

Boundary repair issues as a means to resolving an uncertain boundary area – the occupational hazard of Yarradale and Gracemere Streets, Brisbane

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ABSTRACT

The issue of boundary repair between adjoining owners whereby the occupation of land may be in conflict with the surveyed plan and title dimensions, occurs in many areas of steeper topography in Queensland, particularly in sections of Brisbane that were settled and surveyed in the 1800's. A boundary repair problem can occur when there is a significant variation between a cadastral reinstatement by mathematical solution and a cadastral reinstatement based upon the accepted occupation of the land. Such boundary repair survey areas primarily occur due to the accuracy of measurement and instrument techniques at the time of initial survey and subdivision in comparison to current measurement and instrument techniques. The issue of cadastral reinstatement by mathematical solution versus adopting occupation based upon earlier surveys is often a source of argument between cadastral surveyors and frustration for land owners. This paper examines the options available both legislatively and professionally as a practical means to resolve uncertain boundary areas where agreement between adjacent land owners is required or ordered and where land title re-adjustment between adjoining owners is desirable to maintain an accurate cadastre.

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1. INTRODUCTION

Cadastral surveying delineates a land parcel through the process of survey, adjudication, monumentation and description of boundaries. Boundary adjudication, monumentation and the description of boundaries by metes has not fundamentally changed since the 19th century. Advances in technology have dramatically changed the accuracies obtainable in the measurement of boundaries, exposing the differences that can occur by comparison of the measurement and instrument techniques of today with that of yesteryear. Some commentators and judicial officers have considered inaccurate surveys at initial monumentation of a land parcel as a cause for many modern boundary dispute issues, often without due regard to the inhospitable vegetation and terrain that may have existed at the time and the instrumentation available to the modern surveyor, thus allowing an unfair accuracy comparison between an older survey and a more recent survey (Simmons, 2010). The distribution of any excess or shortage in proportion to the distance surveyed (in the absence of better evidence) where measurement differences have occurred between recently surveyed and initial plan/deed measurements is well-established in cadastral reinstatement practice. McClelland (1999) explained that a mathematical solution for the distribution of excess and shortage whilst simple to compute and apparently equitable to all lots may not be the most appropriate reinstatement when considered in light of the evidence of long standing occupation.

Rejuvenation of inner city areas of Brisbane in the process of re-development, often entails a cadastral survey being performed over a substantially older cadastral survey. In turn, problems in boundary definition of the lots surveyed may arise, leading to boundary repair issues between neighbours. Both legislatively and professionally, a number of alternatives or remedies exist to resolve boundary and title repair issues. This paper will examine the various mechanisms available to remedy boundary and title repair issues. An example of a typical suburban section of Brisbane is documented which will highlight the complexities faced in resolving boundary repair issues.

2. BOUNDARY AND TITLE REPAIR MECHANISMS

Park and Williamson (2003) stated that governments with land title registration schemes require a mechanism wherein small adjustments to boundaries should be permitted and furthermore, Park and Williamson (2001) considered boundary repair as resolving the extents of ownership of the parcel as opposed to ownership of the parcel. There is a distinction between boundary and title repair mechanisms. A title repair mechanism results from either a court order or a survey that leads to the issue of a land title or amendment to a land title whereas adjudication changes to the extents of land by boundary reinstatement are a boundary repair mechanism. Most commentators do not distinguish between either mechanism and boundary repair is most often quoted.

Around the world, there are a number of options available both legislatively and professionally to resolve uncertain boundaries where land title re-adjustment between adjoining owners is desirable to maintain an accurate cadastre:

- Part-parcel adverse possession application;
- Statutory encroachment legislation;
- Adjoining owner agreements;
- Confused/problem/uncertain boundary legislation;
- Regulatory authority application for determination of a boundary;
- Determination by civil court action (no specific legislation);
- Implement a legal coordinated cadastre;
- Physical re-location of improvements;
- Survey adjudication by common law principles based upon possessory title;
- Re-survey by agreement; and
- the French system of *remembrement*.

Part-parcel adverse possession application

The law has in part sought to balance competing land interests through the doctrines of adverse possession and acquiescence. Part-parcel adverse possession can be used as a boundary/title repair mechanism, primarily when the issue is over a strip of land between

abutting lots and if fencing is involved. Statutory provisions using part-parcel adverse possession legislation allow successful applications to the Registrar of the Titles Office or equivalent to amend the original certificate of title or issue a new certificate of title. Part-parcel adverse possession applications generally involve two scenarios:

- a discrete part of the parcel, for example, a fenced paddock or a severed part of a land parcel by e.g. road reserve; and secondly
- when the disputed boundary is offset from the legal boundary by an encroaching structural improvement, e.g. a strip of land and long-standing encroachment.

