

Eugene School District 4j

Facilities Management – Paint Room 2018

PROJECT MANUAL

April 3, 2018

SET: _____



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FACILITIES MANAGEMENT – PAINT ROOM
PROJECT #420.720.724**

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REQUEST FOR QUOTATIONS— DOCUMENT 00010

Sealed Quotes will be received by Kathi Hernandez, Purchasing Services, for Facilities Management – Paint Room until 2:00PM, Thursday, April 19, 2018, at the Eugene School District Facilities Management Office, 715 West Fourth, Eugene, Oregon 97402.

Briefly, the work is described as providing and installing a new paint booth in the existing painting area. This work includes removing and replacing a concrete slab area and providing / installing the new paint booth as specified. A new exhaust duct shall be installed, connecting to a new roof vent penetration.

Beginning 04/05/2018 Prime Bidders, Sub-bidders and Suppliers may obtain bidding documents at the following hyperlink: <http://www.4j.lane.edu/bids/>. Hard copies are not provided by the School District. It is the responsibility of all Prime Bidders, Sub-bidders, and Suppliers to obtain Bidding Documents and all Addenda from the hyperlink.

All quotations must be submitted on the form provided and enclosed in a sealed envelope marked:

Facilities Management – Paint Room - 2018

A mandatory pre-quote conference and walk-through has been scheduled for Monday, April 9, 2018, at 3:30. The location of the conference will be 715 W. 4th, Eugene, OR.

No Quote for a construction contract will be received or considered unless the Contractor is registered with the Construction Contractors Board or licensed by the State Landscape Contractors Board at the time the bid is made as required by ORS 671.530. A license to work with asbestos-containing materials under ORS 468A.720 is not required for this Project.

For every bid \$100,000 or greater, all Contractors and Subcontractors shall have a public works bond, in the amount of \$30,000, filed with the Construction Contractors' Board (CCB), before starting work on the project, unless exempt.

Each Quote shall contain a statement indicating whether the Quoter is a “resident quoter”, as defined in ORS 279A.120.

Each Quote shall contain a statement that the “Contractor agrees to be bound by and comply with the provisions of ORS 279C.800 to 279C.870 regarding payment of Prevailing Wages”.

Contractor shall certify nondiscrimination in obtaining required subcontractors, in accordance with ORS 279A.110.

If Quote amount exceeds \$10,000, each Quote shall be accompanied by a surety bond, cashier's check, or certified check executed in favor of Eugene School District 4J in an amount equal to ten percent (10%) of the amount of the Bid.

For contracts of \$10,000 or more, the successful Quoter will be required to furnish a Performance bond and Labor and Materials Payment bond each in the full amount of the contract price. Certificates of Insurance as described in the Terms and Conditions will be required.

School District 4J reserves the right to reject any and all proposals received as a result of this request for Quotations and select the Quote which appears to be in the best interest of the District.

Date: April 3, 2018

By: Kirk Gebb, Project Manager

QUOTATION REQUIREMENTS—DOCUMENT 00020

PART 1 GENERAL

1.1. GENERAL INFORMATION

- A. The term “quoter” shall refer to the firm or individual submitting a quote or quotation.
- B. Quoters are encouraged to visit the site(s) to become familiar with existing conditions. The Owner is not responsible and shall not bear financial burden for oversights made by the Quoter for failure to inspect sites prior to submitting a quote.
- C. In all cases, persons wishing to examine the area of work must sign in at the school office prior to visiting the work area. Prior to leaving the school, sign-out at the office is required.
- D. If access is required at times when the school office is not staffed, contact the Facilities Office, 541-790-7400, for assistance.
- E. The Owner is excise tax exempt. "Goods used hereon are for the exclusive use of this School District." Excise exemption No. 93 740074 F.

1.2. QUOTE PROCEDURES

- A. Quotes are to be submitted in one copy on the forms provided.
- B. Quoters shall certify to non-collusion practices on the form included as part of the Quote Form, to be submitted with the Quote Form.
 - 1. A Non-Collusion Affidavit is required for any contract awarded pursuant to the quote. According to the Oregon Public Contracts and Purchasing Laws, a public contracting agency may reject any or all quotes upon a finding of the agency that it is in the public interest to do so (ORS 279C.395). This agency finds that it is in the public interest to require the completion of this affidavit by potential contractors.
 - 2. The Non-Collusion Affidavit must be executed by the member, officer or employee of the quoter who makes the final decision on prices and the amount quoted in the quote.
 - 3. Quote rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of quotes are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the quoter with responsibilities for the preparation, approval or submission of the quote.
 - 4. In the case of a quote submitted by a joint venture, each party to the venture must be identified in the quote documents, and an Affidavit must be submitted separately on behalf of each party.
 - 5. The term "complementary quote" as used in the Affidavit has the meaning commonly associated with the term in the quoting process, and includes the knowing submission of quotes higher than the quote of another firm, any intentionally high or noncompetitive quote, and any other form of quote submitted for the purpose of giving a false appearance of competition.
 - 6. Failure to file an Affidavit in compliance with these instructions will result in disqualification of the quote.
- C. Quoters shall certify to non-discrimination in employment practices on the form, included as part of the Quote Form, to be submitted with the Quote Form. By submitting its quote, the Quoter certifies conformance to the applicable federal acts, executive orders, and Oregon statutes and regulations concerning affirmative action toward equal employment opportunities. All information and reports required by the federal or Oregon state governments having responsibility for the enforcement of such laws shall be supplied to the Owner in compliance with such acts, regulation, and orders.
- D. Quoter shall indicate, on the Quote Form where provided, the quoter status as a "resident" or "non-resident" in accordance with ORS 279A.120 and ORS 279C.365.
- E. A Quote may not be withdrawn or canceled by the Quoter following the time and date designated for the receipt of quotes to the expiration of a 60 day period. The Quote for that sixty days is irrevocable and each Quoter so agrees in submitting a Quote.

1.3. PERFORMANCE BOND AND PAYMENT BOND

- A. The successful Quoter shall be required to provide the Owner with a Performance Bond and Labor and Material Payment Bond **each** in an amount equal to one hundred (100%) of the contract sum. The Surety Company shall meet requirements as specified in the Supplementary Conditions.
- B. The Labor and Material Payment Bond shall contain a clause specifically guaranteeing payment of all sums of money withheld from employees and payable to the Internal Revenue Service; and all contributions or amounts due to the State of Oregon from the General Contractor or subcontractor incurred in the performance of this contract.
- C. The Bond shall be fully executed, payable to the Owner.
- D. The cost of these bonds shall be included in the Quote.
- E. The successful Quoter will be provided with contract forms through the Architect. These forms shall be executed and delivered to the Owner, along with Performance Bond and Labor and Material Payment Bond, within ten (10) days after receiving forms.

1.4. ADMINISTRATIVE RULES

- A. All quoters are required to comply with the provisions of Oregon Revised Statutes and 4J Board Policy. Attention is directed to ORS 244, Government Ethics; ORS 279A and 279C, Public Contracting Code; Oregon Administrative Rules, Chapter 137, Divisions 46, 48 and 49; and 4J Board Policy DJC.

1.5. PROTEST OF QUOTE

- A. Protests of quote specifications or contract terms shall be presented to the Owner in writing five (5) calendar days prior to quote opening. Such protest or request for change shall include the reason for protest or request, and any proposed changes to specifications or terms. No protest against award because of the content of quote specifications or contract terms shall be considered after the deadline established for submitting such protest.

1.6. PROTEST OF AWARD

- A. Any actual quoter or proposer who is adversely affected by the Owner's notice of award of the contract to another quoter or proposer on the same solicitation shall have seventy-two (72) hours from the notice of award to submit to the Owner, a written protest of the notice of award. In order to be an adversely affected or aggrieved quoter or proposer with a right to submit a written protest, a quoter or proposer must itself claim to be eligible for award of the contract as the lowest responsible quoter or best proposer and must be next in line for award.

1.7. FINAL AWARD

- A. The written notice of award of the contract shall constitute a final decision of the Owner to award the contract if no written protest of the notice of award is filed with the Owner within the designated time.

1.8. CONTRACTOR'S MARK UP FOR CHANGE ORDER WORK

- A. The allowance for the combined overhead and profit included in the total net cost to the Owner shall be based as follows:
 - 1. For the Contractor, for Work performed by the Contractor's own forces, 15 percent of the cost.
 - 2. For the Contractor, for Work performed by the Contractor's Subcontractor, 10 percent of the amount due the Subcontractor.
 - 3. For each Subcontractor or Sub-subcontractor involved, for Work performed by that Subcontractor's or Sub-subcontractor's own forces, 10 percent of the cost.
 - 4. Total overhead and profit shall not exceed 25% of the base cost of the work (base cost being defined as the cost of the work without markups.)
 - 5. Itemize costs to include breakdown for materials and labor, overhead and profit.
 - 6. A change to the work providing a net CREDIT to the Owner shall include a credit for overhead and profit based on the following schedule:
 - a. For the Contractor, 5 percent of the Cost to be credited.
 - b. For each Subcontractor, 5 percent of the Cost to be credited.

- c. For each Sub-subcontractor, 5 percent of the cost to be credited.
- d. In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including Subcontractor and Contractor overhead and profit as applicable.

END OF QUOTE REQUIREMENTS

QUOTATION FORM—DOCUMENT 00300Q

Quotation for: Facilities Management – Paint Room

Submitted to: Facilities Management Office
Eugene School District No. 4J
715 West Fourth Avenue
Eugene, Oregon 97402

Due Date: Thursday, April 19, 2018
Time: 2:00pm

From: _____
(Company Name)

The undersigned proposes to furnish all material, equipment, and labor required for the complete project, and to perform all work in strict accordance with the Contract Documents for the lump sum price indicated below.

BASE QUOTE:

Quote Amount: _____ \$ _____
(Words) (Figures)

The undersigned agrees, if awarded the Contract, to substantially complete all Base Quote work on or before the dates specified in Section 01100.

The undersigned agrees, if awarded the contract, to comply with the provisions of Oregon Revised Statutes 279C.800 through 279C.870 pertaining to the payment of prevailing rates of wage.

The undersigned agrees, if awarded the Contract, to execute and deliver to the Owner within ten (10) working days after receiving contract forms, an Agreement and a satisfactory Performance Bond and a Labor and Material Payment Bond, if required elsewhere in the solicitation, each in an amount equal to 100 percent (100%) of the Contract Sum.

The undersigned has received addenda numbers _____ to _____ inclusive and has included their provisions in the above Quote amount.

By submitting this Quote, the Quoter certifies that the Quoter:

a) has available the appropriate financial, material, equipment, facility and personnel resources and expertise, or the ability to obtain the resources and expertise, necessary to meet all contractual responsibilities; b) has a satisfactory record of past performance; c) has a satisfactory record of integrity, and is not disqualified under ORS 279C.440; d) is qualified legally to contract with the Owner; and e) will promptly supply all necessary information in connection with any inquiry the Owner may make concerning the responsibility of the Quoter. Prior to award of a Contract, the Quoter shall submit appropriate documentation to allow the Owner to determine whether or not the Quoter is "responsible" according to the above criteria.

Contractor warrants that Contractor has a Qualifying Employee Drug-Testing program and will require each subcontractor providing labor for the project to do the same.

The undersigned has visited the site to become familiar with conditions under which the Work is to be performed and has correlated the Quoter's personal observations with the requirements of the proposed Contract Documents.

The undersigned certifies that the Quoter is a _____ Quoter under ORS. ("Resident" or "Non-resident", to be filled in by Quoter).

Names of Firm: _____ TIN#: _____

Street Address: _____
(City) (State) (Zip)

Telephone Number: _____ Fax Number: _____ E-Mail: _____

Signed By: _____ Printed Name: _____
(Signature of Authorized Official. If Firm is a partnership, one of the partners must sign quote).

Official Capacity: _____ CCB # _____

If corporation, attest: _____ Date: _____
(Secretary of Corporation)

SEAL (If Corporation) _____ Corporation
_____ Partnership
_____ Individual

NON-DISCRIMINATION REQUIREMENT

Contractor certifies that the Contractor has not discriminated against minorities, women or emerging small business enterprises in obtaining any required subcontracts.

The Contractor agrees not to discriminate against any client, employee or applicant for employment or for services, because of race, color, religion, sex, national origin, physical or mental handicap, sexual orientation or age unless based upon bona fide occupational qualifications, and that they are otherwise in compliance with all federal, state and local laws prohibiting discrimination, with regard to, but not limited to, the following: Employment upgrading, demotion or transfer; Recruitment or recruitment advertising; Layoffs or termination; Rates of pay or other forms of compensation; Selection for training; Rendition of services. It is further understood that any vendor who is in violation of this clause shall be barred forthwith from receiving awards of any purchase order from the School District, unless a satisfactory showing is made that discriminatory practices have terminated and that a recurrence of such acts is unlikely.

BY _____ (Company or Firm Officer) _____ (Type or Print Name)

NON-COLLUSION AFFIDAVIT

STATE OF _____

County of _____

I state that I am _____ of _____ and that
(Title) (Name of Firm)

I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this Quote.

I state that:

- (1) The price(s) and amount of this Quote have been arrived at independently and without consultation, communication or agreement with any other contractor, Quoter or potential Quoter, except as disclosed on the attached appendix.
- (2) That neither the price(s) nor the amount of this Quote, and neither the approximate price(s) nor approximate amount of this Quote, have been disclosed to any other firm or person who is a Quoter or potential Quoter, and they will not be disclosed before Quote opening.
- (3) No attempt has been made or will be made to induce any firm or person to refrain from Quoting on this contract, or to submit a Quote higher than this Quote, or to submit any intentionally high or noncompetitive Quote or other form of complementary Quote.
- (4) The Quote of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or noncompetitive Quote.

(5) _____, its affiliates, subsidiaries, officers,
(Name of my Firm)

directors and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to Quoting on any public contract, except as described on the attached appendix.

I state that _____ understands and acknowledges that the
(Name of my Firm)

above representations are material and important, and will be relied on by School District No. 4J in awarding the contract(s) for which this Quote is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from School District No. 4J of the true facts relating to the submission of Quotes for this contract.

(Authorized Signature)

Sworn to and subscribed before me this

_____ day of _____, 2018

(Notary Public for Oregon)

My Commission Expires: _____

END OF QUOTE FORM

SUMMARY OF WORK – SECTION 01100

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Briefly, the work is described as providing and installing a new paint booth in the existing painting area. This work includes removing and replacing a concrete slab area and providing / installing the new paint booth as specified. A new exhaust duct shall be connected to a new roof vent penetration.

- 1. Project Location: 715 W. 4th, Eugene, OR
- 2. Owner: Eugene School District 4J, 715 West Fourth Avenue, Eugene, OR 97402.

- B. Architect Identification: The Contract Documents, dated April 3, 2018, were prepared for Project by Rodd Hansen, Architect, LLC, 1551 Oak Street, Ste. A, Eugene, OR 97401

- C. Project Manager: Kirk Gebb has been appointed by Owner to serve as Project Coordinator.

1.3 CONTRACT

- A. Project will be constructed under a general construction contract.

- 1. Construction Contractor Agreement

1.4 WORK SEQUENCE

- A. Do not commence Work until after execution of Agreement and receipt of Notice-to-Proceed from Owner.

- B. Perform work in order to achieve Substantial Completion by **May 31, 2018**.

- C. Achieve Final Completion within seven (7) days following the date of Substantial Completion.

1.5 USE OF PREMISES

- A. Work Area Access: Buildings [will] [will not] be occupied during work. Access to the work area will be available on a week-day basis from approximately 7:00 am to 4:00 pm. Coordinate all other work hour schedules with Owner so as not to interfere with Owner's use of the building.

- B. Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use by the public, subject to approval by a District Safety Specialist.

- C. Site Access: Maintain drives and building entrances and exits clear and protected at all times to Owner's, employees, and public access and for use by emergency personnel. Do not use these

areas for parking or storage. Schedule deliveries to minimize space and time requirements for storage of materials at site.

- D. Parking: Contractor may use existing parking areas as indicated on Drawings.
- E. Contractor Staging Areas: Limit staging to areas indicated on Drawings.
- F. Construction Operations: Limited to areas indicated on Drawings.

1.6 WORK UNDER SEPERATE CONTRACTS

- A. Separate Contract: None

1.7 FUTURE WORK

- A. Future Contract: Owner will award a separate contract for additional work to be performed at the site after Substantial Completion. Completion of that work will depend on successful completion of preparatory work under this Contract. The Contract for future work will include the following:

1.8 PRODUCTS ORDERED IN ADVANCE

- A. None
 - 1. None

1.9 OWNER-FURNISHED PRODUCTS

- A. None
 - 1. None

1.10 MISCELLANEOUS PROVISIONS

- A. If there is potential for direct, unsupervised contract with students, the following Fingerprint and Background Check Requirements apply. (1.10 B)
- B. BACKGROUND CHECK – N/A
- C. DRUG AND ALCOHOL POLICY
 - 1. The possession, use, or distribution of illicit drugs and alcohol on school premises is prohibited. Prescription medications brought to the project site shall be in the original container bearing the name of the drug, the name of the physician and the prescribed dosage.
- D. USE OF TOBACCO PRODUCTS
 - 1. Smoking and the other use of tobacco products is prohibited on all school district property pursuant to OAR 581-021-0110.
- E. SAFETY REQUIREMENTS
 - 1. Safety must not be sacrificed for the sake of productivity or expedience. Safety of students, staff, and the public is critical. Take all reasonable precautions to prevent endangerment or injury. Advise and coordinate operations with the school office.

2. All contractors who perform work on District property, and their employees, are expected to know the District's expectations for safe work and to adhere to those expectations.
3. Contractor's are to adhere to the regulations of Oregon OSHA for all projects within the School District.

