

INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN

Construction and Demolition Adjacent to New Building

Project: James B Edwards Elem.

Location: 855 Von Kolnitz Rd, Mt Pleasant, SC 29464

Owner: Charleston County School District

General Contractor: Leitner Construction

1. Purpose

The purpose of this Indoor Air Quality (IAQ) Management Plan is to establish contractor procedures for protecting the indoor air quality of the new building during construction and during demolition of an adjacent existing building. Particular emphasis is placed on preventing migration of asbestos fibers, demolition dust, particulate matter, odors, VOCs, moisture, and other contaminants into the new building.

This plan is intended to support LEED construction IAQ requirements and shall be coordinated with the project specifications, approved asbestos abatement plan, applicable EPA requirements, OSHA requirements, and state and local regulations. This plan does not replace required asbestos surveys, abatement plans, air-monitoring plans, permits, or regulatory procedures.

2. Scope of Work

- Demolition of the existing building.
- Asbestos abatement and removal of asbestos-containing materials (ACM).
- Site excavation, earthwork, concrete cutting, drilling, grinding, and masonry work.
- Framing, drywall, painting, coatings, flooring, adhesives, and sealants.
- Mechanical, electrical, and plumbing work.
- HVAC installation, protection, startup, and commissioning.
- Construction cleaning, material storage, waste handling, and final cleaning.

3. Responsibilities

- General Contractor: Implement this plan; coordinate IAQ requirements with subcontractors; designate an IAQ Coordinator; coordinate with the asbestos abatement contractor; maintain records; and correct deficiencies.
- IAQ Coordinator: Conduct inspections; maintain IAQ logs and photographs; verify barriers, seals, HVAC protection, and dust controls; coordinate monitoring; and document corrective actions.
- Asbestos Abatement Contractor: Perform asbestos work under the approved abatement plan; establish regulated areas and containment; maintain required pressure relationships; use HEPA-filtered equipment and wet methods; control waste; and perform required monitoring and clearance.
- All Subcontractors: Follow this plan, protect clean areas, report IAQ deficiencies immediately, and prevent contaminant migration.

4. Preconstruction IAQ Planning

- Conduct an IAQ coordination meeting before construction with the Owner, General Contractor, IAQ Coordinator, demolition contractor, asbestos contractor, MEP contractor, industrial hygienist as applicable, and LEED consultant.
- Identify the existing building, new building, separation distance, prevailing wind direction, new-building air intakes, HVAC equipment, construction entrances, demolition routes, waste routes, containment areas, and monitoring locations.
- Designate the new building as a protected/clean construction area and establish a contaminant-control boundary between demolition/abatement and the new building.

5. Existing Building Demolition and Asbestos Control

- Complete required asbestos and hazardous-material surveys before demolition.
- Do not disturb suspect ACM until the required survey, notifications, permits, and approved abatement procedures are complete.
- Establish regulated areas, barriers, containment, decontamination facilities, negative-pressure enclosures where required, HEPA filtration, and controlled access in accordance with the approved asbestos abatement plan.
- Prevent contaminated personnel, equipment, debris, and waste from entering the new building.
- Maintain containment and inspect barriers, seals, airlocks, and pressure relationships regularly.
- Perform required asbestos air monitoring and clearance testing.

6. Protection of the New Building

- Maintain the new building as a protected clean construction zone.
- Seal temporary openings, penetrations, doors, shafts, and duct openings between clean and active construction areas.
- Protect newly installed HVAC equipment and ductwork from construction dust.
- Keep HVAC systems off or isolated from contaminated areas when appropriate during high-dust or demolition activities.
- Protect outdoor-air intakes from demolition dust and other contaminants. If an intake is downwind or otherwise exposed, implement additional controls such as shutdown, temporary relocation, filtration, or physical protection.
- Do not transport asbestos waste or contaminated materials through the new building.

7. NA

8. Dust and Particulate Control

- Use wet methods, local exhaust, HEPA-filtered vacuum equipment, dust suppression, enclosed chutes where appropriate, covered dumpsters, stabilized haul routes, and prompt debris removal.
- Do not use dry sweeping where it can generate airborne dust. Use HEPA vacuuming or damp cleaning.
- Do not use compressed air to disperse dust from surfaces.
- Inspect the boundary between demolition and the new building after major dust-generating activities.

9. Asbestos Migration Prevention

- Maintain clearly marked regulated areas and restrict access to authorized personnel.
- Maintain containment barriers and required negative pressure.
- Use HEPA-filtered equipment and appropriate wet methods.
- Maintain controlled entry, exit, and decontamination procedures.
- Use HEPA vacuuming for applicable contaminated surfaces.
- Package and transport asbestos waste according to the approved abatement plan and applicable regulations.
- Immediately investigate any suspected breach or contamination outside the regulated area.

10. Air Monitoring

- Where appropriate, establish monitoring points between demolition/abatement operations and the new building and near the nearest new-building air intake.
- Any indication of asbestos contamination outside the regulated area shall trigger immediate investigation and corrective action.

