Cadastral Corner (Tales from the Crypt… Shock, Horror)

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ABSTRACT

Many weird and wonderful things occur in the name of the cadastre of New South Wales. To a certain extent, this paper is a follow-on from a series of articles entitled "The Cadastre is History", which appeared in Azimuth in 2020 and 2021. This paper presents real stories with "What the…" moments and "How did that happen?" situations, which enable any group of surveyors to converse, disagree, argue, ponder and wonder for hours. Examples include the curved road boundary with a radius of 21 km, the party wall that supports only one building, and the Primary Application that does not include all the land within its boundaries. These stories invoke many emotions within surveyors, from disbelief to amazement and "No way!" Some of the stories display their particular time in history, others display an interpretation that bewilders.

KEYWORDS: *Primary Application, party wall, curved boundary, reference mark.*

1 INTRODUCTION

Many weird and wonderful things occur in the name of the cadastre of New South Wales. This paper presents real stories with "What the…" moments and "How did that happen?" situations, which enable any group of surveyors to converse, disagree, argue, ponder and wonder for hours. It is essentially a follow-on from a series of articles entitled "The Cadastre is History", which appeared in *Azimuth* throughout 2020 and 2021, starting with *Azimuth* 59(1) in February 2020.

For example, ask a surveyor what would be considered an excessive radius for a 20 m length of curved road boundary. Most would probably say around 400 m or so… but certainly not a radius of 21 km! Then there is the party wall that supports only one building, the Primary Application that does not include all the land within its boundaries, and many more such oddities. The examples examined in this paper span many decades of cadastral history, from 1838 through to 2020. These stories invoke many emotions within surveyors, from disbelief via amazement to "No way!" Some of the stories display their particular time in history, while others display a modern interpretation that bewilders.

2 WHEN TOO MANY REFERENCE MARKS ARE NEVER ENOUGH

2.1 Concrete Blocks by More Than the Dozen

In Dobson Crescent, Ryde, 15 concrete block reference marks were placed in 1951 by DP 24598, in only 180 m of newly created road (Figure 1). Dobson Crescent was defined in a series of short 12.192 m straights, rather than one arc of a circle. Essentially, the straights are chords which all fall upon a single arc. If one arc was adopted instead of the short straights, then only

two reference marks, one at each of the terminal points of the arc, would have been required.

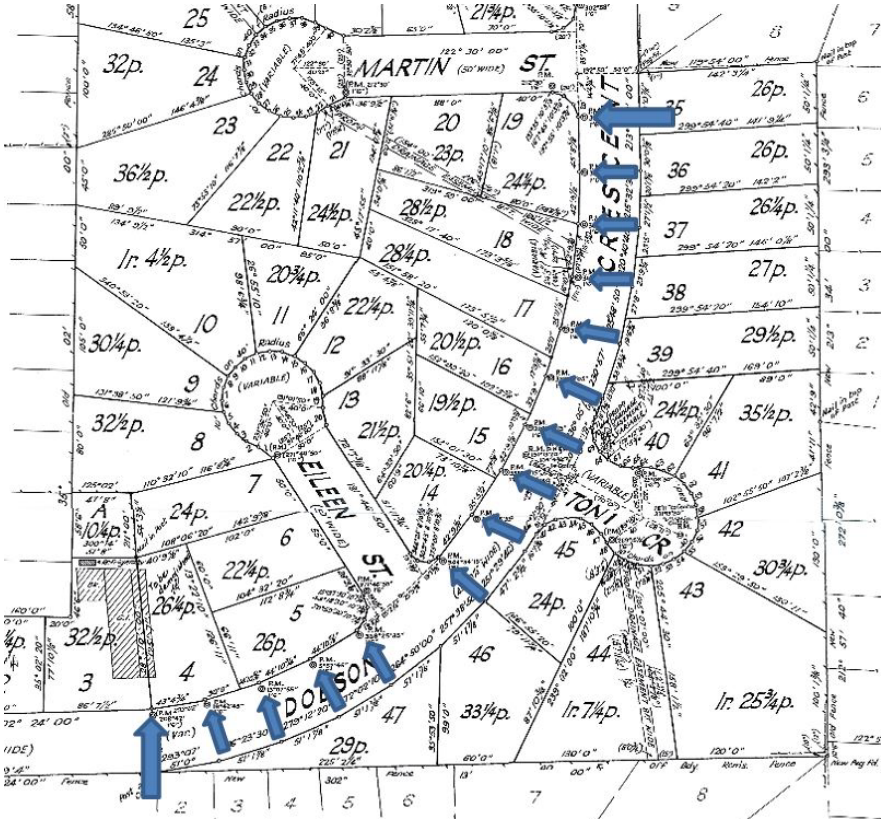


Figure 1: Detail of DP 24598 showing 15 concrete block reference marks defining 12.192 m straights in the road boundary definition, rather than a single arc, which would require just two reference marks – 1951.

2.2 Concrete Blocks at an Unexpected Distance

DP 218164, in 1962, placed concrete block reference marks at 6ft 3in (1.905 m) "*owing to the existence of concrete pavements*" (Figures 2 & 3).

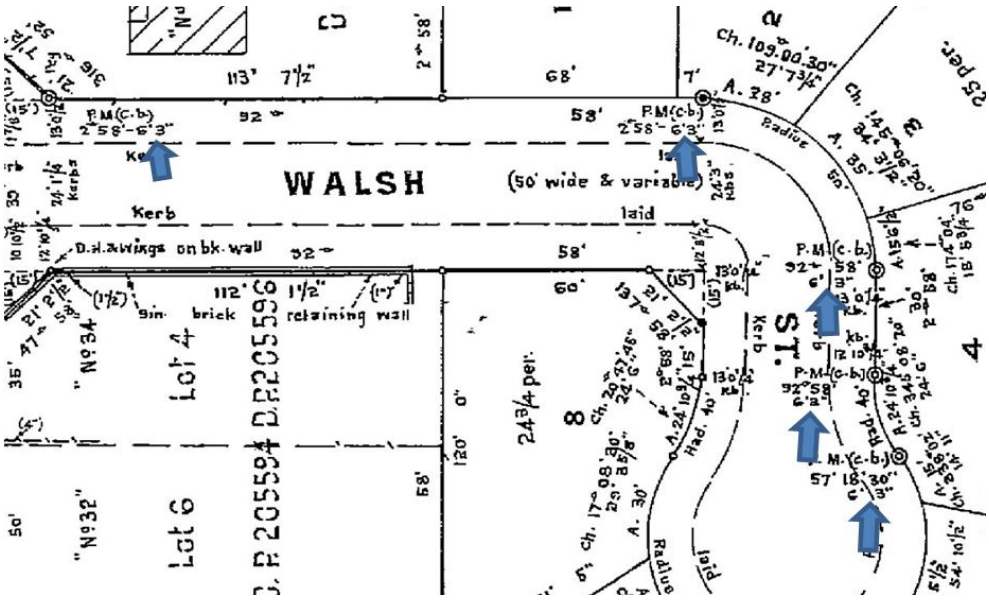


Figure 2: Detail from DP 218164, showing reference marks placed at 6ft 3in – 1962.

Figure 3: Three of the concrete blocks (under cover box) in Walsh Street, outside Lot 4.

2.3 GI Pipes in Tandem

The best way to confuse several generations of surveyors is to place multiple GI pipe reference marks for the same lot corner. de Belin (2018) presented an image of three GI pipes placed in the same reference location, and all being still viable. Each of these three marks is now notated on a recent Deposited Plan (Figure 4).

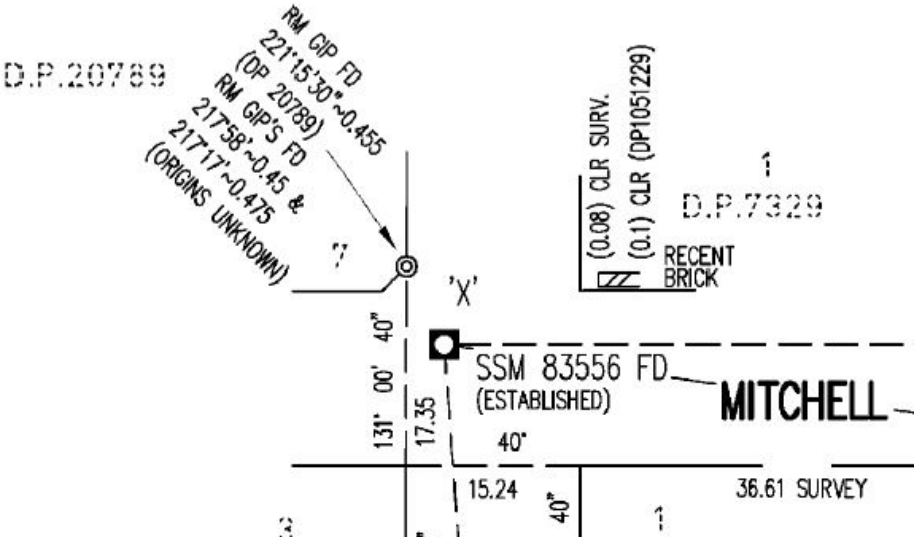


Figure 4: Detail from DP 1246370, showing three GI Pipes at the one corner – 2018.

