

BEFORE CHRISTCHURCH CITY COUNCIL

Independent Hearings Commissioners

UNDER THE

the Resource Management Act 1991
(the **Act**)

IN THE MATTER OF

An application by Ara Poutama Aotearoa/Department of Corrections for resource consent to establish a rehabilitative and reintegrative residential accommodation programme within an existing property at 14 Bristol Street, Christchurch (RMA/2020/173)

**STATEMENT OF EVIDENCE OF RHYS ANDREW CHESTERMAN ON
BEHALF OF ARA POUTAMA AOTEAROA / DEPARTMENT OF
CORRECTIONS**

(Transport)

Dated: 16 August 2021

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1 INTRODUCTION, QUALIFICATIONS AND EXPERIENCE

- 1.1 My name is Rhys Andrew Chesterman. I am a Director and Transport Engineer at Novo Group Limited (**Novo Group**). Novo Group is a specialist traffic engineering and planning consultancy that provides specialist resource management related advice to local authorities and private clients. I have worked on resource management traffic planning and engineering projects for more than 20 years. This work has included a role as a traffic planner at the Christchurch City Council and direct involvement in over 2,500 resource consent applications.
- 1.2 My qualifications include a Bachelor of Resource Studies (**BRS**) from Lincoln University (1996), a Master of Resource Planning (**MRP**) from Massey University (1999) and a Master of Engineering in Transportation (**MET**) from the University of Canterbury (2010). I am a full member of the New Zealand Planning Institute and an affiliate member of Engineering New Zealand – Transport Group.
- 1.3 I provided the Transport Assessment (November 2020) that accompanied the resource consent application for the purposes of public notification.

Code of conduct

- 1.4 I have read and am familiar with the Environment Court's Code of Conduct for Expert Witnesses, contained in the Environment Court Practice Note 2014, and agree to comply with it. My qualifications as an expert are set out above. Other than where I state that I am relying on the advice of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

2 SCOPE OF EVIDENCE

- 2.1 My evidence is presented on behalf of the applicant, Ara Poutama Aotearoa.

2.2 It addresses the traffic related matters associated with the Bristol Street Proposal, and is structured as follows:

- (a) Executive Summary.
- (b) The Proposal.
- (c) Summary of the Integrated Transport Assessment.
- (d) Response to Council Section 42A Report.
- (e) Submissions.
- (f) Conclusion.

2.3 In preparing my evidence, I have relied on and reviewed the following documents:

- (a) the updated application for resource consent for the Proposal, notified in March 2021;
- (b) My original transport assessment and the additional assessment provided as part of the RFI response. This includes information regarding the permitted baseline and the existing environment which is referenced in the evidence of Mr Gimblett;
- (c) The Council's Section 42A Report;
- (d) Submissions received – noting that 26 submissions refer to traffic and parking related issues; and
- (e) Other supplementary information from the applicant/Ara Poutama regarding permitted baseline scenarios relating to Community Corrections Facilities.

3 EXECUTIVE SUMMARY

3.1 The proposed activity does not result in any District Plan traffic non-compliances – noting that the activity can comply with the parking rates associated with *sheltered housing, care facilities* and *boarding houses*. A compliant number of cycle parking spaces can also be provided (including the three covered spaces identified by the Council planner).

3.2 Irrespective of the District Plan requirements, the proposed activity could have:

- A typical weekday demand for around 8 kerbside parking spaces – potentially increasing to 11 spaces for a 15 minute period between 2:30pm and 2:45pm when there is a staff shift change;
- On Saturdays when pre-arranged visitors are permitted (between 1:00pm and 5:00pm only), the activity could generate a demand for an additional 8 kerbside (visitor) parking spaces (noting that all staff parking will be able to be accommodated on site); and
- On Sundays (and in the evenings and overnight) the parking demand would be negligible owing to the low number of staff and no visitors.

3.3 This level of parking demand can easily be accommodated by the surrounding roads without affecting the safety or efficiency of the frontage roads. The kerb-faces directly outside the application site are able to accommodate 11 car parking spaces. There are a further 66 unrestricted on-street parking spaces on the opposite side of the application site and along Bristol Street (between Clare Road and Holly Road) which can easily accommodate this demand.

3.4 If 80% of staff drive to the site (which is typical in a Christchurch context) and allowing for 10 staff lunch or personal trips (i.e. for appointments) (on weekdays), 12 Corrections van trips (on weekdays) and 2 deliveries (on weekdays), the activity on the site could generate:

- Around 54 trips per weekday (i.e., 27 IN + 27 OUT). This includes 30 staff trips to/from work + 10 staff lunch/personal trips + 12 Corrections van trips + 2 delivery trips.
- Around 30 trips on a Saturday (i.e., 15 IN + 15 OUT). This includes 14 staff trips + 16 visitor trips.
- Around 16 trips on a Sunday (i.e., 8 IN + 8 OUT). This includes 14 staff trips and 2 Corrections van excursions – noting there are no visitors and no deliveries anticipated.

- 3.5 This level of traffic is not considered to be significant and would be akin to an otherwise permitted residential (or other) development on the same site. The surrounding road network is easily able to accommodate this level of traffic – noting that it will be spread over the course of a day.
- 3.6 The Council Planner and Traffic engineer both support the above conclusions and specifically note that *the overall effects of additional on street parking are likely to be marginal given the extent of parking space availability in the vicinity of the site. Further the change in trip generation is likely to be similar to what may occur under permitted residential uses of the site¹.*
- 3.7 I can continue to support the proposal from a traffic perspective and the effects on the traffic environment are considered to be acceptable.

