TOPO - CADASTRAL WORKS PERFORMED FOR THE REGISTRATION IN THE INTEGRATED SYSTEM OF CADASTRE AND REAL ESTATE ADVERTISING OF THE REAL ESTATES FROM UAT JIDVEI, ALBA COUNTY

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ABSTRACT: *At this moment, in Romania it is desired the introduction of the general cadastre and with it, the completion of specialized cadastres.*

The objective of systematic cadastre is the registration into the Integrated cadastre and land book system of the real estates located outside towns, the works beeing initiated by the territorial administrative unit at the cadastral sector level.

The theme of this paper is to solve a topical problem in our country, namely: the registration in the Land Book of real estates from a cadastral sector located in the outskirts of UAT Jidvei, through the National Cadastre and Land Book Program (PNCCF).

The objective is based on the measurement and free registration of all real estates (land and building), in the integrated system of cadastre and real estate advertising.

Keywords: systematic cadastre; integrated cadastre and land book system;

Introduction

The objective of systematic cadastre is the registration into the Integrated cadastre and land book system of the real estates located outside towns, the works beeing initiated by the territorial administrative unit at the cadastral sector level [1].

According to the Order 533/2016 regarding the approval of the Technical Specifications for the systematic cadastral works, in order to enroll the real estate in to the Land book, the systematic cadastre refers to [1], [2]:

- identification, measurement, description and registration of the real estate in the technical documents of the cadastre, their representation on cadastral plans and the storage of data in digital format;
- identification of owners and other holders of real estate for registration in the Land book;

- public display of the results obtained after the execution of the systematic cadastre works, the correction of the errors reported by the owners and the opening of a new Land book.

At the end of the systematic cadastre works it will be prepared the technical documents of the cadastre: the cadastral register of the real estates, the alphabetical opis of the owners of the real rights of ownership, the owners and other holders and the cadastral plans [3].

Case study

The theme of this paper is to solve a topical problem in our country, namely: the registration in the Land Book of real estates from a cadastral sector located in the outskirts of UAT Jidvei, through the National Cadastre and Land Book Program (PNCCF).

The cadastral sector taken into consideration is situated in UAT Jidvei, Alba county, is composed of five cadastral sectors, it includes 776 real estates and has an area of 347,3131 ha (figure 1).

1. **The collection and integration of datas** - To accomplish this paper, we had at our disposal the data provided by OCPI and by the Local Authority (City Hall), namely: the boundaries of the territorial

Fig. 1. The geographical location of UAT Jidvei

The objective is based on the measurement and free registration of all real estates (land and building), in the integrated system of cadastre and real estate advertising.

The general flow of systematic cadastre works is illustrated in figure 2.

administrative unit and of the intravilans that compose it, orthophotoplans, cadastral plans (scale 1: 10000), parcel's plans in analog format, the legalized property titles, the location and delimitation plans (PADs) in analog format, data from the National Geodetic Network, agricultural register in
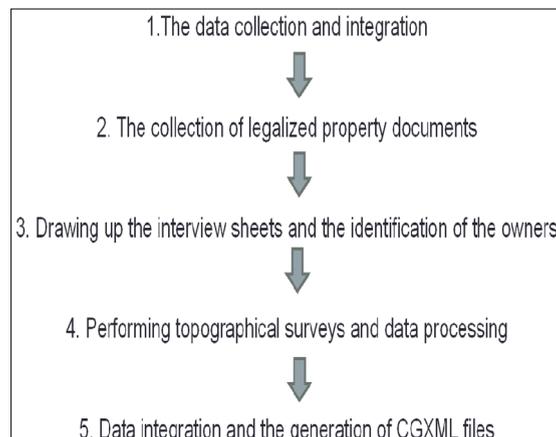

Fig. 2. The general flow of systematic cadastre

*.jpg format, public/private domain inventory in *.pdf multipage files, containing the list of public/private domain inventory/land book extracts (CF extract), the street nomenclature - *.tif files, other types of data: general urban plans and zonal urban plans (PUGs and PUZs) - *.xls and *.tif files.

The data presented above has been analyzed and it has been created a preliminary database to start the activities specific to this paper (figure 3).

recourse to joining the points based on the codes used in the field and the sketch received from the City Hall (figure 6).