F. GENERAL SAFE WORK PRACTICES

1. Students, public and school staff shall not be put at risk by the activities of contractors or their employees.
2. Safe vehicle operation rules are to be followed at all times. These include positioning vehicles to minimize the necessity of backing and providing a "spotter", someone who will make sure that people do not run into the path of a vehicle when driving on a playground or field that is occupied by students.
3. Tools shall never be left out when an unsecured work area is vacated.
4. Ladders and scaffolding will be taken down when an unsecured work area is vacated.
5. Open holes and other tripping hazards shall be fenced or barricaded when an unsecured work area is vacated.
6. Operations resulting in vapors, emissions or flying objects shall be conducted in such a way as to prevent exposure to any unprotected parties or property.
7. "Secured Work Area" is defined as an area having a perimeter cyclone fence at least 6 feet in height, with gates which close and lock so that no casual entrance is possible by unauthorized adults or children.
8. Contractor to follow all OR-OSHA rules for Confined Spaces, where applicable.

G. COMMUNICATIONS REGARDING UNSAFE PRACTICES

1. Upon perceiving a problem, the District will immediately communicate the concern to the Contractor or Contractor's representative on the work site.
2. If agreement on correction of unsafe conditions cannot be reached, the concerns of the District shall prevail and safety concerns shall be addressed in accordance with the District requirements.

H. ELECTRICAL PANELS - LOCKOUT/TAGOUT

1. Contractor shall implement a Lockout/Tag-out program for his employees who take equipment out of service or place equipment back into service. Contractor shall review the District's Energy Control Program prior to commencing work. Rules applying to this procedure are Oregon Occupational Safety and Health Code OAR 437, Division 2, Subdivision J, General Environmental Controls Lockout/Tag-out (1919.147), or latest edition.

I. POTENTIALLY HAZARDOUS PRODUCTS

1. The District attempts to maintain a safe and healthy environment for students and staff. The Contractor is therefore required to follow District guidelines controlling the use of potentially hazardous products and to use these products in a safe manner. Guidelines include the use of materials (adhesives, coatings, carpeting, etc.) which are known to emit little or no airborne pollutants.
2. MSDS information is required for all potentially hazardous products. The Project Manager and a District Safety Specialist will review these and determine what, if any, mitigation procedures will be required.
3. Contractor is to maintain and post copies of all MSDS information at the project site and adhere to the required controls.
4. Contractor is to ensure that work area by students and teachers is restricted. The District will provide signage appropriate for this purpose. The Contractor is to construct and

maintain appropriate barriers. This shall include provision of physical separation barriers between “construction” and “occupied” spaces.

5. Contractor to adopt means of maintaining the construction space in negative air pressure in relation to occupied spaces.
6. Where there is a new or existing ventilation system in an affected space, the system shall be adjusted to provide the maximum amount of outside air possible with the system.
7. Efforts shall be made to install and operate new ventilation systems as soon in the construction process as practical.

J. ASBESTOS CONTAINING MATERIALS WARNING

1. Asbestos containing materials are known to exist in areas of the Work. The Contractor shall not, in any way, disturb materials which are known to contain asbestos, assumed to contain asbestos, or otherwise have not been tested and confirmed to be asbestos free.
2. Where access to concealed spaces is required, or it is necessary to disturb building materials such as for drilling of holes, cutting, etc., notify the Owner so that proper investigation and/or removal procedures are followed.
3. Prior to commencing Work, the Contractor shall meet with the District Safety Specialist and review the Owner’s Asbestos Management Plan for the locations of asbestos-containing materials and/or materials assumed to contain asbestos. After reviewing the Owner’s Asbestos Management Plan, the Contractor is required to sign Form 01100A, Asbestos-containing Materials Notification Statement, provided at the end of this Section.
4. Contractor must not install any asbestos-containing materials when performing the Work of this project. At the completion of the Work, Contractor will be required to furnish a statement stating that no asbestos-containing materials were installed during the course of the Work. Refer to Sample Form 01100B at the end of this Section

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - SCHEDULE OF PRODUCTS ORDERED IN ADVANCE

PART 5 - ASBESTOS FORMS

Form 01100A

**ASBESTOS-CONTAINING MATERIALS NOTIFICATION STATEMENT
FOR CONTRACTORS**

This form must be completed and signed by the Contractor prior to beginning work in any Eugene School District 4J building.

The presence of known and assumed asbestos containing materials is documented in the AHERA Management Plan for each building. Copies of the AHERA Management Plan are available in the main office of each building and in the Facilities Management Office at 715 West Fourth Avenue, Eugene, Oregon. The District Asbestos Specialist must be informed of the Contractor's activities in each building prior to the start of work so that the Contractor can be informed on how to use the AHERA Management Plan and to determine if any asbestos-containing materials are likely to be impacted by the work of the Contractor.

The Contractor is responsible for notifying all employees and subcontractors of the presence of asbestos in the building. The Contractor shall not disturb known or assumed asbestos-containing materials. If the Contractor discovers suspected asbestos-containing materials that have not been identified, the Contractor must stop any work impacting the suspected materials and notify the District Asbestos Specialist so that the material can be sampled. Any asbestos-containing materials that must be removed to allow the Contractor to complete the Contractor's work will be removed by the District under separate contract. If the Contractor disturbs asbestos-containing materials, the Contractor will be responsible for the cost of the cleanup and decontamination..

I _____, Representing _____,
(Print Name of Representative) (Business Name)

have been notified of the location of the AHERA Management Plan and agree to avoid impacting all known or assumed asbestos-containing materials in the performance of the Work.

Signature of Representative

Date

Work Site

CIP #

Form 01100B

The Environmental Protection Agency (AHERA) rules require the School District obtain a signed statement from the Site Superintendent that, to the best of his/her knowledge, no asbestos-containing building materials were installed during the Work. Therefore, the following statement must be submitted on the Contractors letterhead prior to Project Closeout.

SAMPLE FORM

(To be submitted on the Contractor's letterhead)

ASBESTOS-CONTAINING MATERIALS STATEMENT

EUGENE SCHOOL DISTRICT 4J

Facilities Management – Paint Booth - 2018

Project #420.720.724

We the undersigned, (Name of Company), hereby warrant that to the best of our knowledge all materials furnished for the above referenced project contain 0% asbestos.

(Name of Construction Company)

(Signature and Date)

Printed Name

Job Title

END OF SECTION 01100

CUTTING AND PATCHING
SECTION 01 73 29

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Division 2 Section "Selective Demolition" for demolition of selected portions of the building.
 - 2. Divisions 2 through 49 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a written request describing procedures prior to the time cutting and patching will be performed, requesting approval to proceed, for cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of site-exposed elements.
 - 5. Work of Owner or separate contractor.
- B. Include the following information:
 - 1. Identification of Project and CIP number
 - 2. Location and description of the affected Work.
 - 3. Necessity for cutting or alteration.
 - 4. Description of proposed Work and Products to be used.
 - 5. Alternatives to cutting and patching.
 - 6. Effect on work of Owner or separate contractor.
 - 7. Written permission of affected separate contractor, if any.
 - 8. date and time work will be executed.

1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
 - 1. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
 - 2. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- B. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.6 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.

- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

CUTTING AND PATCHING - SECTION 01 73 29

- a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
- a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 73 29

ATTACHMENT A

CONSTRUCTION CONTRACTOR AGREEMENT TERMS & CONDITIONS with PERFORMANCE AND PAYMENT BOND

This Construction Contractor Agreement between the DISTRICT and the CONTRACTOR includes the following terms, conditions, and provisions:

- 1. DECLARATION OF INDEPENDENT CONTRACTOR:** CONTRACTOR declares that CONTRACTOR has complied with all federal, state, and local laws regarding business permits, registrations, certificates, and licenses that may be required to carry out the work to be performed under this agreement. The CONTRACTOR represents that the CONTRACTOR qualifies as an independent CONTRACTOR as evidenced by agreement to the conditions of this contract. The CONTRACTOR represents that all the information in the agreement is true and the DISTRICT may contact individuals and corporations to verify this information. The DISTRICT relies upon the representation of the CONTRACTOR. In the event the CONTRACTOR is determined not to be an independent CONTRACTOR for the purpose of providing these services to the DISTRICT, then the CONTRACTOR will reimburse the DISTRICT's full costs and damages associated with or in any way related to this determination.
- 2. CONTRACTOR'S REGISTRATION:** The CONTRACTOR and each Subcontractor shall be registered, prior to the commencement of the Work, and maintain, for the duration of the Project, a registration with the Oregon State Construction CONTRACTOR's Board.
- 3. RESPONSIBILITY TEST:** CONTRACTOR certifies that the contractor: a) has available the appropriate financial, material, equipment, facility and personnel resources and expertise, or the ability to obtain the resources and expertise, necessary to meet all contractual responsibilities; b) has a satisfactory record of past performance; c) has a satisfactory record of integrity, is not disqualified under 279C.440; and d) is qualified legally to contract with the DISTRICT.
- 4. PERMITS, FEES AND NOTICES:** The DISTRICT will pay the plan check fee, building permit fee, and systems development charges directly to the authority having jurisdiction. The CONTRACTOR shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authorities bearing on performance of the work of this contract. The CONTRACTOR shall secure and pay for all other permits, fees and inspections necessary for the proper execution and completion of the Contract, which are legally required when bids are received or negotiations concluded. The CONTRACTOR shall pick up permits and call for inspections through final inspection, as required by the City Building Department.
- 6. BACKGROUND CHECK –If there is potential for direct, unsupervised contact with students, the following Fingerprint and Background Check Requirements apply. Complete the Following Steps 1 through 3**
 1. **Payment of ODE Fee:** To complete the requirements of the Oregon Department of Education (ODE), the Contractor must go to the District Financial Services located at the Education Center building, at 200 North Monroe, Eugene, OR 97402. Upon entering the front entrance, Financial Services is the first office on the right. The ODE processing fee for the background check is \$59.00. The individual will be required to indicate name, the name of the company they represent, contact phone #, and contact email. The \$59.00 payment is required at that time.
 2. **Lane County School District 4J Background Check:** To complete the Lane County School District 4J background check please follow the step below.
 - a. Visit: <https://www.helpcounterweb.com/welcome/apply.php?district=eugene>. Enter the requested information.
 3. **Independent Contractor Federal Fingerprint and Background Check Process through FieldPrint:** To complete the federal background check please follow the below steps. If you have any questions please contact the Human Resources office at 541-790-7660.
 - a. Visit: FieldprintOregon.com
 - b. Click on the "Schedule an Appointment" button.
 - c. Enter an email address under "New Users/Sign Up" and click the "Sign Up" button. Follow the instructions for creating a Password and Security Question and then click "Sign Up and Continue".
 - d. Enter the Eugene School District Fieldprint Code – **FPEugeneSD4J**
 - e. Enter the contact and demographic information required by the FBI and schedule a fingerprint appointment at the location of your choosing.
 - f. During this process you will need the 4J "Institution ID #" which is **2082**.
 - g. At the end of the process, print the Confirmation Page. Take the Confirmation Page with you to your fingerprint appointment, along with two forms of identification.
 - h. A registration fee of \$12.50 will be due to Fieldprint during the scheduling of an appointment.
 - i. If you have any questions or problems, you may contact the Fieldprint customer service team at 877-614-4364 or customerservice@fieldprint.com.

7. SMOKING, DRUG AND ALCOHOL POLICIES: Smoking and the other use of tobacco products is prohibited on all school district property pursuant to OAR 581-021-0110. District Policy prohibits the possession, use or distribution of illicit drugs and alcohol on school premises. Anyone under the treatment of a physician who must bring prescription medications to the workplace shall carry the medicines in the original container bearing the name of the drug, the name of the physician and the prescribed dosage. The CONTRACTOR is required to demonstrate that an employee drug testing program is in place.

8. POTENTIALLY HAZARDOUS PRODUCTS: The District attempts to maintain a safe and healthy environment for students and staff. The Contractor is therefore required to follow District guidelines controlling the use of potentially hazardous products and to use these products in a safe manner.

MSDS information is required for all potentially hazardous products. The Project Manager and a District Safety Specialist will review these and determine what, if any, mitigation procedures will be required. Contractor is to maintain and post copies of all MSDS information at the project site and adhere to the required controls.

Contractor is to ensure that work area access by students and teachers is restricted. The District will provide signage appropriate for this purpose. The contractor is to construct and maintain appropriate barriers.

9. ASBESTOS CONTAINING MATERIALS: Prior to commencing work on-site, the CONTRACTOR shall contact the District Asbestos Specialist, to review the Asbestos Management Plan for the site where the work will be performed. The CONTRACTOR shall not, in any way, disturb materials which are known to contain asbestos, assumed to contain asbestos, or otherwise have not been tested and confirmed to be asbestos free. The DISTRICT will investigate and test for asbestos containing materials and, if required, remove such materials as required for the Work. CONTRACTOR is required to sign an Asbestos Containing Materials Notification Statement as supplied by DISTRICT prior to commencing Work. The CONTRACTOR shall use no asbestos-containing materials in the Work and shall so certify.

10. SAFETY REQUIREMENTS: Safety must not be sacrificed for the sake of productivity or expedience. Safety of students, staff, and the public is critical. All CONTRACTORS who perform work on District property, and their employees, are expected to know the DISTRICT's expectations for safe work and to adhere to those expectations. CONTRACTOR shall adhere to the regulations of Oregon OSHA for all projects within the School District.

11. ELECTRICAL REQUIREMENTS:

LOCKOUT/TAGOUT: Contractor shall implement a Lockout/Tagout program for employees who take equipment out of service or place equipment back into service after repair. Contractor shall review the District's Energy Control Program prior to commencing work. Rules applying to this procedure are Oregon Occupational Safety and Health Code OAR 437-002-0140, General Environmental Controls Lockout/Tagout (1919.147), or latest version.

ARC FLASH – ELECTRICAL SAFETY: Contractor shall comply with NFPA 70E (Electrical Safety in the Workplace), current edition. Contractor shall comply with Oregon OSHA 1910.137 (Personal Protective Equipment). The Contractor shall review with the School District Project Manager the 'Eugene School District Electrical Safety Program' before any work commences. The Contractor shall comply with all 'Arc Flash' and 'Electrical Safety' protocols referenced in any and all NFPA, OSHA, OROSHA, NEC, NESC, UL, IBC, IFC and ANSI documents (current editions).

12. CONFINED SPACE REQUIREMENTS: If work requires entering underground fuel storage tanks, utility tunnels, sewer vaults (where septic systems are located) or fireboxes on boilers, a permit and special training is required, when necessary under OAR 437-002-0140.

13. HOLD HARMLESS AND INDEMNIFICATION: To the fullest extent of the law, the Contractor will defend, indemnify, hold harmless and reimburse the Eugene School District 4J (including its officers, board members, agents, and employees) from all claims, demands, suits, actions, penalties, and damage expenses, for liability of any kind including attorney's fees. To the extent that death or bodily injury to persons or damage to property arises out of the fault of the Contractor, the Contractor's indemnity obligation exists only to the extent that the death or bodily injury to persons or damage to property arises out of the fault of the Contractor, or the fault of the Contractor's agents, representatives or subcontractors, contributed to or caused such damage, whether or not such incidents are contributed to or caused in any part by Eugene School District 4J.

14. INSURANCE: The Contractor shall maintain in force for the duration of this agreement, the following:

General Insurance: The Contractor shall maintain in force for the duration of this agreement a Umbrella Insurance Policy with the limits not less than \$5,000,000, a Commercial General Liability, Automobile Liability (owned, non-owned and hired) Insurance policy(s) written on an occurrence basis with limits not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregated naming the District, its employees, officials and agents as an additional insured as respects to work or services performed under this agreement. This insurance will be primary to any

insurance the District may carry on its own. If the District requires Professional Liability coverage, the terms, conditions, and limits must be approved by the District's Risk Manager.

Workers' Compensation: The CONTRACTOR shall provide and maintain workers' compensation coverage for its employees, officers, agents, or partners as required by applicable workers' compensation laws.

Equipment and Material: The CONTRACTOR shall be responsible for any loss, damage, or destruction of its own property, equipment, and materials used in connection with the work.

Course of Construction: The CONTRACTOR shall maintain an all-risk policy covering the replacement cost of the Work during the course of construction. The policy shall include the interests of the DISTRICT and the Architect. The amount of insurance shall equal the completed value of the contract.

Property Insurance: The CONTRACTOR shall purchase from and maintain in a company or companies authorized to do business in the jurisdiction in which the Project is located, property insurance on an "all risk" policy form, including builder's risk/installation floater, whichever is appropriate, in the amount of the initial Contract Sum, plus the value of subsequent modifications and the cost of materials supplied by others, comprising the total value of the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in The Contract Documents or until no person or entity other than the DISTRICT has an insurable interest in the property required by this paragraph to be covered, whichever is later. The insurance shall include interests of the DISTRICT, Architect and CONTRACTOR, Subcontractors, and sub-subcontractors in the Project.

Evidence of Coverage: Evidence of the above coverages issued by a company satisfactory to the District shall be provided to the District by way of a certificate of insurance before any work or services commence. A 30-day notice of cancellation or material change in coverage clause shall be included. It is the Contractor's obligation to provide the 30 days notice if not done so by the Contractor's insurance company(s). Failure to maintain the proper insurance shall be grounds for immediate termination of this Agreement.

Subcontractors: The CONTRACTOR shall require all Subcontractors to provide and maintain general liability, auto liability, professional liability (as applicable), and workers' compensation insurance with coverage equivalent to those required of the general CONTRACTOR in this contract. The CONTRACTOR shall require certificates of insurance from all subcontractors as evidence of coverage.

