Before the Hearings Commissioners at Christchurch City Council

under:the Resource Management Act 1991in the matter of:an application by Ryman Healthcare Limited for
resource consent to establish and operate a
comprehensive care retirement village at 100-104 Park
Terrace and 20 Dorset Street and 78 Park Terrace,
Christchurchbetween:**Ryman Healthcare Limited**
Applicantand:**Christchurch City Council**
Consent Authority

Statement of evidence of **Leo Donald Hills** on behalf of Ryman Healthcare Limited

Dated: 6 January 2021

Reference: Luke Hinchey (luke.hinchey@chapmantripp.com) Nicola de Wit (nicola.dewit@chapmantripp.com)

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STATEMENT OF EVIDENCE OF LEO DONALD HILLS ON BEHALF OF RYMAN HEALTHCARE LIMITED

INTRODUCTION

- 1 My full name is Leo Donald Hills.
- 2 I am a Director at the firm Commute Transportation Consultants Ltd (*Commute*). I hold a Masters of Civil Engineering from the University of Auckland and a Bachelor of Engineering with Honours, also from the University of Auckland.
- 3 I have over 23 years' experience as a specialist traffic and transportation engineer. During this time, I have been engaged by local authorities and private companies and individuals to advise on traffic and development issues covering safety, management and planning matters of many kinds.
- 4 I am a member of the Institute of Professional Engineers New Zealand and a Chartered Professional Engineer.
- 5 Particularly relevant projects with which I have been associated in my capacity as a traffic expert include Ryman Healthcare Limited's (*Ryman*) retirement villages in Hamilton, Riccarton, Narrowneck, Hillsborough, Greenlane, Pukekohe, Birkenhead, Howick, Ellerslie, Orewa, Scott Point, Lincoln Road, Tauranga, New Plymouth, St Heliers and Whangarei.
- 6 I am familiar with Ryman's resource consent application to construct and operate a comprehensive care retirement village (*Proposed Village*) at 100-104 Park Terrace and 20 Dorset Street and 78 Park Terrace, Christchurch (*Site*). In this statement of evidence, I describe the parcel of land at 78 Park Terrace as the "Peterborough Site" and the parcel of land at 100-104 Park Terrace and 20 Dorset Street as the "Bishopspark Site". I refer to the Peterborough Site and Bishopspark Site together as the "Sites".
- 7 I prepared the Transportation Assessment Report dated 27 March 2020 (*Transport Report*). I also prepared the transport aspects of the Section 92 Responses dated 18 May, 13 July and 17 November 2020 (*Further Information Responses*).
- 8 I have visited the Site and its surroundings on a number of occasions, including on 11 October 2018 and 25 April 2019.

CODE OF CONDUCT

9 Although these proceedings are not before the Environment Court, I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note (2014), and I agree to comply with it as if these proceedings were before the Court. My qualifications as an expert are set out above. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

- 10 I have been asked by Ryman to examine and describe the transport planning implications of the Proposed Village.
- 11 My evidence sets out the following:
 - 11.1 A summary of the Transport Report and the Further Information Responses;
 - 11.2 My response to the transport issues raised in submissions;
 - 11.3 My response to transport issues raised in the Council Officer's Report, and particularly the accompanying transport memo prepared by Mr Mike Calvert dated 30 November 2020;
 - 11.4 My comments on the draft conditions; and
 - 11.5 My conclusions.

SUMMARY OF EVIDENCE

- 12 My evidence is summarised as follows:
 - 12.1 The Proposed Village satisfies most of the Christchurch District Plan (*District Plan*) transport permitted activity rules, except for the width of access points on the Peterborough Site and vehicle loading provision for the Peterborough Site. In this regard, the width of the vehicle crossings for the Peterborough Site are considered acceptable given the oneway operation. The loading provision for the Peterborough Site requires a loading vehicle to block internal circulation while loading. Given the frequency of occurrence and availability of queuing space, I consider this arrangement is acceptable. Council's traffic specialist agrees the width of the access and loading provision for the Peterborough Site is acceptable;
 - 12.2 I consider the number, and design, of vehicle accesses at the Site to be acceptable. Further, I agree with the Council's proposed condition for the access on Dorset Street to require loading vehicles to reverse into the space; and

- 12.3 In my opinion, the traffic that will be generated by the Proposed Village, as estimated in the Transportation Assessment Report, is lower than the traffic generated by a residential development anticipated by the underlying zoning and consider the effects on the surrounding road environment will be minimal.
- 12.4 In my opinion, the number of parking spaces proposed on the Site is acceptable and meets both the District Plan requirements and Ryman's internal expectations.
- 12.5 I have revised the recommended changes to Salisbury Street pedestrian crossing facility, following updated pedestrian volumes numbers (and user types) received by Ryman and feedback received by Council and submitters. My recommendation is the "Kerb Build-out" option. I consider this option will provide an appropriate response given the demand and nature of the transport network in this location.
- 12.6 I consider that the construction traffic effects of the Proposed Village can be appropriately managed with a Construction Traffic Management Plan (*CTMP*), which is required as a condition of consent. The CTMP will specifically address truck movements, truck routes, contractor parking, pedestrian provisions, construction hours and time restrictions on vehicle movements to and from the Site. Ryman have confirmed that no access via Westwood Terrace is required during the construction period.
- 12.7 I consider any effects of the Proposed Village on the safety and efficiency of the transport network are acceptable.

