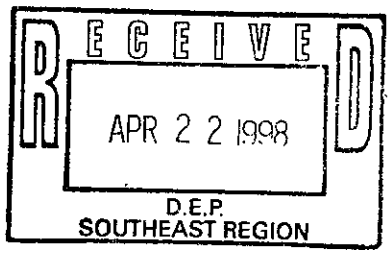
REPORT

Building Demolition Alternative Report



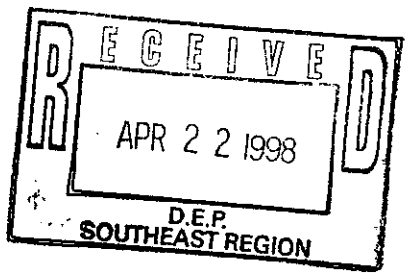
Aerovox, Inc. Facility
New Bedford, Massachusetts

April 1998

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

TECHNICAL REPORT

Building Demolition Alternative Report



Aerovox, Inc. Facility
New Bedford, Massachusetts

April 1998

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

6723 Towpath Road, P.O. Box 66
Syracuse, New York, 13214-0066
(315) 446-9120

Table of Contents

Section 1.	**Introduction**		**1-1**
	1.1	General	1-1
	1.2	Purpose and Scope	1-1
	1.3	Background Information	1-1
Section 2.	**Summary of Investigation Activities**		**2-1**
	2.1	General	2-1
	2.2	PCB Building Material/Equipment Investigation	2-1
	2.2.1	PCB Building Materials/Equipment Investigation Activities	2-1
	2.2.2	PCB Building Material/Equipment Investigation Results	2-2
	2.3	Soil Sampling Beneath Concrete Floor Slab	2-2
	2.3.1	Soil Sampling Activities Beneath Concrete Floor Slab	2-3
	2.3.2	Soil Sampling Results Beneath Concrete Floor Slab	2-3
	2.4	Surface Cleaning Pilot Study Results	2-3
Section 3.	**Building Demolition Alternative**		**3-1**
	3.1	General	3-1
	3.2	Building Demolition	3-1
Section 4.	**Cost Estimate Summary**		**4-1**
	4.1	Cost Estimate for Building Demolition Alternative	4-1
Section 5.	**Schedule**		**5-1**
	5.1	General	5-1
Tables	1	PCB Analytical Results: Full Core and Dust and Dirt Scrape Samples	
	2	PCB Analytical Results: Wipe Samples	
	3	Soil Sampling Results for Total PCBs Beneath Concrete Floor Slab	
	4	Building Demolition Alternative - Option 1 Cost Estimate	
	5	Building Demolition Alternative - Option 2 Cost Estimate	
	6	Building Demolition Alternative - Option 3 Cost Estimate	

Figures	1	Full Core and Dust and Dirt Sample Results
	2	Wipe Sample Results
	3	PCB Soil Sampling Results Beneath Concrete Floor Slab
	4	Approximate Extent of Floor Slab to be Removed Under Option 2
Appendices	A	Analytical Data Report
	B	Building Material Volume and Mass Calculations

1. Introduction

1.1 General

This report presents a description of the Building Demolition Alternative for the Aerovox, Inc. (Aerovox) facility located in New Bedford, Massachusetts. The Aerovox facility consists of one three-story building currently used to manufacture capacitors and related products. A technical description of the building demolition alternative is presented below, followed by a detailed cost estimate for implementing the building demolition alternative..

1.2 Purpose and Scope

The purpose of this report is to provide Aerovox with basic cost and technical information to facilitate a decision regarding the potential demolition of the building. The report considers above-grade and sub-grade building materials, but does not incorporate concerns, if any, with underground utilities, soils in the vicinity of the building and beneath the concrete floor slab, or ground water.

This report is organized into four sections. Section I presents general information, the purpose and scope of the report, and relevant background information including a summary of previous sampling events. Section 2 presents a summary of investigation activities conducted by BBL, including a PCB Building Material/Equipment Investigation, soil sampling activities conducted to characterize PCB concentrations in soil located directly beneath the concrete floor slab inside the building, and a preliminary surface cleaning pilot study. Section 3 presents a preliminary description of the Building Demolition Alternative. Section 4 presents estimated costs for implementing the Building Demolition Alternative. Section 5 presents an anticipated schedule for implementing the work activities associated with building demolition.

1.3 Background Information

The Aerovox facility building encompasses approximately 450,000 square feet and consists of a western section that contains two floors and an eastern section that contains three floors. The exterior walls of the building are brick while the roof is constructed of wood. The first floor in the western section of the building is estimated to be approximately 6 feet below grade while the first floor in the eastern section of the building is estimated to be approximately 1½ feet below grade. The first floor in both the eastern and western sections of the building is constructed of concrete. Structural components of the building include interior wood columns and steel I-beam floor joists. Wooden floors are present on the second and third floors of the eastern section of the building, and in a portion of the second floor of the western section of the building.

A soil and ground-water PCB investigation and remedial alternatives evaluation was completed in the mid-1980's. Exterior PCB-impacted soil was remediated via the installation of an asphalt cap. In June 1997, the United States Environmental Protection Agency (USEPA) conducted an inspection of the Aerovox building and collected 20 wood shaving samples from the floor of the capacitor impregnation tank room and collected oil samples from various oil storage tanks/degreaser operations for PCB analysis. The USEPA data indicated the presence of PCBs in the wood floor samples at concentrations greater than 50 parts per million (ppm). PCBs were not detected above laboratory detection limits in the oil samples collected from tanks/equipment at the Aerovox facility. In October 1997, a consultant for Aerovox (East Coast Engineering, Inc.) under USEPA oversight collected 93 standard wipe samples for PCB analysis. Ten duplicate wipe samples were also obtained and submitted to the USEPA. The analytical results indicated the presence of PCBs at concentrations greater than 10 micrograms (ug)/100 square centimeters (cm^2) which is the Toxic Substance Control Act (TSCA) PCB Spill Policy cleanup objective for low- and high-contact interior surfaces. Figure I presents the results for samples collected by the USEPA during June 1997 and Figure 2 presents the wipe sample results from the October 1997 wipe sampling event.

2. Summary of Investigation Activities

2.1 General

This section presents a description of the PCB Building Material/Equipment Investigation conducted by BBL on November 24 and 25, 1997 and a description of soil sampling activities beneath the concrete floor slab conducted by BBL on February 11 and 12, 1998. This section also presents the results of a surface cleaning pilot study that was conducted to determine the effectiveness of surficial washing as a means of reducing PCB concentrations on non-porous surfaces. The PCB Building Material/Equipment Investigation, soil sampling beneath the concrete floor slab, and the surface cleaning pilot study are discussed below.

2.2 PCB Building Material/Equipment Investigation

The purpose of the PCB Building Material/Equipment Investigation was to supplement the existing PCB data base, determine the approximate extent of impacted building materials, develop information regarding the approximate quantitives of different building materials, and characterize PCB concentrations on equipment surfaces inside the building. The PCB Building Materials/Equipment Investigation activities and results are discussed below.

2.2.1 PCB Building Materials/Equipment Investigation Activities

The PCB Building Material/Equipment Investigation consisted of the following activities:

- The collection of 17 full-core building material samples (wood, brick, and concrete) for PCB analysis;
- The collection of 12 composite scrape samples of dust/dirt from elevated horizontal surfaces for PCB analysis;
- The collection of 18 standard wipe samples from non-porous building material surfaces (tile floor, painted walls, steel surfaces, etc.) for PCB analysis;
- The collection of 13 standard wipe samples from the non-porous surfaces of select equipment; and
- The performance of a surficial cleaning method pilot study.

Sample locations were chosen to provide information regarding PCB concentrations in and on building materials that were not sampled previously. In addition, a select number of sample locations were chosen to correlate previous sample locations to confirm the previous data.

The PCB samples were containerized and shipped under chain of custody procedures to BBL's laboratory subcontractor, Galson Laboratories, Inc. (Galson) located in Syracuse, New York. Each sample was analyzed for PCBs using USEPA SW-846 Method 8082. Sample locations were tied to existing structures (i.e., columns, walls, etc.) and noted in the field log book.

In addition to the sampling activities, BBL also conducted a visual reconnaissance of the building to determine the following:

- Dimensions of existing building components including exterior and interior walls, floors, the roof, steel joints, and wood columns;
- The approximate extent of non-porous and porous surfaces;

- The approximate number of equipment pieces; and
- The presence of potential asbestos-containing materials.

The results of the visual reconnaissance activities have been used to determine the approximate volume and weight of existing building components and non-porous surfaces in order to prepare cost estimates for the building demolition alternative, as discussed in Sections 3 and 4.

The results of the PCB Building Material/Equipment Investigation are presented below.

2.2.2 PCB Building Material/Equipment Investigation Results

Table 1 presents the analytical result for each full core sample and each dust/dirt scrape sample along with the sample identification number and building material type (wood, concrete, etc.). Table 2 presents the analytical results for each wipe sample collected from non-porous building materials, appurtenances, and equipment inside the building. The location of each wipe sample along with the associated PCB analytical result is shown on Figure 2. Analytical results for the laboratory analysis of the full-core samples, the dust and dirt samples, and the wipe samples are discussed below.

Full Core Samples

The analytical results indicate that the wood floor on the second and third floors of the eastern section of the building contains PCBs at concentrations greater than 50 ppm. Two of the three wood floor full core samples (i.e., samples 2-FC-4 and 2-FC-5) collected from the second floor in the western section of the building contained PCBs at concentrations greater than 50 ppm. One of the two concrete floor full core samples collected from the second floor in the western section of the building contained PCBs at concentrations greater than 50 ppm.

The analytical results indicate that PCBs were detected in full core samples collected from the brick exterior walls at concentrations ranging from 2.48 ppm to 26.4 ppm. The full core wood ceiling sample collected from the second floor ceiling (in the western section of the building) contained PCBs at a concentration of 28.3 ppm.

Dust and Dirt Samples

PCBs were detected in each of the 12 dust and dirt scrape samples at concentrations greater than 50 ppm.

Wipe Samples

Seventeen of the 18 wipe samples collected from non-porous building materials and appurtenances (electrical conduits and light fixtures) contained PCBs at concentrations greater than the TSCA Spill Cleanup Policy cleanup level of 10 ug/100 cm^2 for high- and low-contact surfaces. Ten of the 13 wipe samples collected from the surfaces of equipment at the Aerovox facility contained PCBs at concentrations greater than 10 ug/100 cm^2.

2.3 Soil Sampling Beneath Concrete Floor Slab

The purpose of the soil sampling activities beneath the concrete floor slab was to characterize PCB concentrations in soil located directly beneath the concrete floor slab inside the building. The soil sampling activities beneath the concrete floor slab and the sampling results are discussed below.

2.3.1 Soil Sampling Activities Beneath Concrete Floor Slab

The soil sampling activities beneath the concrete floor slab consisted of collecting 15 soil samples at a depths of 0 to 2 inches beneath the concrete slab for PCB analysis. In addition, soil samples were also collected at a depth of 2 to 6 inches beneath the concrete floor slab at 14 of the 15 soil sampling locations. The soil samples collected from the 2- to 6-inch depth interval were submitted to Galson and archived until the analytical results for the soil samples collected from the 0- to 2-inch depth interval were determined. The soil samples were containerized and shipped to Galson under chain of custody procedures for laboratory analysis for PCBs using USEPA SW-846 Method 8082. Sample locations were tied to existing columns and noted in the field log book. The results for the soil samples collected from beneath the concrete floor slab are presented below.

2.3.2 Soil Sampling Results Beneath Concrete Floor Slab

The analytical results indicate that 5 of the 14 soil samples collected from the 0- to 2-inch depth interval contained PCBs at concentrations greater than 50 ppm. Based on the analytical results for samples 1B6(0-2") and 1D7(0-2"), soil samples 1B6(2-6") and 1D7(2-6") (which were initially archived) were analyzed for PCBs using USEPA SW-846 Method 8082. The analytical results indicate that each of these samples contained PCBs at concentrations greater than 50 ppm. Table 3 presents the analytical results for each soil sample. The location of each soil sample along with the associated PCB analytical result is shown on Figure 3.

2.4 Surface Cleaning Pilot Study Results

BBL conducted two surficial cleaning pilot studies at the Aerovox facility in order to determine the effectiveness of surficial washing as a means of reducing PCB concentrations on non-porous surfaces. Each pilot study was conducted utilizing the following procedure:

1) A pre-cleaning wipe sample was collected from the select non-porous surface;

2) In an immediately adjacent location, the surface was cleaned using rags and a spray-on detergent (Knight's Super Spray Clean); and

3) A post-cleaning wipe sample was collected following the cleaning of the non-porous surface.

The first pilot study was conducted on the horizontal surface of a ceiling steel I-beam located on the first floor in the western section of the building near the lower pump room. The results of the first pilot study are as shown below.

Pre-Cleaning Wipe Sample	Post-Cleaning Wipe Sample
1-PSW-1	1-PSW-1A
Result: 520 ug/100 cm^2	Result: 226 ug/100 cm^2

The second pilot study was conducted on the steel diagonal plate floor covering located at the second floor receiving dock in the eastern section of the building. The results of the second pilot study are as shown below.

Pre-Cleaning Wipe Sample	Post-Cleaning Wipe Sample
2-PSW-1	2-PSW-1A
Result: 163 ug/100 cm^2	Result: 34 ug/100 cm^2

The results of the pilot studies indicate that a one-time surficial detergent washing did not achieve the TSCA PCB spill cleanup level of 10 ug/100 cm^2. Additional detergent washing will likely be required to accomplish the following:

a. Determine how many washes it will take to achieve the cleanup objective; and

b. Determine what PCB concentration can be achieved with a reasonable number of surface washes (i.e., three times).

The second pilot study results indicate that detergent washing may achieve a non-porous surface PCB concentration of less than 100 ug/100 cm^2 which is the typical cleanup requirement for steel prior to being accepted for disposal (smelting) at a steel recycling facility.

3. Building Demolition Alternative

3.1 General

This section presents a description of the Building Demolition Alternative developed by BBL based on the analytical data generated to date and based on our past experience with building remediation. A description of the Building Demolition Alternative is presented below.

3.2 Building Demolition

Under this alternative, the building would be demolished and the site would be restored by installing an impermeable liner and an asphalt cap following placement of backfill materials at the former location of the building. The Building Demolition Alternative would consist of the seven major work activities listed below:

- Work Activity 1 - Additional Building Characterization Sampling;
- Work Activity 2 - Equipment/Appurtenances Inventory;
- Work Activity 3 - Pre-Demolition Cleaning;
- Work Activity 4 - Post-Cleaning Verification Sampling;
- Work Activity 5 - Utility Modifications and Removal;
- Work Activity 6 - Building Demolition and Disposal; and
- Work Activity 7 - Site Restoration/Asphalt Cap Construction.

These work activities are discussed below.

Work Activity 1 - Additional Building Characterization

Prior to implementing building demolition activities, additional sampling would be conducted to confirm that the brick walls in the pump room located on the first floor and the brick walls in the impregnation room (tank room) located on the second floor directly above the pump room do not contain PCBs at concentrations greater than or equal to 50 ppm. The additional sampling work would involve collecting an appropriate number of discrete core samples from the brick walls in these two rooms (i.e., six samples) for laboratory analysis for PCBs.

If the analytical results of the core samples indicate that PCBs are present at concentrations less than 50 ppm, the brick walls would be handled with other non-TSCA demolition debris. However, if the analytical results of the core samples indicate that PCBs are present at concentrations greater than or equal to 50 ppm, the brick walls would require disposal at a TSCA landfill.

Work Activity 2 - Equipment/Appurtenances Inventory

Under this work activity, a detailed inventory of equipment/appurtenances at the facility (both inside and outside the building) would be developed. In addition to listing equipment/appurtenances, the inventory would identify which equipment/appurtenances would be transferred from the facility and returned to commerce at a proposed new facility, which equipment/appurtenances would be offered for sale, and which equipment/ appurtenances would be scrapped. In order to develop the inventory, the following work would be conducted:

- A site reconnaissance to identify each piece of equipment/appurtenance in its current location, record applicable information from manufacturer's plates on the equipment/appurtenances, and assess the condition of the equipment/appurtenances; and

- A review of applicable records pertaining to each piece of equipment (if available) and coordination with engineering/operations personnel at the facility. The review/coordination work would be conducted in an effort to identify the age and repair history of the equipment/appurtenances, to estimate the market value for the equipment/appurtenances, and to determine the role (if any) for the the equipment/appurtenances in future manufacturing operations.

Aerovox would be responsible for determining which equipment/appurtenances would be retained for future use at a new manufacturing location, which equipment/appurtenances would be offered for sale, and which equipment/appurtenances would be scrapped.

Work Activity 3 - Pre-Demolition Cleaning

This work activity would consist of washing interior horizontal surfaces with detergent to remove PCB-containing dust and dirt in order to facilitate general demolition of the building. The pre-demolition cleaning would involve the cleaning of the steel I-beams, HVAC duct work, and other metal surfaces to reduce PCB concentrations to less than 100 ug/100 cm^2 in order to allow for the removal and disposal of the material at a steel smelting facility.

As part of the pre-demolition cleaning activities, equipment surfaces containing PCBs at concentrations greater than 10 ug/100 cm^2 would require cleaning prior to transferring the equipment off-site.

Based on the presence of vinyl floor tile, pipe insulation materials, and boiler insulation materials within the building that may potentially contain asbestos, an asbestos survey will be conducted to determine if asbestos abatement is required prior to building demolition. For the purpose of this report we have assumed that these materials contain asbestos and would be removed as part of the pre-demolition cleaning activities.

Work Activity 4 - Post-Cleaning Verification Sampling

Following completion of the pre-demolition cleaning activities, a visual inspection will be conducted to confirm that visible dust and dirt has been removed followed by a post-cleaning verification wipe sampling program to:

- Confirm that metal surfaces scheduled for smelting do not contain PCBs at concentrations greater than 100 ug/100 cm^2; and

- Confirm that equipment surfaces scheduled for reuse do not contain PCBs at concentrations greater than 10 ug/100 cm^2.

Work Activity 5 - Utility Modifications and Removal

Upon completion of the post-cleaning verification sampling activities, modifications to existing utilities and removal of interior utilities would occur. The utility modifications would include the following:

- Disconnection and plugging of sanitary sewer piping and any additional drain piping;
- Disconnection of the existing potable water supply; and
- Disconnection of electrical services.

The following utility removal actions would also be conducted:

- Removal of electrical equipment, boilers, and compressors;

- Removal of light fixtures (fluorescent light ballasts may contain PCBs);
- Removal of fire protection and potable water piping; and
- Removal of HVAC system components (excluding steel duct work).

Work Activity 6 - Building Demolition and Disposal

As part of this work activity, the building would be demolished and concrete/brick debris generated by demolition of the building which does not contain PCBs at concentrations greater than or equal to 50 ppm would either be transported for off-site disposal or used as backfill on-site depending on which of the following options is selected: 1) leave the first floor concrete slab in-place, 2) remove a portion of the first floor concrete slab; or 3) remove the entire first floor concrete slab (details associated with the demolition work to be conducted under each of these options are presented below). Materials within the building which do not contain PCBs at concentrations greater than or equal to 50 ppm have been identified based on the analytical results for samples previously collected. The actual amount of building materials which do not contain PCBs at concentrations greater than or equal to 50 ppm may decrease (resulting in an increase in TSCA-regulated building materials) depending on the results of additional sampling that will be conducted prior to the building demolition within the pump room and the tank room.

The demolition Contractor will be required to comply with a set of special conditions specific to project. The special conditions will include, but not be limited to, the following plans and procedures:

- Air monitoring procedures;
- Dust control procedures;
- Surface water control procedures;
- Equipment decontamination procedures;
- Health and safety plan; and
- Contingency plans.

A set of the special conditions will be provided to the USEPA prior to implementing the demolition activities. A description of the work to be conducted by the Contractor under demolition Options 1-3 is presented below.

Option 1: Leave the First Floor Concrete Slab In-Place

Under this option, the wood and concrete floors that contain PCBs at concentrations greater than or equal to 50 ppm (excluding the first floor concrete slab) would be removed from the building and transported for off-site disposal at a TSCA landfill permitted to accept debris containing PCBs at concentrations greater than or equal to 50 ppm. Based on a preliminary review of the building, BBL has assumed that the wood and concrete floors could be removed (prior to demolition of the entire building) without jeopardizing the structural integrity of the building. However, before preparing a Contractor scope of work for the building demolition, a more comprehensive structural review of the building will be conducted by a Licensed Professional Engineer experienced in performing structural evaluations in order to confirm that the wood and concrete floors can be removed without impacting the structural integrity of the building shell prior to general demolition activities. The Engineer will also provide recommendations for temporary structural support that may be needed during the floor removal activities.

