



KT Murphy Elementary School
19 Horton Street
Stamford, Connecticut

Mold Growth Removal Work Plan

November 20, 2018

Project No. 28-2087-033

Tighe&Bond

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Introduction

- A. This Mold Growth Removal Work Plan (the "Plan") has been developed to facilitate the removal of building materials containing mold growth (ceiling tiles, pipe insulation, foam insulation, gypsum wallboard, plaster, carpet, floor tile and mastic, window trim) at the KT Murphy Elementary School located at 19 Horton Street in Stamford, Connecticut, Connecticut (the "site").
- B. The Plan includes the following:
 - 1. Preparation of Area
 - 2. Removal of Wet and Mold Growth-Impacted Building Materials
 - 3. Cleaning and Disinfecting
 - 4. Inspection by Tighe & Bond, Inc. (the "Consultant").

Contractor Requirements

- A. The Contractor(s) shall have a designated "competent person" on the site always to ensure establishment of regulated area and proper work practices throughout the Project.
- B. Supervisor(s) shall be thoroughly familiar and experienced with mold remediation and related work and shall enforce the use of all safety procedures and equipment. Supervisor shall be knowledgeable of EPA, OSHA, and NIOSH requirements and guidelines.
- C. Contractor shall enforce strict discipline and good order among its employees and shall not employ any person nonskilled in the work assigned.
- D. The Contractor shall properly coordinate work with the Owner and Consultant.
- E. The Contractor shall be responsible for addressing any concerns by the Owner and/or Consultant.

Regulations

- A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner that will be in conformance with all federal, state, and local regulations and guidelines pertaining to mold impacted surfaces remediation.
- B. Specifically, the Contractor shall comply with the requirements of the following:
 - 1. Environmental Protection Agency (EPA) "Mold Remediation in Schools and Commercial Buildings", September 2008.
 - 2. Occupational Safety and Health Administration (OSHA) Regulations for Construction (29 CFR 1926).
 - 3. Institute of Inspection, Cleaning and Restoration Certification (IICRC) S500 "Standard and Reference Guide for Professional Water Damage Restoration", 4th Edition 2015.
 - 4. IICRC S520 "Standard and Reference Guide for Professional Mold Remediation", 3rd Edition 2015.

5. 2003 International Building Code as adopted by the 2005 State of Connecticut Building Code including the 2009, 2011, and 2013 amendments;
6. Life Safety Code, National Fire Protection Association (NFPA);
7. Local health and safety codes, ordinances or regulations pertaining to mold remediation and all national codes and standards including American Society of Testing and Materials (ASTM), American National Standards Institute (ANSI), and Underwriter's Laboratories (UL).

Description of Work

- A. The City of Stamford (the "Owner") requires building materials determined to contain mold growth removed in the following areas within the building:
 1. Media Center - 1,500 Square Feet (SF) of Carpet
 2. Basement Storage 022 – 800 SF of Carpet, 800 SF Ceiling Tile, and 50 Linear Feet (LF) of Fiberglass Pipe Insulation
 3. Auditorium – 20 SF of Plaster Ceiling
 4. Auditorium Entryway – 800 SF of Carpet
 5. Principal's Office – 10 SF of Gypsum Wallboard, 10 SF of Carpet
 6. Room 21 Closet – 100 SF of Gypsum Wallboard, 10 SF of Carpet, 10 SF of Ceiling Tiles
 7. Room 20 – 8 SF of Gypsum Wallboard, 9 SF of Floor Tile, 8 SF of Ceiling Tiles, and 15 LF of Fiberglass Pipe Insulation

Products

General

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.
- B. Damaged or deteriorated materials shall not be used and shall be removed from the premises.
- C. Polyethylene (poly) sheeting in a roll size to minimize the frequency of joints shall be delivered to the site with factory label indicating 4-mil in thickness.
- D. Tape or adhesive spray will be capable of sealing joints in adjacent poly sheets and for attachment of poly sheets to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of microbial cleaning disinfectant.

Equipment

- A. The Contractor shall provide all clean tools and equipment necessary for the work.
- B. The Contractor shall have available sufficient inventory for materials necessary for the job including protective clothing, respirators, filter cartridges, poly sheeting of proper size and thickness, and tape.

- C. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter or larger.
- D. The Contractor shall provide adequate lighting to allow for appropriate cleaning and disinfecting of items and passage by workers and visitors.

