

SECTION 02 82 00
ASBESTOS ABATEMENT FOR KITCHENS AND BATHROOMS

PART 1.00 - GENERAL

1.01 REFERENCE STANDARDS

- A. 29 CFR 1926 - Safety and Health Regulations for Construction; Current Edition.
- B. 29 CFR 1926.1101 - Asbestos; Current Edition.

1.02 RELATED DOCUMENTS

- A. The Contractor is referred to the "Instructions to Bidders and General Conditions, NYCHA Contracts", latest edition; the "Special Notice to Contractors"; the "Form of Proposal"; the "Form of Bid Bond"; "Division 01 - General Requirements" of the Contract Specifications"; the "Contract Drawings" and all Amendments and Addenda thereto; all of which govern the Work of this Section.

1.03 SCOPE OF WORK

- A. The Work of this Section includes all labor, materials, equipment and services necessary to complete the required asbestos abatement work in renovated apartment bathrooms/toilets and building cellars/crawl spaces as indicated on the Drawings and/or specified herein including, but not limited to, the following:
 - Asbestos-Containing Pipe Insulation
- B. Bathroom/Toilet Pipe Chases
 - 1) Removal and legal disposal of all pipe insulation as ACM at existing domestic cold/hot water/hot water circulating risers. In addition to ACM pipe insulation, any construction debris encountered in chases shall be removed and legally disposed of as ACM.
- 1. Cellars/Crawl Spaces:
 - 1) Removal and legal disposal of pipe insulation as ACM at all existing domestic cold/hot water/hot water circulating riser valves and adjoining piping (approx. 40 inches per valve).
- 2. Kitchen Floors
 - a. Furnish labor, materials, services, insurance and equipment necessary for the proper removal of VAT and mastic from within kitchens.
 - b. There is no floor asbestos abatement work in this contract. However, existing VAT may adhere to the underside of kitchen base cabinets being removed, therefore, a certified asbestos handler must be on site to clean up, remove and properly dispose of any vinyl asbestos tiles that may inadvertently become loose. The loose vinyl asbestos tiles must be picked up and disposed of as asbestos-containing material by the certified asbestos handler. The contractor shall take care not to otherwise disturb existing ACM tile flooring, whether original or tenant-installed.
- 3. In addition to the ACM indicated above, the Contractor is referred to the asbestos test reports attached to the Specifications. The Contractor shall verify all information included in the aforementioned documents. No extra compensation shall be allowed to the Contractor due to failure to acquaint themselves fully with the conditions affecting the Work and to include in the base bid all items of labor and materials necessary for full abatement as required to perform the work of the contract.
- 4. Air monitoring is not part of this Contract. It shall be performed by an independent firm to be selected and paid for by the Authority. The Contractor shall be responsible for coordinating the abatement work with the air monitoring firm and the Asbestos Coordinator.
- 5. The Contractor shall be responsible for Personal Air Monitoring as required by DEP, OSHA, etc.
- 6. Provide all other labor and materials as may be reasonably inferred to be required to make the Work of this Section complete.

1.04 RELATED WORK SPECIFIED ELSEWHERE

- A. The following Sections/Divisions contain requirements that relate to the Work of this Section:
 - 1. Section 02 41 19 – Selective Demolition / Removals
 - 2. Division 22 – Plumbing

1.05 REQUIREMENTS AND RESTRICTIONS

- A. The Contractor shall furnish proof that employees are New York City Department of Environmental Protection (DEP) Certified Asbestos Handlers and have had instruction on the dangers of asbestos exposure, on respirator use, decontamination and O.S.H.A. regulation.
- B. All removal procedures shall be conducted by workers specifically trained in such procedures.
- C. Work clothes shall consist of full-body coveralls, disposable head covers, boots or sneakers and repertory protective equipment as required. Regulation eye protection and hard hats shall be available as appropriate.
- D. Coveralls shall be of paper disposable type.
- E. Respiratory protection for workers shall be provided by the Contractor as required by current O.S.H.A. and DEP Regulations.
- F. The Contractor shall furnish documentation of successful performance in asbestos removal. This shall include name and address of purchaser of service and location of work performed.
- G. The Contractor shall have in their possession at all times, one copy at their office and one copy shall be posted at the job site regarding O.S.H.A. Regulation 1926.58, Asbestos and Environmental Protection Agency 40 CFR Part 61, sub part A&M National Emission Standard for Asbestos, Stripping Work Practices and Disposal of Asbestos Waste.
- H. The Contractor shall be required to carry asbestos insurance when removing asbestos and throughout the entire process, and assume full liability for failure to comply with N.Y.C. DEP and O.S.H.A. regulations.
- I. The Contractor shall notify DEP as required by that agency but in no case less than 10 days prior to start of work.

1.06 NOTES

- A. An Asbestos Abatement Coordinator will be assigned for this project
- B. Air monitoring is not part of the work of this Contract. It shall be performed by an independent firm to be selected and paid for by the Authority. The Contractor shall coordinate his work with the air monitoring firm, with the Authority's cooperation.
- C. Asbestos when removed and carted away from the Development shall not be transferred from one vehicle to another except at a transfer-station certified by the New York State Department of Environmental Conservation.
- D. Once work has begun at a particular area, it shall proceed at a steady rate until all asbestos removal at that location is completed.
- E. An asbestos removal plan shall be filed with D.E.P., with a copy given to the Authority Inspector.
- F. Keep a daily log to be inspected by the Inspector. The log shall comply with the DEP Rules and Regulation, Title 15, Chapter 1, 1992. Sign the Contractor's Log Book in the Superintendent's office daily, immediately upon arrival at the work site.