Based on the ownership sketch was done the parcelingof the cadastral sector, using "Multiple detachment" command of the TopoLT application. To each parcel it was assigned an ID (electronic identifier), unique for each parcel from the cadastral sector (figure 7)

4. The cadastral registry of the real estates - The cadastral registry of the real

Nume proprietar	Nr. parcela	Suprafata(mp)	Nr. TP	Cat. Folosinta	OBS
		788/*			
Matei Maria si restul	788_1	8000	11387_1560	N	
Paicu Petru	788_2	3500	11385_1384	N	
Bucur Leon	788_3	2300	9290_1184	N	
Opricean Onut	788_4	5300	11387_1536	N	
Bogai Susana	788_5	8000	11385_1325	N	
Lenghel Samoila	788_6	8000	11385_1323	N	
Ganea Anghel	788_7	6200	11379_1234	N	
Ciurar Genoveva	788_8	8000	11386_1467	N	
Manta Ana si restul	788_9	7000	11387_1545	N	
Ganea David	788_10	3500	11379_1225	N	
Toth Istvan	788_11	6000	11385_1369	N	
Drujut Teodor	788_12	6000	11386_1456	N	
Manta Maria	788_13	3500	11385_1307	N	
Singerean Rusalin	788_14	8300	11385_1339	N	
Toma Gheorghe	788_15	4000	11385_1373	N	
Otvos Ioan	788_16	4000	11385_1378	N	
Moldovan Anica	788_17	5000	11386_1460	N	
Teutsch Sara	788_18	5000	11386_1458	N	
Opricean Ioan	788_19	6000	11387_1559	N	
Opricean Ioan	788_20	10000	11387_1540	N	

Fig. 3. The Excel database afferent to real estates from UAT Jidvei

2. Performing topographical survey – the topographical survey were performed using the GPS system Leica 900 and the total station Leica TCR 407 (figure 4).

3. The processing of the topographical surveys - The processing of the topographical surveys was done using the programTopoSys, version 7.0 (figure 5).

After the processing of the topographical surveys were obtained the point's coordinates.

In order to achieve the contour of the measured objective, the coordinates of the points were imported into the AutoCAD with the help of the TopoLT program, then

estates (figure 8) is drawn up on cadastral sectors and includes data related to: description of the real estates, data about the land, data about construction, property/possession, dismemberments of the property right, data about notaries/ processes/ prohibitions.

