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# REPORT OF ASBESTOS AND LIMITED LEAD-BASED PAINT SURVEY

for

MICHIGAN STATE FAIRGROUNDS & EXHIBITION CENTER
1120 W. State Fair Avenue
Detroit, Michigan 48203

Prepared For:

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MTC Project No. 081563

May 15, 2009

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SIGNATURE PAGE

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**SIGNATURE PAGE**

**Dates of Original Inspection:** December 6, 7, 8, 13 and 14, 1999
**Dates of Re-inspection:** April 1, 2 and 3, 2009
**Principle Building Inspector:** Christopher J. Kestner, C.I.E.
**Assistant Building Inspector:** Andrew A. Duncan

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|---|---|---|
| Christopher J. Kestner | Asbestos Inspector Course: | TEOC |
| | Expiration Date: | June 13, 2009 |
| | Certificate No. | BI/MPR08061301 |
| | State of Michigan Accreditation No. | A10977 |
| | Manager Planner Course: | TEOC |
| | Expiration Date: | June 13, 2009 |
| | Certificate No. | BI/MPR08061301 |
| | State of Michigan Accreditation No. | A10977 |
| | Project Designer Course: | TEOC |
| | Expiration Date: | October 1, 2009 |
| | Certificate No. | PDR08100102 |
| | State of Michigan Accreditation No. | A10977 |
| | Asbestos Inspector Expiration Date: | August 11, 2009 |
| | Asbestos Manager Planner Expiration Date: | October 18, 2009 |
| | Asbestos Project Designer Expiration Date: | December 7, 2009 |
| Andrew A. Duncan | Asbestos Inspector Course: | TEOC |
| | Expiration Date: | October 3, 2009 |
| | Certificate No. | BIR08100305 |
| | State of Michigan Accreditation No. | A35948 |
| | Expiration Date: | November 14, 2009 |

**Report Prepared by:** _____ **Date:** 5/15/09
Christopher J. Kestner, C.I.E., Environmental Division Manager

**Reviewed by:** Allan G. Howland **Date:** 5/15/09
Allan G. Howland, Project Designer

**Training Certificates and State of Michigan Accreditations are provided following Appendix A**

**REPORT OF ASBESTOS AND LIMITED LEAD-BASED PAINT SURVEY**

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## 1.0 INTRODUCTION

Materials Testing Consultants, Inc. (MTC) was originally retained on November 24, 1999 to provide a building survey of the Michigan State Fairgrounds & Exposition Center. These services included inspection, sampling, and analysis of suspected asbestos containing building materials, as well as a report of findings for use in future decisions regarding the renovations to this facility. This report, which follows, provides detailed information concerning building materials at 1120 W. State Fair Avenue, Detroit, Michigan and recommendations with regard to asbestos containing materials within the facility.

MTC was again retained on March 20, 2009 to update the original report. A kick-off meeting was held on March 27, 2009 within the Administration Building at the Michigan State Fairgrounds & Exhibition Center. The meeting was attended by Mr. Robert Porter and Mr. Daryl Long of the Michigan State Fairgrounds & Exposition Center of the Michigan Department of Management and Budget (MDMB), Mr. Sadi Rayyan of the Facilities Administration Division of MDMB and Mr. Christopher Kestner and Mr. Steve Young of Materials Testing Consultants, Inc. At this meeting the scope of work was explained and the procedures and schedule were discussed for this project.

This report lists the changes for the asbestos materials over the past ten years and also gives a complete facility estimated asbestos abatement cost in Section 7.0.

The adverse health effects associated with asbestos exposure have been extensively studied for many years. Results of these studies and epidemiological investigations have demonstrated that inhalation of asbestos fibers may lead to increased risk of developing one or more diseases. Those diseases typically associated with asbestos fiber inhalation include asbestosis (a scar tissue buildup in the lungs caused by overexposure to asbestos), mesothelioma (a cancer of the lining of the lungs or abdomen which is almost always caused by exposure to asbestos), and lung cancer (a malignant growth in the lung tissue). Exactly why some people develop these diseases and others do not remain a mystery. It is important to recognize that the majority of people who have been inflicted and died as a result of asbestos exposure were asbestos workers. These workers were frequently exposed to high concentrations of asbestos fibers each working day with little or no protection.