1.07 CODES

- A. All work shall be in accordance with the latest rules and regulations of all municipal and other public agencies having jurisdiction. Any requirements specified herein which conflict with such rules or regulations shall be referred to the Authority for decision.
- B. All asbestos removal and disposal to be performed under this Contract shall be in accordance with all applicable Federal, State and City regulations. Applicable regulations, guidelines and standards are to include, but are not limited to:

1. Occupational Safety and Health Administration (OSHA) U.S. Dept. of Labor-Asbestos Regulations 29 CFR 1926 and 1910.
2. City of New York, DEP Rules and Regulation, Title 15, Chapter 1.
3. The U.S. Environmental Protection Agency (EPA) Regulation for Asbestos 40 CFR 61 Subparts A & M.
4. The New York State Department of Labor Industrial Code - Rule 56.
5. N.Y. State Environment Conservation law Article 27, Title 3 and 15.

THE FOLLOWING REQUIREMENTS APPLY TO ASBESTOS ABATEMENT BEYOND WHAT IS REQUIRED BY FEDERAL, STATE AND CITY REGULATIONS:

1.08 GENERAL CONDITIONS

- A. Violations to asbestos regulations governing this abatement will not be tolerated. At the Authority's discretion, the Asbestos Handler Supervisor of this project will be required to be replaced.
- B. The Contractor shall post at the job site the following regulations at the job site:
 1. NY State Industrial Code Rule 56,
 2. NY City DEP Title 15 Chapter 1,
 3. US EPA Regulations for Asbestos, 40 CFR 61 Subparts A and M,
- C. OSHA 29 CFR 1926.1101.
- D. Carry asbestos insurance throughout the entire abatement process, and assume full liability for failure to comply with Federal, State and City regulations.
- E. Furnish and post approved signage indicating that asbestos work is to be conducted within the buildings. Signs shall be posted in the lobby of the buildings addressing the dates in which each floor will be abated. This notification is to be approved by Development Management.
- F. Asbestos abatement activities are to be monitored by an Authority Inspector and/or a representative on behalf of the Authority acting as an Asbestos Project Monitor. The Asbestos Handler Supervisor shall adhere to the direction of the Inspector and Project Monitor.

1.09 SPECIAL CONDITIONS

Prepare a schedule of work in consultation with Development Management, the contract administering department, and the Environmental Contract Services Unit of the Technical Services Department. The schedule is to be followed as closely as possible. Notify residents a minimum of 72 hours in advance of work scheduled in their apartments. Notices shall be in both English and Spanish.

- A. For kitchen floor VAT abatement, Contractor shall submit an asbestos abatement work plan (AAWP) in accordance with APPENDIX – A.
- B. All asbestos removal work shall be completed within one working day (7:30 AM to 6:00 PM). This includes mobilization, building of DECON, prep-work, construction of tent and airlock, demolition, abatement, encapsulation, post abatement air monitoring clearance, temporary wall covering, breakdown of the tent, airlock and DECON, locking of all apartment doors, and demobilization from the floor.
- C. All asbestos abatement, final cleaning, and inspections (prior to final clearance air monitoring) must be completed by no later than 12:00 noon.
- D. Asbestos abatement shall be limited to a single floor for the first full week of work. Approval to perform asbestos abatement of two floors a day will only be given by Development Management, the contract administering department and the Technical Services Department following an evaluation of the performance of previous work. At no time will asbestos abatement be allowed to be performed on three floors in a single day.
- E. Residents will be asked to vacate their apartments while asbestos removal work is being done. The Authority will request that they remove all personal effects from the work area but, in the event that they do not comply, the Contractor shall be responsible for all such removals at no extra cost to the Authority.

- F. Where bathrooms are back-to-back, all insulation shall be removed from one side of the plumbing chase. If the wall to remain on the other side has any openings to the chase, the openings are to be properly sealed during the abatement work.
- G. Amount of pipe insulation to be removed in each plumbing chase is approximately 24 linear feet. Each hot water and hot water return riser has an expansion loop. Each apartment chase containing the expansion loops has approximately an additional 14 linear feet of horizontal pipe insulation to be removed (the vertical portion of loop is included in the 24 feet of riser). In addition, all construction debris encountered in the pipe chase is to be removed and disposed of as ACM.
- H. Air monitoring to establish background levels will not be performed. The work area clearance criteria shall be 0.009 f/cc or less.
- I. Begin work on the top floor apartments and complete all chases on that floor before moving to the floor below.
- J. Temporary foam is to be installed sealing chase openings from one floor to the next.

1.10 FILINGS AND CERTIFICATION

- A. All filings are to be submitted to the Environmental Contract Services Unit (ECS) of the Technical Services Department for review and signature, as the Owner, prior to submittal to the required regulatory agencies.
- B. Contractor shall submit the following documents when requesting approval and signing of NYC DEP filings with the Environmental Contract Services Unit (ECS):
 1. Contractor's Asbestos Handler License from NYS Dept. of Labor.
 2. Sub-Contractor approval letter from the administering department.
 3. Filing notifications to the NYS Dept. of Labor.
 4. Filing notifications to the DEP.
 5. Asbestos waste transporter permit from NYS DEC.
 6. Designated disposal site landfill permit.
 7. AAWP (Asbestos Abatement Work Plan) for kitchen Vat removal.
- C. The Contractor shall pay the filing fees for notification of asbestos work as required by the New York State Department of Labor, Division of Safety and Health. This cost shall be incorporated into the Contractor's bid.
- D. When filing the pipe insulation abatement within the apartment pipe chases, the project is to be filed with the NYC DEP with the following variance requests at a minimum:
 1. The elimination of the use of a 20" box fan for aggressive post-abatement clearance air monitoring. The use of forced air equipment (such as a 1 horsepower leaf blower) against all surfaces of the work area will still be included.
 2. A reduction of the required 1,800 liters of air for final clearance air monitoring to 900 liters of air.
 3. A modification of the tent procedures from a complete enclosure. A tent enclosure will be sealed to the plaster wall and negatively pressurized. Once this is achieved the wall will be opened and all penetrations sealed. No other preparation of the pipe chase will be performed prior to asbestos removal.
- E. When filing the pipe insulation abatement of the riser valves in the cellar/crawl space level, the work is to be filed as removal by glovebag within a negatively pressurized tent enclosure.
- F. When filing the VAT and mastic abatement, the project is to be filed with the NYCDEP in accordance with Section 1-108 (Foam/Viscous Liquid Use in Flooring Removal) of NYC-DEP Regulations Title 15, Chapter 1.
- G. Work shall not begin until there is an approved schedule and the Environmental Contract Services Unit (ECS) has received a copy of the Asbestos Abatement Permit and the NYC DEP V-2 Form.

