

PS4 Meet Thresholds for Impact Noise Rating

Technical Document (Individual)

WELL Performance Rating™, Q4 2022 Addenda








WHAT IS THIS DOCUMENT:

This document is intended to serve as a guide on how to create a **technical document to reduce impact noise between floors in a building to mitigate disrupted focus and sleep disturbances.**

This document and similar tools are intended to assist projects in their pursuit of the WELL Performance Rating™ but use of this document and/or similar tools are in no way a guarantee of achievement of any rating or designation, and no representation or warranty is made regarding the likelihood of achieving any rating or designation.

Note: The below document is based on the Q4 2022 addenda of the WELL Performance Rating™. Project teams are required to implement the feature requirements from the addenda version assigned to their project or any more recent addenda version.

HOW TO USE THIS DOCUMENT:

- ☐  Read the [below feature requirements](#) (or the feature requirements from the [addenda version assigned to your project](#), as relevant) and determine how your project addresses each requirement.
 - a. If your project is a WELL Core project, read through and ensure that your project follows the “WELL Core Guidance.”
 - b. Make sure to apply the feature requirements appropriate to your project’s space types. For example, if your project has both dwelling units and other space types, ensure your project is applying the requirements under “For Dwelling Units” to the dwelling unit spaces and applying the requirements under “For All Spaces except Dwelling Units” to the other space types. Check out the [WELL Performance Rating™ digital standard](#) for the exact language on your project’s space types.
- ☐  Refer to the [below example document](#) to get an idea of how to set up your documentation.
- ☐  Collaborate with your stakeholders to gather the [relevant documentation](#) that demonstrates the project’s compliance with the feature. Some examples of relevant documentation include:
 - a. a letter from a hired professional outlining services provided
 - b. the project’s floor plans
 - c. a modeling report
- ☐  Create a technical document using existing documentation where relevant, annotating it to clarify where feature requirements are met. Some examples of annotating include:
 - a. highlight the sections relevant to WELL requirements
 - b. circle or add boxes around particular data
 - c. add notes to confirm WELL requirements
 - d. add labels to draw attention to particular sections
 - e. provide an explanation of the connection to WELL requirements using a different colored font
 - f. check out the [WELL Documentation Annotation Guide](#) for more
- ☐  Name the document so that it is easily identifiable. Some examples for naming include:
 - a. name the document using the WELL feature code
 - b. name the document using the WELL feature name
 - c. name the document using the WELL document type
- ☐  Review the document you’ve created and ensure that all the necessary WELL requirements are fully and clearly addressed.
 - a. Note: the level of detail is up to the discretion of the project team, but the document must include specific details demonstrating that the actual requirements have been enacted in the project boundary. Features cannot be demonstrated solely through a written confirmation that the WELL requirements have been or will be implemented.
- ☐  Upload the document to the checklist in the WELL digital platform, after you’ve confirmed that the document fully and clearly addresses all the necessary WELL requirements.

FEATURE REQUIREMENTS:

For All Spaces

The following requirement is met:

- a. For the following room types, where vertical adjacencies are located within the project boundary, the floor-ceiling construction achieves the following Normalized Impact Sound Ratings (NISR), as measured by a professional in acoustics, in accordance with ASTM E1007-19, ISO 16283 or equivalent (LnTw may be used as an equivalent metric and may be determined by subtracting the NISR values listed below from 110):

Room Type	Location of Applicable Floor-Ceiling Assembly	Tier 1 Minimum NISR208	Tier 2 Minimum NISR208
Quiet zones (except areas for concentration)	Above	52	57
Areas for fitness	Below	47	52
Enclosed Areas for concentration and conferencing	Above	47	52
Open Areas for concentration	Above	42	47
Areas for retail and dining	Below	42	47

Note:

This requirement does not apply to floor/ceiling assemblies that separate a relevant room type from a non-occupiable spaces (e.g., a quiet zone that is vertically adjacent to a roofs, equipment room or attics). Note that the room vertically adjacent to the room type listed in the table may or may not be within the project boundary.

WELL Core Guidance:

Meet these requirements for the extent of developer buildout.



The below sample documentation is intended to provide guidance in creating a technical document. It is not a template. You may note included components that are not required to demonstrate compliance with this feature.



Example document for PS4 Meet Thresholds for Impact Noise Rating

[DATE]

[PROJECT ADDRESS]

Dear [PROJECT ADMINISTRATOR NAME],

We have completed impact noise testing throughout floors 7, 8, and 9 as well as the rooftop amenity space at [PROJECT]. Photos below show the tapping hammer used to measure NISR values of the applicable floor/ceiling assemblies in accordance with ISO 16283 as well as sound level meter locations in the floors below:

[insert Photo 1 - Tapping hammer]
[insert Photo 2 - Sound Level Meter on floor below]
[insert Photos 3 - onward repeating]

The average values for measured NISR are shown in the table below, alongside their corresponding performance tiers listed in the WELL Performance Rating feature requirements:

Reverberation Time tests:

Room Name	NISR (Tier)
Apartment 9a to Apartment 8a	55 (Tier 1)
Roof Amenity to Apartment 9a	60 (Tier 2)
Roof Amenity to Apartment 9b	59 (Tier 2)
Apartment 8a to Apartment 7a	56 (Tier 1)

During testing, it was noted that some dwelling units had finished floors while other apartment floors were still under construction, which may have impacted performance. Testing was only conducted in rooms where floors were finished and ceilings were below in the receiving dwelling units.

TIPS FOR MULTIPLE LOCATIONS

- For organizations pursuing the WELL Performance Rating for multiple locations, a technical document must be submitted for each project pursuing this feature part; it is not considered shareable.