



February 02, 2017

Craig A. Miller Sr  
Webster University  
470 East Lockwood Ave  
St. Louis, MO 63119-3194

Via Email

Re: Paric Corporation Project No. 15051  
15051-Webster University Interdisciplinary Science Building  
CP-053 - ASI #34 Mechanical

Dear Craig A. Miller Sr:

Paric Corporation proposes to complete the following additional work for the additive sum of Forty Thousand Five Hundred Ninety-One Dollars And Forty-Eight Cents \$40,591.48 .

This change will impact the scheduled completion date by 0 days.

- PCI-E-0062 (ASI#34 - Mechanical), Total \$ 40,591.48

The owner contingency shall be used for this change proposal. Pricing includes \$4000 allowance for plumbing BIM time and possible revision/relocation of plumbing work to accomodated revised mechanical work.

**Proposed Change Proposal Total: \$40,591.48**

If this change proposal meets with your approval, please sign and return this proposal for our records by February 06, 2017 at the latest. If accepted this scope will be incorporated into a change order.

Sincerely,

Paric Corporation

Jason Szachnieski  
Project Manager

Accepted:

  
Date: 2/6/2017

Craig A. Miller Sr  
Webster University

Declined:

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Date:

Craig A. Miller Sr  
Webster University

# Paric Corporation

## PROJECT MANAGEMENT - CHANGE ITEM DETAIL REPORT

### 15051 - 15051-Webster University Interdisciplinary Science Building

Page: 1 of 1

Date: 10-FEB-17

Time: 04:43 PM

Status: EXT EXT

| CI Type              | CI Number  | Description                                        | Estimated Amount   | Quoted Amount | Final Amount     | Due to Owner                         | Notes     | Date Sent           | Date Received | Date Closed                                                                                                               | Budgeted Amount  | Billing Amount   | Owner CO |
|----------------------|------------|----------------------------------------------------|--------------------|---------------|------------------|--------------------------------------|-----------|---------------------|---------------|---------------------------------------------------------------------------------------------------------------------------|------------------|------------------|----------|
| EXT                  | PCI-E-0062 | ASI#34 - Mechanical                                |                    |               | 40,591.48        | 22-DEC-16                            |           |                     |               |                                                                                                                           | 40,591.48        | 40,591.48        |          |
| <b>Vendor Name</b>   |            |                                                    | <b>Description</b> |               |                  |                                      |           |                     |               |                                                                                                                           |                  |                  |          |
|                      |            | Icon Mechanical Construction & Engineering, I15051 | 15500.001          | S             | Mechanical Sub   |                                      | 33,175.00 | ASI#34 - Mechanical |               | Provide ASI#34 changes per ICON proposal dated 2/2/17. Add \$33,175                                                       |                  |                  |          |
|                      |            | Guarantee Electrical Construction Co               | 15051              | 16000.001     | S                | Electrical Sub                       | 3,259.00  | ASI#34 - Mechanical |               | Provide ASI#34 changes per GECO proposal dated 11/10/16. Add \$3259                                                       |                  |                  |          |
|                      |            |                                                    | 15051              | 15400.001     | S                |                                      | 2,000.00  | ASI#34 - Mechanical |               | Allowance for plumbing BIM and potential relocation/revision of piping to accommodate VF-4 installation. \$2000 Allowance |                  |                  |          |
|                      |            |                                                    | 15051              | 01740.171     | L                |                                      | 257.48    | ASI#34 - Mechanical |               | 4 hrs HVAC cleanup at \$64.37/hr = \$257.48                                                                               |                  |                  |          |
|                      |            | PARIC                                              | 15051              | 23100.001     | M                | Risk Management (1.1%)               | 426.00    | ASI#34 - Mechanical |               | Risk Management                                                                                                           |                  |                  |          |
|                      |            | PARIC                                              | 15051              | 23150.005     | M                | Contractor Default Insurance (1.25%) | 484.00    | ASI#34 - Mechanical |               | Contractor Default Insurance                                                                                              |                  |                  |          |
|                      |            | PARIC                                              | 15051              | 23300.001     | F                | Fee (2.5%)                           | 990.00    | ASI#34 - Mechanical |               | Contractor Fee                                                                                                            |                  |                  |          |
| <b>Total For EXT</b> |            |                                                    | <b>0.00</b>        | <b>0.00</b>   | <b>40,591.48</b> |                                      |           |                     |               |                                                                                                                           | <b>40,591.48</b> | <b>40,591.48</b> |          |
| <b>Grand Total:</b>  |            |                                                    | <b>0.00</b>        | <b>0.00</b>   | <b>40,591.48</b> |                                      |           |                     |               |                                                                                                                           | <b>40,591.48</b> | <b>40,591.48</b> |          |

## END OF REPORT

### Report Parameters

|                    |        |                 |             |
|--------------------|--------|-----------------|-------------|
| Job:               | 15051  | Project Code:   |             |
| From Change Order: |        | Run Date:       | 10-FEB-17   |
| To Change Order:   |        | Run Time:       | 04:43 PM    |
| Status Code:       |        | Operator:       | JAS39SZA    |
| Report Type:       | DETAIL | Posting Status: | Unposted CI |
| Print Notes:       | Y      | Report Code:    | PM5000      |
| Group By:          | STATUS |                 |             |



1616 Cleveland Boulevard • Granite City, IL 62040

February 2, 2017

Paric Corporation  
77 West Port Plaza #250  
St. Louis, MO 63146

Attn: Mr. Jason Szachnieski  
Project: Webster University ISB  
Ref: ASI - 034 - Revised #3

Dear Jason,

We are pleased to submit our change proposal associated with the Webster University ISB Project. The changes covered by this change order as follows:

**Price for Above Listed Addendum:**

**\$33,175**

**The above price included:**

- Pipe Fitter Labor: 133hrs @ Contract Rate: *of \$95.19/hr*  
\$12,550
- Sheet Metal Labor: 36hrs @ Contract Rate: *of \$93.58/hr*  
\$3,385
- Sheet Metal Shop Labor: 24hrs:  
\$2,525
- Piping & Hanger Material (240ft): \$1,700
- Sheet Metal & Hanger Material: \$1,600
- VF-4, Spring Hangers, Associated Dampers & Air Devices: \$1,650 *(Granheck & Zoon)*
- Condensate Drain Insulation: \$1,500 *240 LF @ \$6.25/LF*
- Controls Changes/Additions: \$3,537 *(ACES)*
- BIM/CAD Time: *15hrs @ \$75/hr* \$1,125
- Rental/Warranty/Misc.: \$1,700
- OH&P: \$1,903

DEDUCT includes removal of all dampers and associated labor and controls. BIM/CAD Time for moving fan to the north.

*(1700 + 1600 + 1650 + 1500 + 3537 + 1125 + 1700 + 1903 = \$19222)*

Thank you for giving us the opportunity to submit on this scope change. We wish you success and look forward to continued involvement. If there are any questions or if we can be of further assistance, please contact me.

Sincerely,  
**icon Mechanical**  
Alex Chambers

## BUILDING AUTOMATION SYSTEM PROPOSAL

|                      |                                                    |                     |                                             |
|----------------------|----------------------------------------------------|---------------------|---------------------------------------------|
| <b>To:</b>           | Icon Mechanical                                    | <b>Date:</b>        | 2/1/2017                                    |
| <b>Project Info:</b> | Webster University – ISB / HVAC Controls – ASI-034 | <b>Prepared By:</b> | Justin Vogt<br>jmvogt@automaticcontrols.net |

### Project Description:

- Automatic Controls Equipment Systems (ACES) is pleased to provide the enclosed proposal. ACES will provide all necessary engineering, software, hardware, project management, commissioning, programming, and warranty for the scope of work below. Webster University's existing Automated Logic server and software will be utilized to access and control the system. This proposal is based upon the ASI-034.

### Scope of Work:

#### Ventilation Fan-4 (Quantity 1)

1. Provide a new DDC controller to be mounted in new control panel.
2. Extend ARCNET communications network and 24v to each controller.
3. Provide and wire start, stop, and status to fan.
4. Provide and control the ventilation damper actuator with feedback. (damper provided and installed by others.)
5. Provide and wire space temperature sensor.
6. DDC programming and graphics per the sequence of operations.

The Total Cost for the work stated above is .....\$4,502.00

### Deduct for Damper Actuator and Control

1. Provide and control the ventilation damper actuator with feedback. (damper provided and installed by others.)

The Total DEDUCT Cost for the work stated above is .....\$965.00

### Scope Inclusions:

1. Automatic Controls has included programming, startup and checkout of system.
2. Automatic Controls has included web based graphical representation of system points.
3. Automatic Controls has included electrical labor and material for BAS installation.
4. Automatic Controls has included control panels as required.
5. Automatic Controls has included user's manual consisting of the following:
  - I/O schedule
  - Description of system operation
  - Programming manual

- Wiring tie-in diagram
  - Product literature
6. Automatic Controls has included a one (1) year warranty, commencing on the date of owner acceptance by owner for automation system material and labor as supplied by Automatic Controls.