5. The data sheet of the real estate - The data sheet of the real estate (figure 9) includes data about the real estate and about the owner, namely: the UAT, the cadastral sector, the ID, the parcel number, the name and surname of the owner, the statement with the consent of the owner, the ownership/possession act.

```
1 Lucrare: JIDVEI
1 Data: 18/ 9/2018
1 Operator: Maria
1 Prisma: TC407
1 Instrument: 855170
1 Zona: --------
1 Comentariu:
2 INTR. VALORI                m   1.000000 th        1.65 ih    1.462
2 INTR. VALORI (T/P AUTOM.)   T_       12 P          1013 A     0.000
2 B4
2 MASURARE/E-HZ-V/
3 B3              ------- D     120.355 Hz    92.3109 V1 96.1761
4 A               ------- D     442.393 Hz   309.4506 V1 98.9585
2 INTR. VALORI                m   1.000000 th        1.62  ih   1.462
2 INTR. VALORI (T/P AUTOM.)   T_       12 P          1013  A    0.000
5 A
2 MASURARE/E-HZ-V/
6 B4              ------- D     442.393 Hz   109.4939 V1 98.9222
7 B               ------- D     132.425 Hz   250.2213 V1 99.0604
8 101             ------- D     356.908 Hz   323.0700 V1 98.4757
9 102             ------- D     352.429 Hz   321.2081 V1 97.5996
10 103            ------- D     348.252 Hz   319.2445 V1 99.3405
11 104            ------- D     345.138 Hz   317.6323 V1 98.6232
11 105            ------- D     342.236 Hz   315.9840 V1 96.1824
11 106            ------- D     336.931 Hz   312.4531 V1 100.2579
11 107            ------- D     334.986 Hz   310.9130 V1 101.2478
11 108            ------- D     332.084 Hz   308.1980 V1 99.5489
11 109            ------- D     329.775 Hz   305.4116 V1 96.2347
11 110            ------- D     328.717 Hz   303.7605 V1 103.2489
11 111            ------- D     327.268 Hz   300.4208 V1 99.4136
12 INTR. VALORI               m   1.000000 th        1.67 ih    1.350
12 INTR. VALORI (T/P AUTOM.)  T_       12 P          1013 A     0.000
12 B
12 MASURARE/E-HZ-V/
13 A              ------- D     132.425 Hz    50.1781 V1 96.1453
14 C              ------- D     230.298 Hz   273.3653 V1 97.1110
15 112            ------- D     244.314 Hz   320.0171 V1 100.2436
16 113            ------- D     239.261 Hz   316.2140 V1 96.2147
17 114            ------- D     234.063 Hz   311.0909 V1 97.0136
18 115            ------- D     230.427 Hz   305.7393 V1 100.9686
20 INTR. VALORI               m   1.000000 th        1.68 ih    1.350
20 INTR. VALORI (T/P AUTOM.)  T_       12 P          1013 A
```
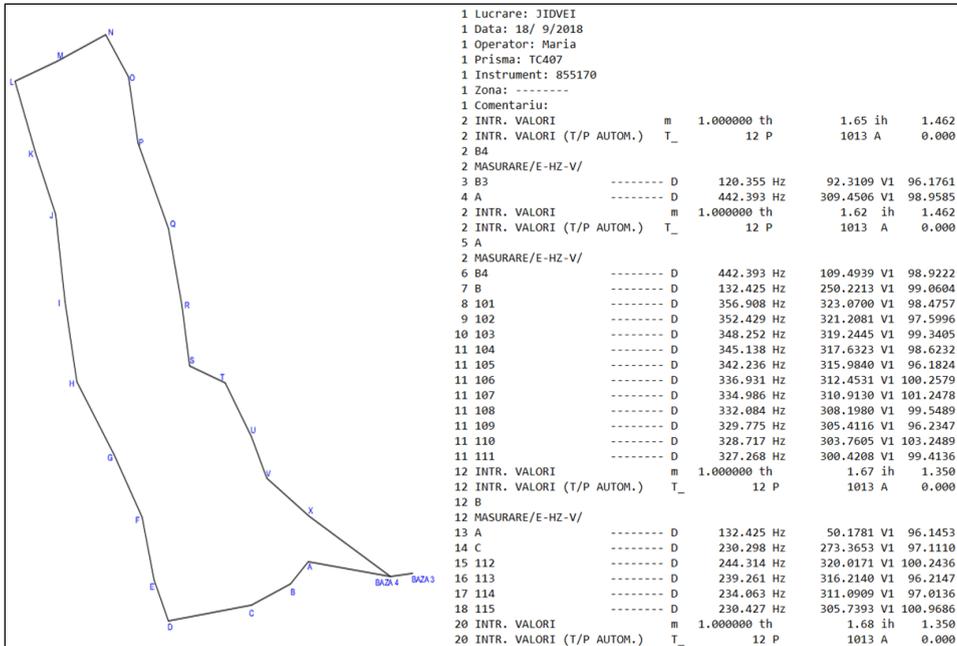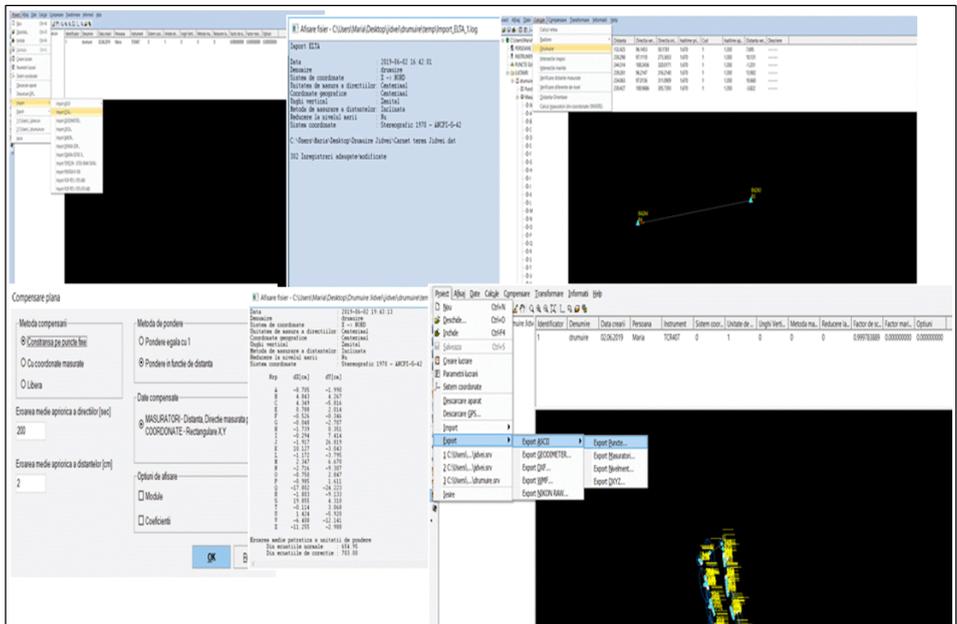
Fig. 4. Performing topographical survey

Fig. 5. The processing of the topographical surveys with TopoSys

Fig. 6. The imports of the points coordinates and the representation
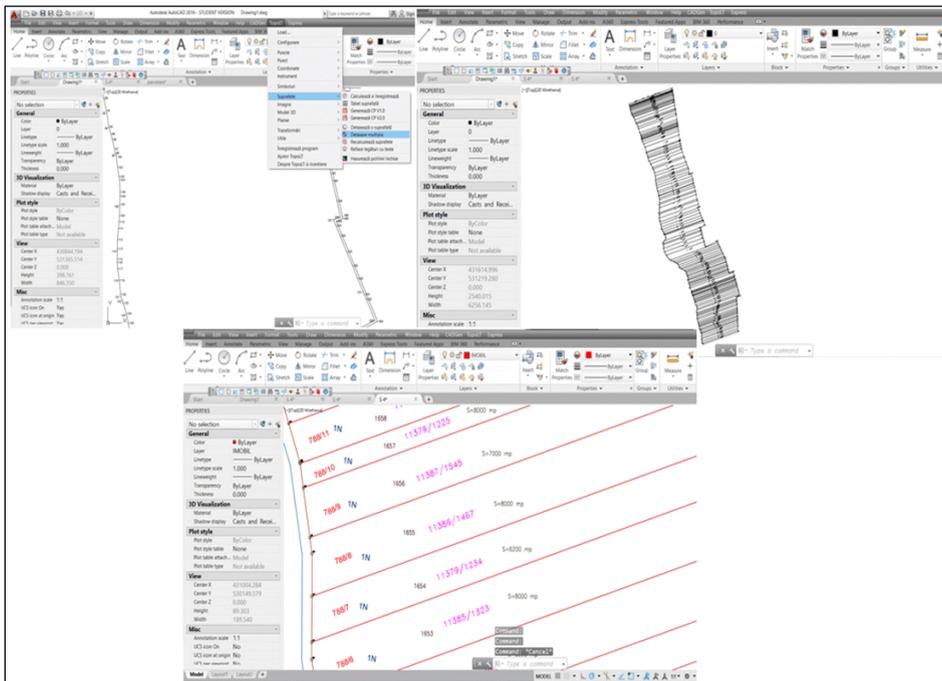of the measured objective

Fig. 7. The parceling of the cadastral sector and the numbering of the resulting parcels

UAT: Jidvei

Zona cooperativizată/necooperativizată: Co

Sector cadastral nr.: 4

1. DESCRIEREA IMOBILULUI

DATE TEREN										DATE CONSTRUCȚII					
Identificator teren	Adresă imobil	Număr cadastral	Nr. CF	Suprafața măsurată	Intravilan/ Extravilan (I/E)	Nr. top.	Nr. tarla	Nr. parcelă	Categorie folosință	Identificator construcție	Cod grupă destinație	Suprafață construită	Nr. niveluri	Nr. CF	Constr. cu acte (DA/NU)
1721	Jud. ALBA, Com. Jidvei, Loc. Jidvei			20300	E			788/74	N						

