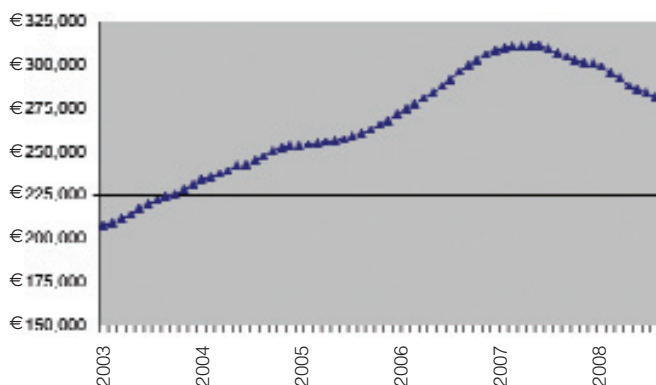


# GREEN PAPER PROPOSING REFORM OF Boundary Surveys

By **W P Prendergast**, *Chair, IIS Commission on Land Registration*

The widespread public belief that Ordnance Survey Ireland OS mapping is accurate enough to define property boundaries by the Property Registration Authority (PRA) is a myth that engineers, surveyors, auctioneers, architects and solicitors have to grapple with on a daily basis. This system of defining property boundaries in relation to OSi maps was borrowed from the United Kingdom in a different era when Ireland was a post-famine agrarian society and the introduction of land registration was a Crown initiative to give tenant farmers freehold ownership of their farms, to replace the feudal system in operation at that time.



The Permanent TSB and ESRI publish a national house price index every quarter which indicates a significant rise in average house prices between 2003 and the end of 2006 before it began dropping back during 2007 and 2008. The value of the land now accounts for approximately half of the cost of a house. Since the average size of urban semi-detached properties have areas of approximately 200 square metres this equates to current valuations of €650 to €700 per square metre for the land alone.

Considering that the value of land is so high today, it seems inappropriate not to define the area and extent of properties much more precisely than is currently practiced in Ireland. Most countries in the rest of the world have adopted a different system where the land registration map is a cadastre which identifies properties, boundaries and areas by virtue of a good quality boundary survey by qualified surveyors to defined standards. Ireland is now nearly alone in the western world for continuing to operate a system of non-conclusive boundaries, ever since Canada recently moved towards recording fixed boundaries, and the United Kingdom adopted a system for determining boundaries in 2002.

## IIS Commission on Land Registration

The Irish Institution of Surveyors (IIS) established a Commission on Land Registration in Autumn 2006 to investigate surveying and mapping matters relating to land registration practice in Ireland. The main catalyst for this initiative was the implementation of the digital mapping project by the (PRA). The original concept was to develop best practice guidelines for boundary surveys for digital interaction between surveyors and the PRA in preparation for eConveyancing.

## Need for Improved Mapping Standards

The need to significantly improve the standard of PRA mapping is now urgently required due to a range of factors, the most important being:

- Developing an eConveyancing system for Ireland – digital systems are renowned for requiring higher standards of data quality to ensure interoperability to operate efficiently;
- Implementing the EU INSPIRE Directive – data harmonisation of land parcels is one of the objects identified as priority within this project;
- The extremely high cost of land in Ireland – landowners regularly seek better quality mapping than the PRA can currently supply to adequately secure one of their most valuable assets;
- Exploiting the modern surveying technologies available – Ireland's world class modern surveying infrastructure should be exploited to improve the quality of PRA mapping.

## PRA Index Map

Landowners incorrectly believe that registering their property in the PRA will reliably secure their most valuable asset. Some property professionals even believe that descriptions in lease maps give more confidence than PRA maps. However, the PRA themselves make a point of stating that the PRA map is only an index map.

"I have a dispute with my neighbour over where the boundary lies. Can you tell me who is right? No. The Land Registry map is an index map and identifies property, not boundaries. Therefore, we are not in a position to advise." (Property Registration Authority [[http://www.prai.ie/eng/Frequently\\_Asked\\_Questions/Land\\_Registry\\_FAQs1.html](http://www.prai.ie/eng/Frequently_Asked_Questions/Land_Registry_FAQs1.html)] accessed on July 9, 2008)

This quote is taken directly from the Frequently Asked Questions page of the PRA website. For most property owners this answer is surprising. If the PRA cannot supply reliable information on property boundaries to resolve boundary disputes, who can, or more importantly, should the PRA not be in a position to do so?