**Scope Exclusions:**

1. **Automatic Controls has excluded Providing ANY Motorized Dampers.**
2. Automatic Controls has excluded any sales taxes.
3. Automatic Controls has excluded overtime work.
4. Automatic Controls has excluded testing and balancing.
5. Automatic Controls has excluded performance and/or payment bonds.
6. Automatic Controls has excluded cutting, patching, or painting.
7. Automatic Controls has excluded providing or Power wiring to VFD's, starters, and disconnects, unless mentioned above.
8. Automatic Controls has excluded installation of valves, wells, dampers, or taps for pressures sensors.
9. Automatic Controls has excluded any work associated with fire/smoke damper wiring or interlock wiring.

Thank you for your consideration of Automatic Controls for this project. We look forward to working with you and your team. Please feel free to contact me anytime with questions or for any clarifications or scope modifications.

Sincerely,

Justin Vogt

**PROCEED AS INDICATED:**

**ACES**

**CUSTOMER:**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Customer Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

## Terms and Conditions

**1. PAYMENT AND TAXES** – Payment shall be made net 30 days from date of invoice. Automatic Controls Equipment Systems ("ACES") reserves the right to require cash payment or other alternative method of payment prior to shipment or completion of work if ACES determines, in its sole discretion, that Customer or Customer's assignee's financial condition at any time does not justify continuance of the net 30 days payment term. In addition to the price, the Customer shall pay ACES any taxes or government charges arising from this Agreement. If Customer claims any such taxes do not apply to transactions covered by this Agreement, Customer shall provide ACES with acceptable tax exemption certificates. Payment for service agreements shall be due and payable in advance of services being rendered.

**2. SCOPE OF WORK/EXCLUSIONS** – Repair to building construction, plastering, patching and painting are excluded. Customer agrees to provide ACES with required field utilities (electricity, toilets, drinking water, receiving dock, project hoist, elevator service, etc.) without charge. ACES agrees to keep the job site clean of debris arising out of its own operations. Customer shall not back charge ACES for any costs or expenses without ACES' written consent. Unless specifically noted in the statement of the scope of work or services undertaken by ACES under this Agreement, ACES' obligations under this agreement expressly exclude any work or service of any nature associated or connected with the identification, abatement, clean up, control, removal, or disposal of environmental hazards or dangerous substances, to include but not be limited to asbestos or PCBs ("Hazards"), discovered in or on the premises. Any language or provision of the agreement elsewhere contained which may authorize or empower the Customer to change, modify, or alter the scope of work or services to be performed by ACES shall not operate to compel ACES to perform any work relating to Hazards without ACES' express written consent. Services performed at customer's direction outside of the scope of this proposal will be billed at our scheduled rates.

**3. EXTRAS** – Work and material in addition to or different from that stated herein, and changes in drawings, specifications or time of performance, shall be considered as extras, and shall entitle ACES to an adjustment in the contract price and the delivery schedule.

**4. EMERGENCY SERVICE WORK** – If emergency service is performed at Customer's request and inspection does not reveal any defects for which ACES is liable under this Agreement, Customer shall pay for such work at ACES' prevailing time and material rate.

**5. SHIPMENT/PARTIAL SHIPMENT/RETURNS** – All product shipments shall be F.C.A. shipping point (Incoterms 2010), freight prepaid and allowed to the job site. Shipment dates quoted are approximate. ACES does not guarantee a particular date for shipment or delivery. ACES shall have the right to ship any portion of equipment, goods or other materials included in this Agreement and invoice Customer for such partial shipment. No goods will be accepted for return without prior written authorization. Returned goods may be subject to a restocking charge. Special order and non-stock items cannot be returned.

**6. DELAYS** – ACES shall not be liable for any delay in the performance of the work resulting from or attributed to acts or circumstances beyond ACES' control, including, but not limited to, acts of God or of the public, acts of government, acts of terrorism, fire, floods, epidemics, freight embargoes, unusually severe weather, riots, strikes or labor disputes, conditions of the premises, acts or omissions of the Customer, Owner or other contractors, or delays caused by suppliers or subcontractors ("Force Majeure Event(s)"). In the event ACES is delayed in manufacturing, shipping, delivery or any other performance under this Agreement by a Force Majeure Event and without the fault or negligence of ACES, ACES agrees to notify Customer in writing as soon as practicable of the causes of such delay, and ACES shall further be entitled to an extension of the time equivalent to the duration of any such delay and a reasonable time in which to recover from said delay to resume performance. In the event any materials or equipment to be provided by ACES under this Agreement becomes permanently unavailable as a result of a Force Majeure Event, ACES shall be excused from furnishing said materials or equipment.

**7. WARRANTY** – ACES warrants to Customer that the Work performed by ACES hereunder will comply in all material respects with the attached Scope of Work or Statement of Services and will be free from material defects in workmanship. ACES warrants that all equipment manufactured by ACES and all ACES equipment, parts or components supplied hereunder will be free from material defects. ACES shall at its option repair or replace, F.C.A. point of sale (Incoterms 2010), any equipment, part or component sold by ACES and determined to be defective within one (1) year from the date of acceptance. ACES does not warrant products not manufactured by ACES, but it does pass on to Customer any available manufacturer's warranty for such products. ACES warrants that all services provided by ACES hereunder shall be performed in a workmanlike manner. In the event any such service is determined to be defective within ninety (90) days of completion of that service, ACES shall at its option re-perform or issue a credit for such service. ACES' obligations as set forth herein shall be Customer's exclusive remedy. ACES shall not be responsible for labor charges for removal or reinstallation of defective equipment, parts or components, for charges for transportation, handling and shipping, or for repairs or replacement of such equipment, parts or components required as a consequence of faulty installation when not installed by ACES, misapplication, vandalism, abuse, exposure to chemicals, improper servicing, unauthorized alteration or improper operation by persons other than ACES. **THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

**8. WORKING HOURS** – All services performed under this Agreement including major repairs, are to be provided during ACES' normal working hours unless otherwise agreed in writing.

**9. CHANGE ORDERS/ADDITIONAL WORK** – ACES will not perform additional work until such time as ACES receives a change order, duly executed by each party, setting forth the scope and an agreed upon price for the additional work, as well as any appropriate adjustments to the delivery schedule. Additional work and/or materials supplied under any change order shall be subject to the terms of this Agreement.

**10. CUSTOMER RESPONSIBILITIES** – Customer shall: provide safe and reasonable access to the job site and equipment being serviced, and a safe work environment; keep areas adjacent to equipment free of extraneous material, move any stock, fixtures, walls, partitions, ceilings, enclosures or such other property as may be necessary to perform the specified work; promptly notify ACES of any unusual operating conditions; operate any equipment supplied hereunder properly and in accordance with instructions; identify and label any asbestos containing material that may be present. The Customer will provide, in writing, prior to the start of a job, a signed statement regarding the absence or presence of asbestos for any job where the building or the equipment to be serviced is older than 1981. Should this document state that no asbestos is present, the Customer will also provide in writing the method used to determine the absence of asbestos. If online service via modem is being provided, the Customer shall provide and maintain, at Customer's cost, a voice grade dial-up telephone line or internet connection installed in a mutually agreed upon location.

**11. LIMITATION OF LIABILITY** – Under no circumstances shall ACES be liable for any incidental, special or consequential damages, including loss of revenue, loss of use of equipment or facilities, loss of data, or economic damages based on strict liability or negligence. ACES shall be liable for damage to property, other than equipment provided under this Agreement, and to persons, to the extent that ACES' negligent acts or omissions directly contributed to such injury or property damage. ACES' maximum liability for any reason (except for personal injuries) shall consist of the refunding of all moneys paid by Customer to ACES under this Agreement.

**12. TERMINATION FOR CONVENIENCE** – In the event Customer terminates this Agreement through no fault of ACES or for Customer's convenience, Customer shall provide prior written notice of termination and agrees to pay ACES for all material furnished or manufactured, labor performed and services provided up to the date of termination, all out-of-pocket costs (including but not limited to any restocking or other charges owed to any supplier) and including a reasonable profit.

**13. CUSTOMER TERMINATION FOR DEFAULT** – Customer shall have the right to terminate this Agreement for ACES' default provided ACES fails to cure such default within 30 days after having been given prior written notice of the default. Upon early termination or expiration of this Agreement, ACES shall have free access to enter Customer locations to disconnect and remove any and all ACES-owned parts, tools and personal property. Additionally, Customer agrees to ACES for all incurred but unamortized service costs performed by ACES including overhead and a reasonable profit.

**14. ACES TERMINATION** – ACES reserves the right to discontinue its service or performance under this Agreement any time payments have not been made as agreed or if alterations, additions or repairs are made to equipment during the term of this Agreement by others without prior agreement between Customer and ACES. Should Customer fail to make payment in accordance with the terms of this Agreement and such failure continues without cure for a period of five (5) days following Customer's receipt of written notice of such payment default, ACES may terminate this Agreement without liability. Customer agrees to pay all costs of collection, including reasonable attorneys' fees and legal expenses incurred by ACES in collecting payments due hereunder.