EXISTING ENVIRONMENT

Transport Environment

13 Figure 1 is an aerial photograph showing the Site in relation to the surrounding road network.

Figure 1: Site location



- 14 Park Terrace and Salisbury Street are classified as 'Central City Local Distributors' in the District Plan. Dorset Street and Peterborough Street have no roading classification. The speed limit on Park Terrace, Dorset Street, Peterborough Street and Salisbury Street in the village location is 50 km/hr.
- 15 Park Terrace runs in a general north-south alignment connecting to Bealey Avenue to the north and transitioning to Rolleston Avenue to the south. Bealey Avenue is classified as a major arterial road in the District Plan and is located approximately 300-500m north of the Site.
- 16 Park Terrace in front of the Bishopspark Site has two lanes in either direction separated by a solid yellow line, with no on-street parking permitted on both sides of the road. Park Terrace adjacent to the Peterborough Site has two northbound lanes and one southbound lane, with indented parking spaces provided adjacent to the southbound lane (along the frontage of the Peterborough Site). Pedestrian footpaths are provided on either side of the road near the Site.
- 17 Salisbury Street connects to Park Terrace at its western end and allows for one-way movement only (eastbound). A total of four lanes are provided, however with on-street parking permitted on both sides of the road, the outside lanes generally operate as parking as opposed to through lanes. Salisbury Street provides four approach lanes (two through lanes, one left turn and one right turn lane) and a cycle lane at the intersection with Montreal Street

and Victoria Street. Pedestrian footpaths are provided on either side of the road.

- 18 The Park Terrace / Salisbury Street intersection provides a separate left turn and right turn slip lane into Salisbury Street, with no access provided onto Park Terrace from Salisbury Street. Park Terrace at the intersection with Salisbury Street provides a right turn bay for vehicles turning into Salisbury Street and a solid pedestrian refuge island.
- 19 Dorset Street adjoins Park Terrace at its western end and provides one single lane in either direction. Indented on-street parking is permitted on both sides of the road. Pedestrian footpaths are provided on either side of Dorset Street. The intersection between Park Terrace and Dorset Street is a give-way controlled intersection with priority onto Park Terrace. Peterborough Street meets Park Terrace at a priority-controlled intersection. Peterborough Street provides a single lane in either direction with sections of on street parking with footpaths on both sides of the road.
- 20 The Bishopspark Site was previously occupied by the Bishopspark Retirement Village, and the remaining buildings on the Bishopspark Site have been demolished. The Peterborough Site is currently unoccupied, although it was previously occupied by an apartment building prior to the earthquakes.

Public Transport

- 21 The Site is located within walking distance of public transport services. The nearest routes include Route 17, Route B, Route 29 and Route 95. These services provide connection to a range of destinations around Christchurch. The nearest bus stops are provided within 200m of the Site.
- 22 While I do not expect the Proposed Village to be a big generator of public transport demand, I consider the Site to be well located in relation to public transport, offering good alternatives to private vehicles for staff and visitors and providing highly accessible connections for residents to the surrounding areas.

Existing Traffic Volumes

- 23 Traffic data from Christchurch City Council (*Council*) indicates that Park Terrace (along the Site frontage) had an estimated annual daily traffic (*ADT*) of 16,915 vehicles per day (*vpd*) and peak hour volume of 1,856 vehicles per hour (*vph*) in March 2018.
- 24 A Commute staff member undertook traffic surveys under my direction at the intersection of Park Terrace and Salisbury Street during the peak hours of 7am-9am and 3pm-6pm on the 25th June 2019. The surveys show peak hour traffic volumes of 429 vehicles

per hour in the AM peak and 305 vehicles per hour in the PM peak for Salisbury Street.

Road Safety

- I carried out an assessment of the crash history around the Site¹ including a search of the New Zealand Transport Agency's (*NZTA*) Crash Analysis System (*CAS*) for all reported crashes during the five-year period 2013 2019 (inclusive of any available data at March 2020). The crash history can be summarised as follows:
 - 25.1 Three crashes occurred at the Dorset Street / Park Terrace intersection, of which one crash resulted in four minor injuries when the driver misjudged the intentions of another party. The remaining non-injury crashes resulted from failing to give-way at a priority traffic control;
 - 25.2 Sixteen crashes occurred at the Park Terrace / Bealey Avenue / Harper Avenue intersection. Five of these crashes resulted in a minor injury with two as a result of failure to stop at a red light, one rear end crash and two crashes relating to mopeds;
 - 25.3 One non-injury crash occurred at the Park Terrace / Salisbury Street intersection caused by loss of control;
 - 25.4 One minor injury crash occurred at the Park Terrace / Peterborough Street intersection when a vehicle hit the rear end of a cyclist slowing to cross traffic;
 - 25.5 Two non-injury crashes occurred on Park Terrace near the Site, both as a result of failing to check / notice another party; and
 - 25.6 One minor injury crash occurred on Salisbury Street near the Site when a cyclist riding in the wrong direction was hit by an oncoming vehicle.
- 26 I found no history of accidents occurring that relate specifically to movements into and out of the former Bishopspark Retirement Village, which is located in a similar location to the proposed access for the Bishopspark Site.

¹ The search area included the length of Dorset Street (including intersection with Dublin Street) and Salisbury Street near the Site and the length of Park Terrace between Bealey Avenue and Kilmore Street, including the intersections of Park Terrace / Bealey Avenue / Harper Avenue, Park Terrace / Dorset Street, Park Terrace / Salisbury Street and Park Terrace / Peterborough Street.

27 I consider there are no noticeable patterns in the reported crashes in the area and therefore do not consider there are any issues with the form of the intersections in the area.

