

March 17, 2025

Re: Revenue Producing Hangar - Rebid
Mitchell Municipal Airport
Mitchell, South Dakota
A.I.P. #3-46-0037-033-2025
A-9432

Bid Opening: **March 19, 2025**
1:30 pm Local Time

ADDENDUM NUMBER 1

The following modifications are made to the plans and specifications for the Revenue Producing Hangar Project - Rebid, Mitchell Municipal Airport.

Mobilization is limited to 10 percent of the total project cost.

The minutes from the Pre-Bid meeting are attached to this addendum.

See the following pages for architectural addendum items that shall be replaced in the plans and specification documents.

ALL OTHER ITEMS OF THE PLANS AND SPECIFICATIONS REMAIN UNCHANGED



BY: _____

PROJECT ENGINEER – HELMS & ASSOCIATES

Acknowledge receipt of the Addendum by inserting its number on the Bid Form. Failure to do so may subject bidder to disqualification. This Addendum forms a part of the Contract Documents. It modifies them as above

Pre-Bid Conference Minutes

**Revenue Producing Hangar - ReBid
Mitchell Municipal Airport
Mitchell, South Dakota
AIP #3-46-0037-033-2025, Helms # A-9432
March 10, 2025
1:30 pm (Central)**

I. Bidding

A. Delivery of Bids

Sealed: Office of the City Finance Officer of Mitchell
612 N Main St.
Mitchell, SD 57301

B. Mailing of Bids

Sealed: Office of the City Finance Officer of Mitchell
612 N Main St.
Mitchell, SD 57301

C. Opening of Bids

March 19th @ 1:30 P.M. (Central Time)
Bids will be publicly opened and read aloud

D. Bid Documents

1. Proposal (Pages 411-426)

- a. Acknowledgement of Addendum(s)
- b. Site examination of existing conditions
- c. Insert all Unit Prices and Total Prices as required (Unit Prices will control)
- d. Buy American Certificate

- e. Sign and Date the Proposal
- f. Bid Schedules
 - 1. Bid Schedule A – Site Work
 - 2. Bid Schedule B – Hangar Construction (162' x 50')
 - 3. Alternate Bid Schedule A1 – Site Work (54' x 50' Hangar Bay)
 - 4. Alternate Bid Schedule B1 – Hangar Construction (54' x 50' Hangar Bay)
 - 5. Alternate Bid Schedule B2 – Hangar Insulation
 - 6. Alternate Bid Schedule B3 – Hangar Insulation (54' x 50' Hangar Bay)
 - 7. Alternate Bid Schedule B4 – Hangar Heater Units
 - 8. Alternate Bid Schedule B5 – Hangar Heater Unit (54' x 50' Hangar Bay)

g. Mobilization – SHALL BE LIMITED TO 10%

- 2. Attachment to Proposal (Pages 425-428) – 3.0% DBE Goal, Sign and Date
 - a. DBE Manufacturers 100% Credit
 - b. DBE Suppliers 60% Credit
 - c. DBE Wholesalers only receive credit for mark-up
 - d. If the Contractor is not going to meet DBE Goal, he/she must show a “Good Faith Effort” (Documentation must be provided within 2 business days from the date that the apparent low bidder is contacted. This documentation must be approved prior to issuing of a Contract).
- 3. Bid Security
 - a. 10% Bid Bond – Payable to the City of Mitchell
 - b. 5% Cashier’s Check – Payable to City of Mitchell

****MAKE SURE ALL OF THE ABOVE MENTIONED FORMS ARE COMPLETELY FILLED OUT, SIGNED, AND DATED, PRIOR TO SUBMITTAL OF YOUR BID****

DBE Good Faith Effort Discussion

Please review SC-14. Special Provision for Disadvantaged Business Enterprise.

