

Monday, 10 October 2022

Te Hui o Te Kaunihera ā-Rohe o Heretaunga

Hastings District Council

Commissioner Hearing

Kaupapataka

Agenda

**Limited Notified Resource Consent Application From No.8 Studios
Limited To Establish A Screen Production Studio In The Rural Zone At
Gordon Road and 376 Parkhill Road, Te Awanga (RMA20210474)**

Pre-circulated expert submitter evidence - Traffic

Te Rā Hui:
Meeting date: **Monday, 10 October 2022**

Te Wā:
Time: **9.00am**

Te Wāhi:
Venue: **Council Chamber
Ground Floor
Civic Administration Building
Lyndon Road East
Hastings**

Te Hoapā:
Contact: **Democracy and Governance Services
P: 06 871 5000 | E: democracy@hdc.govt.nz**

Te Āpiha Matua:
Responsible
Officer: **Group Manager: Planning & Regulatory Services - John
O'Shaughnessy**

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TE KAUNIHERA Ā-ROHE O HERETAUNGA

Monday, 10 October 2022

Te Hui o Te Kaunihera ā-Rohe o Heretaunga

Hastings District Council: Commissioner Hearing

Kaupapataka

Agenda

Te Komihana Whakahoahoa:
Hearing Commissioner:

Heamana
Chair: Commissioner Kitt Littlejohn

Apiha Matua:
Officer Responsible:

Group Manager: Planning & Regulatory Services – John O'Shaughnessy

Mahere Maarama:
Reporting Planner:

Consultant Planner – Janeen Kydd-Smith

*Te Rōpū Manapori me te
Kāwanatanga:*
**Democracy & Governance
Services:**

Christine Hilton (Extn 5633)

Te Rārangī Take

Order of Business

1.0 Apologies & Leave of Absence – *Ngā Whakapāhatanga me te Wehenga ā-Hui*

2.0 Expert Submitter Traffic Evidence pre-circulated for Parkhill Studios hearing - Limited Notified Resource Consent Application From No.8 Studios Limited To Establish A Screen Production Studio In The Rural Zone At Gordon Road and 376 Parkhill Road, Te Awanga (RMA20210474)

DOCUMENTS CIRCULATED FOR HEARING - COMPILED AS ONE DOCUMENT

Document 1 The covering administrative report **Pg 1**

Attachments:

1	Attachment 1 - Expert Submitter Traffic Evidence - Paul Durdin	104672#0348	Pg 3
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Monday, 10 October 2022

Te Hui o Te Kaunihera ā-Rohe o Heretaunga

Hastings District Council: Commissioner Hearing

Item 2

Te Rārangi Take

Report to Commissioner Hearing

Nā:
From: **Christine Hilton, Democracy and Governance Advisor**

Te Take:
Subject: **Expert Submitter Traffic Evidence pre-circulated for Parkhill Studios hearing - Limited Notified Resource Consent Application From No.8 Studios Limited To Establish A Screen Production Studio In The Rural Zone At Gordon Road and 376 Parkhill Road, Te Awanga (RMA20210474)**

1.0 Purpose and summary - *Te Kaupapa Me Te Whakarāpopototanga*

- 1.1 The purpose of this report is to have a means to attach the pre-circulated Expert Submitter traffic evidence for the above hearing and to put it onto the website prior to the hearing.
- 1.2 This pre-circulated traffic evidence is from Paul Durdin, Abley Limited.

2.0 Recommendations - *Ngā Tūtohunga*

That the Expert Submitter Traffic Evidence pre-circulated for Parkhill Studios hearing - Limited Notified Resource Consent Application From No.8 Studios Limited To Establish A Screen Production Studio In The Rural Zone At Gordon Road and 376 Parkhill Road, Te Awanga (RMA20210474) be put onto the website prior to the hearing on 10 October 2022 so it can be viewed by the applicant, other submitters and members of the public.

