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***Possibility to transform a housing complex
built in industrialized technology in the context of
the Local Spatial Development Plan
on the example of the Władysława Łokietka Estate in Wolbrom***

Introduction

The first, more extensive work on standardization and prefabrication of selected elements of residential buildings was carried out in Europe in the 1920s. However, it was only in the post-war period that the experiments were replaced with system production, the aim of which was to restore the housing stock destroyed during World War II and to enlarge it in the face of the increasing influx of people to cities. In Poland, industrialized technologies were introduced on a larger scale in the 1960s, and a decade later, the “large panel” (LPS) completely dominated housing. Mass housing estates consisting of large-panel blocks were built not only on the outskirts, but also in city centers, where they determine their shape to this day. The use of industrialized technologies in construction actually accelerated the “production” of apartments – while in the first post-war decade in Poland, less than 90 thousand apartments were put into use for residential premises, already in 1965 – 170 thousand, and in the record year 1978 – 283.6 thousand [1].

The estates were built according to projects based on norms that regulated the dimensions of buildings, the size of flats, but also the orientation of buildings, forms of communication services and provision of services. The application of norms led to the creation of many very similar layouts, devoid of individual features, although it is worth noting that in the 1970s, attempts were made to create “regional” models of “large panel” or to differentiate the architecture of apartment blocks, for example by means of individually designed balconies. However, this does not

change the fact that large-panel housing estates are perceived as monotonous and repetitive [2]. Another problem of such layouts is their mono-functionality with the dominant housing program, neglected inter-block spaces, as well as the general low quality of workmanship resulting from the rush of building construction.

When observing the transformations of large-panel housing complexes in Poland, two directions of changes can be noticed. The first is the transformation of buildings, usually limited to thermal modernization, changes in façade colors, improvement of possible technical equipment of buildings, as well as modernization of the external space of the estate. In the last scope, the changes mainly boil down to the replacement of paved surfaces, small architecture or changes in the management of arranged greenery.

Another direction are transformations in the structure of housing estates by introducing new development buildings. This phenomenon can be observed inside housing estates, in places previously designated for green areas, in the immediate vicinity of existing premises, as a new form of large-scale or chaotic architectural intervention contributing to breaking the continuity of public space [3]. On the example of housing estates in Krakow, trends were observed to add buildings or clusters of buildings within the design, as well as on their outskirts, leading to the shifting of their boundaries. The threat of degradation for urban systems and their main potential – green areas was indicated [4].

In terms of inhibiting unfavorable changes and facilitating the improvement of the quality of the housing environment, an important role is played by the city’s spatial policy, including the act of local law, which is the Local Spatial Development Plan (Pol. mpzp), or Zoning Plan. The example of Wrocław shows the benefits of introduc-

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ing plans to regulate permissible transformations in housing estates. While most of the estates were not subject to local plans, there were initiatives of housing cooperatives and developers aimed at “densifying” the complexes with new housing developments. The city then proceeded to prepare the so-called “dam” plans, which were intended to protect the spatial arrangement of the housing estates against too much interference.

An example of the application of a plan regulating permissible changes is the Kosmonautów housing estate, where its large undeveloped space, constituting a continuation of the shopping arcade filling the space between the blocks, was of interest to the developer. The Wrocław Development Office started to draw up a local plan in order to maintain the continuity of the commercial axis of the estate. Thanks to this, an investment referring to the original design assumptions from the 1970s was completed, which envisaged the continuation of the passage [5]. This shows that local plans may define an acceptable method of interfering with the existing buildings, as well as introduce provisions prohibiting the performance of certain activities that may adversely affect the composition of the estate.

In the context of the above possible changes, the aim of the article is to present a research tool, and then to analyze the local plan in terms of transformations of a selected, built in prefabricated technology, housing estate from the 2nd half of the 20th century. Observation methods were used in the study, including a site visit, and analysis of planning documents and maps available on the Internet. The main criterion for selecting the material to create the research tool were housing estates in which no significant transformations had been introduced yet, apart from the thermal modernization of façade fragments. A housing estate with a large amount of open areas was selected for a detailed analysis. It was necessary to analyze whether the provisions of the plan did not allow the deterioration of the quality of the housing environment in this area.

Prefabricated housing estates have been the subject of many scientific studies. Even in the period of their glory, many publications on the subject of modernization were published in Poland, but the greatest increase in scientific research on the improvement of the housing environment is noted in the 1st and 2nd decade of the 21st century.

One of the first significant publications from the beginning of the 21st century, dealing with the spatial and construction aspect of the modernization of housing estates, is the study by Jan M. Chmielewski and Małgorzata Mirecka from 2001, in which the authors provide possible ways of modernizing housing estates [6]. The background for their research are European examples, incl. from Germany and France. The aspect of the transformation of public spaces in German housing estates was discussed in the 2005 doctoral dissertation by Gabriela Rembarz [7]. In the same year, a work was published which was an invaluable source of knowledge in the field of housing, revitalization, planning and social policy, prepared by an international team of experts edited by Ronald van Kempen, Karien Dekker, Steven Hall and Ivan Tosics [8].