The scope of the inspection at the Michigan State Fairgrounds & Exposition Center site also included a limited lead-based paint survey. The information regarding lead-based paint is included in Section 6.0 of this report.

The scope of this survey does not include inspection results concerning the potential presence of other hazardous materials. These hazardous materials may include PCB containing oils in fluorescent light ballasts and other transformers, and mercury vapor in fluorescent lights. The potential presence of these materials in the facility represents areas of concern for building occupants and construction workers.

Concerning light ballasts and transformers, MTC recommends that prior to any electrical upgrade which would affect light ballasts or transformers, a detailed inspection be completed to determine their likelihood of containing PCB's. If disposal of PCB containing light ballasts or transformers is necessary, the Owner may dispose of intact ballasts in limited quantities as regular sanitary waste. If during electrical upgrades, building renovations or demolitions, the Owner or selected contractor is required to remove transformers or large quantities of light ballasts, it is recommended that these transformers or ballasts be maintained by the Owner for future use or that the Owner

contract with a licensed facility for disposal. If ballasts or transformers are leaking, they must be considered as hazardous waste and disposed of at a licensed facility.

The bulbs associated with fluorescent lighting often contain hazardous mercury vapor. If disposal of fluorescent bulbs is necessary, MTC recommends that caution should be maintained to prevent breakage and that, for large quantities of bulbs, a licensed facility be contracted for proper disposal.

## 2.0 FACILITY HISTORY

The Nation's Oldest State Fair was officially first held in 1849, only twelve years after Michigan attained statehood. At the onset it was customary, in fact, for the fair to be held one year in one city, the next year in another, and there was always a hot contest to be the city selected. The Michigan State Fair settled down at the present fairgrounds in 1905.

Joseph L. Hudson, founder of a Detroit area leading department store, together with three of his associates decided to give the State Fair a permanent home and formed the State Fair Land Company in October, 1904. By February 28, 1905, this company, through three separate transactions, had acquired the land between 7 1/2 and 8 Mile Roads, east of Woodward Avenue. The area was truly rural then, farmland some seven miles from Detroit's City Hall and far beyond the populated streets of the city.

Hudson had no interest in running the Fair; he simply wanted it to have a home and so sold his 135 acres to the Michigan State Agricultural Society for one dollar on April 18, 1905. The Agricultural Society accepted the land then purchased an additional 32 acres, extending the fairgrounds to 167 acres and produced the State Fair from 1905 through 1920. Throughout the following years, additional land was purchased and sold. The present size of the fairgrounds is 164 acres.

At a special meeting of the Executive Board of the Society on January 17, 1921, a resolution was passed authorizing the transfer of the fairgrounds to the State of Michigan. On March 22, 1921, the state Legislature formally passed a bill approving the transfer and placing control of the lands and buildings under the Michigan Department of Agriculture. The bill also created a board of managers to operate the annual Fair. This was the beginning of the era of dual occupancy of the fairgrounds by State agencies.

In 1956, Public Act 100 terminated this dual control and created the Michigan State Fair Commission. The Commission was superseded by the Michigan State Fair Authority in 1962, but following the Legislative Reorganization Act of 1965, the State Fair became a separate division within the Department of Agriculture. In 1978, Public Act 361, which assigned responsibility stated, "The Department shall conduct an annual State Fair and other exhibits or events for the purpose of promoting all phases of the economy of this State. This Fair and exhibits or events shall encourage and demonstrate agricultural, industrial, commercial, and recreational pursuits." Also in 1978, oversight of the State Fair was moved to the Department of Natural Resources. In 1994 the State Fair division was transferred to the Department of Commerce now known as the Department of Consumer and Industry Services. The State Fair reverted back to the Department of Agriculture in 1997 and in 2004, the Michigan State Senate approved legislation housing the Michigan State Fair & Exposition Center in the Michigan Department of Management and Budget.

