about-uce/

Our current commercial research activity is subsumed within the campus and faculty buildings and for all intense and purposes generates the same scale of activity as UC non-commercial research activity – i.e., not distinct in nature in any way. That is, it is indistinguishable from our education research activity and is co-located within our buildings. However, I would also note that the same will apply to some 'commercial' screen campus activity within our 'existing' buildings on the Dovedale Campus, that is the scale and activity perfectly aligns and is indistinguishable from normal education and research activity to deliver digital screen education and research.

The proposed film studio and associated facilities, while enabling commercial production, are centred on an academic vision that recognizes the convergence of games, film, virtual and augmented reality, mobile applications, and other applications. Critically, this convergence also means that as a university, we are engaging with this activity not only as a means of media production, but also to explore the cutting-edge of the field and, again, produce new knowledge such as technologies, practices, and creative works that challenge the boundaries of what we already know about the field. Given the complexities of this form of production at commercial scale, and the space needed for media production, we cannot simply repurpose and work inside of existing facilities (which several of our other labs and centers currently do – HITLabNZ for example occupies an entire floor of the John Britten building on Creyke Road). But the purpose of this entire effort is, ultimately, directly in line with all of our efforts to continue to produce new knowledge and advance our understanding of a multitude of areas across science, engineering, and the arts.

Tertiary education and research activity

means the use of land and/or buildings for:

- a. the provision of teaching or training and/or related research;
- b. commercial research and laboratories; and
- c. ancillary retailing, cultural activities, recreation activities and entertainment activities, offices and accommodation facilities.
 - 11. Please confirm the extent of student involvement in the proposed 'commercial component' of the activity.

Response:

Please refer to the further explanation received from UC below:

"The university aims to engage with all onsite activity either for educational or research benefit. Our approach is on a company-by-company basis, and it will be built into the majority of our commercial contracts. However, naturally there is no guarantee that the University will achieve this goal of 100% education and research engagement.

The types of education or research engagement range from placing interns in the firms, to providing research and development services to firms, to providing facilities-based services both for companies and for other educational and research bodies. These types of activity occur in all New Zealand universities to a greater or lesser extent including the University of Canterbury".

The following items are not requests for further information under s92.

12. To deal with uncertainty surrounding the proposal's impact on on-street parking supply Mr Milne and I have discussed a potential s128 review condition which would be enacted by parking surveys required to be undertaken following the first initial large-scale productions. The likely outcome of the review <u>if</u> effects were found to be unacceptable would be an operational limit on productions. I understand that travel management plans will look to reduce the impact on onstreet parking supply.

Is this something the applicant would be amenable to, in addition to the conditions volunteered in section 10 of the application?

Response:

UC are open to considering a review clause condition regarding parking. However, disagree with the suggestion that if effects were found to be unacceptable this could then be used to place operational limits on production activities. There are other options available which the University would consider. If amenable, Dean Chrystal (Partner, Planz Consultants) can be contacted regarding further options, including suggested wording for volunteered conditions.

13. Alison Tang (Planning Engineer at Council) has made the following comments re wastewater: *"I've had a look at their estimates of increase in occupancy. As long as they'll be connecting into the existing wastewater system and connection, we can confirm that this property is not situated within a wastewater capacity constraint area and that the proposed development can therefore be accommodated in the Council's wastewater network".* **Response:** Noted. thank you for the confirmation.

Yours faithfully PLANZ CONSULTANTS LTD

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Attachment 1: Transport Response Attachment 2: Scale of Activities Response Attachment 3: Revised Site Plan Attachment 4: Revised Landscape Plan with Tree Heights

ATTACHMENT 1 :

Transport Response

Stantec New Zealand



Level 2, 2 Hazeldean Road Addington, Christchurch 8024 NEW ZEALAND Mail to: PO Box 13052. Christchurch 8141

7 July 2022

Project/File: 310204072

Caroline Hutchison

University of Canterbury

Dear Caroline,

Reference: RMA/2022/517 - Dovedale Digital Campus RFI Response

Christchurch City Council has issued a request for further information on 27 June 2022 for the Dovedale Digital Campus resource consent application. Question 1 relates to transport and requests a written response to the issues identified in Liqi Chen's (Transport Network Planner at Council) memo.

We respond as follows:

<u>RFI 1a:</u> The need for the proposed new Dovedale access.

Stantec Response:

The new access responds to considerations of:

- 1. the existing transport environment, and existing land use activity in the area,
- 2. the wide area access requirements for studio related service vehicles,
- 3. site layout optimisation given the type of buildings and activities proposed, and
- 4. the need to ensure the new buildings are well integrated with the existing campus for on-site pedestrian movement.

