

SCSI Practice Standards, Ireland

# Boundaries: Procedures for Boundary Identification, Demarcation and Dispute Resolution in Ireland

2nd Edition, Geomatics Guidance Note



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SCSI Practice Standards, Ireland

# Boundaries: Procedures for Boundary Identification, Demarcation and Dispute Resolution in Ireland

2nd edition, Geomatics guidance note

Produced under the auspices of the SCSI Boundaries Working Group  
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# Acknowledgements

This document is adapted from the Guidance Note *Boundaries: procedures for boundary identification, demarcation and dispute resolution in England & Wales (2nd edition)* published by the Royal Institution of Chartered Surveyors (RICS). The generous assistance of the RICS is acknowledged.

The SCSi would like to thank the following for their assistance in the preparation of this document:

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## SCSI guidance notes

This is a guidance note. It provides advice to SCSI members on all aspects of their practice. Where procedures are recommended for specific professional tasks, these are intended to embody 'best practice', i.e. procedures which in the opinion of SCSI meet a high standard of professional competence.

Members are not required to follow the advice and recommendations contained in the note. They should, however, note the following points. In the event of an allegation of professional negligence being made against a surveyor, the court is likely to take account of the contents of any relevant guidance notes published by SCSI in deciding whether or not the surveyor has acted with reasonable competence.

In the opinion of SCSI, a member conforming to the practices recommended in this note should have at least a partial defence to an allegation of negligence, by virtue of having followed these practices. However, members have the responsibility of deciding when it is inappropriate to follow the guidance.

It does not follow that members will be adjudged to have been negligent if they have not followed the practices recommended

in this note. It is for each surveyor to decide on the appropriate procedure to follow in any professional task. However, where members depart from the practice recommended in this note, they should do so only for a good reason. In the event of litigation, the court may require them to explain why they decided not to adopt the recommended practice. The guidance note has been prepared to promote best practice in terms of boundary identification, demarcation and dispute resolution in Ireland. Circumstances can arise where the suggested best practice in this guidance note cannot be applied.

This guidance note therefore should not compel chartered surveyors to an inappropriate course of action. Transparency simply requires that in the event that the guidance note is inappropriate, the reasons for this are shared with all relevant parties and a record kept.

In addition, guidance notes are relevant to professional competence, in that each surveyor should keep themselves up-to-date and should have informed themselves of relevant guidance notes within a reasonable time of their promulgation.

## Introduction

The physical extent of property ownership and rights of use are basic attributes of land and buildings and are capable of being evaluated by property professionals. Uncertainty of the extent of ownership and the associated rights affects the physical use and rights to repair, maintain, gain access to and obtain value of the land. Certainty is critical for the successful sale or purchase of real property and it governs the enforceability of property rights which materially affects the value of the property as collateral for a loan.

As the pressures of development increase in today's society, particularly in urban areas, boundaries and other incorporeal rights gain greater importance, both economically and socially. Householders extend their houses and build conservatories often up to their boundaries, and developers are no different in wanting to maximise the use of their equally valuable and scarce land.

The purpose of this guidance note is:

1. to provide SCSI members with an understanding of the value and role that clearly identifiable boundaries provide;
2. to enable, wherever possible, accurate and comprehensible information to be provided by professionals, with as little room for misunderstanding as practicable;
3. to help in the event of a dispute over boundaries, to set out the facts in a manner that assists the parties, their legal advisers and the courts; and

4. to safeguard the interest of clients and to promote the public interest.

The aim of the SCSI Boundaries Working Group and SCSI Dispute Resolution service is to encourage private individuals, businesses and professional advisers (particularly the legal profession) to select a suitably qualified chartered surveyor as an expert who can scrutinise and understand the documents and maps, carry out inspections (often with a measured land survey) and prepare a report. There may also be a requirement to provide a formal expert report and present it to the court in the same manner as any other expert witness, such as forensic scientists, medical practitioners and other specialists. Currently, while some individuals and businesses are aware of the existence of professionals who specialise in boundary demarcation, many are not. They may therefore seek advice from unqualified persons, often to the detriment of accurately identifying the problem and invariably leading to unnecessary expense, or worse still, ill-founded litigation. It is also worth noting that the law can affect justice only if both the claimant and the defendant have their cases presented properly and in full: accurate information and assessment at an early stage can often assist in obtaining a prompt and cost-effective resolution of otherwise contentious cases.

# Stage 1 Instructions

There are several circumstances in which chartered surveyors may be asked to deal with boundary matters; the following is a representative, but not exhaustive list:

- Initial scoping advice; for instance, the options on subdivision of land and the setting out of new physical boundary structures in non-contentious circumstances or where boundary features/markers have been lost and need to be reinstated or when their position is uncertain;
- Advice on the likely position of boundaries that already exist on the ground, such as when first registration of title is required, in connection with purchase or sale, for valuation, administering party wall procedures, or scoping advice on development proposals, etc.; and
- In a contentious case, you may find yourself acting for one or more parties (or for more than one opposing party as a court appointed expert).

The initial contact stage is an opportunity to ascertain if the matter is within the ambit of your professional knowledge and competence. If the matter is complex it may be possible to conduct an initial review of the documentary evidence on a preliminary basis. It is incumbent on the chartered surveyor considering taking instructions to ascertain that he/she has the right experience and training for the task, and has adequate professional indemnity insurance (PII) cover, as claims arising from this work can prove costly. Possible conflicts of interest should also be considered.

A very useful resource for chartered surveyors is the RICS practice statement and guidance note *Surveyors acting as Expert Witnesses (3rd edition, 2008)*. This contains advice and information on the overriding duties of an expert witness, as well as the practical matters such as how to set up meetings with lawyers, how to develop fees, how to manage cases and how to prepare reports.

## 1.1 Initial contact

The initial contact can come directly from a potential client, a professional adviser (often a solicitor), or by referral from SCSi.

### 1.1.1 Direct contact by a potential client

A member of the general public may approach a chartered surveyor based on contact information from independent mediation services, mediation service of SCSi, or from a commercial business directory. In many cases the surveyor is usually the first professional adviser to be involved and it may

be possible, after a short conversation, to ascertain if it might be possible to avoid litigation or even to act as a mediator in the matter.

### 1.1.2 Professional adviser (for example, a solicitor, accountant, architect, consulting engineer or other chartered surveyor)

A professional adviser to a client will often be aware of the expertise that chartered surveyors can offer. It is important for the professional adviser and chartered surveyor to understand the nature of the case and the potential timeframe involved. It may be useful to meet the professional adviser at this initial contact stage, depending on the complexity of the case. You will need to establish clear instructions from the professional adviser as to what is required, such as a measured survey, an expert report, court appearance, or whether the professional adviser simply needs your advice in order to include as a part of his or her own boundary report.

### 1.1.3 Referral from SCSi

This will arise when a member of the general public or professional adviser approaches SCSi and asks for the name of a chartered surveyor with boundary expertise.

### 1.1.4 Role of the Chartered Surveyor

The role of the surveyor in boundary resolution issues is not always clear to the client or landowner concerned. There may be an expectation that the surveyor will provide an explanation or solution which includes a legal interpretation. This expectation is understandable as the surveyor is required to consult a range of legal documents in carrying out his/her research. Surveyors should be clear that their role is essentially and primarily concerned with the spatial aspects of boundary issues, the physical attributes of features on the site and how these have been represented and described in various documents including historic and modern maps. The output of the surveyor's involvement is usually a map or plan, likely to be dimensioned, and a report. In verbal communication the surveyor should exercise caution and provide advice in the context of his/her report and map. Questions outside the surveyors area or expertise should be referred to a solicitor or other relevant professionals. This may include a conservation architect in instances where the age of a particular structure needs to be determined.

The role of the surveyor includes briefing and advising other professionals engaged by or on behalf of the client or landowner. The surveyor's advice to a solicitor may be crucial in the event of a claim in relation to adverse possession. In such instances legal advice is based on factors including the location

of boundary fences and the length of time the fences are in situ. The surveyors' observations on the physical attributes of boundary fence details such as, nature and condition of materials used, vegetation growth, evidence of maintenance, estimate of age, in addition to photographs and photographic and historical map evidence and local knowledge will assist him/her in advising the solicitor and/or client. The surveyor should not make judgements or definitive statements concerning adverse possession claims irrespective of whether they are in favour or not in favour of the client or landowners case. The surveyor should therefore confine his/her advice to the spatial and physical attributes of the boundary, its related documented records, dates/time spans and all relevant information that will inform and assist the solicitor to give legal advice including advice in relation to a potential adverse possession claim.

## 1.2 Alternative forms of initial contact

There is increasing direction from the courts to reduce the cost of civil litigation and where possible avoid trial. As in many other aspects of civil litigation there is an increasing reliance upon alternative dispute resolution (ADR), of which mediation is one form. Therefore a chartered surveyor may find initial contact being made through one of these alternative routes, often when a case is at an advanced stage.

### 1.2.1 SCSi Dispute Resolution Service

SCSi is currently developing a service where it will appoint a suitably qualified chartered surveyor who has undertaken specific training to advise the general public and/or professional advisers in respect of boundary issues. Interested chartered surveyors can find out more information at [www.scsi.ie](http://www.scsi.ie).

This service is being designed to resolve boundary and other neighbour disputes in order to reduce costs and where possible, avoid the need for trial.

### 1.2.2 Mediation

Mediation as a form of ADR requires specific training. SCSi provides opportunities for mediation training to members. Further information is available from [www.scsi.ie](http://www.scsi.ie).

If you are being instructed to act as a mediator, it is essential that this role be established during initial client instructions, as this will have a direct bearing on how the case proceeds. Mediation aims to reduce conflict and tension and requires considerable tact and diplomacy to help bring opposing parties together to resolve a boundary problem without litigation. It is worth noting that the results of mediation do not become legally binding until the signing of a formal agreement between the parties. Courts will usually require the parties to attempt

mediation in the hope that it will prevent a trial. However, in many cases parties return to court following an unsuccessful outcome from mediation.

The chartered surveyor acting as a mediator should be able to explain, objectively and impartially, the boundary situation to all parties in a dispute, usually in the absence of legal representatives. The chartered surveyor should be seen as an independent source of knowledge with the potential to assist the parties to reach a mutually satisfactory resolution.

Mediation can often involve highly emotive situations, and one needs to be prepared for this. Mediation that is unsuccessful often results in greater tension, protracted costs and longer timescales than the conventional adversarial approach.

It can be difficult to be accepted as a truly impartial mediator if the initial contact has come from one of the parties only. If one party only is to be responsible for your professional fees it is inevitable that the other party will see you as being partial and not a truly independent mediator. Therefore SCSi advises chartered surveyors to seek joint appointment as a mediator by all parties to the action.

## 1.3 Keeping records of activities

Litigation is an expensive procedure. It is important that a comprehensive record of each item of expenditure is kept, from initial contact through to the conclusion of the case. A statement of account should be made at the end of each month. SCSi recommends that a regular statement of account be submitted to the instructing party (or parties). It is also vital to have time sheets, including a detailed activity list for each hour spent, and a record of material and travelling costs available for production at all times. For example, should the case proceed to court hearings but then be settled out of court at the very last moment, you may well be expected to produce detailed, justifiable and reasonable costings immediately.

## Stage 2 Initial investigations

Depending upon circumstances, but especially in contested cases, it may be necessary to hold a pre-inspection meeting with the instructing party(ies) and/or their professional adviser(s). This may sometimes be combined with a preliminary reconnaissance visit to the site of the dispute. In other circumstances a brief site visit and a follow-up letter of suggestions may suffice. At all times, the amount of preparatory effort required at this stage should be proportionate to the complexity of the case. It is very important that you keep detailed and legible notes throughout all meetings and interviews, as these may form a vital record. This record may be heavily relied upon later, especially if the case eventually reaches court, a process which may take several years. It is prudent to bear in mind that all correspondence may be subject to 'disclosure'. This means that such correspondence can be the subject of cross-questioning/examination in court, where any unguarded comment could reflect adversely on your personal credibility or even on the case itself.

SCSI recommends that in all cases the following issues should be clarified at the earliest opportunity.

### 2.1 Setting expectations

It is essential to set the expectations of both the client and/or their professional adviser from the outset. It is particularly important to clarify that when acting as an expert witness, your primary obligation is to the court, not the instructing party(ies) and that they should remain impartial, truthful and dispassionate at all times. It is worth stressing that you will be only able to complete a comprehensive and accurate report if the client and/or professional adviser openly present all the known facts. It is also worth making clear to the client and/or professional adviser that all plans, documents and/or knowledge of any relevant incidents need to be disclosed, even if it may appear to be disadvantageous to their case.

### 2.2 The services to be offered

The chartered surveyor should clearly describe those services that are being offered and those that are not. For example, a chartered surveyor may offer a range of services, including, but not limited to:

- assessing which form of title applies (Registry of Deeds or Land Registry);
- examining Land Registry map;
- examining other historical deeds and plans;
- making an accurate measured survey of the existing land configuration;

- obtaining and examining collateral and critical information, for example old photographs, from third party sources such as the Land Registry, Ordnance Survey, parish council records and local historians;
- interviewing anyone concerned with the boundary problem, for example gardeners, longer-term residents, etc.;
- analysing all information and combining it with the up-to-date accurate measured survey;
- presenting the results;
- preparing an expert final report showing the results of expert examination;
- presenting evidence in a court of law;
- being instructed as a mediator (where applicable); and
- being instructed as a single joint expert witness (where applicable).