Exception or Waivers: Any exception or waiver of these requirements shall be subject to review and approval from the DISTRICT's Risk Manager.

15. PERFORMANCE BOND AND PAYMENT BOND: The Contractor shall furnish a Performance bond and a Labor and Materials Payment bond covering faithful performance of the Contract and payment of obligations arising there under. Bonds are to be obtained through a company that is on the US Government Treasury list for approved sureties and/or approved by School District 4J's Risk Manager. The cost of the Bond shall be included in the Contract Sum. The amount of each bond shall be equal to 100 percent of the Contract Sum. Submit on AIA Document A312, latest edition.

The Contractor shall deliver the required bonds to the DISTRICT with the executed Agreement. The Contractor shall require the Attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of their power of attorney.

16. OWNERSHIP OF WORK PRODUCT: All work products of the CONTRACTOR, which result from this contract shall be the exclusive property of the DISTRICT and shall be delivered to the DISTRICT upon completion of the work or termination of this contract, except as otherwise agreed in writing.

17. EQUIPMENT, TOOLS, MATERIALS, OR SUPPLIES: CONTRACTOR shall supply, at CONTRACTOR's sole expense, all equipment, tools, materials and/or supplies to accomplish the services agreed upon. The CONTRACTOR shall be responsible for any loss, damage, or destruction of its own property, equipment, and materials used in conjunction with the work.

18. REIMBURSEMENT OF EXPENSES: The DISTRICT shall not be liable to CONTRACTOR for any expenses paid or incurred by the CONTRACTOR unless previously agreed to in writing.

19. FRINGE BENEFITS: Because CONTRACTOR is engaged in CONTRACTOR's own independently established business, CONTRACTOR is not eligible for, and shall not participate in, any employee pension, health, or other fringe benefit plan, of the DISTRICT.

20. HOURS OF LABOR: No person shall be employed for more than ten hours in any one day, or 40 hours in any one week, except in the cases of necessity, emergency, or where the public policy absolutely requires it, and in such

cases the person so employed shall be paid at least time and a half of the regular pay for all time worked.

- a. For all overtime in excess of eight hours a day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or
- b. For all overtime in excess of 10 hours a day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and
- c. For all work performed on Saturday and on any legal holiday specified in ORS 279C.540.

The Contractor shall give notice to employees who work on a public contract in writing, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees of the number of hours per day and days per week the employees may be required to work.

21. PAYMENT OF LABORERS AND MATERIALMEN, CONTRIBUTIONS TO INDUSTRIAL ACCIDENT FUND, LIENS AND WITHHOLDING TAXES: The Contractor shall: (1) Make payment promptly, as due, to all persons supplying to such contractor labor or material for the prosecution of the Work provided for in such contract. (2) Pay all contributions or amounts due the Industrial Accident Fund from such contractor or subcontractor incurred in the performance of the contract. (3) Not permit any lien or claim to be filed or prosecuted against the state, county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished. (4) Pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

22. PAYMENT FOR MEDICAL CARE AND PROVIDING WORKERS' COMPENSATION: The CONTRACTOR shall promptly, as due, make payment to any person, co-partnership, association or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to the employees of such CONTRACTOR, of all sums which the CONTRACTOR agrees to pay for such services and all moneys and sums which the CONTRACTOR collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying for such service. All employers working under this contract are subject employers and must comply with ORS 656.017.

23. PAYMENT OF CLAIMS BY PUBLIC OFFICERS: If the CONTRACTOR fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the CONTRACTOR or a Subcontractor by any person in connection with the public contract as such claim becomes due, the proper officer or officers representing the DISTRICT may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due the CONTRACTOR by reason of such contract. The payment of a claim in this manner shall not relieve the CONTRACTOR or the CONTRACTOR's surety from obligation with respect to any unpaid claims.

24. FEDERAL, STATE, AND LOCAL PAYROLL TAXES: Neither federal, nor state, nor local income tax nor payroll tax of any kind shall be collected, withheld or paid by the DISTRICT on behalf of the CONTRACTOR or of employees of the CONTRACTOR. CONTRACTOR shall not be treated as an employee with respect to the services performed hereunder for federal or state tax purposes.

25. PREVAILING WAGE RATES: When the total price of the Project is \$50,000 or more, each worker in each trade or occupation employed in the performance of this Contract either by the contractor, subcontractor or other person doing or contracting to do contracting for the whole or any part of the Work on the Contract shall be paid not less than the applicable prevailing rate of wage.

- a. The existing Oregon prevailing rate of wage in effect at the time the specifications are first advertised for bid solicitations is the applicable rate.
- b. The DISTRICT will pay the public works fee to Oregon Bureau of Labor and Industries.
- c. Certification of rate or wage by Contractor or Subcontractor (ORS 279C.845):

.1 The contractor or the contractor's surety and every subcontractor or the subcontractor's surety shall file certified statements with the public agency in writing, on a form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker whom the contractor or the subcontractor has employed upon the public works, and further certifying that no worker employed upon the public works has been paid less than the higher of the applicable state or federal prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract. The certificate and statement shall be verified by the oath of the contractor or the contractor's surety or subcontractor or the subcontractor's surety that the contractor or subcontractor has read the statement and certificate and knows the contents thereof and that the same is true to the contractor or subcontractor's knowledge. The certified statements shall set out accurately and completely the payroll records for the prior week, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid.

.2 If the Contractor does not file certified payroll as required (at least once per month) the DISTRICT will withhold 25% of the amounts due the Contractor, in addition to any other required retainage.

.3 If a first-tier Subcontractor does not file certified payroll reports as required, the prime Contractor shall withhold 25% of amounts due the first-tier Subcontractor.

.4 Each certified statement required by subsection (1) of this section shall be delivered or mailed by the contractor or subcontractor to the public contracting agency. Certified statements shall be submitted to the public contracting agency once a month by the fifth business day of the following month, for each week workers are employed. Information submitted on certified statements may be used only to ensure compliance with the provisions of ORS 279C.800 to 279C.870.

.5 Each contractor or subcontractor shall preserve the certified statements for a period of three years from the date of completion of the contract.

.6 Certified statements received by a public agency are public records subject to the provisions of ORS 192.410 to 192.505. As such, they must be made available upon request.

- d. For every bid \$100,000 or greater, all Contractors and Subcontractors shall have a public works bond, in the amount of \$30,000, filed with the Construction Contractors' Board (CCB), before starting work on the project, unless exempt.
- e. Contractor shall include in every subcontract a provision requiring their Subcontractors to have a public works bond filed with the CCB before starting work on the project, unless exempt. Contractors shall verify that all of their subcontractors have filed a public works bond with the CCB.

26. SUBCONTRACTORS: The CONTRACTOR shall include in any subcontract for property or services entered into by the CONTRACTOR and Subcontractor, including a material supplier, for the purpose of performing a construction contract:

- a. A payment clause that obligates the CONTRACTOR to pay the Subcontractor for satisfactory performance under its subcontract within 10 days out of such amounts as are paid to the CONTRACTOR by the DISTRICT under such contract; and
- b. An interest penalty clause that obligates the CONTRACTOR to pay to the Subcontractor an interest penalty on amounts due in the case of each payment not made in accordance with the payment clause included in the subcontract pursuant to the above paragraph for the period beginning on the day after the required Payment date and ending on the date on which payment of the amount due is made; computed at the rate specified in ORS 279C.580.

27. PROJECT CLOSEOUT: When the Work is determined to be complete:

- a. Return all keys to DISTRICT Representative.
- b. Where warranties are required, submit original warranty certificates and indicate dates of coverage.
- c. Submit any operation and maintenance information required by technical specifications.
- d. Submit any as-built drawings or other as-built documentation required by technical specifications.
- e. Submit AIA Document G707 Consent of Surety Company for final payment.
- f. Submit Affidavit of Prevailing Wages Paid (Sample will be furnished at completion of work).
- g. Submit Asbestos-Containing Materials Statement (Sample will be furnished at completion of work.)
- h. Certificate of Insurance evidencing continuation of liability coverage including coverage for completed operations until the expiration of the specified warranty periods
- i. Where a building permit is required, submit documentation of Building Department inspection and acceptance.
- j. Final payment will be authorized after all project closeout tasks have been completed and the work is determined to be acceptable by the DISTRICT Project Manager.

28. NON-DISCRIMINATION: The CONTRACTOR, by signing this agreement certifies that the CONTRACTOR has not discriminated against minorities, women or emerging small business enterprises in obtaining any required subcontracts.

The CONTRACTOR agrees not to discriminate against any client, employee or applicant for employment or for services, because of race, color, religion, sex, national origin, physical or mental handicap, sexual orientation or age unless based upon bona fide occupational qualifications, and that they are otherwise in compliance with all federal, state and local laws prohibiting discrimination, with regard to, but not limited to, the following: Employment upgrading, demotion or transfer; Recruitment or recruitment advertising; Layoffs or termination; Rates of pay or other

forms of compensation; Selection for training; Rendition of services. It is further understood that any vendor who is in violation of this clause shall be barred forthwith from receiving awards of any purchase order from the School District, unless a satisfactory showing is made that discriminatory practices have terminated and that a recurrence of such acts is unlikely.

29. FOREIGN CONTRACTORS: In the event this Contract is awarded to a contractor not domiciled in or registered to do business in the State of Oregon and the contract price exceeds \$10,000.00, the CONTRACTOR shall promptly report to the Department of Revenue the total price, terms of payment, length of contract, and such other information as the Department of Revenue may require before final payment can be received on the public contract. The DISTRICT will satisfy itself that the requirement of this subsection has been complied with before it issues a Final Payment.

30. TERMINATION WITH CAUSE: With reasonable cause, either party may terminate this agreement effective immediately upon the giving of written notice of termination for cause. Reasonable cause shall include:

- a. Material violation of this agreement.
- b. Any act exposing the other party to liability to others for personal injury or property damage.

31. REMEDIES: In the event of a termination of this contract by the DISTRICT, because of a breach by CONTRACTOR, the DISTRICT may complete the work either by itself or by contract with other persons, or any combination thereof. CONTRACTOR shall be liable to the DISTRICT for any costs or losses incurred by the DISTRICT arising out of or related to the breach, including costs incurred in selecting other CONTRACTORS, time delay losses, attorney fees, and the like, less the remaining unpaid balance of the consideration until DISTRICT's costs and losses have been determined, at which time the DISTRICT may offset any such amount due CONTRACTOR against costs and losses incurred by DISTRICT.

32. TERMINATION OR SUSPENSION OF CONTRACT FOR CONVENIENCE: Any contract may be terminated, or temporarily suspended, by the DISTRICT in the event that the project is permanently abandoned, or deferred, as determined in the sole discretion of the district. The DISTRICT may terminate, or suspend, any contract in whole or in part whenever the DISTRICT determines, in its sole discretion, that such action is in the DISTRICT's best interest. Whenever any contract is terminated, or suspended in accordance with this paragraph, the CONTRACTOR shall be entitled to payment for actual work performed at contract prices for completed items of work. An equitable adjustment in any contract price for partially completed items of work will be made, but such adjustment shall not include provisions for loss of anticipated profit on deleted or uncompleted work. For suspended work, the CONTRACTOR will be entitled to five percent (5%) per year of the value of the work suspended, only if ultimately completed and reasonable re-mobilization costs, if applicable. Termination or suspension of any contract by the DISTRICT at any time during the term for convenience shall not constitute a breach of any contract by the DISTRICT.

33. ASSIGNMENT: CONTRACTOR shall not assign this contract, in whole or in part, or any right or obligation hereunder, without the DISTRICT's prior written approval.

34. NO AUTHORITY TO BIND CLIENT: CONTRACTOR has no authority to bind or obligate the DISTRICT, or to enter into contracts or agreements on behalf of the DISTRICT. This agreement does not create a partnership, joint venture or agency between the parties.

35. NON-WAIVER: The failure of either party to exercise any of its rights under this agreement for a breach thereof, shall not be deemed to be a waiver of such rights or a waiver of any subsequent breach.

36. NOTICES: Any notice given in connection with this agreement shall be given in writing and shall be delivered either by hand to the signing party or by regular and certified mail to the party at the party's address stated herein.

37. CHOICE OF LAW: Any dispute under this agreement or related to this agreement shall be decided in accordance with the laws of the State of Oregon.

38. ATTORNEY'S FEES: In the event of any action to enforce or interpret this contract, the prevailing party shall be entitled to recover from the losing party reasonable attorney fees incurred in the proceeding, as set by the court, at trial, upon appeal, or upon review.

39. ENTIRE AGREEMENT: This is the entire agreement of the parties, and supersedes any prior agreement.

40. SEVERABILITY: If any part of this agreement shall be held unenforceable, the rest of this agreement will nevertheless remain in full force and effect.

41. AMENDMENTS: This agreement may be supplemented, amended, or revised only in writing by agreement of the parties.

42. DEBARMENT CERTIFICATION: The contractor/Vendor certifies that the Contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in this Contract by any Federal department or agency. If requested by the Eugene 4J School District, the Contractor shall complete a

Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion form. Any such form completed by the Contractor for this Contract shall be incorporated into this Contract by reference.

42. CONTRACTOR'S MARK UP FOR CHANGE ORDER WORK: The allowance for the combined overhead and profit included in the total net cost to the DISTRICT shall be based as follows:

- a. The maximum allowable hourly wage rate for Changes to the Work shall be the appropriate Base Wage Rate plus Fringe Rate as listed for each occupation in the Prevailing Wage Rate for Public Works Contracts in Oregon manual issued by the Oregon Bureau of Labor and Industries (the current issue in effect on the date the quote is first advertised and/or a quote is first requested); multiplied by 1.25. An amount for Overhead and Profit may be added in accordance with section b through h below.
- b. For the CONTRACTOR, for work performed by the CONTRACTOR, 15 percent of the amount due the CONTRACTOR.
- c. For the Contractor, for Work performed by the Contractor's Subcontractor, 10 percent of the amount due the Subcontractor.
- d. For each Subcontractor or Sub-subcontractor involved, for Work performed by that Subcontractor's or Sub-subcontractor's own forces, 10 percent of the cost.
- e. Total overhead and profit shall not exceed 25% of the base cost of the work (base cost being defined as the cost of the work without markups.)
- f. Itemize costs to include breakdown for materials and labor, overhead and profit.
- g. A change to the work providing a net CREDIT to the DISTRICT shall include a credit for overhead and profit based on the following schedule:
 1. For the Contractor, 5 percent of the Cost to be credited.
 2. For each Subcontractor, 5 percent of the Cost to be credited.
 3. For each Sub-subcontractor, 5 percent of the Cost to be credited.
- h. In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including Subcontractor and Contractor overhead and profit as applicable.

43. APPLICATION FOR PAYMENT: Submit payment request on invoice customarily used by Contractor. Identify 5% retainage to be carried until the project is determined to be complete.

END OF TERMS AND CONDITIONS

CONSTRUCTION CONTRACTOR AGREEMENT
LANE COUNTY SCHOOL DISTRICT 4J
715 West Fourth Avenue
Eugene, Oregon 97402

This Agreement is hereby made between the Lane County School District 4J, hereinafter DISTRICT, and CONTRACTOR, according to the following terms, conditions and provisions:

1. CONTRACTOR is identified as follows:

Firm Name: _____

Contractor's Representative _____

Address: _____

City/State/ZIP: _____ Email: _____

Business Telephone: _____ FAX: _____

Social Security Number: _____ or Federal Employer ID: _____

Type of Entity: Sole Proprietorship Partnership Corporation

2. SERVICES TO BE PROVIDED (Include scope of work, schedule and other provisions including supplies, materials, equipment or services, as applicable):

3. DISTRICT'S REPRESENTATIVE: _____.

4. FINGERPRINTING REQUIREMENTS: Do services to be provided include potential for direct, unsupervised contact with students? Yes No

If yes, has CONTRACTOR been fingerprinted? Yes No

5. DATE AND DURATION: This agreement shall be effective commencing on _____ and extending through _____, unless otherwise terminated or extended.

6. PAYMENT: The DISTRICT shall pay the CONTRACTOR the agreed sum of \$ _____
_____ for work described herein.

Purchase Order or Account Number to be charged: _____

7. CONTRACTOR REQUIREMENTS: The CONTRACTOR agrees to perform the work or services as described in this Agreement in accordance with the Terms and Conditions of this Agreement (ATTACHMENT A) and Drawings and Specifications listed below:

8. CONTRACTOR is an Independent Contractor within the meaning of ORS 670.600 and is not an employee of the DISTRICT.

9. SIGNATURES: It is so agreed this _____ day of _____, _____

CONTRACTOR

Date

DISTRICT

Date

**SELECTIVE STRUCTURE DEMOLITION
SECTION 02 41 19**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A This section includes the following:
 - 1. Demolition and removal of selected portions of the building and finishes.
 - 2. Salvage of existing items to be reused or recycled.

1.3 SALVAGE

- A. None. Remove and dispose of all material from site as noted on Drawings.

1.4 SUBMITTALS

- A. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.5 PROTECTION

- A. General:
 - Protect portions of existing facilities which are to remain against damage and discoloration. Allow no leaks, even temporary, in existing building.
- B. Barriers, Safety Guards, and Warning Lights. Provide where necessary for public protection.
- C. Utilities
 - Keep active utilities intact and in continuous operation.

1.6 SCHEDULE

- A. Provide a proposed schedule of demolition Work to the Owner for review within 5 days of receiving the written Notice to Proceed. Contractor shall coordinate with Owners asbestos abatement contractor.

1.7 QUALITY STANDARDS

- A. Provide experienced, well-trained workers competent to complete the work as specified.
- B. Unless approved by the Architect, provide all related products and accessories from one manufacturer.

**SELECTIVE STRUCTURE DEMOLITION
SECTION 02 41 19**

- C. Use materials from manufacturers and suppliers specified or approved by the Architect.
- D. All work shall comply with governing building and safety codes.

1.8 MATERIALS HANDLING

- A. Provide all materials required to complete the work as shown on the Drawings and specified herein.
- B. Deliver, store, and transport materials to avoid damage to the materials or to any other work.

1.9 PROJECT CONDITIONS

- A. Examine and verify that job conditions are satisfactory for speedy and acceptable work.
- B. Notify Architect when work is scheduled to be started and completed.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.

1.10 ALTERNATES

- A. Refer to Section 01 23 00 for possible effect on work of this Section.

PART 2 - PRODUCTS

2.1 PROTECTIVE BARRIERS AND COVERS

- A. Provide demolition materials, barriers, protective covers, etc. to complete the work as specified.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not start work until conditions are satisfactory.

3.2 SITEWORK PREPARATION

**SELECTIVE STRUCTURE DEMOLITION
SECTION 02 41 19**

- A. Obtain all required permits and approvals and obey all restrictions, deadlines, and notification requirements of governing agencies.
- B. Notify owners and tenants of adjacent properties of impending work.
- C. Identify and clearly mark underground utility lines, pipe, cable, and conduits.

3.3 DUST-PROOF PARTITIONS

- A. Build where necessary to prevent dust-spread.
- B. Face with plywood attached solidly to studs and cross blocking.
- C. Cover joints with reinforced Kraft paper cemented in place.
- D. Maintain dust-proof; remove only when directed.
- E. Provide access and egress doors as required to maintain fire escape routes.

3.4 CLEANING AND REPAIRING

- A. Allow no debris to accumulate in buildings, or on grounds, streets, or walks.
- B. Haul away from site as soon as removed.
- C. Dispose of at Contractor's expense.
- D. Clean, repair and touch, or replace when directed, adjacent property and surfaces which have been soiled, discolored, or damaged by work of this Section.

END OF SECTION 02 41 19

**CAST-IN-PLACE CONCRETE
SECTION 03 30 00**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes the following:
 - 1. Footings
 - 2. Slabs-on-grade

1.3 SUBMITTALS

- A. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.4 QUALITY ASSURANCE

- A. Follow these standards: Place concrete according to ACI 301. Reinforcing to comply with ACI 301 and related ACI, CRSI, and ASTM standards. Formwork to comply with ACI 301, 318, and ACI 347. Tolerance standards for level, plumb, and aligned construction shall be as per ACI 117.

PART 2 - PRODUCTS

2.1 FORMWORK MATERIALS

- A. Miscellaneous materials include: Construction joints: Tongue and groove extruded plastic as manufactured for this purpose to be installed where sawn trenches in existing slabs cross existing control joints. Joint filler: Premolded asphaltic board as per ASTM D 1751.
- B. Vapor retarder for concrete slab on grade: "Moistop Ultra 10", 10 mil fiberglass reinforced polyethylene, manufactured by Fortifiber Building Products Systems, or approved.
- C. Chamfer Strips: Wood, metal, PVC, or rubber strips, ¾ by ¾ inch min.
- D. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

2.2 REINFORCING MATERIALS

- A. Reinforcing bars or wire mesh: All Interior and Exterior slabs on grade shall be reinforced with #4 deformed bars spaced 24" o.c.

**CAST-IN-PLACE CONCRETE
SECTION 03 30 00**

2.3 CONCRETE MATERIALS

- A. Concrete ingredients: Portland cement ASTM C 150 Normal-Type I. Aggregate, fine and coarse as per ASTM C 33. Water as per ASTM C 94, clean, free of salt or any chemicals or contaminants that might injure the concrete. Where exposed aggregate finish is noted on the Drawings provide special "exposed aggregate mix" to match as closely as possible the exposed aggregate finish of existing exposed aggregate finish closest to new slab.
- B. Admixtures and miscellaneous materials:
 - 1. Air entraining admixture as per ASTM C 260 and manufacturer's instructions. Water reducing, retarding, accelerating admixtures as per: ASTM C 494 and manufacturer's instructions. Bonding agent: Polymer resin. Non-shrink grout: Non-metallic mineral aggregate, cement, water reducing materials as per ASTM C 494 and as per manufacturer's instructions.
- C. Curing & Sealing products:
 - 1. Curing and protection paper: Products shall comply with ASTM C 171. Use non-staining curing paper or paper with polyethylene film on floor slabs.
 - 2. Liquid curing & hardening agents as manufactured by Sonneborn or its descendants, or approved.
 - 3. Interior Flatwork to receive finish covering: Clear, colorless, with fugitive dye, approved by floor covering Contractor; meet or exceed ASTM C-309-Type 1., no VOC
 - 4. Exterior Flatwork without finish covering: White pigmented, non-yellowing, meet or exceed ASTM C-309-Type 1, no VOC.

2.4 CONCRETE MIXTURE

- A. All mixing and tests to assure compliance with standards as per CI 301.
 - 1. Provide concrete ready-mixed in compliance with ASTM C 94. Concrete strength will conform to ACI 301, 318, and applicable building code requirements.

Compressive strength of 1700 psi in 7 day test.

Compressive strength of 3500 psi in 28 day test.

Slump (5) inches maximum.
- B. Add air entraining admixture as required to protect concrete exposed to exterior weather. Admixture as per ACI 301 and 318 and manufacturer's instructions.

PART 3 - EXECUTION

3.1 CONSTRUCTION

- A. Concrete slabs shall be fully supported by compacted crushed rock.

CAST-IN-PLACE CONCRETE
SECTION 03 30 00

- B. Joints & Formwork: Install formwork to provide movement joints to align with and continue existing control joints.
- C. Clean cut edges of existing concrete and remove trash, scraps, and other foreign materials prior to installing new concrete..
- D. Avoid damage to existing concrete surfaces which are scheduled to remain. It is the intent of this Contract to avoid the need to replace existing resilient flooring.
- E. Tool scored joints into concrete slabs at joints between new and existing slabs and to extend existing score lines through new concrete surfaces.
- F. Concrete slab patches shall be steel troweled smooth at building interior to match adjacent finishes.
- G. Where exterior walks are cut and patched, or extended, new concrete shall be finished to match slopes of adjacent existing walks to continue existing drainage patterns. Finishes of new walks shall match texture and patterns of existing walks.

3.2 CONCRETE - PRE-PLACEMENT COORDINATION

- A. Obtain all required agency approvals.

3.3 FORMWORK

- A. Install vapor retarder under slabs on grade with joints lapped a minimum of 8 to 12 inches. Seal entire vapor retarder watertight.
- B. Coordinate installation of related work before concrete pour, and protect from damage all work such as base plates, utility boxes, drains, conduit, pipes and plumbing. Put required attachments, accessories, and inserts in place before pouring.
- C. Prepare previous concrete work for connection with new work by cleaning with wire brush and adding bonding agent as per manufacturer's instructions.
- D. Install joint filler at joint lines where concrete slab abuts building exterior foundation wall. Separate slab from vertical surfaces with 1/2" joint filler or bond breaker. Install concrete without interruption between construction or expansion joints.
- E. Areas to receive concrete shall be free of debris or organic matter and wetted if dry.
- F. Keep formwork in place after pouring until concrete reaches required strength. Adjust and retighten forms as necessary to fasten securely against concrete surfaces. Keep all formwork bracing in place after pouring until ample time has passed for concrete to reach required strength.

3.4 CONCRETE PLACEMENT

CAST-IN-PLACE CONCRETE
SECTION 03 30 00

- A. Provide site sample test materials such as cylinders, slump cone and measuring equipment.
- B. Record dates and times of placement, interruptions, tests, completion, and finish work. Verify concrete requirements for tests and mix before delivery and placement.
- C. Slump must pass visual inspection. Check test results at 3 or 7 days, and confirm at 28 days.

3.5 INSTALLATION

- A. Ready-mix concrete to conform to ACI 301 and 304. Allow no unauthorized watering or overwatering.
- B. Job-mixed concrete shall not be installed at exterior exposed slabs. Small concrete patches at building interior may be Job-mixed and shall conform to ACI and ASTM. Keep cement in dry storage. Protect all materials from contamination. Keep mix water clean and free of salts or other harmful chemicals.
- C. Follow a continuous concrete delivery schedule to allow uninterrupted placement of concrete for exterior walkways. Avoid any unplanned cold joints. Do not allow mix trucks to stay beyond allowable waiting period before pouring concrete. Typical waiting limits are: Less than an hour on hot days. Less than half an hour after water has been added.
- D. Preparation: All materials, equipment, and personnel shall be as required to perform the work shown and specified. Verify that slabs will be properly sloped for required drainage.

3.6 CONCRETE PROTECTING AND CURING

- A. Provide for curing of concrete as per ACI 308 for a minimum of seven days. Start curing procedures promptly after pour, to protect concrete from premature drying. Control curing methods, covers, and wetting, with special attention to weather conditions. Apply curing compound in strict accordance with manufacturer's instructions for conditions of use.
- B. During curing, protect concrete from heat or cold, to maintain temperature between 50 and 70 F. Degrees. Protect concrete from inclement weather, running water, construction equipment, movement and load stress. Apply liquid sealer in strict accordance with manufacturer's instructions for conditions of use.
- C. Where exposed aggregate finish is noted wash off excess concrete to expose aggregation on same day of concrete installation. Expose top surfaces only of aggregate to preserve mechanical bond of each aggregate with the slab. Apply liquid sealer in strict accordance with manufacturer's instructions for conditions of use.

3.7 FINISHING FORMED SURFACES

- A. Match up finish work to adjacent or nearby surfaces at all joints, edges, and corners.
- B. Floating, troweling, and special finishes shall be as noted on the Drawings. Do not begin floating until bleed water is gone and avoid over-troweling. Do not dust cement to expedite

CAST-IN-PLACE CONCRETE
SECTION 03 30 00

troweling start time.

- C. Complete finishes as shown on the Drawings including troweled finish for walking surfaces or those receiving floor covering or membrane. Broom finish shall be non-slip for landings and walkways.
- D. After first floating, check plane of surface with 10' steel straight edge. Finish work, measured with a 10' straightedge, must not exceed a tolerance of 1/8" in 10' in any direction. Exterior slabs which allow ponding of water to occur shall be removed and replaced.

3.8 FORM REMOVAL, CLEANING & REPAIRING

- A. Remove formwork as per CSI 301 and 318. Remove wood formwork below grade, as well as above grade.
- B. Protect newly poured concrete surfaces from damage during and after stripping of forms. Promptly remove form tie clamps before corrosion can begin. Remove loose nails and other metals that might leave rust. Grout any depressions in concrete smooth and level.
- C. After form removal, promptly repair honeycombs and all other surface defects on concrete surfaces that will remain visible as directed by the Architect.
- D. Clean work surfaces, remove formwork, completely remove debris from the job site.

END OF SECTION 03 30 00

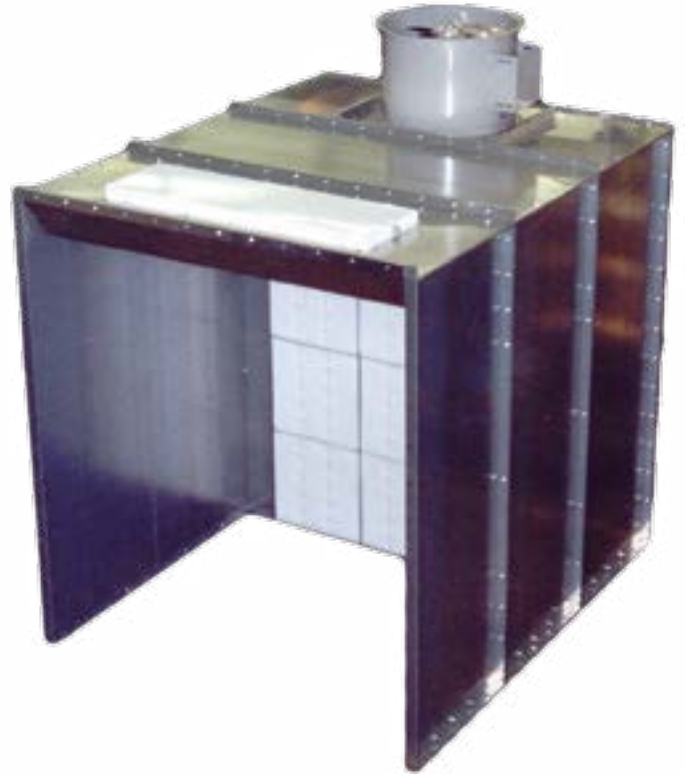
Installation Manual

Industrial Booths

Class I

- >> Open Front Booths - IB
- >> Open Front Bench Booths - IBB
- >> Enclosed Industrial Booths - EIB
- >> Industrial Exhaust Chamber - IBC
- >> Exhaust Bench - EB

This Installation Manual reviews an introduction, safety, component description, installation, maintenance and warranties of Col-Met's industrial spray booths.



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www.colmetsb.com

Revised November 2016



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Introduction

1.1 Introduction

Thank you for purchasing a Col-Met spray booth. Please read and understand this manual before using your booth and follow all of the safety instructions. Please be sure to keep this manual with your booth at all times.

This manual explains the assembly and routine maintenance of the Col-Met spray booth and covers the following:

- >> Open Front Booths - IB
- >> Open Front Bench Booths - IBB
- >> Enclosed Industrial Booths - EIB
- >> Industrial Exhaust Chambers - IBC
- >> Exhaust Bench - EB

The spray booth itself consists of four major components: paint area, exhaust fan and chamber, product doors and, in some cases, an air makeup unit. A brief description is provided for these and other related items.

The text contained in this manual is for current production models. Some instructions and maintenance procedures may not apply to your specific unit.

Equipment modifications from original design and specifications are strictly prohibited. Modifications may compromise safe operation of the booth, subjecting users to serious injury or death and may void any remaining warranty.

This Operator's Manual does not replace, nor does its use release the operator from observing all safety or operating limitations as well as any applicable federal, state, provincial or local regulations.

1.2 Receiving, Unpacking, And Reporting Missing Items

Check for damage when receiving and unloading equipment. Note on Bill of Lading "FREIGHT DAMAGE." Notify the Col-Met customer service department immediately of any damage.

Unpack all items and verify on packing list within ten (10) days of receipt. Notify Col-Met customer service department of missing items and discrepancies immediately. Col-Met will not pay for overnight freight on shorted items. If overnight freight is necessary, the buyer shall be accountable for freight costs.

For quality control, Col-Met's Shipping Department photographs all items as they are packed.

Per company policy, two independent checks are performed to verify each item against the packing list. If Col-Met determines that the reported shortage was checked off in our records, replacement parts will be shipped AND invoiced accordingly.

Items that can be shipped UPS usually take one to three days to receive, depending on distance. Items too large for UPS will ship via common freight. This shipping method typically takes from one to five days to reach the destination.




During the warranty period, Col-Met will repair or replace, free of charge, any parts that Col-Met has verified to be defective in materials or workmanship. If inspection of the equipment does not disclose any defect in workmanship of material, repairs will be made at a reasonable charge, which will include the costs of labor, materials and transportation.

2. Safety

2.1 Safety Alert Symbol And Signal Words

Before assembling, operating or servicing the spray booth, you must read, understand and follow the instructions and safety warnings in this manual. Your spray booth may not be equipped with some of the optional equipment described in this manual.

NEVER ALLOW ANYONE TO OPERATE THIS EQUIPMENT WITHOUT PROPER TRAINING!

The safety information in this manual is denoted by the safety alert symbol: 

The level of risk is indicated by the following signal words:

DANGER

DANGER - Indicates a hazardous situation, which, if not avoided, **WILL** result in death or serious injury.

WARNING

WARNING - Indicates a hazardous situation, which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION - Indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE - Indicates a situation that could result in damage to the equipment or other property.

2.1.1 Assembly Hazards

⚠ WARNING

Prevent serious injury or death.

Overriding a safety system may result in unsafe equipment, which may result in serious injury or death.

Do not override safety devices.

⚠ WARNING

Blade hazard. Keep hands clear of rotating parts.

Follow lockout procedure before servicing.

⚠ WARNING

Prevent serious injury or death.

Use adequate lifting devices to raise, move and install booth components.

⚠ WARNING

Prevent serious injury or death.

Electrical installations must be performed by qualified electricians.

Installation must conform to all national, local, and provincial codes and standards.

2.1.2 Operational Hazards

⚠ WARNING

Prevent serious injury or death.

Do not operate machine with guards and/or covers open or removed.

⚠ WARNING

Prevent serious injury or death.

Only trained and qualified personnel may operate booth.

⚠ WARNING

Prevent serious injury or death.

Never operate spray booth while under the influence of drugs, alcohol or while feeling ill.

⚠ WARNING

Prevent serious injury or death.

Always wear personal protective equipment (PPE) appropriate for job.

Read Material Safety Data Sheet for products used in spray booth.

⚠ WARNING

Shock hazard.

Only a qualified electrician may open electrical control cabinet.

Disconnect and lockout / tagout all power sources before adjusting, repairing, or cleaning booth.

2.1.3 Maintenance Hazards

⚠ WARNING

Prevent serious injury or death.

Disconnect and lockout / tagout all power sources before adjusting, repairing, or cleaning booth.

⚠ WARNING

Prevent serious injury or death.

Service, maintenance and adjustments must be performed by trained and qualified personnel.

⚠ WARNING

Burn hazard. Do not touch hot parts.

Allow to cool before servicing.

⚠ WARNING

Prevent serious injury or death.

Always wear personal protective equipment (PPE) appropriate for job.

Read Material Safety Data Sheet for products used in spray booth.

