ADDENDUM #1

GRW Project No.: <u>4973-02</u> Date: February 18, 2022

Subject: Henry Clay High School

FCPS Bid No.: 15-22

Please address inquiries to: Cory Sharrard

GRW, Inc.

csharrard@grwinc.com

859-223-3999

TO ALL PROSPECTIVE BIDDERS:

Please be advised of the following clarifications to the above referenced bid:

1) GENERAL:

- a) Pre-Bid Meeting was held on February 16, 2022 at the Henry Clay High School. The following are provided in this addendum:
- i) Sign-In Sheet
- ii) Revised Form of Proposals for ESSER vs. FCPS Funds and Low Price vs. Equipment Lead Times. These 4 pages shall replace page 16 of the FCPS Front End Bid document. The Contractor shall price the project in both scenarios for the two different funding sources.
- iii) Davis Bacon Wage Rates for Fayette County for ESSER Fund bids.
- iv) Existing Schedule sheet for the Existing Equipment (for reference only).
- b) Plan Holders See the GRW Plan Room for Up-to-Date listings password: bluedevils

2) CONTRACTOR QUESTIONS:

- a) Q: Schedule? A: The dates listed on the drawings for the Multi-zone Equipment still apply. The substantial completion for the project is September 30, 2022 with final completion for October 31, 2022. As many of the units as possible shall be installed in the window of time before school starts. First day of school for students is August 10, 2022.
- b) Q: Working Hours? A: FCPS is open to all working hour options including during school hours, after school hours, and weekends. It is up to the Contractor to determine what will work best for their needs.
- c) Q: Number of units at a time to work on? A: If school is not in session, multiple units can be worked on/replaced at a time. The specific number will be up to the Contractor's manpower and coordinated with FCPS personnel. After school is in session, only one multi-zone unit can be down at a time if working during school hours. If working after school hours or weekends, additional units can be down as long as they are back up and running (in stand-alone operation) during the next school day.
- d) Q: Lay down area? A: Yes. There will be a lay down area in the back corner of the site on the gravel parking lot. The location was pointed out at the Pre-Bid meeting.

- e) Q: Who will be responsible for coordinating the equipment startup? A: The Contractor will be responsible for coordinating all the equipment startup for all new equipment including the multi-zone units that FCPS previously purchased.
- f) Q: Test and Balance. A: The test and balance work shall be included as part of this contract. There will not be a separate contract with FCPS.
- g) Q: Is a PRE Test and Balance required? A: No. Only the final test and balance is required. The existing multi-zone unit zones with associated CFM's have been included in the existing schedule sheet for reference.
- h) Q: Is pipe cleaning and flushing included? A: Yes. Pipe cleaning and flushing is required in the new hydronic piping connections that are being installed. Cleaning and flushing shall be provided from the new control valve to the unit connection.
- i) Q: Are all control valves new? A: Yes. There shall be new control valves provided and installed at all new hydronic piping connections as shown on the drawings.
- j) Q: Duct Cleaning Parameters? A: Yes. Duct Cleaning is included and shall be as listed in Specification Section 230130.51 Scope of Work. No additional duct cleaning is required.
- k) Q: Are roof screen panels to stay in place? A: Yes. The existing skeleton/rails around the existing rooftop equipment shall stay in place.
- l) Q: Clarify fencing scope. A: The Contractor shall remove the two fenced in areas around the air cooled compressors as shown on the drawings. This Contractor will not have to put back any new fencing. This will be taken care of outside the contract by FCPS.
- m) Q: Can work be done in the summer ahead of the equipment arrival to install wiring,etc? A: Yes. It is preferred that the Contractor install any wiring changes for equipment connections ahead of time so that when the units are placed, the change out can be completed as soon as possible. This also applies to the thermostat wiring. It is preferred that all thermostats be installed and wired ahead of each unit installation.
- n) Q: Is this a DPO project? A: Yes. FCPS does not pay sales tax. Deduct the sales tax before the bid. DPO forms will be provided to the Contractor once the contract is awarded for the project.
- o) Q: Is water treatment contract needed? A: No. FCPS already has a water treatment contract for this building.
- p) Q: Is preventative maintenance/filter changes needed? A: No. FCPS already has a preventative maintenance contract for this building in place. The Contractor shall provide the appropriate warranties as required for new equipment as listed in the documents.

3) SPECIFICATIONS:

- a) Section 237416.11 Packaged Rooftop Air Conditioning Unit with Electric Heat. Add Addison as an acceptable manufacturer.
- b) Section 238126 Split System Air Conditioners with Air Cooled Condensers. Add Addison as an acceptable manufacturer.

4) DRAWINGS:

a) Sheet MD-101. The sheet note tag that is shown next to the existing KIT-MAU unit shall be Sheet Note 8 instead of Sheet Note 10.