Microbial Cleaning Disinfectant

- A. Disinfecting products shall include the two-part Anabec Cleaning Solution and Anabec X-70 manufactured by Anabec, Shockwave RTU manufactured by Fiberlock, or equivalent, accepted by Consultant.

Personal Protection Supplies and Equipment

- A. Respirator Types - Provide all workers with a half-face air-purifying respirator that is approved by the National Institute for Occupational Safety and Health (NIOSH) for protection against airborne mold and microbial cleaning disinfectant and meets the requirements of the OSHA Standard.
- B. Protective Clothing - Provide all workers and approved visitors with disposable coveralls, head and foot coverings, gloves, eye protection (i.e., goggles), and half-face respiratory protection.

Pre-Construction Meeting

- A. Prior to the start of work, a Pre-Construction Meeting will be held on-site and must be attended by the Contractor's Site Supervisor.

Work Area Preparation

- A. Relocate moveable objects from the work area. Pre-clean and then cover non-moveable objects with 4-mil poly, loosely draped over items to create a dust barrier.
- B. Deactivate and/or isolate heating, ventilating, and air conditioning (HVAC) air systems or zones to prevent contamination and spore dispersal to other areas of the building or structure. During the work, vents within the work area shall be covered with poly, and completely sealed with duct tape.
- C. Where required, create pressure differential between work areas and non-work areas using acceptable negative air pressure equipment sufficient to provide four air changes per hour and create negative air pressure of -0.02 inches of water column within enclosure with respect to outside area as measured on a water gauge.
- D. Install one-layer 4 mil-thick poly sheeting as critical barriers around impacted materials to be removed, to isolate the work areas from the non-work areas.
- E. Install contiguous to the work area, a one-stage decontamination chamber for entry into and exit from the work area. The chamber should be large enough to be used as a wash station and to allow a person to put on and remove PPE. All contaminated PPE, except respirators, should be placed in a sealed bag while in this chamber.

Work Procedures

- A. Work will not commence until authorized by the Consultant.
- B. Remove ceiling tiles, pipe insulation, gypsum wall board, floor tile and mastic, carpet and window trim in a manner which minimizes dust creation.
 - 1. Place materials directly into disposal bags for disposal as general construction and demolition debris.
 - 2. Dust generated shall be HEPA-vacuumed and/or wet wiped as dust is generated.
- C. In accordance with manufacturer's directions and specifications, utilize the Consultant-accepted cleaning disinfectant to disinfect and sanitize surfaces remaining following mold growth removal (ceiling grid, pipe, etc.).
 - 1. Contractor shall follow manufacturers recommended number of applications, drying times, etc.
- D. After completion of the cleaning and surfaces are dry, the poly sheeting shall be removed and placed directly into disposal bags. Poly sheeting shall be folded in from the four corners to the center during poly removal.
 - 1. Disposal bags shall be securely sealed with tape and cleaned before removal from work area.

Consultant Responsibilities

Visual Inspections

- A. The Consultant shall conduct periodic inspections throughout the project. Inspections shall be conducted to document the progress of the work as well as the procedures and practices employed by the Contractor.
- B. The Consultant shall perform the following inspections during the work:
 - 1. Pre-commencement Inspection. Pre-commencement inspection shall be performed at the time requested by the Contractor. If, during the pre-commencement inspection, deficiencies are observed, the Contractor shall perform the necessary adjustments to obtain compliance.
 - 2. Work Area Inspections. Periodic work area inspections shall be conducted at the discretion of the Consultant. During the work area inspections, the Consultant shall observe the Contractor's work procedures, assess project progress, and inform the Contractor of specific items if deficiencies are noted.
 - 3. Final Visual Inspections. The Consultant, upon request of the Contractor, shall conduct final visual inspection of work performed.

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Install drop cloth. Clean and disinfect growth on AHU, pan and ductwork. Remove foam insulation in pan

AOC-11

AOC-01

AOC-02

AOC-15

Install isolation barriers, wash station, and negative pressure. Remove "wet" carpet and drywall.