4 THE PROPOSAL

- 4.1 In response to concerns raised by submitters, a number of changes have been made to the proposal (as detailed in the RFI response dated 3 June 2021). From a transport perspective, the key aspects of the proposal now include the following:
- (a) Accommodation of up to 12 residents participating in the programme (originally it was 16).
 - (b) None of the residents will have access to a private vehicle.
 - (c) Typically a maximum of 14 staff/professional practitioners on-site during weekdays - potentially increasing to 17 staff for a 15 minute period between 2:30pm and 2:45pm when there is a staff shift change. (Originally it was a maximum of 10 staff). On weekends and evenings/over-night there would typically be a maximum of 2-3 staff.
 - (d) Pre-approved family visits to occur between 1:00pm and 5:00pm on Saturdays only (8 visits (cars) estimated).
 - (e) Inclusion of an on-site Corrections vehicle (van) to be used for daily errands and excursions. This includes medical visits to GP's

¹ See Appendix 8 (paragraph 9) of the Council Section 42A Report.

or hospitalisation (if and when required), compassionate visits such as funerals or for birth of a child etc. (if and when required), religious visits (if required), restorative justice meetings (typically once every 6 weeks, if required), but primarily for trips that form part of the reintegration aspect of the program, such as supermarket trips, banking etc. (where approved and required). The van would typically not be used outside of the daytime hours, although could be used in special circumstances. The use of this is anticipated to amount to no more than 12 trips per day (6 inbound and 6 outbound/returning trips).

- (f) Provision of four on-site car parking spaces, including two uncovered spaces (one of which will have dimensions as a mobility space) and two within the existing garage which will be fitted with a 4.8m garage door.
- (g) Provision for seven cycle parking spaces in the front yard (noting that any required staff spaces could be covered if and as required).
- (h) The activity on the site generating around 54 trips per weekday (27 IN + 27 OUT) with less on weekends. (Originally it was 32-46 trips per day).

5 SUMMARY OF INTEGRATED TRANSPORT ASSESSMENT

- 5.1 My original transport assessment accompanied the notified Application. The key issues in that assessment are summarised below and, where relevant, the findings of that assessment have been updated to address changes made to the proposal since notification (as summarised above).
- 5.2 The application site is located on the corner of Bristol Street and Berry Street – both classified as local roads in the District Plan. The site accommodates several existing buildings comprising 23 bedrooms. I understand that the site was previously used as a care home by the Cerebral Palsy Society, and then as a boarding house. As set out in the evidence of Mr Gimblett, that boarding house was unlawfully established and as such does not form part of the existing environment for the purposes of this assessment.

Existing Environment

- 5.3 The existing traffic environment is described in detail in the original Transport Assessment². In summary, Bristol Street includes a 10m carriageway width (measured kerb to kerb) and has unrestricted kerbside parking along both sides. Berry Street also has a 10m carriageway width directly outside the site with unrestricted parking on both sides. It however narrows to 6.5m further east of the application site and is often restricted to one-way flow because of kerbside parking and the narrow width.
- 5.4 There are no Council count stations along Bristol Street (which is typical for many local roads). The Mobile Road database estimated that this carries around 1,750vpd. In response to some submitter comments about traffic volumes along this road, we commissioned a week long count in April 2021. This revealed that Bristol Street actually carries around 750vpd – some 1,000vpd less than the original estimate. At the same time we also counted Berry Street. This recorded around 400vpd compared to the Mobile Road database estimate of 1,500vpd. It follows that both of the application site's frontage roads carry significantly less traffic than originally estimated and reported on.

Permitted Baseline

- 5.5 The Council s95 report noted the following scenarios³:
- The site could be developed to allow for four to five dwellings; or
 - Two multi-unit residential complexes with four units each (i.e., a total of 8 units); or
 - Student hostels of up to six bedrooms; or
 - A retirement village within the existing building; or
 - A spiritual activity with hours of operation from 7am to 10pm daily.

² See Transport Assessment, paragraph 5 and 6.

³ See Council S.95 report, page 6.

- 5.6 The likely parking and traffic generation effects of the above scenarios were provided in Appendix 2 of my Transport Assessment. In summary these activities could generate parking demands that range between 7-40 spaces and traffic generation that ranges between 45-80 vehicle trips per day. This compares with the application that could typically generate parking demands of around 11 spaces (8 on the street) and 54 vehicle trips per weekday. This view is shared by the Council planner and transport engineer.
- 5.7 As part of its permitted baseline assessment, the applicant also provided a hypothetical car parking plan which demonstrated compliance with the permitted activity standards for a community corrections facility on the site (17 parking spaces). Following receipt of that information, the Council determined that such a facility (between 7:00am and 7:00pm and without a residential component)⁴ forms part of the permitted baseline assessment. In his evidence, Mr Gimblett has reached the same conclusion.
- 5.8 The applicant has provided further information on the typical movements which might reasonably occur at a community corrections facility on a site of this size. It advised that such a site could be used as a community corrections facility "hub" that could include all activities such as probation, programmes/training, psychological services and community work. Using probation services as one example, the applicant has advised that this alone could account for 27 staff and up to 60 client visits per day. In summary, though the actual traffic associated with this has not been quantified in detail, it is clear that the overall traffic generation (and parking) would be significantly higher than the proposal. **Attachment 1** of this evidence includes some information provided from the Department of Corrections in relation to a Community Corrections Facility.
- 5.9 The actual traffic generation of the previous use of the site as a 23 bed care facility by the Cerebral Palsy Society is unknown. Drawing on NZTA Research Report data, we estimated that a Retirement Home or a Care Facility with 23 bedrooms could generate 55 daily vehicle trips

⁴ See Council s95 report, Page 6 and Council s42A report, paragraphs 57-68.

on a weekday⁵. The other five permitted baseline scenarios provided by Council also generated either more, or a similar level of traffic when compared to the proposal.

