

Railway Boundary Definition and Problems Encountered

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ABSTRACT

In NSW, before registering a Deposited Plan (DP) that contains a definition of a boundary adjoining a rail corridor, Land Registry Services (LRS) requires that approval of that definition be obtained from Transport for NSW (TfNSW) acting on behalf of the Transport Asset Holding Entity (TAHE). As TAHE is a relatively new instrumentality, this paper first discusses its working relationship to TfNSW. Updated contact details for requesting an approval of a rail boundary are also advised. About 1 in 10 rail boundary approval requests are returned at least once to the requesting surveyor for clarification or amendment. In an attempt to reduce this number, this paper then presents examples of those plans that were returned to the surveyor and outlines the reasons why.

KEYWORDS: Railway, cadastral boundary, approval.

1 INTRODUCTION

NSW Land Registry Services (LRS) create and maintain land title records on behalf of the NSW Government (LRS, 2023). Before registering a Deposited Plan (DP) that contains a definition of a boundary adjoining a rail corridor, LRS requires that approval of that definition be obtained from Transport for NSW (TfNSW), acting on behalf of the Transport Asset Holding Entity (TAHE).

TAHE was formed in July 2020 and is now the owner of a portfolio of railway assets across NSW, including tracks, stations and extensive land holdings (TAHE, 2023). It is now the authority that approves the definition of railway boundaries. LRS guidelines on the issue of railway boundaries can be ambiguous. Often a plan is submitted for review that probably is not strictly in accordance with the requirements of the guidelines.

About 1 in 10 rail boundary approval requests are returned at least once to the requesting surveyor for clarification or amendment. In an attempt to reduce this number, this paper presents examples of those plans that were returned to the surveyor and outlines the reasons why.

Information on Working Plans can be useful when re-establishing railway boundaries. If using Working Plans, the publication “Definition of railway boundaries in NSW” (Webber, 1983) is an essential guide. Boundaries that are shown as curved on Working Plans are often arbitrarily converted to straight line boundaries upon survey of the adjoining land. Generally this is unacceptable, as shown in the case studies presented in this paper.

Most railways in NSW were constructed in the late 19th and early 20th centuries. Land was acquired by gazettal rather than survey, and confused boundaries can often be the result, as this paper shows.

2 SUBMITTING A PLAN FOR REVIEW AND APPROVAL OF A RAILWAY BOUNDARY

TAHE has delegated responsibility for approving railway boundaries to the Property Group in Sydney Trains, which is one of TAHE's partners. Consequently, Sydney Trains surveyors assist with the reviews. Plans should be sent for review and approval to the following email address: property_gis@transport.nsw.gov.au.

Current staff include (all contactable via the email address above):

- Sandy Lam – Property Information Manager
- Daniel Prior – Senior Property Information Officer
- Rodney Varlet – Property Information Officer

Surveyors involved in the process include:

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|-----------------|--|--------------|
| • Ian Jones | ian.jones@transport.nsw.gov.au | 0413 005 420 |
| • Gary Clifford | gary.clifford@transport.nsw.gov.au | 0412 145 094 |
| • Alex Burridge | alex.burridge@transport.nsw.gov.au | 0413 852 810 |

3 CASE STUDIES OF PLANS THAT PROBABLY SHOULD NOT BE COMING TO TAHE FOR APPROVAL

3.1 LRS Guidelines

Where land is bounded by railway land, consent by Sydney Trains will be required, unless the boundary is either:

- based on (and identical to) a boundary shown in a previous plan that bears the consent of RailCorp / TAHE, or
- defined by existing registered DPs, portion plans or section plans, and
- the surveyor's definition of the railway boundary maintains that definition without excess in side boundaries to the railway boundary, and
- the definition is supported by evidence of railway occupations.

3.2 Survey at Quirindi

Figure 1 shows a recent survey of the rail corridor at Quirindi. The following points are to note:

- The fix of George Street agrees with DP1052162 and DP89803 and is related to State Survey Marks (SSMs) vide DP1052162.
- SSM-to-boundary connections are all per original, and lot depths George Street to railway are all per original.
- There is a consistent azimuth difference to previous plans.
- The surveyor was requisitioned to provide rail consent.

