

# SECTION 01013

## Summary of the Work - Asbestos Abatement

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### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Modifications to General Conditions, Additional Articles, Division 1, Division 2 and Division 9 Specification Sections, apply to this Section.

#### 1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Project consists of the removal of asbestos-containing floor tile, acoustical ceiling spray, and lead-glazed ceramic wall tile from designated locations throughout Rockford High School.
1. Project Location: Rockford High School
  2. Owner: Rockford Area Schools
- B. Contract Documents, dated September 24, 2013, were prepared for the Project by Matt Lindberg.
- C. The Work consists of:

#### LUMP SUM BASE QUOTE

##### Phase 1: Room 606 (Drafting) and Associated Storage Rooms

The scope of work includes the removal, under full containment, of approximately one thousand three hundred (1,300) square feet of asbestos-containing floor tile and associated asbestos-containing mastic. The Abatement Contractor is responsible for the removal and disposal of non-asbestos containing vinyl baseboard located within the work area.

The Owner is responsible for the demolition/removal of all cabinetry with asbestos-containing flooring beneath it including the cabinetry located at the east wall of Room 606 in order for the abatement contractor to have access to the flooring for abatement.

Encapsulation of the work area is not required nor will it be permitted. The Abatement Contractor shall scrub all floor surfaces with one percent (1%) liquid Tide™ solution. The Abatement Contractor shall then perform a minimum of two (2) separate clean-water rinses of the abated surface.

Entrance to and from the work area shall take place through the storage room east of Room 606 due to building occupancy.

The work area shall undergo TEM clearance air testing prior to the removal of containment barriers.

See Appendix A for specific locations.

**D. The Work** will be constructed under a single prime contract.

**E. Unit Prices**

<b>Unit Price #1:</b>	Friable Removal: Floor Tile/Mastic	Cost to remove, in a friable manner, one (1) square foot of vinyl floor tile and mastic including all work, materials, labor, disposal off-site, overhead, profit, insurance, etc. to perform the work.
<b>Unit Price #2:</b>	Non-Friable Removal: Floor Tile/Mastic	Cost to remove, in a non-friable manner, one (1) square foot of vinyl floor tile and mastic including all work, materials, labor, disposal off-site, overhead, profit, insurance, etc. to perform the work.
<b>Unit Price #3:</b>	Asbestos Supervisor (Foreman):	Cost per hour for a supervisor including all wages, fringes, overhead, profit, material, equipment, etc. to perform the work. This cost is for any additional work not covered in the scope of the work or by other unit prices in this section.
<b>Unit Price #4:</b>	Asbestos Worker:	Cost per hour for a worker including all wages, fringes, overhead, profit, material, equipment, etc. to perform the work. This cost is for any additional work not covered in the scope of the work or by other unit prices in this section.
<b>Unit Price #5:</b>	Mobilization:	Cost per mobilization to the site to perform work as directed by the Project Designer. These mobilizations will be over and above those identified in the specification.

**F. General Conditions:**

1. Where critical barrier walls are required, the barrier shall be structurally supported with 2"x4" lumber, floor to ceiling, with a distance no greater than six (6) feet between supports. A layer of polyethylene critical barrier shall be placed on each side of the lumber supports. Tunnel critical barrier walls shall be constructed in a manner so as to allow a minimum of three (3) feet passage clearance between permanent structure and temporary barrier wall.
2. The Contractor shall be responsible for security at all HEPA-exhaust locations. At a minimum, all exhaust locations shall be faced with a  $\frac{5}{8}$ " to  $\frac{3}{4}$ " plywood barrier.
3. Mastic removal solvents used by the Contractor must produce minimal odor and must dissipate within 48 hours of application. Mastic removal solvents must be used in accordance with the MSDS and the manufacturer's instructions. If the solvent used is considered to be hazardous waste, proper disposal manifests must be provided to the Owner's Representative and/or Owner. Lockdown encapsulant is not required nor will it be permitted in areas associated with floor tile removal. The floor surface from which the mastic is removed must be cleaned and dry of removal solvents prior to the removal of containment barriers. This shall be accomplished by scrubbing the floor surface with a one percent (1%) liquid Tide™ and water solution. The Contractor shall then be required to perform two (2) separate clean water rinses of the abated floor surface. Work shall be conducted in a manner to ensure that mastic removal solvents do not seep into floor cracks or drains, below walls, cabinetry or unit ventilators, etc. The work area must be solvent-free at the completion of work.
4. The Contractor shall dispose of carpet which is free of asbestos-containing floor tile and mastic as non-asbestos containing waste.
5. The Contractor shall provide a licensed electrician to connect/disconnect Contractor's subpanel to/from the building's distribution panel(s).
6. The Contractor will properly transfer containerized asbestos-containing waste from equipment decontamination unit to an enclosed and secured dumpster and/or enclosed truck.



