

Addendum 21-03 #1

Description of the Units:

- The district is looking for units that are portable stand alone units. We will be placing them in occupied areas such as office and classrooms. Two examples of units currently utilized are provided below. These serve simply as examples for comparison purposes.
 - a. <https://www.vollara.com/productdetail/SurfacePro/?u=APSolution&r=C1000037791>
 - b. <https://www.rabbitair.com/products/minusa2-air-purifier?variant=29446108413975>

Ceiling Height of Occupied Areas:

- The ceiling height is standard for most spaces at a range of 8 -10 feet. Calculations should be based on 10 feet ceilings.

Other requirements:

- The district does not have requirements not specified in the bid such as motion sensors, automatic adjust fan speed, lasers to measure PM, etc. The purpose of the units is to add an extra layer to our mechanical HVAC systems.

Air Changes for HEPA Air Purifiers and UV Air Purifiers:

1. Our rooms have unit ventilators that are equipped to circulate air throughout the room. The HEPA Air Purifiers and UV Air Purifiers will utilize the following method for size in accordance with the CDC website (<https://www.cdc.gov/coronavirus/2019-ncov/community/ventilation.html#refphf>).
 - a. In a given room, the larger the CADR, the faster it will clean the room air. Three CADR numbers are given on the AHAM label, one each for smoke, dust, and pollen. The smoke particles are the smallest, so that CADR number applies best to viral particles related to COVID-19. The label also shows the largest room size (in square feet, ft²) that the unit is appropriate for, assuming a standard ceiling height of up to 8 feet. If the ceiling height is taller, multiply the room size (ft²) by the ratio of the actual ceiling height (ft) divided by 8. For example, a 300 ft² room with an 11-foot ceiling will require a portable air cleaner labeled for a room size of at least 415 ft² ($300 \times [11/8] = 415$).
 - b. The CADR program is designed to rate the performance of smaller room air cleaners typical for use in homes and offices. For larger air cleaners, and for smaller air cleaners whose manufacturers choose not to participate in the AHAM

CADR program, select a HEPA unit based on the suggested room size (ft²) or the reported air flow rate (cfm) provided by the manufacturer. Consumers might take into consideration that these values often reflect ideal conditions which overestimate actual performance.

- c. For air cleaners that provide a suggested room size, the adjustment for rooms taller than 8 feet is the same as presented above. For units that only provide an air flow rate, follow the “[2/3 rule external icon](#)” to approximate a suggested room size. To apply this rule for a room up to 8 feet tall, choose an air cleaner with an air flow rate value (cfm) that is at least $\frac{2}{3}$ of the floor area (ft²). For example, a standard 300 ft² room requires an air cleaner that provides at least 200 cfm of air flow ($300 \times [\frac{2}{3}] = 200$). If the ceiling height is taller, do the same calculation and then multiply the result by the ratio of the actual ceiling height (ft) divided by 8. For example, the 300 ft² room described above, but with an 11-foot ceiling, requires an air cleaner that can provide at least 275 cfm of air flow ($200 \times [11/8] = 275$).