- b) Sheet M-601 Multi-Zone Roof Top Unit Schedule. The GPM's listed in the schedule match the GPM's of the existing units exactly.
- c) Sheet M-601 Multi-Zone Roof Top Unit Schedule. The weights of the new equipment listed are within \pm 10% of the existing equipment weights.
- d) Sheet M-601 Packaged Rooftop Unit Schedule. The GPM for RTU-1A shall be 48.3 GPM. The GPM for RTU-2A shall be 48.7 GPM.
- e) Sheet M-601 Split System Air Handling Unit Schedule. The GPM for AHU-1 shall be 20.3 GPM. The GPM for AHU-2 shall be 17.2. The GPM for AHU-3 shall be 21 GPM.
- f) Sheet M-601. Refer to the following chart for hydronic pipe sizes for equipment (based on 2ft/100ft pressure drop):

i) 15-18 GPM
 ii) 19-34 GPM
 iii) 35-60 GPM
 1-1/2" pipe size
 2" pipe size
 2-1/2" pipe size

END OF ADDENDUM #1

4973-02 ADDENDUM #1 3

PRE-BID MEETING SIGN-IN SHEET HENRY CLAY HIGH SCHOOL HVAC REPLACEMENT

February 16, 2022, 10:00 AM EST

PERSON	REPRESENTING	EMAIL	PHONE #
CORY SHARRARD	GRW	csharrard@grwinc.com	859-351-1743
Anthony	Campis Foreman	anthony. 1ewis a fayette. ki	yscholsius 859 492 5240
Colby Alexander	Frei	colby of fre mechanical rom	
Day ROKARL	FREE	days Preimehaver.	
David Vanhousier	FREI	david a frei mechanical. Co	on 606.676.0549
JEFF KISER	FLYETTE ELECT	RIC JEFF@FAYETTEELECTI	21c, com 859-276-7612
Jeff Hamilton	CP5	Jeffhe CPSLex, com	859-338-6955
Matt Max-	FCPS		
EDDIETERLINS	F.C.P.S		
Jay Makinner	TES	juy @ thermal eg: com	502-316-2247

PRE-BID MEETING SIGN-IN SHEET

February 16, 2022, 10:00 AM EST

Mike Thincheimer	Thermaz Serv	ice 859-983-0218	
	Themal Service		
JOHN SETTLE	TP Mechanical	859.983-2440	
Borala Manchay	GRW Inc	352.888.0685	
PREMERI MITCHEL		559 229 7850	
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FORM OF PROPOSAL – FCPS Funds- Lowest Price

Bid 15-22 Henry Clay High School HVAC Replacement Date: Having carefully examined the bid document, plans and specifications for the above referenced project, the undersigned bidder proposes to furnish all labor, materials, equipment, tools, supplies, and temporary devices required to complete the work in accordance with the contract documents and any addenda listed below for the price stated herein. Addendum _____ (Insert addendum numbers received or the word "none" if no addendum received.) **BID:** Total Price for work requested in accordance to specifications, drawings and scope of work I/We submit the following lump sum price of: \$_____ Use figures Dollars & _____ Cents

Ords Use Words **LEAD TIME/ DELIVERY**: Number of days for additional equipment to be delivered: PROPOSED MANUFACTURERS Rooftop Units Split System Air Handler Units _____ Kitchen Makeup Air Unit _____ Exhaust Fans **Submitted by:** NAME OF CONTRACTOR/ BIDDER: AUTHORIZED REPRESENTATIVE'S NAME:

Signature AUTHORIZED REPRESENTATIVE'S NAME (printed): _____ AUTHORIZED REPRESENTATIVE'S TITLE:

FORM OF PROPOSAL - FCPS Funds- Fastest Lead Time

Bid 15-22 Henry Clay High School HVAC Replacement Date: Having carefully examined the bid document, plans and specifications for the above referenced project, the undersigned bidder proposes to furnish all labor, materials, equipment, tools, supplies, and temporary devices required to complete the work in accordance with the contract documents and any addenda listed below for the price stated herein. Addendum _____ (Insert addendum numbers received or the word "none" if no addendum received.) **BID:** Total Price for work requested in accordance to specifications, drawings and scope of work I/We submit the following lump sum price of: \$_____ Use figures Dollars & _____ Cents

Ords Use Words **LEAD TIME/ DELIVERY**: Number of days for additional equipment to be delivered: PROPOSED MANUFACTURERS Rooftop Units Split System Air Handler Units _____ Kitchen Makeup Air Unit _____ Exhaust Fans **Submitted by:** NAME OF CONTRACTOR/ BIDDER: AUTHORIZED REPRESENTATIVE'S NAME: _______Signature AUTHORIZED REPRESENTATIVE'S NAME (printed): _____ AUTHORIZED REPRESENTATIVE'S TITLE:

FORM OF PROPOSAL – ESSER Funds- Lowest Price

Bid 15-22 Henry Clay High School HVAC Replacement Date: Having carefully examined the bid document, plans and specifications for the above referenced project, the undersigned bidder proposes to furnish all labor, materials, equipment, tools, supplies, and temporary devices required to complete the work in accordance with the contract documents and any addenda listed below for the price stated herein. Addendum _____ (Insert addendum numbers received or the word "none" if no addendum received.) **BID:** Total Price for work requested in accordance to specifications, drawings and scope of work I/We submit the following lump sum price of: \$_____ Use figures Dollars & _____ Cents

Ords Use Words **LEAD TIME/ DELIVERY**: Number of days for additional equipment to be delivered: PROPOSED MANUFACTURERS Rooftop Units Split System Air Handler Units _____ Kitchen Makeup Air Unit _____ Exhaust Fans **Submitted by:** NAME OF CONTRACTOR/ BIDDER: AUTHORIZED REPRESENTATIVE'S NAME: _______Signature AUTHORIZED REPRESENTATIVE'S NAME (printed): _____ AUTHORIZED REPRESENTATIVE'S TITLE:

FORM OF PROPOSAL – ESSER Funds- Fastest Lead Time

Bid 15-22 Henry Clay High School HVAC Replacement Date: Having carefully examined the bid document, plans and specifications for the above referenced project, the undersigned bidder proposes to furnish all labor, materials, equipment, tools, supplies, and temporary devices required to complete the work in accordance with the contract documents and any addenda listed below for the price stated herein. Addendum _____ (Insert addendum numbers received or the word "none" if no addendum received.) **BID:** Total Price for work requested in accordance to specifications, drawings and scope of work I/We submit the following lump sum price of: \$_____ Use figures Dollars & _____ Cents

Ords Use Words **LEAD TIME/ DELIVERY**: Number of days for additional equipment to be delivered: PROPOSED MANUFACTURERS Rooftop Units Split System Air Handler Units _____ Kitchen Makeup Air Unit _____ Exhaust Fans **Submitted by:** NAME OF CONTRACTOR/ BIDDER: AUTHORIZED REPRESENTATIVE'S NAME: _______Signature AUTHORIZED REPRESENTATIVE'S NAME (printed): _____ AUTHORIZED REPRESENTATIVE'S TITLE:

"General Decision Number: KY20220090 01/28/2022

Superseded General Decision Number: KY20210090

State: Kentucky

Construction Type: Building

County: Fayette County in Kentucky.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022, Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022, Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date

0 01/07/2022 1 01/28/2022

ASBE0051-001 03/01/2021

Rates Fringes

ASBESTOS WORKER/HEAT & FROST

INSULATOR......\$ 26.51 17.16

BOIL0040-002 01/01/2021

Rates Fringes

BOILERMAKER	.\$ 37.60	27.49
BRKY0018-004 06/01/2021		
	Rates	Fringes
BRICKLAYER		15.87
CARP1076-003 06/01/2021		
	Rates	Fringes
MILLWRIGHT	.\$ 29.06	22.95
CARP1650-011 06/01/2021		
	Rates	Fringes
CARPENTER (Acoustical Ceiling Installation, Drywall Finishing/Taping, Drywall Hanging, Form Work, and Metal Stud Installation Only)	.\$ 30.43	22.05
ELEC0369-015 05/31/2021		
	Rates	Fringes
ELECTRICIAN	\$100,000 (1) 10 10 10 10 10 10 10 10 10 10 10 10 10	18.72
* ELEV0020-001 01/01/2022		
	Rates	Fringes
ELEVATOR MECHANIC	.\$ 49.74	36.885
PAID HOLIDAYS:		
a. New Year's Day, Memorial DayVetern's Day, Thanksgiving DayThanksgiving, and Christmas Day	, the Friday af	Day, Labor Day, ter
 Employer contributes 8% of pay credit for employee who ha than 5 years; 6% for less than 	s worked in bus	iness more
ENGI0181-054 06/01/2021		
	Rates	Fringes
POWER EQUIPMENT OPERATOR (Drill)	.\$ 33.90	17.85
ENGI0181-079 06/01/2021		
	Rates	Fringes
POWER EQUIPMENT OPERATOR (Loader)	.\$ 33.90	17.85
ENGI0181-085 06/01/2021		
		forms that

Rates

Fringes

POWER EQUIPMENT OPERATOR (Crane)	\$ 34.60	17.85
CRANES WITH BOOM 150 FEET & OVE	R, INCLUDING JI	B, SHALL
RECEIVE \$.75 ABOVE THE WAGE RAT ALL CRANES WITH PILING LEADS WI WAGE, REGARDLESS OF BOOM LENGTH	LL RECEIVE \$.50	ABOVE THE
ENGI0181-091 06/01/2021		
	Rates	Fringes
POWER EQUIPMENT OPERATOR (Forklift)		17.85
ENGI0181-093 06/01/2021		
	Rates	Fringes
POWER EQUIPMENT OPERATOR (Oiler)		17.85
IRON0070-015 06/01/2021		
	Rates	Fringes
IRONWORKER (Structural and Ornamental)	\$ 31.09	23.75
LABO0189-030 06/01/2021		
	Rates	Fringes
LABORER (Common or General)	\$ 24.56	14.57
LAB01445-002 06/01/2021		
	Rates	Fringes
LABORER (Power Tool Operator)	\$ 28.62	18.76
PAIN0387-003 06/01/2020		
	Rates	Fringes
GLAZIER	\$ 27.03	15.67
PLAS0132-015 06/01/2020		
	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	\$ 27.54	18.59
PLUM0452-015 11/01/2021		
	Rates	Fringes
PLUMBER	\$ 35.00	20.34
PLUM0452-021 11/01/2021		