Attachments:



Expert Submitter Traffic Evidence - Paul Durdin

104672#0348

Before the Hearing Commissioner appointed by Hastings District Council

In the matter of the Resource Management Act 1991 (the Act)

and

In the matter of an application from No.8 Studios Limited to
establish a screen production studio in the
Rural Zone at Gordon Road and 376 Parkhill
Road, Te Awanga (RMA20210474)

Evidence of Joseph Paul Durdin for A M and C J Caseley and Others

4 October 2022

Sainsbury Logan & Williams
Solicitors
Cnr Tennyson Street & Cathedral Lane
Napier
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Phone: 06 835 3069
Ref: Lara Blomfield
Email: ljb@slw.co.nz

Introduction

- 1 I am a Technical Director and Executive Board member of Abley Limited. I have worked for Abley since 2008 and have 23 years' experience practising in the areas of transportation engineering and planning in New Zealand and Australia.
- 2 I have a Bachelor of Engineering Degree with Honours from the University of Canterbury and I am a Chartered Professional Engineer with Engineering New Zealand. My primary area of expertise is in the field of road safety. In that field I am a trusted technical adviser to local, state and national transport agencies across Australasia on road safety matters.
- 3 My work typically involves assisting organisations to develop Safe System strategies, guidelines, technical assessment techniques and prioritisation methods to reduce road trauma. I have provided expert evidence on road safety matters in numerous settings from resource consent matters through to judicial reviews before the High Court and as an independent expert to Environmental Protection Authority. I have authored several industry guides and best practice research reports for Waka Kotahi NZ Transport Agency and Austroads – the peak organisation of Australasian road transport and traffic agencies.
- 4 At an industry level, I am Co-Chair of the NZ Chapter of the Australasian College of Road Safety and one of only two NZ-based representatives that are Observers to the International Road Assessment Programme (iRAP) Global Technical Committee.

Scope

- 5 I have been engaged by AM & CJ Caseley on behalf of a group of residents¹ to provide expert evidence in relation to the transport-related effects of the

¹ Which also includes Madeline Riordan, Chris Hursthouse, Parkhill Family Trust and the Estate R C Macniven

proposed development, including the proposed mitigation measures, on Parkhill Road and the surrounding environment.

- 6 In producing my evidence I have:
 - 6.1 Read the Traffic Impact Assessment
 - 6.2 Read the Stantec Peer Review, request for further information and response from the Applicant
 - 6.3 Read the sections of the Officer's Report that relate to transport matters
 - 6.4 Read the evidence of Mr Steve James
 - 6.5 Undertaken a desktop assessment of the transport related issues identified by my client and other transport issues I considered may be of relevance to the matter
 - 6.6 Visited the site and surrounding environs on Tuesday 6 September between 10:30am and 12:30pm to better appreciate the issues, to take measurements and make observations.
 - 6.7 Sought the advice of my colleagues at Abley on some matters. Any such matters are identified in the evidence where relevant.
- 7 I have read the Code of conduct for expert witnesses and my evidence complies with it.
- 8 The scope of my affidavit is in relation to the receiving transport environment that will most notably be impacted by the proposed activity, which primarily relates to Parkhill Road and its intersections with Raymond Road and East Road.

Key Issues

- 9 As a result of my investigations, I have distilled the key transport issues down to the following matters:
 - 9.1 The feasibility and suitability of widening Parkhill Road south of Raymond Road.
 - 9.2 The safety impacts of the additional traffic movements through the Parkhill / Raymond intersection, including the proposed improvements.
 - 9.3 The safety impacts of the additional traffic movements through the Parkhill / East intersection, including the proposed improvements.
- 10 I expand on each of these issues in the following sections. However, before doing so I believe it is important to put the proposed improvements in context.
- 11 When an Applicant proposes to deliver improvements to public assets beyond their boundary, they are effectively acknowledging that their proposed activity will generate adverse effects on the receiving environment in its current state – whether they explicitly say so or not. In this instance, through the offering of proposed improvements, the Applicant is acknowledging that:
 - 11.1 Parkhill Road (south of Raymond Road) is of substandard width to satisfactorily accommodate the additional traffic generated by the proposed activity.
 - 11.2 The Parkhill / Raymond intersection is inadequate to satisfactorily accommodate the additional traffic generated by the proposed activity given the other activities (school and kindergarten) operating in this vicinity.

11.3 The Parkhill / East intersection is inadequate to satisfactorily accommodate the heavy vehicle movements that will be generated by the proposed activity without modification to the physical form of the intersection.