This most recent surveyor obviously adopted one of the marks as original reference and connected the other two to that defined corner. However, that was a singularity in the scheme of things and a more common event is to find *two* reference mark GI pipes at the same lot corner.

2.3.1 Two GI Pipes in Phillip Road, Putney

In this scenario two different surveyors visited the site 6 years apart. The first surveyor placed a reference mark GI pipe at a reference distance of 1ft 0in (Figure 5).

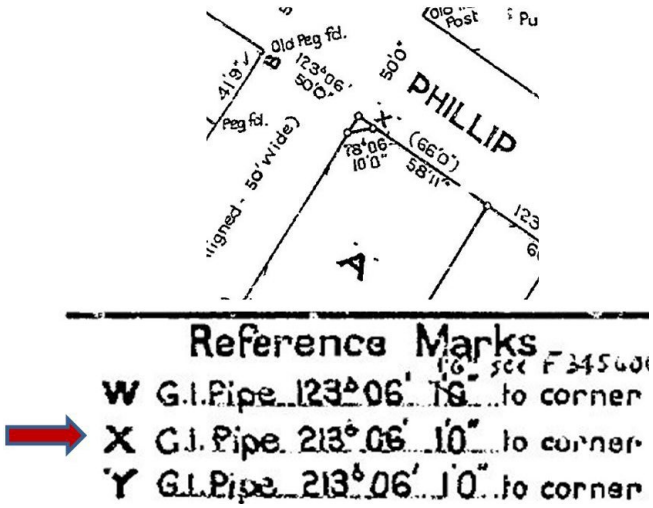


Figure 5: Detail from DP 362639, showing reference mark GI pipe placed at 1ft 0in for corner 'X' – 1944.

The second surveyor does a subdivision of Lot A in DP 362639, finds a peg at the corner 'X', but makes no mention of the GI pipe placed at 1ft 0in, then proceeds to place a new GI pipe at 1ft 6in (Figure 6). Both GI pipes are stable, cover-boxed and still exist (Figure 7). The obvious problem that occurred was that later surveyors would find the older GI pipe at 1ft but use a reference of 1ft 6in, thinking that the GI pipe was from the second survey!

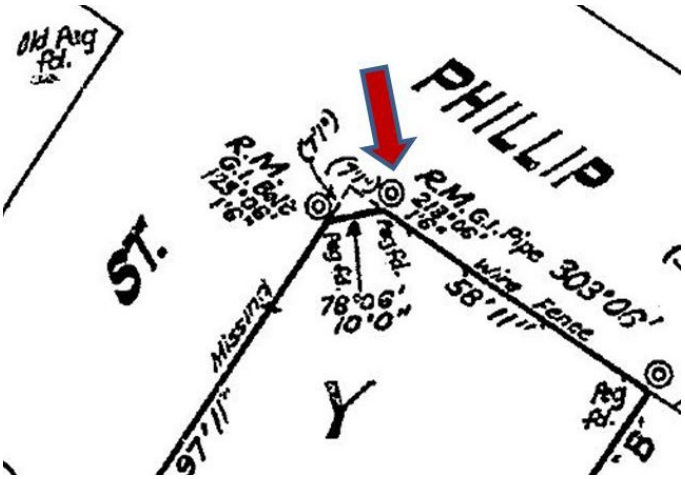


Figure 6: Detail from DP 370999, showing reference mark GI pipe placed at 1ft 6in for the same corner – 1950.

Figure 7: The two GI pipes within a specially fabricated larger metal cover box – 2020.

DP 126124 in 2018 (Figure 8) now documents the multi GI pipe reference mark situation in Phillip Road, Putney, so the next generation of surveyors should have no further difficulties.

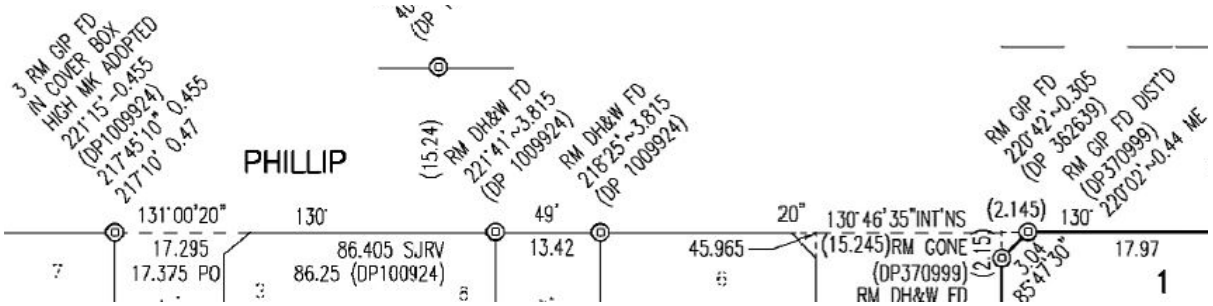


Figure 8: Detail from DP 126124, showing the multiple GI pipes at either end of Phillip Road – 2018.

2.3.2 Two GI Pipes in Maxim Street, Meadowbank

In another scenario two different surveyors are placing reference marks to the same corner, at the same time, unbeknown to each other. A subdivision by DP 202784 was carried out in November 1960 and registered in August 1961 (Figure 9). The surveyor placed a GI pipe at 0.457 m square to the line of the street. Then, an adjoining subdivision, DP 420990, was surveyed in October 1961 (Figure 10) when the additional reference mark GI pipe was placed at 0.495 m on the prolongation of the side boundary (Figure 11). The date of registration of this DP is unknown and the details of registration are not shown. Both of these plans form the basis of the current Certificates of Title for the subject parcels of land.

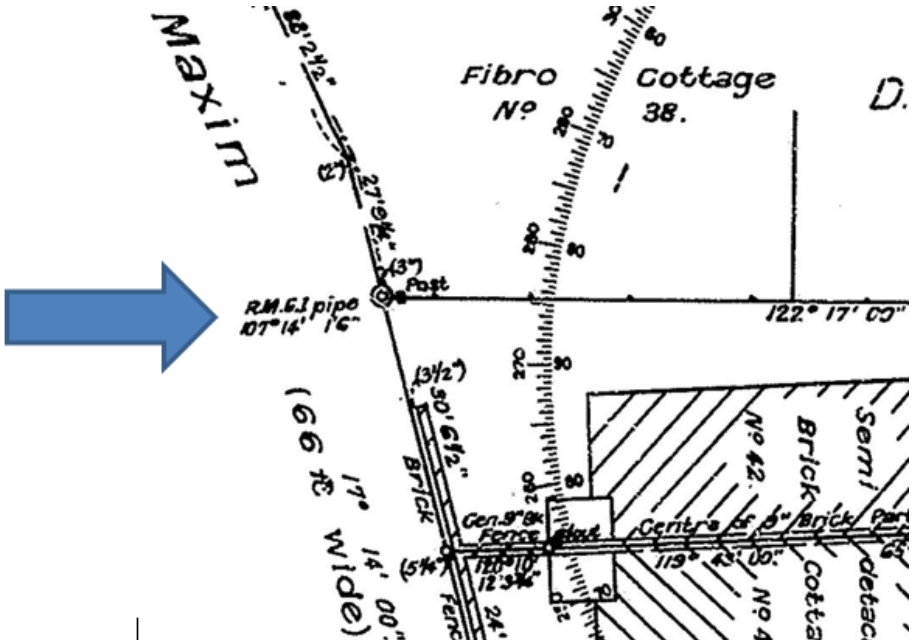


Figure 9: Detail from DP 202784, showing reference mark GI pipe placed at 0.457 m square to the line of the street – November 1960.

Figure 10: Detail from DP 420990, showing a reference mark GI pipe placed at 0.495 m on the prolongation of the side boundary line – 1961.

Figure 11: The two close GI pipes within the one metal cover box – 2020.

2.3.3 Two GI Pipes in North Road, Eastwood

Exactly the same situation occurs in North Road, Eastwood, where DP 363358, in June 1948, placed a GI pipe reference mark square to the street, while DP 27701, in July 1956, placed a GI pipe reference mark on the prolongation of the line of the side boundary.

An interesting aside to this story is that in 2013, when the author first uncovered these GI pipes during a field survey, there was a third GI pipe which had been placed *midway* between the two! Several years later, returning to record an image of the trio, it was discovered that the middle GI pipe had since been removed. Did someone have a guilty conscience?

There are at least three other sites in Ryde where two pipes have been placed at the same location. In each case, one GI pipe is notated on a plan of survey and the origin of the other is pure mystery and speculation.

3 IS A WALL A PARTY WALL IF IT SUPPORTS ONLY ONE BUILDING?

At the time of subdivision in 1928, a brick main building stood erected on Lot C, with the centreline of its north-western external wall defining the side boundary. This external wall was called a party wall (Figure 12) – an obvious case of future planning. At this point the number

of storeys is unclear. Is the party wall one storey high, or two? A proposed road widening survey in 1932 (Figure 13) shows the single building as a brick shop and the extent which will require demolition, but the building's height is still unclear.