Rates

Fringes

PIPEFITTER (Includes HVAC Pipe and Unit Installation)		
ROOF0042-008 08/01/2021		е
	Rates	Fringes
ROOFER		17.62
* SFKY0669-002 01/01/2022		
	Rates	Fringes
SPRINKLER FITTER	\$ 37.85 	22.61
SHEE0024-031 06/01/2021		
	Rates	Fringes
SHEET METAL WORKER (Includes HVAC Duct Installation)		
* UAVG-KY-0016 01/01/2018		
	Rates	Fringes
BRICKLAYER: TILE FINISHER BRICKLAYER: TILE SETTER		10.90 12.22
SUKY2015-029 06/02/2015		
	Rates	Fringes
CARPENTER, Excludes Acoustical Ceiling Installation, Drywall Finishing/Taping, Drywall Hanging, Form Work, and Metal		0.50
Stud Installation		8.58
IRONWORKER, REINFORCING LABORER: Mason Tender - Brick		16.89 0.00
LABORER: Mason Tender -	р 10.91	0.00
Cement/Concrete	\$ 24.13	0.00
LABORER: Pipelayer	\$ 20.36	9.90
OPERATOR: Backhoe/Excavator/Trackhoe	\$ 24.60	12.65
OPERATOR: Bulldozer	\$ 19.69	4.71
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	\$ 22.52	4.00
OPERATOR: Roller	\$ 23.60	12.65
PAINTER (Brush and Roller)	\$ 25.14	11.29
PAINTER: Spray	\$ 22.81	11.87
TRUCK DRIVER: Dump Truck	\$ 13.56 	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union, which prevailed in the survey for this classification, which in this example would be Plumbers 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that

no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Division National Office Branch of Wage Surveys. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION"

DESIGN FILE: HCR1H080.DGN MHE PROJECT NO .: 2525

AUGUST, 22 2000

DRAWING NUMBER:

2. PROVIDE 4" CONCRETE EQUIPMENT PADS. 1. HOUSED SPRING FOR STRUCTURAL EQUIPMENTS RAILS. sheet X of X

																				\																
	ROOF	TOP UN	IT SCHEDU	LE																ROOF TOF	UNIT ZD	NING SCH	EDULE													
							COOLING	1				HEATING			SI SI	UPPLY FAN					ZONE A		ZONE B	ZONE	C	ZONE D	70	NE E	ZONE	F F	ZONE	- G	ZONE	Н	ZONE I	
	MARK	LOCATI	ON TYPE	COND EAT	- EVAP EAT DB/WB	EVAP LA DB/WE	T SENS CAF (MBH)	TOTAL (MBH)	MIN EER	GPM	EWT LWT	EAT	TOTAL (MBH)	VOLT/PH	MCA HP	TSP CFM	ACCESSORIES	REMARKS	MIN. OA	MARK C	FM SIZ					FM SIZE	CFM		CFM	SIZE	CFM			SIZE	CFM SIZE	
_	RTU-1	W. AUI	IT 1	95	80/66	50/50	186	276	11. 2	20	180 140	42	385	480/3	62 5	2. 54 5630	1, 2, 3, 4	1	2380	RTU-1 25	60 18X	(24 215	5 18X6	2855 18	3X24											
	RTU-2	E. AUI	IT 1	95	82/67	50/50	164	246	11. 2	17	180 140	39	315	480/3	53 3	2. 37 4795	1, 2, 3, 4	1	2320		60 18X	(24 183	35 18X18													
	RTU-3	BAND	1	95	83/66	50/50	180	243	11. 2	17	180 140	42	315	480/3	53 3	2. 78 5055	1, 2, 3, 4	1	1860		35 18	(6 125	55 18X12	330 1	8X6 3	185 18X24										
	RTU-4	W. SHE	P 1	95	78/63	51/50	236	295	11. 2	20	180 140	52	418	480/3	67 7.	5 2. 97 7900	1, 2, 3, 4	1	1920	RTU-4 15	40 18X	(18 422	20 18X30	575 1	8X6 1	565 18X18										
	RTU-5	□RCH.	1	95	80/64	49/49	298	383	11, 5	20	180 140	49	434	480/3	85 7.	5 3. 01 8185	1, 2, 3, 4	1	2540	RTU-5 20	45 18X	(12 65)	5 18X6	305 1	8X6 1	650 18X12	430	18X6	2405	18X18	215	18X6	480 1	18X6		
	RTU-6	HOME E	C 1	95	78/64	50/49	210	280	11. 2	20	180 140	50	349	480/3	67 7.	5 3. 01 6720	1, 2, 3, 4	1	2535	RTU-6 8	70 18X			735 1		060 18X18		18X18								
	RTU-7	ART	1	95	83/67	51/50	226	317	11. 4	20	180 140	41	418	480/3	73 5	2. 84 6485	1, 2, 3, 4	1	2665	/	15 18				8X6 1	100 18X12	1105	18X12	1435	18X12	995	18X12				
	RTU-8	SOC. S	T. 1	95	82/68	50/50	251	380	11, 5	25	180 140	37	497	480/3	83 7.	5 2. 94 7205	1, 2, 3, 4	1	3760		70 18X				8X12	65 18X6	650	18X6	645	18X6	650	18X6	260 1	8X6	555 18X6	
	RTU-9	LIBRAR	Y 1	95	79/63	50/49	123	153		10	180 140	51	236	480/3	38 3	2. 06 3910	1, 2, 3, 4	1	900	1\	40 18X															
	RTU-10	MATH	1	95	82/67	52/52	331	442	10. 6	30	180 140	42	630	480/3	92 10	3, 31 9965	1, 2, 3, 4	1	4045		75 18X		30 18X6	675 1	8X6 1	R90 18X12	1130	1886	2460	18X18	675	18X6	655 18	8X6	675 18X6	
	RTU-11	OFFICE	S 1	95	80/63	51/51	193	210	10. 7	17	180 140	53	319	480/3	53 5	2. 81 6205	1, 2, 3, 4	1	960		50 18		5 18X6	345 1	3X6 :	315 18X6	2975	18X24	375	18X6	415	18X6	980 18	0 V 1 O		
_	RTU-12	MATH	1	95	86/69	49/49	157	243	11. 2	17	180 140	30	306	480/3	53 3	2. 09 3935	1, 2, 3, 4	1	2425		75 18X					585 18X12		18X12	215	18X6						
	RTU-13	MATH	1	95	83/67	51/51	311	436	10, 6	30	180 140	39	611	480/3	89 7.	5 3. 19 8900	1, 2, 3, 4	1	4025	*	00 18X					340 18X6	1375			18X12	695	18X6	830 18	3X6	1380 18X1	$\frac{1}{2}$
	RTU-14	SDC. S	T. 1	95	83/68	49/49	159	243	11. 2	17	180 140	36	306	480/3	53 3	2. 27 4290	1, 2, 3, 4	1	2380	V	20 18X					.005 18X12		18X12		18X6						
	RTU-15	ENGLIS		95	83/69	50/50	223	344	11. 4	23	180 140	33	467	480/3		2. 54 6190		1	3650	RTU-15 12									650	18X6	770 1	8X12	650 18	3X12		
	RTU-16	LANGUA		95	81/67	50/50	274	407	10. 6	25	180 140	41	552	480/3		5 3.09 8125	1, 2, 3, 4	1	3675	RTU-16 2									_							
_	RTU-17	ENGLIS	H 1	95	81/66	51/50	192	280	11. 2	15	180 140	43	366	480/3	62 5	2. 60 5850	1, 2, 3, 4	1	2495	RTU-17 10																-
	RTU-18	PHYSIC	S 1	95	82/65	50/50	224	288	11. 2	15	180 140	46	375	480/3	66 7.	5 3.06 6455	1, 2, 3, 4	1	2065																	
	RTU-19	BIO. S	CI. 1	95	82/66	52/51	230	291	11. 2	20	180 140	51	350	480/3	67 7.	5 3. 04 6835	1, 2, 3, 4	1	2065	RTU-19 7																
	RTU-20	ENGLIS	H 1	95	81/66	50/50	235	339	11. 4	25	180 140	44	468	480/3	76 7.	5 2.80 7085	1, 2, 3, 4	1	2935	RTU-20 66						.065 18X12										
	RTU-21	BIO. S	CI. 1	95	80/64	51/50	214	269	10. 6	20	180 140	50	349	480/3	67 5	2. 76 6630	1, 2, 3, 4	1	2045	RTU-21 40						.560 18X18		18X6								-
	RTU-22	BUSINE	SS 1	95	83/67	49/49	182	266	10, 6	17	180 140	38	358	480/3	63 3	2. 32 4870	1, 2, 3, 4	1	1975	RTU-22 13									940							-
-	RTU-23	ROTC	1	95	84/67	50/50	189	256	11. 2	17	180 140	42	360	480/3	57 5	2. 72 5209	1, 2, 3, 4	1	2045	RTU-23 78																-
-	RTU-24		ET. 2	95	80/65	50/50	211	287	11. 2	20	180 140	47	393	480/3		5 3. 03 6335	1, 2, 3, 4	1	2000	RTU-24 63				965 1	·		1000	10/15	1040	18X12						
\vdash	RTU-25			95	79/64	51/51	239	298	11 2	20	180 140	51	422			5 3.01 7970		1	2000	RTU-25 79																
	RTU-26			95	83/66	51/50	261	342	11. 4			42				5 2. 83 7435	, , ,	1	2775	RTU-26 16				1.20 1.0	RY6 5	30 18X6	590	1886	155	1886	815	18X6	590 1	.8X6	1300 18X12	\rightarrow
L	NIU LU	CLIN, A	\L ¹		03/00	71/ JU)4L	11, 4		100 140	46	700	100/0	/ 0 / 1	J L. 03 /43J	1, 2, 3, 4	-	1																	
T	YPE: 1. MI	JLTIZONE		REMARKS:	1. MAMM□TH	^	ACCESSOR I	ES: 1. 60	% FILTERS											NUIL: 1.	ZUNE SIZ FOR BRAN	CH CONNE	UN MAMMU CTIONS.	IH UNII CUNN	ECTIUNS.	EXIEND ZL	INE DUCT	KIZFKZ	HKUUGH KL		KUUND UR	FIK21 FF	LUUR CEIL	ING SPA	ACE AS APPLI(CARLE

AIR COOLED CONDENSING UNIT SENS SEER AMBIENT SAT SUCT COMPRESSOR AIR TEMP. TEMP NO MARK SERVICE LOCATION REFRIGERANT

2. ECONOMIZER WITH POWER EXHAUST

4. FACTORY STARTER AND DISCONNECT.

MCA | ACCESSORIES | REMARKS | NOTES 1. LOW AMBIENT CONTROL ACCESSORIES:

3, ROOF CURB KIT TO FIT NEW MULTIZONE TO EXISTING ROOF CURB, AS NEEDED.