Site Generated Traffic

5.10 The staffing levels across a typical weekday were tabulated in the June 2021 RFI response as Attachment 6. This is also attached as **Attachment 2** to this evidence. This reveals that the activity as a whole could generate 62 vehicle trips per weekday with the majority occurring between the hours 8:00am and 5:00pm. This assumes that all staff arrive in a single occupant vehicle. The reality is that not all staff will arrive in this manner. Commuter habits from the 2018 Census reveal that workers in the St Albans mesh-block arrive by a variety of ways including: 5% walking, 5% bus and 2% cycle and 8% as a car passenger. Applying this data suggests that 20% of staff would not be a driver. Put another way, 80% of all staff could expect to drive to and from work – which is considered typical in a Christchurch context. Using the staff information provided in the Attachment 1 spreadsheet suggests that the activity on the site could generate:

- Around 54 trips per weekday (i.e., 27 IN + 27 OUT)⁶. This includes 30 staff trips to/from work + 10 staff lunch/personal trips + 12 Corrections van trips + 2 delivery trips.
- Around 30 trips on a Saturday (i.e., 15 IN + 15 OUT)⁷. This includes 14 staff trips + 16 visitor trips.
- Around 16 trips on a Sunday (i.e., 8 IN + 8 OUT)⁸. This includes 14 staff trips and 2 Corrections van excursions – noting there are no visitors and no deliveries anticipated.

⁵ The Transport Assessment originally referred to the Cerebral Palsy Society as having 24 beds, however this has since been confirmed as 23 beds. This reduces the over traffic generation slightly from 58 to 55 trips per day; and the parking demand remains between 9-10 spaces.

⁶ Assumes: (3 staff in & 2 staff out around 6:30am + 11 in around 8:30am + 3 in & 3 out around 2:30pm + 11 out around 5:30pm + 2 in & 3 out around 10:30pm) = 38 (IN + OUT). 38 x 80% of staff driving = 30 staff trips (i.e. 15 IN + 15 OUT). [30 staff trips + 10 additional lunch/personal trips + 12 corrections van trips + 2 deliveries = 54].

⁷ Assumes: (3 staff in & 3 staff out around 6:30am + 3 in & 3 out around 2:30pm + 3 in & 3 out around 10:30pm) = 18 (IN + OUT). 18 x 80% of staff driving = 14 trips (i.e. 7 IN + 7 OUT). [14 staff trips + 16 visitor trips = 30].

⁸ Assumes: (3 staff in & 3 staff out around 6:30am + 3 in & 3 out around 2:30pm + 3 in & 3 out around 10:30pm) = 18 (IN + OUT). 18 x 80% of staff driving = 14 trips, + 2 Corrections van errands = 16 trips (i.e. 8 IN + 8 OUT).

5.11 This level of traffic is not considered to be significant and would be akin to an otherwise permitted residential (or other) development on the same site⁹. In my opinion, the surrounding road network is easily able to accommodate this level of traffic – noting that it will be spread over the course of a day.

Car Parking

5.12 The site complies with the District Plan parking requirements.

5.13 It is accepted that there is no one specific category that captures the car parking requirements for the activity. In those circumstances, the District Plan requires an assessment against *the activity which is closest in definition*. The Council's s95 report identified three categories that parking could be considered against. These included *boarding houses, care facilities and sheltered housing* – all of which are a subset of residential activity.

5.14 In my original Transport Assessment, I was of the opinion that *sheltered housing* was the best and closest fit definition noting that the site will be used for the accommodation of people where professional care and assistance is available. That being said, I also acknowledged Council's original assessment as a *care-home*, on the basis that this was highest rate and considered that it was appropriate to *assess the activity using the worst case scenario to ensure the effects of the proposal are adequately captured*¹⁰. I also note that Council have acknowledged the District Plan 23% car parking reduction factor that is available¹¹. My calculations reveal that the worst-case scenario (i.e., the highest District Plan parking rate) could equally be a Boarding House or a Care Facility. Either way, these activity categories require at most three spaces under the District Plan. As the proposal will provide four on-site spaces, this requirement would be met under either category.

5.15 In my original Transport Assessment, I also referred to the recently introduced *National Policy Statement on Urban Development 2020 (NPS-UD)* which came into effect on 20 August 2020. The NPS-UD

⁹ See paragraph 15 & 16 of Transport Assessment which refers to the Councils permitted baseline scenarios; and Appendix 2 which quantified traffic generation that ranges between 45-80 vehicle trips per day.

¹⁰ See Council s95 Report page 5, second paragraph.

¹¹ As outlined further in Table 3 (page 9) and paragraph 32 of the Transport Assessment

states that tier 1, 2 and 3 territorial authorities must remove district plan rules, assessment criteria, policies and objectives that have the effect of requiring a minimum number of car parks to be provided. I have not relied on this direction to justify car parking related effects, however it is still my opinion that the NPS-UD will result in increased on-street parking on many streets and is an anticipated outcome where any new development occurs. This will occur irrespective of the proposal. This is particularly so in the RSDT and RMD zones which anticipates medium density housing and infill development.

- 5.16 Notwithstanding the District Plan requirements or the NPS-UD, I have also made some attempt to quantify the operational parking requirements of the proposal – noting specifically the increased staffing levels and the use of an on-site Corrections vehicle (van). Given the use of the site and the lack of published survey information for it, I relied on a first-principles approach.
- 5.17 In terms of car parking demand, the maximum demand during a weekday could be around 2:30pm-2:45pm when there is a shift change and where there could be 17 staff on the site. If 80% of staff were to drive to work, this could amount to 14 spaces. Given that four car parking spaces will be provided on the site that could be used by staff (including the Corrections vehicle), the overflow parking along the surrounding street/s could amount to 11 vehicles for a 15 minute window. For the remainder of the weekday daytime period, the overflow parking could be 8 vehicles.
- 5.18 During night-time hours the overflow parking demand would be negligible – and ultimately dependent on whether the night-time shifts park on-site or along the road. If the night-time staff were to park on the street it would amount to 2-3 spaces.
- 5.19 Saturday and Sunday demand for staff would be similar to night-time hours because of the much reduced staffing levels during this period. On Saturdays, between 1:00pm and 5:00pm when pre-arranged visits might be permitted for some residents (anticipated to be around 8 vehicles), this could amount to 8 additional vehicles parking along the road frontages.