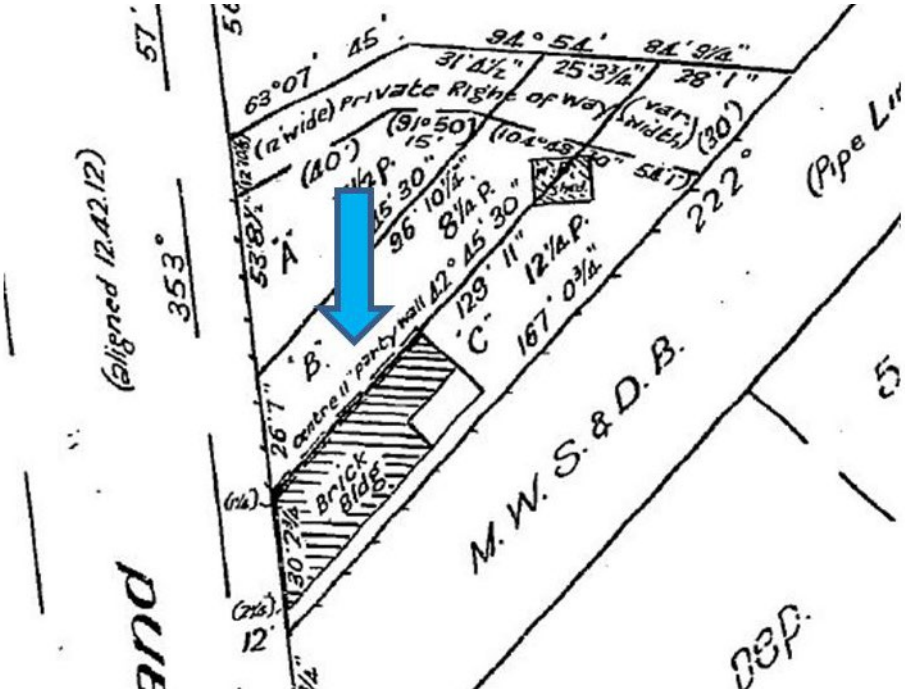


Figure 12: Detail from DP 358684, showing the party wall at the time of subdivision – 1928.

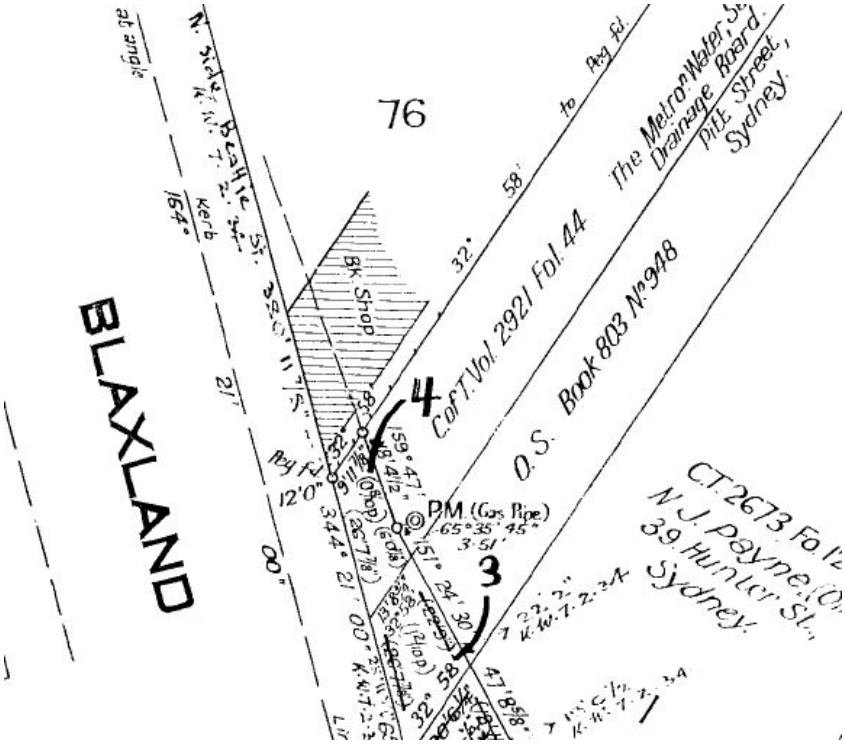


Figure 13: Detail from DP 185327, showing a proposed road widening of Blaxland Road, Ryde – 1932.

An aerial photograph from 1943 (Figure 14) clearly shows a 2-storey shadow being cast by the same brick shop (compared with the length of shadow from the house to the north), also showing that the rear of the subject brick building is single storey.

Figure 14: Detail from 1943 aerial photo, showing a definite 2-storey shadow being cast.

So, the party wall is both single-storey and two storeys in height! A subdivision by compilation plan DP 367316 in 1950 (Figure 15), shows the same shop as in 1928 and no evidence of any road widening having taken effect. Lots A, B and C have been truncated only at the southern boundary of the private right of way.

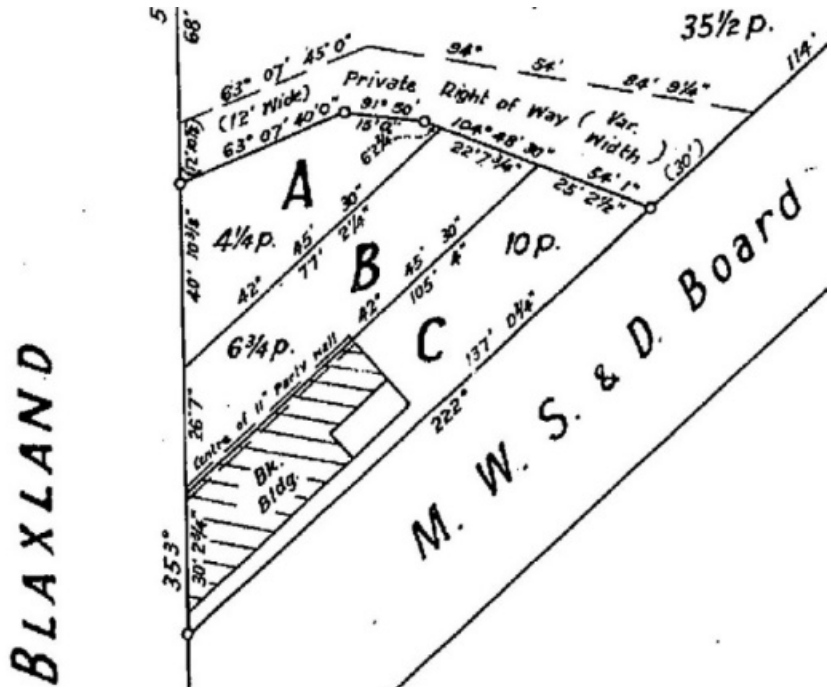


Figure 15: Detail from DP 367316, showing a later subdivision with no road widening – 1950.

The proposed road widening from 1932 is finally taken up following a new survey, DP 408760 in 1951 (Figure 16). This survey shows "*two storey shop & dwelling*", with the party wall still straddling the side boundary.

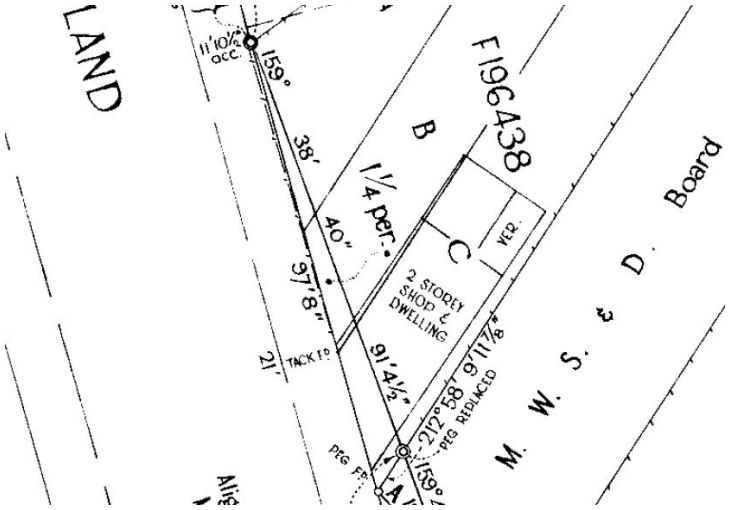


Figure 16: Detail from DP 408760, showing road widening, 2-storey shop and party wall onto Lot B – 1951.

Subsequently, the façade of the building on Lot C was rebuilt on the new road boundary and a single-storey brick shop was erected on Lot B, abutting the party wall (Figure 17).

Figure 17: Image of structures on Lots B and C – 2020.

The party wall, however, does not support the roof structure of the new shop. Notice, that above the flat roof of the new shop, the top of the single and 2-storey brick party wall of the original building is evident (Figure 18). So, the brick wall, which is called a party wall, still only supports one building, although there has been a shortening of its length.

Figure 18: Image showing the brick party wall not supporting the new shop's roof structure – 2020.

4 WHEN A CEILING IS A PARTY WALL

Is this what happened before the Strata Act? In this example, the original building was erected prior to 1904, with three shops below and two residences above (Figure 19).

Figure 19: Crown Street building where the party wall between two first-floor residences does not sit directly upon the ground floor party wall, but is offset by 1.9 m.

In 1977, subdivision plan DP 590359 created a boundary between Lot 1 and Lot 2 along the centre line of a brick party wall (Figure 20). In this instance, it is the centreline of a party wall on the ground floor.

