

# Indoor Air Quality Management Plan

# Prepared exclusively for use by:

# Poolesville High School 17501 West Willard Rd. Poolesville, MD 20837

Prepared by:



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### INTRODUCTION

During the construction phase of this project and prior to occupancy, construction indoor air quality (IAQ) shall be implemented as per this plan. The intent of the plan is to address issues associated with the quality of the indoor air of the building during the construction. The plan is based on the standards provided in the Sheet Metal and Air Conditioning Contractor's National Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, Chapter 3, Second Edition, Nov. 2007. This plan control measures for the following:

- HVAC Protections
- Source Control
- Housekeeping
- Scheduling

Additionally, this plan describes measures for the following:

• Filtration

This plan will be implemented by distributing to the contractors and will be enforced by our own site personnel.

#### DEFINITIONS

<u>Salvage:</u>	Recovery and reuse of materials, either on site, or for donation
<u>Reuse:</u>	Usage of a material that has been salvaged from a previous use
Recycling:	Process of sorting, cleaning, treating and reconstituting a material for reuse

#### **PROJECT INFORMATION**

Construction Management Company: Dustin Construction Project Name: Poolesville High School Project Site Location: Poolesville, MD

Contact Name	Company/Title	Phone #	Email Address
TBD	Dustin Construction	TBD	TBD

### **PROJECT DESCRIPTION**

- 254,980 SF, two-story high school
- IgCC 2012



### **PROJECT OBJECTIVES**

The objective of the plan is to create a safe working environment during construction for this project at no cost premium to the project.

Each construction employee on the jobsite will be made aware of the Construction Indoor Air Quality Management Plan. Records will be kept of attendance at subcontractor Construction Indoor Air Quality Management Plan information sessions.

Any construction employee or visitor to this jobsite may notify the CM when an observation of a violation of this plan has occurred. The CM will be responsible for immediate remediation of the violation. This plan will be displayed in the construction jobsite trailer at all times.

### **PROJECT REQUIREMENTS**

- Track and document all materials utilized throughout the project.
- Provide education for the subcontractors about the material requirements specified.
- Comply with all of the requirements as written in the 2012 IgCC and as written in this Construction Indoor Air Quality Management Plan.

#### **PROJECT PROCEDURES**

#### **HVAC Protection**

All new HVAC equipment, electrical equipment, ductwork and filters, whether newly installed or stored on site, shall be protected from dust and debris, and also from odors.

#### **New HVAC Equipment**

If the equipment is used prior to occupancy, there shall be filtration media installed on a temporary basis in **all** of the return air grills and any open-ended return air ducts. The media will have at least a Minimum Efficiency Reporting Value (MERV) rating of 8 or higher. Any filter media used during the construction activities shall be replaced at the conclusion of all activities with at least a MERV 11 filter. All air system primary equipment shall also be sealed with plastic or other material to avoid contamination. Some of the potential equipment categories are:

- **Roof Top Units** •
- **Evaporators** •
- **Exhaust Fans**
- Water Heaters •
- Air Handlers
- Unit Heaters •

#### **Electrical Equipment**

All electrical/control equipment shall be sealed using plastic (or other material to prevent contamination from the construction environment. Some potential equipment includes:

- Thermostats
- Sensors •



- Building Automation Systems
- Motors

### **Return Side Ductwork**

Control measures shall be put in place for all negatively-pressured ductwork/plenums. These measures shall isolate the system to avoid contamination via the following:

- Proper installation of barriers such as ceiling tiles, etc.
- Utilization of spot checks for holes within ductwork. Patches/sealing done where applicable.
- Sealing of ends of **all** new ducts with plastic each workday.

#### **Central Filtration**

Filter efficiency shall be increased when a major pollutant is expected to impact any operating HVAC systems. This will include increasing filter efficiency for dust removal or adding filtration media types to remove odors and fumes.

### Supply Side Ductwork & Cleaning

While the HVAC system is not operating, the following shall be done to ensure cleanliness:

• Inspect all sealed openings upon completion of work, and clean if necessary.

