

SECTION 018119 - CONSTRUCTION INDOOR AIR QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
 - 1. Sustainable Design Requirements – Section 018113
- B. All technical Sections of the Specifications related to interior construction and finish materials, MEPFP systems, and items affecting indoor air quality.
- C. LEED Reference Guide for Building Design and Construction (BD+C), version 4, U.S. Green Building Council.
- D. LEED v4.1 Building Design and Construction (BD+C), Getting Started Guide for Beta Participants (Beta Guide), U.S. Green Building Council, issued January 2020.

1.2 DESCRIPTION OF WORK

- A. This Section includes:
 - 1. Requirements for the development of a Construction Indoor Air Quality Management Plan (herein referred to as the Plan). The Plan shall be developed by the Contractor and approved by the Owner and Architect.
 - 2. Requirements for documenting the continuous implementation of the Construction Indoor Air Quality Management Plan throughout all applicable phases of construction. The Plan shall be implemented throughout the duration of the Project construction under the direction of the Contractor's IAQ Representative and shall be documented per the Submittal Requirements in Part 1 of this Section.
 - 3. Requirements and documentation for LEED Certification. The Plan is part of the Project LEED Requirements. Note: For clarity, identification numbers have been added to LEED v4.1 prerequisite and credit names as used throughout this Section.

1.3 CONSTRUCTION IAQ MANAGEMENT GOALS FOR THE PROJECT

- A. The Owner has established that this Project shall minimize the detrimental impacts on Indoor Air Quality (IAQ) resulting from construction activities. Factors that contaminate indoor air, such as dust entering HVAC systems and ductwork, improper storage of materials on-site, and poor housekeeping, shall be minimized through development and implementation of a Construction Indoor Air Quality (IAQ) Plan.
- B. During construction, meet or exceed all recommended control measures of SMACNA IAQ Guidelines for Occupied Buildings under Construction, 2nd Edition, 2007, ANSI/SMACNA 008-2008, Chapter 3.
- C. Establish better quality indoor air in the building through implementation of a flush-out or air testing after construction but before occupancy.

1.4 SUSTAINABLE BUILDING REQUIREMENTS

- A. The Owner requires the Contractor to implement practices and procedures to meet the Project's environmental performance goals, which include achieving LEED v4 Certification. Refer to Section

018113 - SUSTAINABLE DESIGN REQUIREMENTS for the Project's target certification level and specific LEED requirements. The Contractor shall ensure that the requirements related to the Project's sustainability design goals are implemented to the fullest extent. Substitutions, or other changes to the work proposed by the Contractor or their Subcontractors, shall not be allowed if such changes compromise the Project's sustainability goals and LEED certification.

1.5 REFERENCES

A. Acronyms and Abbreviations

1. ANSI: American National Standards Institute.
2. ASHRAE: The American Society of Heating, Refrigerating and Air-Conditioning Engineers.
3. EQ: Environmental Quality
4. HEPA: HIGH-EFFICIENCY PARTICULATE
5. IAQ: Indoor Air Quality.
6. LEED: Leadership in Energy and Environmental Design
7. MERV: Minimum Efficiency Reporting Value.
8. NC: New Construction
9. SMACNA: Sheet Metal and Air Conditioning National Contractors Association.
10. USGBC: US Green Building Council
11. VOC: Volatile Organic Compound.

B. Reference Standards

1. ANSI/SMACNA 008-2008, "IAQ Guidelines for Occupied Buildings Under Construction", Second Edition 2007, Chapter 3, The Sheet Metal and Air Conditioner National Contractors Association (SMACNA), www.smacna.org.
2. ANSI/ASHRAE 52.2-2017, "Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size", www.ashrae.org.
3. ASTM D5149-02, "Standard Test Method for Ozone in the Atmosphere: Continuous Measurement by Ethylene Chemiluminescence."
4. ASTM D5197-16, "Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology)."
5. U.S. Environmental Protection Agency (EPA) "Compendium of Methods for the Determination of Air Pollutants in Indoor Air."

C. Definitions

1. Volatile Organic Compounds (VOC's): Carbon compounds that participate in atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate). The compounds vaporize (become a gas) at normal room temperatures. These compounds are common in and emitted by many building products, including solvents in paints, coatings, adhesives and sealants, wood preservatives; composite wood binder, and foam insulations. Not all VOC's are harmful, but

many of those contained within building products contribute to the formation of smog and may irritate building occupants or construction workers by their smell and/or health impact.

- a. Materials that act as “sinks” for VOC contamination: absorptive materials, typically dry and soft (such as textiles, carpeting, acoustical ceiling tiles and gypsum board) that readily absorb VOC’s emitted by “source” materials and release them over a prolonged period of time.
- b. Materials that act as “sources” for VOC contamination: products with high VOC contents that emit VOC’s either rapidly during application and curing (typically “wet” products, such as paints, sealants, adhesives, caulks and sealers) or over a prolonged period (typically “dry” products such as flooring coverings with plasticizers and engineered wood with formaldehyde).
2. Minimum Efficiency Reporting Value (MERV): Filter rating established by ASHRAE and determined according to ASHRAE Standard 52.2-2017. MERV categories range from 1 (very low efficiency) to 16 (very high efficiency),

1.6 CONSTRUCTION IAQ MANAGEMENT PLAN - OVERVIEW

- A. The Contractor shall implement indoor air quality management during construction per the requirements of LEED v4.1 EQ Credit 3 – Construction Indoor Air Quality Management Plan.
- B. As directed by the Owner, the Contractor shall assist in coordinating and implementing an indoor air quality assessment after construction ends and before occupancy, per the requirements of LEED v4.1 EQ Credit 4 – Indoor Air Quality Assessment.
- C. The Contractor shall prepare and submit a Construction IAQ Management Plan for the construction and pre-occupancy phases of the Project to the Owner and Architect. The Plan shall meet the following criteria:
 1. Construction Phase
 - a. Construction activities shall be planned to meet or exceed the minimum requirements included in the SMACNA “IAQ Guidelines for Occupied Buildings Under Construction”, as listed in PART 1 of this Section.
 - b. Absorptive or porous materials shall be protected from moisture damage when stored on-site and after installation. Contractor shall not install water damaged materials in the building.
 - c. Filtration media shall be installed to protect ductwork and/or HVAC equipment used during the construction process, per the requirements of PART 2 of this Section.
 - d. The use of tobacco products shall be prohibited inside the building and within 25 feet of the building entrance during construction.
 - e. Only low-emitting and low- or no-VOC products shall be installed in the field on the interior of the Project, per the requirements of Division 01 Section 018113 - Sustainable Design Requirements. Examples of such products include, but are not limited to, adhesives, sealants, paints, coatings, and carpet.
 - f. A Sequence of Finish Installation Plan shall be developed, highlighting measures to reduce the absorption of VOCs by materials that act as “sinks”.

- g. Upon approval of the Plan by the Owner and Architect, it shall be implemented by the Contractor and Subcontractors throughout the duration of the construction process and documented in accordance with the LEED Submittal Requirements of this Section.

2. Pre-Occupancy Phase

- a. All occupiable and habitable spaces within the Project shall be subject to either an air flush-out or air testing after construction and immediately prior to occupancy, as directed by the Owner and described in PART 1 of this Section, per the requirements of LEED v4.1 EQ Credit 4 – Indoor Air Quality Assessment.

1.7 CONSTRUCTION IAQ MANAGEMENT PLAN (CONSTRUCTION PHASE) – DETAILED REQUIREMENTS

- A. The SMACNA “IAQ Guidelines for Occupied Buildings Under Construction” (Chapter 3) outline IAQ measures in five categories as listed below. The Construction IAQ Management Plan shall be organized in accordance with the SMACNA format and shall address measures to be implemented by the Contractor and/or Subcontractors in each of the five SMACNA categories (including subsections). All subsections shall be listed in the Plan; items that are not applicable for this project should be listed as such.