The abatement contractor shall remove and dispose of the lighting system within the work area. The abatement contractor shall protect the drop ceiling at the perimeter of the work area from damage throughout the duration of the project.

The work area shall undergo TEM clearance air testing prior to the removal of containment barriers.

See Appendix A for specific locations.

#### **Phase 5: Lead-Glazed Ceramic Tile Removal**

The scope of work includes the removal of lead-glazed 4"x4" ceramic wall tiles in the following locations:

- Men's Restroom R12 – approximately five hundred fifty (550) square feet
- Women's Restroom R13 – approximately five hundred fifty (550) square feet
- Cafeteria – approximately forty-eight (48) square feet

The abatement-contractor shall conduct this work according to the EPA 40 CFR 745 *Lead; Renovation, Repair, and Painting Program* rules.

The general contractor is responsible for the shutdown and removal of all fixtures located in the restrooms prior to removal taking place.

See Appendix A for specific locations.

#### **Phase 6: Exterior Wall Demolition**

The scope of work includes the demolition and disposal of the exterior wall, parapet, and <1% asbestos-containing vermiculite wall insulation in designated locations. The contractor shall comply with all applicable OSHA requirements during the removal of <1% asbestos-containing vermiculite wall insulation. The contractor shall install drop clothes, keep the material wet, and bag loose vermiculite fill to prevent migration of vermiculite from the work area during removal.

The scope of work includes the cutting of four, nine-inch diameter penetrations on the exterior wall north of the Kitchen Storage.

The general contractor is responsible for any and all electric, water, gas disconnections that will be affected during the demolition. The General Contractor is also responsible for building security after the demolition and vermiculite removal has taken place. The general contractor shall clearly mark any and all areas within the scope of work.

The abatement contractor shall coordinate the wall demolition and cutting of penetrations with the general contractor.

See Appendix A for specific locations.

#### **Add Alternate #1: Boiler Room**

The scope of work includes the removal, under full containment, of approximately one hundred (100) square feet of asbestos-containing interior boiler insulation associated with Boiler #1. The scope of work includes the removal of associated asbestos-containing gaskets.

The work area shall undergo PCM clearance air testing prior to the removal of containment barriers.

See Appendix A for specific locations.

### **Phase 2: Room 703 (Band)**

The scope of work includes the removal, under full containment, of approximately one thousand nine hundred (1,900) square feet of asbestos-containing floor tile and associated asbestos-containing mastic located underneath carpet and non-asbestos-containing carpet adhesive.

The carpet removal may take place once negative air pressure has been established as long as the tile remains adhered to the floor substrate. Carpet may be disposed of as general waste if no asbestos-containing floor tile and/or mastic is adhered to it. The Abatement Contractor is also responsible for the removal and disposal of non-asbestos containing vinyl baseboard and associated adhesive to a smooth wall finish throughout the work area.

The Owner is responsible for the demolition/removal of all cabinetry with asbestos-containing flooring beneath it in order for the abatement contractor to have access to the flooring for abatement.

The Abatement Contractor shall install temporary plywood barriers in the hallway separating the work area from the rest of the building.

Encapsulation of the work area is not required nor will it be permitted. The Abatement Contractor shall scrub all floor surfaces with one percent (1%) liquid Tide™ solution. The Abatement Contractor shall then perform a minimum of two (2) separate clean-water rinses of the abated surface.

The work area shall undergo TEM clearance air testing prior to the removal of containment barriers.

See Appendix A for specific locations.

### **Phase 3: Room 701 (Choir) and Music Offices and Storage Areas**

The scope of work includes the removal, under full containment, of approximately two thousand eight hundred thirty (2,830) square feet of asbestos-containing floor tile and associated asbestos-containing mastic.

The Abatement Contractor is also responsible for the removal and disposal of non-asbestos containing vinyl baseboard and associated adhesive to a smooth wall finish throughout the work area.

The Owner is responsible for the demolition/removal of all cabinetry with asbestos-containing flooring beneath it in order for the abatement contractor to have access to the flooring for abatement.