**15. CLAIMS** – Any suits against ACES arising from the performance or nonperformance of this Agreement by ACES, whether based upon contract, negligence, strict liability or otherwise, shall be brought within one (1) year from the date the claim arose.

### 16. GOVERNMENT PROCUREMENTS

- (a) The components, equipment and services provided by ACES under this Agreement are "commercial items" as defined in Section 2.101 of the Federal Acquisition Regulations ("FAR"), and the prices of such components, equipment and services are based on ACES' commercial pricing policies and practices (which do not consider any special requirements of U.S. Government cost principles, FAR Part 31, or any similar procurement regulations). As such, ACES will not agree to provide or certify cost or pricing data, nor will ACES agree to comply with the Cost Accounting Standards (CAS). In addition, no federal government procurement regulations, such as FARs or DFARS, shall apply to this Agreement except those regulations expressly accepted in writing by ACES.
- (b) Where ACES is subcontractor, ACES is agreeing to perform a private subcontract for the sale of a commercial item on a fixed-price basis to Customer (a private entity) and as such there shall be no FARs, DFARS, CFRs, or any other federal government procurement regulations of any kind which apply to this Agreement, except those regulations expressly accepted in writing by ACES. In addition, ACES will not agree to provide or certify cost or pricing data nor will ACES agree to comply with the CAS. Carrier refers to FAR 52.244-6, "Subcontracts for Commercial Items and Commercial Components."

**17. HAZARDOUS MATERIALS** – If ACES encounters any Hazards while performing this Agreement, ACES may suspend its work and remove its employees from the project, until such Hazards associated with it are abated. The time for ACES' performance shall be extended accordingly, and ACES shall be compensated for the delay.

**18. OCCUPATIONAL SAFETY AND HEALTH** – ACES and Customer agree to notify each other immediately upon becoming aware of an inspection under, or any alleged violation of, the Occupational Safety and Health Act ("OSHA") relating in any way to the performance of work under this Agreement, the project or the job site.

**19. ENTIRE AGREEMENT, ASSIGNMENT and MODIFICATION** - This Agreement contains the complete and exclusive statement of the agreement between the parties and supersedes all previous or contemporaneous, oral or written, statements. Customer may assign this Agreement only with ACES' prior written consent. No change, modification, amendment or waiver of any of the terms or conditions of this agreement shall be binding upon the parties unless made in writing and duly executed by both parties hereto. This Agreement shall be construed and governed by the internal substantive laws of the State of Missouri.

**20. CUSTOMER CONSENT** - Customer consents and agrees that ACES may, from time to time, publicize ACES related projects with Customer, including the value of such projects, in all forms and media for advertising, trade, and any other lawful purposes.

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**Project: ICON - Webster Univ - ISB**

**To:**

Icon Mechanical  
Alex Chambers

**From:**

Bob Haas  
H C SHARP COMPANY INC  
8301D CREST INDUSTRIAL DR  
SAINT LOUIS MO 63123-2509  
Phone: (314)351-6900  
Fax: (314)351-6901  
Email: Bob@HCSharpco.com

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H.C.Sharp Co. is pleased to offer for your consideration the following proposal:

**Terms:** Standard Terms & Conditions of Sale apply. Sales tax is the responsibility of the buyer, unless tax exempt certificate is provided. Payment terms are Net - 30 Days, subject to credit approval. Please see attached for standard terms and conditions.

**Acceptance of Proposal and Terms of Sale**

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**PRICES AS QUOTED VALID FOR 90 DAYS**

## Low Leakage Control Damper

Model: VCD-23

Mark: CONTROL DAMPERS 11-10-2016

| <u>Model</u> | <u>Mark</u>                      | <u>ID #</u> | <u>Tag</u> | <u>Qty</u> | <u>Width~</u> | <u>Height~</u> |
|--------------|----------------------------------|-------------|------------|------------|---------------|----------------|
| VCD-23       | CONTROL<br>DAMPERS<br>11-10-2016 | 19-1        |            | 1          | 36.000        | 18.000         |
| VCD-23       | CONTROL<br>DAMPERS<br>11-10-2016 | 19-2        |            | 1          | 30.000        | 18.000         |

### Product Summary:

Axle Bearings Material - 304 SS  
Actuator Model - TFB24, Manufacturer - Belimo  
Standoff Brackets - quantity(1)  
Axle Bearings Material - 304 SS  
Actuator Model - TFB24, Manufacturer - Belimo  
Standoff Brackets - quantity(1)

**Total for above Dampers \$ 323.00**

## Direct Drive Centrifugal Inline Fan

Model: SQ-160-VG

Mark: VF-4 11-10-2016

Quantity: 1

Volume: 3,500 CFM  
Total SP: 0.5 in. wg  
FRPM: 1358 RPM  
Motor Power: 2 hp  
Voltage: 208  
Phase: 1  
Cycles: 60 Cycle

### Product Summary

Fan Model: SQ-160-VG

Base - SQ Fan

Motor - High Efficiency Brushless DC - 2 hp , TEFC, 208/60/1, 1725 rpm - Factory Mounted

Motor and Drive Accessories

Motor - Vari-Green EC motor 0-10 VDC Input Signal

Control - Vari-Green Dial on Exterior of Fan Housing, Mounted and Wired

Accessories

UL/cUL 705 Listed - "Power Ventilators"

Switch, NEMA-1, Toggle, Shipped with Unit

Junction Box Mounted & Wired

Isolators & Brackets, Spring Hanging (1 Kit(s): Qty 4, PN: 850345) (Shipped Loose)

Unit Warranty: 1 Yr (Standard)

**Total for above Fan \$ 1,198.00**

*Icon \$450 - Spring hangers & Air devices needed for fan and duct work*

*\$1198 + 323 + \$450 = \$1971*

## For Project: ICON - Webster Univ - ISB GREENHECK FAN CORPORATION - TERMS & CONDITIONS

1. SELLER'S TERMS TO GOVERN: Only the terms and conditions stated herein shall be binding upon GREENHECK FAN CORPORATION (hereinafter "SELLER"). No modification, amendment or change, whether in Buyer's purchase order, shipping release forms or otherwise shall obligate SELLER unless authorized in writing by SELLER's Wisconsin office. The Buyer shall be conclusively presumed to have accepted the terms and conditions set forth herein, thereby creating a contract limited to these terms, if Buyer does not object in writing to these terms within five (5) business days after their receipt.

2. PRICES: Unless otherwise specifically provided in SELLER's quotation or acknowledgement, prices are valid for goods required for delivery within 90 days following acceptance. Thereafter, prices are subject to change due to inflation, transportation or surcharge on material. Prices include transportation charges predicated on a single shipment and any partial shipments may result in additional cost to the Buyer.

3. TAXES & CUSTOMS: To the prices quoted add any manufacturer's gross receipts, sales, or use tax, customs, either international, federal, state, or local, payable on the transaction any applicable statute.

4. PAYMENT: Payment terms for goods shipped hereunder will be net 30 days. Should the Buyer default in the timely payment to SELLER of sums due on an order, SELLER is entitled to any remedies provided in this contract or by law. If Buyer fails to pay any amounts when due, Buyer shall pay SELLER interest thereon at a periodic rate of one and one-half percent (1.5%) per month (or, the maximum allowable legal interest rate), together with all costs and expenses (including without limitation reasonable attorneys' fees and disbursements and court costs) incurred by SELLER.

5. PERFORMANCE: SELLER shall be obligated to furnish only the goods described in its quotation or acknowledgement, and agreed to in writing. The duty to perform under any order on the part of SELLER and the price thereof is subject to the approval of its Credit Department, and is contingent upon strikes, accidents, floods, act(s) of terrorism, fires, fuel shortages, the inability to procure materials from the usual sources of supply, the requirements of the US Government (through the use of priorities or preference or any other manner) that SELLER divert either the material or the finished product to the direct or indirect benefit of the Government, or upon any like or unlike cause beyond the reasonable control of SELLER. Upon disapproval of the Credit Department or upon the occurrence of any such event, SELLER may delay performance or, at its option, renegotiate prices and terms and conditions of sale with Buyer. If SELLER elects to renegotiate and SELLER and the Buyer are unable to agree on revised prices or terms, SELLER may cancel without any liability.

6. SHIPMENT DATE: Shipment dates are estimates only. Shipment shall be FOB factory or warehouse at named shipping point with title passing to the Buyer upon delivery to the carrier by SELLER. SELLER specifically rejects any order containing a time is of the essence clause or liquidated damage penalties for late shipments.

7. LIABILITY DISCLAIMER: TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, BUSINESS INTERRUPTION, LOST PROFITS OR LOSSES RESULTING FROM THE INSTALLATION, USE, MISUSE, OR INABILITY TO USE THE PRODUCT. THIS EXCLUSION APPLIES REGARDLESS OF WHETHER SUCH DAMAGES ARE SOUGHT BASED ON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT, OR ANY OTHER LEGAL THEORY EVEN IF THE PARTY WAS INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. SHOULD SELLER NEVERTHELESS BE FOUND LIABLE FOR ANY DAMAGES, THEY SHALL BE LIMITED TO THE PURCHASE PRICE FOR THE PARTICULAR PIECE OR ITEM OF EQUIPMENT.

