

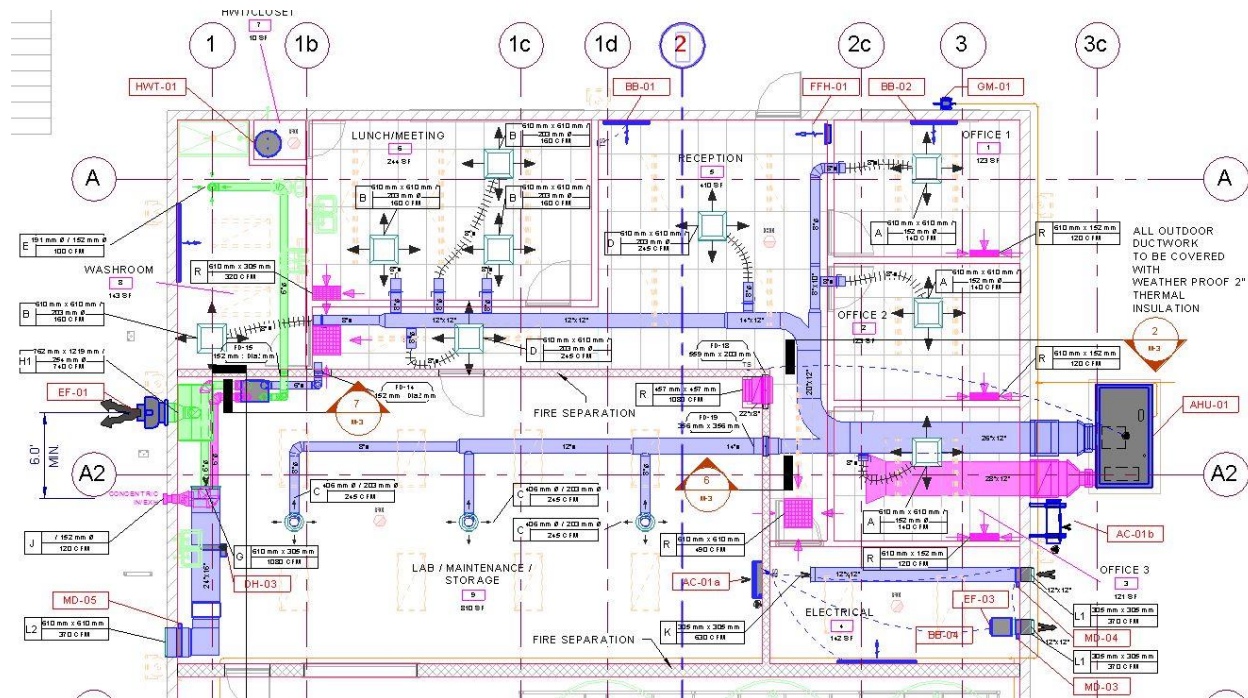
HVAC Drawing Example: Content and Style

Communication is a key part of the design process.

You have ideas. Others have ideas. You (and they) need to communicate those ideas so that the design can be successfully built.

In most design work the end product of your work will be a set of drawings and a written specification. The drawing contains pictorial detail of what needs to be done while the written specification contains many, many, many details as to exactly what should be purchased to implement the design as well as many details not communicated on the drawing (the standards to be used by the contractor, safety rules while building, how conflicts will be resolved, etc, etc, etc ...).

Here is a pretty nicely done sample of an HVAC drawing found in open sources on the Internet. Take a look and see if you can figure out what's going on.



It looks as though this is some sort of laboratory space with a lunch/meeting room and three offices. Each of these spaces needs supply air and return air. Some need exhaust air.

Make notes on the following 'Zoomed-In' drawing as we walk through what's what in class ...

Note the following:

- Find the supply diffusers. (Check out the out-flow air flow arrows.)
Also note there are Square Diffusers and Round ones. They have unique type letters (in the square boxes that point to each).
- Find the return grilles. (Find the in-flow air flow arrows and recall that the ceiling space is used as a return duct.)
- AHU = Air Handling Unit

- BB = Base Board (Heater)
- EF = Exhaust Fan
- CFM = Cubic Feet per Minute (like L/S = Litres per Second but in the ancient Imperial/US system)
- 8" ϕ = 8 inch diameter duct
- 8" x 10" = 8 inch wide by 10 inch deep duct ...
with the 8" side visible to you the viewer of this particular drawing.
- A 'Fire Separation' is a wall that can hold back fire for a time. Usually ¾ hour or so. One has to respect fire separations.
- Note the interesting mix of SI and Imperial/US units.