- H. The Contractor shall notify D.E.P. and N.Y.S. Department of Labor ten (10) days' prior to start of work. He shall also notify the nearest E.P.A. office before removal work begins and obtain all necessary permits.
- I. The Contractor shall coordinate the filing of this job with D.E.P. The Housing Authority will sign the forms as the Owner but actual filing shall be done by the Contractor.
- J. The Contractor shall file with D.E.P. and N.Y.S. Department of Labor. The Contractor shall pay for the N.Y.S. filing fees as part of the Contractor's bid.
- K. The owner's signature for the notification forms (ACP-7) may be obtained from: NYCHA Environmental Contract Services Unit (ECS).
- L. ACP-7(s) submitted to the Authority for signature must include the following:
 - 1. Floor plans of the apartments showing location of the decontamination enclosure system,
 - 2. The dimensions of the decontamination enclosure system in relation to the corridor,
- M. Site specific information as to where the electrical power and water sources are located for this project,
- N. Copies of the variance for any and all relief from Title 15 inch order to properly perform the asbestos abatement.

1.11 INSURANCE

- A. In addition to the general insurance requirements (see General Conditions), the Contractor shall carry asbestos insurance when removing asbestos. In addition, the contractor shall assume full liability for any failure to comply with NYC DEP and OSHA regulations. The Contractor shall carry the following Minimum asbestos related insurance coverage (for all investigators, Handlers and Supervisions):
- B. Five million dollars (\$5,000,000.00) for each occurrence.
- C. Minimum aggregate coverage of five million dollars (\$5,000,000.00).
- D. No "Sunset - Clause".

1.12 MISCELLANEOUS

- A. If at any time the Authority representative or any agency having jurisdiction decides that work practices are violating pertinent regulations, or endangering workers, he will immediately notify the Contractor's Asbestos Handler Supervisor that operations will cease until all corrective action is taken.

1.13 PROTECTION OF PROPERTY

- A. Where work is performed, the Contractor shall be held fully responsible for all damage to property belonging to the Authority. Any equipment furnished under this Contract and any property of the Authority damaged by this Contractor or his employees shall be restored to its original condition or replaced without cost of the Authority.
- B. For chase work, access to each occupied apartment where abatement is required is to be limited to the chase wall and the pathway to the chase except for access to electric and water sources. The resident's furniture and belongings are not to be used or disturbed by the Contractor. Clothing, tools, food and drink, etc. are not to be stored in the affected apartments.
- C. For kitchen floor abatement, access to each apartment is to be limited to the kitchen and the pathway to the kitchen except for access to electric and water sources. The resident's furniture and belongings are not to be used or disturbed by the Contractor. Clothing, tools, food and drink, etc. are not to be stored in the apartments.

PART 2.00 - PRODUCTS

2.01 MATERIALS

- A. Materials, including chemical solutions, shall be delivered to the job site in their original containers sealed by the manufacturer. Materials in opened containers shall not be used on this project. Containers shall be clearly labeled with manufacturer's name, product identification and

lot numbers, and shall be stored out of the weather in a protected location in their original, sealed containers. Where applicable, materials shall be mixed according to manufacturer's directions and specifications.

- B. The following list indicates approved materials for use with each type of abatement work. Request(s) to use an equivalent product(s) shall be made prior to the filing of this project. All required approvals shall be obtained prior to the use of the product(s).
1. Spray Glue
 - a. Bull-Tack Adhesive Spray by Bullseye Environmental Corporation, (215) 486-9001
 - b. Lynx Tack Adhesive Spray by ARAMSCO, (800) 767-6933
 2. Foam
 - a. Bull Foam by Twin-Chemicals, Inc., (800) 442-4958
 - b. Pronto Extra-Foam by Twin-Chemicals, Inc., (800) 442-4958
 - c. IDC Hydro Foam by IDC Corporation, (800) 327-8432
 - d. Antec Biofoam by Antec International Ltd, distributed by Vetoquinol Canada Inc., (450) 586-2252
 - e. Chemsafe 600 Fibre Suppression by ARAMSCO, (800) 767-6933
 3. Wetting Agent/Surfactants
 4. Foster Asbestos Removal Surfactant 32-90 by Specialty Construction Brands, Inc. (847) 358-9500
 5. Control Wetting Agent by Grayling Industries Inc, (800) 635-5053
 6. Serpi-Factant Concentrate by W.R. Grace, (866) 333-3726
 7. Chem-Safe Gold by ARAMSCO, (800) 767-9633
- C. 4. Lockdown Encapsulant

CHEMSAFE 500 (WHITE ONLY) BY ARAMSCO, (800) 767-9633

FOSTER ASBESTOS REMOVAL ENCAPSULANT 32-60 BY SPECIALTY CONSTRUCTION BRANDS, INC. (847) 358-9500.

