

THE IMPORTANCE OF TOPOGRAPHIC WORKS IN THE ELABORATION OF A GENERAL URBAN PLAN

*Ioan IENCIU, Prof. PhD. Habil. Eng., „1 Decembrie 1918” University of Alba Iulia,
Politehnica University of Timișoara, Romania, ienciu@yahoo.com*

Abstract: *Along with the development of cities and communes, the problem of corroborating the expansion and exploitation of land was introduced, simultaneously with that of land development. Thus, through technical regulations, a unitary assurance of the framework for the development of the General Urban Plan at the level of urban and rural localities was established, both for intra-village areas and for extra-village lands.*

The possession of General Urban Plans approved under the law is mandatory for all urban and rural localities in the country and is absolutely necessary in case of investments of interest or public utility major such as: modernization of road infrastructure, expansion of the urban area and water infrastructure, sewerage and natural gas, etc.

Keywords: *topographic works; General Urban Plan; urban reglementation; locality; territorial limits; intra-village areas*

1. Introduction

According to the provisions of Article 46 (3) letter g) of Law 350/2001, The General Urban Plan contains medium and long-term provisions on the delimitation of areas where urban regeneration operations are envisaged. These areas will be delimited by cadastral boundaries and will include functionally homogeneous areas that require the implementation of integrated operations, characterized by one or more of the following situations:

- central areas;
- historical areas;
- protected built-up areas;
- areas of large housing ensembles;
- areas inhabited by disadvantaged communities, including informal settlements;
- functional reconversion areas;
- national inters areas;
- decommissioned industrial sites;
- military sites decommissioned;
- sites with major decommissioned infrastructures.

The General Urban Plans aim to increase the quality of life, especially in the field of housing and services, and is the first set of rules to be followed when developing any building or real estate development project.

Among the main objectives regarding the elaboration of a General Urban Plan can be listed:

- establishing the arrangement and urban development of the component localities of the territorial administrative unit;
- rational use of land;
- identification of areas subject to natural risks;
- identification of the built-up fund with special value;

- substantiation of public utility investment;
- providing legal support for urbanism and construction activities.

2. Materials and methods

Developing a quality General Urban Plan requires effective training and collaboration from all experts involved in the project and requires:

- correlation of regulations with provisions resulting from spatial plans;
- drafting the graphic documents based on the updated cadastral support;
- documentation at the field stage in consultation with the digital database related to the works;
- integrated multicriterial analysis by means of a multidisciplinary team;
- proposals for the arrangement and development of the localities to be consistent with the projects initiated and approved by the local council;
- effective cooperation between the beneficiary, the executor and the territorial organisations concerned.

The topographic component that constitutes the starting point in the elaboration of the General Urban Plan contains:

- orthophotoplans at scale 1:5000;
- the limit of the intra-village areas, respectively of the intra-village areas of all component localities;
- the limit of the proposed extension of intra-village areas;
- limit of territorial administrative unit;
- land use categories.

Among the categories of issues that are addressed in the development of the General Urban Plan can be listed:

- the relationship between the component localities within the administrative territory and within the county;
- harnessing the natural, economic and human potential;
- establishment and delineation of the component intra-village areas;
- establishing and delineating built and buildable areas;
- establishment and delimitation of areas with temporary and permanent restrictions and prohibitions on construction;
- proposals for the development of transport infrastructure;
- establishment and delimitation of protected areas;
- establishment and highlighting of landowners.

In order to develop a General Urban Plan, topographic support is a component part without which it cannot complete the project. Together with the expert in the field of urbanism and the one in the field of environmental protection, the topography expert draws up most of the field works within the project.

3. Results and discussions

In solving many problems of the real world, topographic measurements have an important role, due to the advanced possibilities of representation of the terrestrial surfaces on planes and maps, in a relatively short time and with high precision, thus facilitating easier development of various projects in related fields.

In order to emphasize the importance of topographic works in the elaboration of the General Urban Plan, the commune of Vătava in Mureş County was chosen. The case study

focused mainly on the execution of a complex of topographic works performed within all the urban areas of the commune of Vătava.



Fig. 1 Vătava Commune - neighbors and villages

(<https://geoportal.ancpi.ro/portal/apps/webappviewer/index.html?id=faeba2d173374445b1f13512bd477bb2>)

In the process of performing the topographic works and performing the measurements, several stages were completed, namely:

- documentation on the study area;
- recognition of the land;
- study of existing plans and maps;
- establishing the territorial limit of the new intravilans;
- performing topographic measurements on the field and drawing the points delimiting the extension of the intravilan;
- processing of topographic measurements;
- drawing up topographic plans;
- preparation and submission of the dossier for approval at the Office of Cadastre and Real Estate Advertising.

The basis for the completion of this objective is the measurement, research and obtaining of information, their processing and representation, using an appropriate equipment and submitting the cadastral documentation to Office of Cadastre and Real Estate Advertising, in order to obtain the necessary approvals for the elaboration of the General Urban Plan of the commune of Vătava.

