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Acoustic information to be included for housing transaction in Norway from 2026

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A presentation [5] was held with a similar heading on this topic in 2024, then marked with question mark. Now the revision of NS 3600 is completed. NS 3600 "Teknisk tilstandsanalyse ved omsetning av bolig", in English can roughly be translated to: "Technical condition analysis for housing transaction". Section 12.8 in this standard, states that information about expected sound insulation shall be provided for flats. This information is simply related to the building year. For all dwellings in general, it shall also be stated whether the house is situated within an officially registered noise zone or not. This is a minimum of the ideal information that should be given, from an acoustic point of view. It is a result of compromises among various approaches that could be accepted by non-acousticians. Anyway, this is one step towards better information about acoustic qualities, especially for older buildings.

1 Introduction

The new Norwegian Act on Safer Residential Property Transactions (2022) aims to protect both buyers and sellers in housing transactions. It requires thorough information about the condition of the property, including condition reports prepared by qualified professionals, and ensures that important information is not withheld. Furthermore, the Act sets out rules on liability and complaints, so that a buyer has rights if significant defects are discovered after takeover. [6][7][8]

This contributes to a more open and predictable housing market, where both seller and buyer know what to expect, and where the risk of disputes is reduced. The regulations are designed to ensure fair conditions and increase security in the market. However, the legislation itself does not include anything about sound-insulation nor noise conditions.

The standard for technical condition analysis, NS 3600:2025 [9], provides further specifications based on the law and the regulation. During the revision it has also be an aim to add information which is assumed to be useful for both sellers and buyers. In this process the understanding for information about acoustic information has been increasing among the members of the working group. Although some early scepticism was observed among the group members, a section called Sound- and Noise Conditions has been included in the mandatory text.

2 Existing situation

2.1 Sound properties at transaction of flats and dwelling

If dwellings are renovated before a transaction, it only includes the surface, which can be called "surface-fixed". Thus, the sound insulation may be left on a level below far below expectation from the look of the surfaces. Lacking information about sound conditions can result in unexpected negative reactions form the buyers. This increases the risk of conflicts, especially for noise-sensitive buyers.

2.2 Danish and Norwegian studies

In 2025 the authors Birgit Rasmussen at the Ålborg University of Denmark and Ayca Sentop Dumen at NTNU Norway presented a paper [1] about:

> *Neighbour noise in multi-storey housing: Public experiences, attitudes and the need for acoustic labelling to ensure consumer protection.*

Results from this and three other documents [2][3][4], has been referred in various papers and publications.

Some of the conclusions related to building transactions are:

- Neighbour noise in apartment blocks is a significant stress factor that affects both health and privacy, and many people experience it as worse than traffic noise. The researchers at NTNU and Aalborg University propose a labelling scheme for sound classes in homes to protect consumers when buying or renting, similar to energy labelling.
- Noise from neighbours can lead to stress, sleep problems, anxiety and depression, and create conflicts between residents. Therefor acoustic conditions in homes should be documented when selling, to provide better consumer protection.
- Neighbour noise is most common in older buildings with timber floors, but also newer houses with heavier slabs can create negative reactions.

The authors point out that there is no strict inspection of sound insulation during construction or afterwards. Sound insulation is invisible to buyers compared with other qualities. The following statements are also relevant here:

> "Moving from one apartment to another is a leap in the dark".
>
> "Labelling is an urgent necessity for providing informed choices to house buyers and tenants".

2.3 The basics for the sound-insulation information to be given

Dwellings are normally constructed to meet sound insulation requirements at the time they are built. In Norway there has been regulations on acoustic properties for several years. Information about the year of construction therefore provides a fairly good indication of expected sound insulation. An overview of Norwegian regulations on internal sound insulation requirements was given in the 2024 presentation on this issue.

The tables below show sound insulation values in relevant values in various periods as presented in 2024 together with the simplified table form NS 3600 (partly covered for "copyright" reasons)