Following removal of the wood and concrete floors that contain PCBs at concentrations greater than or equal to 50 ppm, the building would be demolished using traditional demolition techniques (i.e., a wrecking ball, excavators). Dust control measures will be implemented to minimize dust levels generated by the demolition work. The actual techniques/methods to be employed will be recommended by the demolition Contractor and

reviewed and approved by the Engineer. The selected Contractor would be required to furnish details regarding demolition techniques/methods and the locations of debris staging/loading areas.

Debris (concrete, wood, brick) which does not contain PCBs at concentrations greater than or equal to 50 ppm would be transported for off-site disposal at a non-TSCA landfill permitted to accept the debris. Steel building components and associated metal materials generated during the demolition activities which do not contain PCBs on the surfaces at concentrations greater than or equal to 100 ug/cm^2 (as determined by verification sampling conducted under Work Activity 4) would be segregated and transported off-site for smelting. We have assumed that the pre-demolition cleaning activities under Work Activity 3 will be successful in removing dust/dirt from the steel building components and associated metal material surfaces so that PCBs will not be detected in post-cleaning verification wipe samples at concentrations greater than or equal to 100 ug/cm^2. However, if the concentration of PCBs remaining on the steel building components and associated metal material surfaces following cleaning is greater than or equal to 100 ug/cm^2, then the steel building components and associated metal materials will be transported for off-site disposal as a TSCA waste. Following removal of the debris generated by the building demolition, clean backfill obtained from an off-site source would be placed, graded, and compacted above the remaining building floor slab to within one foot of the existing grade which surrounds the building. After compacting the backfill, an asphalt cap would be installed as described under Work Activity 7 below.

Option 2: Remove a Portion of the First Floor Concrete Slab

Under this option, the wood and concrete floors that contain PCBs at concentrations greater than or equal to 50 ppm (including a portion of the first floor concrete slab from areas potentially containing PCB concentrations greater than 50 ppm) would be removed from the building and transported for off-site disposal at a TSCA landfill permitted to accept debris containing PCBs at concentrations greater than or equal to 50 ppm. The portion of the first floor concrete slab to be removed for off-site disposal under this option is shown on Figure 4. Based on a preliminary review of the building, BBL has assumed that the wood and concrete floors could be removed (prior to demolition of the entire building) without jeopardizing the structural integrity of the building. However, before preparing a Contractor scope of work for the building demolition, a more comprehensive structural review of the building will be conducted by a Licensed Professional Engineer experienced in performing structural evaluations in order to confirm that the wood and concrete floors can be removed without impacting the structural integrity of the building shell prior to general demolition activities. The Engineer will also provide recommendations for temporary structural support that may be needed during the floor removal activities.

Following removal of the wood and concrete floors that contain PCBs at concentrations greater than or equal to 50 ppm, the building would be demolished using traditional demolition techniques (i.e., a wrecking ball, excavators). Dust control measures will be implemented to minimize dust levels generated by the demolition work. The actual techniques/methods to be employed will be recommended by the demolition Contractor and reviewed and approved by the Engineer. The selected Contractor would be required to furnish details regarding demolition techniques/methods and the locations of debris staging/loading areas.

Debris generated by the building demolition which does not contain PCBs at concentrations greater than or equal to 50 ppm (excluding wood, drywall materials, or steel) would be placed as backfill within the below-grade portions of the first floor area. Additional backfill, consisting of a clean sand/gravel obtained from an off-site source, would be mixed in with the debris and placed, graded, and compacted to within one foot of the existing grade which surrounds the building. Debris, consisting of wood and drywall, would be transported for off-site disposal at a non-TSCA landfill. Steel building components and associated metal materials generated during the demolition activities which do not contain PCBs on the surfaces at concentrations greater than or equal to 100

ug/cm^2 (as determined by verification sampling conducted under Work Activity 4) would be segregated and transported off-site for smelting. We have assumed that the pre-demolition cleaning activities under Work Activity 3 will be successful in removing dust/dirt from the steel building components and associated metal material surfaces so that PCBs will not be detected in post-cleaning verification wipe samples at concentrations greater than or equal to 100 ug/cm^2. However, if the concentration of PCBs remaining on the steel building components and associated metal material surfaces following cleaning is greater than or equal to 100 ug/cm^2, then the steel building components and associated metal materials will be transported for off-site disposal as a TSCA waste. After placing, grading, and compacting the backfill within the below grade portions of the first floor area, an asphalt cap would be installed as described under Work Activity 7.

Option 3: Remove the Entire First Floor Concrete Slab

Under this option, the wood and concrete floors that contain PCBs at concentrations greater than or equal to 50 ppm (including the entire portion of the first floor concrete slab) would be removed from the building and transported for off-site disposal at a TSCA landfill permitted to accept debris containing PCBs at concentrations greater than or equal to 50 ppm. Based on a preliminary review of the building, BBL has assumed that the wood and concrete floors could be removed (prior to demolition of the entire building) without jeopardizing the structural integrity of the building. However, before preparing a Contractor scope of work for the building demolition, a more comprehensive structural review of the building will be conducted by a Licensed Professional Engineer experienced in performing structural evaluations in order to confirm that the wood and concrete floors can be removed without impacting the structural integrity of the building shell prior to general demolition activities. The Engineer will also provide recommendations for temporary structural support that may be needed during the floor removal activities.

Following removal of the wood and concrete floors that contain PCBs at concentrations greater than or equal to 50 ppm, the building would be demolished using traditional demolition techniques (i.e., a wrecking ball, excavators). Dust control measures will be implemented to minimize dust levels generated by the demolition work. The actual techniques/methods to be employed will be recommended by the demolition Contractor and reviewed and approved by the Engineer. The selected Contractor would be required to furnish details regarding demolition techniques/methods and the locations of debris staging/loading areas.

Debris generated by the building demolition which does not contain PCBs at concentrations greater than or equal to 50 ppm (excluding wood, drywall materials, or steel) would be placed as backfill within the below-grade portions of the first floor area. Additional backfill, consisting of a clean sand/gravel obtained from an off-site source, would be mixed in with the debris and placed, graded, and compacted to within one foot of the existing grade which surrounds the building. Debris, consisting of wood and drywall, would be transported for off-site disposal at a non-TSCA landfill. Steel building components and associated metal materials generated during the demolition activities which do not contain PCBs on the surfaces at concentrations greater than or equal to 100 ug/cm^2 (as determined by verification sampling conducted under Work Activity 4) would be segregated and transported off-site for smelting. We have assumed that the pre-demolition cleaning activities under Work Activity 3 will be successful in removing dust/dirt from the steel building components and associated metal material surfaces so that PCBs will not be detected in post-cleaning verification wipe samples at concentrations greater than or equal to 100 ug/cm^2. However, if the concentration of PCBs remaining on the steel building components and associated metal material surfaces following cleaning is greater than or equal to 100 ug/cm^2, then the steel building components and associated metal materials will be transported for off-site disposal as a TSCA waste. After placing, grading, and compacting the backfill within the below grade portions of the first floor area, an asphalt cap would be installed as described under Work Activity 7.

Work Activity 7 - Site Restoration/Asphalt Cap Construction

Under this work activity, a capping system would be constructed over the area where the building was located following the placement and compaction of backfill over the area. The capping system would be constructed in accordance with the precedent that was established for remediation of PCB-impacted soils located outside the building footprint (to the north and east of the building). The capping system would consist of the following materials (referenced, in order, from the surface to the base of the capping system):

- A 1½-inch thick bituminous concrete wearing surface over a 2½-inch thick bituminous concrete base course;
- An 8-inch subbase course to provide bearing support for vehicles which will be parked on the bituminous concrete surface. The subbase course would consist of approximately 6 inches of run-of-crush stone over approximately 2 inches of sand. The sand would serve as a protective barrier to help prevent the underlying materials from being damaged during placement of the run-of-crush; and
- A geosynthetic drainage composite overlying a 40 mil impermeable PVC or HDPE membrane. The purpose of the geosynthetic composite would be to convey water (which may penetrate the bituminous concrete surface and would otherwise be trapped above the impermeable PVC or HDPE membrane) away from the capping system in an effort to prevent premature failure of the bituminous concrete resulting from frost action.

4. Cost Estimate Summary

4.1 Cost Estimate for Building Demolition Alternative

This section presents a summary of the estimated cost for the Building Demolition Alternative. The estimated cost for each Building Demolition Option is presented below.

Building Demolition Option	Cost Estimate
Building Demolition Alternative Option #1	$7,400,000
Building Demolition Alternative Option #2	$8,700,000
Building Demolition Alternative Option #3	$10,300,000

The cost estimates are based on vendor quotes, past remedial costs, and BBL's experience with building demolition projects. Major assumptions that were made in developing the cost estimates for the Building Demolition Alternative under Options 1, 2, and 3 are listed below.

1) Double hand washing with detergent will reduce the concentration of PCBs on metal surfaces to less than 100 ug/100 cm^2.

2) Repeated rounds of verification sampling of metal surfaces will not be required.

3) The wood flooring in the eastern section of the building and concrete on the second floor of the western section of the building can be removed without jeopardizing the structural stability of the building.

4) Options for handling the first floor concrete slab will be acceptable to USEPA Region 1.

5) The cost of the asbestos removal and disposal program, which is of unkown extent at this time, will not exceed $100,000.

Additional assumptions made in developing the cost estimates for the building demolition alternative under Options 1, 2, and 3 are presented in Tables 4, 5, and 6 (respectively) along with a detailed breakdown of the estimated costs.

5. Schedule

5.1 General

This section presents an approximate schedule for implementing the Building Demolition Alternative (assumed to be the same under each demolition option). The approximate schedule for implementing the building demolition work activities is presented below.

Work Activity	Approximate Duration
Work Activity 1 - Additional Building Characterization Sampling	2 days
Work Activity 2 - Equipment/Appurtenances Inventory	2 weeks
Work Activity 3 - Pre-Demolition Cleaning	6 weeks
Work Activity 4 - Post-Cleaning Verification Sampling	
Work Activity 5 - Utility Modifications and Removal	4 weeks
Work Activity 6 - Building Demolition and Disposal	16 weeks
Work Activity 7 - Site Restoration	4 weeks

The actual schedule for completing each work activity will be dependent upon the demolition Contractor's schedule, demolition techniques, the amount of asbestos removal required, the extent of utility modifications and removal necessary, and USEPA approval of the building demolition option selected by Aerovox.

Tables

Table 1

Aerovox, Inc. Facility
New Bedford, Massachusetts

PCB Analytical Results
Full Core and Dust & Dirt Scrape Samples

Sample Type	Surface Material	Sample I.D.	PCBs Concentration[1] [ppm]
First Floor - Eastern Section			
Full Core	Brick Wall (painted)	1-WC-1	7.4
Scrape	Composite	1-DD-1	**880.0**
Scrape	Composite	1-DD-2	**121.0**
Scrape	Composite	1-DD-3	**420.0**
First Floor - Across Sectious			
Scrape	Composite	1-DD-4	**2010.0**
Scrape	Composite	1-DD-5	**950.0**
Scrape	Composite	1-DD-6	**268.0**
Second Floor - Eastern Section			
Full Core	Wood floor (stained)	2-FC-1	**1,900.0**
Full Core	Wood floor (stained)	2-FC-2	**5,600.0**
Full Core	Wood floor (stained)	2-FC-3	**106.0**
Scrape	Composite	2-DD-3	**260.0**
Scrape	Composite	2-DD-4	**490.0**
Full Core	Brick wall (painted)	2-WC-3	8.0
Full Core	Brick wall (painted)	2-WC-4	2.5
Second Floor - Western Sectiou			
Full Core	Wood floor (stained)	2-FC-4	**145.00**
Full Core	Wood floor (stained)	2-FC-5	**56,000.0**
Full Core	Wood floor (stained)	2-FC-6	28.0
Full Core	Concrete floor (stained)	2-FC-7	12.7
Full Core	Concrete floor (stained)	2-FC-8	**156.0**
Full Core	Ceiling beam (painted)	2-CC-1	28.3
Scrape	Composite	2-DD-1	**1,020.0**

Table 1
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

PCB Analytical Results
Full Core and Dust & Dirt Scrape Samples

Sample Type	Surface Material	Sample I.D.	PCBs Concentration[1] [ppm[
Full Core	Brick Wall (painted)	2-WC-1	3.6
Full Core	Brick wall (painted)	2-WC-2	26.4
Second Floor - Across Sections			
Scrape	Composite	2-DD-2	**300.0**
Third Floor - Eastern Section			
Full Core	Wood floor (stained)	3-FC-1	**86.0**
Full Core	Brick wall (stained)	3-WC-1	2.48
Full Core	Wood floor (stained)	3-FC-2	**204.0**
Scrape	Composite	3-DD-1	**1,170.0**
Scrape	Composite	3-DD-2	**470.0**

NOTES:

1. [1] - Concentrations are given for total PCBs in parts per million (ppm).
2. < - Indicates the compound was analyzed for but not detected. The associated value is the laboratory detection limit.
3. Values in bold exceed 50 ppm.

Table 2

Aerovox, Inc. Facility
New Bedford, Massachusetts

PCB Analytical Results
Wipe Samples

Surface Material	Sample I.D.	PCBs Concentration[1] [ng/100cm^2]
First Floor - Eastern Section		
Concrete floor (painted)	1-FW-1	**18.0**
Top of electrical duct. Horizontal steel surface (painted).	1-AW-2	**20.8**
Concrete floor (painted)	1-FW-3	**350.0**
Brick wall (painted)	1-WW-4	**15.4**
Concrete floor (painted)	1-FW-5	**59.0**
Top of start/stop panel of air compressor. Horizontal metal surface (painted).	1-EW-1	**66.0**
Top of horizontal metal plate (painted).	1-EW-2	**330.0**
Side of drying oven # 4. Horizontal metal surface (painted).	1-EW-3	**13.7**
Side of rear base leg of federal press. Horizontal metal surface (painted).	1-EW-4	**199.0**
First Floor - Western Section		
Wood column (painted). Vertical surface.	1-AW-6	**10.5**
Elevated light fixture. Horizontal steel surface (painted).	1-AW-7	**84.0**
Inside left door of despatch oven. Vertical metal surface (unpainted).	1-EW-5	<2.5
"I" beam. Horizontal painted steel surface (pre-clean)	1-PSW-1	**520.0**
"I" beam. Horizontal painted steel surface (post-clean: vacuumed).	1-PSW-1A	**226.0**
Second Floor - Eastern Section		
Wood floor	2-FW-4	**17.8**
Tile floor	2-FW-5	**14.8**
Tile floor	2-FW-6	**14.6**
Tile floor	2-FW-7	3.3
Top of stainless steel horizontal surface.	2-EW-2	**217.0**

Table 2
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

PCB Analytical Results
Wipe Samples

Surface Material	Sample I.D.	PCBs Concentration[1] [ug/100cm^2]
Top of machine housing. Horizontal metal surface (painted).	2-EW-3	2.5
Horizontal diamond steel plate (pre-clean).	2-PSW-1	**163.0**
Horizontal diamond steel plate (post-clean: washed)	2-PSW-1A	**34.0**
Second Floor - Western Section		
Top of electrical box. Horizontal steel surface (painted).	2-AW-2	**235.0**
Wood floor (painted)	2-FW-3	**90.0**
Top of electrical box. Horizontal steel surface (painted).	2-AW-1	**320.0**
Base of press. Horizontal metal surface (painted).	2-EW-1	**16.0**
Third Floor - Eastern Section		
Tile floor	3-FW-1	**22.6**
Tile floor	3-FW-2	**176.0**
Tile floor	3-FW-3	**98.0**
Tile floor	3-FW-4	**30.0**
Top of assembly machine. Horizontal metal surface (painted).	3-EW-1	**15.2**
Top of gear housing of lead welding machine. Horizontal metal surface (painted).	3-EW-2	**11.9**
Top shelf of domino ink jet. Horizontal metal surface (painted).	3-EW-3	**265.0**
Top of base unit of metal winder. Horizontal metal surface (painted).	3-EW-4	**68.0**
Top of test/sort machine. Horizontal metal surface (painted).	3-EW-5	<2.5

NOTES:

1. [1] - Concentrations are given for total PCBs in micrograms per 100 cm^2.
2. < - Indicates the compound was analyzed for but not detected. The associated value is the laboratory detection limit.
3. Values in bold exceed 10 ug/100 cm^2.

Table 4

Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #1

Cost Estimate

- Conduct additional building characterization sampling
- Conduct inventory of equipment/appurtenances
- Clean materials and equipment prior to demolition
- Dispose of materials ≥50 ppm PCBs at TSCA landfill
- Dispose of materials <50 ppm PCBs at non-TSCA landfill
- Clean steel to <100 ug/100 cm^2 PCBs for disposal at a smelting facility
- Leave first floor concrete slab in-place
- Place and compact backfill material above floor slab
- Install asphalt cap over the backfill

	Work Activities	Quantity	Units	Unit/Cost	Total
1. Additional Building Characterization Sampling					
A.	Sampling and analysis of brick walls in Pump Room and Tank Room for PCBs	1	LS	$2,500	$2,500
B.	RCRA characterization sampling	1	LS	$20,000	$20,000
	Snbtotal Additional Building Characterization Sampling:				**$22,500**
2. Equipment/Appurtenances Inventory					
A.	Conduct equipment/appurtenances inventory. Includes site reconnaissance activities, reviewing documentation for equipment/appurtenances, and meeting with an Aerovox operations personnel.	1	LS	$4,500	$4,500
	Subtotal Equipment/Appurtenances Invcntory:				**$4,500**
3. Pre-Demolitiou Cleaning					
A.	Hand-wash interior surfaces to remove visible dust and dirt and to clean steel surfaces to ≤100 ug/100 cm^2. Includes disposal of cleaning water, dirt, and dust.	450,500	SF	$2/SF	$901,000
B.	Hand-wash equipment surfaces to <10 ug/100 cm^2. Includes disposal of cleaning water, dirt, and dust.	200	EA	$250/EA	$50,000
C.	Asbestos Removal and Disposal	1	LS	$100,000	$100,000
	Subtotal Pre-Demolition Cleaning:				**$1,051,000**

Table 4
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #1

Cost Estimate

	Work Activities	Quantity	Units	Unit/Cost	Total
4. Post-Cleaning Verifieation Sampling					
A.	Post-cleaning verification sampling for building materials	1	LS	$50,000	$50,000
B.	Post-cleaning verification sampling for equipment	1	LS	$45,000	$45,000
				Subtotal Post-Cleaniug Verification Sampling:	**$95,000**
5. Utility Modifications and Removal					
A.	Utility modifications, removal, and disposal prior to building demolition.	1	LS	$100,000	$100,000
				Subtotal Utility Modifications and Removal:	**$100,000**
6. Building Demolition and Disposal (Excluding Concrete Floor at Grade)					
A.	Removal of wood floor (TSCA material)	235,800	SF	$5/SF	$1,179,000
B.	Removal of concrete floor above first floor level (TSCA material)	15,000	SF	$5.50/SF	$82,500
C.	Building demolition	6,703,000	CF	$0.23/CF	$1,541,690
D.	Transportation and disposal of demolition debris:				
	- to TSCA landfill (mainly wood and concrete floor materials)	2,000	Ton	$200/Ton	$400,000
	- to non-TSCA landfill (mainly brick, wood, and drywall)	6,250	Ton	$50/Ton	$312,500
	- to steel smelting facility (mainly "I"-beams)	1,225	Ton	$10/Ton	$12,250
				Subtotal Demolition and Disposal:	**$3,527,940**
7. Site Restoration/Asphalt Cap Construction					
A.	Placement and compaction of backfill over the concrete floor slab	22,400	CY	$13.50/CY	$302,400
B.	40 mil PVC liner	182,133	SF	$0.34/SF	$61,925
C.	Geosynthetic drainage composite	182,133	SF	$1.40/SF	$254,986
D.	2" Sand/gravel layer	1,124	CY	$13.00/CY	$14,612

Table 4
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #1

Cost Estimate

	Work Activities	Quantity	Units	Unit/Cost	Total
E.	6" Run-of-crush stone layer	3,373	CY	$18.47/CY	$62,299
F.	2½" Bituminous concrete base course	20,237	SY	$4.50/SY	$91,067
G.	1½" Bituminous concrete wearing surface	20,237	SY	$3.30/SY	$66,782
	Subtotal Site Restoration/Asphalt Cap Construction				**$854,071**
	Subtotal Work Activities # 1 through #7:				$5,655,011
	Engineering, Administrative, and Legal Fees (10%):				$565,501
	Contingency (20%):				$1,131,002
	Total Estimated Cost:				**$7,351,514**
	Rounded To:				**$7,400,000**

Notes:

1. Costs are based on contractor estimates from previous projects and BBL's experience.
2. Transportation and disposal costs are based on verbal quotations received in December 1997 from Chemical Waste Management, Inc., and Laidlaw PCB Services.
3. Volume, area, and mass calculations were conducted using the tables and calculations presented in Appendix B.