Queensland does not allow a part-parcel adverse possession application, which was affirmed by *Sherrard & Ors v Registrar of Titles & Anor* [2003] QSC 352.

Statutory encroachment legislation

Statutory encroachment legislation allows provision regarding an encroachment whereby if it is proved that the encroachment was not intentional and did not arise from gross negligence, then the Court may vest an estate in any part of the adjoining land and the payment of compensation by the encroaching owner. Statutory encroachment legislation requires a determination by a court and either land owner can apply to the court for relief with respect of the encroachment and action is taken under the encroachment provisions to vest an interest or title in the land covering the encroachment, once the true boundary is determined. In general, practical application of statutory encroachment legislation usually has a certain boundary location. An encroachment can be defined as a structure and also as a wall, fence, hedge, ditch, garden bed or other manner of marking a boundary between lots. A limitation period is not required for an application for relief by statutory encroachment. However, there are jurisdictions (including Queensland) that expressly do not permit relief for fencing etc including both recently and older fenced occupation. Statutory encroachment legislation applies in Queensland through the *Property Law Act 1974* and represents a mechanism to solve boundary/title repair issues whereby the affected owner may be entitled to compensation and the possessory owner may gain title or an interest in the affected land.

Adjoining owner agreements

Adjoining owners may enter into an agreement over the affected land and create an encroachment agreements. For example, the *Land Titles Act 2000*, Alberta, Canada, allows neighbours to execute an encroachment agreement between the registered owners of adjoining parcels of land to permit the encroachment of improvements on one of the adjoining parcels of land, creating a security of interest similar to that of an easement.

Confused/problem/uncertain boundary legislation

Statutory provisions may exist for the approval and determination of boundaries by a regulatory body with the necessary expertise. If a significant and identified boundary repair issue exists (usually affecting multiple boundary lines and lots in a section), then an area may be deemed a confused/problem/uncertain boundary area. Generally, an area is not an uncertain boundary area unless boundary repair issues with the legal boundary affect a significant number of lots in a section. For example, South Australia introduced confused boundary provisions in 1993 with changes to the *Survey Act 1992* and the *Real Property Act 1886*: ‘for when the occupation of land within the area does not accord to a substantial extent with the boundaries of land as shown in records or plans held in the Lands Titles Registration Office’ (*Survey Act 1992*). The role of the regulatory body or the surveyor responsible in resolving the uncertain boundaries is for a determination of the lot boundaries in a manner that is equitable with due consideration to relevant evidence, type of occupation, the length of occupation, history and common law principles. A survey plan is prepared for registration of the affected lot boundaries, altering the lot boundaries to the extent necessary to give effect to the plan (*Real Property Act 1886*). If after an appropriate objection period and no appeal is lodged, the Registrar-General may deposit the plan in the Lands Titles Registration Office (*Survey Act 1992*). The Registrar-General pursuant to s255 of the *Real Property Act 1886*, may deposit a plan in the Lands Titles Registration Office, without the consent of a person who appears in the Register to have or claims to have an estate or interest in land affected by the plan. The Registrar-General may amend the original certificate of title or issue a new certificate of title. The costs of the Registrar-General’s deliberations are borne by the state. The lot(s) must be contained within a declared confused boundary area.

Regulatory authority application for determination of a boundary

An alternative mechanism utilising a regulatory body is achievable through legislation empowering an arbitrator from a regulatory body. Statutory provisions allow application to a Registrar of the Titles Office or equivalent arbitrator, for determination of an uncertain boundary. For example, New South Wales, within the *Real Property Act 1900* allows the Registrar-General to make a determination regarding the position of a boundary where there is doubt as to the position of the boundary. Applicants can be the owners of land on either side of the boundary or conditionally by a purchaser under a contract for sale of land. The requirements for application must be accompanied by such information and documents in support of the application as the Registrar-General may require (either generally or in the particular case), in practice, the registrar requires documentary evidence of dispute between two registered land surveyors. The Procedure in determining boundaries requires the Registrar-General to consult with a registered land surveyor and if a survey or other investigation is required to assist the Registrar-General in determining the position of the boundary, the Registrar-General may require an applicant to pay the reasonable costs of any such survey or investigation. If, the Registrar-General becomes aware that there is doubt as to the position of another boundary of either the subject land or other land, the Registrar-General may determine the position of that other boundary in consultation with the Surveyor-General.