1. HVAC Protection

a. Return Side

- 1) Operation of permanent air handling equipment during construction:
 - a) Operate only with the prior written approval from the building Owner. Install minimum MERV 8 filters at each return air grill and each return transfer duct inlet opening. Do not permit air flow to bypass the filtration media. Dual filtration (e.g. MERV 7 followed by MERV 11 filtration) shall not be an acceptable substitution.
 - b) Immediately before occupancy, at permanent filter locations install new filtration media in accordance with the design requirements and manufacturer’s installation instructions.
- 2) Seal with plastic all return system openings in, or immediately adjacent to, the construction area.
- 3) Block or damper off heavy work areas from HVAC system if temporary imbalance of the return air system does not create a problem.
- 4) Do not store construction or waste materials in mechanical rooms with return-side equipment.

b. Central Filtration

- 1) Upgrade filter efficiency (e.g. 60 to 80 percent dust spot efficiency) where major dust loading is expected to impact operating HVAC systems.
- 2) Consider using filtration with media such as activated charcoal or potassium permanganate where source control options for construction-related odors are not sufficiently effective.

c. Supply Side

- 1) Wrap in plastic any equipment left in place; isolated ducts serving occupied and construction areas; protect new equipment from weather, dust and physical damage by storing equipment in clean, protected areas shielded from rain and moisture.
- 2) When the system is off for the duration of construction: seal diffusers and window units in plastic; frequently inspect ducts, diffusers, and window units for cleanliness upon completion of the work, and clean where needed.
- 3) If particulate discharge after system start-up is minor, delay occupancy until dust may be sufficiently cleaned up.

- 4) If particulate discharge after system start-up is severe, install temporary coarse filters on diffusers or clean ducts as necessary.
 - 5) Check the condition of the main filters whenever visible particulates are discharged from the system.
- d. Duct Cleaning
- 1) Conduct a detailed visual inspection of the system to determine if excessive dust or debris is in the system, and determine most appropriate cleaning method as necessary. Clean the ducts and associated equipment before occupancy using specialized equipment and professional expertise to ensure dust is effectively removed and contained.
2. Source Control
- a. Product Substitution
- 1) Use only materials which comply with VOC limit requirements, emissions testing requirements, and chemical component restrictions in accordance with Section 018113 – Sustainable Design Requirements.
- b. Modifying Equipment Operation
- 1) Modify equipment operation as needed to meet IAQ objectives. Modifications may include substitutions for cleaner equipment or adjustments in operating procedures.
- c. Changing Work Practices
- 1) Establish measures for contaminant source control resulting from construction processes. For example, contain the oil from construction processes and equipment so it does not contact concrete.
 - 2) Consider using demolition techniques that produce less airborne dust.
 - 3) Consider painting techniques that release less odor.
 - 4) Consider cleaning practices that raise less dust.
 - 5) Consider using hand tools instead of power tools, when feasible.
 - 6) Consider using vacuum-assisted drywall sanders and concrete saws to control dust.
- d. Local Exhaust
- 1) Directly exhaust pollution sources to the outside. Provide special filtration for exhaust if necessary, and ensure emissions to the outside comply with applicable outdoor air regulations.
 - 2) Ensure exhaust separation distances from fresh air-intakes, windows, and occupant entry ways meet applicable codes. Typical recommendation for separation distance is a minimum of 30 feet.
- e. Air Cleaning
- 1) Where exhaust is not feasible, consider local recirculation of air through a portable air cleaner. Choose a filter type that is appropriate for the material being controlled.
- f. Cover or Seal
- 1) Reduce VOC emissions from evaporation by sealing or covering possible sources of emissions.
 - a) An enclosed tanker is preferable to an open kettle for roofing.
 - b) Keep containers of wet products closed when not in use.
 - c) Cover or seal waste materials that may release dust, odor, or other contaminants.
 - d) Control surfaces that are persistent odor sources by applying a sealer.
- g. Store solvent-contaminated rags in closed, flame-proof containers.
- h. Enforce the no-smoking job site policy.

3. Pathway Interruption

- a. Depressurize the work area.
- b. Pressurize occupied space by increasing supply air or reducing return/exhaust air in areas occupied during construction. Consider extending HVAC system fan schedule to pressurize occupied spaces 24 hours per day.
- c. Erect barriers to contain construction areas.
- d. Relocate pollutant sources and/or temporarily redirect air intakes when project equipment or staging areas coincide with critical airflow pathways.
- e. Temporarily seal the building to exterior emissions if deemed necessary and allowed by building code.