- 12 If the receiving environment was able to accommodate the additional traffic generated by the proposed activity without adverse effects, then it would be reasonable to assume that no improvements would be offered. In terms of effects, the question to ask is whether the proposed improvements adequately mitigate the adverse effects, and whether there are other adverse effects that remain unmitigated or have not been assessed.

Widening of Parkhill Road

- 13 South of Raymond Road, and more specifically south of Home Road, the Parkhill Road carriageway has an existing width of approximately 6.0m (Figure 1). This width is generally maintained for around 550m to the driveway to Haddington Farm at 278 Parkhill Road.



Figure 1: View south along Parkhill Road from Caseley access

- 14 Beyond this, the carriageway noticeably narrows and has a typical width of 3.6m – 4.0m through to Te Awanga Estate (Figure 2).



Figure 2: View south along Parkhill Road from Haddington access

- 15 There are no edgeline or centreline markings on this section of Parkhill Road, which is subject to an 80 km/h speed limit.
- 16 There are some formed swales and drainage channels that run along and adjacent to the road corridor, as well as culverts that pass under the road. These stormwater facilities were running high on the day of my site visit despite the weather being sunny. There was evidence of recent flooding, which residents informed me was a regular occurrence along this section of Parkhill Road. Figure 3 shows flooding on Parkhill Road on Friday 23 September.



Figure 3: View north along Parkhill Road towards Haddington access

- 17 Beyond the two large eucalyptus trees adjacent to the access to 319 Parkhill Road there is evidence of pavement failures over a section of Parkhill Road that is approximately 100m long (Figure 4). From reading the Council Officer's Report, I can see this coincides with the historic Hawke's Bay County Council dump site.



Figure 4: Pavement damage across old dump site

- 18 The evidence of Mr James notes that the latest traffic volumes south of Home Road are 142 vehicles per day (vpd) and average speeds are in the range of 50 – 60 km/h. The proposal is anticipated to generate at least 470 trips per day. This would see traffic volumes on Parkhill Road more than tripling to around 612 vpd.
- 19 In response to the increased traffic volumes, the Applicant proposes to increase the width of Parkhill Road south of the Raymond Road intersection to have a minimum sealed width of 6.0m. The Council Officer, relying on the opinion of Mr Michael Smith of Stantec, recommends this should be 7.0m comprising 2x 3.0m wide lanes with a 0.5m wide sealed shoulder on both sides.
- 20 Mr Smith bases his opinion on the premise that the projected future traffic volume on Parkhill Road would change the classification from 'Access: Rural' to 'Secondary Collector: Rural'. The formation recommended by Mr Smith aligns with the Secondary Collector classification.
- 21 At current volumes, the likelihood of meeting a vehicle travelling in the opposite direction is very low. Given almost all existing traffic is familiar with the road and travel at suitably slow speeds, the locals can safely negotiate the situation when encountering an oncoming vehicle along the narrow section. However, if the proposed activity were to go ahead, then encountering an oncoming vehicle would become a more frequent occurrence rendering the current form of the road no longer fit-for-purpose.
- 22 Therefore, I accept that widening of the narrow sections of Parkhill Road is required to avoid vehicles having to pull onto the unsealed shoulder should they encounter another vehicle travelling in the opposite direction. Given the high proportion of larger vehicles expected, and the existing use of Parkhill Road to accommodate walking and cycling for recreation and access to wineries, the wider 7.0m option would appear to be more prudent.

- 23 Whilst widening will enable traffic travelling in opposing directions to pass each other without using the grass shoulder, it will also increase operating speeds; something neither Mr James nor Mr Smith have commented on.
- 24 The existing narrow width of Parkhill Road plays an important role in calming travel speeds to 20 – 30 km/h below the legal speed limit (as noted in Mr James' evidence). Speeds on the narrower sections of Parkhill Road are likely to be even lower.
- 25 However, when the carriageway is widened it is almost certain that travel speeds will also increase. It is not unreasonable to expect future travel speeds would increase by 10 – 15 km/h to mirror average speeds on Raymond Road given Parkhill Road would be designed to a similar width and include a marked centreline such as that present on Raymond Road.
- 26 This will make it more difficult to safely enter and exit driveways with existing visibility restrictions, such as that of Mr and Mrs Caseley, as greater sight distance is required to observe and react to the higher travel speeds of other traffic. Higher speeds will magnify the outcome of any errors of judgement made by users of the corridor, as speed is the main determining factor in the severity of any crash.
- 27 Any widening of the Parkhill Road carriageway will necessitate changes to the stormwater system. This will be a significant undertaking given some facilities are very close to the existing carriageway (Figure 5) and will need to be both relocated away from the edge of the carriageway for safety reasons and upgraded to accommodate increased stormwater runoff from the expanded road surface.