SERPIFLEX WHITE BY W.R. GRACE, (866) 333-3726

SERPIFLEX SHIELD FORMULA # 5 BY W.R. GRACE, (866) 333-3726

CONTROL LOCKDOWN ENCAPSULANT BY GRAYING INDUSTRIES, INC, (800) 635- 1551

5. MASTIC REMOVER

“BEAN-E-DOO”, FRANMAR CHEMICAL, INC., (309) 452-7526

200-PLUS VLO, AS895, ABATEMENT TECHNOLOGIES, INC., (800) 634-9091

AMW-98, AMERICAN COATINGS CORP., (954) 790-7620

M3205, TWIN-CHEM, INC., (800) 442-4958

NO BULL 200 FLASH NO ODOR, BULLSEYE ENVIRONMENTAL INC., (800) 692-8557

CHEMSAFE CLEAR, ARAMSCO, (800) 767-6933

6. SELF-LEVELING UNDERLAYMENT CONCRETE

A. ARDEX K-15 (WITH E-25 RESILIENT EMULSION), ARDEX ENGINEERING CEMENTS, (724) 203-5000

7. GENERAL

A. POLYETHYLENE SHEETING (6-MIL THICK)

PART 3.00 - EXECUTION

19.01 GENERAL PROVISIONS

19.02 THE CONTRACTOR SHALL SCHEDULE HIS WORK WITH DEVELOPMENT MANAGEMENT PRIOR TO START OF WORK.

19.03 DURING THE WORK OF THIS CONTRACT, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE PROPERTY OF THE AUTHORITY AND ITS OCCUPANTS. DAMAGED PROPERTY SHALL BE REPAIRED AND RESTORED TO ITS ORIGINAL CONDITION, AT NO ADDITIONAL COST TO THE AUTHORITY. IF IT IS BEYOND REPAIR, THE CONTRACTOR SHALL REPLACE IT WITH NEW MATERIALS TO MATCH EXISTING. ALL REPAIRS SHALL BE BROUGHT TO THE ATTENTION OF THE AUTHORITY'S INSPECTOR.

19.04 WATER SERVICE TO THE SITE, OR ANY OTHER UTILITY, SHALL NOT BE INTERRUPTED WITHOUT PRIOR APPROVAL OF THE AUTHORITY.

19.05 THE AUTHORITY SHALL PROVIDE AND PAY FOR ALL ELECTRIC POWER REQUIRED TO PERFORM THE WORK OF THIS CONTRACT, WITHIN THE LIMITATIONS OF THE EXISTING SERVICE. THE CONTRACTOR SHALL PROVIDE ALL WIRING, EXTENSION OUTLETS, LIGHTS, ETC. AND MAKE ALL ELECTRICAL CONNECTIONS AS ARE REQUIRED, AND AS APPROVED BY THE AUTHORITY. ALL ELECTRICAL WORK SHALL BE DONE BY OR UNDER THE SUPERVISION OF A NYC LICENSED ELECTRICIAN.

19.06 THE CONTRACTOR SHALL FURNISH PROOF THAT HIS EMPLOYEES ARE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION CERTIFIED ASBESTOS HANDLERS AND HAVE HAD INSTRUCTION ON: THE DANGERS OF ASBESTOS EXPOSURE, RESPIRATOR USE, DECONTAMINATION, AND OSHA REGULATION.

19.07 THE CONTRACTOR SHALL FURNISH DOCUMENTATION OF SUCCESSFUL PERFORMANCE IN ASBESTOS REMOVAL. THIS SHALL INCLUDE NAME AND ADDRESS OF PURCHASER OF SERVICE AND LOCATION OF WORK PERFORMED.

- 19.08 THE CONTRACTOR SHALL INCLUDE ALL REQUIREMENTS SPECIFIED BY OSHA, THE AUTHORITY, AND THE MANUFACTURERS. MATERIALS SHALL BE APPLIED ACCORDING TO MANUFACTURER'S DIRECTIONS AND SPECIFICATIONS, SUBJECT TO APPROVAL AND MODIFICATION BY THE AUTHORITY.**
- 19.09 WORK REQUIREMENTS AND RESTRICTIONS**
- 19.10 ONCE ASBESTOS REMOVAL WORK HAS BEGUN AT A PARTICULAR FLOOR/LOCATION, IT SHALL PROCEED AT A STEADY RATE UNTIL ALL WORK AT THAT LOCATION HAS BEEN COMPLETED.**
- 19.11 GLOVE BAG PROCEDURES (IF UTILIZED) SHALL BE CONDUCTED BY WORKERS SPECIFICALLY TRAINED IN SUCH PROCEDURES.**
- 19.12 WORK CLOTHES PROVIDED BY THE CONTRACTOR SHALL CONSIST OF PAPER DISPOSABLE TYPE FULL BODY COVERALLS, RUBBER GLOVES AND DISPOSABLE HEAD COVERS, BOOTS OR SNEAKERS AND RESPIRATORY PROTECTIVE EQUIPMENT, AS REQUIRED BY OSHA AND/OR ANY DEP REGULATIONS. EYE PROTECTION AND HARD HATS SHALL BE AVAILABLE AND USED AS APPROPRIATE. IN ADDITION, FULL BODY "TYVEK" DISPOSABLE COVERALLS OR APPROVED EQUAL, COTTON GLOVES AND TOWELS SHALL BE PROVIDED BY THE CONTRACTOR ON AS NEEDED BASIS FOR USE BY AUTHORITY PERSONNEL INSPECTING THE WORK AREA. THIS ADDED REQUIREMENT SHALL BE INCLUDED AND MADE PART OF THE CONTRACTOR'S BID PRICE.**
- 19.13 ASBESTOS, WHEN REMOVED AND CARTED AWAY FROM THE DEVELOPMENT, SHALL NOT BE TRANSFERRED FROM ONE VEHICLE TO ANOTHER EXCEPT AT A TRANSFER STATION CERTIFIED BY NYC'S DEP.**
- 19.14 WORK PROCEED ORDER**
- 19.15 THE ADMINISTERING DEPARTMENT FOR THIS CONTRACT WILL ISSUE A WORK PROCEED ORDER. THE WORK PROCEED ORDER SHALL INCLUDE THE NAME, ADDRESS, TELEPHONE NUMBER, PLANNED DATE OF COMMENCEMENT AND THE LOCATION WHERE WORK IS TO BE DONE.**
- 19.16 NO WORK SHALL BE STARTED BY THE CONTRACTOR UNTIL DULY NOTIFIED IN WRITING BY THE ADMINISTERING DEPARTMENT.**
- 19.17 ASBESTOS REMOVAL PROCESS**
- A. REMOVAL METHOD**
- 20.01 AT ALL SUCH LOCATIONS, THE CONTRACTOR NEED NOT PROVIDE FULL ENCLOSURE UNLESS IT IS SPECIFICALLY REQUIRED BY D.E.P., EPA OR OTHER APPLICABLE REGULATIONS.**
- B. PRE-REMOVAL PREPARATIONS**
- 21.01 FURNISH, INSTALL AND MAINTAIN FOR THE DURATION OF THE CONTRACT WORK ALL REQUIRED SHOWERS, BARRIERS, BARRICADES, CAUTION SIGNS AND OTHER TEMPORARY CONSTRUCTION NECESSARY FOR THE PROPER COMPLETION OF THE WORK IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.**
- 21.02 IN COMPLIANCE WITH OSHA REGULATIONS, THE CONTRACTOR SHALL FURNISH AND POST APPROVED SIGNS INDICATING THAT ASBESTOS WORK IS BEING DONE IN THE AREA. SIGNS SHALL BE POSTED ON DOOR LEADING TO THE WORK AREA.**
- 21.03 THREE LAYERS OF PLASTIC SHEETING SHALL BE USED IN CONJUNCTION WITH STUD FRAMING WHERE A CRITICAL BARRIER IS REQUIRED OVER AREAS LARGER THAN 32 SQ FEET.**
- 21.04 IN A PRE-DESIGNATED AREA, THE CONTRACTOR SHALL SET UP A DECONTAMINATION FACILITY WHICH WILL HOUSE A CHANGING ROOM, SHOWER ROOM AND EQUIPMENT ROOM, SEPARATED BY AIR LOCKS.**