Barbara E. Gronostajska also discusses the subject of transformations of housing estates. In her book from 2007 [9],

the author gave the directions of modernization in order to improve the life of the inhabitants on the examples of Wrocław housing estates. Also in 2007, a publication was issued on modernization of residential buildings through minor interference in the structure of the building and adding new spaces to existing facilities [10]. A year later, Adam Zwoliński [11] defended his doctoral thesis, the aim of which was to create a tool to help in revitalization activities called WPD – Pattern of Deformation Parameters. A valuable publication from 2009, dealing with the aspect of changes in the spatial structure of housing estates, is the volume of the Intercollegiate Scientific Journals “Urbanistyka” edited by Sławomir Gzell, Gabriela Rembarz and Krystyna Gruszecka [12]. In 2012, the Cracow University of Technology published a study edited by Mateusz Gyurkovich [13], constituting a collection of scientific texts devoted to the problems of housing estates. Another Polish publication is a monograph by Beata Komar from 2014 [14] which deals with the issue of housing estates from the ecological, economic and socio-cultural point of view. In the context of the discussed issues, the problem of the impact of spatial planning documents on the creation of urban space was analyzed by Wojciech Korbel in an article from 2014 [15]. The aspect of continuity in housing estates built in industrialized technology was investigated by Eliza Szczerek in her doctoral dissertation [16].

In addition to the above-mentioned publications, many scientific articles were written on the subject of housing estates from the 2nd half of the 20th century. When analyzing the state of research, one can notice a modest number of works on the subject of transformations of housing estates in the context of local plans.

Contemporary trends in transformations of housing complexes based on European examples

There are many good practices for the modernization of housing complexes built in industrial technology carried out on a large scale in European countries. One of the leading countries in this field is France, where in the years 1948–1968 over a million flats were built, the so-called HLM (Habitation à loyer modéré). In order to curb the degradation of large estates, many programs have been created to improve the housing situation, such as OPAH (Opérations Programmées d’Amélioration de l’Habitat), through which around 1.5 million apartments have been modernized. Other programs include PAH (Prime à l’Amélioration de l’Habitat), which provides financial support for low-income apartment owners, and PALULOS (Prime d’Accession à un Logement à Usage Locatif d’Oeuvre Sociale). These are funds allocated to financing the rehabilitation of housing estates owned by HLM societies [17].

French architects are very successful in their modernization efforts. The 2021 Pritzker Prize went to designers specializing in estate conversion, namely Anne Lacaton and Jean-Philippe Vassal. Their activities are not limited to improving the technical parameters of buildings – it is important for them to improve the quality of the housing environment. The architects mentioned above are against demolition in their work. They believe that there is great

potential in the architecture of post-war housing estates built in prefabricated technology. In their designs, they plan the further life of the existing building, minimizing the nuisance occurring during construction works. They adopt the principle of adding a new space to the apartments, which can be freely programmed by the residents [10].

One of the most famous projects by Lacaton & Vassal is the renovation of the Grand Parc estate in the north of Bordeaux (completed in 2017), developed together with Frédéric Druot and Christoph Hutin. Initially, the existing complex was to be demolished. The quality of housing, energy management issues, positive social impact and lower construction costs spoke in favor of modernization. As part of this project, 530 apartments were modernized and 8 new ones were built in buildings with 11 and 16 floors. Self-supporting precast concrete structures were built along the main façades, extending each level by 3.8 m (2.8 m winter garden and 1 m balcony). The existing windows were transformed into a sliding porte-fênêtre, thanks to which the existing façade of the building became an internal wall. Unheated conservatories were closed with sliding polycarbonate and glass “curtains”. Additional space was enlarged with balconies. New elements of the building make it possible to live outside “home”. As part of the investment, bathrooms, toilets and installations were also modernized, halls were rebuilt and new elevators were added. Moreover, the space between the buildings was restored [18].

Another contemporary example of positive intervention in an existing housing estate is the revitalization of a section of the Génicart neighborhood in Lormont, which was designed by LAN Architecture and completed in 2015. The site covers 10% of the Lormont municipality and is the largest estate on the right bank of the Gironde. It consists mainly of social housing, is inhabited by around 10,500 people and 50% of the city’s population. The project involved the revitalization of six five-story residential buildings and three 19-story “Saint Hilaire Towers” residential towers and their surroundings. As part of the investment, the area at the foot of the facilities was transformed into a city park, limiting vehicle traffic. The car parks are concentrated on the outskirts of the estate, and a network of landmarks and meeting places has been established between the individual estates. New retaining walls and playgrounds were designed, and the area was diversified. Until now, space treated as nobody’s was defined as public and private. The central point of the estate are three residential towers, in which the space of individual apartments has been enlarged. The elevations were designed, thanks to which the depth of the loggia was increased from 93 cm to 160 cm. They are an extension of the interior of the apartment. Lower buildings were also modernized, giving residents the opportunity to generate more space from the existing loggias. In the very center of the estate, a new sculptural playground has been designed, which is a space for interaction between young residents [19].