Encapsulation of the work area is not required nor will it be permitted. The Abatement Contractor shall scrub all floor surfaces with one percent (1%) liquid Tide™ solution. The Abatement Contractor shall then perform a minimum of two (2) separate clean-water rinses of the abated surface.

The work area shall undergo TEM clearance air testing prior to the removal of containment barriers.

The scope of work also includes the non-friable removal, utilizing whole component removal procedures, of the following approximate amounts of asbestos-containing materials:

- One (1) sink in Storage Room 701B.

See Appendix A for specific locations.

### **Phase 4: Cafeteria**

The scope of work includes the removal, under full containment, of approximately four thousand eight hundred (4,800) square feet of asbestos-containing textured ceiling spray on the cement ceiling deck.

The owner is responsible for the shutdown of the lighting system within the work area.



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### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Modifications to General Conditions, Additional Articles, Division 1, Division 2 and Division 9 Specification Sections, apply to this Section.

#### 1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Project consists of the removal of asbestos-containing floor tile & mastic, ceiling tile adhesive, and material associated with the boiler in designated locations throughout the Rockford Middle School.
1. Project Location: Rockford Middle School
  2. Owner: Rockford Area Schools
- B. Contract Documents, dated September 30, 2013 were prepared for the Project by Matt Lindberg.
- C. The Work consists of:

**Phase 1: Room 10, Office 10A, Office 10B, Room 11 and Lower Level Hallway**

The scope of work includes the removal, under full containment, of the following approximate amounts of material:

- One thousand three hundred and forty (1,340) square feet of non-asbestos containing 1'x1' ceiling tile and three hundred thirty five (335) square feet of associated asbestos containing ceiling tile adhesive located in room 10, office 10A and office 10B.
- One thousand (1,000) square feet of asbestos containing black flooring mastic located under the carpet in room 10.
- Three hundred forty (340) square feet of asbestos containing 9"x9" floor tile and associated black mastic located under the carpet in office 10A and office 10B.
- One thousand two hundred (1,200) square feet of non-asbestos containing 1'x1' ceiling tile and three hundred (300) square feet of associated asbestos containing ceiling tile adhesive located in room 11.
- One thousand (1,000) square feet of non-asbestos containing 1'x1' ceiling tile and two hundred fifty (250) square feet of associated asbestos containing ceiling tile adhesive located in the lower level Hallway.

The scope of work includes the removal and disposal of non-asbestos containing 2'x4' drop ceiling and associated grid work throughout the work area. The abatement contractor shall support and protect the lighting system, mechanical system, security system, HVAC system, etc., throughout the duration of the work.

The scope of work also includes the demolition and disposal of approximately 40 linear feet of ductwork in room 10 and room 11. The general contractor shall indicate which ductwork is to be demolished and which ductwork shall remain in place.

The Abatement Contractor is also responsible for the removal and disposal of non-asbestos containing vinyl baseboard and associated adhesive to a smooth wall finish in room 10, office 10A and office 10B.



Encapsulation of the work area is not required nor will it be permitted. The Abatement Contractor shall scrub all floor surfaces with one percent (1%) liquid Tide™ solution. The Abatement Contractor shall then perform a minimum of two (2) separate clean-water rinses of the abated surface.

The work area shall undergo TEM clearance air testing prior to the removal of containment barriers.

See Appendix A, Sheet 1, for specific locations.

**Phase 2: Room 101, 102, 108, 109, 109B, 109C**

The scope of work includes the removal, under full containment, of the following approximate amounts of material:

- Nine hundred and sixty (960) square feet of asbestos containing 9"x9" floor tile and associated black mastic located under the carpet in room 101.
- Nine hundred sixty (960) square feet of non-asbestos containing 1'x1' ceiling tile and two hundred forty (240) square feet of associated asbestos containing ceiling tile adhesive located in room 101.
- Nine hundred and sixty (960) square feet of asbestos containing 9"x9" floor tile and associated black mastic located under the carpet in room 102.
- Nine hundred sixty (960) square feet of non-asbestos containing 1'x1' ceiling tile and two hundred forty (240) square feet of associated asbestos containing ceiling tile adhesive located in room 102.
- One thousand two hundred (1,200) square feet of asbestos containing 9"x9" floor tile and associated black mastic located under the carpet in room 108.
- One thousand two hundred (1,200) square feet of non-asbestos containing 1'x1' ceiling tile and three hundred (300) square feet of associated asbestos containing ceiling tile adhesive located in room 108.
- One hundred ten (110) square feet of non-asbestos containing sheetrock soffit, non-asbestos containing 1'x1' ceiling tile and twenty eight (28) square feet of associated asbestos containing ceiling tile adhesive located in room 109.
- Six hundred (600) square feet of asbestos containing 9"x9" floor tile and associated black mastic located under the carpet in room 109B.
- Six hundred (600) square feet of non-asbestos containing 1'x1' ceiling tile and one hundred fifty (150) square feet of associated asbestos containing ceiling tile adhesive located in room 109B. The scope of work included the demolition of the sheet rock soffit at the east wall of the room.
- Ninety (90) square feet of asbestos containing 9"x9" floor tile and associated black mastic located under the carpet in room 109C.
- Ninety (90) square feet of non-asbestos containing sheetrock ceiling, non-asbestos containing 1'x1' ceiling tile and twenty three (23) square feet of associated asbestos containing ceiling tile adhesive located in room 109C.

