ROBERTS FOWLER & VISOSKY LLP
ATTORNEYS AT LAW

TIM ROBERTS
KEVIN J. FOWLER
JON A. VISOSKY
SETH FORMAN

865 SOUTH MARINE CORPS DRIVE
STE 201
TAMUNING, GUAM 96913
TELEPHONE: (671) 646-1222
FACSIMILE: (671) 646-1223
www.guamlawoffice.com

Of Counsel:
MELINDA S. SWAVELY
Of Counsel:
DAVID W. DOOLEY

Writer's Direct Email:
forman@guamlawoffice.com

February 2, 2022

Via Hand Delivery

Office of Public Accountability
Suite 401, DNA Building
238 Archishop Flores Street
Haggatna, Guam 96910

Re: PROCUREMENT APPEAL

Dear Office of Public Accountability,

Enclosed with this letter please find, in triplicate, the Notice of Appeal of All Business Enterprise Corp. concerning Invitation for Bid No.: UOG IFB B21-17 (Purchasing of HVAC Equipment.)

.

Sincerely,

ROBERTS FOWLER & VISOSKY LLP

Seth Forman

Seth Forman

Encl.

RECEIVED
OFFICE OF PUBLIC ACCOUNTABILITY
PROCUREMENT APPEALS
DATE: Feb. 7, 2022
TIME: 12:50 ☐AM ☒PM BY: Chris
FILE NO OPA-PA: 22-002

Seth Forman
Roberts Fowler & Visosky LLP
865 South Marine Corps Drive, Ste. 201
Tamuning, Guam 96913
Telephone (671) 646-1222
Facsimile (671) 646-1223
E-mail: Forman@guamlawoffice.com

Attorneys for Appellant
All Business Enterprises Corp.

OFFICE OF PUBLIC ACCOUNTABILITY

PROCUREMENT APPEAL

In the Appeal of	)	**NOTICE OF APPEAL**
	)	
All Business Enterprises Corp.,	)	Docket No. OPA-PA_____
	)	
Appellant.	)	
	)	

Appellant Information:

Appellant's address, telephone number, facsimile number, and e-mail address are as follows:

All Business Enterprises Corp.
Mailing address: P.O. Box 8140
Tamuning Guam 96931
Physical address: 153 East Harmon Industrial Park Rd.
Unit B
Harmon, Guam 96931

Telephone No. (671) 646-0588/3346
Facsimile No. (671) 646-0589
E-mail nbangayan@jbmoderntech.com

Contact information for appellant's counsel is set forth above the caption.

Appeal Information:

A) Purchasing Agency: University of Guam ("UOG")

B) Invitation for Bid No.: UOG IFB B21-17 (Purchasing of HVAC Equipment)

C) The denial of protest being appealed was made on January 25, 2022, by the President of UOG. The denial is attached as "Exhibit 6."

D) Appeal is made from a denial of a protest. This appeal is brought pursuant to 5 GCA §5425(e).

E) Name of competing bidders known to appellant: Tony's Workshop, and JWS Refrigeration and Air Condition Ltd. ("JWS".)

Form and Filing:

1. All Business Enterprises Corp. ("ABEC") is appealing the denial of a protest it made regarding UOG IFB B21-17.

This procurement was for purchasing of HVAC Equipment.

On December 20, 2021, All Business Enterprises Corporation ("ABEC") submitted a protest of the University of Guam's rejection of ABEC's bid and the award to Tony's Workshop for UOG IFB B21-17: Purchasing of HVAC Equipment. A copy of the protest is attached hereto as "Exhibit 1." A copy of the notice of rejection of ABEC's bid dated December 7, 2021 is attached hereto as "Exhibit 1-A". A copy of the notice of award to Tony's Workshop dated December 7, 2021 is attached hereto as "Exhibit 1-B".

The basis for the protest is that the bids submitted by the two bidders who finished ahead of ABEC, Tony's Workshop and JWS Refrigeration and Air Condition LTD ("JWS") were nonresponsive. ABEC had made a Sunshine Act request for the Tony's Workshop and JWS bid submittals including the ACCU Unit Brochures on December 6, 2021, and followed up on December 7, 2021 and December 9, 2021. See attached "Exhibit 1-C", which includes all three e-mails about the Sunshine Act request. The University did not respond until December 13, 2021. The response is attached as "Exhibit 1-D." ABEC was unable to view the requested documents and learn of the basis for this protest until December 14, 2021.

One major requirement of UOG IFB B21-17 was Factory Phenolic Coating. See excerpts from the bid requirements in "Exhibit 2". The description for six of the units included in the Tony's Workshop bid did not include Factor Phenolic Coating. Please see the attached

documents which show no indication of Factory Phenolic Coating, thus confirm that the bid from Tony's Workshop was nonresponsive:

1. Unit Report for RFK Building First Floor Main Entrance 112321; Ref: page 29 of 178 ("Exhibit 1-E")

2. Unit Report for 7.5 RFK Building First Floor AV Room 112321; Ref: page 43 of 178 ("Exhibit 1-F")

3. Unit Report for 7.5 RFK Building First Floor Office 112321; Ref: page 56 of 178 ("Exhibit 1-G")

4. Unit Report for PIP (GLE) Second Floor 112321; Ref: page 69 of 178 ("Exhibit 1-H")

5. Unit Report for 20 Science Building Third Floor 112321; Ref: page 106 of 178 ("Exhibit 1-I")

6. Unit Report for Lecture Hall Auditorium 112321; Ref: page 143 of 178 ("Exhibit 1-J")

This was not a mere oversight. Tony's Workshop indicated on its submittals for several other units that it was providing the coating. See "Exhibit 3" (pages from Tony's Workshop bid that show "Copper E-Coat Fin/Copper Tube.")

If the bid from Tony's Workshop is rejected as being nonresponsive, that does not mean that JWS should be awarded the contract. The bid from JWS was even more nonresponsive. In addition to requiring Factory Phenolic Coating, the bid requirements also stated that the procurement is subject to the Buy America Act. See "Exhibit 4", excerpts from UOG's question and answer sheet for this bid.

The Technical Report in the submission from JWS has no indication of Factory Phenolic Coating for any of the units. See attached "Exhibit 1-K".

In addition, the shop drawings in the JWS bid show that are included in "Exhibit 1-K" show that the units are to be manufactured by "DB-Dunham-Bush Industries SDN BHD". Exhibit 1-K. Dunham-Bush is a Malaysian company, not an American company. Attached as "Exhibit 1-L" and "Exhibit 1-M" are copies of on-line information from Bloomberg and Dunn & Bradstreet confirming that Dunham-Bush is a Malaysian company.

In conclusion, both the Tony's Workshop and the JWS bids are nonresponsive. Therefore UOG IFB B21-17: Purchasing of HVAC Equipment should have been awarded to the sole responsive bidder, All Business Enterprises Corporation.

When UOG failed to respond to ABEC's protest within a month, ABEC delivered a letter to UOG on January 24, 2022 requesting a response. "Exhibit 5." On January 25, 2022, UOG issued its denial of ABEC's protest. "Exhibit 6." The gist of UOG's position seems to be that (1) Tony's Workshop could omit any reference to any intent to apply the required coating of any sort in its bid and provide documentation after an award, and (2) since UOG therefore did not deem the bid from Tony's Workshop non-responsive, there was no need to address issues pertaining to JWS. ABEC disagrees with UOG's position on these matters and will respond in greater detail at such time as the OPA directs.

2. ABEC requests that the Office of Public Accountability (1) overrule GCC's denial of ABEC's protest as to both Tony's Workshop and JWB, (2) remand the matter to UOG for further action in accordance with the OPA's ruling.

3. Supporting documents are attached hereto as exhibits which correspond with the Exhibit numbers 1 through 6 as set forth above. Most supporting documents were attached to ABEC's protest and identified by letter. In order to avoid duplication, the protest has been attached as "Exhibit 1" and exhibits thereto are identified as "Exhibit 1-A", "Exhibit 1-B", etc. Additional supporting documents attached hereto are identified as "Exhibit 2" through "Exhibit 6".

Declaration regarding court action:

ABEC does hereby confirm that to the best of its knowledge no case or action concerning the subject of this Appeal has been commenced in court. The undersigned party agrees to notify the Office of Public Accountability within 24 hours if court action commences regarding this Appeal or the underlying procurement action.

Respectfully submitted,

ROBERTS FOWLER & VISOSKY LLP

Date: February 3, 2022

By: Seth Forman

SETH FORMAN
Attorneys for Appellant All Business Enterprises Corp.
865 South Marine Corps Drive, Ste. 201
Tamuning, Guam 96913
Telephone (671) 646-1222
Facsimile (671) 646-1223
E-mail: Forman@guamlawoffice.com

VERIFICATION

Tamuning, Guam) ss:

I, Nelia F. Bangayan, being first duly sworn, do hereby depose and state that I am the President of Appellant All Business Enterprises Corp. and that I have read the foregoing Notice of Appeal and it is true of my own knowledge except as to those matters alleged upon information and belief and as to those matters, I believe them to be true.

Dated this 7th day of February, 2022.

NELIA F. BANGAYAN

SUBSCRIBED AND SWORN to before me this 7th day of February, 2022.

Notary Public

MONIQUE J. SANCHEZ NOTARY PUBLIC In and for GUAM, U.S.A.

MONIQUE J. SANCHEZ
NOTARY PUBLIC
In and for Guam, U.S.A.
My Commission Expires: SEP. 08, 2022
865 S. Marine Corps Dr. Ste. 201, Tamuning, GU 96913

EXHIBIT 1

ALL BUSINESS ENTERPRISES. CORP.

P.O. BOX 8410 TAMUNING, GUAM U.S.A. 96931
TELEPHONE: (671) 646-3346; FAX (671) 646-0589

December 17, 2021

VIA HAND DELIVERY

Thomas W. Krise
President, University of Guam
301 University of Guam
UOG Station
Mangilao, Guam 96913

VIA HAND DELIVERY

Anthony R. Camacho, Esq.
General Counsel, University of Guam
C/o Office of the President
301 University Drive
UOG Station
Mangilao, Guam 96913

Received By:
12/20/21 11:21am
Date & Time

VIA HAND DELIVERY

Emily G. Gumataotao
Supply Management Administrator
University of Guam
UOG Station
Mangilao, Guam 96913

RECEIVED
DEC 2 · 2021
UOG PROCUREMENT OFFICE

Office of the Legal Counsel
University of Guam
Received By:
12/20/21 11:21am
Date & Time

Re: UOG IFB B21-17
Purchasing of HVAC Equipment
All Business Enterprises Corporation Protest

Dear President Krise, Attorney Camacho, and Administrator Gumataotao:

Please be advised that All Business Enterprises Corporation ("ABEC") protests the University of Guam's rejection of ABEC's bid and the award to Tony's Workshop for UOG IFB B21-17: Purchasing of HVAC Equipment. A copy of the notice of rejection of ABEC's bid dated December 7, 2021 is attached hereto as "Exhibit A". A. copy of notice of award to Tony's Workshop dated December 7, 2021 is attached hereto as "Exhibit B". ABEC does not the number of the contract.

The basis for this protest is that the bids submitted by the two bidders who finished ahead to ABEC. Tony's Workshop and JWS Refrigeration and Air Condition LTD ("JWS") were nonresponsive. ABEC had made a Sunshine Act request for the Tony's Workshop and JWS bid submittals including the ACCU Unit Brochures on December 6, 2021, and followed up on December 7, 2021 and December 9, 2021. See attached "Exhibit C", which includes all three e-mails about the Sunshine Act request. The University did not responds until December 13, 2021. The response is attached as "Exhibit D". ABEC was unable to view the requested documents and learn of the basis for this protest until December 14, 2021.

ALL BUSINESS ENTERPRISES. CORP.

P.O. BOX 8410 TAMUNING, GUAM U.S.A. 96931
TELEPHONE: (671) 646-3346; FAX (671) 646-0589

One major requirement of UOG IFB B21-17 was Factory Phenolic Coating. The description for six of the units included in the Tony's Workshop bid did not include Factory Phenolic Coating. Please see attached documents which show no indication of Factory Phenolic Coating, thus confirm that the bid from Tony's Workshop was nonresponsive:

1. Unit Report for RFK Building First Building First Floor Main Entrance 112321: Ref: page 29 of 178 (enclosed as "Exhibit E")

2. Unit Report for 7.5 RFK Building First Floor AV Room 112321: Ref: Page 43 of 178 (enclosed as "Exhibit F")

3. Unit Report for 7.5 RFK Building First Floor Office 112321: Ref: page 56 of 178 (enclosed as "Exhibit G")

4. Unit Report for PIP (GLE) Second Floor 112321: Ref: page 69 of 178 (enclosed as "Exhibit H")

5. Unit Report for 20 Science Building Third Floor 112321: Ref: page 106 of 178 (enclosed as "Exhibit I")

6. Unit Report for Lecture Hall Auditorium 112321: Ref: page 143 of 178 (enclosed as "Exhibits J")

If the bid from Tony's Workshop is rejected as being nonresponsive, that does not mean that JWS should be awarded the contract. The bid from JWS was even more nonresponsive. In addition to requiring Factory Phenolic Coating, the bid requirements also stated that the procurement is subject to the Buy American Act.

The Technical report in the submission from JWS has no indication of Factory Phenolic Coating for any of the units. See enclosed "Exhibit K".

In addition, the Certified Drawing submittal from JWS shows that the units are to be manufactured by "DB-Dunham-Bush Industries SDN BHD". Dubham-Bush is a Malaysian company, not an American company. Enclosed as Exhibits L and M please find copies of on-line information from Bloomberg and Dunn & Bradstreet confirming that Dunham-Bush is a Malaysian Company.

ALL BUSINESS ENTERPRISES. CORP.

P.O. BOX 8410 TAMUNING, GUAM U.S.A. 96931
TELEPHONE: (671) 646-3346; FAX (671) 646-0589

In conclusion, both the Tony's Workshop and the JWS bid are nonresponsive. Therefore UOG IFB B21-17: Purchasing of HVAC Equipment should be awarded to the sole responsive bidder, All Business Enterprise Corporation.

Thank you for your attention to this matter. Please let me know if you require any additional information from ABEC to evaluate this protest.

Sincerely,

ALL BUSINESS ENTERPRISES CORP.

Nelia F. Bangayan - President

EXHIBIT 1-A

UNIVERSITY OF GUAM
UNIBETSEDÅT GUÅHAN

ADMINISTRATION & FINANCE
Consolidated Procurement Office

BID STATUS

December 7, 2021

ALL BUSINESS ENTERPRISES CORPORATION
Nelia F. Bangayan, President
Ph: 671-646-4435
Email: nbangayan@jbmoderntech.com

Subject: **UOG Invitation for Bid No. B21-17, "Purchasing of HVAC Equipment"**

Bid Open: December 6, 2021

/ / Cancelled (in its entirety), or partially cancelled due to:
- ( ) Insufficient funds;
- ( ) Change of specifications; or
- ( ) Insufficient number of bidders

/X/ Rejected due to:
- ( ) Late submission of bid
- ( ) No bid security or insufficient bid security amount submitted; as required by General Terms and Conditions;
- ( ) Not meeting the delivery requirement as stated in the IFB
- ( ) Non-conformance with the specifications
- ( ) Inability to provide future maintenance and services to the equipment;
- (X) High price; or
- ( ) Other.

/X/ Bid is recommended for award to: ***TONY's WORKSHOP***

Emily G. Gumataotao
Supply Management Administrator

Please Acknowledge Receipt and return to uog.bids@triton.uog.edu

VENDOR (Print name & signature) Date

Exhibit A

UNIVERSITY OF GUAM
UNIBETSEDÅT GUÅHAN

ADMINISTRATION & FINANCE
Consolidated Procurement Office

BID STATUS

December 7, 2021

JWS Refrigeration & Air Conditioning LTD
Roberto Perez
CFO / General Manager
Ph: 671-588-5979, Email: robertp@jwsguam.com

Subject: **UOG Invitation for Bid No. B21-17, PURCHASING OF HVAC EQUIPMENT**
Bid Open: December 6, 2021

/ / Cancelled (in its entirety), or partially cancelled due to
- ( ) Insufficient funds;
- ( ) Change of specifications; or
- ( ) Insufficient number of bidders

/X/ Rejected due to:
- ( ) Late submission of bid;
- ( ) No bid security or insufficient bid security amount submitted; as required by General Terms and Conditions;
- ( ) Not meeting the delivery requirement as stated in the IFB
- ( ) Non-conformance with the specifications
- ( ) Inability to provide future maintenance and services to the equipment
- (X) High price; or
- ( ) Other

/X/ Bid is recommended for award to: **Tony's Workshop**

Emily G. Gumataotao
Supply Management Administrator

Please Acknowledge Receipt and email back to uog.bids@triton.uog.edu

VENDOR (Print name & signature) Date

EXHIBIT 1-B

UNIVERSITY OF GUAM
UNIBETSEDÅT GUÅHAN

ADMINISTRATION & FINANCE
Consolidated Procurement Office

December 7, 2021

TONY's WORKSHOP
P.O. Box 23066 GMF
Barrigada, Guam 96921
Main: 671-637-3060
Email: mike@tonysworkshop.com / tonyworkshop@teleguam.net

RE: **NOTICE OF AWARD- UOG IFB B21-17: "PURCHASING OF HVAC EQUIPMENT"**

Dear Sir/Madam:

This letter is to certify that **TONY's WORKSHOP** is being awarded the University of Guam IFB **BID B21-17.**

As a result of our evaluation on the above referenced IFB, a purchase order or contract will be forthcoming.