Assnmptions:

The assumptions below are listed in order by each work activity.

1A. Sampling and analysis cost estimate includes costs to collect up to 6 discrete full core samples from brick walls in the Pump Room and Tank Room for laboratory analysis for PCBs on a 24-hour turnaround basis.

1B. RCRA characterization sampling cost estimate includes costs for up to 20 building material core samples for laboratory analysis for corrosivity, ignitability, reactivity, and Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), and TCLP metals on a 5-day turnaround basis.

2A. Conduct equipment/appurtenances inventory cost estimate includes costs for conducting site reconnaissance activities, reviewing equipment/appurtenances documentation, and meeting with Aerovox facilities personnel to determine equipment/appurtenances (both inside and outside the building) which would be returned to commerce and equipment/appurtenances which would be scrapped.

Table 4
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #1

Cost Estimate

3A. Hand-wash interior surfaces cost estimate includes costs for washing interior horizontal surfaces (including steel beams/columns and HVAC duct work) using detergent and rags to remove visible dust and dirt. Cost includes disposal of cleaning water, rags, dirt, and dust as TSCA waste. Pre-building demolition cleaning area is based on the area of each floor level.

3B. Hand-wash equipment cost estimate includes costs for washing equipment using detergent and rags to remove visible dust and dirt. Cost includes disposal of cleaning water, rags, dirt, and dust as TSCA waste.

3C. Asbestos removal and disposal cost estimate includes costs for notifications, posting, permitting, air monitoring, recordkeeping, protective equipment, and removal and off-site disposal of the asbestos-containing materials in an approved non-hazardous waste landfill.

4A. Post-cleaning verification sampling for building materials cost estimate includes costs to collect verification wipe samples for laboratory analysis to confirm that interior building material surfaces (including steel and duct work) do not contain PCBs at concentrations greater than or equal to $100ug/cm^2$.

4B. Post-cleaning verification sampling for equipment cost estimate includes costs to collect verification wipe samples for laboratory analysis to confirm that equipment surfaces do not contain PCBs at concentrations greater than or equal to $10ug/cm^2$.

5A. Utility modifications, removal, and disposal cost estimate includes disconnecting electrical services; disconnecting the existing potable water supply; plugging sanitary sewer piping/floor drains; removing electrical equipment, boilers, and compressors; removing light fixtures; removing the fire protection and potable water supply piping; and removing HVAC system components.

6A. Removal of wood floor cost estimate includes costs for removing wood floors which contain PCBs at concentrations ≥50 ppm. Cost estimate assumes that the wood floors would be removed prior to demolition without affecting the structural integrity of the building.

6B. Removal of concrete floor above first floor level cost estimate includes costs for removing the concrete floor (within the second level of the western section of the building) which contains PCBs at concentrations ≥50 ppm. Cost estimate assumes that the concrete floor would be removed prior to building demolition without affecting the structural integrity of the building. Cost estimate assumes that the concrete floor slab located on the first level will remain in-place.

6C. Building demolition cost estimate includes costs for the demolition of the remaining portion of the building above the floor slab at grade. Demolition would be conducted following wood and concrete floor removal using conventional demolition techniques (i.e., wrecking ball, excavators).

6D. Transportation and disposal cost estimate includes costs for transportation and disposal of TSCA and non-TSCA material generated during the demolition activities. Cost estimate assumes that material generated during the wood and concrete floor removal activities (containing PCBs at concentrations ≥50 ppm) would be disposed at a TSCA facility. Cost estimate assumes that wood and drywall materials generated under the building demolition cost estimate (excluding steel materials) would be disposed at a non-TSCA landfill. Cost estimate assumes that steel materials will be disposed at a steel smelting facility and that the value of the steel will off-set the smelting

costs. Cost estimate for steel to smelting facility only includes costs for transportation.

7A. Placement and compaction of backfill cost estimate includes costs for providing, placing, and compacting imported clean backfill material (sand/unwashed gravel) over the first floor concrete floor slab to within one foot of existing grade.

7B-G. Asphalt cap construction cost estimate includes costs for installing a capping system constructed of a 1½ inch thick bituminous concrete wearing surface, a 2½ inch thick bituminous concrete base course, an 8 inch subbase (consisting of 6 inches of run-of-crush stone and 2 inches of sand), a geosynthetic drainage composite, and a 40 mil impermeable PVC or HDPE membrane.

Table 5

Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #2

Cost Estimate

- Conduct additional building characterization sampling
- Conduct inventory of equipment/appurtenances
- Clean materials and equipment prior to demolition
- Dispose of materials ≥50 ppm PCBs at TSCA landfill
- Disposal of wood materials <50 ppm PCBs at non-TSCA landfill
- Clean steel to <100 ug/100 cm^2 PCBs for disposal at a smelting facility
- Remove portions of the first floor concrete slab
- Backfill above the removed/remaining concrete floor slab using demolition materials <50 ppm PCBs and imported clean backfill
- Install asphalt cap over the backfill

	Work Activities	Quautity	Units	Unit/Cost	Total
1. Additional Building Characterizatiou Sampliug					
A.	Sampling and analysis of brick walls in Pump Room and Tank Room for PCBs	1	LS	$2,500	$2,500
B.	RCRA Characterization Sampling	1	LS	$20,000	$20,000
	Subtotal Additional Buildiug Characterization Sampling:				**$22,500**
2. Equipment/Appurtenances Inventory					
A.	Conduct equipment/appurtenances inventory. Includes site reconnaissance activities, reviewing documentation for equipment/appurtenances, and meeting with an Aerovox operations personnel.	1	LS	$4,500	$4,500
	Subtotal Equipment/Appurtenances Inventory:				**$4,500**
3. Pre-Demolition Cleaning					
A.	Hand-wash interior surfaces to remove visible dust and dirt and to clean steel surfaces to ≤100 ug/100 cm^2. Includes disposal of cleaning water, dirt, and dust.	450,500	SF	$2/SF	$901,000
B.	Hand-wash equipment surfaces to <10 ug/100 cm^2. Includes disposal of cleaning water, dirt, and dust.	200	EA	$250/EA	$50,000
C.	Asbestos Removal and Disposal	1	LS	$100,000	$100,000
	Subtotal Pre-Demolition Cleaning:				**$1,051,000**

Table 5
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #2

Cost Estimate

	Work Activities	Quantity	Units	Unit/Cost	Total
4. Post-Cleaning Verification Sampling					
A.	Post-cleaning verification sampling for building materials	1	LS	$50,000	$50,000
B.	Post-cleaning verification sampling for equipment	1	LS	$45,000	$45,000
				Snbtotal Post-Cleaning Verification Sampling:	**$95,000**
5. Utility Modifications and Removal					
A.	Utility modifications, removal, and disposal prior to building demolition.	1	LS	$100,000	$100,000
				Snbtotal Utility Modifications and Removal:	**$100,000**
6. Building Demolition and Disposal					
A.	Removal of wood floor (TSCA material)	235,800	SF	$5.00/SF	$1,179,000
B.	Removal of concrete floor above first floor level (TSCA material)	15,000	SF	$5.50/SF	$82,500
C.	Removal of concrete floor at first floor level (TSCA material)	96,920	SF	$4.50/SF	$436,140
D.	Building demolition	6,703,000	CF	$0.23/CF	$1,541,690
E.	Transportation and disposal of demolition debris: - to TSCA landfill (mainly wood and concrete floor materials) - to non-TSCA landfill (mainly brick, wood, and drywall) - to steel smelting facility (mainly "I"-beams)	 6,360 1,740 1,225	 Ton Ton Ton	 $200/Ton $50/Ton $10/Ton	 $1,272,000 $87,000 $12,250
				Subtotal Demolition and Disposal:	**$4,610,580**
7. Site Restoration/Asphalt Cap Construction					
A.	Placement and compaction of backfill over concrete floor slab	21,400	CY	$13.50/CY	$288,900
B.	40 mil PVC liner	182,133	SF	$0.34/SF	$61,925

Table 5
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #2

Cost Estimate

	Work Activities	Quantity	Units	Unit/Cost	Total
C.	Geosynthetic drainage composite	182,133	SF	$1.40/SF	$254,986
D.	2" Sand/gravel layer	1,124	CY	$13.00/CY	$14,612
E.	6" Run-of-crush stone layer	3,373	CY	$18.47/CY	$62,299
F.	2½" Bituminous concrete base course	20,237	SY	$4.50/SY	$91,067
G.	1½" Bituminous concrete wearing surface	20,237	SY	$3.30/SY	$66,782
	Subtotal Site Restoration/Asphalt Cap Construction:				**$840,571**
	Subtotal Work Activities # 1 through #7:				$6,724,151
	Engineering, Administrative, and Legal Fees (10%):				$672,415
	Contingency (20%):				$1,344,830
	Total Estimated Cost:				**$8,741,396**
	Rounded To:				**$8,700,000**

Notes:

1. Costs are based on contractor estimates from previous projects and BBL's experience.

2. Transportation and disposal costs are based on verbal quotations received in December 1997 from Chemical Waste Management, Inc., and Laidlaw PCB Services.

3. Volume, area, and mass calculations were conducted using the tables and calculations presented in Appendix B.

Assnmptions:

The assumptions below are listed in order by each work activity.

1A. Sampling and analysis cost estimate includes costs to collect up to 6 discrete full core samples from brick walls in the Pump Room and Tank Room for laboratory analysis for PCBs on a 24-hour turnaround basis.

1B. RCRA characterization sampling cost estimate includes costs for up to 20 building material core samples for laboratory analysis for corrosivity, ignitability, reactivity, and Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), and TCLP metals on a 5-day turnaround basis.

2A. Conduct equipment/appurtenances inventory cost estimate includes costs for conducting site reconnaissance

activities, reviewing equipment/appurtenances documentation, and meeting with Aerovox facilities personnel to determine equipment/appurtenances (both inside and outside the building) which would be returned to commerce and equipment/appurtenances which would be scrapped.

3A. Hand-wash interior surfaces cost estimate includes costs for washing interior horizontal surfaces (including steel beams/columns and HVAC duct work) using detergent and rags to remove visible dust and dirt. Cost includes disposal of cleaning water, rags, dirt, and dust as TSCA waste. Pre-building demolition cleaning area is based on the area of each floor level.

3B. Hand-wash equipment cost estimate includes costs for washing equipment using detergent and rags to remove visible dust and dirt. Cost includes disposal of cleaning water, rags, dirt, and dust as TSCA waste.

3C. Asbestos removal and disposal cost estimate includes costs for notifications, posting, permitting, air monitoring, recordkeeping, protective equipment, and removal and off-site disposal of the asbestos-containing materials in an approved non-hazardous waste landfill.

4A. Post-cleaning verification sampling for building materials cost estimate includes costs to collect verification wipe samples for laboratory analysis to confirm that interior building material surfaces (including steel and duct work) do not contain PCBs at concentrations greater than or equal to100ug/cm^2.

4B. Post-cleaning verification sampling for equipment cost estimate includes costs to collect verification wipe samples for laboratory analysis to confirm that equipment surfaces do not contain PCBs at concentrations greater than or equal to 10ug/cm^2.

5A. Utility modifications, removal, and disposal cost estimate includes disconnecting electrical services; disconnecting the existing potable water supply; plugging sanitary sewer piping/floor drains; removing electrical equipment, boilers, and compressors; removing light fixtures; removing the fire protection and potable water supply piping; and removing HVAC system components.

6A. Removal of wood floor cost estimate includes costs for removing wood floors which contain PCBs at concentrations ≥50 ppm. Cost estimate assumes that the wood floors would be removed prior to demolition without affecting the structural integrity of the building.

6B. Removal of concrete floor above first floor level cost estimate includes costs for removing the concrete floor (within the second level of the western section of the building) which contains PCBs at concentrations ≥50 ppm. Cost estimate assumes that the concrete floor would be removed prior to building demolition without affecting the structural integrity of the building. Cost estimate assumes that the concrete floor slab is 6 inches thick.

6C. Removal of concrete floor at first floor level cost estimate includes costs for removing the concrete floor slab from the first floor level of the western section of the building. Cost estimate assumes that the concrete floor slab is 6 inches thick.

Table 5
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #2

Cost Estimate

6D. Building demolition cost estimate includes costs for the demolition of the remaining portion of the building above the floor slab at grade. Demolition would be conducted following wood and concrete floor removal using conventional demolition techniques (i.e., wrecking ball, excavators).

6E. Transportation and disposal cost estimate includes costs for transportation and disposal of TSCA and non-TSCA material generated during the demolition activities. Cost estimate assumes that material generated during the wood and concrete floor removal activities (containing PCBs at concentrations ≥ 50 ppm) would be disposed at a TSCA facility. Cost estimate assumes that wood and drywall materials generated under the building demolition cost estimate (excluding steel materials) would be disposed at a non-TSCA landfill. Cost estimate assumes that steel materials will be disposed at a steel smelting facility and that the value of the steel will off-set the smelting costs. Cost estimate for steel to smelting facility only includes costs for transportation.

7A. Placement and compaction of backfill cost estimate includes costs for providing, placing, and compacting imported clean backfill material (sand/unwashed gravel) over the removed/remaining first floor concrete floor slab to within one foot of existing grade. Cost estimate assumes that demolition materials, including brick and concrete (excluding wood materials), with PCBs at concentrations <50 ppm would be mixed with the backfill material and placed over the removed/remaining concrete floor slab.

7B-G. Asphalt cap construction cost estimate includes costs for installing a capping system constructed of a 1½ inch thick bituminous concrete wearing surface, a 2½ inch thick bituminous concrete base course, an 8 inch subbase (consisting of 6 inches of run-of-crush stone and 2 inches of sand), a geosynthetic drainage composite, and a 40 mil impermeable PVC or HDPE membrane.

Table 6

Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #3

Cost Estimate

- Conduct additional building characterization sampling
- Conduct inventory of equipment/appurtenances
- Clean materials and equipment prior to demolition
- Dispose of materials ≥50 ppm PCBs at TSCA landfill
- Disposal of wood materials <50 ppm PCBs at non-TSCA landfill
- Clean steel to <100 ug/100 cm^2 PCBs for disposal at a smelting facility
- Remove the entire first floor concrete slab
- Backfill above the removed concrete floor slab using demolition materials <50 ppm PCBs and imported clean backfill
- Install asphalt cap over the backfill

	Work Activities	Quantity	Units	Unit/Cost	Total
1. Additional Building Characterization Sampling					
A.	Sampling and analysis of brick walls in Pump Room and Tank Room for PCBs	1	LS	$2,500	$2,500
B.	RCRA characterization sampling	1	LS	$20,000	$20,000
	Suhtotal Additional Building Characterization Sampling:				**$22,500**
2. Equipment/Appurtenances Inventory					
A.	Conduct equipment/appurtenances inventory. Includes site reconnaissance activities, reviewing documentation for equipment/appurtenances, and meeting with an Aerovox operations personnel.	1	LS	$4,500	$4,500
	Subtotal Equipment/Appurtenances Inventory:				**$4,500**
3. Pre-Demolition Cleaning					
A.	Hand-wash interior surfaces to remove visible dust and dirt and to clean steel surfaces to ≤100 ug/100 cm^2. Includes disposal of cleaning water, dirt, and dust.	450,500	SF	$2/SF	$901,000
B.	Hand-wash equipment surfaces to <10 ug/100 cm^2. Includes disposal of cleaning water, dirt, and dust.	200	EA	$250/EA	$50,000
C.	Asbestos Removal	1	LS	$100,000	$100,000
	Subtotal Pre-Demolition Cleaning:				**$1,051,000**

Table 6
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #3

Cost Estimate

	Work Activities	Qnantity	Units	Unit/Cost	Total
4. Post-Cleaning Verification Sampling					
A.	Post-cleaning verification sampling for building materials	1	LS	$50,000	$50,000
B.	Post-cleaning verification sampling for equipment	1	LS	$45,000	$45,000
				Subtotal Post-Cleaning Verification Sampling:	**$95,000**
5. Utility Modifications and Removal					
A.	Utility modifications, removal, and disposal prior to building demolition.	1	LS	$100,000	$100,000
				Subtotal Utility Modifications and Removal:	**$100,000**
6. Building Demolition and Disposal					
A.	Removal of wood floor (TSCA material)	235,800	SF	$5.00/SF	$1,179,000
B.	Removal of concrete floor above first floor level (TSCA material)	15,000	SF	$5.50/SF	$82,500
C.	Removal of concrete floor at first floor level (TSCA material)	182,134	SF	$4.50/SF	$819,603
D.	Building demolition	6,703,000	CF	$0.23/CF	$1,541,690
E.	Transportation and disposal of demolition debris:				
	- to TSCA landfill (mainly wood and concrete floor materials)	10,190	Ton	$200/Ton	$2,038,000
	- to non-TSCA landfill (mainly brick, wood, and drywall)	1,740	Ton	$50/Ton	$87,000
	- to steel smelting facility (mainly "I"-beams)	1,225	Ton	$10/Ton	$12,250
				Subtotal Demolition and Disposal:	**$5,760,043**

Table 6
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #3

Cost Estimate

	Work Activities	Quantity	Units	Unit/Cost	Total
7. Site Restoration/Asphalt Cap Construction					
A.	Placement and compaction of backfill material over removed concrete slab area	23,000	CY	$13.50/CY	$310,500
B.	40 mil PVC liner	182,133	SF	$0.34/SF	$61,925
C.	Geosynthetic drainage composite	182,133	SF	$1.40/SF	$254,986
D.	2" Sand/gravel layer	1,124	CY	$13.00/CY	$14,612
E.	6" Run-of-crush stone layer	3,373	CY	$18.47/CY	$62,299
F.	2½" Bituminous concrete base course	20,237	SY	$4.50/SY	$91,067
G.	1½" Bituminous concrete wearing surface	20,237	SY	$3.30/SY	$66,782
	Subtotal Site Restoration/Asphalt Cap Construction:				**$862,171**
	Subtotal Work Activities # 1 through #7:				$7,895,214
	Engineering, Administrative, and Legal Fees (10%):				$789,521
	Contingency (20%):				$1,579,043
	Total Estimated Cost:				**$10,263,778**
	Ronnded To:				**$10,300,000**

Notes:

1. Costs are based on contractor estimates from previous projects and BBL's experience.

2. Transportation and disposal costs are based on verbal quotations received in December 1997 from Chemical Waste Management, Inc., and Laidlaw PCB Services.

3. Volume, area, and mass calculations were conducted using the tables and calculations presented in Appendix B.

Assumptions:

The assumptions below are listed in order by each work activity.

1A. Sampling and analysis cost estimate includes costs to collect up to 6 discrete full core samples from brick walls in the Pump Room and Tank Room for laboratory analysis for PCBs on a 24-hour turnaround basis.

Table 6
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #3

Cost Estimate

1B. RCRA characterization sampling cost estimate includes costs for up to 20 building material core samples for laboratory analysis for corrosivity, ignitability, reactivity, and Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), and TCLP metals on a 5-day turnaround basis.

2A. Conduct equipment/appurtenances inventory cost estimate includes costs for conducting site reconnaissance activities, reviewing equipment/appurtenances documentation, and meeting with Aerovox facilities personnel to determine equipment/appurtenances (both inside and outside the building) which would be returned to commerce and equipment/appurtenances which would be scrapped.

3A. Hand-wash interior surfaces cost estimate includes costs for washing interior horizontal surfaces (including steel beams/columns and HVAC duct work) using detergent and rags to remove visible dust and dirt. Cost includes disposal of cleaning water, rags, dirt, and dust as TSCA waste. Pre-building demolition cleaning area is based on the area of each floor level.

3B. Hand-wash equipment cost estimate includes costs for washing equipment using detergent and rags to remove visible dust and dirt. Cost includes disposal of cleaning water, rags, dirt, and dust as TSCA waste.

3C. Asbestos removal and disposal cost estimate includes costs for notifications, posting, permitting, air monitoring, recordkeeping, protective equipment, and removal and off-site disposal of the asbestos-containing materials in an approved non-hazardous waste landfill.

4A. Post-cleaning verification sampling for building materials cost estimate includes costs to collect verification wipe samples for laboratory analysis to confirm that interior building material surfaces (including steel and duct work) do not contain PCBs at concentrations greater than or equal to $100ug/cm^2$.

4B. Post-cleaning verification sampling for equipment cost estimate includes costs to collect verification wipe samples for laboratory analysis to confirm that equipment surfaces do not contain PCBs at concentrations greater than or equal to $10ug/cm^2$.

5A. Utility modifications, removal, and disposal cost estimate includes disconnecting electrical services; disconnecting the existing potable water supply; plugging sanitary sewer piping/floor drains; removing electrical equipment, boilers, and compressors; removing light fixtures; removing the fire protection and potable water supply piping; and removing HVAC system components.

6A. Removal of wood floor cost estimate includes costs for removing wood floors which contain PCBs at concentrations ≥ 50 ppm. Cost estimate assumes that the wood floors would be removed prior to demolition without affecting the structural integrity of the building.