ACCESS

Proposed Access

- 28 At the Bishopspark Site, the primary vehicle access will be via Park Terrace with secondary service access via Dorset Street for loading vehicles. Pedestrian access will be provided via Park Terrace, Westwood Terrace and Dorset Street.
- 29 The Peterborough Site will have a separate entrance and exit for vehicles. Vehicles will enter via Park Terrace and will exit via Salisbury Street. Pedestrian access will be provided via Park Terrace, Salisbury Street and Peterborough Street.

Width of Access

- 30 The Bishopspark Site's primary access onto Park Terrace will be 6m in formed width providing for two-way vehicle movements and 7m legal width including the adjacent pedestrian path. It therefore complies with standards in the District Plan (Table 7.5.7.1). The secondary access on Dorset Street will be 3.5m in width and therefore also complies with the standards in the District Plan (Table 7.5.7.1).
- 31 The Peterborough Site vehicle entrance point and vehicle exit point are both 4m in width. This width is narrower than the minimum formed width for an access point serving more than 15 spaces as set out in the District Plan (Table 7.5.7.1). However, as the entry and exit points are one-way, this non-compliance is not expected to result in any adverse effects.

Number of Vehicle Crossings

32 The Bishopspark Site has frontage to Park Terrace of 50m and frontage to Dorset Street of 10m. The Peterborough Site has 60m of frontage on Park Terrace, 70m on Salisbury Street and 20m on Peterborough Street. Based on Table 7.5.11.3 of the District Plan, a maximum of two vehicle crossing points applies to each of the Bishopspark and Peterborough Sites. I consider the proposed accesses comply with maximum vehicle crossing standards in the District Plan.

Proximity to Intersection

33 The proposed accesses are all located outside of the required separation distance from the nearest intersection, and therefore comply with this District Plan standard (Table 7.5.11.5).

Queuing Space

34 Both the Bishopspark and Peterborough Sites require over 18m of internal queuing space to comply with Table 7.5.8.1 of the District

Plan. I consider the proposed layout provides sufficient space for queuing at both Sites, and therefore complies with this District Plan standard.

Sight Distance

- 35 I have assessed each of the proposed vehicle access points against the Land Transport Safety Authority "Guidelines for visibility at driveways" (*RTS-6 Guide*) with regard to sight distance.
- 36 The RTS-6 Guide recommends:
 - 36.1 A 90m sight distance for high volume driveways accessing a Collector road (Park Terrace), with a 50km/h operating speed;
 - 36.2 A 40m sight distance for low volume driveways accessing a local road (Dorset Street).
- 37 I consider all of the proposed access points comply with the sight distance requirements set out in the RTS-6 Guide.
- 38 I have also checked each of the proposed vehicle access points against the District Plan standard for visibility between an access point and pedestrians and cyclists (Appendix 7.5.9). The standard requires a 2m (along the property boundary) by 5m (into the Site) triangle to be kept free of visual obstructions (landscaping can be provided of less than 0.5m height).
- 39 This requirement is met at the primary access point for the Bishopspark Site via a chamfer in the wall. The vehicle exit for the Peterborough Site provides adequate visibility to the adjacent footpath, and complies with this requirement.
- 40 The proposed Dorset Street access point will cater for loading and rubbish vehicles, which will be required to reverse out of the loading area back onto Dorset Street. As such, I recommended a greater visibility splay be provided to ensure reversing trucks can detect pedestrians on the adjacent footpaths or cyclists. Figure 2 shows the visibility splay required and details of the landscaping. The tree immediately adjacent the access will be less than 0.8m in height. I consider the proposed access arrangement on Dorset Street to provide appropriate sight distance to pedestrians and cyclists.



- 41 The proposed access arrangement is considered safe due to the following:
 - 41.1 Adequate visibility is provided;
 - 41.2 Loading movements are infrequent; and
 - 41.3 A reversing manoeuvre from Dorset Street into the Site will be made at low speed.
- 42 Alternative arrangements were considered however insufficient space is available for a truck to turn around.
- I also now understand that Ryman has confirmed with its rubbish contractor that all trucks are able to reverse onto the Site.
 Council's proposed condition 64 seeks that this restriction be put in place. I agree this is the preferred solution, thus removing the limited visibility issue when reversing off the Site.

Internal Road Layout

- 44 The Bishopspark Site will be served via a single primary access point providing access to both the pickup and drop off facility and basement parking area via a 6m wide accessway. The portecochere will cater for vehicles up to a transit van size - which are commonly used to transport residents - or an ambulance.
- 45 The Peterborough Site will have a single access point with an internal accessway (4m wide) providing access to a pickup / drop off area before descending to the basement parking level, then

ascending back to street level with a vehicle egress on Salisbury Street. The internal access road and ramps will operate with a one-way circulation.

46 Overall, I consider the internal road network will provide a high level of convenience for residents, staff and visitors, and will be simple for all drivers to negotiate.

Ramp Grade

- 47 On the Bishopspark Site, the basement parking areas are accessed via ramps from the ground floor. The proposed ramps provide a maximum grade of 1:5 (20%) with 4m long 1:8 transitions provided at the top and bottom of the ramp, and therefore comply with the relevant requirements of the District Plan (Section 7.5.7).
- 48 On the Peterborough Site, rubbish trucks will need to use the ramps in order to exit. As such, transitions have been lengthened to prevent vehicle scraping. At the property boundary, a 4.5m long 1:10 transition is proposed. At the top of the ramp within the site, a 6m 1:8 transition is provided. Vertical vehicle tracking has been carried out to ensure an 8m rigid vehicle can traverse the ramp without scraping. I consider the proposed ramp arrangements to both comply with District Plan requirements and to be an appropriate grade for the intended use.