8. CHANGES: With SELLER'S permission, changes may be made to orders prior to the start of fabrication at the current price list. Changes made after fabrication has started will result in an increase in price deemed appropriate by SELLER to recover all associated labor and material costs, including normal overhead and profit.

9. CANCELLATION: In the event that all or a portion of an order is cancelled by the Buyer without cause, the Buyer shall be liable to SELLER for cancellation charges including, but not limited to, SELLER's incurred costs and such profits as would have been realized by SELLER from the transaction had the agreement not been canceled by Buyer.

10. RISK OF LOSS: Risk of loss, including but not limited to loss of goods from shortages, damages or transit delays, shall pass to the Buyer when the goods have been delivered to any transportation carrier (excluding proprietary transportation facilities of SELLER). Any claims for damage to, or loss or misdelivery or damage of the goods shall be filed with SELLER.

11. LIMITED WARRANTY AND LIABILITY: SELLER warrants to Buyer that products manufactured are free from defects in material and workmanship for a period of 12 months from the date of shipment. SELLER's obligations and liabilities under this warranty are limited to furnishing FOB factory or warehouse at SELLER's designated shipping point, freight allowed to Buyer's city, (or point of export for shipments outside the conterminous United States) replacement equipment (or at the option of SELLER

parts therefore) for all Seller's products not conforming to this warranty and which have been returned to the manufacturer. No liability whatever shall attach to SELLER until said products have been paid for and such liability shall be strictly limited to the purchase price of the equipment shown to be defective. SELLER may make further warranty protection available on an optional extra-cost basis and which must be authorized and in writing. ANY MISUSE, NEGLIGENCE, FAILURE TO FOLLOW INSTRUCTIONS OR MANUALS OF INSTALLATION OR MAINTENANCE REPAIR, SERVICE, RELOCATION OR ALTERATION TO OR OF, OR OTHER TAMPERING WITH, THE PRODUCTS PERFORMED BY ANY PERSON OR ENTITY OTHER THAN SELLER WITHOUT SELLER'S PRIOR WRITTEN APPROVAL OR ANY USE OF REPLACEMENT PARTS NOT SUPPLIED BY SELLER, SHALL IMMEDIATELY VOID AND CANCEL ALL WARRANTIES WITH RESPECT TO THE AFFECTED PRODUCTS. THE WARRANTY AND LIABILITY SET FORTH HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES WHETHER IN CONTRACT OR IN NEGLIGENCE, EXPRESSED OR IMPLIED, IN LAW OR IN FACT, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. SELLER PROVIDES NO INDEPENDENT WARRANTY FOR THIRD PARTY PRODUCTS OR COMPONENTS SOLD TOGETHER OR INCORPORATED WITH SELLER'S PRODUCT(S). Electrical components are warranted only to the extent warranted by the original manufacturer. To the extent that SELLER is entitled to pass through a warranty of the original equipment manufacturer of the electrical goods sold, SELLER will pass through such warranties to Buyer.

12. AUTHORITY OF SELLER'S AGENTS: No agent, employee or representative of SELLER has the authority to bind SELLER to any affirmation, representation or warranty concerning the goods sold under this contract, and unless an affirmation, representation or warranty made by an authorized agent, employee or representative is specifically included within this bargain it shall not in any way be enforceable by the Buyer.

13. ASSIGNMENT/DELEGATION: No right or interest under this contract may be assigned by the Buyer, nor may any obligation or performance under this contract be delegated by the Buyer without SELLER's written permission. Any attempted assignment or delegation shall be void and ineffective for all purposes. SELLER may assign its rights or obligations under this Agreement in the event of a merger or change of control of SELLER.

14. GOVERNING LAW: This agreement shall be governed and construed in accordance with the laws State of Wisconsin. Buyer consents to jurisdiction in the Circuit Court of Wausau, WI or the Federal District Court for the Western District of WI in Eau Claire, WI.

15. INDEMNIFICATION: SELLER agrees to indemnify, defend and hold harmless Buyer from and against any and all damages, liabilities, actions, causes of action, suits, claims, demands, losses, costs and expenses (including without limitation attorneys' fees, disbursements and courts costs) for injury to or death of persons or damage to property to the extent caused by a defect in SELLER'S product. Buyer agrees to indemnify, defend and hold harmless SELLER from and against any and all damages, liabilities, actions, causes of action, suits, claims, demands, losses, costs and expenses (including without limitation attorneys' fees, disbursements and courts costs) for injury to or death of persons or damage to property to the extent caused by the negligence or willful misconduct of Buyer, a third party, or Buyer's employees, agents, representatives or contractors. Each party shall provide the other with prompt written notice of any claim covered hereunder, and the indemnifying party shall have the right to assume exclusive control of the defense or settlement of such claim.

16. RETURNS: Goods shall not be returned except by written permission of SELLER pursuant SELLER's returned goods policy.

17. EXPORT CONTROLS. Items purchased may be subject to US and other countries export controls and customs regulations and laws. Buyer agrees it shall not export or enter into an agreement for the export any goods from SELLER to any prohibited or embargoed country or to any denied, blocked or restricted person or entity including those so designated by the US Dept. of Commerce or Treasury.

18. ENTIRETY OF AGREEMENT: This document, together with any other documents furnished by SELLER shall set forth the entire agreement between the parties. Should any portion herein be deemed to be illegal, invalid or unenforceable the same shall not effect other terms or provisions of this Agreement which shall be deemed modified to the extent necessary to render it enforceable, and the rights and obligations of the parties shall be construed and enforced accordingly. No waiver by either party of any rights under this Agreement will be effective unless it is in writing signed by the party against whom it is being enforced.

19. DESIGN SERVICES AND COMPUTATIONAL FLUID DYNAMICS (CFD) ANALYSIS: SELLER shall not be liable for any party's reliance on fan locations and performance specified or included in SELLER'S CFD report if product is improperly installed, maintained, or otherwise tampered with or if different product is installed without the SELLER'S prior written approval and ability to revise performance

specifications and CFD report.

**PRICES AS QUOTED VALID FOR 90 DAYS**

## Szachnieski, Jason

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**From:** Szachnieski, Jason  
**Sent:** Wednesday, December 21, 2016 3:06 PM  
**To:** Szachnieski, Jason  
**Subject:** FW: ASI - 34 Proposal

---

**From:** Alex Chambers [<mailto:ACHambers@iconmech.com>]  
**Sent:** Tuesday, December 20, 2016 5:15 PM  
**To:** Szachnieski, Jason  
**Subject:** RE: ASI - 34 Proposal

Jason,

As we discussed, the cost associated with BIM/CAD time is due to the fact that we are fully coordinated in this area with very tight clearances, just as the rest of the building. The addition of the fan and duct work will cause some heavy rerouting of hydronic piping, plumbing and potentially boiler flues.

We have roughly 9" to fit an 18" tall duct and fan.

I have 40 hours estimated to accomplish this due to the level of difficulty resulting in additional time needed to reroute services.

I also am realizing there is a block wall which, depending on approval of this ASI, we may be cutting into rather than sleeving. So I am already in the hole if the block wall goes up prior to approval.

Thanks

Alex Chambers  
Project Manager



1982 Innerbelt Business Center Dr.  
St. Louis, MO 63114  
Mobile: 618-610-1436  
Office: 618-452-0035

---

**From:** Alex Chambers  
**Sent:** Tuesday, December 20, 2016 3:53 PM  
**To:** Szachnieski, Jason <[JRSzachnieski@paric.com](mailto:JRSzachnieski@paric.com)>  
**Subject:** RE: ASI - 34 Proposal

I based this off of 240ft of pipe @ \$6.25 per foot labor and material.

Thanks

Alex Chambers  
Project Manager



1982 Innerbelt Business Center Dr.  
St. Louis, MO 63114  
Mobile: 618-610-1436  
Office: 618-452-0035

---

**From:** Alex Chambers [<mailto:ACHambers@iconmech.com>]  
**Sent:** Tuesday, December 20, 2016 10:24 AM  
**To:** Szachnieski, Jason  
**Subject:** RE: ASI - 34 Proposal

Jason,

Hopefully the attached PDF will work...

The overhead and profit is calculated from everything, less shop and field labor. \$2,302 comes out to 14% on this proposal.

Thanks

Alex Chambers  
Project Manager



1982 Innerbelt Business Center Dr.  
St. Louis, MO 63114  
Mobile: 618-610-1436  
Office: 618-452-0035

---

**From:** Alex Chambers [<mailto:ACHambers@iconmech.com>]  
**Sent:** Monday, December 19, 2016 5:12 PM  
**To:** Szachnieski, Jason  
**Subject:** RE: ASI - 34 Proposal

Shop rates below. Shop rates are \$12 more than Journeyman's rates.