6B. Removal of concrete floor above first floor level cost estimate includes costs for removing the concrete floor (within the second level of the western section of the building) which contains PCBs at concentrations ≥ 50 ppm. Cost estimate assumes that the concrete floor would be removed prior to building demolition without affecting the structural integrity of the building. Cost estimate assumes that the concrete floor slab is 6 inches thick.

Table 6
(Cont'd)
Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Demolition Alternative - Option #3

Cost Estimate

6C. Removal of concrete floor at first floor level cost estimate includes costs for removing the concrete floor slab from the entire first floor level of the building. Cost estimate assumes that the concrete floor slab is 6 inches thick.

6D. Building demolition cost estimate includes costs for the demolition of the remaining portion of the building above the floor slab at grade. Demolition would be conducted following wood and concrete floor removal using conventional demolition techniques (i.e., wrecking ball, excavators).

6E. Transportation and disposal cost estimate includes costs for transportation and disposal of TSCA and non-TSCA material generated during the demolition activities. Cost estimate assumes that material generated during the wood and concrete floor removal activities (containing PCBs at concentrations ≥50 ppm) would be disposed at a TSCA facility. Cost estimate assumes that wood and drywall materials generated under the building demolition cost estimate (excluding steel materials) would be disposed at a non-TSCA landfill. Cost estimate assumes that steel materials will be disposed at a steel smelting facility and that the value of the steel will off-set the smelting costs. Cost estimate for steel to smelting facility only includes costs for transportation.

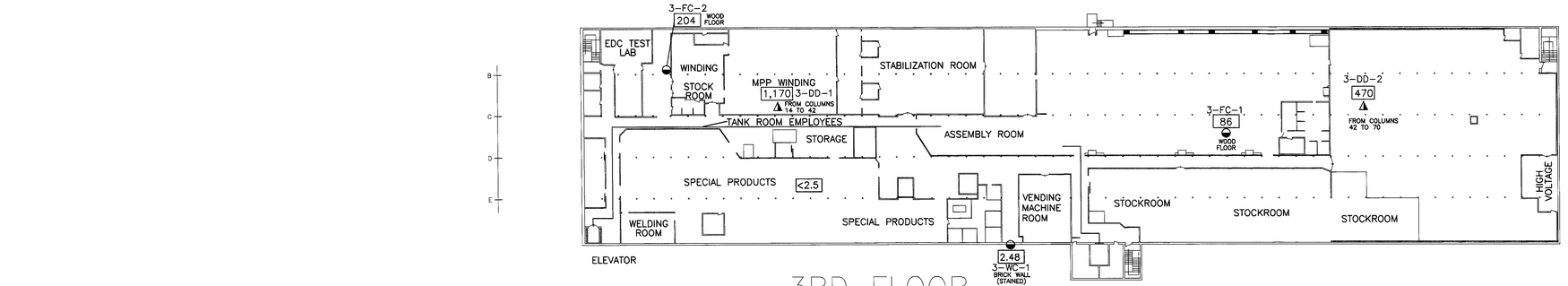
7A. Placement and compaction of backfill cost estimate includes costs for providing, placing, and compacting imported clean backfill material (sand/unwashed gravel) over the removed first floor slab area to within one foot of existing grade. Cost estimate assumes that demolition materials, including brick and concrete (excluding wood materials), with PCBs at concentrations <50 ppm would be mixed with the backfill material and placed over the removed first floor slab area.

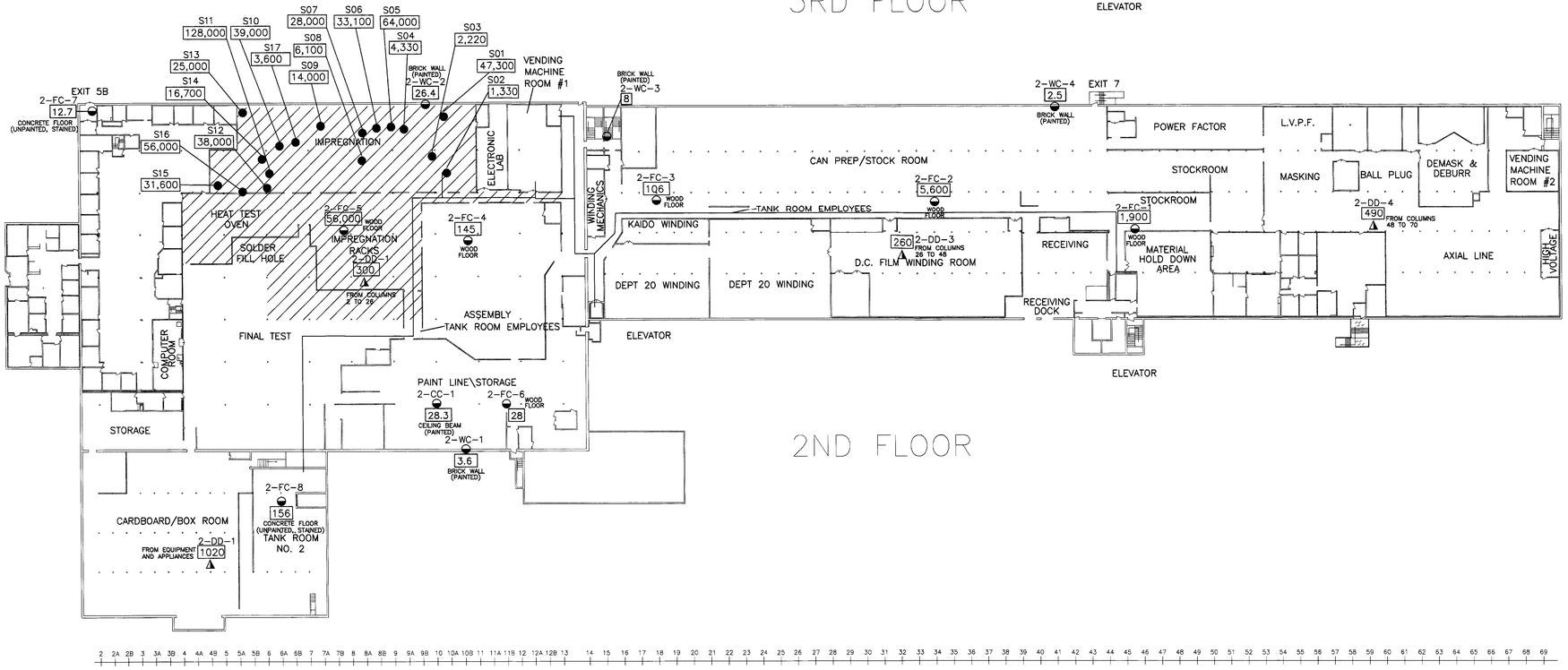
7B-G. Asphalt cap construction cost estimate includes costs for installing a capping system constructed of a 1½ inch thick bituminous concrete wearing surface, a 2½ inch thick bituminous concrete base course, an 8 inch subbase (consisting of 6 inches of run-of-crush stone and 2 inches of sand), a geosynthetic drainage composite, and a 40 mil impermeable PVC or HDPE membrane.

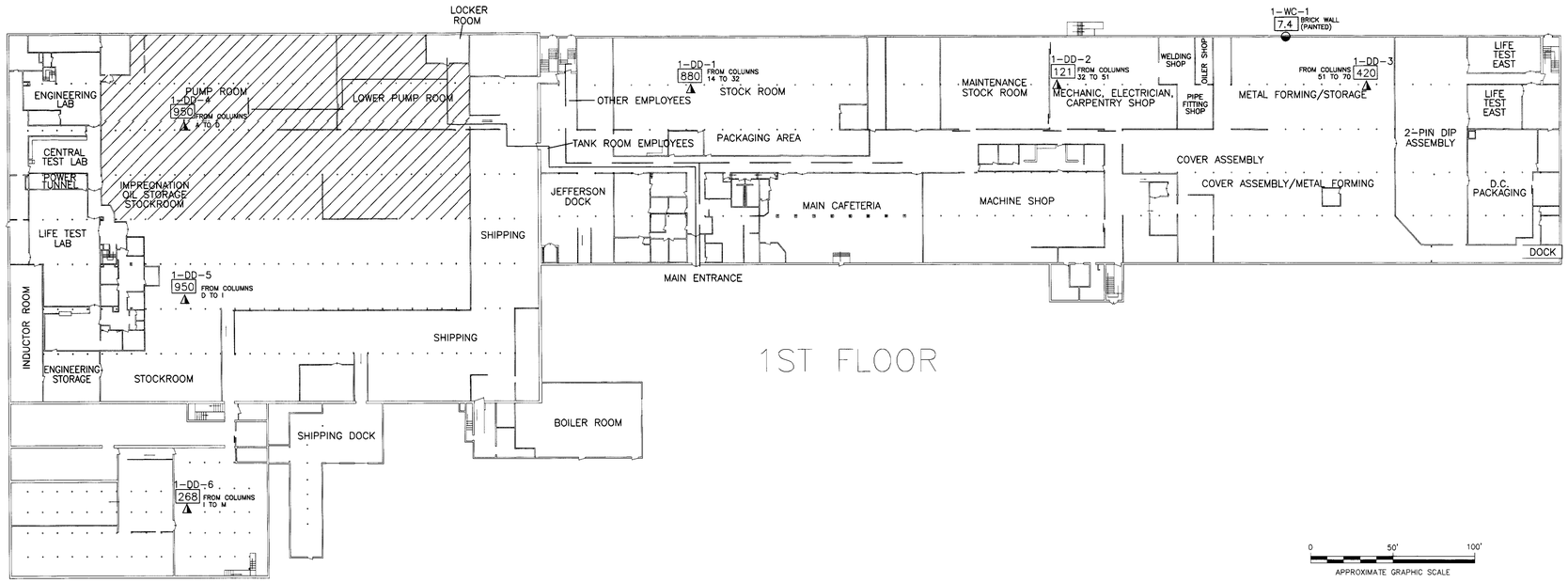
Figures

DWG. NO.	REV.
PAVXX-AG-0002	A

ZONE	LTR	REVISION	BY	DATE	APPR
–	A	ORIGINAL ISSUE	DAJ	11/18/97	







LEGEND:

- ● FLOOR SAMPLE TAKEN BY USEPA ON JUNE 25, 1997
- ▲ FIELD COMPOSITE (SCRAPE) SAMPLE TAKEN BY BBL ON NOVEMBER 25, 1997
- ◒ DISCRETE CORE SAMPLE TAKEN BY BBL ON NOVEMBER 25, 1997
- 2.48 TOTAL PCBs < 50 ppm (mg/kg)
- 128 TOTAL PCBs ≥ 50 ppm (mg/kg)
- 3-DD-1 SAMPLE I.D. NUMBER

0 50' 100'
APPROXIMATE GRAPHIC SCALE

INTERPRET DRAWING PER ASME Y14.5M-1994

UNLESS OTHERWISE SPECIFIED	DRAWN BY	D.JENKINS	11/18/97
DRAWING IN INCHES	CHECKED BY		
.000 ± .005	APPROVED BY		
.00 ± .01	USED ON	AEROVOX NEW BEDFORD	
FRACTIONS ± 1/64			
ANGLES ± 0°30'			

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 1

Aerovox® INC.
740 BELLEVILLE AVE., NEW BEDFORD, MA 02745 USA

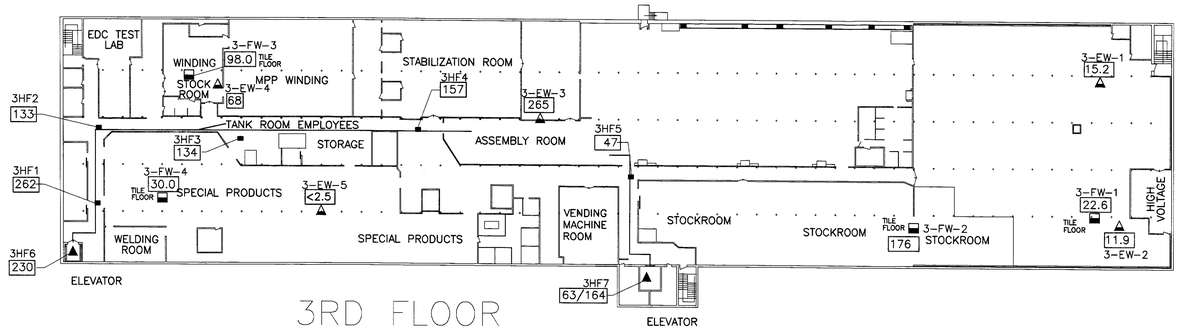
FULL CORE & DUST & DIRT SCRAPE SAMPLES (USEPA FLOOR CHIP SAMPLES)

CAD NO.	SCALE	SHEET	THIRD ANGLE PROJECTION	DWG. NO.	REV.
0002	N/A	1 OF 1	E	PAVXX-AG-0002	A

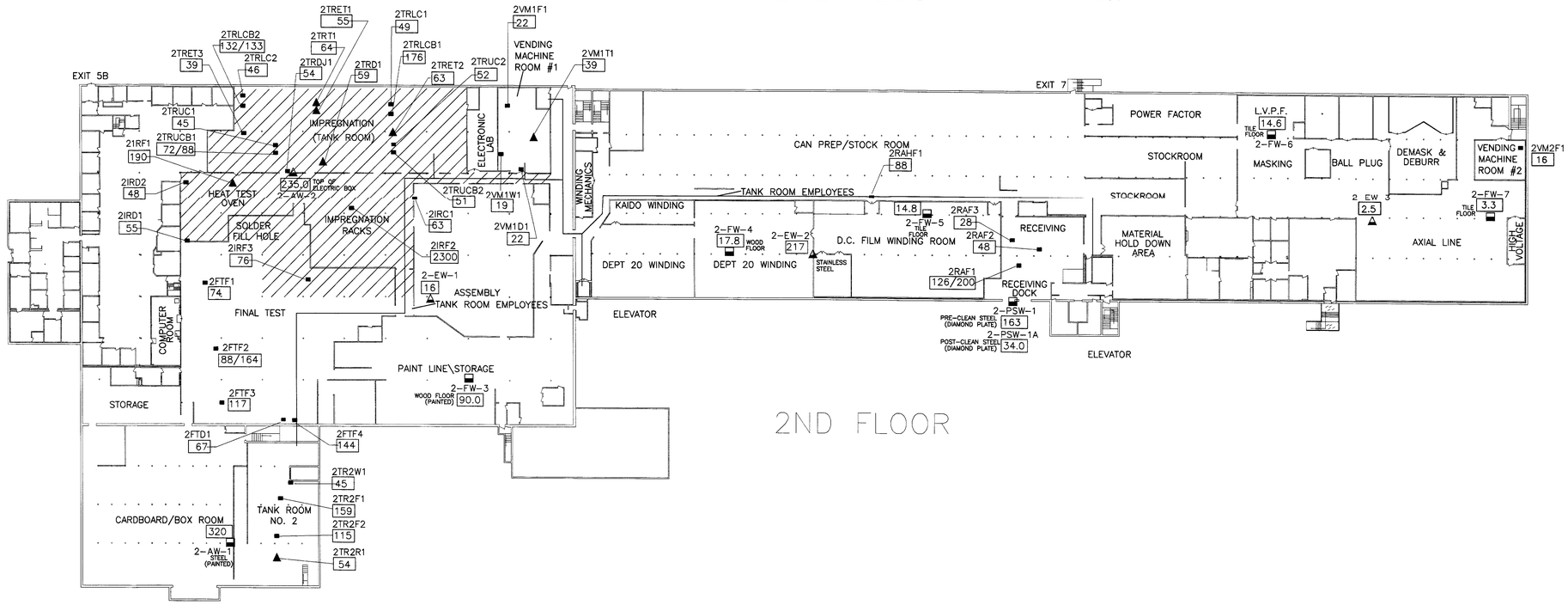
P: BBL2.PCP
2/12/98 SYR-54-PGL
03855001/AEROVOX/03855SM1.DWG

DWG. NO.	REV.
PAVXX-AG-0002	A

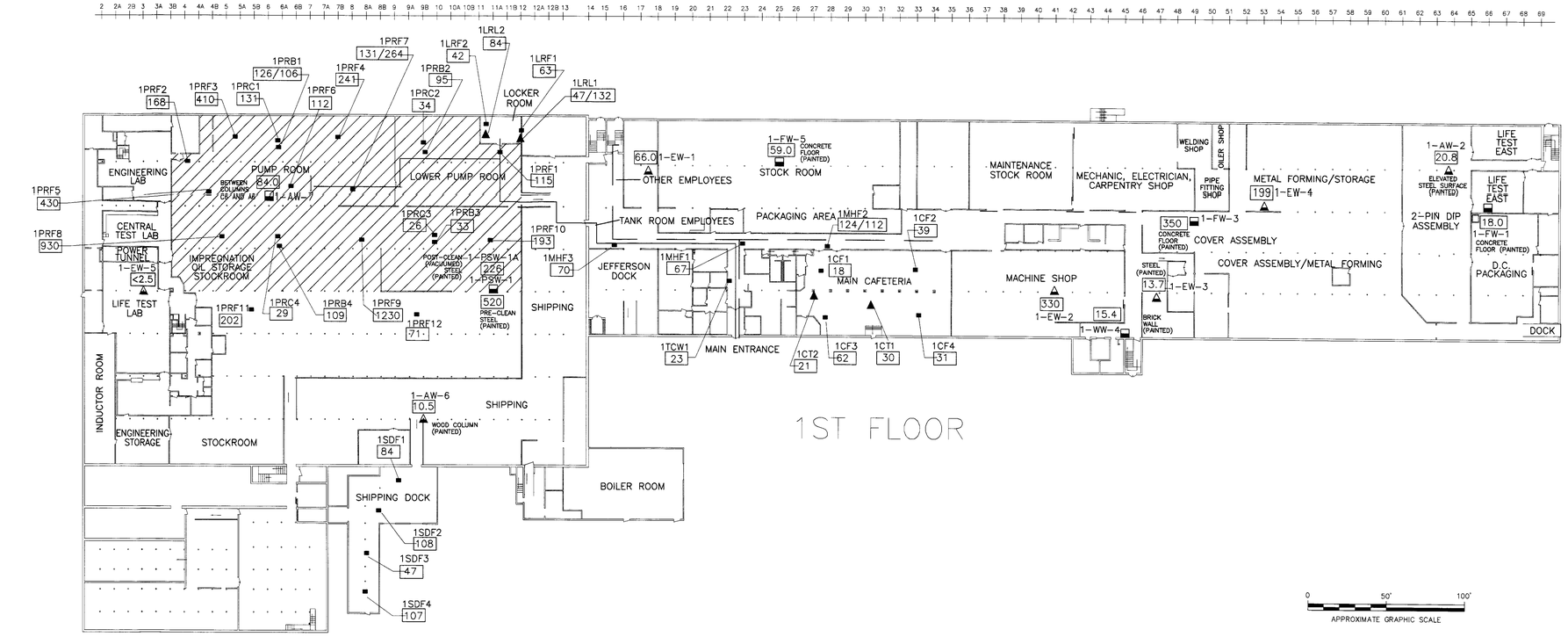
ZONE	LTR	REVISION	BY	DATE	APPR
–	A	ORIGINAL ISSUE	DAJ	11/18/97	



3RD FLOOR



2ND FLOOR



1ST FLOOR

LEGEND:

- ▲ APPURTENANCE WIPE SAMPLE TAKEN BY USEPA ON JUNE 25, 1997
- ■ BUILDING MATERIAL WIPE SAMPLE TAKEN BY USEPA ON OCTOBER 7 AND 8, 1997
- △ EQUIPMENT/APPURTENANCE WIPE SAMPLE TAKEN BY BBL ON NOVEMBER 24, 1997
- ▬ BUILDING MATERIAL WIPE SAMPLE TAKEN BY BBL ON NOVEMBER 24, 1997
- 3.3 TOTAL PCBs < 10 ug/100 cm²
- 18.0 TOTAL PCBs ≥ 10 ug/100 cm²
- 1-AW-2 SAMPLE I.D. NUMBER

0 50' 100'
APPROXIMATE GRAPHIC SCALE

INTERPRET DRAWING PER ASME Y14.5M-1994

UNLESS OTHERWISE SPECIFIED	DRAWN BY	D.JENKINS	11/18/97
DRAWING IN INCHES	CHECKED BY		
.000 ± .005	APPROVED BY		
.00 ± .01	USED ON	AEROVOX NEW BEDFORD	
FRACTIONS ± 1/64			
ANGLES ± 0°30'			

