

Opportunity to Save Historical Railway Infrastructure – Adaptation and Functional Conversion of Facilities

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Abstract. After years of neglect and underinvestment, the Polish railways are now witnessing a rapid modernization of both their technical facilities and rolling stock. However, this is true only of the main railway lines connecting major urban complexes. It is worth pointing out that a great number of secondary lines, railway stations and halts still has not been covered by the transformation process. Railway facilities, warehouses and service features are in decay. Rapid technological developments have caused numerous architectural structures of historical interest and service features to fall out of use. There are historical railway facilities dating back to the late 19th or early 20th centuries, whose condition is constantly deteriorating. The only way to save these structures is to change the manner, in which they are being used, and attract new investors and operators. The adaptation of buildings may be carried out in a number of ways by following different strategies. The process depends on the structure's current condition and significance for the railway network. The facilities which are disused as a result of technological changes in the rolling stock and infrastructure include workshops, steam locomotive bays, turntables and warehouses. Their size and location within a city make them a perfect place for commercial services, exhibitions, heritage sites, concerts and other events attracting great numbers of people. Other strategies may be used for constructions located next to railways lines, whose role has declined. Such constructions include small railway stations, warehouses, reloading and forwarding facilities, railway ramps, railway staff buildings as well as residences for railway employees. Railway stations located at large junctions can handle passenger traffic or freight loading operations. As well as acting as the only window to the world, railway stations in small towns housed all the services available in the place. At the same time, they served as meeting spots, community centres and places of particular social importance. Therefore, successful renewal requires adaptation and functional conversion in order to cater to the needs of the inhabitants and visiting travellers. Such activities should focus on architectural, social and economic spaces. This paper presents small railway stations of historical value with a view to their adaptive potential, as well as examples of completed adaptation projects.

1. Introduction

After years of neglect and underinvestment, the Polish railways are now witnessing a rapid modernization of both their technical facilities, buildings and rolling stock. However, this is true only of the main railway lines connecting major urban complexes. It is worth pointing out that a great number of secondary lines, railway stations and halts still has not been covered by the transformation process. Railway facilities, warehouses and service features are in decay. Rapid technological developments have caused numerous heritage structures and service features to fall out of use. There



are heritage railway facilities dating back to the late 19th or early 20th centuries, whose condition is constantly deteriorating. [1] The only way to save these structures is to change the manner, in which they are being used, and attract new investors and operators.

The condition of railway complexes varies depending on the train-handling capacity of the railway lines, along which they are located, and the role played by the station building itself. In all cases, the potential of railway structures depends on how well they are connected to the railway network. At high-capacity junctions with a national or international dimension, train facilities stand a better chance of survival than places operating secondary lines, where traffic is slow and requires no supporting infrastructure. Additionally, even where a train station remains in good working order, its function has frequently been changed to accommodate local demands. Train stations usually comprise large complexes, at whose core is the head house accompanied by warehouses, utility installations, passenger restrooms, residential buildings for railway employees, a water tower, control rooms, and lodges for gatekeepers, [2]. With that said, the quantity of infrastructure needed depends on the intended use and importance of the junction and the kind of traction used.

2. The Coal Rail - Kashubia's tourist trail

The rail route connecting Gdynia and Kościerzyna, now serving as a secondary line within regional railway network, is of special interest. Established in 1926 – 1933 as part of a joint French-Polish effort aiming to link Silesia with Gdynia, it was the largest transport investment in pre-war Poland, [3]. The line connects a number of localities with a mostly non-agricultural population who needs to commute for work on a daily basis. After serving for many years as a major transport route, it was converted at the turn of the 21st century to vehicular traffic. The line is especially important in the region, as it runs through major tourist attractions, such as Kashubian Switzerland (Szwajcaria Kaszubska)¹ and connects the Tricity with holiday resorts, cycling trails and waterways² [4]. From the 1990s onwards, there has been a gradual drop in the number of rail connections and rolling stock size, resulting in the deterioration of the entire infrastructure. Some of the buildings have been put to ad-hoc use, others closed. This situation affects both the buildings as heritage sites and local communities, for whom the junction was a source of income and a window to the outside world. The line services the following train stops: Wielki Kack, Gdańsk Osowa, Żukowo Wschodnie, Babi Dół, Somonino, Wieżyca, Gołubie. There are a number of investment projects under way, including the modernization and renewal of Kościerzyna Rail Corridor, the launch of Fast City Rail (SKM), the adaptation of existing rail infrastructure for Pomerania Metropolitan Railway (PKM) and the electrification of Gdynia – Kościerzyna line. As there is a need for a concerted effort at various local and regional levels to coordinate various investment works and activities, these projects are being implemented simultaneously.