I even gave a discount from the estimated cost.....Just because I'm a nice guy. Eight dollars is eight dollars, right?

| LABOR     |    | HRS  | RATE      | COST        |
|-----------|----|------|-----------|-------------|
| SM - SHOP | ST | 24.0 | \$ 105.58 | \$ 2,533.92 |
| SM - SHOP | OT | 0.0  | \$ 113.12 | \$ -        |

Thanks

Alex Chambers  
Project Manager



1982 Innerbelt Business Center Dr.  
St. Louis, MO 63114  
Mobile: 618-610-1436  
Office: 618-452-0035

---

**From:** Alex Chambers [<mailto:ACHambers@iconmech.com>]  
**Sent:** Monday, December 19, 2016 4:59 PM  
**To:** Szachnieski, Jason  
**Subject:** RE: ASI - 34 Proposal

See the attached.

Thanks

Alex Chambers  
Project Manager



1982 Innerbelt Business Center Dr.  
St. Louis, MO 63114  
Mobile: 618-610-1436  
Office: 618-452-0035

---

**From:** Alex Chambers [<mailto:ACHambers@iconmech.com>]  
**Sent:** Thursday, December 1, 2016 4:31 PM  
**To:** Gates, Devin  
**Subject:** RE: ASI - 34 Proposal

Devin,

See the attached backup for ASI-34.

The first quote is for VF-4 and the associated control dampers.

The second quote is from ACES, the controls contractor.

Insulation for the condensate drains is an estimate based on the estimated linear feet of pipe needed.

In my proposal, the additional \$450 in equipment is for spring hangers and air devices needed for the fan and ductwork.

Thanks

Alex Chambers  
Project Manager



1982 Innerbelt Business Center Dr.  
St. Louis, MO 63114  
Mobile: 618-610-1436  
Office: 618-452-0035



ELECTRICAL CONSTRUCTION

3415 Bent Avenue St. Louis, MO 63116 ph (314) 772-5400 fx (314) 772-2526 web geco.com

## PROPOSED CHANGE ORDER

Client Address:

**PARIC CORPORATION**  
Contact: Jason Szachnieski  
77 W PORT PLAZA # 250  
ST. LOUIS, MO 63146

CCN #

Date:

Project Name:

Project Number:

Page Number:

**ASI - 34 ADDED VENT FAN**

11/10/2016

WEBSTER GROVES ISB BUILDING

WEBSTER GROVES ISB BUILDING

1

### Work Description

## WEBSTER ISB Description

#### Description of work

- \* Furnish and install a 2 pole 20 amp breaker into panel INL2
- \* Provide electrical rough in and single point connection to VF-4
- \* Pricing excludes any fire alarm monitoring or smoke detectors that may be associated with VF-4

**Base bid shall increase by: \$ 3,259.00**

We reserve the right to correct this quote for errors and omissions.

This quote covers direct costs only and we reserve the right to claim for impact and consequential costs.

This price is good for acceptance within 30 days from the date of receipt.We request a time extension of 20 days.

We will supply and install all materials, labor, and equipment.

### Itemized Breakdown

| Description                                  | Qty | Total Mat. | Total Hrs. |
|----------------------------------------------|-----|------------|------------|
| 3/4" EMT CONDUIT                             | 85  | 40.60      | 6.32       |
| 3/4" EMT STL SS CONN                         | 2   | 0.38       | 0.29       |
| 3/4" EMT STL SS CPLG                         | 9   | 2.13       | 0.65       |
| 1/2" STEEL FLEX                              | 5   | 2.76       | 0.25       |
| 1/2" STL FLEX CONN                           | 1   | 1.13       | 0.15       |
| 1/2" STL 90 DEG FLEX CONN                    | 1   | 2.53       | 0.19       |
| 1/2" PLASTIC BUSHING                         | 2   | 0.36       | 0.24       |
| #10 THHN BLACK                               | 414 | 58.78      | 4.28       |
| #10 WIRE POWER TERM                          | 4   | 0.04       | 0.88       |
| 1/4-20x 1 3/4 WEDGE ANCHOR - 1 1/8 MIN DEPTH | 4   | 1.42       | 0.80       |
| 1/4-20 MACHINE SCREW ANCHOR (lead anchor)    | 9   | 2.96       | 2.16       |
| 1/4 PLATED T-ROD                             | 31  | 11.58      | 5.10       |
| 1/4-20x 1 BOLT - PLTD STL                    | 4   | 0.18       | 0.14       |
| 1/4-20 HEX NUT - PLTD STL                    | 10  | 0.15       | 0.39       |
| 1/4x 1 FENDER WASHER - PLTD STL              | 4   | 0.07       | 0.04       |

**ORIGINAL**

## PROPOSED CHANGE ORDER

Client Address:

**PARIC CORPORATION**  
77 W PORT PLAZA # 250  
ST. LOUIS, MO 63146

**CCN #**

**Date:**

**Project Name:**

**Project Number:**

**Page Number:**

**ASI - 34 ADDED VENT FAN**

11/10/2016

WEBSTER GROVES ISB BUILDING

WEBSTER GROVES ISB BUILDING

2

| Description                        | Qty        | Total Mat.    | Total Hrs.   |
|------------------------------------|------------|---------------|--------------|
| 812M4I 1/2-3/4" CONDUIT/ROD CLIP   | 10         | 4.75          | 0.99         |
| 20A 2P BREAKER BOLT-ON             | 1          | 128.25        | 0.65         |
| 30A 250/600V NON-FUS DSN SW NEMA 1 | 1          | 252.45        | 2.50         |
| #10-2C+GRD 208V MOTOR TERM         | 1          | 0.01          | 1.75         |
| <b>Totals</b>                      | <b>598</b> | <b>510.55</b> | <b>27.75</b> |

### Summary

|                       |                   |
|-----------------------|-------------------|
| General Materials     | 510.55            |
| <b>Material Total</b> | <b>510.55</b>     |
| LU 1 - GF             | 120.37            |
| LU 1 - F              | 112.73            |
| LU 1 - JW             | 1,992.82          |
| AS-BUILT DRAWINGS     | 150.00            |
| EXPENDABLES           | 10.21             |
| SMALL TOOLS           | 66.78             |
| <b>Subtotal</b>       | <b>2,963.46</b>   |
| Markup                | 296.35            |
| <b>Subtotal</b>       | <b>3,259.81</b>   |
| Adjustment #1         | -0.81             |
| <b>Final Amount</b>   | <b>\$3,259.00</b> |

### CONTRACTOR CERTIFICATION

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

I hereby certify that this quotation is complete and accurate based on the information provided.

### CLIENT ACCEPTANCE

**CCN #: ASI - 34 ADDED VENT FAN** \_\_\_\_\_

**Final Amount:\$3,259.00** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Change Order #:** \_\_\_\_\_

I hereby accept this quotation and authorize the contractor to complete the above described work.

**ORIGINAL**

## Architect's Supplemental Instructions

**Architect's Project No:**  
04561.01

**Architect's ASI No:** 034

**Project:**  
Webster University  
Interdisciplinary Science  
Building

**Date Issued:** 11/4/2016

**Contract Date:**

**Reason Code:** 05 A/E Scope

**Discipline Code:** 09 Mechanical /  
03 Electrical

**Owner:**  
Webster University

**Architect:**  
Cannon Design  
1100 Clark Avenue  
St. Louis, MO 63102

**Contractor:**  
Paric Construction

**Contract For:** General Construction

**The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Indicate your acceptance of these instructions for minor change to the Work as consistent with the Contract Documents and return a copy to the Architect within fourteen (14) business days of the date of issuance of these instructions. If you feel a change in Contract Sum or Contract Time is warranted, please submit an itemized quotation for the changes for approval within fourteen (14) business days of the date of issuance of these instructions prior to proceeding on the Work. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change.**

### Attachments:

Drawings:

**Sheet ME0003, M0101.A, M0102.A, M0103.A, M0104.A, M0601, E0101.A, E0504**

St. Louis  
Baltimore  
Boston  
Buffalo  
Calgary  
Chicago  
Houston  
Los Angeles  
Mumbai  
New York  
Phoenix  
San Francisco  
Shanghai  
Toronto  
Vancouver  
Victoria  
Washington DC

1100 Clark Avenue  
St. Louis, Missouri  
63102  
T: 314.241.6250  
F: 314.241.2570  
www.cannondesign.com

**Reason Codes:**  
#1. Jurisdictional Agency  
#2. Constructor Driven  
#3. Document Inconsistency  
#4. Fast Track Driven  
#5. A/E Scope  
#6. Owners Scope  
#7. Unforeseeable Conditions  
#8. Other

**Discipline Codes**  
#1. Demo-demolition  
#2. Div1-Division 1 items on the spec book  
(this item is not used)  
#3. Electrical  
#4. Elevator  
#5. Equipment (Changes in equipment,  
Owner Purchased)  
#6. Fire Protection

**Discipline Codes**  
#7. General Construction (Architectural)  
#8. General Conditions (Div. 1)  
#9. HVAC  
#10. Other  
#11. Plumbing  
#12. Site Work/Landscaping  
#13. Structural

## Architect's Supplemental Instructions

Page 2

### Description:

---

Please submit an itemized proposal for changes in contract Sum and Contract Time for proposed modifications to the Contract Documents described herein:

#### **SHEET ME0003 EQUIPMENT DATA SCHEDULE**

- Add ventilation fan VF-4.