It is important to set early expectations in terms of the quality and reliability of evidence that may be achievable from the examination of historical records and information sources. It is imperative to discuss the limitations of maps, surveys and plans of differing scales and provenances (see 3.6.1). The accuracy of Ordnance Survey large-scale topographic data (as outlined in 3.6.1) is such that the client and professional adviser can understand what may be achievable. It is also important to outline that it may not be possible to resolve the position or alignment of a boundary to the level of accuracy that they would prefer at the outset. Also the option to make an application for a 'conclusive boundary' (PRAI Practice Note 40, SI Rule 150) may also be appropriate. It may also be useful for you to refer to the SCSI client guide *Scale - lets be clear about scale* (Appendix 1). SCSI and RICS client guides are designed to communicate the sometimes 'opaque' technicalities of surveying and mapping into easily understood language. The *Scale* client guide is especially useful for explaining the concepts of scale to clients and professional advisers.

You may well be asked for an opinion on the meaning of the wording in old deeds and conveyances. Bear in mind that you may not be qualified to pass opinions on points of law or other legal matters, nor should you become involved in any arguments with the parties, except in cases where you are instructed as a mediator.

### 2.3 Conditions of contract

It can prove valuable to refer to the 'RICS Terms and Conditions of Contract for Land Surveying Services' (Appendix 1) as the general conditions under which you will operate. However, there are some variations, particularly with regard to the settlement of fees.

### 2.4 Formalising the contract

It is normal for the contract between the parties to be formalised by an exchange of letters after (but sometimes before) the initial meeting. For litigious cases and expert witness work (unlike surveys for mapping and development purposes, where the surveyor usually contracts to work for a developer, with an architect or engineer appointed as an agent to control the work), the work is normally carried out under contract to a professional adviser (usually, but not always, a firm of solicitors). If a contract is with the solicitor, then they are responsible for fees unless they state otherwise. SCSl recommends that you contract with a firm of professional advisers wherever possible. This can make final payment easier to pursue in the event of late or non-payment of fees than with private individuals.

### 2.5 Charging fees and invoicing

Geographical and expertise differences, amongst other issues, may affect the level of fees to be charged.

It is advisable to present a copy of your fee schedule at the initial meeting, which should be given to the client and/or professional adviser.

Please refer to section 1.3 above, ensuring that you keep to-date records of your fees and costs incurred, and that you are in a position to show that they are reasonable. This may be done by demonstrating:

1. that the hourly or daily rate is a reasonable rate for a boundary specialist chartered surveyor; and
2. that each hour charged for has been reasonably spent.

You should provide the client and/or professional adviser with the basis for the rate charged.

There are two clear stages when an invoice can be raised. The first is on completion of the expert report – usually but not always a month to six weeks from instruction. Then there may follow a period of months (or even years) when little happens apart from requests for copies of the report and the occasional meeting being made. A running total of costs during this period should be maintained.

This will be followed by either the settlement or a court appearance. It is unlikely that a boundary dispute will take less than two or three days in court, and therefore the cost of this final session can amount to several thousands of pounds. It is at the conclusion of this stage that the final invoice (including the costs incurred in the interim period mentioned above) can be raised.

It is inadvisable to view boundary dispute work as a revenue stream offering short-term rewards, or as an adjunct to your normal surveying activities. Boundary disputes often require consistent long-term personal application, for which it may not be possible to collect fees until the matter is resolved or abandoned. For that reason it is recommended that anyone considering practising in this area should have sufficient cash flow to sustain both their business and personal income, and should ensure that a lack of liquidity does not endanger the completion of client-instructed work.

SCSl members can also refer to RICS practice statement and guidance note *Surveyors Acting as Expert Witnesses* (3rd edition, 2008), section 19 - Basis of charging fees.

### 2.6 Conducting the initial meeting

The chartered surveyor should view the initial consultation as an interview with the client. The aim should be to allow and encourage the client to talk as much as possible in his or her own words about the history and context of the problem or dispute. All available documentary information such as deed plans, conveyance details, photographs and web-based information should be collected at this stage (a suggested checklist can be found at Appendix 4). Copies of Title Plans, together with a number of other supporting documentation are available from [www.landdirect.ie](http://www.landdirect.ie). They may prove useful to study before the meeting.

Caution is advised if this initial meeting is held at the site of the boundary dispute, as the client may become more emotional and less objective about the issue. This also carries the risk of drawing an uncooperative neighbour into the matter at an inopportune moment. It may be helpful to hold the meeting at a neutral location (such as at your office or that of the client's professional adviser). It is very helpful if the client can supply photographs of the site at this meeting. If the location of the client is distant, then the initial meeting may need to be combined with the main site visit, for reasons of economy.

You can often find that you are seen by the client as the solution to all of their problems, and that this can create an emotional atmosphere of relief and gratitude. There is a risk that this trust and expectation can lead to promises and assurances being made that have to be retracted once you visit the site and begin

to understand the true reality of the problem. This results in a loss of the surveyor's credibility and client trust. Therefore you should carefully consider any promises made to the client, and the client's perception of them.

The initial meeting should be used to clarify as many as possible of the following points.

### **2.6.1 Clarifying the issues with the client**

Rarely are issues exactly as the client perceives them. Identifying the real issues and then confirming these clearly in writing with the client and/or professional adviser is essential. In effect this forms part of the terms of engagement of the chartered surveyor, as it is the basis of your professional opinion and the advice that will follow. Sometimes your opinion may not be to the liking or advantage of the client. At this point you may need to assess whether or not you can continue to work on a particular case. On some occasions it may be necessary to advise the client to seek help from an alternative source and disengage politely. It is sometimes desirable to defer finalising the terms of engagement until after the initial meeting. It is not uncommon for other matters to be intertwined with boundary issues, such as fears of potential for encroachment, the viability of a building extension and so on.

### **2.6.2 Establishing exactly what the dispute is about**

At initial meetings with clients and/or their professional advisers, a large amount of information is often presented not only orally, but in the form of deeds, plans, photographs, old maps and letters of exchange etc. This volume will be all the greater if the dispute has been going on for some time and where your advice is being sought at a later stage. Therefore there may be a risk of leaving the meeting having received so much information that you remain uncertain as to the actual main issue at stake. Before leaving the meeting you may find it useful to try to clarify matters by using 'test' questions such as:

- 'As I see it, the problem is ... ; am I correct?'
- 'You would settle for... ; am I correct?' and
- 'You would definitely not want ... to happen; am I correct?'

The professional adviser or client will then be able to confirm, or if need be, correct your understanding of the dispute.

This initial meeting is not infrequently also the first time that the professional adviser has clarified the situation. The professional adviser will usually be grateful to you for clarifying any misunderstandings, particularly when done so in front of the client.

Bear in mind at this stage that the real dispute might not be about the boundary at all. Neighbours can fall out over all manner of things – children, noise and parking are just a few examples. Experience shows that neighbours might initiate boundary disputes in revenge for a perceived slight entirely unrelated to the boundary. Also many contentious disputes are not restricted to the position of a boundary, but may also involve other issues such as (but not limited to):

- easements (rights of access over property)
- other rights, such as riparian rights, mineral rights and rights to light
- subsidence
- privacy
- obstruction of views
- damage to trees or from their root systems
- noise and lifestyle issues; and
- even physical assault

It is useful to be clear about which of these other issues you are in a position to assist with, and how.

It may be useful at this point for you to consider arranging a programme of future stages for the boundary investigation and to explain the actions to be taken on completion of each stage.

### **2.6.3 Establishing the client's objectives or purposes**

It is important that the following issues are clarified at the earliest possible stage:

- What does the client hope to achieve?
- Are the expectations reasonable?
- If they are likely only to be partly realisable, what is the backstop position of the client?
- If it is a matter of a boundary position, where does the client think the boundary should be, and why?
- What is the client's opinion of where the neighbour thinks it should be and why? and
- What is the minimum that the client would agree to?

- Does the client wish to pursue the matter through the courts?
- Is the client looking upon the boundary dispute as part of a general legal strategy against the neighbour (i.e. are there other legal matters under way between the parties)?
- Is there a level of cost and inconvenience that would make the client agree to the status quo?
- Might the client accept the status quo in return for some monetary compensation?
- Does the problem hinge on the boundary position itself, or is there some other aspect (e.g. is it the 'type' of boundary that is in dispute)? and
- How acrimonious has the dispute become?

Whilst the client might be adamant that they are in the right and will not accept any compromise, this position might change over the course of time, and it is helpful to check on how they feel at various stages of the dispute.

Whilst all the above questions may seem cumbersome to bear in mind at the first meeting, you will soon develop a way of extracting the above information quickly and efficiently. A good idea is to have a 'checklist' or agenda on a clipboard at the meeting, so that you can ensure that each subject is adequately covered.

It is probably wise to avoid all contact with the other side (whether solicitor or neighbour), but if approached and spoken to you may find it helpful to remain polite and to remember not to be an advocate for your client.

#### **2.6.4 Ensuring expectations are understood**

It is important to be realistic. Do not build up unrealistic or unachievable expectations. Consider the cost benefit of any proposed course of action and be prepared to advise if you think it is unfavourable or marginal. Avoid taking sides – your role is to be objective and to base your advice or opinions on the facts at all times. By all means explore areas where your advice and eventual outcomes might go either way; explain the risks, pitfalls and likely uncertainties. Many people may believe that a title plan from the Land Registry is definitive on matters of boundaries, as this is not the case it is important to explain the General Boundary Rule (See section 3.4). Listen and note any points or proposals that the other party might make.

## Stage 3 Research

It is generally a good idea to set the date for the actual site survey at least a fortnight after the pre-site meeting or from receipt of documents. This will enable sufficient research to be made into the documents available or which may need to be sourced. You may have very little to go on apart from a photocopied conveyance and a plan that is indistinct and not to scale. If a solicitor is involved, there may be a considerable bundle of papers (the solicitor may refer to these as 'the case pleadings', and it is not unusual for a bundle to contain many documents, each of which should be read carefully.

The objective of this research is to try to establish the position on site of any of the physical boundary features, particularly those that are in dispute, and to answer the following questions:

- Where was the boundary originally?
- Has it changed? and
- If so, when, how and why?

### 3.1 The conveyance

The range of documents that might be provided, and their potential limitations, can be variable. Indeed some of the language used on older deeds can be arcane in the extreme, and requires careful consideration by legal expert.

It is self-evident when dealing with a boundary that it involves two or more adjacent ownerships. It is often necessary to obtain the relevant documentary information for the land on both sides of a boundary, if objectively reasoned advice is to be given.

### 3.2 The Property Registration Authority of Ireland (PRAI)

The Property Registration Authority of Ireland (PRAI) was established on 4 November 2006 under the provisions of the Registration of Deeds and Title Act 2006. The PRAI replaced the Registrar of Deeds and Titles as the "registering authority" in relation to property registration in Ireland. The main functions of the PRAI are to manage and control the Land Registry and the Registry of Deeds and to promote and extend the registration of ownership of land. See [www.landdirect.ie/eng/About\\_Us/Land\\_Registry/](http://www.landdirect.ie/eng/About_Us/Land_Registry/)

### 3.3 Registry of Deeds

The Registry of Deeds was established in 1707 to provide a

system of voluntary registration for deeds and conveyances affecting land and to give priority to registered deeds over unregistered registerable deeds. The primary function of the Registry of Deeds is to provide a system of recording the existence of deeds and conveyances affecting unregistered property. It should be noted that the Registry of Deeds does not guarantee the effectiveness of a Deed nor does it interpret a Deed, but only records the existence of the Deed.

A search in the Registry of Deeds will disclose only whether documents have been executed dealing with the land in question – to discover the effect of these documents, the documents themselves (which are not retained by the Registry of Deeds) will have to be examined.

#### 3.3.1. Deed Maps

Deed maps which have been carefully prepared, with due regard to the accuracy of additional information added for location information purposes, do not generally present difficulties to the surveyor. However, surveyors occasionally experience difficulties in reconciling their surveys with deed maps for a number of reasons. The majority of deed maps inspected will be 19th and 20th century documents and most are likely to be prepared to various imperial scales. In the substantial majority of cases the deed map concerned will define an area or a site which was the subject of a conveyance or assignment. The boundary at issue will be part of, or the entire boundary of that area or site. Dimensions on deed maps are essential considerations when examining boundary issues.

Resolving boundary issues in which there is conflict between deed maps and existing physical boundaries is usually problematic and may prove to be a contentious and protracted exercise. There are numerous combinations of circumstances in which deed maps may be in conflict with the existing physical boundary locations. This is particularly the case in relation to commercial properties in urban areas in which there are multiple legal interests, covenants, easements, a history of transactions and potential adverse possession claims. Such problematic situations are compounded when successive deed maps are prepared, or the same map reused, for renewal of leases or short lease assignments without resolving legacy boundary issues. Boundary issues relating to commercial properties, which have not been resolved, usually arise in the event of lessees exercising their rights to acquire the fee simple interest in the lands they have leased, under Landlord and Tenant legislation. This situation creates considerable legal difficulties for solicitors and invariably involves surveyors being asked to assist in the resolution of complex and, in some instances, intractable boundary issues.

Difficulties with deed maps can be related to several factors, including, (a) location, (b) shape, (c) scale, (d) local detail and monument points, and, (e) Subsequent physical boundary changes.

**(a) Location:** The issue of geographic location may present difficulties to surveyors, in particular in relation to 18th, 19th, and early 20th century deed maps. Without grid coordinates or other reference system such maps are dependent on the existence of physical features either as part of the boundaries, within the site or located nearby. The premises number in urban streets is significant but the surveyor needs to be aware that numbers may have changed over time and verification may be required. A significant proportion of deed maps were prepared prior to the development of the respective sites and in such instances the sites usually contain no details of physical features. In some instances the practitioner who prepared the map may have included a nearby road junction or nearby building for the purpose of indicating general location. It is such nearby detail that frequently proves problematic for the surveyor as it is invariably sketched in, may not be to scale – unlike the boundaries of the site which is the subject of the deed – and may represent the only surviving detail on which the surveyor is dependant to place the boundaries. In dealing with location issues, it is essential that the surveyor consults independent sources such as contemporary ordnance survey maps. Other sources, such as street directories may help to identify premises in urban areas, and Valuation Maps which indicate extent of premises to which rateable valuation applied, may be of some assistance. Historic photographs and published research documents may be available for notable buildings and prominent or historic streetscapes. The surveyor must avail of a many sources as possible as the subsequent actions or decisions taken by the solicitor or other professional and/or client or landowner will be partly dependent on the surveyors report. If there is a possibility of litigation, the surveyor is strongly advised to be in a position to produce evidence in court that will demonstrate that he/she carried out research of all available relevant sources before he/she made a decision or finalised a report.