Figure 5: Existing drainage channel that will need to be relocated

- 28 Deep open drainage channels represent a safety hazard within the road corridor and should be protected or setback sufficiently to reduce the likelihood of entry from errant road users. The Applicant's evidence does not currently provide any details of how the drainage system would be designed. Given the scale of upgrade required and how intrinsic the stormwater system is, I consider this to be a major shortcoming of the application.
- 29 The feasibility of upgrading the section of Parkhill Road that traverses the old dump site is also not discussed in evidence. Based on my reading of the Council Officer's report, it appears that consent would likely be required for that activity because of the volume of earthworks required. It is not best practice to grant a resource consent containing conditions which themselves require additional resource consents because such consent may not be forthcoming, which would preclude the Applicant from giving effect to the initial resource consent.
- 30 Based on my assessment, I conclude that:

- 30.1 Widening the narrow sections of Parkhill Road is required with the 7.0m option being preferable.
 - 30.2 Traffic speeds will increase in conjunction with the wider carriageway.
 - 30.3 The higher operating speed will make it more difficult to safely enter and exit driveways with existing visibility restrictions.
 - 30.4 Significant changes to the stormwater system will be required in conjunction with the carriageway widening.
 - 30.5 Earthworks in the vicinity of the former Hawke's Bay County Council dump site are likely to require a separate resource consent if the soil is found to be contaminated.
- 31 Whilst supportive of the widening of Parkhill Road and associated works should consent be granted, I am not convinced the Applicant has adequately demonstrated an understanding of the full range of issues that are associated with the proposed widening and whether these are feasible or not.

Parkhill / Raymond Intersection

- 32 The intersection of Parkhill Road and Raymond Road is a priority-controlled T-junction. At nearly all T-junctions, priority is provided to traffic that travels straight through the intersection rather than between two legs that meet at, or near, right angles. The Parkhill / Raymond intersection is one of those atypical arrangements where priority is provided between the northern leg of Parkhill Road and Raymond Road.
- 33 The Te Awanga Kindergarten is located on the southwest corner of the intersection and is neighboured by Haumoana School to the west.

- 34 The intersection is in an 80 km/h speed limit area; however, unofficial 50 km/h courtesy speed limit signs are erected on the approach to the intersection (Figure 6) to provide a safer environment for those accessing the kindergarten and primary school. The recommended safe negotiation speed of the intersection is 25 km/h, as indicated by curve warning signs on the approaches and a chevron board at the intersection.
- 35 A shared walking and cycling path is provided on Parkhill Road and East Road that connects Haumoana School to Haumoana and other townships along the coast. Being a shared path that is separated from traffic it is suitable for accommodating school aged children.



Figure 6: Unofficial 50 km/h Courtesy Zone sign on Parkhill Road

- 36 Angle parking is provided on both sides of Raymond Road outside Haumoana School for teachers and parents/caregivers dropping-off and picking-up children, as shown in Figure 7. Widening is also provided on the southern leg of Parkhill Road outside Te Awanga Kindergarten for similar purposes (Figure 8).



Figure 7: Parking on Raymond Road outside Haumoana School



Figure 8: Parking on Parkhill Road outside Te Awanga Kindergarten

- 37 No formal crossing facilities are provided for pedestrians or cyclists at the intersection, although a crossing location across the head of Parkhill Road (south leg) is provided linking the shared path to the footpath that serves both the primary school and kindergarten (Figure 9).



