

Awair's Green Building Certification Cheat Sheet

This guide provides a high-level comparison of LEED, WELL, Fitwel, and Living Building Challenge Certifications and outlines how to use Awair Omni to help support and streamline your certification efforts.



Scope:Difficulty Level:Valid For:InternationalModerate5 years

Key Differentiators:

- Focused on sustainability, building materials, energy efficiency, and the environment.
- Wide variety of certification options tailored to different projects and industries.
- Credit-based point system offers more customization and alternative certification pathways.
- Continuous performance testing requirements ensure that LEED-certified buildings continue to perform at a superior level, but requires annual tests and data sharing through the <u>ARC</u> portal.
- Many LEED requirements overlap with WELL, so if you've achieved one
 of the two, it's easy to dual certify.

Certification Options:

LEED v4.1 BD+C (Building Design & Construction)

LEED v4.1 ID+C (Interior Design & Construction)

<u>LEED v4.1 O+M</u> (Existing Buildings: Operations & Maintenance)

LEED v4.1 Residential (Single Family & Multifamily Residences)

All LEED certification programs are based on a point system. Participants earn points by fulfilling different credits within their chosen certification program. Before your project can start earning points, however, you must complete all assigned <u>prerequisites</u>. Prerequisites are a baseline requirement for certification and don't have a point value. You can browse different credits offered for each type of certification by visiting the <u>LEED credit library</u>.



Cost:

Registration Fee: \$1,200 (USGBC members), \$1,500 (non-members).

Certification Fee: Based on project size and type of certification. Find more information here.

Additional Costs: Expedited review fees (optional), application appeal fee (optional), costs associated with annual air quality testing to meet building performance requirements (required).

Certification Time:

Certification timelines can vary based on the credits you pursue, the time your organization takes to collect and submit documentation, and how much of your application you need to update and/or appeal. Below is a loose certification timeline:

- 1. Submit Registration and Registration Fee: View registration and certification deadlines here.
- 2. Choose Credits, Collect Necessary Documentation, and Submit Application: Timeline varies depending on your project, credits, and level of preparedness.
- 3. Preliminary Application Review: 20 to 25 business days.
- 4. Respond to Preliminary Review and Revise Application: 25 business days (recommended).
- 5. Final Review: 20 to 25 business days.
- 6. Appeal Final Review (Optional): Time depends on the complexity of credits and supplementation required.
- 7. Appeal Review: 20 to 25 business days.

Certification Maintenance:

All LEED v4 certified projects are required to track and report energy and water usage data for a period of five years following certification. To help streamline this data collection and reporting requirement, all LEED projects are given free access to <u>Arc</u>, a data platform launched by GBCI. This platform helps to consolidate data from a variety of sources (e.g. water meters, manual tests, and data sensor) and provides an ongoing performance score.

Using Awair Omni to Streamline Air Quality Documentation and Arc Reporting:

In addition to reporting energy and water usage, each LEED certification has specific air ventilation and monitoring requirements. These requirements typically vary between new construction and existing building projects.

Air Quality Testing Requirements for New Buildings:

New buildings attempting to earn LEED v4 Building Design and Construction (BD+C) credentials must complete an <u>indoor air quality assessment credit</u>. There are two options to fulfill this credit:

Path 1: (1 point)

Install a new filtration system and "flush out" the air in the building before or during occupancy.

Path 2: (2 points)

Conduct a series of IAQ tests. This path requires air quality testing for particulate matter, ozone, carbon monoxide, total VOCs, formaldehyde, and roughly 34 "target" VOCs.

Awair Omni can help you achieve Path 2 by continuously monitoring particulate matter and total VOCs, thereby reducing the annual costs and time associated with spot testing for these pollutants.

In addition to the pathways mentioned above, the Building Design and Construction certification offers another credit opportunity for projects that implement <u>additional enhanced IAQ strategies</u>. To achieve this credit (1 point), teams can choose between the following options based on their building ventilation system:

Mechanically ventilated spaces (select one option):

- A. Exterior contamination prevention
- B. Increased ventilation
- C. Carbon dioxide monitoring
- D. Additional source control and monitoring.

Naturally ventilated spaces (select one option):

- A. Exterior contamination prevention;
- D. Additional source control and monitoring
- E. Natural ventilation room by room calculations.

Mixed-mode systems (select one option):

- A. Exterior Contamination Prevention
- B. Increased Ventilation
- D. Additional Source Control and Monitoring
- E. Natural Ventilation Room-by-Room Calculations.