The present site of the Fair was dedicated as State Historic Site #172 on August 29, 1958.

The above information was retrieved from: www.michigan.gov/mistatefair

## 3.0 FACILITY/BUILDING DESCRIPTION

The Michigan State Fairgrounds & Exposition Center is situated at 1120 W. State Fair Avenue in Detroit, Michigan. At the time of MTC's site visit, the Michigan State Fairgrounds & Exposition Center is described as a multi-purpose facility used for the Michigan State Fair, Shrine Circus Entertainment, conventions, and tradeshows. The Site's Coliseum is used regularly for its new ice rink facilities by the local universities and youth skating and hockey leagues. The portion of the property is also used as a transfer station for the city bus service. The following paragraphs list each building inspected.

Building #1 - Michigan Mart Building

This is a pre-engineered, 30,000 square foot, slab on grade, high bay, pitched roof building with a steel frame, metal roof decking and siding, some brick masonry on the exterior, that was built in 1973. There is a restroom wing on the west side of the building. A connecting link to Michigan Mall West is constructed of masonry with pitched wood trusses, plywood decking, and asphalt shingles, built circa 1985-90. The building is generally in good condition.

The northern portion of the building is occupied by the Next Shot Golf Center, which offers golf simulators, an indoor practice range, golf lessons, clinics and day camps, a pro shop and meeting and banquet facilities. The southern portion of the building is occupied by the Mill Coleman Football Fundamentals Training Facility. The training facility offers year round football group and individual position training, football camps and clinics.

Building #2 – West Mall Building

This structure was originally built circa 1980 as an open, slab on grade, structure between the Michigan Mart and Agriculture Building. The structure was constructed with masonry bearing east and west walls, interior steel columns and "space frame" flat roof. The estimated floor area is 40,000 square feet. It was enclosed circa 1992. A 2-inch gas line running from the northeast side of Michigan Mart to the West Mall appears to be unprotected (cathodic protection). This building is in good condition.

Building #3 - Agriculture Building

This is a 28,169 square foot structure. It was built using a 2-hinged arch steel frame with masonry exterior walls covered with stucco, slab on grade, with a metal roof, built in 1926. The building is in fair condition.

The structure is currently occupied by the Joe Dumar's Fieldhouse, which provides child development sports programs, basketball camps, court rentals and leagues. The facility include four hardwood basketball courts.

Building #4 - East Mall

This is a steel trussed open pavilion type structure with a flat roof, built on a concrete slab, circa 1980. The structure is joined to Coliseum across the front side of the Agriculture Building. The pavilion has an estimated 25,000 square feet under cover and is in generally good condition.

Building #5 - Coliseum

This is a fixed steel arched 75,449 square foot structure with masonry exterior walls covered with stucco. The original skylights and concrete roof have been covered by metal roof, built in 1922. The structure houses permanent seating for 5,800 and temporary bleacher seating for 3,000. The building was recently renovated, including electrical and mechanical upgrades and overall is in fair condition.

Building #6 - Dairy Cattle Building

This 54,628 square foot structure is steel framed with wood trusses and purloins, concrete slab on grade and masonry in fill, connected to the north end of the Coliseum. The roof is constructed of metal panels that cover over the original concrete planks. The building, which was constructed in 1924, is in fair condition.

A section of the structure is currently occupied by the Detroit Equestrian Club which offers horse boarding and ridding lessons.

Building #7 - Pole Barn

This is a pole barn estimated at 5,000 square feet with a dirt floor, wood exterior walls and a metal roof. The building, which was built circa 1960-70, is in fair condition.

Building #8- North Riding Arena

This is an open sided steel framed structure on a concrete slab estimated at 2,000 square feet under cover with a pitched roof consisting of steel trusses and joists, wood roof decking and a membrane or rolled roof. A dirt floor covers a concrete floor for a riding surface. This building is in fair condition.