**(b) Shape:** Surveyors occasionally find that while site perimeter dimensions on deed maps are in agreement with their surveys, it is difficult to reconcile the boundary orientation or shape of the site with their survey. This may be due to the absence of clear sight lines permitting check or diagonal measurements at the time of the preparation of the deed map or the unavailability of instruments to measure angles. The surveyor must take extreme care if

he/she considers that the deed map is to be questioned. The surveyor must be thorough in his/her research and in documenting the research. The research should include contemporary ordnance survey maps, including pre and post editions if available. It is likely that successive editions of ordnance survey maps will be consistent in depicting a particular physical boundary or feature. If the ordnance survey maps support the shape of the site and the boundary orientation as determined by the surveyors topographic survey and the surveyor can establish that the boundary concerned is in place since the date of the deed map the surveyor will need to make a judgement in relation to the deed map and may be in a position to question the accuracy of the deed map. Sources outlined in section (a) above may helpful.

If, however, the differences between the deed map boundary and the current physical boundary as surveyed can be attributed to interim development and/or the construction of physical boundaries which are at variance with the deed map, the surveyor is presented with a different issue. This issue is addressed in section (e) below.

**(c) Scale:** The storage conditions of deeds sourced from various archives and storage facilities may adversely affect the quality of preservation of the paper or parchment used. Extremes of humidity and temperature, folding, creasing or stretching due to stress caused by compaction, and damage from handling and repeated searching, over decades or centuries, may result in distortion to deed map scales. If the map is dimensioned, and the degree of distortion is similar in both north-south and east-west directions, it is possible to adjust the map to the correct scale. Some deed maps have a scale-bar but no dimensions. Caution should be exercised as correction to distortions in such maps may be possible only in the direction of the scale-bar. It is not possible to determine if corrections are required in other directions on the map without some independent comparator such as a contemporary ordnance survey map or topographic survey. Any adjustments to map scales or interpretations from such maps should be carried out in a systematic way and documented stage by stage as they are liable to be challenged and subjected to cross examination in contentious legal proceedings.

**(d) Local detail and monument points:** When comparing deed maps with recent ordnance survey map editions, surveyors should exercise care when using detail such as named buildings, buildings with street numbers and other similar hard detail, that appear to be similar on deed maps and on recent

edition ordnance survey maps. Ordnance survey maps will show the position of such features at the time of the respective map editions. While it is possible to carry out a topographic survey and verify the accuracy of the current ordnance survey map, the location of such features on the deed map may be different as they may have been subject to change over time because of demolition and reconstruction or extensive renovation which alters the external boundaries. It is not unusual for such buildings to retain the same name or street number. The incidence of such changes to building locations increases with the age of the deed map. In instances which the relative location of such a building or structural feature is crucial to the determination of a boundary, it may be necessary to engage the services of a conservation architect to examine the building or structure and give a professional opinion on its age in order to ascertain if it is one and the same feature as appears on the deed map.

**(e) Subsequent physical boundary changes:** One of the most frequent categories of boundary issues experienced by surveyors involves deed maps which correctly represent the title to the lands concerned but subsequent changes in physical boundaries are well established and have been apparently accepted by the respective property owners and mapped accordingly and published on successive editions of ordnance survey maps which may subsequently have been used by the Property Registration Authority of Ireland (PRAI). The physical boundary may also have been surveyed and mapped for temporary lettings, short leases or renewal of leases on a number occasions over many years or decades. The boundary usually becomes an issue when the lands are the subject of an application by the lessee to exercise his/her right under Landlord and Tenant legislation to purchase the fee simple, or when the lands are the subject of a lease disposal, or disposal of the fee simple by the existing holder of this interest. In any such transaction involving a long term interest, a title search and legal map are likely to be requested. This situation, in which there is conflict between the original boundary as defined by the deed map on the one hand, and the subsequently established physical boundary which has been apparently accepted by the various successive interest holders and used in legal transactions on the other hand, presents considerable difficulties for the solicitor. The solicitor's primary concern is with the title and the land to which that title, its covenants, associated rights, easements or burdens applies. The title applies to, or has implications for, all of the land defined by the

title deed irrespective of whether it has been inadvertently or otherwise included in adjoining properties on which buildings may have been long established. On one or other boundary of the lands defined by the deed map, the reverse may have occurred, the established physical boundary may have inadvertently or otherwise included portion of an adjoining property in the subject site. The deed does not apply to this portion. A map or written description of the site, prepared for information purposes, should indicate this portion separately either by colour or otherwise and state that it is not part of the deed map. The question of adverse possession may arise. As the majority of properties are likely to have common boundaries with two, three or more adjacent properties the potential for a multiplicity of conflicts between different interests exists. This is particularly the case with commercial properties in urban areas in which there may be a hierarchy of interests, including freehold/fee simple, fee farm grants, leases and sub-leases, and possibly further sub-division for lettings and/or other licenses. The combinations of numbers of properties and their various interests are likely to have complex legal implications for the owners of the various interests. As a substantial volume of documentation is likely to have accumulated in such situations, the assistance of legal researchers is invaluable to the surveyor, particular in sourcing and interpreting relevant documents.

A surveyor who is requested to set out 'the boundary' in this situation is faced with an extremely difficult assignment. A multidisciplinary approach, in which the surveyor and the solicitor have central roles, is required to analyse and resolve this category of boundary issue. It is essential that the surveyor compares the deed map with contemporary ordnance survey map in order to validate the accuracy of the deed map. Differences between the deed map and the ordnance survey map, irrespective of which map is correct, may be used in an adversarial situation, in an attempt to discredit the work of the surveyor. Therefore all such scenarios should be anticipated, examined and resolved in advance. Irrespective of the complexity of the situation the role of the surveyor is primarily and essentially to deal with all details relating to the spatial issues involved and to advise other professionals, in particular the solicitor, in resolving it. The surveyors role therefore is to research, measure, map and set out the various boundaries on a map or series of maps on which the deed map boundary or an accurately enlarged version of the deed map is the base map. The situation may

require that all of the associated information is set out on the map in a tabular format. This typically should include a schedule of interests, areas of the relevant elements of the lands, nature and descriptions of the physical boundaries, the sequence boundary change events and relevant time spans. A schedule, colour coded with the various plots on the map, will aid clarity and interpretation. This information, thoroughly researched and presented on an accurate map or sequence of maps with clear notes together with the surveyors report, is invaluable and essential to the solicitor in his/her assessment of legal issues involved and in providing legal advice. The solicitor is not in a position to assess the legal issues and provide legal advice in relation to the complex boundary situation described without the support of the chartered surveyor.

### **3.3.2. Resolving anomalies in deed maps**

In interpreting boundaries from deeds, particularly older deeds, surveyors may, in some instances, be faced with one or more of the issues described in sections (a) to (e) above. This presents a risk to the professional reputation of the surveyor in the event of cross examination in contentious litigation if he/she has not adequately researched and prepared his/her evidence. When dealing with an apparent anomaly such as any of those described in sections (a) to (e) above the surveyor shall be in a position to prepare for court as an expert witness provided he/she has adequately addressed the particular deed map anomaly concerned. However if faced with a combination of two, three or more of the anomalies described, in relation to the same legal boundary issue the surveyor faces a more formidable task if asked to defend his/her interpretations in court. There will be several lines of interrogation open to a barrister if the surveyor has to make judgements concerning several anomalies before determining the legal boundary.

### **3.3.3 Deeds without Maps and Memorials of Deeds**

Interpreting legal boundaries from deeds without maps or from memorials of deeds is inherently problematic and presents risks in interpretation to the surveyor. Memorials, which are summaries of deeds registered in the Registry of Deeds, are used when deeds are lost or unavailable. Memorials rarely contain dimensions or descriptions which are of use to surveyors. Descriptions of lands in deeds without maps usually comprise perimeter dimensions. They do not define the shape or precise geographical location of the site. The dimensions frequently include a road frontage which, depending on the date of the deed, may have been realigned and significantly altered in the intervening years thereby compromising possibly two or three dimensions. Surveyors should obtain the advice of a solicitor or legal researcher to verify the relevant title when interpreting spatial data from more complex deeds, including

deeds which contain recitals of previous titles. Such deeds may contain two or more sets of measurements or descriptions of the extent of titles, which include titles from which the subject title is derived. To interpret the legal boundary it is recommended that the surveyor consults the most recent edition of the ordnance survey map and identifies the lands concerned. This will assist in determining the shape and geographical location. By tracing features that have survived through successive editions of the ordnance survey maps or other map or survey sources and by carrying out a topographic survey, it may be possible to set out the boundaries as defined in the deed. It is advisable to map and describe accordingly, any part of the lands defined by the deed which have been incorporated in a road widening or other such development. Such detail facilitates explanation and interpretation for all parties involved in a current or future property transaction or boundary resolution issue.

In dealing with all deeds and memorials of deeds surveyors are advised to liaise with solicitors and legal researchers.

### **3.4 Land Registry**

The Land Registry was established in 1892 to provide a comprehensive and secure system of land registration. When title or ownership is registered in the Land Registry the deeds are filed in the Registry and all relevant particulars concerning the property and its ownership are entered on folios which form the registers maintained in the Land Registry. In conjunction with folios the Land Registry also maintains Land Registry maps. Both folios and maps are maintained in electronic form.

#### **Land Registry documents referred to in the register -**

The Register consists of textual and spatial information (folios and maps). The land in each county is divided into folios, one for each individual ownership or title. Each folio is numbered sequentially within the county division.

The Register is conclusive evidence of title to property and any right, privilege, appurtenance or burden appearing thereon. The title shown on the folio is guaranteed by the State which is bound to indemnify any person who suffers loss through a mistake made by the Land Registry.

**General Boundary Rule** - The General Boundary Rule [which has been restated in the 2006 rules] - the title to registered property is 'qualified' in that the State Guarantee does not extend to boundaries. The Registry map identifies properties not boundaries and provides 'that the description of the land on the Registry map shall not be conclusive as to the boundaries or extent of the land'.

The precise line of the property boundary is undetermined, the Registry map does not indicate whether it includes a hedge, a wall or a ditch, or runs along the centre of a wall or fence or its inner or outer face or how far it runs within it or beyond it: or whether or not the land registered includes the whole or any portion of and adjoining road or stream. Where registration is made to the centre of a road or stream, the map is not to be taken as conclusive evidence that such, or any, portion of same is included in the property.

Land Registry Services play a vital role in maintaining and guaranteeing the title to property in the State. The folios and maps constitute a public record and any person can apply to inspect a folio on payment of the appropriate fee. You can also obtain certified copies of folios or folio/title plans by completing the relevant forms via [www.prai.ie/eng/Forms/](http://www.prai.ie/eng/Forms/); and sending them along with the appropriate fee to:

Customer Service Unit  
Property Registration Authority  
Chancery Street  
Dublin 7

Land Registry title plans can form a significant part of discussions and should be sourced as early as possible. Copies of the register and title plan(s) (if the property is registered) are readily obtainable via [www.landdirect.ie](http://www.landdirect.ie); this is a service aimed at those practitioners involved in Conveyancing and land administration generally.

The Land Registry digital map is based on the latest Ordnance Survey Ireland's large scale digital mapping data referenced to the Irish Transverse Mercator (ITM) coordinate reference system. The national coverage of mapping data is represented at scales of 1: 1,000, 1:2,500 and 1:5,000.

As the Register is subject to continuous change surveyors should consult [www.landdirect.ie](http://www.landdirect.ie) to view the current Registry map.

Ordnance Survey Ireland large-scale topographic mapping data have a specific accuracy which is survey scale dependent (see section 3.6), and a currency which is dependent on the date of last survey. In any case, nothing should be taken as overriding evidence, without careful consideration of the facts following research and comparative study.

Customers can order a product called a 'Special Registration Map' (SRM) on [www.landdirect.ie](http://www.landdirect.ie). When using this facility the customer can select the area of the map they want to include and the scale at which the map is to be printed. Using this facility, customers can now order a map of a selected area of the registry map at a smaller or larger scale than the OSI published scale, specifically to suit their needs.

### 3.5 Boundary concepts and descriptions

In dealing with boundary issues surveyors should distinguish between legal boundaries and physical boundaries. This should be done by naming the boundaries accordingly, either on the respective boundary detail or in the Key or Legend on the map. The surveyor shall not assume that other map users recognise the distinction, or rely on symbols that are not clear and may be discredited as such in court. The perception of a boundary as comprising a wall, railing, chain-link, palisade or post and wire fence, hedge or stream is the norm for property owners. This does not distinguish between legal boundaries and physical boundaries. Legal boundaries do not have a width dimension such as that of a wall, railing, hedge, etc. Legal boundaries are a line and are defined as such by legal maps, deeds and formal boundary descriptions. When engaged on boundary resolution issues surveyors should initially focus on establishing the line which represents the legal boundary and not be unduly influenced by the locations of physical boundaries or by the perceptions of the client or landowner. When the line of the legal boundary is determined, it should be clearly defined on the map by thin unambiguous line, preferably dimensioned to facilitate discussion, sitework or court evidence. The location of physical boundary or boundaries – which may or may not have been used to assist in the determination of the location of the legal boundary – should then be added. The physical boundary or boundaries should also be clearly defined and named as a wall, etc. as appropriate. If permitted by the map scale, symbols depicting the nature of the physical boundary, e.g. a line with dots for a post and wire fence, are helpful.