As a RESET certified air quality monitor, Awair Omni can be used to achieve option "C" (carbon dioxide monitoring) and option "D" (additional source control and monitoring) from the list above. You can learn more about these requirements <u>here</u>.

Air Quality Testing Requirements for Existing Buildings:

For existing buildings, or LEED v4 Existing Buildings (O+M), <u>performance based indoor air assessment</u> is required for a total of nine credits. Point allocation is broken down into three tiers:

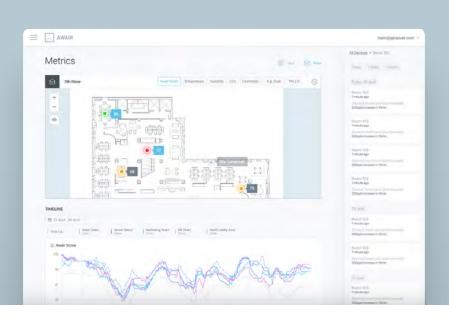
Tier 1: Baseline IAQ Evaluation (2 points)

This mandatory credit involves baseline testing for specific indoor Volatile Organic Compounds (VOCs) and total VOCs, as well as inorganic contaminants such as ozone (O3), carbon monoxide (CO), carbon dioxide (CO2), and fine particulate matter (PM2.5).

For this tier, Awair Omni can be used to provide baseline testing data for indoor total VOCs, CO2, and PM2.5. In addition to providing test results, teams must conduct a satisfaction survey of at least 30 percent of building occupants regarding air quality conditions.

Tier 2: IAQ Optimization (1-4 points)

This optimization tier focuses on using baseline air quality data to identify areas for improvement within your building. For this tier, you can use Awair Omni readings and the Omni Dashboard floorplan feature to locate problem areas and troubleshoot air quality issues at the source. Because Awair Omni provides continuous monitoring, you can use the device to test out different solutions and document improvements over time.



Tier 3: Ongoing IAQ Performance (3 points)

As the name suggests, this tier asks teams to commit to annual or continuous IAQ testing. Awair Omni can be used to provide continuous measurements for indoor PM2.5, CO2, and total VOCs, and to document improvements over time.

Existing buildings also have the option to pursue <u>LEED v4.1 for Existing Buildings</u> by sharing air quality performance data through the Arc portal. To meet this "Human Experience" requirement, teams can conduct an occupant satisfaction survey or complete an indoor air quality evaluation. The latter requires teams to test indoor air quality levels for CO, CO2, O3, PM2.5, or total VOCs during occupied hours at least once per year. Because Awair Omni continuously monitors CO2, PM2.5, and VOCs, data from the Awair Omni Dashboard can be exported to help document compliance.



Scope:Difficulty Level:Valid For:InternationalModerate3 years

Key Differentiators:

- Focused on human sustainability, health, and wellness.
- Option to certify designated spaces within a larger building or project.
- WELL Performance Verification requirements ensure that buildings continue to provide an exceptional environment for occupants (requires annual testing and/or sensors, surveys, and data submission through the digital WELL platform).
- Many WELL requirements overlap with LEED, so if you've achieved one of the two, it's fairly easy to dual certify.
- Offer subscription and single-cycle payment options.

Certification Options:

WELL v1 (7 Concepts)

WELL v2 (10 Concepts)

WELL Community Standard

All WELL submissions are evaluated using a points-based system. There are 100 points available per project, plus 10 extra "innovation" points which are awarded for exceptional solutions.

WELL v2 has 10 "concepts" (i.e. categories) that must be addressed to earn certification: Air, Water, Nourishment, Light, Movement, Thermal Comfort, Sound, Materials, Mind, and Community. In contrast, WELL v1 has seven concepts: Air, Water, Nourishment, Light, Fitness, Comfort, and Mind. With WELL v2, applicants must achieve at least two points per concept in order to qualify for certification. The total number of points earned across all concepts dictates the certification level.









Core 40 - 49 Points

Silver 50 - 59 Points

Gold 60 - 79 Points

Platinum 80+ Points

Cost:

Registration Fee: \$1,500 to 10,000 (depends on project type and size)

Certification Fee: \$13,000+ (dependent on project type and size)

Additional Costs: Annual onsite performance testing for air quality and thermal comfort (required), precertification fee (optional), certification support fees

(optional), application appeal fee (optional).

Certification Time:

Average of six months, but timelines vary considerably between projects. For a more accurate timeline estimate, use WELL's <u>Timeline Estimator</u>.

Certification Maintenance:

WELL is a performance-based system, which means that building performance must be verified annually via on-site testing, sensors, and/or surveys. Performance testing requirements vary between certifications, but can include on-site air quality, lighting, thermal, and acoustic testing.