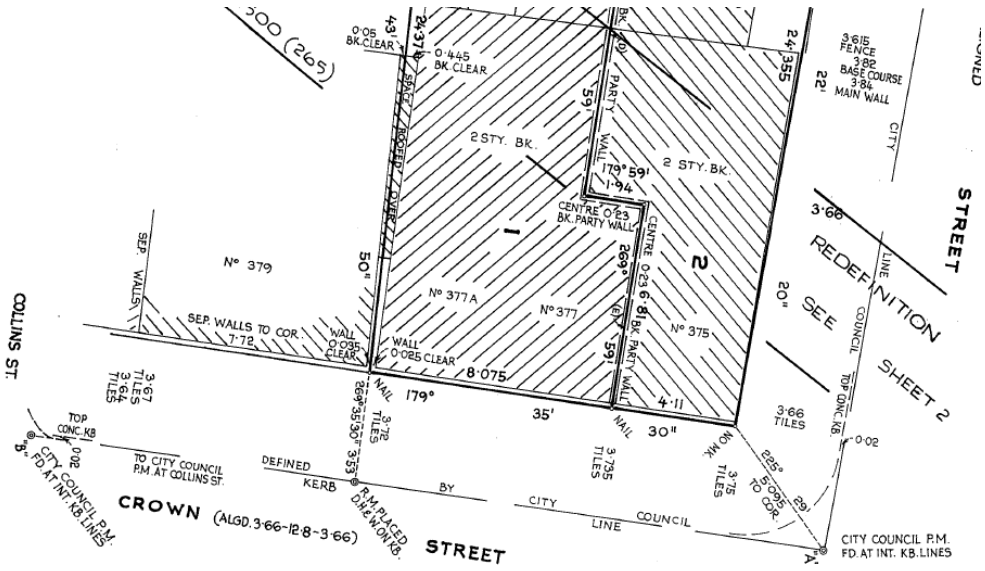


Figure 20: Detail from DP 590359, showing that the subdivision boundary is a party wall – 1977.

From Figure 19, it is evident that Lot 2 occupies up to 1.9 m of Lot 1 at the first-floor level! The problem was rectified in 2001 when a re-definition survey was carried out and a new subdivision was created in stratum (Figure 21), which was attached as sheet 2 in DP 590359. Part of Lot 1 is limited in height to a horizontal plane which becomes the base of Part of Lot 2. The first-floor party wall for Lot 2 is supported by steel beams which cross over the ground-floor shop below. The only problem is: What are the rights of support between the owners of Lots 1 and 2 when it comes to the ceiling of Part Lot 1 and the floor of Part Lot 2?

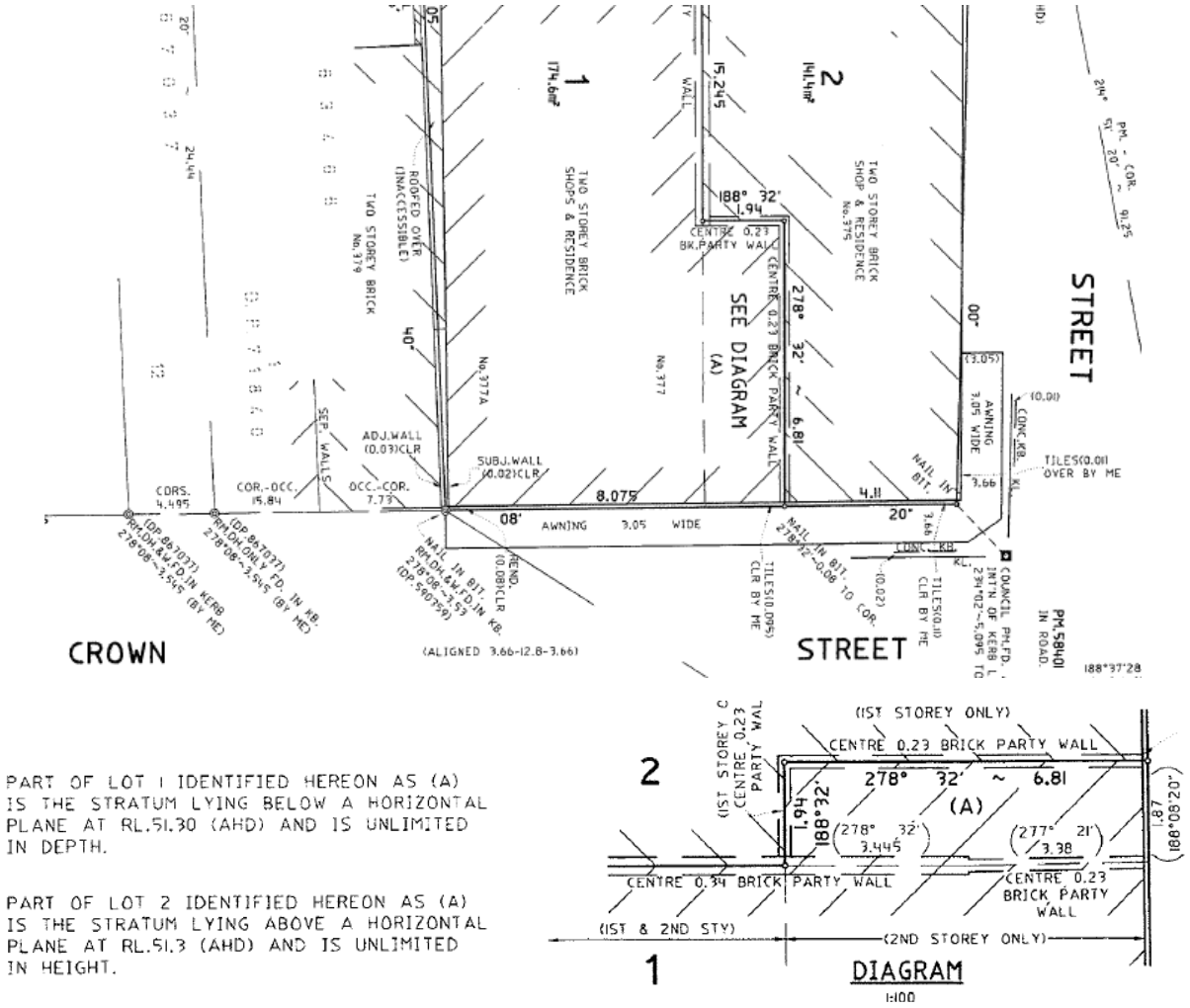


Figure 21: Detail from DP 590359 sheet 2, showing subdivision boundary in stratum – 2001.

5 DOES ONE POINT MAKE A BOUNDARY?

Most cadastral surveyors have seen examples of four lots intersecting at a single point (Figure 22). The question is: Do Lots 79, 80, 100 and 101 share a common *boundary*? No!

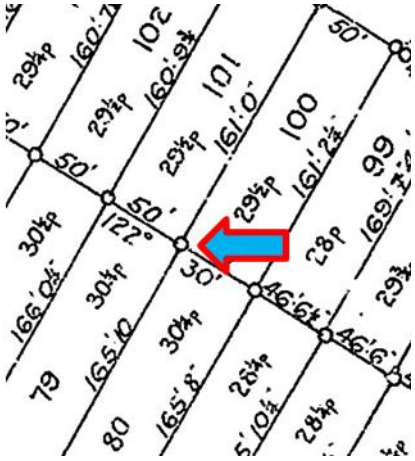


Figure 22: Detail showing four lots intersecting at a single point.

One would say that Lot 79 shares a common boundary with Lot 80, and that Lot 79 also shares a common boundary with Lot 101, but never say that Lot 79 shares a common boundary with Lot 100. A metes and bounds description for Lot 79 would say … *bounded on the north east by the south western boundary of Lot 101 being a line bearing 122 degrees 30 minutes for 50 feet to the north western corner of Lot 80 then bounded on the south east by the north western boundary of Lot 80* … Lot 100 does not even get a mention!

A situation emerged in City of Ryde recently, where the four 'lots' joining at one point are Glades Bay, two residential lots (Lot 22 and Lot 23) and Ross Street (Figure 23). Lot 22 has a tidal water frontage and Ross Street also has a tidal water frontage. Does Lot 23 have a tidal water frontage? Does this point constitute a boundary? What happens if the road or water boundary migrates as the result of redefinition? Is there prolongation of boundary lines? Is there change of angle in boundary lines?