The resultant access layout by mode was included in Figure 7-1 of the Integrated Transport Assessment (ITA). Additional discussion of how the need for the Dovedale Access was reached is set out in the following response.

Transport Environment and Wide Area Network Considerations

At the initial stages of design, a preliminary assessment of access routes for different vehicle types was made. The classified roads in the immediate vicinity are Waimairi Road (minor arterial) and Parkstone Avenue (collector road). Waimairi Road is anticipated to be a primary route to the site from the wider area, although the likes of Parkstone Avenue provide some routing options from Avonhead Road.

Dovedale Avenue is a local road that connects directly to Waimairi Road with the campus having frontage along its length. The proposed studio site also has a long and direct frontage to Dovedale Avenue, but does not have frontage to Parkstone Avenue or Solway Avenue. In that respect, access from Dovedale Avenue supports the expected function of the road, with local roads providing a predominant access "movement" function, and the "place" setting being adjacent to the campus and



already well utilised for access and parking. At most times of the day access via Dovedale Avenue to/from Waimairi Road will be desirable and achievable. With an access to Dovedale Avenue there is still opportunity to access the wider network connections such as via Parkstone Avenue and other routes supporting overall network efficiency and resilience.

Site Layout Optimisation and Integration

The design of the proposed digital campus was required to set out the large new studio and buildings in a way that integrates with the existing Dovedale campus.

From a transport perspective, the new studio buildings do not include specific on-site car parking so the existing parking areas are utilised to the west. These do not lead to a change in access requirements for the majority of traffic generated by the site. Specific vehicle access for the studio is focused on the servicing needs of the studio, which can include long heavy vehicles on occasion.

Separation of this servicing traffic by establishing new accesses to Dovedale Avenue and Waimairi Road that can be controlled as necessary separate from the wider campus was deemed desirable from a site operations perspective. It also further meets the wide area network and access considerations, and allows Dovedale Avenue access for service vehicles to be close to Waimairi Road to minimise the extent of local road usage at most times.

It is considered undesirable to provide the primary access to the backlot and studios via the Ring Road. With refurbishment of the Dovedale campus, there will be a primary pedestrian movement between the existing and proposed buildings, crossing the internal "Ring Road". Together with other constraints such as the existing stream, visual setbacks, and trees, the frontage to the internal Ring Road is primarily building facing. Access along that frontage is limited to a minor/secondary single lane vehicle access direct from the Ring Road in the small amount of space available. That access enables efficiency of internal servicing movement by smaller service vehicles. A wider access is not achievable with the building size requirements and setbacks. It is also considered that the Ring Road is not designed to accommodate large heavy vehicles with a curved traffic calmed alignment. As it already provides for car parking access and pedestrian movement, it includes traffic calming measures less suitable for service vehicles.

Access Positioning

The precise positioning of the access on Dovedale Avenue is primarily related to the required building layout. There is also a slight gap in the established trees that the access has made use of. It is considered the location of the Dovedale Avenue Access is suitable for its intended use. The design and use of the access is further set out in the ITA (Section 10.2) and further explanation of the recommended design response is at RFI 1c.

<u>RFI 1b:</u> The rationale behind not providing vehicle access from the internal campus road.

Stantec Response:

Refer to the response to RFI1a.

RFI 1c: The design of new Dovedale access to ensure safety of cyclists.

Stantec Response:

The shared path along Dovedale Avenue forms part of the Uni Cycle Major Cycleway. Access treatments should be considered in a way that is consistent with the treatment of safety at accesses along the wider cycleway network.

Having reviewed current access design practice on Major Cycleways, it is proposed to incorporate the latest road marking and signage provisions, comparable to those implemented elsewhere in the city. Guidance is provided in the NZTA Design Guidance Note "High Use Driveway Treatment for Cycle Paths and Shared Paths" (1 August 2019). The layout proposed has "been evaluated and found to improve safety via more consistent and slower speeds as well as improved stopping behaviour and reductions in near misses" (Guidance Note Purpose).

The design response recommended includes the following:

- White cycle and pedestrian symbols on green bar paint markings arranged in the general format of a pedestrian crossing across the driveway.
- Low judder bars either side of the shared path.
- A white limit line leaving the site, painted give way symbol, and give way sign.
- Cycle signage (WU61).
- Painted marking on the kerb interface between the edge of road and shared path.

The general arrangement is shown in Figure 1 attached.

This treatment could also be considered for implementation at the existing campus Ring Road access, which was designed at an early stage of the Major Cycleway rollout so had a basic marking treatment. The indicative arrangement that could be applied at the Ring Road vehicle crossing is included in Figure 2 attached.

<u>RFI 1d:</u> The closure of an existing access and relocation of parking lost (as a consequence of the new access).