Pedestrian Access

- 49 Pedestrian footpaths will be provided throughout the Proposed Village, with pedestrian crossings provided at regular intervals to ensure a safe pedestrian environment. The internal pedestrian facilities connect to the external footpath network. Park Terrace, Salisbury Street and Dorset Street all provide footpaths on both sides of the street.
- 50 For the Bishopspark Site, pedestrian access is provided adjacent to the vehicle access on Park Terrace, via a separate pedestrian access on Dorset Street and via Westwood Terrace (a private lane) to the south of the Site. Ryman have a right of way over this private way. Within the Bishopspark Site, all access points lead to a central pedestrian plaza located around the existing Chapel. I consider the internal pedestrian facilities will be safe and convenient for pedestrians.
- 51 For the Peterborough Site, a separate pedestrian access is provided alongside the vehicle entrance on Park Terrace. Ground level apartment units fronting Park Terrace have direct access to Park Terrace. Another pedestrian access is provided midway along the Salisbury Street frontage and provides a north – south route through the Site. I consider the internal pedestrian facilities will be safe and convenient for pedestrians.

- 52 Westwood Terrace is a private lane and provides a 6m wide carriageway catering for both vehicles and pedestrians in a shared arrangement. Given the low volume of vehicles using this lane, I consider it appropriate for use by pedestrians and as a link to the footpaths on Salisbury Street.
- 53 During the previous site occupation by the Bishopspark retirement village, Westwood Terrace was used as both a vehicle, service, and pedestrian access. The Proposed Village will only use Westwood Terrace for minimal light traffic use and therefore I consider the use is an improvement compared to the previous occupation.
- 54 With regard to pedestrian demand on Westwood Terrace, Ryman's 17 November 2020 Further Information Response noted that Ryman had estimated between 150-200 pedestrian movements per day or around 15-20 in the peak hour. Since production of this response, Ryman's operation team have reviewed other Ryman sites and have subsequently revised this figure. On other Ryman sites the independent apartment residents (i.e. for this village, only the residents in the Peterborough Site) are generally self-sufficient in their building and do not often visit the main building.
- 55 As such, on a typical day Ryman estimates approximately 10% of Peterborough residents will visit the Bishopspark Site. This percentage translates to approximately 10 residents (10% of the estimated 104 residents) or 20 crossings (one to and one from Bishopspark Site). Adding up to four staff that may also undertake this movement this translates to approximately 30 movements per day which is significantly less than previously assessed.
- 56 The Bishopspark and Peterborough Sites are separated by Salisbury Street. In the vicinity of Westwood Terrace, Salisbury Street has a 14m carriageway with four traffic lanes in the eastbound direction and parking permitted on the kerbside lane on both sides of the road. Given the likelihood of some pedestrian demand between the two Sites and the nature of users expected by the Proposed Village, I recommended an upgraded crossing facility as being necessary to ensure the safety of elderly residents. More details on the proposed pedestrian crossing facility are provided in the following section.

CHANGES TO THE EXTERNAL NETWORK

Pedestrian Crossing Facility

57 A number of options have been considered to provide improved crossing facilities between the Bishopspark Site and the Park Terrace Site. The Transport Report recommended a signalised pedestrian crossing be implemented on Salisbury Street directly to the west of Dorset Street.

- 58 Since the Transport Report was prepared, Stantec (at the request of Council) undertook an initial road safety audit on the proposed crossing design. Following this audit, I was involved in discussions with the Council regarding variations to the crossing design which are outlined in the 17 November Further Information Response.
- 59 Following receipt of Ryman's updated pedestrian volumes numbers (and user types), as I have outlined above in paragraph 54 together with comments raised by submitters and Council, my recommendation is for the "Kerb Build-out" option. The updated layout is outlined in Figure 3 below. This layout tightens the corner entry to Salisbury Street to reduce speed, removes parking near the Site and adds a crossing point. I consider this updated layout will provide an adequate safe crossing point for residents and the public wanting to cross Salisbury Street.



Figure 3: Proposed crossing facility on Salisbury Street (kerb build-out)

Upgrades to Park Terrace

60 The Transport Report recommended that Park Terrace be upgraded to provide a flush median along the Park Terrace frontage. This upgrade would have required widening of the road. Since the Transport Report was prepared, I was involved in discussions with the Council regarding the recommended upgrade. I understand the Council intends to 'detune' Park Terrace in the future and widening would not be consistent with the future intent of the corridor, which has been confirmed by Mr Mike Calvert for Council.² In light of the Council's intentions for Park Terrace, I no longer consider the Park Terrace upgrade is required.

² See section 2, pages 2-4, Council Officer's Report - Appendix C Traffic Report.

- 61 For the Bishopspark Site, Park Terrace already provides two northbound lanes, so a passing opportunity exists if any right turning vehicle blocks the centre lane while waiting to turn right into the Site.
- 62 For the Peterborough Site, two northbound lanes are provided including some additional space (1-1.5m) as the right turn bay for Salisbury Street is developing at the proposed access location. A passing opportunity therefore exists if any right turning vehicle is blocking the centre lane while waiting to turn right into the Site.
- 63 Given the traffic volumes on Park Terrace, I do not consider any Park Terrace upgrades are necessary to maintain the efficiency or safety of the network.

