

ACQUISITION AND PROCESSING OF DATA FOR THE IMPLEMENTATION OF THE SYSTEMATIC CADASTER IN ORAVITA AREA

Anamaria NEDA, Andrada Madalina – Maria STOICONI

Scientific Coordinator: Lect. PhD Eng. George POPESCU

Banat University of Agricultural Sciences and Veterinary Medicine, “King Michael I of Romania”,
Timisoara, Calea Aradului 119, 300645, Timișoara, Romania, Phone:+40256 277280, Fax:+40256
200296, Email: popescu.george25@gmail.com

Corresponding author email: popescu.george25@gmail.com

Abstract

The purpose of this paper is to highlight the importance of carrying out the systematic cadastre on the territory of Romania and to present the steps that need to be taken in order to be able to register systematically. Systematic cadastral work is the identification, measurement, description and registration of buildings in technical documents, their representation on cadastral plans and the storage of data on computer media, identification of proprietor, owners and other owners of real estate in order to register in the land register and identify the owners, the holder and other owners of buildings, for registration in the Land Book. The cadastre determines the position of the building boundaries based on measurements. The beginning of the systematic registration works shall be established by order of the ANCP General Director, published in the Official Gazette of Romania, Part I.

Key words: Cadaster, Land Registry, Systematic Registration, Total Station.

INTRODUCTION

Systematic registration is the process by which the real situation of all real estate's located on the territory of Romania is transposed into a unitary information system, aiming at efficient management of the information (Herbei, 2015) about them. The information regarding the buildings on the territory of the Romanian State, which are transposed into the information system are of a technical, economic and legal nature. Information of a technical nature (Herbei and Sala, 2016) is obtained by determining the position, configuration and surface of the buildings, their destination and use category as well as the constructions. The economic information is obtained on the basis of the technical elements of the buildings in order to establish a real value of their taxation. Legal information concerns the identification of the owners or holder of all real estates and the inclusion in the land book of property rights, other real rights. The process of systematic registration is carried out at the level of the administrative-territorial units, by cadastral sectors (Popescu, 2015).The

main stages of the systematic registration process are:

Organizing and conducting a national and local advertising campaign that involves informing at national and local level on the importance of systematic registration (Popescu, 2016).

The accomplishment of the works prior to the systematic registration process, supposes the constitution at the level of each territorial office of the databases gathering existing information regarding the buildings in the ATU. Carrying specialized works in the systematic registration process allows for the correction of the technical and legal data of the buildings. The technical documents of the systematic registration process are drawn up:

a) Alphabetical Index of Owners (Figure 3);

b) Cadastral Registry of Buildings;

c) Cadastral plan (Figure 10).

4. The publication of the technical documents of the systematic registration process is aimed at displaying the technical documents of the systematic registration process.

5. The finalization of the technical documents resulting from the systematic registration process and the opening of the land books is the most important stage. As a result of this

process, the documents evidencing the registration in the cadastral and real estate advertising system of the real estate's will be generated (O.U.G. 35/28.06.2016).

MATERIALS AND METHODS

The address of the buildings belonging to Sector 2 Oravita AUT is located in the outskirts of Brosteni, AUT Racasdia, Caras-Severin County (Figure 1). The detailed buildings in the paper are part of the landmark. The type of the work, which belongs to Sector 2 Oravita AUT presents the cadastral technical documentation "systematic registration works within the PROGRAMUL NATIONAL DE CADASTRU SI CARTE FUNCIARA, in the implementation of the O.U.G. no. 35 / 28.06.2016 and of the Order of ANCPI General Director no.819 / 28.07.2016". Land recognition was performed

and the boundaries of sector 2 were identified, reconciling the points in the geodetic network. For this sector, following the identification of building boundaries on existing and on-site plans, we made topographic measurements using two well-known points purchased with the LEICA GS08 PLUS GPS:

-1780 (x = 399275,687; y = 232469,352; z = 147,140) point V

- P2 (x = 399081, 355; y = 232409, 083) a station base in the database.

The topographic elevations were performed with the LEICA TS02 station, stationed with the apparatus at the known point 1780 from which point P2 was targeted. Also by using of the round-trip polygonation, other station points were determined near the building from which the contours of the sector and of the buildings were raised by the horizon tour method.