The scope of work includes the removal and disposal of non-asbestos containing 2'x4' drop ceiling and associated grid work throughout the work area. The abatement contractor shall support and protect the lighting system, mechanical system, security system, HVAC system, etc., throughout the duration of the work.

Carpet removal may take place once negative air pressure has been established as long as the tile remains adhered to the floor substrate. Carpet may be disposed of as general waste if no asbestos-containing floor tile and/or mastic is adhered to it. The Abatement Contractor is responsible for the removal and disposal of non-asbestos containing vinyl baseboard and associated adhesive to a smooth wall finish in areas where flooring is being removed.

The owner is responsible for the demolition/removal of all cabinetry scheduled to be removed with asbestos containing flooring beneath it to access the flooring prior to abatement.

Encapsulation of the work area is not required nor will it be permitted. The Abatement Contractor shall scrub all floor surfaces with one percent (1%) liquid Tide™ solution. The Abatement Contractor shall then perform a minimum of two (2) separate clean-water rinses of the abated surface.

The work area shall undergo TEM clearance air testing prior to the removal of containment barriers.

See Appendix A, Sheet 2, for specific locations.

### **Phase 3: Science Storage Room 103C**

The scope of work includes the removal, under mini containment, of approximately sixty (60) square feet of non-asbestos containing 1'x1' ceiling tile and fifteen (15) square feet of associated asbestos containing ceiling tile adhesive.

The general contractor is responsible for ductwork demolition in the work area prior to abatement taking place.

The work area shall undergo PCM clearance air testing prior to the removal of containment barriers.

See Appendix A, Sheet 2, for specific locations.

### **Phase 4: Storage Room 132E, Concessions, Storage Room 132F and 2<sup>nd</sup> Floor O.B. Stairwell**

The scope of work includes the non-friable removal, under critical barrier/negative air containment, of the following approximate amounts of material:

- Eighty (80) square feet of asbestos containing 9"x9" floor tile and associated black mastic located under the carpet in storage room 132E.
- One hundred (140) square feet of asbestos containing black mastic located under the carpet in concessions.
- Thirty (30) square feet of asbestos containing 9"x9" floor tile and associated black mastic located under the carpet in storage room 132F.
- Eighty (80) square feet of asbestos containing black mastic located under the carpet in the 1<sup>st</sup> floor (west) stairwell.

The work areas shall undergo PCM clearance air testing prior to the removal of containment barriers.

See Appendix A, Sheet 2, for specific locations.

### **Phase 5: Boiler Room**

The scope of work includes the non-friable removal of the following asbestos-containing gaskets:

- One (1) small boiler door gasket
- One (1) boiler burner gasket
- One (1) boiler breeching hatch gasket
- One (1) boiler stack access hatch gasket

The work area shall undergo PCM clearance air testing prior to the removal of containment barriers.

See Appendix A, Sheet 2, for specific locations.

### **Add Alt. #1**

The scope of work includes the removal, under full containment, of approximately forty (40) square feet of interior boiler insulation located within the boiler room.

The general contractor is responsible for the shut-down and Lock Out/Tag Out of the boiler system prior to abatement occurring.

The work area shall undergo PCM clearance air testing prior to the removal of containment barriers.

See Appendix A, Sheet 2, for specific locations.

**D. The Work** will be constructed under a single prime contract.

### **E. Unit Prices**

<b>Unit Price #1:</b>	Glovebag Procedure:	Cost per glovebag procedure including all work, materials, labor, disposal off-site, overhead, profit, insurance, etc. to perform the work.
<b>Unit Price #2:</b>	Wrap and Cut Procedure:	Cost per wrap and cut procedure including all work, materials, labor, disposal off-site, overhead, profit, insurance, etc. to perform the work.