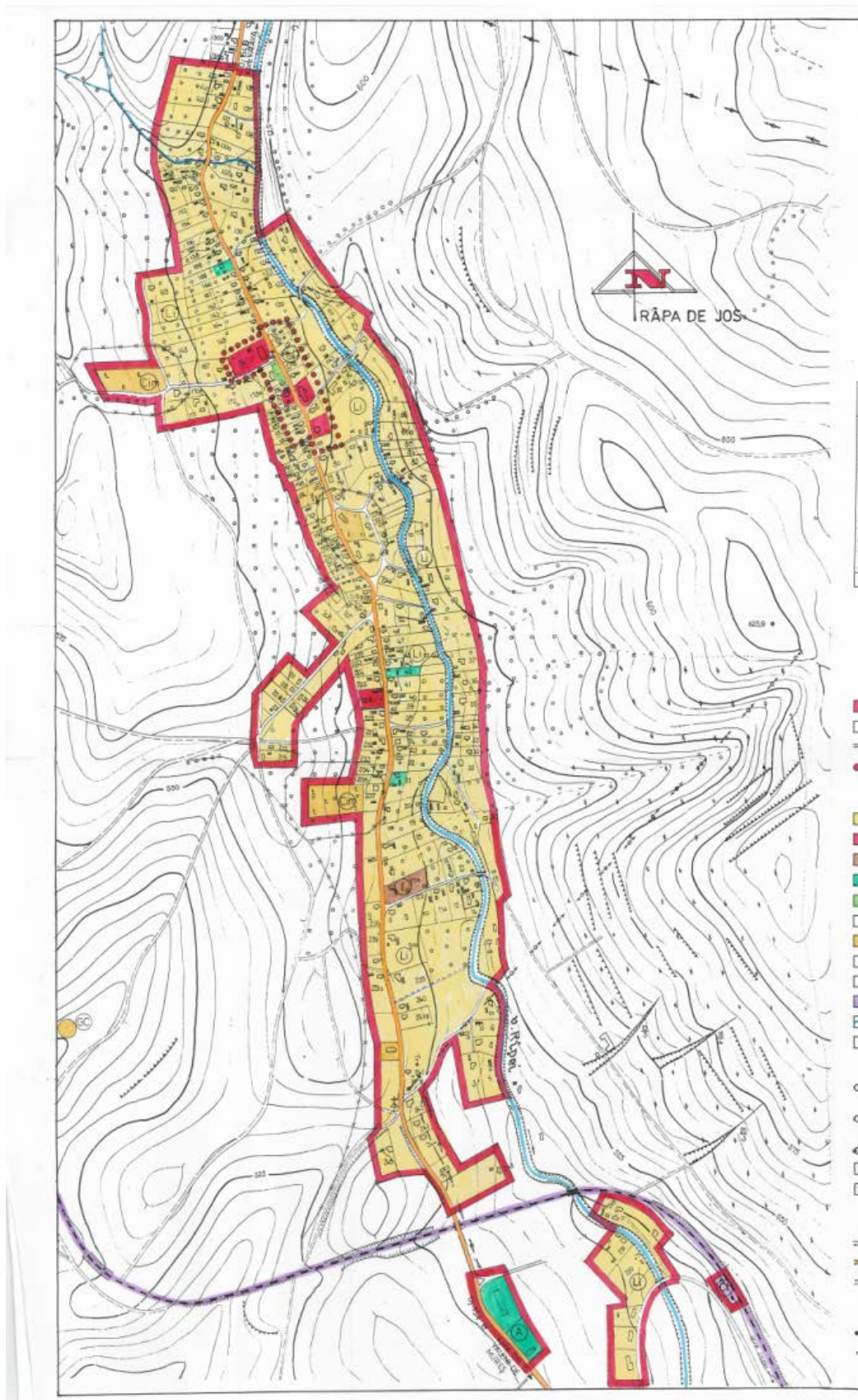


Fig. 2 General Urban Plan existing before the extension of the intra-village areas of Râpa de Jos village, commune of Vătava (source: Town Hall of Vătava)

The elaboration of the new General Urban Plan was necessary due to the fact that the area where the commune is located is in a continuous development from a tourist point of view, the number of chalets in the area and tourists increasing from year to year, due to the superior valorization of the relief and landscapes in the neighboring area.

Thus, the extension of the town hall attracts new investors in the area, which led to the development of the commune by building new buildings for tourists and residents.

4. Conclusions

Starting from the need to develop and promote the tourism area of the Vătava, the need to elaborate the General Urban Plan of the commune. In this paper, it was aimed to highlight the important role that topographic measurements have in relation to other areas that compete in the realization of a large scale urban documentation.

The elaborated topographic documentation highlights the need to integrate it into the General Urban Plan due to the following problems it solves:

- cadastral evidence regarding the buildings in the intravilan or extravilan;
- precise positioning of buildings within the graphical representation of the General Urban Plan;
- planning the following development projects and the cadastral identification with high precision of the proposed sites;
- knowledge of the exact limits of the intravilans;
- topographic and cadastral identification of the areas of extension of the intravilanelor component localities;
- attracting new investors in the area by facilitating the identification of available land in terms of location and their legal situation.

Within the development of a locality, the General Urban Plan must be updated in accordance with the legal provisions, but also when the community requests this, so that, these documents should not be an impediment in the harmonious development of localities.

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