If the DBE Goal is not met, a Good Faith Effort (GFE) is required (see page 27 and 28). Although, it is not required to be submitted with the bid, it will be requested from the apparent low bidder within 2 business days. Requirements of a GFE are:

1. The bidder must select contract work items to encourage DBE participation. This includes breaking out contract work items into economically feasible units to facilitate DBE participation, even when the bidder might otherwise prefer to perform these work items with its own forces.
2. The bidder must solicit all certified DBEs that are listed in the appropriate work classifications in the DBE directory and that have indicated in the directory they are willing to work in the project's geographic area. Without exception, all DBEs who are listed on the plan holders list by 10 AM central time 7 calendar days prior to the bid letting must be solicited in accordance with Section III.B.3 of this special provision. If the bidder has not solicited any DBE meeting these requirements, the bidder will provide a detailed written explanation showing why the DBE was not solicited.
3. To provide adequate time for the DBE to respond with a quote in the normal course of business, the bidder must make the initial solicitation at least 6 calendar days by mail or 5 calendar days by phone, fax, or e-mail prior to the letting date. Without exception, all DBEs who are listed on the plan holders list by 10 AM central time 7 calendar days prior to the bid letting must be solicited.
4. If the bidder does not receive a positive contact from a DBE, the bidder must follow up the initial solicitation with a second solicitation by phone, fax, or e-mail to determine whether the DBE is interested in quoting. The bidder must make this second solicitation at least 2 business days prior to the letting.
5. The bidder will provide interested DBEs with adequate and timely information about plans, specifications, and requirements of the contract to assist DBEs in responding to a solicitation.
6. If a bidder rejects a DBE quote because of previous problems with a particular DBE, the bidder must prepare a detailed written explanation of the problem. Additional cost involved in finding and using DBEs is not, in itself, sufficient reason for a bidder to reject a quote. A bidder must not reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities.
7. Any additional information requested by the City of Mitchell.

II. General Provisions

- A. Bonding, Insurance, Utility Contacts, Etc.

III. Specific Project Requirements

- A. Non-Discrimination in Contractor's work force

- 1. Goals

- a. Minority – 1.0%
- b. Female – 6.9%

- B. Buy American

- 1. Helms and Associates will assist with submission of the Waiver to the FAA, if needed.

- C. Posters

- 1. Posted notices: Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible.
 - a. EEO Posters – Available from SD-DOT (On Site)
 - b. Davis Bacon Wage Poster (WH 1321) - DOL “Notice to All Employees” Poster; and Applicable Davis-Bacon Wage Rate Determination.

- D. Payrolls

- 1. Need to be submitted weekly by the Prime Contractor and all Subcontractors performing work on-site.

- E. Reports to be Filed

- 1. Annual EEO-1 Report - Standard Form 100 must have been filed within past 12 months. Special Conditions page 23.
- 2. Construction Contractor Identification Data - Award Notification shall be given within 10 working days of Contract Award, see Special Conditions Pages 24.

IV. Permits

- A. State/Local Permits must be obtained by the Contractor as required (i.e. Haul Road Permit).

V. Technical Specifications

- A. Items for all Base Items are found in Part VI of the Construction Specifications and Contract Documents or in the Plans.
- B. All questions shall be directed to Helms & Associates or HKG Architects.

Helms & Associates:
Brooke Edgar, P.E.
(605) 225-1212
brookee@helmsengineering.com

HKG Architects
Dean Marske
(605) 225-6820
Dean@hkgarchitects.com

- C. Helms & Associates will issue all Addendums.

VI. Miscellaneous

- A. Review of Bids and approval by the FAA will be prior to Award of the Contract. (Anticipate up to 60 days after the Bid Opening)
- B. A Pre-Construction Conference will be held prior to construction starting.
- C. Construction Observation
 - 1. Helms & Associates/HKG Architects
 - 2. SD-DOT / FAA – Intermittent and Final
- D. Payments
 - 1. Monthly
 - 2. RETAINAGE – 10% (General Provisions, Section 90)
 - 3. Stockpiled Materials
 - a. Cost documentation / Invoice
 - b. Certificate of Compliance or test results to show it meets the specification requirements
 - c. Proof of Insurance
- E. Project Completion – Special Conditions (SC-6)
 - 1. Construction Limitations – see Special Conditions Page 19.