The differences in area or areas in m<sup>2</sup> between the respective boundaries should be shown on the map. In subsequent discussion the surveyor may then indicate to the solicitor what he/she considers to be a pragmatic interpretation and/or outcome to the boundary issue. If requested to indicate this interpretation or outcome on the map, the surveyor should produce a second map specifically for this purpose and clearly label the map as a 'Discussion Map' or as a map showing a 'Proposed Realignment of the Legal Boundary'. The map can then be presented to the barrister and used if appropriate in a compromise outcome. In no circumstances should the surveyor compromise on the original map showing the outcome of his/her survey and research.

In defining a legal boundary which coincides with a physical boundary the surveyor should indicate which side, part of, or face of the physical boundary it coincides with or if it coincides with the centre of the physical boundary. Abbreviations such as, ff (face of fence), fw (face of wall), cf (centre of fence), cw (centre of wall), cs (centre of stream), rh (root of hedge), etc. should be used. Other abbreviations should be used as appropriate. All abbreviations should be explained unambiguously in notes in the Key or Legend to the map.

Descriptive notes should add clarity to the interpretation of the map or drawing. They should be written alongside the subject feature if possible. Long 'direction arrows' linking descriptive notes to physical features should be avoided if possible, in particular they should not cross key boundary detail.

It is not unusual for some item of secondary or irrelevant map detail to be commented on as allegedly confusing to one or other participant in court and to become central to the argument and to occasionally protracted cross examination, thereby causing key technical data compiled by the surveyor to be overlooked.

The surveyor should strive for, accuracy, completeness and clarity, in depicting the nature of both legal and physical boundaries and relevant descriptive notes, on a map.

### 3.6 Ordnance Survey data and mapping

Ordnance Survey Ireland (OSi), Ireland's national mapping agency, collects, maintains, manages and distributes the definitive record of the features of the natural, built and planned environment, the definitive record of administrative boundaries and the record of such other national geographic datasets as required by government and the private sector. A description of Ordnance Survey Ireland's remit and products can be found at [www.osi.ie](http://www.osi.ie).

OSi mapping data is derived and updated using a combination of both field data collection methods and data collection from digital aerial photogrammetry. The 1:1,000 scale mapping is updated using field data collection, while the 1:2,500 and 1:5,000 scale mapping are updated using both field data collection and digital aerial photogrammetry.

Ordnance Survey Ireland's large scale mapping (scales of 1:1,000, 1:2,500 and 1:5,000) and orthorectified imagery both provide valuable additional information in a boundary dispute case.

Regarding the depiction of property boundaries, OSi states:

'Ordnance Survey maps never show legal property boundaries, nor do they show ownership of physical features. Although some property boundaries may be coincident with surveyed map features, no assumptions should be made in these instances and consequently it is not possible to be sure of the position of a legal property boundary from an Ordnance Survey map.'

[www.osi.ie/About-Us/Joint-Statement-of-OSi-and-PRA.aspx](http://www.osi.ie/About-Us/Joint-Statement-of-OSi-and-PRA.aspx)

It should be remembered that all Ordnance Survey Ireland material is subject to Ordnance Survey Ireland Copyright.

Surveyors should be aware of this when using or copying Ordnance Survey information.

[www.osi.ie/Services/Copyright.aspx](http://www.osi.ie/Services/Copyright.aspx)

#### 3.6.1 The accuracy of Ordnance Survey large-scale topographic data

The results of an OSi positional accuracy quality assessment programme undertaken from 2004 to 2011 to assess the positional accuracy of OSi large scale mapping are as follows:

- In urban, suburban and periurban mapping, the results of testing 27,482 points of hard detail are that 92% of the points in the mapping are within 1 metre of their true ground position, and 99% of points are within 2 metres of their true ground position; and
- In rural mapping, the results of testing 13,155 points of hard detail are that 97.6% of points in the mapping are within 2.5 metres of their true ground position, and 99.9% of points are within 5 metres of their true ground position.

#### 3.6.2 Ordnance Survey Ireland National Mapping Archive

Between 1829 and 1842 Ordnance Survey Ireland completed the first ever large-scale survey of an entire country. Acclaimed for their accuracy, these maps are regarded by cartographers as amongst the finest ever produced. As the national mapping archive service for Ireland, OSi has captured this and later mapping data in a digitised format. Through the OSi website [www.osi.ie](http://www.osi.ie) you can view and download this data or place an order for delivery by post. The new archive currently comprises the following series of maps:

- 6 inch mapping series (1:10,560) colour 1837-1842
- 6 inch mapping series (1:10,560) greyscale 1837-1842
- 25 inch mapping series (1:2,500) greyscale 1888-1913

The above historic maps, originally surveyed on a county basis, now make up Ordnance Survey Ireland's digital image archive. Every image in the archive has been captured from an original print and each digital map image is now a seamless map title within the archive. With an easy-to-use browser you can search by county or townland. You can also pan across the entire archive and zoom in to view sections in greater detail. All A4 size historic products purchased from the online shop are delivered via PDF electronic download only.

#### 3.6.3 Obtaining Ordnance Survey Ireland mapping and data

Ordnance Survey Ireland products are available directly from the OSi shop (+353 (1) 8025300) at its HQ in the Phoenix Park, the OSi website [www.osi.ie](http://www.osi.ie), and through its national agency network distributed throughout the country.

### 3.7 Aerial photography and alternative data sources

There is often an advantage in studying aerial photographs of the area where these are available.

Historical information, such as old boundary features and buildings which may have been subsequently destroyed, may also be visible on aerial photographs. Aerial photography is a key source of collateral information, such as the use and occupation of land. It can be used as evidence relating to adverse possession or the exercise of an easement; for example, a muddy entrance way to a field, indicating frequent access and use, will show up clearly on an aerial photograph.

Photographs are at their most useful in identifying the existence and nature of boundaries. Being able to pinpoint the approximate history of when an old hedge had been grubbed up and replaced by a wall or fence might be the key to resolving a boundary issue. It is generally advised that the use of aerial photography in boundary disputes is restricted to that of interpretation, as a visual aid and as historic evidence. You should not try to plot features, nor rely upon or quote any accuracy statistics, unless you have photogrammetric knowledge, training and experience. It should also be remembered that features viewed from the air cast shadows, and it is not always possible to identify specific features within boundary structures. Photo-interpretation of features can be enhanced by examining stereo pairs of aerial photographs using a hand-held stereoscope, which will enable basic three-dimensional viewing.

Ireland is also covered by off-the-shelf orthorectified digital aerial imagery (both vertical and oblique) which is maintained and supplied by Ordnance Survey Ireland and a number of commercial suppliers. Some of this can be sourced online. Aerial photography and satellite imagery are constantly evolving, and the quality, currency and resolution of the available data are improving all of the time.

Imagery provided by web services such as Google Earth, Google Maps, Microsoft Virtual Earth and Windows Live Local can provide background material. However caution is strongly advised when using this material as the integrity, quality, capture date and / or provenance of this material cannot be certified by the surveyor.

It is important to be candid as to the accuracy of all evidence, and to annotate your report accordingly.

It can be useful to ask your client if they (or their neighbours, where appropriate) have any photographic evidence which might be pertinent. Whilst it is rare for householders to take specific photographs of boundary features, they may well hold

photographs of family occasions such as picnics or parties. Birthday and anniversary occasions can be particularly useful, as these can often enable the date of the photograph to be established and therefore demonstrate the existence of boundary features at specific points in time. Another common source of privately held imagery includes oblique aerial photography of the client's property that may be hanging on a wall or stored in a drawer. If the evidence is crucial it might also be possible to obtain a signed statement as to age and date of a photograph.

### 3.8 Analysis of documents

Once all plans, aerial photographs, other types of photographic evidence from private sources and other documents are received, the research can then move on to an analysis of all the available information. It may be necessary to enlarge or reduce the plans to a common scale for the purposes of this analysis. Most existing plans will usually be 1:1,000, 1:2,500 or 1:5,000 map scales. Check all the plans that you have available to ascertain their level of accuracy, so that you understand where you are comparing like with like or where there is a significant difference in accuracy of the data sources that you wish to compare. This will directly affect the reliability of the conclusions that you draw.

On rare occasions, documentary research and analysis may provide sufficient evidence to enable the dispute to be resolved, subject to the agreement of the parties. Examining the plans in chronological order may, for example, identify the date of a sudden shift in the boundary position, and a further meeting with the client may invoke a memory and close the matter. However, in most cases this initial research and analysis will only confirm that something looks wrong, and clarify the issues surrounding the dispute.

In a number of instances it will be found that the evidence is inconclusive and that the audit trail of conveyances, plans, maps and photographs cannot provide sufficient or reliable evidence. It may then be necessary to examine other factors, such as the actions of parties over the years in relation to the use of land, known patterns of use and whether these can be treated as established. Other facts on the ground such as evidence of fences, topography and so on may be of assistance. Before the site visit, it is helpful to identify evidential shortcomings and what other facts on the ground might assist in reaching a decision.

One problem with many of the plans which will be found in the pleadings bundle is their legibility and quality. Various parties may have obliterated points of critical interest with a heavy pen or pencil, or the plans may have been subject to poor

photocopying making it very difficult to discern the original boundary features. If possible it is worthwhile obtaining the original clean plan upon which the deed plan was based. This may be an old Ordnance Survey map or an estate plan that is still available. The surveyor can then clearly see the features that existed at the time and compare them with more recent

maps and plans. Experience shows that it is at the research and analysis stage where a potential compromise position starts to take shape. It is important that this is undertaken thoroughly and carefully, as it offers the potential to save significant costs, time and anguish.

## Stage 4 The site visit, measured survey & digital photography

In all but the most simple boundary cases it may be necessary to carry out a measured survey. It may also be advantageous to make a reconnaissance visit to the site before carrying out the actual measured survey to take photographs (preferably digital) of all the boundary features and to plan in exact detail the measured survey. If there is any risk of boundary features being disturbed, relocated or destroyed (e.g. by agricultural activity, site clearance, development or vexatious act), a preliminary photographic survey at the earliest opportunity can prove invaluable.

### 4.1 Collecting photographic evidence

Site photographs may include scale-aids (a survey staff or tape measure, for example), which will help with the appreciation of boundary and related feature details at a later stage, particularly if matters proceed to court. Photographs may be required for insertion in the final report. Digital photographs can be stored on appropriate media and a copy of this bound with the final report. Boundaries and their associated features can often be in poorly illuminated or overgrown areas, and adequate lighting should be considered. Using a digital camera can help and should be appropriate for the task at hand. Consideration should also be given to digital photograph file sizes and their inclusion in documentation. It is important that thought is given to verification of digital imagery. It is recommended that a detailed log of each photograph, its location and direction is maintained.

Over-photographing the survey area can help to ensure that a return to site is not necessary, and to ensure that a comprehensive selection is available for editing into a final report. Photographs taken from both inside and outside the site which show the general surrounds and relationship of neighbouring features can be useful. It is also worth considering whether a short video is appropriate, depending on the nature of the boundary.

### 4.2 The boundary survey

SCSI members should make themselves fully conversant with SCSI and RICS guidance and professional information relating to measured surveys and continue to follow best practice field survey techniques. A listing of relevant titles can be found in Appendix 1.

The primary function of a boundary survey is to show the 'relative' spatial relationships between relevant ground features. It is this 'relative' accuracy that is crucial (i.e. the distance between one fence post and the next, or from a conservatory wall to the boundary wall).

Depending upon circumstances and requirements, the boundary survey could result in a variety of different outputs, ranging from a basic sketch-map to a fully dimensioned and accurate measured survey that can be overlaid onto old plans or against which the dimensions found in deeds and on deed plans can be tested.

Boundary surveys should pay particular attention to the actual boundary feature(s) and, for example in the case of a post and wire fence, show individual posts, record their shape, size and record the number of strands of wire, estimated age of the wire, the side of the post to which the wire is attached and any other comment that may be relevant. Small details such as these can affect the outcome of a case. The reason for recording such detail is that there may be in-depth cross-questioning in the courtroom concerning the age and type of a fence or wall, its similarity to other fences or walls in the locality, the wire arrangement used around other parts of the property and consideration of whether any fence posts have been replaced subsequent to the original fence erection.

It is important to notify the client, professional adviser/solicitor and the solicitor/client on the other side of the boundary dispute (if relevant) of the proposed date of the measured survey. This will avoid confusion for all parties concerned. It is advisable that you do not express any opinion, professional or otherwise, whilst carrying out the measured survey.

#### 4.2.1 Sketch-map survey

Some boundary situations do not warrant a full (and costly) measured survey. A sketch-map survey may suffice, and will usually be of a diagrammatic nature. It can be prepared with simple and inexpensive equipment such as a tape measure (typically 20m or 30m long), ranging rods and/or hand-held laser electronic distance-measuring equipment. (Check measurements should first be taken, when using electronic distance-measuring equipment, to enable any field survey errors to be identified). The sketch-map should relate significant features to each other with important written dimensions. It may also be necessary to relate the sketch-map to some distant object (e.g. a railway bridge,

pylon, gateway), and it is often sufficient to draw an arrow pointing in the direction of that feature together with a thumbnail sketch and text such as '138 metres to nearest pylon leg'. It is worth remembering with title plans and boundary surveys that the relationship of external physical features and objects can be crucial in contextualising the plan.

If the chartered surveyor has any doubts about the reliability of such a sketch-map, the words 'NOT TO SCALE' should be added. It is very important to be fully aware of the inherent issues regarding scale. Please see the SCSI client guide, *Scale. Let's be clear about scale*, (Appendix 1). A sketch-map will be inadequate if the intention is either to produce a determined boundary application or to take the matter to court.