Reconstruction of large-panel housing estates was also carried out on a large scale in Germany. As part of the modernization activities, large housing estates in Berlin were rebuilt, among others Grupiusstadt, Markisches Viertel and Thermometersiedlung [9].

Major changes were introduced in the 1st decade of the 21st century in the housing estate in Leinefelde. The modernization concept was developed in the studio of the German architect Stefan Forster. A total of seven residential buildings were rebuilt there. Some of them were lowered, new windows were introduced and their colors were changed to more vivid ones. Thermal and acoustic parameters of partitions were also improved. The greatest interference concerned the building at Stadtviellen 7–8. Originally it was 180 m long. As part of the reconstruction, a part of the block was demolished, creating eight smaller, independent point objects, whose proportions better corresponded to the human scale. There are gardens for residents next to the building, which enlarged the private zone. Stefan Forster also revitalized the estate in Halle-Neustadt. In the five-story building modernized in 2010, a part of the top floor was demolished, leaving an apartment in every second staircase. In the spaces obtained after the demolition, terraces with gardens were built. Large balconies were added and the colors of the elevation were revived [20], [21].

A tool for analyzing local plans in terms of possible transformations

Despite numerous experiences from Western Europe, modernization activities in housing estates in Poland are undertaken on a small scale. For potential transformations of prefabricated housing estates, it is worth analyzing the possibilities and limitations generated by the local plan. As part of the research, a tool in the form of a table was developed to facilitate the analysis of records (Table 1). At the beginning, due to the possible application to various local plans, it was necessary to develop universal nomenclature of parameters and indicators.

Three plans have been selected for cities of a similar size with industrialized housing estates and have not yet undergone significant transformations. The changes so far have been limited to the thermal modernization and renovation of individual buildings. The nomenclature of individual parameters and indicators was analyzed in the resolutions of various communes. For example, in the *Miejscowy Plan Zagospodarowania Przestrzennego Wolbromia* [Local Spatial Development Plan for Wolbrom], issues related to the built-up area are governed by the provision “the size of the permissible building area” [22]. In the document prepared for Miechów, this provision is “the maximum building area” [23]. The meaning of the above provisions was found to be the same. In the developed table, the entry “building area” was used, and only in the data resulting from the plan, the prefix “max” was used. The only exception was the *Miejscowy Plan Zagospodarowania Przestrzennego Osiedli Południowych Olkusz* [Local Spatial Development Plan for the South Olkusz Housing Estates], where there was a provision regarding the “plot area investment index” [24]. Therefore, it was concluded that both names should appear in the analysis. However, if a given indicator or parameter was not present in the plan, “not applicable” should be entered in the table.

Table 1. Comparative table for the Local Spatial Development Plan analysis (elaborated by R. Oleksik)
Tabela 1. Formularz do porównawczej analizy mpzp (oprac. R. Oleksik)

1. Group	2. Criteria	3. Data resulting from the local spatial development plan	4. Data resulting from the current state	5. Conclusions
Function	basic purpose			
	supplementary purpose			
Land development	building area			
	plot area investment index			
	biologically active area			
	floor space index			
	number of parking spaces per apartment			
Architecture	building height			
	roof geometry			
	roof colors			
	roofing material			
	façade material			
	façade colors			
Transformation of the existing buildings	type of interference in the existing buildings			

The first column defines a group of provisions from local legal acts in relation to the function (destination), issues related to land development, shaping architecture, and an entry that is significant in the context of the discussed issues, regarding the transformation of existing buildings. Detailed criteria are assigned to each group. Another element is the data resulting from the local plan, i.e. the actual indicators and provisions included in individual points of the Local Spatial Development Plan. In the penultimate column, the data resulting from the current state should be analyzed. The comparison of columns 3 and 4 may give a real view of the possibility of interfering with the existing housing complex.

At this point, it is necessary to point out that the purpose of the analysis itself is not to evaluate the plan on the basis of scale, but to draw conclusions about the differences between the existing state and the allowable changes. For example, the data showing the permissible development area confronted with the existing state indicate a possibility of changing the structure of the estate. The permissible height of buildings compared to the existing one provides a vision of a possible change in the form of buildings. The last column is also a place for possible suggestions for the correction of entries in the plan.

*An exemplary analysis using the tool
– the Władysława Łokietka housing estate
in Wolbrom.*

*Local Spatial Development Plan of the Town
and Commune of Wolbrom. Area 9.9MW*

Due to the influx of local people to Wolbrom (related to the development of industry), the insufficient number of apartments in the city and their often poor technical condition, it was necessary to expand the housing base. The areas intended for development are located near Armii Krajowej Street, as well as the Nerka Lagoon, about 15 minutes on foot from the central point of the city – the market square. The complex was built on the eastern side of the neighboring Bolesława Chrobrego housing estate. It consists of nine buildings with a height of three to five above-ground storeys, erected in the OWT-67 technology, erected in the 1980s.