2.1.4 Fire Hazard

No smoking or open flame in or near spray booth. Local fire codes prohibit smoking in the vicinity of spray painting operations.

⚠ WARNING

Explosion and fire hazard.

No smoking or open flame within 50 feet of spray booth.

Do not store flammable liquids adjacent to or inside spray booth. Read all product labels and instructions.

Do not use any electric powered airless spray rigs, pressure washers or similar equipment when applying a low flash point solvent or peel coating. Run spray booth exhaust fan to purge dangerous vapors that could ignite or explode while cleaning or performing maintenance inside spray booth.

AN APPROVED FIRE PROTECTION SYSTEM MUST BE INSTALLED ON YOUR SPRAY BOOTH TO COMPLY WITH NFPA 33, SECTION 9. PORTABLE FIRE EXTINGUISHERS MUST BE LOCATED IN OR AROUND YOUR PAINT MIX ROOM PER NFPA 10.

2.2 Safety Decals



| |
|--|
| ⚠ DANGER |
| |
| <p>Electrical Shock Hazard</p> <p>Disconnect electric before service.</p> <p>More than one disconnect switch may be required to disconnect electric from equipment.</p> <p>Equipment must be properly grounded.</p> <p>Failure to follow these instructions can result in death or electrical shock.</p> <p style="text-align: right; font-size: small;">Printed in the USA</p> |
| ⚠ DANGER |
| <p>Risque de Choc Electrique</p> <p>Débrancher le courant avant l'entretien.</p> <p>Plus qu'un interrupteur de verrouillage peut être requis pour débrancher le courant électrique de cet appareil.</p> <p>L'appareil doit être connecté à une source de courant reliée à la terre.</p> <p>Le non-respect de ces instructions peut entraîner de la mort ou des chocs électriques.</p> <p style="text-align: right; font-size: small;">Imprimé aux E.-U.</p> |

| | |
|--|--|
| | ⚠ DANGER |
| | <p style="text-align: center;">Severe Injury Hazard</p> <p>Do not enter equipment while in operation.</p> <p>Equipment may start automatically.</p> <p>Do not operate with door open.</p> <p>Installation, operation and service must be done by a trained technician only.</p> <p>Failure to follow these instructions can result in death or injury.</p> <p style="text-align: right; font-size: x-small;">Printed in the USA</p> |
| | ⚠ DANGER |
| | <p style="text-align: center;">Risque de Blessures Graves</p> <p>Ne pas entrer dans cet appareil pendant l'opération.</p> <p>Cet appareil peut démarrer automatiquement à tout moment.</p> <p>Ne pas opérer l'appareil avec la porte ouverte.</p> <p>L'installation, l'opération et l'entretien doit être effectués par un installateur éprouvé.</p> <p>Le non-respect de ces instructions peut entraîner de la mort ou des blessures.</p> <p style="text-align: right; font-size: x-small;">Printed in the USA</p> |

| |
|---|
| ⚠ WARNING |
| <p>Improper installation, adjustment, alteration, service or maintenance can result in death, injury or property damage. Read the Installation, Operation and Service Manual thoroughly before installing or servicing this equipment.</p> <p><i>Installation, modification, réglage ou maintenance incorrectes peuvent provoquer de la mort, des blessures ou des dégâts matériels. Lisez attentivement le manuel d'installation, d'opérations et d'entretien avant l'installation ou l'entretien de cet équipement.</i></p> |
| <p>This heater must be installed in accordance with the manufacturer's instructions and local codes. In the absence of local codes, follow the National Fuel Gas Code, ANSI Z223.1 / NFPA 54 of the CAN/CSAB149 installation code.</p> <p>Cet aérotherme doit être installé en accord avec les instructions du fabricant et les réglementations locales. S'il n'y a pas des réglementations locales, l'installation doit être en accord avec le Code National de Gaz de Carburant, ANSI Z223.1 / NFPA 54 ou le Code d'installation, CAN/CSA-B149.</p> <p style="text-align: right; font-size: x-small;">PN 01010431 Rev A</p> |

| |
|---|
| ⚠ WARNING |
| <p>To protect you and others against death or serious injury, all applicable labels shown must be on the booth and must be legible.</p> <p>If any of these labels are missing or cannot be read, contact your Col-Met for replacement labels.</p> |

2.3 NFPA 33 Standards for Spray Application

Reprinted with permission from NFPA 33-2016, Standard for Spray Application Using Flammable or Combustible Materials, Copyright © 2010, National Fire Protection Association, Quincy, MA. This reprinted material is not the complete and official position of the NFPA on the referenced subject, which is represented only by the standard in its entirety. The following is section 10 from NFPA 33:

10.1 General. Maintenance procedures shall be established to ensure that all spray application apparatus and processes are operated and maintained in accordance with the manufacturers specifications and the requirements of this standard. Maintenance shall be the responsibility of the users of the apparatus and processes.

10.1.1 Spray application operations shall not be conducted outside predetermined spray areas.

10.1.2 Inspection of extinguishing systems shall be conducted to ensure that the performance of the extinguishing system components will not be affected by overspray and residues.

10.2 Combustible Deposits.

10.2.1 All spray areas shall be kept free of excessive accumulation of deposits of combustible residues.

10.2.2 Combustible coverings (thin paper, plastic) and strippable coatings shall be permitted to be used to facilitate cleaning operations in spray areas.

10.2.2.1 Where plastic covering is used, it shall be of a static dissipative nature or shall have a maximum breakdown voltage of 4 kV to prevent accumulation of a hazardous static electric charge.

10.2.3 If residue accumulates to excess in booths, duct or duct discharge points, or other spray areas, all spraying operations shall be discontinued until conditions have been corrected.

10.3 High-Pressure Hose Lines. High-pressure hose lines that convey flammable or combustible coating material in “airless” spray application operations shall be inspected daily and shall be repaired or replaced as necessary. Hose lines and equipment shall be located so that, in the event of a leak or rupture, coating material will not be discharged into any space having a source of ignition.

10.4 Maintenance Procedures

10.4.1 Overspray collectors shall be inspected daily and clogged filters shall be discarded and replaced. Maintenance procedures shall be established to ensure that overspray collector filters are replaced before restriction to airflow is reduced below the minimum established by Section 7.2.

10.4.2 At the close of the day’s operation, all discarded overspray collector filters, residue scrapings, and debris contaminated with residue shall be removed immediately to a designated storage location, placed in a noncombustible container with a tight-fitting lid, or placed in a water-filled metal container.

10.5 Waste Containers.

10.5.1 Approved waste containers shall be provided wherever rags or waste are impregnated with sprayed material, and all such rags or waste shall be deposited therein immediately after use. The contents of waste containers shall be placed in a designated storage location.

10.5.2 Waste containers containing flammable liquids shall be located in ventilated areas that meet the requirements of Chapter 7. Such areas shall also meet the electrical area classification requirements of 6.5.5.

10.5.3 Waste containers for flammable liquids shall be constructed of conductive materials and shall be bonded and grounded.

10.5.4 Waste containers for flammable liquids shall be handled and stored in accordance with Chapter 8.

10.6 Clothing. Employees' clothing contaminated with sprayed material shall not be left on the premises overnight unless kept in metal lockers.

10.7 Cleaning Operations.

10.7.1 Scope. This section shall apply to the use of flammable or combustible liquids for the flushing and cleaning of equipment.

10.7.2 Liquids. Class I and Class II liquids used in cleaning operations shall be in original shipping containers or in listed safety containers.

10.7.3 Location. Cleaning operations using flammable or combustible liquids shall be conducted inside a spray area with ventilating equipment operating or in ventilated areas that meet the requirements of Chapter 7. Such areas shall also meet the electrical area classification requirements of 6.5.5.

10.7.4 Equipment. Equipment using flammable or combustible liquids shall meet the requirements of 6.5.5 and shall be bonded and grounded.

10.7.5 Manual Cleaning. Individual manual cleaning operations shall be limited to not more than 4 L (1 gal) of flammable or combustible liquid for each cleaning operator.

10.7.6 Liquid Storage. Flammable and combustible liquids shall be handled and stored in accordance with Chapter 8. Containers used for handling, storage, or recovery of Class I liquids shall be constructed of conductive materials and shall be bonded and grounded.

10.8 Solvent Distillation Units (Solvent Recyclers).

10.8.1 Scope.

10.8.1.1 Section 10.8 shall apply to solvent distillation units having distillation chambers or still pots that do not exceed 227 L (60 gal) capacity and are used to recycle Class I, Class II, and Class IIIA liquids. [30:19.6.1.1]

10.8.1.2 This section shall not apply to research, testing, or experimental processes; to distillation processes carried out in petroleum refineries, chemical plants, or distilleries; or to distillation equipment used in dry cleaning operations. [30:19.6.1.2]

10.8.2 Equipment. Solvent distillation units shall be approved or shall be listed in accordance with ANSI/UL 2208, Standard for Solvent Distillation Units. [30:19.6.3]

10.8.3 Solvents. Solvent distillation units shall only be used to distill liquids for which they have been investigated and that are listed on the unit's marking or contained within the manufacturer's literature. [30:19.6.3]

10.8.3.1 Unstable or reactive liquids or material shall not be processed unless they have been specifically listed on the systems markings or contained within the manufacturer's literature. [30:19.6.3.1]

10.8.4 Location [30:19.6.4]

10.8.4.1 Solvent distillation units shall only be used in locations in accordance with their approval or listing.

10.8.4.2 Solvent distillation units shall not be used in basements.

10.8.4.3 Solvent distillation units shall be located away from potential sources of ignition, as indicated on the unit's marking.

10.8.5 Liquid Storage. Distilled liquids and liquids awaiting distillation shall be stored in accordance with Chapter 6 of NFPA 30.

10.9 Spontaneous Ignition Hazards. The same spray booth shall not be alternately used for different types of coating materials if the combination of the materials is conducive to spontaneous ignition, unless all deposits of the first-used coating material are removed from the booth and exhaust ducts prior to spraying with the second coating material.

10.10 Chlorinated Solvents. Coating materials containing chlorinated solvents shall not be used with spray application apparatus or fluid-handling equipment if the chlorinated solvent will come into contact with aluminum within a piping system, pump, enclosed container, or any enclosure that is capable of being pressurized by the potential reaction. This shall apply even if the container or system has been constructed with pressure relief devices.

10.11 Smoking. Signs stating NO SMOKING OR OPEN FLAMES in large letters on contrasting color background shall be conspicuously posted at all spray areas and paint storage rooms.

10.12 Hot Work. Welding, cutting, and other spark producing operations shall not be permitted in or adjacent to spray areas until a written permit authorizing such work has been issued. The permit shall be issued by a person in authority following his or her inspection of the area to ensure that precautions have been taken and will be followed until the job is completed.

3. Component Description

3.1 Compliance To Applicable Codes

This spray booth is designed to be in strict accordance with the National Fire Protection Association Standard Number 33, “Spray Application Using Flammable Combustible Materials. The NFPA Standard Safety Code for the Design, Construction and Ventilation of Spray Finishing Operations.” This spray booth meets or exceeds the requirements of the Occupational Safety and Health Administration (OSHA).

3.2 Material Specifications

The spray booth panels, filter racks and product doors are constructed of 18-gauge steel, conforming to ASTM A653 “Lock Forming Quality”. All structural steel channel and angle conform to ASTM A36.

3.3 General Description

The spray booth consists of four major components: paint area, exhaust fan and chamber, product doors and, in some cases, an air makeup unit. A brief description is provided for these and other related items.

3.3.1 Paint Area

The paint area is the actual “booth” part of the spray booth. Parts are placed in this area, through product doors, if so equipped, to be painted. Air flows from the intake filters of the booth to the exhaust filters. The booth is constructed of 18-gauge galvanized sheet metal panels which are bolted together. The booth exhaust is routed through the exhaust plenum at the exit of the booth. The exhaust fan then routes the exhaust out through the exhaust duct and discharges it at a point above the roof height of the building.

3.3.2 Exhaust Fan And Chambers

The booth exhaust chamber(s) is/are located as shown in the mechanical drawing package included with this manual. Gases are exhausted through the exhaust duct by an electrically powered fan. The fan is made of spark resistant material and the motor is located out of the air stream. The exhaust chamber(s) operate(s) under a negative pressure to induce the required airflow through the exhaust filters.

3.3.3 Product Doors

The product doors can be filtered or solid and may be either overhead doors, bi-fold doors, or tri-fold doors. Some industrial spray booths have an open front in lieu of product doors. Overhead doors are equipped with an intrinsically safe pneumatic safety edge. There are two 3-button controls to operate each door. Doors may also be manually operated.

3.3.4 Door Latch

Door latches secure doors in closed position and hold contact against rubber seal. Latches are pressure relief latches that allow doors to open in case of explosion. This feature also allows for ease of booth operator egress from the spray booth by applying moderate pressure to the door from inside the booth.

3.3.5 Door Limit Switch

Optional limit switch to indicate when a door is open on the booth. If a door is in the open position, micro switch contact is opened which breaks the circuit for the paint air solenoid.

3.3.6 Air Makeup Unit (Optional)

The air makeup unit (AMU) supplies filtered, heated atmospheric air. This unit may be heated by natural gas, LP gas, steam coils or hot water coils. The temperature of the AMU discharge air is controlled by a temperature controller. The airflow capacity of the fan and motor are matched to the airflow capacity of the spray booth exhaust fans. Some air makeup units also have the capability to provide a paint cure cycle. This cycle, employed after the paint spraying operations are complete, typically involves supplying air that is heated to the paint area of the booth to decrease paint cure times.

3.4 Exhaust Filter Manometer

Manometer is used to measure pressure drop across exhaust filters to indicate the condition of the filters.

3.5 Air Solenoid Valve

The function of this valve is to interrupt supply of compressed air to painting equipment under certain conditions. This is done to prevent painting from occurring when the booth is not operating as designed or if any booth doors are open. The air solenoid valve is electrically interlocked with booth intake and exhaust fans. If optional switches are purchased, it is also interlocked with product doors and personnel doors. If a fan is not operating properly, or if a door is open, the air solenoid valve will shut off flow of pressurized air to spray gun.

Unit should be installed downstream of any regulators and filters and upstream of painting equipment. It should be located near fitting to which painting equipment connects in order to ensure rapid loss of supply pressure.

3.6 Control Panel

The spray booth may be equipped with an optional electrical control panel. Electrical schematics are located inside the control panel. Also shown on this drawing is the wiring required for installation. No spare parts are provided with control panel. Panel and its associated wiring must be installed by a licensed electrician. The cabinet that houses controls is either NEMA 1 or NEMA 12 rated. It is not suitable for installation in a Class I, Division II area. Refer to Chapter 6 in the NFPA 33 Standard and consult with the local authority having jurisdiction for definition of this area for paint spray booth.

4. Installation

4.1 General

This manual is a guide for installing a variety of spray booths. The assembly drawings enclosed are specific for the booth you have purchased. This drawing is an exploded isometric drawing showing the relationship of each panel or part to the next one. A packing list of all components is provided and must be used in addition to the drawing to identify all components.

All DAMAGES MUST be reported within 24 hours of receipt and a freight claim filed with the carrier.

4.2 Preliminary

Col-Met booths are manufactured in accordance with NFPA 33 standard for spray application using flammable or combustible materials. However, local codes and regulations may apply to the installation and use of this product. All permits and approvals should be obtained prior to installation and use of the spray booth.

1. Uncrate and inventory all spray booth components to ensure all of the parts are accounted for. Each component is numbered on the exploded view.
2. The floor surface of the booth must be non-combustible material of such character as to facilitate the safe cleaning and removal of residues. The floor surface must be flat and level.
3. Mark the dimensional outline of booth on floor.
4. Follow the step-by-step instructions provided.

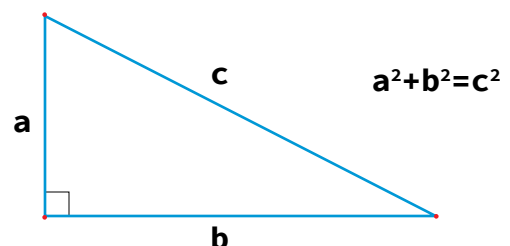
4.2.1 Recommended Booth Layout Tools

- >> Chalk line or self-leveling 5-way laser
- >> Tape measure
- >> Marker
- >> Framing square

Use the 3-4-5 method (Pythagorean Theorem) $A^2 + B^2 = C^2$ for a right triangle to layout and square the booth. C is the longest side (hypotenuse) and A and B are the two shorter legs. If a triangle has sides measuring 3, 4 and 5 feet (or any other unit), it must be a right triangle with a 90° angle between the short sides. You can multiply each number by the same amount and still use this method. For example let's say that the booth width being installed is 9' I.D., use a multiplier of 3 to achieve the 9' I.D. working width of the booth for your first line (A^2) and the right triangle will consist of the following dimensions:

- >> $3 \times 3 = 9$ (first line A^2)
- >> $4 \times 3 = 12$ (second line B^2)
- >> $5 \times 3 = 15$ (third line C^2) Step one:

Locate a building drawing showing the booth in the building.



4.2.2 Booth Layout Steps

Step 1:

Locate a building drawing showing the booth in the building.

Step 2:

Locate a dimension shown from a reference point such as outside wall, pit, conveyor, building structure, other equipment, etc. to the inside dimension of spray booth.

Step 3:

Using a chalk line, mark that dimension at two points along a wall (reference point example) and snap a line on the floor.

Step 4:

Locate the back of the booth and make a mark on the first line that was snapped for the first corner of the booth (I.D.), using 9' as the first line dimension (A² example) make another mark at 9' for the back wall of the booth

Step 5:

Using 12' as our second line dimension (B² example) make another mark at 12' from one of the corner markings of the back wall off of the first line snapped. When doing so, be sure to stay as square as possible. This is when a framing square comes in handy. Once marked, snap the second line.