#### 4.2.2 Measured survey

If the surveyor is to be subject to detailed cross-examination in court at a later date it is advisable to carry out a measured survey, as this will provide more robust and defensible evidence. As a minimum the measured survey should include all boundary features, buildings and adjacent kerb lines. It should also include any other features which either appear on the Ordnance Survey plans or data (as this will aid cross-comparison) or are relevant to the problem, e.g. trees, changes to surface type, above-ground height and composition of boundary feature, etc. It is essential to measure the features outside the actual area of dispute as they may help in interpreting neighbouring conveyance plans and as above, help contextualise the final survey and other spatial information. You should also remember that this is where an initial survey specification can prove crucial, as a guide to best practice and as a checklist of features to be included. SCSI members should refer to the SCSI 'Quick Specification for Topographical and Measured Building Surveys' (Appendix 3). It is important to remember that electronically generated data can cause its own issues when you come to process and present it back at the office. It is important to take good field survey notes and sketches to aid later interpretation.

A measured survey is carried out using precise surveying equipment that can measure and fix position, linear dimensions and shape. This may be achieved using equipment that measures angles and distances, such as a total station. Increasing use is being made of equipment that utilises a 'reflectorless' electronic measuring device. This means that the observer can measure features without the need of an assistant to 'occupy' these with a ranging pole and reflector. This is particularly useful for boundary surveys, where access to certain features is either dangerous or perhaps impossible.

An alternative method that can be used for measured survey is direct observation of features using global navigation satellite systems (GNSS) technology, for example the global positioning

system (GPS). In Ireland a number of real time kinematic (RTK) GPS network have been established, including a standards based one by Ordnance Survey Ireland which is accessible through commercial partners. This service allows surveyors using GPS receivers to achieve absolute accuracies better than 10cm in plan and in height. However, the use of GPS is not appropriate in all instances, and SCSI members should be aware of the need for appropriate training and expertise in the use of GPS equipment. GPS best practice and advice can be accessed through the SCSI guidance note *Guidelines for the Use of GNSS in Surveying and Mapping* (2010) and the RICS client guide *Virtually Right – networked GPS – a useful guide from RICS on aspects of cost effective networked GPS correction services* (see Appendix 1).

A further method that may prove very useful in certain circumstances is photogrammetry, for example where there is a requirement to establish the position of features that have disappeared, or there is a need to re-establish the topography at a particular point in time. If suitable aerial photography, either recent or historic, can be sourced, it is often possible to accurately re-plot the visible features. Such work is best undertaken by organisations specialising in photogrammetry, as a high degree of skill and experience is required.

This guidance note is not intended to deal with survey practice. Those wanting more information on field survey techniques should refer to the books publications listed in Appendix 1. SCSI members may also refer to SCSI Client Specification *Guidelines Surveys of land, building and utility services at scales of 1:500 and larger* (2010).

**Table 4.1 Typical survey accuracies possible for different boundary features - a guide**

Topographic feature	Average width of feature (mm)	Potential survey accuracy (+/-mm)
Brick or block wall	100 220	10 20
Cut stone wall	250-500	30-50
Dry stone wall (uncut)	500-1500	50-200
Retaining walls (earthworks, gabions)	1000-2500	100-250
Railings	50	5-10
Fence (post & wire, concrete/wood panel, picket)	100	10
Fence (agricultural)	200	20
Watercourses, banks, sidings, ditches	3000	200-300

#### 4.2.3 Selecting suitable survey and output scales for the boundary survey

Several basic field survey 'rules of thumb' can be used to establish the appropriate scale of a survey:

- Measured survey data capture should be as accurate as possible; there may be a future need to 'scale up' or 'scale down' survey plans for clarity or at the request of the court.
- Always carry out a field survey to an accuracy that is at least one order of magnitude greater than the original Ordnance Survey data and Land Registry title plan information.
- 0.3 mm multiplied by the scale gives a good base indication of horizontal accuracy; and
- Boundary disputes tend to be overwhelmingly paper-based (hard copy), and familiarity with plotting tolerances, representation at particular scales and the limitations of both are important.

The surveyor should try not to get caught up in issues of digital data representation or accuracy versus precision-type arguments.

1:100 may seem a large scale, but it is very useful for spotting kinks and bulges in fence lines. It also enables the surveyor to add intricate details of fence posts and their junctions. This is the scale that can be used to zero-in on the problem area and illustrate to the client and the court a particular spatial issue/problem, that may not be possible at smaller scales such as 1:500 and 1:1,000.

1:500 is a useful scale for presenting an overview plan that can be easily used during a desktop discussion. Many boundary disputes involve an area of land that will fit onto a 1:500 plan at A3 size. In a court room it is rare for the judge to have a large enough space available on which to spread out other large plans, and a 1:500 scale plan is useful in this respect. This scale of plan can be referred to on a regular basis by the court, due to its ease of use. By using this scale it is easier for all involved to refer to the more detailed larger-scale 1:100 plan or less detailed 1:1,000 or 1:2,500 or 1:5,000 plan and still retain a clear picture of the overall context.

1:1,000, 1:2,500, 1:5,000 and various legacy scales such as 6 Inch and 25 Inch – at various stages of the research, analysis and/or litigation, the Ordnance Survey data or maps of the area at one of these scales will be constantly referred to. It is important, therefore, to include an extract from the Ordnance Survey map in the final report. It is often useful to reproduce the boundary survey at the same scale as the Ordnance Survey map, and superimpose one over the other, thus showing the degree of agreement with the key features. Land Registry title

plans are based upon extracts from Ordnance Survey data/maps at scales of 1:1,000, 1:2,500 and 1:5,000

On completion of the boundary survey the field measurements are transferred to a computer for processing, editing, presentation and plotting at suitable scales. Experience has shown that the following plot scales are particularly useful:

- 1:100 map scale for detailed analysis;
- 1:500 map scale for court presentation; and
- 1:1,000 and/or 1:2,500 and or 1:5,000 map scale for comparison with Ordnance Survey information.

This selection of scales is based upon the experience of the SCSI Boundaries Working Group and the RICS B&PWWG, and may not be applicable in all situations. In all cases the scale should be appropriate to the circumstances and based on the features on the ground that will need to be surveyed and graphically represented.

**Note on use of units of measurement:** In some cases, such as when dealing with old deeds, it may be appropriate to place imperial measurements in brackets after metric units. When in court (or at pre-trial meetings) a useful skill is to begin 'thinking imperial', as most people involved will be able to picture 6 inches, whereas fewer people will be able to mentally picture 0.150 m. The same comment applies to hectares and acres.

**Note on citation of scale:** If a comparison is being made with old deed plans containing imperial measurements, it is important to provide a common basis of measurement. Difficulties may arise with old imperial scale plans (e.g. 1/4" to 1 foot (1:48)) that do not correspond to modern standard scales. As part of best practice, include the conversion factor that you have used between metres and imperial measurements.

**Note on calibration of instrumentation:** It is imperative that chartered surveyors make sure that any survey instruments used, including ancillary field survey instrumentation such as tape measures and level staffs, is in good working order. The professional onus is on the chartered surveyor to ensure that calibration and/or checking certificates are up-to-date for all instruments used during a boundary survey. Calibration is also the subject of an RICS official guidance note and client guide (Appendix 1).

#### 4.3 Instructing other specialist chartered surveyors

If you are in doubt or believe that execution of the boundary survey may be beyond your training and experience, then it may

be appropriate to call in an expert chartered Geomatics or Building surveyor or company. When using external specialist land survey companies, it is vital that the contractual arrangements between the instructed chartered surveyor and the chartered Geomatics or Building surveying company are robust, and mirror the terms of engagement of the instructed chartered surveyor. Where the matter is likely to result in evidence being presented to a court it is essential that the measured survey is supervised by the instructed chartered surveyor or a qualified assistant, and that the agreed measured survey specification is fully adhered to.

In other circumstances it may be possible to give detailed instructions, in which case the initial specification of any survey is critical and special attention should be paid to actual deliverables (please see *Quick Specification for Topographical and Measured Building Surveys* in Appendix 3). It is also possible that if agreement is subsequently reached between two adjoining landowners, an application with a 'conclusive' boundary might be made to the Land Registry. The instructed chartered surveyor should be conversant with Land Registry requirements (guidelines and mapping requirements are set out on the PRAI web portal [www.landdirect.ie](http://www.landdirect.ie)). The Registration of Title Act, 1964 as amended by the Registration of Deeds and Title Act, 2006, provides for the entry of boundaries as conclusive in certain instances (see section 8.3 of this document). Such entries are very rarely made. Any application for the entry of a boundary as conclusive should be referred to the Deputy Registrar. The Land Registry sets specific requirements for measured surveys that are to be lodged with a conclusive boundary application; these should be considered at the initial stage and should inform the survey specification from the outset.

#### 4.4 Multi-Storey Developments

The owners/developers of Multi-Storey Developments are usually dependant on surveyors to examine and advise on detailed boundary arrangements that facilitate the interests of the various parties involved. The design layout of structural or load bearing elements, service spaces, easements, common areas, car parking, etc. present some of the most complex boundary demarcation challenges surveyors encounter. Before undertaking such work surveyors should discuss the proposed general ownership arrangements including, ancillary areas/spaces, common areas and easements, with the owners/developers or their consultants. Chartered surveyors may find that their advice is sought in relation to the general arrangement of areas including, access, easements and common areas, before the determination of legal boundaries is considered. Surveyors should be aware of the general hierarchy of interests which is typical for many Multi-Storey Developments, i.e. the owner usually retains the freehold or fee

simple interest in the entire block, including its structure and internal airspace, the airspace above, and the substrata below. The management company is granted a long lease (900 or 999 years is not unusual), in the entire block including its structural and non-structural building components and its entire internal airspace. The airspace above and the substrata below is excluded. The purchaser of individual units is granted a lease, over the internal airspace of the subject unit, which, depending on the nature of the unit, is for a term less than the lease to the management company. The interests retained by the owners apply to the entire area within the perimeter boundaries of the property. The interests assigned to the management company in the open areas external to the Multi-Storey Developments and boundaries to areas over which it has maintenance responsibilities may vary considerably from one development to another. Similarly, the interests, car parking and easements over the open areas granted to the purchasers of the individual units may vary depending on the nature and layout of the development in question. It is essential that the surveyor ensures that easements for access/egress are physically connected to the public road, i.e. a road that is in the charge of the Local Authority. Any ambiguity or uncertainty about the status of an adjacent road which services the development should be formally clarified. The areas external to the block therefore present particular challenges to the surveyor in determining definitive boundaries.

Surveyors involved in determining boundaries between various interests for lease purposes in multi-storied buildings should adhere to published PRAI Rules '*Mapping Procedure for Registration of Multistorey Developments*', as boundaries defined on plans prepared for leases will be the basis for application maps for registration of titles. In instances where the developer or owners instructions are not compatible with PRAI Rules the surveyor should bring this to the attention of the developer or owner and ensure that compatibility issues are resolved. The boundaries between the space to be included in the lease and the elements to be excluded and retained by a management company, including load bearing structures and service areas should be clearly defined. When preparing plans for the lease or registration of the title in individual apartments or other such units, the plan should be prepared to a suitable scale, e.g. 1:100 or 1:200 on which details of walls and other relevant construction details are legible. The boundary should be delineated in red and should exclude all load bearing structural walls, columns and other such elements from the lease. Non-load bearing elements internal to the unit, such as partitions, should be included in the lease. Non-load bearing elements such as walls which form physical boundaries with adjacent units may be medially divided. Balconies, unless otherwise determined by the owners or the management company, should be excluded but are subject to a right of way to the purchaser of the lease. If fitted with a suspended ceiling,

the suspended ceiling and the space between it and the underside of the concrete slab above should be excluded. The values of such levels shall not be related to ground level. The surveyor should consult the developer/owner or their consultant architect or engineer if clarification in relation to any structural element or service area is required. All levels which define vertical limits of interests including floor levels and ceiling levels should be related to ordnance survey datum, Malin Head. Surveyors should also ensure that descriptions of boundaries or references to boundary maps/plans in associated legal documents including leases, are both correct and unambiguous. If responsible for the preparation of plans of multi-storied buildings for registration of titles, surveyors should ensure that the maps/plans prepared for the application are compatible with maps/plans attached to the lease and with the descriptions and/or references to the maps/plans in the lease.

#### **4.4.1 Airspace and Substrata**

Surveyors involved in defining airspace and substrata boundaries should ensure that they are involved in prior discussions with other professionals and the owner/developer of the relevant property/project, in order that they become sufficiently familiar with the intended outcomes including the division of interests and subsequent uses of same. The surveyor should advise in relation to the determination of the boundary between the subject property building and the substrata and between the subject property and the airspace above, respectively. While the extent of the property to be defined is ultimately a matter for the property owner(s) concerned, a pragmatic approach is advisable. It is therefore reasonable that, in as far as possible, a boundary line at uniform level below the lowest part of the foundation formation level, is determined between the substrata and the property. This should allow for a possible marginal difference between the

design drawing and the 'as built' position of the foundations and for variations in the levels of the foundation formation. A substrata boundary 0.2m or 0.3m below the lowest part of the design formation level of the foundation may be reasonable. It is also reasonable, in as far as possible, that a boundary line at uniform level is determined marginally above the highest point of the roof or top of the subject property. Consideration should be given to the nature of the roof and access required for servicing and general maintenance, including the replacing of service utilities, when deciding on the boundary with the airspace above. The vertical limits of airspace and substrata should be defined by levels related to ordnance survey datum, Malin Head.

Instances in which a building is supported on piles and pile caps the situation is significantly more complex and has additional liability implications. In such instances the surveyor should obtain the most up to date drawings available, examine the nature, dimensions and distribution of the pile support structure and familiarise himself/herself with the entire spatial arrangement of the buildings substrata. During discussions with the owner/developer and their legal advisors and structural engineer, the surveyor will then be in a position to advise in relation to the substrata arrangement. However it may not be feasible to separate the title in the substrata from the title in the building. The surveyor will be in a position to advise if the perimeter boundary as determined at ground floor level should apply to the substrata or if it is necessary to define a different boundary to horizontally delimit the building substructure which contains the pile/pilecap structure. The ultimate decision is a matter for the owner/developer and is usually based on the advice of the legal and technical professionals.