#### **SHEET M0101.A LEVEL 01 AREA A FLOOR PLAN – MECHANICAL**

- Add ventilation fan VF-4, ductwork, transfer ductwork, and air devices to ventilate Mechanical Room 178.
- Add ¾" drain line to Keyed Note M20 for drains at FCU's.

#### **SHEET M0102.A, SHEET M0103.A, and SHEET M0104.A LEVELS 02, 03, & 04 AREA A FLOOR PLAN – MECHANICAL**

- Add ¾" drain line to Keyed Note M20 for drains at FCU's.

#### **SHEET M0601 SCHEDULES – MECHANICAL**

- Add ventilation fan VF-4 to FAN SCHEDULE.

#### **SHEET E0101.A LEVEL 01 AREA A FLOOR PLAN – ELECTRICAL & AUXILIARY**

- Add disconnect switch and branch circuit for ventilation fan VF-4. •

#### **SHEET E0504 PANEL SCHEDULES**

- Replace two 20A/1P circuit breakers with one 30A/3P breaker to serve Ventilation Fan VF-4.

#### **SPECIFICATION CHANGES**

1. Section 23 95 00, PART 3, Article 3.9 Sequence of Operation, N. add VF-4 (L1 Mech Rm).

**Issued by Architect:** Mark Schaefer and Mark de la Fuente, William Tao & Associates, Inc.

**Accepted by Contractor:**

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**CONTROL DATA ACCESSORIES**

PCA HAND-OPER AUTO SWITCH MAINTAINED  
PC1 ON/OFF AUTO SWITCH OR PUSHBUTTON  
P1 PILOT LIGHT (QUANTITY) SEE SPECIFICATION FOR COLOR OR LIGHTS  
P2 START STOP PUSHBUTTON MAINTAINED CONTACT SELECTOR SWITCH  
P3 TIME DELAY RELAY  
SPC SEE SPECIFICATION SECTION 235000

**2.0 CONTROLLER DATA TYPE**

201 VARIABLE FREQUENCY DRIVE  
COMB COMBINATION V/FW STARTER WITH FUSIBLE DISCONNECT SWITCH  
F1 FUSIBLE DISCONNECT SWITCH  
M1 MANUAL STARTER  
T15 TWO SPEED STARTER  
F11 FULL VOLTAGE NON-REVERING STARTER  
F12 FULL VOLTAGE REVERSING STARTER  
R12 REVERSING STARTER REVERSING STARTER  
S15 SOLID STATE STARTER  
S16 REVERSING CONTACT PANEL (FURNISHED WITH DIVISION 3 EQUIPMENT)

**4.0 BRANDED CONTROL DEVICE TYPE**

CS CIRCUIT BREAKER  
CS FUSIBLE SWITCH

**KEY NOTES**

- EQUIPMENT FURNISHED WITH INTEGRAL DISCONNECT SWITCH
- EMERGENCY POWER REQUIRED
- MOTOR MOTORS ON ONE DRIVE DRIVE PROVIDED AND WIRED ON THE LOAD SIDE BY THE EQUIPMENT MANUFACTURER
- SEE SPECIFICATIONS FOR CONTROLLER REQUIREMENTS.
- EQUIPMENT FURNISHED WITH CORD AND 30 AMP CIRCUIT REQUIRED
- VARIABLE FREQUENCY DRIVE BY DESIGN
- EQUIPMENT FURNISHED WITH INTEGRAL LIGHT FIXTURES FURNISHED AND MOUNTED BY DESIGN DIVISION 25 TO PROVIDE ALL BRANCH CIRCUIT WIRING AND CONDUIT FOR ALL TYPES OF FIXTURES AND LIGHT SWITCH AT ENTRY TO UNIT. REFER TO DESIGN DIV 22 DRAWINGS AND SPECIFICATIONS FOR FIXTURE TYPES
- VAN FAN COIL AIR CONDITIONERS FOR 1" DATA CLOSETS AND MOP ROOM. FAN COIL UNITS ARE REQUIRED FOR ALL LIGHT SWITCH AT ENTRY TO UNIT. REFER TO DESIGN DIV 22 DRAWINGS AND SPECIFICATIONS FOR FIXTURE TYPES
- VENTILATION FAN FOR ELEVATOR MACHINE ROOM
- MULTIPLE PIECES OF EQUIPMENT ON THE SAME CIRCUIT BREAKER OR DISCONNECT SWITCH
- MULTIPLE POWER CONNECTIONS FOR AN INDIVIDUAL, PEAK OF EQUIPMENT

**Webster**  
UNIVERSITY

**Webster University**  
Interdisciplinary Science  
Building

**CANNONDESIGN**

1100 Clark Avenue  
St. Louis, Missouri 63102  
T 314 241 8250  
F 314 241 2625

William Yeo & Associates, Inc.  
MEPFP Engineer  
7855 Mendocino Road, Suite 125  
St. Louis, MO 63143  
314 884 7800

David Mason & Associates, Inc.  
Structural & Civil Engineers  
800 South Vandeventer Avenue  
St. Louis, MO 63110

Falsh Group  
Technology  
3101 S. Hanley Rd. Suite 100  
St. Louis, MO 63143  
314.634.1923

Kuhnmann Leavitt, Inc.  
Environmental Graphics & Signs  
7400 Pershing Ave.  
St. Louis MO 63130  
314 725 8888

KWA Architects  
Architects  
8721 Louisa Road  
St. Louis, MO 63124  
314.962.2580

Spofford Brady & Company  
Interior Designers  
8251 Mayland Avenue, Suite 200  
51 Years MA 02115  
314 882-0075

SWT Design  
Landscape Architects  
7772 Dry Creek Blvd  
St. Louis, MO 63119  
314 644 5700

Webb Engineering Services, Inc.  
Plumbing & Fire Protection  
1400 S. 3rd Street, Suite 201  
St. Louis, MO 63104  
314-589-0600

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| FOR CONSTRUCTION (3Ppt) | Description |
|-------------------------|-------------|
|-------------------------|-------------|

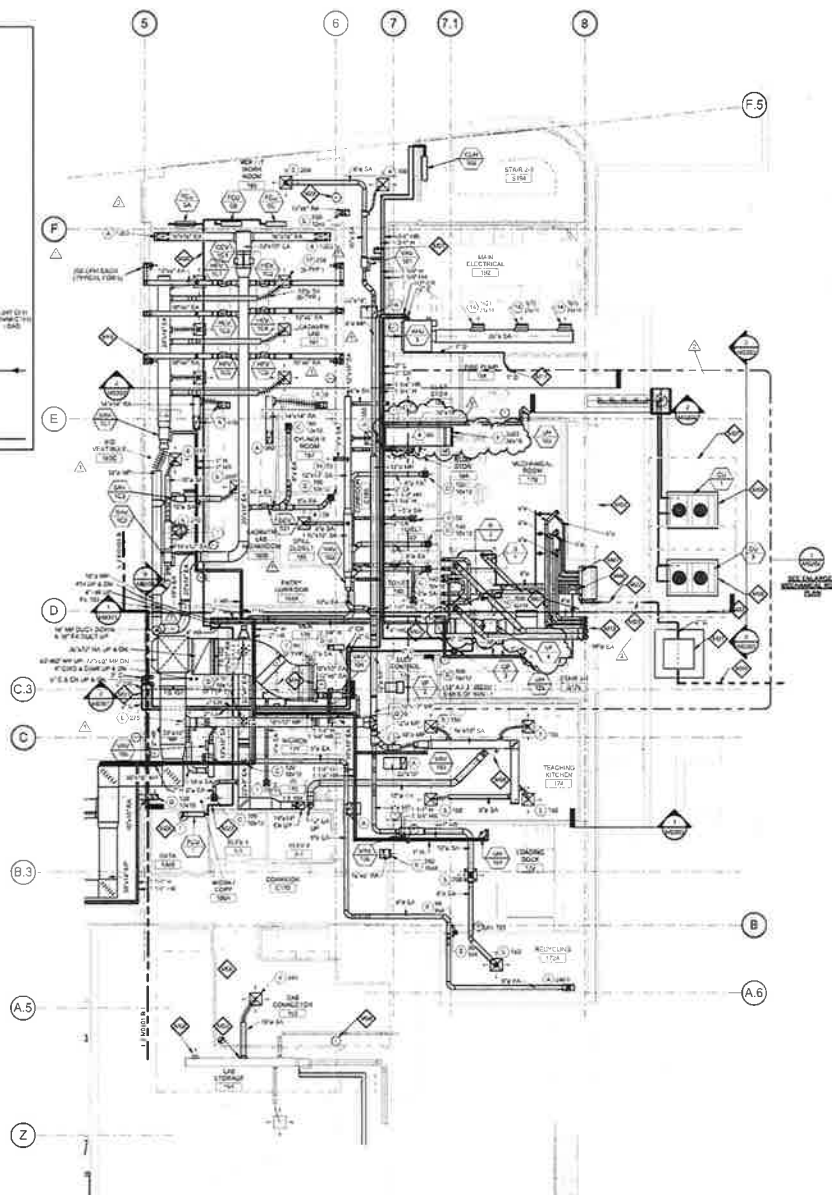
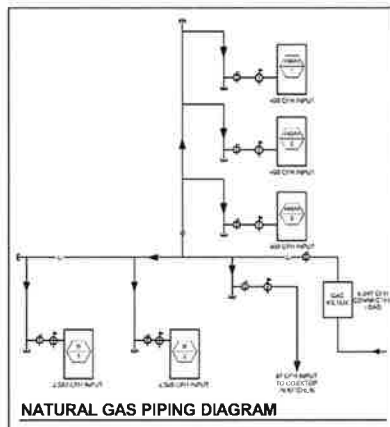
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### EQUIPMENT DATA SCHEDULE

