

STATE OF NEW HAMPSHIRE
Dept. of Administrative Services
Div. of Procurement and Support Services
Bureau of Purchase and Property
State House Annex
Concord, New Hampshire 03301

Date: February 15, 2018

NOTICE OF CONTRACT - PRIMARY

COMMODITY: MOLD REMEDIATION

CONTRACT NO.: 8002269

NIGP: 926-7800

VENDOR: ENVIROVANTAGE INC **VENDOR # :** VC #156075 B001
629 Calef Highway
Epping NH 03042

CONTACT PERSON(S): Scott Knightly
Tel. No.: 800-640-5323 or 603-231-7048
Fax No.: #603-679-9685
E-Mail: Scottk@envirovantage.com

EFFECTIVE FROM: April 1, 2018 **Through:** March 31, 2023

TERMS: Net 30

INVOICING & PAYMENTS:

Itemized invoices shall be submitted in duplicate after the delivery of job/services to the individual agency for which work was performed. Each agency will make payment through the normal state payment process, which is up to 30 days following the receipt of an approved invoice.

- A. Contract number
- B. Date work was done.
- C. Brief description of work done.
- D. Hourly rate charged.
- E. Unit rates for equipment.
- F. Location of Work

Payments shall be made via Procurement Card

QUESTIONS: Direct any questions to Jeffrey Haley, 603-271-2202 or Jeffrey.Haley@NH.Gov.

PURPOSE

This contract is to provide all labor, tools, transportation, materials, equipment and permits as necessary to provide the required level of services as described herein. The scope of work shall include Mold Remediation, at the agencies/locations as needed for the entire State of New Hampshire. This contract is for State use only.

The Vendor will work on an on-call basis with the State and will be required to provide work schedules to the State within Two (2) business days of a request and to conduct Mold Remediation Services within five (5) business days of a request.

GENERAL

Install critical barriers and negative pressure enclosure(s) to prevent the migration of spores and fungi from the work areas. Remove all porous mold-contaminated materials and clean all non-porous and semi-porous mold-contaminated building materials in the designated work area. All work involving removal, cleaning or other disturbance of mold-contaminated building materials will be performed within a negative pressure enclosure

using critical barriers, HEPA filtration and negative air units, HEPA-vacuums, appropriate cleaning agents and decontamination units as indicated herein. All mold-contaminated building materials removed from the remediation areas will be sealed in plastic bags prior to exiting the containment and be disposed of as construction debris. Once remaining building materials are dry, a fungal resistant coating will then be applied to remaining original building surfaces in the area in order to limit or prevent further microbial growth.

DEFINITIONS

General Definitions

General: Definitions contained in this Article are not necessarily complete, but are general to the extent that they are not defined more explicitly elsewhere.

Accredited or Accreditation (when referring to a person or laboratory): A person or laboratory accredited in accordance with section 206 of Title II of the Toxic Substances Control Act (TSCA).

Actual growth: molds that have colonized on a substrate, formed fungal mycelia, growth structures and spores; are active or dormant; visible or hidden.

Adequately Wet: Means sufficiently mix or penetrate with liquid to prevent the release of particulate or bioaerosol. If visible emissions are observed coming from the removed building material, then that material has not been adequately wetted. The absence of visible emissions is not sufficient evidence, or measure, of a material being adequately wet.

Air filtration device (AFD): depending on the mode of use, an AFD that filters (usually HEPA) and re-circulates air is referred to as an air scrubber. One that filters air and creates negative pressure is referred to as a negative air machine or scrubber

Air Monitoring: The process of measuring the contaminant concentration within a specific volume of air.

Anti-Microbial: A product intended to reduce or mitigate the growth of microbial organisms. Registration and or licensing may be required for application based on product and local codes.

Approve: The term "approved," where used in conjunction with the State's Representative's or State's IH Consultant's action on the Contractor's submittals, applications, and requests, is limited to the responsibilities and duties of the State's Representative as indicated. Such approval or acceptances do not express or claim any certification of completeness, compliance, or approval of programs and documentation, including but not limited to review of analytical results, historical information, and interpretations. Such approval shall not release the Contractor from responsibility to fulfill, document and regulatory requirements.

Authorized Visitor: The State, the State's Representative, testing lab personnel, emergency personnel or a representative of any federal, state and local regulatory or other agency having authority over the project.

Barrier: Any surface that seals off the work area to inhibit the movement of aerosols.

Bioaerosol: A system consisting of particles, solid or liquid, suspended in air containing whole or parts of biological entities, such as bacteria, viruses, dust mites, fungal hyphae, fungal spores or metabolic by-products.

Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.

Certified Industrial Hygienist (C.I.H.): An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

Condition 1 (normal fungal ecology): an indoor environment that may have settled spores, fungal fragments or traces of actual growth whose identity, location and quantity are reflective of a normal fungal ecology for a similar indoor environment.

Condition 2 (settled spores): an indoor environment which is primarily contaminated with settled spores that were dispersed directly or indirectly from a Condition 3 area, and which may have traces of actual growth.