<b>Unit Price #3:</b>	Friable Floor Tile/ Mastic:	Cost to remove one (1) square foot of friable floor tile and mastic including all work, materials, labor, disposal off-site, overhead, profit, insurance, etc. to perform the work.
<b>Unit Price #4:</b>	Nonfriable Floor Tile/Mastic:	Cost to remove one (1) square foot of nonfriable floor tile and mastic including all work, materials, labor, disposal off-site, overhead, profit, insurance, etc. to perform the work.
<b>Unit Price #5:</b>	Ceiling Tile & Associated Adhesive:	Cost to remove one (1) square foot of ceiling tile & associated adhesive including all work, materials, labor, disposal off-site, overhead, profit, insurance, etc. to perform the work.
<b>Unit Price #6:</b>	Asbestos Supervisor (Foreman):	Cost per hour for a supervisor including all wages, fringes, overhead, profit, material, equipment, etc. to perform the work. This cost is for any additional work not covered in the scope of the work or by other unit prices in this section.
<b>Unit Price #7:</b>	Asbestos Worker:	Cost per hour for a worker including all wages, fringes, overhead, profit, material, equipment, etc. to perform the work. This cost is for any additional work not covered in the scope of the work or by other unit prices in this section.
<b>Unit Price #8:</b>	Mobilization:	Cost per mobilization to the site to perform work as directed by the Project Designer. These mobilizations will be over and above those identified in the specification.

#### **General Conditions:**

1. Where critical barrier walls are required, the barrier shall be structurally supported with 2"x4" lumber, floor to ceiling, with a distance no greater than six (6) feet between supports. A layer of polyethylene critical barrier shall be placed on each side of the lumber supports. Tunnel critical barrier walls shall be constructed in a manner so as to allow a minimum of three (3) feet passage clearance between permanent structure and temporary barrier wall.
2. The Contractor shall be responsible for security at all HEPA-exhaust locations. At a minimum, all exhaust locations shall be faced with a  $\frac{5}{8}$ " to  $\frac{3}{4}$ " plywood barrier.
3. Mastic removal solvents used by the Contractor must produce minimal odor and must dissipate within 48 hours of application. Mastic removal solvents must be used in accordance with the MSDS and the manufacturer's instructions. If the solvent used is considered to be hazardous waste, proper disposal manifests must be provided to the Owner's Representative and/or Owner. Lockdown encapsulant is not required nor will it be permitted in areas associated with floor tile removal. The floor surface from which the mastic is removed must be cleaned and dry of removal solvents prior to the removal of containment barriers. This shall be accomplished by scrubbing the floor surface with a one percent (1%) liquid Tide™ and water solution. The Contractor shall then be required to perform two (2) separate clean water rinses of the abated floor surface. Work shall be conducted in a manner to ensure that mastic removal solvents do not seep into floor cracks or drains, below walls, cabinetry or unit ventilators, etc. The work area must be solvent-free at the completion of work.
4. The Contractor shall dispose of carpet which is free of asbestos-containing floor tile and mastic as non-asbestos containing waste.
5. The Contractor shall provide a licensed electrician to connect/disconnect Contractor's subpanel to/from the building's distribution panel(s).
6. The Contractor will properly transfer containerized asbestos-containing waste from equipment decontamination unit to an enclosed and secured dumpster and/or enclosed truck.
7. The Contractor shall protect all wall finishes, floor finishes, electrical systems, mechanical systems, communication systems, life safety systems, security systems, pneumatic systems, plumbing systems, cabinetry etc. from damage as a result of the abatement project. The Contractor shall be responsible for any such damage to the above-mentioned components at no additional cost to the Owner.
8. The Contractor will be responsible for additional costs due to non-compliance to the above-referenced work schedule as per Section 00810 – Modifications to General Conditions, Paragraphs 2.5.1 and 2.5.2. In addition, failure to meet the referenced timetable will not effect the Contractor's ability to begin any subsequent phase of this project on schedule.
9. It will be the Abatement Contractor's responsibility to submit all contract documents within 30 days of project completion so a final report can be completed in a timely fashion. If the Abatement Contractor fails to submit all written documentation within this timeframe, the Abatement Contractor shall assume project management costs as approved by the Owner.