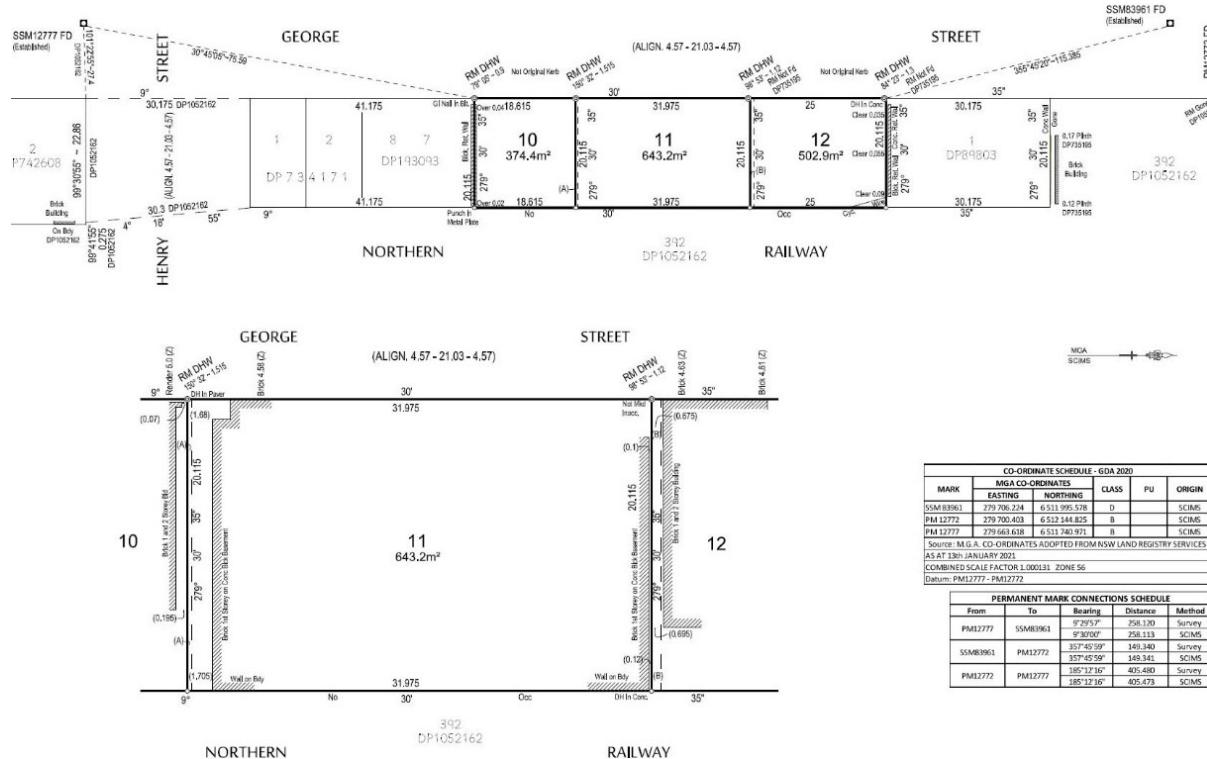


Figure 1: Case study – Quirindi.

3.3 Survey at Ingleburn

Figure 2 shows a survey at Ingleburn.