AOC-12

AOC-14

AOC-16

AOC-18

AOC-04

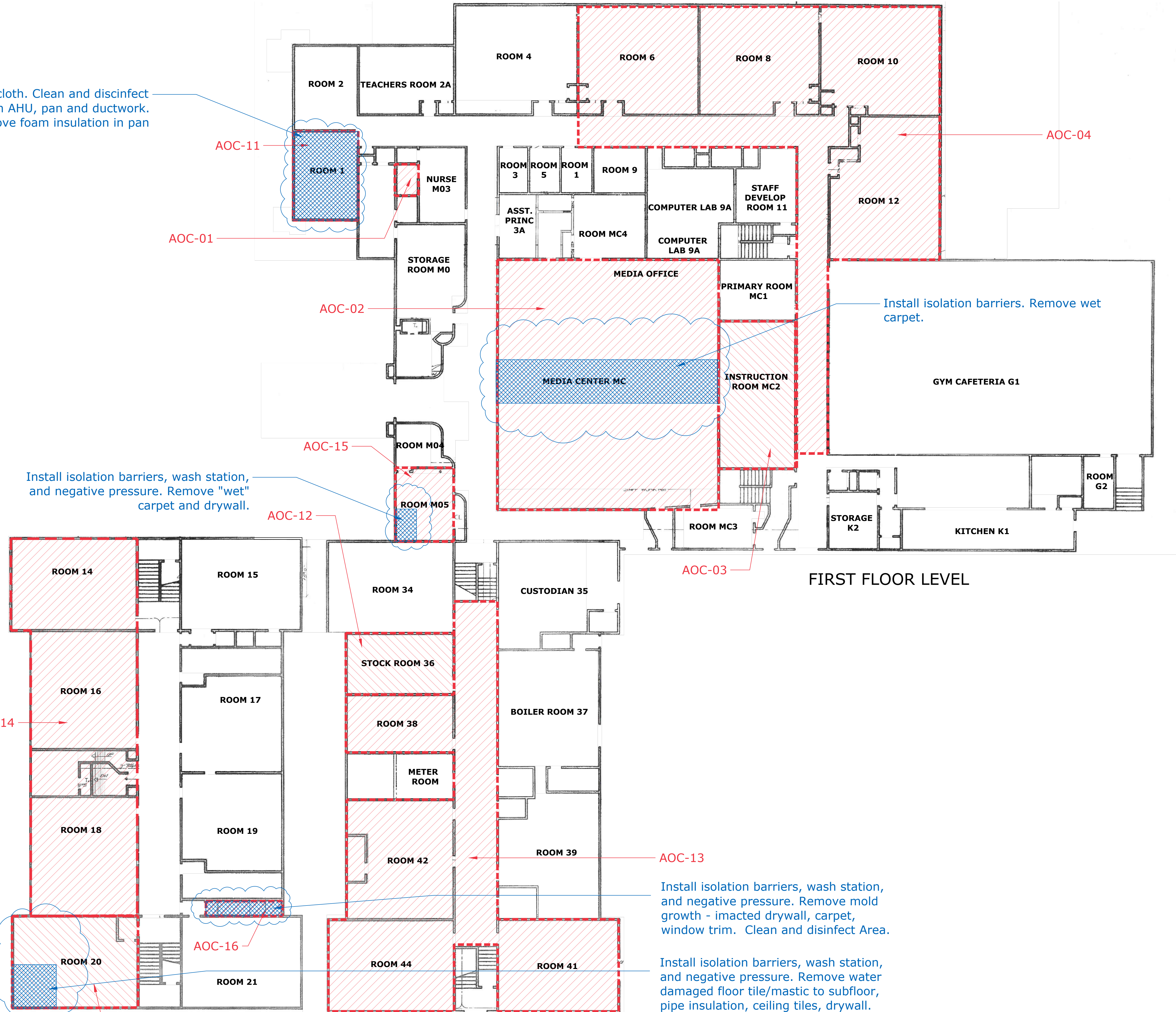
Install isolation barriers. Remove wet carpet.

AOC-03

AOC-13

Install isolation barriers, wash station, and negative pressure. Remove mold growth - impacted drywall, carpet, window trim. Clean and disinfect Area.

Install isolation barriers, wash station, and negative pressure. Remove water damaged floor tile/mastic to subfloor, pipe insulation, ceiling tiles, drywall. Clean and disinfect area.