Condition 3 (actual growth): an indoor environment contaminated with the presence of actual mold growth and associated spores. Actual growth includes growth that is active or dormant, visible or hidden.

Condition: for the purpose of this specification, Conditions 1, 2, and 3 are defined for indoor environments relative to mold.

Containment: a precaution used to minimize cross-contamination from affected to unaffected areas by traffic, material handling, airborne or water distribution. Containment normally consists of 6-mil polyethylene sheeting, often in combination with negative air pressure, to limit or prevent microbial cross contamination.

Cross-contamination: the spread of microbial contaminants from an affected area to an unaffected area.

Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.

Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the State's representative", "requested by the State's Representative", and similar phrases. However, no implied meaning shall be interpreted to extend the State's Representative's or State's IH Consultant responsibility into the Contractor's area of construction supervision.

Disposal Bag: A properly labeled 6-mil thick leak-tight plastic bags used for transporting waste from work and to disposal site.

Due diligence: proper care, attention or persistence in doing a thing; such a measure of prudence, activity, or assiduity, as is properly to be expected from, and ordinarily exercised by, a reasonable person under the particular facts and circumstances.

Enclosure: The construction of an air-tight, impermeable, permanent barrier around fungal contaminated material to control the release of bioaerosols into the air.

Filter: A media component used in respirators and HVAC equipment to remove solid or liquid particles from the inspired air.

Fungus (plural "fungi"): one of five kingdoms into which living things are categorized. Fungi have distinct nuclei and include a variety of types, such as molds, mildews, yeast, and mushrooms. Fungi range in size generally from 2 to 20 microns and are ubiquitous in soils, water and air. Fungi formed by long chains of cells are called molds. Fungi are ubiquitous and are found in moist environments.

Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."

HEPA Filter Vacuum Collection Equipment (or vacuum cleaner): High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining aerosols. Filters should be of 99.97% efficiency for retaining aerosols of 0.3 microns or larger.

HVAC: Heating ventilation and air conditioning unit used to supply and condition air supplied to an occupied space.

IH Consultant: This is the entity employed or engaged as industrial hygiene (IH) consultant as described in the Bid Documents and Specification. All references to State's Consultant, Air Monitoring Consultant, Project Monitor, or Consultant with regard to abatement in the Bid Documents in all cases refer to the IH Consultant. The IH Consultant shall be trained and licensed as a Project Monitor in accordance with applicable State regulations. The on-site IH Consultant shall be certified in Comprehensive Practice by the American Board of Industrial Hygiene or the on-site IH Consultant shall be supervised by a CIH. The IH Consultant shall be independent of the Contractor.

Indicated: This term refers to graphic representations, notes or schedules on the Drawings, or other Paragraphs or Schedules in Specifications, and similar requirements in Bid Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference; no limitation on location is intended except as specifically noted.

Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, and

protecting, cleaning and similar operations."

Installer: An "Installer" is an entity engaged by the Contractor, either as an employee, subcontractor or sub-subcontractor for performance of a particular construction activity, including installation, erection, application and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

Laborer: A person who does unskilled physical work for wages.

MSDS: Material safety data sheet for chemical products used or applied during work activities as required by the OSHA 29 CFR 1910.1200. Hazard Communication Standard.

Mobilization/Demobilization: The transportation of personnel and equipment to and from the job site and include mileage, tolls, parking, lodging and meals.

Mold: Term for filamentous fungi, often seen as a superficial or "wooly" growth of long chains of fungi cells formed on damp organic materials. Toxigenic molds may produce a harmful substance called a mycotoxin. Mold growth can degrade materials and present potential health risks to humans.

Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

Pressure Differential and Ventilation System: A local exhaust system, utilizing HEPA filtration capable of maintaining a pressure differential with the inside of the Work Area at a lower pressure than any adjacent area, and which cleans re-circulated air or generates a constant air flow from adjacent areas into the Work Area.

Project Site: is the space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other construction as part of the project.

Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."

Quality control: activities performed by a remediator that are designed to assure the effectiveness of the remediation process.

Regulation: The term "Regulations" includes laws, statutes, ordinances and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the Work, whether they are lawfully imposed by authorities having jurisdiction or not.

Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.

Site Supervisor: This is the Contractor's Representative at the work site. This person will be the Competent Person required by OSHA in 29 CFR 1926 and Site Supervisor/Foreman as required by the State of New Hampshire as applicable. Provide trained and experienced supervisor at each individual work site during work as applicable. The Site Supervisor shall be able to communicate in English both orally and in writing.

State's Representative: This is the entity employed or engaged as the State's Representative as described in the Bid Documents. The State's Representative will represent the State during construction and until final payment is due. The State's instructions to the Contractor will be made directly to the Contractor or forwarded through the State's Representative.

Substrate: A material or surface upon which an organism grows which may simply provide structural support or may provide water and nutrients, sometimes by using chemicals or particles in the material as food for living organisms.

Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or

tests, either at the project site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests.

The term "experienced," when used with the term "Installer" means having a minimum of 5 previous projects similar in size and scope to this project, and familiar with the precautions required, and has complied with requirements of the authority having jurisdiction.

Waste Shipment Record: Means the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of regulated waste.

Wet Cleaning: The process of eliminating microbial contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as waste.

SCOPE OF SERVICES:

All services performed under this contract shall be performed between the hours of 8:00 A.M. and 4:00 P.M. unless other arrangements are made in advance with the State. Any deviation in work hours shall be pre-approved by the Contracting Officer(s). The State may require a ten-day advance notice of said work schedules to provide security and access to respective work areas. No premium charges will be paid for any off-hour work.

The Contractor shall not commence work until a conference is held with each agency, at which representatives of the Contractor and the State are present. The conference will be arranged by the requesting agency (State).

The Contractor agrees that any damage or injury to buildings, materials, equipment or to other property during the performance of this service will be repaired at their own expense.

The State shall require correction of defective work or damages to any part of the building or its appurtenances when caused by the Contractor's employees, equipment or supplies. The Contractor shall place in satisfactory condition all defective work and damages rendered thereby or any other damages incurred. Upon failure of the Contractor to proceed promptly with the necessary corrections, the State may withhold any amount necessary to correct all defective work or damages from payments to the Contractor.

The work staff shall consist of qualified persons completely familiar with the products and equipment they shall use. The Contracting Officer(s) may require the Contractor to dismiss from the work staff such employees as deems incompetent, careless, insubordinate, or otherwise objectionable, or whose continued employment on the work staff deemed to be contrary to the public interest or inconsistent with the best interest of security.

The Contractor or their personnel shall not represent themselves as employees or agents of the State.

While on State property, employees shall be subject to the control of the State, but under no circumstances shall such persons be deemed to be employees of the State.

All personnel shall observe all regulations or special restrictions in effect at the State Agency.

The Contractor's personnel shall be allowed only in areas where work is being performed. The use of State telephones is prohibited.

If **sub-contractors** are to be utilized, please include information regarding the proposed sub-contractors including the name of the company, their address, contact person and three references for clients they are currently servicing. Approval by the State must be received prior to a sub-contractor starting any work.

SCOPE OF WORK

Methods to decontaminate fungi from surfaces are not currently codified. Industry guidelines require that porous building materials, which have moisture damage and mold contamination be properly packaged and disposed of by trained personnel with appropriated personal protective equipment (PPE) and engineering controls. Porous materials which are contaminated and left in place can become a reservoir for future fungal growth if exposed to moisture of high levels of humidity. Non-porous materials may be cleaned, disinfected and thoroughly dried. **The NY City Department of Health & Mental Hygiene Guidelines on Assessment and**

Remediation of Fungi in Indoor Environments and the Institute of Inspection Cleaning and Restoration Certification IICRC S520 Standard and Reference Guide for Professional Mold Remediation and IIRCS500 Standard for Professional Water Damage Restoration are reference as guidelines. Workers used to complete this work shall be thoroughly trained on these methods and potential hazards associated with these work activities.

Removal and Cleaning Work:

Isolate entire work area using negative pressure containment enclosures prior to removal of any contaminated materials. Pre-clean surfaces and HVAC registers where critical barriers are to be attached. Critical barriers, negative pressure enclosure and decontamination units will be installed prior to the disturbance of mold contaminated materials or debris. Work areas shall be properly demarcated and only authorized personnel will be allowed in the work areas during remediation. A personnel and equipment decontamination facility will be constructed adjacent to the work area. The State must approve all temporary connections to building utilities.

Once critical barriers and negative air units have been installed, all non-porous furniture and partitions (including but not limited to partitions, tables, desks, chairs, file cabinets, etc) shall be cleaned with HEPA vacuums and wet wiping with dilute detergent (disinfecting agent) to remove fungal contamination. Wet wipe desk tops with water only to minimize potential for occupant reactions to cleaning agents. Once clean, remove all furniture from the work area and relocate to temporary staging area. All interior condition 2 and 3 materials and debris as specified herein and specifically approved by the State and or IH Consultant (State), shall be removed and mold contaminated material.

All condition 1 load bearing structural components, non-porous block walls, floors, and decking and other nonporous materials, substrates, air handler equipment and light fixtures remaining shall be thoroughly decontaminated and dried including HEPA vacuuming and physical wiping or to the method specifically approved by the State and or IH Consultant (State).

Air Handling

The work area shall be maintained under negative pressure in relationship to adjacent building areas. HEPA filters air units and dehumidifiers shall be used to facilitate drying of surfaces and "scrubbing" of bioaerosols from the air within the work area.