Step 6:

Using 15' as our third line dimension (C² example) mark and scribe an arc crossing the end of the second line snapped from the opposing corner marking of the back wall off of the first line snapped. This mark is now perfectly square to the back wall of the booth. Snap the third line between these two marks.

Step 7:

Pull two points off of the third line and snap a fourth line marking the interior work area of the booth. Now that the square interior of the booth is complete, proceed with the rest of the booth (exhaust chambers, fans, air make-up unit etc.) to verify that all components are placed as planned without obstruction.

Step 8:

Using a laser, verify building clearance, fan ductwork and air makeup unit (if applicable) orientation.

Step 9:

Using a laser, verify that the floor is level. Any area that will have more than a ¼" gap will need to be shimmed.

Step 10:

Double check the entire layout for accuracy and to prevent losing your layout, spray clear coat over it before beginning the booth installation.

4.2.3 Recommended Booth Installation Tools

- >> Step ladders (4', 6' and 8') and multi-use ladder
- >> Wrench and socket sets (1/2", 9/16" and 3/4" most common)
- >> Screw driver set
- >> Allen wrenches
- >> Hammer and dead blow
- >> Alignment pins and pry bar
- >> Level (magnetic)
- >> Caulk gun and utility knife
- >> 1/4" and 3/8" drive cordless impacts
- >> 1/2" drive drill
- >> Drill bits and uni-bit/ step-bit
- >> Hammer drill (SDS)
- >> Metal nibblers/ cutters
- >> Cut-off saw
- >> Welding and plasma machines

4.3 Planning Ahead

1. Clearances between other work areas and combustible storage areas must be held as follows:
 - >> 3 ft. minimum clearance at all sides and sealed entry ways (i.e., door ways).
 - >> 3 ft. minimum clearance at all non-sealed entry ways (i.e., the open face of spray booth or a silhouette openings).
 - >> 10 ft. minimum clearance must be held between the exhaust stack of the booth and the intake of another apparatus. NFPA 33 dictates a minimum discharge clearance of 3 ft. from the nearest combustible material; however, stack height requirements vary with individual states and can be up to 1½ times the building's roof height from grade.
2. Permits are not included. It is the responsibility of the end user to acquire all permits to install a booth.
3. A FIRE SUPPRESSION SYSTEM IS NOT INCLUDED WITH THE BOOTH BUT IT IS REQUIRED. Generally this is supplied and installed by a licensed local installer.
4. Electrical installation must be performed by a licensed electrician familiar with national, local electrical codes and regulations in your location.

4.4 Booth Assembly

When assembling the booth, leave bolts finger tight until the entire booth is assembled. All flanges should face outward. Install bolts from inside so nut is outside of the booth. Use a drift pin to align panel holes when two or more panels are difficult to align by hand.

Lay out all floor channel for exhaust chamber and walls. As you attach wall panels together, they will also bolt to the floor channel.

⚠ WARNING

Prevent serious injury or death.

Most booth components weigh 50-500 lbs.

Use adequate lifting devices to raise, move and install booth components.

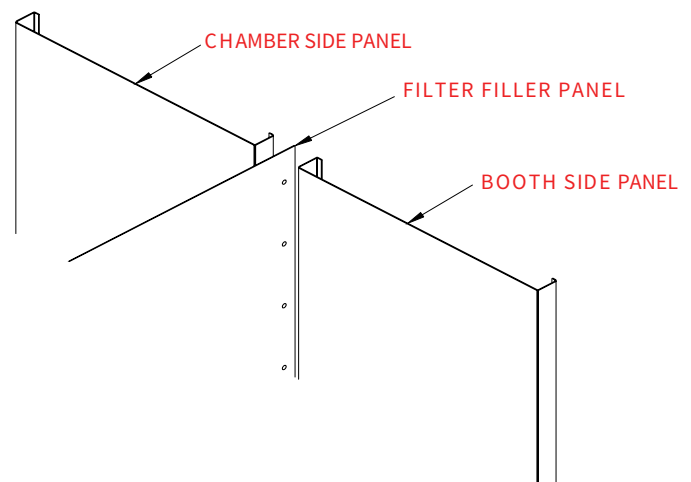
NOTICE

Prevent equipment damage.

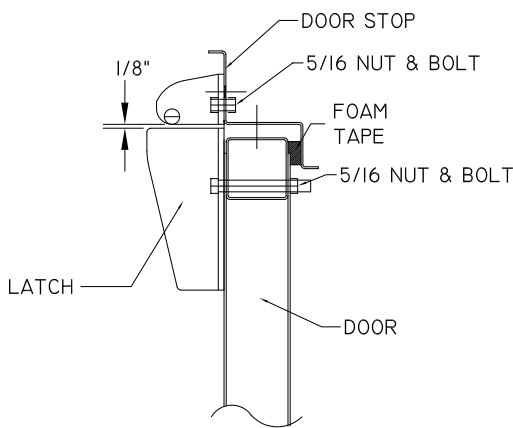
Spray booth roof will not support a person. Do not attempt to stand or walk on spray booth roof.

Refer to exploded view drawings included with your spray booth.

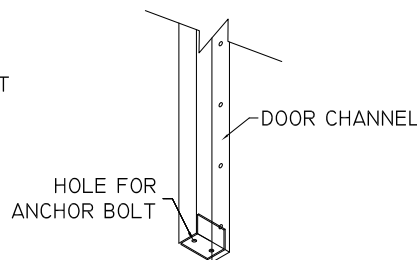
1. Starting with exhaust chamber at either rear corner, bolt one corner panel and one rear wall corner panel together (use tie channel where applicable).
2. Bolt opposite rear sidewall panel to rear wall panel.
3. Bolt all rear wall panels in place.
4. Bolt tie channel along top edge of rear wall panels.
5. Place exhaust fan panel above side and rear wall panels and bolt in place.
6. Insert filter filler panels between sidewall, roof panels and exhaust chamber. Bolt in place.
7. Following exploded view drawings, continue alternately assembling wall panels and roof panels to each other until you reach front end of booth. Finish off roof section by attaching fire curtain if needed. If booth has front doors, no fire curtain is needed.



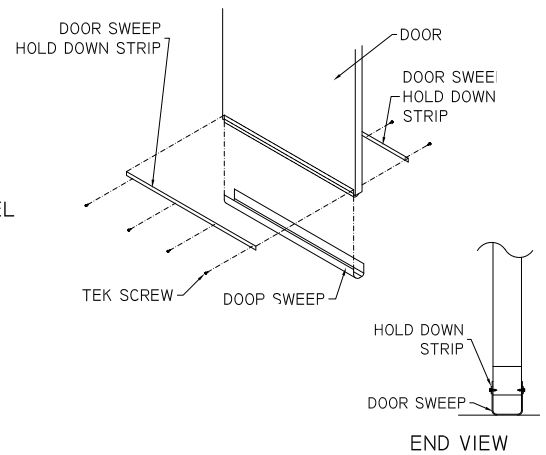
8. Verify walls are plumb and booth is square and on floor layout marks. Tighten all mounting hardware.
9. Anchor floor channel to floor at a minimum of every 12 inches.
10. Caulk all panel joints inside the booth with the caulk provided. Do not use a silicone caulk.
11. If booth is supplied with a personnel door or product doors, apply gasket to perimeter of all door openings. Attach door hardware and adjust latches. Level door with doors off, then attach doors to hinges.



DOOR LATCH AND SEAL DETAIL



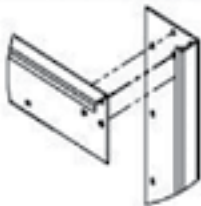
DOOR FRAME BASE DETAIL



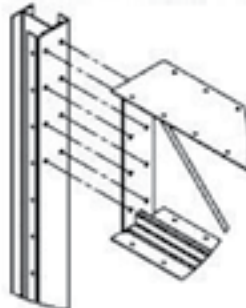
PRODUCT DOOR DOOR SWEEP DETAIL

12. Other installation that may apply to your type of booth

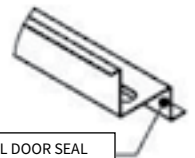
USE 3/8" Ø HARDWARE TO ASSEMBLE @ EACH 5-HOLE PATTERN (NUT & BOLT)



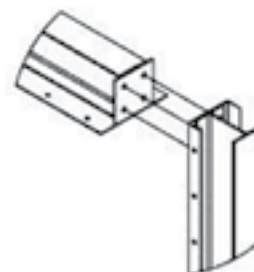
USE 1/2" Ø HARDWARE TO ASSEMBLE ITEMS PICTURED (BOLT, NUT & LOCK WASHERS)



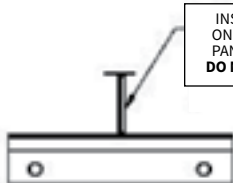
FOR OPTIMAL DOOR SEAL APPLY 3/4" GASKET TO THIS SURFACE



USE 1/2" Ø HARDWARE TO ASSEMBLE ITEMS PICTURED (BOLT, NUT & LOCK WASHERS)



INSTALL PANEL STIFFENERS ON THE OUTSIDE OF CEILING PANEL JUNCTION AS SHOWN DO NOT INSTALL IN BETWEEN



4.5 Lights

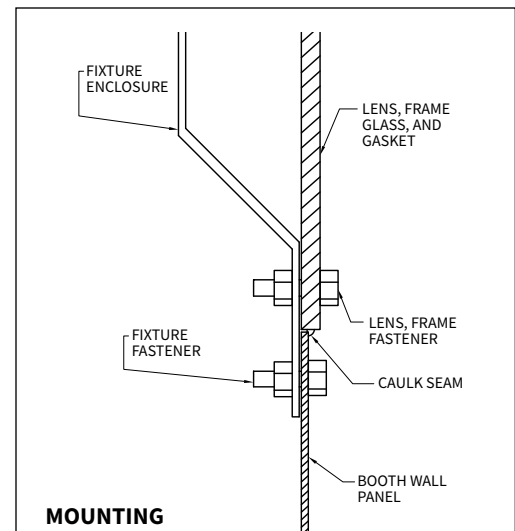
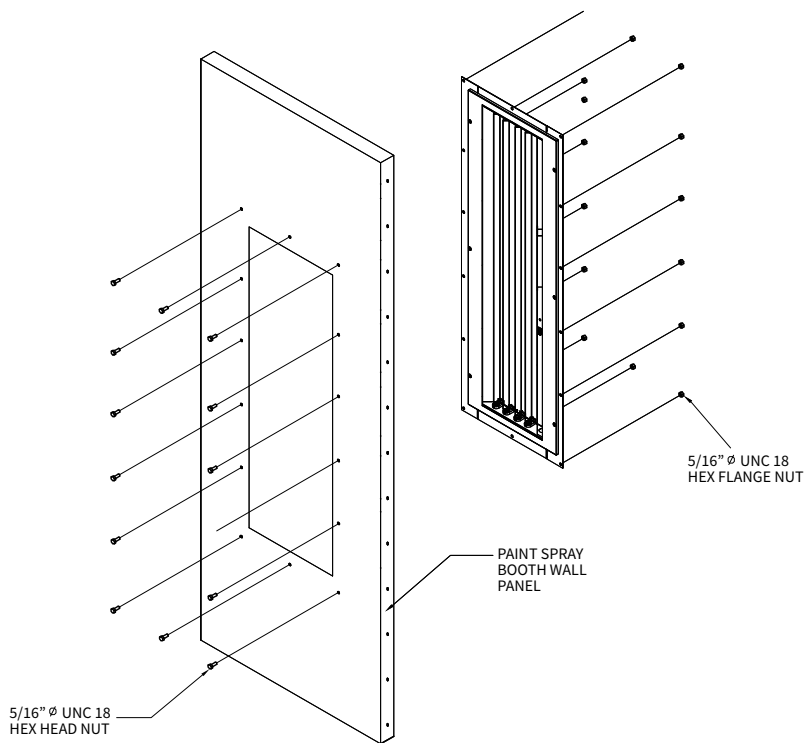
⚠ WARNING

Prevent serious injury or death.

Electrical installations must be performed by qualified electricians.

Installation must conform to all national, local, and provincial codes and standards.

1. Place light fixture into booth panel, center in opening, and bolt in place.
2. Install light fixture in panel from outside of booth as shown in drawing.
3. Caulk perimeter of light fixture lens frame with appropriate caulking.
4. The fixture is provided with an interlock switch that has a normally open contact, which opens when the fixture lens is removed from fixture. The switch is to be wired to disable spray equipment used in spray booth.



MOUNTING DETAIL

CAUTION:
WHEN TIGHTENING LENS FRAME FASTENERS, TIGHTEN USING HAND TOOLS ONLY. TIGHTEN UNTIL SIDES OF METAL LENS FRAME MAKES CONTACT WITH FIXTURE ENCLOSURE. OVER TIGHTENING WILL CAUSE LENS FRAME TO WARP AND WILL BREAK DOWN VAPOR SEAL OF LENS

4.6 Manometer

Locate manometer on the exhaust chamber so that hardware is not visible inside the booth and where it can easily be viewed daily.

Install close to exhaust filter wall to keep tubing length to a minimum. Excess tubing length will reduce accuracy of the manometer. The high port will connect to work chamber, and the low port will connect to chamber on the suction side of the filter grid.



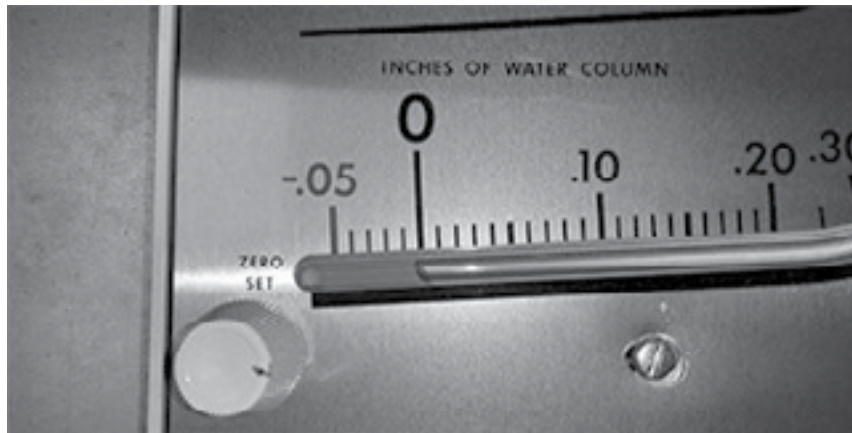
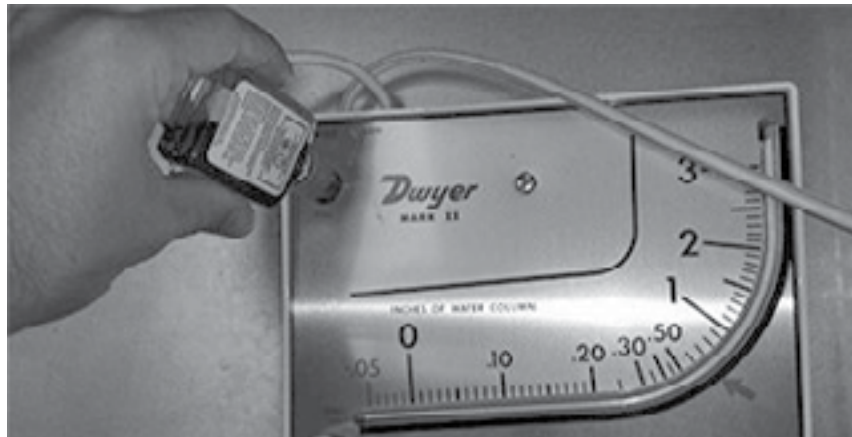
1. Drill a hole in booth wall just large enough for the plastic hose barb to fit through (approx. 13/32). Install washer and nut on back side. Do not over tighten.



2. Mount manometer on booth wall and ensure it is level using bubble level on manometer. Manometer must be level or it will not be accurate.



3. Turn “Zero Set” knob counter clockwise until it stops, then turn knob counter clockwise three full turns. This will place the adjustment knob in the middle of its travel range. Remove fill plug at top of manometer and slowly fill with red fluid. You will not need the entire bottle. Stop filling as soon as you can see the red fluid enter clear tube at bottom of the manometer. Turn “Zero Set” adjustment knob to set red fluid on 0 mark. If you overfill gauge, remove excess fluid by inserting a pipe cleaner through fill port to blot up excess oil. Once the red fluid is set on zero, replace the fill cap.



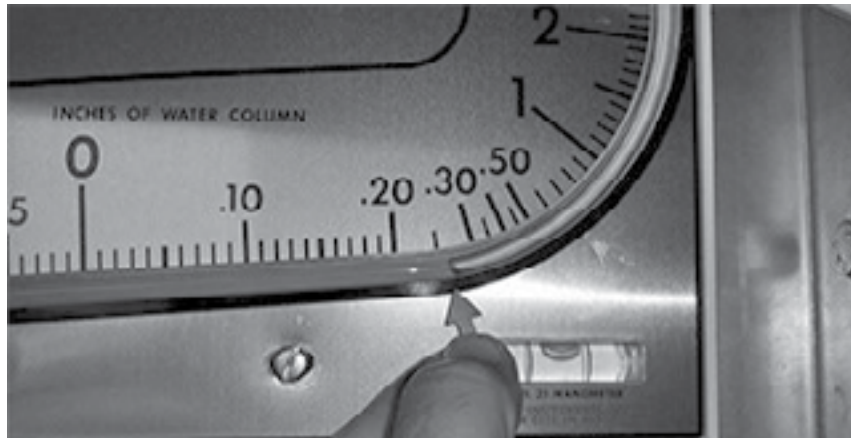
Complete booth assembly and then perform steps 4-6 to set manometer.