McClelland (2001) documented the determination as arising when surveyors undertaking a location certificate (identification survey) encounter problems with an adjoining survey resulting in an encroachment. To resolve the situation, one of the owners lodges an application. The registered land surveyor prepares a report and plan by applying the general principle of “what is just and reasonable in the circumstances” to resolve the boundaries. Parties aggrieved by a determination have the right to have the matter determined by the Land and Environment Court. The plan and report, if accepted by the parties, become part of a registrable document entered into the Land Titles Register. The affected Certificates of Title are noted with regard to the boundary determination and the notation is binding on all parties upon registration. However no ‘new’ plan of the affected parcels is prepared and no ‘new’ Certificate of Title is issued, without a re-survey that includes the results of the determination. Should the ‘new’ dimensions be required, a consultant has to be engaged to prepare a plan of re-survey resulting in issue of a new certificate of title. The NSW Land Titles Office averages approximately fifteen determinations per year.

Provinces in Canada generally allow for regulatory authority application for determination of a boundary. For example, British Columbia allows for the re-survey of a boundary within the *Land Act 1996* where the Surveyor General receives an application from the owner of the land affected by the boundary. Upon re-survey, the person acquiring land and/or improvements must pay an amount of compensation to the person owning the improvements and land. The owners or holders of dispositions contained in the plan of re-survey must jointly pay the cost of the resurvey in proportion to each person's area as compared to the total area of land contained in the plan of survey. Furthermore, in Ontario an application to the Director of Titles pursuant to the *Boundaries Act 1990*, R.S.O can determine a boundary between lots. It is deemed that the arbitrator has the necessary expertise to adjudicate on the reinstatement of boundaries and that expertise is recognised within the *Boundaries Act 1990* which imparts independent authority upon the Director to resolve the dispute. The Director can dispose of any objection in such a manner as considered to be just and equitable considering the relevant evidence and determine the boundaries placing significant decision-making authority upon the Director in resolving boundary disputes. An appeal can be made regarding the decision.

Determination by civil court action

If a jurisdiction does not have legislative mechanisms to deal with boundary determinations or statutory provisions for part-parcel adverse possession application, boundary disputes are left to be dealt with by the courts for owners/future owners to resolve as a civil court action e.g. the Australian Capital Territory. A reliance to either reduce or minimise disputes is consequently placed upon:

- the integrity and strength of the cadastral system - ideally a relatively recent established cadastral system (say 20th century);
- professional liability insurance; and
- the court.

Implement a legal coordinated cadastre

In 2004, Singapore implemented the first legal coordinated cadastre. They had essentially abolished adverse possession with the Land Title Act 1993 as a means of acquiring

possessory title to land, and do not allow statutory encroachment of privately owned land (Park and Williamson 2003). The relatively small size and number of land parcels in Singapore enabled successful implementation of a legal coordinated cadastre. An important component of implementation was that the area of an individual parcel remained unaltered and without risk of adjustment due to implementation of legal coordinates with the aim of avoiding potential conflict (Andreasson 2006). The conversion of survey records to legalised coordinates for all measured boundary points in defining the legal property boundaries and land titles, in accordance with the *Boundaries and Survey Maps Act* and the *Land Surveyors Act*, and upon acceptance becomes conclusive evidence of boundaries in the courts (Tang and Cheng 2002). The coordinated cadastre forms conclusive evidence of boundaries, but it is not definite and indefeasible and should faults or errors be established they may be corrected if discrepancies are observed between the coordinates and reliable boundary marks on the ground (Andreasson 2006). Every Singaporean property created or altered after the implementation of the legal coordinated cadastre has an unambiguous specification of its physical extent (Andreasson 2006).

Physical re-location of improvements

Physically shift all structural improvements, fences, occupation etc. back within or on the original surveyed legal boundaries or lots to the satisfaction of any local government setback requirements and development controls. Park and Williamson (2003) stated the best argument favouring occupational boundaries over legal boundaries is the immense practical difficulties presented by such an exercise in areas where encroachments are common e.g. steeper areas of inner city Brisbane suburbs (McClelland 1999).

Survey adjudication by common law principles based upon possessory title

Failing the application of legislative provisions as a solution, the onus is placed upon the cadastral surveyor to professionally survey and adjudicate on boundary determination. A final determination of a disputed boundary line or corner can only be found by a court of law and Cooley (1882) rationalised the role and authority of the surveyor as 'surveyors are not and cannot be judicial officers, but in a great many cases they act in a quasi-judicial capacity'.

Common law principles in the determination of boundaries for reinstatement generally rank the evidence to re-establish a boundary from most compelling to least compelling as follows:

1. Natural feature boundary monuments or lines marked on the ground;
2. Original or artificial monuments or adjacent boundaries (and lines marked);
3. Fences or possession that can reasonably be related back to the time of the original survey; and
4. Measurements (as shown on plan or stated as a metes description).