Figure 9: Crossing between shared path and footpath at intersection

- 38 The arrangement of the intersection results in very poor sight distance for the right turn movement from Raymond Road to Parkhill Road (south). At the critical location when a driver decides whether they can safely turn, I measure the maximum available sight distance as approximately 70m. This is less than the sight distance of 100m that Mr James indicates is available.
- 39 I accept that the exact location where sight distance is recorded will have a big impact on the sight distance measurement; even half a metre difference in measurement location could result in many tens of metres of sight distance difference. Figure 10 shows how constrained sight distance is at the intersection and how rapidly it develops as you progress forward by even one metre.

14



Figure 10: Sight distance from Raymond Road approach

- 40 All traffic generated by the proposed activity is expected to pass through the intersection. Traffic modelling shows the intersection has capacity to accommodate the additional trips without reducing the level of service to an unacceptable level.

- 41 Trips associated with the proposed activity are primarily expected to occur from 6am to 7am² and again from 5pm to 6pm. Neither of these periods coincides with typical school or kindergarten start or end times.
- 42 It is with interest therefore, that the Applicant has offered to deliver improvements (Figure 11) at the Parkhill / Raymond intersection "...in the vicinity of the Haumoana School and Te Awanga Kindergarten, recognising the importance of safety for these facilities in the community."³
- 43 If there is no interaction between traffic that would be generated by the proposed activity and the school and kindergarten, then one must question why the proposed improvements have been offered. We can be sure that it is not to mitigate an effect.
- 44 To be clear, I do not oppose the proposed improvements. I support the introduction of the raised platforms and raised pedestrian crossing to enhance safety outcomes for vulnerable road users. I am simply questioning why such improvements would be put forward by an Applicant when no interaction between school or kindergarten users and users of the proposed activity is expected.
- 45 I note that the Applicant has evaluated a scenario of the peak trip generation of the proposed activity coinciding with the network peak. This evaluation concludes sufficient capacity exists in the network – something I agree with from a level of service perspective.
- 46 Mr James has attempted to evaluate the traffic effects of development traffic coinciding with school start or end times by drawing comparison to the Bridge Pā School site in Maraekakaho Road. Whilst approaches such

² The Officer's Report identifies traffic noise at this time of the day as a concern. The Applicant's planner has indicated this may be addressed through the imposition of further conditions to reduce traffic numbers at this time. This may result in increased trips later in the day.

³ Evidence of Steve James paragraph 127.

16

as this can be useful, it is mostly useful for situations that share similar characteristics.