4. Housekeeping

- a. Suppress dust with wetting agents or sweeping compounds. Increase the cleaning frequency for dust based on visible inspection.
- b. Use efficient dust collection methods, such as a damp rag, wet mop, or a vacuum equipped with a high efficiency particulate filter, wet scrubber, or exterior exhaust.
- c. Keep all surfaces, including high ledges, areas behind furniture, and surfaces inside mechanical equipment, clean. Consider covering contents prior to construction activity or installing elements after dust generation has ceased to facilitate the cleaning process.
- d. Remove spills, excess applications of solvent-containing products, and accumulated water as soon as possible. Spot removers and cleaning agents should be low odor emitters.
- e. Use vacuum cleaners with high-efficiency particulate (HEPA) filtration.
- f. Protect absorptive, porous materials and other building systems installed or stored on-site from exposure to moisture and contamination.
 - 1) Store materials on elevated platforms under cover and in a dry location.
 - 2) If materials are not stored in an enclosed location, cover tops and sides of material with secured, waterproof sheeting.
 - 3) Phase construction to ensure that absorptive materials are installed only in areas that are weather-tight.
 - 4) Provide a description of corrective measures that will be taken if absorptive materials are exposed to moisture during construction.
- g. Use specialized cleaning procedures, as specified in the NIBS guidelines, when stripping lead-based paint.

5. Scheduling

- a. Sequence construction activities and installation of materials to minimize impact on indoor air quality.
- b. Install absorptive-finish materials after wet-applied materials have fully cured whenever possible.
- c. Institute cleaning activities concentrated on removal of contaminants from HVAC systems and building spaces prior to occupancy, including cleaning of coils, air filters, and fans.

- d. Replace filtration media (MERV 13 or better) immediately prior to substantial completion and occupancy. Dual filtration (e.g. MERV 7 followed by MERV 11 filtration) shall not be an acceptable substitution.
 - e. Provide a description of measures taken to ensure appropriate IAQ levels after occupation of interior construction and finish work.
 - f. Schedule installation during unoccupied periods.
 - g. Avoid building occupancy while construction-related pollutants and odors are still present.
- B. Protection of Materials from Moisture Damage: Under the Housekeeping section of the Plan, describe measures to prevent installed materials or material stored on-site from moisture. This section should also describe measures to be taken if moisture damage does occur to absorptive materials during the course of construction.
- 1. Store materials on elevated platforms or pallets under cover and in a dry location.
 - 2. If materials are not stored in an enclosed location, cover tops and sides of materials with waterproof sheeting, securely tied.
 - 3. Phase construction such that absorptive materials are installed only in areas that are weather-tight.
- C. Protection of Ductwork: Under the HVAC Protection section of the Plan, describe measures to protect air handling and distribution equipment and air supply and return ducting during construction.
- 1. All ductwork arriving on site shall have the ends and openings sealed with plastic sheeting and stored on pallets or dunnage until installed. Plastic seals shall remain in place during ductwork installation and shall be repaired or replaced as necessary to maintain continuous protection throughout the duration of construction.
 - 2. The Contractor shall cover and protect all exposed air inlets and outlets, openings, grilles, ducts, plenums, etc. to prevent water, moisture, dust and other contaminant intrusion.
 - 3. All ductwork shall be stored on site above the ground or floor slabs.
 - 4. Ducting runs shall be protected at the end of each day's work.
 - 5. The Contractor shall apply protection immediately after ducting.
 - 6. The Contractor's designated IAQ Representative shall inspect work and monitor subcontractor(s) to ensure compliance.
- D. Temporary Filtration: The Contractor shall inspect temporary filtration weekly and replace as required to maintain the proper ventilation rates in the building.
- 1. Filtration Media shall meet the requirements as listed in PART 2 of this Section.
- E. Replacement of Filtration Media: Under the HVAC Protection section of the Plan, provide a description of the filtration media in all ventilation equipment used during construction. The description shall include replacement criteria for filtration media during construction and confirmation of filtration media replacement for all equipment immediately prior to occupancy.

1. Filtration media shall meet the requirements of PART 2 of this Section. As part of required LEED Submittals outlined in PART 1 of this Section, at the end of construction the Contractor shall provide a confirmation that all filtration media were replaced prior to occupancy.