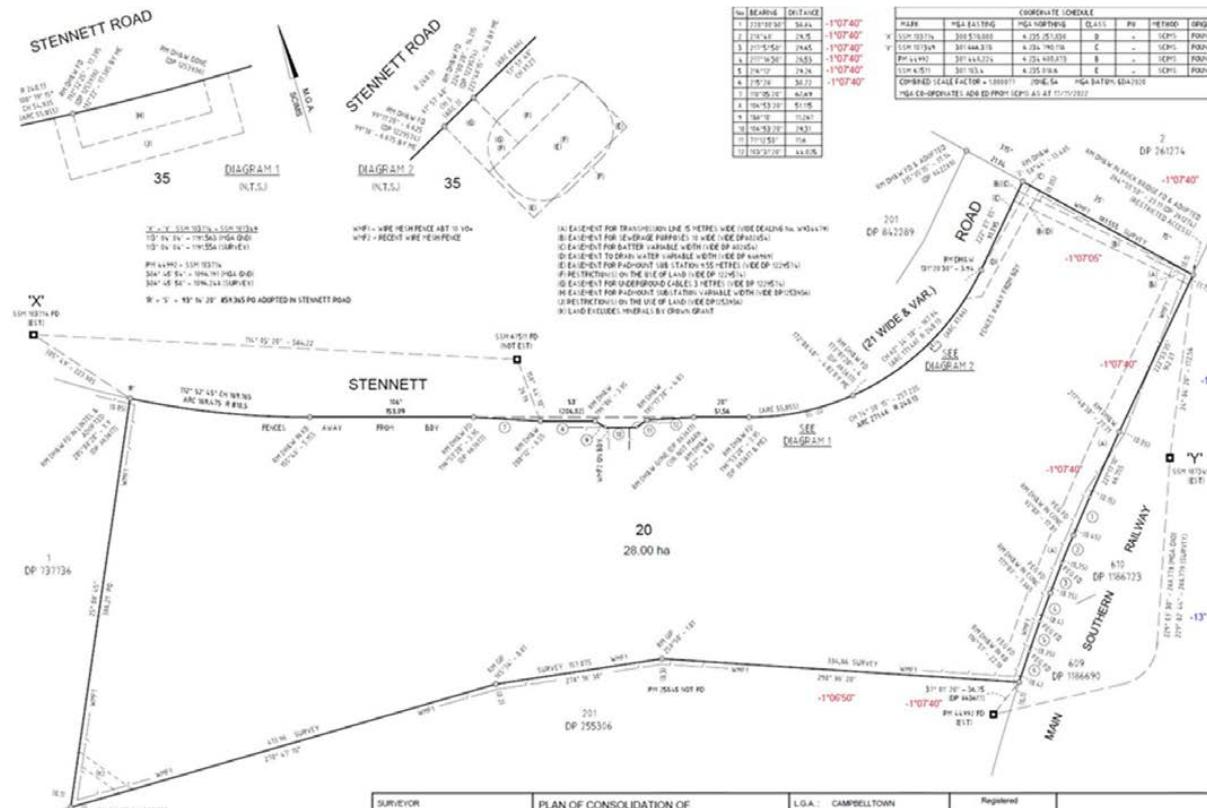


Figure 2: Case study – Ingleburn.

The following points are to note:

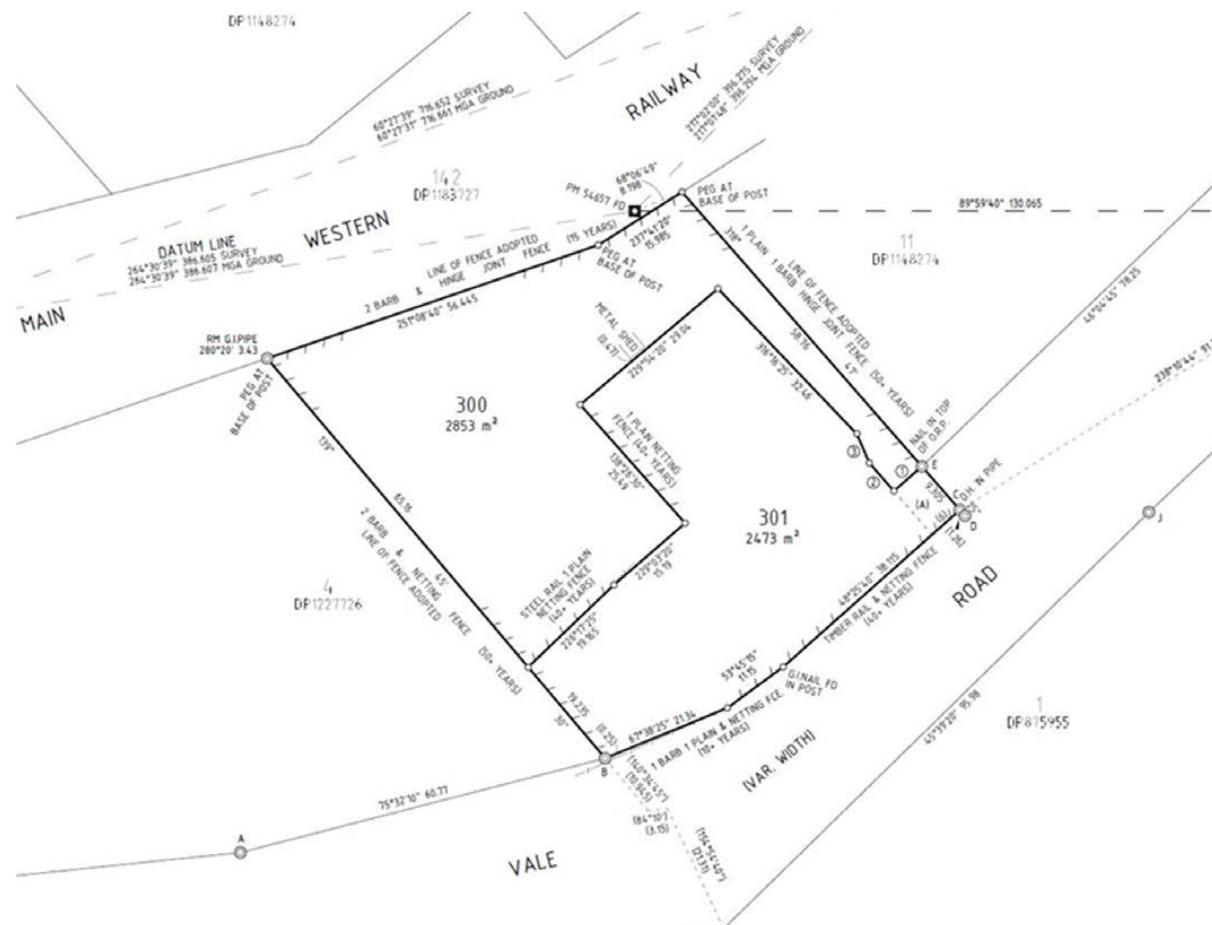
- Reference Marks (RMs) are found at each end of the railway boundary.
- There is a consistent azimuth difference to the previous plan, and the distances are close to per original.
- The surveyor submitted the plan for approval as they had previous experience with LRS.