Visual Inspections:

During the course of removal and cleaning work, an IH Consultant(State) shall conduct ongoing inspections of the work to document that mold remediation work is being conducted in compliance with the work plan. Additionally, at the completion of the mold remediation work and successful inspection by the Contractor's site supervisor, the Consultant, with the input of the State's Representative, will conduct a visual inspection of each work area to determine if surfaces are dry, that sufficient removal and cleaning has been completed with minimal residue left on surfaces. The absence of visible microbial growth on accessible surfaces is required, but does not guarantee that additional growth will not occur at a later time.

Moisture Testing:

Moisture testing of porous surfaces which may remain in the work area may be conducted with <12% approximate moisture content considered as dry.

Air Testing:

Air monitoring for airborne fungal spore concentrations will be conducted by the IH Consultant (State) after remediation work is completed and prior to re-occupancy. It should be noted that there are currently no generally accepted or regulator methods or clearance levels for airborne viable fungi concentrations. However, for the purposes of projects conducted under any contracts resulting from this Contract invitation, acceptable clearance levels of airborne viable fungal spores shall be not more than 10% greater than the concentrations found in the ambient air outside of the building during the clearance testing period and that the species of airborne fungi found inside the work area, if present, will be the same species identified in the exterior outside air.

Surface Testing:

Surface testing for bacteria, fungi or fungal spores will be conducted by the IH Consultant (State) after remediation work is completed and prior to re-occupancy. It should be noted that there are currently no generally accepted or regulatory methods or clearance levels of post remediation verification surface concentrations of fungi. However, for the purposes of projects conducted under any contracts, acceptable

clearance levels for surface fungi and bacteria will be not greater than 5% of pre remediation testing levels.

STOP WORK

Stop work and do not proceed until corrective measures are implemented in the event that any of the below occur:

- Loss of integrity of any critical or primary barrier.
- Loss of, or inadequate, pressure differential or air flow in the Work Area.
- Failure to work in accordance with this plan.
- Visible emissions created
- Other potential safety and health emergencies and changes in conditions of the work as required.

WORKER PROTECTION

Workers will receive appropriate hazard communication training in accordance with 29 CFR Part 1910.1200. Contractors are to provide all required hazard communications at the job site during remediation activities, not limited to communications to other site employers, labeling, and work area demarcation. Workers shall have also completed a Mold Remediation Training program and Supervisor training and other training required to conduct work in accordance with 29 CFR Part 1926, OSHA.

Personal Protective Equipment:

Coveralls: All workers will don disposable full-body Tyvek or spun-bound poly coveralls with head covers, prior to and during all work in the remediation work area.

Footwear: All workers will wear ANSI approved steel toed safety footwear or disposable booties during work in the remediation work area. Street clothing will not be allowed within the work area.

Eye Protection: Workers will wear either full-face respirators or half face respirators and eye goggles with no holes or gaps in face to goggle seal during all work in the remediation area.

Hand Protection: All workers will wear disposable, non-permeable protective gloves during work in the remediation area.

Respiratory Protection:

All workers will have completed the necessary instruction and training in the proper use of respiratory protection. A minimum of N95 filtering face piece respirators is required for these work activities. Due to the potential of eye irritation and infection, all workers recommended to wear a full-face respirator with P100 filters cartridges or half face respirator with P100 cartridges and goggles for eye protection, properly fitted on the face in the work area from the start of any operation until the work area is completely decontaminated. All respirators will be NIOSH-approved. In addition, each worker required to wear respiratory protection will have participated in the appropriate medical surveillance in accordance with 29 CFR 1910.134. Additional protection may be required based on cleaning agents or antimicrobial products used during remediation.

Respiratory Protection Program:

The Contractor shall comply with ANSI Z88.2 - 1992 "Practices for Respiratory Protection" (and most current revisions) and OSHA 29 CFR 1910 and 1926, as applicable, during all work. Respiratory protection will be used at all times where there is any possibility of disturbance of mold-contaminated materials whether intentional or accidental.

Workers Entering the Work Area:

Each time the work area is entered; workers will change out of street clothes and will don new disposable coverall with head cover and a clean respirator, protective gloves and disposable footwear in the changing (clean) room of the Decontamination Unit. As deemed appropriate by the Contractor's OSHA Competent Person, workers will then proceed through the shower room to the equipment (dirty) room and proceed into the work area.

Decontamination Procedures:

All workers will adhere to the following personal decontamination procedures whenever they leave the work area to prevent the spread of microbial contamination to other areas of the building and worker's vehicles:

When exiting a work area, remove disposable Tyvek(or equal)coveralls with head covers, protective gloves and disposable footwear covers or boots in the equipment room.

While still wearing respirators, each worker will proceed to the shower. The requirement for showering is to be determined by the Contractor's OSHA Competent person. Care must be taken to follow procedures in removing the respirator to avoid potential contamination while showering. The following procedure is required as a minimum:

Thoroughly wet body including hair and face. If using a Powered Air-Purifying Respirator (PAPR) hold blower unit above head to keep canisters dry. With respirator still in place thoroughly wash body, hair, respirator face piece, and all parts of the respirator except the blower unit and battery pack on a PAPR. Pay particular attention to seal between face and respirator and under straps.