5.20 This level of parking demand (and potential overflow onto the surrounding streets) aligns with other permitted activities in the area – and is certainly similar (if not better) in terms of effects to an otherwise permitted development on the same site. For example, 5 dwellings or 8 residential units on the same site could result in similar overflow parking. Alternatively, a Community Corrections Facility (without a residential component) could generate significantly more traffic.

5.21 Further to this, and with regard to parking availability, there is available car parking along the surrounding streets – especially Bristol Street. In our original Traffic Assessment we provided a series of spot parking surveys which revealed parking occupancies of 42-52%. With the on-street car parking spaces only 50% occupied, there are approximately 38 vacant spaces available. This has since been reinforced with further surveys which I discuss further in paragraphs 7.7 to 7.12.

6 RESPONSE TO SECTION 42A REPORT

6.1 The Council planner and transport engineer both support the above conclusions. I specifically note that the Council transport engineer notes that the overall effects of additional on street parking are likely to be marginal given the extent of parking space availability in the vicinity of the site. Further the change in trip generation is likely to be similar to what may occur under permitted residential uses of the site.

6.2 The Council planner further considers the wider discretionary matters related to traffic generation. This includes impacts on residential character and amenity and safe and efficient functioning of the road network. In summary, the following points are noted:

- The road network is capable of accommodating the estimated 54-62 vehicle movements per day;
- The parking and trip generation estimates are based on a first principles approach using conservative assumptions of car occupancy, mode choice and staff attendance and from that perspective I consider the assessment to be robust;

- I do not consider that the overspill of some off-street parking further afield than the application site frontage will have undue nuisance effects for surrounding residents; and
- The traffic generation and parking effects of the activity will be no more than minor, particularly when viewed in light of the level of traffic which would be generated by a permitted or consented use of the site.

6.3 The Council has not recommended any transport related conditions of consent.

6.4 It is noted that the Council planner has identified a non-compliance relating to three (staff) cycle parking spaces not being covered¹². This was apparently based on the District Plan 'other residential activities' category – noting that cycle parking for 'sheltered housing' and 'boarding houses' is not provided (as it is for car parking). In my opinion, the 'other residential activities' category would result in a nil requirement as the staff cycle parking rate is based on '1 space per dwelling without a garage'. My opinion is based on the site consisting of only one dwelling which includes a garage – and therefore having a nil requirement¹³. I can only assume that the Council planner has assumed there to be four units (or dwellings) which is linked to the District Plan definition of residential unit which is correlated with the number of kitchens. On that basis of there being four kitchens and one garage, the Council planner's assumption is a requirement for three covered staff cycle parking spaces.

6.5 I am not convinced this is the correct way to determine the cycle parking requirements – however I do acknowledge (and agree with the Council planner) that there is no one clear and obvious category that captures residential corrections facilities¹⁴. I also agree with Council's assessment that if the 'care facility' category were instead used to determine the cycle parking requirements (as they have for car parking) the requirement would be for only one cycle parking

¹² See paragraph 29 and 39 of the Council Section 42A Report.

¹³ This is consistent with my original Transport Assessment which did not identify a cycle parking non-compliance. See Appendix 3 Transport Compliance Assessment/Table in the same document.

¹⁴ See paragraph 34 of the Council Section 42A Report.

space¹⁵. Although I may not agree with the Council's cycle parking calculation methodology, I do agree with that the non-provision of three covered cycle parking spaces would still not result in any adverse effects.

- 6.6 That being said, I reiterate that the applicant is proposing to retain seven cycle parking spaces which is four more than the Council's calculation. In my opinion, three of these spaces could easily be covered (if in fact they are even required). This, for example could include: a bespoke canopy (less than 1.8m in height and less than 6m² and therefore is not considered a building); three spaces within the garage; three spaces under the covered patio; or utilisation of one of the empty rooms. Any of these options would achieve compliance. In my opinion, cycle parking is still provided in excess of the District Plan requirements (whichever way it is calculated) and cycling remains a valid modal choice and any cycle parking related effects would be negligible.

7 RESPONSE TO SUBMISSIONS

- 7.1 A number of submitters have raised traffic and parking as an issue of concern. Broadly these concerns can be paraphrased and summarised into the following categories:

- (a) *The parking and traffic generation estimates are incorrect;*
- (b) *There is insufficient on-site car parking;*
- (c) *There is insufficient car parking along the surrounding streets;*
- (d) *Traffic volumes and speeds are already an issue;*
- (e) *The streets are too narrow;*
- (f) *Kerbside cars are already parking over driveways; and*
- (g) *It will be unsafe to cycle along the road or to cross the road.*

- 7.2 I address each of these concerns below.

¹⁵ See paragraph 39 of the Council Section 42A Report. Care facilities require 1 visitor space per 50 clients (=0.24 spaces) + 1 staff space per 30 clients (=0.4 spaces). If each of these are rounded separately it would result in a nil requirement. If they are rounded jointly it would result in one space.

Parking and Traffic Generation Estimates

- 7.3 The parking and traffic generation estimates used were based on operational detail provided from the Department of Corrections and a first principles approach. Following the close of submissions, the Application has been modified to include a maximum of 17 staff (typically being 14 staff and potentially increasing to 17 staff for a 15 minute period between 2:30pm and 2:45pm when there is a staff shift change). The staffing levels across a typical weekday were tabulated in the RFI response as Attachment 6.
- 7.4 While it is accepted that there could be some slight daily variations (as there is with most activities), the site generated traffic volumes and parking associated with it are considered to be accurate and acceptable for the purposes of assessment.

On-Site Car Parking

- 7.5 Several submitters have asserted that there is insufficient car parking on the site. The site has an ability to accommodate up to four car parking spaces, one of which will be a Corrections vehicle (van). In this respect there will be some reliance on the kerbside resource. My reporting has been upfront about this. As referred to in paragraph 5.17, this could amount to 8 vehicles during most weekday periods.
- 7.6 It is also noted that the activity can comply with the District Plan parking requirements (whether this be assessed as either a *sheltered housing*, a *boarding house* or a *care facility*). Although I acknowledge that compliance with the District Plan does not mean that all parking will be catered for on site, it is an effect that is contemplated. By way of comparison, some submitters have referred to many of the existing townhouses in the area only having one car park but three or four residents and/or bedrooms – and therefore having a demand for more on-street car parking. This is also an effect contemplated by the District Plan.