The newer part of the estate, built in the early 1990s, is a complex of eight prefabricated buildings and seven buildings erected in traditional brick technology, five storeys high. A primary school building was located in the central part of the estate at the beginning of the 1990s. As part of the investment, small service points in the form



Fig. 1. View of one of the buildings. The thermal modernization so far has been limited to thermal insulation of window strips. The difference in the ground level is also visible (photo by R. Oleksik)

Il. 1. Widok na jeden z budynków. Dotychczasowa termomodernizacja ograniczyła się do ocieplenia pasów okiennych. Widoczna również różnica poziomu terenu (fot. R. Oleksik)



Fig. 2. Elevation of one of the buildings from the balcony side. Visible modernization measures in the balconies by residents intensify the chaos on the façade (photo by R. Oleksik)

Il. 2. Elewacja jednego z budynków od strony balkonów. Widoczne zabiegi modernizacyjne w strefach przybalkonowych przez mieszkańców potęgują chaos na elewacji (fot. R. Oleksik)

of kiosks and a shopping pavilion were built at the same time. Due to its typical character, the architecture of the complex is monotonous, not very interesting and does not differ in any way from many housing estates built in a similar technology at the time.

The urban layout, especially in the western part, is to some extent dictated by the slope to the south (Fig. 1). In the analyzed part, one of the buildings is situated along the east-west axis, and the other three along the north-south axis. The big advantage of the entire complex are green open spaces, as well as the reservoir constituting the southern border of the complex. With regard to the aesthetics of the buildings in the Władysława Łokietka housing estate, some interference of residents with the façades of buildings and balcony spaces can be noticed, which exacerbate the disorder on the façades. To a large extent, this is due to the construction technology itself, which allowed for easy modifications without interfering with the building structure (Fig. 2). In addition, the negative perception of the architecture of the estate is enhanced by filling openwork spaces of balcony railings with various types of poorly aesthetic, low-quality materials, the purpose of which is to increase the individuality of apartments.

Referring to the above information, it should be stated that the housing estate is characterized by problems that are also characteristic of other housing estates from that period. The problematic issues are related to the use of outdated technological solutions. There are also aesthetic and functional issues. Due to the fact that a housing estate is located in a small town, it is not affected by problems connected with the location of large-panel housing estates on the distant outskirts of cities, away from workplaces, while at the same time under-investing in public transport [17].

Resolution No. XXI/209/2020 of the Wolbrom City Council of May 28, 2020 on the amendment of the Local Spatial Development Plan for the Town and Commune of Wolbrom [22] applies in the area of the city of Wolbrom. A frag-

ment of the housing estate (Fig. 3) was taken into account for analysis, namely the area in its northern part marked in the local plan as 9.9MW (Fig. 4) with an area of approximately 11,100 m². Table 2 summarizes the characteristic data concerning the provisions of the local plan and the existing state. Figure 5 shows the characteristic parameters of the Local Spatial Development Plan in a graphic form.

In terms of functions occurring in the area of 9.9MW, the existing state of development with one exception concerning parking spaces is included in the provisions of the plan. It is dominated by residential buildings, slightly supplemented with commercial kiosks. It is very beneficial to introduce new functions, such as retail services, nurseries, restaurants or other types of meeting places that can improve the quality of the housing environment. As part of the estate transformation, you can even propose facilities such as a local activity center or a senior center.

The provisions of the local plan make it possible to supplement the development with new functions also as part of the transformation of existing residential buildings, such as the introduction of services on the first floor or on the roof, provided that vertical and horizontal communication is ensured.

The provision allowing single-family housing in the discussed area may seem controversial. It would certainly be difficult to supplement the cooperative housing with a single-family house due to land ownership issues. In the author's opinion, this point is unnecessary in the local plan.

The existing building area in the estate is not much more than 1/4 of the permissible area. In terms of the possible expansion of buildings by cooperatives, this gives a lot of room for maneuver, at the same time assuming some risk related to the possibility of too much "densification" of the estate, and thus – deterioration of the quality of the housing environment.

In terms of the biologically active area, there is a large field for introducing unfavorable changes. Currently, it