¹ Kashubian Switzerland (Szwajcaria Kaszubska) is a colloquial name for the central part of the Kashubian Lake District; the name refers to the uniquely diverse and picturesque landscape in that area. The only town located on the eastern frontier is Kartuzy. Initially, the name referred only to the countryside surrounding the town. Now, it includes the Kartuski and Kościerski Districts. It stretches from Parchów in the west to Żukowo in the east, from Kamienica Królewska and Mirachowo in the north to Kościerzyna in the south.

²Waterways used for tourist purposes consist of numerous lakes and rivers, including: the Radunia, the Łeba, the Słupia and the Wieżyca.



Figure 1. Railway line 201, Gdynia – Kościerzyna [5]³

The Gdynia – Kościerzyna line provides a link between train stations / halts of various status and importance for the local communities, [6]. Most of them are equipped with aesthetically designed, period-typical station buildings, [7]. Of their total number (17), it has been chosen 10, which are either endangered with collapse or disused, as neither the local authorities nor the Polish Railway Company have found any purpose for them. I have also presented structures whose potential comes from their location or multiple possible functions they could serve.

2.1. Wielki Kack

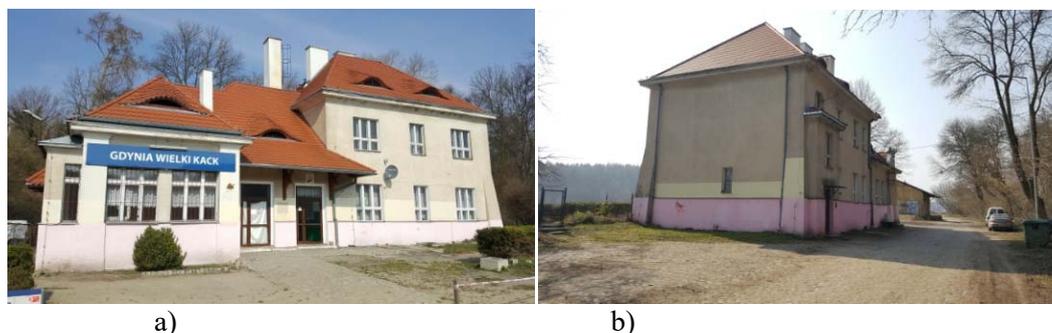


Figure 2. a), b) Station building, Gdynia Wielki Kack

The existing station building in Gdynia Wielki Kack was constructed in 1930 to serve the coal rail, [8]. The station now falls within the city of Gdynia's administrative boundaries, having lost some of its importance as urban growth shifted preference from rail transport to vehicular traffic. As the complex lost its role, the building itself now serves as a residential facility. Its future will be decided by the Pomerania Metropolitan Railway (PKM), whose new station is now under construction near the old building. This required the old platforms to be demolished even despite their recent overhaul in 2015. The need for this work, which took place as the new PKM facility was launched, was dictated by the fact that the old station building and platforms were difficult to access either on foot and by car. The complex is a heritage site, whose closeness to residential areas and a halt for PKM trains, offers potential in terms of adaptation for new purposes such as tourism, culture or commerce [9].

³ Project IRO5ZAd-216-05/11-RPOWP

2.2. Gdańsk Osowa

Construction work on the train station complex in Gdańsk Osowa began in 1929. Designed by Eng. Tatarczuch, the facility is a feature typical of the northern section of the coal rail, just as its counterpart in Wielki Kack.[10] Today, the building serves mostly as a waiting room, as its ability to handle rail operations is severely limited. Parts of it house residential premises. The ticket office closed in 2010. Following the launch of a PKM halt, the station building was revived and re-incorporated into the former complex. The renewal of the station included installing an underground passage leading onto the platform and, further across the tracks, to a lakeside. The number and speed of investment projects in Gdańsk Osowa have allowed this district to preserve and utilize its historical texture. In 2016, the city council of Gdańsk made plans to adapt the building for cultural events. It is supposed to house a media library, café and a community centre.



Figure 3. a), b) The station building and a railway station for Pomerania Metropolitan Railway (PKM)

2.3. Żukowo Wschodnie

The station complex in Żukowo Wschodnie incorporates the station building, warehouse, a residential building and a utility building. After being leased to a wholesale outlet, the warehouse and utility building were adopted to serve a commercial purpose. The residential buildings are inhabited. Their appearance has changed over the years in a rather haphazard fashion due to frequent renovation work. The station building, which is still partially inhabited and partially used for commercial activity, and platforms were overhauled in 2010, [11].