Street Parking

- 7.7 Several submitters have raised concerns about the availability of kerbside car parking along the surrounding streets.

- 7.8 As referred to in paragraph 5.17, this could amount to 8 vehicles during most weekday periods and 2-3 vehicles during the evenings and most of the weekends.
- 7.9 Although there are no marked parking bays provided along the surrounding roads (which is commonplace along most local roads), there are approximately 11 unrestricted parking spaces available directly outside the application site (see Figure 1 below).



Figure 1: On-Street Parking Outside the Application Site

- 7.10 There are a further 66 car parking spaces directly opposite and along both sides of Bristol Street between Clare Road and Holly Road¹⁶. There are of course further spaces available in the locale. In our original Traffic Assessment we provided a series of spot parking surveys which revealed parking occupancies of 42-52%. With car parking spaces only 50% occupied, there are approximately 38 vacant spaces available. These spaces are all broadly located within 150m of the site which is within easy walking distance (1-2 minutes).
- 7.11 Since notification I have regularly visited the site during weekdays, weeknights and weekends. During those visits I have observed that kerbside and on-site car parking is prevalent, but there is still ample parking available, particularly along Bristol Street. These surveys revealed parking availability between 43-59 spaces. I have attached these spot surveys results, times and photographs as **Attachment 3**.

¹⁶ See also Figure 5, page 12 of original Transport Assessment.

- 7.12 This of course does not guarantee that car parking will always be available directly outside every activity, however my observations reveal that there is still available parking – especially along Bristol Street – so if a car park is not available directly outside the destination address there will generally always be one within a short walk. In my opinion a short walk is typically within 400m – which is, for example, typically accepted as a comfortable distance to access a bus stop. The cordon area used for the spot surveys only included an area within 150m of the site.
- 7.13 Bristol Street has a 10m carriageway width and kerbside parking along both sides does not restrict traffic flows. In my opinion, the most practical and most logical place for staff and/or visitors associated with the proposal would be along Bristol Street where there is a generous carriageway width to accommodate parking on both sides; or Berry Street (but only directly outside or adjacent the application site where the carriageway is wider).
- 7.14 In my original Transport Assessment I also specifically referred to Berry Street. In my capacity as a Network Operations Consultant for the Christchurch City Council, I have previously been aware of complaints from local Berry Street residents concerned by kerbside parking demand and its associated effects. Further to the east of the application site, this road narrows with unrestricted kerbside parking along both sides. This results in only one-way traffic that requires an opposing vehicle to pull over (usually outside kerb cut-downs) to allow the other vehicle to pass. The road itself is therefore not conducive as a through-route and therefore primarily has a property access function. In this respect it is not surprising that the traffic counts revealed that this road only carries around 400 vehicles per day. I am also of the view that if Berry Street was (hypothetically) widened, or parking was banned along one (or both) sides, then speeds and volumes would inevitably increase as it would become more conducive for through-traffic purposes.
- 7.15 I am also aware that some Berry Street residents and their visitors are choosing to park their cars over part of the footpath thinking that they are 'doing the right thing' by freeing up more carriageway space. This unfortunately restricts footpath use - especially those that are mobility

impaired and/or parents with push-chairs etc. This parking manoeuvre is also illegal.

- 7.16 It is emphasised that these problems are historical – and while I have some sympathy with residents who might otherwise be frustrated by narrow roads, or a lack of car parking on their street because of commuter parking, or because of cars parking on the footpath, this is not an effect that will be created solely by the applicant, nor is it an issue that the applicant is required to mitigate.
- 7.17 In my opinion, staff and/or their visitors associated with the proposal would logically choose to park along Bristol Street (noting that this provides access to the front door) and Berry Street (but only outside or adjacent the application site) where there is a generous carriageway width to accommodate parking on both sides.

Traffic Volumes

- 7.18 In the original Traffic Assessment it was estimated that Bristol Street and Berry Street carried 1,750 and 1,500vpd respectively. As previously described, following the close of submissions we commissioned a traffic count along both of these roads in April 2021¹⁷. These counts revealed that Bristol Street actually carries around 750vpd (some 1,000vpd less than the original estimate) and Berry Street 400vpd (some 1,100vpd less than the original estimate). It follows that both of the application site's frontage roads carry significantly less traffic than originally estimated and reported on.
- 7.19 Both the actual counts and the original estimates reveal that the roads are carrying traffic that is commensurate with their local road classification.
- 7.20 In 2009 I undertook some University research as part of my Master of Engineering degree¹⁸. This was presented to the World Conference on

¹⁷ This included weeklong tube counts commencing Friday 9 April 2021 outside #30 Bristol Street (70m north of the application site) and outside #12 Berry Street (outside the application site where the road width narrows). This week was chosen specifically because it excluded Easter, school holidays, ANZAC day and localised road works.

¹⁸ *Traffic Volumes and Residential Amenity: Is the Environmental Capacity of a Local Residential Street Really 2,000 – 3,000 vehicles per day?* (A research project submitted in partial fulfilment of the requirements for the Degree of Master of Engineering in Transportation in the University of Canterbury, by Rhys Chesterman). Available online at: https://www.researchgate.net/publication/46419657_Assessing_the_Environmental_Capacity_of_Local_Residential_Streets.

Transportation Research (**WCTR**) in Portugal in 2010 by Dr Glen Koorey. This research investigated the inherent conflict between the residential amenity and traffic access functions of local streets and tested the concept of environmental capacity of local roads, in a Christchurch context. Ultimately, the conclusions suggested that the environmental capacity was around 1,500-2,000 vehicles per day. Both Bristol Street and Berry Street carry volumes that are less than these thresholds and therefore the road has not reached its environmental capacity. In simple terms, the research suggests that if the volumes are less than 2,000 vehicles per day, most residents will not consider the road as noisy, are rarely delayed when crossing the street, do not consider the speed to be excessive and do not consider the traffic volumes as being high.