Stantec Response:

The CCC raised some concern with removal of on-street parking to provide the new Dovedale Avenue access. The Studio access will be the fourth access to the campus on Dovedale Avenue. The District Plan permits three accesses as a permitted activity. The proposed access on Dovedale Avenue will remove approximately eight car parking spaces as set out in Section 10.2 of the ITA. In addition, three parking spaces on Waimairi Road will be removed to provide for the new access as set out in Section 10.1 of the ITA.

To offset the removal of car parking and disruption to the Major Cycleway generated by the proposed Dovedale Avenue access, the University has indicated they will remove two minor vehicle accesses

further west, to the immediate east and west of the existing music building. Access and circulation is available within the site to support the access activity that had occurred via the existing accesses. There will be a resultant two vehicle accesses on Dovedale Avenue, a reduction from the existing three. As noted in RFI 1c) response, the two accesses can then be marked in a similar manner. A summary of these changes is included in Figure 3.



Figure 3: Summary of Proposed Dovedale Avenue Vehicle Access Treatments

A concept design of the changes to the accesses and Dovedale Avenue is included in Figure 4 attached. The changes comprise:

- Western Crossing 4: Reinstate full kerb and mark four on-street angle parking spaces each at approximately 2.9m width
- Western Crossing 3: Reinstate continuous cycleway, mark eight on-street angle parking spaces each at approximately 3.0m width.

The proposed marking of twelve car parking spaces on Dovedale Avenue clearly offsets the removal of the eleven spaces for the two new accesses (on Dovedale Avenue and Waimairi Road), with a net increase of one space.

<u>RFI 1e:</u> Conditions re the use of the proposed Waimairi access for heavies, incl. number of movements, times of day, and direction of travel.

Stantec Response:

The proposed usage of the Waimairi Road vehicle access is set out in Sections 7.3.3, 9.0, and 10.1 of the ITA. It is primarily a service access for the backlot and studios, and is required to enable large heavy vehicles to access the site. The alternative use of the Waimairi Road / Dovedale Avenue intersection for access to Dovedale Avenue is constrained for long heavy vehicles due to the layout of the intersection and traffic island on Waimairi Road at the signalised pedestrian crossing.

The usage of the access is expected to be low in general terms. The access is not intended to provide a through route to the wider Dovedale campus, and does not service any large car parking areas. The estimated demand for use of the access is set out as being approximately "10 heavy vehicle movements per day" and "occasional light vehicle movement" at busier periods on-site. By way of comparison, a high trip generating access according to the District Plan generates more than 50 vehicle movements per hour.

The nature of the studio activity will require some flexibility in usage, time of day it is used, direction of travel, and types of vehicles. The ITA has addressed the practicality of vehicle movements and indicates the following movements will be physically provided for:

Vehicle Type	Movement Available ur Conditions	Movement Available under Normal Operating Conditions	
	Entering Movements	Exiting Movements	Operating Conditions
Truck and Trailer /	Left turn in	Right turn out	Left turn out
Articulated Truck	Right turn in		
Rigid Truck	Left turn in	Left turn out	Not Applicable
_	Right turn in	Right turn out	
Light Vehicles	Left turn in	Left turn out	Not Applicable
-	Right turn in	Right turn out	

Table 1: Waimairi Road Access Provision

Only the left turn out by a truck and trailer / articulated vehicle is deemed to be not practical, unless a traffic management plan was operating or it could occur during night-time hours.

The Council Officer suggested consideration of a transport network assessment of the vehicle access effects on the operation of Waimairi Road. As the frequency of movement is very low, it is not considered necessary to carry out a network wide traffic impact assessment, as such an assessment would not be able to discern any impact on the operational performance of Waimairi Road. It is noted that Waimairi Road has direct property access along its length, and nearby residential access would generate approximately 8-10 vehicle movements per day, with individual turning movements having a comparable level of effect on traffic that is following when the vehicle is turning into the access.

As set out in the ITA, a recommended provision is the use of an event traffic management plan during commercial productions where the backlot is to be secured. The primary objective from a heavy vehicle access perspective is that the use of each access is known to suppliers, with truck and trailers specifically restricted to using the Waimairi Road access.

<u>RFI 1f:</u> Mr Milne has also requested an updated plan(s) showing the closed Dovedale access, the relocated on-street parking, and the design of the new Dovedale access (showing the design features that would mitigate safety issues associated with conflicts between vehicles and cyclists).

Stantec Response:

These designs are addressed in the earlier responses, and appended to this letter.

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Reference: 310204072

We trust these responses address the Council request for further information on traffic matters.

Regards,

STANTEC NEW ZEALAND

AM Methered

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Attachment: Figures 1, 2, 4





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