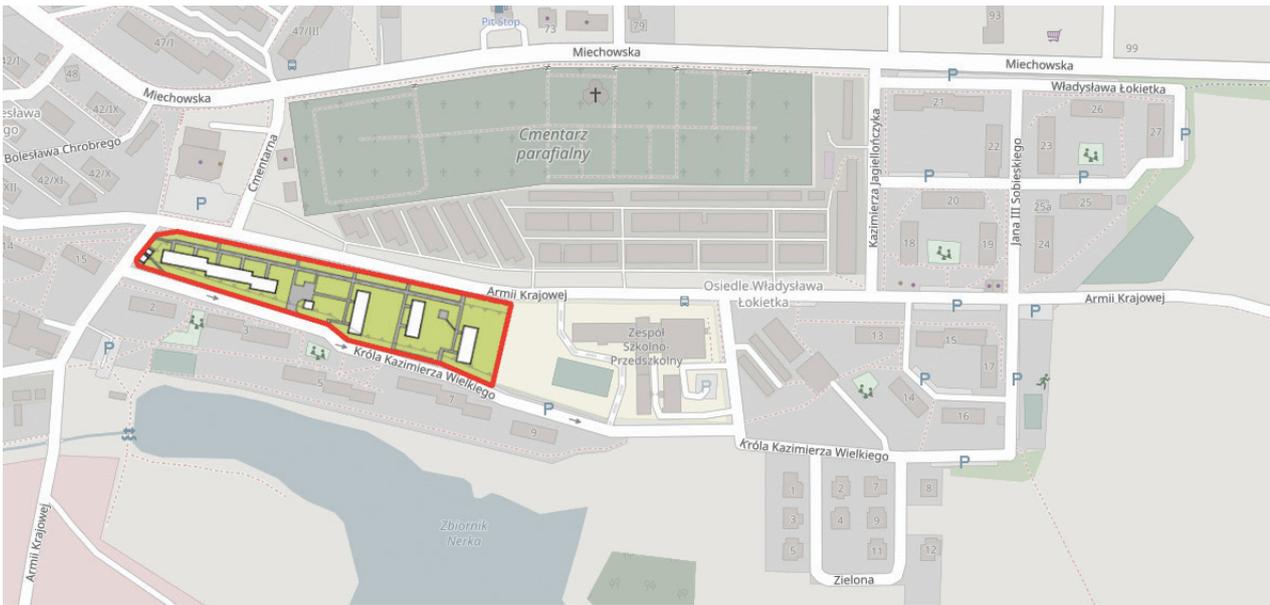


Fig. 3. Location of the area of 9.9MW on the plan of the Władysława Łokietka Estate (elaborated by R. Oleksik based on [25])

II. 3. Lokalizacja terenu 9.9MW na planie osiedla Władysława Łokietka (oprac. R. Oleksik na podstawie [25])

exceeds three and a half times the parameters allowed by the local plan. A large number of green areas is an undoubted advantage of the estate in Wolbrom.

There are no parking spaces within the 9.9MW site. There are also no underground parking spaces, which is natural due to the implementation time and technology of the buildings. The service is provided by parking spaces located along the existing housing estate roads, and exter-

nal garages for residents are located on the northern side of Armii Krajowej Street, outside the estate. In the event of a possible expansion and introduction of new apartments, new parking spaces on the site should be taken into account.

In terms of architecture, the guidelines from the cited local plan generally regulate the form of the building, the color of the façade and the type of roof covering. In the