TRAFFIC EFFECTS

Proposed Trip Generation

- 64 I understand the matters of discretion do not require an assessment of trip generation, however this information has been provided for context.
- 65 I determined the trip rates for the Proposed Village through consideration of research reports and surveys by Commute of two operational Ryman villages:
 - 65.1 For the purposes of estimating daily trips from the Site, the NZTA Report 453³ rate of 2.6 trips per unit has been adopted as it aligns with Commute's Ryman village surveys. This rate has been applied to both independent units and assisted living suites/care beds, which is a conservative approach given NZTA Report 453 suggests a rate of 2.4 trips per assisted living suite/care bed;
 - 65.2 Commute's Ryman village surveys suggest a lower peak hour traffic generation compared to the NZTA Report 453. I consider the survey data provides a more useful indication of the likely peak hour traffic generation from the Proposed Village because the surveys are of actual Ryman villages and provide more up to date data;
 - 65.3 Accordingly, a peak hour rate of 0.14 trips per unit in the AM peak, 0.23 trips in the interpeak period and 0.17 trips in the PM peak hour has been adopted for the purposes of this assessment (average of Commute's Ryman village surveys).

³ NZTA Research Report 453: trips and parking related to land use.

- 66 The Bishopspark Site is expected to generate 29 trips in the AM peak hour, 49 trips in the interpeak hour and 35 trips in the PM peak hour. The total trip generation from this Site per day is expected to be 543 trips.
- 67 The Peterborough Site is expected to generate 11 trips in the AM peak hour, 18 trips in the interpeak hour and 14 trips in the PM peak hour. The total trip generation from this Site per day is expected to be 208 trips.
- 68 Overall, the Proposed Village is expected to generate 40 trips in the AM peak hour, 67 trips in the interpeak hour and 49 trips in the PM peak hour. The total trip generation from the Proposed Village per day is expected to be 751 trips.

Traffic Distribution

69 The anticipated traffic distribution for the Site is outlined in 4. Movements into and out of the Site are expected to be equal in all peak periods, as staff movements to and from the Site and resident movements tend to be in different directions to each other. One third of travel is anticipated to come to and from the Site from the north, while two thirds of travel is expected to be to and from the south and east.



Figure 4: Trip distribution

Traffic Effects Discussion

70 For the Bishopspark Site, the anticipated trips will be focused on a single access point on Park Terrace. Right turning traffic into the Bishopspark Site during the peak periods is expected to be between 12-20 vehicle movements per hour. Park Terrace in this

location provides two lanes in the northbound direction. As such right turning vehicles into the Proposed Village can wait for a gap without inhibiting traffic flow on Park Terrace in the northbound direction.

- 71 At the Peterborough Site, all inbound trips are focused on the Park Terrace entrance while exiting vehicles will connect to Salisbury Street. As for the Bishopspark Site above, right turning traffic will have sufficient space to wait for an appropriate gap in oncoming traffic without blocking northbound traffic on Park Terrace.
- 72 Accordingly, I consider the level of traffic that will be generated by the Proposed Village can be accommodated by the surrounding road network, and the Proposed Village will not affect the safe and efficient operation of Park Terrace.
- 73 In addition, based on the crash history discussed at paragraphs 25 to 27 above, I consider there is no indication that the Proposed Village will have a negative effect on road safety in the surrounding road network.
- 74 There is no 'permitted baseline' for traffic generation. However, the Site is located within the Residential Central City Zone and medium to high density residential development of the Site is anticipated. In order to confirm my assessment above, I have considered the traffic that would be generated by a medium density residential development. Overall, the Site would generate 140 peak hour trips and 1400 daily trips if developed in this manner. A medium to high density residential development of the Site would therefore generate significantly more traffic movements in the peak periods (over double) and throughout the day (60% increase) compared to the Proposed Village (for the whole Site, and each of the Bishopspark and Peterborough Sites).
- 75 In conclusion, I consider the Proposed Village will have a minimal effect on the safe and efficient operation of the surrounding road network.

PARKING

Parking Provision

- 76 The Proposed Village will provide six at grade parking spaces and 138 basement parking spaces on the Bishopspark Site and six at grade parking spaces and 77 basement parking spaces on the Peterborough Site.
- 77 Both Sites, individually and combined, comply with the District Plan parking requirements. The parking provision also exceeds the parking demand estimated by application of the RTA Guide.

- 78 The assignment of parking to residents, staff and visitors is typically undertaken by Ryman's Village Operations Manager prior to the opening of a new village, and has not been undertaken at this time. However, resident and staff parking will all be located within the basements at both Sites. The on grade car parking spaces at both Sites will be primarily utilised by visitors to the Proposed Village, with additional visitor carparking provided in the basements.
- 79 I consider the proposed parking provision will meet the parking requirements of the users of the Site. I consider it is highly unlikely that users of the Site will be required to park on-street.

Cycle Parking

- 80 Appendix 7.5.2 of the District Plan outlines cycle parking requirements for various activities. For a retirement village, visitor cycle parking is to be provided at a rate of 1 space per 10 units. The Bishopspark Site provides 209 units, therefore 21 cycle visitor spaces are required. The Peterborough Site provides 80 units, therefore 8 cycle visitor spaces are required.
- 81 21 cycle spaces will be provided in the basement area of the Bishopspark Site in front of parking spaces 50-52. A further 8 cycle parking spaces will be provided in the Peterborough Site on either side of the entry / exit ramp to the basement. I consider the proposed cycle parking provision to comply with the District Plan requirements.

Parking Dimensions

- 82 The basement car parking spaces (dimensions and manoeuvrability) have been designed in accordance with AS/NZS 2890.1:2004.
- 83 The majority of the car parks are 2.5m wide and 5.4m deep and provide 6.8m manoeuvring space as recommended in AS/NZS 2890. While the dimensions proposed for each car park are different to that required in the District Plan, the overall aisle width of 16.6m exceeds that required in the District Plan (16.4m).
- 84 I consider the parking spaces are of sufficient dimensions and will operate to a satisfactory level.