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

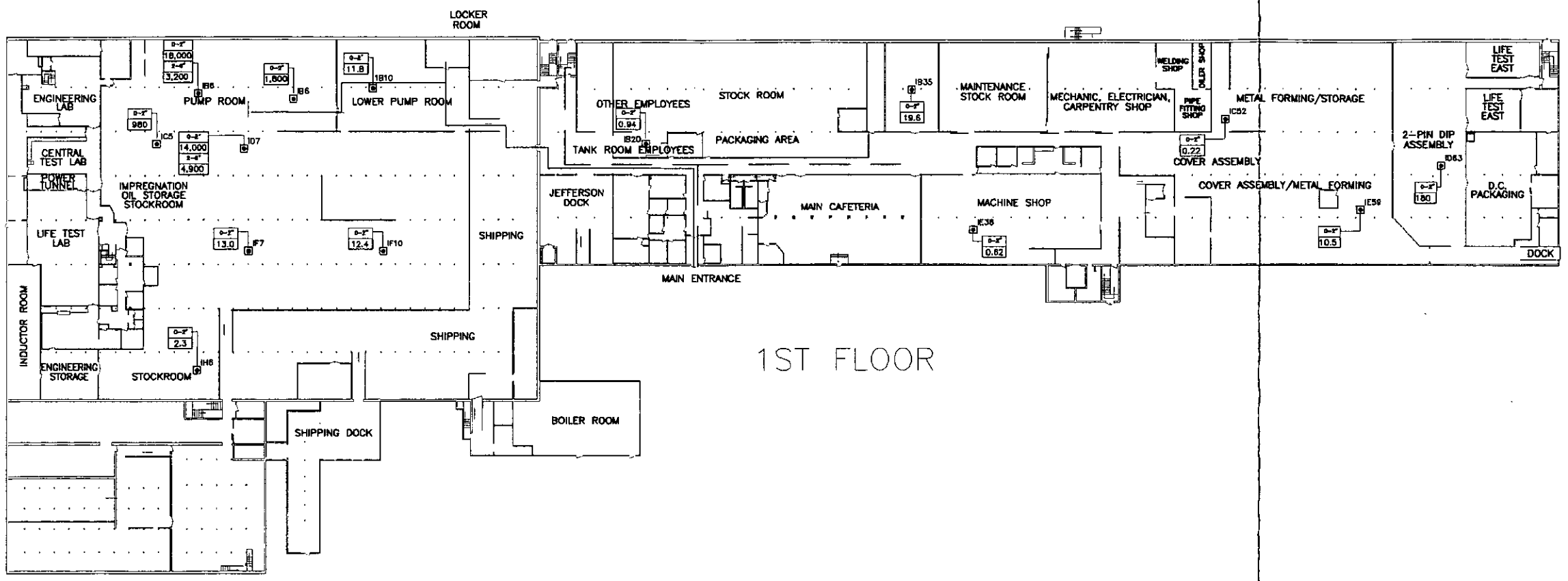
FIGURE 2

Aerovox® INC.
740 BELLEVILLE AVE., NEW BEDFORD, MA 02745 USA

TITLE WIPE SAMPLES

CAD NO.	SCALE	SHEET	THIRD ANGLE PROJECTION	DWG. NO.	REV.
0002	N/A	1 OF 1		PAVXX-AG-0002	A

P:BBL2.PCP
3/6/98 SYR-54-PGL RCB
03855001/AEROVOX/03855SM2.DWG



LEGEND

ID63 SOIL SAMPLING LOCATION

0-4' — SAMPLE DEPTH

10.5 — TOTAL PCBs < 50 ppm (mg/kg)

980 — TOTAL PCBs > 50 ppm (mg/kg)

APPROXIMATE GRAPHIC SCALE

NOTES

1. DRAWING FROM ELECTRONIC FILE FROM AEROVOX, INC. DRAWING NO. PAVX-AG-0002 DATED NOVEMBER 18, 1997.
2. ALL LOCATONS ARE APPROXIMATE.

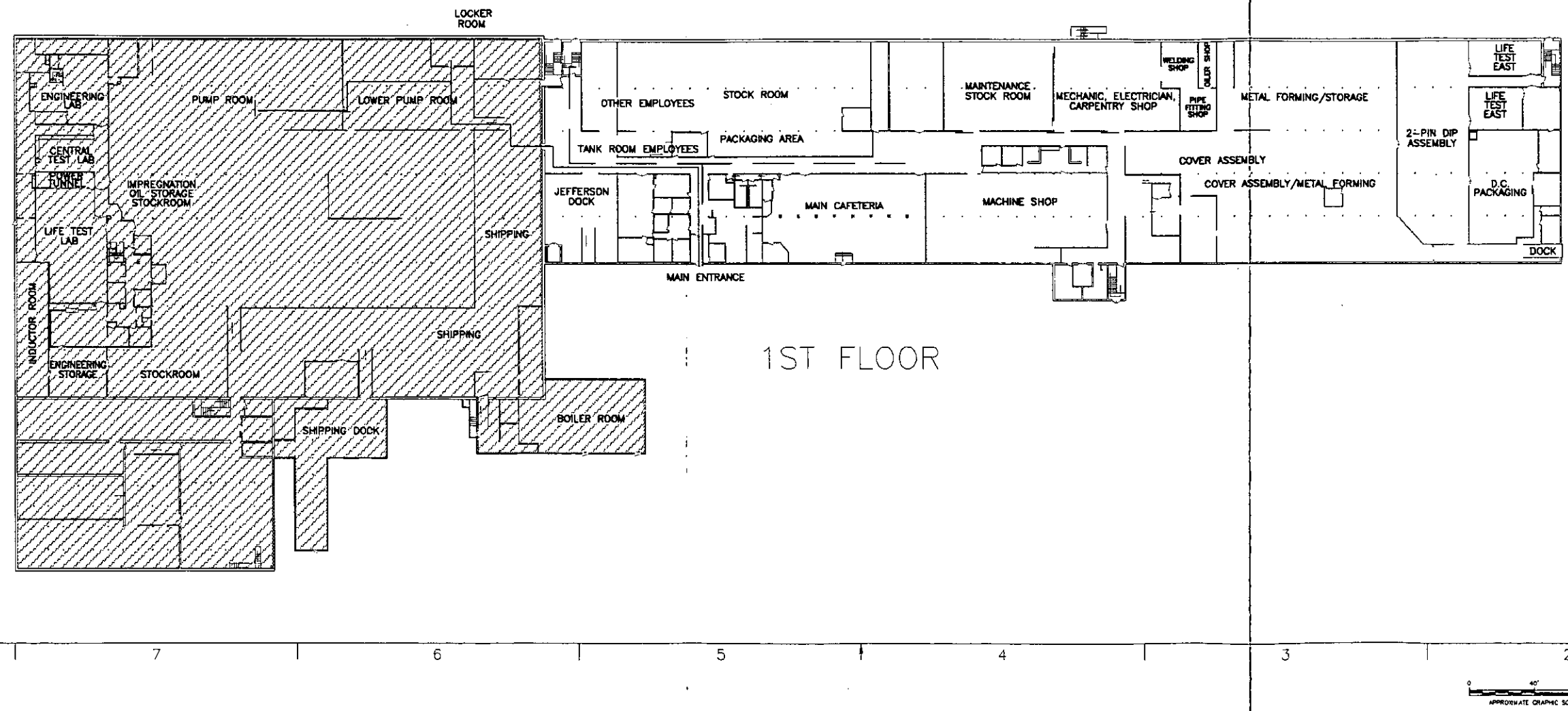
X (XREF)
LAYERS OFF=0,CONCRETEFLOOR,FIG1,REF,SAMPLELOCATION,SCRAPES,SEALEDAREAS,WIPES,WOODLOT
P: AERO.PCP
3/27/98 DIV54-RCB DMW
03855001/03855SM3

Aerovox INC.
740 BELLEVILLE AVE., NEW BEDFORD, MA 02745 USA
BUILDING DEMOLITION ALTERNATIVE REPORT

PCB SOIL SAMPLING RESULTS BENEATH CONCRETE SLAB

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3



NOTES:

1. DRAWING FROM ELECTRONIC FILE FROM AEROVOX, INC. DRAWING NO. PAVXX-AG-0002 DATED NOVEMBER 18, 1997.
2. ALL LOCATIONS ARE APPROXIMATE.

LEGEND

APPROXIMATE EXTENT OF CONCRETE FLOOR SLAB TO BE REMOVED UNDER DEMOLITION OPTION #2

X (XREF)
LAYERS OFF=0,CONCRETEFLOOR,FIG3,REF,SAMPLELOCATION,SCRAPES,SEALEDAREAS,WIPES,WOODLOT
P: AERO.PCP
3/26/98 DIVS4-RCB
03855004/03855G01.DWG

Aerovox INC.
740 BELLEVILLE AVE., NEW BEDFORD, MA 02745 USA
BUILDING DEMOLITION ALTERNATIVE REPORT

APPROXIMATE EXTENT OF CONCRETE FLOOR SLAB TO BE REMOVED UNDER OPTION #2

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 4

Appendix A
Analytical Data Report

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

PESTICIDE ANALYTICAL REPORT

Galson Laboratories

Client : Blasland, Bouck & Lee
Acoount # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-1	L40282-2	L40282-3
Client ID:	1-FW-1	1-AW-2	1-FW-3
Aroclor-1016	<2.5	<2.5	<25
Aroclor-1221	<2.5	<2.5	<25
Aroclor-1232	<2.5	<2.5	<25
Aroclor-1242	<2.5	<2.5	<25
Aroclor-1248	7.0	8.8	130
Aroclor-1254	11.	12.	220
Aroclor-1260	<2.5	<2.5	<25
Analysis Date	12/02/97	12/02/97	12/03/97
Dilution Factor	1	1	10
Surrogate Recovery	100 %	109 %	0 % D
Control Limits (46-137)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : [illegible]
Date : 12-9-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31 Repert Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-4	L40282-5	L40282-6
Client ID:	1-WW-4	1-FW-5	1-AW-6
roclor-1016	<2.5	<2.5	<2.5
Aroclor-1221	<2.5	<2.5	<2.5
roclor-1232	<2.5	<2.5	<2.5
roclor-1242	<2.5	<2.5	<2.5
roclor-1248	7.5	21.	6.4
Aroclor-1254	7.9	38.	4.1
roclor-1260	<2.5	<2.5	<2.5
Analysis Date	12/02/97	12/02/97	12/02/97
Dilution Factor	1	1	1
urrogate Recovery	102 %	93 %	100 %
Control Limits (46-137)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : JO
Date : 12-8-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31 Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-7	L40282-8	L40282-9
Client ID:	1-AW-7	2-AW-2	2-FW-3
Aroclor-1016	<5	<25	<2.5
Aroclor-1221	<5	<25	<2.5
Aroclor-1232	<5	<25	<2.5
Aroclor-1242	<5	<25	<2.5
Aroclor-1248	47.	150	51.
Aroclor-1254	37.	85.	39.
Aroclor-1260	<5	<25	<2.5
Analysis Date	12/03/97	12/03/97	12/02/97
Dilution Factor	2	10	1
Surrogate Recovery Control Limits (46-137)	114 %	0 % D	113 %

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : DP
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31

Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-10	L40282-11	L40282-12
Client ID:	2-FW-4	2-FW-5	2-FW-6
roclor-1016	<2.5	<2.5	<2.5
Aroclor-1221	<2.5	<2.5	<2.5
roclor-1232	<2.5	<2.5	<2.5
roclor-1242	<2.5	<2.5	<2.5
roclor-1248	8.3	10.	7.6
Aroclor-1254	9.5	4.8	7.0
roclor-1260	<2.5	<2.5	<2.5
nalysis Date	12/02/97	12/03/97	12/02/97
Dilution Factor	1	1	1
urrogate Recovery	111 %	112 %	111 %
Control Limits (46-137)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : [signature]
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31 Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-13	L40282-14	L40282-15
Client ID:	2-FW-7	2-AW-1	3-FW-1
Aroclor-1016	<2.5	<25	<2.5
Aroclor-1221	<2.5	<25	<2.5
Aroclor-1232	<2.5	<25	<2.5
Aroclor-1242	<2.5	<25	<2.5
Aroclor-1248	3.3	170	14.
Aroclor-1254	<2.5	150	8.6
Aroclor-1260	<2.5	<25	<2.5
Analysis Date	12/03/97	12/03/97	12/03/97
Dilution Factor	1	10	1
Surrogate Recovery	111 %	0 % D	112 %
Control Limits (46-137)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : [illegible]
Date : 12-9-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31 Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-16	L40282-17	L40282-18
Client ID:	3-FW-2	3-FW-3	3-FW-4
Aroclor-1016	<25	<5	<2.5
Aroclor-1221	<25	<5	<2.5
Aroclor-1232	<25	<5	<2.5
Aroclor-1242	<25	<5	<2.5
Aroclor-1248	100	60.	19.
Aroclor-1254	76.	38.	11.
Aroclor-1260	<25	<5	<2.5
Analysis Date	12/03/97	12/03/97	12/03/97
Dilution Factor	10	2	1
Surrogate Recovery	0 % D	118 %	108 %
Control Limits (46-137)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : JSO
Date : 12-9-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31

Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-25	L40282-26	L40282-27
Client ID:	2-EW-1	2-EW-2	2-EW-3
Aroclor-1016	<2.5	<25	<2.5
Aroclor-1221	<2.5	<25	<2.5
Aroclor-1232	<2.5	<25	<2.5
Aroclor-1242	<2.5	<25	<2.5
Aroclor-1248	12.	87.	2.5
Aroclor-1254	4.0	130	<2.5
Aroclor-1260	<2.5	<25	<2.5
Analysis Date	12/03/97	12/03/97	12/02/97
Dilution Factor	1	10	1
Surrogate Recovery	101 %	0 % D	103 %
Control Limits (46-137)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : [illegible]
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31 Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-28	L40282-29	L40282-30
Client ID:	3-EW-1	3-EW-2	3-EW-3
Aroclor-1016	<2.5	<2.5	<12
Aroclor-1221	<2.5	<2.5	<12
Aroclor-1232	<2.5	<2.5	<12
Aroclor-1242	<2.5	<2.5	<12
Aroclor-1248	8.1	6.4	180
Aroclor-1254	7.1	5.5	85.
Aroclor-1260	<2.5	<2.5	<12
Analysis Date	12/02/97	12/02/97	12/02/97
Dilution Factor	1	1	5
Surrogate Recovery	120 %	110 %	108 %
Control Limits (46-137)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : BSD
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31

Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-31	L40282-32	L40282-33
Client ID:	3-EW-4	3-EW-5	1-EW-1
Aroclor-1016	<2.5	<2.5	<2.5
Aroclor-1221	<2.5	<2.5	<2.5
Aroclor-1232	<2.5	<2.5	<2.5
Aroclor-1242	<2.5	<2.5	<2.5
Aroclor-1248	46.	<2.5	38.
Aroclor-1254	22.	<2.5	28.
Aroclor-1260	<2.5	<2.5	<2.5
Analysis Date	12/02/97	12/02/97	12/02/97
Dilution Factor	1	1	1
Surrogate Recovery	97 %	92 %	102 %
Control Limits (46-137)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : [illegible]
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31 Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	L40282-34	L40282-35	L40282-36
Client ID:	1-EW-2	1-EW-3	1-EW-4
Aroclor-1016	<50	<2.5	<12
Aroclor-1221	<50	<2.5	<12
Aroclor-1232	<50	<2.5	<12
Aroclor-1242	<50	<2.5	<12
Aroclor-1248	210	7.0	89.
Aroclor-1254	120	6.7	110
Aroclor-1260	<50	<2.5	<12
Analysis Date	12/02/97	12/02/97	12/02/97
Dilution Factor	20	1	5
Surrogate Recovery Control Limits (46-137)	0 % D	99 %	100 %

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : [illegible]
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31 Report Reference # : 94525

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 01-DEC-97

Matrix : Wipe
Method : SW846 8082
Units : ug

Galson ID:	Q-5147	Q-5148
Client ID:	PBLK 5147	PBLK 5148
Aroclor-1016	<2.5	<2.5
Aroclor-1221	<2.5	<2.5
Aroclor-1232	<2.5	<2.5
Aroclor-1242	<2.5	<2.5
Aroclor-1248	<2.5	<2.5
Aroclor-1254	<2.5	<2.5
Aroclor-1260	<2.5	<2.5
Analysis Date	12/02/97	12/02/97
Dilution Factor	1	1
Surrogate Recovery	112 %	113 %
Control Limits (46-137)		

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : RR
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.

Printed : 12/03/97 19:31

Report Reference # : 94525

PESTICIDE ANALYTICAL REPORT

Galson Laboratories

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 28-NOV-97

Matrix : Bulk
Methed : SW846-8082
Units : mg/Kg

Galson ID:	L40282-19	L40282-20	L40282-21
Client ID:	2-FC-1	2-FC-2	2-FC-3
Aroclor-1016	<350	<690	<3.5
Aroclor-1221	<350	<690	<3.5
Aroclor-1232	<350	<690	<3.5
Aroclor-1242	1900	<690	<3.5
Aroclor-1248	<350	2300	64.
Aroclor-1254	<350	3300	42.
Aroclor-1260	<350	<690	<3.5
Analysis Date	12/03/97	12/03/97	12/02/97
Dilution Factor	10000	20000	100
Surrogate Recovery	0 % D	0 % D	0 % D
Control Limits (60-150)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : BS
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.
See enclosed sheet for percent moisture values.
D: Surrogate diluted out.

Printed : 12/03/97 19:32 Report Reference # : 94538

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 28-NOV-97

Matrix : Bulk
Method : SW846-8082
Units : mg/Kg

Galson ID:	L40282-22	L40282-23	L40282-24
Client ID:	2-FC-4	2-FC-5	2-FC-6
Aroclor-1016	<7.1	<4000	<1.7
Aroclor-1221	<7.1	<4000	<1.7
Aroclor-1232	<7.1	<4000	<1.7
Aroclor-1242	<7.1	56000	<1.7
Aroclor-1248	91.	<4000	18.
Aroclor-1254	54.	<4000	10.
Aroclor-1260	<7.1	<4000	<1.7
Analysis Date	12/03/97	12/03/97	12/03/97
Dilution Factor	200	100000	50
Surrogate Recovery	0 % D	0 % D	0 % D
Control Limits (60-150)			

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : SR
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.
See enclosed sheet for percent moisture values.
D: Surrogate diluted out.

Printed : 12/03/97 19:32 Report Reference # : 94538

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 24-NOV-97
Date Extracted: 28-NOV-97

Matrix : Bulk
Method : SW846-8082
Units : mg/Kg

Galson ID:	L40282-37	L40282-38	L40282-39
Client ID:	3-FC-1	3-WC-1	3-FC-2
Aroclor-1016	<7.2	<0.17	<36
Aroclor-1221	<7.2	<0.17	<36
Aroclor-1232	<7.2	<0.17	<36
Aroclor-1242	<7.2	<0.17	<36
Aroclor-1248	58.	1.5	140
Aroclor-1254	28.	0.98	64.
Aroclor-1260	<7.2	<0.17	<36
Analysis Date	12/03/97	12/02/97	12/02/97
Dilution Factor	200	10	1000
Surrogate Recovery Control Limits (60-150)	0 % D	0 % D	0 % D

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : BG
Date : 12-4-97
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.
See enclosed sheet for percent moisture values.
D: Surrogate diluted out.

Printed : 12/03/97 19:32 Report Reference # : 94538

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists
6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

1 of 4

CHAIN OF CUSTODY RECORD

PROJ. NO. 97.003.91 | PROJECT NAME: AEROVOX SAMPLING PROGRAM

SAMPLERS: (Signature) Bruce Carlson

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	PCBs	
	11/24/97	16:00		X	1-FW-1	1	X	Blasland, Bouck & Lee 11/26/97 Wipe 1-FW-1 L40282-1
	11/24/97	16:05		X	1-AW-2	1	X	Lee 1-AW-2 L40282-2
	11/24/97	16:10		X	1-FW-3	1	X	Lee 1-FW-3 L40282-3
	11/24/97	16:15		X	1-WW-4	1	X	Lee 1-WW-4 L40282-4
	11/24/97	16:20		X	1-FW-5	1	X	Lee 1-FW-5 L40282-5
	11/24/97	16:25		X	1-AW-6	1	X	Lee 1-AW-6 L40282-6
	11/24/97	16:30		X	1-AW-7	1		Lee 1-AW-7 L40282-7
	11/24/97	17:05		X	2-AW-2	1	X	Lee 2-AW-2 L40282-8
	11/24/97	17:30		X	2-FW-3	1	X	Lee 2-FW-3 L40282-9
	11/24/97	17:40		X	2-FW-4	1	X	Lee 2-FW-4 L40282-10
	11/24/97	17:50		X	2-FW-5	1	X	Lee 2-FW-5 L40282-11
	11/24/97	17:55		X	2-FW-6	1	X	Lee L40282-12
	11/24/97	18:05		X	2-FW-7	1	X	Lee L40282-13
	11/24/97	1635		X	2-AW-1	1	X	Lee 2-AW-1 L40282-14

ASAP TURNAROUND

OF

cooler temp 5.6°C TS (TS)

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
	11/25/97	1600	
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)

Relinqu	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
	11-26-97	1032	

Remarks: SENT TO GALSON LABORATORIES FED EX # 609468 0491

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists
6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

CHAIN OF CUSTODY RECORD

PROJ. NO. 97.00.01 | PROJECT NAME: AEROVOX SAMPLING PROGRAM

SAMPLERS: (Signature) Bruce Einhaus

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	PCBs		REMARKS
	11/24/97	18:20		X	3-FW-1	1	X	L40282-15	ASAP TURNAROUND
	11-24-97	18:30		X	3-FW-2	1	X	L40282-16	
	11-24-97	18:40		X	3-FW-3	1	X	L40282-17	
	11-24-97	18:50		X	3-FW-4	1	X	L40282-18	
		1445		X	2-FC-1	1	X	L40282-19	OF
		1500		X	2-FC-2	1	X	L40282-20	56°F TS (TC)
		1510		X	2-FC-3	1	X	L40282-21	
		1545		X	2-FC-4	1	X	L40282-22	
		1555		X	2-FC-5	1	X	L40282-23	
		1610		X	2-FC-6	1	X	L40282-24	
		1735		X	2-EW-1	1	X	L40282-25	
		1745		X	2-EW-2	1	X	L40282-26	
		1800		X	2-EW-3	1	X	L40282-27	
		1810		X	3-EW-1	1	X	L40282-28	

	DATE	TIME			DATE	TIME	
Relinquished by: (Signature)	11/24/97	1600	Received by: (Signature)	Relinquished by: (Signature)			Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE: 11-24-97	TIME: 1050		Remarks: SENT TO GALSON LABORATORY FED EX# 609 468 0491

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 25-NOV-97
Date Extracted: 28-NOV-97

Matrix : Bulk
Method : SW846-8082
Units : mg/Kg

Galson ID:	L40298-9	L40298-10	L40298-11
Client ID:	1-DD-3	1-DD-4	1-DD-5
Aroclor-1016	<17	<170	<84
Aroclor-1221	<17	<170	<84
Aroclor-1232	<17	<170	<84
Aroclor-1242	<17	<170	<84
Aroclor-1248	180	1300	600
Aroclor-1254	240	710	350
Aroclor-1260	<17	<170	<84
Analysis Date	12/03/97	12/03/97	12/03/97
Dilution Factor	1000	10000	5000
Surrogate Recovery Control Limits (60-150)	0 % D	0 % D	0 % D

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : [illegible]
Date : 12-3-97
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.
See enclosed sheet for percent moisture values.
D: Surrogate diluted out.

Printed : 12/03/97 16:25

Report Reference # : 94534

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : Aerovox Sampling Program

Date Received : 26-NOV-97
Date Sampled : 25-NOV-97
Date Extracted: 28-NOV-97

Matrix : Bulk
Method : SW846-8082
Units : mg/Kg

Galson ID:	L40298-12	Q-5146
Client ID:	1-DD-6	PBLK 5146
Aroclor-1016	<34	<0.02
Aroclor-1221	<34	<0.02
Aroclor-1232	<34	<0.02
Aroclor-1242	<34	<0.02
Aroclor-1248	180	<0.02
Aroclor-1254	88.	<0.02
Aroclor-1260	<34	<0.02
Analysis Date	12/03/97	12/03/97
Dilution Factor	2000	1
Surrogate Recovery Control Limits (60-150)	0 % D	89 %

Approved by : Oommen Kappil
Date : 03-DEC-97
QC by : [illegible]
Date : 12.3.97
NYS DOH # : 11626
Footnotes:

Results are reported on a dry weight basis.
See enclosed sheet for percent moisture values.
D: Surrogate diluted out.

Printed : 12/03/97 16:25

Report Reference # : 94534

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : AEROVOX

Date Received : 13-FEB-98
Date Sampled : 11-FEB-98 - 12-FEB-98
Date Extracted: 14-FEB-98

Matrix : Soil
Method : SW846 8082
Units : ug/Kg

Galson ID:	L41423-7	L41423-8	L41423-9
Client ID:	1D7 (0-2)	1D7 (0-2)MS	1D7 (0-2)MSD
Aroclor-1016	<1800000	<1800000	<1800000
Aroclor-1221	<1800000	<1800000	<1800000
Aroclor-1232	<1800000	<1800000	<1800000
Aroclor-1242	<1800000	<1800000	<1800000
Aroclor-1248	14000000	14000000	15000000
Aroclor-1254	<1800000	<1800000	<1800000
Aroclor-1260	<1800000	<1800000	<1800000
Percent Moisture (%)	9	8	9
Analysis Date	02/17/98	02/17/98	02/17/98
Dilution Factor	100000	100000	100000
Surrogate Recovery	0 % D	0 % D	0 % D
Control Limits (57-150)			

Approved by : Oommen Kappil
Date : 17-FEB-98
QC by :
Date : 2/23/98
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.
Results are reported on a dry weight basis.

Printed : 02/23/98 10:47 Report Reference # : 97824

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : AEROVOX

Date Received : 13-FEB-98
Date Sampled : 11-FEB-98 - 12-FEB-98
Date Extracted: 14-FEB-98

Matrix : Soil
Method : SW846 8082
Units : ug/Kg

Galson ID:	L41423-11	L41423-13	L41423-15
Client ID:	1B6 (0-2)	1B10 (0-2)	1B8 (0-2)
Aroclor-1016	<1800000	<1800	<190000
Aroclor-1221	<1800000	<1800	<190000
Aroclor-1232	<1800000	<1800	<190000
Aroclor-1242	<1800000	<1800	<190000
Aroclor-1248	<1800000	6700	<190000
Aroclor-1254	18000000	5100	1800000
Aroclor-1260	<1800000	<1800	<190000
Percent Moisture (%)	7	7	18
Analysis Date	02/17/98	02/20/98	02/17/98
Dilution Factor	100000	100	10000
Surrogate Recovery Control Limits (57-150)	0 % D	0 % D	0 % D

Approved by : Oommen Kappil
Date : 17-FEB-98
QC by :
Date : 2/23/98
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.
Results are reported on a dry weight basis.

Printed : 02/23/98 10:47 Report Reference # : 97824

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : AEROVOX

Date Received : 13-FEB-98
Date Sampled : 11-FEB-98 - 12-FEB-98
Date Extracted: 14-FEB-98

Matrix : Soil
Method : SW846 8082
Units : ug/Kg

Galson ID:	L41423-17	L41423-19	L41423-21
Client ID:	1H6 (0-2)	1F7 (0-2)	1F10 (0-2)
Aroclor-1016	<180	<1800	<1700
Aroclor-1221	<180	<1800	<1700
Aroclor-1232	<180	<1800	<1700
Aroclor-1242	<180	<1800	<1700
Aroclor-1248	1500	6800	8600
Aroclor-1254	800	6200	3800
Aroclor-1260	<180	<1800	<1700
Percent Moisture (%)	11	7	4
Analysis Date	02/20/98	02/20/98	02/20/98
Dilution Factor	10	100	100
Surrogate Recovery Control Limits (57-150)	0 % D	0 % D	0 % D

Approved by : Oommen Kappil
Date : 17-FEB-98
QC by :
Date : 2/23/98
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.
Results are reported on a dry weight basis.

Printed : 02/23/98 10:47 Report Reference # : 97824

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : AEROVOX

Date Received : 13-FEB-98
Date Sampled : 11-FEB-98 - 12-FEB-98
Date Extracted: 14-FEB-98

Matrix : Soil
Method : SW846 8082
Units : ug/Kg

Galson ID:	L41423-23	L41423-25	L41423-27
Client ID:	1B20 (0-2)	1B35 (0-2)	1C52 (0-2)
Aroclor-1016	<170	<1800	<16
Aroclor-1221	<170	<1800	<16
Aroclor-1232	<170	<1800	<16
Aroclor-1242	<170	<1800	<16
Aroclor-1248	400	14000	140
Aroclor-1254	540	5600	78.
Aroclor-1260	<170	<1800	<16
Percent Moisture (%)	7	10	0
Analysis Date	02/20/98	02/20/98	02/23/98
Dilution Factor	10	100	1
Surrogate Recovery Control Limits (57-150)	0 % D	0 % D	59 %

Approved by : Oommen Kappil
Date : 17-FEB-98
QC by :
Date 2/23/98
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.
Results are reported on a dry weight basis.

Printed : 02/23/98 10:47 Report Reference # : 97824

Galson Laboratories

PESTICIDE ANALYTICAL REPORT

Client : Blasland, Bouck & Lee
Account # : 10624
Site : AEROVOX

Date Received : 13-FEB-98
Date Sampled : 11-FEB-98 - 12-FEB-98
Date Extracted: 14-FEB-98

Matrix : Soil
Method : SW846 8082
Units : ug/Kg

Galson ID:	L41423-29	L41423-32	Q-5299
Client ID:	1E38 (0-2)	AV-DUP-1	PBLK 5299
Aroclor-1016	<170	<1700	<17
Arcclor-1221	<170	<1700	<17
Arcclor-1232	<170	<1700	<17
Aroclor-1242	<170	<1700	<17
Aroclor-1248	320	8600	<17
Aroclor-1254	300	3900	<17
Aroclor-1260	<170	<1700	<17
Percent Moisture (%)	6	5	NA
Analysis Date	02/20/98	02/20/98	02/16/98
Dilution Factor	10	100	1
Surrogate Recovery Control Limits (57-150)	0 % D	0 % D	82 %

Approved by : Oommen Kappil
Date : 17-FEB-98
QC by :
Date : 2/23/98
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.
Results are reported on a dry weight basis.

Printed : 02/23/98 10:47 Report Reference # : 97824

PESTICIDE ANALYTICAL REPORT

Galson Laboratories

Client : Blasland, Bouck & Lee
Account # : 10624
Site : AEROVOX

Date Received : 13-FEB-98
Date Sampled : 11-FEB-98 - 12-FEB-98
Date Extracted: 14-FEB-98

Matrix : Soil
Method : SW846 8082
Units : ug/Kg

Galson ID:	L41423-1	L41423-3	L41423-5
Client ID:	1D63 (0-2)	1E59 (0-2)	1C5 (0-2)
Aroclor-1016	<16000	<170	<170000
Aroclor-1221	<16000	<170	<170000
Aroclor-1232	<16000	<170	<170000
Aroclor-1242	<16000	<170	<170000
Aroclor-1248	180000	800	980000
Aroclor-1254	<16000	250	<170000
Aroclor-1260	<16000	<170	<170000
Percent Moisture (%)	2	4	7
Analysis Date	02/16/98	02/20/98	02/17/98
Dilution Factor	1000	10	10000
Surrogate Recovery Control Limits (57-150)	0 % D	0 % D	0 % D

Approved by : Oommen Kappil
Date : 17-FEB-98
QC by :
Date : 2/23/98
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.
Results are reported on a dry weight basis.

Printed : 02/23/98 10:47 Report Reference # : 97824

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists
6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

(*) Contact Dave Ulm of BBL for * Hold
possible analysis, and for Sample Results
(*)² - Need Results by Tuesday 2/17/98

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
038.55.001	AEROVOX SOIL SAMPLING BELOW CONCRETE FLOOR

LAB ID	CUSTODY TAPE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE TYPE: SOLID	SAMPLE TYPE: WIPE	SAMPLE TYPE: WATER	Number of Containers	VOC's	REMARKS
1D63	(0-2")	2/11/98	1717		X	X			1	X	
1D63	(2'-6")		1717		X	X			1	X	* Hold, Do not analyze
1E59	(0-2")		1803		X	X			1	X	
1E59	(2'-6")		1803		X	X			1	X	* Hold
1C5	(0-2")		1852		X	X			1	X	
1C5	(2'-6")		1852		X	X			1	X	* Hold
1D7	(0-2")		1946		X	X			1	X	(*) MS/MSD
1D7	(2"-6")		1946		X	X			1	X	* Hold
1B6	(0-2")		2015		X	X			1	X	
1B6	(2'-6")		2015		X	X			1	X	* Hold
1B10	(0-2")		2045		X	X			1	X	
1B10	(2'-6")		2045		X	X			1	X	* Hold
1B8	(0-2")		2128		X	X			1	X	
1B8	(2'-6")	V	2128		X	X			1	X	* Hold

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Todd E. Musser	2/12/98	1200					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE: 2-13-98	TIME: 1020	Remarks: SENT TO GALSON FED EX # 861952476256	

BBL
BLASLAND, BOUCK & LEE, INC
engineers & scientists
6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

CHAIN OF CUSTODY RECORD

PROJECT NO. 038.55 | PROJECT NAME AEROVOX SOIL SAMPLING BELOW CONCRETE FLOOR

LAB ID	CUSTODY TAPE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE TYPE: SOLID	SAMPLE TYPE: WIPE	SAMPLE TYPE: WATER	Number of Containers	PCB's	REMARKS
1H6	(0-2"	2/11/98	2211		X	X			1	X	
1H6	(2-6"		2211		X	X			1	X	* Hold
1F7	(0-2"		2305		X	X			1	X	
1F7	(2-6"		2305		X	X			1	X	* Hold
1F10	(0-2"	2/12/98	0043		X	X			1	X	
1F10	(2-6"		0043		X	X			1	X	* Hold
1B20	(0-2"		0828		X	X			1	X	
1B20	(2-6"		0828		X	X			1	X	* Hold
1B35	(0-2"		0951		X	X			1	X	
1B35	(2-6"		0951		X	X			1	X	* Hold
1C52	(0-2"		1018		X	X			1	X	
1C52	(2-6"		1018		X	X			1	X	* Hold
1E38	(0-2"		[illegible]		X	X			1	X	
1E38	(2-6"		[illegible]		X	X			1	X	* Hold

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Todd V. Howard	2/12/98	1800					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE: 2-13-98	TIME: 1020	Remarks: SENT TO GALSON FED EX # 881952470258	

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists
6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
038-55.001	AERO-JOX SOIL SAMPLING BELOW CONCRETE FLOOR

LAB ID	CUSTODY TAPE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE TYPE: SOLID	SAMPLE TYPE: WIPE	SAMPLE TYPE: WATER	Number of Containers	PCBs	REMARKS
AV-RB-1		2/12/98	1130		X			X	1	X	
AV-DUP-1		2/12/98	—		X	X			1	X	
										Cooler temp 4°C TB	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Todd Klimek	2/12/98	1845					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE: 2-13-98	TIME: 1020	Remarks: SENT TO	

PESTICIDE ANALYTICAL REPORT

Galson Laboratories

Client : Blasland, Bouck & Lee
Account # : 10624
Site : AEROVOX

Date Received : 13-FEB-98
Date Sampled : 11-FEB-98
Date Extracted: 19-FEB-98

Matrix : Soil
Method : SW846 8082
Units : ug/Kg

Galson ID:	L41468-1	L41468-2	Q-5309
Client ID:	1D7 2-6	1B6 2-6	PBLK 5309
Aroclor-1016	<170000	<180000	<17
Aroclor-1221	<170000	<180000	<17
Aroclor-1232	<170000	<180000	<17
Aroclor-1242	<170000	<180000	<17
Aroclor-1248	3300000	<180000	<17
Aroclor-1254	1600000	3200000	<17
Aroclor-1260	<170000	<180000	<17
Percent Moisture (%)	3	9	NA
Analysis Date	02/19/98	02/19/98	02/19/98
Dilution Factor	10000	10000	1
Surrogate Recovery Control Limits (57-150)	% D	% D	91 %

Approved by : Oommen Kappil
Date : 20-FEB-98
QC by :
Date : 2/20/98
NYS DOH # : 11626
Footnotes:
D: Surrogate diluted out.
Results are reported on a dry weight basis.

Printed : 02/20/98 09:42

Report Reference # : 98011

1 of 3

BBL
BLASLAND, BOUCK & LEE, INC
engineers & scientists
6723 Towpath Road, P.O. Box 66
Syracuse, New York 13214-0066
TEL: (315) 446-9120

(*) Contact Dave Ulm of BBL for * Hold possible analysis, and for sample Results

(*)² - Need Results by Tuesday 2/17/98

CHAIN OF CUSTODY RECORD

PROJECT NO. 038.55.001

PROJECT NAME AEROVOX SOIL SAMPLING BELOW CONCRETE FLOOR

LAB ID	CUSTODY TAPE NUMBER INT.	DATE	TIME	COMP.	GRAB	SAMPLE TYPE SOLID	SAMPLE TYPE WIPE	SAMPLE TYPE WATER	Number of Containers	PCBs					REMARKS
1D63	(0-2")	2/11/98	1717		X	X			1	X					
1D63	(2"-6")		1717		X	X			1	X					* Hold, Do not analyze
1E59	(0-2"		1803		X	X			1	X					
1E59	(2"-6"		1803		X	X			1	X					* Hold
1C5	(0-2"		1852		X	X			1	X					
1C5	(2"-6"		1852		X	X			1	X					* Hold
1D7	(0-2"		1946		X	X			1	X					(*) MS/MSD
1D7	(2"-6"		1946		X	X			1	X					* Hold
1B6	(0-2"		2015		X	X			1	X					
1B6	(2"-6"		2015		X	X			1	X					* Hold
1B10	(0-2"		2045		X	X			1	X					
1B10	(2"-6"		2045		X	X			1	X					* Hold
1B8	(0-2"		2128		X	X			1	X					
1B8	(2"-6"		2128		X	X			1	X					* Hold

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Todd C. Menard	2/12/98	1800					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE	TIME	Remarks: SENT TO GALSON	
				2-13-98	1020	FED EX # 801952476256	

Appendix B
Building Material Volume and Mass Calculations

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Appendix B

Aerovox, Inc. Facility
New Bedford, Massachusetts

Building Material Volume and Mass Calculations

The calculations presented in Table B were performed in order to estimate the mass and volume of materials which would be generated during the demolition activities of the Aerovox, Inc. (Aerovox) facility, located in New Bedford, Massachusetts. These calculations are approximate and are intended for the purpose of estimating the cost of remedial measures which can be applied to address the presence of polychlorinated biphenyls (PCBs) at the Aerovox facility. It should be noted that calculations are based on the average densities of select solids[1], and no voids (empty spaces) were assumed in the materials. Therefore, the actual volume of the materials to be generated during the demolition activities will increase from those presented in Table B. As such, a volume bulking factor of 1.5 has been applied to volumes presented in tables B1 and B2 for wood material in order to better estimate transportation and disposal costs. A description and explanation of the terms used in Table B is presented below.

Basic Units:

For ease of calculation and manipulation of volume/mass estimates, "basic units" were created. A "basic unit" is specified in the column labeled "Unit", and may be a linear foot (lin ft) of the structure, such as wall, steel beam, etc., a square foot (sq ft) of a structure, such as wall, floor, etc., or individual "unit" (each), such as window, wooden column, etc. Based on the average densities and known dimensions of the "basic unit", the volume (Volume per Unit) and mass (Mass per Unit) of the "basic unit" were calculated. In cases, where "basic unit" consisted of material with the same average density, but the size of the "basic unit" varies (for example 4" thick and 5" thick brick wall), the appropriate dimensions were listed in column labeled "Size".

Volume/Mass Calculations:

The facility was divided into Eastern Section and Western Section, and then each section was divided by floors (levels). This layout provides a mechanism to determine the volume/mass of the separate sections of the building, as needed.

In order to determine the volume/mass of the structure(s) (such as brick wall), the number of the "basic units" (sq ft) of which the structure(s) consist was determined, and then multiplied by the "Volume per Unit" and "Mass per Unit", respectively. The results of the mass and volume calculations created the basis for demolition/cleanup cost presented in Table 3, 4, and 5 of this document.

Assumptions:

1. [1] - Average densities of the select materials based on data presented in "Handbook of Chemistry and Physics", 76th Edition, 1996.
2. Each level's volume and mass do not include the ceiling (except for the roof of the building). The volume/mass of each ceiling is calculated as the floor of the next higher level.

Table B-1

Aerovox, Inc. Facility

Building Material Volume and Mass Calculations

Basic Units:

						Western Section:					
						1st Floor			2nd Floor		
Structure	**Size**	**Volume Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Concrete Wall:	1' thick	3	540	lin. ft.	1432	4296	773280		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.	96920	48460	8722800	15000	7500	1350000
Brick Walls:	12" thick	1	112	sq. ft.	5064	5064	567168	3006	3006	336672
	16" thick	1.333	150	sq. ft.	13239	17647.59	1985850	4704	6270.432	705600
						0	0		0	0
Wooden Walls/Floor	4" thick	0.333	9	sq. ft.	5986	1993.338	53874		0	0
	5" thick	0.416	11.25	sq. ft.		0	0	81650	33966.4	918562.5
						0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.	1100	1001	40150		0	0
2"X4" stud every 2'	10' high	1.01	40.5	lin. ft.	180	181.8	7290	2500	2525	101250
	12' high	1.22	48.7	lin. ft.	550	671	26785		0	0
						0	0		0	0
Wooden Columns	9' high	3.14	138	each	176	552.64	24288		0	0
8" diameter	10' high	3.5	154	each	25	87.5	3850		0	0
	12" high	4.18	184	each	108	451.44	19872		0	0
	16' high	5.6	246	each		0	0	84	470.4	20664
									0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.	9320	1183.64	577840	4583	582.041	284146
						0	0		0	0
Steel Plate	0.5" thick	0.04	19.48	sq. ft.		0	0	3925	157	76459
						0	0		0	0
Windows:	1" plyw'd	5.83	221	each		0	0		0	0
6' X 11'	1/64" met	0.09	44.7	each		0	0		0	0
		5.92	265.7	each		0	0	26	153.92	6908.2
Total square feet/pounds:						81589.95	1.3E+07		54631.19	3800262
Total cubic yards:						**3022.092**	**cu. yds.**		**2023.539**	**cu. yds.**
Total Tons:						**6401.524**	**Tons**		**1900.131**	**Tons**

Roof - Western Section: **1875** **cubic yards**
658 **Tons**

Table B-1 - cont.