Building #9 - Main Horse Barn

This is a 35,500 square foot heavy timber framed slab on grade structure with laminated beams, wood roof deck, masonry exterior walls cover with stucco. The building is in good to fair condition.

Building #10 - South Riding Arena

This is an open sided steel framed structure on a concrete slab estimated at 16,000 square feet under cover with a pitched roof consisting of steel trusses and joists, wood roof decking and a membrane or rolled roof. A dirt floor covers a concrete floor for a riding surface. This building is in fair condition.

Building #11 – Grand Champion Barn

This is an open wood post and truss structure built using on grade slabs and has approximately 1,644 square feet under cover. This structure is in generally good condition.

Building #12 - Multi-Livestock Barn

This 72,000 square foot pre-engineered building, is steel framed with purloins with a metal roof and siding, and was built circa 1985. Exterior walls are brick masonry with metal siding on the upper portion of the wall. The floor is concrete. The east exterior wall of the building has some mobile trailer hookup areas (electricity, water, and sewer). The building is in good condition.

Building #13 - Whitehall Building

This is an 11,000 square foot, slab on grade structure with masonry bearing exterior walls, heavy timber framing and roof, that was built in 1926. The original concrete floor has had a plywood floor on sleepers added a few years ago. The building is in poor condition.

Building #14 - Volunteer Headquarters

This is a single story, 2,448 square foot, slab on grade masonry wall building built in 1925, with a Neo classic exterior. The boiler has recently been replaced but overall the building is in poor condition.

Building #15 – Band Shell

This is a wood framed arched shell structure with plywood sheathing and an above grade concrete stage. This 7,088 square foot structure was built in 1938. Seating is at grade level consists of portable benches on paved area and temporary bleachers arranged beyond the benches. The band shell itself is in very poor condition.

Building #16 – Dodge Pavilion

This is a single story, 3,375 square foot, slab on grade, cast-in-place concrete structure with a ramp to an open roof deck. The structure has an aluminum window/curtain wall enclosing the exhibit area with adjacent restrooms below. Exhibit area has a terrazzo floor. The structure includes a steel tension canopy at the west end. The structure was built in 1953 and is now in fair to poor condition.

Building #17 - U.S. Grant House

This is a wood framed residence on a brick foundation, donated to State in 1936. Building is in very poor condition.

Building #18 - Administration Building

This is a two story, 6,600 square foot, slab on grade, brick office building, built in 1967. The building is in generally good to fair condition.

Building #19/20 - Community Arts Building

This is a single story, 37,000 square foot, slab on grade, steel framed building with brick exterior, built in 1964. The building contains a 700-seat theater, offices, crafts rooms, rest rooms, and a large exhibit area. The building is in good to fair condition.

Building #21 – Outdoor Zone Park – No Access – Not Inspected

Building # 22 – World's Largest Stove – Not a Habitable Building – Not Inspected

Building # 23 - Exhibit Building

This is a pre-engineered, single story, 5,000 square foot, slab on grade, all metal building, with pitched roof, built in 1963. The building is not heated and has no insulation. The building is in good to fair condition.

Building #24 - Poultry Building

This is a two story, 38,160 square foot, slab on grade, heavy timber framed structure with a brick masonry exterior, built in 1921. There is an open wood center staircase with wood trusses, and the second floor is wood. The pitched roof has asphalt shingles that were replaced circa 1990. New electrical panels were installed circa 1993. This building is in fair condition.

Milk House

This is a single story, estimated 600 square foot, slab on grade, wood framed building, with a pitched roof. Generally the building is in fair to poor condition.

Red Brick Comfort Station

This is a single story, 1,870 square foot, brick masonry, slab on grade building, with wood rafters and a flat roof, built in 1927. The building is unheated and has poor ventilation. The building is in very poor condition.

Pavilion South of Band Shell

This is an open wood post and truss structure built using on grade slabs and has approximately 1,400 square feet under cover. This structure is in generally fair condition.

