BEFORE THE INDEPENDENT HEARINGS PANEL
OF HAMILTON CITY COUNCIL

UNDER	the Resource Management Act 1991 ("**RMA**")
AND	
IN THE MATTER	of Private Plan Change 17 to the Hamilton City Operative District Plan ("**PC17**")

STATEMENT OF EXPERT EVIDENCE OF BRYCE JAMES HOURIGAN ON BEHALF OF FONTERRA LIMITED

RAIL SIDING

7 OCTOBER 2025

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1. EXECUTIVE SUMMARY

1.1 PC17 proposes to rezone approximately 91 hectares of land surrounding Fonterra Limited's ("**Fonterra"**) Te Rapa Dairy Manufacturing Site (the "**Plan Change Area**"). Fonterra proposes to remove the Deferred Industrial Zone Area overlay from the Plan Change Area and amend the provisions of the underlying Te Rapa North Industrial Zone ("**TRNIZ**") which will enable the Plan Change Area to be developed for industrial use.

1.2 The North Island Main Trunk ("**NIMT**") rail line abuts the most western boundary of the Plan Change Area between 550km and 551.5km NIMT metreage.

1.3 As part of the Siding Feasibility Assessment, which I verified, Vitruvius Limited ("**Vitruvius**") developed a concept design to assess whether it is feasible to deliver a rail siding from the NIMT into the Plan Change Area.

1.4 Based on this concept design, the following conclusions were reached:

(a) The topography and space available within the potential location is supportive of a concept design with capacity for 37 IA freight wagons and two locomotives, with track cross-overs and vehicle run-around capacity to provide for north and southbound movements.

(b) The concept track alignment is designed to be within desirable tolerances as set out in KiwiRail Holdings Limited's ("**KiwiRail**") design standards.

(c) A new rail siding for the NIMT is feasible within the western edge of the Plan Change Area, between the NIMT meterage points 550km and 551.5km.

1.5 Fonterra will engage with KiwiRail to confirm detailed design and finalise the layout of the rail siding.

2. INTRODUCTION

Qualifications and Experience

2.1 My full name is Bryce James Hourigan. I am a Rail Service Leader and Senior Track Designer at Vitruvius.

2.2 I have obtained a Diploma of Civil Engineering from the New Zealand Institute of Highway Technology (2010).

2.3 I have 19 years of experience in Civil Engineering and 15 years in the field of railway track design, specialising in detailed geometric design, earthworks modelling, and spatial design modelling using Bentley and Autodesk software. My work is predominantly focussed on transportation design, with experience across both New Zealand and Australia.

2.4 Over the past decade at Vitruvius, I have worked as track design lead and designer on several significant projects, including the reference alignment of the Auckland City Rail Link, corrections to the Main North Line from the effects of the Kaikoura earthquake, upgrades to the North Auckland Line, the realignment of Tunnel 21 on the Main North Line and the Wellington Metro Upgrade Programme 6A. Prior to working for Vitruvius, I was a Senior Civil Designer at Aurecon Group Pty Limited (2010-2015), and a Civil Designer at Opus International Consultants Limited (2006-2010).

2.5 I am also an Information Management Practitioner, certified by the Operam Academy in ISO 19650.

Involvement in PC17

2.6 I verified the Siding Feasibility Assessment prepared by Vitruvius on behalf of Fonterra to inform and support PC17.

2.7 I am familiar with the Plan Change Area. As part of the concept design process, I have reviewed:

(a) Harrison Grierson Consultants Limited's Topographical Survey dated April 2023;

(b) the PC17 Illustrative Te Rapa North Masterplan; and

(c) Land Information New Zealand's Data Aerial Images.

Code of Conduct

2.8 I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing this evidence and I agree to comply with it while giving oral evidence before the Hearings Commissioners. Except where I state that I am relying on the evidence of another person, this written evidence is within

my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

3. PC17

3.1 The purpose of PC17 is to rezone the Plan Change Area to TRNIZ under the Hamilton City Operative District Plan ("**ODP**"). This is achieved by removing the Deferred Industrial Zone Area which currently overlays the majority of the Plan Change Area. This will enable the Plan Change Area, which is primarily used for rural purposes at present, to be developed for industrial use.