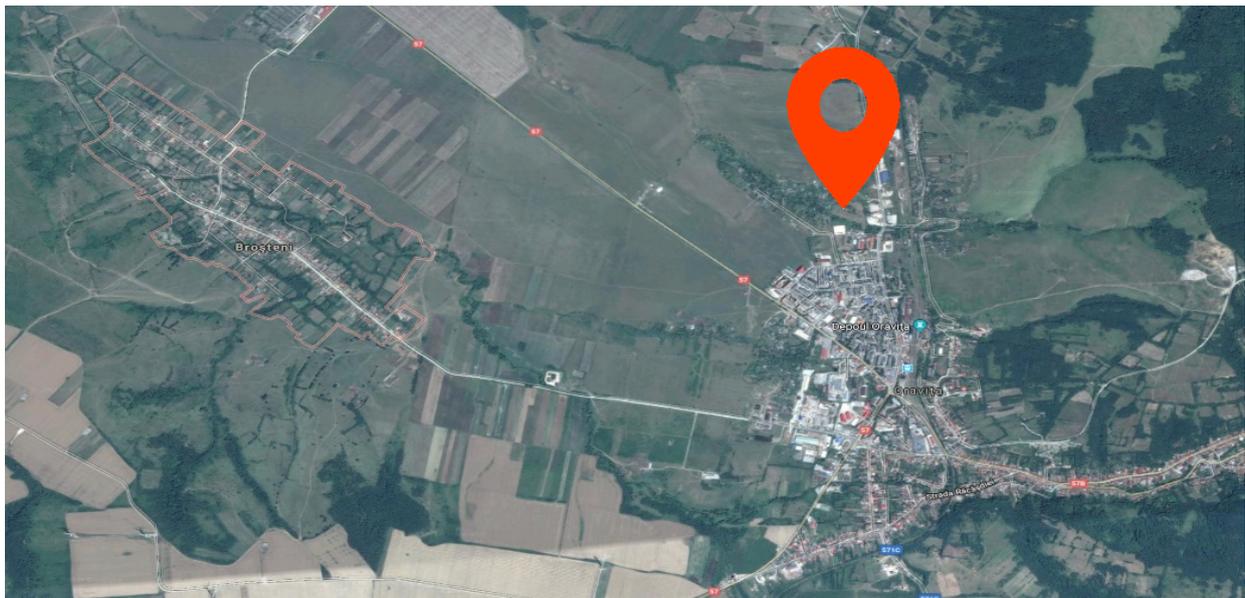


Figure 1. Location of UAT Oravita

RESULTS AND DISCUSSIONS

By presenting the operations, the information campaign was held and meetings (with the support of the mayor of Oravita, Caras-Severin) with the owners of the property rights on the buildings were organized.

In order to be able to carry out the systematic registration works in the cadastral sector 2, with the involvement of the representative of the AUT Oravita, the owners (the holder) were identified; copies were taken from the property documents and identity documents

(Racovicean and Doandeu, 2008). Where this was the case, copies of the death certificates of the persons holding titles from the local authority were taken.

We conducted the study of analogue and digital data taken from AUT Oravita:

- The Oravita AUT limit and the limit of the urban assets of this UAT (Figure 2);
- Limit of cadastral sectors;
- The orthophotoplan corresponding to the cadastral sector (Figure 5);
- Cadastral plan at 1:10000 scale;
- Layout of landing (Figure 6, Figure 7 ,

Figure 8 , Figure 9 , Figure 10 , Figure 11);

- Data relates to the national geodetic network (planimetry, altimetry);
- Extracts of land books;
- Copies of owner-occupied contracts;
- Existing RGI PADS;
- PDF files in the property titles database;

Data taken from the AUT Oravita regarding the buildings to which the owners have not been identified and according to Lg.

7/13.03.1996 they are provisionally registered in the property of Oravita (O.U.G. 35/28.06.2016). We integrated these data and compiled .CGXML files (.cgxml files contain information from the e-Terra application database) (Figure 4).

Property documents and identity papers have been scanned and stored in PDF files.

After that the building records were presented to the owners for signing.

In the final phase the OPISUL alphabetical of the real estate in the sector (Figure 3) was drafted and the cadastral plan for sector 2 was drawn up, followed by the overall cadastral plan of the UAT Oravita (Figure 6, Figure 7).