Where there is an absence of survey monumentation and faced with an an uncertain boundary adjudication, the cadastral surveyor must consider two options for adjudication: accept the original survey dimensions (or proportioned appropriately) for the determination of boundaries or accept existing occupation as evidence of boundaries. Accepting occupation as best evidence of the boundary may require significant time, investigation and cost, especially if there is difficulty in establishing evidence of the relationship of original monument to the occupation through historical survey of the lot. If the burden of proof was that expected of a court of law, a cadastral surveyor as quasi-judicial officer may not undertake such a level of investigation due to time, cost and other constraints including interviewing contractors, past owners, long term residents etc. For the cadastral surveyor to accept existing occupation (especially in a contentious area) as evidence, where there is an absence of original corner marks or original survey marks within close proximity, requires considerable investigation into the history of the occupation and the relationship to the original survey marks (Simmons 2010). In *Attorney-General v. Nicholas* [1927] *G.L.R* the judgment stated ‘...the original survey marks are gone, a long occupation, acquiesced in throughout the period by the surrounding owners, is evidence of a convincing nature that the land so occupied is that which the grant conveys, in the absence, of course, of striking differences in admeasurement, or some countervailing circumstance...’ (as cited by Land Services 2009). Unfortunately, in boundary disputes acquiescence often exists only as far as the owners are ignorant of the occupational discrepancies to original title dimensions (Simmons 2010).

Re-survey by agreement

If acquiesced, a boundary line may be settled by the doctrine of acquiescence, usually based upon occupation and a mathematical determination and survey of the boundaries. The case study will examine aspects of re-survey by agreement.

Remembrement

Remembrement is a French term describing a process of land consolidation, usually in rural areas, where existing land titles are surrendered, re-issued and re-configured based on certain criteria (typically land value). For example, in Saskatchewan, Canada pursuant to the *Planning and Development Act 2007*, a municipality (local authority) may facilitate the physical development of land by redistributing the ownership of the land through a re-plotting (consolidation) scheme. The re-plotting scheme must include a plan showing the original lots within the scheme, the proposed re-configuration of the new lots including the area of each original lot and proposed new lot, the compensation payable to the registered owners and the proposed apportionment of the estimated cost of preparing the replotting scheme.

Compensation is determined and payable for severance, disturbance, injurious affection using the ‘before and after’ land value based upon the value of the former parcel of land and the new parcel of land as of the date of the approval of the plan of subdivision.

3. A CASE STUDY INVOLVING BOUNDARY ISSUES AT YARRADALE/GRACEMERE STREETS, NEWMARKET, BRISBANE

A recent boundary/title repair survey resulted in a re-survey of a suburban section in the suburb of Newmarket, Brisbane, Queensland involving multiple land parcels and owners.

Re-survey of a suburban section in Brisbane, Queensland, Australia

Selection of a case study in a section of the suburb of Newmarket, Brisbane, had previously been subject to analysis by McClelland (2001). The section chosen within McClelland’s (2001) subject area involved a block shift affecting multiple lots where the occupation of the land generally did not agree with the legal boundaries of the lots. The 2004 re-survey required agreement by up to fifteen landholders along Gracemere Street, within the one re-survey plan. The 2007 re-surveys along Yarradale Street comprised nine lots across eight survey plans and four cadastral surveyors. Concentration will be on the Gracemere Street

side, with the emphasis on a proportion of the section containing occupation lying substantially north of the deed boundaries as measured from the southern boundary of the section. See Figure 1 for an overview of the multiple encroachments in a suburban section of Newmarket, Brisbane.