Completely wet hair, face, and respirator. While holding breath, remove respirator and hold it away from face before starting to breath. Carefully wash face piece of respirator inside and out. Respirator cartridge filters used during mold remediation work will be removed and disposed of on a daily basis. Moisture from showering can collect on the filter medium and create a potential growth medium for the enumeration of mold. PAPR shut down in the following sequence: first cap inlets to filter cartridges, and then turn off blower unit (this sequence will help keep debris which has collected on the inlet side of filter from dislodging and contaminating the outside of the unit). Thoroughly wash blower unit and hoses. Carefully wash battery pack with wet rag. Be extremely cautious of getting water in battery pack as this will short out and destroy battery.

All workers shall shower completely with soap and water. Rinse thoroughly. Rinse shower room walls and floor prior to exit. Proceed from shower to clean room and change into street clothes or into new disposable work items.

Within the Work Area: Workers will not eat, drink, smoke, chew tobacco or gum in the Work Area. To eat, chew, drink or smoke, workers shall follow the procedure described above, and then dress in street clothes before entering the non-work areas.

Electrical Hazards:

All temporary power will be supplied through ground fault circuit interrupter (GFCI) devices. All temporary power shall be provided in compliance with OSHA's Construction Industry Safety and Health Standards. Circuits shall be de-energized whenever feasible before cleaning operations take place. Water shall not be used on the housing of energized circuits. The Contractor shall coordinate with the State for the de-energization, locking and tagging of energized circuits.

Emergency Procedures:

The Contractor will provide a written Emergency Action and Fire Prevention Plan for the site work as required by 29 CFR 1910.38 and an Accident Prevention Plan covering other construction safety and health issues including but not limited to ladders, slips, trips, fall protection and other safe work practices.

POTENTIAL MOLD HAZARD

The remediation of mold and mold-contaminated materials may cause mold spores and other contaminants to be released into the buildings' atmosphere. Mold, mold spores and or mold byproducts are present almost everywhere in indoor and outdoor environments. Mold, mold spores and/or mold byproducts that have been released into the atmosphere may create potential health hazards to occupants. The Contractor shall apprise all employees at the site, workers, supervisory personnel, subcontractors and consultants who will be at the job site of the potential hazards and of the proper work procedures that must be followed.

Varying concentrations and species of fungi are commonly present within our environment. In most situations there are no adverse health effects. However, elevated concentrations of fungi and their various metabolic by products can lead to allergic or toxic reactions and infections in susceptible populations of people. There are currently no regulatory guidelines indicating safe or acceptable concentrations of these biological materials. Current federal and State regulations do not cover fugal (mold) decontamination methods and procedures and clean-up standards. Industry guidelines treat fungi as a biological particulate contaminant, and as such, abatement engineering controls to prevent or reduce the spread of contamination follow along those accepted in the asbestos and lead abatement industries and are common to the construction industry where controlling air contaminants is required to protect indoor air quality

Where in the performance of the work, workers, supervisory personnel, subcontractors, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of any mold-containing materials, take appropriate continuous measures as necessary to protect all building occupants from the potential hazard of exposure to mold. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable federal, state and local agencies.

The Contractor shall complete, and coordinate with State's Representative as applicable, all communication of hazards in strict accordance with 29 CFR 1926.1200 and other applicable OSHA and State regulations

The Contractor and all subcontractors shall provide OSHA-competent persons on-site in accordance with 29 CFR Part 1926 to inspect for potential job site hazards, including but not limited to, potential hazards associated with other materials that may be encountered during remediation work.

NOTICES

The Contractor shall complete all necessary notifications and local, State and federal permits for the work. Post copies of this work plan specification and copies of notifications at the job site. Provide hazard communications in accordance with OSHA 29 CFR Part 1926.

SUBMITTAL REQUIREMENTS

The Contractor shall provide preconstruction and project closeout submittals to the State's Representative for all mold related work in accordance with Submittal Sections and Specifications.

Material Safety Data Sheets:

The Contractor shall provide State and/or States Representative and IH Consultant with MSDS for any materials to be used on site in accordance with OSHA regulations prior to the materials being brought or used at the work site. The Contractor shall coordinate the approval and use of any such materials, not limited to approval, with regard to compatibility with any scheduled replacement materials as applicable.

DECONTAMINATION FACILITIES

The decontamination unit will be the only means of ingress and egress for negative pressure work areas. Provide and utilize appropriate decontamination facilities during all phases of mold related work as indicated in specifications.

WORK AREA PREPARATION

Work to be Completed Prior to Abatement:

All non-qualified personnel must be excluded from the work area during all mold-contamination remediation and cleaning work.

The Contractor shall coordinate and ensure the disablement of HVAC systems or any other system bringing air into or out of the Work Area. The system will be disabled by disconnecting wires, removing circuit breakers, by lockable switch or other positive means that will prevent accidental premature restarting of equipment. The Contractor shall coordinate with State or State's Representative the lock-out and tag-out of power passing through and in the Work Area in accordance with OSHA requirements. The Contractor shall coordinate lock-out and tag-out of all other equipment and systems as needed to complete the work in a safe manner.