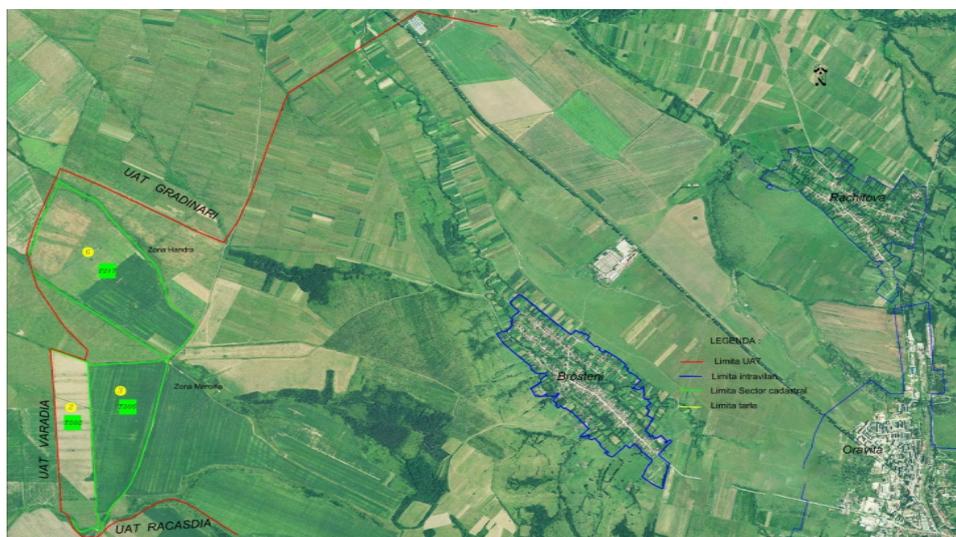


Figure 2. The Oravita AUT limit and the boundary of the urban areas

Nb.3 ANEXA

THE ALPHABETICAL DESCRIPTION OF THE REAL PROPERTY RIGHTS TITLES

County **CARAS-SEVERIN**
UAT **ORAVITA**

Nb. crt.	Name/ Name holder	Date of birth/ Personal number code	Identifier	Drawing	Cadastral sector	Estate address	Property area	Possession area	Owner observations
1	AZAP ANA	2251029112511	111	2	2	Extravilan Oravita	5800		
2	BERCEAN FLOAREA	-	161	2	2	Extravilan Oravita	5800		
3	BERLOGEA SILVIA	2240704112511	188	2	2	Extravilan Oravita	11600		DECEASED
5	BUZILAAVRAM	1460623112513	183	2	2	Extravilan Oravita	11400		
6	CIOC ELENA	2290525112500	113	2	2	Extravilan Oravita	5900		
7	CIOC FLOAREA	2230102112532	172	2	2	Extravilan Oravita	5800		
8	CIOC FLOAREA	2230102112532	172	2	2	Extravilan Oravita	5800		