- 7.21 In my opinion, it is not inherently unsafe to cross Bristol Street or Berry Street, nor is it unsafe to cycle along relative to their classification and volumes.

Traffic Speed

- 7.22 The traffic counts we commissioned also collated the speed of all passing vehicles. The average speed for northbound and southbound vehicles on Bristol Street was 41km/h and 39km/h respectively. The average speed for westbound and eastbound vehicles on Berry Street was 29km/h and 27km/h respectively. These speeds are also commensurate with their local road classification.
- 7.23 The above speeds are well within the posted speed limit of 50km/h. Average speeds of 40km/h (or less) is at a level that is typically considered to be desirable for residential neighborhoods and akin to school speed zones. The existing car parking along the surrounding roads also assists in keeping speeds low.
- 7.24 In my opinion, the existing speeds past the application site are considered to be safe and sufficiently low for a residential environment. The proposal will not exacerbate the overall vehicle speeds.

8 CONCLUSIONS

- 8.1 The activity does not result in any District Plan traffic non-compliances – noting that the site can comply with the parking rates associated with *sheltered housing, care facilities or boarding houses*.
- 8.2 Irrespective of the District Plan requirements, the proposed activity could generate 54 vehicle trips on weekdays (27 IN + 27 OUT) and have a typical daytime demand for around eight kerb-side parking spaces. On the Saturdays when pre-arranged visitors are permitted, the activity could add a further 8 visitor vehicles (assuming they all arrive by car at the same time), however this is tempered by the lower staffing levels of 2-3 people at this time. Sunday traffic generation rates and parking would be negligible because of the lower staffing levels and no visitors.
- 8.3 This level of parking demand and traffic generation can easily be accommodated by the surrounding roads without affecting the safety or efficiency of the frontage roads. The kerb-faces directly outside the application site are able to accommodate 11 car parking spaces. There are a further 66 unrestricted on-street parking spaces on the opposite side of the application site and along Bristol Street (between Clare Road and Holly Road) which can easily accommodate this demand.
- 8.4 Accordingly, the proposal can be supported from a traffic perspective and the effects on the traffic environment can be considered as being acceptable. This is a view shared by the Council planner and transport engineer.

Rhys Chesterman

16 August 2021

Attachment 1: Permitted Baseline Correspondence
(Community Corrections Facility)

Rhys Chesterman - Novo Group

From: Rhys Chesterman - Novo Group
Sent: Tuesday, 20 July 2021 1:45 pm
To: Chapman, Emma
Cc: 'Ken Gimblett'
Subject: RE: Bristol Street - permitted baseline traffic generation

Hi Emma,

Apologies for the delay in responding here. Following on from your question, we have sought and received advice from the Department of Corrections on what a Community Corrections Facility might look like on this site – specifically in relation to traffic generation. We understand that this information has been derived from other Corrections Facilities with comparable floor areas, however note that each region determines their configuration and activities differently so there is no standard approach.

There is no published traffic generation data for these types of activities, however we can make some assumptions based on staff and client numbers. We are advised that a site of this size could be used as a Community Corrections hub and include all activities such as probation, programmes/training, psych services and community work.

Accordingly, the site could be used for the following scenarios:

ACTIVITY	STAFF	CLIENTS	OTHER
Probation staff (25 plus 2 admin support)	27	60 per day	
Training/ Programme	2	10 per day	Programme for 8 weeks, 4 days per week
Psychologists x4	4	32 per week on site 16 offsite visits per week	Based on expectation of 12 contact hours per psych per week. Scenario assumption – 8 clients/8 hours per psych at CCS and 4 clients/4 hours per psych visiting prison.
Community work	8	-	Service manager, Senior Community Work advisors, administration
	8	30-40	3 days per week, including weekend (most drive to site and park on street)

The above scenario/s reveal that the site could operate intensively. If, for example, we continued to assume that 80% of all staff drove to and from work, this alone would account for 44 vehicle movements associated with the probation staff only. The travel modes of probation clients are unknown, however even if we conservatively assumed that 50% of those arrived in a car (as a driver or a passenger), this would account for a further 60 vehicle movements. It follows that even if the site were to be used for probation purposes only (i.e., not including any training, psychologist support or community work), the site could generate at least 104 movements per day. This is significantly more than the proposed 54 trips per day associated with the proposal. If the site were used for other purposes, the overall level of traffic generation would be significantly higher again.

We have not quantified the traffic generation of all of the other activities, suffice to say that the quantum of traffic associated with a Community Corrections Facility could be significantly higher than the proposal.

We trust this assists with your permitted baseline assessment.

Regards
Rhys

Rhys Chesterman

Director + Traffic Engineer/Planner

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From: Chapman, Emma <Emma.Chapman@ccc.govt.nz>
Sent: Friday, 2 July 2021 3:02 pm
To: Rhys Chesterman - Novo Group <rhys@novogroup.co.nz>
Cc: 'Ken Gimblett' <Ken.Gimblett@boffamiskell.co.nz>
Subject: Bristol Street - permitted baseline traffic generation

Hi Rhys,

Re Bristol Street, does the below NZTA report offer any trip generation rates for probation centres or similar? Or are there any rates available from anywhere else? I'm talking about the permitted baseline scenario here.

Neither you or Andy have mentioned or attempted to assess the traffic gen effects of the community corrections facility permitted baseline – I'm assuming that's because you don't have suitable generation rates for such an activity?

Thanks,

Emma

Scenario 1: Four to five dwellings

Parking: Census data suggests that most family households have access to two motor vehicles. Five dwellings less than 150m² and each with a single garage could therefore result in a demand for 10 spaces with five resident cars having to park on the surrounding roads. Note that this excludes any visitor parking demand.