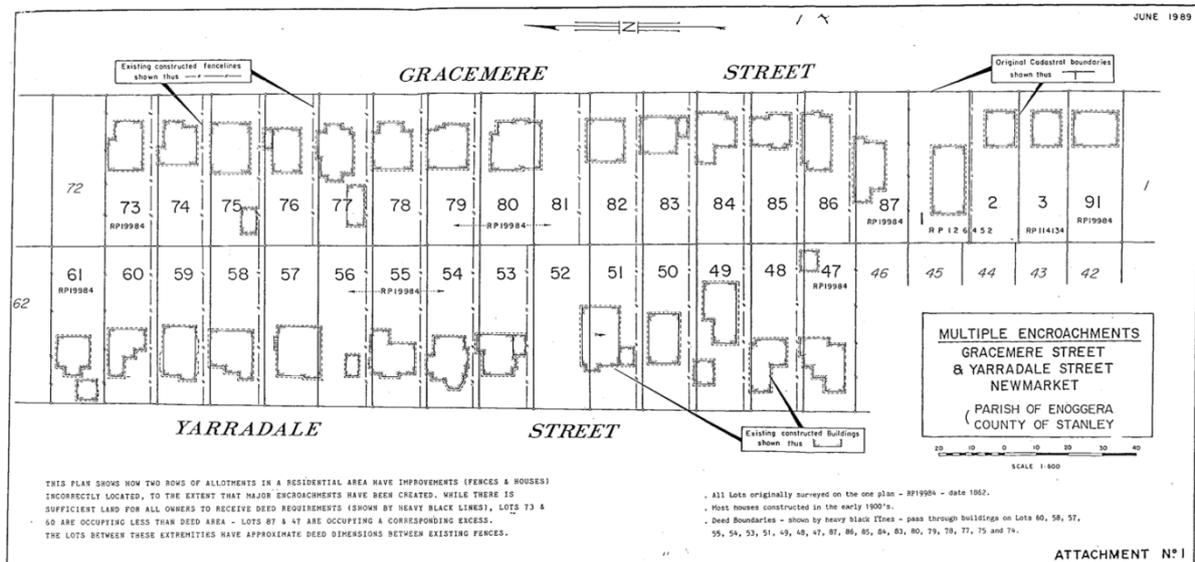


Figure 1: Overview of multiple encroachments in a suburban section of Newmarket (Source: McClelland, DERM)

The survey of this section highlights the difficulty in obtaining agreement across multiple landowners. See Figure's 2(a) and 2(b) on the following two pages, to view parts of the survey plan as registered for a suburban section in Newmarket. Interestingly, the common back boundaries connecting abutting lots for the street frontages has resulted in a dislocation of the side boundaries for some lots backing onto each other of about 0.3 metre. A pragmatic solution where the boundary reinstatement is isolated from the whole perimeter of the street section and is based upon the street frontage of the lot(s) in question, overriding common law principles of evidence for boundary re-establishment for adjacent boundaries.