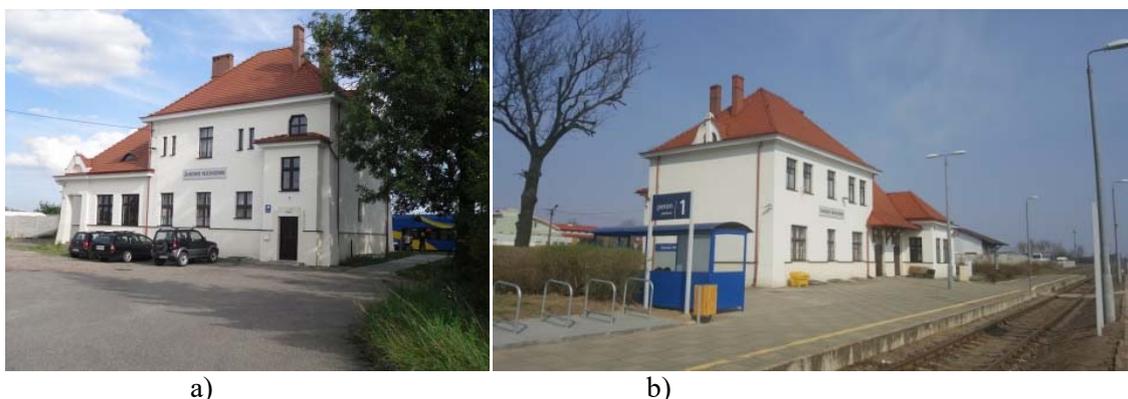


Figure 4. a), b) The station building in Żukowo Wschodnie after modernization

The complex is not fully utilized today. Fast City Railway (SKM) gave us a new railway halt in Żukowo – Żukowo Centrum. The new platform is located around a kilometre away from the Żukowo Wschodnie station.



a) b)
Figure 5. a), b) Żukowo Centrum Fast City Railway (SKM) station

Although the new halt is close to the town hall and a school, it is somewhat hard to reach. The ground conditions at the location make it difficult to provide convenient access, large parking space or service facilities. No driveway is in place to provide car access or enable utility trucks to service the area. Disabled access is provided by a long and inconvenient ramp. The current plan is to use the old platforms at Żukowo Wschodnie station temporarily until the 2nd stage of modernization and electrification of line 201 between Kościerzyna and Gdańsk is complete. The survival of Żukowo Wschodnie station could be secured by equipping it with new functions, especially because its location makes it a perfect candidate for a transport hub cooperating with the nearby car parks and ancillary services. This is only a remote possibility, however, since there are other, far more efficient stopping places close by. As a result, the future of this historical station building is uncertain.

2.4. Babi Dół



Figure 6. Radunia Ravine, picturesque tourist area



Figure 7. Babi Dół station building

Babi Dół station was placed into service in 1932, soon after the launch of the coal rail between Kościerzyna and Gdynia in 1930. As there is only a limited need for rail services in the area, the building is now used for residential purposes. The location of the station and its heritage building offer a lot of potential. Of special interest are the surrounding forests and unique landscapes, [12]. The train

station marks a starting point for field trips to the Radunia Ravine (Jar Rzeki Raduni) nature reserve⁴ which can be accessed by the Kartuzy trail^{5,6}. The railway complex may be potentially integrated with the local tourist industry as a hotel, motel, youth hostel, sports equipment rental, service workshop or restaurant.