All Bid Schedules:

The construction of the hangar building and approach pavement shall be completed by October 31, 2025.

The work shall be completed in accordance with Paragraph 50-15 of the General Provisions by October 31, 2025.

Liquidated Damages set forth in section SC-1 of the Special Conditions may be assessed if this timeframe is not met.

VII. Construction Methods / Discussion

- A. Construction Meetings will be held throughout the project. All Contractors involved with work at the time of the meeting must attend. Frequency and time shall be coordinated at the Pre-Construction Conference.
- B. Bid quantities may be adjusted to stay within project funds.
- C. Contractor will be responsible for Aggregate Testing (Gradations). The Engineer will perform all density testing.
- D. FAA General Provisions / Technical Specification Changes **(make sure your read the specs as they have been updated):**

1. Mobilization shall be limited to 10 percent of the total project cost (Section 105)

- 2. SDDOT Aggregate Base Course under concrete pavement
 - a. Compaction & Moisture Requirements
 - 98% max dry density @ ±2% optimum moisture

SECTION 08 34 16 VERTICALLY BI-FOLD HANGAR DOORS

PART 1 - GENERAL

1. QUANTITY

1.1 Doors for this project will consist of (3) bi-fold doors, Base Bid with (1) additional with Alternate.

2. SIZE OF DOOR - Clear Open Width & Height

2.1 Hanger door with door in up position, shall have a minimum clear opening width of (46'-0") as shown in the plans and a minimum clear height of (14'-0") above finished floor elevation.

3. PLACEMENT of the Bi-Fold Door unto the building

3.1 Door shall be mounted flush with exterior walls of building.

4. GENERAL / CONTRACTORS REQUIREMENTS: - DESIGN CRITERIA

- 4.1 The bi-fold hangar doors shall be designed to the same loading requirements for live, dead and wind loads as the Boat Support Building.
- 4.2 The doors shall be engineered to resist all anticipated loads without sagging, bowing or conflicting with its smooth and efficient operation.
- 4.3 The design shall be furnished, approved and sealed by a professional engineer registered in the state where the project is located.
- 4.4 The building header shall be designed to accommodate horizontal and vertical building deflections to support the bi-fold door in all positions (with the proper lateral bracing).
- 4.5 The building's door columns shall be framed of the proper design and size to reinforce the opening (with lateral bracing) and to carry all loads and vibrations imposed thereon.
- 4.6 The Bi-fold should have solid footing with sill directly underneath the door frame and extending outward from the door to provide a base for the door's weather seal. This also prevents flow of water into, or under, the door installation.
- 4.7 The finished floor of the building should be designed to prevent flow of water under the door installation. Sills shall have a slight slope outward of the bi-fold door to prevent water flow under the door installation.

5. GENERAL / ELECTRICAL REQUIREMENTS:

- 5.1 The building contractor shall furnish and install a prewired electrical door operating mechanism to control each bi-fold door.
- 5.2 The contractor is responsible and required to completely install the prewired electrical door operating mechanism, push button controls, devices and electrical conduit and wiring to the door operating controls.
- 5.3 The electrical door mechanism and control shall be field wired by the contractor (Not The Door Manufacturer).
- 5.4 Control panel with up/down/off switch pre-wired to motor, and over-ride controls with the required number of adequately sized insulated electrical conductors.

6. GENERAL / Electric Power Operator: For the Bi-Fold Doors

- 6.1 All electrical controls and devices shall conform to the requirements of the current National Electrical Code 513, NEMA, and be UL approved.
- 6.2 Provide UL Listed Electric Operator, size and type as recommended by the manufacturer.
- 6.3 The operator is furnished complete and consists of a motor and factory-wired control panels consisting of main fused disconnect switch, magnetic reversing starters, limit switches and push button controls, control circuit transformers, relays, timing devices, and warning devices.