Mobility / Accessibility Spaces

- 85 Based on the NZS 4121 requirements for mobility parking spaces, the Bishopspark Site requires 4 mobility spaces and the Peterborough Site requires 3 mobility spaces.
- 86 The Proposed Village will provide a total of 7 (3 on the Peterborough Site and 4 on grade at Bishopspark Site) mobility spaces, and therefore complies with NZS 4121. Sufficient height

clearance is also provided for all mobility spaces. All the mobility parks will be designed as per NZS 4121:2001.

LOADING AND SERVICING

- 87 The Proposed Village includes a loading area on both the Bishopspark Site and Peterborough Site, and therefore complies with the District Plan requirement.
- 88 On the Bishopspark Site, a dedicated access point and loading area will be provided via Dorset Street. I note that a truck will be required to reverse back off the Site onto Dorset Street. For the reasons set out at paragraphs 40-43 above, I consider this arrangement is acceptable.
- 89 For the Peterborough Site, loading will occur via the main access road. A truck will momentarily block the access road while it loads before exiting the Site via the down and up ramps to Salisbury Street. I consider this arrangement is appropriate due to the low number of loading occurrences and ability for Ryman to manage the timing of these movements.
- 90 A low volume of light service vehicle movements are anticipated on Westwood Terrace. Movements will involve a van type vehicle travelling between the Peterborough and Bishopspark Sites. Sufficient space is available onsite for such a vehicle to turn around and can exit the site in a forward direction.

CONSTRUCTION TRAFFIC

- 91 Based on my observations during the construction of similar retirement villages and in light of the capacity within the existing roading network, I consider the preparation and implementation of a Construction Traffic Management Plan (*CTMP*) will appropriately manage construction traffic effects for the Site. A draft CTMP has been developed and formed part of the 17 November 2020 Further Information Response. This CTMP will need to be updated and approved as per proposed Condition 16 which I agree with and will include:
 - 91.1 Construction dates and hours of operations;
 - 91.2 Truck route diagrams for the local road network;
 - 91.3 Contractor parking arrangements;
 - 91.4 Temporary traffic management signage; and
 - 91.5 Details of Site access / egress over the construction period for construction activities and staged occupation.

- 92 Construction traffic effects are temporary in nature. With the appropriate CTMP in place, I consider that construction activities will be managed to ensure an appropriately low level of traffic effects.
- 93 In relation to construction access via Westwood Terrace, Ryman have confirmed that no access via Westwood Terrace is required during the construction period.

RESPONSE TO SUBMISSIONS

- 94 I have reviewed all of the submissions, and noted the following transport related issues raised by submitters:
 - 94.1 Construction traffic effects, including use of Westwood Terrace⁴;
 - 94.2 Traffic generated by the Proposed Village both vehicular and pedestrian⁵;
 - 94.3 Concerns over safety of the proposed Salisbury Street pedestrian crossing and loss of parking⁶;
 - 94.4 Concerns over the proposed widening of Park Terrace⁷;
 - 94.5 Concerns over reversing service vehicles on Dorset Street⁸;
 - 94.6 Concerns over vehicle access points;
 - 94.7 Potential effects on neighbouring access points⁹;
 - 94.8 Safety on Westwood Terrace for pedestrians¹⁰;

- ⁸ Including Centro Roydvale Ltd and B. & M. Logan.
- ⁹ Including R. Begg; Centro Roydvale Ltd; R. & M. Lucas; B. Watson; G. Dewe; D. Bruce and C. Bennett.
- ¹⁰ Including B. Watson; T. Best; G. Dewe; R. & M. Lucas; and C. Bennett.

⁴ Including T. Best; G. Dewe; R. & M. Lucas; B. Watson; ICON; and G. Bennett.

⁵ Including T. Best; Dorset House Lodge Limited; K. Malone; P. & J. Marshall; C. Bennett; D. Bruce; G. Dewe; R. & M. Lucas; M. Rinaldo; J. Stratford & G. Waddy; D. Cottle; C. Bennett; D. Bruce; C. Glasson; D. Turner; B. & M. Logan; P. & L. Trustuum; Christchurch Civic Trust; D. & L. Worthington; ICON; M. Pascuzzi; R. Begg; Centro Roydvale Ltd; P Wells; L. Goodland; B. Watson; V. Zanetti; D. & A. McLean; S. O'Connor; and E. Thompson.

⁶ Including T. Best; K. Malone; C. Bennett; G. Bennett; D. Bruce; G. Dewe; R. & M. Lucas; J. Stratford & G. Waddy; D. Cottle; B. Watson; and C. Glasson.

⁷ Including P. Wells; M. Pascuzzi; ICON; B. & M. Logan; and Christchurch Civic Trust.

94.9 Car parking¹¹; and

94.10 Internal vehicle circulation.¹²

- 95 I note that a number of submitters also commented positively on the Proposed Village, with reasons for support including the central city location, reduction in sprawl and the low traffic generating nature of the Proposed Village.
- 96 I consider each of these issues below.

Construction traffic

- 97 A number of submissions have raised concerns relating to the effects of construction traffic on the surrounding area. I address construction traffic effects at paragraphs 91 to 93 above.
- 98 Since preparation of the Transport Report, a draft CTMP has been prepared. The CTMP will address the matters set out at paragraph 88 above.
- 99 In relation to Westwood Terrace, Ryman have confirmed that no construction access via Westwood Terrace is required.
- 100 In relation to Dorset Street, no construction vehicles will use Dorset Street.
- 101 I consider that the issues raised by residents relating to construction traffic can be adequately addressed through the preparation of and implementation of the CTMP. The draft CTMP will be updated once the construction methodology is confirmed. In my opinion, construction traffic will be managed to ensure an appropriately low level of effects.