2.5. Somonino

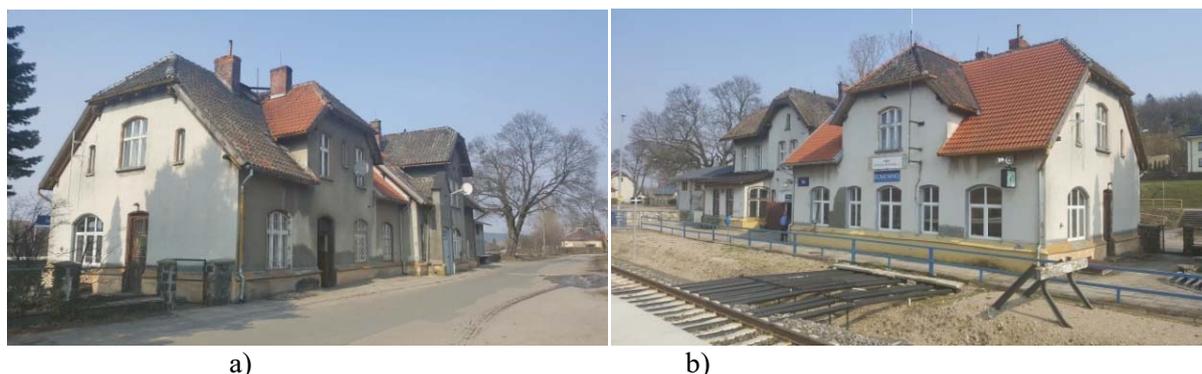


Figure 8. a), b) Railway complex in Somonino

As the seat of the Commune Office since 1954, the village of Somonino⁷ serves a number of administrative functions for the surrounding area and smaller localities. The station commands a railway junction where two lines cross: Nowa Wieś Wielka – Gdynia Port Centralny and Somonino – Kartuzy. As a former freight train station and reloading depot, the complex consists of an extensive building, utility facilities, residential units for railway employees, warehouses and workshops. The area is now under lease to a construction materials outlet and a clothes shop. For many years, the station building was in decay. In 2015, Somonino Commune purchased⁸ the building from the railway company, giving it a new lease of life. The complex is located centrally in the village, close to the Commune Office, fire brigade station, private clinic and numerous commercial buildings. This means that the building stands a chance of one day being turned into a transport hub⁹.

2.6. Sławki

The railway halt at Sławki was opened to help service traffic from Goręczyno and other minor localities. It has low status and was therefore devoid of any importance even as early as in the 1980s. The site of the building, located away from residential areas, seems to be quite accidental. Starting in the 1980s, the building changed hands a number of times. Now, it has been turned into a residential unit while the behind it yard contains enclosures for farm animals. The platform was renewed in the

⁴ "NATURA 2000 DATA FORM" describes the Radunia Ravine as follows: "The area occupies a stretch of the Radunia river, which meanders through a rocky gorge. The valley has steep sides (grades of up to 45 degrees) 40 meters in height, covered by riparian and oak-hornbeam forests.

The bottom of the ravine is sparsely covered with marshy meadows. Numerous rare mountain plants can be found here. The refugium has a special microclimate characterized by high humidity and temperatures lower than in the adjacent terrain. The river is criss-crossed by a vast forest dominated by oak-hornbeam habitats."

⁵ Elżbieta Pękalska: TRIP NO. 3 "Along the Radunia Ravine"

⁶ The Kartuzy Trail is a signposted tourist trail delimited by the cities of Sopot and Gdańsk as well as Kartuski District, stretching from Sopot Kamienny Potok to the train station in Kartuzy, across the Kashubian areas in Pomorskie Province. Total length is approx. 68 km.

⁷Up until 1954, the village of Somonino lay within the Commune of Goręczyno (now, the situation is reverse).

⁸ 10 September 2015 – the Commune of Somonino and Polish Railways (PKP) signed a preliminary contract.

⁹Provincial head Mieczysław Struk stresses that opening a transport hub in Somonino will be a helpful step for the development of the Metropolitan Railway of Pomerania.

course of Gdynia – Kościerzyna line 201 renovation works, but the building has been disused ever since.



a) b)
Figure 9. a), b) Station building in Sławki

2.7. Wieżyca

The train station in Wieżyca is unique. It is located right in the middle of Kashubian Switzerland (Szwajcaria Kaszubska). Wieżyca is a popular holiday resort all year round. The town has hotels, boarding houses, restaurants, water sport centres, cycling trails, horse farms, horse-riding facilities, and a rehabilitation centre, generating substantial tourist interest in the summer. In winter, the town organises sleigh rides and skiing events as well as provides dining facilities and accommodation. A hiking trail to the top of Wieżyca starts just outside the train station¹⁰.



a) b)
Figure 10. a), b) Station building in Wieżyca

Despite numerous tourist facilities which provide the town with great potential, the building has fallen into decay. The ticket offices on the ground floor have been closed down. The flats on the first floor are deserted. The building seems completely forgotten. The windows have been walled in to protect the building from vandals. The train station is awaiting an investor who could put it to use as a tourist hub.

