

FEDERAL EMERGENCY MANAGEMENT AGENCY PROJECT WORKSHEET - Narrative Sheet				O.M.B. No. 3067-0151 Expires April 30, 2001	
DECLARATION NO: FEMA- 1391 -DR- NY	PROJECT NO.	FIPS NO. 061-51000-22	DATE 02/27/02	CATEGORY E	
APPLICANT New York City, Board of Education		COUNTY New York			
<u>NARRATIVE</u>					
More than 200,000 tons of steel and 425,000 cubic yards of concrete were used in the construction of the WTC complex. One WTC (North Tower) was completed in December of 1970 and Two WTC (South Tower) was completed in January of 1972. The federal regulations restricting the use of asbestos in concrete and other construction material began to be enforced in the early 1970's. Although asbestos gives concrete a much higher tensile strength, asbestos fibers are known to have caused such diseases as Asbestosis and Mesothelioma, as well as lung cancer, when inhaled. These asbestos fibers are most hazardous when they are in a friable or pulverized state. The U.S. Environmental Protection Agency (EPA) - Asbestos Hazard Emergency Response Act (AHERA), Section 206 of Toxic Substance Control Act (TSCA) states that it's legal function is to provide for the establishment of Federal regulations which require inspection for asbestos-containing material and implementation of appropriate response actions with respect to asbestos-containing material in the Nation's schools in a safe and complete manner and to mandate safe and complete periodic reinspection of school buildings following response actions, where appropriate. A memorandum from R. Radhakrishnan, P.E. from the City of New York, Department of Environmental Protection, dated September 14, 2001, gave guidance to building owners on procedures for clean-up of asbestos containing materials (see attached document). This memorandum and the U.S. Environmental Protection Agency (EPA) - Asbestos Hazard Emergency Response Act (AHERA), Section 206 of the Toxic Substance Control Act (TSCA) were used as a basis for the necessary procedures to be performed at each school. <u>School Construction Authority (SCA)</u> School Construction Authority was responsible for the coordination and construction management of the contractors on behalf of BoE. The School Construction Authority (SCA) acts on behalf of the New York Board of Education (BoE) to manage all major construction, repairs, rehabilitation and clean up of all New York City schools. Costs associated with the work performed by SCA consists of regular time labor (\$3,619.24), including the New York City regular time fringe benefit rate for non-uniform employees of 44.66% (\$1,616.36). Total incurred cost for regular time labor is \$5,235.60. Costs associated with the overtime for labor for SCA (10,007.66), including the New York City overtime fringe benefit rate for non-uniform employees of 110.73% (\$1,073.83). Total incurred cost for overtime labor is \$11,081.49. <u>KISS Construction, Inc.</u> KISS Construction, Inc. conducted clean up at PS 234 from October 4 to October 7, 2001. This cleanup work consisted of asbestos abatement of the facility following the period the school was being used as a relief center. Clean-up performed by KISS Construction cost \$156,789.50. Invoice from KISS Construction is included in "Back Up Do Not Scan". <u>PAL Environmental Safety Corporation</u> PAL Environmental Safety Corporation was retained by SCA to conduct exterior and interior clean up of PS 234. Dust and debris within the building was considered to be potentially contaminated with asbestos. Interior remediation of the facility was performed in accordance to AHERA regulations. Scope of work performed by PAL for the interior remediation included labor, materials, equipment, OSHA monitoring and waste disposals. Man lifts were used to facilitate the power washing of the exterior of the building with gas pressure washers. Work was performed as a non-asbestos containing material clean-up because emissions and exposure during the activity would be minimal because the operation was conducted in an "open" environment. Interior and exterior cleaning performed by PAL Environmental cost \$455,620.66. Invoice from PAL Environmental is included in "Back Up Do Not Scan". <u>Citywide Environmental Services, LLC</u> Citywide Environmental Services, LLC was retained by SCA to clean the HVAC system in PS 234. This was performed to remove all dust and debris potentially contaminated with asbestos and to prevent asbestos containing material to spread throughout the building. All work performed under this contract was in accordance to AHERA regulations. Costs associated with HVAC cleaning performed by Citywide Environmental was \$371,530.66. Invoice from Citywide Environmental is included in "Back Up Do Not Scan". <u>Corinthian Construction</u> Corinthian Construction was retained to remove all debris and dust from the roof of the building. Because of the fine particulate of the dust, all stones and insulation were removed from the roof to expose the roof membrane. The roof membrane was washed thoroughly of all dust and debris, and new installation, filter fabric and stone were replaced to its state prior to the event. Roof cleaning conducted by Corinthian cost \$159,600.00. Invoice from Corinthian is included in "Back Up Do Not Scan". <u>Taylor Environmental Group, Inc.</u> During the clean-up and remediation project at PS 234, Taylor Environmental Group, Inc. was retained to conduct quality control asbestos project monitoring and analytical services. Prior to the collection of TEM air samples, Taylor Environmental conducted visual inspections to identify if there was a presence of visible dust and debris. Quality control air monitoring and analytical services provided by Taylor Environmental totaled \$2,100.00. Invoice from Taylor Environmental is included in "Back Up Do Not Scan". <u>Warren & Panzer Engineers</u> Warren & Panzer Engineers conducted aggressive air sampling of the basement, 1st floor, 2nd floor, 3rd floor, the mechanical room and the ventilation system of PS 234. The samples analyzed for transmission electron microscopy (TEM). Work performed by Warren and Panzer total \$71,610.34. A copy of the invoice for work performed by Warren & Panzer Engineers was not obtained from SCA. <u>TDX-Becom Joint Venture</u> The TDX-Becom Joint Venture was retained by SCA to perform construction management and oversight duties at P.S. 234 to coordinate the contractual duties and to insure that work performed by contractors met the proposed scope of work and professional quality. TDX-Becom was also responsible to insure that the work performed adhered to AHERA regulations. Costs associated with construction management and inspection by TDX/Becom totaled \$35,730.23. Invoice from TDX/Becom is included in "Back Up Do Not Scan".					
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