2. PROPRIETATEA / POSESIA

Titularul dreptului/posesiei				Data nașterii/ CUI	Domiciliu/ Sediu	Cotă parte	Identificator entitate asociată	Cotă parte teren	Mod de dobândire	Act juridic			Obs. privitoare la proprietar
Nume/ Denumire	Inițiala tatălui	Prenume								Tip act	Nr. act/ data	Emitent	
TRIF	M.	MARIA		9999999999 999	Jud. ALBA, Com. Jidvei, Loc. Jidvei	1/1		TEREN	Reconstitui re	Act administrativ	11385/1341 / 05.05.2000	CJSDPAT ALBA	

3. SARCINI / DEZMEMBRĂMINTE

Titular				Data nașterii/ CUI	Domiciliu/ Sediu	Tipul sarcinii sau al dezmembrămintelor dreptului de proprietate	Cotă parte	Identificator entitate asociată	Act juridic			Valoare ipotecă	Tip monedă
Nume/ Denumire	Inițiala tatălui	Prenume							Tip act	Nr. act/ data	Emitent		

4. NOTĂRI, PROCESE, INTERDICȚII

5. OBSERVAȚII

Tipul notării	Tip act	Nr. act/ data	Emitent	Identificator entitate asociată	Imobil împrejmuit/ neîmprejmuit	Imobil contestat / necontestat	Alte observații
					N		

Fig. 8. The cadastral registry of the real estates

FIȘA DE DATE A IMOBILULUI

1721

UAT: Jidvei

Sector cadastral nr.: 4

ID Imobil: 1721

Adresa imobilului: Jud. ALBA, Com. Jidvei, Loc. Jidvei

Tarla:

Parcela: 788/74

1. DATE TEREN

Suprafața măsurată(mp)	Nr. CF	Nr. cad/ Nr. top	Împrejmuit/ Neîmprejmuit (Î/N)	Zona cooperativizată/ necooperativizată (Co/NCo)
20300			N	Co

Observații:

2. DATE CONSTRUCȚII PERMANENTE

Identificator construcție	Cod grupă destinație	Număr niveluri	Constr. cu acte (DA/NU)	Construcție condominiu (DA/NU)	Nr. bloc	Nr. total UI	Suprafață construită măsurată

Părțile comune:

Observații:

3. PROPRIETATEA / POSESIA

Nr. Crt.	Nume si prenume deținător/ Denumire persoană juridică	Adresă proprietar	CNP / CUI	Nr. act de proprietate/posesie	Observații
1	TRIF M. MARIA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	9999999999999	11385/1341/05-05-2000	

Fig. 9. The data sheet of the real estate

6. The alphabetical index of the owners
– The alphabetical index of the owners (figure 10) includes data related to: the name and surname of the owner, the date of birth/CUI, the ID of the real estate, the number of the cadastral sector, the address of

- constructions/ individual units;
- registration in the land book.

For the purpose of pre-validation of the input data, program creators added a special command to view the land book extract after completing the fields (figure 12).

Județul: ALBA
UAT: Jidvei

Nr. Crt.	Nume/ denumire deținător	Adresă proprietar	Data nașterii / CUI	Identificator	Plansa	Sector cadastral	Adresa imobilului	Suprafața în proprietate	Suprafața în posesie	Observații deținător
1	BARB I. AURELIA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1695		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	5700	-	Lipsa CNP;
2	BARB I. LUCRETIA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1695		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	5700	-	Lipsa CNP;
3	BARB I. LUCRETIA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1742		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	8400	-	Lipsa CNP;
4	BARB I. MARIA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1695		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	5700	-	Lipsa CNP;
5	BARB I. MARIA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1742		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	8400	-	Lipsa CNP;
6	BARB I. PETRU	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1695		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	5700	-	Lipsa CNP;
7	BARB I. PETRU	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1742		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	8400	-	Lipsa CNP;
8	BARTOS I. VICTORIA	Jud. ALBA, Com. Jidvei, Loc. Jidvei		1736		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	6300	-	Lipsa CNP;
9	BILEA I. VERONICA	Jud. ALBA, Com. Jidvei, Loc. Jidvei		1704		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	6000	-	Lipsa CNP;
10	BILEA V. VERONICA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1788		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	1200	-	Lipsa CNP;
11	BOAR N. FIRUTA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1677		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	10000	-	Lipsa CNP;
12	BOGAI I. SUSANA	Jud. ALBA, Com. Jidvei, Loc. Jidvei	-	1652		4	Jud. ALBA, Com. Jidvei, Loc. Jidvei	8000	-	Lipsa CNP;

Fig. 10. The alphabetical index of the owners

the real estate, the area of the real estate, notifications.

