THE INFLUENCE OF RUTTIER TRAFFIC ON RESIDENTIAL AREAS IN TIMISOARA MUNICIPALITY

INFLUENȚA TRAFICULUI RUTIER ASUPRA ZONELOR REZIDENȚIALE DIN MUNICIPIUL TIMIŞOARA

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Abstract: *This paper presents e few aspects regarding: the effects on population produced by noise; the measurements of noise level realized in some residential areas of Timisoara Municipality. It was observed that for the most part due to the intense traffic, even in residential areas, the values obtained are bigger then those that are foreseen in specialty standards.*

Rezumat: ***L****ucrarea de față prezintă câteva aspecte privind: efectele pe care zgomotul le produce asupra populației; determinările nivelului de zgomot efectuate în unele zone rezidențiale din Municipiul Timişoara. S-a constatat că, în majoritatea cazurilor, datorită traficului rutier intens, chiar şi în zonele rezidențiale, valorile obținute în urma măsurătorilor sunt mai mari decât cele prevăzute în standardele de specialitate.*

Key words**:** *noise, level noise, dB, ruttier traffic, people, residential area*
Cuvinte cheie: *zgomot, nivel de zgomot, dB, trafic rutier, oameni, zona rezidențială*

INTODUCTION

Taking into consideration the height regime, in Timisoara Municipality are met the following types of residential sub areas: LM a (existing residential sub area with small homes: P buildings, P+1 and P+2), LM b (proposed residential sub area with small homes: P buildings, P+1 and P+2), LI a (residential sub area with height homes: buildings with more than 3 levels), LM m (proposed mixed residential sub area with height homes: P-P+2 buildings). In the residential area can be found monuments and protected areas according to the Historical Monuments List.

In the last years at the level of the entire municipality, ruttier traffic was very intense, no matter the area's specific, that got to exceed the noise level in most of measurement points, that being a very bad fact for the population's health and not only.

MATERIALS AND METHOD

Measurement method: STAS 6161/3-82. Measurement duration: 8 hours during the day, 10 minutes for informative measurements. Measurements have been done with a sound level meter Bruel&Kjaer Mediator 2238.Microphone: Bruel&Kjaer of free area.

RESULTS AND DISCUSSION

The realized measurements have been done in the 2006 and 2007 years, during day, for the noise level appreciation in some residential areas in Timisoara Municipality. The 2006 year brought up the exceeding level as can be seen in table no. 1 and figure no. 1:

There have been enlisted the exceeding of maximum limit admitted in all measure points, due to ruttier traffic. The smallest value have been enlisted on Codrului Street (53,0 dB), and the biggest value enlisted was on Kogalniceanu Street (73,3 dB).

Table 1

The results of measurements realized in the 2006 year in Timisoara Municipality in some residential areas

No	Area	Lech (dBA)	LechMA (dBA)
1	Bv. Mihai Viteazu	71.3	50.0
2	Bv. Vasile Parvan	70.1	50.0
3	Aleea Ripensia	59.5	50.0
4	Calea Martirilor-str. Aries	70.4	50.0
5	Str. Gh. Lazar	53.6	50.0
6	Bv. Simon Barnutiu	72.2	50.0
7	Str. Ripensia	59.3	50.0
8	Str. Ripensia-str. Eroilor	62.8	50.0
9	Bv. V. Parvan-str. Michelangelo	63.2	50.0
10.	Bv. Cetatii-str. Gh. Lazar	71.0	50.0
11.	Bv. Cetatii-Calea Bogdanestilor	70.8	50.0
12.	Bv. Dragalina-Bv. Republicii	71.3	50.0
13	Bv. Dragalina-Bv. Regele Carol	70.0	50.0
14	Str. Constantin Parmezan-Calea Martirilor	65.7	50.0
15	Str. Michelangelo-str. Mihai Eminescu	72.4	50.0
16	Str. Kogalniceanu	73.3	50.0
17	Str. Ofcea	68.2	50.0
18	Str. Oituz	72.7	50.0
19	Str. Liege-Piata Verde	69.7	50.0
20	Bv. Revolutiei-Prefectura	64.7	50.0
21	Str. Eneas	72.5	50.0
22	Str. Dacilor	73,3	50.0
23	Str. Hector	65.0	50.0
24	Piata Marasti-Clinicile Noi	69.7	50.0
25	Bv. Circumvalatiunii	69.9	50.0
26	Str. Barbu Iscovescu	57.6	50.0
27	Str. Aries	56.5	50.0
28	Str. Codrului	53.0	50.0
29	Str. Timis	56.8	50.0
30	Piata Unirii-str. Alecsandri	61.3	50.0

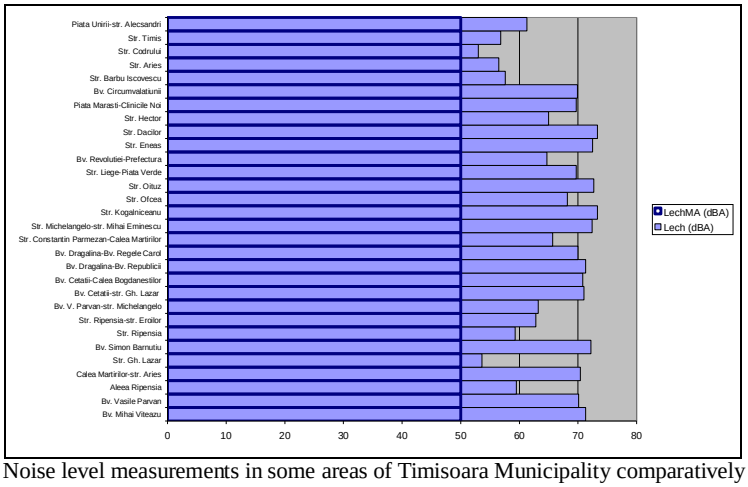

Figure 1 Noise level measurements in some areas of Timisoara Municipality comparatively with the maximum admissible limit (50 dB) in the 2006 year.

