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**Optimizing of restricted parking spaces – examples from the Netherlands**

**Abstract:** The article discusses how to improve the efficiency of using parking areas reserved for handicapped drivers. The authors notice that by following the current regulations the use of the areas is not optimal if the demand for parking spaces is high. Thus a few examples from the Netherlands are presented: signs allowing for more flexible parking which could be used in Poland.

**Keywords:** Transport policy; Parking spaces; People with disabilities

**Introduction**

Places for parking cars transporting disabled people or driven by them are popularly called "envelopes". They are appropriately marked with vertical and horizontal signs [1] and their enlarged dimensions [2, 3] allow not only to park the vehicle but also to reach the vehicle with a wheelchair to the door and to open it in the maximum position. The number of "envelopes" in newly constructed car parks is determined on the basis of [4], or possibly eg [5], it may also be specified in the local spatial development plan, or in the building and land development conditions or other documents. Indication of which of these places will be "envelopes" is an individual decision of the designer or manager.

In the area of existing buildings and existing car parks, "envelopes" are usually determined on the basis of local demand expressed by applications from people living in the immediate vicinity of the car park and needing such spaces.

In highly developed areas, the parking area is very limited. There is a significant deficit of public parking spaces, which is sometimes accompanied by a noticeable excess of standing empty "envelopes". The impression is that the parking area is not used optimally, which encourages some people to illegally obtain parking cards.

The simplest action to optimize the use of parking spaces would be to eliminate at least some of these spaces. However, on closer analysis, it turns out that these places are used only periodically, e.g. during the working hours of the office located in the neighborhood, at other hours, and on Saturdays and Sundays, they are unoccupied. Therefore, liquidation of such places would be risky. The solution, however, could be the modification of the parking rules on them, following the example of, for example, the Dutch one.

**Proposals for solutions**

Currently, in Poland, there are "rigid" regulations concerning the rules of parking on "envelopes" by vehicles of disabled people. With the exception of private or leased areas, e.g. in the vicinity of hospitals, they allow free parking for all owners of the so-called "Blue parking cards" 24 hours a day, 7 days a week [6]. In the Netherlands, on the other hand, there

is flexibility in this regard, which takes into account local needs and conditions. And next to public places with unlimited parking, there are also places where restrictions are imposed.

### **Solution # 1**

The vast majority of parking spaces for disabled people - "envelopes" in the Netherlands are generally accessible, which means the possibility of unlimited (similarly to Poland) parking of the vehicle. The only condition (also like in Poland) is that the driver or the person transported has the so-called "Blue parking card". Sometimes, in road lanes, but more often in housing estates, some of the "envelopes" are reserved, i.e. the right to park for a specific vehicle with a registration number consistent with the number given on the plate under the sign (Fig. 1).

In the Polish legal system, it is similarly permissible to reserve places with the consent of the land administrator, e.g. a housing association, housing cooperative, or road administrator.

However, in road lanes, formal reservations are very rare due to costs (often calculated with the rate applicable for the occupation of a road lane). Informal booking, with the use of private inscriptions or signs to politely persuade the potential parker to refrain from parking in this place, sometimes it occurs but has no legal force.

More often, paid formal reservations can be found in intra-housing estate areas, where the rates are much lower. Here, too, informal reservations often function on the basis of a neighborly, polite agreement of residents - drivers who usually park in selected and constantly occupied places.



1. Marking of two places - "envelopes": a place reserved for a specific vehicle and a place for all disabled people - Amsterdam

### **Solution #2**

In areas adjacent to offices or institutions that support, among others, people with disabilities or people with disabilities are their employees, the need for the functioning of the "envelope" may appear only on certain days and times. Therefore, providing privileged parking for these people may only cover the days and hours when the facility is open (Fig. 2). For the rest of the time, this place may be open to the public.

In Poland, such marking is not used.