Using Awair Omni to Meet WELL's Air, Thermal Comfort, Light, and Sound Features:

Air

To meet Feature A05 (4 points), applicants are required to demonstrate that they've achieved specific thresholds for particulate matter, organic gases, and inorganic gases. Rather than paying for professionals to conduct annual on-site tests for PM2.5 and VOCs, Awair Omni can be used to track and document indoor PM2.5 and organic gases (VOCs) and fulfill Part 1 and 2 of this Feature. Implementing a continuous air quality monitoring solution will help you troubleshoot pollution issues when they arise, monitor changes over time, and comply with other air quality Features.

<u>Feature A08</u> (2 points) requires applicants to implement indoor air quality monitors and promote air quality awareness in their space. As a RESET certified device, Awair Omni can be used to fulfill both of these requirements. By giving building occupants access to the Omni Dashboard, creating (automated) air quality alerts in the Dashboard, and sharing air quality data on your Omni device display, you can promote greater air quality awareness and support Part 2 of this Feature.

Thermal Comfort

Under WELL's Thermal Comfort concept <u>Feature T07</u> (1 point), applicants are required to manage relative humidity levels in their space to limit mold growth, decrease airborne pathogens, and improve occupant health and wellbeing. Hiring a professional to conduct an on-site relative humidity assessment can be costly, and this method gives you less precursory insight into/control over your performance.

Awair Omni monitors relative humidity levels in your space, and can alert you when humidity levels rise or fall below accepted WELL thresholds (less than 30 percent or greater than 60 percent). By providing real-time and historical data on humidity, Omni can provide verification for certification and documentation to meet WELL v2's Continuous Monitoring requirements.

Light

Using Awair Omni's light sensor, you can track indoor lighting levels throughout the day and use light data to help inform how you approach <u>Feature L03</u>: Circadian Lighting Design (3 points), and implement <u>Feature L05</u>: Enhanced Daylight Access (3 points).



Sound

The sound concept of WELL v2 includes <u>Feature S02</u>: Maximum Noise Levels (3 points). This feature requires applicants to pass performance tests for background noise levels and keep noise pollution below a specific threshold.

Awair Omni monitors average sound levels (dBA) and can be used to understand, monitor, and document indoor noise levels in different areas throughout your building. In addition, noise data can be used to inform sound-related building upgrades and comply with WELL's Continuous Monitoring requirements.



Scope:Difficulty Level:Valid For:United StatesAccessible3 years

Key Differentiators:

- · Cost-effective.
- No prerequisites to certification.
- Designed for commercial spaces and residential buildings, ideal for real-estate developers and urban planners.
- Focused on human health and wellbeing, with an emphasis on creating spaces and protocols (for cleaning, emergency evacuation, maintenance, etc.) that provide equitable access and optimal quality of life for occupants and surrounding communities.
- Fitwel has more categories than WELL, but tends to be more flexible and offers more alternative compliance paths to reach certification.

Certification Options:

Fitwel v2 (Standard)

Fitwel v2.1 (New Construction Pathway, Existing Building Pathway)

All WELL submissions are evaluated using a points-based system. There are 100 points available per project, plus 10 extra "innovation" points which are awarded for exceptional solutions.

WELL v2 has 10 "concepts" (i.e. categories) that must be addressed to earn certification: Air, Water, Nourishment, Light, Movement, Thermal Comfort, Sound, Materials, Mind, and Community. In contrast, WELL v1 has seven concepts: Air, Water, Nourishment, Light, Fitness, Comfort, and Mind. With WELL v2, applicants must achieve at least two points per concept in order to qualify for certification. The total number of points earned across all concepts dictates the certification level.



Cost:

Registration Fee: \$500

Certification Fee: Based on square footage of space being certified. Ranges

from \$5,500 to \$8000+

Additional Costs: Annual IAQ testing costs

Certification Time:

12 - 16 Weeks

Using Awair Omni to Create a Successful Fitwel IAQ Policy:

Under the Indoor Environments component of Fitwel v2.1, all property types (Multi-Tenant Base Building, Multi-Tenant Whole Building, Single Tenant Building, Commercial Interior Space, Multifamily Residential, and Retail) are required to implement an indoor air quality monitoring policy (6.3), conduct regular IAQ testing (6.4), and regularly share test results with building occupants via a digital platform or other communication medium (6.5). Below, we've outlined what each imperative entails and how Awair Omni can help you achieve these requirements.