The year 2007 is presented in the following way from the noise level measurements point of view in some residential areas:

Table 2

Measurements results realized in the 2007 year in Timisoara Municipality in some residential areas

No	Area	Lech (dBA)	LechMA (dBA)
1	Str. Kogalniceanu	71.1	50.0
2	Str. Mihai Eminescu	58.8	50.0
3	Bv. G. Dragalina	50.8	50.0
4	Str. Ion Barac	68.9	50.0
5	Str. Lacului	64.4	50.0
6	Bv. Mihai Viteazu-str. C. Porumbescu	65	50.0
7	Bv. V. Parvan	74.1	50.0
8	Bv. Take Ionescu	70	50.0
9	Str. Ripensia-Bv. Eroilor	64.2	50.0
10	Piata Victoriei	60.5	50.0
11	Str. Gh. Lazar-str. Sfantul Ioan	69.9	50.0
12	Str. Pop de Basesti-Bv. Regele Carol I	69.9	50.0
13	Bv. Regele Carol I-Bv. 16 Decembrie	66	50.0
14	Str. 16 Decembrie-str. C. Brancoveanu	71.9	50.0
15	Bv. Revolutiei din 1989	71.5	50.0
16	Bv. Michelangelo	70.9	50.0
17	Bv. Liviu Rebreanu	72.1	50.0
18	Bv. L. Rebreanu-Calea Martirilor	77.7	50.0
19	Str. C. Porumbescu	66.8	50.0
20	Bv. Erolilor de la Tisa-str. Ripensia	73.8	50.0
21	Str. Popa Sapca	71.3	50.0
22	Str. Daliei	68.3	50.0
23	Splaiul Galati	66.8	50.0
24	Str. Demetriade	68	50.0
25	Parcare Iulius Mall	70	50.0
26	Bv. 3 August 1919	58.7	50.0

From the values presented in table no 2 and figure no 2, can be observed the fact that in most of cases have been enlisted exceeds of maximum admitted limit, due to ruttier traffic. The smallest value was on G., Dragalina Boulevard (50,8 dB) and the biggest value have been enlisted on L. Rebreanu – Calea Martirilor Boulevard (77,7 dB).

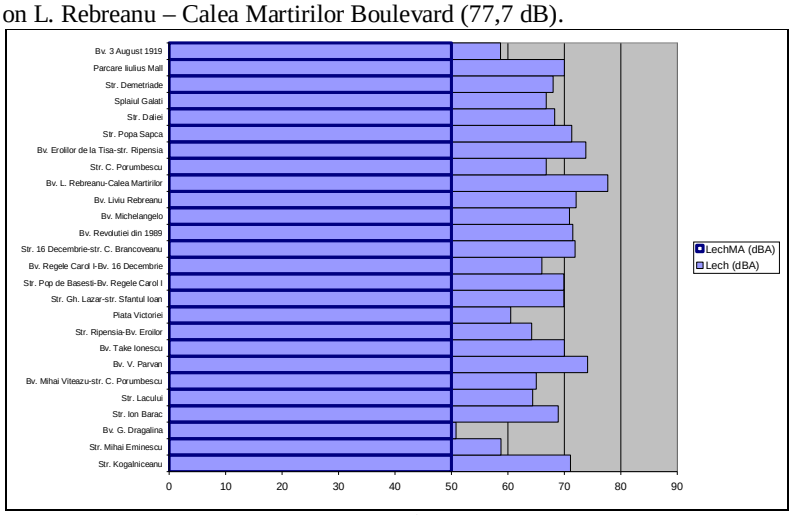

Figure 2 Noise level measurements in some areas of Timisoara Municipality comparatively with the maximum admitted limit (50 dB) in the year 2007.

From the point of population health, the produced noise by the ruttier traffic, can get to internal auricular traumatisms (could concuss professional deafness), disturbs the sleep, gets to neuromuscular excitability and of breathing changes, the growth of the endocrine glands, excitability.

CONCLUSIONS

The realized measurements have values that exceed the maximum admitted limit for the residential areas. The excess is caused by intense road traffic which gets to affect the population health from the respective areas.

From the measurements results can be observed that in the year 2006 have been enlisted in the most of cases values bigger than 70 dB, comparatively with the 2007 year.

Through the realization of a ring road the traffic would be none congested and the noise measurements would be in normal values that are specific to residential areas.

To readjust, inclusively through temporary or permanent forbidding, the access of certain types of automobiles or development of activities that are generating discomfort for population in certain areas of the localities, mainly in spaces designated for buildings, in areas designated for treatment, rest, recreation and hikes.

LITERATURE

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