A representative from the respective unit will be in contact with you upon issuance of the purchase order and/or contract.

If you have any questions, please feel free to contact me at 735-2925 or email at uog.bids@triton.uog.edu.

Thank you and Congratulations!

Sincerely,

Emily G. Gumataotao
Supply Management Administrator

Please acknowledge receipt and return via email to uog.bids@triton.uog.edu.

_____
(Please print name and sign) (DATE)

cc: FMS
PROCUREMENT FILES

Exhibit B

UNIVERSITY OF GUAM
UNIBETSEDÅT GUÅHAN

ADMINISTRATION & FINANCE
Consolidated Procurement Office

December 6, 2021

Michael SJ. Ecalnea
P.O. Box 23066 GMF
Barrigada, Guam 96921
Main: 671-637-3060
Email: mike@tonysworkshop.com / tonyworkshop@teleguam.net

RE: **NOTICE OF INTENT TO AWARD- B21-17: PURCHASING OF HVAC EQUIPMENT**

Dear Sir/Madam:

As a result of our analysis on the above-referenced IFB, your bid submission for **PURCHASING OF HVAC EQUIPMENT**, is being considered for possible award, pending submission of requirements below:

1) *Copy of Guam Business License*
2) *Data Brochure of equipment being offered*

Please submit the above to the procurement office via email NLT Tuesday, December 7, 2021 by noon. Please be advised that this notice should not be construed as an award.

You can contact me at 735-2925 or email: uog.bids@triton.uog.edu if you have any questions regarding this notice.

Sincerely,

Emily G. Gumataotao
Supply Management Administrator

Please acknowledge receipt and return by email to uog.bids@triton.uog.edu

_____

(Print/Sign) Date

cc: Procurement Files

EXHIBIT 1-C

Nel Bangayan

From:	Nel Bangayan
Sent:	Monday, December 06, 2021 6:23 PM
To:	eggumataotao@triton.uog.edu
Cc:	'procurementoffice@triton.uog.edu'
Subject:	UOG Bid Result - IFB B21-17

December 6, 2021

Hi Emily, the bid had just finished this afternoon. I was surprise how fast the Intent to Award was issued. I would like to request thru Sunshine Act FOIA the submittal copy of Tony's Workshop and JWS including the ACCU Unit Brochures. I appreciate your advice when it is available for pick up.
Thank you.

Nelia Bangayan
All Business Enterprises Corp
Mobile: 671 483-8310

Exhibit C

Gene Bangayan

From: Gene Bangayan
Sent: Tuesday, December 7, 2021 4:55 PM
To: Gumataotao, Emily
Cc: Procurement Office
Subject: BID IFB B21-17

EMILY, on behalf of wife and her company, All business Enterprises Corporation I just consulted our corporate adviser of All Business Enterprises Corporation
with regards on my wife email to you on the Sunshine Act, " FOIA" and according to the advice the request serve as a protect and that you can't award until
you satisfy the Sunshine Act, " FOIA ". My wife emailed you requesting Tony's work Shop submittal and the brochures that you had asked to Tony' Work Shop
and also the JWS submittal. We appreciate your advice on the matter.
Thank you.
Gene M. Bangayan

Gene Bangayan

From: Gene Bangayan
Sent: Thursday, December 9, 2021 3:19 PM
To: Gumataotao, Emily
Cc: Procurement Office
Subject: FW: BID IFB B21-17

Ms. Emily, this to follow if your received our email below, dated 12-7-21. This follow up serve as our legal and final protest and we hope you will response on our FOIA on Tony's Work Shop submittal and its brochures material data and same with JWS too. We appreciate your immediate response on this matter.
Thank you.
Gene M. Bangayan

CC: Corporate Lawyer.

From: Gene Bangayan
Sent: Tuesday, December 7, 2021 4:55 PM
To: Gumataotao, Emily <eggumataotao@triton.uog.edu>
Cc: Procurement Office <procurementoffice@triton.uog.edu>
Subject: BID IFB B21-17

EMILY, on behalf of wife and her company, All business Enterprises Corporation I just consulted our corporate adviser of All Business Enterprises Corporation
with regards on my wife email to you on the Sunshine Act, " FOIA" and according to the advice the request serve as a protect and that you can't award until
you satisfy the Sunshine Act, " FOIA ". My wife emailed you requesting Tony's work Shop submittal and the brochures that you had asked to Tony' Work Shop
and also the JWS submittal. We appreciate your advice on the matter.
Thank you.
Gene M. Bangayan

EXHIBIT 1-D

UNIVERSITY OF GUAM
UNIBETSEDÅT GUAHAN

OFFICE OF THE PRESIDENT
Legal Counsel

VIA-ELECTRONIC MAIL
Nelia Bangayan
All Business Enterprises Corp.
(671) 483-8310

December 13, 2021

RE: Response to Sunshine Reform Act Request dated December 6, 2021

Dear Ms. Bangayan,

I have reviewed your email dated December 6, 2021, requesting, pursuant to Guam's Sunshine Reform Act of 1999, as codified in 5 G.C.A. §10103 *et. seq.*, copies of various documents. Pursuant to 5 G.C.A. §10103(a), (d), and (e), the documents in UOG's possession, responsive to the foregoing request will be available for your inspection from 12:00 p.m. to 5:00 p.m. on Monday, December 13, 2021 at the UOG General Counsel's Office located in Office of the President, 303 University Drive, UOG Station, Mangilao, Guam, 96913. Be advised that pursuant to 5 G.C.A. §10103(c), you may receive copies of the aforementioned records only after you pay the fees covering the direct costs of duplication.

Please contact me at 735-2990 if you have any questions.

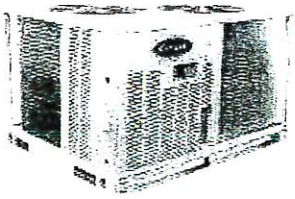
Sincerely,

Anthony R. Camacho

ANTHONY R. CAMACHO, ESQ.
UOG General Counsel

Exhibit D

EXHIBIT 1-E



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38AUD	
Unit Size	15 Tons	
Voltage	208-3-60	V-Ph-Hz
Condenser Coil	Cu/Cu	
No. of Stages	Dual Stage	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2	
Compressor Type	Scroll	
Std. Capacity Steps	50, 100	
Std. Min. Outdoor Temp(Cooling)	35.0	°F
No. of Outdoor fans	3	

Outdoor Unit Dimensions and Weight

Unit Length	7' 2.4"	
Unit Width	3' 7.4"	
Unit Height	4' 2.4"	
Unit Shipping Weight	731	lb
Unit Operating Weight	731	lb

Warranty Information Outdoor (Note: for US & Canada only)

First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

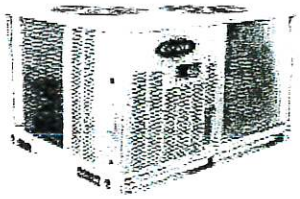
Part Number	Description	Quantity
Base Unit - Outdoor		
38AUDA16A0E5-0A0A0		
	Base Unit	1
	Cu/Cu Condensing Coil	
	Standard Refrigerant Options	1
	Service Options - None	1
	Electrical Options - None	1
	Packaging Options - Standard	1
	Standard Electrical Mechanical Controls	1
	Refrig Circ/Compressor Staging - Two Circuits/ Dual Stage	1
Accessories		
EF680035	Liquid Line Solenoid Valve for Outdoor Unit	2
EF680037	Liquid Line Solenoid Valve for Outdoor Unit	2

EXHIBIT 1-F

Unit Report For 7.5RFK BUILDING FIRST FLOOR AV ROOM 112321

Project: HA-1702-21-11 UOG IFB B21-17 PURCHASING HVAC EQUIP
Prepared By: BERNARD LLARENAS

02:16PM



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38AUD	
Unit Size	15 Tons	
Voltage	208-3-60	V-Ph-Hz
Condenser Coil	Cu/Cu	
No. of Stages	Dual Stage	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2	
Compressor Type	Scroll	
Std. Capacity Steps	50, 100	
Std. Min. Outdoor Temp(Cooling)	35.0	°F
No. of Outdoor fans	3	

Outdoor Unit Dimensions and Weight

Unit Length	7' 2.4"	
Unit Width	3' 7.4"	
Unit Height	4' 2.4"	
Unit Shipping Weight	731	lb
Unit Operating Weight	731	lb

Warranty Information Outdoor (Note: for US & Canada only)

First Year - Parts Only (Standard)

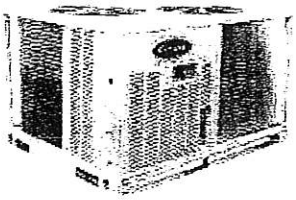
NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38AUDA16A0E5-0A0A0		
	Base Unit	1
	Cu/Cu Condensing Coil	
	Standard Refrigerant Options	1
	Service Options - None	1
	Electrical Options - None	1
	Packaging Options - Standard	1
	Standard Electrical Mechanical Controls	1
	Refrig Circ/Compressor Staging - Two Circuits/ Dual Stage	1
		1
Accessories		
EF680035	Liquid Line Solenoid Valve for Outdoor Unit	2
EF680037	Liquid Line Solenoid Valve for Outdoor Unit	2

Exhibit F

EXHIBIT 1-G



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38AUD	
Unit Size	20 Tons	
Voltage	208-3-60	V-Ph-Hz
Condenser Coil	Cu/Cu	
No of Stages	Dual Stage	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2	
Compressor Type	Scroll	
Std Capacity Steps	50, 100	
Std Min Outdoor Temp(Cooling)	35.0	°F
No of Outdoor fans	4	

Outdoor Unit Dimensions and Weight

Unit Length	7' 2.1"	
Unit Width	5' 7.1"	
Unit Height	4' 2.4"	
Unit Shipping Weight	978	lb
Unit Operating Weight	978	lb

Warranty Information Outdoor (Note: for US & Canada only)

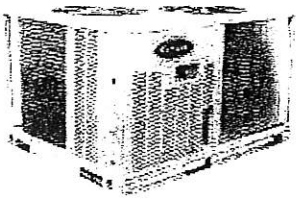
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38AUDA25A0E5-0A0A0		
	Base Unit	1
	Cu/Cu Condensing Coil	
	Standard Refrigerant Options	1
	Service Options - None	1
	Electrical Options - None	1
	Packaging Options - Standard	1
	Standard Electrical Mechanical Controls	1
	Refrig Circ/Compressor Staging - Two Circuits/ Dual Stage	1
Accessories		
EF680035	Liquid Line Solenoid Valve for Outdoor Unit	2
EF680037	Liquid Line Solenoid Valve for Outdoor Unit	2

EXHIBIT 1-H



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38AUD	
Unit Size	20 Tons	
Voltage	208-3-60	V-Ph-Hz
Condenser Coil	Cu/Cu	
No of Stages	Dual Stage	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2	
Compressor Type	Scroll	
Std Capacity Steps	50, 100	
Std Min Outdoor Temp(Cooling)	35.0	°F
No of Outdoor fans	4	

Outdoor Unit Dimensions and Weight

Unit Length	7' 2.1"	
Unit Width	5' 7.1"	
Unit Height	4' 2.4"	
Unit Shipping Weight	978	lb
Unit Operating Weight	978	lb

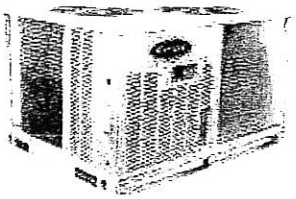
Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38AUDA25A0E5-0A0A0		
	Base Unit	1
	Cu/Cu Condensing Coil	
	Standard Refrigerant Options	1
	Service Options - None	1
	Electrical Options - None	1
	Packaging Options - Standard	1
	Standard Electrical Mechanical Controls	1
	Refrig Circ/Compressor Staging - Two Circuits/ Dual Stage	1
Accessories		
EF680035	Liquid Line Solenoid Valve for Outdoor Unit	2
EF680037	Liquid Line Solenoid Valve for Outdoor Unit	2

EXHIBIT 1-I



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38AUD	
Unit Size	20 Tons	
Voltage	208-3-60	V-Ph-Hz
Condenser Coil	Cu/Cu	
No. of Stages	Dual Stage	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2	
Compressor Type	Scroll	
Std. Capacity Steps	50, 100	
Std. Min. Outdoor Temp(Cooling)	35.0	°F
No. of Outdoor fans	4	

Outdoor Unit Dimensions and Weight

Unit Length	7' 2.1"	
Unit Width	5' 7.1"	
Unit Height	4' 2.4"	
Unit Shipping Weight	978	lb
Unit Operating Weight	978	lb

Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

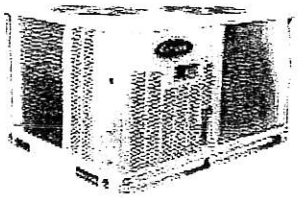
NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38AUDA25A0E5-0A0A0		
	Base Unit	1
	Cu/Cu Condensing Coil	
	Standard Refrigerant Options	1
	Service Options - None	1
	Electrical Options - None	1
	Packaging Options - Standard	1
	Standard Electrical Mechanical Controls	1
	Refrig Circ/Compressor Staging - Two Circuits/ Dual Stage	1
Accessories		
EF680035	Liquid Line Solenoid Valve for Outdoor Unit	2
EF680037	Liquid Line Solenoid Valve for Outdoor Unit	2

Exhibit I

EXHIBIT 1-J



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38AUD	
Unit Size	20 Tons	
Voltage	208-3-60	V-Ph-Hz
Condenser Coil	Cu/Cu	
No. of Stages	Dual Stage	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2	
Compressor Type	Scroll	
Std. Capacity Steps	50, 100	
Std. Min. Outdoor Temp(Cooling)	35.0	F
No. of Outdoor fans	4	

Outdoor Unit Dimensions and Weight

Unit Length	7' 2.1"	
Unit Width	5' 7.1"	
Unit Height	4' 2.4"	
Unit Shipping Weight	978	lb
Unit Operating Weight	978	lb

Warranty Information Outdoor (Note: for US & Canada only)

First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38AUDA25A0E5-0A0A0		
	Base Unit	1
	Cu/Cu Condensing Coil	
	Standard Refrigerant Options	1
	Service Options - None	1
	Electrical Options - None	1
	Packaging Options - Standard	1
	Standard Electrical Mechanical Controls	1
	Refrig Circ/Compressor Staging - Two Circuits/ Dual Stage	1
Accessories		
EF680035	Liquid Line Solenoid Valve for Outdoor Unit	2
EF680037	Liquid Line Solenoid Valve for Outdoor Unit	2

Exhibit J

EXHIBIT 1-K

TECHNICAL REPORT

Project name	OOG condensers				
Submitted by	Leo				
Customer	JWS			Date	11/22/2021
OVERVIEW				Quantity	1
System Type	Air-Cooled Split		Refrigerant		R410A
Series	ACCS		Power supply		460V/3/60HZ
Unit nomenclature	6ACCS700-QG + 6EB700D-QG				
Altitude	0	ft	Approval		
FILTER					
Type	Filter 1" 70% Eff				
Size (Qty)	20x25x1(3), 25x25x1(6)				
DX COOLING COIL					
Type	Ø1/2		Number of coil		1
Rows	4		Face area		34.03 ft²
Fins per inch	10		Face velocity		505 ft/min
Refrigerant	R410A		Entering air (DB)		80 °F
Capacity (Total)	640800	Btu/h	Entering air (WB)		67 °F
Capacity (Sensible)	442555	Btu/h	Leaving air (DB)		55.9 °F
Air pressure drop	0.6	inH2O	Leaving air (WB)		54.7 °F
COMPRESSOR (OR EQUIVALENT MODELS)					
Compressor					
Type	Scroll, Fixed Speed		Quantity		2 X ZP154 TDM
Total LRA	600.0	A	Total Power		4
			Total Amps		49.8 kW
FAN (EVAPORATOR)					74.9 A
Type	Belt Driven		Model		
Air Flow	17200	CFM	Fan Speed		560
External Static Pressure	0.5	inH2O	Absorbed Power		630 RPM
Total Static Pressure	1.5	inH2O	Motor Horsepower		7.2 kW
Quantity	1		FLA		15 HP
			Locked rotor current (LRA)		19.9 A
CONDENSER (AIR COOLED)					129.1 A
Model	Ø3/8		Motor HP (each)		
Quantity	1		FLA (each)		2 2/3 HP
Condenser Fan Motor	800MM		Ambient Temperature		4 A
Quantity	3				95 °F
ELECTRICAL SUMMARY					
Unit FLA	106.8	A	MCA		
Total Power Input	63.68	kW	MFS		111.5 A
EER	10.06		IEER		150 A
OPTIONS					n/a
DESCRIPTION					
SV: Suction/Discharge/Liquid Line Service Valves					
CU-C: Condenser Coil Fin Materials - Copper					
CG: Condenser Coil Guard					
DOL2: IEC DOL (Non UL)					
MII: Door Interlock Main Incoming Isolator					
PFR: UVR/Phase Failure Protect					
IR33: Controller - IR33					
NOTES					
Manufacturer reserves the right to change specifications without prior notice.					

Exhibit K

TECHNICAL REPORT

Project name	OOG condensers				
Submitted by	Leo				
Customer	JWS			Date	11/22/2021
OVERVIEW				Quantity	1
System Type	Air-Cooled Split	Refrigerant		R410A	
Series	ACCS	Power supply		208V/3/60HZ	
Unit nomenclature	6ACCS220-QG + 6HEB220D-QG				
Altitude	0 ft	Approval			
FILTER					
Type	Filter 1" 70% Eff				
Size (Qty)	25x20x1(1), 25x25x1(2)				
DX COOLING COIL					
Type	Ø3/8	Number of coil	1		
Rows	3	Face area	13.22	ft²	
Fins per inch	12	Face velocity	408	ft/min	
Refrigerant	R410A	Entering air (DB)	80	°F	
Capacity (Total)	190397 Btu/h	Entering air (WB)	67	°F	
Capacity (Sensible)	134438 Btu/h	Leaving air (DB)	56.8	°F	
Air pressure drop	0.3 inH2O	Leaving air (WB)	55.4	°F	
COMPRESSOR (OR EQUIVALENT MODELS)					
Compressor			ZP182		
Type	Scroll, Fixed Speed	Quantity	1		
Total LRA	340.0 A	Total Power	15.7	kW	
		Total Amps	51	A	
FAN (EVAPORATOR)					
Type	Belt Driven	Model			
Air Flow	5400 CFM	Fan Speed	1S/1S		
External Static Pressure	0.5 inH2O	Absorbed Power	772	RPM	
Total Static Pressure	1.2 inH2O	Motor Horsepower	1.6	kW	
Quantity	1	FLA	3	HP	
		Locked rotor current (LRA)	10.3	A	
CONDENSER (AIR COOLED)			64	A	
Model	Ø3/8	Motor HP (each)			
Quantity	1	FLA (each)	1	HP	
Condenser Fan Motor	26" (660MM)	Ambient Temperature	2.9	A	
Quantity	2		95	°F	
ELECTRICAL SUMMARY					
Unit FLA	67.1 A	MCA	79.9	A	
Total Power Input	18.89 kW	MFS	150	A	
EER	10.08	IEER	n/a		

OPTIONS

DESCRIPTION
SV: Suction/Discharge/Liquid Line Service Valves
CU-C: Condenser Coil Fin Materials - Copper
CG: Condenser Coil Guard
DOL2: IEC DOL (Non UL)
MII: Door Interlock Main Incoming Isolator
PFR: UVR/Phase Failure Protect
IR33: Controller - IR33

NOTES

Manufacturer reserves the right to change specifications without prior notice.

TECHNICAL REPORT

Project name	OOG condensers				
Submitted by	Leo				
Customer	JWS			Date	11/22/2021
OVERVIEW				Quantity	1
System Type	Air-Cooled Split		Refrigerant		R410A
Series	ACCS		Power supply		460V/3/60HZ
Unit nomenclature	6ACCS290-QG + 6EB290D-QG				
Altitude	0	ft	Approval		
FILTER					
Type	Filter 1" 70% Eff				
Size (Qty)	25x16x1(3), 25x20x1(3)				
DX COOLING COIL					
Type	Ø3/8		Number of coil		1
Rows	3		Face area		16.53 ft²
Fins per inch	12		Face velocity		454 ft/min
Refrigerant	R410A		Entering air (DB)		80 °F
Capacity (Total)	253522	Btu/h	Entering air (WB)		67 °F
Capacity (Sensible)	181867	Btu/h	Leaving air (DB)		57.4 °F
Air pressure drop	0.4	inH2O	Leaving air (WB)		55.9 °F
COMPRESSOR (OR EQUIVALENT MODELS)					
Compressor Type	Scroll, Fixed Speed		Quantity		2 X ZP122
Total LRA	280.0	A	Total Power		2
			Total Amps		22.5 kW
					34.3 A
FAN (EVAPORATOR)					
Type	Belt Driven		Model		18/13
Air Flow	7500	CFM	Fan Speed		693 RPM
External Static Pressure	0.5	inH2O	Absorbed Power		2.9 kW
Total Static Pressure	1.3	inH2O	Motor Horsepower		5.5 HP
Quantity	1		FLA		8.2 A
			Locked rotor current (LRA)		50.5 A
CONDENSER (AIR COOLED)					
Model	Ø3/8		Motor HP (each)		1 HP
Quantity	1		FLA (each)		1.6 A
Condenser Fan Motor	26" (660MM)		Ambient Temperature		95 °F
Quantity	2				
ELECTRICAL SUMMARY					
Unit FLA	45.7	A	MCA		50 A
Total Power Input	27.04	kW	MFS		70 A
EER	9.38		IEER		n/a

OPTIONS

DESCRIPTION

- SV: Suction/Discharge/Liquid Line Service Valves
- CU-C: Condenser Coil Fin Materials - Copper
- CG: Condenser Coil Guard
- DOL2: IEC DOL (Non UL)
- MII: Door Interlock Main Incoming Isolator
- PFR: UVR/Phase Failure Protect
- IR33: Controller - IR33

NOTES

Manufacturer reserves the right to change specifications without prior notice.

TECHNICAL REPORT

Project name	OOG condensers				
Submitted by	Leo				
Customer	JWS			Date	11/22/2021
OVERVIEW				Quantity	1
System Type	Air-Cooled Split	Refrigerant		R410A	
Series	ACCS	Power supply		460V/3/60HZ	
Unit nomenclature	6ACCS435-QG + 6EB435D-QG				
Altitude	0 ft	Approval			
FILTER					
Type	Filter 1" 70% Eff				
Size (Qty)	20x25x1(3), 25x25x1(3)				
DX COOLING COIL					
Type	Ø3/8	Number of coil		1	
Rows	3	Face area		21.39	ft²
Fins per inch	13	Face velocity		538	ft/min
Refrigerant	R410A	Entering air (DB)		80	°F
Capacity (Total)	377724 Btu/h	Entering air (WB)		67	°F
Capacity (Sensible)	274677 Btu/h	Leaving air (DB)		57.7	°F
Air pressure drop	0.5 inH2O	Leaving air (WB)		56.3	°F
COMPRESSOR (OR EQUIVALENT MODELS)					
Compressor					
Type	Scroll, Fixed Speed	Quantity		2 X ZP182	
Total LRA	358.0 A	Total Power		2	
		Total Amps		31.2	kW
FAN (EVAPORATOR)				50.6	A
Type	Belt Driven	Model			
Air Flow	11500 CFM	Fan Speed		450	
External Static Pressure	0.5 inH2O	Absorbed Power		763	RPM
Total Static Pressure	1.4 inH2O	Motor Horsepower		5.4	kW
Quantity	1	FLA		10	HP
		Locked rotor current (LRA)		14.4	A
CONDENSER (AIR COOLED)				85.7	A
Model	Ø3/8	Motor HP (each)			
Quantity	1	FLA (each)		1	HP
Condenser Fan Motor	26" (660MM)	Ambient Temperature		1.6	A
Quantity	3			95	°F
ELECTRICAL SUMMARY					
Unit FLA	69.8 A	MCA			
Total Power Input	39.02 kW	MFS		76.1	A
EER	9.68	IEER		125	A
OPTIONS				n/a	
DESCRIPTION					
SV: Suction/Discharge/Liquid Line Service Valves					
CU-C: Condenser Coil Fin Materials - Copper					
CG: Condenser Coil Guard					
DOL2: IEC DOL (Non UL)					
MII: Door Interlock Main Incoming Isolator					
PFR: UVR/Phase Failure Protect					
IR33: Controller - IR33					
NOTES					
Manufacturer reserves the right to change specifications without prior notice.					

TECHNICAL REPORT

Project name	OOG condensers				
Submitted by	Leo				
Customer	JWS			Date	11/22/2021
OVERVIEW				Quantity	1
System Type	Air-Cooled Split	Refrigerant		R410A	
Series	ACCS	Power supply		208V/3/60HZ	
Unit nomenclature	6ACCS290-QG + 6EB290D-QG				
Altitude	0 ft	Approval			
FILTER					
Type	Filter 1" 70% Eff				
Size (Qty)	25x16x1(3), 25x20x1(3)				
DX COOLING COIL					
Type	Ø3/8	Number of coil		1	
Rows	3	Face area		16.53	ft²
Fins per inch	12	Face velocity		454	ft/min
Refrigerant	R410A	Entering air (DB)		80	°F
Capacity (Total)	249769 Btu/h	Entering air (WB)		67	°F
Capacity (Sensible)	180502 Btu/h	Leaving air (DB)		57.6	°F
Air pressure drop	0.4 inH2O	Leaving air (WB)		56.1	°F
COMPRESSOR (OR EQUIVALENT MODELS)					
Compressor Type	Scroll, Fixed Speed	Quantity		2 X ZP122	
Total LRA	480.0 A	Total Power		2	
		Total Amps		22.9	kW
FAN (EVAPORATOR)				63.7	A
Type	Belt Driven	Model			
Air Flow	7500 CFM	Fan Speed		18/13	
External Static Pressure	0.5 inH2O	Absorbed Power		693	RPM
Total Static Pressure	1.3 inH2O	Motor Horsepower		2.9	kW
Quantity	1	FLA		5.5	HP
		Locked rotor current (LRA)		18.1	A
CONDENSER (AIR COOLED)				112	A
Model	Ø3/8	Motor HP (each)			
Quantity	1	FLA (each)		1	HP
Condenser Fan Motor	26" (660MM)	Ambient Temperature		2.9	A
Quantity	2			95	°F
ELECTRICAL SUMMARY					
Unit FLA	87.6 A	MCA			
Total Power Input	27.3 kW	MFS		95.5	A
EER	9.15	IEER		150	A
OPTIONS				n/a	

DESCRIPTION

SV: Suction/Discharge/Liquid Line Service Valves
CU-C: Condenser Coil Fin Materials - Copper
SSD: Stainless Steel Drain Pan
CG: Condenser Coil Guard
DOL2: IEC DOL (Non UL)
MII: Door Interlock Main Incoming Isolator
PFR: UVR/Phase Failure Protect
IR33: Controller - IR33

NOTES

Manufacturer reserves the right to change specifications without prior notice.

TECHNICAL REPORT

Project name	OOG condensers				
Submitted by	Leo				
Customer	JWS			Date	11/22/2021
OVERVIEW				Quantity	1
System Type	Air-Cooled Split		Refrigerant		R410A
Series	ACCS		Power supply		208V/3/60HZ
Unit nomenclature	6ACCS435-QG + 6EB435D-QG				
Altitude	0 ft		Approval		
FILTER					
Type	Filter 1" 70% Eff				
Size (Qty)	20x25x1(3), 25x25x1(3)				
DX COOLING COIL					
Type	Ø3/8		Number of coil		1
Rows	3		Face area		21.39 ft²
Fins per inch	13		Face velocity		538 ft/min
Refrigerant	R410A		Entering air (DB)		80 °F
Capacity (Total)	376700 Btu/h		Entering air (WB)		67 °F
Capacity (Sensible)	273995 Btu/h		Leaving air (DB)		57.7 °F
Air pressure drop	0.5 inH2O		Leaving air (WB)		56.3 °F
COMPRESSOR (OR EQUIVALENT MODELS)					
Compressor					2 X ZP182
Type	Scroll, Fixed Speed		Quantity		2
Total LRA	680.0 A		Total Power		32.1 kW
			Total Amps		103.6 A
FAN (EVAPORATOR)					
Type	Belt Driven		Model		450
Air Flow	11500 CFM		Fan Speed		762 RPM
External Static Pressure	0.5 inH2O		Absorbed Power		5.4 kW
Total Static Pressure	1.4 inH2O		Motor Horsepower		10 HP
Quantity	1		FLA		31.8 A
CONDENSER (AIR COOLED)			Locked rotor current (LRA)		190.1 A
Model	Ø3/8		Motor HP (each)		1 HP
Quantity	1		FLA (each)		2.9 A
Condenser Fan Motor	26" (660MM)		Ambient Temperature		95 °F
Quantity	3				
ELECTRICAL SUMMARY					
Unit FLA	144.1 A		MCA		157 A
Total Power Input	39.8 kW		MFS		225 A
EER	9.47		IEER		n/a

OPTIONS

DESCRIPTION

SV: Suction/Discharge/Liquid Line Service Valves
CU-C: Condenser Coil Fin Materials - Copper
CG: Condenser Coil Guard
DOL2: IEC DOL (Non UL)
MII: Door Interlock Main Incoming Isolator
PFR: UVR/Phase Failure Protect
IR33: Controller - IR33

NOTES

Manufacturer reserves the right to change specifications without prior notice.

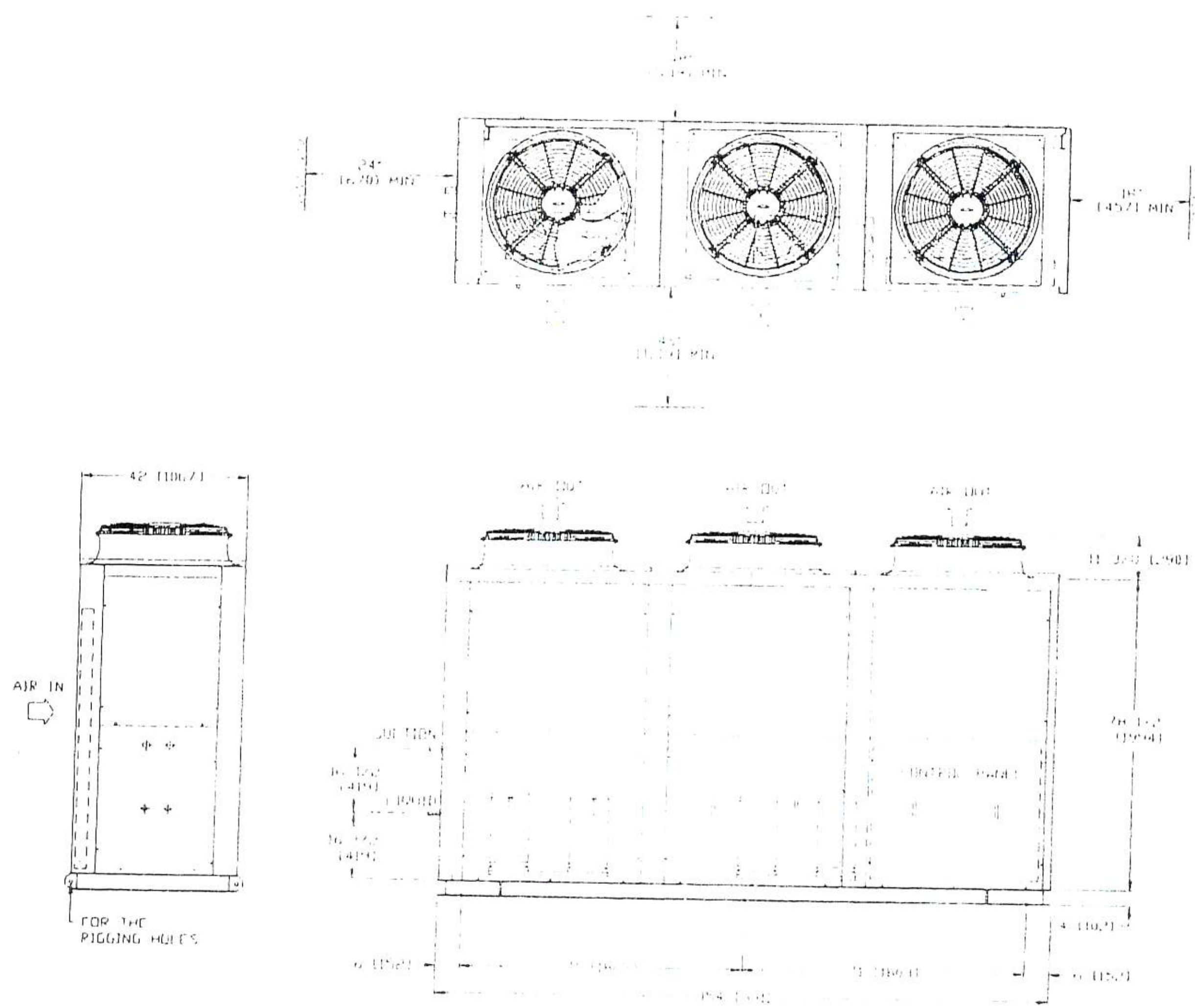
TECHNICAL REPORT

Project name	OOG condensers				
Submitted by	Leo				
Customer	JWS			Date	11/22/2021
OVERVIEW				Quantity	1
System Type	Air-Cooled Split	Refrigerant		R410A	
Series	ACCS	Power supply		208V/3/60HZ	
Unit nomenclature	6ACCS570-QG + 6EB570D-QG				
Altitude	0 ft	Approval			
FILTER					
Type	Filter 1" 70% Eff				
Size (Qty)	20x25x1(9)				
DX COOLING COIL					
Type	Ø3/8	Number of coil		1	
Rows	3	Face area		29.17	ft²
Fins per inch	12	Face velocity		514	ft/min
Refrigerant	R410A	Entering air (DB)		80	°F
Capacity (Total)	497149 Btu/h	Entering air (WB)		67	°F
Capacity (Sensible)	357934 Btu/h	Leaving air (DB)		57.7	°F
Air pressure drop	0.5 inH2O	Leaving air (WB)		56.3	°F
COMPRESSOR (OR EQUIVALENT MODELS)					
Compressor					
Type	Scroll, Fixed Speed	Quantity		2 X ZP154 + ZP182	
Total LRA	2x300 1x340 A	Total Power		3	
		Total Amps		44.2	kW
FAN (EVAPORATOR)				137.4	A
Type	Belt Driven	Model			
Air Flow	15000 CFM	Fan Speed		500	
External Static Pressure	0.5 inH2O	Absorbed Power		727	RPM
Total Static Pressure	1.4 inH2O	Motor Horsepower		7.2	kW
Quantity	1	FLA		15	HP
		Locked rotor current (LRA)		44.2	A
CONDENSER (AIR COOLED)				286.1	A
Model	Ø3/8	Motor HP (each)			
Quantity	1	FLA (each)		1	HP
Condenser Fan Motor	26" (660MM)	Ambient Temperature		2.9	A
Quantity	4			95	°F
ELECTRICAL SUMMARY					
Unit FLA	193.2 A	MCA			
Total Power Input	54.42 kW	MFS		206.2	A
EER	9.14	IEER		300	A
OPTIONS				n/a	
DESCRIPTION					
SV: Suction/Discharge/Liquid Line Service Valves					
CU-C: Condenser Coil Fin Materials - Copper					
CG: Condenser Coil Guard					
DOL2: IEC DOL (Non UL)					
MII: Door Interlock Main Incoming Isolator					
PFR: UVR/Phase Failure Protect					
IR33: Controller - IR33					
NOTES					
Manufacturer reserves the right to change specifications without prior notice.					

TECHNICAL REPORT

Project name	OOG condensers				
Submitted by	Leo				
Customer	JWS			Date	11/22/2021
OVERVIEW				Quantity	1
System Type	Air-Cooled Split		Refrigerant		R410A
Series	ACCS		Power supply		208V/3/60HZ
Unit nomenclature	6ACCS700-QG + 6EB700D-QG				
Altitude	0 ft		Approval		
FILTER					
Type	Filter 1" 70% Eff				
Size (Qty)	20x25x1(3), 25x25x1(6)				
DX COOLING COIL					
Type	Ø1/2		Number of coil	1	
Rows	4		Face area	34.03	ft²
Fins per inch	10		Face velocity	505	ft/min
Refrigerant	R410A		Entering air (DB)	80	°F
Capacity (Total)	639094	Btu/h	Entering air (WB)	67	°F
Capacity (Sensible)	441872	Btu/h	Leaving air (DB)	56.1	°F
Air pressure drop	0.6	inH2O	Leaving air (WB)	54.7	°F
COMPRESSOR (OR EQUIVALENT MODELS)					
Compressor					
Type	Scroll, Fixed Speed		Quantity	2 X ZP154 TDM	
Total LRA	1200.0 A		Total Power	4	
			Total Amps	51.8	kW
FAN (EVAPORATOR)				161.3	A
Type	Belt Driven		Model		
Air Flow	17200	CFM	Fan Speed	560	
External Static Pressure	0.5	inH2O	Absorbed Power	630	RPM
Total Static Pressure	1.5	inH2O	Motor Horsepower	7.2	kW
Quantity	1		FLA	15	HP
			Locked rotor current (LRA)	44.2	A
CONDENSER (AIR COOLED)				286.1	A
Model	Ø3/8		Motor HP (each)		
Quantity	1		FLA (each)	2 2/3	HP
Condenser Fan Motor	800MM		Ambient Temperature	7.5	A
Quantity	3			95	°F
ELECTRICAL SUMMARY					
Unit FLA	228 A		MCA		
Total Power Input	65.26 kW		MFS	238.1	A
EER	9.79		IEER	300	A
OPTIONS				n/a	
DESCRIPTION					
SV: Suction/Discharge/Liquid Line Service Valves					
CU-C: Condenser Coil Fin Materials - Copper					
CG: Condenser Coil Guard					
DOL2: IEC DOL (Non UL)					
MII: Door Interlock Main Incoming Isolator					
PFR: UVR/Phase Failure Protect					
IR33: Controller - IR33					
NOTES					
Manufacturer reserves the right to change specifications without prior notice.					

DRAWING ACCS700



IGI/ENG/CD/02 REV 7 11/15

CERTIFIED DRAWING

COMP	ZR 160 TDM(2) (R407C)
	ZP 154 TDM(2) (R410A)
COIL SIZE	ø 3/8×4R×68TH×144FL×12FPI (SLIT)
COND CIR	4 1/C (28+28) IN/OUT
SUBCOOL CIR	4 1/C 6 IN/OUT×(2)
SUCTION ø	1 5/8×(2)
LIQUID ø	7/8×(2)
COND FAN MTR	2 2/3 HP×(3)
FAN ø	805MM×(3)

CONDENSER WITH SLIT FINS
DOUBLE DOOR CONTROL PANEL
ALL DIMENSIONS ARE IN INCHES (MM)

DRAWN BY	ALVYN	DATE	21-09-2012
DESIGNED BY	JOSEPHW	DATE	20/12/2017
CHECKED BY		DATE	
APPROVED BY		DATE	

REV	DESCRIPTION	DATE	DRN BY
1.2	UPDATE R410A DATA	20.12.17	JOSEPH
1.1	CHANGE CONDENSER FAN TYPE REVISE DRAWING	13.10.14	CHR

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LOCATION.
QTY.
MODEL 6ACCS 700-P/G
PROJECT STANDARD
TITLE
A/C CONDENSING UNIT

DRAWING NO 32449A-019 REV 1.2
SCALE : N.T.S SHEET 1 OF 1

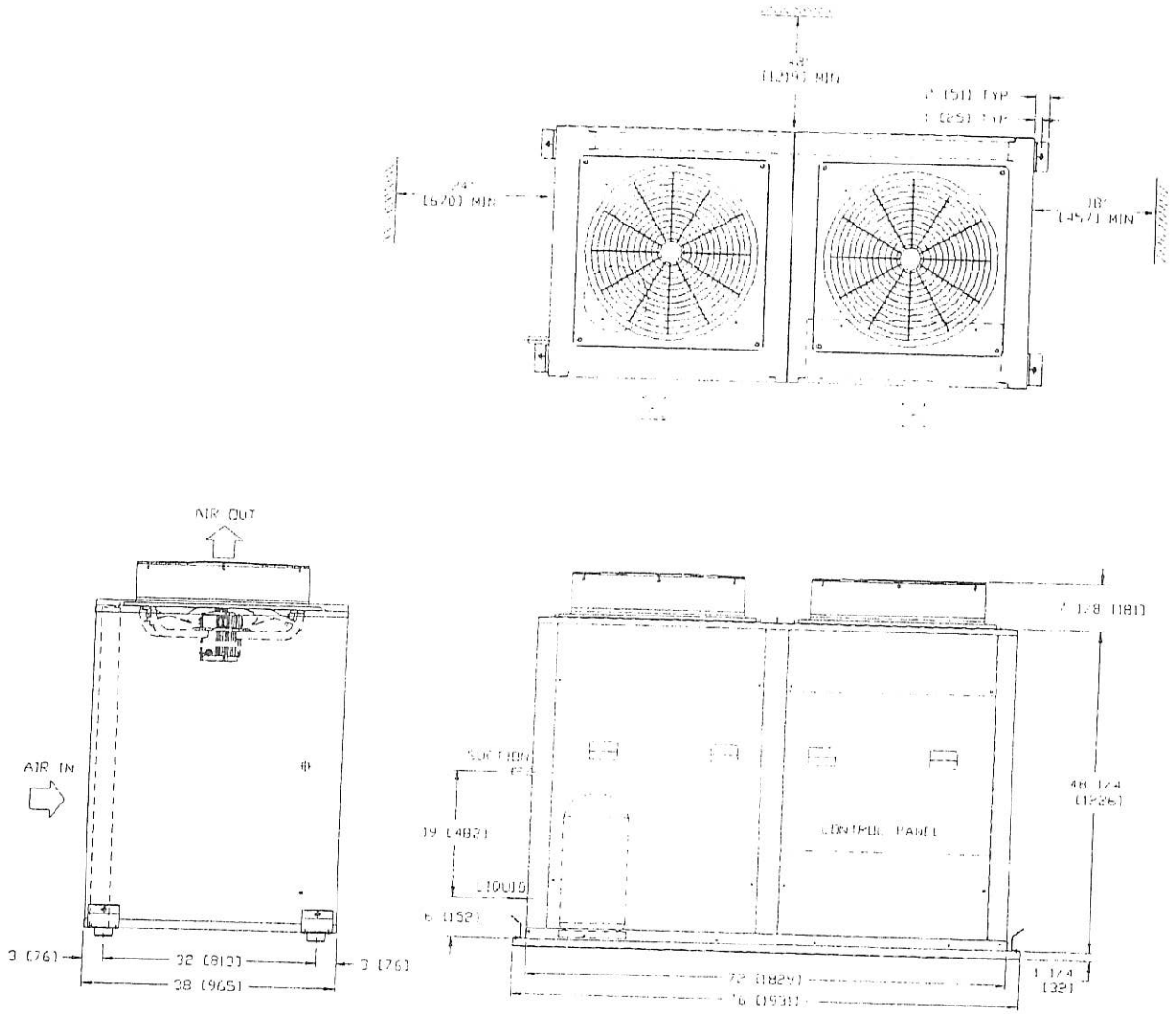
Exhibit L

TG1/ENG/CD/02 REV 7 11/15

CERTIFIED DRAWING

COMP	: ZR190 (407C) / ZP182 (410A)
COIL SIZE	: ø 3/8x3Rx48THx62FLx10FPI (SLIT)
COND. CIR.	: 6 1/C, 22 IN/OUT
SUBCOOL CIR.	: 2 1/C, 6 IN/OUT
SUCTION ø	: 1 3/8x(1)
LIQUID ø	: 5/8x(1)
COND. FAN MTR	: 1 HPx(2)
FAN ø	: 660MM. x(2)

CONDENSER WITH SLIT FINS
DOUBLE DOOR CONTROL PANEL
ALL DIMENSIONS ARE IN INCHES (MM)



DRAWN BY	ALYN	DATE	19-09-2012
DESIGNED BY	JOSEPHV	DATE	20/12/2017
CHECKED BY		DATE	
APPROVED BY		DATE	

REV	DESCRIPTION	DATE	DRN BY
1.3	UPDATE R410A DATA	20.12.17	JOSEPH
1.2	UPDATE TEXT	15.3.17	N'din
1.1	CHANGE FAN TYPE	6.2.17	N'din

DUNHAM-BUSH INDUSTRIES SDN. BHD

LOCATION.

QTY.

MODEL 6ACCS 220-P/C

PROJECT STANDARD

TITLE

A/C CONDENSING UNIT

DRAWING NO 82449A-009 REV: 1.3

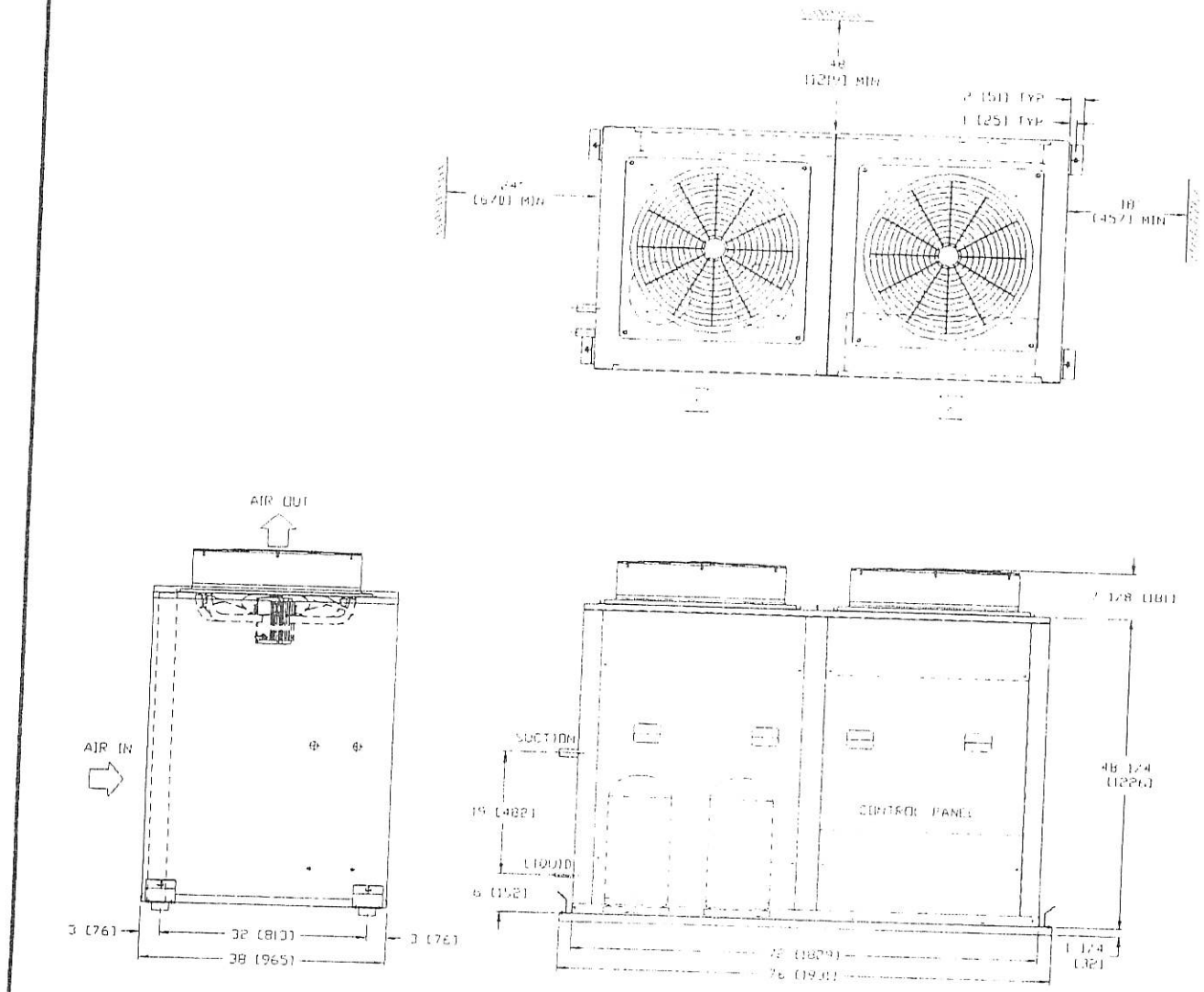
SCALE : N.T.S SHEET 1 OF 1

TG1/ENG/CD/02 REV. 7 11/15

CERTIFIED DRAWING

COMP.	: ZR 125(2) (R407C) / ZP 122(2) (R410A)
COIL SIZE	: ø 3/8x4Rx481Hx62FLx10FPI (SLIT)
COND. CIR.	: 8 T/C, 11 IN/OUTx(2)
SUBCOOL CIR	: 2 T/C, 4 IN/OUTx(2)
SUCTION ø	: 1 3/8x(2)
LIQUID ø	: 1/2x(2)
COND. FAN MTR	: 1 HPx(2)
FAN ø	: 660MM. x(2)

CONDENSER WITH SLIT FINS
DOUBLE DOOR CONTROL PANEL
ALL DIMENSIONS ARE IN INCHES (MM)



DRAWN BY	ALYN	DATE	20-09-2012
DESIGNED BY	JOSEPHW	DATE	20/12/2017
CHECKED BY		DATE	
APPROVED BY		DATE	

REV	DESCRIPTION	DATE	DRN BY
1.3	UPDATE R410A DATA	20.12.17	JOSEPH
1.2	UPDATE TEXT	15.3.13	N'din
1.1	CHANGE FAN TYPE	6.2.13	N'din

DB DUNHAM-BUSH INDUSTRIES SDN. BHD

LOCATION.

QTY.