4 CASE STUDIES OF PLANS THAT HAVE CONVERTED ARCS TO STRAIGHT LINE BOUNDARIES

4.1 Survey at Perthville

Figure 3 shows a subdivision survey of an old churchyard at Perthville. The following points are to note:

- The rail boundary is shown as two straight lines following the fence.
- The rail boundary is shown as an arc on the Working Plan (Figure 4) with centreline radius and side widths shown.
- The surveyor located the existing track, and a curved boundary relative to the centreline radius was adopted. The plan was re-submitted.



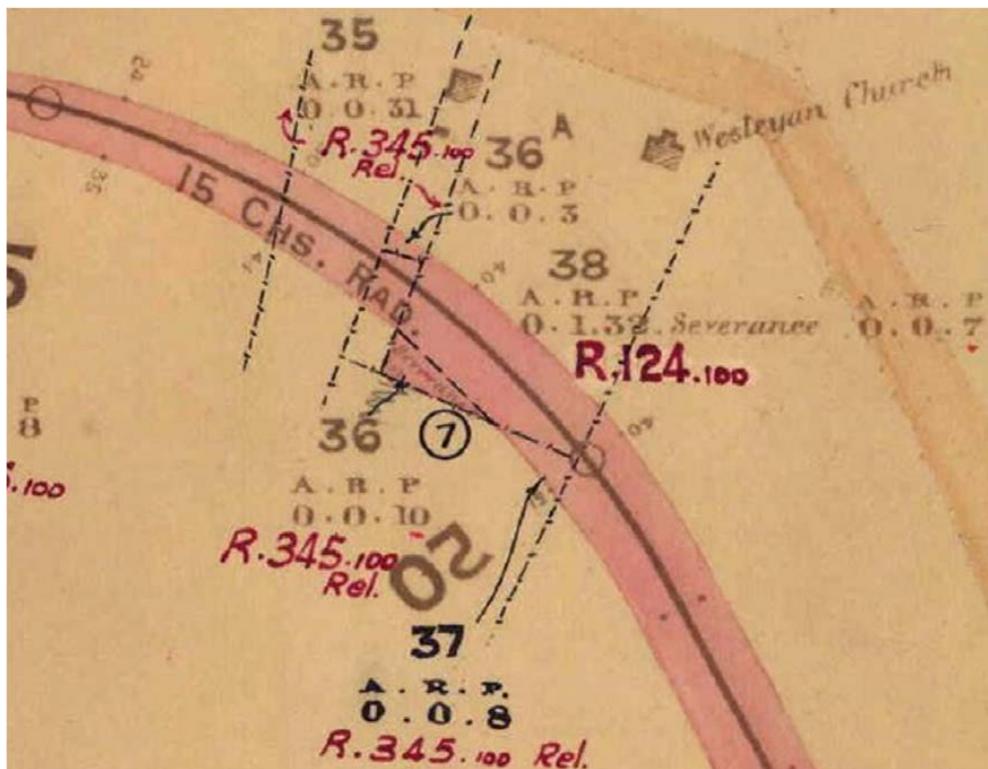


Figure 4: Case study – Perthville (Working Plan).