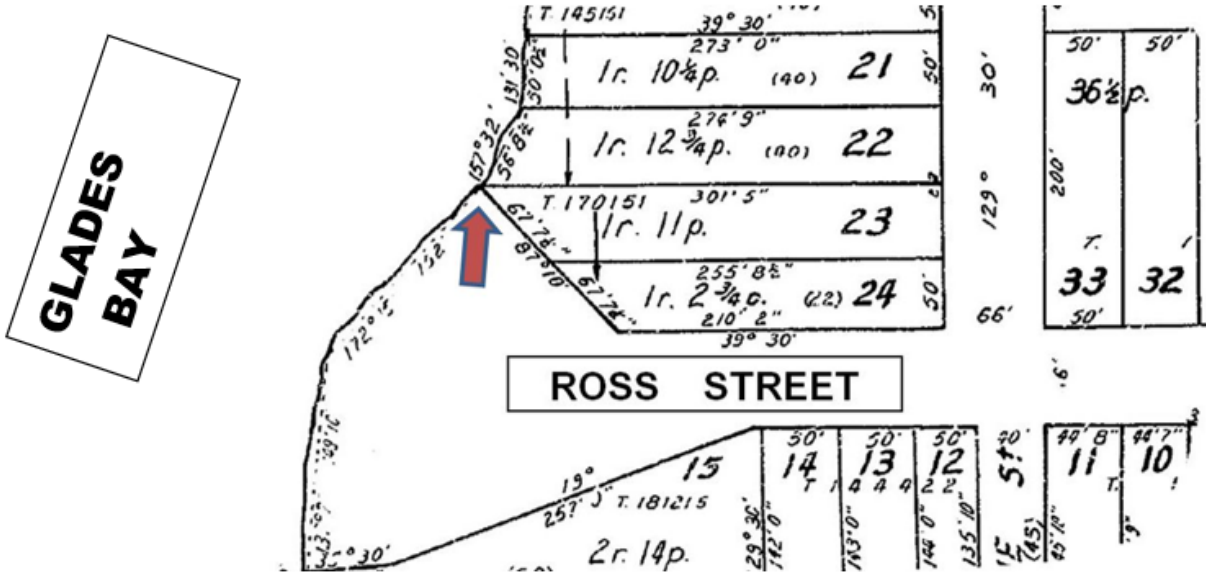


Figure 23: Detail from DP 1821, showing Lot 23 having point contact with the tidal water of Glades Bay, and Lot 22 and Ross Street each having a full frontage with the water – 1886.

In 2016, a plan of redefinition (DP 1232306) adopted the Mean High Water Mark (MHWM) as now defining the tidal water boundary, which meant that technically the water boundary for Ross Street could likewise move and be redefined to the MHWM (Figure 24). DP 1232306 also created a 'Right of Carriageway' to adjoin Ross Street. That is, the landward boundary of Ross Street would not move as a consequence of any redefinition of the water boundary.

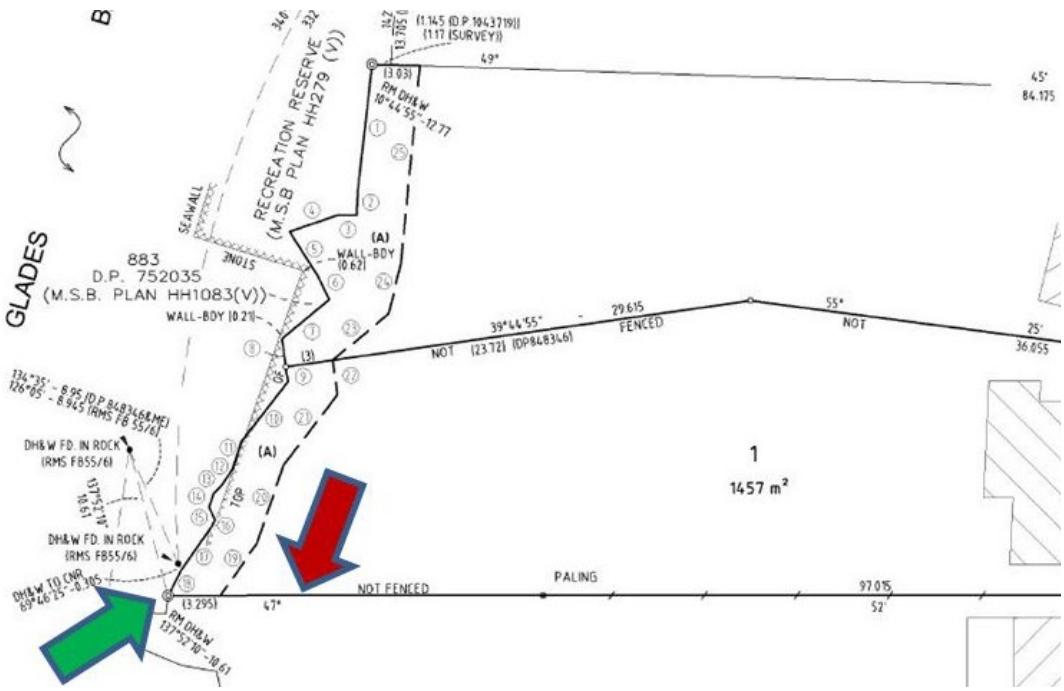


Figure 24: Detail from DP 1232306, showing re-definition of Lot C in DP 380292 (which was a subdivision of original Lot 22), where Mean High Water was adopted, which meant that the side boundary was increased in length by 6.2 m – 2016.

In 2020 a redefinition survey (Figure 25) was undertaken for the adjoining Lot (Lot 23 in DP 1821), which had a frontage to Ross Street and a point contact with the original high-water line. This DP 1264104 purports that its point contact with the natural water should be maintained when the water boundary is redefined at MHWM, citing "*The definition of MHWM is the same as that shown on DP1232306. For consent to the definition shown on DP1232306 see Transport for NSW file: SF2016/189133.*"

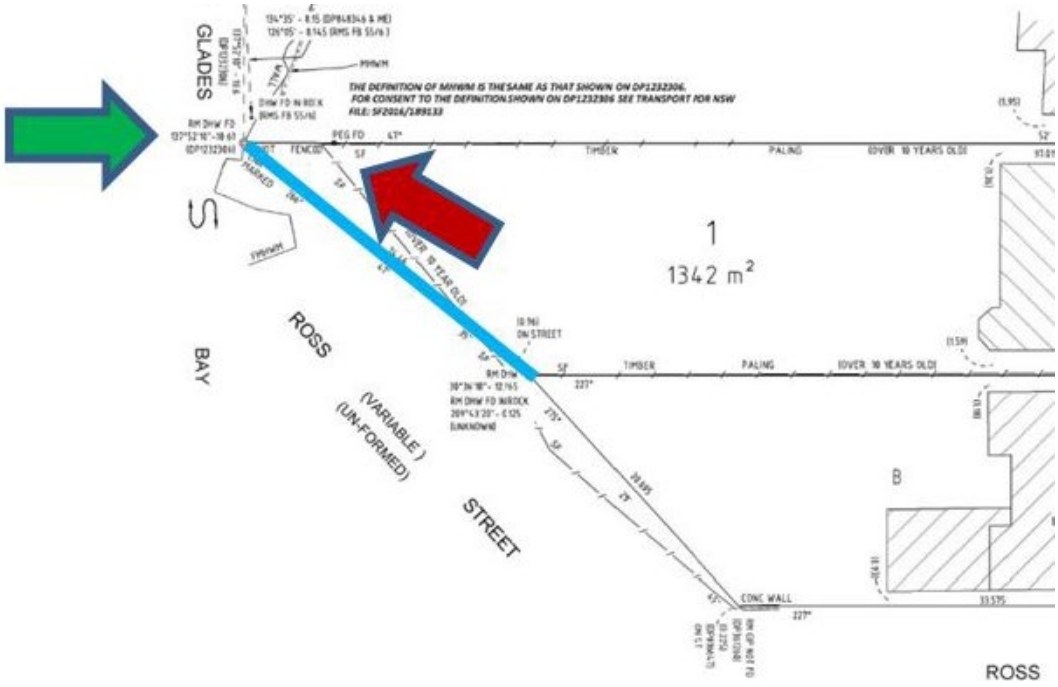


Figure 25: Detail from re-definition DP 1264104, showing that a point contact with the natural boundary has been retained – 2020.

This DP 1264104 has now created a bend in Ross Street, where Ross Street was originally one straight line. Access for the 'right of access' created to Ross Street in Figure 24 is now shut off! If this course of action is indeed legal, should Ross Street not have retained a single straight line from its intersection, with no bend at all in the frontages (i.e. Lot 1 would acquire even more land from the original road reservation)? Lot 1 (former Lot 23 in DP 1821) has a road frontage, not a water frontage. What would be the case if the tidal water boundary had been re-defined and moved inland by 6 m?

6 WHAT LAND IS THE SUBJECT IN A REAL PROPERTY APPLICATION?

From an Old System Crown Grant to Henry Harvey dated 26 October 1840 (it being part of Section 26 in Parramatta South), Primary Application number 8783 in 1894 (Figure 26), displayed a note on the face of the survey plan which stated: "*The land edged yellow withdrawn from Application. See letter of* …" The description on the Certificate of Title created by Primary Application 8783 also states the exception: "*Excepting thereout the land coloured yellow on plan hereon, the area of which is deducted from the total area*." The Primary Application packet is unfortunately no longer available.

Figure 26: Detail from RPA 8783 – 1894.

Note that the survey plan shows a building and a brick WC constructed all along the southern boundary, note that the plan indicates an overall area of 1 rood 29 perches, note "Quarry Reserve" along the river foreshore and note also that the excluded area is not dimensioned. So, how is its position located? The area of 19.25 perches (487 m^2), represents the area of land edged yellow, which is excluded in the RPA. A departmental redraw in 1917 repeats this exclusion from the Primary Application (Figure 27).