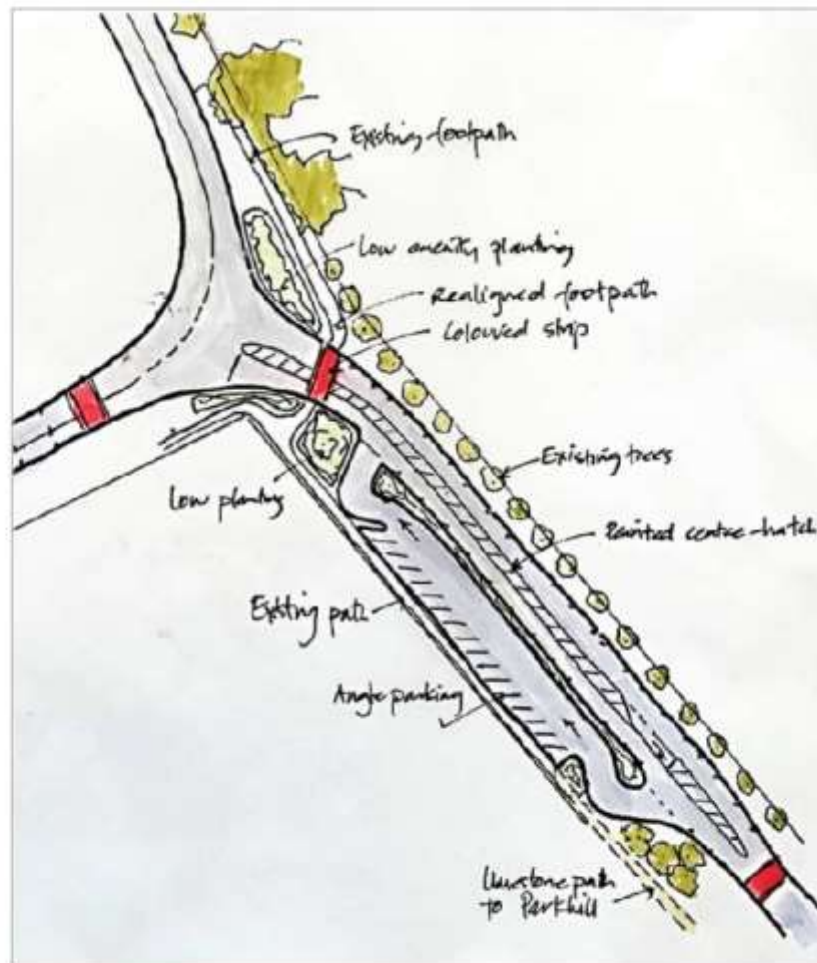


Figure 11: Sketch of proposed improvements to Parkhill / Raymond intersection

- 47 If traffic generated by the proposed activity was to coincide with either school start or end times, I would be concerned about this given existing characteristics of the site, which are somewhat unique and quite complex.

- 48 Mixing heavy vehicles and increasing turning vehicles in a location where young children are crossing the road is not prudent regardless of whether the children are accompanied or unaccompanied.
- 49 I can envisage a situation where a motorist turns in front of other traffic, perhaps due to inadequate sight distance or simply moving to/from a parking space, which results in another vehicle taking evasive action that then involves a pedestrian. This risk currently exists, but that risk increases substantially if the development was to proceed and traffic movements coincide with school start or end times.
- 50 Whilst I support the introduction of the raised platforms and a raised pedestrian crossing to enhance safety outcomes for vulnerable road users, I have reservations about whether these improvements adequately mitigate the heightened risk that would exist.
- 51 Appendix C of Mr James' evidence shows a conceptual plan based on the indicative sketch included in the Application. I note with interest that the conceptual plan excludes the flush median and U-turn facility on Parkhill Road that exists in the sketch. I suspect it has been removed because the Applicant has realised that the road reserve is not wide enough to accommodate all features included in the indicative sketch.
- 52 I had a colleague determine the dimensions required for each of the facilities shown in the indicative sketch. Measured perpendicular to the direction of travel from the kindergarten side these are:

Feature	Lateral Dimension	Running Total
Footpath	1.5m	1.5m
45° angle parking	5.5m ⁴	7.0m
Parking aisle	3.9m	10.9m

⁴ To avoid vehicle overhang of the footpath

54.2 Improvements are proposed at the intersection despite the Application being adamant there will not be any interaction between traffic that would be generated by the proposed activity and the school and kindergarten.

54.3 The introduction of the raised platforms and a raised pedestrian crossing will enhance safety outcomes for vulnerable road users.

54.4 The risk of a collision between a vehicle and a pedestrian will increase if the development was to proceed and traffic movements coincide with school start or end times.

54.5 The proposed improvements included in the Application are unable to be accommodated within the current road reserve on Parkhill Road and are already being modified by the Applicant to reflect this.

55 Whilst supportive of the proposed improvements in and around the intersection, I have reservations about whether these improvements adequately mitigate the heightened risk that would exist with the increased turning traffic movements. It is also unclear what form the improvements would take, particularly on Parkhill Road, given the road reserve is currently not wide enough to accommodate these without compromising on one or more of the facilities.

Parkhill / East Intersection

56 The intersection of Parkhill Road and East Road has a similar configuration to the Parkhill / Raymond intersection where priority is provided between the northern leg of Parkhill Road and East Road. The intersection carries more traffic than the Parkhill / Raymond intersection and the design (Figure 13) reflects that with provision of

- 56.1 A splitter island on Parkhill Road (south) to separate inbound and outbound movements.
- 56.2 A right turn bay on Parkhill Road (north) to separate right turning traffic from through traffic (Parkhill north to East).