Traffic generation

- 102 A number of submitters have raised concerns about the effects arising from an increase in traffic from the Site. As outlined in paragraph 70 to 75 above, I consider the Proposed Village will have a minimal effect on the safe and efficient operation of the surrounding road network. I also noted that the Proposed Village will create less traffic than a medium density residential development, and therefore will be consistent with the expected character of the traffic environment in this location.
- 103 As outlined in paragraph 54, the pedestrian demand between the Sites is expected to be much lower than what was initially

¹¹ Including J. Stratford & G. Waddy; D. Turner; T. Best; B. Watson; C. Garlick; Centro Roydvale Ltd; D. & A. McLean; ICON; M. Pascuzzi; M. Rinaldo; P. Wells; and Christchurch Civic Trust.

¹² Including Centro Roydvale Ltd.

reported. I consider the demand of 30 pedestrian trips per day travelling between the Sites to be consistent with a typical residential development.

Salisbury Street pedestrian crossing

- 104 A number of submitters have raised concerns over the proposed signalised pedestrian crossing on Salisbury Street. As outlined in paragraphs 57 to 59 above, following discussions with Council and following a review of expected pedestrian numbers, I have prepared an alternative design that removes the traffic signals and provides a kerb build out.
- 105 The proposed design involves some loss of on street parking as shown in Figure 3 above. I note that the majority of parking loss is along the Site frontage with a small loss (two spaces) of on street parking outside of 15 Park Terrace. Given the pedestrian crossing facility will serve the general community as well as the Proposed Village, I consider the minor loss of parking to be offset by the safety and amenity improvements.
- 106 With the revised design, I consider the concerns raised by submitters to be addressed.

Park Terrace widening

107 Several submitters suggested that the proposed widening of Park Terrace would be unsafe, have undesirable effects on the footpath and stormwater and result in adverse effects on pedestrians and cyclists. As outlined in paragraphs 60 to 63 above, the proposed widening of Park Terrace has been removed from the application following discussions with Council. I therefore consider the concerns raised by submitters on this matter to be addressed.

Dorset Street vehicle reversing

- 108 A submission raises concerns over the proposed service access on Dorset Street, and suggested that service trucks reversing out of the vehicle crossing onto Dorset Street would create a safety risk given the pedestrian volumes on Dorset Street.
- 109 The Transport Report and Further Information Responses assessed the reverse manoeuvre by trucks, including by providing vehicle tracking and details as to the visibility provided between a reversing vehicle and pedestrians on Dorset Street. As outlined at paragraph 40 above, a visibility splay is provided between the reversing vehicle and a pedestrian, and I consider the proposed access arrangement is safe.
- As noted at paragraph 43, I now understand that Ryman has confirmed that all trucks are able to reverse onto the Site.
 Proposed condition 64 requires this movement, thus removing the limited visibility issue when reversing off the Site.

Vehicle access points

111 One submitter raised general concerns about the proposed access points to the Proposed Village.¹³ Paragraphs 28-43 above address the proposed access points. I consider the access points will operate efficiently and safely.

Neighbouring vehicle accesses

- 112 Some submissions raised concerns over the location of the Proposed Village vehicle access points in relation to neighbouring property access.
- 113 The proposed vehicle access point on Peterborough Street is located around 2.7m from the Peterborough Site boundary and 4m from the adjacent vehicle crossing. This separation complies with the District Plan requirement and I consider the proposed vehicle access point will not affect the safety of the adjacent vehicle crossing.

Westwood Terrace pedestrian safety

- 114 Several submissions have raised concerns over the use of Westwood Terrace by pedestrians. The width of the lane, congestion, and requirement for some properties to reverse onto the lane were stated as factors that contribute to this safety concern.
- 115 Westwood Terrace is a private lane providing access to some residential properties (less than 20 lots) and car parking areas for several commercial entities. The width varies between 5m and 6m along the length.
- 116 I note that the pedestrian volume between the two Sites has been estimated by Ryman to be approximately 30 movements per day as noted in paragraph 55.
- 117 Westwood Terrace has no dedicated footpath and currently operates as a shared environment between vehicles and pedestrians. I consider this shared environment is appropriate given the expected demand of both vehicles and pedestrians using the Strand. This type of shared access arrangement and width is consistent with the NZS 4404-2010 standard (New Zealand Standard for Land Development and Subdivision Infrastructure) for a mixed-use side or rear access lane providing access to between 1-20 lots. In this shared arrangement, pedestrians are catered for in the movement lane. I note that a targeted speed of 10km/h is recommended and consider the current environment to be consistent with this operating speed.

¹³ Centro Roydvale Ltd.

- 118 During the previous site occupation by the Bishopspark retirement village, Westwood Terrace was used as a vehicle, service and pedestrian access. The Proposed Village does not provide for vehicle access (except for light service vehicles) through Westwood Terrace. Vehicle movements on Westwood Terrace will involve a van type vehicle travelling between the Peterborough and Bishopspark Sites. Sufficient space is available onsite for such a vehicle to turn around and exit the site in a forward direction. Accordingly, I consider the overall use of Westwood Terrace by the Proposed Village will be less than the previous occupation.
- 119 Overall, I do not consider the use of Westwood Terrace by pedestrians will result in a safety issue.

Parking provisions

- 120 Several submissions raised issues with the parking that will be provided at the Proposed Village. Several submitters were concerned that the Proposed Village will provide too much parking, while other submitters suggest the Proposed Village will increase on-street parking demand on the surrounding streets.
- 121 As set out at paragraphs 76 to 79 above, the Proposed Village will meet the District Plan parking requirement. I consider the proposed parking strikes an appropriate balance between providing adequate on-site parking to ensure there are no off-site parking effects while not oversupplying parking to an extent that would result in a detrimental mode shift outcome (i.e. by reducing use of alternative transport).