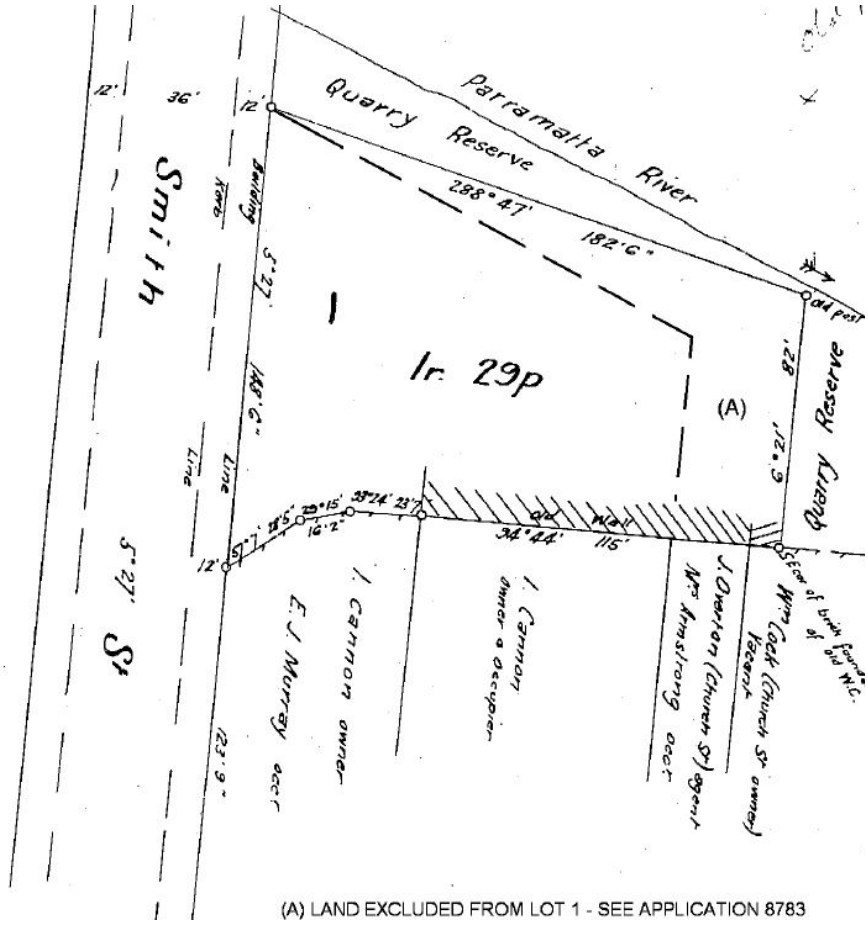


Figure 27: Detail from a departmental redraw in 1917.

Notice that the area shown in this redraw is 1 rood 29 perches, which is the area of the whole dimensioned parcel. Another departmental redraw occurred in 2012 (Figure 28).

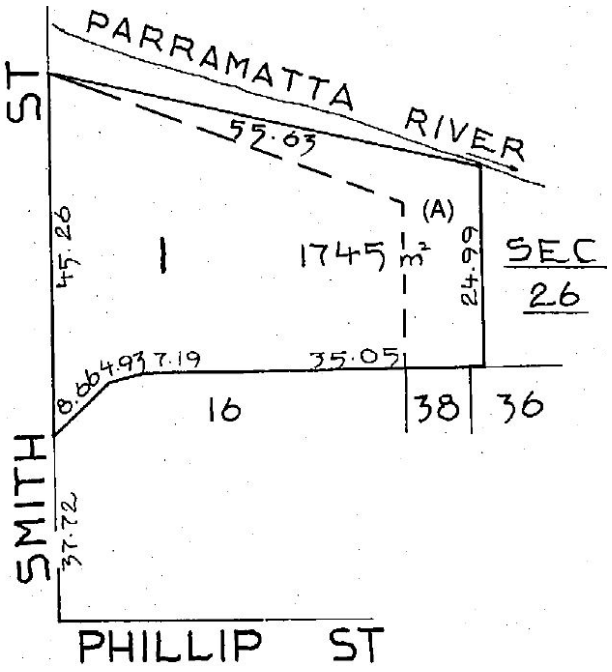


Figure 28: Detail from a departmental redraw in 2012.

Notice that the area shown is 1,745 m^2 (= 1 rood 29 perches), which is the area of the whole dimensioned parcel. The Certificate of Title, Computer Folio 1/58783, indicates that Volume 1126 Folio 13 (created at the time of RPA 8783 in 1894) is still the Current Title, and carries forward this notation: "*Land excludes the land coloured yellow on the plan shown in the Title diagram*."

Was this land a remnant of an ancient Old System right of use over part of the subject land, such as access to the river, a right which was not converted to Torrens Title at the time of Primary Application? No! It is more a case of adverse possession against the Crown or preventing having overlapping titles.

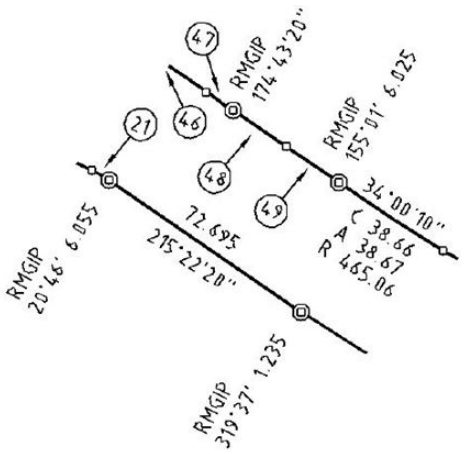
In 1898, Crown Grant Volume 1248 Folio 1 was issued for Allotment 7 (Figure 29). This land, which was granted to William Richard Murray and Edward Nicol Murray, not only abutted the parcel of land subject to the RPA in 1894, but *overlapped*, to the extent indicated by the abovementioned yellow line. The proprietors of the land subject in the RPA were the same William Richard Murray and Edward Nicol Murray who were granted Allotment 7. The Grant was dated 1898, coming *after* the RPA.

Figure 29: Detail of title diagram in Crown Grant Volume 1248 Folio 1 of Allotment 7 in Section 26 – 1898.

Notice that the adjoining area of "1r 8p" shown in Figure 29, is of the same magnitude as the area of the land remaining after the exclusion described in RPA 8783. Notice that the plan for the RPA (Figure 26) notates "Quarry Reserve", which comprises the land granted to the Murrays in 1898.

7 HARK! LOOK AT THIS ARC!

Roads have been created with curved boundaries ever since roads were first created. Generally, a road curve with a radius of several hundred metres is considered excessive, but what about a curve with a 21 km radius (Figure 30)? This curvature amounts to a spring of 2 mm in the arc over its 20 m length. Notice that the bearing of the other side of the road is 35° 22' 20", which is essentially the same bearing as the chords.



46	27°20'	20.077			
47	35°22'40"		10.055	10.06	91.585
48	35°22'50"		20.21	20.21	21961.21
49	35°22'20"		19.90	19.90	14560.595
50	29°39'20"		18.93	18.935	4000.45

Figure 30: Detail from DP 1263364 – 2019.

8 PLAN AND TITLE GAFFES

8.1 Mirror, Mirror on the Wall…?

Some years ago, when a copy of DP 34159 was ordered, NSW Land Registry Services (LRS) produced the copy shown in Figure 31, and yes, a mirror does help! This problem has since been rectified.

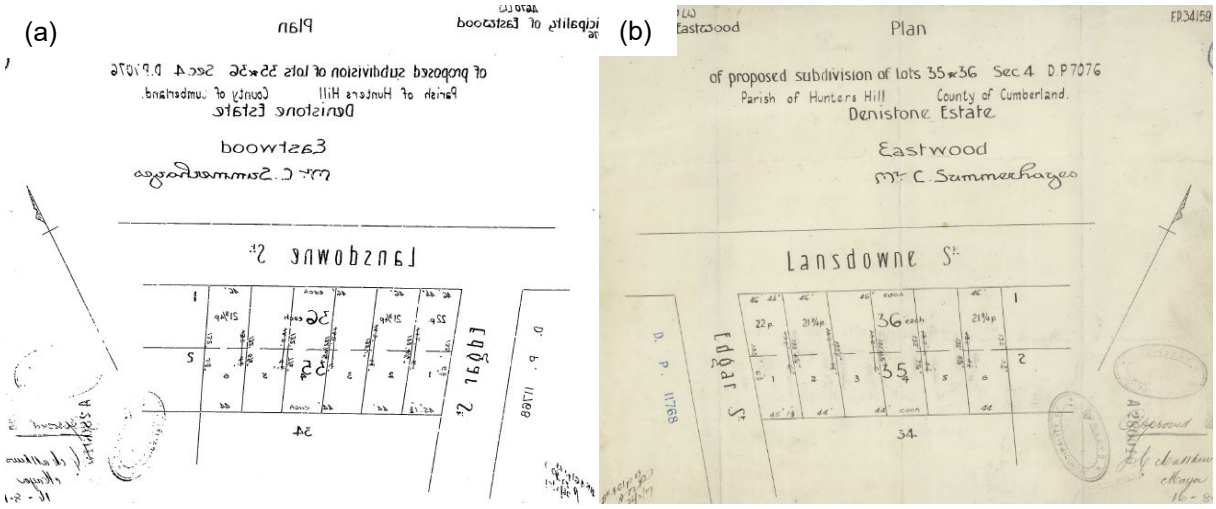


Figure 31: DP 34159 (a) in 1916 and (b) as it looks now in 2020.