2. Signs informing that the place is an "envelope", but only at a specific time: from Monday to Friday and from 8.30 a.m. to 6.00 p.m., on other days and hours it is open to the public - Amsterdam

### Solution #3

In areas with a significant deficit of parking spaces, the disabled are also subject to forced "rotation" of parking. The right to free parking on the "envelope" is limited to, for example, the first 2 (Fig. 3a) or 3 hours (Fig. 3b). After their expiry, you should either drive away or pay for a further parking meter. To check the parking time, a parking clock (disk) inserted behind the glass is required.



3. Parking space with free parking limited to 2 or 3 hours (parking hours should be set on the so-called parking clock located behind the car window, and after these hours you should drive away or pay for a further stop) - Zandvoord and Alkmaar

In Poland, this method of parking is not used. Sometimes there is a limitation of parking time, which is more disciplinary and is not threatened with criminal consequences (Fig. 4).



4. An example of a parking restriction with a time limit - Cieszyn (Poland)

#### Solution #4

In areas with a particular deficit of parking spaces, the disabled are also discouraged from using private cars and the related need to park. The right to free parking on the "envelope" is abolished. The parking is immediately subject to a fee, which must be paid at the parking meter or via the application on the mobile phone. At the same time, a discount is possible for the disabled (Fig. 5).



5. "Envelope" for parking where you have to pay the fee at the parking meter or via the mobile app (the difference in numbers between the sign and the machine may mean a discount for the disabled) - Dordrecht



In Poland, fees for parking on "envelopes" are collected only in some internal areas, e.g. near hospitals, sanatoriums.

### **Solution #5.**

In areas with a very high deficit of parking spaces, the limitation of parking possibilities for the disabled may be very far-reaching. I compile some of the restrictions shown earlier, including e.g. the periods of operation of the site as an "envelope" and the maximum time of free parking (Fig. 6).



### **6. Connection of the time period of the "envelope" function with the maximum period of parking determined by the parking clock - Alkmaar**

### **Summary and Conclusions**

The amendment to the regulations introduced a few years ago [6, 7] introduced not only a new model of the "blue parking card", issuing it only for a specified period (previously for an indefinite period), but also greater restrictiveness in their allocation. Additional support in the proper use of parking spaces only by authorized persons has been provided by the actions of security services, which control the authorization to park on "envelopes" and, in the event of their absence, fines and even tow the vehicle away. As a result, the occupancy of "envelopes" has decreased noticeably.

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### **Source materials**

- [1] Rozporządzenie Ministrów Infrastruktury oraz Spraw Wewnętrznych i Administracji z dnia 31 lipca 2002 r. w sprawie znaków i sygnałów drogowych (Dz.U. 2002 nr 170 poz. 1393 z późn. zm.)

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- [2] Rozporządzenie Ministra Transportu i Gospodarki Morskiej z dnia 2 marca 1999 r. w sprawie warunków technicznych, jakim powinny odpowiadać drogi publiczne i ich usytuowanie (Dz.U. 1999 nr 43 poz. 430 z późn. zm.)
  - [3] Rozporządzenie Ministra Infrastruktury z dnia 12 kwietnia 2002 r. w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie (Dz.U. 2002 nr 75 poz. 690 z późn. zm.)]
  - [4] Ustawa z dnia 21 marca 1985 r. o drogach publicznych (Dz.U. 1985 nr 14 poz. 60 z późn. zm.)
  - [5] Zarządzenie nr 1682/2017 Prezydenta Miasta Stołecznego Warszawy z dnia 23 października 2017r. w sprawie tworzenia na terenie miasta stołecznego Warszawy dostępnej przestrzeni, w tym infrastruktury dla pieszych ze szczególnym uwzględnieniem osób o ograniczonej mobilności i percepcji (<https://bip.warszawa.pl>)
  - [6] Ustawa z dnia 20 czerwca 1997 r. - Prawo o ruchu drogowym (Dz.U. 1997 nr 98 poz. 602 z późn. zm.)
  - [7] Rozporządzenie Ministra Pracy i Polityki Społecznej z dnia 25 czerwca 2014 r. w sprawie wzoru oraz trybu wydawania i zwrotu kart parkingowych (Dz.U. 2014 poz. 870)