7. The integration of data and the generation of the CGXML file - The "Generating CGXML" is an application developed specifically for the management of Systematic Cadastre data according to the requirements of the National Agency for Cadastre and Real Estate Advertising. To integrate data and generate CGXML files, data gathered from owners were entered into the CGXML application (figure 11). The insertion of alphanumeric data has been done in specialized cells for:
- general data relating to the real estates;
- general data relating to the parcels;

Conclusion

The purpose of this paper was to solve a topical problem in our country, namely: the registration in the Land Book of real estates from a cadastral sector located in the outskirts of UAT Jidvei, through the National Cadastre and Land Book Program (PNCCF).

For the introduction of systematic cadastre in the territorial administrative unit Jidvei, Alba County were passed the following steps:
- The collection and integration of datas:
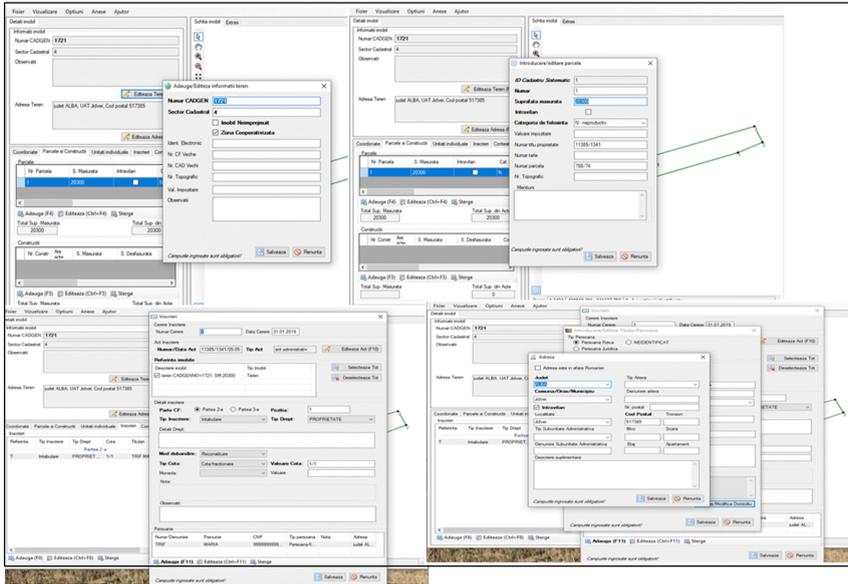- Performing topographical surveys

Fig. 11 Generating the CGXML files

Fig. 12 Land book extract

- The processing of the topographical surveys
- Drawing up the final documents of the systematic cadastre (the cadastral register of the real estates, the alphabetical index of the owners of the real rights, the cadastral plans and the CGXML files).

Based the final documents of systematic cadastre was made the registration in the integrated system of cadastre and real estate advertising of the real estates.

References

1. ***, *Ordinul nr. 533/2016 privind aprobarea Specificaţiilor tehnice de realizare a lucrărilor sistematice de cadastru în vederea înscrierii imobilelor în cartea funciară*;
2. ***, *Ordinul nr. 979/05.08.2016 Specificaţii tehnice de realizare a lucrărilor sistematice de cadastru pe sectoare cadastrale în vederea înscrierii imobilelor în cartea funciară* finanţate de Agenţia Naţională de Cadastru şi Publicitate Imobiliară;
3. ***, *Ordinul nr. 700/09.07.2014 al Directorului General al ANCPI privind aprobarea Regulamentului de avizare, receptie şi înscriere în evidenţele de cadastru şi carte funciară* cu modificările şi completările ulterioare;
4. ***, *Legea cadastrului şi a publicităţii imobiliare* nr. 7/1996 cu modificările şi completările ulterioare;
5. http://www.ancpi.ro/pnccf/documente/ghid-utilizare-generare-cg.pdf.