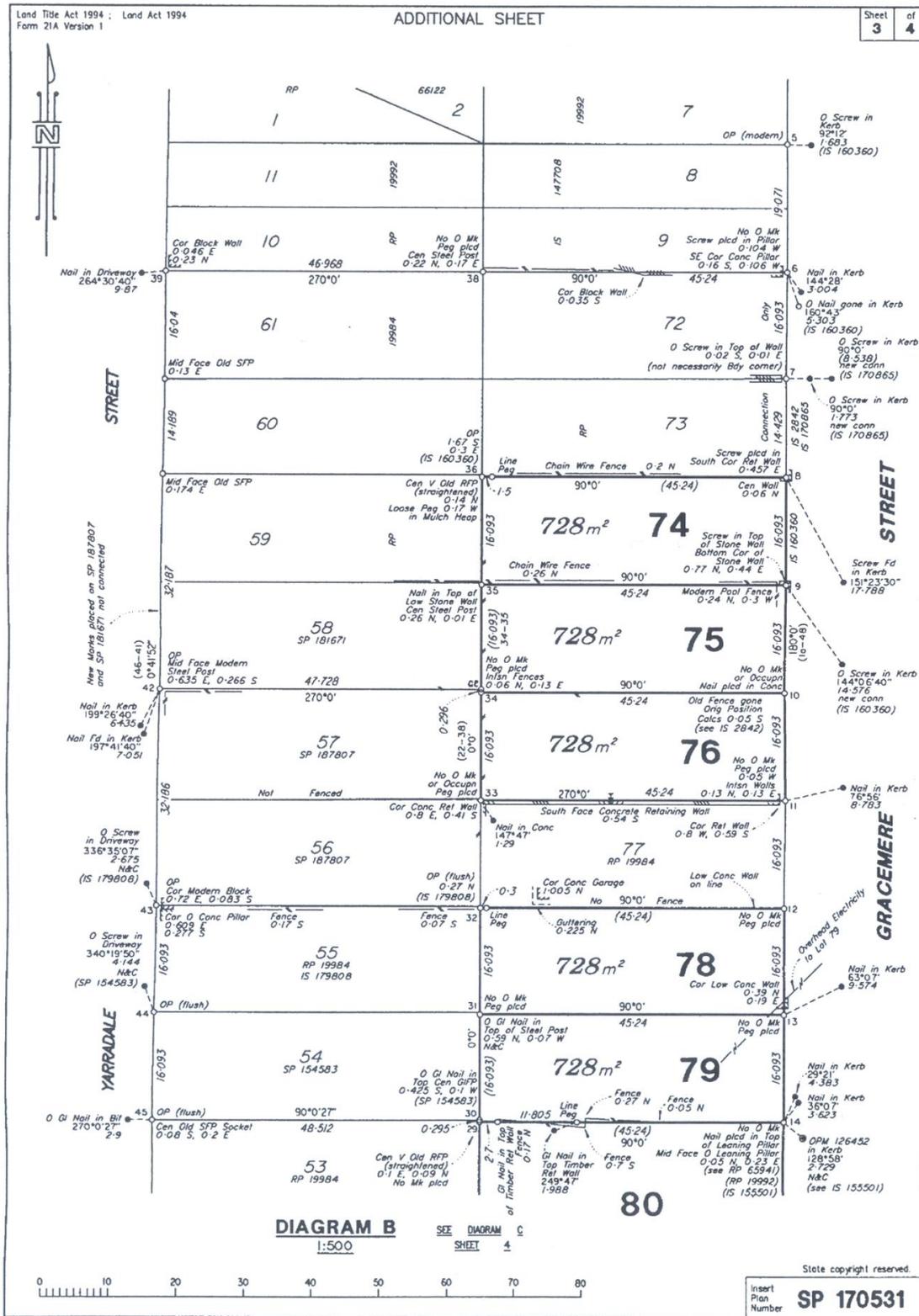


Figure 2 (a); Parts of Survey plan as registered in suburban section, Newmarket
(Source: McClelland, DERM)

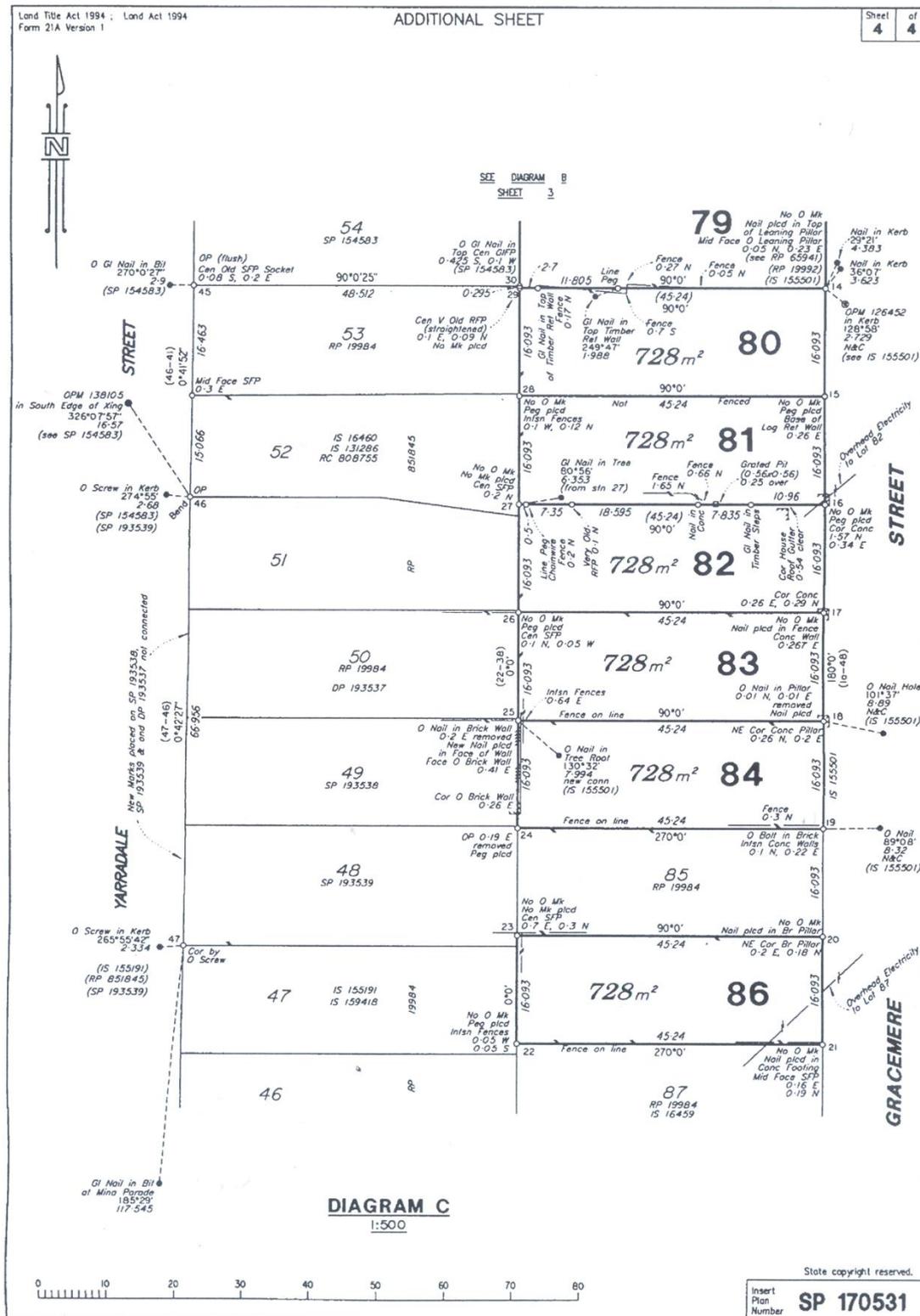


Figure 2 (b); Parts of Survey plan as registered in suburban section, Newmarket
 (Source: McClelland, DERM)