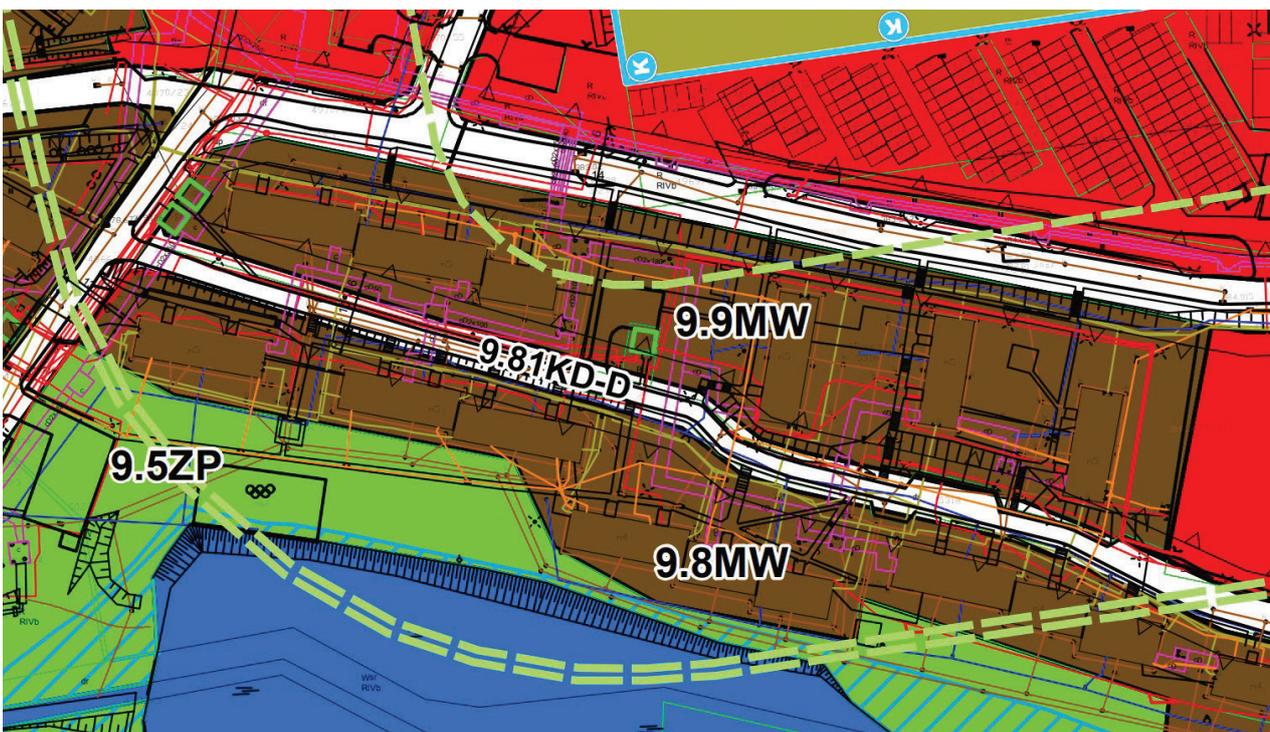


Fig. 4. Excerpt from the Local Spatial Development Plan for Wolbrom – area 9.9MW (source: [22])

II. 4. Wyrys z mpzp Wolbromia – teren 9.9MW (źródło: [22])

Table 2. The results of the analysis of the 9.9MW of the Local Spatial Development Plan in Wolbrom (elaborated by R. Oleksik based on [22])
 Tabela 2. Wyniki analizy mpzp terenu 9.9MW w Wolbromiu (oprac. R. Oleksik na podstawie [22])

1. Group	2. Criteria	3. Data resulting from the local spatial development plan	4. Data resulting from the current state	5. Conclusions
Function	basic purpose	multi-family housing	multi-family housing	the existing state in accordance with the applicable local plan
	supplementary purpose	<ul style="list-style-type: none"> – single-family housing – service buildings – craft and manufacturing buildings 	– service buildings	<ul style="list-style-type: none"> – the existing state in accordance with the applicable local plan – permissible supplementation of functions with services for residents – new functions can improve the quality of life of residents, as well as create new jobs for them
Land development	building area	max. 60%	16.3%	<ul style="list-style-type: none"> – the existing state in accordance with the applicable local plan – permissible significant “densification” of buildings – there is a risk of deterioration in the quality of the housing environment – the provisions of the plan should be verified
Land development	plot area investment index	not applicable	not applicable	not applicable
	biologically active area	min. 20%	70.2%	<ul style="list-style-type: none"> – the existing state in accordance with the local development plan – the acceptable significant reduction of the biologically active area may have a negative impact on the quality of the housing environment – the provisions of the plan should be verified
	floor space index	0.03–2.5	0.8	<ul style="list-style-type: none"> – the existing state in accordance with the applicable local plan – permissible significant increase in floor space index – the provisions of the plan should be verified
	number of parking spaces per apartment	1	no parking spaces	<ul style="list-style-type: none"> – the existing state is inconsistent with the applicable local plan – in fact, there are parking spaces for the residents of the estate between the various areas of the plan along the access roads (e.g. in the area of 9.81 kdd)
Architecture	building height	20 m	15 m	<ul style="list-style-type: none"> – the existing condition in accordance with the applicable local plan – permissible height increase of buildings – the possibility of creating additional apartments within the existing building area
	roof geometry	flat roofs or roofs with an inclination of the main slopes up to 45° with symmetry and uniform slopes	flat roof	<ul style="list-style-type: none"> – the existing state in accordance with the applicable local plan – permissible change of roof geometry
	roof colors	shades of brown, red, graphite, gray or black	gray	<ul style="list-style-type: none"> – the existing state in accordance with the applicable local plan – acceptable color changes
	roofing material	tile, roofing sheet, bituminous materials	bituminous materials	<ul style="list-style-type: none"> – the existing state in accordance with the applicable local plan – permissible changes in the scope of materials

Table 2 cont. The results of the analysis of the 9.9MW of the Local Spatial Development Plan in Wolbrom (elaborated by R. Oleksik based on [22])
Tabela 2 cd. Wyniki analizy mpzp terenu 9.9MW w Wolbromiu (oprac. R. Oleksik na podstawie [22])

1. Group	2. Criteria	3. Data resulting from the local spatial development plan	4. Data resulting from the current state	5. Conclusions
Architecture	façade material	not applicable	not applicable	<ul style="list-style-type: none"> – no regulatory provisions – it would be beneficial for the aesthetics and quality of the estate to introduce acceptable materials or prohibitions regarding the use of low-quality façade materials
	façade colors	subdued or pastel	gray with elements in pastel shades; from the side of the balconies, various-colored chaotic materials introduced by the residents	<ul style="list-style-type: none"> – the existing state in accordance with the applicable local plan – acceptable color changes
Transformation of the existing buildings	type of interference in the existing buildings	reconstruction, extension with the same parameters from local plan	<ul style="list-style-type: none"> – insulation of some façade elements (staircases, gable walls) – arbitrary interference in the appearance of the façade by replacing windows and changing materials in the balcony zone led to deterioration of the aesthetics 	<ul style="list-style-type: none"> – so far small budget interventions – significant changes are allowed in accordance with the above guidelines, however, the local plan does not contain detailed rules regarding the transformation of the estate regulating aesthetic issues – it seems appropriate to introduce precise provisions, such as “prohibition of the use of low-quality materials on the façade” or “the requirement to replace the windows with the original divisions of the muntin bars, except for the modernization covering the entire façade of the building”