- 21.05 ALL MOVABLE OBJECTS SHALL BE REMOVED FROM THE WORK AREA BY THE CONTRACTOR PRIOR TO REMOVAL OF ASBESTOS.**
- 21.06 WORK AREA PREPARATION MAY NOT COMMENCE UNTIL THE RESIDENTS OF THE APARTMENT HAVE EXITED. ANY REMAINING RESIDENT BELONGINGS WITHIN THE PROPOSED WORK AREA SHALL BE BAGGED AND STORED OUTSIDE THE WORK AREA.**
- 21.07 ACCESS TO EACH ACTIVE ABATEMENT FLOOR MUST BE LIMITED BY THE INSTALLATION OF A TEMPORARY PLYWOOD BARRIER WITH A LOCKABLE DOOR INSTALLED AT THE STAIRWELL AND ELEVATOR ENTRANCE TO THE FLOOR.**
- 21.08 A FULLY FUNCTIONAL REMOTE DECONTAMINATION ENCLOSURE SYSTEM (DECON) SHALL BE CONSTRUCTED PRIOR TO ANY WORK AREA PREPARATION. ONE FULL DECON IS REQUIRED PER WORK FLOOR. THE WATER AND ELECTRICAL SOURCES FOR THE DECON SHALL BE THOSE SOURCES CLOSEST TO THE DECON. WASTE WATER DISPOSAL IN A KITCHEN SINK IS PROHIBITED. WHERE THE FIRST FLOOR IS SEPARATED BY HARD BARRIERS INTO MORE THAN ONE WORK AREA, A SEPARATE DECON IS REQUIRED FOR EACH WORK AREA.**
- 21.09 THE AUTHORITY'S INSPECTOR AND/OR THE PROJECT MONITOR IS REQUIRED TO APPROVE THE DECON FOLLOWING THE INSPECTION BY THE ASBESTOS HANDLER SUPERVISOR AND PRIOR TO WORK AREA PREPARATION.**
- 21.10 THE AIRLOCK IS TO BE CONSTRUCTED WITH TWO CURTAINED DOORWAYS SEPARATED BY A DISTANCE OF THREE FEET. EACH CURTAINED DOORWAY IS TO CONSIST OF THREE OVERLAPPING SHEETS OF POLY.**
- 21.11 WHERE HEPA FILTERED VACUUMS ARE USED TO ESTABLISH NEGATIVE PRESSURIZATION OF THE TENT ENCLOSURE, A SEPARATE VACUUM IS TO BE USED FOR THE CLEANING OF WORK AREA SURFACES AND PIPE CHASE. THE VACUUM HOSE USED FOR THE ESTABLISHMENT OF NEGATIVE PRESSURE IS TO BE AFFIXED TO THE WALL AT THE FURTHEST POINT FROM THE AIR LOCK. THE DEDICATED VACUUM IS TO REMAIN OPERATING AND IN PLACE UNTIL ACCEPTABLE CLEARANCE AIR MONITORING RESULTS HAVE BEEN ACHIEVED. NEGATIVE PRESSURE EQUIPMENT UNITS ARE TO BE "PIGGY-BACKED" WHEN EXHAUST IS WITHIN 40 FEET OF APARTMENT WINDOWS OR DOORS.**
- 21.12 WHEN ASBESTOS ABATEMENT IS TO BE PERFORMED ON THE FIRST FLOOR OF A BUILDING WHERE THE LOBBY SEPARATES THE WORK AREA INTO TWO OR MORE AREAS, HARD BARRIERS ARE REQUIRED TO BE INSTALLED TO PREVENT ACCESS FROM NON-CERTIFIED PERSONS. IN ADDITION, A SEPARATE DECON IS REQUIRED FOR EACH SEPARATED AREA.**
- 21.13 THE AUTHORITY'S INSPECTOR AND/OR THE PROJECT MONITOR IS REQUIRED TO APPROVE THE PRE-ABATEMENT WORK AREA PREPARATION FOLLOWING THE INSPECTION BY THE ASBESTOS HANDLER SUPERVISOR AND PRIOR TO ASBESTOS REMOVAL.**
- 21.14 PRIOR TO ASBESTOS REMOVAL, ALL PIPE PENETRATIONS TO THE CELLAR/CRAWL SPACE LEVEL MUST BE SEALED TO PREVENT FALLOUT OF ASBESTOS DEBRIS FROM CHASE WORK.**
- 21.15 FOR KITCHEN FLOOR VAT REMOVAL, FOLLOW THE REQUIREMENTS OF SECTION 1-108 (FOAM/VISCOUS LIQUID USE IN FLOORING REMOVAL) OF NYC-DEP REGULATIONS TITLE 15, CHAPTER 1.**
- 21.16 ASBESTOS PIPE INSULATION ON RISER VALVES AT CELLAR/CRAWL SPACE LEVELS: A REMOTE DECONTAMINATION ENCLOSURE SYSTEM IS TO BE INSTALLED PRIOR TO WORK AREA PREPARATION.**
- A NEGATIVELY PRESSURIZED TENT ENCLOSURE WITH AN ATTACHED AIR LOCK SHALL BE CONSTRUCTED AROUND THE ASBESTOS INSULATED RISER VALVES.**
- GLOVE BAGS ARE TO BE INSTALLED AND SMOKE TESTED BY THE SUPERVISOR PRIOR TO REMOVAL.**