Internal vehicle circulation

- 122 One submission raises a number of concerns relating to the internal access roads and parking areas.¹⁴
- 123 As discussed at paragraphs 85-86 above, mobility parking will be provided in accordance with the NZS 4121:2004 standard. As such, I consider adequate mobility parking will be provided.
- 124 As provided within the Transport Assessment, vehicle tracking has been carried out using an 85th percentile vehicle in accordance with AS/NZS 2890. There is no requirement in the standard to show clearance from obstructions, so this was not shown on the vehicle tracking drawings. However, the obstructions were designed to ensure clearance was achieved. I have provided updated vehicle tracking to demonstrate clearance in the 17 November Further Information Response.

¹⁴ Centro Roydvale Ltd.

125 A submission raised the need for tactile/audio devices to be included within the Site. I do not consider such devices necessary on a private site and note this is not a requirement of the District Plan.

RESPONSE TO COUNCIL OFFICER'S REPORT

- 126 I have reviewed the Council Officer's Report dated 14 December 2020 and the associated transport memo prepared by Mr Mike Calvert dated 30 November 2020.
- 127 I can confirm that I am in general agreement with Mr Calvert, noting that Mr Calvert agrees that in terms of traffic safety and efficiency, consent should be granted.
- 128 Mr Calvert has suggested six conditions / comments in Section 12 of his memo. I consider each one as follows:
- 129 Item 1. "Westwood Terrace is not to be used as an access for earthworks or during construction". I note Ms McDonald recommends that, if access via Westwood Terrace is to occur, the applicant should be required to notify the use of this road to residents prior to the concrete pour occurring. As outlined in paragraph 93, the Westwood Terrace is not required for construction purposes.
- 130 Item 2. "*Cycle parking is to be provided on the Sites in compliance with District Plan rule 7.4.3.2"*. I agree with this recommendation. This matter can be addressed at detailed design.
- 131 Item 3. "Staff car parking is to be provided in accordance with the requirement of Rule 7.4.3.1". In this regard, there is no specific requirement for number of staff spaces in the District Plan. However I agree that, when staff spaces are provided, they need to be clearly marked.
- 132 Item 4. "Pedestrian facilities are to be designed, safety audited and constructed at the applicant's expense. The design is to be accepted by the Council's Transport Network Planner and approved by the local community board prior to construction. The design will also need to be safety audited at preliminary design, detailed design and post-construction stages". I understand that this item relates to the proposed Salisbury Street pedestrian crossing. I agree any work on the road would need to be subject to Council's approval process including safety audits.
- 133 Item 5. "The design of the loading area accessed from Dorset Street shall ensure that vehicles are not required to reverse onto or off of the Site". I note proposed condition 64 which states "Service vehicles accessing the Site via Dorset Street shall reverse

on to the Site so they can exit the Site in forward gear. This requirement shall be detailed in all contract arrangements with service providers to the Site, and shall be reflected in signage at this access". This condition would eliminate the need to reverse out of the Site, which as I understand is the primary concern of Council despite my view that there is adequate visibility. This proposal has been reviewed by Ryman and its rubbish contractor and has been confirmed as workable.

- 134 Item 6. Westwood Terrace is to be redesigned and constructed to make provision for pedestrians. Mr Calvert also states that "This could take the form of a path which can be driven over in the absence of pedestrians but defined by a low kerb or channel". I note that this comment appears to be based on earlier advice Ryman gave relating to estimated pedestrian movements (150-200 pedestrians movements per day). As I have noted previously the revised pedestrian numbers related to the Site are predicted to be a lot lower than this number (20-40 pedestrian movements per day). I understand Ryman is not permitted to alter Westwood Terrace, given its shared use arrangements. In this regard, I consider the existing arrangement acceptable given:
 - 134.1 The only Ryman pedestrians using Westwood Terrace are either a small number of staff or independent apartment residents who are more able-bodied residents. These pedestrians are anticipated to generate around 30 pedestrian movements per day;
 - 134.2 The previous Bishopspark Retirement Village also used Westwood Terrace; and
 - 134.3 The Ryman users can use the Park Terrace entrance if preferred.
- 135 In addition to the six items above, Mr Calvert also raises concern regarding the proposal to provide a temporary (no timeline provided) on-street loading zone on Park Terrace. Mr Calvert says he is aware of the impacts of this on the safety and efficiency of the transport network. I consider this matter something which requires further discussion as part of the CTMP and Traffic Management Plan (*TMP*) processes, both of which ultimately require Council approval.
- 136 Council's Urban Design Report¹⁵ provides comments on the cycling provision within both Sites stating "*I would note that I do not consider that the cycle parking provided is very convenient for users…*". I consider the likely users of cycle parking for the Site is

¹⁵ Council Officer's Report – Appendix B Urban Design Report, paragraph 128.

an important consideration. Cycle parking is likely to be primarily used by staff, therefore I consider the cycle parking location to be appropriate.

DRAFT CONDITIONS

137 I have reviewed the proposed conditions in the Council Officer's Report and generally consider them to be appropriate. As noted above, Ryman have confirmed that no access via Westwood Terrace is required during the construction period (as set out in proposed condition 63).

CONCLUSIONS

138 I conclude that there is no traffic engineering or transport planning issue that would preclude the granting of consent for the Proposed Village on the basis of the conditions discussed in this evidence.

Leo Hills 6 January 2021