All equipment brought on site shall be free from all dust and debris. Only new, unused polyethylene sheeting materials shall be used. Following the work, all polyethylene barriers shall be disposed of as mold-contaminated waste.

General Preparation Work:

Work areas shall be completely isolated from non-work areas such that mold spores cannot pass through or beyond the perimeters of the work area and into non-work areas. All removal and clean-up work shall be conducted within negative pressure contract and applicable regulations. Tools, scaffolding, staging, etc. necessary for the work will be placed in the area to be isolated.

Warning signs will be posted at the entrance points to the Work Area. Warning signs will read as follows:

Legend

**DANGER
KEEP OUT
BEYOND THIS POINT
CONSTRUCTION WORK**

IN PROGRESS

At the entrance to the Decontamination Unit, or any critical barriers, caution sign will be posted. Caution signs will display the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:

Legend

**DANGER
MOLD-CONTAMINATION HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED
IN THIS AREA**

Pre-clean surfaces and HVAC registers to which critical barriers and containment enclosures shall be affixed.

The Contractor shall install containment enclosures to contain the work areas. The work areas will be completely separated from non-work areas by closing all openings with sheet plastic barriers at least 6 mil in thickness, or by sealing cracks leading out of the work area with duct tape. All ventilation openings, lighting fixtures, doorways, manholes, and other openings into the work area will be pre-cleaned and sealed with duct tape alone or with polyethylene sheeting at least 6 mil in thickness, taped securely in place with duct tape. Seals will be maintained until all work and successful clearance testing is completed. Sheet Plastic barriers, at least 6 mil in thickness, will be constructed as required to seal openings completely from the work areas into adjacent areas. The Contractor shall install polyethylene sheeting to protect wall and floor surfaces and building finishes to be excluded from the work area and in accordance with State regulations for full containment barriers. The Contractor shall use care such that during containment tear down, walls and finishes are not damaged from containment barriers, duct tape, spray adhesives or other damage.

An appropriate foam insulation sealant shall be installed into crevices as needed to completely seal the work areas off from non-work areas. All such material must be appropriately fire rated and approved by the State's Representative prior to use. Please reference attachment for Contractor proposed material and MSDS.

If the barriers fall or are breached in any manner work will stop immediately. Work will not start until modifications are made as required. Negative pressure work areas will be equipped with pressure differential/air filtration system and the system shall be operated continuously until remediation work is completed and clearance inspections and testing has been completed and reported.

The work area will be maintained at an air pressure that is lower than that in any surrounding space. This pressure differential when measured across any physical or critical barrier. Pressure differential will be achieved by exhausting a sufficient number of HEPA filtered fan units from the Work Area. Consideration for pre-filtering make up air and humidity control shall be made by the Contractor. All units will be exhausted from the Work Area to meet air circulation requirement of this section. The pressure differential between the outside and inside of the work area will be monitored continuously in a manner which will be accessible to inspection by the State's Representative at any time.

Pressure differential and air filtration will be provided as required above in the entire Work Area, including the Decontamination Unit. Exhaust hoses will be connected to existing penetrations or window openings as approved by State's Representative, and exhausted away from the decontamination unit. As deemed necessary by Contractor, make-up air inlets will be established such that outside air is introduced into the work areas in the event that make-up air from other portions of the building are suspected to be a source of contaminant introduction or elevated (>60%) humidity levels, as applicable. Dehumidifiers must be free from contamination if used in the work area to prevent contamination from past projects.

At completion of abatement work, fan units will run to remove airborne fungal spores that may have been generated during abatement work and cleanup and to purge the Work Area with clean makeup air. Only after final inspections indicate that the area has been decontaminated, will fan units be shut down and removed from the Work Area. Before removal from the Work Area all pre-filters will be removed and properly dispose of. The exterior of the units will be decontaminated and the air intake to the machine will be sealed with 6-mil polyethylene.

REMOVAL, CLEAN-UP AND DISPOSAL

Inspection: Removal and clean-up work will not commence until the mold remediation Contractor's site supervisor completes a visual inspection of the work area(s) in order to document that the all required

preparations have been completed and that the work area meets the requirements of the specification and regulations.

Water to which an appropriate antimicrobial detergent has been added in accordance with the manufacturer's recommendations will be used during clean-up work. The purpose of the detergent is to aid in the physical removal of microbial contamination. All work area isolation and engineering controls will be maintained until removal and clean-up work has been completed and work area visual inspection has been conducted to determine if adequate remediation has taken place.

The Contractor shall provide workers with any additional, necessary personal protective equipment (PPE) before beginning work with materials for which a MSDS has been submitted.