BARRIER TAPE IS TO BE USED TO CORDON OFF THE AREA A DISTANCE OF 10 FEET FROM THE TENT ENCLOSURE.

25.01 ASBESTOS REMOVAL

25.02 ALL EQUIPMENT SHALL BE CLEANED OF ASBESTOS MATERIAL PRIOR TO LEAVING THE WORK AREA.

25.03 ALL ASBESTOS WASTE SHALL BE REMOVED FROM THE PROJECT EACH DAY. NO STORAGE OF ASBESTOS WASTE SHALL BE PERMITTED ON THE AUTHORITY PREMISES.

25.04 AIR MONITORING EQUIPMENT MUST BE IN PLACE AND OPERATING PRIOR TO STARTING ABATEMENT WORK.

25.05 ASBESTOS ABATEMENT OF BATHROOM/TOILET PIPE CHASES REQUIRES:

25.06 OPEN THE CHASE WALL A MINIMUM OF TWO FEET WIDE FROM FLOOR TO CEILING TO PROVIDE PROPER ACCESS TO THE PIPE INSULATION. ADDITIONALLY, A HORIZONTAL OPENING ALONG THE FLOOR IS REQUIRED TO REMOVE ACM DEBRIS FROM THE BOTTOM OF THE CHASE.

25.07 IF PIPES ARE LOCATED IN THE BATHTUB AREA, WALL TILES ARE TO BE REMOVED IN THAT AREA SO THAT THE CHASE WALL CAN BE PROPERLY OPENED.

25.08 AT THE LAVATORY, THE CHASE WALL OPENING IS TO BE MADE BENEATH AND THEN ABOVE THE FIXTURE. THE OPENING WILL REQUIRE THE REMOVAL OF THE MEDICINE CABINET.

25.09 ALL DEBRIS GENERATED WITHIN THE TENT ENCLOSURE IS TO BE DISPOSED OF AS ASBESTOS DEBRIS.

25.10 ASBESTOS INSULATION IS TO BE PROPERLY WETTED PRIOR TO REMOVAL FROM THE PIPES AND AGAIN PRIOR TO DISPOSAL WITHIN THE WASTE BAG. ASBESTOS INSULATION IS NOT TO BE STORED IN THE BATHROOM TUB AND WETTED.

25.11 PRIOR TO WORK AREA LOCK DOWN ENCAPSULATION, THE CONTRACTOR'S ASBESTOS HANDLER SUPERVISOR MUST INSPECT AND APPROVE THE WORK AREA AND DOCUMENT SUCH INSPECTION AND APPROVAL ON A SUPERVISOR INSPECTION REPORT. EACH INSPECTION MUST BE DOCUMENTED AS THE INDIVIDUAL WORK AREA CONTAINMENT INSPECTION IS COMPLETED.

25.12 FOLLOWING AN INSPECTION AND APPROVAL OF THE WORK AREA CONTAINMENT, BY THE AUTHORITY'S INSPECTOR OR PROJECT MONITOR, THE LOCK DOWN ENCAPSULATE MAY BE APPLIED.

25.13 FOLLOWING FINAL CLEARANCE AIR MONITORING, THE CHASE OPENING MAY BE SEALED CLOSED WITH MASONITE, SCREWS AND DUCT TAPE. IF THE CHASE OPENING IS NOT SEALED AT THIS TIME, THE OPENING MUST BE SEALED PRIOR TO THE END OF THE SHIFT.

25.14 ASBESTOS INSULATION ON RISER VALVES AT CELLAR/CRAWL SPACE LEVEL: REMOVAL SHALL BE PERFORMED WITHIN GLOVE BAGS. EIGHTEEN (18) INCHES OF ASBESTOS INSULATION IS TO BE REMOVED FROM EACH SIDE BEYOND THE RISER VALVE. ONCE COMPLETED, AIR SAMPLES COLLECTED WITHIN THE TENT ENCLOSURE SHALL BE USED TO DETERMINE CLEARANCE PRIOR TO REMOVAL OF THE TENT ENCLOSURE.

25.15 IF CLEARANCE AIR SAMPLES ARE REPORTED GREATER THAN 0.009 F/CC OR OVERLOADED, A RE-CLEANING OF THE CONTAINMENT AND AIR LOCK IS REQUIRED PRIOR TO RE-TESTING. THIS CLEANING SHALL BE REPEATED UNTIL SUCCESSFUL CLEARANCE HAS BEEN ACHIEVED.