6.3 Establish and implement an indoor air quality (IAQ) Policy

This requirement entails creating standards and guidelines to maintain optimal indoor air quality. Awair Omni can be mentioned in your IAQ policy as the means by which you'll monitor indoor pollutants and troubleshoot air quality issues.

Learn More About Creating an IAQ Policy Fit for Fitwel

6.4 Conduct regular IAQ testing

This section requires teams to conduct indoor air quality testing or continuous monitoring for PM2.5, total VOCs (TVOC), carbon dioxide (CO2), carbon monoxide (CO), and formaldehyde. Awair Omni can be used to provide continuous air quality data for PM2.5, total VOCs, and CO2. As a RESET certified device, Awair Omni can also be used to achieve RESET Air Certification (an alternative compliance path).

6.5 Regularly share IAQ Results with building occupants

The Awair Omni Dashboard makes it easy to share air quality data with building occupants. In the Omni Dashboard, you can invite location members to access air quality data for their location and create automated notifications to alert building occupants when air pollution reaches unhealthy levels. With our White Label Dashboard offering, you can add your company logo to the Dashboard portal and email communication to provide tenants with an end-to-end branded experience.



Scope: Difficulty Level: Valid For:

International Difficult No Expiration Date

Key Differentiators:

- All-encompassing, rigorous building certification program focused on creating sustainable, efficient buildings that have a positive impact on human health and the natural ecosystem.
- Focused on creating "Net-Positive" spaces, or spaces that generate more energy than they consume. To do so, LBC facilities must harvest, use, and treat all water onsite and also limit landfill waste by salvaging and repurposing materials. In addition, LBC projects must offset any negative environmental or community impacts incurred during construction.
- Applicants can choose from four "typologies:" New Building, Existing Building, Interior, and Landscape, or Infrastructure.

Certification Options:

LBC 4.0

LBC 3.1 Registration ends December 31, 2019

LBC is structured into seven "Petals:" Place, Water, Energy, Health + Happiness, Materials, Equity, and Beauty. Each petal is divided into individual imperatives, creating a grand total of 20 LBC imperatives.

To earn LBC certification, projects must fully meet all imperatives for their chosen project "typology." An independent third-party auditor will then conduct a preliminary audit to review all documentation, check for compliance, and requests supplementary material or changes.

Afterwards, a final audit is performed to review any new information submitted since the preliminary audit. The final audit also includes an onsite review of the project in which the auditor assesses the project, completes a formal report, and makes certification recommendations.

Cost:

Registration Fee: \$900 Renovation Project / \$900 Landscape & Infrastructure /

\$900 Building

Preliminary Audit: Based oOk, n property type and square footage.

Ranges from \$1,500 to \$16,000+

Final Audit: Based on property type and square footage.

Ranges from \$1,000 to \$9,000+

Additional Costs: Appeals (\$500 per imperative), consulting, charrette, and technical

assistance fees (optional), fees associated with performance testing &

monitoring equipment.

Certification Time:

Varies considerably by project.

Certification Maintenance:

LBC is a rigorous performance-driven certification. As such, the project/building must be operational 12 consecutive months prior to the audit process and must meet all performance requirements throughout that period.

Using Awair Omni to Tackle LBC Imperative 08: Healthy Interior Environment:

To accomplish the Health & Happiness portion of the LBC program, participants must comply with Imperative 08: Healthy Interior Environment, which requires Indoor Air Quality monitoring. With the release of LBC v4.0, maintaining healthy indoor air quality has become a <u>Core Imperative</u>.

Hiring an IAQ specialist to test your air and provide custom reports can be costly. Awair Omni can help you streamline this process, save money, and continuously improve your indoor air quality over time.

Because Awair Omni is certified by RESET, it can be used as an alternative compliance path for teams looking to conduct IAQ testing and implement a continuous air quality monitoring solution. Rather than submitting two separate IAQ tests (one for post-construction and one post-occupancy), Awair Omni can be used in conjunction with more limited post-construction spot tests for formaldehyde, NO2, ozone, and 4-PCH to meet this LBC requirement. To remain valid, the project must meet RESET certification requirements (maintaining healthy air quality levels) for a twelve month period. If your project is already on track to be a Living Building, maintaining RESET air quality standards should require minimal effort and reinforce overarching project goals.

Learn more about the benefits of using Awair Omni for LBC

Implementing a Continuous Air Quality Monitoring Solution

Interested in learning more about Awair Omni and how it's been used in residential, retail, and corporate spaces? We'd love to answer your questions and discuss your unique certification goals. Reach out to us to get the ball rolling on your next certification project.