A re-survey was undertaken of the section containing lots 72-76 and lots 78-86 and lodged in May 2004. It was not until October 2006 that the plan was finally registered. Initial discussions with landowners occurred at a public meeting in 2002. In general, the registered plan allocated deed dimensions from the northern extremity of the section to lot 72, approximately 1.3 metres shortage from lot 72 to lot 86 and then 1.5 metres excess from lot 86 to the south extremity of the section. At some stage in the intervening 2 years and 5 months from initial lodgement to registration, the owners of lots 72, 73 and 85 removed those lots from the re-survey either because of a change of heart or the lots had a transfer in ownership and the new owners did not agree with the re-survey. Initially, the adjudication of both lots 72 and 73 suffered significant shortage with respect to deed dimensions, especially lot 73 with approximately a 1.3-metre boundary line offset shift, which would have changed the title area from 728 square metres to 663 square metres. Presumably, it was for this reason that the owners of lot 73 dropped out of the re-survey, choosing to retain the belief of owning the land as per the title area – at least on paper. There was a change of ownership with lot 74 and the new owners agreed with the re-survey and were a significant beneficiary of the re-survey through the removal of an encroachment, as was also lot 75. The sale of a number of lots during this period, despite the apparent confusion over the boundaries, did not necessarily affect the marketability of the lots. Lots 74 to 86 all retained deed dimensions and all significant encroachments removed. Agreement with occupation was generally equally split, between either on-line or generally up to 0.3 metre to the north, for Lots 74 to 86. It appears that substantial best-fit analysis and trial and error retained as many deed dimensions as possible, whilst removing all significant encroachments. Unfortunately, in achieving such a configuration, the owners of lot 73 suffered significant shortage from the deed dimensions with the proposed boundary reinstatement for lots 72 and 73 based upon occupation and from lot 74 onwards to lot 86 by deed dimension.

The registered survey plan took two years to obtain full agreement given the substantial requirements for agreement and cooperation that was required to undertake a re-survey of the lots, which highlights the extreme difficulty attached to such a solution for boundary problems of this nature. Personal communications with McClelland (2009) identified two possibilities by way of survey: By agreement and accept existing occupations as boundary evidence and commission a re-survey or secondly by agreement and accept the original

survey dimensions as evidence of boundaries and commission a survey of re-configuration. The final survey plan, lodged and registered, adopted the initial proposition. However, this did not resolve the adjustment to the title occupying the excess at the southern end of the street and the titles occupying shortage at the northern end of the street.

4. DISCUSSION REGARDING BOUNDARY/TITLE REPAIR ISSUES

Court hearings regarding boundary disputes, can extend over many years e.g. six separate court hearings involving neighbours commencing with *Shadbolt v Wise* [2002] QSC 348 and culminating in *Shadbolt v. Maroochy Shire Council* [2006] QPEC 113, and resolution in 2008. Unfortunately boundary dispute issues are not simple, each dispute may possess unique characteristics that differentiates that particular dispute from another dispute requiring solutions that may be fulfilled by a niche mechanism best suited to a particular circumstance. The dispute may be compounded as being part of a wider problem area involving multiple lots and the costs associated with identifying the extent of the problem and undertaking boundary/title repair action may be beyond the means of the affected land owners.

There are six primary themes that affecting the resolution to a particular problem and the choices by and of the state in resolving such issues:

- Compensation: is compensation payable to the displaced legal landowner or does the principles of *caveat emptor* apply. Compensation generally applies both in statutory encroachment and regulatory boundary legislation, but not for adverse possession, with the single exception of Sweden (BIICL 2006);
- Occupation: nature, strength and evidence of occupation for a part-parcel boundary re-definition or registration of another interest (e.g. easement, lease);
- Systematic block shift issue: affect a single lot or whether part of a wider boundary problem area affecting multiple lots;
- Time: does the length of occupation satisfy a limitation period;
- Intentional: deliberate or accidental encroachment or hostile to the legal land owner leading to application for adverse possession; and
- Cost: how it effects an efficient and orderly operation of a land market and the public and private cost of resolution.

Furthermore, McClelland (2001) identified a number of characteristics for solutions to resolving uncertain boundaries, which have been summarised as follows:

- Inclusive – available to all affected landholders;
- Due process - well established criteria and process for application for an uncertain boundary determination;
- Costs - method to equitably apportion costs and deliver a cost effective outcome;
- Equitable - for all affected owners;
- Structural improvements - relaxation of local government ordinances in relation to existing structures;
- Certainty – of title for all registered owners and their successors;
- Extent - a simple common boundary or a wider problem affecting multiple lots;
- Timely - correction of affected titles;
- Possessory – for disputes involving encroachments, consideration must be given to possessory rights in determining the new boundary positions;
- Public consultation - affected landholders must be provided with the opportunity to comment, and a process should exist for reviewing those comments;
- Right to appeal - available to a person objecting to the proposed outcomes; and
- Compensation - payable and/or considered.