context of the existing housing estate, a provision on acceptable façade materials would be useful. The existing buildings are approximately 15 m high and have a maximum of five above-ground storeys. With a permissible height of 20 m and the change of the ventilated flat roof to a more modern flat roof, it may give the possibility of creating a full-size additional residential or service storey. The remaining guidelines quite generally define the requirements for the appearance of the façade, acceptable colors and materials.

The local plan also includes a fragment concerning the transformations of the existing buildings. It is limited to reference to the general plan guidelines for each site. There is a lack of precise information defining tasks that can improve the spatial order and aesthetics of the estate. Properly formulated bans or orders regarding modernization works could limit unfavorable changes. Precise provisions should be introduced, such as “prohibition of siding on the façade” or “the order to replace the windows with the original divisions of muntins, except for modernization covering the entire façade of the building”.

Summary

As it can be seen from the above analysis, the comparison of the coefficients and parameters from the applicable documents with the data from the existing state already in the planning phase of the modernization of housing complexes gives an idea of the possible transformations.

The local plan for the estate in Wolbrom allows for major changes that may improve the quality of the housing environment. Following the example of the above-mentioned large-scale foreign examples, similar revitalization actions can also be carried out in Poland in the form of, inter alia, enlarging the living space by adding winter gardens and balconies or extending the building with additional apartments. In terms of potential transformations of housing estates, other aspects that limit them, in particular the technical, economic and ownership aspects, should also be analyzed. The latter is often related to the fact that several cooperatives or administrators operate within one housing estate.

The provisions of the plan regarding the Władysława Łokietka housing estate also allow for interference that may worsen the housing conditions. These include, among others, a significant reduction in the number of green areas by introducing, for example, parking spaces between buildings, as well as new buildings, which could have a negative impact on the urban composition and the quality of the housing environment. These are actions dictated by investment pressure, which often ruin the urban structure and pose a serious threat not only on the scale of the estate, but also on the city scale [3].

The above analysis is a work carried out on the basis of the specific data recorded in the Local Spatial Development Plan. It can also be used for detailed qualitative research of the existing housing estates built in prefabricated technology.