Pre-Cleaning Work

Materials to be removed prior to the start of work shall be cleaned with HEPA vacuums to remove possible mold contaminated dust and debris. The Contractor shall conduct pre-cleaning of surfaces using HEPA vacuuming to remove possible mold contaminated dust and debris. After de-energizing (lockout/Tag out), fully clean all fixtures and seal with polyethylene sheeting to protect the fixtures during work. The Contractor shall coordinate handling of smoke and/or heat detectors with the Government and Local Fire Department. The Contractor shall provide temporary mechanical supports of all fixtures, lighting, and fire protection systems as needed during the work to maintain the items in their existing condition. The Contractor shall coordinate with State's Representative for approval of temporary support mechanisms and methods.

Removal - General:

The Contractor shall remove all interior Condition 2 and 3 materials and debris as specifically approved by State's Representative, these materials will be removed as mold contaminated material where mold contamination has been observed in the work area and simultaneously pack material into appropriate 6-mil poly disposal bags or other pre-approved containers and then double bagged with the outside of the outer containers wet wiped with a damp cloth and a detergent solution or HEPA vacuumed in the decontamination chamber prior to transporting out of the work area. Structural members and non-porous surfaces to remain and shall be protected from damaged. Twist neck of bags, bend over and seal with minimum three wraps of duct tape. Clean outside and move to the decontamination unit for further cleaning and packaging. Large debris will be wrapped and sealed in a minimum of 2 layers of 6-mil polyethylene sheeting.

The use of wet wiping and HEPA vacuums to conduct the cleaning of all surfaces within the work area is required. Do not cause visible emission. All remaining Condition 1 load bearing structural components, non-porous block walls, floors, and decking and other nonporous materials, substrates and air handler equipment will be first HEPA vacuumed, then wet wiped with wipers wetted with water and mild detergent or other methods specifically approved by the State's Representative. Care should be taken not to saturate building materials. All surfaces shall be immediately dried to remove all excess moisture above ambient conditions. Steps to maintain temperature and humidity levels at acceptable levels will be incorporated as necessary to limit condensation in the work area and expedite drying of building materials to remain in the work area.

The relative humidity levels within the work shall be maintained at less than 60% during the project to limit condensation on surfaces within the work area. De-humidification equipment may be required to dry surfaces and materials.

Final Cleaning Work:

At the completion of the gross removal work and cleaning, all surfaces, barriers, equipment, and tools, will be cleaned using wet wiping and HEPA vacuums as required until no visible debris is present. The surfaces and items will then be visually inspected by the Contractor's site supervisor. If any debris or dust is found, cleaning will be repeated. This process will be repeated until no debris dust or other material is found. At the completion of cleaning work, all pre-filters on the pressure differential systems will be removed and properly disposed of as mold-contaminated waste.

Sufficient drying time will then be allowed in the work area(s). Acceptable Moisture content shall be determined by the State's representative as being equal to the Moisture content of similar building materials accepted for delivery and use at the job site. Work areas will then be inspected by the Contractor's site supervisor, State's Representative and IH Consultant.

Waste Packaging:

Leak-tight 6 mil polyethylene bags or sheeting (for larger materials or sections), sealed with duct tape and other mechanical means as needed, will be used for disposal of waste.

Visual Inspection:

The Contractor's site supervisor, Consultant and State's Representative will then perform a complete visual inspection of each entire work area to determine if mold contaminated items have been remediated and to observe for signs of potential mold contamination, including: all surfaces, ceiling, walls, floor, decontamination unit, all plastic sheeting, and equipment. Areas where debris is found will be re-cleaned as needed. When the area is visually clean and no debris, residue, dust or other material is found, the visual inspection will be complete. Contractor shall provide adequate lighting, power, and access to all areas to be inspected and tested. Acceptable Moisture content shall be determined by the State's representative as being equal to the moisture content of similar building materials accepted for delivery and use at the job site.

Application of Surface Coating:

All remaining wall and ceiling surfaces and other nonporous materials to remain within the work area will then be misted with a fungal resistant coating solution in accordance with the manufacturer's recommendations and allowed to immediately dry. The use of additional HEPA filtered air moving units may be utilized to expedite the drying process.

Final Air Sampling:

After the work area is found to be visually clean and sufficient settling time has been allowed, air testing will be conducted in an effort to assist in the evaluation of the effectiveness of remedial efforts. Air samples will be collected from within the work area, along with an exterior sample(s) for comparative purposes. Since there are no regulatory standards for airborne microbial contaminants, the area will be determined to be acceptable when indoor sample results for fungal spores are less than or equal to the results of the air samples outside of the of the building at the time of the clearance testing and that the species of airborne fungal spore found inside the work area, if present, will be the same species identified in the exterior outside air. Sampling for fungal spores will be completed by the IH Consultant using a hi-volume air-sampling pump calibrated at a rate of approximately 15 liters per minute (lpm), for ten minutes using Air-O-Cell Spore traps or equivalent with 24-48 hour turnaround for analysis. Sampling should be completed with sampler at a height of approximately 3' to 5' from ground, with actual height noted on daily log. The Consultant shall make an effort not to breathe on samples or stand immediately adjacent to sampler during sample time.