7. SUBMITTALS

- 7.1 Product Data: Submit manufacturer's A1, A2, A3 Spec Sheets for each Bi-fold Door, plus product data and installation instructions. Include details of construction relative to materials, dimensions of individual components, profiles, and finishes. Provide roughing-in diagrams, Include the following:
 - A. Summary of forces and loads on walls and jambs.
 - B. Setting drawings, templates, and installation instructions for built-in or embedded anchor devices.
- 7.2 Shop Drawings: Submit shop drawings for approval prior to fabrication. Include detailed plans, elevations, details of framing members, required clearance, anchors and accessories. Include relationship with adja-

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cent materials. The make and type of door, operators and controls shall be clearly shown. Door weight, method of suspension, operation, and all fastenings shall be indicated.

7.3 Submit (1) copies each of the following manufacturer's Manuals / Diagrams

- A. Bi-Fold Door Literature
- B. Installation Manual
- C. Operating Instructions
- D. Maintenance data/manual.
- E. Safety Decal Placement Guide Manual / Warning Labels
- F. Electrical System Manual for the bi-fold door system
 - 1) Electrical Schematics
 - 2) Electrical Wiring Diagram
- G. Diagram's of potentially hazardous locations related to the operation of the door.
- H. Shop drawings for approval.

7.4 Submit shop drawings specific for this project.

NOTE: Generalized project drawings not specific to this project will not be acceptable.

8. QUALITY ASSURANCE

- 8.1 Source Limitations: Obtain Bi-Fold doors through one source from a single manufacturer.
- 8.2 Manufacturer Qualifications: Engage a firm experienced in manufacturing Bi-Fold doors similar to those indicated for this Project and with a record of successful in-service performance.
- 8.3 Installer Qualifications: Engage an experienced installer who is an authorized representative of the door manufacturer for both installation and maintenance of units required for this Project.
- 8.4 Product Options: Drawings indicate size, profiles, and dimensional requirements of Bi-Fold doors and accessories. Other manufacturers' systems with equal performance and dimensional characteristics may be considered. Refer to OPTIONAL UPGRADE EQUIPMENT.
- 8.5 Pre-Installation Conference: Schedule a pre-installation conference prior to commencement of field operations that might affect installation of bi-fold doors to establish procedures for maintaining optimum working conditions, and to coordinate this work with related and adjacent work.
- 8.6 The contractor shall touch up all scratches, abrasions or other slight painting defects with the same type and color of paint as originally applied.

9. DELIVERY, STORAGE AND HANDLING

- 9.1 Deliver materials and products in manufacturer's labeled protective packages. Store and handle in strict compliance with manufacturer's written instructions and recommendations. Protect from damage from weather, excessive temperatures and constructions operations.
- 9.2 Inspect vertical bi-fold doors upon delivery for damage. Minor damages may be repaired provided refinished items are equal in all respects to new work and acceptable to Architect. Other wise, remove and replace damaged items as directed.
- 9.3 Place bi-fold door frame units on minimum 4" high wood blocking. Store doors components & Packages at building site under cover. Avoid use of non vented plastic or canvas shelters which could create humidity chamber. If cardboard wrapper on door becomes wet, remove carton immediately.
- 9.4 The contractor shall store the sheet, panels, components and other manufactured items so that they will not be damaged or deformed. Store metal sheets or panels so that water accumulations will drain freely. Do not store sheets or panels in contact with other materials which might cause staining.

10. APPROVED MANUFACTURERS

- 10.1 The bi-fold doors supplied by a manufacturer who is regularly engaged in the manufacture of aircraft hangar doors for a minimum of ten years, and upon request from the owner provide a list of completed projects. Bi-fold door shall be as manufactured by Schweiss Bi-Fold Doors, Box 220, Fairfax, MN 55332, phone 507-426-8273 or approved equal.
 - A. Schweiss Bi-Fold Doors
 - P.O. Box 220
 - Fairfax, MN. 55332
 - Phone 507-426-8273 Fax 507-426-7408

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B. Midland Bi-fold Doors

C. Powerlift Hydraulic Doors

- 10.2 All manufacturer's seeking approval of their products must comply with requirements of the Instructions to Bidders.