IMPORTANT: All filters in the booth must be installed and new in order to get an accurate baseline.

4. Turn on exhaust fan. If exhaust fan is connected to a VFD to control the speed of the fan, make sure it is set to run at full speed. You will notice the red fluid should move up the scale and then settle at a number. The number will be different from booth to booth, but that does not matter, this is just a baseline setting.

5. Wherever the red fluid stops is where you will place the green arrow. In this example, the red fluid stopped at .25 inches of water column. So because we know our filters are rated for .5 inches of water column, and we know that with clean filters the fan is drawing .25 inches of water column, we simply add the two numbers together to tell us where the filters will pack out.

.25 inches of water + .5 inches of water = .75 inches of water total



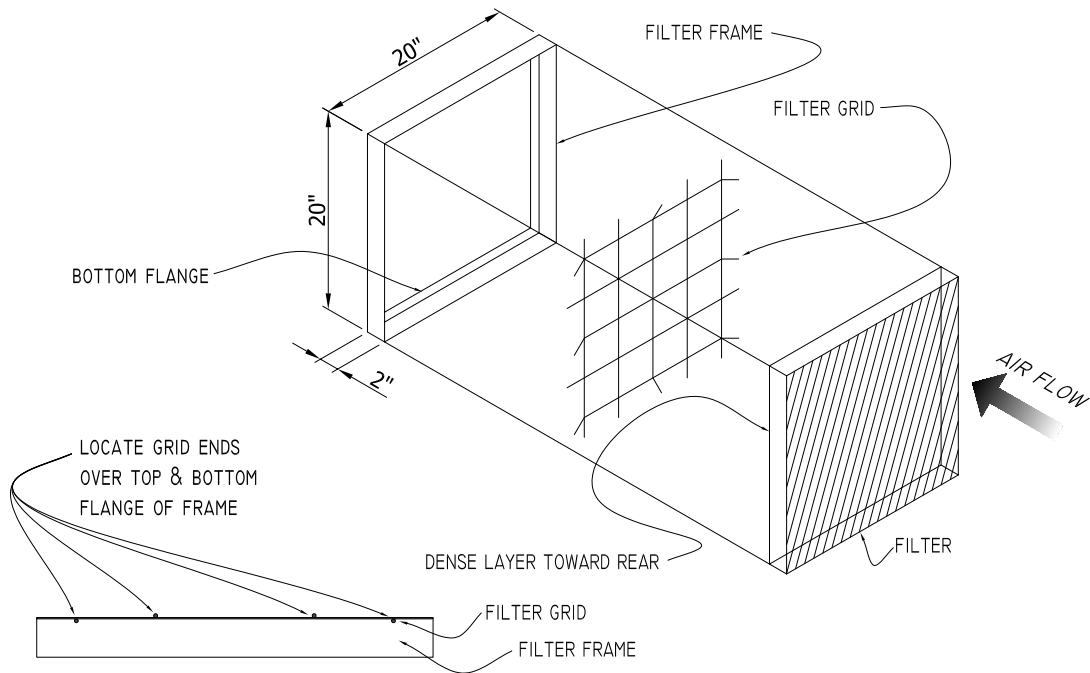
6. Now that baseline is set, measure up the scale .5 inches of water. That is where you will place the red arrow.



At this point, your manometer is set up and ready to use. You should never need to move the arrows once they are placed. Always check the manometer before turning the fan on to ensure the red fluid is sitting on the 0 mark. If the fluid is not on 0, turn "Zero Set" knob to adjust fluid to zero before starting fan.

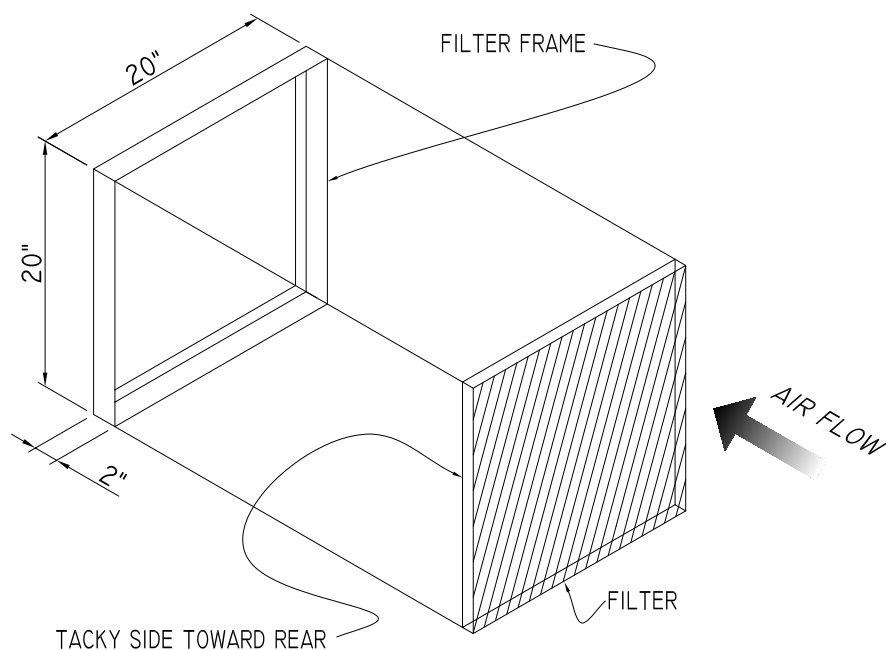
4.7 Exhaust Filter Installation

Install one wire grid in each filter cell with prongs facing into booth. Exhaust filters will be attached to prongs.



4.8 Intake Filter Installation

If booth has an intake plenum, insert intake filter into filter grid. The side marked "Air Leaving Side" on filter goes toward inside of booth.



4.9 Motor Installation

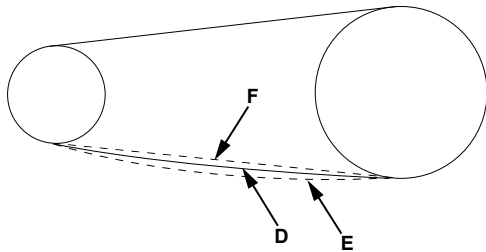
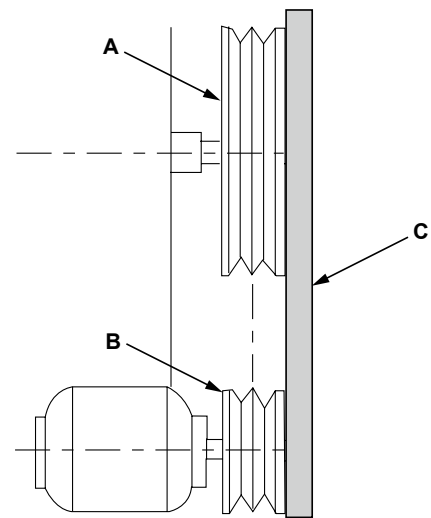
Couplings, drive belts, chains or other mounted devices must be in proper alignment, balanced and secure for safe motor operation.

4.9.1 Mounting

This motor must be securely mounted. Sufficient ventilation must be provided to insure proper operation.

4.9.2 Install Sheaves And Fan Belts

1. The fan sheave (A) and motor sheave (B) must be in axial alignment. Shafts must be parallel in both vertical and horizontal planes.
2. The sheaves must be in radial alignment. When sheaves are of equal width, align with a straightedge (C). When sheaves are of unequal width, align center of sheaves.
3. Check fan belts for proper tension and for signs of wear. Belt (D) is properly adjusted. Belt (E) is too loose. Belt (F) is too tight.



4.9.3 Electrical

⚠ WARNING

Prevent serious injury or death.

Electrical installations must be performed by qualified electricians.

Installation must conform to all national, local, and provincial codes and standards.

Complete booth assembly and then perform steps 1-5 below to connect electrical service to motor.

1. Determine voltage at your facility. Col-Met does not recommend using 120V single phase on motors above 1HP.
2. If a control panel or motor starter was ordered with this booth, confirm that the voltage and phase on the control panel matches the voltage and phase you intend to use.
3. Locate the wiring diagram inside the control panel that matches your voltage, phase, and HP.
4. Some motors may have 2 additional red wires. These wires are for an internal thermal overload. We do not use these wires and they should be capped off with wire nuts or electrical tape.
5. Locate the rotation arrow on the fan and verify belts are rotating in the direction of the arrow. If the belts are not rotating in the direction of the arrow, reverse the motor.
6. To insure proper wiring refer to motor nameplate for wiring diagram.

4.10 Tubeaxial Fan

⚠ WARNING

Fan assembly is heavy.

Fan assembly weight is approximately 50 - 200 lbs., depending on model. Use an adequate lifting device to install fan assembly.

⚠ WARNING

Prevent serious injury or death.

Electrical installations must be performed by qualified electricians.

Installation must conform to all national, local, and provincial codes and standards.

The fan and motor assembly will bolt to fan panel.

4.11 Exhaust Duct Installation

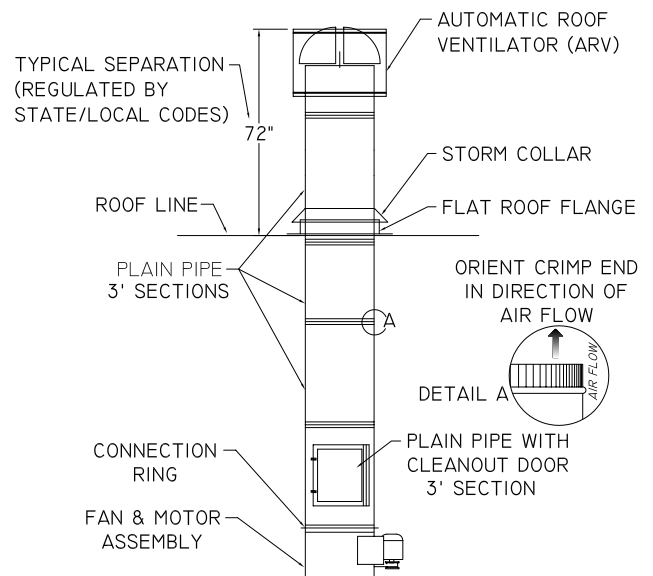
If equipped with optional exhaust ductwork, it is recommended to have this professionally installed.

To assemble ductwork:

1. Bolt pipe with connecting ring to the exhaust fan.
2. Remaining ductwork is crimped on one end to interlock with the next section. Crimped ends of duct shall be installed with the crimped edge pointed inward in the direction of airflow.
3. Your ARV (automatic roof ventilator) will be mounted on top.
4. Storm collar will attach to duct above flashing to make it weather proof.

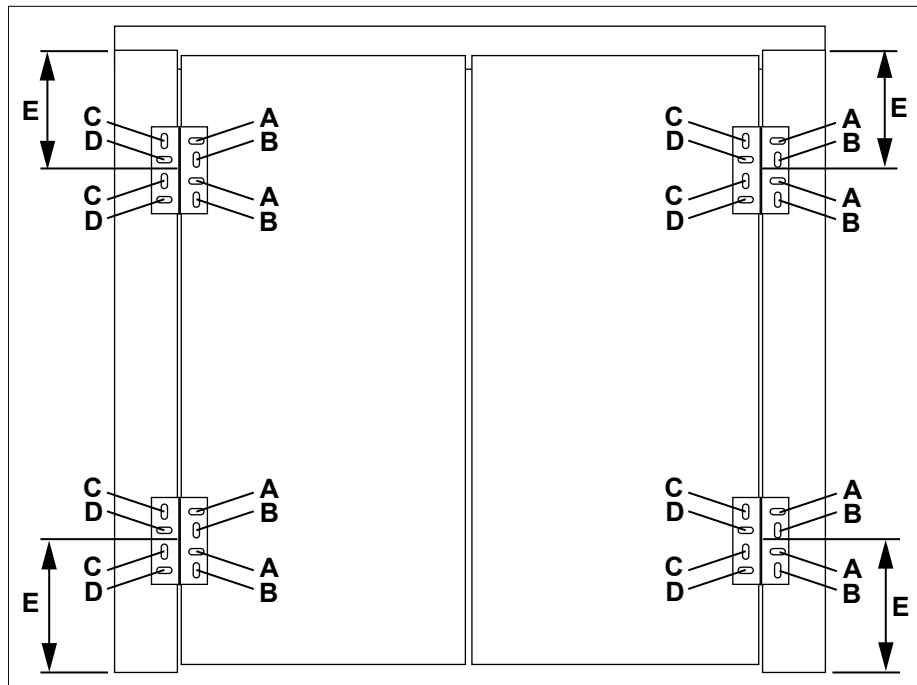
Where more than 25 ft. of piping is required, static pressure (resistance) is increased and the airflow may be hindered when using the standard exhaust unit recommended for use with the booth.

Where a piping arrangement of an unusual nature is necessary or where two or more elbows are used, a similar condition may exist. Therefore, if either of these situations arises, contact Col-Met for recommendations.



Exhaust piping, including the ARV (if used), should extend a minimum of 6 ft. above the highest point of building. There should be an access door just above exhaust unit.

4.12 Product Door



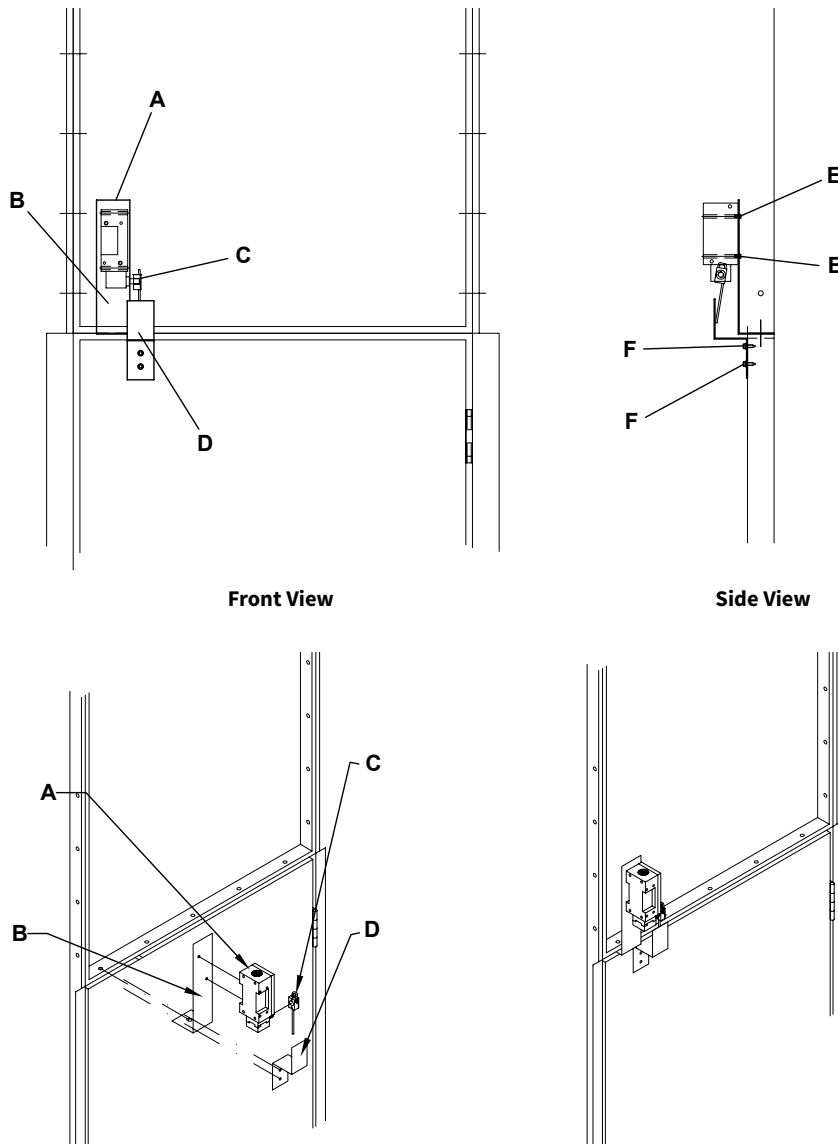
Side of door with 2 x 4 in. tube is the hinge side.

Before installing door, verify both door channels and top door stop installed properly and squared. Verify dimension between channels and floor to door stop with door drawing.