Figure 3. The Oravita AUT limit and the boundary of the urban areas

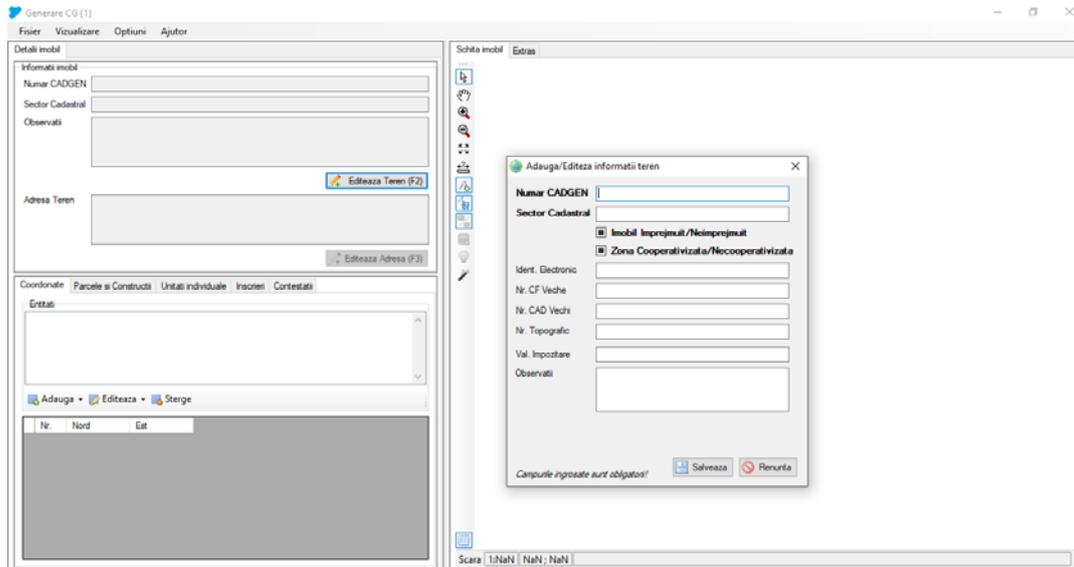


Figure 4. The program that provides CGXML files

The WEB CADGEN application is part of the IT toolkit for data migration from the General Cadastre into the integrated cadastre and land registry system e-Terra. The cadastral plan is a

graphical representation (sketch, drawing) showing the boundaries, cadastral numbers and other land data and capital buildings located on the ground.

