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Relations between registered parcel, boundary section and boundary point, using the example of Poland

Summary

The cadastral parcel of its basic object of the real estate cadastre of each country. Associated with it are other objects, such as buildings or boundary points and also the rights assigned to these objects. The data describing the cadastral parcel are crucial both in terms of assessing the quality of the cadastre and the possibility of using it for various purposes. However, in the Polish real estate cadastre regulations, there is a lack of definition of explicit regulations regarding the land plot and the objects constituting it. This is particularly important in the present with publicly available information about the boundaries of the cadastral parcel. The article, using the example of Poland, presents the relationship between the cadastre object, which is the cadastral parcel, and the objects forming it: the boundary section (the parcel boundary) and the boundary point. The paper presents an analysis of the current, Polish, legal regulations in this area and their implications in procedures of a geodetic-legal nature.

Keywords: cadastre, registered parcel, boundary point, boundary, cadastre objects

1. Analysis of relations between cadastral parcel, boundary section, and boundary point.

Poland adopted new law on geodesy and cartography shortly before end of July 2021. Most of the regulations that had been in force by the time were repealed. One of the new rules was set forth in the Ordinance of the Minister of Development, Labour, and Technology on land and property registration dated July 27, 2021. In this ordinance, the lawmaker modified the definition of cadastral parcel and now cadastral parcel is a continuous stretch of land situated within the boundaries of one surveying section, which has a uniform legal status and was separated out of its environs by boundaries of the cadastral parcel. The phrase "by boundaries

of the cadastral parcel” has now replaced the problematic old phrase ”with the help of boundary lines”. The lawmaker also defined the boundary of cadastral parcel as a broken line or its section, common for two adjacent cadastral parcels or common for cadastral parcel and state border whenever a cadastral parcel touches on the state border. As regards information describing the real estate object, such as a cadastral parcel, the new law mentions, among other things, the cadastral parcel’s identification number, the numerical description of its boundaries, and data defining its boundary points.

The course of cadastral parcel’s boundary is defined by the position of boundary points which are crossed by the boundary. The boundary points are described by such attributes as coordinates determining the position of a boundary point, the boundary point’s identification number, the method of obtaining the data defining the boundary point’s position, and information on adherence to the required precision standards or the type of a particular surveying mark. All these provisions, set forth in the law, determine the surveying operations performed to delineate the course of cadastral parcel boundaries (these operations are part of various procedures) including notification of stakeholder parties, content of the surveyor’s report, method and type of marking the boundary point. Note, that when speaking of delineating boundaries we mean procedures leading to the determination of boundary course on the ground in the presence of the interested parties. In Poland, the boundary course can be marked out as part of the following procedures:

- Demarcation procedure under administrative law or at court;
- Determining plot boundaries as an ordinary material and technical procedure under land registration regulations;
- Property litigation or its part.

Other procedures, such as for instance, real estate division usually refer to planning and approving the planned boundaries rather than to their determining. Nonetheless, observations made in this paper are relevant in such cases too.

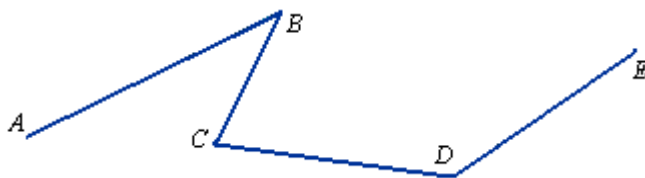
2. Boundary of cadastral parcel and consequences of its definition on entries later made in the report on determining the course of the boundaries of cadastral parcels. (PGDE).

Every job related to determining the boundaries of a cadastral parcel must be followed by a report standardised under the land registration law. It is important that such a report on determining plot boundaries includes a geometrical presentation of the delineated boundary and the boundary points which are crossed by that boundary. What exactly are these cadastral parcel boundaries according to the lawmaker? *The boundary of a cadastral parcel consists of a broken line or its section which is common for two adjacent parcels or common for a parcel and a state border, whenever a parcel touches on the state border* (Ordinance, 2021).

The lawmaker does not provide a definition of a broken line or its section for the purpose of boundary points so we can (we should) reach for its mathematic definition available, for instance, in the portal math.edu.pl.

Broken line—a geometrical figure which is the total of a finite number of sections where every two sections have a common end point, and:

- every two and only two subsequent sections have a common end point,
- no two subsequent sections are part of one straight line.