04581101      Credit b

ME0003

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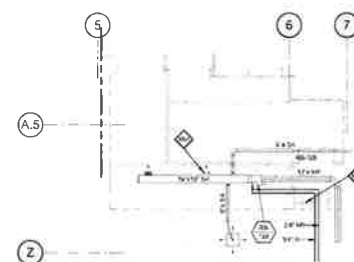


GENERAL NOTES:

- [illegible]

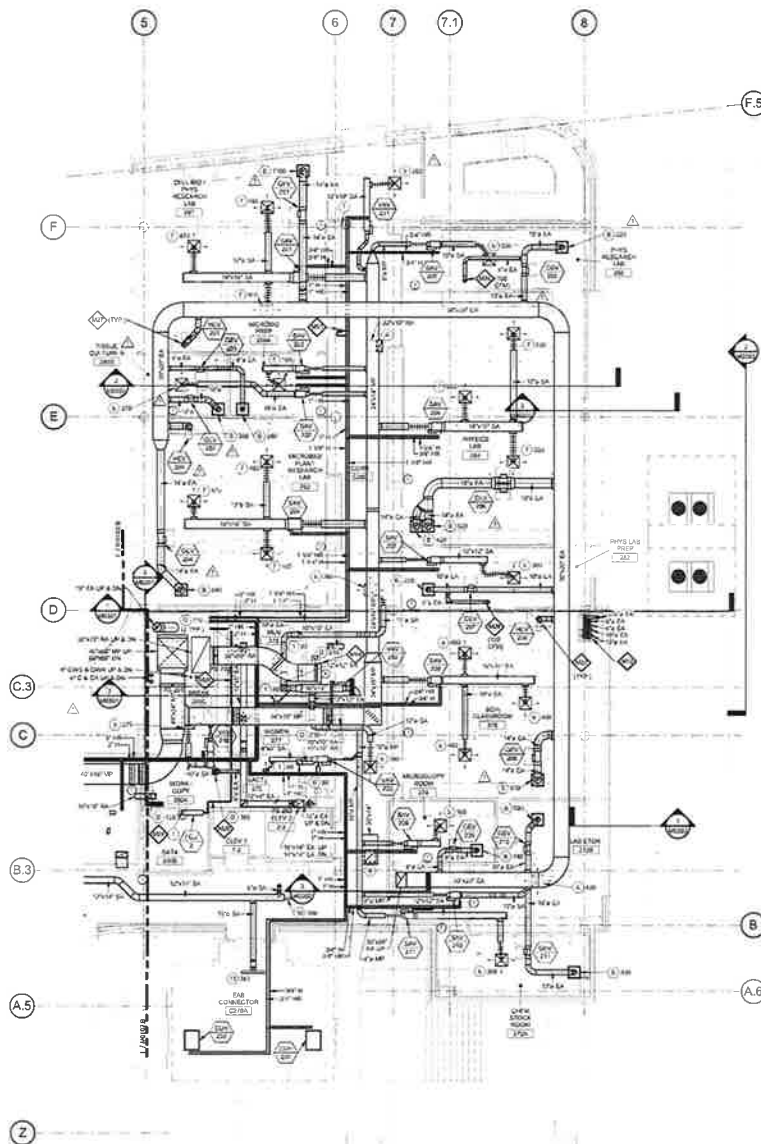
 **KEYED NOTES**

- 001 PROPOSED GAS METER LOCATION: COORDINATE WITH LOCAL NATIONAL GAS UTILITY COMPANY FOR METER SIZING  
FOR A TOTAL CONNECTED LOAD OF 3.247 GPM WITH A DELIVERY PRESSURE OF 2.584G. PROVIDE CONDUCTIVITY METER  
AND FOR THE LEAKS GAS COMBUSTION REQUIREMENTS AND SIZE
- 002 2"CHAMBER BUILDING MATERIAL 1/2" RIGID ABOVE GASKET WITH SHUT OFF VALVE
- 003 2"X1/2" NATURAL GAS LINE IS OPEN TRENCH WITH STEEL BRACING. SEE CIVIL DRAWINGS. SUPPORT PIPING WITH  
STAINLESS STEEL UNITS/STRUTS. PROVIDE MINIMUM 2-INCHES ABOVE TRENCH PLANE
- 004 NATURAL GAS MAIN EXTENSION BELOW GRADE WITH LOCAL GAS COMPANY.
- 005 CONCRETE BASE FOR MECHANICAL EQUIPMENT. SEE CIVIL DRAWINGS. VERIFY SIZE WITH APPROVED SHOP DRAWINGS
- 007 DASHED LINES INDICATE RECOMMENDED SERVICE, COLD PULLING SPACE, FILTER REMOVAL SPACE AND/OR AIRFLOW  
DIRECTION
- 008 3/4" INCH NATURAL GAS LINE BELOW SLAB WITH VENTED SILEN. SEE LOWER LEVEL FLOOR PLAN FOR  
CONTAMINATION. PROVIDE GAS SHUT OFF VALVE AND FLEXIBLE HOSE ADAPTER. FINAL CONNECTION TO LOOK UP BY  
KITCHEN EQUIPMENT INSTALLER
- 009 OUTSIDE AIR INTAKE (QUIVER, SEE ARCHITECTURAL DRAWINGS)
- 011 TERMINATE COOKING GAS DRAINS LINE OVER NEAREST FLOOR DRAIN OR INDISCREET WASTE. PROVIDE TRAP AS  
INDICATED ON PIPING DETAIL
- 012 1/2" INCH WATER SUPPLY LINE WITH SHUT OFF VALVE
- 013 REFRIGERANT LIQUID AND GASEOUS PIPING BETWEEN EX COOKING ISLES AND CONDENSING UNITS. COORDINATE PIPE  
SIZES WITH MANUFACTURER. PROVIDE 1/2" INCH ABOVE SLAB WITH REFRIGERANT PIPING. AND TERMINATE TRAPS  
FROM FEED 1/2" S.A.E. AND 1/2" INCH GAS DRAINS IN (SWITCH 1/2" INCH MECHANICAL HOOD) TERMINATE TRAPS FROM  
FEED 1/2" AND 1/2" INCH SERVICE LINE IN (SWITCH 1/2" INCH)
- 014 BUS TEMPERATURE SENSOR TO MONITOR ITCHING SENSITIVITY. (SEE CONTROLS) BY UNIT MOUNTED THROUGH SLAB
- 015 2"WAY CONTROL VALVE. SEE CIVIL GAS WATER PIPING DIAGRAM
- 016 AIRWAY CONDITIONING SYSTEM, KEELE MODEL ROOMS FURNISHED WITH INLET BELL FOR PLENUM APPLICATIONS  
LOCATED IN MINOR AIR DUCT OR RETURN AIR INLET ON EACH LOUVER
- 018 EXHAUST DUCT THROUGH DUCT CHASE FOR DOWNWARD TAIL. VERIFY DUCT CONNECTION SIZE AND LOCATION  
PROVIDE MANUAL DAMPER AND CONNECTION ADAPTER TO TABLE
- 017 1/2"X1/2" INCH WARM WATER COMBUSTION AIR DUCT THROUGH UTILIZATION WALLS ABOVE LOUVER. PROVIDE VENTILATION  
CAP OR ELBOW WITH BROODSCREEN
- 018 HEATING HOT WATER BOILER COMBUSTION AIR DUCT. PROVIDE VENTILATION CAP OR ELBOW WITH BROODSCREEN
- 019 1" HEATING HOT WATER BRASS WITH BROODSCREEN CONTROL VALVE IS 1/2" INCH
- 020 MOUNTED EXISTING LOW PRESSURE SWITCH DOWNSTREAM IN THIS AREA FOR NEW WALLS. EXISTING EXHAUST  
DUCTED AIR DEVICES AND PATCH OUTWORK AIR-TIGHT. INSTALL: NEW RCD DIFFUSERS AND RETURN AIR GRILL AS  
SHOWN AND AS REQUIRED FOR NEW CELL GAS
- 021 REMOVE EXISTING DUCT MOUNTED AIR DEVICE AND CAP WITH EXISTENTIAL SEAL AIR-TIGHT
- 024 NEW LOUVER FOR EXISTING TEMPERATURE SENSOR.
- 025 NEW CONNECTION TO EXISTING DUCTWORK
- 026 EXISTING AIR DUCT TO BE REMAIN. BELONG TO BE SIGN
- 027 RELOCATION EXISTING TEMPERATURE SENSING
- 028 INSTALL BOLLER SWITCH SWITCH AND SIGN. COORDINATE LOCATION WITH OWNER. ARCHITECT, AND ALL OTHER  
SPECIALTIES