Figure 13: Parkhill / East intersection arrangement from right turn bay

- 57 The Parkhill / East intersection is in an 80 km/h speed limit area. The recommended safe negotiation speed of the intersection is 35 km/h, as indicated by curve warning signs on the approaches and a chevron board at the intersection.
- 58 The shared walking and cycling path on East Road and Parkhill Road (south) passes through the intersection but does not cross it.
- 59 Like the Parkhill / Raymond intersection, the arrangement of the intersection results in poor sight distance for the right turn movement from Parkhill Road (north) to East Road. At the critical location when a driver decides whether they can safely turn (Figure 14), I measure the maximum available sight distance as approximately 80m. This is confirmed by checking of sightline availability in Google Earth (Figure 15) and from double-checking of in-lane observations (Figure 16).



Figure 14: Visibility from right turn bay limit line



Figure 15: Maximum sight distance from right turn bay is around 80m



Figure 16: East Road approach to Parkhill / East intersection

- 60 Again this is less than the sight distance of 130m that Mr James indicates is available. I am satisfied that my on-site measurements, which are confirmed by aerial imagery, more closely reflect the available sight distance than that quoted by Mr James.
- 61 In that regard, it is important to note that the intersection would fail to meet the Stopping Sight Distance (SSD) required for an expected operating of 60 km/h, which is 89m.⁵
- 62 Like the Parkhill / Raymond intersection, all traffic generated by the proposed activity is expected to pass through the Parkhill / East intersection. Traffic modelling shows the intersection has capacity to accommodate the additional trips without reducing the level of service to an unacceptable level.
- 63 The Applicant has offered to modify the intersection to accommodate the movement of heavy vehicles and to address current deficiencies that will be magnified with additional traffic generated by the proposed activity. These

⁵ Evidence of Steve James paragraph 99.

are shown in Appendix D of Mr James' evidence, replicated as Figure 17 below.



Figure 17: Applicant's proposed modifications to Parkhill / East intersection

- 64 The key features of the proposed modifications include widening of the Parkhill Road (south) approach and departure lanes, relocation of the right turn bay limit line and introduction of raised reflectorised pavement markers (RRPMs) on the edge of the right turn lane.
- 65 Widening of the Parkhill Road (south) leg of the intersection is required to accommodate the tracking of heavy vehicles. However, I have significant concerns with the proposed design, as it will enable and encourage much faster movements into and out of Parkhill Road (south) for all other vehicles that require less manoeuvring space than heavy vehicles.
- 66 The current intersection is designed with tight turning radii to deliberately minimise the speed of vehicles turning into and out of Parkhill Road (south) making it a safety feature given the restricted visibility at the intersection. Widening the intersection will facilitate much higher entry and exit speeds, as smaller vehicles will be presented with much larger tracking radii. The

ability to turn more quickly could readily exacerbate the existing sight distance deficiencies at the intersection and lead to crashes.

- 67 The proposed relocation of the right turn bay limit line forward is intended to improve visibility between right turning vehicles and traffic heading west on East Road. However, the proposed position is not indicative of where a vehicle should stop nor is it consistent with Waka Kotahi design guidance that recommends the right turn bay limit line be setback 6m from prolongation of the intersecting road centreline. Locating the limit line past the centre of the intersection, as proposed, is inconsistent with the point where road users will commence their turn into Parkhill Road (south). If it is to improve visibility, then other changes to the intersection should also be delivered, such as realignment of Parkhill Road (south) including the position of the splitter island.
- 68 Concern has been raised by submitters that the increase in heavy vehicle movements through the intersection will create safety issues. To ascertain the validity of these concerns I instructed a colleague to simulate the path of a semi-trailer entering the right turn bay. Figure 18 shows a semi-trailer entering the right turn bay and stopping at the limit line.
- 69 The curvature of the right turn bay means the trailer protrudes significantly (by at least 1m) into the through traffic lane when the vehicle is at the limit line. This presents a very high risk of a collision between the two vehicles or the vehicle in the through lane needing to take evasive action to avoid the trailer as it moves into the through lane.
- 70 This is a serious safety issue and something that other motorists should not be expected to anticipate.

25



Figure 18: Tracking of a semi-trailer into Parkhill Road (south)

71 I accept that this is an existing situation; however the number of heavy vehicles currently performing this manoeuvre is currently very low. If the proposed activity goes ahead and heavy vehicles movements increase as projected, then the likely incidence of the situation described above can also be expected to increase dramatically. Subdivisions in Te Awanga and other areas will further increase background traffic and compound this safety issue.