FIRST FLOOR LEVEL

SECOND FLOOR LEVEL

KT Murphy Elementary School

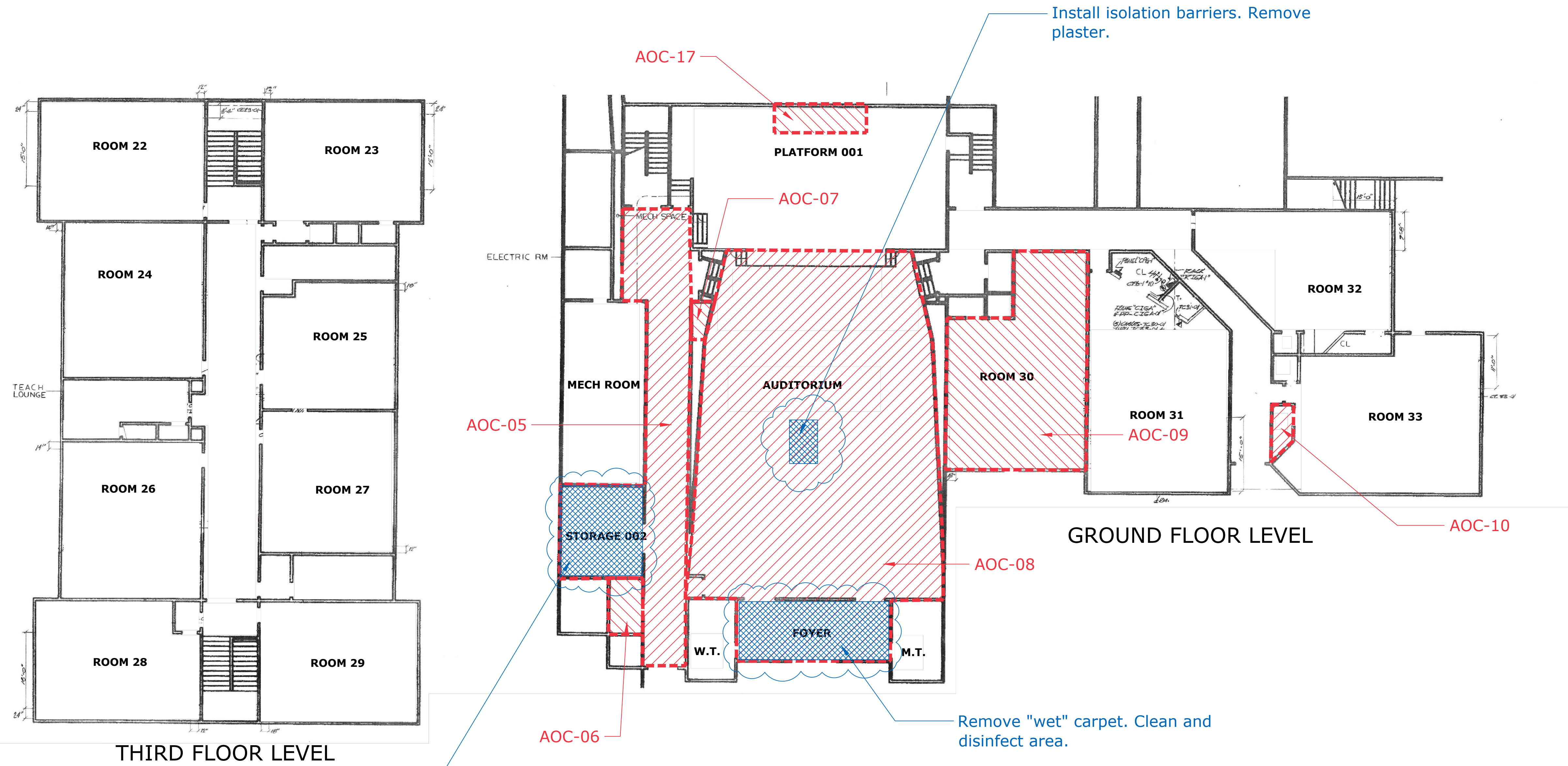
City of Stamford

Stamford, CT

MARK	DATE	DESCRIPTION
PROJECT NO:	S2087	
DATE:	11/19/2018	
FILE:	KT Murphy.dwg	
DRAWN BY:	WAC	
CHECKED:	XX	
APPROVED:	XX	

SCALE: 1/16" = 1'

Figure 2.1 - Growth Removal Work Plan



KT Murphy Elementary School

City of Stamford

Stamford, CT

MARK	DATE	DESCRIPTION
PROJECT NO: S2087		
DATE: 11/19/2018		
FILE: KT Murphy.dwg		
DRAWN BY: WAC		
CHECKED: XX		
APPROVED: XX		

SCALE: 1/16" = 1'

Figure 2.2 - Growth Removal Work Plan