3. FACTORY STARTER AND DISCONNECT.

HOT GAS BYPASS

TYPE | DRIVE | CFM | RPM | ESP | DIRECT | FC | BELT | 9,800 | 1750 | 2.5" | 5 | 480 | 3 | FLAT | N. GAS | 660 MUA-1 KITCHEN ROOF REMARKS: ACCESSORIES: 1. VERTICAL DISCHARGE. 1. PREFABRICATED ROOF CURB. 2. FACTORY STARTER AND DISCONNECT.

FAN SECTION

AIR SE	PARATOR	SCHEDULE					
MARK	SERVICE	LOCATION	TYPE		PIPE	DIMENSIONS (INCH)	REMARKS
AS-1	HYDRONIC	2-020	TANG	700	6 IN.	43 x 25	W/STRAINER

LOCKER

MCC08

1490

1615

480/60

8 R□W

20. 29

FLAT

1.00"

1,2

2. FACTORY STARTER AND

FILTERS W/ INTERCEPT

ANTI-MICROBIC AL AGENT

ACCESSORIES: 1. STAINLESS STEEL DRAIN PAN

DISCONNECT.

APPLIED.

1, 91 | 1, 63 |

AIR HANDLING UNIT SCHEDULE

HEATING

CAPACITY

INPUT

ACCESSORIES REMARKS

AHU-3

NORTH

MCC25

3750

11550

480/60 480/60 480/60

474

|| 81, 3/66, 5 | 85, 1/69, 4 | - 81, 2/65 | 79, 3/63, 9 | -77, 7/61, 9

| 54, 4/54, 3 | 54, 2/53, 5 | 54, 8/54 | | 53, 7/52, 6 | 56, 1/53, 0

11550

180/160 | 180/160 | 180/160 | 180/160 | 180/160

48, 3

6, 72

PLEATED | PLEATED | PLEATED | PLEATED

FLAT

2, 5"

1, 2, 3 | 1, 2, 3 | 1, 2, 3 | 1, 2, 3 | 1, 2, 3

8 R□W

AHU-2

LOCKER

1585

MCCO6

2230

2, 48

1563

4 R□W

2230

17, 21

. 09

FLAT

1,00"

1. 60% EFFICIENT PLEATED 3. TRANE

453 381 582 609

GIRL'S

1,2

AHU-4

KITCHEN

TWE120B

FC

3, 32

480/60

3 R□W

2 R0W

21. 0

. 45

, 63

FLAT

895

4310

SOUTH

MCC30

3750

14380

13, 6

835

20

4 ROW

14380

48, 76

4, 05

. 12

FLAT

2, 5" 1, 00"

45, 4 | 49, 7

FILTER FUEL

SERVICE

MODEL

MIN. OA

TYPE

RPM

CFM

⊒ CFM

E GPM

'FIL- | TYPE

VOLT

TYPE (DX)

MAX FPM

EAT-DB/WB

S LAT-DB/WB

MAX FPM

EWT/LWT

| MAX WATER △P||

MAX AIR △ P

TERS | ARRANGEMENT VIBRATION TYPE

ISOLATION DEFL

ACCESSORIES

REMARKS

REMARKS:

TYPE (HW)

MOTOR

HP VOLTS

		MARK TYPE	FUEL	MIN DDECC	MBTUH MBTUH	BOILER	LWT	FLUE WORKING	REMARKS
PUMP SCHEDULE			TYPE CFH	MIN PRESS IN WG	INPUT DUTPUT	HP		SIZE PRESSURE	VOLTS/
PUMP TYPE SYSTEM SERVICE GPM TOTAL MIN HI HEAD % EFF. FT.	IP MOTOR RPM MODEL RE VOLTS/ PHASE	HWB-1 CI HWB-2 CI	N. GAS 7,980 N. GAS 7,980	7	7,980 6,384 7,980 6,384	190.7 190.7	180 180	14 Ø 50 PSI 14 Ø 50 PSI	1
P-1 BASEMOUNTED HWS LOOP BOILER 415 54 10 P-2 BASEMOUNTED HWS LOOP BOILER 415 54 10	0 480/3 1750 4" BC 1 0 480/3 1750 4" BC 1			LED IN ACCOR		I	I	AND LOCAL CODE RE	 QUIREMENTS
P-3 BASEMOUNTED HWS LOOP BOILER 205 14 3 P-4 BASEMOUNTED HWS LOOP BOILER 205 14 3	3 480/3 1150 3" AB 1 3 480/3 1150 3" AB 1	UNIT HEATER	SCHEDULE						

LOCATION

MARK TYPE

FAN SCHEDULE

HOT WATER BOILER SCHEDULE

| WTR | DEG F | DEG F DEG F HP VOLTS PHASI UH-1 HORIZ | EQUIPMENT S-204 24.5 | 2.5 | 180 | 160 | 630 | 95 |1/25 120 | 1 | 1,2 24.5 | 2.5 | 180 | 160 | 630 | 95 | 1/25 | 120 | 1 | 1,2 | EQUIPMENT S-201 REMARKS: 1. PROVIDE REMOTE 24 VOLT THERMOSTAT AND MOUNTING BRACKETS WITH VIBRATION ISOLATORS. 2. HORIZONTAL DISCHARGE.