25.16 IF OUTSIDE THE WORK AREA AIR SAMPLES (DURING ABATEMENT MONITORING) ARE REPORTED GREATER THAN 0.009 F/CC, A RE-CLEANING OF THE AREA OUTSIDE OF THE CONTAINMENT IS REQUIRED PRIOR TO RE-TESTING. THIS CLEANING SHALL BE REPEATED UNTIL SUCCESSFUL CLEARANCE HAS BEEN ACHIEVED.

- 25.17 ASBESTOS INSULATION ON RISER VALVES AT CELLAR/CRAWL SPACE LEVEL: RE-CLEANING SHALL BE PERFORMED WITHIN THE TENT ENCLOSURE SHOULD AIR SAMPLE RESULTS BE REPORTED GREATER THAN 0.009 F/CC.**
- 25.18 AFTER THE FINAL CLEANING OPERATION, CONDUCT A VISUAL INSPECTION TO ENSURE DUST-FREE CONDITIONS. AIR SAMPLING AND ANALYSIS ARE TO BE PERFORMED BY OTHERS.**
- 25.19 DISPOSAL OF ASBESTOS MATERIAL AND RELATED DEBRIS**
- 25.20 ALL ASBESTOS DEBRIS AND OTHER DEBRIS SHALL BE REMOVED FROM THE PREMISES PRIOR TO THE END OF THE WORK SHIFT. AT NO TIME WILL ASBESTOS DEBRIS BE ALLOWED TO BE STORED ON SITE ONCE THE CONTRACTOR HAS LEFT SITE.**
- 25.21 SITE SPECIFIC GENERATOR LABELS SHALL INCLUDE THE BUILDING LOCATION ADDRESS, CITY AND STATE, THE DATE OF ABATEMENT, THE ABATEMENT CONTRACTOR'S NAME, AND THE WORDS "NEW YORK CITY HOUSING AUTHORITY.**
- 25.22 GENERATOR LABELS ARE TO BE AFFIXED TO THE WASTE BAGS PRIOR TO THE BAGS LEAVING THE BUILDING. LABELS ARE NOT TO BE AFFIXED TO THE BAGS AT THE WASTE HAULING TRUCK.**
- 25.23 ALL ASBESTOS WASTE IS TO BE TRANSPORTED DIRECTLY TO A TRANSFER STATION OR THE LANDFILL. NO ASBESTOS WASTE IS TO BE STORED OR TRANSFERRED TO ANOTHER LOCATION PRIOR TO TRANSPORT TO A TRANSFER STATION OR THE LANDFILL.**
- 25.24 NO ASBESTOS WASTE IS TO BE REMOVED FROM SITE WITHOUT A PROPERLY DOCUMENTED WASTE MANIFEST.**
- 25.25 ALL ASBESTOS WASTE SHALL ALSO BE REQUIRED TO COMPLY WITH U.S. ENVIRONMENTAL PROTECTION AGENCY REGULATIONS, TITLE 40, PART 61, SUB-PART A & B (40 CFR A & B) AND OSHA REGULATIONS (((29 CFR 1910))) FOR COLLECTING, PACKAGING, TRANSPORTING AND DISPOSING OF ASBESTOS.**
- 25.26 THE TRANSFER STATION, IF THE ASBESTOS CONTRACTOR UTILIZES ANY, SHALL BE DEC APPROVED.**
- 25.27 ONLY D.E.P. APPROVED DUMP SITES SHALL BE USED.**
- 25.28 WORKERS UNLOADING THE SEALED BAGS AND MACHINERY OPERATORS SHALL WEAR RESPIRATORS WHEN HANDLING MATERIALS AT THE DISPOSAL SITE.**
- 25.29 DUMP THE BAGS AT THE BURIAL SITE, IN ACCORDANCE TO ALL APPLICABLE DEP RULES AND REGULATIONS.**
- 25.30 FURNISH COPIES OF THE WASTE MANIFEST TRANSMITTAL TO THE CONTRACT INSPECTOR.**
- 25.31 ASBESTOS WASTE MANIFESTS**
- 25.32 ALL ASBESTOS WASTE SHALL BE PROPERLY MANIFESTED PRIOR TO REMOVAL FROM THE AUTHORITY'S PROPERTY.**
- 25.33 COPIES OF THE MANIFEST, AFTER ALL ASBESTOS HAS BEEN REMOVED FROM SPECIFYING THE LOCATION, AND INDICATED WHERE THE WASTE WILL BE TRANSPORTED, SHALL BE GIVEN TO THE AUTHORITY'S INSPECTOR AND/OR THE PROJECT MONITOR.**
- 25.34 A FINAL COPY SIGNED BY THE LANDFILL IS TO BE SUBMITTED TO THE ADMINISTERING DEPARTMENT.**
- 25.35 INDEPENDENT AIR MONITORING AND AIR CLEARANCE**
- 25.36 AN INDEPENDENT CONTRACTOR SELECTED AND PAID FOR BY THE AUTHORITY SHALL CONDUCT AIR MONITORING DURING AND AT THE COMPLETION OF THE ASBESTOS REMOVAL.**