## Irish Land Registration System

The Irish land registration system can be viewed as two separate systems of folios and PRA maps, though directly related. Information held in the PRA folios is widely considered as reliable, so a State guarantee is provided for the title, and the system is perceived as secure. In contrast, information in the PRA mapping is widely considered as unreliable, so a State guarantee is not provided for the location or extent of boundaries, thus the system is perceived as less secure.



## Current Concerns

The PRA digital mapping project (2006–2010) is to be commended because it is addressing some of these mapping concerns and bringing the PRA index map into the 21st century. International experience has shown that once Land Registry mapping systems and cadastres are converted into digital form, the inconsistencies in the maps previously hidden in paper archives become more visible, and a range of new procedures are needed to deal with them. Additionally, although the digital mapping project is a move in the right direction, it is changing the recorded position of legal boundaries in what could be viewed as a “national rectification of boundaries” and the Commission on Land Registration has a number of major concerns, namely:

- The digitising of Irish property boundaries carried out in India under contract (3), is moving existing PRA boundaries into coincidence with lines on the new OSi maps using quite generous tolerances of:
  - ± 2.0 metres for 1:1000 maps of urban areas
  - ± 5.0 metres for 1:2500 maps of sub-urban and peri-urban areas
  - ± 20 metres for 1:10560 maps of rural areas

The OSi maps have accuracies of ± 0.60m for 1:1000 maps; ± 0.69m for 1:2500 maps and ± 1.22m for 1:5000 maps). The new 1:5000 map series was substantially surveyed also in India under an OSi contract (1). Consequently, when these two tolerances are combined, the potential for large movements of the recorded positions of PRA legal boundaries can be quite high.

- Rectifications of boundaries on PRA maps requires either the owners consent, or be carried out on foot of a judge’s order according to the Registration of Title Act 1964, but neither of these means was utilised during the project.
- Maps in old title documents held as collateral in banks or mortgage agencies are now unlikely to correlate exactly with the new PRA digital maps any longer. The difference between these two PRA maps may give rise to difficulties for mortgage institutions.

Since these boundary changes are occurring without the knowledge of the landowners concerned, landowners are advised to be particularly careful to ensure the new PRA records actually record the correct position of their boundaries.

## Publications and Reports

The Commission has published:

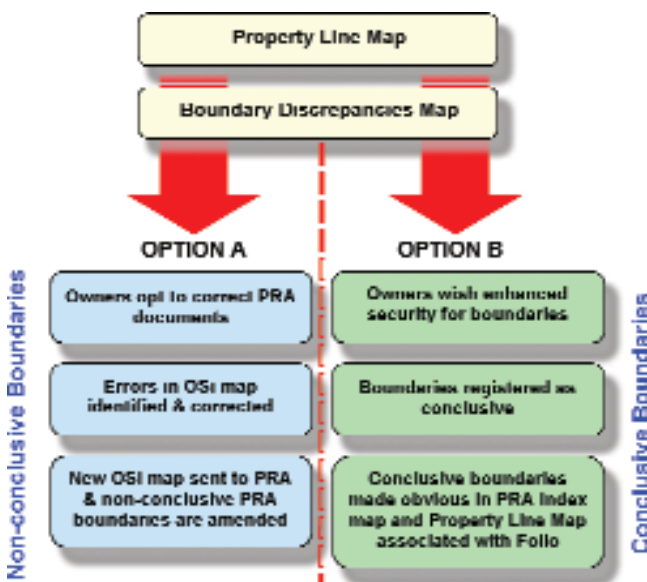
- An interim report entitled “The Property Registration Authority’s Digital Mapping Project: A Surveyor’s Perspective” was submitted in confidence to the Property Registry Authority (PRA) in February 2007. This report was subsequently published in June 2007 once the PRA had responded to it at the Survey Ireland Conference in Malahide in May 2007.
- A second report outlining best practice guidelines for boundary surveys was issued as a consultation document in April 2008 and this is now being published as a Green Paper to stimulate a debate on the need for reform of boundary surveys in Ireland.
- A third report is planned to outline best practice guidelines for boundary disputes for surveyors. Research is well underway and a draft is anticipated by spring/summer 2009.