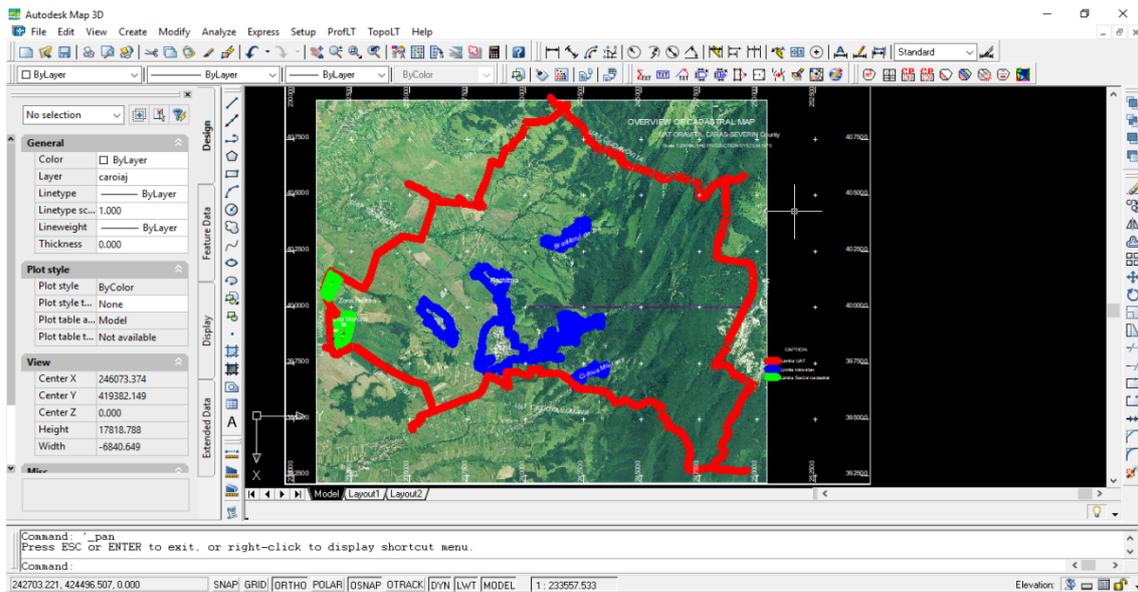


Figure 5. Cadastral plan for all Oravita AUT

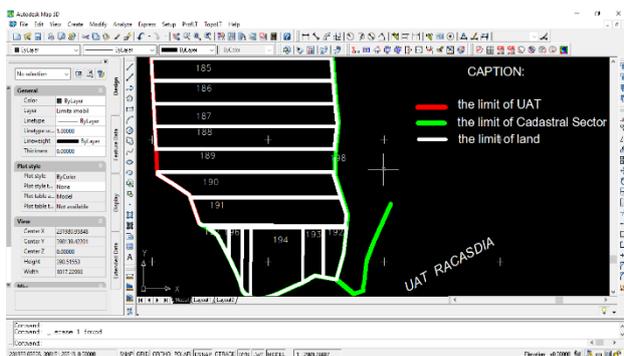


Figure 6. Cadastral plan for sector of the Oravita AUT

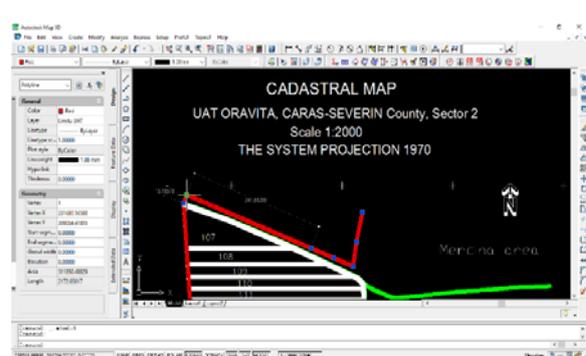


Figure 7. Cadastral plan for sector of the AUT

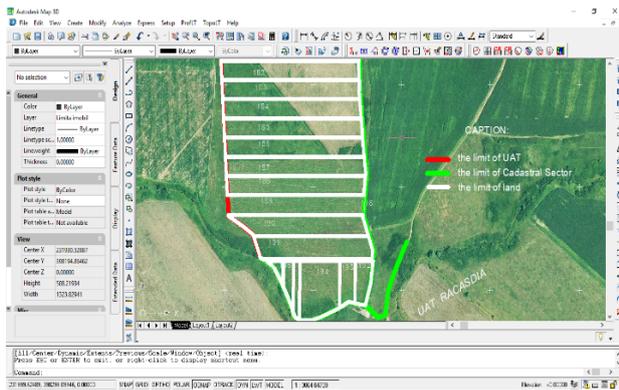


Figure 8. The limits of the parcels (AutoCAD)

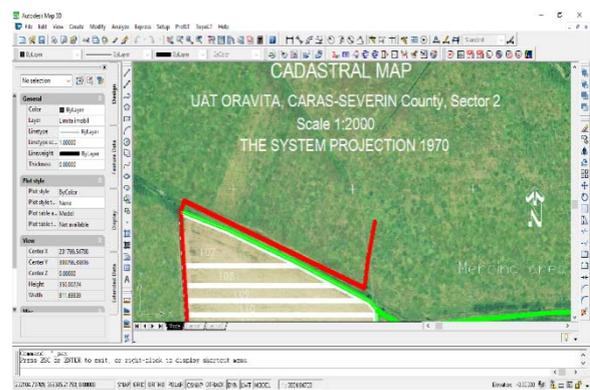


Figure 9. The caption of the map (AutoCAD)

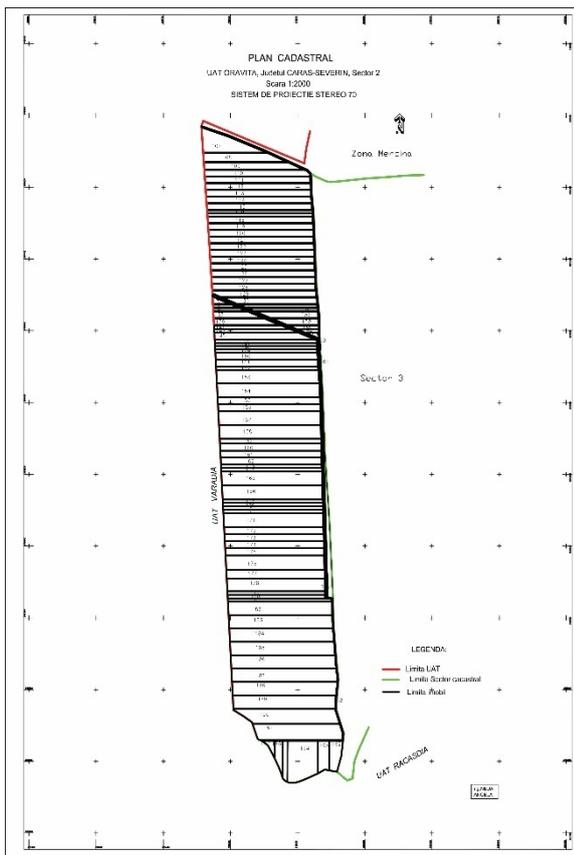


Figure 10. Cadastre map (Sector 2)