Regelverk	År / endr.	Luftlyd	Trinnlyd	Kommentarer
Lov om bygningsvesenet	1924	-	-	Konstruksjonskrav tilsvarer ca. 39 dB
Byggeforkrifter	1949	$D \geq 50$ dB*)	$\Delta L \geq 12$ dB*)	"Middelreduksjonstall" / trinnlyddemping. Anvisninger for konstruksjonstyper.
Byggeforskrifter	1969 / 69	$D_{0,5} \geq 49$ dB	$L_s \leq$ tabell verdier	Tilleggskrav; R ≥ 50 / 52 dB og tabellverdier. 3 dB strengere krav til luftlyd i rekkehus
Byggeforskrifter	1969 / 72	=	=	=
Byggeforskrifter	1969 / 76	=	=	=
Byggeforskrifter	1969 / 79	$I_a \geq 52$ dB	$I_i \leq 63$ dB	I_a 3 dB strengere for rekkehus I_i 5 dB strengere for rekkehus
Byggeforskrifter	1969 / 80	=	=	=
Byggeforskrifter	1969 / 81	=	=	=
Byggeforskrifter	1969 / 83	=	=	=
Byggeforskrifter	1985	=	=	=
Byggeforskrifter	1987 / 88	$R'_w \geq 52$ dB	$L'_{n,w} \leq 58$ dB	R'_w 3 dB strengere fo $L'_{n,w}$ 5 dB strengere fo
NS 8175	1997	$R'_w \geq 55$ dB	$L'_{n,w} \leq 53$ dB	Samme grenseverdi i l
NS 8175	2005	=	=	L'_n: Volumbegrensnin
NS 8175	2008	=	=	=
NS 8175	2012	=	=	=
NS 8175	2019	R'_w+C≥54dB	R'_w+C≤54dB	Ikke referert i forskrift

Tabell 4 — Forventet lydisolasjon mellom boenheter ut fra byggeår

Byggeår	Forventet lydisolasjon mellom bo…ter
Etter 1997	…ende
1969 til 1997	…et med boliger …et etter 1997
1949 t…	…ngvis vesentlig dårligere enn boliger bygget etter 1997
Før 19…	Ofte svært mye dårligere enn i boliger bygget etter 1997

Copyright

Figure 1: Sound insulation requirements at various times in Norway and simplified table om NS 3600

2.4 Simplifications made for sound-insulation

The committee and working group for NS 3600 were very concerned about how complex acoustic information can be to normal people. This applies both to the people making the technical condition analysis reports, the house transaction companies, the sellers and the buyers.

The following major simplifications are made:

- Decibel values are substituted by general descriptions
- The time periods are collected into only four groups
- Distinguishes between heavy and light structures are avoided
- Impact and airborne sound-insulation are grouped as one

More information is however allowed in a guidance document.

2.5 External noise

Outdoor noise sources can affect the noise levels around the residence and outdoor recreational areas. If the sound insulation in exterior walls is insufficient, indoor noise levels can also be disturbing, affecting relaxation, rest, and sleep.

The information to be provided according to NS 3600 is limited to official available noise contour maps like the one below.

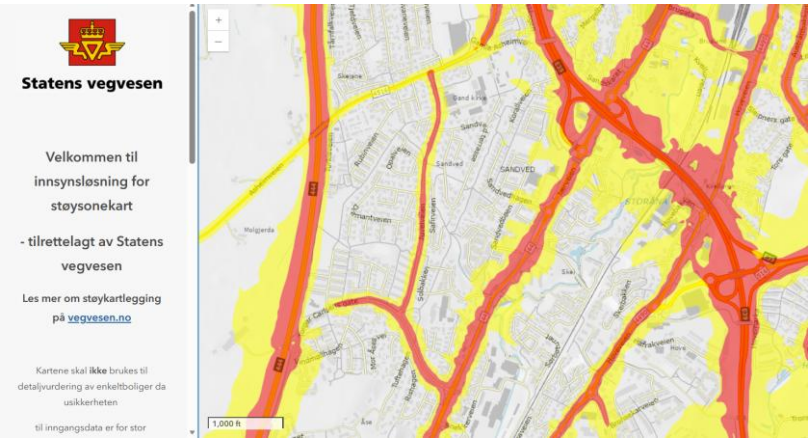

Figure 2: Example of an official available noise contour map for road traffic

It is not intended to include the map in the report, only as a statement whether the house is within a yellow or a red noise sone or outside these. This shall be followed by a comment which says that there may still be local sources not included in official available sound contour maps.

2.6 Self-declaration

The self-declaration scheme has so far not been revised. The existing one may even be kept. In this scheme there are no specific questions about noise conditions nor sound insulation. The self-declarations contain only one point about "any other information of importance". Most people would likely omit to present problems about noise in this point.

The value of self-declaration on and sound-insulation noise is also debateable. There may be large differences in subjective perception as well and the willingness to inform about potential problems. These challenges were also discussed after the 2024 BNAM presentation.

Sometimes the display (open survey) of dwellings is made when noise from external sources is low. This may lead to a “false” impression of the outdoor noise situation. The misimpression should now partly be covered by information to be provided about noise zones. Potential inside neighbor-noise problems, however, is harder to cover by objective methods.

3 Acoustic information according to NS 3600

Since "copyright" prevents a direct copy of NS 3600, the text below is re-written but contains the similar info.

3.1 Internal sound-insulation

The following information shall be provided:

No specific sound measurements or further investigations of sound insulation in the residence against neighboring units or outdoor noise have been conducted.