3.2 The Plan Change Area is made up of three distinct areas, all of which are encompassed by the Waikato River to the east, the Waikato Expressway (State Highway 1C) and the NIMT rail line to the west, Hutchinson Road and Bern Road to the north and Ruffell Road, Old Ruffell Road and property boundaries to the south. All three areas have frontage to Te Rapa Road which runs north to south through the centre of the Plan Change Area.

3.3 The extent of the Plan Change Area is set out in Figure 1.

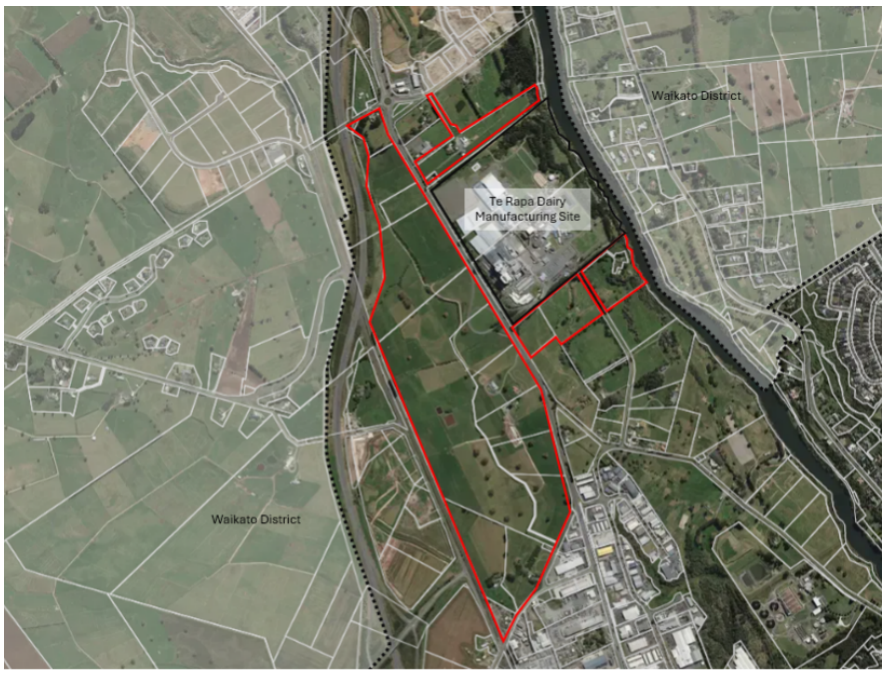

Figure 1: Plan Change Area Boundaries (Source: Harrison Grierson).

3.4 Fonterra engaged Vitruvius to assess the feasibility of a new rail siding on the NIMT on Fonterra-owned land within the Plan Change Area.

4. SCOPE OF EVIDENCE

4.1 This statement of evidence will

(a) outline the existing rail line infrastructure in the Plan Change Area;

(b) summarise the track design and key findings from the Siding Feasibility Assessment undertaken in relation to PC17; and

(c) provide an overall conclusion on Fonterra's application for PC17 from a rail siding perspective.

5. EXISTING RAIL INFRASTRUCTURE

5.1 The NIMT is the rail line linking Wellington and Auckland, passing through Hamilton along its route.

5.2 A section of the NIMT abuts the Plan Change Area, as shown in Figure 2. This section of the NIMT is between 550km and 551.5km (NIMT metreage), with the dual track up-and-down mains running north / south along approximately 800m of the Plan Change Area's western boundary.

Figure 2: Portion of NIMT abutting the Plan Change Area (yellow line).

5.3 The existing NIMT between 550km and 550.975km is a tangent track (length of straight track), with a 2085 radius right-hand curve between 550.975km and

551.250km. KiwiRail's track logs show gradients between one in 243 and one in 1098 through this area.