MODEL ACCS 290-P/G

PROJECT STANDARD

TITLE

A/C CONDENSING UNIT

DRAWING NO 82449A-011 REV. 1.3

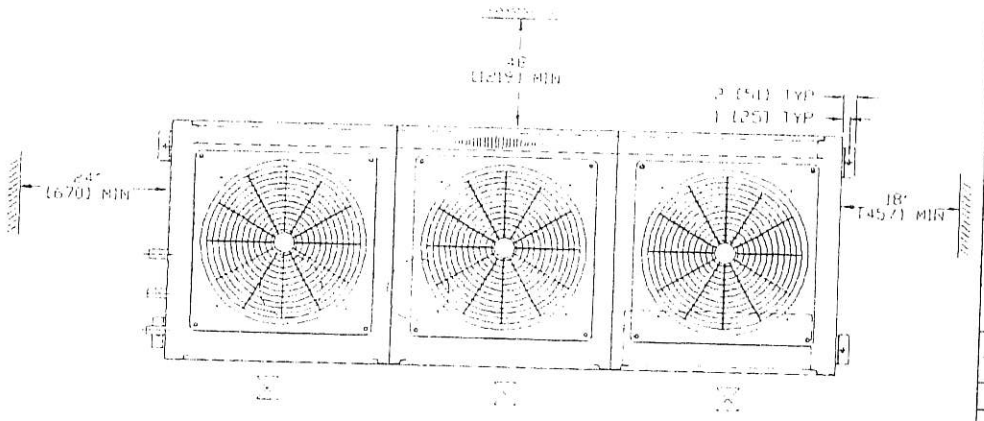
SCALE N.T.S SHEET 1 OF 1

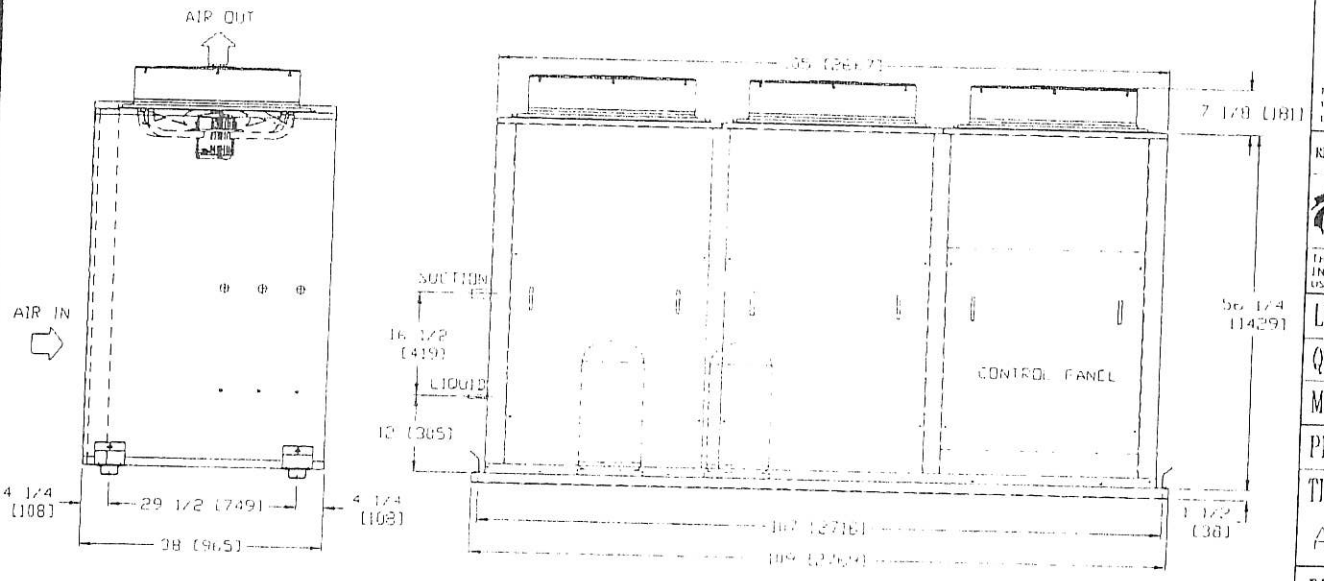
TG1/ENG/CD/02 REV. 7 11/15

CERTIFIED DRAWING

COMP	: ZR 190(2) (R407C) / ZP 182(2) (R410A)
COIL SIZE	: Ø 3/8x4Rx561Hx960FLx12FPI (SLIT)
COND. CIR	: 4 1/C, (25+26) IN/OUT
SUBCOOL CIR.	: 2 1/C, (5+5) IN/OUT
SUCTION Ø	: 1 3/8x(2)
LIQUID Ø	: 5/8x(2)
COND. FAN MTR	: 1 HPx(3)
FAN Ø	: 660MM. x(3)

CONDENSER WITH SLIT FINS
DOUBLE DOOR CONTROL PANEL
ALL DIMENSIONS ARE IN INCHES [MM]





DRAWN BY	ALYN	DATE	21-09-2018
DESIGNED BY	JOSEPHW	DATE	20/12/2017
CHECKED BY		DATE	
APPROVED BY		DATE	

REV	DESCRIPTION	DATE	DRN BY
1.3	UPDATE R410A DATA	28.12.17	JOSEPH
1.2	UPDATE TEXT	15.3.17	N'din
1.1	CHANGE FAN TYPE	6.2.17	N'din

DUNHAM-BUSH INDUSTRIES SDN. BHD

LOCATION.

QTY.

MODEL 6ACCS 435-P/G

PROJECT STANDARD

TITLE

A/C CONDENSING UNIT

DRAWING NO 82449A-014 REV: 1.3

SCALE : N.T.S SHEET 1 OF 1

TGI/ENG/CD/02 REV 7 11/15

CERTIFIED DRAWING

COMP.	: ZR 125(2) (R407C) / ZP 122(2) (R410A)
COIL SIZE	: Ø 3/8x4Rx48THx62FLx10FPI (SLIT)
COND. CIR.	: 8 1/C, 11 IN/OUTx(2)
SUBCOOL CIR	: 2 1/C, 4 IN/OUTx(2)
SUCTION ø	: 1 3/8x(2)
LIQUID ø	: 1/2x(2)
COND. FAN MTR	: 1 HPx(2)
FAN ø	: 660MM. x(2)

CONDENSER WITH SLIT FINS
DOUBLE DOOR CONTROL PANEL
ALL DIMENSIONS ARE IN INCHES [MM]

DRAWN BY	ALYN	DATE	20-09-2012
DESIGNED BY	JOSEPHW	DATE	20/12/2017
CHECKED BY		DATE	
APPROVED BY		DATE	

REV	DESCRIPTION	DATE	DRN BY
1.3	UPDATE R410A DATA	20.12.17	JOSEPH
1.2	UPDATE TEXT	15.3.17	N'din
1.1	CHANGE FAN TYPE	6.2.17	N'din

DUNHAM-BUSH INDUSTRIES SDN. BH@

LOCATION.

QTY.

MODEL ACCS 290-P/G

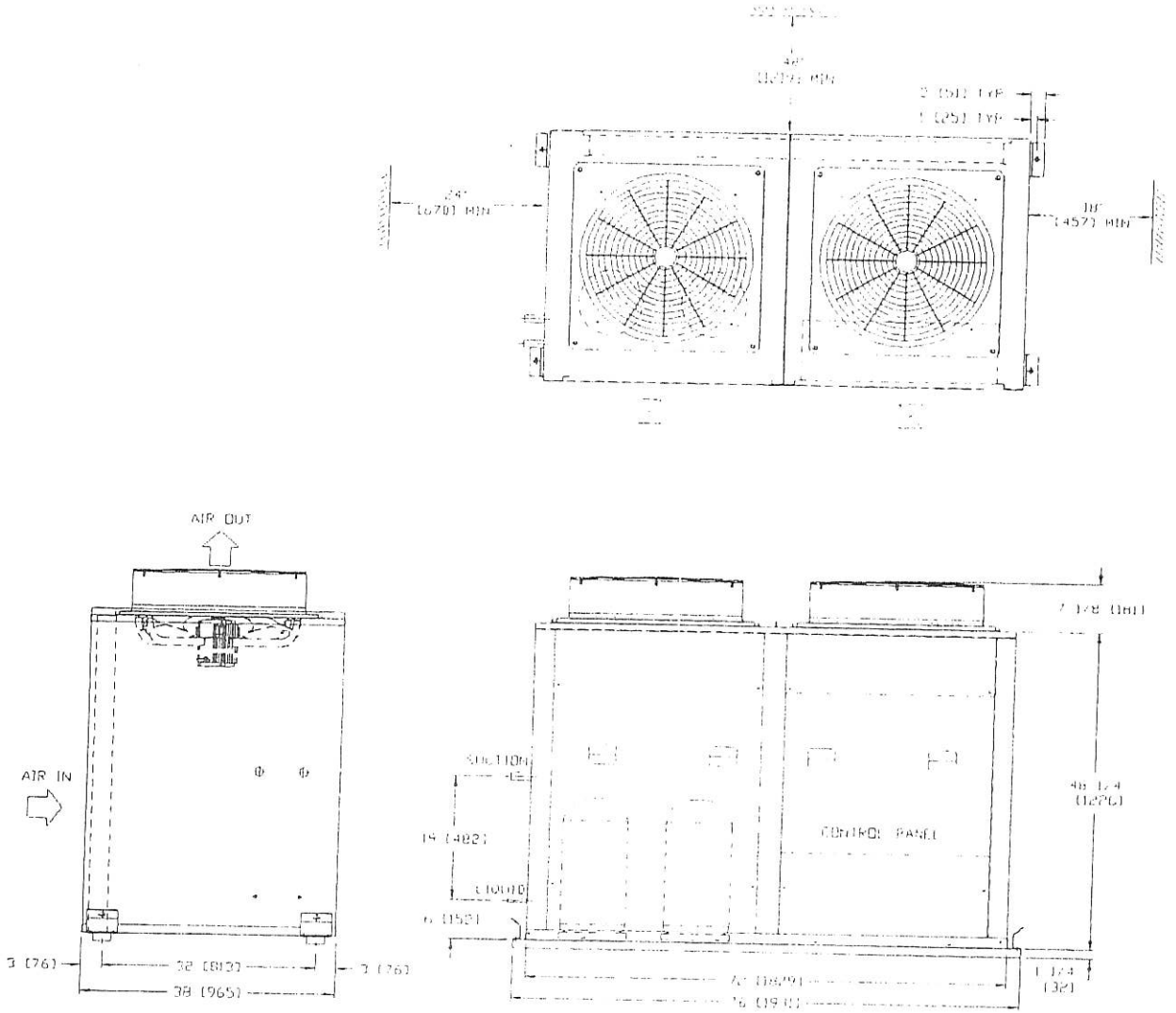
PROJECT STANDARD

TITLE

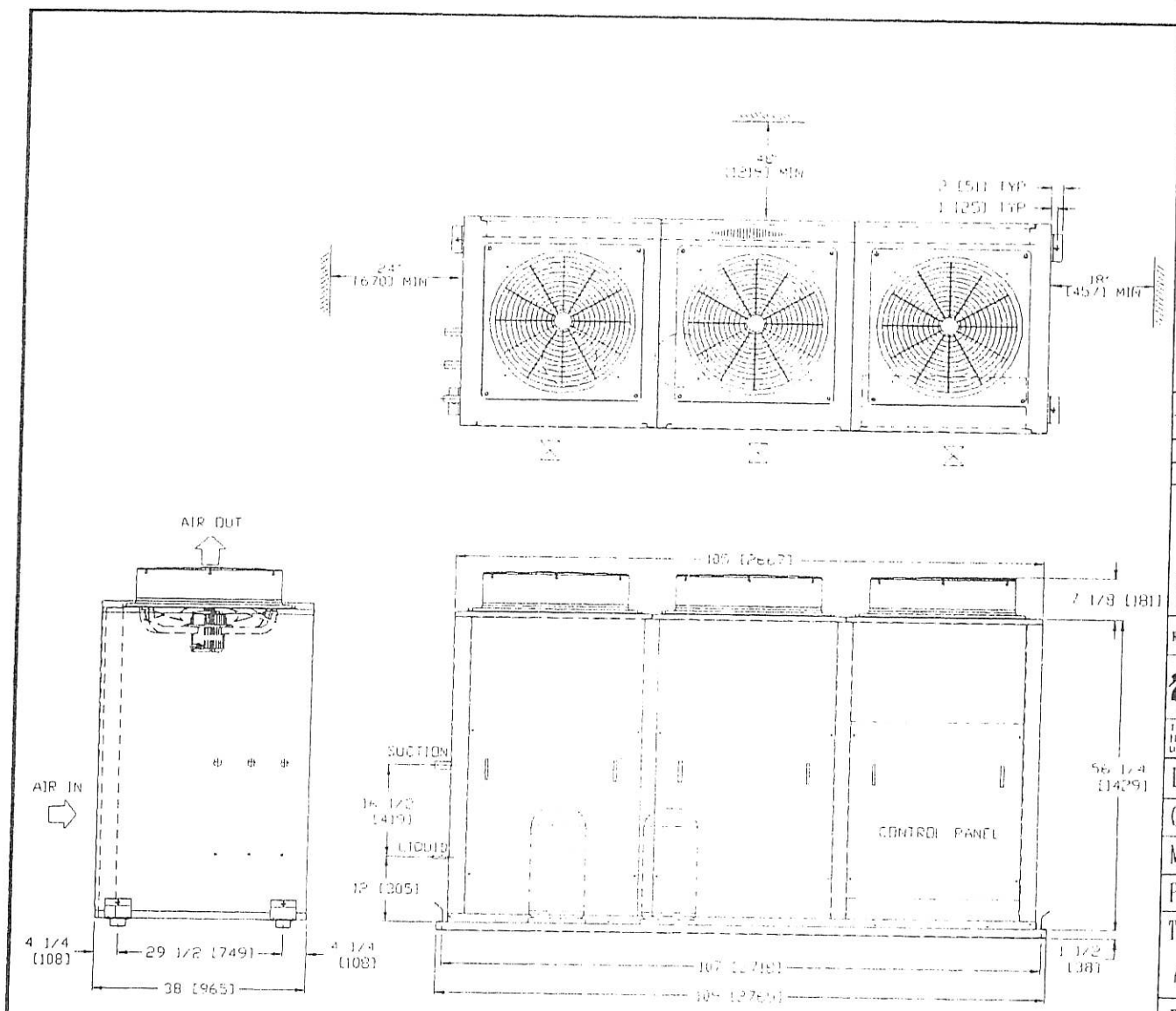
A/C CONDENSING UNIT

DRAWING NO 82449A-011 REV: 1.3

SCALE : N.T.S SHEET 1 OF 1



TGI/ENG/CD/02 REV 7 11/15



CERTIFIED DRAWING

COMP	ZR 190(2) (R407C) / ZP 182(2) (R410A)
COIL SIZE	ø 5/8x4Rx56THx96FLx12FPI (SLIT)
COND. CIR	: 4 1/C, (25+26) IN/OUT
SUBCOOL CIR.	: 2 1/C, (5+5) IN/OUT
SUCTION ø	: 1 3/8x(2)
LIQUID ø	: 5/8x(2)
COND. FAN MTR	: 1 HPx(3)
FAN ø	: 660MM. x(3)

CONDENSER WITH SLIT FINS
DOUBLE DOOR CONTROL PANEL
ALL DIMENSIONS ARE IN INCHES [MM]

DRAWN BY	ALVIN	DATE	21-09-2012
DESIGNED BY	JOSEPHW	DATE	20/12/2017
CHECKED BY		DATE	
APPROVED BY		DATE	

REV	DESCRIPTION	DATE	DRN BY
1.3	UPDATE R410A DATA	20.12.17	JOSEPH
1.2	UPDATE TEXT	15.3.17	N'din
1.1	CHANGE FAN TYPE	8.2.17	N'din

DB DUNHAM-BUSH INDUSTRIES SDN. BHD

LOCATION.

QTY.

MODEL BACCS 435-P/G

PROJECT STANDARD

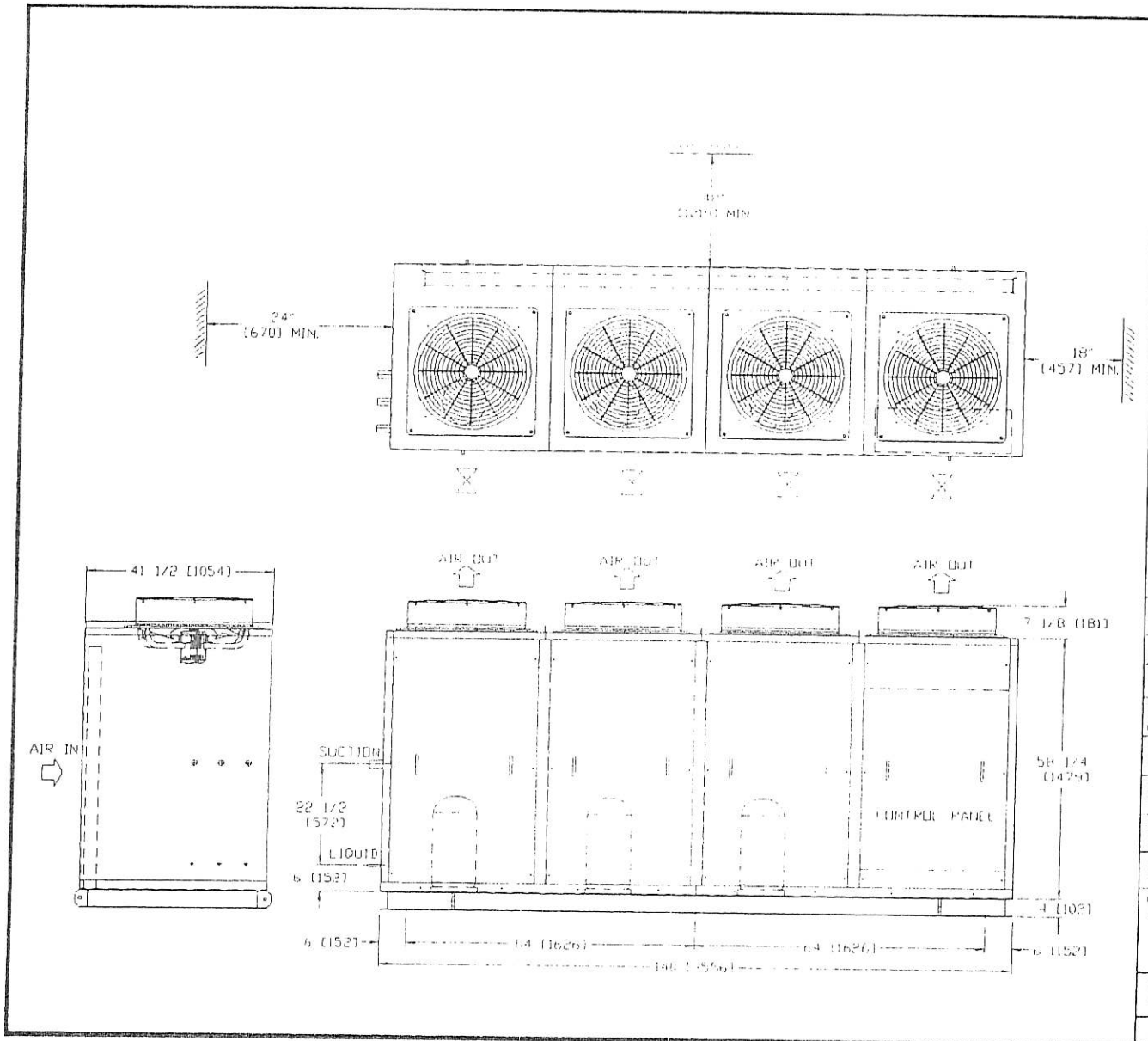
TITLE

A/C CONDENSING UNIT

DRAWING NO 82449A-014 REV: 1.3

SCALE : N. T. S SHEET 1 OF 1

TGI/ENG/CD/02 REV. 7 11/15



CERTIFIED DRAWING

COMP	: ZR190(1) + ZR160(2) (R407C) / ZP182(1) + ZP154(2) (R410A)
COIL SIZE	: ø 3/8"x4Rx54THx130FLx10FPI (SLIT)
COND. CIR.	: 4 T/C, 16 IN/OUTx(3)
SUBCOOL CIR.	: 2 T/C, 4 IN/OUTx(3)
SUCTION ø	: 1 3/8"x(3)
LIQUID ø	: 5/8"x(3)
COND. FAN MTR	: 1 HPx(4)
FAN ø	: 660MM x(4)

CONDENSER WITH SLIT FINS
DOUBLE DOOR CONTROL PANEL
ALL DIMENSIONS ARE IN INCHES (MM)

DRAWN BY	ALYN	DATE	21-09-2012
DESIGNED BY	JOSEPHW	DATE	20/12/2017
CHECKED BY		DATE	
APPROVED BY		DATE	

REV	DESCRIPTION	DATE	DRN BY
1.3	UPDATE R410A DATA	20.12.17	JOSEPH
1.2	UPDATE TEXT	15.3.17	N'din
1.1	CHANGE FAN TYPE	6.2.17	N'din

DUNHAM-BUSH INDUSTRIES SDN. BHD

LOCATION.

