Filters Used in HVAC Systems

Basis of Design
This section applies to the selection and installation of filters.

Design Evaluation
The following information is required to evaluate the design:

- **Schematic Design Phase**: Describe all system filters.
- **Design Development Phase**: Identify filter locations, access, preliminary design calculations with catalog cut sheets, and an outline of specifications.
- **Construction Document Phase**: Identify filter locations, access, final design calculations with catalog cut sheets, and specifications. Provide a filter schedule and drawing details.

Products, Material and Equipment

- Provide pre-filters (MERV 8) and final filters (MERV 13).
- All filters should be 24 inch by 24 inch face size if possible.
- Consider specific project filter applications (absolute, grease).
- Final filters shall have 85% efficiency (dust spot method using atmospheric dust) at 500 feet per minute face velocity.
- Locate and arrange HVAC equipment for reasonable filter removal and replacement.

Installation, Fabrication and Construction

- Avoid operating HVAC systems prior to the completion of construction except where flushing of the building is necessary to comply with LEED requirements. Specify temporary filters for fans, air terminal units, and primary return/exhaust inlets that are operated prior to completion of construction.
- After construction dirt has been removed from the building, provide new filters for permanent locations.
- Indicate the required filter removal and equipment access space on the contract documents.

END OF DESIGN GUIDE SECTION