8.2 Who Transferred the Wrong Lot?

For 40 years the adjoining landowners did not know that they were not living on their own lots. Rather than have the neighbours swap houses, the Land Titles Office (LTO) enabled an amendment to change each title reference (Figure 32).

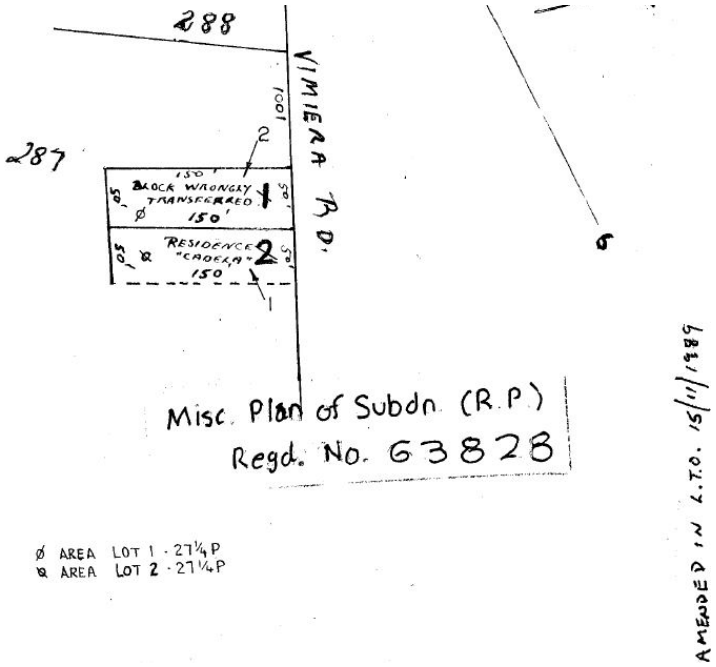


Figure 32: Detail from DP 363828, showing "*block wrongly transferred*" and its re-numbering – 1948.

8.3 Type O

On SP 32007, DP 526278 is noted as the base plan in the location drawing, not DP 526728 as written in the plan heading and subsequently copied and carried forward by LRS as 'Last Plan' in the Strata Plan's registration panel (Figure 33).

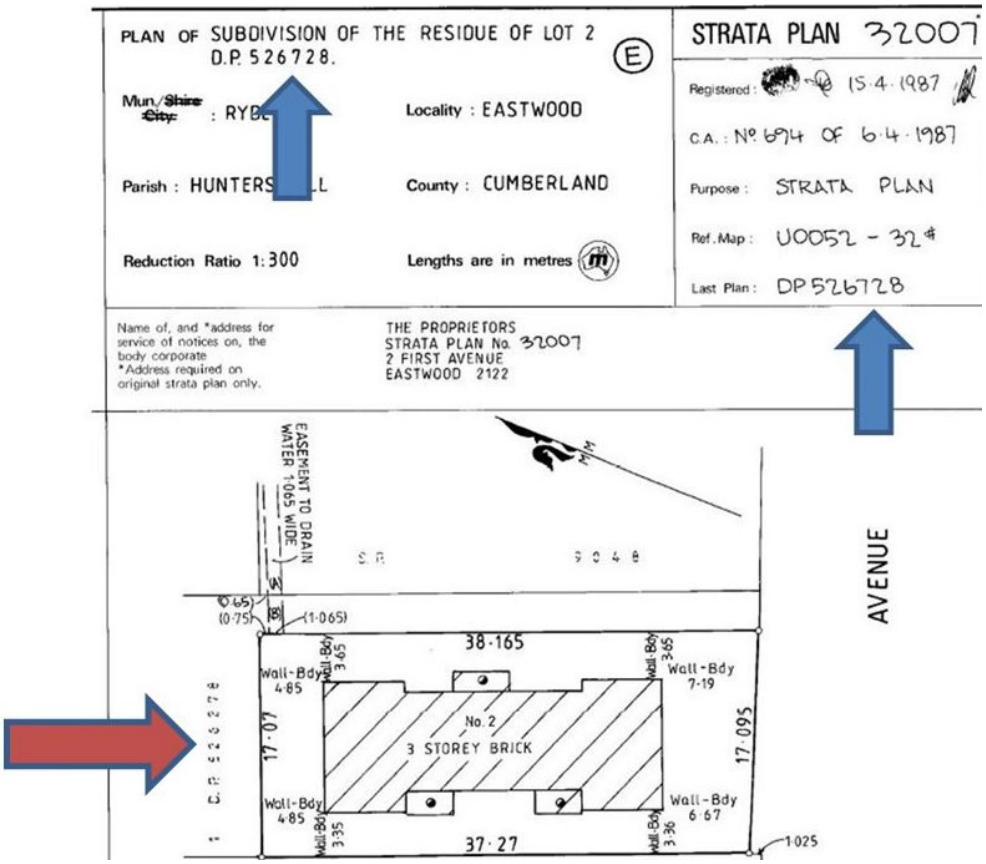


Figure 33: Detail from SP 32007, showing incorrect reference to base Deposited Plan – 1987.

8.4 Something is Missing

The very first Deposited Plan, in 1863, was duly signed off by the Registrar General but had a missing date (Figure 34). DP 420990 in 1960 also has no registration date and is missing all other official registration details (Figure 35).

Figure 34: DP 1 was duly registered and signed off by the Registrar General, but not dated – 1863.

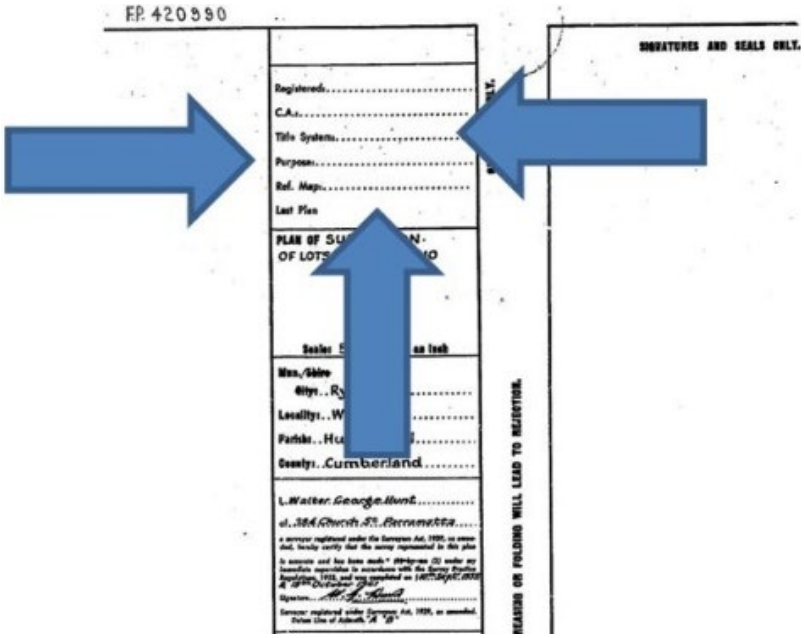


Figure 35: DP 420990 shows no official registration details – 1960.

9 A GOVERNMENT GAZETTAL GONE AWRY

The Government Gazette notification of the boundary for Parramatta was first published in 1838, following a survey by J. Gallaway. However, the survey plan dimensions were copied incorrectly into the Government Gazette notice. The accompanying metes (bearing and distance) description in the Gazette contained errors in the text: "*west*" was omitted from the bearing of the boundary line running *southwest* from Parramatta Park, and "*west*" was substituted for *east* in the bearing of the boundary line running *southeast* from the Great Western Highway.

The town boundary of Parramatta was marked by huge dressed and inscribed stones placed in 1839 at the corners of the perimeter, in accordance with the plan of survey. An historic plaque in the grounds of Hambledon Cottage (Figure 36) shows a map of the perimeter, also in accordance with the plan of survey.

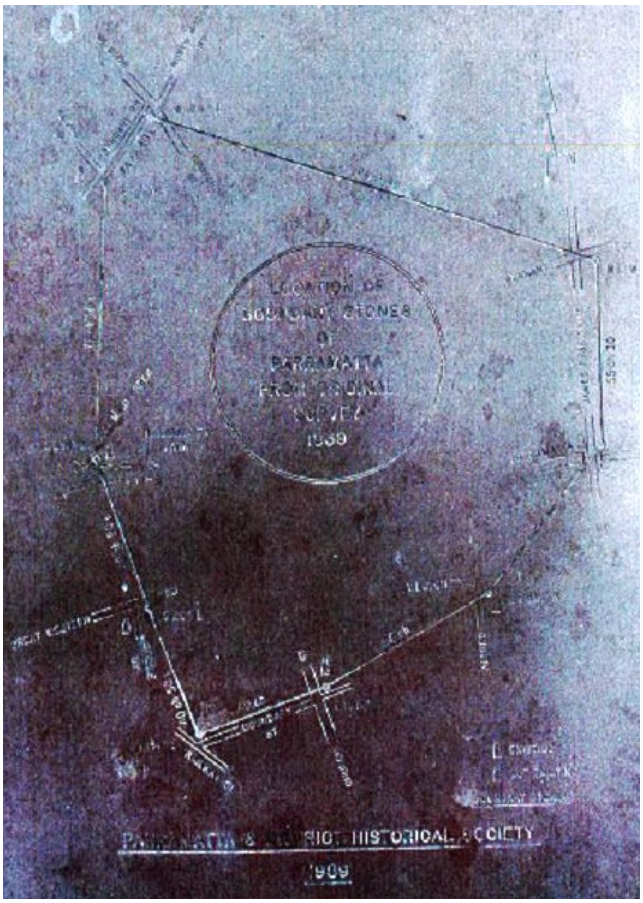


Figure 36: Detail from plaque: "*Location of boundary stones at Parramatta from original survey 1839*."