72 Based on my assessment, I conclude that:

- 72.1 The current form of the intersection is not suitable for accommodating heavy vehicle movements and requires modification.
- 72.2 The increased traffic movements associated with the proposed activity, and especially the right turning movements of heavy vehicles into Parkhill Road (south) represent a serious safety issue that is not resolved by the proposed modifications.
- 72.3 The proposed modifications enable and encourage much faster movements into and out of Parkhill Road (south) for vehicles that require less manoeuvring space than heavy vehicles, which will exacerbate existing sight distance deficiencies.
- 73 Overall, I do not believe the proposed intersection modifications mitigate the serious adverse safety issues that may arise should the proposed activity proceed. In fact, I believe the proposed modifications would more likely exacerbate safety issues rather than offset them.

Objectives and Policies

- 74 Objective TPO1 and Policy TPP1 of the Hastings District Plan are relevant to this Application.
- 75 Objective TPO1 reads "Ensure that land uses and new subdivision are connected to the transportation network in a manner that provides for the efficient and sustainable movement of people and goods in a safe manner."
- 76 Policy TPP1 reads "Ensure that subdivision and land use are integrated with the transport network and that the traffic effects are mitigated, including through the use of sustainable transport modes."
- 77 Based on my assessment of the Application, I believe it is generally inconsistent with this objective and policy for the following reasons:

- 77.1 The Application does not support the sustainable movement of people due to its proposed location. Despite cycling facilities being provided on site, the activity is located on rural land and as such is largely disconnected from urban areas meaning walking or cycling to the site is unlikely. I conclude that the activity is vehicle-centric and as such would be inconsistent with providing for the sustainable movement of people.
- 77.2 The safety impacts of the increased traffic generated by the proposed activity are attempted to be mitigated by the proposed improvements to Parkhill Road and the intersections of Parkhill / Raymond and Parkhill / East. Whilst the widening of Parkhill Road and improvements at Parkhill / Raymond are generally expected to offset the increased safety risks, the modifications proposed at the Parkhill / East intersection to accommodate heavy vehicle do not. I conclude that the proposed modifications would more likely exacerbate safety issues rather than offset them at this location. As such, I believe the Application is partly consistent and partly contrary to the objective of moving people and goods in a safe manner.
- 77.3 Related to the above two points, I assess the Application to be inconsistent with the policy as:
- (i) Land use is not integrated with the transport network in a way that promotes the sustainable movement of people, and
 - (ii) Traffic effects are not fully mitigated.

Conclusion

- 78 Having investigated the key transport matters associated with the proposed activity and assessing it against the TPO1 and TPP1 of the Hastings District Plan, my primary conclusions are:
- 78.1 Widening of Parkhill Road is required to accommodate traffic that would be generated by the proposed activity. However, I am not convinced the Applicant has demonstrated the ability to deliver all aspects associated with the proposed widening, particularly stormwater improvements and earthworks in contaminated soil.
- 78.2 The proposed improvements the intersection Parkhill / Raymond intersection will generally have positive impacts on road safety, but I am not convinced these improvements adequately mitigate the heightened risk that would exist with the increased turning traffic movements.
- 78.3 The proposed improvements on Parkhill Road adjacent Te Awanga Kindergarten cannot be accommodated within the road reserve without compromising on one or more of the facilities.
- 78.4 The Parkhill / East intersection is not suitable for accommodating heavy vehicle movements and requires modification.
- 78.5 The increased traffic movements associated with the proposed activity, and especially the right turning movements of heavy vehicles into Parkhill Road (south) from Parkhill (north) at East Road represent a serious safety issue that is not resolved by the proposed modifications.
- 78.6 The proposed modifications at Parkhill / East will exacerbate existing sight distance deficiencies by enabling and encouraging faster movements into and out of Parkhill Road (south).

78.7 The proposed activity is generally inconsistent with TPO1 and
TPP1.

79 Based on the safety issues I have highlighted and the reservations I have
about the feasibility of delivering several aspects of the proposed mitigation
measures, I cannot support the proposed activity from a transport
perspective.

Dated: 4 October 2022



Joseph Paul Durdin
Technical Director, Abley