QTY.

MODEL 6ACCS 570-P/G

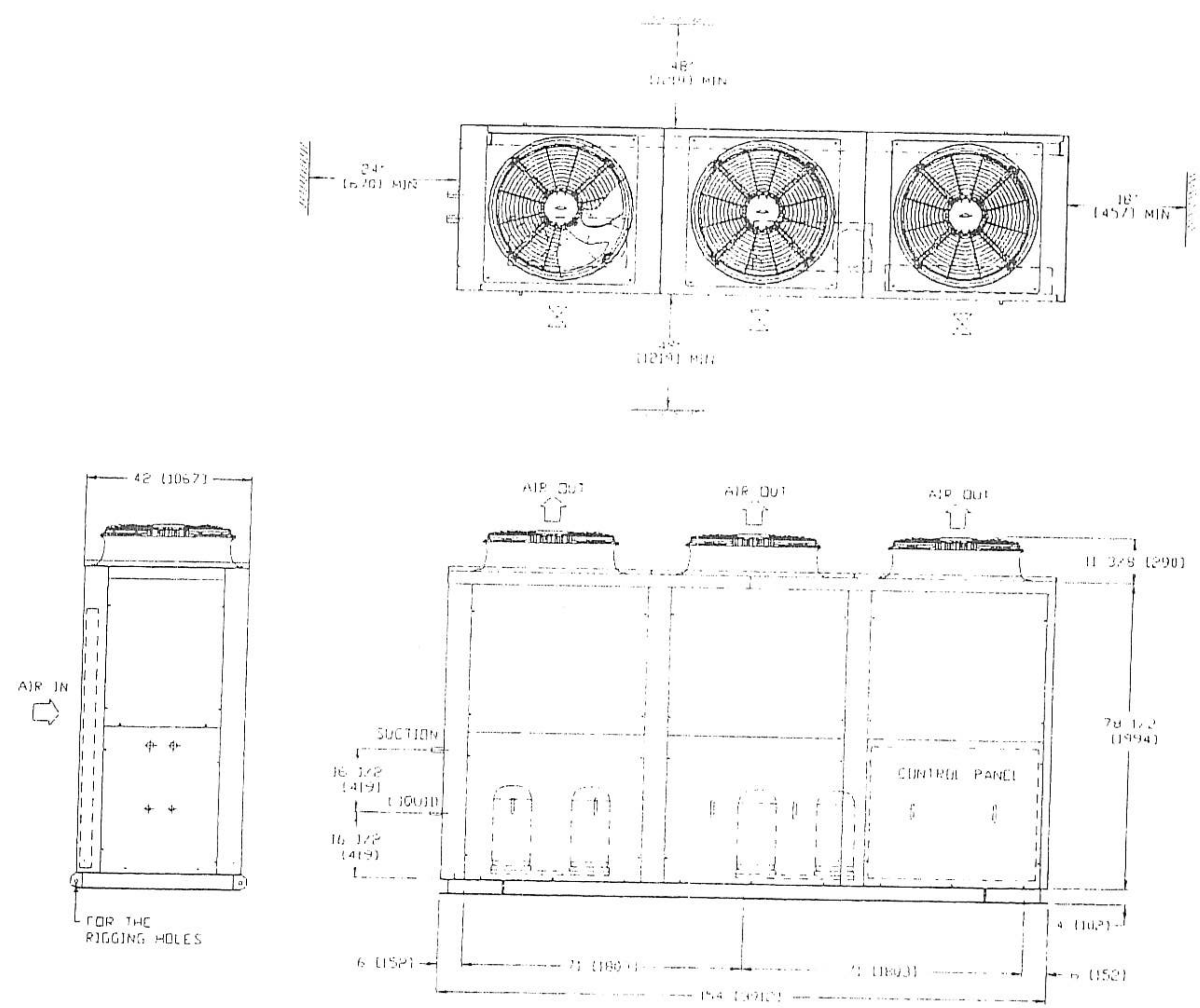
PROJECT STANDARD

TITLE

A/C CONDENSING UNIT

DRAWING NO 82449A-017 REV: 1.3

SCALE : N.T.S SHEET 1 OF 1



TGI/ENG/CD/02 REV 7 11/15

CERTIFIED DRAWING

COMP.	: ZR 160 TDM(2) (R407C) ZP 154 TDM(2) (R410A)
COIL SIZE	: ø 3/8x4Rx68THx144FLx12FPI (SLIT)
COND. CIR	: 4 T/C. (28+28) IN/OUT
SUBCOOL CIR.	: 4 T/C. 6 IN/OUTx(2)
SUCTION ø	: 1 5/8x(2)
LIQUID ø	: 7/8x(2)
COND. FAN MTR	: 2 2/3 HPx(3)
FAN ø	: 805MMx(3)

CONDENSER WITH SLIT FINS
DOUBLE DOOR CONTROL PANEL
ALL DIMENSIONS ARE IN INCHES (MM)

DRAWN BY	ALYN	DATE	21-09-2012
DESIGNED BY	JOSEPHW	DATE	20/12/2017
CHECKED BY		DATE	
APPROVED BY		DATE	

REV	DESCRIPTION	DATE	DRN BY
1.2	UPDATE R410A DATA	20.12.17	JOSEPH
1.1	CHANGE CONDENSER FAN TYPE REVISE DRAWING	13.10.14	CHR

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LOCATION.

QTY.

MODEL 6ACCS 700-P/G

PROJECT STANDARD

TITLE

A/C CONDENSING UNIT

DRAWING NO 82449A-019 REV: 1.2

SCALE : N.T.S SHEET 1 OF 1

EXHIBIT 1-L

Dunham-Bush Industries Sdn Bhd

Dunham-Bush Industries Sdn Bhd was founded in 1987. The Company's line of business includes the manufacturing of refrigeration and heating equipment.

SECTOR	INDUSTRY	SUB-INDUSTRY	INCORPORATED
Industrials	Industrial Products	Electrical Equipment	--

ADDRESS

Lot 5755-6 Kidamai Industrial Park Bukit Angkat Sungai Chua Kajang, 43000 Malaysia

PHONE	WEBSITE	NO. OF EMPLOYEES
60-389249000	--	--

EXHIBIT 1-M

D&B Business Directory

DUNHAM-BUSH INDUSTRIES SDN. BHD.

Private Limited Company Parent

Overview

Doing Business As: DUNHAM-BUSH INDUSTRIES SDN. BHD.

Company Description: DUNHAM-BUSH INDUSTRIES SDN. BHD. is located in KAJANG, Selangor, Malaysia and is part of the Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing Industry. DUNHAM-BUSH INDUSTRIES SDN. BHD. has 600 total employees across all of its locations. (Employees figure is estimated). There are 23 companies in the DUNHAM-BUSH INDUSTRIES SDN. BHD. corporate family.

Industry: Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing , Machinery Manufacturing , Manufacturing , Air conditioning equipment, complete , Refrigeration and heating equipment

See other industries within the Manufacturing: Aerospace Product and Parts Manufacturing , Agriculture, Construction, and Mining Machinery Manufacturing , Alumina and Aluminum Production and Processing , Animal Food Manufacturing , Animal Slaughtering and Processing , Apparel Accessories and Other Apparel Manufacturing , Apparel Knitting Mills , Architectural and Structural Metals Manufacturing

Popular Search:

Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing

Machinery Manufacturing Manufacturing

Address: Lot 5755-6 Kidamai Industrial Park Bukit Angkat Sungai Chua KAJANG, Selangor, 43000 Malaysia

Phone: +60-389249000

Website: www.dunham-bush.com

Employee (all sites): 600 ≈

Year Started: 1987

Corporate Family

ALL BUSINESS ENTERPRISES. CORP.

P.O. BOX 8410 TAMUNING, GUAM U.S.A. 96931
TELEPHONE: (671) 646-3346; FAX (671) 646-0589

PROTEST

UOG BID No. B21-17
BID MAJOR REQUIREMENT

1. BUY AMERICAN ACT; "BAA"; UOG confirmed on question and answer. See attachment.

2. Spec Section 2.2.1.1 and Section 2.2.1.4.1 (c); Copper coil; Copper Fin; per UOG Spec, See attachment.

3. Spec Section 2.6.2.1 and Section 2.7.2.1 PHENOLIC COATING;
   The section denotes required factory phenolic coating by immersion dipping the entire coil. Local spray of phenolic coating denotes NOT required or NOT acceptable.

..... NOTHING FOLLOWS .....

UOG INVITATION FOR BIDS NO. B21-17:
PURCHASING OF HVAC EQUIPMENT

QUESTION & ANSWER SHEET NO. 1
November 19, 2021

In response to the written "Questions" and/or 'Request for Clarifications' UOG received as of 10/26/2021 @ 4:49pm from vendor: **Guam Pacific Enterprise, Inc.**

Question 1: Section 5011 of Chapter 5 is not included in the Bid documents. (Policy In Favor of Serviced - Disabled Veteran Owned Business)

Answer: Please refer to Amendment 2, Item 1.4 #21

Question 2: Is the Bid All or None Bid?

Answer: UOG confirms yes, this is an All or None Bid.

Question 3: Is the installation required?

Answer: UOG confirms Installation is not required.

Question 4: Also, will you be using Federal Financial assistance Awards for this Bid therefore it is covered by Buy American Act.

Answer: UOG confirms Funds are from Higher Education Emergency Relief Fund (HEERF) The Buy American Act is to be followed "to the most extent possible.

In response to the written "Questions" and/or 'Request for Clarifications' UOG received as of 10/29/2021 @ 5:48pm from vendor. **MJM International Corporation**

Question 1: May I please get more information for the attached? Kindly clarify if it is the ton per unit and column (ton) is the total tonnage.

Answer: UOG confirms ton is the total tonnage.

In response to the written "Questions" and/or 'Request for Clarifications' UOG received as of 11/7/2021 @ 12:00pm from vendor. **JWS Refrigeration & A/C Ltd.**

Question 1: It was mentioned that you want to use only one manufacturer for the complete project, but you have Daikin condensers at the Marine Lab. It also is our understanding that many of the indoor units connected to these Daikin condensers also do not operate. These are VRF systems, which means they communicate with each other so you cannot use different manufacturers. Please clarify your intensions on this system.

Answer: UOG Confirms there is no need for VRF/VRV units as Item Description/Location has been revised to remove Marine Lab requirement. Please refer to Amendment 3, item 1.2.

Question 6: In Exhibit B page 63 Table 2.0 options No 1 refers to "Service for maintenance and upkeep". Can you please clarify the meaning of that?

Answer: UOG confirms although we are only soliciting for condenser units, we would like to understand what the maintenance and upkeep cost for your units. This will give us an idea of the overall cost of your unit

Question 7: In Exhibit B page 63 Table 2 0 options No. 3 refers to "Replacement/trade in program". Can you please clarify the meaning of that?

Answer: UOG confirms although we are only soliciting for condenser units, we would like to understand what the maintenance and upkeep cost for your units. This will give us an idea of the overall cost of your unit.

Question 8: Does this contract include installation of purchased equipment? At the site visit it was stated that the contract did not include installation However, in the bid packet Exhibit B 2a it says. "Any additional cost not stated in this bid but are required to complete the delivery and installation must be included in the bidders price" Please clarify

Answer: UOG confirms Installation is not included.

In response to the written "Questions" and/or "Request for Clarifications" UOG received as of 11/8/2021 @ 11 53am from vendor. **Green Energy Solutions, Inc.**

Question 1: is the purchase funded by Federal Cares Act funds? If so, do the units need to be BAA compliant?

Answer: UOG confirms Funds are from Higher Education Emergency Relief Fund (HEERF) The Buy American Act is to be followed "to the most extent possible.

Question 2: The RFQ Equipment specifications refer to VFR /VRV Units It does not go into detail on the units being requested

Answer: UOG Confirms there is no need for VRF/VRV units as Item Description/Location has been revised to remove Marine Lab requirement Please refer to Amendment 3 item 1.2.

Question 3: Of the units requested, the RFQ does not state whether they are Packaged Units, or Ducted Split Units that require Air Handling Units

Answer: UOG confirms we are purchasing "Ducted Split Condensers only. No AHU's in this bid

Question 4: The RFQ does not state efficiency requirements (EER rating)

Answer: UOG confirms there are no EER rating.

Question 5: Are you asking for direct replacements for the units in each of the buildings?

Answer: UOG confirms, no. In some of the buildings we are consolidating units from smaller units to a bigger unit.

2.1.4 Safety Devices

Exposed moving parts, parts that produce high operating temperature, parts which may be electrically energized, and parts that may be a hazard to operating personnel must be insulated, fully enclosed, guarded, or fitted with other types of safety devices. Safety devices must be installed so that proper operation of equipment is not impaired. Welding and cutting safety requirements must be in accordance with AWS Z49.1.

2.2 EQUIPMENT

2.2.1 Large-Capacity Split-System Air Conditioners (Greater Than 65,000 Btu/h)

Provide an air-cooled, split system which employs a remote condensing unit, a separate indoor unit, and interconnecting refrigerant piping. Provide the air conditioning type unit conforming to applicable Underwriters Laboratories (UL) standards including UL 1995. Unit must be rated in accordance with ANSI/AHRI 210/240. Provide unit with necessary fans, air filters, and cabinet construction as specified in paragraph UNITARY EQUIPMENT ACCESSORIES. Provide double-width, double inlet, forward curved centrifugal scroll type evaporator or supply fans. Provide the manufacturer's standard for the unit specified and may be centrifugal scroll type condenser or outdoor fans. Enclose fan condenser motors in totally enclosed enclosures and permanently lubricate ball bearings. Air Conditioners must have a minimum energy efficiency ratio (EER) of 12.

2.2.1.1 Air-To-Refrigerant Coil

Provide coils with copper tubes of 3/8 inch minimum diameter with copper fins that are mechanically bonded or soldered to the tubes. Provide casing of galvanized steel. Avoid contact of dissimilar metals. Test coils in accordance with ASHRAE 15 & 34 at the factory and ensure suitability for the working pressure of the installed system. Dehydrate and seal each coil testing and prior to evaluation and charging. Provide each unit with a factory operating charge of refrigerant and oil. Field charge unit shipped with a holding charge with refrigerant and oil. Provide separate expansion devices for each compressor circuit. Condenser coil must have special coating for corrosion resistance. Condenser coil must be copper finned. Coat condenser and evaporator coil with a uniformly applied epoxy electrodeposition, phenolic, or vinyl type coating to all coil surface areas without material bridging between fins. Apply coating at either the coil or coating manufacturer's factory. Coating process must ensure complete coil encapsulation and be capable of withstanding a minimum 1,000 hours exposure to the salt spray test specified in ASTM B117 using a 5 percent sodium chloride solution.

2.2.1.2 Refrigeration Circuit

Refrigerant-containing components must comply with ASHRAE 15 & 34 and be factory tested, cleaned, dehydrated, charged, and sealed. Provide refrigerant charging valves and connections, and pumpdown valves foreach circuit.

2.2.1.3 Unit Controls

Provide unit internally prewired with a 208 volt control circuit powered by an internal transformer.

2.2.1.4 Condensing Unit

Fit each remote condenser coil with a manual isolation valve and an access valve on the coil side. Saturated refrigerant condensing temperature must not exceed 120 degrees F at 95 degrees F ambient. Fan and condensermotors must have totally enclosed enclosures.