## Stage 5 The report: analysis and preparation

The nature and complexity of the report will depend on the dispute under consideration and the purpose of the boundary report. It could consist of a sketch plan and an explanatory letter or memorandum only. The written text and accompanying plan should accurately cross-reference each other in terms of colours, scales, notations and so on. Consistency is paramount.

In contentious cases, the report is *the* document that will be passed around all the legal professionals involved in the dispute, and will be scrutinised by the presiding judge in court. It should therefore be of a very high quality, not only in its content but also in the way it is presented. The chartered surveyor should be aware at the time of preparing the initial report that each fact referred to, and every opinion expressed, will be subject to cross-examination by counsel acting for the other side. The professionalism of the chartered surveyor will be judged on the quality and initial reaction to the final report, so great care should be taken in its preparation.

You should be able to support any assumptions, opinions or facts by direct reference to analysis, expertise or published/learned documentation such as SCSi and RICS practice and guidance notes. Any contentious statement is likely to be challenged.

Each surveyor may in time develop their own style of presentation and compilation, but the following sub-headings are suggested as a generic approach to the drafting of any boundary report:

1. Qualification and experience of surveyor (a 'mini-CV');
2. Instructions (explain the problem);
3. Background and issues (a history of the matter);
4. Site investigation, methodology and findings of fact (how the survey was carried out);
5. Analysis (the boundary chartered surveyor's investigation);
6. Conclusion (the boundary chartered surveyor's opinion);
7. An appendix of plans contained in poly pockets (clear plastic document holders) and in the same orientation as each other;
8. An appendix of colour photographs or digital imagery correctly labelled;
9. Presentation and delivery; and

10. It is imperative that the surveyor refers to RICS practice statement and guidance note *Surveyors Acting as Expert Witnesses (2008)*.

One of the most important aspects of the final report is the analysis, and as with the rest of the final report, this section should be well written and logical. It may be helpful to describe how you have examined all of the available documentation, maps and plans (Appendix 4), how the measured survey has highlighted the current boundary position, and how the original boundary demarcation and detail have been transferred onto the present-day dispute situation.

It can be useful to demonstrate in the final report exactly how one plan should be laid over another and, for that reason, it may be useful to add guide marks (similar to fiducial marks on photographs), as an aid to those who are not familiar with grids and other such surveying terminology. Photographs should be numbered clearly and any reference to the photographs should always be accompanied by a reference to its number.

You should not assume anything. It can be quite possible that the client or a barrister may not realise that 'OSi' is being used as an abbreviation of Ordnance Survey Ireland (National Mapping Agency), for example, and so it may be advisable to write any such name in full on the first occasion (together with its abbreviation), and then refer to it by its abbreviation only from then on.

The key aspect of a boundary report is that it should explain and guide the layman (or another non-survey professional) in a way that will illuminate the analysis of the dispute without being condescending but still retain the key technical facts that form the basis and logic of the analysis. Technical and mathematical jargon is to be avoided.

The conclusion of the report allows you to summarise the research and the analysis and to arrive at an expert opinion. The body of the report will outline your findings, while the conclusion will interpret those findings and support (or not) the client's claim or defence. It is worth emphasising that this is purely your expert and professional opinion. You should refrain from expressing or developing any 'emotional' attachment to a dispute or expressing any such feelings in court.

If you hold some opinion on the morality of the case or feel strongly about a non-technical issue, then you should discuss this with the acting solicitor who may be able to use such information.

Expert witnesses in court proceedings owe a primary duty to the court to assist it in its deliberations. The court will expect total candour, including an explanation of those areas where the evidence may not support the instructing party's case. The role and function of the expert in giving evidence to a court needs to be explained from the very outset to clients and their other advisers. If, in your opinion, the facts do not support your client's case, it makes sense to discuss this with them at the earliest opportunity. They may wish to consider their position or obtain a second opinion. The aspect above is important, and if not adhered to could lead to difficulties further on in the dispute.

As already mentioned, the actual report itself should be presented in a folder or wallet, and if there are any maps or plans that cannot be folded and inserted into the report, they should be clearly referred to in the index. It is very important

that parts of the report do not become separated, as this could lead to one of the parties claiming that they have not been shown the full details.

It is usual for the solicitor acting for each client to exchange reports before a court appearance (sometimes months or even years before the appearance). You should impress upon the solicitor that the reports should be exchanged in as near to a simultaneous manner as possible. It is important to maintain a strong element of objectivity when completing a boundary dispute report, and not to be influenced by the findings of the other side, even if their solicitor has sent a report through earlier than expected. It is important to remember that surveys produced in court should be agreed by both sides, and if not agreed, then reasons why should be stated.

## Stage 6 Presentation of the report

Informal reports are commonly contained in a letter, or simply bound to help keep the pages in order. The report should be accompanied in all cases by an invitation to the client, adviser or solicitor to convene a meeting or conference call to discuss matters. Electronic/softcopy submission of reports is often very helpful for overseas clients, but plans and drawings should be covered by a caveat that they may not be true to scale when viewed or when printed out. Using portable document format (.pdf) documents can assist in reducing inaccuracies.

With regards to presentation and delivery (Stage 5), consideration should be given to the number of copies required and to the format in which it is produced. Many reports are produced digitally, but in these cases it is wise to 'write-protect' the document so that it cannot be amended other than by its author. In court proceedings it is usually necessary to compile five identical paper copies of this report, one to be retained by the chartered surveyor and the others to be handed to the client, professional adviser or solicitor for examination and circulation.

For court-related work a report should be in paper format in addition to any electronic format. To facilitate the Court the option to utilize information technologies should be taken where possible, which may reduce the necessity to read through large volumes of paper, although having a paper copy for actual fine scrutiny remains indispensable.

The report can be sent to the solicitor (or the client, if there is no solicitor or other professional adviser involved) approximately one week before a meeting of client and their instructed parties. It is often helpful at that meeting if you go slowly through the full report, answering queries throughout. It can also be useful to supply additional loose-leaf copies of key plans and photographs that can be compared, orientated and annotated at the meeting.

Any amendments should be agreed at this stage and will normally only apply to grammatical and layout items. This meeting can involve considerable client pressure on the chartered surveyor to leave out items that may be unfavourable to the client's case. Facts that are removed or concealed, however, invariably get found out under cross-examination, to the disadvantage of the client's case and the detriment of the chartered surveyor's professional standing.

At the meeting, an opinion of the strength of the case can be given to the solicitor and/or client. This opinion would normally fall into one of the following categories.

For general boundary reports:

- the level of correlation between plans and what is on the ground;

- encroachments and other vulnerabilities; and
- accuracy of information and its possible implications.

For contentious cases, you may state that:

- This is a strong case, but there are no certainties in litigation;
- This is a fairly strong case, but it will need careful presentation by the barrister in court;
- This case could go either way. There are arguments for and against a decision in the courtroom going your way. Your case may well be successful, but there is an element of risk;
- There is little chance of your case being successful, and it would be sensible for you to attempt to settle the case, or if this is unsuccessful, to withdraw; and
- There is absolutely no possibility of your case being successful as it is completely contrary to the evidence available.

If any of the above verbal advice is given to a client or professional adviser it may be prudent for you to follow this up in writing. Bitter recrimination (and possibly litigation against instructed parties) often follows unsuccessful boundary dispute litigation. Remember that you are there to report on factual evidence only and whether that factual evidence supports the case.

Whatever the strength of the case, it can be worth encouraging the client to try and seek settlement of the dispute out of court. This is something that the solicitor should advise the client on. However, do not be surprised if the client wishes to proceed with a court appearance even after you have advised that there is absolutely no possibility of the case being successful. As a chartered surveyor, you or the professional adviser/solicitor should make clear that the client fully understands the significant penalties that could be attached to proceeding unwisely or frivolously.

Clients can become obsessed with not 'losing face', and will want to try to recover the accrued costs. Clients should be discouraged from such a stance, though this is principally the role of the legal adviser. Because litigants can finish up with costs awarded against them, it is advisable in these circumstances to make certain that payment of outstanding fees is made, or that a suitable sum to cover them is deposited with the solicitor.

There is no such scenario as 'no win no fee' in expert witness cases.

## Stage 7 Litigation

### 7.1 Before the courtroom

If the boundary problem is not resolved and leads to litigation, it is important that the surveyor has an opportunity to brief the barrister acting for his or her client at least 24 hours before the court hearing. Such litigation can take over a year to reach court from the date of the field survey, and it can prove valuable for you to pay another visit to the boundary dispute site on the day before the court hearing, to ensure that your memory of the boundary issues is fresh, and also to re-read the report several times.

#### 7.1.1 Conversion of measurements and expert evidence

If, when acting as an expert witness, a surveyor is asked to convert measurements on drawings, maps or diagrams he/she produces in court, from metres to feet and inches or vice versa, he/she is obliged to do so, or risk losing credibility as an expert witness.

Stating to the court in response to a request to convert from metric to imperial units, that the metric system, or 'system international' is the internationally agreed measurement system, supported by EU Directive, is not acceptable.

Surveyors shall therefore be aware of the following practices and uses of measurement units:

- When producing drawings, maps or diagrams for court, it will be necessary to have conversions prepared in advance for all linear, area and volume (space), dimensions;
- Conversions from one system to another should also be converted in reverse for purposes of verification. Conversions 'rounded off' to a number of decimal places invariably produce a different result when converted back;
- It is not necessary to have converted values written on the detail of the map or drawing, a table or an attached list will suffice, either way it is necessary to be in a position to answer the question if asked;
- If producing an old map or drawing in court, irrespective of who prepared it, it is advisable to have conversions worked out in advance. If a surveyor uses it as part of his or her expert evidence it is their responsibility to be in a position to explain it;
- If dealing with older deeds, surveyors may, in rare instances, note the use of 'links' and 'chains' as units of measurements. Surveyors should also be aware of the frequent and erroneous use of the term 'perches' as unit of measurement of area;

- In pre early 20th century deeds the term 'acre' occasionally refers to 'Irish acres' or 'Irish plantation acres'. This unit of measurement is equal to 1.6198 statute acres or English acres. Surveyors should be aware that extracts from older deeds, in particular extracts describing lands, may be recited 'ver batim' in more recent deeds prepared for conveyances or lease assignments; and
- If attending court as an expert witness in a case which legal documents shall be produced as evidence, it is advisable to discuss the sections of the documents which describe property, i.e. roods, perches, etc. with the legal team in advance, to determine the likely relevance. If they need to be explained, the court is likely to look to the expert technical witness, surveyor, engineer, etc. to state what they are.

A solicitor is unlikely to be asked, 'how many square metres is a rood'!

### 7.2 In the courtroom

Being inside a courtroom can be a daunting experience, especially if for the first time. There will be many people present, usually including the following:

- judge;
- clerk to the court
- court usher

For the plaintiff:

- barrister
- solicitor
- solicitor's secretary
- expert witness
- witness of fact
- the plaintiff
- the plaintiff's partner

For the defence:

- barrister
- solicitor
- solicitor's secretary
- expert witness
- witness of fact
- the defendant
- the defendant's partner

The above list contains 17 people, and there can also be friends and relations of both the plaintiff and defendant in the

public gallery, swelling the numbers to between 25 and 30. Speaking in front of such numbers and in such an environment whilst under cross-examination can induce nerves in the strongest witnesses, especially as barristers are very used to such occasions and are invariably word-perfect.

An important factor in performing in a professional manner in the courtroom is to have all one's facts, report and plans in a neat and logical bundle. Fumbling amongst haphazardly arranged documents under the steady gaze of a barrister and judge should be avoided.

Remember to speak clearly and slowly, and only answer the question that has just been asked. A common barrister's tactic is to leave a slightly pregnant pause after a reply, in the hope that it will be nervously filled. This not only conveys an impression of nervousness and naivety, but also allows the barrister to cut the conversation short. It is recommended that you practise giving clear answers that actually end, with a colleague the day before the court hearing.

First, you will be questioned by your client's own barrister, whose job it is to elicit certain answers, which will help illustrate the case to the judge in a favourable light for your client. You will then be questioned by the barrister acting for the other party, whose job it is to find as many faults as possible with the final boundary report. This is known as cross-examination. Avoid being defensive about views, and try not to be drawn into the adversarial arena, one in which barristers are master. It is important that each question is answered honestly and accurately, even if it is to the detriment of your own client, again underlining that any attempt to modify statements to suit a client will be quickly exposed by the opposing barrister and your professional credibility will collapse.

The opposing barrister will sometimes try a tactic of asking simple yes/no questions that may require a more in-depth answer. The court will demand an answer. A defence against this tactic is to directly address the judge and respectfully respond that in keeping with the oath that has been taken, the question cannot be answered in those terms and then outline the reasons why.

Judges are often impressed by accurate and up-to-date methods of measuring. They can also be impressed by detailed, accurate plans. The evidence should include a brief description of the method of measurement used and its accuracy (e.g. accurate to +/- 3 mm (1/8")). However, such detailed plans should be supplemented by very simple diagrammatic plans to show the conflicting boundary lines, preferably in different colours. Very large-scale plans are also helpful, especially where the difference between the two lines is very small.

Cases are often won or lost on presentation in the witness box, but it should be remembered that all plans produced in court should be agreed with the other side before they are used. It is advisable to have some props in the witness box to aid explanation. Three basic scale-rules (one for the chartered surveyor, one for the judge, and one spare) should be carried. A magnifying glass is also useful when examining tiny conveyance plans that may be passed to you during cross-examination. The time taken in the use of a magnifying glass (including its removal from the case) will also provide a few valuable moments in which to collect one's thoughts before replying. The same applies when using a calculator or other device, although care should be taken to always use well-known and trusted calculators or other devices, as mishandling or confusion will undermine your confidence in the witness box.

If during the hearing you need to leave the courtroom for whatever reason, it is necessary to bow to the judge before leaving and on re-entering.