11. BI-FOLD DOOR FRAMEWORK- FABRICATION / CONSTRUCTION REQUIREMENTS

- 11.1 Hangar doors shall be of the electrically operated bi-fold canopy type and shall be integral with the hangar building design.
- 11.2 When in the open position the doors shall have a slight slope to direct drainage away from the building.
- 11.3 Door shall be hinged horizontally at the top and center, and be arranged to open by moving frame out & up.
- 11.4 Door frames shall have pre-located top hinges to align with the building truss members.
- 11.5 Door shall be self contained with only the top hinges, bottom door rollers and column followers / wind rails.
- 11.6 The door framework shall consist of jig welded steel tube sections engineered by the door manufacturer to resist all anticipated loads without sagging, bowing or conflicting with its smooth operation.
- 11.7 Structural steel door framing members shall be ASTM A500 Grade B square structural welded steel tubing.
- 11.8 All labor, materials, accessories, equipment and services necessary to furnish a complete installation of a bi-fold hangar door as indicated by the manufacturer. Including frame, sections, brackets, guides, tracks, hardware, operators and installation instructions.
- 11.9 Shop connections shall be welded.
- 11.10 Field connections shall be bolted.

12. DRIVESHAFT / LIFT DRUMS

- 12.1 The solid steel driveshaft with lift drums mounted on bottom cord of door runs continuously along entire door width providing an even lift of the door at all times.
- 12.2 The drive shaft shall be attached to the door frame with (grease-able) bearing mounts wherever there is a cable drum installed, to minimize stress on the shaft.
- 12.3 Solid Driveshaft and lift drums shall be in sufficient amount to give 5:1 safety factor.

13. LIFTING METHODS

13.1 LIFT STRAPS

- A. The door power unit shall be operated by a system of lifting straps (NOT CABLES), lifting drums and drive shafts.
- B. Lift Straps attached to a retainer on the upper door frame passing through a strap guide attached at the top chord of the door frame, thereby transmitting forces directly to header of building & relieving door of unnecessary stresses.
- C. The Lift Straps shall have adjustable slack take-up device to keep proper tension on each Lift Strap.
- D. The lift drums must be properly shielded to avoid any potential hazards to people.
- E. Lift Straps and Lift Drums shall be manufacturer's standard adequately sized in sufficient amount to give 5:1 safety factor.

14. HEAVY DUTY HINGES

- 14.1 Heavy Duty Steel Hinges furnished complete. Each Hinge set shall be 10.50" wide, pins shall be 11/16" diameter minimum.

15. DOOR TRUSS'S

15.1 INTERNAL TRUSS - STANDARD

- A. An extra heavy duty center truss shall be installed in the center of the interior side.
- B. There will be a truss at the base of the door to provide extra strength.

16. HEAVY DUTY SIDE ROLLERS

- 16.1 The bi-fold hangar doors shall include 3" Heavy Duty minimum guide rollers with sealed bearings on bottom of door at jamb location.

17. COLUMN FOLLOWERS / WIND RAILS

17.1 System provided by the door manufacture to hold the base of the door securely against the building when the door is in the closed position.

- A. Solid square columns secure only in the closed position = Wind Rails.

18. WIND PINS

18.1 Automatic Wind Pins

- A. Center wind pins 1" diameter minimum - provide a sturdy installation - Must automatically engage/disengage.

19. MANUAL LATCHING SYSTEM'S

19.1 Standard Manual Latch - STANDARD

- A. The latching system shall be provided on both sides of the doors.
- B. A manually latching system will be furnished so that the door is manually unlocked before the door can be opened and manually relocked after the door is in the closed position.

20. PAINT

- 20.1 The door frame members and parts shall be factory primer finished with gray primer.