Statutory encroachment legislation can solve disputes where there is inadvertent occupation, generally less than the limitation period and should only be available for relief of significant structures, allowing an alternative solution to deal with less significant structural improvements such as fencing.

Part-parcel adverse possession is not an ideal solution for multiple lots involving a block shift of the boundaries. Resolving multiple lots by a series of part-parcel adverse possession cases is a significant impediment to a timely resolution of the boundaries. For a single disputed boundary line, part-parcel adverse possession based upon long standing occupation is a simple solution where the occupation may disagree with a mathematical solution of a boundary. It is considered that a limit of minimum dimension of 0.3 metre should constitute an allowable discrepancy between occupation and title dimensions, but what figure represents a 'striking difference in admeasurement', possibly greater than say 10% of the area for standard size

residential lots. The adoption of a minimum 0.3 metre threshold will remove what the author regards as trifling error applications whilst greater than 10% may represent a 'striking difference in admeasurement'.

Re-survey by agreement (if possible) of all land owners is the easiest and most efficient mechanism. Given the difficulties of reaching agreement in the case study, the application of confused boundary legislation may best resolve issues involving multiple lots, however, substantial costs and goodwill are expended by the state to resolve an area. Resolution by a regulatory authority application for determination of a boundary is suited to resolving a disputed boundary line between neighbours and is an alternative to part-parcel adverse possession. Allowing an arbitrator to adjudicate a boundary dispute provides an expeditious and cost-effective mechanism to resolving boundary disputes for the parties involved where the applicant(s) bear the cost of resolution of the application. If the state chooses to legislate or provide a mechanism to resolve part-parcel boundary issues, a mixture of options is required as a 'one size fits all' approach does not cater for a wide range of scenarios.

Statutory encroachment legislation combined with either part-parcel adverse possession and/or regulatory authority legislation covers many situations that may arise in boundary disputes. Nova Scotia, Canada for example, applies both statutory encroachment legislation and part-parcel adverse possession within the *Land Registration Act 2001*. If the state is to provide a mechanism to deal with a wider problem area of uncertain boundaries it could consider confused/problem/uncertain boundary legislation.

5. CONCLUSION

If the state chooses not to legislate or provide a means to resolve common boundary disputes, responsibility is then placed upon the cadastral surveyor to adjudicate the issue by common law principles. Such responsibility may require increased investigation into occupation and possessory titles, increasing the cost for a cadastral survey and raising the issue of private cost versus public benefit. All methods of boundary repair determination should require a plan of re-survey and correction of title to maintain an accurate cadastre and land title registration scheme. In terms of a Queensland model and legislation, the resolution of boundary/title repair issues would require consideration of regulatory authority application legislation, part-

parcel adverse possession application and confused boundary legislation. McClelland in 2001, considered it necessary to provide a legislative support mechanism to determine uncertain boundaries and the legislation should incorporate a combination of the processes as discussed, both then and now.

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BIOGRAPHICAL NOTES

Shane SIMMONS, B.Surv.(UQ), G.Dip.Surv.Pr.(QUT), G.Dip.Bus.(Prop.St.) (UQ), G.Cert.Finance (SIA), cadastral surveyor, MSSSI, MIEE, s.m API.

Since 1995, Shane has been a lecturer in surveying at the University of Southern Queensland and is currently program coordinator of the surveying and spatial science discipline. Prior to 1995, Shane was an endorsed cadastral land surveyor with 16 years experience in both the private and public sectors primarily involved with engineering and construction projects. Shane completed a Graduate Diploma of Business (property studies major) at the University of Queensland in 2000. Since 1998, Shane has been honorary editor of the Queensland professional journals, *Queensland Surveyor* and *Spatial Science Queensland*. Shane's principal research interests include professional issues, land development and land law. Shane is active within the USQ rugby club as a volunteer administrator and manager.

Paul McCLELLAND, B.Surv.(UQ), B.Arts(UQ), registered surveyor(land), FISA, FSSI, FSSSI

Paul has 28 years experience in the public sector as a licensed surveyor. He is currently Principal Surveyor in the Department of Environment and Resource Management with his

key responsibility being plan validation for all plans lodged for registration in the state. Prior to joining the department he worked for 8 years for consulting surveyors in south east Queensland. Paul is a past president of ISAQ and the inaugural president of the now defunct Queensland Surveying Society. Paul is passionate about boundary reinstatement issues and has been conducting workshops for the institute on the topic for the past 14 years.

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