Based on the construction year or year of major regulatory dependant changes, only the relevant alternative shall be described. The following then applies to sound insulation against neighbouring flats and/or dwellings:

- Residences built according to the regulations in TEK 97 or later 1997 is assumed to meet today's standard for sound insulation. The sound insulation in these buildings will then likely be perceived as satisfactory by most people.
- In residences built between 1969 and 1997, the sound insulation is usually noticeably poorer compared to today's standard.
- In residences built between 1949 and 1969, the sound insulation is usually significantly poorer compared to today's standard.
- In residences built before 1949, the sound insulation is usually much poorer than in residences with today's standard.

Any information concerning improvements made to the noise and or/sound insulation shall also be described.

3.2 External noise

Specify type of noise and zone based on available noise maps on https://kartkatalog.geonorge.no/.

The property is located within the following noise zones…..

The following shall also be stated:

Even if the residence is not within noise zones specified in https://kartkatalog.geonorge.no it may still be exposed to noise.

Homes built before 1997 usually have noticeably lower sound insulation against outdoor noise than newer homes.

Any information concerning improvements sound insulation shall be provided.

4 A new guidance document

A new guidance document will cover a limited selection of subjects in NS 3600. Since acoustics is a new subject, it has been agreed that this subject shall be included. The acoustic motivation to make a comprehensive acoustic guide, is still limited since acoustics is "only a smaller part of the standard".

At the moment (spring 2026), this is "work under progress". Thus, the text must be finalized before details can be officially presented. However, principles as listed below may be included in the final document:

- Spesifications in dB of airborne and impact sound insulation requirements related to building year.
- Differences in dB between new and old regulations related to "noticeably", "significantly" and "much poorer".
- A brief description for typical building structures in the various periods.
- A statement about old wooden compared with concrete slabs.
- Some examples on modifications that improves the sound insulation.
- List of three typical misunderstandings: i.e. modifications that may dis-improve the sound insulation. *)
- Reference to Norwegian building detail sheets about older structure and improvement measures.
- Some information about protection towards external noise.

*) Removing clay form old wooden floor structures, blown-in insulation, new claddings with uninsulated small cavities,

The intention with the guidance document is to present more details for those who wish to improve their understanding about acoustics and/or for situations when discussions about dB-values or solutions arise.

5 Summary

In the work with inclusion of acoustic information in NS 3600, three major challenges had to be balanced:

1. Keep the information simple enough to be accepted by non-acousticians in the revision process.
2. Limit the amount of work with the acoustic part of the technical report. It needs to be low-cost and small enough to be accepted by the house transaction companies.
3. Keep sufficient information of importance for both sellers and buyers to avoid misunderstandings and reduce the need of potential court cases.

The brief information will hopefully improve the following:

Better correlation between expected sound properties and the real situation.

Byers can find a home that has acceptable sound-insulation for them, price taken into consideration.

Hopefully the requirements on information will also encourage rebuilders and sellers to include sound-insulation measures in rebuilding processes.

References

[1] Şentop Dümen A, Rasmussen B. (2025). Neighbour noise in multi-storey housing: Public experiences, attitudes and the need for acoustic labelling to ensure consumer protection. Build. Acoust. 2025;32(1):25-49. https://doi.org/10.1177/1351010X241311800

[2] Şentop Dümen A, Rasmussen B. (2025). Emotions elicited by neighbour noise and coping process: A social media research based on two newspaper articles. Build. Environ. (269) 2025,112432. https://doi.org/10.1016/j.buildenv.2024.112432

[3] Rasmussen, B. (2025). Sound insulation requirements in multi-storey housing – A health issue or just comfort? In T. Dau, & B. Epp (Eds.), *Proceedings of DAS|DAGA 2025* (pp. 280-283). Article 590 Deutsche Gesellschaft für Akustik, DEGA. https://doi.org/10.71568/dasdaga2025.590

[4] Sentop Dumen, A., & Rasmussen, B. (2025). Neighbour noise questions in national surveys. In T. Dau, & B. Epp (Eds.), *Proceedings of DAS|DAGA 2025: 51st Annual Meeting on Acoustics* (pp. 272-275). Article 598 Deutsche Gesellschaft für Akustik, DEGA. https://doi.org/10.71568/dasdaga2025.598

[5] Tønnes A Ognedal (2024). Acoustic properties to be included with new housing sale reports? *Proceedings of the Baltic-Nordic Acoustics Meeting 2024*.

[6] Lov om avhending av fast eigedom (avhendingslova) https://lovdata.no/dokument/NL/lov/1992-07-03-93

[7] Forskrift til avhendingslova (tryggere bolighandel) https://lovdata.no/dokument/SF/forskrift/2021-06-08-1850

[8] Guidance on use (DIBK) https://www.dibk.no/regelverk/forskrift-til-avhendingslova-tryggere-bolighandel

[9] NS 3600:2025 Teknisk tilstandsanalyse ved omsetning av bolig. Standards Norway.