



LEED 2009 for Commercial Interiors

IEQ PREREQUISITE 1: MINIMUM INDOOR AIR QUALITY PERFORMANCE

All fields and uploads are required unless otherwise noted.

ALL OPTIONS

This static sample form has been modified for offline access. All sections of the form are visible. Sample forms are for reference only.

Select all that apply to the project building:

- ☐ The project building is mechanically ventilated, in part or in whole.
- ☐ The project building is naturally ventilated, in part or in whole.
- ☐ The project building is mechanically conditioned, in part or in whole.
- ☐ The project building is naturally conditioned, in part or in whole.

The project meets Sections 4 through 7 of ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality.

Signatory

Initial Here :

A floor plan for the project space indicating the areas served by a combination of natural and mechanical ventilation or conditioning systems is required to demonstrate credit compliance. The representative floor plans for the project space upload below is a linked submittal. (if one is not present, you may upload one now.)

Upload L-1. Representative floor plans of the project space.

Select one of the following:

- ☐ The floor plan above shows the areas served by a combination of natural and mechanical ventilation or conditioning systems.
- ☐ A different document is better suited to satisfy the requirement.

Upload L-1.1. Floor plan for the project space indicating the areas served by a combination of natural and mechanical ventilation or conditioning systems.

MECHANICAL VENTILATION

Select all that apply to the project building:

- ☐ **Case 1:** One or more AHUs are able to meet the ASHRAE Standard 62.1-2007 outdoor air requirement.
- ☐ **Case 2:** One or more AHUs are unable to meet the ASHRAE Standard 62.1-2007 outdoor air requirement.

AHUs THAT MEET ASHRAE STANDARD 62.1-2007 OUTDOOR AIR REQUIREMENTS

Complete the following table for each air-handling unit in the project space that is able to meet the ASHRAE Standard 62.1-2007 outdoor ventilation rate requirement.

Table. Ventilation Rate Procedure

AHU	Zone	Occupancy Category	Rp (cfm / person)	Ra (cfm/sf)	Occupant Density		Az (sf)	Vbz (cfm)	Ez	Voz (cfm)	Ev	Vot (cfm)
					Default	#/1000sf						
					<input type="checkbox"/> Yes							

Table. Outdoor Airflow

AHU	Zone	Occupancy Category	Vot (cfm)	Design OA Intake Flow (cfm)	Zone Complies with IEQp1	Zone Complies with IEQc2
Compliance with IEQ Prerequisite 1: Note: The design outdoor air intake flow for all zones must be equal to or greater than the outdoor air ventilation rate required by ASHRAE Standard 62.1-2007, ventilation rate procedure.						
Compliance with IEQ Credit 2: Note: The design outdoor air intake flow for all zones must be 30% greater than the minimum outdoor air ventilation rate required by ASHRAE Standard 62.1-2007, ventilation rate procedure.						

Note: OA = Outdoor Airflow. Refer to ASHRAE Standard 62.1-2007 Ventilation Rate Procedure and ASHRAE 62MZCalc spreadsheet for detailed definitions and calculation procedures.

AHUs UNABLE TO MEET ASHRAE STANDARD 62.1-2007 OUTDOOR AIR REQUIREMENTS

Complete the following table for each air-handling unit in the project space that is unable to meet the ASHRAE 62.1-2007 outdoor ventilation rate requirement.

Table. AHU Compliance with Minimum Outdoor Airflow Requirement- Ventilation Rate Procedure

AHU	Zone	Occupancy Category	Rp (cfm / person)	Ra (cfm/sf)	Total Occupants	Az (sf)	Vbz (cfm)	Ez	Voz (cfm)	Ev	Vot (cfm)

AHU Compliance with Minimum Outdoor Airflow Requirement- Outdoor Airflow

AHU	Zone	Occupancy Category	Vot (cfm)	Minimum OA Intake Flow Required 10 cfm/person (cfm)	Zone Maximum OA Intake Flow (cfm)	Zone Complies with IEQp1
Compliance with IEQ Prerequisite 1: Note: The maximum outdoor air intake flow for all zones must be equal to or greater than the minimum outdoor Airflow required (10 cfm per person).						

Note: OA = Outdoor Airflow. Refer to ASHRAE Standard 62.1-2007 Ventilation Rate Procedure and ASHRAE 62MZCalc spreadsheet for detailed definitions and calculation procedures.

For all AHUs listed in Table. AHU Compliance with Minimum Outdoor Airflow, upload EITHER:

- (1) Design documentation.
- (2) A summary of the engineering assessment of the system's maximum cubic feet per minute capability toward meeting the outdoor air ventilation rate required by ASHRAE Standard 62.1-2007.
- (3) Other technical evidence confirming the space and system constraints that make the ASHRAE Standard 62.1-2007 required outdoor air rates not possible.

Upload IEQp1-1. Provide supporting documentation for AHU's unable to meet the ASHRAE outdoor ventilation airflow requirement.

Describe any additional details related to the AHUs incapable of meeting the outdoor air ventilation rates required by ASHRAE Standard 62.1-2007. (Optional)

NATURAL VENTILATION

- ☐ The space is an engineered natural ventilation system approved by the authority having jurisdiction. The project takes an exception to the prescriptive requirements of ASHRAE Standard 62.1-2007 sections 5.1.1 and 5.1.2.

Upload IEQp1-2. Provide the regulatory approval letter or document indicating the engineered system has been approved by the authority having jurisdiction.

Upload L-14. Provide a graphic and numeric summary of the airflow analysis performed. Include the boundary conditions used for the analysis, simulation algorithm, solution variables, temperatures, airflow volumes and mean age of air for the spaces modeled.

Complete the following table for each naturally ventilated space in the project space.

Table. Natural Ventilation Floor/Window Ratio

Room Name or ID	Occupiable Floor Area (SF)	Description of Operable Window Openings	Openable Window Area ¹ (SF)	Ratio of Window Area to Occupiable Area (%)	Is the Window to Occupiable Area Ratio Sufficient?	Is the Entire Occupiable Area Within 25' of the Window(s)?	Zone Complies with IEQp1
Compliance with IEQ Prerequisite 1: Note: Naturally ventilated spaces shall be permanently open to and within 8 m (25 ft) of operable wall or roof openings to the outdoors, the openable area of which is a minimum of 4% of the net occupiable floor area to meet the requirements of the prerequisite.							

1. Openable window area is the area of the operable window that can be open to the outside.

ADDITIONAL DETAILS

- ☐ Special circumstances preclude documentation of prerequisite compliance with the submittal requirements outlined in this form.

SPECIAL CIRCUMSTANCES

Describe the circumstances limiting the project team's ability to provide the submittals required in this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

Upload IEQp1-SC. Provide additional documentation that supports the claim to special circumstances. (Optional)

☐ The project team is using an alternative compliance approach in lieu of standard submittal paths.

ALTERNATIVE COMPLIANCE PATH

Describe the alternative compliance path used by the project team. Include justification that this path meets the prerequisite intent and requirements. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

Upload IEQp1-ACP. Provide additional documents that support the alternative compliance path approach. (Optional)

SUMMARY

IEQ Prerequisite 1: Minimum Indoor Air Quality Performance
Compliance Documented: