#### SCOPE OF WORK FOR SCAFFOLDING CONTRACTOR

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1.1 Summary
  - 1.2 Work Covered by Contract Documents
    - A. Project Identification
    - B. Owner
    - C. Scope of Work Scaffolding Contractor
      - 1. General Overview
      - 2. Contract Assumptions
      - 3. Health and Safety Requirements
      - 4. Site Security
      - 5. Abatement and Removal of Asbestos and Contaminants of Potential Concern
      - 6. Labor Requirements
  - 1.3 Type of Contract
  - 1.4 Work Programs
  - 1.5 Work Under Other Contracts
  - 1.6 Use of Premises
  - 1.7 Work Restrictions
  - 1.8 Specifications Conventions
  - 2 [Not Used]
  - 3.1 Protection
  - 3.2 Existing Exterior Netting Removal
  - 3.3 Hoist/Scaffold Tie-Ins

## B. BACKGROUND

On September 11, 2001, the Building<sup>1</sup> was severely damaged when debris from the WTC broke approximately 1,500 windows and cut a fifteen story gash in the north façade of the Building ("Gash Area"). In addition, a combination of soot, dust, dirt, debris, and contaminants settled in and on the Building. Since September 11, 2001, the Building has been unoccupied. The Gash Area and broken windows exposed the interior of the Building to the elements, which may have caused some further impacts after the initial exposures and events of September 11, 2001.

Subsequent to September 11, 2001, operations were undertaken by the then-owner Deutsche Bank to clear debris from the plaza, lobby, and interior spaces in the Gash Area. A porous geosynthetic mesh or "netting" was hung on the outside of the Building for further protection and safety. The immediate Gash Area was cleaned in

<sup>&</sup>lt;sup>1</sup> Capitalized defined terms not defined herein shall have the meanings set forth in the General Conditions issued herewith.

accordance with New York City Department of Environmental Protection ("NYCDEP") and New York City Department of Health ("NYCDOH") protocols to permit the construction of columns, beams, and floor decks to stabilize the Gash Area. Once the initial cleaning and stabilization measures were in place, certain office furniture, equipment, and other non-attached items in the Building were removed and disposed of by Deutsche Bank.

LMDC, the current owner of the Building, plans to clean and deconstruct the Building as part of the redevelopment and rebuilding of the larger WTC Site that will be performed in coordination with The Port Authority of New York and New Jersey ("Port Authority"). Currently, plans for the 130 Liberty Street site include underground truck security and bus parking away from the locations of the former WTC Towers 1 and 2, a relocated St. Nicholas Church, and a proposed fifth office tower that will reduce the building density on the WTC Site and create open space for public use.

The Deconstruction Plan addresses the abatement, cleaning, and removal of contaminants identified in the Building in the September 14, 2004 Initial Building Characterization Study Report<sup>2</sup> and the Supplemental Characterizations<sup>3</sup> published in February 2005 (collectively, "LMDC Studies"). These LMDC Studies analyzed for five COPCs designated by the United States Environmental Protection Agency ("EPA") as being associated with WTC dust (asbestos, dioxins, lead, polycyclic aromatic hydrocarbons ("PAHs"), and crystalline silica), as well as other contaminants suspected of being present in the Building, including polychlorinated biphenyls ("PCBs") and heavy metals (barium, beryllium, cadmium, chromium, copper, manganese, mercury, nickel, and zinc).

The Building is a former office building comprised of 42 stories. The Building measures approximately 180' x 180' and 535' in height. It comprises approximately 1.5 million square feet. The exterior skin of the Building is a glass and aluminum curtainwall framework. The curtain wall mullions are mechanically attached to the Building's columns and floors at each floor level. The typical building floor slabs are constructed with corrugated metal decking with sprayed on fireproofing and a poured concrete slab on top. Typical floors are rated 100psf for live load. The Building has mechanical floors, located on the 5<sup>th</sup> floor and 38<sup>th</sup>/39<sup>th</sup> floors. Mechanical floors load ratings are usually higher than on typical floors. The building's vertical transportation was comprised of twenty-nine (29) elevators:

- Eight (8) low-rise cars, traveling from the 3<sup>rd</sup> floor lobby to the 16<sup>th</sup> floor (stopping at all floors).
- Eight (8) mid-rise cars, traveling from the 3rd floor lobby to the 28th floor (stopping at 3 and 17-28),
- Seven (7) high-rise cars, traveling from the 3rd floor lobby to the 38th floor (stopping at 3 and 28-38).

<sup>&</sup>lt;sup>2</sup> 130 Liberty Street Initial Building Characterization Study Report, The Louis Berger Group, Inc., September 14, 2004

<sup>&</sup>lt;sup>3</sup> 130 Liberty Street Supplemental Characterizations, TRC Solutions Inc., issued in February of 2005 as multiple reports.

- One (1) car traveling from basement level B to 39th floor.
- Two (2) cars traveling from basement level B to 38th floor.
- Three (3) special service elevators serving the lower 3-5 floors.

The Building has two (2) below grade basement areas, Cellar Level "B", and Cellar Level "A". The below-grade construction was assembled as a "bathtub" to resist a hydrostatic head; the foundation is a concrete mat on H pile supported pile caps. The basement Level "B" slab is to remain intact throughout and after the Deconstruction. There is a tunnel for the 1-9 subway, which runs under Greenwich Street and adjoins the Building with passive vents located in the sidewalk. A fan plant for forced ventilation of the subway tunnel is under Albany Street alongside the South Plaza running approximately the length of Albany Street on the South Side sidewalk.

As part of the WTC Rebuilding Plan, the Building will be deconstructed down to the top of the foundation walls, leaving the basement Cellar "B" slab intact. The Building will be deconstructed by the Deconstruction Contractor, in pieces as a safety precaution and will not include the use of explosion/implosion devices. A complete scaffolding of the Building on all elevations from top to bottom, will be required for this Project, and will be provided by the Scaffolding Contractor.

(Note: the foregoing information is approximate and intended only for general reference and not for bid purposes. LMDC does not warrant any reference information available regarding the Building.)

#### 1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: 130 Liberty Street Deconstruction

Project Location: 130 Liberty Street, New York, NY

B. Owner: Lower Manhattan Development Corporation

One Liberty Plaza, 20th Floor New York, NY 10006

Owner's Authorized Representative: URS Corporation – New York

One Penn Plaza, Suite 610 New York, NY 10119

## C. SCOPE OF WORK - SCAFFOLDING CONTRACTOR

## 1. GENERAL OVERVIEW

The Scope of Work ("SOW") sets forth a summary of the Work required to be completed by the Scaffolding Contractor in connection with the deconstruction of the Building, which was damaged on September 11, 2001.

The Contractor shall at all times comply with, and cause all persons working or otherwise present at or about the Project to comply with, all Legal Requirements applicable to the Project and all relevant portions of the Deconstruction Plan for 130 Liberty Street as it may be amended from time to time. On June 13th, 2005, LMDC submitted five sections of the revised draft Phase I Deconstruction Plan ("Draft Deconstruction Plan") to various Governmental Agencies for review, direction, and approval. LMDC submitted Section 1- Waste Management Plan, Section 2- Ambient Air Monitoring Program, Section 3- Emergency Action Plan, Section 4 – Asbestos and COPC Abatement and Removal Plan, and Section 5- Health and Safety Plan. Currently submitted portions of the Plans are available on LMDC's website: <a href="http://www.renewnyc.com/plan">http://www.renewnyc.com/plan</a> des dev/130liberty/deconstruction\_plan.asp

Once all or any portion of the Draft Deconstruction Plan is approved by the applicable Governmental Authorities, the approved portion of the Draft Deconstruction Plan becomes one of the Legal Requirements applicable to this Project. The Contractor, all subcontractors, and any others at or about the Project Site must comply at all times with all approved portions of the Deconstruction Plan.

Any and all changes to the Draft Deconstruction Plan, or any approved portions thereof, require LMDC's advance written permission and the approval of the applicable Governmental Authorities. No such changes may be requested without LMDC's advance consent and written approval.

- a. In addition to providing Exterior Pipe Scaffolding, the Scaffolding Contractor will also be responsible for providing One (1) two-car hoist located on the Albany Street Elevation, and the removal of the existing mesh netting,
- b. Installation and erection of the Scaffold and Hoist(s) will require an Asbestos Licensed Contractor with Certified Asbestos Handlers, and/ or Allied Trades, to execute any netting removal, drilling, connections, anchoring, or penetrations into the building, either exterior or interior (i.e. Curtain Wall, Glass, Spandrel Beams, Columns, Floor Slabs, Metal Decking, etc., and all other components of the building). All personnel working on the site will require 2-Hour Asbestos Awareness Training at a minimum. Personnel performing ACM Disturbing activities will require NY State Allied Trades Certification. Personnel performing ACM Removals will require 40-Hour HAZWOPER training and 40 Hour Asbestos Handler Certification from NY State and NY City.
- c. Scaffolding Contractor shall provide Hoist Access Vestibules (formerly identified as Asbestos Decontamination Vestibules) at every floor. These vestibules will serve as cleaned access points into the building from the hoist at each floor. Each Hoist Access Vestibule shall be the full floor height from the top of slab to bottom of deck, wide as the width of both hoist cars and extend into the Building twenty five (25) feet from the edge of the concrete floor slab. These areas shall be created following the NYSDOL Variance Decision Amendment to File No. 05-0427 approved procedure "Establishing and Releasing a Cleaned Area within the Contaminated Building utilizing Interior Negative Pressure Tent Enclosures". Subsequent to removal of the curtain wall creating the opening to the exterior, a properly constructed isolation barrier, including framed plywood, shall be installed along the perimeter of the cleaned Hoist Access Vestibule. Upon removal of the curtain wall, a weather-tight framed ¾" exterior grade plywood operable door with a self closing hinge must be constructed so as to protect the Hoist Access Vestibule from the elements.

d. All Scaffold and Hoist connection points shall be identified in the "Project Approach and Methodology" submitted with the Contractor's bid. Scaffolding Contractor is advised to carefully develop the connection plan, and which must efficiently facilitate the deconstruction of the building.

#### e. Alterations

- Alterations to the Scaffold will be the responsibility of the Deconstruction Contractor, including PE Sign-off for same.
- Dismantling (and final cleaning) of the Scaffold will be the responsibility of the Deconstruction Contractor.
- Dismantling and removal of the hoist will be the responsibility of the Scaffolding Contractor.
- iv. Alterations to the hoist, including Cat Head "Jump-Down" will be the responsibility of the Scaffolding Contractor, including PE Sign-off for same.
- The existing exterior netting shall be removed and disposed of as ACM by the Scaffolding Contractor.
- g. The Existing exterior and interior of the building must be treated as an Asbestos Containing Material and therefore Building related waste generated by the Scaffold work shall be handled, managed and disposed of as ACM by the Scaffolding Contractor. Waste generated outside of the contamination areas shall be handled and disposed of as normal construction debris.
- h. All scaffolding components including construction netting, planking, supports, outriggers, protective platforms, etc., shall be thoroughly cleaned and dismantled by the Deconstruction Contractor. Scaffold Contractor to provide all labor and trucking to remove Scaffold Components from the job site. Scaffolding Contractor to coordinate with Deconstruction Contractor.
- i. The Lump Sum includes One (1) Hoist located on the Albany Street Elevation. Should additional hoists be required at alternate locations, pricing will be as identified on the Contractor's bid form for Additional Hoists. Hoist is to have 2-cars, one for material, and one for personnel. Scaffolding Contractor shall be responsible for Hoist Operation until transfer to and acceptance by the Deconstruction Contractor at which time Hoist Operation responsibility will be transferred to the Deconstruction Contractor. Maintenance of the Hoist will be the responsibility of the Scaffolding Contractor.
- j. Contractor shall furnish and install new Sidewalk Bridging and Sidewalk Bridging Lighting along the entire façade at Greenwich Street, Albany Street and Washington Street so as to comply with the requirements of Subchapter 19 of the NYC Building Code for Safety of Public and Property During Construction Operations.
- k. LMDC shall cause the removal of currently existing Sidewalk Bridging (at Washington Street and Greenwich Street), if required to facilitate the Scaffolding Contractor's Work, to be performed under separate contract and this will be coordinated with the Scaffolding Contractor prior to erection of new bridging.
- All Sidewalk Bridges will be provided and maintained by the Scaffolding Contractor, including Sidewalk Bridging Lighting. Deconstruction Contractor shall be responsible for

- Sidewalk Bridging Lighting Maintenance upon transfer to and acceptance of Sidewalk Bridging by Deconstruction Contractor.
- m. Scaffolding Contractor will be required to maintain safety of all building façade components during Scaffold, Hoist, and Sidewalk Bridging erection, including securing broken glass and aluminum curtain wall, and repairs to the existing netting as required, until completion/acceptance of the Scaffold, Hoist, and Sidewalk Bridging erection, at which time these responsibilities will be then transferred to the Deconstruction Contractor.
- It is anticipated that needle beams will be required to support the scaffold system on the North Elevation starting at the 2<sup>nd</sup> Floor.
- o. LMDC is engaging the Scaffolding Contractor to perform the Work summarized in this SOW and more particularly set forth in the Specifications, in order to create a site ready for Deconstruction and subsequent redevelopment. The Scaffolding Contractor shall be responsible for all necessary and/or desirable means and methods to accomplish the intended purpose, whether or not specific procedures or responsibilities are set forth in the SOW or in the Specifications.
- LMDC intends to engage a deconstruction contractor ("Deconstruction Contractor") to clean and deconstruct the Building. If erection of the scaffolding is complete before the date of the contract with Deconstruction Contractor, Deconstruction Contractor shall be deemed by signing its contract to have accepted and assumed responsibility for the scaffolding as set forth below. If erection of the scaffolding is not complete on the date of the contract with Deconstruction Contractor: (a) when the Scaffolding Contractor gives written notice to LMDC and Deconstruction Contractor that erection of the scaffolding is complete in accordance with this Contract, Deconstruction Contractor shall have ten working days in which to inspect the scaffolding and give written notice to LMDC and the Scaffolding Contractor if and to the extent the scaffolding was not erected in accordance with the requirements of this Contract. If and after the Scaffolding Contractor then cures and corrects any matters of which LMDC or Deconstruction Contractor identify in the foregoing written notices, LMDC will then give written notice (the "Scaffolding Transfer Notice") to Deconstruction Contractor that Deconstruction Contractor is responsible for the scaffolding; and from and after the date of the Scaffolding Transfer Notice the Deconstruction Contractor shall be responsible for, and shall accept and assume all responsibility for, the scaffolding and the maintenance, repair, insurance, and dismantling of the scaffolding, in accordance with the Deconstruction Contractor's contract. In the event of any dispute between or among LMDC, Deconstruction Contractor, and/or the Scaffolding Contractor as to whether the Scaffolding Contractor has completed erection of the scaffolding in accordance with this Contract, all parties shall accept the decision of the Interim Arbitrator, which (notwithstanding anything to the contrary in the Deconstruction Contractor's contract or in this Contract) shall be conclusive and binding on all of LMDC, the Scaffolding Contractor, and the Deconstruction Contractor. For the avoidance of doubt, from and after the date of the Scaffolding Transfer Notice, Deconstruction Contractor shall be responsible for

all risk of loss to the scaffolding, whether by casualty or any other cause and shall treat the scaffolding as if it were part of the Building for all insurance, safety, health, and security issues and all other purposes of the Contract. An exception to the foregoing is that the Scaffolding Contractor remains responsible for maintenance and dismantling of the hoist, although the Deconstruction Contractor will furnish and pay for all personnel to operate the hoist.

### 2. CONTRACT ASSUMPTIONS

This SOW is based on the following Contract assumptions.

- In coordination with other contractors, at Contractor's expense, Contractor shall
  be permitted non-exclusive use of the existing equipment (elevators, etc.) and
  utilities (electrical power, water, etc.) in the Building, as set forth in the
  Specifications, provided, however, that LMDC does not make any representation
  as to the condition or adequacy of the foregoing for the Contractor's purposes.
- Work under this SOW will be performed during Normal Working Hours. Should work be required after Normal Working Hours, an after hours work permit will be obtained. Any and all associated costs for after hours work, Operating Engineers, Teamsters, Electricians, Shop Stewards, Inspectors, etc., will be borne by the Scaffolding Contractor.
- These Contract assumptions are intended to supplement, and not to limit, other
  provisions of the contract dealing with same or similar topics, so that all of the
  provisions of the contract are intended to be complimentary and cumulative (and
  none exclusive). See Trade Agreement.

### 3. HEALTH AND SAFETY REQUIREMENTS

The Scaffolding Contractor shall be responsible for compliance with all applicable codes, statutes and regulations of the City and State of New York, and the United States, including, without limitation, the U.S. Department of Labor-Occupational Safety and Health Administration (OSHA), the New York State Department of Labor (NYDOL), and any environmental agencies having jurisdiction. Scaffolding Contractor shall ensure that the methods of performing the work do not involve undue danger to the personnel employed thereon, the public, and public or private property. Should charges of violation of any of the above be issued to the Contractor during the performance of the Work, a copy of each charge and resolution thereof shall immediately be forwarded to the Owner. Scaffolding Contractor shall be responsible for all fines, penalties and delays resulting from failure to meet this requirement.

The Scaffolding Contractor shall at all times comply with, and cause all persons working or otherwise present at or about the Project to comply with, all health and safety requirements related to the Project, including but not limited to all procedures to ensure compliance with applicable Legal Requirements, including requirements and protocols established by the Occupational Safety and Health Administration (OSHA); the National Institute of Occupational Safety and Health (NIOSH); the United States Environmental Protection Agency (USEPA); the New York State Department of Conservation (NYSDEC); the State of New York, New York State Department of

Labor (NYSDOL); the New York City Department of Environmental Protection (NYCDEP); and the City of New York.

Compliance with a formal health a safety plan is required due to structural and environmental damage suffered by the Building on September 11, 2001, hazards associated with the Building's current condition and anticipated deconstruction activities. The current health and safety plan for the Project, entitled the "Site Specific Health and Safety Plan For 130 Liberty Street" was prepared for LMDC by TRC Environmental Corporation in August 2004 ("Current HASP"). The Contractor shall develop and implement his own Health and Safety Plan that at all times complies with, and cause all persons working or otherwise present at or about the Project to comply with, the Current HASP.

LMDC has proposed to modify the Current HASP. In May 2005 LMDC released a document entitled "Health and Safety Plan for the 130 Liberty Street Building Phase I Deconstruction Project" ("Proposed HASP") (copy available on LMDC's website). Once the Proposed HASP is approved by the applicable Governmental Authorities as part of the Phase I Deconstruction Plan, the requirements outlined in the Proposed HASP, as and if approved, will supersede and replace the Current HASP.

Any and all changes to the Current or Proposed HASP require LMDC's advance written permission and the approval of the applicable Governmental Authorities. Moreover, no changes to the Current or Proposed HASP may be proposed or made if they render the protections less stringent than the Current HASP. Nevertheless, the Scaffold Contractor shall be solely responsible for identifying health and safety requirements for his/her employees, and for ensuring the health and safety of his/her employees and the public, which could potentially be impacted by the work of the Scaffolding Contractor.

The Contactor shall create, issue, and implement a Site Plan, and MTA Influence Line Plan, and any other plans as requested by any and all regulatory agencies for this Contract, signed by a Professional Engineer and subject to LMDC's review.

#### 4. SITE SECURITY

Site security precautions shall include, but not be limited to the provision and maintenance of fencing and/or barriers, gates to protect the Contractor's work, and securing access to all Sidewalk Bridging, Scaffolding, and Hoist components.

## 5. Abatement and Removal of Asbestos and Contaminants of Potential Concern

The **Deconstruction Contractor** shall perform the abatement and removal of ACM and contaminants of potential concern (COPC) from the building with the exception of Exterior Netting Removal, and Abatement associated with penetrations/ tie-in locations for scaffold and hoist(s), which will be performed by the **Scaffolding Contractor**.

# 6. LABOR REQUIREMENTS

 This Contractor shall be responsible for all costs associated with labor required by collective bargaining agreement within the NYC area as stipulated through the trade associations or unions that have jurisdiction rights to this project. This shall include all overtime, shift time, and differential costs associated with each trade.

- Labor requirements for this project will include, but not be limited to the following:
  - a. Teamsters
  - b. Operating Engineers
  - c. Master Mechanics
  - d. Shop Stewards
  - e. Electricians
  - f. Elevator Operators
  - g. Hoist Operators
- All costs associated with temporary facilities, communications, cell phones, offices, trailers, etc. shall be the responsibility of this Contractor.
- 4. This Contractor shall be responsible for all labor harmony and associated costs to maintain proper labor jurisdiction on the trades performing the work. Contractor is advised that they must maintain labor harmony throughout the duration of the project. All labor disputes, slowdowns, strikes and/or sympathy actions will be the sole responsibility of the Contractor to resolve in order to maintain labor harmony.

All costs, delays and scheduling impacts associated with any labor dispute that arises from such action or inaction will be borne by the contractor causing such disharmony in labor.

The contractor causing labor disharmony will also be responsible for all costs, damages and scheduling impacts which affect and disrupt the other contractors as well as LMDC, and its agents.

It will be the Contractor's responsibility to resolve all labor disputes immediately. Failure to resolve such incidents action and inactions which obstruct the Work and impact the Project Schedule shall be considered a breach of contract which may result in termination as per the conditions set forth in this Contract.

## 1.3 TYPE OF CONTRACT

- A. The overall Deconstruction Project will be performed under a single prime contract for Environmental/Deconstruction (Separate Contract), and a single prime contract for Scaffolding/ Hoisting (This Contract). (See Scope of Work Schedule "B" Section 01100S for Detailed Tasks).
  - General Contractor for the Deconstruction of 130 Liberty Street (Deconstruction Contractor).
  - Scaffolding Contractor.

#### 1.4 WORK PROGRAMS

- A. The Work shall be conducted in Two Phases which may occur simultaneously in different sections of the Building:
  - Pre-Phase I: Exterior Scaffolding, Hoist(s), Sidewalk Bridging, Existing and Exterior Netting Removal..
  - Phase I: Abatement and Removal of Asbestos and Contaminants of Potential Concern (COPC) within a negative pressure enclosure.
  - Phase II: Exterior Building Washdown, Structural Deconstruction, Backfilling & Finish Sitework.
- B. Before commencing Work of each phase, submit a schedule showing the sequence, commencement and completion dates for all phases of the Work.
  - Prior to start of any Work the Scaffolding Contractor shall submit a detailed plan showing all aspects of the Work, including erection of the scaffold, sidewalk bridging, hoist, laydown areas, temporary facilities, site security, and fire safety.

#### 1.5 WORK UNDER OTHER CONTRACTS

- A. The Deconstruction Contractor shall perform abatement and removal of Asbestos and Contaminants of Potential Concern (except as otherwise provided under the Contract Documents) and deconstruction of the Building. Contractor agrees that Contractor's Work under this Contract will be subordinate to the Work of the Deconstruction Contractor when engaged by LMDC; and Contractor agrees to coordinate with, and take direction from, the Deconstruction Contractor as it relates to Hoist dismantle and removal of scaffolding from site. Hoist dismantling shall occur during non-Normal Working Hours so as not to impact the Deconstruction Contractor, and shall be performed within 48 Hour notice to Scaffolding Contractor from Deconstruction Contractor. Deconstruction Contractor shall be responsible for lost time of the Scaffolding Contractor in the event of a false request for Hoist Dismantle. Scaffolding Contractor shall be responsible for lost time of the Deconstruction Contractor due to failure to respond within 48 hours notice for Hoist Dismantle.
- B. General requirements: Contractor shall cooperate fully with Deconstruction Contractor so that all work at the site may be carried out smoothly, without interfering with or delaying Work under this Contract. Contractor shall coordinate the Work of this Contract with work performed under Deconstruction Contract. It is understood that neither Deconstruction Contractor nor Scaffolding Contractor will have exclusive use of the site. Both contractors shall be responsible for cooperation in sharing use of the site including facilities staging areas, etc.
- C. Preceding Work: LMDC may award under a separate contract(s) for the following construction operations at Project site. Those operations may have commenced before Work under this Contract begins.
  - Site Security.
  - 2. Decontamination Unit Maintenance.

- Close-In Work at Lower Levels.
- General Building Maintenance (Elevators, Utilities) to be the responsibility of the Owner until the execution of the Deconstruction Contract, at which time these responsibilities will then be transferred to the Deconstruction Contractor.
- D. Future Work: LMDC may or may not award separate contract(s) for the following additional work to be performed at site after Substantial Completion. Completion of that work will depend on successful completion of preparatory work under this Contract.
  - TBD.

#### 1.6 USE OF PREMISES

- A. General: Contractor shall have non-exclusive use of the Site during the construction period. Contractor's use of the Site is limited only by LMDC's right to have work performed or to retain other contractors on portions of Project.
  - Driveways and Entrances: Keep driveways (Loading Dock located at Washington Street)
    and entrances serving premises clear and available to LMDC, LMDC's employees, and
    emergency vehicles at all times. Do not use these areas for parking or storage of
    materials. Do not block emergency access to "Viewing Area" at end of Washington
    Street or Gate 8 to Port Authority Property. Access to these areas is to be maintained at
    all times.
    - Schedule deliveries to minimize use of driveways and entrances.
    - Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
    - Sidewalk Bridging and Scaffolding must not encroach the street beyond the curb.
       Full street widths are required to be maintained.

### 1.7 WORK RESTRICTIONS

- A. All Work shall be done during Normal Working Hours unless the Contractor requests authorization to Work in other than Normal Working Hours and such authorization is granted by LMDC. If other than Normal Working Hours is authorized by LMDC, the Work shall be done at no additional cost to LMDC. Any and all associated costs for after hours work, including operating engineers, teamsters, electricians, shop stewards, inspectors, etc., will be borne by the Contractor. For purposes of this Contract, "Normal Working Hours" means 7:00 a.m. to 4:00 p.m., Monday through Friday, at times for which the Contractor has received the applicable work permits, but not on any New York State or Federal legal holiday or September 11.
- B. Holidays are as follows:
  - 1. New Years Day
  - Memorial Day
  - Independence Day
  - Labor Day

- September 11<sup>th</sup>
- 6. Thanksgiving Day
- 7. Day after Thanksgiving Day
- 8. Christmas Eve
- 9. Christmas Day
- 10. New Years Eve
- Consult with New York City Department of Transportation for construction embargos or street closings.
- D. LMDC will impose a moratorium on Work creating excessive noise/vibrations during school testing days each year. Contractor will factor this into the Project schedule and any such moratorium will not constitute an Excusable Delay.

#### 1.8 SPECIFICATION CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  - 2. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

## 3.1 PROTECTION – To be performed by Scaffolding Contractor

### A. Scaffolding & Hoists:

- Contractor is to recognize that the Project is to be treated as an ACM Project which will require the following:
  - a. Installation and erection of Scaffold and Hoist(s) will require an Asbestos Licensed Contractor with Certified Asbestos Handlers and or Allied Trades to execute all interior work and any drilling, connections, anchoring, or penetrations into the building as well as to perform exterior netting removal.
  - b. Hoist Construction See 3.1.A.1.a above.

- c. All material Hoists will be subject to the same regulations/ requirements (filing, permitting, inspection, testing, etc.) as required of personnel hoist(s) under relevant rules and regulations and reference standards.
- d. See NYSDOL Variance Decision File No. 05-0427 dated 5/11/05 (Attachment 3).
- e. See NYSDOL Variance Decision Amendment dated 6/10/05.
- 2. Contractor is required to submit design calculations for all scaffolds, Hoist(s), and Sidewalk Bridging signed and sealed by a Professional Engineer ("P.E." or "PE") registered in the State of New York, engaged by Contractor at Contractor's expense. Design calculations shall include but not be limited to all allowable loading requirements including wind pressure on the tents and anchoring systems and independent platform protection of 150 lbs/SF at the 27<sup>th</sup> and 14<sup>th</sup> floors. All submittals will be reviewed by LMDC for comment. Contractor's Engineer shall be known as the Engineer of Record.

After scaffolding, hoist(s), and Sidewalk Bridging is erected, the Professional Engineer shall make a site visit to verify that the scaffold and all other work was erected in compliance with the original plan. A written report shall be submitted signed and sealed by the P.E. indicating acceptance of installation in compliance with the original design. Any deviations from the original design shall be duly noted and signed off by the P.E. on asbuilt drawings with a P.E. stamp. This applies to both frame scaffold with tent and temporary suspended "swing" scaffold, or any other as the contractor sees fit.

- Contractor is required in accordance with Attachment 7 to the Invitation To Bid to submit
  a scaffolding, hoist(s), and Sidewalk Bridging layout plan including but not limited to the
  following:
  - a. Erection/ dismantling plans including modifications to the Building structure.
  - b. Stair tower locations meeting all OSHA and NYC Building requirements. A minimum of one stair tower per elevation shall be required. Lighting for stair towers will be provided and maintained by the Scaffolding Contractor until Transfer to and Acceptance of Scaffold by Deconstruction Contractor at which time responsibility for lighting maintenance for stair towers will be transferred to the Deconstruction Contractor.
  - Ancillary equipment Indicate locations with all pertinent loads from the operation
    of such equipment (hoists, cranes, derricks, etc.).
  - d. All scaffolding shall be netted. 63% knitted debris fabric is to be installed at full surface areas. Netting is to be fire-retardant.
  - e. All scaffolding and components thereof shall be OSHA compliant.
  - f. Shoring, Bracing, Etc.
  - g. Continual Daily Scaffolding inspection by competent person as per Local Law requirements.

#### 4. Stair Towers:

Where possible install both stair towers and material hoist towers on exterior of scaffolding. Stair towers shall be exits from the scaffold and not dead-ends.

- All stair towers shall be lit continuously at every level with 100 watt lights and equipped with appropriate signage at all access points including emergency exits.
- 6. Scaffolding Contractor shall provide nine (9) fully planked levels as follows:

- a. 3 Levels at the top of the Scaffold, 3 Levels below the independent Protection Platform at Floor 27, and 3 Levels below the independent Protection Platform at Floor 14. Deconstruction Contractor will be responsible for relocation of plank as required thereafter.
- b. Provide 2 "Protection Platforms" segregating Phase I (Environmental Remediation) and Phase II (Structural Deconstruction) Activities to achieve a 150 LB/SF load capacity. Protection Platforms are to be supported independently from the Scaffold (i.e. needle beams). For the basis of the Bid, Protection Platforms will be constructed at Floors 27 and 14.
- Contractor is to meet all requirements of the NYC Building Code Subchapter 19 requirements.

### 8. Suspended Scaffold:

Contractor is required to complete form CD-5 and file with NYC Building Department if suspended scaffold is used on an interim basis for construction.

9. All work areas are to be lit including staging areas.

#### 10. Utility Availability:

- a. 2" Water Riser with hose-bib will be available at all floors.
- Each floor has available for contractor's use 400-amp service (Contractor to field verify).

## 11. Maintenance:

General housekeeping on a daily basis is required during erection of Scaffold, Hoist(s), Sidewalk Bridging, and netting removal until transfer for use to the Deconstruction Contractor. Scaffolding Contractor shall maintain a safe scaffold (i.e. tie loose planks, debris removal, sweeping, tie-up netting, change stair tower light bulbs, maintain guard rail system) at all times until transfer for use to the Deconstruction Contractor, at which time all maintenance responsibilities will be transferred to the Deconstruction Contractor.

12. When erecting scaffolding from the ground the first 9' shall have either chain link fence (9 ga. 1" mesh fabric) or 5/8" painted plywood as determined by the LMDC to prevent unauthorized entry.

# 13. Security:

All locks on stair tower gates, fence gates are to be keyed alike, which will be American Lock, A-703KA, Key 34875. Owner to be given Six (6) sets of keys. Local fire house (corner of Greenwich Street and Liberty Street) shall be given 1 set of keys.

14. Top rail, mid-rail and toe board is mandatory on all scaffolding meeting NYC Article – 19 requirements. Scaffolding cross bracing may not be used as top rail or mid-rail.

### 15. Scaffold Inspection:

a. Provide inspection, detailed audit report, and signoff by a New York State Licensed Professional Engineer, immediately should any alteration to any sidewalk bridge, hoist, or scaffolding components occurs to facilitate work.

- b. At a minimum, provide monthly inspection and audit report of the condition of the sidewalk bridge, hoist, and scaffold by a Licensed New York State Professional Engineer.
- c. Scaffold installer shall be a competent person. Contractor shall have the scaffolding inspected on a daily basis by their competent person. Any scaffolding needing corrective work shall be addressed immediately. A site log shall be maintained by the contractor's competent person indicating daily scaffolding inspections. All necessary repairs and/ or rework of the scaffold, including moving, adjusting or altering ties and/ or supports to accommodate the ongoing work shall be the responsibility of the Scaffolding Contractor during the assigned work tasks, and the Deconstruction Contractor upon transfer for subsequent operations.

# 16. Fire Protection:

- a. Maps and Signs. Weatherproof maps indicating emergency egress routes must be posted at all scaffold access/ egress points. Consider the work force to determine whether signs must be posted in languages other than English.
- b. Fire Extinguishers. Provide 100 lb. size extinguishers. The smaller, more portable ones (i.e. 10-20 lb.) will not be permitted. Placement locations and quantities to meet all applicable code requirements.

### 17. Night work:

Contractor shall be responsible for illuminating his work area including access / egress to and from stair towers.

#### 18. Staging Area:

Contractor will be required to fence off and illuminate his staging/ storage area subject to review and approval by LMDC.

#### Non-WTC Dust and Noise Control:

Scaffolding Contractor must use best efforts to minimize noise and dust. Scaffolding Contractor will be required to implement dust and noise control measures for the work tasks to comply with all applicable Legal Requirements including, but not limited to the following:

- a. Installation of dust barriers at work areas.
- b. The use of 2-stage vacuums will be mandatory for all operations.
- c. Contractor shall poly all entry points (i.e. doors, windows, etc.) to mitigate the amount of dust infiltrating or exfiltrating the work areas.
- d. Dust control shall be maintained on each level where work is occurring including misting and plasticizing.
- e. Dust control methods shall include laborers, with water hoses, equipped with fogging nozzles, soakers, to insure that airborne particulates are kept to an absolute minimum, within the site, and especially at the North Plaza area.
- f. Noise level standards shall apply seven days a week during periods of work activities and shall comply to the Building Code of the City of New York, Title 24, Chapter 2, Subchapter 6.
  - 7:00AM to 5:00PM: 65 dBA. or an increase of 3dBA above ambient (baseline), whichever is higher.
  - 5PM to 7AM: 55 dBA. or an increase of 3 dBA. above ambient (baseline), whichever is higher.

g. Provide sound attenuation measures to insure compliance with all noise level standards.

## 20. Fire Protection:

- a. Fire extinguishers, fire watch personnel and task appropriate fire protection equipment (welding blankets, welding shields, etc.) shall be mandatory subject to LMDC review prior to workers being allowed on scaffold.
- b. An individual, assigned as a Firewatch, shall be present during burning operations. This individual equipped with a fire extinguisher, or water hose, shall insure that all potential slag and sparks released from those operations is immediately controlled.
- c. Water can be provided from New York City fire hydrants, and through a series of pumps, to be distributed throughout the work areas of the building via the existing dry standpipe for fire protection during Scaffold/Hoist erection, or by other means the contractor sees fit upon approval from LMDC.
- d. A dry standpipe shall be maintained within the building, throughout the duration of the Scaffold/Hoist erection and/or Deconstruction process.
- e. Torch cutting and welding shall be performed in accordance with the Contractor's standard cutting and welding safety procedures and in accordance with applicable federal, state, and local laws including but not limited to the following requirements:
  - All cutting and welding shall be performed under a Hot Work (Welding/Cutting) Permit Program;
  - All Work will be performed by personnel who possess the appropriate New York City Fire Department Flammable gas Torching/ Welding Certificate of Fitness.
  - All Work shall be performed under firewatch supervision by personnel who
    possess the New York City Fire Department Flammable Gas Torching/Welding Fire Guard Certificate of Fitness;
  - 4. Protection from fire hazards with guarding shall be required to confine heat, sparks and slag generated by operation;
  - Prior to cutting/ welding, inspections shall be conducted by experienced and certified personnel authorized to issue Hot Work Permit; and
  - Additional special precautions shall be taken when combustible materials are located within 35 feet of the point of operation or wall or floor openings that are within a 35 foot radius of operation.
  - Store combustible materials in accordance with New York City Fire Department Regulations and all other Legal Requirements.

#### 21. Submittals:

- 1. Scaffold shop drawings (9) plus PE inspection report of installation.
- 2. Scaffold layout plan (9).
- 3. Designation of competent person.
- 4. Daily scaffold inspection reports.
- 5. If required DOB work permit and application and all related documents (plans, etc.) and all accepted CD5 paperwork.
- Hoist design including runways, loading docks, frames, members, and supports shall be integral with the scaffolding system and requires the same design calculations, signing and sealing by a Licensed NYS Professional Engineer as the scaffold component.
- 7. Signed, sealed PE Inspection Report for Hoist(s).
- Sidewalk Bridging Shop Drawings (9) plus PE inspection report of installation.

- B. The Lump Sum includes all costs for scaffolding, hoist(s), and Sidewalk Bridging on this project so that all work areas are accessible for effective/ efficient performance of contract work. Provide scaffolding around entire building from ground to roof. Scaffold to be heavy duty, designed to take all wind loads from a full netting enclosure and tents/tarps as described herein. Enclose entire scaffold with netting as specified above.
- C. Scaffold is to be erected so that the working platforms are able to provide access to the Building façade (all faces including column covers) in a safe and efficient manner and to comply with all applicable Codes and Legal Requirements. Bicycles and planking are to be provided at the working platforms at all faces of the building including column covers, so that the scaffold frame is set back from the building facade.
- D. The engineered fixed scaffold system shall be designed and installed to support loads, including but not limited to wind loads, required to complete Phase I and II work, in accordance with NYC Building Code. In addition, scaffold system shall be designed and installed to support the installation and maintenance of exterior air monitoring stations and construction and maintenance of exterior Negative Pressure Tent Enclosures.

Exterior air monitoring shall include up to seven (7) exterior negative exhaust air monitoring locations per floor, during work on the floor. Negative exhaust air monitoring equipment shall be installed on the scaffold system exterior to the building. At each monitoring location access shall be provided by the Deconstruction Contractor to install and maintain equipment of nominal weight (less than 25 pounds). In addition up to four (4) additional exterior ambient air sampling locations may be installed and maintained per each four-floor work area. These multiple (7) unit ambient air monitoring stations are more substantial, with a maximum individual unit weight of 75 pounds.

Exterior Negative Pressure Tent Enclosures (exterior tents), as described in Annex 6 of the Specifications, shall be constructed (not by the Scaffolding Contractor but by others after completion of scaffold erection) on the scaffold system for the removal of sprayed-on fireproofing that exists exterior to the building on the North and West face of the building. In addition, exterior tents may be required for the removal of aluminum column covers and fascia from the building. For scaffold design requirements, assume exterior tents installed on the scaffold to be the full depth of the scaffold and have approximate dimensions of fifty feet by ten feet (in either vertical or horizontal orientation) and shall be sealed to the building. No more than two such tents shall be installed on the scaffold system on each face of the building at one time.

Exterior Negative Pressure Tent Enclosures shall be utilized to clean and release contaminated areas exterior to the Building. Procedures for establishing, cleaning, clearing and maintaining Exterior Negative Pressure Tent Enclosures are described below.

1. As the Negative Pressure Tent Enclosure will be installed exterior to the building on the scaffold system, a Remote Personal Decontamination Enclosure System, but otherwise consistent with the requirements of ICR 56-9, shall be utilized.

- 2. If at any time a worker has to pass through an uncontaminated area to access the remote decontamination unit or the next work area, the worker wearing two suits of PPE shall remove one suit while in the work area, wet wipe the inner suit, don a clean outer suit and proceed either to the next work area or the decontamination unit.
- 3. Negative Pressure Tent Enclosures shall be constructed and used per the 05-0427 Variance Decision dated May 11, 2005 (Attachment #3) including but not limited to two layers of six mil fire-retardant polyethylene sheeting and shall include walls, ceiling and a floor (except for portions of floors walls and ceilings that are removal surfaces) with double-folded seams. Exterior tents will be constructed with an attached 3'x 3' airlock. Make-up air shall be provided to the airlock through HEPA-filtered interior air sources.
- Personnel exiting the Negative Pressure Tent Enclosure shall proceed to the Remote Personal Decontamination Enclosure System.
- Once tent enclosure work area preparation has been completed and abatement activities commence, on a daily basis and per work-shift, one air sample shall be collected within the tent enclosure entrance/exit and exterior to the tent as required.
- 6. Clearance air sampling will be conducted inside the tent, prior to removal.
- E. Contractor is to be ready for mobilization and preparation of all pre-construction activities including erection of pipe scaffolding, hoist(s), and Sidewalk Bridging upon the issuance of the Notice of Award.
- F. Contractor shall cause erection of Scaffolding, Hoist, and Sidewalk Bridging to prevent injury to people and damage to adjacent facilities to remain. Ensure safe passage of people around deconstruction area.
- G. As the building interior is contaminated with asbestos and other contaminants of potential concern (COPC), the building exterior and netting have been impacted by WTC dust and asbestos-containing caulking exists on the finger joints on the exterior aluminum panel column covers and fascia, tie-ins for the erection of the scaffold and hoist shall be performed by New York City Department of Environmental Protection (NYCDEP) and New York State Department of Labor (NYSDOL) asbestos certified handlers in a controlled manner as described in Subsections 3.2 to 3.4 below.

# 3.2 EXISTING EXTERIOR NETTING REMOVAL

A. The existing exterior netting has been impacted by WTC Dust and shall be treated as an Asbestos Containing Material and therefore shall be removed and disposed of as ACM by the Scaffolding Contractor. The cleaned cable can then be removed at a later time. Access to the active work area on the scaffold will be restricted. The work area on the scaffold shall be cordoned off with barrier tape. Only NYSDOL and NYCDEP certified asbestos workers shall be permitted within the work area. The vacating of each work area and warning signs shall comply with ICR 56-8.1(b). One layer of six-mil polyethylene sheeting or rubber mat shall be installed on the scaffold work area floor. Once the scaffold is prepared, the netting will be misted with an amended water solution prior to cutting and/or HEPA vacuumed (depending upon dust concentrations), then cut under wet conditions into manageable sections. Removed netting will be bagged or wrapped in two (2) layers of polyethylene in preparation for

transportation and disposal. Netting shall be removed from the site by the Scaffolding Contractor to an approved disposal facility in compliance with applicable regulations. Scaffold Contractor shall be responsible for removal and proper off-site disposal of all wastes generated during the work. Once the netting is removed from the cable, the exposed cables and tiebacks will be wet wiped, and removed as clean material. If at any time a worker has to pass through an uncontaminated area to access a remote decontamination unit or the next work area, the worker shall don two suits of PPE, remove one suit while in the work area, wet wipe the inner suit, don a clean suit and proceed either to the next work area or the decontamination unit.

### 3.3 HOIST/SCAFFOLD TIE-INS

Tie-ins for the erection of any scaffold and hoist shall be performed by New York City Department of Environmental Protection ("NYCDEP") and New York State Department of Labor ("NYSDOL") asbestos certified handlers, and/ or Allied Trades in a controlled manner as described below. Scaffold Contractor shall be responsible for removal and proper off-site disposal of all wastes generated during the work.

## A. <u>Tie-ins requiring Glass Panel Removal</u>

Attachment points that require Glass Panel removal shall require the use of an Interior Negative Pressure Tent Enclosures per the NYSDOL Variance Decision Amendment to File No. 05-0427 approved procedures, as these activities will create a large opening to the exterior.

For tie-ins requiring the removal of sections of the curtain wall glass, the following procedures shall be required:

- Existing exterior netting shall be removed as required following the procedures described herein.
- The exterior of the glass to be removed to facilitate installation of tie-ins shall be cleaned per NYCDEP protocols as defined in the NYSDOL Variance Decision File No. 05-0427 (Attachment #3).
- 3. Prior to removal of glass, the interior tie-in attachment points shall be enclosed within an Interior Negative Pressure Tent Enclosure attached to the glass to be removed as described above. Negative Pressure Tent Enclosure shall be large enough to accommodate workers, equipment, glass and material removal and cleaning operations. All items within the tent shall be properly removed and surfaces cleaned. Each Negative Pressure Tent Enclosure shall be cleaned and cleared, including passing a visual inspection and clearance air sampling prior to creating the opening to the exterior.
- Once the necessary tie-in connections are prepared, the opening to the exterior can be established and final connections made for the erection of the hoist or scaffold.
- The abatement contractor shall then immediately seal the exterior opening with a rigid barrier covered by two layers of six-mil polyethylene sheeting with appropriate supports to ensure the barrier will remain in place until the completion of Phase I Deconstruction activities on the floor.

## B. Tie-ins requiring Aluminum Panel Removal

Attachment points that require the Aluminum Panel removal shall require the use of Interior and Exterior (unless relief from requirement for exterior tent is granted from Regulators based on pilot study) Negative Pressure Tent Enclosures per the NYSDOL Variance Decision Amendment to File No. 05-0427 approved procedures, as these activities will create a large opening to the exterior.

For this Scaffold Bid, bidders shall provide on the Bid Form a line item Deduct should the requirement for Exterior Negative Tent Enclosures be eliminated.