10 STRANGE NOTATIONS

With respect to inaccessible lot corners and corners not being marked, there are many examples of rather lame excuses, including the existence of large dogs (Figure 37). It must have been very tempting for the surveyor to denote at least one of the corners as "K9". The surveyor neglected to mention the breed of dog, but it probably does not matter.

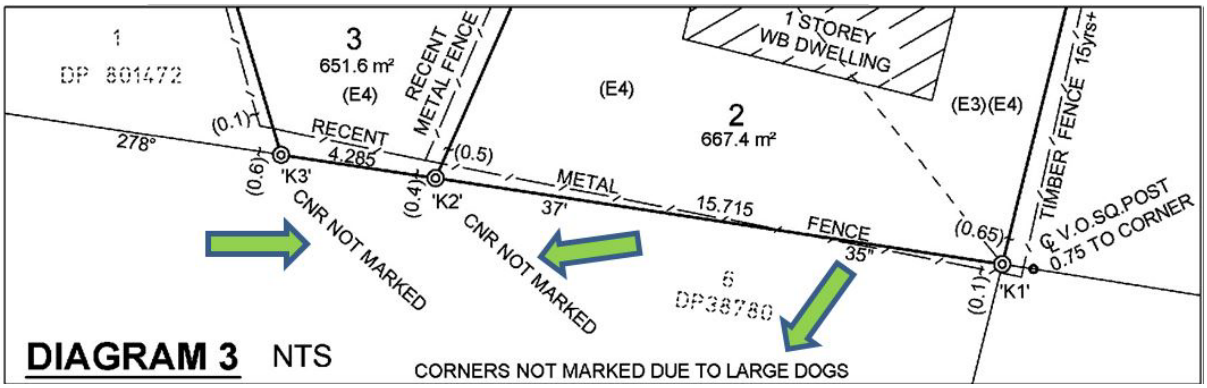


Figure 37: Corners K2 and K3 not marked due to large dogs.

Surveyors can also be intimidated and put off by natural features (Figure 38) or by humans (Figure 39). At least, we imagine in this case that the hostile occupant was human. Who knows, maybe it was a drop bear (Janssen, 2013).

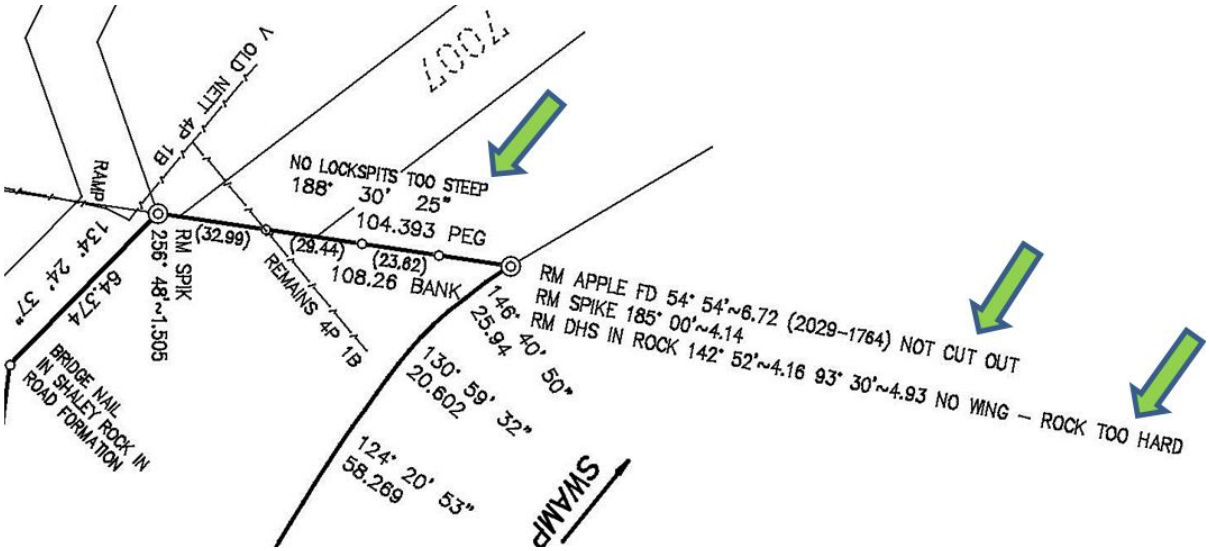


Figure 38: Possibly an example of what happens when the urban surveyor goes bush.

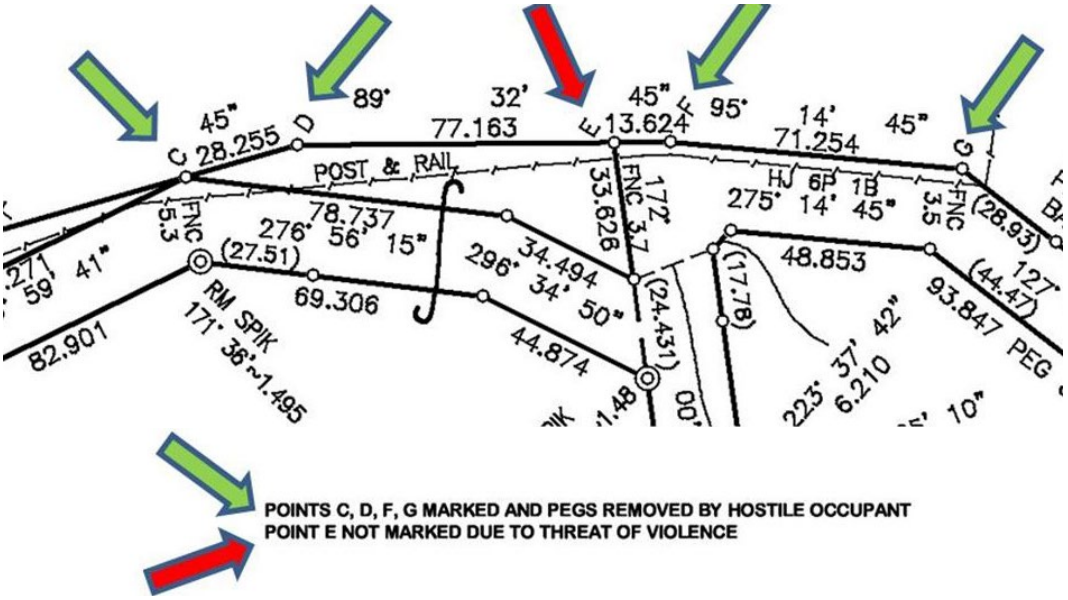


Figure 39: A surveyor being threatened by a hostile occupant.

Then there are the surveyors who wish to remain true individuals and leave their own mark on surveying history (Figure 40).

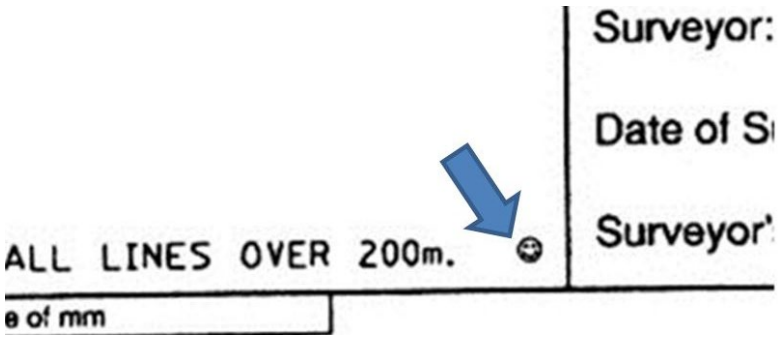


Figure 40: Smiley face.

11 CONCLUDING REMARKS

The examples explored and explained in this paper form part of the cadastral network of New South Wales. If anything, they highlight the need to sometimes investigate further back than the most recent Deposited Plan or the current Title. If a DP shows that a reference mark is "gone", surveyors should be very suspicious. If surveyors cannot locate a reference mark and are not absolutely certain that said mark is destroyed, they should state "not found" or "not looked for" on their plans.

When creating a new boundary line, surveyors should be aware of the implications of angles and bearings over very short distances. Showing a 2-minute bend in a wall that is 4 m long is almost ludicrous, when the resultant swing or displacement is only 2 mm. As a long-gone Surveying lecturer once repeatedly stated: "Millimetre madness!"

Surveyors and lawyers will always disagree on what constitutes a property's boundary line. Surveyors tend to see a more practical, even black and white, solution to a boundary problem, whereas the legal profession can conger up a solution which leaves everyone else confused and bewildered. Hopefully though, in time, amenable solutions can prevail, which will satisfy both professions.

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