F. Sequence of Finish Installation for Materials

1. Absorptive materials should be installed after the installation of materials or finishes which have high short-term emissions of VOC's, formaldehyde, particulates, or other air-borne compounds.
 - a. Absorptive materials ("sinks") include but are not limited to: carpets; acoustical ceiling panels; fabric wall coverings; insulations (exposed to the air stream); upholstered furnishings; and other woven, fibrous or porous materials.
 - b. Materials with high short-term emissions ("sources") include, but are not limited to: adhesives, sealants and glazing compounds (specifically those with petrochemical vehicles or carriers); paints, wood preservatives and finishes; control and/or expansion joint fillers; hard finishes requiring adhesive installation; finish processes and products associated with gypsum board installation; and composite or engineered wood products with formaldehyde binders.
2. The Contractor shall develop a Sequence of Finish Installation Plan and schedule that identifies how the sequencing of finish material installation will occur for the project. The schedule shall be submitted to the Owner and Architect in accordance with the Submittal Requirements of this Section.

- G. Ventilation during installation of materials and finishes: Outside air shall be provided during the installation of materials and finishes, beginning after the building is substantially enclosed. If permanent building HVAC systems are used to supply the ventilation air, filtration media shall be installed per the requirements of PART 2 of this Section.

1.8 CONSTRUCTION IAQ MANAGEMENT PLAN (PRE-OCCUPANCY PHASE) – DETAILED REQUIREMENTS

- A. As directed by the Owner, the Contractor shall assist in coordinating and implementing one of the following compliance options after construction ends and before occupancy, once all interior finishes and movable furnishings are installed, major VOC-related punch list items are finished, and the building is completely cleaned, per the requirements of LEED v4.1 EQ Credit 4 - Indoor Air Quality Assessment:
1. OPTION 1 - Flush-Out:
 - a. Perform building flush-out in accordance with the requirements outlined in the LEED v4.1 Building Design and Construction (BD+C), Getting Started Guide for Beta Participants (Beta Guide), U.S. Green Building Council.
 - b. Note that this Option includes two potential paths to perform the flush-out either before or during occupancy.
 - c. Contractor shall identify estimated flush-out duration to include in construction schedule.
 2. OPTION 2 - Air Testing: Conduct baseline IAQ testing in accordance with the requirements and standard methods outlined in the LEED v4.1 Building Design and Construction (BC+C), Getting Started Guide for Beta Participants (Beta Guide), U.S. Green Building Council. Concentrations of contaminants shall be tested and shall not exceed maximum levels specified in the Beta Guide. For each sampling point where the concentration exceeds the limit, take corrective action and retest for the noncompliant contaminants at the same sampling points. Repeat until all requirements are met.

1.9 LEED SUBMITTAL REQUIREMENTS

A. The Contractor shall submit the following required records and documents:

1. Prior to start of construction, submit the following:
 - a. A construction schedule outlining the start-up date and expected duration of all Construction IAQ Management Plan control measures.
 - b. A copy of the Construction IAQ Management Plan and the Sequence of Finish Installation Plan for approval by the Owner and Architect, as defined in PART 1 of this Section.
2. Product cut-sheets for all filtration media used during construction and installed immediately prior to occupancy, with MERV values highlighted and meeting the criteria for filtration media in PART 2 of this Section. Cut sheets shall be submitted with the Contractor's 'approved' stamp as confirmation that the products submitted are the same products installed on the project.
3. At end of construction, submit the following:
 - a. Photographs that document the implementation of the Construction IAQ Management Plan throughout the course of the project construction. Submit a minimum of (18) photographs, (6) photographs taken on at least (3) different occasions during construction, each labeled with the SMACNA control measure illustrated. Examples include photographs of ductwork sealing and protection, temporary ventilation measures, and conditions of on-site materials storage to prevent moisture damage. Photographs shall include integral date stamping and shall be submitted with brief descriptions or be referenced to project meeting minutes or similar project documents.
 - b. Construction IAQ Management Summary Report.
 - c. Narrative describing measures taken to protect absorptive materials from moisture damage.
 - d. Required documentation for LEED v4.1 EQ Credit 3 Construction Indoor Air Quality Management Plan and EQ Credit 4 Indoor Air Quality Assessment, including completed LEED Online credit forms and required supporting documentation uploaded to the LEED Online website.