Aerovox, Inc. Facility

Building Material Volume and Mass Calculations

Eastern Section

Basic Units:

Structure	Size	Volume Per Unit [cf]	Mass Per Unit [lb]	Unit	1st Floor No. of Units	1st Floor Volume [cf]	1st Floor Mass [lb]	2nd Floor No. of Units	2nd Floor Volume [cf]	2nd Floor Mass [lb]	3rd Floor No. of Units	3rd Floor Volume [cf]	3rd Floor Mass [lb]
Base Wall:	1' thick	3	540	lin. ft.	1425	4275	769500	0	0	0	0	0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.	85214	42607	7669260	0	0	0	0	0	0
						0	0		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.	2246	2246	251552	2325	2325	260400	3525	3525	394800
	16" thick	1.333	150	sq. ft.	4194	5590.602	629100	7650	10197.45	1147500	8116	10818.63	1217400
						0	0		0	0		0	0
Wooden Walls/Floor:	4" thick	0.333	9	sq. ft.	3564	1186.812	32076	0	0	0		0	0
	5" thick	0.416	11.25	sq. ft.	0	0	0	86182	35851.71	969547.5	86182	35851.71	969547.5
						0	0		0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.	0	0	0	0	0	0		0	0
2"X4" stud every 2 ft	10' high	1.01	40.5	lin. ft.	0	0	0	0	0	0		0	0
	12' high	1.22	48.7	lin. ft.	0	0	0	0	0	0		0	0
						0	0		0	0		0	0
Particle Board Wall:	10' high	1.01	36.4	lin. ft.				2365	2388.65	86086	2320	2343.2	84448
0.5" thick board	12' high	1.22	43.68	lin. ft.	3100	3782	135408	0	0	0		0	0
2"X4" stud every 2'	16' high	1.62	58.24	lin. ft.		0	0	0	0	0		0	0
									0	0		0	0
Wooden Columns	9' high	3.14	138	each	0	0	0	0	0	0		0	0
8" diameter	10' high	3.5	154	each	0	0	0	0	0	0		0	0
	12' high	4.18	184	each	220	919.6	40480	0	0	0		0	0
	16' high	5.6	246	each		0	0	220	1232	54120		0	0
	17' high	5.95	261.8	each							220	1309	57596
												0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.	7535	956.945	467170	7535	956.945	467170	7535	956.945	467170
Steel Plate:	0.5" thick	0.04	19.48	sq. ft.		0	0	4728	189.12	92101.44		0	0
									0	0		0	0
Windows:	1" plyw'd	8.91	338	each		0	0		0	0		0	0
8' X 13'	1/64" met	0.14	68	each		0	0		0	0		0	0
		9.05	406	each	56	506.8	22736	119	1076.95	48314	119	1076.95	48314
Total square feet/pounds:						62070.76	1E+07		54217.83	3125239		55881.44	3239276
Total cubic yards:						**2299.101**	**cu. yds.**		**2008.228**	**cu. yds.**		**2069.848**	**cu. yds.**
Total Tons:						**5008.641**	**Tons**		**1562.619**	**Tons**		**1619.638**	**Tons**

Roof - Eastern Section: **1474** **cubic yards**
517 **Tons**

TOTAL BUILDING MATERIAL VOLUME: **14771.81** **cubic yards**
TOTAL BUILDING MATERIAL MASS: **17667.55** **Tons**

Table B-2

Aerovox, inc. Facility

Materials to TSCA Landfill Under Option #1 (Excluding Concrete Floor at Grade)

Basic Units:

					Western Section:					
					1st Floor			2nd Floor		
Structure	Size	Volume Per Unit [cf]	Mass Per Unit [lb]	Unit	No. of Units	Volume [cf]	Mass [lb]	No. of Units	Volume [cf]	Mass [lb]
Base Concrete Wall:	1' thick	3	540	lin. ft.		0	0		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.		0	0	15000	7500	1350000
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0
						0	0		0	0
Wooden Walls/Floor:	4" thick	0.333	9	sq. ft.	3186	1060.938	28674		0	0
	5" thick	0.416	11.25	sq. ft.		0	0	56650	23566.4	637312.5
						0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0
2"X4" stud every 2'	10' high	1.01	40.5	lin. ft.		0	0		0	0
	12' hi h	1.22	48.7	liq. ft.		0	0		0	0
						0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0
	12" high	4.18	184	each		0	0		0	0
	16' high	5.6	246	each		0	0		0	0
									0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0
						0	0		0	0
Steel Plate	0.5" thick	0.04	19.48	sq. ft.		0	0		0	0
						0	0		0	0
Windows:	1" plyw'd	5.83	221	each		0	0		0	0
6' X 11'	1/64" met	0.09	44.7	each		0	0		0	0
		5.92	265.7	each		0	0		0	0
Total square feet/pounds:						1060.938	28674		31066.4	1987313
Total cubic yards:						**39.29714**	**cu. yds.**		**1150.699**	**cu. yds.**
Total Tons:						**14.337**	**Tons**		**993.6563**	**Tons**

Table B-2 - cont.

Aerovox, Inc. Facility

Materials to TSCA Landfill Under Option #1 (Excluding Concrete Floor at Grade)

Eastern Section

Basic Units:

					1st Floor			2nd Floor			3rd Floor		
Structure	**Size**	**Volume Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Wall:	1' thick	3	540	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Wooden Walls/Floor:	4" thick	0.333	9	sq. ft.	3564	1186.812	32076		0	0		0	0
	5" thick	0.416	11.25	sq. ft.		0	0	86182	35851.71	969547.5	86182	35851.71	969547.5
						0	0		0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2 ft	10' high	1.01	40.5	lin. ft.		0	0		0	0		0	0
	12' hi h	1.22	48.7	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Particle Board Wall:	10' high	1.01	36.4	lin. ft.					0	0		0	0
0.5" thick board	12' high	1.22	43.68	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2'	16' high	1.62	58.24	lin. ft.		0	0		0	0		0	0
									0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0		0	0
	12' high	4.18	184	each		0	0		0	0		0	0
	16' high	5.6	246	each		0	0		0	0		0	0
	17' hi h	5.95	261.8	each								0	0
												0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0		0	0
Steel Plate:	0.5" thick	0.04	19.48	sq ft.		0	0		0	0		0	0
									0	0		0	0
Windows:	1" plyw'd	8.91	338	each		0	0		0	0		0	0
8' X 13'	1/64" met	0.14	68	each		0	0		0	0		0	0
		9.05	406	each		0	0		0	0		0	0
Total square feet/pounds:						1186.812	32076		35851.71	969547.5		35851.71	969547.5
Total cubic yards:						**43.95952**	**cu. yds.**		**1327.947**	**cu. yds.**		**1327.947**	**cu. yds.**
Total Tons:						**16.038**	**Tons**		**484.7738**	**Tons**		**484.7738**	**Tons**

TOTAL TSCA MATERIAL VOLUME: **3889.851 cubic yards**
TOTAL TSCA MATERIAL MASS: **1993.579 Tons**

Table B-3

Aerovox, Inc. Facility

Materials to TSCA Landfill Under Option #2 (Including a Portion of the Concrete Floor at Grade)

Basic Units:

					Western Section:					
					1st Floor			2nd Floor		
Structure	**Size**	**Volumo Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Concrete Wall:	1' thick	3	540	lin. ft.		0	0		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.	96920	48460	8722800	15000	7500	1350000
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0
						0	0		0	0
Wooden Walls/Floor:	4" thick	0.333	9	sq. ft.	3186	1060.938	28674		0	0
	5" thick	0.416	11.25	sq. ft.		0	0	56650	23566.4	637312.5
						0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0
2"X4" stud every 2'	10' high	1.01	40.5	lin. ft.		0	0		0	0
	12' high	1.22	48.7	lin. ft.		0	0		0	0
						0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0
	12" high	4.18	184	each		0	0		0	0
	16' high	5.6	246	each		0	0		0	0
									0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0
						0	0		0	0
Steel Plate	0.5" thick	0.04	19.48	sq. ft.		0	0		0	0
						0	0		0	0
Windows:	1" plyw'd	5.83	221	each		0	0		0	0
6' X 11'	1/64" met	0.09	44.7	each		0	0		0	0
		5.92	265.7	each		0	0		0	0
Total square feet/pounds:						49520.94	8751474		31066.4	1987313
Total cubic yards:						**1834.256**	**cu. yds.**		**1150.699**	**cu. yds.**
Total Tons:						**4375.737**	**Tons**		**993.6563**	**Tons**

Table B-3 - cont.

Aerovox, Inc. Facility

Materials to TSCA Landfill Under Option #2 (Including a Portion of the Concrete Floor at Grade)

Eastern Section

Basic Units:

Structure	Size	Volume Per Unit [cf]	Mass Per Unit [lb]	Unit	1st Floor No. of Units	1st Floor Volume [cf]	1st Floor Mass [lb]	2nd Floor No. of Units	2nd Floor Volume [cf]	2nd Floor Mass [lb]	3rd Floor No. of Units	3rd Floor Volume [cf]	3rd Floor Mass [lb]
Base Wall:	1' thick	3	540	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Wocden Walls/Floor:	4" thick	0.333	9	sq. ft.	3564	1186.812	32076		0	0		0	0
	5" thick	0.416	11.25	s q ft.		0	0	86182	35851.71	969547.5	86182	35851.71	969547.5
						0	0		0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2 ft	10' high	1.01	40.5	lin. ft.		0	0		0	0		0	0
	12' hi h	1.22	48.7	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Particle Board Wall:	10' high	1.01	36.4	lin. ft.					0	0		0	0
0.5" thick board	12' high	1.22	43.68	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2'	16' high	1.62	58.24	lin. ft.		0	0		0	0		0	0
									0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0		0	0
	12' high	4.18	184	each		0	0		0	0		0	0
	16' high	5.6	246	each		0	0		0	0		0	0
	17' high	5.95	261.8	each								0	0
												0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0		0	0
Steel Plate:	0.5" thick	0.04	19.48	s . ft.		0	0		0	0		0	0
									0	0		0	0
Windows:	1" plyw'd	8.91	338	each		0	0		0	0		0	0
8' X 13'	1/64" met	0.14	68	each		0	0		0	0		0	0
		9.05	406	each		0	0		0	0		0	0
Total square feet/pounds:						1186.812	32076		35851.71	969547.5		35851.71	969547.5
Total cubic yards:						**43.95952**	**cu. yds.**		**1327.947**	**cu. yds.**		**1327.947**	**cu. yds.**
Total Tons:						**16.038**	**Tons**		**484.7738**	**Tons**		**484.7738**	**Tons**

TOTAL TSCA MATERIAL VOLUME: **5684.809 cubic yards**
TOTAL TSCA MATERIAL MASS: **6354.979 Tons**

Table B-4

Aerovox, Inc. Facility

Materials to TSCA Landfill Under Option #3 (Including Entire Concrete Floor at Grade)

Basic Units:

					Western Section:					
					1st Floor			2nd Floor		
Structure	**Size**	**Volume Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Concrete Wall:	1' thick	3	540	lin. ft.		0	0		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.	96920	48460	8722800	15000	7500	1350000
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0
						0	0		0	0
Wooden Walls/Floor:	4" thick	0.333	9	sq. ft.	3186	1060.938	28674		0	0
	5" thick	0.416	11.25	sq. ft.		0	0	56650	23566.4	637312.5
						0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0
2"X4" stud every 2'	10' high	1.01	40.5	lin. ft.		0	0		0	0
	12' high	1.22	48.7	lin. ft.		0	0		0	0
						0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0
	12" high	4.18	184	each		0	0		0	0
	16' high	5.6	246	each		0	0		0	0
									0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0
						0	0		0	0
Steel Plate	0.5" thick	0.04	19.48	sq. ft.		0	0		0	0
						0	0		0	0
Windows:	1" plyw'd	5.83	221	each		0	0		0	0
6' X 11'	1/64" met	0.09	44.7	each		0	0		0	0
		5.92	265.7	each		0	0		0	0
Total square feet/pounds:						49520.94	8751474		31066.4	1987313
Total cubic yards:						**1834.256**	**cu. yds.**		**1150.699**	**cu. yds.**
Total Tons:						**4375.737**	**Tons**		**993.6563**	**Tons**

Table B-4 - cont.

Aerovox, Inc. Facility

Materials to TSCA Landfill Under Option #3 (Including Entire Concrete Floor at Grade)

Eastern Section

Basic Units:

					1st Floor			2nd Floor			3rd Floor		
Structure	**Size**	**Volume Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Wall:	1' thick	3	540	lin. ft.		0	0		0	0		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.	85214	42607	7669260		0	0		0	0
						0	0		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Wooden Walls/Floor	4" thick	0.333	9	sq. ft.	3564	1186.812	32076		0	0		0	0
	5" thick	0.416	11.25	sq. ft.		0	0	86182	35851.71	969547.5	86182	35851.71	969547.5
						0	0		0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2 ft	10' high	1.01	40.5	lin. ft.		0	0		0	0		0	0
	12' hi h	1.22	48.7	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Particle Board Wall:	10' high	1.01	36.4	lin. ft.					0	0		0	0
0.5" thick board	12' high	1.22	43.68	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2'	16' high	1.62	58.24	lin. ft.		0	0		0	0		0	0
									0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0		0	0
	12' high	4.18	184	each		0	0		0	0		0	0
	16' high	5.6	246	each		0	0		0	0		0	0
	17' high	5.95	261.8	each								0	0
												0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0		0	0
Steel Plate:	0.5" thick	0.04	19.48	sq. ft.		0	0		0	0		0	0
									0	0		0	0
Windows:	1" plyw'd	8.91	338	each		0	0		0	0		0	0
8' X 13'	1/64" met	0.14	68	each		0	0		0	0		0	0
		9.05	406	each		0	0		0	0		0	0
Total square feet/pounds:						43793.81	7701336		35851.71	969547.5		35851.71	969547.5
Total cubic yards:						**1622.123**	**cu. yds.**		**1327.947**	**cu. yds.**		**1327.947**	**cu. yds.**
Total Tons:						**3850.668**	**Tons**		**484.7738**	**Tons**		**484.7738**	**Tons**

TOTAL TSCA MATERIAL VOLUME: **7262.973 cubic yards**
TOTAL TSCA MATERIAL MASS: **10189.61 Tons**

Table B-5

Aerovox, Inc. Facility

Materials to Non-TSCA Landfill Under Option #1

Basic Units:

					Western Section:					
					1st Floor			2nd Floor		
Structure	**Size**	**Volume Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Concrete Wall:	1' thick	3	540	lin. ft.	1432	4296	773280		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.	5064	5064	567168	3006	3006	336672
	16" thick	1.333	150	sq. ft.	13239	17647.59	1985850	4704	6270.432	705600
						0	0		0	0
Wooden Walls/Floor	4" thick	0.333	9	sq. ft.	2800	932.4	25200		0	0
	5" thick	0.416	11.25	sq. ft.		0	0	25000	10400	281250
						0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.	1100	1001	40150		0	0
2"X4" stud every 2'	10' high	1.01	40.5	lin. ft.	180	181.8	7290	2500	2525	101250
	12' high	1.22	48.7	lin. ft.	550	671	26785		0	0
						0	0		0	0
Wcoden Columns	9' high	3.14	138	each	176	552.64	24288		0	0
8" diameter	10' high	3.5	154	each	25	87.5	3850		0	0
	12" high	4.18	184	each	108	451.44	19872		0	0
	16' hi h	5.6	246	each		0	0	84	470.4	20664
									0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0
						0	0		0	0
Steel Plate	0.5" thick	0.04	19.48	sq. ft.		0	0		0	0
						0	0		0	0
Windows:	1" plyw'd	5.83	221	each		0	0	26	151.58	5746
6' X 11'	1/64" met	0.09	44.7	each		0	0		0	0
		5.92	265.7	each		0	0		0	0
Total square feet/pounds:						30885.37	3473733		22823.41	1451182
Total cubic yards:						**1143.994**	**cu. yds.**		**845.3792**	**cu. yds.**
Total Tons:						**1736.867**	**Tons**		**725.591**	**Tons**

Roof - Western Section: **1875** **cubic yards**
658 **Tons**

Table B-5 - cont.

Aerovox, Inc. Facility

Materials to Non-TSCA Landfill Under Option #1

Eastern Section

Basic Units:

Structure	Size	Volume Per Unit [cf]	Mass Per Unit [lb]	Unit	1st Floor No. of Units	1st Floor Volume [cf]	1st Floor Mass [lb]	2nd Floor No. of Units	2nd Floor Volume [cf]	2nd Floor Mass [lb]	3rd Floor No. of Units	3rd Floor Volume [cf]	3rd Floor Mass [lb]
Base Wall:	1' thick	3	540	lin. ft.	1425	4275	769500		0	0		0	0
						0	0		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.	2246	2246	251552	2325	2325	260400	3525	3525	394800
	16" thick	1.333	150	sq. ft.	4194	5590.602	629100	7650	10197.45	1147500	8116	10818.63	1217400
						0	0		0	0		0	0
Wooden Walls/Floor	4" thick	0.333	9	sq. ft.		0	0		0	0		0	0
	5" thick	0.416	11.25	s qft.		0	0		0	0		0	0
						0	0		0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2 ft	10' high	1.01	40.5	lin. ft.		0	0		0	0		0	0
	12' hi h	1.22	48.7	q lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Particle Board Wall:	10' high	1.01	36.4	lin. ft.				2365	2388.65	86086	2320	2343.2	84448
0.5" thick board	12' high	1.22	43.68	lin. ft.	3100	3782	135408		0	0		0	0
2"X4" stud every 2'	16' high	1.62	58.24	lin. ft.		0	0		0	0		0	0
									0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0		0	0
	12' high	4.18	184	each	220	919.6	40480		0	0		0	0
	16' high	5.6	246	each		0	0	220	1232	54120		0	0
	17' high	5.95	261.8	each							220	1309	57596
												0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0		0	0
Steel Plate:	0.5" thick	0.04	19.48	s . ft.		0	0		0	0		0	0
									0	0		0	0
Windows:	1" plyw'd	8.91	338	each	56	498.96	18928	119	1060.29	40222	119	1060.29	40222
8' X 13'	1/64" met	0.14	68	each		0	0		0	0		0	0
		9.05	406	each		0	0		0	0		0	0
Total square feet/pounds:						17312.16	1844968		17203.39	1588328		19056.12	1794466
Total cubic yards:						**641.2425**	**cu. yds.**		**637.2136**	**cu. yds.**		**705.8386**	**cu. yds.**
Total Tons:						**922.484**	**Tons**		**794.164**	**Tons**		**897.233**	**Tons**

Roof - Eastern Section: **1474** **cubic yards**
517 **Tons**

TOTAL NON-TSCA MATERIAL VOLUME: **7322.668 cubic yards**
TOTAL NON-TSCA MATERIAL MASS: **6251.339 Tons**

Table B-6

Aerovox, Inc. Facility

Materials to Non-TSCA Landfill Under Options #2 and #3

Basic Units:

					Western Section:					
					1st Floor			2nd Floor		
Structure	Size	Volume Per Unit [cf]	Mass Per Unit [lb]	Unit	No. of Units	Volume [cf]	Mass [lb]	No. of Units	Volume [cf]	Mass [lb]
Base Concrete Wall:	1' thick	3	540	lin. ft.		0	0		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0
						0	0		0	0
Wooden Walls/Floor	4" thick	0.333	9	sq. ft.	2800	932.4	25200		0	0
	5" thick	0.416	11.25	sq. ft.		0	0	25000	10400	281250
						0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.	1100	1001	40150		0	0
2"X4" stud every 2'	10' high	1.01	40.5	lin. ft.	180	181.8	7290	2500	2525	101250
	12' high	1.22	48.7	lin. ft.	550	671	26785		0	0
						0	0		0	0
Wooden Columns	9' high	3.14	138	each	176	552.64	24288		0	0
8" diameter	10' high	3.5	154	each	25	87.5	3850		0	0
	12" high	4.18	184	each	108	451.44	19872		0	0
	16' high	5.6	246	each		0	0	84	470.4	20664
									0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0
						0	0		0	0
Steel Plate	0.5" thick	0.04	19.48	sq. ft.		0	0		0	0
						0	0		0	0
Windows:	1" plyw'd	5.83	221	each		0	0	26	151.58	5746
6' X 11'	1/64" met	0.09	44.7	each		0	0		0	0
		5.92	265.7	each		0	0		0	0
Total square feet/pounds:						3877.78	147435		13546.98	408910
Total cubic yards:						**143.633**	**cu. yds.**		**501.7801**	**cu. yds.**
Total Tons:						**73.7175**	**Tons**		**204.455**	**Tons**

Roof - Western Section: 1875 **cubic yards**
658 **Tons**

Table B-6 - cont.