## Green Paper

The aim is to define modern pragmatic standards for boundary surveys based on international best practice, and implement them in a manner in which property owners and legal professionals will be supplied with high quality maps of boundaries in a standard format by surveyors from different regions in Ireland. The guidelines outline:

- Accuracy standards and a uniform methodology for surveys of property boundaries;
- A standard methodology for correlating surveys of property boundaries with PRA maps;
- A standardised process to rectify discrepancies in PRA records when identified;
- A mechanism to ensure these best practice guidelines are applied correctly and uniformly by surveyors.

Ordnance Survey Ireland and Ordnance Survey in Northern Ireland have jointly created one of the best surveying infrastructures in the world for the island of Ireland. The application of this modern surveying infrastructure when combined with the adoption of best practice is a prerequisite for producing good quality surveys. Irish surveyors now have the technology to survey features to centimetres in a national context using GPS, so they can now identify discrepancies in less accurate OSi and PRA maps. It would seem foolish therefore, not to exploit this technology to identify and rectify discrepancies during boundary surveys in order to improve the quality and reliability of the PRA mapping system. There is now a need to develop modern surveying and mapping standards and processes suitable for the digital age and in line with best international practice to ensure this new surveying infrastructure and modern surveying technologies can be exploited for the benefit of landowners and the PRA mapping database.



The best practice guidelines propose that a high quality survey of the property line is carried out using a defined methodology which is then correlated with the PRA and OSi maps to identify any issues. If discrepancies are identified which are larger than the map specification (as defined by OSi) two options are available to regularise PRA title maps:

- Option A is to report the discrepancy to OSi via their customer service system at [custserv@osi.ie](mailto:custserv@osi.ie) so that they can resurvey the boundary in question and issue an amendment of the OSi map to the PRA to correct the legal record of the boundary if the issue raised is upheld;
- Option B is to get the adjoining owners to agree an exact boundary, demarcate it on the ground with boundary monuments and register the boundary conclusively in the PRA.

The costs involved for both of these options are roughly similar, but the

benefits of clarifying and registering a conclusive boundary under option B far outweigh those of option A by:

- Providing landholders and their mortgage providers with increased security of tenure by reducing risks associated with unclear title documents and thereby enhancing the security provided by registration;
- Defining and physically marking boundaries on the ground using boundary monuments to assist in resolving any existing or future boundary disputes;
- Providing reliable boundary information for subdivision and land transfer processes;
- Building a cadastral inventory of accurate spatial parcels for land for the nation;
- Ensuring that the spatial definition of parcels in the PRA database are compatible with the development of a national land management system.

The report is being published as a Green Paper to stimulate debate within all the stakeholders involved in the land registration process including professionals (engineers, surveyors, architects, auctioneers, and solicitors) and their relevant professional bodies and the banks & mortgage providers. The intent is to debate with the stakeholders, the modern services surveyors can provide the land registration process during the latter half of 2008. Commission members will be available to meet stakeholders to provide detailed explanations of specific aspects of these proposals and to try to develop joint consensus on the way forward. Feedback received during this external consultation phase will be used to edit and amend the report into a white paper for submission to government as a consensus proposal from all the stakeholders.

The publication of this green paper is quite opportune. The Law Society launched their eVision on July 22 which outlined their proposals for eConveyancing. The Irish Institution of Surveyors officially supplied a copy of the Green Paper to the Law Reform Commission in September as the Irish Institution of Surveyors' contribution to develop an eConveyancing system for Ireland. These two reports are expected to contribute positively towards a comprehensive debate on the changes required in land registration practice in Ireland for the 21st century<sup>1</sup>. ■

<sup>1</sup> Copies of the green paper are available from the Secretary, Irish Institution of Surveyors, 36 Dame Street, Dublin 2 (Tel: +353 (0)1 677 4797; Email: [iisecretary@eircom.net](mailto:iisecretary@eircom.net)) or alternatively it can be downloaded from the IIS website at [www.irish-surveyors.ie](http://www.irish-surveyors.ie).