### **7.3 Statutory Declarations and Certification of Accuracy:**

#### **7.3.1 Statutory Declarations**

The making of a Statutory Declaration is provided for in the 'Statutory Declarations Act 1938'. Surveyors should ensure that they are familiar with the general provisions of the Act, in particular section 6 which provides for penalties in relation to making a false or misleading declaration in any material respect.

Statutory Declarations by surveyors are usually requested and drafted by the solicitor for one party or the other involved in a boundary resolution issue when there is assurance required in relation to the interpretation of spatial information from relevant title documents. Surveyors should ensure that before they make a Statutory Declaration, they are completely satisfied with it in its entirety. If a surveyor is not completely satisfied with a Statutory Declaration he/she should not sign it.

#### **7.3.2 Certificate of accuracy**

A surveyor may be asked to issue a Certificate of Accuracy in relation to a property or boundary resolution issue for reasons similar to those for Statutory Declarations. Whereas a Statutory Declaration is usually drafted by a solicitor a Certificate of Accuracy is usually drafted by the Chartered Surveyor. The Certificate may be in the form of a pre-designed template, with the appropriate statement/s inserted. Alternatively the Certificate may be drafted in the format of a standard text document or letter.

As in the Declaration, the surveyor should be completely satisfied with the accuracy of the statement/s made in the Certificate. The nature of the information to be certified or

requirements of the Certificate shall be indicated by the client or the client's solicitor. The Society of Chartered Surveyors Ireland (SCSI) recommends that it is good practice for plans prepared by a chartered Geomatics or Building surveyor or other suitably qualified professional to be endorsed with a certificate as to its accuracy.

Surveyors should be mindful that Statutory Declarations and Certificates of Accuracy comprise key evidence in the event of litigation in relation to title issues concerning property boundaries and therefore may be the subject of intense cross examination.

In addition to the potential consequences for the client and the penalties involved, the exposure in court of an inaccurate, a misleading or false statement by a surveyor on a Statutory Declaration, or Certificate of Accuracy, is likely to cause irreparable damage to the professional reputation of the surveyor who made it.

## Stage 8 Recording the outcome in the Land Registry

In many cases a solicitor will have instructed you, and the recording of the outcome with the Property Registration Authority will be their responsibility, although they may want to seek your views and assistance. If you are working directly for laypeople or another type of professional adviser, they may wish to avoid the additional cost of employing a solicitor, and there is no reason why the chartered surveyor cannot assist them in making an appropriate application.

### 8.1 Applications relating to boundary agreements at Land Registry

When a boundary issue is resolved it is important that the agreement between the parties is set out in the form of a deed and recorded to ensure that the issue does not recur.

It is important to note that boundary agreements are a method of recording the agreement between parties on boundaries and can ultimately be used as a method of resolving some boundary issues. Various other procedures such as deeds of rectification or transfers may be necessary depending on the circumstances.

Depending on the form of agreement reached, the document can be relatively simple, e.g. 'We ... and ... agree that the boundary between our respective properties is the hedge shown on the plan between points A-B.'

If the nature of agreement covers more complex issues, e.g. party wall agreements, the document should reflect that complexity to the degree required by the parties. It can contain plans, photographs and sketches if needed – anything that is capable of being electronically scanned.

It can also contain a description of the agreed boundary and the provisions relating thereto in as much specific detail as meets the needs of the parties.

Plans contained in the agreement should ideally be capable of being interpreted by anyone, and not just the parties to the agreement. However, it is vital that the parties fully understand the nature of the agreement, and ensure that it fully reflects the agreement in a tangible way that they can understand. The agreement should contain enough information that the boundary could be re-created in the event of the boundary features being destroyed by flooding etc.

Land Registry may be able to make an entry on the face of the folio to clarify the boundary agreement in the registers affected by the agreement. An application to make an entry regarding a boundary agreement can be made (through [www.landdirect.ie](http://www.landdirect.ie))

and requires a fee to be paid. In most situations two titles will be affected and both Folio numbers should be quoted on the form.

Appendix 2 contains a model boundary agreement document. This is not an approved Land Registry document, but it can be used as a DIY form in straightforward cases and may be perfectly adequate for the vast majority of circumstances.

It is important that any plans are capable of being related to the current detail on the Ordnance Survey map, **otherwise the application may be queried and/or rejected.** Practitioners should refer to the mapping guidelines as set out on [www.landdirect.ie](http://www.landdirect.ie). If Land Registry cannot reconcile the position of the boundary in question as depicted on the title plan(s) with the deed plan(s), it may be necessary to arrange for the Ordnance Survey map to be updated and then the title plans can be replaced using the latest mapping detail.

If there has been a significant change it may be necessary to inspect the property. This will be done by either a Land Registry surveyor or by Ordnance Survey in order to update the Ordnance Survey map.

In many cases there will be no actual change in the boundary feature or the change will be so small as to be within Ordnance Survey tolerances (see 3.6.1) at the survey scale of the map. In these cases no change will be made to the register.

Usually a copy of the document will be electronically scanned. An entry along the following terms will be made in the register:

'An Agreement dated ... made between ...relates to ...  
[e.g. an agreement as to the north eastern boundary of  
the land in this title].  
NOTE: Copy filed.'

Resolution of disputes is often hard-won and it would be a great shame if the resulting agreement were not recorded at the Land Registry, particularly if the issue were to reignite at some stage in the future.

### 8.2 Compulsory registration

While Ireland has a very extensive and well developed system of land registration, there is a gradual, ongoing and continuous programme underway which will move the older and limited system of recording Deeds (in the Registry of Deeds), into the more modern, flexible and comprehensive 'Title Registration' system provided through the Land Registry. At present 93% of the total land mass of the State and almost 88% of the legal titles in Ireland are registered in the Land Registry.

Much of the progress in recent years has been facilitated by the successful roll-out of a major programme of state of the art Information Technology, the most notable of which have been:

- Integrated Title Registration Information System - ITRIS - (1999-2002);
- Digital Mapping Project (2005-2010); and
- Conversion of the entire register and associated indices from paper into a fully digitised format (2006-2009).

Some 1.9 million titles, representing more than 2.6 million individual parcels of land, are registered in the Irish Land Registry. Since June 2011, compulsory registration applies in all 26 counties. In the case of Freehold Land

- conveyance on sale and in the case of Leasehold land
- grand or assignment on sale.

### 8.3 Application for a Conclusive boundary

It is also possible that if agreement is subsequently reached between two adjoining landowners, an application to have the boundary registered as a 'conclusive' boundary may be lodged in the Land Registry. The instructed chartered surveyor should be conversant with Section 62 of the Registration of Deeds and Title Act 2006 and Section 86 of the Registration of Title Act 1964.

**Extract from Registration of Deeds and Title Act 2006.  
(Section 62 of the Registration of Deeds and Title Act 2006 is an amendment to Section 85 of the Registration of Title Act 1964.)**

**62.**—The following section is substituted for section 85 (description of registered land) of the Act of 1964:

“85.—(1) Registered land shall be described and identified by reference to the registry maps concerned in such manner as may be prescribed.

(2) Except as provided by this Act, neither the description of land in a register nor its identification by reference to a registry map is conclusive as to its boundaries or extent.”.

**Extract from Registration of Title Act 1964.**

**86.**—Where the boundaries of any registered land have been ascertained and defined by any conveyance executed by any

of the Commissioners for Sale of Incumbered Estates in Ireland, or of the judges of the Landed Estates Court, or of the Land Judges, under the provisions of any of the Landed Estates Court Acts, or of the Landlord and Tenant (Ireland) Act, 1870, or by any conveyance or vesting order executed or made by the Land Commission under any of the provisions of the Land Purchase Acts, in every such case the Registrar may, if he thinks fit, after the prescribed notices, enter such boundaries on the register as conclusive, and they shall thereupon be conclusive upon all parties.

Section 62 of the Registration of Deeds and Title Act 2006 and Section 86 of the Registration of Title Act 1964 provides for the entry of boundaries as conclusive in certain instances. Such entries are very rarely made. Any application for the entry of a boundary as conclusive should be referred to the Deputy Registrar. The Land Registry sets specific requirements for measured surveys that are to be lodged with a conclusive boundary application; these should be considered at the initial stage and should inform the survey specification from the outset.

Land Registry Rule 150 states that an application by owners of adjoining property for entry in the register of the boundary between their property, or part of it, shall be made by lodging in the Registry—

- a plan drawn on an application map showing the land adjoining the boundary to be defined and indicating the site of the boundary by a line in colour,
- a consent in writing by the owners referring to the plan and stating in the manner prescribed by rule 148 the physical boundary along the line indicated on the plan and the part of it that they agree is the boundary. (Where an owner who is a consenting party is the owner of unregistered land, proof shall also be given that he/she is the owner within the meaning of Section 89 of the Act who is authorised by that section to consent).

Rule 151 allows for 'Settlement of boundary on transfer' in which a boundary between registered property, transferred by a registered owner and other registered property of which he is the registered owner may be entered in the register as conclusive on lodgement in the Registry of a consent by the transferor and transferee in the terms specified in the foregoing rule.

## Appendix 1 References and online resources

The following publications are just some of the many books available:

- Aldridge, T., *Boundaries, Walls and Fences* (9th edition), Sweet and Maxwell, 2004.
- Bannister, A. and Raymond, S., *Surveying* (7th edition), Prentice Hall, 1998.
- Blom-Cooper, Sir Louis, *Experts in the Civil Courts*, OUP, 2006.
- Burns, S. (in association with Bond Solon Training), *Successful Use of Expert Witnesses in Civil Disputes*, Tottel Publishing, 2003.
- Cannon, R. *Land Law Nutshell*. (2nd edition). Round Hall Press, 2011.
- Cato, D., *The Expert in Litigation and Arbitration*, LLP Professional Publishing, 1999.
- Clarke, P.H., *The Surveyor in Court*, Estates Gazette, 1985 (out of print, but available from the RICS Library).
- Dixon, M., *Modern Land Law* (6th edition), Routledge, 2008.
- Farr, M., *Surveyor's Expert Witness Handbook: Valuation*, EG Books, 2005.
- Government of Ireland. REGISTRATION OF DEEDS AND TITLE ACT 2006. [acts.oireachtas.ie/en.act.2006.0012.1.html](http://acts.oireachtas.ie/en.act.2006.0012.1.html)
- Government of Ireland. Land Registration Rules, 2009.S.I. 349. [www.irishstatutebook.ie/pdf/2009/en.si.2009.0349.pdf](http://www.irishstatutebook.ie/pdf/2009/en.si.2009.0349.pdf)
- Graham, R. and Koh, A., *Digital Aerial Survey*, Whittles Publishing Limited, 2002.
- Green, K. and Cursley, J., *Land Law* (5th edition), Palgrave Macmillan, 2004.
- Harpum C and Bignell J., *Registered Land Law and Practice under the Land Registration Act 2002*, Jordans, 2004.
- Hodgkinson, T. and James, M., *Expert Evidence: Law and Practice* (2nd edition), Sweet & Maxwell, 2007.
- Morris, A., *The Surveyor as Expert Witness: building and development play*, EG Books, 2005.
- Mynors, C., *The Law of Trees Forests and Hedgerows*, Sweet & Maxwell, 2002.
- North, G., *Anstey's Party Walls* (6th edition), RICS books, 2005.
- O'Sullivan, J., (2007), eRegistration & eConveyancing in Ireland – the story so far, Registering the World. Dublin Castle, 27th September 2007. Dublin: Property Registration Authority, pp 2 -10
- Paine, D.P. and Kiser, J.D., *Aerial Photography and Image Interpretation*, Wiley-Blackwell, 2003.
- Pamplin, C., *The Little Book on Expert Witness Fees*, JS Publications, 2007.
- Pamplin, C., *The Little Book on Expert Witness Practice*, JS Publications, 2007.
- Powell D.J., *Anstey's Boundary Disputes*, (4th revised edition), RICS Books, 2009.
- Property Registration Authority. Property Registration of Ireland. Practitioner's Guide 2012: Mapping Procedures for First Registration of a Property, Sub-divisions of Registered Property and Rights over Registered Property. [www.prai.ie/eng/Legal\\_Professional\\_Customers/Mapping%20Guidelines/](http://www.prai.ie/eng/Legal_Professional_Customers/Mapping%20Guidelines/)
- Property Registration Authority. (2007). Property Registration Authority: Digital Mapping Project: Digitisation Protocol . Dublin.
- Pugh-Smith, J. and Sinclair, G., *Neighbours and the Law* (4th edition), Sweet & Maxwell, 2005.
- Redler, A., *It's a Fine Line - Boundary Disputes*, Einstein Network, Training DVD 2006.
- Redler, A., *Practical Neighbour Law Handbook*, RICS Books, 2006.
- Schofield, W. and Breach, M., *Engineering Surveying* (6th edition), Butterworth Heinemann, 2007.
- Timothy, P. and Barker, A., *Wontners Guide to Land Registry Practice*, Sweet & Maxwell, 2005.