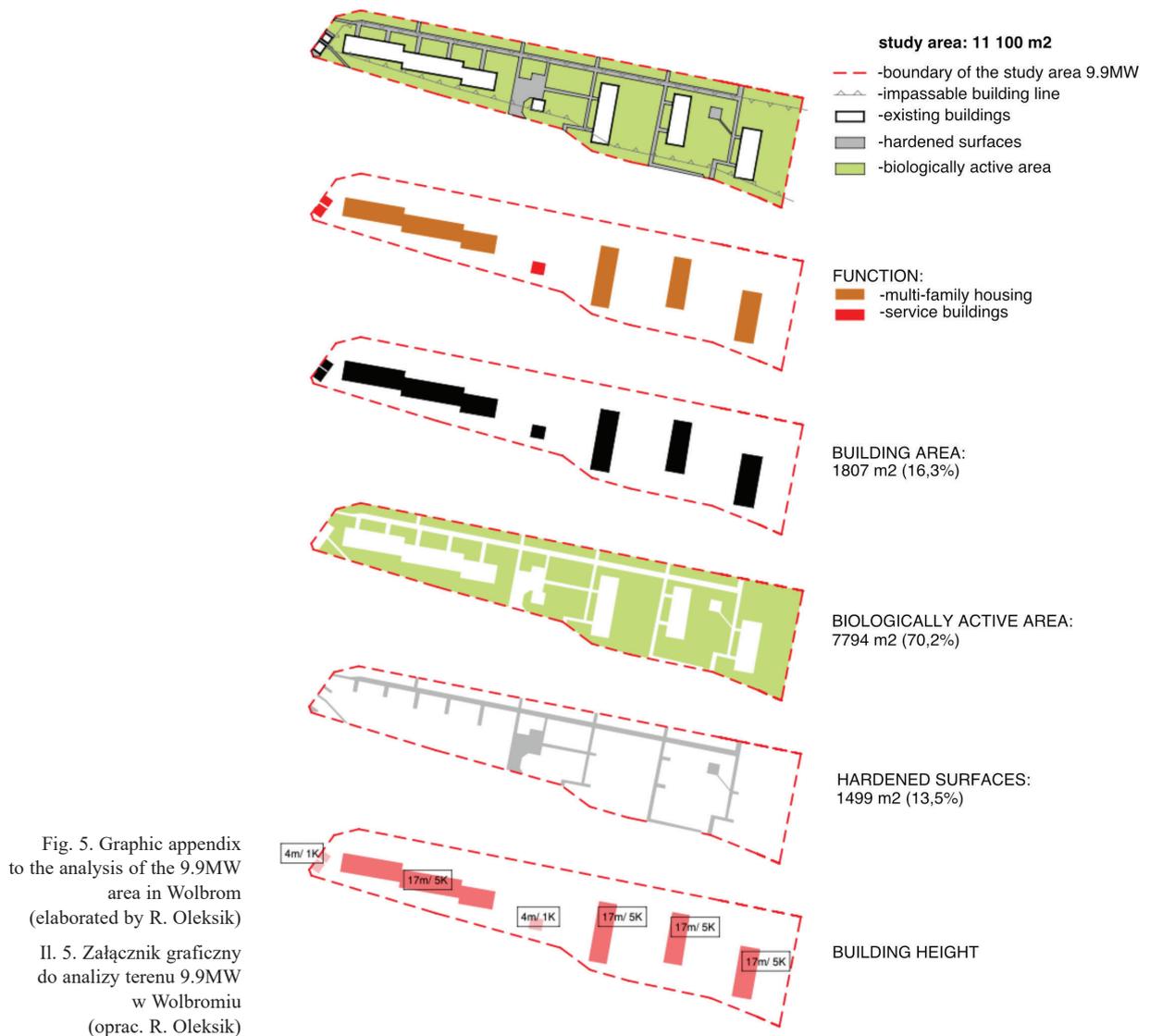


Fig. 5. Graphic appendix to the analysis of the 9.9MW area in Wolbrom (elaborated by R. Oleksik)

Il. 5. Załącznik graficzny do analizy terenu 9.9MW w Wolbromiu (oprac. R. Oleksik)

This article should be treated as a contribution to further research on the possibility of transforming large-panel housing estates in Poland. In the next step, the assessment of possible changes in housing estates could take place with the use of parametric tools such as methods of assessing spatial values. Such a method may be useful in

the assessment of planning provisions for future investments, and in the future it may be extended with other indicators and parameters [26].

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Abstract

Possibility to transform a housing complex built in industrialized technology in the context of the Local Spatial Development Plan on the example of the Władysława Łokietka Estate in Wolbrom

The aim of the article is to present a research tool, and then, based on it, to analyze the local plan in terms of transformations of a selected housing estate erected in prefabricated technology from the 2nd half of the 20th century. To create the tool, three plans were selected for cities of similar size with housing estates built in industrialized technology. It was important that they had not yet been significantly transformed. Władysława Łokietka housing estate in Wolbrom, where the Local Spatial Development Plan for the Town and Commune of Wolbrom is in force, was selected for a detailed analysis. The existing layout is neglected, however, with the potential resulting from the large number of open areas. The conclusions from the analysis allowed us to outline a vision of possible changes in the estate. Some of the provisions of the plan were criticized due to the risk of deterioration of the quality of the housing environment. The article also presents contemporary trends in the transformation of housing estates in France and Germany due to the extensive experience of these countries in this aspect. As indicated by the analysis in terms of local development plans, similar revitalization actions could also take place in Poland.

Key words: local spatial development plan, housing estate, revitalization, industrialized technology

Streszczenie

Możliwość przekształcenia zespołu mieszkaniowego wzniesionego w technologii uprzemysłowionej w kontekście miejscowego planu zagospodarowania przestrzennego na przykładzie osiedla Władysława Łokietka w Wolbromiu

Celem autora było przedstawienie narzędzia badawczego, a następnie na jego podstawie analiza planu miejscowego pod kątem przekształceń wybranego osiedla mieszkaniowego z 2. połowy XX w., wzniesionego w technologii prefabrykowanej. Do stworzenia narzędzia wybrano trzy plany dla miast o podobnej wielkości, w których występują takie osiedla. Istotne było, że nie wprowadzono w nich jeszcze znaczących przekształceń. Do szczegółowej analizy wybrano osiedle Władysława Łokietka w Wolbromiu, na którym obowiązuje Miejscowy Plan Zagospodarowania Przestrzennego Miasta i Gminy Wolbrom. Istniejące założenie jest zaniedbane, ale z potencjałem wynikającym z dużej ilości terenów otwartych. Wnioski z analizy pozwoliły nakreślić wizję możliwych przemian osiedla. Poddano krytyce część z zapisów planu ze względu na ryzyko pogorszenia się jakości środowiska mieszkaniowego. W artykule przedstawiono również współczesne tendencje w przekształcaniach osiedli mieszkaniowych we Francji i Niemczech ze względu na duże doświadczenie tych państw w rewitalizacji takich zespołów. Jak wskazała analiza, również w Polsce można byłoby przeprowadzić podobne działania.

Słowa kluczowe: miejscowy plan zagospodarowania przestrzennego, osiedle mieszkaniowe, rewitalizacja, technologia uprzemysłowiona