

S01.2 Provide Acoustic Design Plan

Professional Narrative

WELL Building Standard™ version 2 (WELL v2™), Q1 2021 addenda



HOW TO USE THIS DOCUMENT:

This document is intended to serve as a guide on how to create a project professional narrative to incorporate strategic planning required to prevent issues of acoustic disturbance from various sources of noise.

This document is meant to demonstrate an acceptable degree of detail for a documentation submission. The Feature cannot be demonstrated solely through a confirmation that the requirements have been or will be implemented. The level of detail is up to the discretion of the project team, but the documents must include specific details demonstrating that the actual requirements have been enacted in the project boundary.

This document and similar tools are intended to assist projects in their pursuit of WELL v2 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 Q1 2021 addenda of the WELL Building Standard™ version 2 (WELL v2™). Project teams are required to implement the feature requirements from the addenda version assigned to their project or any more recent addenda version.

FEATURE PART REQUIREMENTS:

For All Spaces

The project provides one of the following:

- a. A plan developed by the project team and/or project owner that outlines acoustical solutions and a timeline for implementation with a focus on managing acoustical comfort, background noise, speech privacy, reverberation time and/or impact noise within the project boundary.*
- b. A detailed report from a professional in acoustics that describes existing conditions, recommended solutions and measurement results with a focus on managing background noise, speech privacy, reverberation time and/or impact noise within the project boundary. These measurements are not required to adhere to the Performance Verification Guidebook requirements for on-site testing.*

WELL Core Guidance:

Meet these requirements in the whole building, based on any knowledge of anticipated uses.



The below sample documentation is intended to provide guidance in creating an Acoustic Design Plan. It is not a template. You may note included components that are not required to demonstrate compliance with this Feature.

Example document for Feature Part 2a

The example below is specific to a new construction office building project that will have a phased approach to their acoustic design plan due to cost constraints. It will include installing certain acoustic design elements during construction, then adding operational and additional design elements over time for a more complete acoustical solution.

[Company] Acoustic Design Plan

[Company]'s goal is to ensure that occupants experience acoustical comfort for an optimal work environment. Based on an organization-wide design charrette, acoustic comfort and noise control were noted as high-priority design items by staff. Here is a step-by-step plan to achieve high levels of acoustical comfort throughout the project:

STEP 1: Design Phase & Construction Phase

Dates: [INSERT START DATE – INSERT ANTICIPATED FINISH DATE]

- Interior walls have been designed with sound reduction index (Rw) values that meet the requirements of WELL S03 Part 1.a
- Interior doors have been designed to meet requirements in WELL S03 Part 1.b
- As part of WELL S01 Part 1, the team responsible for programming the space has strategized to ensure that there are no "Loud Zones" next to "Quiet Zones"

STEP 2: Occupancy Phase, after completion of construction

Dates: [INSERT START DATE – INSERT ANTICIPATED RECERTIFICATION DATE]

- Guidelines have been rolled out providing guidance on appropriate types of activities for "Loud Zones", "Quiet Zones" and "Mixed Zones" to ensure that usage of rooms contributes to the larger acoustical comfort of occupants. For example, team members are encouraged to not take calls in spaces designated as "Quiet Zones."
- A "quiet hour" program has been instituted from [timeframe] on [days of the week]. During the quiet hour, employees are not involved in distracting activity (i.e., meetings, calls, running printers, etc.). Employees are reminded on a quarterly basis about the importance of this benefit in the office's quarterly health and well-being newsletter.

STEP 3: Renovations between WELL Certification and Recertification

Dates: [INSERT START DATE – INSERT ANTICIPATED RECERTIFICATION DATE]

- In [INSERT YEAR], a sound masking system will be installed in open office areas and enclosed offices for focused work. The sound masking system will be commissioned using a ramp-up system whereby the introduced sound level is raised slowly over a period of two weeks.
- In [INSERT YEAR], partial height partitions will be added between opposing workstations to reduce unwanted speech between desks and improve acoustical comfort throughout the open office.
- In [INSERT YEAR], acoustical panels will be added to rooms that are considered "Mixed Zones" in the WELL S01 Part 1 acoustical plan to reduce reverberation time and increase acoustical comfort in these areas.

The example below is specific to an existing high school project. The project will implement acoustical elements over a 3-yr timeline.

[School] Acoustic Design Plan

[School]'s goal is to ensure that students and employees experience acoustical comfort for an optimal learning environment. The head of the school facilities team [NAME, CONTACT INFORMATION] will be leading the implementation of this plan. Funding was approved through the school board at their [DATE] meeting to make each of the improvements. Here is a step-by-step plan to achieve high levels of acoustical comfort throughout the project:

YEAR 1: [INSERT YEAR]

Between WELL Registration and Certification

- **REPROGRAMING:** As part of WELL S01 Part 1, a list was created of walls between “Loud Zones” and “Quiet Zones”. The following re-programming is being done during the school’s spring break holiday to reduce the number of adjacent “Loud Zones” and “Quiet Zones”:
 - The reading rooms (Quiet Zones) in the north wing that are currently adjacent to the cafeteria (Loud Zone) are being swapped with the break-out rooms (Mixed Zones) used for student club meetings.
 - The quiet study rooms (Quiet Zones) in the west wing that are currently adjacent to the gymnasium used for physical education (Loud Zone) are being swapped with the physical therapy session rooms (Mixed Zones).
- **RENOVATIONS:** When programming cannot be adjusted and a “Quiet Zone” must remain next to a “Loud Zone” (for example between the library and the auditorium):
 - The interior walls between these spaces are getting new 0.85 NRC acoustical treatments to reduce sound transmission across the walls.
 - Acoustical ceiling “cloud” treatments are being installed in the library (Quiet Zone), the auditorium (Loud Zone), the cafeteria (Loud Zone), the band room (Loud Zone) and the south wing’s quiet study room (Quiet Zone).

YEAR 2: [INSERT YEAR]

- **RENOVATIONS:** Over the summer break, the school will make the following upgrades:
 - Hollow metal doors on all the classrooms, speech therapy and counseling rooms will be replaced with wooden solid-core doors.
 - The band room floor will be carpeted.
 - The band practice rooms will be carpeted.
 - Acoustical panels will be added on the walls (above the lockers) of the central corridors in the north and south wings to reduce sound transmission from corridors into classrooms.
 - Acoustical ceiling “cloud treatments” will be added to the front lobby of the school.

YEAR 3: [INSERT YEAR]

- **RENOVATIONS:** Over the summer break the school will make the following upgrades:
 - Each classroom will be fitted with a ceiling “cloud” treatment.
 - A sound masking system will be installed in the library.

Example document for Feature 1 Part 2b

Instructions for pursuing Feature Part 2b:

1. Hire an acoustical professional to assess the project space. Ensure that they can:
 - Test the space for acoustical performance metrics, and provide test results, associated with at least one of the following metrics:
 - Managing background noise
 - Speech privacy
 - Reverberation time
 - Impact noise
 - Complete an overall assessment of the space that describes existing conditions:
 - *Ex: Identifies potential external sources of noise that could contribute to acoustical discomfort (e.g. a firehouse next door)*
 - *Ex: Identifies potential internal sources of noise that could contribute to acoustical discomfort (e.g. a mechanical room, loud flushing toilets, loud refrigerator or other appliance, etc.)*
 - *Ex: Identifies any finishes on the floors, walls and/or ceilings contribute that may contribute to acoustical discomfort (e.g. concrete floors in large open areas that increase reverberation times)*
 - *Ex: Identifies programming in the space that may contribute to acoustical discomfort (e.g. are there any typically loud areas like a gym space directly next to a space where concentrated work is being done and quiet is needed.)*

- *Ex: Identifies any acoustical treatments already in place or planned to be put in place? (e.g. acoustical panels, sound masking systems, etc.)*
 - Provide proposed solutions based on test results and the space assessment.
 - Draft a report that includes test results, the assessment of the space and proposed solutions (ideally with cost estimates for implementing the solutions.)
2. Once a report is generated, upload it to the project's WELL Online dashboard as for documentation. Note, if the report is in a non-English language, please translate the report into English or add annotations that include English translations of key parts of the report.
 3. (Optional) Consider implementing recommendations provided in the report.