## Property Registration Authority Ireland (PRAI) online resources

About the Property Registration Authority  
[www.landregistry.ie/eng/About\\_Us/](http://www.landregistry.ie/eng/About_Us/)

About landdirect.ie  
[www.landregistry.ie/eng/Online\\_Services/](http://www.landregistry.ie/eng/Online_Services/)  
[www.landdirect.ie](http://www.landdirect.ie)

Legal Practises & Procedures  
[www.landregistry.ie/eng/Legal\\_Professional\\_Customers/Legal\\_Practises\\_Procedures/](http://www.landregistry.ie/eng/Legal_Professional_Customers/Legal_Practises_Procedures/)

Legislation  
[www.landregistry.ie/eng/Legal\\_Professional\\_Customers/Legislation\\_Page/](http://www.landregistry.ie/eng/Legal_Professional_Customers/Legislation_Page/)

Mapping  
[www.landregistry.ie/eng/Legal\\_Professional\\_Customers/Mapping/](http://www.landregistry.ie/eng/Legal_Professional_Customers/Mapping/)

Fees  
[www.landregistry.ie/eng/Legal\\_Professional\\_Customers/Fees/](http://www.landregistry.ie/eng/Legal_Professional_Customers/Fees/)

## Ordnance Survey Ireland (OSI) online resources

About Ordnance Survey Ireland  
[www.osi.ie/About-Us/Welcome-to-OSi.aspx](http://www.osi.ie/About-Us/Welcome-to-OSi.aspx)

Services  
[www.osi.ie/Services.aspx](http://www.osi.ie/Services.aspx)

Products  
[www.osi.ie/Products.aspx](http://www.osi.ie/Products.aspx)

Home page  
[www.osi.ie/Home.aspx](http://www.osi.ie/Home.aspx)

## SCSI guidance and professional information resources and reference sources

Society of Chartered Surveyors Ireland  
[www.scsi.ie/](http://www.scsi.ie/)

Society of Chartered Surveyors Ireland – Professional Groups  
[www.scsi.ie/about\\_us/professional\\_groups1](http://www.scsi.ie/about_us/professional_groups1)

### **Guidance notes (available from [www.SCSI.ie](http://www.SCSI.ie))**

Guidelines for the Use of GNSS in Surveying and Mapping  
(1st edition), 2010.

### **Client specifications (available from [www.SCSI.ie](http://www.SCSI.ie))**

*Surveys of Land, Buildings and Utility Services at Scales of 1:500 and Larger* (1st edition), 2013

### **Client guides (guides for the lay professional, available from [www.SCSI.ie](http://www.SCSI.ie))**

*Scale. Let's be clear about scale.* (1st edition), 2013. A guide on not tripping up over step changes in scale.

*Map Projection Scale Factor* – a guide on how to understand and avoid the potential dangers of scale factor. (2nd edition), 2013.

*Boundary Disputes* – a clear, impartial guide. (1st edition), 2013

## RICS guidance and professional information resources and reference sources

### **Practice notes**

*Surveyors acting as expert witnesses GN and PS (3rd edition), 2008.*

*Chartered Surveyors acting as advocates GN (2nd edition), 2008.*

### **Guidance notes**

*Direct Professional Access to Barristers 2nd edition, 2003 (current edition under review).*

*Party Wall Legislation and Procedure (5th edition), 2007.*

*Code of Measuring Practice (7th edition), 2007.*

### **Client specifications (available from RICS books – [www.ricsbooks.com](http://www.ricsbooks.com))**

*Vertical Aerial Photography and Derived Digital Imagery (1st edition), 2001.*

### **Client guides (guides for the lay professional, available from [www.rics.org/mapp](http://www.rics.org/mapp))**

*An introduction to terrestrial laser scanning – a guide to terrestrial laser scanning.*

*Reassuringly Accurate* - a client guide to calibration.

*Virtually Right?– Networked GPS* - a guide on aspects of cost effective networked GPS correction services.

*Virtually level* - a guide on the transition from the familiar benchmark to heighting using GPS.

*Flood damage – reinstating your boundary. What every property owner should know* - a guide on how to reinstate a boundary following flood damage, and where you can go to for advice.

Terms and Conditions of Contract for Land Surveying Services, (2001)

### **International Bodies**

Fédération Internationale des Géomètres (FIG) [www.fig.net/](http://www.fig.net/)

Those members interested in the international dimensions of land registration and boundaries can find a large archive of online resources from the International Office of Cadastre and Land Records (FIG) at [www.oicrf.org/](http://www.oicrf.org/)

## Appendix 2 Model boundary agreement Proposed SCSi Template for Boundary Agreement

<p>If you need more room than is provided for in a panel, use continuation sheet and attach to this form.</p>	<div style="border: 1px solid black; height: 80px;"></div>
<p>2. Folio Number(s) of the Properties <i>Leave blank if not yet registered.</i></p> <p>a. _____ b. _____</p>	
<p>3. Properties</p> <p>a. _____</p> <p>b. _____</p>	
<p>4. Date _____</p>	
<p>5. 1st Party <i>Give full names as appear on the register</i></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	

6. 2nd Party *Give full names as appear on the register*

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7. The Agreement:

Something like .... The parties hereby agree that the position of the boundary between their respective properties is as shown by the line on the attached plan between points A and B and so on.... Or whatever they have agreed....

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8. Additional provisions

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9. Execution:

Signed as a deed by \_\_\_\_\_

In the presence of *(name)* \_\_\_\_\_

*(address)* \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Signed as a deed by \_\_\_\_\_

In the presence of *(name)* \_\_\_\_\_

*(address)* \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Signed as a deed by \_\_\_\_\_

In the presence of *(name)* \_\_\_\_\_

*(address)* \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

## Appendix 3 Quick specification for topographical and measured building surveys

This quick reference Specification Sheet, summarising the full SCSi guidance (surveys at scales of 1:500 and larger), is intended for use on small or straightforward schemes and assumes that the first option clause (where appropriate) is used throughout. Margin numbers indicate the relevant main guidance sections or clauses. The specifier should tick the requirement(s) needed in each subject category. Where no item is selected for a particular category, the surveyor will assume that there is no requirement. Additional information, where necessary, should be provided in a covering letter.

Clause	Subject	Choices				
1.1	Project Information					
1.1.2	Client					
1.1.3	Contact + Telephone					
1.2	Survey Extent	Location plan attached	Textual description	Proposals plan	(Indicate items supplied by Specifier)	
1.3	Scale(s) 1:	50	100	200	500	Other
2.1	Plan Control Grid	Based on ITM/IG grid*	Project grid based on ITM/IG	Project grid	Local grid	
2.2	Level Datum	GPS derived national datum national datum	Project datum	Local datum		
2.3	Detail Survey	Boundaries	Outline	Full Detail	(see also Buildings, Section 4)	
2.4	Trees	Foliage Lines	Trunk over 0.15m dia.	All Trees		
2.5	Height Information	Spot Heights	Contour Interval	Road Section Spacing		
3	Underground Services	Cover Position	Cover level	Invert/Pipe Size		
4	Buildings External	Outline	Full	Footprint	Eaves/Ridge	Elevations
4.1	Buildings Internal	Ground Floor	All Floors	Roof	Sections	
5.1	Plan Reproduction	Final Drawings	Proof Plots	Survey Report		
5.2	Digital Data	State Format				
5.6	Computer Media	Internet Download	Email	Portable hard drive	CD/DVD	Other

### REMARKS

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## Appendix 4 Suggested list of documents relevant to a boundary dispute

Not all of the items below will necessarily be relevant to every case.

### For the client's property

1. Register entry and title plan Folio No. ....  
Supplied by client  or to be obtained by surveyor
2. Title deeds (conveyances, transfers, deeds of grant, etc)  
(to be supplied by client)
3. Photographs from the family photo album  
(to be supplied by client)
4. Witness statements (obtained by client's solicitor)  
(to be supplied by client's solicitor)

### For the neighbour's property

5. Register entry and title plan Folio No. ....  
Supplied by client  or to be obtained by surveyor
6. Title deeds referred to in register entry (available from Land Registry as official copies)  
Supplied by client  or to be obtained by surveyor

### Relevant to both properties/either property

7. Planning drawings (from local council planning department)  
Supplied by client  or to be obtained by surveyor
8. Vertical aerial photographs  
Supplied by client  or to be obtained by surveyor
9. Oblique aerial photographs  
Supplied by client  or to be obtained by surveyor
10. Old Ordnance Survey maps  
Supplied by client  or to be obtained by surveyor

## Appendix 5 Glossary

**Alternative dispute resolution (ADR)** - A range of options for resolving disputes without going to court. ADR includes mediation, adjudication, arbitration, conciliation and ombudsman schemes.

**Covenants** - A contract arising by a deed. Covenants can be both positive and restrictive. In terms of land, covenants tend to be mostly restrictive. A restrictive covenant is a promise by one person with another, for example, by a buyer of land with a seller, not to do certain things with the land, such as to build on it or use it as a shop or factory. It binds the land and not the buyer personally, and therefore 'runs with the land'. This means that the covenant continues even when the buyer sells the land on to another person. Restrictive covenants also continue to have effect even if they were made many years ago and appear to be obsolete.

**Curtilage** - The land within which the building is set and which belongs or once belonged to it and is or once was used in conjunction with it. The extent of the curtilage can be hard to determine. It may, for example in the case of a farm, extend to include barns, stables and sheds.

**Disclosure** - To make something known publicly or to show something that was hidden.

**Easements** - A right which benefits the land in that it 'eases' the use of the one land and constitutes a restriction on the use of the other, 'serving' land. The three necessary parts of an easement are that (1) it applies to land affected by it (servient tenement); (2) it is annexed to other land which has the benefit (dominant tenement); and (3) it is a right, which in common sense and public policy is capable of forming the subject matter of an easement. Easements and covenants often run in parallel, but an easement is expressed as a right of the dominant tenement, whereas a covenant is generally expressed as an obligation on the servient tenement.

**Fee schedule** - A list or table showing fixed fees for goods or services. The actual set of fees to be charged.

**First registration** - An application to put previously unregistered land on the register.

**General boundary rule** - The General Boundary Rule [which has been restated in the 2006 rules] - the title to registered property is 'qualified' in that the State Guarantee does not extend to boundaries. The Registry map identifies properties not boundaries and provides 'that the description of the land on the Registry map shall not be conclusive as to the boundaries or extent of the land'.

The precise line of the property boundary is undetermined, the Registry map does not indicate whether it includes a hedge, a wall or a ditch, or runs along the centre of a wall or fence or its inner or outer face or how far it runs within it or beyond it: or whether or not the land registered includes the whole or any portion of and adjoining road or stream. Where registration is made to the centre of a road or stream, the map is not to be taken as conclusive evidence that such, or any, portion of same is included in the property.

**Global navigation satellite systems (GNSS)** - The standard generic term for satellite navigation systems that provide autonomous geo-spatial positioning, with global coverage. The Wikipedia definition is, "a GNSS allows small electronic receivers to determine their location (longitude, latitude and altitude) to within a few signals transmitted along a line-of-sight by radio from satellites."

**Mediation** - An effective way of resolving disputes without the need to go to court. It involves using an independent third party - a mediator - who helps both sides to come to an agreement. The role of the mediator is to help parties reach a solution to their problem and to arrive at an outcome that both parties are happy to accept. The mediator remains neutral throughout the process. The focus of a mediation meeting is to reach a common sense settlement agreeable to both parties in a case. Mediation is a voluntary process and will only take place if both parties agree. It is a confidential process where the terms of discussion are not disclosed to any party outside the mediation hearing.

**Ortho-rectified** - Orthorectification is the process of using a mathematical model and a digital elevation model (DEM) to correct distortions in raw images such as aerial photographs. An orthophoto or orthophotograph is an aerial photograph that has been geometrically corrected ('orthorectified') such that the scale of the photograph is uniform, meaning that the photo can be considered equivalent to a map. Orthophotographs have the positive attributes of a photograph such as detail and timely coverage, and the positive attributes of a map including uniform scale and true geometry.

**Party wall** - In semi-detached or terrace houses a shared wall with a neighbour is known as a party wall. It separates buildings belonging to different owners. Where a wall separates two different-size buildings, only the part that is used by both properties is considered to be a party wall. The rest belongs to the person on whose land it stands.

**Photogrammetry** - The art, science and technology of obtaining reliable information about physical objects and the environment through processes of recording, measuring and interpreting photographic images and patterns of recorded radiant electromagnetic energy and other phenomena (Wolf and Dewitt, 2000).

**Portable document format** - (.pdf) Invented by Adobe Systems, PDF lets you capture and view robust information — from almost any application, on any computer system — and share it with virtually anyone, anywhere. PDF formatted documents have greater security, stability and multi-platform capabilities than other forms of digital document. With increased stability comes a smaller file size, aiding e- and portable hard drive transfer and internet-based applications.

**Title plan** - A large-scale location plan, usually printed at a scale of 1:1,000 for urban areas, 1:2,500 for suburban areas or 1:5,000 for rural areas, and shows the approximate position of the general boundaries of the property in red, in relation to the surrounding properties.

**Vector/raster** - A vector map is a spatial database which contains information and metadata on map features such as coordinates. It can provide an 'intelligence' behind map features. A raster map is an image only (a scanned copy).

**Vertical and oblique** - There are two types of aerial photographs: vertical and oblique. Vertical photographs give a bird's-eye view of landscapes, as they are taken looking directly (vertically) down at the ground. Oblique photographs are taken at an angle and are normally focused on particular sites or other features.

Dating back to 1895, the Society of Chartered Surveyors [www.scsi.ie](http://www.scsi.ie) Ireland is the independent professional body for Chartered Surveyors working and practicing in Ireland.

Working in partnership with RICS, the pre-eminent Chartered professional body for the construction, land and property sectors around the world, the Society and RICS act in the public interest: setting and maintaining the highest standards of competence and integrity among the profession; and providing impartial, authoritative advice on key issues for business, society and governments worldwide.

Advancing standards in construction, land and property, the Chartered Surveyor professional qualification is the world's leading qualification when it comes to professional standards. In a world where more and more people, governments, banks and commercial organisations demand greater certainty of professional standards and ethics, attaining the Chartered Surveyor qualification is the recognised mark of property professionalism.

Members of the profession are typically employed in the construction, land and property markets through private practice, in central and local government, in state agencies, in academic institutions, in business organisations and in non-governmental organisations.

Members' services are diverse and can include offering strategic advice on the economics, valuation, law, technology, finance and management in all aspects of the construction, land and property industry.

All aspects of the profession, from education through to qualification and the continuing maintenance of the highest professional standards are regulated and overseen through the partnership of the Society of Chartered Surveyors Ireland and RICS, in the public interest.

This valuable partnership with RICS enables access to a worldwide network of research, experience and advice.

**[www.scsi.ie](http://www.scsi.ie)**

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