2.2.1.4.1 Air-Cooled Condenser

Provide unit rated in accordance with ANSI/AHRI 460 and conform to the requirements of UL 1995. Provide factoryfabricated, tested, packaged, and self-contained unit. Unit must be complete with casing, propeller or centrifugal type fans, heat rejection coils, connecting piping and wiring, and all necessary appurtenances.

a. Provide interconnecting refrigeration piping, electrical power, and control wiring between thecondensing unit and the indoor unit as required and as indicated. Provide electrical and refrigeration piping terminal connections between condensing unit and evaporator units.

b. Low ambient control for multi-circuited units serving more than one evaporator coil must provide independent condenser pressure controls for each refrigerant circuit. Set controls to produce a minimum of 95 degrees F saturated refrigerant condensing temperature. Provide unitwith a liquid subcooling circuit that ensures proper liquid refrigerant flow to the expansion device over the specified application range of the condenser. Unit must be provided with manufacturer's standard liquid subcooling. Liquid seal the subcooling circuit.

c. Coils must have copper tubes of 3/8 inch minimum diameter with copper fins that are mechanically bonded or soldered to the tubes. Protect coil in accordance with paragraph COIL CORROSION PROTECTION. Casing must be galvanized steel or aluminum. Avoid contact of dissimilar metals. Test coils in accordance with ASHRAE 15 & 34 at the factory and ensure suitability for the working pressure of the installed system. Dehydrate and seal each coil after testing and prior to evaluation and charging. Provide each unit with a factory operating charge ofrefrigerant and oil or a holding charge. Field charge unit shipped with a holding charge. Provide separate expansion devices for each compressor circuit.

d. Provide a complete control system with required accessories for regulating condenser pressure by fan cycling, solid-state variable fan speed, modulating condenser coil or fan dampers, floodingthe condenser, or a combination of the above. Construct unit mounted control panels or enclosures in accordance with applicable requirements of NFPA 70 and house in NEMA ICS 6, Class 1 or 3A enclosures. Controls must include overload protective devices, interface with local and remote components, and intercomponent wiring to terminal block points.

2.2.1.4.2 Compressors

2.6.2 Equipment and Components Factory Coating

Unless otherwise specified, equipment and component items, when fabricated from ferrous metal, must be factory finished with the manufacturer's standard finish, except that items located outside of buildings must haveweather resistant finishes that will withstand 500 hours exposure to the salt spray test specified in ASTM B117 using a 5 percent sodium chloride solution. Immediately after completion of the test, the specimen must show no signs of blistering, wrinkling, cracking, or loss of adhesion and no sign of rust creepage beyond 1/8 inch on either side of the scratch mark. Cut edges of galvanized surfaces where hot-dip galvanized sheet steel is used must be coated with a zinc-rich coating conforming to ASTM D520, Type I.
Where stipulated in equipment specifications of this section, coat finned tube coils of the affected equipment as specified below. Apply coating at the premises of a company specializing in such work. Degrease and prepare for coating in accordance with the coating applicator's procedures for the type of metals involved. Completed coatingmust show no evidence of softening, blistering, cracking, crazing, flaking, loss of adhesion, or "bridging" between the fins.

2.6.2.1 Phenolic Coating

Provide a resin base thermosetting phenolic coating. Apply coating by immersion dipping of the entire coil. Providea minimum of two coats. Bake or heat dry coils following immersions. After final immersion and prior to final baking, spray entire coil with particular emphasis given to building up coating on sheared edges. Total dry film thickness must be 2.5 to 3.0 mils.

2.6.2.2 Chemical Conversion Coating with Polyelastomer Finish Coat

Dip coils in a chemical conversion solution to molecularly deposit a corrosion resistant coating by electrolysis action. Cure conversion coating at a temperature of 110 to 140 degrees F for a minimum of 3 hours. Coat coil surfaces with a complex polymer primer with a dry film thickness of 1 mil. Cure primer coat for a minimum of 1hour. Using dip tank method, provide three coats of a complex polyelastomer finish coat. After each of the firsttwo finish coats, cure the coils for 1 hour. Following the third coat, spray a fog coat of an inert sealer on the coilsurfaces. Total dry film thickness must be 2.5 to 3.0 mils. Cure finish coat for a minimum of 3 hours. Coating materials must have 300 percent flexibility, operate in temperatures of minus 50 to plus 220 degrees F, and protect against atmospheres of a pH range of 1 to 14.

2.6.2.3 Vinyl Coating

Apply coating using an airless fog nozzle. For each coat, make at least two passes with the nozzle. Materials to be applied are as follows:

a. Total dry film thickness, 6.5 mils maximum

b. Vinyl Primer, 24 percent solids by volume: One coat 2 mils thick

Provide gaskets conforming to ASTM F104 - classification for compressed sheet with nitrile binder and acrylic fibers for maximum 700 degrees F service.

2.6.4 Bolts and Nuts

Bolts and nuts must be in accordance with ASTM A307. The bolt head must be marked to identify the manufacturer and the standard with which the bolt complies in accordance with ASTM A307.

2.7 FINISHES

2.7.1 Coil Corrosion Protection

Provide coil with a uniformly applied epoxy electrodeposition, phenolic, or vinyl type coating to all coil surface areas without material bridging between fins. Submit product data on the type coating selected, the coating thickness, the application process used, the estimated heat transfer loss of the coil, and verification of conformance with the salt spray test requirement. Coating must be applied at either the coil or coating manufacturer's factory. Coating process must ensure complete coil encapsulation. Coating must be capable of withstanding a minimum 1,000 hours exposure to the salt spray test specified in ASTM B117 using a 5 percent sodium chloride solution.

2.7.2 Equipment and Components Factory Coating

Unless otherwise specified, equipment and component items, when fabricated from ferrous metal, must be factory finished with the manufacturer's standard finish, except that items located outside of buildings must have weather resistant finishes that will withstand 500 hours exposure to the salt spray test specified in ASTM B117. Immediately after completion of the test, the specimen must show no signs of blistering, wrinkling, cracking, or loss of adhesion and no sign of rust creepage beyond 1/8 inch on either side of the scratch mark. Cut edges of galvanized surfaces where hot-dip galvanized sheet steel is used must be coated with a zinc-rich coating conforming to ASTM D520, Type I.

Where stipulated in equipment specifications of this section, coat finned tube coils of the affected equipment as specified below. Apply coating at the premises of a company specializing in such work. Degrease and prepare for coating in accordance with the coating applicator's procedures for the type of metals involved. Completed coating must show no evidence of softening, blistering, cracking, crazing, flaking, loss of adhesion, or "bridging" between the fins.

2.7.2.1 Phenolic Coating

Provide a resin base thermosetting phenolic coating. Apply coating by immersion dipping of the entire coil. Provide a minimum of two coats. Bake or heat dry coils following immersions. After final immersion and prior to final baking, spray entire coil with particular emphasis given to building up coating on sheared edges. Total dry film thickness must be 2.5 to 3.0 mils.

2.7.2.2 Chemical Conversion Coating with Polyelastomer Finish Coat

Dip coils in a chemical conversion solution to molecularly deposit a corrosion resistant coating by electrolysis action. Cure conversion coating at a temperature of 110 to 140 degrees F for a

EXHIBIT 2

2.1.4 Safety Devices

Exposed moving parts, parts that produce high operating temperature, parts which may be electrically energized, and parts that may be a hazard to operating personnel must be insulated, fully enclosed, guarded, or fitted with other types of safety devices. Safety devices must be installed so that proper operation of equipment is not impaired. Welding and cutting safety requirements must be in accordance with AWS Z49.1.

2.2 EQUIPMENT

2.2.1 Large-Capacity Split-System Air Conditioners (Greater Than 65,000 Btu/h)

Provide an air-cooled, split system which employs a remote condensing unit, a separate indoor unit, and interconnecting refrigerant piping. Provide the air conditioning type unit conforming to applicable Underwriters Laboratories (UL) standards including UL 1995. Unit must be rated in accordance with ANSI/AHRI 210/240. Provide unit with necessary fans, air filters, and cabinet construction as specified in paragraph UNITARY EQUIPMENT ACCESSORIES. Provide double-width, double inlet, forward curved centrifugal scroll type evaporator or supply fans. Provide the manufacturer's standard for the unit specified and may be centrifugal scroll type condenser or outdoor fans. Enclose fan condenser motors in totally enclosed enclosures and permanently lubricate ball bearings. Air Conditioners must have a minimum energy efficiency ratio (EER) of 12.

2.2.1.1 Air-To-Refrigerant Coil

Provide coils with copper tubes of 3/8 inch minimum diameter with copper fins that are mechanically bonded or soldered to the tubes. Provide casing of galvanized steel. Avoid contact of dissimilar metals. Test coils in accordance with ASHRAE 15 & 34 at the factory and ensure suitability for the working pressure of the installed system. Dehydrate and seal each coil testing and prior to evaluation and charging. Provide each unit with a factory operating charge of refrigerant and oil. Field charge unit shipped with a holding charge with refrigerant and oil. Provide separate expansion devices for each compressor circuit. Condenser coil must have special coating for corrosion resistance. Condenser coil must be copper finned. Coat condenser and evaporator coil with a uniformly applied epoxy electrodeposition, phenolic, or vinyl type coating to all coil surface areas without material bridging between fins. Apply coating at either the coil or coating manufacturer's factory. Coating process must ensure complete coil encapsulation and be capable of withstanding a minimum 1,000 hours exposure to the salt spray test specified in ASTM B117 using a 5 percent sodium chloride solution.

2.2.1.2 Refrigeration Circuit

Refrigerant-containing components must comply with ASHRAE 15 & 34 and be factory tested, cleaned, dehydrated, charged, and sealed. Provide refrigerant charging valves and connections, and pumpdown valves foreach circuit.

2.2.1.3 Unit Controls

Provide unit internally prewired with a 208 volt control circuit powered by an internal transformer.

2.2.1.4 Condensing Unit

Fit each remote condenser coil with a manual isolation valve and an access valve on the coil side. Saturated refrigerant condensing temperature must not exceed 120 degrees F at 95 degrees F ambient. Fan and condensermotors must have totally enclosed enclosures.

2.2.1.4.1 Air-Cooled Condenser

Provide unit rated in accordance with ANSI/AHRI 460 and conform to the requirements of UL 1995. Provide factoryfabricated, tested, packaged, and self-contained unit. Unit must be complete with casing, propeller or centrifugal type fans, heat rejection coils, connecting piping and wiring, and all necessary appurtenances.

a. Provide interconnecting refrigeration piping, electrical power, and control wiring between thecondensing unit and the indoor unit as required and as indicated. Provide electrical and refrigeration piping terminal connections between condensing unit and evaporator units.

b Low ambient control for multi-circuited units serving more than one evaporator coil must provide independent condenser pressure controls for each refrigerant circuit Set controls to produce a minimum of 95 degrees F saturated refrigerant condensing temperature. Provide unitwith a liquid subcooling circuit that ensures proper liquid refrigerant flow to the expansion device over the specified application range of the condenser. Unit must be provided with manufacturer's standard liquid subcooling. Liquid seal the subcooling circuit.

c. Coils must have copper tubes of 3/8 inch minimum diameter with copper fins that are mechanically bonded or soldered to the tubes. Protect coil in accordance with paragraph COIL CORROSION PROTECTION. Casing must be galvanized steel or aluminum. Avoid contact of dissimilar metals. Test coils in accordance with ASHRAE 15 & 34 at the factory and ensure suitability for the working pressure of the installed system. Dehydrate and seal each coil after testing and prior to evaluation and charging. Provide each unit with a factory operating charge ofrefrigerant and oil or a holding charge. Field charge unit shipped with a holding charge. Provide separate expansion devices for each compressor circuit.

d. Provide a complete control system with required accessories for regulating condenser pressure by fan cycling, solid-state variable fan speed, modulating condenser coil or fan dampers, floodingthe condenser, or a combination of the above. Construct unit mounted control panels or enclosures in accordance with applicable requirements of NFPA 70 and house in NEMA ICS 6, Class 1 or 3A enclosures. Controls must include overload protective devices, interface with local and remote components, and intercomponent wiring to terminal block points.

2.2.1.4.2 Compressors

2.6.2 Equipment and Components Factory Coating

Unless otherwise specified, equipment and component items, when fabricated from ferrous metal, must be factory finished with the manufacturer's standard finish, except that items located outside of buildings must haveweather resistant finishes that will withstand 500 hours exposure to the salt spray test specified in ASTM B117 using a 5 percent sodium chloride solution. Immediately after completion of the test, the specimen must show no signs of blistering, wrinkling, cracking, or loss of adhesion and no sign of rust creepage beyond 1/8 inch on either side of the scratch mark. Cut edges of galvanized surfaces where hot-dip galvanized sheet steel is used must be coated with a zinc-rich coating conforming to ASTM D520, Type I.
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2.6.2.1 Phenolic Coating

Provide a resin base thermosetting phenolic coating. Apply coating by immersion dipping of the entire coil. Providea minimum of two coats. Bake or heat dry coils following immersions. After final immersion and prior to final baking, spray entire coil with particular emphasis given to building up coating on sheared edges. Total dry film thickness must be 2.5 to 3.0 mils.

2.6.2.2 Chemical Conversion Coating with Polyelastomer Finish Coat

Dip coils in a chemical conversion solution to molecularly deposit a corrosion resistant coating by electrolysis action. Cure conversion coating at a temperature of 110 to 140 degrees F for a minimum of 3 hours. Coat coil surfaces with a complex polymer primer with a dry film thickness of 1 mil. Cure primer coat for a minimum of 1hour. Using dip tank method, provide three coats of a complex polyelastomer finish coat. After each of the firsttwo finish coats, cure the coils for 1 hour. Following the third coat, spray a fog coat of an inert sealer on the coilsurfaces. Total dry film thickness must be 2.5 to 3.0 mils. Cure finish coat for a minimum of 3 hours. Coating materials must have 300 percent flexibility, operate in temperatures of minus 50 to plus 220 degrees F, and protect against atmospheres of a pH range of 1 to 14.

2.6.2.3 Vinyl Coating

Apply coating using an airless fog nozzle. For each coat, make at least two passes with the nozzle. Materials to be applied are as follows:

a. Total dry film thickness, 6.5 mils maximum

b. Vinyl Primer, 24 percent solids by volume: One coat 2 mils thick

Provide gaskets conforming to ASTM F104 - classification for compressed sheet with nitrile binder and acrylic fibers for maximum 700 degrees F service.

2.6.4 Bolts and Nuts

Bolts and nuts must be in accordance with ASTM A307. The bolt head must be marked to identify the manufacturer and the standard with which the bolt complies in accordance with ASTM A307.

2.7 FINISHES

2.7.1 Coil Corrosion Protection

Provide coil with a uniformly applied epoxy electrodeposition, phenolic, or vinyl type coating to all coil surface areas without material bridging between fins. Submit product data on the type coating selected, the coating thickness, the application process used, the estimated heat transfer loss of the coil, and verification of conformance with the salt spray test requirement. Coating must be applied at either the coil or coating manufacturer's factory. Coating process must ensure complete coil encapsulation. Coating must be capable of withstanding a minimum 1,000 hours exposure to the salt spray test specified in ASTM B117 using a 5 percent sodium chloride solution.

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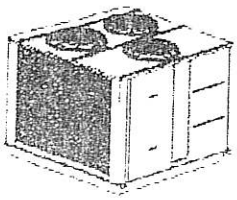
Dip coils in a chemical conversion solution to molecularly deposit a corrosion resistant coating by electrolysis action. Cure conversion coating at a temperature of 110 to 140 degrees F for a

EXHIBIT 3



Outdoor Unit Parameters

Unit Quantity:	1	
Unit Model:	38APD	
Unit Size:	50 Tons	
Voltage:	208-3-60	V-Ph-Hz
No. of Circuits:	Two Circuits	

System Parameter

System Quantity:	1	
Refrigerant Type:	PURON	
Compressor Quantity:	2 (Circ A), 2 (Circ B)	
Compressor Type:	Scroll	
Std Capacity Steps:	23, 50, 73, 100	
Std. Min. Outdoor Temp(Cooling):	25.0	°F
No. of Outdoor fans	3	

Outdoor Unit Dimensions and Weight

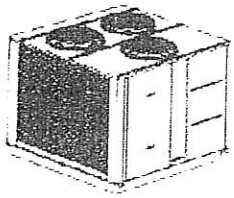
Unit Length:	7' 8.1"	
Unit Width:	7' 4.2"	
Unit Height:	6' 1.0"	
Unit Operating Weight	2120	lb

Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38APD05056-3009J		
	Base Unit	1
	Standard Line Length, RTPF	
	Single Point Power, Terminal Block	1
	Export packaging, (Skid + Bag)	1
	Scrolling Marquee, EMM, BACnet Communication	1
	Copper E-Coat Fin / Copper Tube	1
Accessories		1
33CS2PP2S-03	Thermostat for Outdoor Unit	
30GT-911---062	Navigator for Outdoor Unit	1
		1



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38APD	
Unit Size	40 Tons	
Voltage	208-3-60	V-Ph-Hz
No. of Circuits	Two Circuits	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2 (Circ A), 2 (Circ B)	
Compressor Type	Scroll	
Std. Capacity Steps	23, 50, 73, 100	
Std. Min. Outdoor Temp(Cooling)	32.0	°F
No. of Outdoor fans	3	

Outdoor Unit Dimensions and Weight

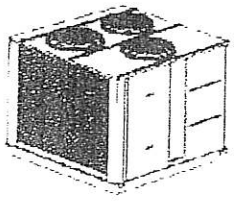
Unit Length	7' 8.1"	
Unit Width	7' 4.2"	
Unit Height	6' 1.0"	
Unit Operating Weight	2094	lb

Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38APD04056-3009J		
	Base Unit	1
	Standard Line Length, RTPF	
	Single Point Power, Terminal Block	1
	Export packaging, (Skid + Bag)	1
	Scrolling Marquee, EMM, BACnet Communication	1
	Copper E-Coat Fin / Copper Tube	1
Accessories		1
30GT-911---062	Navigator for Outdoor Unit	
33CS2PP2S-03	Thermostat for Outdoor Unit	1
		1