4.2 Survey at Dumaresque

Figure 5 shows a survey abutting a disused railway line, probably a bike trail, at Dumaresque.

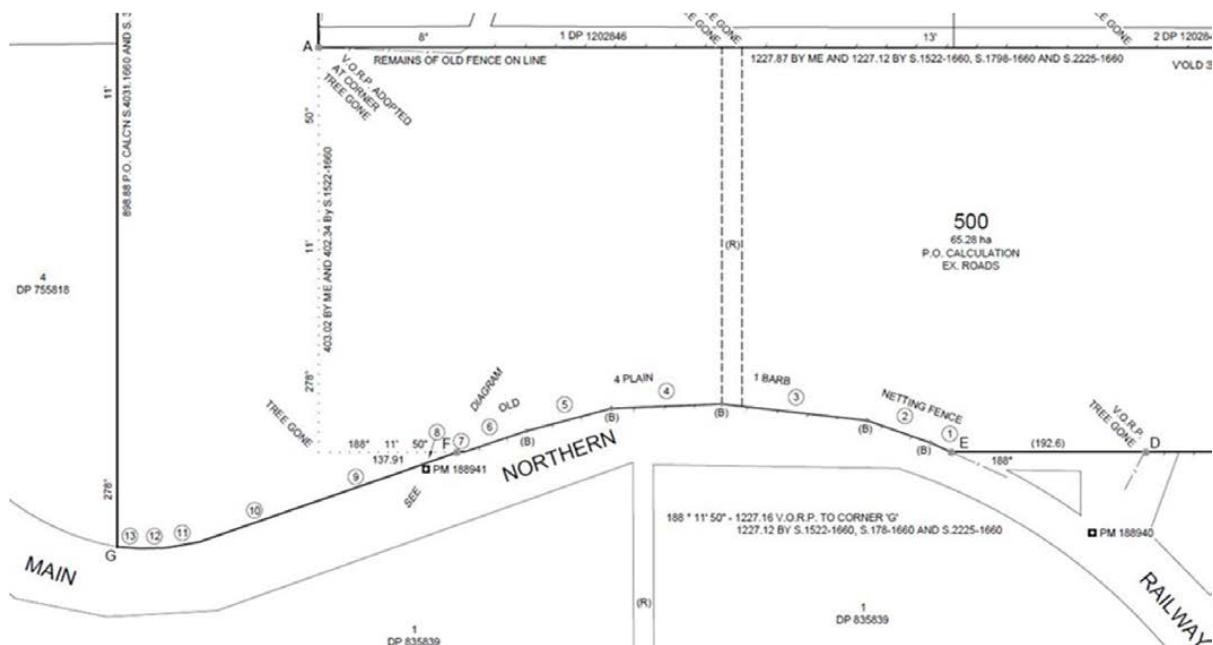


Figure 5: Case study – Dumaresque.

The following points are to note:

- The proposed rail boundary is shown as a series of straight lines, but a curve on the Working Plan (Figure 6).
 - The corridor side widths are available from adjoining Working Plans and the distance from the centreline to the corner near S 1798 is shown on this plan (see Figure 6).
 - The boundary adjoining lot 102 is defined by a portion plan.
 - The parallel rail boundary was established by plotting the centreline using the available information, and the DP was amended.