Section AB is a figure consisting of points A and B (called their end points) and all the points between these end points which are lying on the straight line between the same two points.



Having translated these mathematic definitions into surveyor’s language we see that a cadastral parcel’s boundary can run only between the end points A and B but it must not run between end points A, B, C, D (broken line). Each section of the broken line may represent different status, e.g., peaceable possession along one section, peaceable possession which differs from documents describing the boundary shape, etc. The report template enclosed in the law does not offer a possibility to distinguish status differences of this type. The basis on which boundary is determined may be different on different sections of the boundary. Also, the method and time of defining the position of a boundary point may be different than the method and time of defining the boundary section which begins in that point. All this has consequences on the land registration entities referred to in PGDE report in line with provisions of the law.

3. Who, and in what way, should be notified on the procedure of determining the course of cadastral parcel boundaries

Notification on PGDE determining procedure is required by the definition of the cadastral parcel and by the PGDE report template. At the same time, the land registration entities we ”choose” to notify will have influence on the course of the delineated boundary, hence, also on the scope of their property rights.

For the needs of determining the course of cadastral parcel boundary, the Ordinance on land and property registration which is now in force in Poland provides a mandatory report template.

Protokół ustalenia przebiegu granic działek ewidencyjnych

Powiat Jednostka ewidencyjna Obręb ewidencyjny

Lp.	Numer działek ewidencyjnych, do których należy ustalona granica	Podmioty uprawnione do udziału w czynnościach	Nr księgi wieczystej lub oznaczenie innego dokumentu określającego stan prawny działek wymienionych w kolumnie 2	Osoby uprawnione biorące udział w czynnościach ustalenia przebiegu granicy lub osoby uprawnione do reprezentacji podmiotu wymienionego w kol. 3	Data ustalenia przebiegu granicy	Sposób ustalenia przebiegu granicy	Numer szkicu granicznego	Oświadczenie: <i>Mi, niżej podpisani, oświadczamy, że granica między działkami wymienionymi w kolumnie 2, przedstawiona na szkicu granicznym stanowiącym integralną część niniejszego protokołu, została ustalona wg naszych zgodnych wskazań.</i>	Inne oświadczenia osób biorących udział w czynnościach ustalenia przebiegu granicy	Adnotacje, w szczególności wskazanie szkicu granicznego, który jest integralną częścią protokołu oraz podpis geodety uprawnionego
1	2	3	4	5	6	7	8	9	10	11
	10									
	13									

Fig.1 Template report on determining the boundary of a cadastral parcel in a procedure defined by land registration regulations.

Legend: 1. Report on determining the course of cadastral parcel boundaries; 2. County....; 3. Cadastral unit...; 4. Surveying section...; 5. No.; 6. No. of cadastral parcels whose boundaries were determined; 7. Entities eligible for participation in the procedure; 8. No. of perpetual book or identification of other document describing the legal status of parcels mentioned in column 2; 9. Eligible persons taking part in the procedure of determining the course of boundary or persons authorised to represent the entities mentioned in column 3; 10. Date of determining the boundary course; 11. Method used to determine the boundary course; 12. Number of the boundary sketch; 13. Declaration: we, the undersigned, declare that the boundary between parcels mentioned in column 2 as shown in the boundary sketch, which is an integral part of the present report, has been demarcated according to our unanimous indications; 14. Other statements of entities taking part in the parcel boundary determining process; 15. Notes, especially ID of a boundary sketch which is an integral part of the report and a signature of the licensed surveyor.

According to the literal sense of the report, the land registration entities that should be notified in the example of Fig. 2 are owners of plots 10 and 13 and they will be entered as item 1 in the report shown in Fig. 1.