6. TRACK DESIGN

6.1 A concept design has been developed to assess whether it is feasible to deliver a rail siding from the NIMT into the Fonterra-owned land within the Plan Change Area. The Fonterra-owned parcels that form the potential location of the new rail siding are identified in blue dashed outline in Figure 3 below.[1]

Figure 3: Fonterra-owned land identified for future rail siding (blue dashed outline).

Design Criteria

6.2 The concept design includes track alignment and level in accordance with KiwiRail's Track Design Standard T-ST-DE-5200 with the key design criteria adopted as set out in Table 5-1.

Table 5-1: KiwiRail T-ST-DE-5200 Design Criteria

Design Criteria	Option - Siding
Track Design Speed	25km/h
Min Horizontal Radius	150m

[1] Part Lot 2 DPS 10804 and Lot 6 DPS 11087.

Max Vertical Grade	1 in 200 [assumed to match existing track line]
Turnout	1 in 9 used for mainline connections as per KiwiRail requirements 1 in 7.5 used in the sidings
Track Storage Length	675m (single track) 37 IA Wagons + 2 Locomotives

Concept Design

6.3 The concept design is set out in Figure 4.

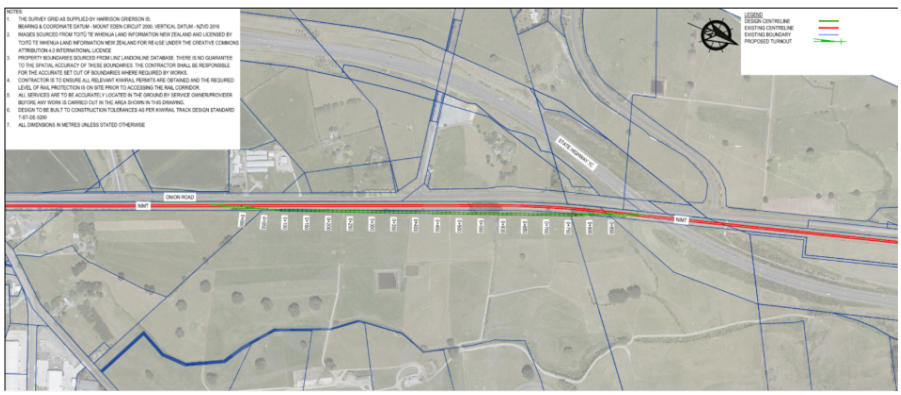

Figure 4: Concept Design for Future Rail Siding for NIMT.

6.4 The concept design comprises the following:

(a) A rail siding 675m in length that has a minimum of 5.2m offset from centreline of the mainline;

(b) Four 1 in 7.5 gradient Turnouts; these include 2 connecting onto the runaround road and 2 as mainline protection as runaway traps;

(c) A run-around with a minimum 5.2m offset from the centreline of the mainline, with the siding 4m adjacent to the run-around;

(d) Two crossovers with 1 in 9 gradients placed both north and south of the siding to allow access and departure by north and southbound trains; and

(e) Capacity for space for 37 wagons and two locomotives.

Track Geometry

6.5 The vertical design is to meet or be flatter than 1 in 200. This meets the requirement in KiwiRail's Track Design Standard T-ST-DE-5200.

6.6 The horizontal design is set out in detail at Table 6-1 of the Siding Feasibility Assessment and complies with KiwiRail's Track Design Standard T-ST-DE-5200.

7. SUBMISSIONS AND SECTION 42A REPORT

7.1 I understand there were no issues raised regarding the rail siding in submissions lodged on PC17 or in the Hamilton City Council officer's s42A report.

8. CONCLUSION

8.1 Subject to further design developments, engineering approvals and input from KiwiRail, a rail siding for the NIMT is feasible within the western edge of the Plan Change Area, between the NIMT meterage points 550km and 551.5km.

Byrce Hourigan
7 October 2025