CAPACITY GPM EWT | LWT | CFM |

MAKE-UP AIR UNIT SCHEDULE

LOCATION

MARK | SERVICE

MARK SERVICE LOCATION TYPE TANK VOL ACCEPTANCE MAX AVG PRECHARGE (GAL.) (GAL.) WORKING OPERATING (PSIG) PRESS (PSIG) TEMP (F)	REMARKS
ET-1 HYDRONIC S-020 DIAPH 317 317 125 150 12	VERTICAL

RAM-100

1. TRANE MODEL TTA120CU 2. TRANE MODEL RAUCC30

TRANE MODEL RAUCC40

4. TRANE MODEL TA120C W/ DUAL TXV'S.

2. SINGLEZONE

REMARKS: 1. INTERTWINED

CIRCUITING

REMARKS: 1. PUMPS SHALL BE NON-OVERLOADING AT DESIGN FLOW. 2. PROVIDE HIGH EFFICIENCY MOTOR.

5. LINEAR SLOT RETURN, NOMINAL LENGTHS.

2. DUAL CIRCUIT

AIR DE'	VICE SCHED	ULE												
MARK	SERVICE	TYPE	MAX. CFM	MAX. AIR PD	THROW FT @ 50 FPM	MAX. NC	NECK SIZE	MODULE SIZE	PATTERN	MOUNTING TYPE	MATERIAL	REMARKS	MODEL	
А	SUPPLY	DIFF	135	.080	3	25	6 Ø	12X12	4-WAY	SURFACE	ALUMINUM	1,2	TMAA	
В	SUPPLY	DIFF	135	.080	3	25	6 Ø	24X24	4-WAY	LAY-IN	ALUMINUM	1,2	TMAA	
С	SUPPLY	DIFF	285	.080	3	25	8 Ø	24X24	4-WAY	LAY-IN	ALUMINUM	1,2	TMAA	
D	SUPPLY	DIFF	415	.060	4	25	10 Ø	24X24	4-WAY	LAY-IN	ALUMINUM	1,2	TMAA	
E	SUPPLY	DIFF	485	.040	5	25	12 Ø	24X24	4-WAY	LAY-IN	ALUMINUM	1,2	TMAA	
F	SUPPLY	DIFF	800	.090	12	25	14 Ø	24X24	4-WAY	LAY-IN	ALUMINUM	1,2	TMAA	
G	SUPPLY	DIFF	1000	.170	32	30	15 Ø	22X12		LAY-IN	ALUMINUM	1,2	350RL	
Н	SUPPLY	DIFF	685	.070	13	25	46X4	48X5	1-WAY	SURFACE	ALUMINUM	1,2,3	ML38	
	SUPPLY	REG	195	.020	13	25	10X6	12X8	2-WAY	LAY-IN	ALUMINUM	1,2	300FS	
J	SUPPLY	REG	295	.020	13	25	12X6	14X8	2-WAY	LAY-IN	ALUMINUM	1,2	300FS /	
J1	SUPPLY	REG	445	.020	13	25	10X10	12X12	2-WAY	LAY-IN	ALUMINUM	1,2	300FS	
K	SUPPLY	REG	800	.020	13	25	16X16	18X18	2-WAY	LAY-IN	ALUMINUM	1,2	300FS \	.
L	SUPPLY	REG	1050	.020	13	25	20X12	24X24	2-WAY	LAY-IN	ALUMINUM	1,2	DL \	
М	RETURN	GRILLE	500	.013		25	16X16	18X18		SURFACE	ALUMINUM	1	50R	
N	RETURN	GRILLE	500	.013		25	16X16	24X24		LAY-IN	ALUMINUM	1	50R	\prod
0	RETURN	GRILLE	1000	.013		25	22X22	24X24		LAY-IN	ALUMINUM	1	50R	
Р	RETURN	GRILLE	2000	.013		25	46X22	48X24		SURFACE	ALUMINUM	1	50R	
P1	RETURN	GRILLE	4400	.018		25	46X48	48X48		SURFACE	STAINLESS	1	301R-HD-	-SS
Q	EXHAUST	GRILLE	130	.073		25	6X6	8X8		SURFACE	ALUMINUM	1	50F	
R	EXHAUST	GRILLE	350	.073		25	10X10	12X12		SURFACE	ALUMINUM	1	50F	
S	EXHAUST	GRILLE	730	.073		25	12X12	14X14		SURFACE	ALUMINUM	1	50F	
Т	EXHAUST	GRILLE	1100	.073		25	16X16	18X18		SURFACE	ALUMINUM	1	50F	

TYPF: 1.	GRILLE	. INF SET	OF FIXED BL	ADFS. 3/4 "	SPACING.	45°	DEFLECTION	J.		
				•	•			••		
۲،	2MUAKE	DIFF OPEK	, FIXED DISC	HARUE, 4-WA	I DIZIKIR	יאוח דו ר				
3,	SUPPLY	GRILL, 3	/4 " SPACING	. DOUBLE DE	FLECTION.	ALL I	BLADES INDI	VIDUALLY	ADJUSTABLE.	