Aerovox, Inc. Facility

Matarials to Non-TSCA Landfill Under Options #2 and #3

Eastern Section

Basic Units:

Structure	Size	Volume Per Unit [cf]	Mass Per Unit [lb]	Unit	1st Floor No. of Units	1st Floor Volume [cf]	1st Floor Mass [lb]	2nd Floor No. of Units	2nd Floor Volume [cf]	2nd Floor Mass [lb]	3rd Floor No. of Units	3rd Floor Volume [cf]	3rd Floor Mass [lb]
Base Wall:	1' thick	3	540	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0		0	0
	16" thick	1.333	150	s . ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Wooden Walls/Floor	4" thick	0.333	9	sq. ft.		0	0		0	0		0	0
	5" thick	0.416	11.25	sq. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2 ft	10' high	1.01	40.5	lin. ft.		0	0		0	0		0	0
	12' hi h	1.22	48.7	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Particle Board Wall:	10' high	1.01	36.4	lin. ft.				2365	2388.65	86086	2320	2343.2	84448
0.5" thick board	12' high	1.22	43.68	lin. ft.	3100	3782	135408		0	0		0	0
2"X4" stud every 2'	16' high	1.62	58.24	lin. ft.		0	0		0	0		0	0
									0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0		0	0
	12' high	4.18	184	each	220	919.6	40480		0	0		0	0
	16' high	5.6	246	each		0	0	220	1232	54120		0	0
	17' high	5.95	261.8	each							220	1309	57596
												0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0		0	0
Steel Plate:	0.5" thigk	0.04	19.48	s . ft.		0	0		0	0		0	0
									0	0		0	0
Windows:	1" plyw'd	8.91	338	each	56	498.96	18928	119	1060.29	40222	119	1060.29	40222
8' X 13'	1/64" met	0.14	68	each		0	0		0	0		0	0
		9.05	406	each		0	0		0	0		0	0
Total square feet/pounds:						5200.56	194816		4680.94	180428		4712.49	182266
Total cubic yards:						**192.6287**	**cu. yds.**		**173.382**	**cu. yds.**		**174.5506**	**cu. yds.**
Total Tons:						**97.408**	**Tons**		**90.214**	**Tons**		**91.133**	**Tons**

Roof - Eastern Section: **1474 cubic yards**
517 Tons

TOTAL NON-TSCA MATERIAL VOLUME: 4534.975 cubic yards
TOTAL NON-TSCA MATERIAL MASS: 1731.928 Tons

Table B-7

Aerovox, Inc. Facility

Non-TSCA Materials to be used as Backfill Under Options #2 and #3

Basic Units:

						Western Section:					
						1st Floor			2nd Floor		
Structure	**Size**	**Volume Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Concrete Wall:	1' thick	3	540	lin. ft.	1432	4296	773280		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.	5064	5064	567168	3006	3006	336672
	16" thick	1.333	150	sq. ft.	13239	17647.59	1985850	4704	6270.432	705600
						0	0		0	0
Wooden Walls/Floor	4" thick	0.333	9	sq. ft.		0	0		0	0
	5" thick	0.416	11.25	sq. ft.		0	0		0	0
						0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0
2"X4" stud every 2'	10' high	1.01	40.5	lin. ft.		0	0		0	0
	12' high	1.22	48.7	lin. ft.		0	0		0	0
						0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0
	12" high	4.18	184	each		0	0		0	0
	16' high	5.6	246	each		0	0		0	0
									0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0
						0	0		0	0
Steel Plate	0.5" thick	0.04	19.48	s. ft.		0	0		0	0
						0	0		0	0
Windows:	1" plyw'd	5.83	221	each		0	0		0	0
6' X 11'	1/64" met	0.09	44.7	each		0	0		0	0
		5.92	265.7	each		0	0		0	0
Total square feet/pounds:						27007.59	3326298		9276.432	1042272
Total cubic yards:						**1000.361**	**cu. yds.**		**343.599**	**cu. yds.**
Total Tons:						**1663.149**	**Tons**		**521.136**	**Tons**

Roof - Western Section: **0** **cubic yards**
0 **Tons**

Table B-7 - cont.

Aerovox, Inc. Facility

Non-TSCA Materials to be used as Backfill Under Options #2 and #3

Eastern Section

Basic Units:

					1st Floor			2nd Floor			3rd Floor		
Structure	**Size**	**Volume Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Wall:	1' thick	3	540	lin. ft.	1425	4275	769500		0	0		0	0
						0	0		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.	2246	2246	251552	2325	2325	260400	3525	3525	394800
	16" thick	1.333	150	sq. ft.	4194	5590.602	629100	7650	10197.45	1147500	8116	10818.63	1217400
						0	0		0	0		0	0
Wooden Walls/Floor	4" thick	0.333	9	sq. ft.		0	0		0	0		0	0
	5" thick	0.416	11.25	sq. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2 ft	10' high	1.01	40.5	lin. ft.		0	0		0	0		0	0
	12' high	1.22	48.7	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Particle Board Wall:	10' high	1.01	36.4	lin. ft.					0	0		0	0
0.5" thick board	12' high	1.22	43.68	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2'	16' high	1.62	58.24	lin. ft.		0	0		0	0		0	0
									0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0		0	0
	12' high	4.18	184	each		0	0		0	0		0	0
	16' high	5.6	246	each		0	0		0	0		0	0
	17' high	5.95	261.8	each								0	0
												0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.		0	0		0	0		0	0
Steel Plate:	0.5" thick	0.04	19.48	sq. ft.		0	0		0	0		0	0
									0	0		0	0
Windows:	1" plyw'd	8.91	338	each		0	0		0	0		0	0
8' X 13'	1/64" met	0.14	68	each		0	0		0	0		0	0
		9.05	406	each		0	0		0	0		0	0
Total square feet/pounds:						12111.6	1650152		12522.45	1407900		14343.63	1612200
Total cubic yards:						**448.6137**	**cu. yds.**		**463.8315**	**cu. yds.**		**531.288**	**cu. yds.**
Total Tons:						**825.076**	**Tons**		**703.95**	**Tons**		**806.1**	**Tons**

Roof - Eastern Section: **0** **cubic yards**
0 **Tons**

TOTAL NON-TSCA BACKFILL MATERIAL VOLU 2787.693 cubic yards
TOTAL NON-TSCA BACKFILL MATERIAL MASS: 4519.411 Tons

Table B-8

Aerovox, Inc. Facility

Materials to Steel Smelting Facility

Basic Units:

						Western Section:					
						1st Floor			2nd Floor		
Structure	**Size**	**Volume Per Unit [cf]**	**Mass Per Unit [lb]**	**Unit**	**No. of Units**	**Volume [cf]**	**Mass [lb]**	**No. of Units**	**Volume [cf]**	**Mass [lb]**
Base Concrete Wall:	1' thick	3	540	lin. ft.		0	0		0	0
Concrete Floor:	6" thick	0.5	90	sq. ft.		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0
						0	0		0	0
Wooden Walls/Floor:	4" thick	0.333	9	sq. ft.		0	0		0	0
	5" thick	0.416	11.25	sq. ft.		0	0		0	0
						0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0
2"X4" stud every 2'	10' high	1.01	40.5	lin. ft.		0	0		0	0
	12' high	1.22	48.7	lin. ft.		0	0		0	0
						0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0
	12" high	4.18	184	each		0	0		0	0
	16' high	5.6	246	each		0	0		0	0
									0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.	9320	1183.64	577840	4583	582.041	284146
						0	0		0	0
Steel Plate	0.5" thick	0.04	19.48	sq. ft.		0	0	3925	157	76459
						0	0		0	0
Windows:	1" plyw'd	5.83	221	each		0	0		0	0
6' X 11'	1/64" met	0.09	44.7	each		0	0	26	2.34	1162.2
		5.92	265.7	each		0	0		0	0
Total square feet/pounds:						1183.64	577840		741.381	361767.2
Total cubic yards:						**43.84203**	**cu. yds.**		**27.46075**	**cu. yds.**
Total Tons:						**288.92**	**Tons**		**160.8636**	**Tons**

Tabie B-8 - cont.

Aerovox, Inc. Facility

Materiais to Steei Smelting Facility

Eastern Section

Basic Units:

Structure	Size	Volume Per Unit [cf]	Mass Per Unit [lb]	Unit	1st Floor No. of Units	1st Floor Volume [cf]	1st Floor Mass [lb]	2nd Floor No. of Units	2nd Floor Volume [cf]	2nd Floor Mass [lb]	3rd Floor No. of Units	3rd Floor Volume [cf]	3rd Floor Mass [lb]
Base Wall:	1' thick	3	540	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Brick Walls:	12" thick	1	112	sq. ft.		0	0		0	0		0	0
	16" thick	1.333	150	sq. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Wooden Walls/Floor:	4" thick	0.333	9	sq. ft.		0	0		0	0		0	0
	5" thick	0.416	11.25	sq. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Drywall:	9' high	0.91	36.5	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2 ft	10' high	1.01	40.5	lin. ft.		0	0		0	0		0	0
	12' high	1.22	48.7	lin. ft.		0	0		0	0		0	0
						0	0		0	0		0	0
Particle Board Wall:	10' high	1.01	36.4	lin. ft.					0	0		0	0
0.5" thick board	12' high	1.22	43.68	lin. ft.		0	0		0	0		0	0
2"X4" stud every 2'	16' high	1.62	58.24	lin. ft.		0	0		0	0		0	0
									0	0		0	0
Wooden Columns	9' high	3.14	138	each		0	0		0	0		0	0
8" diameter	10' high	3.5	154	each		0	0		0	0		0	0
	12' high	4.18	184	each		0	0		0	0		0	0
	16' high	5.6	246	each		0	0		0	0		0	0
	17' hi g	5.95	261.8	each								0	0
												0	0
Steel Beams:	W21 x 62	0.127	62	lin. ft.	7535	956.945	467170	7535	956.945	467170	7535	956.945	467170
Steel Plate:	0.5" thick	0.04	19.48	sq. ft.		0	0	4728	189.12	92101.44		0	0
									0	0		0	0
Windows:	1" plyw'd	8.91	338	each		0	0		0	0		0	0
8' X 13'	1/64" met	0.14	68	each	56	7.84	3808	119	16.66	8092	119	16.66	8092
		9.05	406	each		0	0		0	0		0	0
Total square feet/pounds:						964.785	470978		1162.725	567363.4		973.605	475262
Total cubic yards:						**35.73564**	**cu. yds.**		**43.06733**	**cu. yds.**		**36.06233**	**cu. yds.**
Total Tons:						**235.489**	**Tons**		**283.8817**	**Tons**		**237.631**	**Tons**

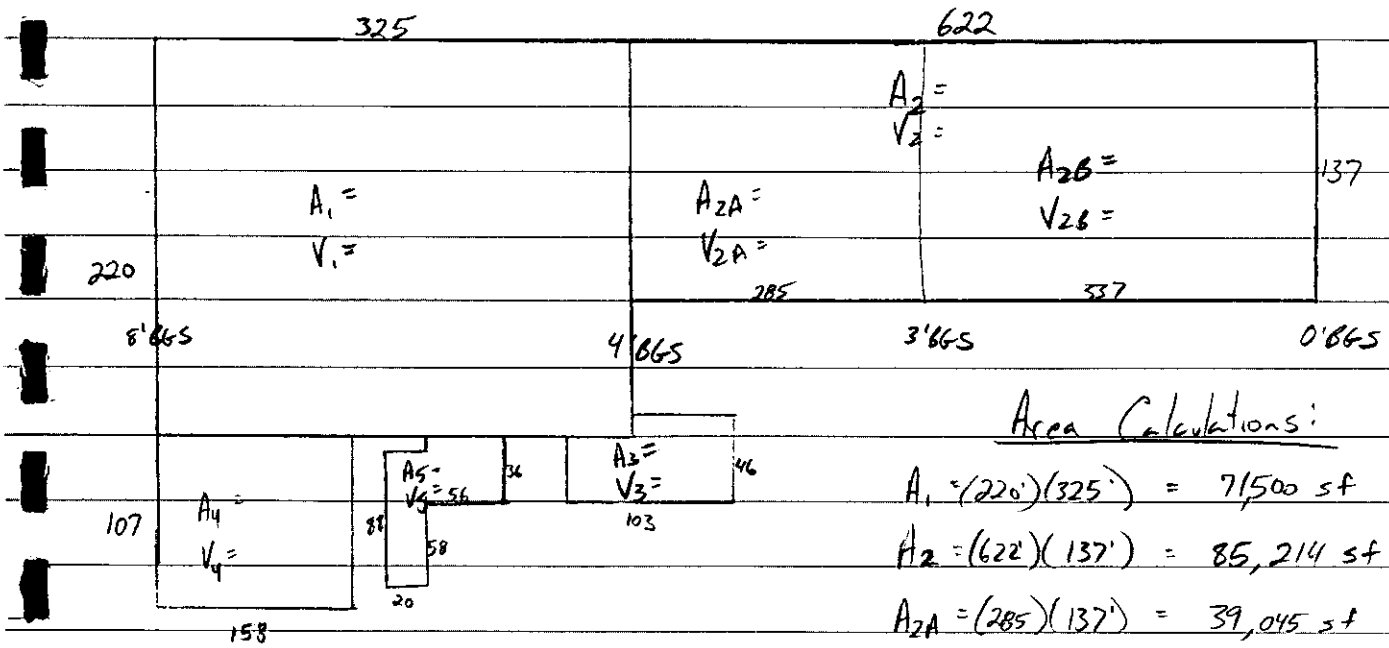
TOTAL STEEL VOLUME: **186.1681 cubic yards**
TOTAL STEEL MASS: **1226.605 Tons**

BBL
SLAND, BOUCK & LEE, INC.
gineers & scientists

SUBJECT	PROJ. NO.	BY	DATE	SHEET
Aerovox, Inc. Facility - Building Demolition Alternative	03855.004	CEG	3/25/98	1/4

CALCS. BY _____; DATE _____ CHECKED BY JCB; DATE 3/26/98

Area and Volume Calculations for Concrete Floor Slab:



Area Calculations:

$A_1 = (220')(325') = 71{,}500$ sf

$A_2 = (622')(137') = 85{,}214$ sf

$A_{2A} = (285)(137') = 39{,}045$ sf

$A_{2B} = (337)(137') = 46{,}169$ sf

$A_3 = (103')(46') = 4{,}738$ sf

$A_4 = (107')(158') = 16{,}906$ sf

$A_5 = (20)(88) + (36)(56) = 3{,}776$ sf

Volume of Concrete Floor below Grade:

Assumptions: Areas A_1, A_3, A_4, A_5 below Grade 6'
Area A_{2A} below Grade 3.5'
Area A_{2B} below Grade 1.5'

$V_1 = (71{,}500\text{ sf})(6') = 429{,}000$ cf $= 15{,}888.9$ cy

$V_{2A} = (39{,}045\text{ sf})(3.5') = 136{,}657.5$ cf $= 5{,}061.4$ cy

$V_{2B} = (46{,}169\text{ sf})(1.5') = 69{,}253.5$ cf $= 2{,}564.9$ cy

$V_2 = V_{2A} + V_{2B} = 136{,}657.5\text{cf} + 69{,}253.5\text{cf} = 205{,}911$ cf $= 7{,}626.3$ cy

$V_3 = (4{,}738\text{ sf})(6') = 28{,}428$ cf $= 1052.9$ cy

$V_4 = (16{,}906\text{ sf})(6') = 101{,}436$ cf $= 3756.9$ cy

$V_5 = (3{,}776\text{ sf})(6') = 22{,}656$ cf $= 839.1$ cy

$A_{TOTAL} = 182{,}134$ sf

(excluding A_{2A} and A_{2B}) $= 20{,}237$ sy ✓

$V_{TOTAL} = 787{,}431$ cf

$= 29{,}164.1$ cy ✓

SUBJECT	PROJ. NO.	BY	DATE	SHEET
Aerovox, Inc. Facility - Building Demolition Alternative	03955.004	CEG	3/25/98	2/4

CALCS. BY _____; DATE _____ CHECKED BY JCB; DATE 3/26/98

Amount of Backfill Required:

Thickness of Cap to be Installed: 6" sand + 6" gravel + 4" asphalt = 1'4"

Assumption:

- Building Area will be backfilled up to 1 foot below Grade with the remaining volume to be filled with cap material.
- Concrete Floor Slab Thickness is 6 inches

Option #1:

- Volume of Demolition Materials to be Used as Backfill Under Options #2 and #3 IS 2787.7 CY

Volume of Backfill Required

$V_{OPT\#1} = (71500)(5') + (39,045)(2.5') + (46,169)(0.5) + (4738)(5) + (16,906)(5') + (3776)(5') = 605,297 \text{ cf} = 22,418.4 \text{ cy}$ ✓

Option #2:

Area of Concrete to be Removed

$A_{CONCRETE\#2} = A_1 + A_3 + A_4 + A_5 = (71,500) + (4,738) + (16,906) + (3,776) = 96,920 \text{ sf}$ ✓

Volume of Fill Required

$V_{OPT\#2} = (71,500)(5+0.5) + (4,738)(5+0.5) + (16,906)(5+0.5) + (3776)(5+0.5) + (39045)(2.5) + (46169)(0.5) = 653,757 \text{ CF} = 24,213.2 \text{ CY}$

$- 2,787.7 \text{ CY}$

$V_{OPT\#2} = 21,425.5 \text{ CY}$

Option #3:

Area of Concrete to be Removed

$A_{CONCRETE\#3} = A_1 + A_{2A} + A_{2B} + A_3 + A_4 + A_5 = A_{TOTAL} = 182,134 \text{ sf}$

Volume of Fill Required

$V_{OPT\#3} = (71500)(5+0.5) + (39,045)(2.5+0.5) + (46,169)(0.5+0.5) + (4738)(5+0.5) + (16,906)(5+0.5) + (3776)(5+0.5) = 696,364 \text{ CF} = 25,791.3 \text{ CY}$

$- 2,787.7 \text{ CY}$

$V_{OPT\#3} = 23,003.6 \text{ CY}$ ✓

BBL
SLAND, BOUCK & LEE, INC.
gineers & scientists

SUBJECT	PROJ. NO.	BY	DATE	SHEET
Aerovox, Inc. Facility – Building Demolition Alternative	03855.004	CEG	3/25/18	3/4

CALCS. BY _____; DATE _____ CHECKED BY JCB; DATE 3/26/98

Volume of Materials Required for Asphalt Cap:

Volume of 2" Sand Fill Layer:

Area of Cap = 182,134 sf

$V_{SF} = (182,134\ sf)\left(\frac{2}{12}'\right) = 30,356\ cf = 1,124.3\ CY$

Volume of 6" Crusher Run Layer:

Area of Cap = 182,134 sf

$V_{CR} = (182,134\ sf)(0.5') = 91,067\ cf = 3,372.9\ CY$

Volume of 4" Asphalt:

Area of Cap = 182,134 sf

$V_{AS} = (182,134\ sf)(0.33') = 60,104\ cf = 2,226.1\ CY$

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

SUBJECT	PROJ. NO.	BY	DATE	SHEET
Aerovox, Inc. Facility - Building Demolition Alternative	03855.004	CEG	3/25/98	4/4

CALCS. BY _____; DATE _____ CHECKED BY JCB; DATE 3/26/98

Cost for Asphalt Cap:

Area of Cap = 20,237 SY = 182,133 sf

40 mil PVC Liner	@ $0.34/sf	x	182,133 sf	= $61,925.22
Geogrid, Nylon Geomatrix/PVC-coated Polyester	$1.40/sf	x	182,133 sf	= $254,986.20
2" Sand Layer	$13.00/CY	x	1,124 CY	= $14,612.00
6" Subgrade Layer (Crusher Run)	$18.47/CY	x	3,373 CY	= $62,299.31
2½" Bituminous concrete base course	@ $4.50/SY	x	20,237 SY	91,066.50
1½" Bituminous concrete wearing surface	@ $3.30/SY	x	20,237 SY	= 66,782.10

551,671.33

÷ 20,237 SY

$27.26