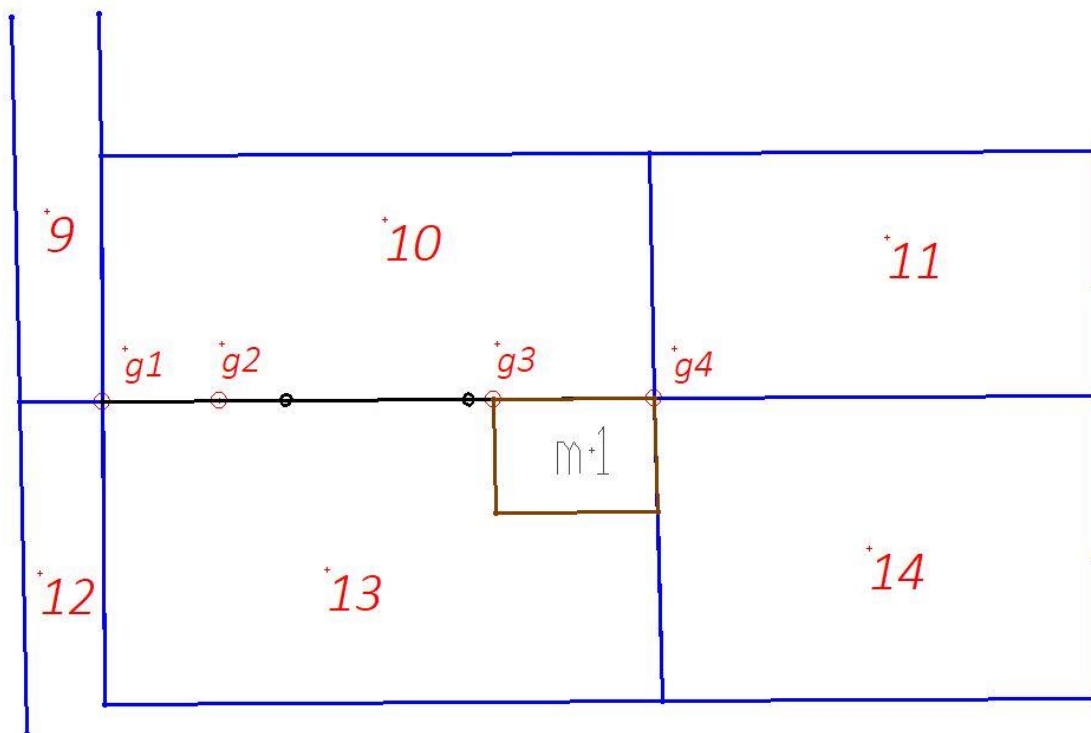


Fig. 2 Case study—determination of parcel boundaries—part 1.

The main question asked by ourselves and by all Polish surveyors working in the fields is whether owners of parcels 9, 12, 11, 14 are also the land registration entities that should be notified on procedures performed as part of PGDE determination because, in this case, the course of the parcel boundary is being delineated but the above-mentioned legal definitions say that this boundary is based on a boundary point which is common for all the bordering parcels—it is one of the boundary points which constitute a boundary section or the beginning of a broken line common for all the cadastral parcels on which it "touches."

4. Which demarcated boundaries (broken line, section) should be shown in the PGDE report, relative to the demarcation method used

If all the land registration entities do have to be notified, how can we make a correct PGDE report in tune with the mandatory report template which does not allow entering certain broken lines in its columns to reflect the method of determining the PGDE. This means that the only solution available is to modify the report template by adjusting it to the surveying job actually performed which, after all, the surveyors are usually trying to do. When a boundary has the shape of a broken line and, in addition, each of its sections comes with a different demarcation method provided for by the ordinance on land and property registration, the task of filling the report's form conformity with the mandatory template becomes rather difficult and leads to various practices and to modifications of the template which are different in different Polish counties where surveyors are doing their job.

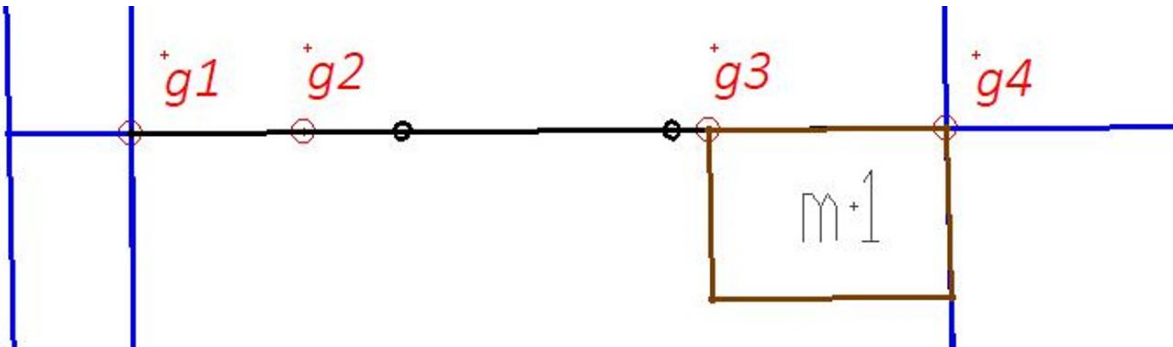


Fig. 3 Case study—determination of parcel boundaries—part 2

Fig. 3 shows that a surveyor faces serious dilemmas in this one and other similar situations when he is going to make the report. Whatever he does, he will not fill it out the way the template requires.