For tie-ins requiring the removal of sections of the curtain wall aluminum panels, the following procedures shall be required:

- Existing exterior netting shall be removed as required following the procedures described herein.
- The exterior of the aluminum panels to be removed to facilitate installation of tie-ins shall be cleaned per NYCDEP protocols as defined in the NYSDOL Variance Decision File No. 05-0427 (Attachment #3).
- 3. Prior to removal of aluminum panels, the interior tie-in attachment points shall be enclosed within an Interior Negative Pressure Tent Enclosure attached to the aluminum panels to be removed as described above. In addition, a Negative Pressure Tent Enclosure shall be constructed on a scaffold exterior to the building to enclose the aluminum panels to be removed. (Note a pilot study is to be proposed to attempt to obtain regulatory relief from the requirement for exterior enclosures for this work.) The Negative Pressure Tent Enclosure shall be large enough to accommodate workers, equipment, aluminum panels and material removal and cleaning operations. All items within the tent shall be properly removed and surfaces cleaned. Each Negative Pressure Tent Enclosure shall be cleaned and cleared, including passing a visual inspection and clearance air sampling prior to creating the opening to the exterior.
- 4. Once the necessary tie-in connections are prepared, the opening to the exterior can be established and final connections made for the erection of the hoist or scaffold.
- 5. The abatement contractor shall then immediately seal the exterior opening with a rigid barrier covered by two layers of six-mil polyethylene sheeting with appropriate supports to ensure the barrier will remain in place until the completion of Phase I Deconstruction activities on the floor.

## C. <u>Tie-ins Requiring Small Penetrations through Curtain Wall</u>

Tie-ins requiring small penetrations (less than six inch diameter) per NYSDOL Variance Decision Amendment to File No. 05-0427 do not require the use of exterior tents. The current Variance language does not clearly address the limited incidental disturbance of interior materials to gain access for tie-ins. It is anticipated that limited incidental disturbance of materials to gain access for tie-ins will be permitted utilizing appropriate controls including use of a polyethylene drop cloth under the work area, manual removal methods, wetting impacted materials prior to and during removal, the use of HEPA filtered localized ventilation during work, etc. If attachment points are to structural steel or impact the underside of the concrete floor deck, it is anticipated that a 1 square foot area of fireproofing may be removed at the attachment point,

following the same protocols with addition of local ventilation (vacuum) used at the point of removal. A clarification request shall be prepared by LMDC and presented to the NYSDOL for approval.

The Base Bid Price shall reflect the bid price for use of interior negative pressure tent enclosures at each tie-in location. Bidders shall additionally provide on the Bid Form a line item Deduct for the elimination of the requirement for Interior Negative Pressure Tent Enclosures for tie-ins requiring small penetrations.

- For tie-ins requiring small (less than six inch diameter) penetrations of the curtain wall utilizing
  manufacturer equipped HEPA-shrouded drilling/cutting equipment, the following procedures
  shall be required: Access to the active work area on the scaffold will be restricted. The work
  area on the scaffold shall be cordoned off with barrier tape.
- Only NYSDOL and NYCDEP certified asbestos workers shall be permitted within the work area.
- The exterior of the impacted section of curtain wall to facilitate installation of tie-ins shall be cleaned per NYCDEP protocols as defined in the NYSDOL Variance Decision File No. 05-0427 (Attachment #3).
- 4. Drilling or cutting through asbestos-containing caulk on sections of aluminum column covers and fascia is not permitted unless work is performed within an exterior Negative Pressure Tent Enclosure. (Note a pilot study is to be proposed to attempt to obtain regulatory relief from the requirement for exterior enclosures for this work.)
- Drilling or cutting through curtain wall to create a small penetration for installation of tie-in shall be accomplished with manufacturer equipped HEPA filtered and shrouded drilling/cutting equipment.
- Polyethylene sheet or rubber mat shall be installed under the work area prior to start of work.
   Upon completion of creating small access point in curtain wall, connecting rod shall be inserted within penetration and penetration sealed and area HEPA vacuumed and/or wet-wiped.
- Interior installation of tie-in shall occur within the building by properly certified NYSDOL and NYSDEP asbestos workers.

## D. <u>Establishing and Releasing a Cleaned Area within the Contaminated Building Areas utilizing</u> Interior Negative Pressure Tent Enclosures

Interior Negative Pressure Tent Enclosures will be utilized to clean and release contaminated areas within the Building to provide for Hoist/Scaffold tie-ins and attachment points. Procedures for establishing, cleaning, cleaning and maintaining Negative Pressure Tent Enclosures are described below.

- As the Negative Pressure Tent Enclosure will be installed within a contaminated area of the building, a Remote Personnel Decon Enclosure System, otherwise consistent with the requirements of ICR 56-9, shall be utilized.
- 2. If at any time a worker has to pass through an uncontaminated area to access the remote decon unit or the next work area, the worker wearing two suits of PPE shall remove one suit while in

- the work area, wet wipe the inner suit, don a clean outer suit and proceed either to the next work area or the decon unit.
- 3. Negative Pressure Tent Enclosures shall be constructed and used per the 05-0427 Variance Decision dated May 11, 2005 including but not limited to two layers of six mil fire-retardant poly sheeting and shall include walls, ceiling and a floor (except for portions of floors, walls and ceilings that are removal surfaces) with double-folded seams. Interior tent areas will be constructed with an attached 3'x 3' airlock. Make-up air shall be provided to the airlock through HEPA-filtered interior air sources.
- Personnel exiting the Negative Pressure Tent Enclosure shall proceed through the contaminated portion of the building to the Remote Personnel Decon Enclosure System.
- 5. Once tent enclosure work area preparation has been completed and abatement activities commence, on a daily basis and per work-shift, one air sample shall be collected within the tent enclosure entrance/exit. No other air samples associated with this work will be collected during the work exterior to the tent in the contaminated portions of the building.
- 6. Clearance air sampling inside the tent, per 05-0427 Variance Decision, will be conducted under static pressure conditions. No other clearance air samples associated with this work will be collected during the work exterior to the tent in the contaminated portions of the building. Upon completion of clearance air sampling, the tent shall be sealed airtight.
- 7. Upon receipt of successful clearance air sampling results, the tent enclosure will be maintained under a slight positive pressure utilizing HEPA-filtered supplied air to maintain its clean condition. Personnel entering the interior tent enclosures from a contaminated area shall proceed as follows:
  - a. Prior to entering the attached airlock, personnel shall remove the outer layer of protective clothing.
  - b. The exterior surface of the respirator shall be wet-wiped or HEPA vacuumed.
- The opening to the exterior (if required) can then be established within the tent. Once work is complete in the tent, isolation of the opening to the exterior shall be maintained by installation of isolation barriers or decon chamber.

End of Annex 6: Summary/ Scope of Work for Scaffolding Contractor