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38APD	
Unit Size	40 Tons	
Voltage	208-3-60	V-Ph-Hz
No. of Circuits	Two Circuits	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2 (Circ A), 2 (Circ B)	
Compressor Type	Scroll	
Std. Capacity Steps	23, 50, 73, 100	
Std. Min. Outdoor Temp(Cooling)	32.0	°F
No. of Outdoor fans	3	

Outdoor Unit Dimensions and Weight

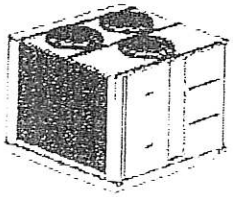
Unit Length	7' 8.1"	
Unit Width	7' 4.2"	
Unit Height	6' 1.0"	
Unit Operating Weight	2094	lb

Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38APD04056-3009J		
	Base Unit	1
	Standard Line Length, RTPF	
	Single Point Power, Terminal Block	1
	Export packaging, (Skid + Bag)	1
	Scrolling Marquee, EMM, BACnet Communication	1
	Copper E-Coat Fin / Copper Tube	1
Accessories		1
30GT-911---062	Navigator for Outdoor Unit	
33CS2PP2S-03	Thermostat for Outdoor Unit	1
		1



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38APD	
Unit Size	40 Tons	
Voltage	208-3-60	V-Ph-Hz
No. of Circuits	Two Circuits	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2 (Circ A), 2 (Circ B)	
Compressor Type	Scroll	
Std. Capacity Steps	23, 50, 73, 100	
Std. Min. Outdoor Temp(Cooling)	32.0	°F
No. of Outdoor fans	3	

Outdoor Unit Dimensions and Weight

Unit Length	7' 8.1"	
Unit Width	7' 4.2"	
Unit Height	6' 1.0"	
Unit Operating Weight	2094	lb

Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38APD04056-3009J		
	Base Unit	1
	Standard Line Length, RTPF	
	Single Point Power, Terminal Block	1
	Export packaging, (Skid + Bag)	1
	Scrolling Marquee, EMM, BACnet Communication	1
	Copper E-Coat Fin / Copper Tube	1
		1
Accessories		
30GT-911---062	Navigator for Outdoor Unit	1
33CS2PP2S-03	Thermostat for Outdoor Unit	1

Unit Report For 10EGLISH COMMUNICATION BULDING CLASSROOM 112221

Project: HA-1702-21-11 UOG IFB B21-17 PURCHASING HVAC EQUIP
Prepared By: BERNARD LLARENAS

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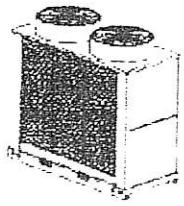


Outdoor Unit Parameters

Unit Quantity:	1	
Unit Model:	38APD	
Unit Size:	30 Tons	
Voltage:	208-3-60	V-Ph-Hz
No. of Circuits:	Two Circuits	

System Parameter

System Quantity:	1	
Refrigerant Type:	PURON	
Compressor Quantity:	1 (Circ A), 1 (Circ B)	
Compressor Type:	Scroll	
Std. Capacity Steps:	50, 100	
Std. Min. Outdoor Temp(Cooling):	32.0	°F
No. of Outdoor fans:	2	

Outdoor Unit Dimensions and Weight

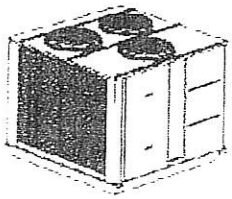
Unit Length:	7' 4.2"	
Unit Width:	3' 4.3"	
Unit Height:	6' 1.1"	
Unit Operating Weight:	1264	lb

Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38APD03056-3009J		
	Base Unit	1
	Standard Line Length, RTPF	
	Single Point Power, Terminal Block	1
	Export packaging, (Skid + Bag)	1
	Scrolling Marquee, EMM, BACnet Communication	1
	Copper E-Coat Fin / Copper Tube	1
Accessories		1
30GT-911---062	Navigator for Outdoor Unit	
33CS2PP2S-03	Thermostat for Outdoor Unit	1
		1



Outdoor Unit Parameters

Unit Quantity	1	
Unit Model	38APD	
Unit Size	50 Tons	
Voltage	208-3-60	V-Ph-Hz
No. of Circuits	Two Circuits	

System Parameter

System Quantity	1	
Refrigerant Type	PURON	
Compressor Quantity	2 (Circ A), 2 (Circ B)	
Compressor Type	Scroll	
Std. Capacity Steps	23, 50, 73, 100	
Std. Min. Outdoor Temp(Cooling)	25.0	°F
No. of Outdoor fans	3	

Outdoor Unit Dimensions and Weight

Unit Length	7' 8.1"	
Unit Width	7' 4.2"	
Unit Height	6' 1.0"	
Unit Operating Weight	2120	lb

Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38APD05056-3009J		
	Base Unit	1
	Standard Line Length, RTPF	
	Single Point Power, Terminal Block	1
	Export packaging, (Skid + Bag)	1
	Scrolling Marquee, EMM, BACnet Communication	1
	Copper E-Coat Fin / Copper Tube	1
		1
Accessories		
33CS2PP2S-03	Thermostat for Outdoor Unit	1
30GT-911---062	Navigator for Outdoor Unit	1

Unit Report For HSS BUILDING 50T 112221

Project: HA-1702-21-11 UOG IFB B21-17 PURCHASING HVAC EQUIP
Prepared By: BERNARD LLARENAS
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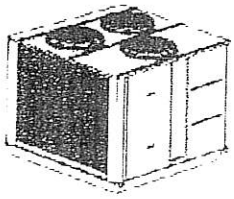

Outdoor Unit Parameters

Unit Quantity:	1	
Unit Model:	38APD	
Unit Size:	50 Tons	
Voltage:	208-3-60	V-Ph-Hz
No. of Circuits:	Two Circuits	

System Parameter

System Quantity:	1	
Refrigerant Type:	PURON	
Compressor Quantity:	2 (Circ A), 2 (Circ B)	
Compressor Type:	Scroll	
Std. Capacity Steps:	23, 50, 73, 100	
Std. Min. Outdoor Temp(Cooling):	25.0	°F
No. of Outdoor fans:	3	

Outdoor Unit Dimensions and Weight

Unit Length:	7' 8.1"	
Unit Width:	7' 4.2"	
Unit Height:	6' 1.0"	
Unit Operating Weight:	2120	lb

Warranty Information Outdoor (Note: for US & Canada only)
First Year - Parts Only (Standard)

NOTE: Please see Warranty Catalog 808-218 for explanation of policies and ordering methods.

Ordering Information

Part Number	Description	Quantity
Base Unit - Outdoor		
38APD05056-3009J		
	Base Unit	1
	Standard Line Length, RTPF	
	Single Point Power, Terminal Block	1
	Export packaging, (Skid + Bag)	1
	Scrolling Marquee, EMM, BACnet Communication	1
	Copper E-Coat Fin / Copper Tube	1
Accessories		1
33CS2PP2S-03	Thermostat for Outdoor Unit	
30GT-911---062	Navigator for Outdoor Unit	1
		1

EXHIBIT 4

UOG INVITATION FOR BIDS NO. B21-17:
PURCHASING OF HVAC EQUIPMENT

QUESTION & ANSWER SHEET NO. 1
November 19, 2021

In response to the written "Questions" and/or 'Request for Clarifications' UOG received as of 10/26/2021 @ 4:49pm from vendor: Guam Pacific Enterprise, Inc.

Question 1: Section 5011 of Chapter 5 is not included in the Bid documents. (Policy In Favor of Serviced - Disabled Veteran Owned Business)

Answer: Please refer to Amendment 2. Item 1.4 #21

Question 2: Is the Bid All or None Bid?

Answer: UOG confirms yes, this is an All or None Bid.

Question 3: Is the installation required?

Answer: UOG confirms Installation is not required.

Question 4: Also, will you be using Federal Financial assistance Awards for this Bid therefore it is covered by Buy American Act.

Answer: UOG confirms Funds are from Higher Education Emergency Relief Fund (HEERF) The Buy American Act is to be followed "to the most extent possible.

In response to the written "Questions" and/or 'Request for Clarifications' UOG received as of 10/29/2021 @ 5:48pm from vendor: MJM International Corporation

Question 1: May I please get more information for the attached? Kindly clarify if it is the ton per unit and column (ton) is the total tonnage.

Answer: UOG confirms ton is the total tonnage.

In response to the written "Questions" and/or 'Request for Clarifications' UOG received as of 11/7/2021 @ 12:00pm from vendor: JWS Refrigeration & A/C Ltd.

Question 1: It was mentioned that you want to use only one manufacturer for the complete project, but you have Daikin condensers at the Marine Lab. It also is our understanding that many of the indoor units connected to these Daikin condensers also do not operate. These are VRF systems, which means they communicate with each other so you cannot use different manufacturers. Please clarify your intensions on this system.

Answer: UOG Confirms there is no need for VRF/VRV units as Item Description/Location has been revised to remove Marine Lab requirement. Please refer to Amendment 3, item 1.2.

Question 6: In Exhibit B page 63 Table 2.0 options No 1 refers to "Service for maintenance and upkeep". Can you please clarify the meaning of that?

Answer: UOG confirms although we are only soliciting for condenser units, we would like to understand what the maintenance and upkeep cost for your units. This will give us an idea of the overall cost of your unit

Question 7: In Exhibit B page 63 Table 2.0 options No. 3 refers to "Replacement/trade in program". Can you please clarify the meaning of that?

Answer: UOG confirms although we are only soliciting for condenser units, we would like to understand what the maintenance and upkeep cost for your units. This will give us an idea of the overall cost of your unit

Question 8: Does this contract include installation of purchased equipment? At the site visit it was stated that the contract did not include installation. However in the bid packet Exhibit B 2a it says, "Any additional cost not stated in this bid but are required to complete the delivery and installation must be included in the bidders price" Please clarify

Answer: UOG confirms Installation is not included.

In response to the written "Questions" and/or "Request for Clarifications" UOG received as of 11/8/2021 @ 11:53am from vendor Green Energy Solutions, Inc.

Question 1: Is the purchase funded by Federal Cares Act funds? If so, do the units need to be BAA compliant?

Answer: UOG confirms Funds are from Higher Education Emergency Relief Fund (HEERF) The Buy American Act is to be followed "to the most extent possible.

Question 2: The RFQ Equipment specifications refer to VFR /VRV Units. It does not go into detail on the units being requested

Answer: UOG Confirms there is no need for VRF/VRV units as Item Description/Location has been revised to remove Marine Lab requirement. Please refer to Amendment 3 Item 1.2.

Question 3: Of the units requested, the RFQ does not state whether they are Packaged Units, or Ducted Split Units that require Air Handling Units.

Answer: UOG confirms we are purchasing "Ducted Split Condensers only. No AHU's in this bid

Question 4: The RFQ does not state efficiency requirements (EER rating)

Answer: UOG confirms there are no EER rating.

Question 5: Are you asking for direct replacements for the units in each of the buildings?

Answer: UOG confirms, no. In some of the buildings we are consolidating units from smaller units to a bigger unit.

EXHIBIT 5

ALL BUSINESS ENTERPRISES. CORP.

P.O. BOX 8410 TAMUNING, GUAM U.S.A. 96931
TELEPHONE: (671) 646-3346; FAX (671) 646-0589

January 24, 2022

VIA HAND DELIVERY

Thomas W. Krise
President, University of Guam
301 University Drive
UOG Station
Mangilao, Guam 96913

Offic[illegible] President
Univ[illegible] uam
[illegible] ed By:
1/24/22 11:15am
Date & Time

VIA HAND DELIVERY

Anthony R. Camacho, Esq.
General Counsel, University of Guam
c/o Office of the President
301 University Drive
UOG Station
Mangilao, Guam 96913

Office of the Legal Counsel
University of Guam
Received By:
1/24/22 11:15am
Date & Time

VIA HAND DELIVERY

Emily G. Gumataotao
Supply Management Administrator
University of Guam
UOG Station
Mangilao, Guam 96913

RECEIVED
JAN 24 2022
11:22 Kaimana Terlaje
UOG PROCUREMENT OFFICE

Re: UOG IFB B21-17
Purchasing of HVAC Equipment
All Business Enterprises Corporation Protest

Dear President Krise, Attorney Camacho, and Administrator Gumataotao:

On December 20, 2021, All Business Enterprises Corporation ("ABEC") submitted a protest concerning the University of Guam's rejection of ABEC's bid and the award to Tony's Workshop for UOG IFB B21-17: Purchasing of HVAC Equipment. More than a month has passed, and ABE has not received any response to the protest. If we do not receive a response within three business days of the delivery of this letter, it will be necessary for ABEC to pursue alternative means of relief such as an appeal to the Office of Public Accountability.

Thank you for your attention to this matter. I look forward to hearing from you in a timely manner.

Sincerely,

ALL BUSINESS ENTERPRISES CORPORATION

Nelia F. Bangayan, President

EXHIBIT 6

UNIVERSITY OF GUAM
UNIBETSEDÅT GUÅHAN

OFFICE OF THE PRESIDENT

FAX TRANSMITTAL

TO: Office of the Attorney General of Guam
590 South Marine Corps Drive, Suite 706
Tamuning, Guam 96913

DATE: January 26, 2022

FR: Thomas W. Krise, Ph.D.
President

FAX NO. (671) 646-0589 (3 PP.)

RE: Protest Decision UOG IFB B21-17

☑ URGENT ☑ FOR REVIEW ☑ SEE COMMENTS ☐ PLEASE REPLY ☐ PLEASE RECYCLE

COMMENTS:

Transmitted herewith is a copy of a letter dated January 25, 2022, addressed to Ms. Bangayan from Thomas W. Krise.

Thank you.

T: +1 671.735.2992 F: +1 671.734.2296 W: www.uog.edu
Mailing Address: 303 University Drive UOG Station Mangilao, Guam 96923

UNIVERSITY OF GUAM
UNIBETSEDÅT GUÅHAN

OFFICE OF THE PRESIDENT

January 25, 2022

Nelia F. Bangayan, President
All Business Enterprises, Corp.
P.O. Box 8410
Tamuning, Guam, 96931

RE: Protest Decision for December 17, 2021 Protest regarding UOG-IFB-B21-17 (Purchasing of HVAC Equipment)

Dear Ms. Bangayan:

In accordance with Section 9.2.1, University of Guam's Procurement Regulations (UOGPR), I have reviewed your Protest dated December 17, 2021 regarding UOG-IFB-B21-17 (Purchasing of HVAC Equipment) (IFB) in which you raised the following issues concerning UOG's award of the IFB contract to Tony's Workshop: (1) The bid from Tony's Workshop, who was the lowest bidder, was not responsive because they did not include the Factory Phenolic Coating for six (6) of the units described in the brochure they submitted with their bid; and (2) The bid from JWS, the second lowest bidder, was non-responsive because it had no indication of Factory Phenolic Coating and because the units being offered by JWS were to be manufactured by DB-Dunham-Bush Industries SDN BHD, a Malaysian Company. The following constitutes UOG's decision for each of these issues.

1. There is no merit to All Business Enterprises, Corp.'s (ABEC) allegation that the bid from Tony's Workshop was non-responsive. The IFB's specifications required that the successful bidder provide condenser coils that are copper finned and **coat the condenser and evaporator coils with a uniformly applied epoxy electrodeposition, phenolic, or vinyl type coating** to all coil surface areas without material bridging between fins (Bold Emphasis Added). Section 2.2.1.1 Air-To-Refrigerant Coil, IFB Specifications. Hence, so long as the condenser coils on the HVAC equipment provided by the successful bidder are coated with either a epoxy electrodeposition, phenolic, or a vinyl type coating, the units have met this specification. Further, ABEC merely assumes that Tony's Workshop's bid is non-responsive because the description of the coating for six of the units in the brochure that accompanied Tony's Workshop's bid did not describe which of these coatings would be provided. However, the specifications state that the successful bidder must provide UOG with the Manufacturer's standard catalog data, at least five (5) weeks prior to the purchase or installation of a particular component, highlights to show material, size, options, performance charts and curves, etc., in adequate detail to demonstrate compliance with contract requirements. Section 2.1 Materials, IFB Specifications. Hence, for the six (6) units identified by ABEC as not having descriptions

of which of the three condenser coil coatings authorized by the specifications the units will have, the specifications require Tony's Workshop to provide the manufacturers standard catalog data at least five (5) weeks prior to the purchase or installation of the six (6) units at issue showing compliance with the condenser coating requirement. Currently, the aforementioned five (5) week time period for Tony's Workshop to provide this information has not begun because UOG has not purchased or installed any of the six (6) units identified in ABEC's protest. Based on the foregoing, ABEC's allegations that Tony's Workshop's bid submitted in response to the IFB was non-responsive have no merit.

2. As UOG has found that ABEC's allegation that Tony's Workshop's bid was non-response have no merit, the remaining issues of whether JWS's bid, the second lowest bidder, was non-responsive because it had no indication of Factory Phenolic Coating and because the units being offered by JWS were to be manufactured by DB-Dunham-Bush Industries SDN BHD, a Malaysian Company, are now moot. Alternatively, to the extent that the issue of whether JWS' bid was non-responsive because it had no indication of Factory Phenolic Coating, UOG hereby incorporates, by reference herein, UOG's response and analysis concerning ABEC's allegations regarding Factory Phenolic Coating and Tony's Workshop's bid set forth above, and hereby finds no merit to this allegation.

Accordingly, ABEC's December 17, 2021 Protest concerning the IFB is hereby DENIED. In accordance with Section 9.2.7.2, UOGPR, ABEC is hereby informed of its right to administrative and judicial review of this Protest Decision.

DATED this 25th day of January, 2022 by:

THOMAS W. KRISE, Ph.D.
President