The lawmaker envisaged several different methods of demarcating boundaries and boundary points, which are applied in a certain order. Therefore, in this case (Fig. 3) where the boundary runs from point g1 to point g4, the report will show different situations. The boundary section g1-g2 will be marked out based on peaceable possession and unanimous indications from the stakeholders. The section g2-g3 will be marked out based on peaceable possession (fence) but section g3-g4 cuts across a building and owners of the adjacent parcel claim the boundary makes a "detour" exactly in that place and the whole building is actually on their land. Such situations happen quite often. As a consequence, the report will mention 3 different items related to the boundary separating parcels 10 and 13, while columns 9 and 10 will be filled with a different content. The process is additionally complicated when land registration entities related to parcels 9 and 12, and 11 and 14 appear also as parties to the report. One land registration entity, sometimes, consists of a number of owners. As a result, entries in the report columns tend to grow to ample passages to the detriment of message clarity. We are aware that such dilemmas are a problem of many countries, not only in Europe, and we must keep in mind that each such report affects the resulting scope of property rights which, in turn, has different effects on entries in the records—not only records in the real estate cadastre but also in the perpetual books.

5. When, and on what conditions, boundary marks can be made permanent

In the ordinance on land and property registration, the lawmaker envisaged a possibility of making boundary marks in a relevant clause which is brief but has far-reaching consequences: *The boundary points are marked on the ground in a way allowing their measurement. Permanent marking of such points can be made on the initiative and at the expense of the interested parties.*

What this regulation actually means for the surveyor doing his job? It might seem that once he has notified the eligible land registration entities and they show their intention to have

permanent markings installed, he can just go ahead doing so. Yes, this regulation allows it but, like many other regulations, this one too must be read and interpreted in the context of other laws.

Which laws must be taken into consideration when one wants to do such boundary marking in Poland?

These certainly include:

1. The Geodetic and Cartographic Law (section 38)

Owners or other possessors of real estate (land) are responsible for the protection of boundary markings.

2. The Civil Code (section 152)

Owners of adjacent land plots are obligated to co-operate in the division of land and in the conservation of permanent boundary markings; the cost of land division, of the markings, and of maintaining the permanent boundary markings are shared 50-50 between those owners.

3. The Criminal Code (section 277)

Whoever destroys, damages, removes, relocates, obscures, or places false boundary markings is subject to the penalty of liberty restriction or imprisonment up to... (years).

Owners are liable to protect and maintain boundary markings. To do so, they must know that the markings are buried at the point where their boundary turns. But how can they know it having been notified on the PGDE determination process (only if the surveyor was kind enough to disobey the report template by notifying all the land registration entities which share the particular boundary point) but were not informed that the boundary points will be stabilised with boundary markings? This means that when a surveyor makes notifications on a PGDE determining procedure and wants to have a possibility to install permanent markings, he must—using the same template report form—straight away inform the stakeholders about the possibility of having such boundary marking placed if, of course, the land registration entities show respective initiative. We must also keep in mind that many legitimate land registration entities do not take part in the process but the reason is not the lack of surveyor's work being

done. The surveyor may carry out PGDE determination and boundary mark stabilisations on one condition: the notification on jobs done on the ground must include information about possible stabilisation. Otherwise, stabilisation cannot be done, unless all the land registration entities had been duly notified, they are present on site during the surveyor's work, and they all want to have the stabilisation to be done.

Summary:

The Polish law on determination of land plot boundaries has been repeatedly modified many times in the recent years. It was amended three times after 2013 when the law allowed to determine plot boundaries through a technical process, that is, without the necessity go into a real estate demarcation procedure. Yet, the lawmaker has not managed until today to integrate the boundary point with the section of boundary that links two boundary points. This causes irregularities in the boundary determination reports and in the process and conditions in which boundary markings are installed. The procedure of determining cadastral parcel boundaries requires improvements in its aspects discussed above.