Traffic Generation: NZTA Research Report 453 *Trips and Parking Related to Land Use (2011)* suggests that inner suburban dwellings generate 10.9 daily trips. Five dwellings would therefore generate 55 trips per day.

Scenario 2: Two multi-unit residential complexes with four units each (i.e. a total of 8 units)

Parking: Census data suggests that 68% of households consisting of a couple have two or more motor vehicles. Eight units each with two bedrooms and a single parking space (or garage) could therefore result in five of the eight units having two or more cars with five resident cars having to park on the surrounding roads. Note that this excludes any visitor parking demand and assumes that each unit is provided with at least one on-site car park.

Traffic Generation: NZTA Research Report 453 *Trips and Parking Related to Land Use (2011)* suggests that medium density residential flats generate 6.8 daily trips. Eight units would therefore generate 54 trips per day.

Scenario 3: Student hostels of up to six bedrooms

Parking: NZTA Research Report 453 *Trips and Parking Related to Land Use (2011)* suggests that a hostel generates a parking demand of 0.4 spaces per bed. Six bedrooms (with one bed) would therefore have a parking demand of 2-3 spaces. Three hostels, each with six bedrooms would have a demand for seven spaces.

Traffic Generation: NZTA Research Report 453 *Trips and Parking Related to Land Use (2011)* suggests that a hostel could generate 2.5 trips per bed per day. Six bedrooms (with one bed) would therefore generate 15 trips per day. Three hostels, each with six bedrooms would therefore generate 45 trips per day.

Emma Chapman

Senior Planner

Resource Consents Unit

Please note – my hours of work are generally until 2:30pm

03 941 8225

Emma.Chapman@ccc.govt.nz

Te Hononga Civic Offices, 53 Hereford Street, Christchurch

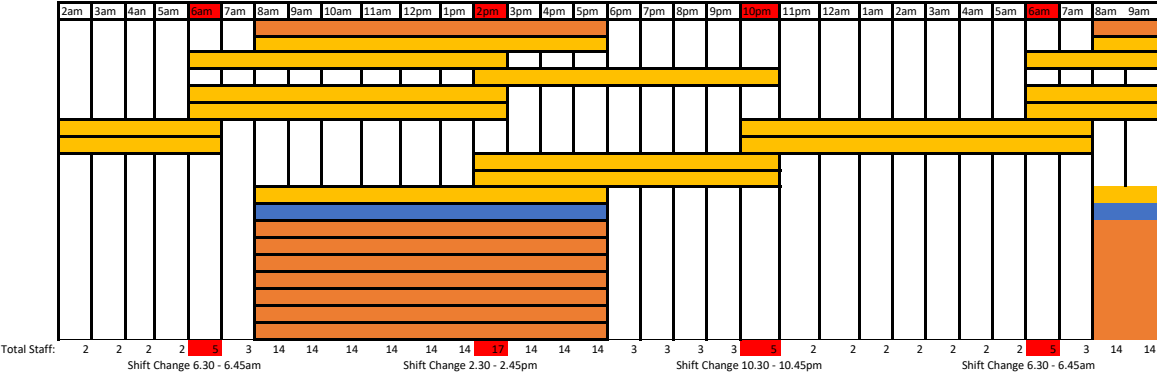
PO Box 73013, Christchurch 8154

ccc.govt.nz

Attachment 2: Typical Staff Roster & Traffic Generation

Typical Staff Roster and Traffic Generation (Weekday)

	House Team Shift 1 6:30am - 2:45pm	Therapy Team 8:00/8:30am - 5:00pm	House Team Shift 2 2:30pm - 10:45pm	House Team Shift 3 10:30pm - 6:45am
Manager Psyc Services (2 – 3 days)		x		
Programme Manager		x		
House Supervisor	x			
Supervisor	x		x	
Supervisor	x			
Supervisor				x
Supervisor			x	x
Supervisor				
Administration Officer (2 – 3 days)		x		
Reintegration Coordinator		x		
Executive Officer		x		
Programme Facilitator (a)		x		
Programme Facilitator (b)		x		
Psychologist (a)		x		
Psychologist (b)		x		
Psychologist (c)		x		
Psychologist (d)		x		



Traffic Generation - Assuming every staff member drives in a single occupant vehicle

	House Team Shift 1 6:30am - 2:45pm	Therapy Team 8:00/8:30am - 5:00pm	House Team Shift 2 2:30pm - 10:45pm	House Team Shift 3 10:30pm - 6:45am	
Staff IN	3	11	3	2	19
Staff OUT	3	11	3	2	19
Staff lunch/activities IN	1	3	1	0	38
Staff lunch/activities OUT	1	3	1	0	
On-Site Van IN	0	6	0	0	
On-Site Van OUT	0	6	0	0	
Delivery IN	0	1	0	0	
Delivery OUT	0	1	0	0	
Total vehicle movements	8	42	8	4	62

Traffic Generation - Assuming 80% of staff drive

	House Team Shift 1 6:30am - 2:45pm	Therapy Team 8:00/8:30am - 5:00pm	House Team Shift 2 2:30pm - 10:45pm	House Team Shift 3 10:30pm - 6:45am	
Staff IN	2	9	2	2	15 (if 80% drive)
Staff OUT	2	9	2	2	15 (if 80% drive)
Staff lunch/activities IN	1	3	1	0	30
Staff lunch/activities OUT	1	3	1	0	
On-Site Van IN	0	6	0	0	
On-Site Van OUT	0	6	0	0	
Delivery IN	0	1	0	0	
Delivery OUT	0	1	0	0	
Total vehicle movements	6	38	6	4	54 (if 80% of staff drive)

Attachment 3: Parking Surveys

Spot Parking Surveys

(Monday 24 May 2021 to Thursday 3 June 2021)

1. In order to determine the level of kerbside parking supply and demand in the surrounding area, a series of spot surveys have been undertaken. This included kerbside car parking located directly outside the site (11 unrestricted spaces available) and directly opposite and along both sides of Bristol Street between Clare Road and Holly Road (66 unrestricted spaces available). There are further spaces available in the locale, however for the purposes of the survey, the cordon defined in **Figure 1** has been used. The spot survey results are presented in **Table 1** and photographic evidence attached in **Attachment 1**. The survey results suggest that there is sufficient supply of available kerbside car parking spaces in the vicinity of the site. With car parking spaces only 50% occupied, there are approximately 38 vacant spaces available.

