

## **2020 Design Competition Frequently Asked Questions**

**Q:** Are teams allowed to register in more than one category of the competition?

**A:** Yes

**Q:** How many students can participate in a team?

**A:** There is no max for ISBD teams but there is a max of six students per team for the other categories. ASHRAE recommends that the project groups consist of at least two members from an undergraduate engineering or architecture curriculum for the HVAC Design Calculations or HVAC System Selection and at least three members (architecture or construction, mechanical & electrical) for the ISBD competition. Team members can be from multiple colleges. All team members must be enrolled during the semester/term in which they contribute to the design. The Applied Engineering Challenge is for a team of 1 to 6 engineering students.

**Q:** Are graduate students allowed to participate in the competition?

**A:** Projects can be submitted by graduate students in the Integrated Sustainable Building Design category only. For the other categories, entries should originate from an undergraduate engineering or architecture curriculum and all team members must be enrolled in an undergraduate program during the semester/term they contribute to the design.

**Q:** Is a university permitted to register more than one team into the competition as a whole? For example, if I were to be a member of a registered team for one of the three team categories, but I'm also interested in the Applied Engineering Challenge while my other teams members aren't, can I partake in both?

**A:** Yes

**Q:** Do the page limits include appendices?

**A:** No.

**Q:** Can we change the orientation of the building to see how it would affect our load calculations?

**A:** For the Design Calculation the building is set in its orientation and will not be judged if the building is rotated. However for your own benefit the team can rotate the building to see how Solar effects the building.

**Q:** Is it possible to get the actual location of the building? We would like to explore the use of nearby waste heat opportunities to supplement our HVAC system.

**A:** The building location is Mumbai, India and the ground information can be obtained through research.

**Q:** Are we allowed to add features to the building?

**A:** For the Design Calculation the building is set in its features and will not be judged if the building has additional features. However for your own benefit the team can add those feature to the building to see how they effects the building loads.

**Q:** Where can we get the dimensions of the building?

**A:** Teams can get the full dimensions of the building from the provided CAD drawings.

**Q:** In the drawings included with the competition information there is no site plan or information about the terrain. Would it be possible to know any information regarding the building site?

**A:** No site plans will be provided for this competition. For the design calculation part of the competition, the only information they need about the site is the direction the building is facing.

**Q:** Can we change the layout, i mean the interior layout of design at ISBD?

**A:** Yes

**Q:** Do we get the weather data of Mumbai, India?

**A:** Yes ASHRAE provides the IWEC2 Weather Data File for Mumbai, India on the Design Competition website. You can also utilize the ASHRAE Climate Data Center and ASHRAE Fundamentals.

**Q:** Do we get the baseline model to compare our design?

**A:** The base line is the building you see in the drawings plus ASHRAE 90.1

**Q:** I would like to use revit for the design calculations competition, however only AutoCAD drawings are posted. Are there revit drawings I can use?

**A:** No

**Q:** Our team noticed that room 516-Rare Book Librarian and 517-Rare Book Reading have two separate space temperature design conditions however the two spaces have open air exchange via the architects floor plan layout. I don't see an easy way to effectively control these two spaces to different temperatures and humidity, so in the absence of better guidance we will assume that both spaces need to be controlled to the more stringent conditions of 65F DB rather than 70 DB. Is this the correct assumption? This distinction will likely mean the difference between conventional comfort cooling and more specialized equipment.

**A:** There is an error in the OPR – the Rare Book Reading should be 65 degrees F, not 70.

**Q:** I am planning to model the building in Revit or Relevant software like Equest for the purpose of Computer building energy simulation, in this regard my doubt is should i model the details as per the autocad plans input or the assumptions that are being given in the owners requirement document, if i use the autocad inputs given in elevation they are not clear as no section and required amount of details are given as been provided.

**A:** The OPR document specifies building assumptions, the plan and elevation views provide teams with the default building layout.

**Q:** For the residential area (poet's residence), due to its small size, is a VAV system still required? Or are we allowed to use a VRF or other types of systems?

**A:** The design competition does not specify any particular system as part of the OPR document.

**Q:** Due to the humid climate, are we allowed to use a dedicated outdoor air system or PAU along with the VAV systems?

**A:** The design competition leaves system selection up to each team individually.