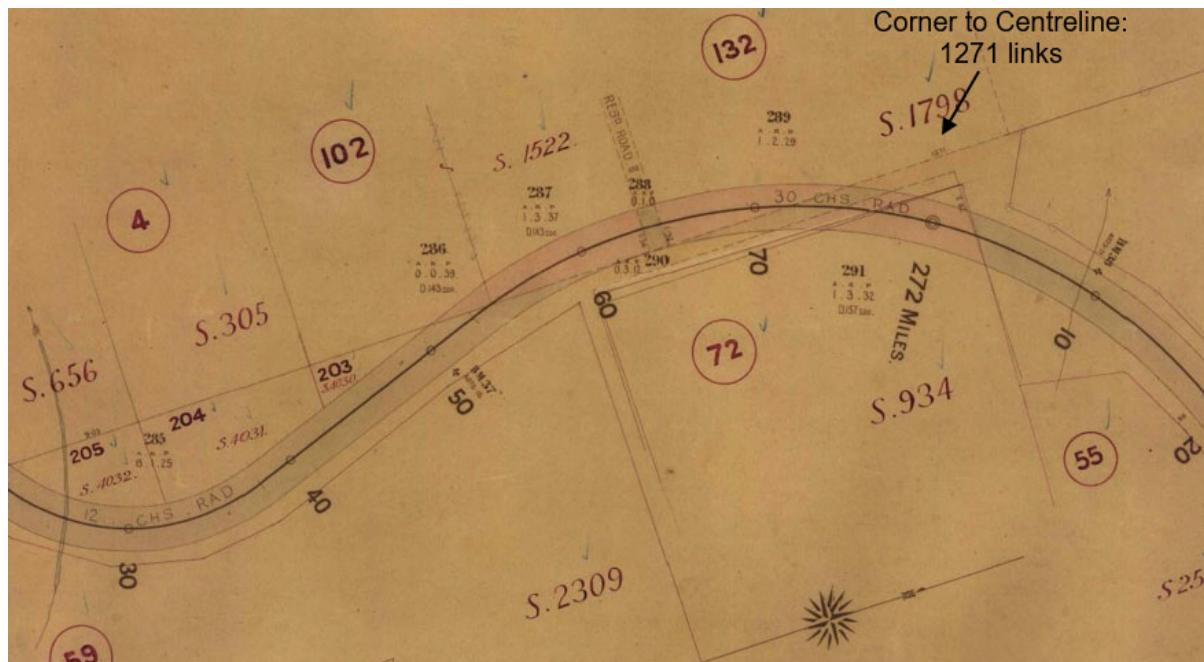


Figure 6: Case study – Dumaresque (Working Plan).

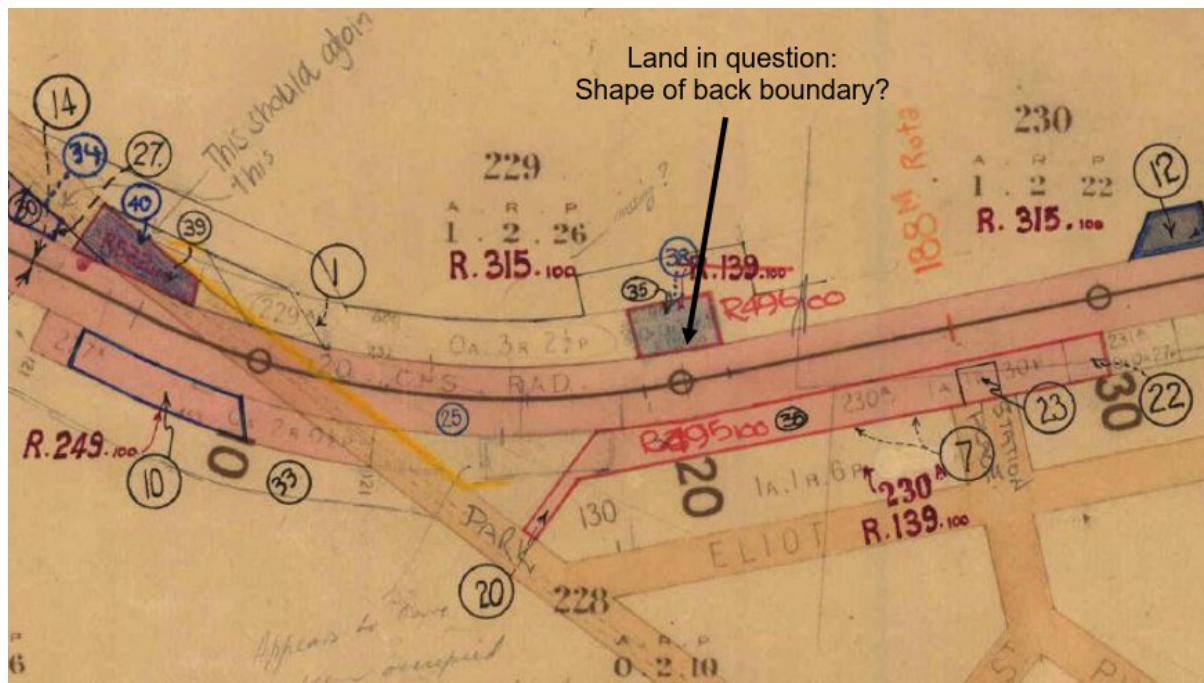
4.3 Considerations

Inconsistencies often exist in the definition of a railway boundary as shown on the diagrams on old certificates of title (usually a series of curves of specified arc lengths, chords and radii) and as defined in a new DP (usually a series of straight lines adopting the railway fence). The original curved boundaries of the railway were calculated at a set distance from the centreline of the track. However, due to subsequent reconstruction of the track since the date of original construction, the position of the original boundary may be lost.

Current (new?) LRS guidelines suggest adopting the railway fence where “doubt exists as to the position of a railway boundary”. Previous advice, dating back to the 1990s, was that curved boundaries were to be maintained wherever possible, with details as per the Working Plans. This has been our mantra when reviewing railway boundaries since that time. Current procedure is to be maintained, “doubt” being a very subjective word.

5 CASE STUDY OF CONFUSED BOUNDARY RESOLUTION

A road closure plan at Millthorpe was submitted to TfNSW and the Country Rail Network (CRN). It was found that the surveyed boundary was significantly different to GIS / SIX Maps (DCS Spatial Services, 2023), which prompted questions to be raised (Figures 7 & 8).



The following points are to note:

- The land shown on the departmental plan at time of sale indicates a 1-chain deep rectangle, while three sides are fixed by road widths (see Figure 8). A rectangular block results in a 3-metre step in the railway boundary but is close to occupations.
- There is no record of acquisition of the land. Was the intention to sell a rectangle or the land between the rail boundary (corners defined by road widths) and the road? After much discussion, the latter option was adopted (Figure 9).

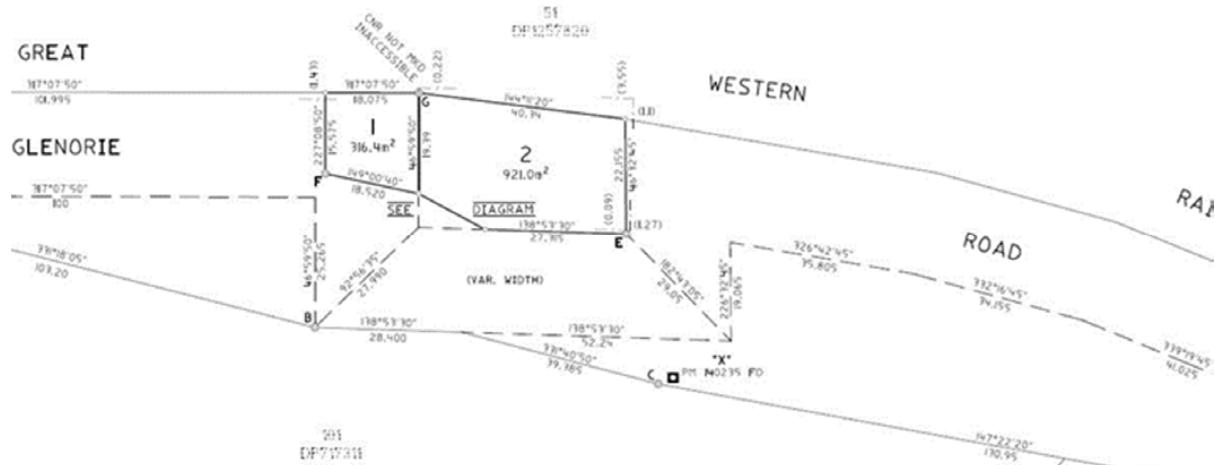


Figure 9: Case study – Millthorpe (lot 1 is the road to be closed).

6 CONCLUDING REMARKS

In an effort to reduce the number of rail boundary approval requests being returned to the surveyor for clarification or amendment, this paper has presented examples of the problems encountered and outlined the reasons for requisition.

The following two questions should be asked before submission:

- 1) Does your plan need to be submitted to TAHE for approval of a surveyed railway boundary?
At this time, this is the easiest option.
- 2) Is there a tricky definition? Speak to someone from Property or a Sydney Trains surveyor.
We have access to old records and understand Working Plans very well.

REFERENCES

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