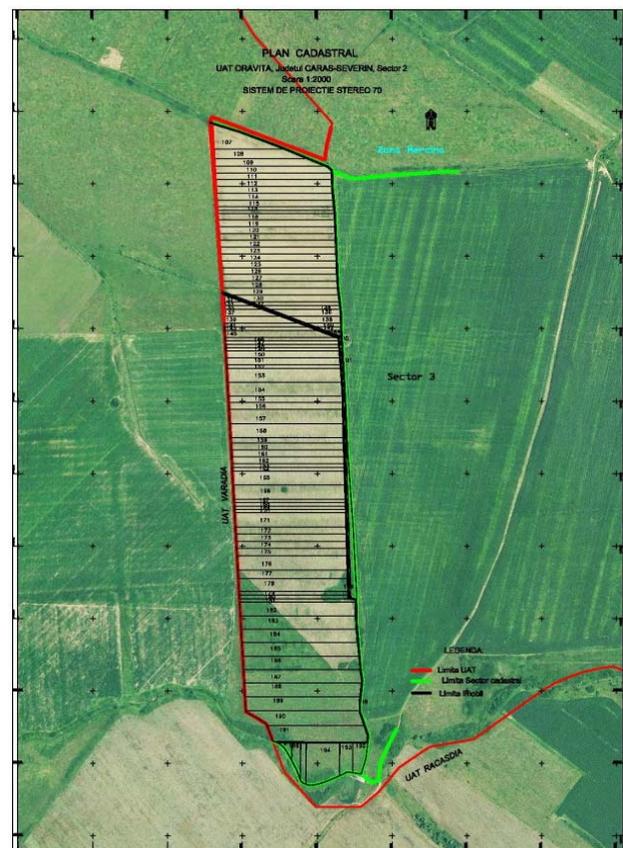


Figure 11. Cadastre map (Sector 2) with Orthophoto and helps accelerate the development of public or private investment.

CONCLUSIONS

The systematic property registration system has a major economic role in acquiring data on property ownership, use and value. The cadastre and real estate advertising system is evidence of real estate rights, thus providing economic, social and environmental benefits. The modern system of systematic registration uses information technology (IT) supported by a software platform. This national property management system reduces the cost of real estate transactions, provides real estate security

ACKNOWLEDGEMENTS

The authors thank the GEOMATICS RESEARCH LABORATORY and the GIS Scientific and Remote Sensing Student Circle from BUASMV "King Michael I of Romania" Timisoara for the facility to study the tree varieties collection for this research.

REFERENCES

- Herbei, M.V. 2015. GIS si Modelare cartografica, Universitas, p.151-160, Petroșani.
- Herbei, M.V., Sala, F., 2016 - Biomass prediction model in maize based on satellite images. In AIP Conference Proceedings, Vol. 1738, No. 1, 350009, AIP Publishing.
- Popescu A. C.,2015. Inregistrarea sistematica a imobilelor, Timisoara, Ed. Eurostampa, p. 44-47.
- Popescu A. C., Popescu G., 2016. Indrumator pentru elaborarea unui proiect de cadastru, Editura EUROBIT, p. 9-11.
- Racovicean M.,Doandș V., 2008. Noțiuni de cadastru și topografie necesare în evaluările imobiliare – Colecția PIFCA-AEF ed. Marineasa, ISBN 978-973-631-476-6 , p. 17-19.
- ***Ordinul nr. 534/2001 al ministrului administrației publice, privind aprobarea Normelor tehnice pentru introducerea cadastrului, modificat;
- ***Ordinul nr. 601/2008, al directorului general al A.N.C.P.I. privind aprobarea Protocolului-cadru de colaborare încheiat între Agenția Națională de Cadastru și Publicitate Imobiliară și unitățile administrativ-teritoriale pentru realizarea cadastrului;
- *** Ordinul nr. 844/2010, al directorului general al A.N.C.P.I., Ordin pentru aprobarea Regulamentului privind înscrierea din oficiu în cartea funciară după finalizarea lucrărilor de cadastru;
- *** Manual pentru „Procesul de înregistrare sistematică pentru proiectul pilot” – ANCPI – 2009;
- *** Ordinul 700/2014 modificat, pentru aprobarea Regulamentului privind conținutul și modul de întocmire a documentațiilor cadastrale în vederea înscrierii în cartea funciară
- *** Ordinul 979/2016 privind aprobarea Specificațiilor tehnice de realizare a lucrărilor sistematice de cadastru pe sectoare cadastrale în vederea înscrierii imobilelor în cartea funciară, finanțate de Agenția Națională de Cadastru și Publicitate Imobiliară
- *** O.U.G. nr. 35/28.06.2016 privind modificarea și completarea Legii cadastrului și a publicității imobiliare nr. 7/1996
- *** Ordinului Directorului General al ANCPI nr.819/28.07.2016” privind desfășurarea lucrărilor de înregistrare sistematică a imobilelor pe sectoare cadastrale (conform prevederilor oug nr. 35/2016).