- 25.37 AIR CLEARANCE RESULTS WILL BE REPORTED TO THE AUTHORITY'S INSPECTOR OR THE PROJECT MONITOR BY THE ENVIRONMENTAL CONTRACT SERVICES UNIT.
- 25.38 NO WORK AREA CONTAINMENT/CRITICAL BARRIERS CAN BE REMOVED UNTIL APPROVAL IS GIVEN TO THE CONTRACTOR BY THE AUTHORITY'S INSPECTOR OR THE PROJECT MONITOR.
- 25.39 AIR SAMPLE RESULTS TO BE USED AS CLEARANCE CAN NOT BE REPORTED BY THE LABORATORY DIRECTLY TO THE CONTRACTOR.
- 25.40 ASBESTOS ON RISER VALVES WITHIN THE BASEMENT LEVEL ONLY: AIR SAMPLES COLLECTED WITHIN THE TENT ENCLOSURES WILL BE USED FOR CLEARANCE OF EACH INDIVIDUAL ENCLOSURE.
- 25.41 MISCELLANEOUS
- 25.42 IF AT ANY TIME THE NEW YORK CITY HOUSING AUTHORITY REPRESENTATIVE DECIDES THAT WORK PRACTICES ARE VIOLATING PERTINENT REGULATIONS OR ENDANGERING WORKERS, HE WILL IMMEDIATELY NOTIFY IN WRITING THE ON-SITE CONTRACTOR'S REPRESENTATIVE THAT OPERATIONS WILL CEASE UNTIL ALL CORRECTIVE ACTION IS TAKEN.
- 25.43 THE CONTRACTOR WILL BE REQUIRED TO KEEP A DAILY LOG TO BE INSPECTED BY THE AUTHORITY. THIS LOG WILL COMPLY WITH CITY OF NEW YORK LL 76/85. ONLY EPA APPROVED DUMP SITES WILL BE UTILIZED FOR FINAL DUMPING.
- 25.44 CLEANING AND DISPOSAL
- 25.45 DURING THE PERFORMANCE OF WORK, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO KEEP THE WORK AREAS FREE FROM DIRT AND RUBBISH. MOTORS, GAUGES, ETC., SHALL BE PROTECTED FROM DIRT PRODUCED BY THIS WORK.
- 25.46 DEBRIS SHALL BE REMOVED FROM THE PREMISES AS THE WORK PROGRESSES AND THE WORK AREAS SHALL BE LEFT FREE OF DIRT AND DEBRIS BEFORE FINAL ACCEPTANCE OF THIS INSTALLATION.
- 25.47 EXCEPT AS SPECIFIED ELSEWHERE HEREIN, ALL EQUIPMENT REMOVED BY THIS CONTRACTOR SHALL BECOME HIS PROPERTY WHICH HE SHALL REMOVE FROM THE PREMISES AND LEGALLY DISPOSE OF.
- 25.48 PROTECTION OF APPARATUS
- 25.49 UPON FINAL ACCEPTANCE THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR ALL DAMAGE TO APPARATUS AND PROPERTY REGARDLESS OF WHETHER FURNISHED BY HIM OR BELONGING TO THE AUTHORITY. ANY EQUIPMENT FURNISHED UNDER THIS CONTRACT AND ANY PROPERTY OF THE AUTHORITY DAMAGED BY THIS CONTRACTOR OR HIS EMPLOYEES SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR REPLACED WITHOUT COST TO THE AUTHORITY.

APPENDIX – A

ASBESTOS ABATEMENT WORK PLAN

GUIDELINE FOR ASBESTOS WORK PLAN (AAWP):

- 28.01 ALL ASBESTOS ABATEMENT CONTRACTORS SHALL ALWAYS PRODUCE AND SUBMIT A DETAILED ASBESTOS ABATEMENT WORK PLAN (ONE PER ACP-7) TO NYCHA (ATTENTION RICHARD W. MORRISON) VIA ELECTRONIC E-MAIL TO (RICHARD.MORRISON@NYCHA.NYC.GOV) TOGETHER WITH A COPY OF THE ASBESTOS FILINGS AND NOTIFICATION FOR REVIEW; IT SHOULD CONSIST OF BUT NOT LIMITED TO THE FOLLOWING GUIDELINE ITEMS:
- A. LOCATION – Name of Development and Address as per filing (ACP-7, DOL & EPA notification)
 - B. GENERAL INFORMATION – Owner, CM Firm Name, Prime Contractor Company Name, Asbestos contractor company name, and Air-monitoring Contractor Company Name.
 - C. SCHEDULE – Tentative Start and tentative completion date

- D. DEVELOPMENT LOG BOOK – Location of NYCHA sign in/out development log book for contractors (construction trailer, development superintendent office or manager, etc) and who will sign-in and out.
- E. WORK DESCRIPTION AND PROCEDURE – Provide work area location (roof, façade, underground pipe, etc) & quantities. List abatement procedure being used.
- F. POSTING – List and identify locations of all necessary and required postings by law.
- G. DECONTAMINATION UNITS – How many, location (roof, ground, basement etc.) type, (pop-up, wood structure, trailer etc) and when they will be broken down and demobilized etc.
- H. WASTE – Description of waste route after it is bagged, container on site (waste condition daily log document), pickup information and waste receipt acknowledge or manifest.
- I. UTILITIES – Brief description from where electric power and water will be collected and GFCI location. Name of electrical contractor and license number.
- J. CERTIFICATES – List licenses and certificates hold by workers, such as NYCDEP, NYSDOL, Federal EPA, NYCDOB (Scaffold), OSHA, etc. needed to perform work.
- K. PERMITS AND AUTHORIZATIONS – List all permits, notifications, and authorizations needed to properly execute asbestos abatement work including NYCDEP, NYSDOL, Federal EPA, NYCDOB (CD5), OSHA, etc.
- L. SAFETY – List and describe PPE for workers and visitors. Brief description of scaffold and safety line procedures including Safety Engineering stamp and daily report authorization where applicable as per NYCDOB codes and regulations.
- M. Respiratory protection program – List name of company respiratory protection program administrator
- N. OTHERS – List or briefly explain any additional relevant information, document or procedure necessary to maintain asbestos abatement work within the asbestos regulations and contract specification compliance (NYCDEP conditions, 2 phase abatement work, etc).

DOCUMENTS:

- A. Asbestos building occupant notification to be posted (10 day occupant notification)
- B. ACP-7s
- C. NYSDOL Notification
- D. Permits, licenses and insurance for asbestos company, waste hauler and disposal site.
- E. Written respiratory protection program (include title page and List Program Administrator Only)
- F. Detailed emergency fire exit plan with diagram showing evacuation route for workers
 - 1. Sample of original waste hauler manifest with all general applicable information typed.

END OF SECTION 02 82 00