North Restrooms

This is a single story, estimated 3,500 square foot, slab on grade, brick building, with a flat roof, built circa 1975-80. Generally the building is in good to fair condition.

Plaza Toilet Building

This is a single story, brick masonry, slab on grade, "space framed" flat roof building, built circa 1970. The building is generally in good condition.

White Brick Comfort Station

This is a single story, 1,920 square foot, brick masonry, slab on grade building, with wood rafters, and a pitched rolled roof, built in 1905. The building is unheated and poorly ventilated. The building is presently in poor condition.

White Electrical Building

This is a single story wood framed structure, estimated at 600 square feet, built on a concrete slab with a pitched shingled roof and wood overhead doors. The building is in fair condition.

South Goat Barn

This is an open wood post and truss structure built using on grade slabs and has approximately 3,200 square feet under cover. This structure is in generally fair condition.

North Goat Barn

This is an open wood post and truss structure built using on grade slabs and has approximately 3,200 square feet under cover. This structure is in generally fair condition.

# SECTION 4.0 – ASBESTOS INSPECTION

# SECTION 4.1

## INSPECTION PROCEDURES

Inspection of the Michigan State Fairgrounds & Exposition Center initially began with detailed reviews of available drawings and a discussion and walk through. These steps were performed so the inspector could become familiar with building mechanical and ventilation systems and with floor plans and recent renovation activities. All individual rooms and continuous spaces were assigned Function Area numbers. In addition, the inspection included all accessible above ceiling cavities and attics/penthouses. See Section 4.2 of this report for a map of Function Area locations and numbering sequences representing the Michigan Exhibit and Fairgrounds buildings.

Individual types of building materials encountered during the inspection were assigned homogenous material numbers. Materials Testing Consultants, Inc. considered materials to be homogeneous only if they were similar in appearance, were located within the same building, and represented construction and/or renovation events which were completed over a set time or duration and which were likely completed by the same contractor.

Each suspect material was treated as a homogeneous area with the exception of floor tile and mastic which, when encountered, were combined as a single homogeneous area. Fire doors were assumed to be asbestos containing and were treated as a separate homogeneous area within the final report. For a listing of homogeneous materials, see the "Homogeneous Material Report", provided within Section 4.3, for the Michigan State Fairgrounds & Exhibition Center facility. The Homogeneous Material Report also provides a quick summary of the presence and type of asbestos for each homogeneous material and total quantities of each material. This information can be of value when assessing asbestos abatement costs associated with renovation and/or demolition activities.

The inspection performed quantified and assessed the condition of friable suspect materials within each Function Area of the Michigan State Fairgrounds & Exhibition Center facility. As each function area was inspected, each suspect asbestos containing material was classified as friable or non-friable, assigned a type designation (surfacing, thermal system insulation or miscellaneous), damage was assessed and quantified as being local or general and as being no damage (0 to 1 percent), moderate damage (1 to 10 percent), local damage 10 to 25 percent), general significant damage (10 to 25 percent), or significant damage (greater than 25 percent). Potential damage as a result of function area activities, vibration and/or air erosion were rated as low, moderate or high and an overall potential for damage was assigned based on the high value from these three potential damage categories. Accessibility was evaluated as low, moderate or high. Finally, quantity of material was determined in square feet, linear feet, cubic feet or unit. If needed, the inspector also provided written remarks describing damage or potential hazards which may exist.

Inspection information has been provided within Section 4.4, the report entitled "Building Survey Summary" for the Michigan State Fairgrounds & Exhibition Center facility. You will find that the Building Survey Summary report will be especially valuable when trying to assess the potential for impacting asbestos containing materials when performing building maintenance activities. This report will provide interested parties with a quick reference of all materials considered to be suspect during the inspection, and when used in conjunction with the summary of analytical results, can indicate the presence of asbestos in each of these suspect materials.

Certain materials such as fiberglass pipe insulation were assumed as non-asbestos and were not sampled. Where appropriate, these materials were inspected to assure that other suspect materials were not being covered.