1.10 LEED SUBMISSION DOCUMENTATION

A. The Construction Manager shall provide documentation for the LEED submission.

1. At or before substantial completion, the Construction Manager shall prepare supporting documentation for each LEED construction prerequisite and credit to be attempted, which have been assigned to the Construction Manager by the Owner or Sustainability Coordinator.
2. The Construction Manager shall register and log-in to LEED Online (<http://www.leedonline.com>).
3. The Construction Manager shall complete LEED Online credit forms and upload backup documentation and associated LEED Calculators. The LEED Online credit forms and supporting documentation shall contain:

- a. All proper data fields completed declaring that the project has met the intent of the credit, including narrative(s) when applicable.
 - b. Electronic signature of Construction Manager and date signed, where required.
4. The Construction Manager shall notify Sustainability Coordinator of completion of LEED Online documentation and availability for review and coordinate with Sustainability Coordinator for preparation of final documentation of LEED submission.

1.11 QUALITY ASSURANCE

- A. Contractor IAQ Representative: IAQ Engineer with five (5) years' experience performing IAQ supervision on projects of comparable size and scope.
- B. IAQ Testing Agency: Independent testing and inspecting agency, subject to approval by the Owner and meeting the following qualifications:
 1. Minimum of five (5) years' experience in performing the types of testing specified herein and to meet requirements of LEED v4.1 EQ credit 4 Indoor Air Quality Assessment, Option 2, on projects of comparable size and scope.
 2. Laboratories that conduct tests must be accredited under ISO/IEC 17025 for the test methods used.

PART 2 PRODUCTS

2.1 FILTRATION MEDIA

- A. Construction filters: If permanently installed air handlers are used during construction, filtration media must be installed at each return grill and air handling unit, having a Minimum Efficiency Reporting Value (MERV) of at least 8 as determined by ASHRAE Standard 52.2-2017. All construction filtration media shall be replaced immediately prior to occupancy.
- B. Flush-out filters: If the Flush-out option will be pursued for LEED v4.1 EQ credit Indoor Air Quality Assessment, as described in PART 1 of this Section, new filtration media shall be installed at air handling units having a Minimum Efficiency Reporting Value (MERV) of 13 as determined by ASHRAE Standard 52.2-2017.
- C. Final filters: Replace all filtration media immediately prior to occupancy. For all ventilation systems that supply outside air, install filters having a Minimum Efficiency Reporting Value (MERV) of 13 or better as determined by ASHRAE Standard 52.2-2017.

2.2 BUILDING MATERIALS

- A. Low-emitting products specified in technical Sections of the Project Manual. VOC content and emissions shall comply with requirements specified in Division 01 Section 018113 - Sustainable Design Requirements.
- B. Dust Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches, commencing with installation of finishes inside the Project.

2.3 CLEANING SUPPLIES

- A. Use low toxicity cleaning supplies for surfaces, equipment and workers personal use, during periodic and final cleaning. Comply with requirements for closeout and final cleaning specified in Division 01.

PART 3 – EXECUTION

3.1 IMPLEMENTATION AND COORDINATION

- A. The Contractor shall be responsible for implementation of the Construction IAQ Management Plan and for the coordination of the Plan with all affected trades per the requirements of PART 1 of this Section.
 - 1. The Contractor shall designate one individual as the Construction IAQ Representative, who will be responsible for communicating the progress of the Plan with the Owner and Architect on a regular basis and for assembling the required LEED documentation.
 - 2. The Contractor shall include provisions in the Construction IAQ Management Plan for addressing conditions in the field that do not adhere to the Plan, including provisions to implement a stop work order or to rectify non-compliant conditions.
 - 3. Assign an on-site Construction Air Quality Control Representative to coordinate issues associated with implementation of the Plan.
 - 4. Designate responsibility to Contractors and Subcontracted Trades for the implementation of specific control measures as indicated in the Plan.
- B. The Contractor shall include procedures related to IAQ Management on the agenda during pre-construction meetings and during regularly scheduled meetings on the jobsite. Minutes shall be recorded at all such meetings.
- C. Trade subcontractors shall be responsible for the implementation of specific control measures, as specified in the Construction IAQ Management Plan. Subcontractors shall coordinate their responsibilities through the Contractor and their designated Construction IAQ Representative.

- END OF SECTION -