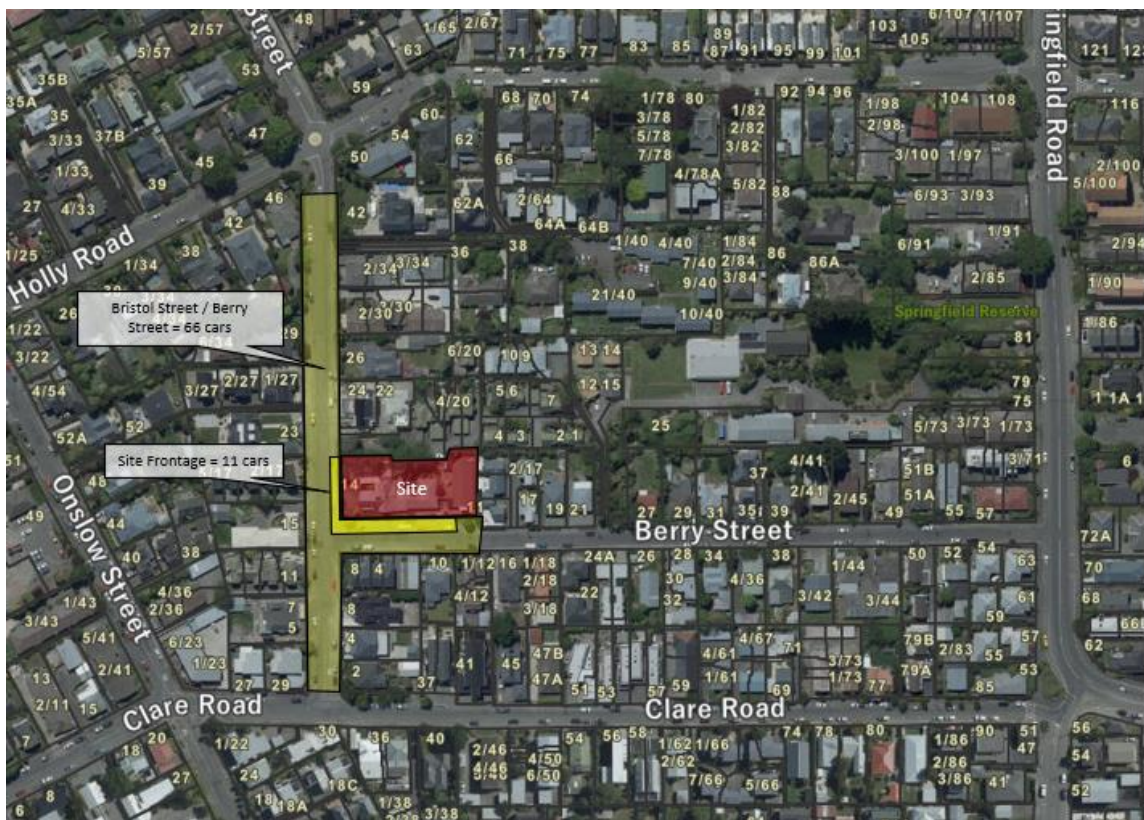


Figure 1: Kerbside Parking

* Note that car parking spaces are unmarked and therefore exact parking numbers are conservatively estimated. The total supply could increase slightly, dependent on car sizes and drivers parking courteously.

Table 1: Spot Survey Results (Monday 24 May 2021 to Thursday 3 June 2021)

		Directly Outside (11 Spaces)		Wider Area - Bristol Street between Clare Road and Holly Road (66 Spaces)		TOTAL		
		# Occupied	% Occupied	# Occupied	% Occupied	# Occupied	% Occupied	# Available
Monday 24 May 2021	6:00pm	3	27%	27	41%	30	39%	47
Monday 24 May 2021	7:00pm	5	45%	21	32%	26	34%	51
Tuesday 25 May 2021	8:45am	7	64%	22	33%	29	38%	48
Tuesday 25 May 2021	4:00pm	5	45%	24	36%	29	38%	48
Wednesday 26 May 2021	8:40am	4	36%	21	32%	25	32%	52
Wednesday 26 May 2021	4:30pm	5	45%	19	29%	24	31%	53
Thursday 27 May 2021	8:15am	4	36%	26	39%	30	39%	47
Friday 28 May 2021	8:30am	7	64%	20	30%	27	35%	50
Sunday 30 May 2021	2:30pm	6	55%	28	42%	34	44%	43
Monday 31 May 2021	8:45am	8	73%	18	27%	26	34%	51
Tuesday 1 June 2021	8:45am	5	45%	13	20%	18	23%	59
Tuesday 1 June 2021	5:15pm	6	55%	22	33%	28	36%	49
Wednesday 2 June 2021	8:45am	7	64%	14	21%	21	27%	56
Thursday 3 June 2021	8:30am	6	55%	24	36%	30	39%	47

Attachment 1 – Photographs

Monday 24 May 2021, 6:00pm



Monday 24 May 2021, 7:00pm



Tuesday 25 May 2021, 8:45am



Tuesday 25 May 2021, 4:00pm



Wednesday 26 May 2021, 8:40am



Wednesday 26 May 2021, 4:30pm



Thursday 27 May 2021, 8:15am



Friday 28 May 2021, 8:30am



Sunday 30 May 2021, 2:30pm



Monday 31 May 2021, 8:45am



Tuesday 1 June 2021, 8:45am



Tuesday 1 June 2021, 5:15pm



Wednesday 2 June 2021, 8:45am



Thursday 3 June 2021, 8:30am