2.8. Gołubie Kaszubskie

The station in Gołubie Kaszubskie was modernized in 2014 under a programme to renew the Fast City Railway (SKM), including the replacement of turnouts, track surfaces and the construction of a new platform. The station building was renovated, with a section of it adapted for ticket sales offices and a waiting room. In 2016, the authorities of Pomorskie Province commissioned two projects, under which

¹⁰ Wieżyca (329 metres above sea level) – the highest point of the Polish Lowlands.

funding would be provided for investments in Kartuzy and Gołubie Kaszubskie¹¹. Project: "The construction of Gołubie transport hub in the commune of Stężyca, with access routes" has received funding in the amount of 3,700,000 PLN. Total investment value amounts to 6,000,000 PLN. The transport hub with access routes is supposed to service the existing transport network consisting of a train line, a district road, passenger vehicle parking areas, cycling route network 40 kilometre in length (20 kilometres of that length will be covered by routes in the direction of Stężyca, Szymbark and Zgorzałe), as well as the cycling route supporting infrastructure (bicycle rental, tourist information centre), a pedestrian overpass, toilets and lighting features. The construction work on this project is scheduled to finish in late 2017. The investment does not envision any functional conversion of the station building.



Figure 11. The modernized station building in Gołubie Kaszubskie

2.9. Skorzewo

The station building in Skorzewo was erected in 1936. The elevation was reconstructed, woodwork replaced, and the whole structure lost its historical value. In 2014, disused platform 1 was torn down. The building itself is now used as a residence. Any possible adaptation of the structure must be based on the proximity of a larger urban centre. Possible uses for the station include combined commercial and tourist services.

¹¹ On 20 September 2016, the provincial authorities decided to grant funding to the following projects under Subaction 9.1.1. City transport – Integrated Territorial Investment mechanism of the Regional Operational Programme of Pomorskie Province for 2014-2020.

The construction of Kartuzy transport hub, with access routes – a project proposed by the Commune of Kartuzy.

Total project value: 26,001,658.98 PLN;

Financial grant: 9,857,926.37 PLN (50.19%);

Contract period: from 21 June 2016 to 30 June 2018.

-The construction of Gołubie transport hub in the Commune of Stężyca, with access route – a project proposed by the Commune of Stężyca.

Total project value: 5,950,000.00 PLN;

Financial grant: 3,651,785.00 PLN (61.37%);

Contract period: from 1 September 2016 to 30 September 2017.

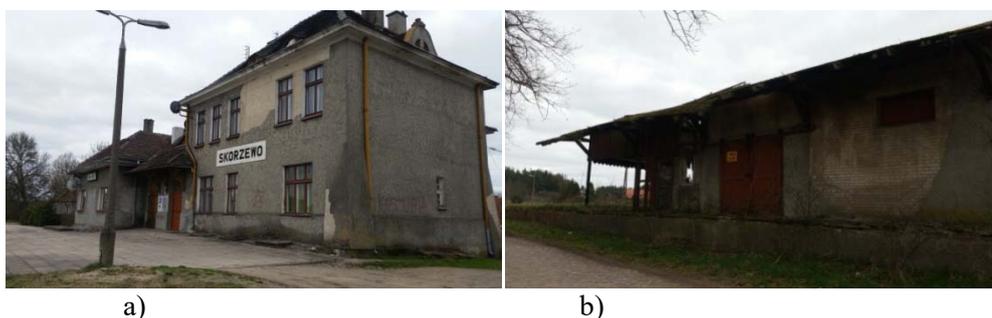


Figure 12. a) Station building and b) warehouse building in Skorzewo

3. Conclusions of the survey of Gdynia – Kościerzyna railway line

Investment work on line 201, underway since 2010, has covered the modernization of the line, track and technical infrastructure, renovation of existing facilities, construction of new platforms, commissioning of new stopping places as well as modernization and renovation of station buildings. The work requires coordinated efforts, as it involves various programmes, tasks and areas of competence. Even though part of the investment work has been completed, some of the buildings still do not serve their proper functions, being used instead only for temporary purposes. The current uses of the buildings do not have any positive impact on the local communities. The investments face numerous difficulties, related mainly to the organization and electrification of Fast City Railway (SKM) and Pomerania Metropolitan Railway (PKM), the need for joint action of the authorities. The timing of the investments is also very important. Key decisions will have to be made to restore the historical buildings to their former glory and ensure that they are kept in good working order. Their new functions should fully utilize their potential and benefit the local community. The coal rail is unique thanks to its landscapes. The region's potential as a possible tourist resort and a place of architectural interest is a definite asset. Nevertheless, numerous problems, typical of secondary-tier train stations in Pomerania, are still left to overcome.

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