21. TOP & BOTTOM RUBBER SEALS

- 21.1 Provide manufacturer's standard seal continuous at top, bottom of each door.
- 21.2 The door shall be equipped with neoprene weather stripping at heads and jambs to prevent flow of moisture into the door installation. Sills shall have a special fabric reinforced high grade rubber astragal. The entire door perimeter shall be weather tight.
- 21.3 Note: That existing bituminous surface varies and seals shall be placed accordingly.

22. Weather Seal - Kit

- 22.1 The sides, and center of each bi-fold can be sealed off with a special weather stripping. The center of the door must have a self sticking foam cushion seal the entire door perimeter must be weather tight.

23. BI-FOLD DOOR ELECTRIC POWER OPERATOR --- BOTTOM DRIVE

23.1 Location of Power Operator

- A. Motor shall be located on bottom chord of door frame.

23.2 Electrical Controls

- A. All electrical controls and devices shall be designed to meet National Electrical Code Section 513.
- B. All controls are pre-wired and factory tested.

24. ELECTRIC MOTOR / VOLTAGE / PHASE

24.1 ELECTRIC MOTOR / VOLTAGE / PHASE - OPTION 1 - STANDARD

- A. Service: 240 VAC, single phase, 3 wire service.
- B. Single Phase Motor's shall be totally enclosed capacitor start.
- C. Single phase, 240-volt electric motor with overload protection direct mounted to a gear reduction box and winding drum.
- D. The size of the motor shall be as recommended by the manufacturer.
- E. Door operator shall be pre-wired at factory complete with 24 V.A.C. control system.

25. Gear Motor

- 25.1 The gear motor is equipped with an electric brake, which will stop and hold door in any position of door travel.
- 25.2 Provide high starting torque, reversible, continuous duty, class A insulated, electric motors complying with NEMA MG 1, with overload protection, sized to start, accelerate, and operate door in either direction, from any position.
- 25.3 A magnetic starter, with 24v control unit for reliability is standard.
- 25.4 Design operator so motor may be removed without disturbing limit switch adjustment and without affecting emergency auxiliary operator.

26. CONTROL STATION'S - CHOOSE ONE

- 26.1 2 Button Constant Hold Control Station - for opening & closing your Bi-fold door.
 - A 2-button constant contact dead man switch, prevents operator from leaving control panel while door is in motion, either up or down.
 - B. When the operator takes his hand off the up /down button, the door immediately stops regardless of its opening / closing position.
 - C. The motor automatically stops when the door reaches either the full open or closed position.

27. Limit Switches

- 27.1 Heavy duty limit switch box shall be weatherproof.
- 27.2 Heavy duty limit switch box shall provide adjustable switches interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.
- 27.3 Note: Safety edges shall not be used as limit switches.

28. ELECTRICAL DISCONNECT

- 28.1 Provide Electrical Disconnect to completely disable the door, for service, maintenance, emergency backup operations.
- 28.2 Mount disconnect so it is accessible from floor level.

29. EXECUTION

- 29.1 Examination
 - A. Examine wall and overhead areas, including opening framing and blocking, with Installer present, for compliance with requirements for installation tolerances, clearances, and other conditions affecting performance of Work of this section.
 - B. Proceed with installation only after unsatisfactory conditions have been corrected.