11. New Building Interior Protection

- Segregate completed portions of the new building from active construction areas.
- Keep doors closed between clean and dirty areas and seal temporary openings.
- Prevent dust migration through stairwells, shafts, corridors, and ceiling plenums.
- Do not use completed spaces for general material storage or construction staging.
- Maintain clean construction routes and restrict unnecessary traffic through finished areas.

12. Moisture Control

- Protect materials from rain, groundwater, leaks, condensation, and excessive humidity.
- Promptly dry wet materials and remove water-damaged porous materials when necessary.
- Do not conceal wet materials behind walls, ceilings, flooring, or other finishes.

13. Low-Emitting Materials and VOC Control

- Use materials meeting applicable project requirements for low-emitting products.
- Store paints, coatings, adhesives, sealants, solvents, and cleaning products in designated areas with containers closed.
- Use adequate ventilation during high-VOC activities and prevent contaminated air from entering completed or protected areas.
- Coordinate high-VOC activities with the IAQ Coordinator.

14. Demolition Adjacent to New Building

- Before work: inspect barriers, verify HVAC and intake protection, confirm containment and monitoring, and notify affected trades.
- During work: maintain dust suppression, containment, controlled debris handling, clean haul routes, and weather monitoring.
- After work: inspect the new-building boundary and air intakes, clean affected areas, inspect filters, and document conditions.

15. Wind and Weather Controls

- Monitor wind direction, wind speed, rain, and dust conditions before and during high-dust demolition activities.
- Modify controls or suspend activities when weather conditions could cause contaminants to migrate toward the new building.

16. Construction Cleaning

- Perform regular HEPA vacuuming and damp wiping.
- Remove accumulated dust from construction areas, routes, barriers, and accessible surfaces.
- Do not allow dust to accumulate on surfaces that will later be concealed.
- Clean and protect HVAC components and ductwork as appropriate.

17. Spill and Contamination Response

- Stop the activity causing the contamination.
- Restrict access and notify the General Contractor and IAQ Coordinator.
- Notify the asbestos contractor and industrial hygienist if asbestos may be involved.
- Isolate affected HVAC systems when appropriate and prevent further migration.
- Determine the extent of contamination and perform appropriate cleaning, remediation, monitoring, or clearance.
- Document the incident, corrective action, and authorization to resume work.

18. IAQ Inspection Requirements

- Inspect containment and barriers.
- Verify asbestos containment and required pressure relationships.
- Verify HEPA equipment operation and maintenance.
- Verify HVAC and ductwork protection.
- Verify air-intake protection.
- Inspect dust controls, waste handling, construction entrances, and clean/dirty separation.
- Inspect for moisture and improper storage of VOC products.
- Document corrective actions and closure.

19. Documentation

- Approved IAQ Management Plan.
- Preconstruction IAQ meeting minutes.
- IAQ inspection reports and photographs.
- HVAC protection and filter records.
- Air-monitoring reports.
- Asbestos survey, abatement plan, notifications, and clearance documentation.
- Waste disposal records.
- Corrective-action reports.
- Low-emitting material documentation where applicable.
- Construction cleaning records.

20. Minimum Mandatory Contractor Procedures

- Before demolition: complete surveys and notifications; complete abatement planning; establish containment; protect the new building, HVAC openings, and air intakes; and establish monitoring locations.
- During asbestos abatement: maintain containment and required negative pressure; use HEPA filtration and wet methods; control access; and conduct required monitoring.
- During demolition: control dust at the source; maintain separation; protect air intakes; control debris; monitor weather; and stop work when controls fail.
- During new-building construction: protect HVAC systems; seal ductwork; maintain clean/dirty separation; control VOC emissions; prevent moisture; and clean regularly.
- Before occupancy: complete final construction cleaning, replace or clean filters as required, verify asbestos abatement and clearance, and verify that demolition-related contamination has not entered the new building.

21. Stop-Work Conditions

- Air monitoring indicates unacceptable contamination.
- Visible dust migrates toward the new building.
- New-building HVAC equipment becomes contaminated.
- Demolition debris enters the protected area.
- Required barriers are damaged or ineffective.
- An air intake is exposed to significant demolition dust.
- An asbestos release is suspected outside the regulated area.
- Required monitoring or documentation is unavailable.

22. LEED Documentation

- Maintain documentation demonstrating implementation of this plan throughout construction.
- Compliance with asbestos regulations does not by itself establish LEED compliance; project-specific LEED requirements and specifications shall be verified.

23. IAQ Inspection Checklist

Inspection Item	Requirement
Demolition containment	Intact and properly sealed
Asbestos containment	Maintained per abatement plan
Negative pressure	Maintained where required
HEPA equipment	Operating and maintained
New-building HVAC	Protected
Ductwork	Openings sealed
Air intakes	Protected
Dust control	Effective
Waste containers	Covered/controlled
Construction entrances	Clean
Interior surfaces	Free of excessive dust
Moisture	No uncontrolled moisture
VOC products	Properly stored
Clean/dirty separation	Maintained
Barriers	Intact
Air monitoring	Completed as required
Corrective actions	Documented and closed

References

U.S. EPA – Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), as applicable.

OSHA – 29 CFR 1926.1101, Asbestos Construction Standard, as applicable.

USGBC – LEED construction Indoor Environmental Quality / construction IAQ requirements applicable to the project rating system and version.