Install Left Door

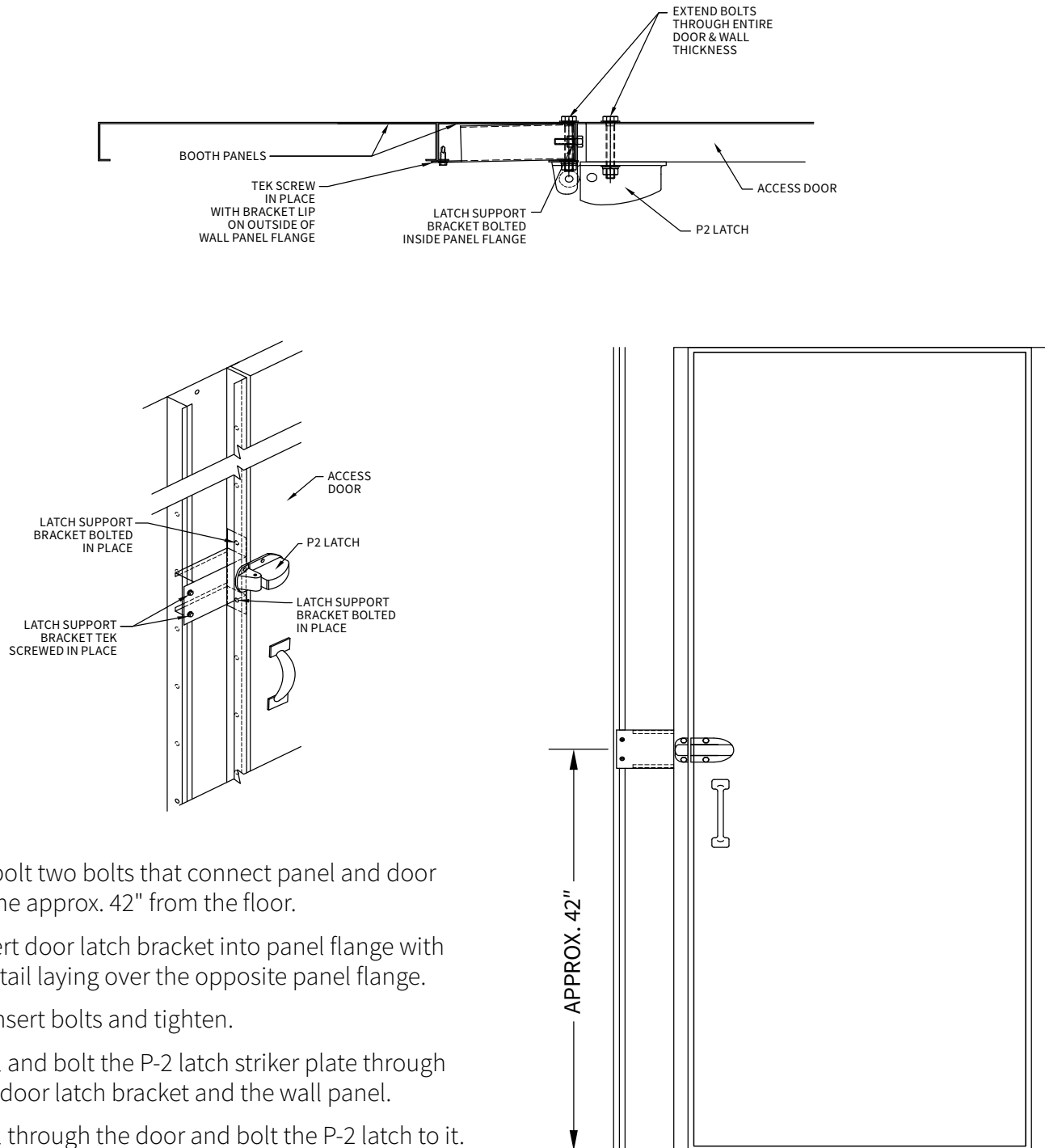
1. Place spacers between door and floor. Door is manufactured to have a 1 in. clearance at bottom, 1/2 in. clearance on top and 1/2 in. clearance on sides.
2. Put hinges in place per dimension (E) on door drawing. Install screw in center of slots A and C on all hinges. Do not tighten screws at this time.
3. Adjust the door in all directions. Assure the door closes completely, then tighten screws.
4. Install screws in center of slots B and D.
5. Remove spacers.
6. Repeat steps 1-5 to install right door.

4.13 Access Door Limit Switch Installation



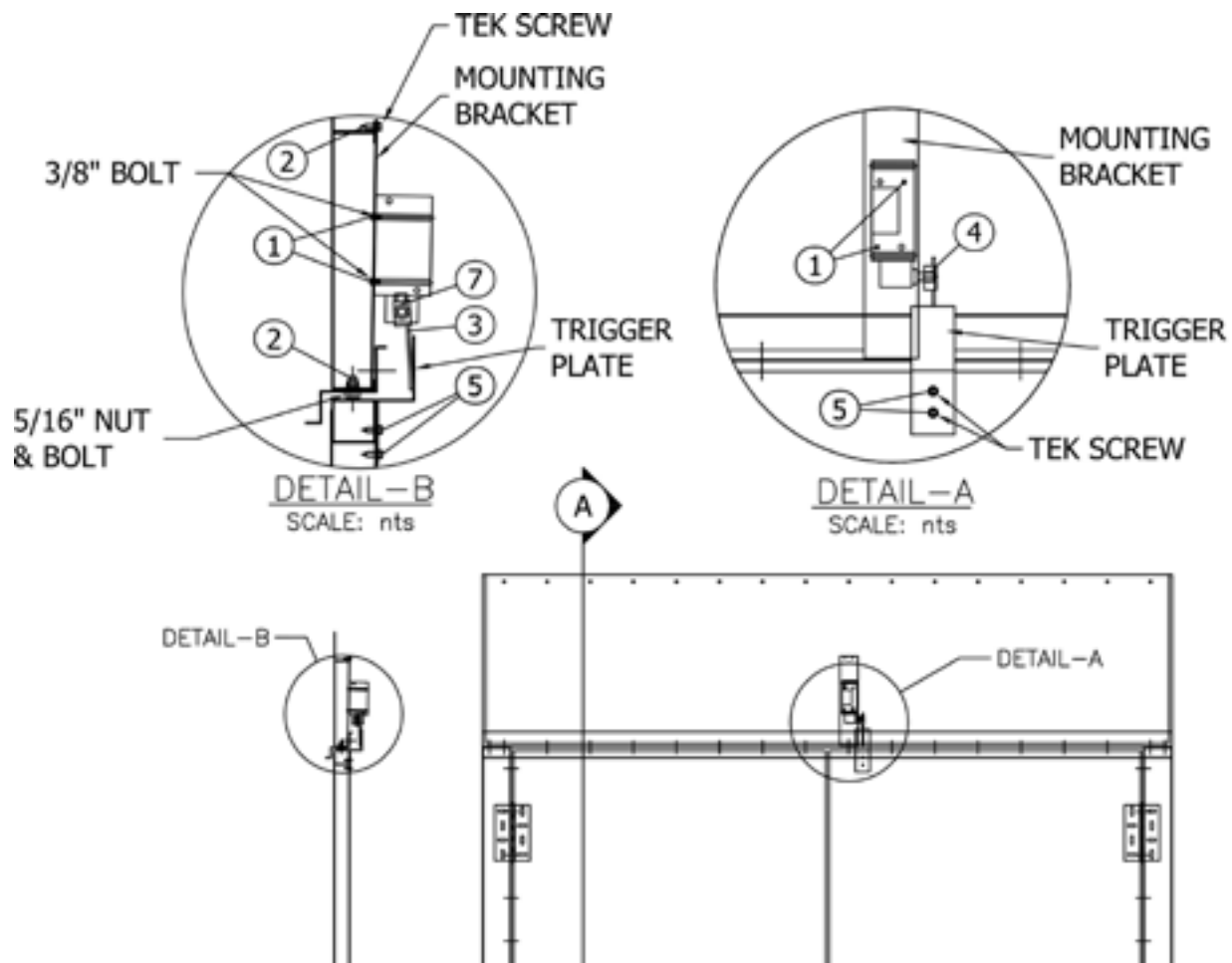
1. Bolt limit switch (A) to limit switch mounting bracket (B) with No.20 x 3/8 in. bolts (E).
2. Unbolt bolt in panel above access door on latch side and bolt the limit switch mounting bracket in place.
3. Measure and cut limit switch lever arm (C) to desired length.
4. Attach limit switch lever arm (C) to limit switch (A) (do not tighten set screw at this time).
5. Attach limit switch trigger plate (D) to door with self tapping screws (F) in front of limit switch lever arm.
6. Make final adjustments to lever arm to assure proper operation.
7. Tighten set screw on limit switch lever arm (C).

4.14 Access Door Latch Installation



1. Unbolt two bolts that connect panel and door frame approx. 42" from the floor.
2. Insert door latch bracket into panel flange with the tail laying over the opposite panel flange.
3. Reinsert bolts and tighten.
4. Drill and bolt the P-2 latch striker plate through the door latch bracket and the wall panel.
5. Drill through the door and bolt the P-2 latch to it.
6. Tek screw the tail end of the door latch bracket to the other panel flange.

4.15 Product Door Limit Switch Installation



1. Bolt limit switch to limit switch mounting bracket with 3/8 in. bolts.
2. Unbolt bolt in panel and door stop above center of product door and bolt the limit switch mounting bracket in place. Tek screw the top of the bracket to the upper panel return, if present.
3. Measure and cut limit switch lever arm to desired length.
4. Attach limit switch lever arm to limit switch (do not tighten set screw at this time).
5. Attach the access door limit switch trigger plate to access door with self tapping v screws in front of limit switch lever arm.
6. Make final adjustments to lever arm to assure proper operation.
7. Tighten set screw on limit switch lever arm.

4.16 Checklist

Check the following items prior to start up:

1. Motors wired for proper voltage.
2. All fans and motors turn freely.
3. Lubricate all bearings.
4. Check installation of exhaust fan for proper airflow direction. Generally, exhaust fan airflow is out of booth.
5. Listen for excessive or unusual noise when booth is operating.
6. When door limit switches are applicable, operate the booth and open any door to see if spray gun will shut down. This will verify proper safety operation of the booth.

5. Maintenance

⚠ WARNING

Prevent serious injury or death.
Disconnect and lockout / tagout all power sources before adjusting, repairing, or cleaning booth.

⚠ WARNING

Prevent serious injury or death.
Service, maintenance and adjustments must be performed by trained and qualified personnel.

⚠ WARNING

Burn hazard. Do not touch hot parts.
Allow to cool before servicing.

⚠ WARNING

Prevent serious injury or death.
Always wear personal protective equipment (PPE) specific to the job.
Read Material Safety Data Sheet for products used in spray booth.

Review and follow all safety precautions before performing any maintenance.

5.1 Maintenance Interval Chart

| Item | Maintenance Interval | | | |
|---|----------------------|------------------|------------------|------------|
| | Daily | Every Two Months | Every Six Months | Every Year |
| Visually Inspect Filters | ● | | | |
| Lubricate Door Latches | | ● | | |
| Check And Adjust Belt Tension* | | | ● | |
| Inspect And Clean Motor | | | | ● |
| Inspect And Clean Air Solenoid Safety Valve | | | | ● |

* Adjust belt tension after first week of operation, then every six months thereafter.

5.2. Daily

5.2.1 Inspect Filters

Visually inspect all filters for damage and debris buildup. Replace damaged or clogged filters.

5.2.2 Filter Maintenance

⚠ WARNING

Prevent serious injury or death.

Always wear personal protective equipment (PPE) specific to the job.

Wear personal protective equipment to protect against dry paint and dust particles while handling filters.

Check manometer gauge daily for condition of filters. Do not change filter based on its appearance.

Filters are not necessarily changed at equal time intervals. The usable life of a filter is related to:

- Filter material weave
- Paint sprayed
- Distance from gun to filter
- Paint gun type
- Amount of thinner used
- Spray pressure

5.2.3 Determine Filter Condition

1. The filter condition is acceptable when the manometer tube scale is between the two arrows.
2. When manometer scale exceeds red pointer flag, filters must be changed.
3. If a different filter media is to be used, manometer setup procedure may need to be changed based on the capacity rating of the media.

5.3 Every Two Months

5.3.1 Lubricate Door Latches

Lubricate bearing pin and laminated cam with SAE 30-50 high temperature oil. Tighten set screws in handle as needed.

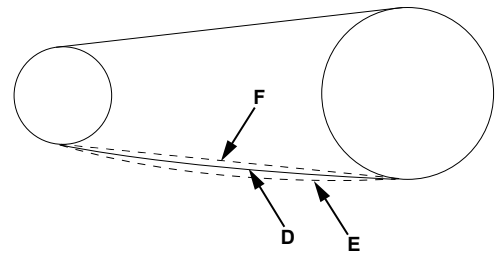
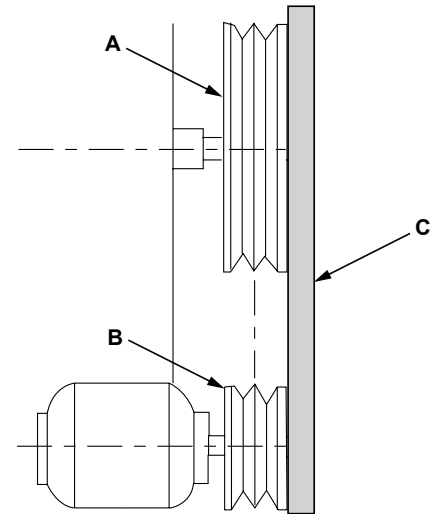
For use in cold areas, use SAE 10-20 high temperature oil.

Test explosion-venting feature to verify proper operation. Corrosion and/or build-up of foreign materials may affect proper operation of latches.

5.4 Every Six Months

5.4.1 Check Fan Belts

1. The fan sheave (A) and motor sheave (B) must be in axial alignment. Shafts must be parallel in both vertical and horizontal planes.
2. The sheaves must be in radial alignment. When sheaves are of equal width, align with a straightedge (C). When sheaves are of unequal width, align center of sheaves.
3. Check fan belts for proper tension and for signs of wear. Belt (D) is properly adjusted. Belt (E) is too loose. Belt (F) is too tight.



5.5 Every Year

5.5.1 Inspect Motor

Verify that cooling air to motor has not been diverted or blocked by dirty guards or other obstacles.

5.5.2 Inspect Fan Wheel

Inspect fan wheel for buildup of material, which may cause an unbalanced fan wheel. An unbalanced fan wheel may lead to premature failure of the fan wheel, bearings and belt. Clean material buildup as necessary.

5.5.3 Inspect And Clean Air Solenoid Valve

The function of this valve is to interrupt the supply of compressed air to the painting equipment when the booth is not operating as designed or if any booth doors are open.

⚠ WARNING

Prevent serious injury.

Turn off electrical power, depressurize valve, and vent fluid to a safe area before servicing valve.

The time between cleanings varies depending on the medium and service conditions. If voltage to coil is correct, sluggish valve operation, excessive noise or leakage indicates that cleaning is required. Clean strainer or filter when cleaning valve. Thoroughly clean all parts. If parts are worn or damaged, install a complete rebuild kit.

Follow instructions included with air solenoid valve.

6. Warranty

Col-Met Engineered Finishing Solutions has a full one year warranty that begins from the day of shipment on all parts and materials. This warranty does not extend to include labor costs for the replacement of parts or materials covered under warranty.

If a part is believed defective, please notify our Customer Service Department. A replacement item shall be shipped and regular freight shall be paid by Col-Met.

If Col-Met requires the defective part to be returned, appropriate return freight costs shall be paid by Col-Met.

IMPORTANT: Before returning the defective part(s), you must first get an RGA (Return of Goods Authorization) from our Customer Service Department. A copy of the RGA document **MUST** be included with the returned item(s).

The Seller warrants to Buyer that the equipment mentioned herein shall be free from defects of materials or workmanship under normal use and maintenance for a period of one (1) year from date of shipment. The liability of Seller under this warranty shall be limited to the repair or replacement, at Seller's option, of any part or component which may prove to be defective under normal use, service and maintenance after Seller, in its sole discretion, determines same to be defective. Said warranty is conditioned upon Buyer giving Seller immediate written notice of an alleged defect and refraining from the attempted repair of alleged defects without prior written consent of Seller. The Seller makes no warranty whatsoever with respect to accessories or components not supplied by Seller. For any components purchased by Seller for use on or in conjunction with the equipment which is the subject of this contract, the Seller extends to the Buyer only the same warranty granted to Seller by the component vendor or manufacturer.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTIES (EXPRESS OR IMPLIED) INCLUDING WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND OF ANY NON-CONTRACTUAL LIABILITIES INCLUDING PRODUCT LIABILITIES BASED ON NEGLIGENCE OR STRICT LIABILITY. EVERY FORM OF LIABILITY FOR DIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS IS EXPRESSLY EXCLUDED AND DENIED. IN NO CASE SHALL COL-MET ENGINEERED FINISHING SOLUTIONS LIABILITY ON THIS WARRANTY EXCEED THE AMOUNT OF THE PURCHASE PRICE.

The performance and safety of the equipment mentioned herein is contingent upon proper installation, the use of suitable process materials and operation and maintenance by properly trained personnel.

During the warranty period, Col-Met will repair or replace, free of charge, any parts that Col-Met Engineered Finishing Solutions has verified to be defective in materials or workmanship. If inspection of the equipment does not disclose any defect in workmanship of material, repairs will be made at a reasonable charge, which will include the costs of labor, materials and transportation.

6.1 Returning Items For Credit

Col-Met Engineered Finishing Solutions will take back any standard stocked items returned and issue a credit, less a 20% handling and restocking fee. Customer is responsible for all freight charges and the item **MUST** be returned in its original condition. If the item is damaged in transit you will not receive credit. Col-Met will mark the Bill of Lading "Damaged" and send you pictures of the damaged item. For custom or non-stock special order items you must contact our Customer Service Department to determine if the item may be returned. Any restocking charges shall be determined on a case by case basis.



If an item needs to be returned, Col-Met will issue you an RGA (Return Goods Authorization) form. Please ensure that a copy is sent back with returned item(s). Without an RGA the product may be lost or returned to stock with no credit issued. Please note that in some cases the freight may be more than the item is worth when credit is received.

6.2 Back Charges For Material And Labor

Col-Met Engineered Finishing Solutions shall not be held responsible for any back charges incurred for materials or labor without prior written consent.

Should a problem arise, please notify Col-Met immediately. Once the issue is investigated, should costs be incurred, an amount shall be agreed on by both parties beforehand. Do NOT attempt modifications or repairs without prior consent as this may void further warranty repairs or credit. Col-Met will not accept back charges associated with late delivery.

Please address repairs to:

Col-Met Engineered Finishing Solutions
2975 Discovery Blvd.
Rockwall, TX 75032
Attention: Customer Service
Phone: 888-452-6684
Email: sales@colmetsb.com



888-452-6684
www.colmetsb.com

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