Once system is started, observations will be made to the discharge. If particulates are noticeable, then the following shall be done:

- Clean ductwork or install temporary course filters on supply points.
- Delay the occupancy of the building until system is properly flushed out.
- Inspection of the main air handling filters including replacement if excessively loaded.

### SOURCE CONTROL

### **Product Substitution — Low Emitting Materials**

All materials purchased and used on site will be sealed and stored appropriately when not in use, as well as when disposed. The general contractor or superintendent of the project site will be responsible for ensuring all site personnel follow the sealing/storage procedure.

#### **Moisture Control**

Porous or fibrous materials and other materials subject to moisture damage shall be protected from moisture during the construction phase through proper storage practices. All absorptive materials will be stored off of the floor, raised, and covered by plastic until such time they were installed. No wet or damaged porous materials were used in the building. The condition of all materials, either newly delivered or previously stored, will be inspected daily.

#### **Equipment Operation**

To reduce pollutants within the project site, equipment operation shall be adjusted to minimize exhaust or other contaminants. Some changes shall be strictly operational, where others will require alternate equipment. The following items shall be implemented on site:

- Proper maintenance of equipment to ensure they do not leak oils or gas.
- Use of electrically powered devices where possible.



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### Work Practices

Work practices shall be adjusted, as feasible; to reduce dust, particulates, or odors shall be done. The following will be employed on site to reduce contaminants from work being completed:

• Sweeping compound used

#### Local Exhaust

During the construction of the building, any possible contaminants will be processed outside of the envelope (while maintaining any applicable regulations), thereby not needing any additional exhaust within the building.

### Cover or Seal

In addition to sealing and storage of Low Emitting materials described previously, the site will also perform the following to reduce emissions from materials used:

- Have a room that is used to store low emitting materials.
- Make sure materials lids or packages are closed when not in use. •

# **No Smoking Policy**

A no smoking policy shall be implemented and enforced during construction both within the confines of the building and exterior areas offering a path for smoke to readily enter into the building. The following guidelines are to be used:

- No smoking will be tolerated in the confines of the building during construction.
- No smoking within 25 feet of building entrances or air intakes is permitted.

The contractor shall designate exterior areas for smoking during construction.

### **Prohibited Materials**

The use of materials containing asbestos or foam insulation containing urea-formaldehyde shall be prohibited.



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# HOUSEKEEPING

General cleaning practices can greatly aid in maintaining proper indoor air quality during construction. Removal of contaminants will ensure they are not transmitted or that they will emit odors. The proper storage and cleanliness of building materials shall be done to alleviate the risk of moisture damage or contamination. The following techniques shall be employed on site:

- Supply trash cans around site and empty as needed.
- Clean site as work is completed. Ensure workers do not leave behind debris.
- Provide minimum 48-hour pre-ventilation of packaged dry products prior to installation. Remove from packaging and ventilate in a secure, dry, well ventilated space free form strong contaminant sources and residues. Provide a temperature range of 60 degrees F minimum to 90 degrees F maximum continuously during the ventilation period. Do not ventilate within limits of Work unless otherwise approved by Architect.
- Use of sweeping compounds.
- If a spill occurs, an absorbing media will be used to clean up.
- Once the project is near completion, a professional cleaning service will clean the facility.

### SCHEDULING

The coordination of construction activities can reduce or eliminate indoor air quality concerns with occupied portions of the building. Materials installed shall be sequenced so that any polluting materials can be installed with time to off gas and be vented. Absorptive materials shall also be installed after those that off gas so that they do not absorb pollutants. The construction activities also shall be planned to provide time to allow flush out of the building prior to occupancy. Immediately prior to occupancy, all filtration shall be replaced. The following scheduling measures shall be implemented:

- Materials shall not be delivered too far in advance of installation. If it is necessary to deliver in advance of installation, the materials will be stored in a dry area such as a trailer. The trailer location is defined in our temporary facilities plan.
- If there is room, materials can be stored inside the building off of the floor after the roof is in place.