The IH Consultant's hands shall be initially and periodically cleaned with isopropyl alcohol to reduce potential cross contamination. This sampling and analysis method provides for identification and quantification of many, but not all fungal spores that may be present in the air on the day of the survey. At the completion of each sampling, the air samples shall be sealed with tape, labeled, placed in an insulated container with peanuts or bubble pack, and shipped on ice under chain of custody to a laboratory which participates in the American Industrial Hygiene Association (AIHA) Environmental Microbiology Testing program EMPAT program. Media lot numbers and expiration dates are to be recorded on daily logs along with a drawing or diagram of sample locations.

Final Surface Sampling:

Surface swab sampling may be completed at the discretion of the IH Consultant and State's Representative using tape lifts or swabs. One surface swab sample each may be collected from three (3) separate indoor locations as indicated by the State's Representative. Surface swabs will be wetted and directly rolled on the suspected affected areas with the use of a template and immediately placed into a sterile transportation tube. At the completion of the sampling, the samples shall be sealed, labeled, and shipped under chain of custody to an accredited Laboratory for analysis. For clearance purposes, the results of surface swab clearance testing must be less than the background concentrations found as indicated in the State's Pre-Construction Survey Report.

Demobilization:

After all requirements of the visual inspection and testing have been completed, all critical and primary barrier sheeting and Decontamination Units will be removed, packaged and disposed of as mold-contaminated waste. Pressure Differential Systems will then be shut down. HEPA filtered fan units, HEPA vacuums and similar equipment will be sealed as necessary with polyethylene sheet and duct tape to form a tight seal at the intake end before being moved from the Work Area. Contractor shall then thoroughly inspect for any residual debris

that may have dislodged during tearing down. In the event that debris is found, assume it is mold contaminated and restrict access to area and re-clean using methods stated herein for mold cleanup.

Disposal:

Mold-containing waste materials and debris, which is packaged in accordance with the provisions of this Specification, may be disposed of as general construction debris.

The Contractor shall carefully load all containerized waste material to sealed containers for transport. The Contractor shall exercise care before and during transport, to insure that no unauthorized persons have access to the materials.

The Contractor will not store disposal-bagged material outside of the work area. The Contractor shall take bags or drums from the work area directly to a truck or dumpster. The Contractor will not transport disposal-bagged materials on open trucks. At disposal site, the Contractor shall unload containerized waste properly. Sealed plastic bags may be carefully unloaded from the truck.

WORK AREA CLEARANCE

Contractor Release Criteria:

The work area is to be cleared when the work area meets the visual inspection criteria described in the project decontamination sections of this specification and for the purposes of the scope of this work plan, work shall be deemed satisfactory if the concentrations of fungal spores in the work area are less than or equal to the concentrations of fungi in the exterior or outdoor air at the time of the clearance air sampling, and that the species of airborne fungal spores found inside the work area, if present, will be the same species identified in the exterior outside air.

Air Testing:

To determine if the mold spores concentration level in the work area has been reduced to an acceptable level (at completion of work), the IH Consultant will secure air samples and ship to laboratory for analysis. The State’s Representative may also conduct periodic spot inspections in an effort to verify work is being completed in accordance with this specification. Failure of air samples to meet the acceptance criteria outlined above will require the Contractor to re-clean the area at no additional cost to the State.

MATERIALS

All materials are inclusive rates that are included in the personnel rates. Materials include **all** personal protective equipment, poly, tape, all tools of the trade and supplies necessary to complete the removal as specified, packaging, storage and proper disposal of the mold.

EQUIPMENT

All specialized rental equipment (personnel lifts, cranes, compressors etc.) required to access the work is to be provided by the Contractor. Costs for the equipment are to be the dated invoice rate receipt, plus 10 percent.

MOBILIZATION / DEMOBILIZATION

Mobilization/demobilization shall be included in each job/project. Mobilization/demobilization shall include the transportation of personnel and equipment to and from the job site and include mileage, tolls, parking, lodging and meals.

SCHEDULE OF RATES:

PERSONNEL

Pease note that after hours and weekends/holidays will be required.

All rates will start when personnel arrives at the work site. All rates will stop when personnel leaves the work site.

The personnel shall be required to bring the proper tools (hand tools, small power tools, ladders, scaffolding, dehumidifiers, fans, filtration and negative air units, vacuums etc.) of the trade and supplies applicable when first arriving at the work site.

The personnel shall obtain any supplies needed to complete the job at the most expeditious and cost effective manner.

EnvirVantage	COOS	GRAFTON	CARROLL	SULLIVAN	MERRIMACK	BELKNAP	STRAFFORD	CHESHIRE	HILLSBOROUGH	ROCKINGHAM
MOBILIZATION	\$ -	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ -	\$ -	\$ -
SITE SUPERVISOR	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LABORER	\$75.00	\$75.00	\$69.00	\$65.00	\$75.00	\$65.00	\$65.00	\$69.00	\$65.00	\$65.00