E: 1.	GRILLE, ONE SET OF FIXED BLADES, 3/4 " SPACING, 45° DEFLECTION.	REMARKS
2.	SQUARE DIFFUSER, FIXED DISCHARGE, 4-WAY DISTRIBUTION.	1. TITUS
3,	SUPPLY GRILL, 3/4 " SPACING, DOUBLE DEFLECTION, ALL BLADES INDIVIDUALLY ADJUSTABLE.	2. ADJUSTABLE
4.	LINEAR SLOT DIFFUSER, BOTH DIRECTION AND VOLUME OF DISCHARGE AIR CAN BE ADJUSTED.	3. DRUM LOUVER
_	LINEAD SLOT DETUDNI NOMINAL LENETUS	

	MARK	TYPE	SERVICE	CFM	S. P.	RPM	DRIVE		MOTO		VIBRATION		ACCESSORIES	N.C.	REMARK	S MODEL	
>					IN. W.G.	MAX		AMP	HP HP	VOLTS/ PHASE/	TYPE	DEFL.		MAX		GREENHECK	/
					W, U,					HERTZ				SONES			
	EF-1	1	GENERAL	300	.5	1140	DIRECT		1/6	120/1/60			1	13.6		CUE95B	
	EF-2	1	GENERAL	1135	.5	1725	DIRECT		1/4	120/1/60			1	11.3		CUE 1 OOA	۱ ۱
	EF-3	1	GENERAL	1480	.5	1725	DIRECT		1/2	120/1/60			1	18.2		CUE120A	
	EF-4	1	HOME ECON	400	.56	1140	DIRECT		1/6	120/1/60			1	13.6		CUE95B	
	EF-5	1	GENERAL	3445	.75	1160	BELT		1	208/3/60			1	15.7		CUBE180-10	/
	EF-6	1	GENERAL	2595	.75	1725	DIRECT		1	208/3/60			1	24		CUE140A	/
	EF-7	2	FUME HOOD	660	.93	1190	DIRECT		1/2	208/3/60	2	1.25"	1,5,6		1, 4	SWB /	
	EF-8	2	FUME HOOD	660	.79	1190	DIRECT			208/3/60	2	1.25"	1,5,6		1, 4	SMB /	
	EF-9	2	FUME HOOD	660	.65	1190	DIRECT		1/2	208/3/60	2	1.25"	1,5,6		1, 4	SMB ,	
	EF-10	1	GENERAL	700	.5	1725	DIRECT	.—. —.	1/4	120/1/60			1	13.6		CUE95A	
	EF-11	1	DISHWASHER	1500	.5	1140	DIRECT		1/4	120/1/60			1,2,4	10.3	2	CUE140B	$\rfloor \rfloor$
/	EF-12	1	KITCHEN	11800	2.4	865	BELT		7 1/2	480/3/60			2,3	26	3	CUBE360HP-75	
	EF-13	2	FUME HOOD	500	.5	1190	DIRECT		1/2	208/3/60	2	1.25"	1,5,6		1, 4	SWB	/
	EF-14	1	WAREWASHER	1100	.64	1725	DIRECT		1/4	120/1/60			1	11.7		CUE120A	
	EF-15	1	GENERAL	900	.74	1725	DIRECT		1/4	120/1/60			1	11.7		CUE120A	
	EF-16	2	GENERAL	5325	1.62	1059	DIRECT		3	208/3/60	1	2"	1,6			SWB-18	
	EF-17	2	GENERAL	4625	1.70	945	DIRECT		2	208/3/60	1	2"	1,6			SWB-18	
	EF-18	1	KILN ROOM	250	.5	1140	DIRECT		1/6	120/1/60			1	13.6		CUE95B	
	EF-19	3	MECH ROOM	14500	.5	1750	BELT		3	480/3/60	1		1		5		
L											<u> </u>						۷

VIBRATION ISOLATOR TYPE: 1. HOUSED SPRINGS FOR SUSPENDED EQUIPMENT. TYPE: 1. CENTRIFUGAL UPBLAST 2. UTILITY SET 2. HOUSED SPRINGS FOR STRUCTURAL EQUIPMENT RAILS. 3. INLINE REMARKS: 1. SPARK RESISTANT, STAINLESS STEEL SHAFT CONSTRUCTION,

> 2. HINGED ON ONE SIDE. 3. GREASE TRAP. 4. TOTALLY ENCLOSED MOTOR. 5. ACID RESISTANT FINISH THROUGHOUT.

FOR OUTSIDE SERVICE, TEM, CHEMICAL RESISTANT COATING. 2. DISHWASHER HOOD EXHAUST FAN

3. KITCHEN HOOD EXHAUST FAN 4. FUME HOOD EXHAUST FAN 5. WING MODEL 39D-3 DRAFT INDUCE

> PROVIDE AND INSTALL CONDENSATE PUMP AT AIR HANDLING UNIT, ADD:

CER	WITH	BELT	GUARD.	
				$\sqrt{\frac{1}{3}}$

ITEM 63: ADHOS: ADDED EF-19 TO EXHAUST FAN SCHEDULE REVISED P-3 AND P-4 DESIGN BASIS.

6. MOTOR & DRIVE GOURD.

ACCESSORIES: 1. BACKDRAFT DAMPER.