30. INSTALLATION

- 30.1 General:
 - A. Door manufacturer is required to coordinate with the metal building manufacturer in the development of the exact installation details, and provide weights and door loadings to building manufacturer.
 - B. Install door, track, and operating equipment complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports according to Shop Drawing, manufacturer's written instructions, and as specified.
 - C. Fasten vertical track assembly to framing at not less than 24 inches o.c. Hang horizontal track, hinges from structural overhead framing with angle or channel hangers welded and/or bolt fastened in place. Provide sway bracing, diagonal bracing, and reinforcement as required for rigid installation of track, hinges and door-operating equipment.
- 30.2 Top and Bottom Limits Settings
 - A. Each bi-fold door has a recommended clear opening setting, specified by the manufacture. Do not over travel the door beyond the recommended setting.
- 30.3 Exterior wall panels
 - A. Metal building erector to install the same exterior wall panels that are on the building, use the same type on the bi-fold doors. Install the proper trims that are recommended by the manufacturer.
- 30.4 Apply Proper Safety Markings
 - A. Apply Proper Markings for any potentially hazardous locations related to the operation of the door. B. Follow the pictorial diagram included in the door installation manual.
- 30.5 Installing Warning Labels
 - A. Furnish warning labels for any potentially hazardous locations related to the operation of the door.
 - B. Fasten warning labels to the bi-fold door frame and by the operator's station in accordance with manufacturers instructions, NO EXCEPTIONS.
- 30.6 Installer Certificates: Signed by manufacturer certifying that installers comply w/ specified requirements.

31. ELECTRICAL WORK - Contractor is responsible for:

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- 31.1 The contractor is responsible and required to completely install the prewired electrical door operating mechanism, push button controls, devices and electrical conduit & wiring to the door operating controls.
- 31.2 Detail wiring for power, signal, and control systems.
 - A. Differentiate between manufacturer-installed and field installed wiring & between components pro-vided by door manufacturer and those provided by others.
- 31.3 Install bi-fold doors in accordance with manufacturers instructions.

32. Adjust & Clean

- 32.1 Lubricate, test adjust doors - to operate easily, free from warp, twist, or distortion and fitting weather tight for entire perimeter.
- 32.2 Prime Coat Touch Up:
 - A. Immediately after erection, sand smooth any rusted or damaged areas of prime coat.
 - B. Touch-up damaged coating and finishes and repair minor damage.
 - C. Clean exposed surfaces using non-abrasive materials and methods recommended by manufacturer of material or product being cleaned, and apply touch up of compatible air drying primer.

32.3 Final Adjustments:

- A. Lubricate bearings and moving parts, adjust open and closed limits & doors to operate easily, free from warp, twist, or distortion and fitting weather tight for the entire perimeter.
- B. Check and readjust operating finish hardware items, leaving vertical bi-fold doors undamaged and in complete and proper operating condition.

33. DEMONSTRATION

- 33.1 Startup Services: Engage a qualified -authorized service representative to perform startup services and to train Owner's maintenance personnel as specified below:
 - A. Test and adjust controls and safeties. Replace damaged and malfunctioning controls & equipment.
 - B. Train Owner's maintenance personnel on procedures and schedules related to startup and shut down, operating, troubleshooting, servicing, and preventative maintenance.
 - C. Review data in the installation & maintenance manuals.
 - D. Schedule training with Owner at least 7 days advance notice.

34. WARRANTY

- 34.1 The Contractor shall warrant the door to be free of defects in accordance with the General Conditions, except the warranty shall be extended by manufacturer's 2 - year written warranty against defects in materials and workmanship, against problems which arise through normal anticipated usage of the door during the warranty period. The warranty shall be signed by the manufacturer.
- 34.2 Additional Warranty On the Straps

In addition to the warranty specified above, the door manufacturer shall warrant the original lift straps for a period of five years, against defects in material.

35. OPTIONAL UPGRADE EQUIPMENT

Note to Specifier: Select desired upgrade options below, and verify materials and insulation / application with the manufacturer; those related to door operating safety relative to danger to humans, and followed by an (R), may be required for your project; delete (R) in final text for those selected.

- 35.1 Top Override Safety Switches

Upper override switch that disconnects power to door if upper limit fails or if limits are overridden. This safety feature is designed to prevent the door from traveling beyond its recommended clear opening height. If the door passes its full clear opening height, it will activate the override and stop the door automatically.
- 35.2 Side Latch Safety Switches

Side Latch Safety Switches eliminate possible damage if door is opened while in locked position. These switches are designed to prevent the door from operating while the side latches are locked in the closed position.

END OF SECTION 08 34 16