**1 LEVEL 01 - AREA A - MECHANICAL PLAN**

3) PARTIAL LEVEL 01 - EAB CONNECTOR DEMOLITION



# GENERAL NOTES:

- A. Because of the limited space available, it is noted that all of the mechanical work is concentrated between the various risers, i.e. of the closest proximity. The contractor shall coordinate with all other trades prior to the fabrication and installation of any work. Refer to the reflected ceiling plans for ceiling construction, ceiling grid layout, ceiling mounted devices, and coordinate exact location and mounting type of all air devices.
- B. All ductwork upstream of terminal units shall be Medium Pressure (MP). All ductwork downstream of terminal units shall be Low Pressure (LP). Refer to specifications.
- C. All ductwork dimensions indicated on plans are sheet metal sizes. All medium pressure ductwork shall be unlined externally insulated. All low pressure ductwork shall be lined. See specifications.
- D. All mixed 90° rectangular elbows shall be furnished with turning vanes having maximum  $r = 0.12$ . All smooth radius exchange elbows shall have a throat radius greater than one half the duct width, unless furnished with elliptical vanes. Unless no circumstances exist the throat radius by rule shall be one half the duct width. Unless otherwise noted or specified.
- E. Contractor shall furnish all metal vaults, dampers for each duct take-off across (transverse) riser. See notes.
- F. Maximum length of Low Pressure (LP) flexible ductwork shall be 8' 0". Round LP duct of lengths greater than 8' 0" shall be rigid duct. Flexible duct shall be placed so that the neck will be away from the installed. See specifications.
- G. Maximum length of Medium Pressure (MP) flexible ductwork shall be 2' 0". Round MP duct of lengths greater than 2' 0" shall be rigid duct. Flexible duct shall be placed so that the neck will be away from the installed. See specifications.
- H. All ductwork for exhaust, fuel, Terminals Units and Diffusers shall be the contractor's sole selection unless noted.
- I. Piping, vents, and terminal units shall be 3/4" unless otherwise noted. Refer to detail for schedule.
- J. Verify exact location of terminals, dampers, and other equipment and drawings before installation.
- K. Coordinate locations of equipment and drawings required for new construction with owner. Not shown in drawing. Some equipment may be required for new construction.
- L. Refer to piping notes for final schedule in equipment.
- M. Piping, vents, shut-off valves or metal piping, product lines. All connections to tanks and such building wing, A & B.

## KEYED NOTES

- M02 REFRIGERANT LIQUID AND SUCTON PIPING BETWEEN COOLING COILS AND CONDENSING UNITS COORDINATE PIPE SIZES WITH MANUFACTURER. PROVIDE 3/4" DRAIN LINE ROUTE WITH REFRIGERANT PIPING, AND TERMINATE DRAIN FROM FCU-1, 2, 3, 4, 5, 6, AND 7C DRAIN FLOOR DRAIN IN LOWER LEVEL MECHANICAL ROOM. TERMINATE DRAIN FROM FCU-3 AND 4 OVER SERVICE DRAIN IN JAMMING EXHAUST 1/2".
- M03 1/2" INCH ROUND EXHAUST DUCT FOR SAGWEL EXHAUST. COORDINATE FINAL CONNECTION TO ENGINEER WITH ARCHITECTURAL DRAWINGS.
- M07 INSTALL HOOD LATCHES & VALVE IN VERTICAL POSITION NEAR HOOD. ELBOWS SHALL HAVE 1.5 DIAMETER RADIUS, USE 1.0 DIAMETER RADIUS ELBOWS ONLY WHERE NECESSARY.
- M08 BAS TEMPERATURE SENSOR TO MONITOR ITTCOM SPACES - FCU CONTROLLED BY UNIT MOUNTED THERMOSTAT.
- M04 AIR FLOW MEASURING STATION, KFL-8 MODEL, KQMS FURNISHED WITH INLET BELL FOR PLUMB APPLICATIONS LOCATED IN MINIMUM DUCT OR RETURN AIR INLET ON EACH FLOOR.
- M01 1" HEATING HOT WATER BYPASS WITH BACKPRESSURE CONTROL VALVE (5 GPM).

THE DRAWING AND SPECIFICATIONS APPLY ONLY TO THE BUILDING TO WHICH THEY ARE APPLIED AND REPRESENT ONLY THE RESPONSIBILITY FOR THE DESIGNER. NO OTHER DOCUMENTS OR INSTRUMENTS RELATING TO BE INTENDED TO BE USED FOR ANY PART OF THE PROJECT.

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|--------------|------------|
| 1. Addendum  | 08/02/2010 |
| 2. Revision  | 10/02/2010 |
| 3. Revision  | 11/02/2010 |
| 4. Revision  | 12/02/2010 |
| 5. Revision  | 01/03/2011 |
| 6. Revision  | 02/03/2011 |
| 7. Revision  | 03/03/2011 |
| 8. Revision  | 04/03/2011 |
| 9. Revision  | 05/03/2011 |
| 10. Revision | 06/03/2011 |



KEY PLAN

LEVEL 02 AREA A - MECHANICAL PLAN

Project No. M0102.A Drawing No.

**M0102.A**

1. Addendum  
2. Revision  
3. Revision  
4. Revision  
5. Revision  
6. Revision  
7. Revision  
8. Revision  
9. Revision  
10. Revision

1. Addendum  
2. Revision  
3. Revision  
4. Revision  
5. Revision  
6. Revision  
7. Revision  
8. Revision  
9. Revision  
10. Revision









100%



## Szachnieski, Jason

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**From:** Patel, Kelvin <kpatel@CANNONDESIGN.COM>  
**Sent:** Thursday, January 5, 2017 4:27 PM  
**To:** Craig Miller, Sr. (craigmiller29@webster.edu); Szachnieski, Jason  
**Cc:** Grossman, Lynn; Mike Nolte  
**Subject:** FW: FW: Webster ISB - CP053 ASI#34 Mechanical

Craig & Jason,

Please see below comments below from WTA regarding CP-053.

Thanks,

**Kelvin Patel, CDT, LEED AP BD+C**

Associate

**CANNONDESIGN**

T 314.425.8756

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**From:** Mike Nolte [<mailto:mnolte@wmtao.com>]  
**Sent:** Thursday, January 05, 2017 12:35 PM  
**To:** Patel, Kelvin <kpatel@CANNONDESIGN.COM>; Patrick Garner <pgarner@wmtao.com>  
**Cc:** Grossman, Lynn <lgrossman@CANNONDESIGN.COM>  
**Subject:** Re: FW: Webster ISB - CP053 ASI#34 Mechanical (WT #14127.01)

Kelvin,

To answer the Contractor's question below: Yes, VF-4 is required.

CO Review Comments:

The CO appears to be high for the scope of work. It may be possible to reduce the amount coordination time involved if VF-4 could be installed north of boilers with transfer duct routed above Toilet #182, with grille discharging south into mechanical room space. This would move the fan and ductwork out of the congested area of piping. Also, inexpensive expanded metal grilles could be installed in the mechanical room in lieu of the Price Models 520D & 520E grilles indicated on the plans and schedule.

Thanks,

**Mike Nolte, P.E.**

Mechanical Engineer, LEED AP BD+C



7955 Manchester Road, Suite 125  
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O: 314-884-7600  
D: 314-884-7622

>>> "Patel, Kelvin" <[kpatel@CANNONDESIGN.COM](mailto:kpatel@CANNONDESIGN.COM)> 12/22/2016 11:45 AM >>>  
Mike & Patrick,

Please review Paric question below and attached CP asap.

Let me know your comments.

Thanks,

**Kelvin Patel, CDT, LEED AP BD+C**

Associate

**CANNONDESIGN**

T 314.425.8756

---

**From:** Szachnieski, Jason [<mailto:JRSzachnieski@paric.com>]

**Sent:** Thursday, December 22, 2016 7:42 AM

**To:** Craig A. Miller, Sr. <[craigmiller29@webster.edu](mailto:craigmiller29@webster.edu)>; Patel, Kelvin <[kpatel@CANNONDESIGN.COM](mailto:kpatel@CANNONDESIGN.COM)>

**Cc:** Gates, Devin <[ddgates@paric.com](mailto:ddgates@paric.com)>

**Subject:** Webster ISB - CP053 ASI#34 Mechanical

Craig and Kelvin,

Attached is CP#053 for ASI#34 Mechanical. Routing this new fan duct thru a very congested area is going to be very challenging. Do we really need to do this? I'm hoping not, but if so we need to start the BIM coordination. Please let me know if this pricing is acceptable so I can get everyone started right after the holidays if we really need to do this.

Thanks,

Jason

**JASON SZACHNIESKI, PE, LEED® AP**

SENIOR PROJECT MANAGER

**Direct:** 636-561-9608

**Main:** 636-561-9500

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